KINGDOM OF CAMBODIA

Nation-Religion-King

PMTCT TRAINING CURRICULUM

PARTICIPANT MANUAL

WEEK 1

MARCH 2007

Sponsors By:

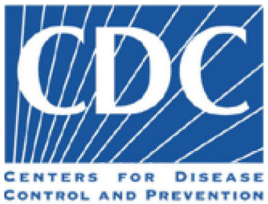


Table of Contents

Foreword

Cambodia has the highest burden of HIV infection in the Asia Pacific Region. While the prevalence of HIV infection in Cambodia has declined among high-risk groups, it has remained relatively stable among women who attend ANC (2.2% in 2003). A significant proportion of new HIV infections occur through transmission of HIV from infected pregnant mothers to their infants.

The Government of Cambodia, working through the MoH, is responding to the increasing problem of HIV transmission from infected mothers to their children. In order to provide broad knowledge on HIV/AIDS and PMTCT in particular to health care workers and managers, the Ministry of Health has supported the National Maternal and Child Health Centre to develop this PMTCT training curriculum.

This PMTCT training curriculum is an important guide and aide to health care workers in the provision of effective care and treatment to all pregnant women, especially to HIV positive pregnant women, their exposed children and their families.

Phnom Penh, 6 April 2007

Prof. Eng Huot

Secretary of State for Health

Acknowledgements

This revised PMTCT Training Curriculum has been completed with the contribution of many stakeholders, all of whom provided useful input.

I would like to express my sincere thanks to all the members of the PMTCT Programme Technical Working Group who spent invaluable time providing technical advice for the development of this curriculum.

I would like to thank WHO, UNICEF and GFATM for their financial support for the development of the curriculum which is the guide for health care managers and officers working in referral hospitals and health centres to provide comprehensive care in response to the call for universal access to prevention, treatment, care and support for PLHA.

Special thanks are given to the PMTCT secretariat who dedicated their time and effort for reviewing and editing the content and translating the curriculum.

This significant achievement comes from the full support of the Ministry of Health. Last but not least, I would like to acknowledge the Ministry of Health for its continued support of maternal and child health and the PMTCT programme in particular to run smoothly.

Phnom Penh, 6 April 2007

Prof. Koum Kanal

Director of NMCHC

INTRODUCTION TO THE TRAINING CURRICULUM

HOW TO USE THIS MANUAL

This Participant's Manual is your main guide to the course, and you should keep it with you at all times. In the following pages, you will find the training objectives, activities, slides and key points for each module. You do not need to take detailed notes during the sessions, though you may find it helpful to make notes of points of particular interest, for example from discussions. You will find a brief description of all the activities. Your facilitator will explain in greater detail how each activity will be conducted.

Your manual also contains forms, case studies and checklists for exercises and background information for some of the modules. An answer section has been appended to the back of each manual.

Keep your Manual after the course, and use it as a source of reference as you put what you have learnt into practice.

LIST OF ACRONYMS

3TC	Lamivudine
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral (drug)
AZT	Zidovudine
BCC	Behaviour Change Communication
CBO	Community-based Organisation
CoC	Continuum of Care
CoCCC	Continuum of Care Coordination Committee
CPA	Complementary Package of Activities
CPN+	Cambodian Network of PLHA
CSW	Commercial Sex Worker
FBO	Faith-based Organisation
Hb	Haemoglobin
HBC	Home-based Care
HC	Health Centre
HCBC	Home- and Community-based Care
HCW(s)	Health Care Worker(s)
HFBC	Health Facility-based Care
HIV	Human Immunodeficiency Virus
HIV+	HIV infected or HIV positive
HIV-	HIV negative
HSS	HIV Sentinel Survey (Cambodia)
NMCHC	National Maternal and Child Health Centre
NVP	Nevirapine
IDU	Injecting Drug User
IEC	Information Education Communication
IPD	Inpatient Department
M&E	Monitoring and evaluation

MMM	Mondul Mith Chouy Mith (Friends Help Friends Centre)
mmm	Little Mondul Mith Chouy Mith (for children)
MoH	Ministry of Health
MPA	Minimum Package of Activities
MSM	Men who have sex with men
MTCT	Mother-to-Child transmission of HIV infection
NCHADS	National Centre for HIV/AIDS, Dermatology and STD
OD	Operational District
OI	Opportunistic Infection
OPD	Outpatient Department
PCP	*Pneumocystis carinii* Pneumonia (renamed *Pneumocystis jirovecii*)
PHD	Provincial Health Department
PLHA	Person (or People) Living with HIV/AIDS
PLHA-SG	People Living with HIV/AIDS Support Group
PMTCT	Prevention of Mother-to-Child Transmission (of HIV infection)
RH	Referral Hospital
RTI	Reproductive Tract Infection
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
TB/HIV	Dual or co-infection with both TB and HIV
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCCT	Voluntary Confidential Counselling and Testing
WHO	World Health Organisation

Module 1

Basic Information on HIV / AIDS

OBJECTIVES

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

1. Describe the HIV/AIDS epidemic in Cambodia
2. Define HIV and AIDS
3. Discuss the natural history of HIV infection
4. Identify risk factors for HIV transmission
5. List behaviours associated with transmission and non-transmission of HIV

Time allowed for this session: ***2 hours 10 minutes***

Activity 1: Lecture: The HIV Epidemic Worldwide and in Cambodia

- **Slide 5:** Note that 13% of new infections globally are in children < 15 years
- **Slide 6:** Note that although the total number of people infected with HIV in Cambodia is falling, this is because the number of men infected is decreasing. There is no fall in the number of women infected.
- **Slide 7:** Note the red area. This represents mother-to-child transmission which is increasing
- **Slide 8:** Note that although HIV infections amongst sex workers have fallen sharply, the number of women attending ANC who are infected has not changed significantly

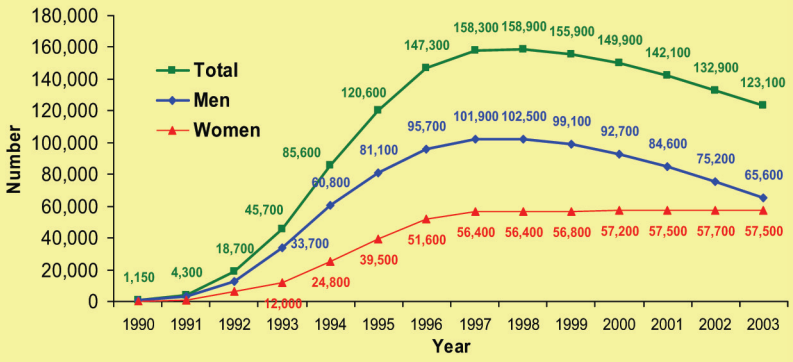
Global summary of the HIV/AIDS epidemic, 2005:

UNAIDS / WHO estimates, 2005

Number of people living with HIV in 2005	38.6 million of which 2.3 million were children < 15 years
People newly infected with HIV in 2005	4.1 million of which 540,000 were children < 15 years*
AIDS deaths in 2005	2.8 million of which 380,000 were children < 15 years

*Most of these new infections in children occurred through mother-to-child transmission 5

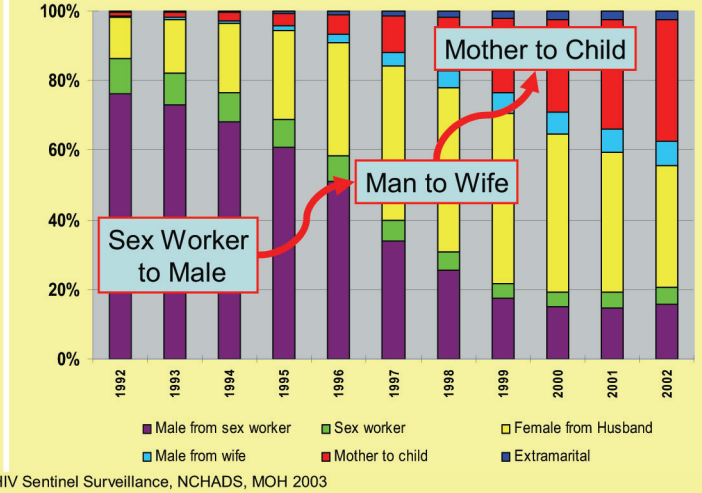
Estimated numbers of people aged 15-49 living with HIV/AIDS*, 1990-2003, Cambodia



6

*HIV Sentinel Surveillance, NCHADS, MOH 2003

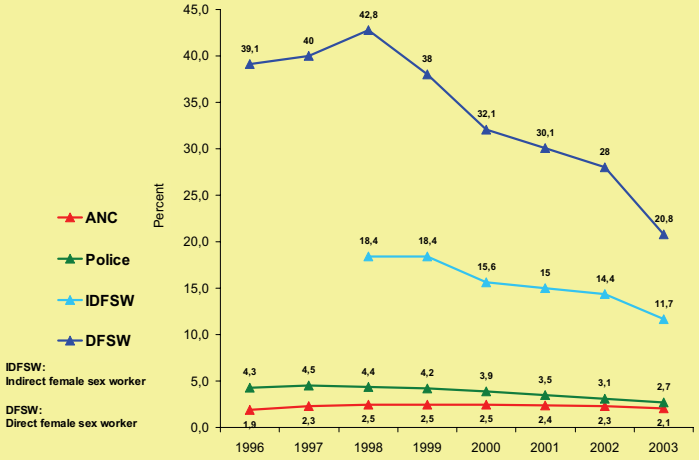
Proportions of HIV infections attributable to different modes of transmission, 1992-2002



7

HIV Sentinel Surveillance, NCHADS, MOH 2003

Estimated National HIV Prevalence* among sentinel groups, 1996-2003, Cambodia



8

* HIV Sentinel Surveillance, NCHADS, MOH 2003, adjusted weighted data, smoothed with EPP

HIV Infections in Cambodian Women & Children

- About 50% of people currently infected with HIV in Cambodia are women*
- Amongst new infections in Cambodia in 2003 about 6,350 were in women and 1,700 in men aged 15-49 years*
- Between 7,000-10,000 newborn infants are at risk each year of HIV infection from their mothers**
- Up to 40% of new infections may be the result of mother-to-child transmission***

*HIV Sentinel Surveillance, NCHADS, MOH 2003
**Calculated from estimated births (WHO World Health Report 2005, Cambodia) x HIV prevalence
***Projections for HIV/AIDS in Cambodia: 2000-2010, The Cambodia Working Group on HIV/AIDS Projection, November 2002

9

Activity 2: Brainstorm: The Impact of HIV in Cambodia

» You will be asked to think about the question: What is the impact of HIV infection in Cambodia?

The Impact of HIV/AIDS in Cambodia

In 2003 there were an estimated 123,100* adults infected with HIV living in Cambodia

Without treatment these people
- become sick and be unable to work or look after their families
- eventually develop AIDS and die

They may also
- transmit HIV infection to their sexual partners
- transmit HIV infection to their children
- leave their children behind as orphans

11

*HIV Sentinel Surveillance, NCHADS, MOH 2003 (adults aged 15-49)

Activity 3: Key Words: Definition of HIV/AIDS

» You will be asked the questions:
1. What is the meaning of HIV? and
2. What is the meaning of AIDS?

» You will then be asked for your answers and given a chance to discuss them

What are HIV and AIDS?

HIV

- **H** uman
- **I** mmunodeficiency
- **V** irus

The HIV virus is a type of retrovirus which causes weakening of the immune system

AIDS

- **A** cquired
- **I** mmuno-
- **D** eficiency
- **S** yndrome

This is the syndrome that develops in an HIV+ person, once their immune system has become very weak

13

HIV-1 and HIV-2

Worldwide there are two types of HIV virus:

HIV-1 and HIV-2

- both are transmitted through the same routes
- both are associated with similar opportunistic infections
- HIV-1 is more common worldwide
  It is the virus found in Cambodia and other parts of SE Asia

How is HIV-2 different from HIV-1?

- HIV-2 is found mainly in West Africa, Angola and Mozambique
- HIV-2 is less easily transmitted than HIV-1
- HIV-2 develops more slowly
- MTCT is relatively rare with HIV-2

14

Terminology

- HIV+ or HIV positive
  means a person who is infected with the HIV virus who has tested positive for HIV
- HIV- or HIV negative
  means a person who is not infected with the HIV virus or whose HIV test is negative

15

Activity 4: Brainstorm: The Effects of HIV Following Infection

» For this activity you will work in pairs

» You will be asked the questions:

1. What effect does HIV have on the human body?
2. What happens when a person has HIV infection?

The human immune system and CD4 cells

- A healthy person has a strong body defence, the immune system, which protects the body against diseases
- White blood cells are an important part of the immune system
- One type of white blood cell is called CD4. These cells carry a marker on their surface called CD4
- The number of CD4 cells can be measured by a blood test
- This test is a good way of checking how much of the immune system is still working

17

CD4 cell count and disease

- A person with a normal immune system has between 450 and 1500 CD4 cells/mm^3
- If the CD4 number falls below 450 cells/mm^3, the person may start to develop infections (including opportunistic infections)
- When the CD4 count falls below 200 cells/mm^3, the person will be at risk of very serious infections and cancers

18

What does HIV do?

The HIV virus

- infects cells of the human immune system - mainly CD4 cells
- uses infected CD4 cells to make new viruses
- kills the CD4 cells

- 10 billion new HIV viruses may be created every day
- 200 million CD4 cells may be destroyed every day
  (the body can make 100 million new CD4 cells every day)

Viral Load is the amount of HIV virus in the blood
It can be measured by the HIV-RNA PCR test

19

What are the effects of HIV infection?

- HIV attacks CD4 cells and causes progressive destruction of the human immune system
- The person becomes increasingly vulnerable to infections
  - common infections which may affect anyone
  - special (**opportunistic**) infections (OIs) which only affect HIV infected people
- The person becomes increasingly sick and will eventually die

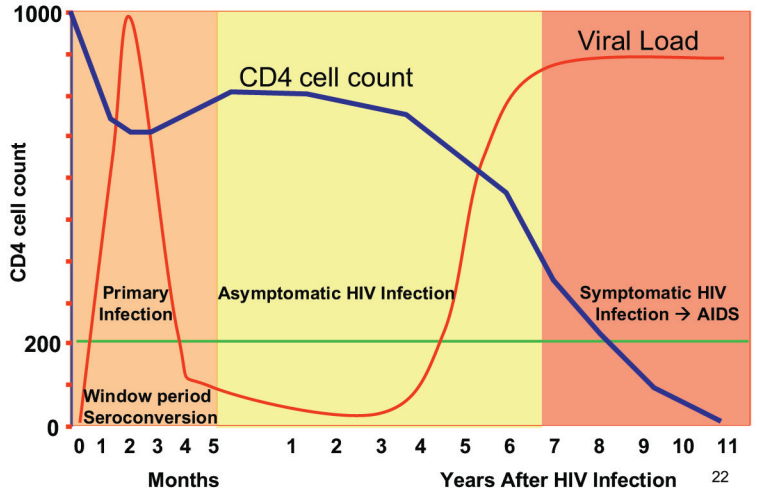
20

Activity 5: Lecture: Progression from HIV to AIDS

» Progression from HIV to AIDS: slide 22

» Note how the CD4 count falls as the viral load increases

The Natural History of HIV infection (1)



22

The Natural History of HIV infection (2)

Primary HIV infection

- Is during the first few weeks after HIV infection has happened
- The person may be completely well, or
- There may be symptoms of fever, rash and enlarged lymph nodes (acute HIV syndrome)

23

The Natural History of HIV infection (3)

Seroconversion: what does this mean?

- the HIV infected person has developed HIV antibodies
- these antibodies can be detected by HIV antibody tests

What actually happens?

- early in the infection, the number of HIV viruses in the body increases very quickly (viral load goes up)
- 4-6 weeks later (sometimes up to 3 months) the body begins to make antibodies against the virus and the HIV test becomes positive

Window period: the person has HIV infection but antibodies have not yet developed and the HIV test is negative

24

The Natural History of HIV infection (4)

- Asymptomatic HIV infection:
  In the first few years following infection, the number of viruses decreases to a steady level. The immune system is weakened a bit but can still function well
- Symptomatic HIV infection:
  After several years the number of viruses begins to increase again and the immune system is severely weakened.
  The person becomes vulnerable to diseases which s/he could normally fight off
- AIDS:
  This is when the immune system is extremely damaged and the person is at risk of very serious, life-threatening infections

25

WHO Clinical Stages

WHO has developed a Clinical Staging system which can be used to assess clinically:

- if it is likely that a new patient has HIV infection and needs to be referred for HIV testing
- how severely a person has been affected by HIV/AIDS
- whether a patient needs Antiretroviral Therapy (ART)

The staging system is different for adults and children

26

WHO Clinical Stage 1 for adults: Asymptomatic

- No weight loss
- No symptoms

or only

- Persistent generalized lymphadenopathy (PGL)

and/or Performance Scale 1:
Normal activity

PGL: symmetrically enlarged, painless lymph nodes

27

WHO Clinical Stage 2 for adults: Mild disease

- Weight loss <10%
- Sores or cracks around lips (angular cheilitis)
- Itching rash (seborrhoea or prurigo)
- Herpes Zoster within the last 5 years
- Recurrent upper respiratory infections (sinusitis or otitis)
- Recurrent mouth ulcers

and/or Performance Scale 2:
Symptomatic but normal activity

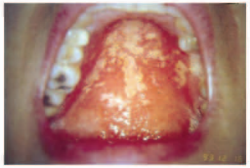
Angular cheilitis

Herpes Zoster

28

WHO Stage 3 for adults: Moderate disease

- Weight loss >10%
- Oral thrush or
- Oral hairy leukoplakia
- More than one month of
  - diarrhoea
  - unexplained fever
  - vaginal candidiasis



Oral thrush

- Pulmonary Tuberculosis within the last one year
- Severe bacterial infections (pneumonia, muscle infection etc.)

and/or Performance scale 3:
In bed <50% of the day over the previous month

29

WHO Stage 4 for adults: Severe disease (AIDS)

AIDS-defining illnesses such as:

- HIV wasting syndrome
- HIV encephalopathy
- Oesophageal thrush
- Herpes Simplex ulcerations for > 1 month on genitals or anus
- Cryptococcal Meningitis
- Extra-pulmonary Tuberculosis (EPTB)
- *Pneumocystis Carinii* Pneumonia (PCP)
- Other opportunistic infections:
  - Toxoplasmosis of the brain
  - Cryptosporidiosis with diarrhoea >1 month
  - Cytomegalovirus (CMV) infection
- AIDS-related malignancy
  - Lymphoma
  - Invasive cervical carcinoma
  - (Kaposi's Sarcoma)

and/or Performance scale 4:
In bed for > 50% of the day over the previous month

30

» Look at the staging questions on slide 31

» Answer the questions by referring to your Participant Manual (Appendix 1)

Q:	Slide 31	Stage
1	a 25 year old HIV+ man with oral thrush and intermittent diarrhoea for over one month	
2	a 40 year old HIV+ woman with small, swollen lymph nodes in her neck and underarms. She is well and very active	
3	a 36 year old HIV+ man who is extremely thin, complains of fever for 3 months and cannot get out of bed	
4	a 30 year old HIV+ woman with pulmonary TB and herpes zoster on her chest	
5	a 28 year old HIV+ sex worker with Herpes Zoster on her face and itching rash all over her body	
6	a 34 year old HIV+ man with sores in and around his mouth and cryptococcal meningitis	

Activity 6: Group Work: HIV Transmission

» You will be divided into 3 groups

» Each group will get 5 minutes to work on one of the following questions:

Group 1: Which body fluids can transmit HIV infection?

Group 2: What are factors which increase the transmission risk of HIV infection?

Group 3: List modes of HIV transmission and non-transmission

» Each group will present their work and write their answers on the whiteboard

HIV Transmission

The most common route of HIV transmission is through sexual contact, especially heterosexual intercourse

Women of child-bearing age are at particular risk of HIV infection, through unprotected sex with an infected male partner

33

Which body fluids can transmit HIV Infection?

- Highly Infectious
  - Blood, bloody fluids, body tissue
  - Semen, vaginal secretions
  - Other body fluids (amniotic fluid, CSF, pleural fluid…)
- Moderately infectious
  - Breast milk
- Not infectious
  - Urine, faeces, nasal secretions, tears, saliva, sputum, gastric fluid, sweat

34

Factors which increase HIV Transmission risk

HIV-infected partner:
High viral load
Low CD4 count

Uninfected partner:
Male: not circumcised
Female: virgin

Either partner and HIV- or HIV+
Non-intact mucous membranes
Presence of blood at time of sexual contact
Presence of STI infection

35

HIV Infection **may be** transmitted by:

Sexual Contact:
- vaginal, oral or anal sex
- direct contact with HIV-infected body fluids (semen, vaginal secretions)

Mother to Child:
- during pregnancy
- labour + delivery or
- breast feeding

Contact with Blood:
- blood transfusion
- needle stick or other injury
- needle-sharing by IDU

HIV Infection **is not** transmitted by:

Daily contacts:
- Sharing meals or food
- Sharing a bathroom
- Playing or working together
- Sharing clothes
- Visiting PLHAs
- Talking with PLHAs
- Touching PLHAs

Mosquito bites

36

Activity 7: Questions and Answers

- » You will be presented with the questions on slide 38
- » A space will be cleared in the room and you will stand on either side of an imaginary line
- » One end of the line is marked “YES” and the other end “NO”
- » Take each question in turn
- » Give your answer to each question by standing on the line in a position which best represents your answer:

  e.g. if you are 100% sure that the answer is “YES”, you should stand at that end of the line, and if you are sure the answer is “NO”, you should stand at the other end.

  If you are not sure, or think that the answer may depend on the situation, you should stand somewhere on the line in the middle or nearer one end or the other to represent your answer.
- » The facilitator will demonstrate first to make sure everyone has understood

Q.	**Slide 38**	**A.**
1.	Can a person get HIV infection if they eat at the same table as an HIV-infected person?	
2.	Is a midwife at risk if she does not wear gloves while delivering an HIV+ woman?	
3.	Are the other children at risk if there is an HIV+ child in their class at school?	
4.	Can a person get HIV infection if he has penetrative anal sex with another HIV infected person?	
5.	Can a woman get HIV infection if a man practices group sex with 2 women but uses a condom?	

Module 1: Key Points

- HIV is a virus that destroys the immune system, leading to opportunistic infections
- The time from HIV infection to end-stage AIDS varies but can be more than 15 years
- The most common route of HIV transmission worldwide is heterosexual transmission
- Pregnant women who are infected with HIV may pass HIV infection to their infant
- 7,000-10,000 Cambodian infants are estimated to be at risk of HIV transmission from their mothers each year in Cambodia

Appendix 1

WHO staging system for HIV infection and disease in adults

Clinical stage I

- Asymptomatic
- Generalised lymphadenopathy

Performance Scale 1: asymptomatic, normal activity

Clinical Stage II

- Weight loss of less than 10% of body weight
- Minor mucocutaneous manifestations (seborrhoeic dermatitis, prurigo, fungal nail infections, recurrent oral ulcerations, angular cheilitis)
- Herpes zoster within the last 5 years
- Recurrent upper respiratory tract infections (e.g., bacterial sinusitis)

And/or **Performance Scale 2**: symptomatic, normal activity

Clinical Stage III

- Weight loss of more than 10% of body weight
- Unexplained chronic diarrhoea lasting for more than 1 month
- Unexplained prolonged fever (intermittent or constant) lasting for more than 1 month
- Oral candidiasis (thrush)
- Oral hairy leukoplakia
- Pulmonary tuberculosis
- Severe bacterial infections (e.g., pneumonia, pyomyositis)

And/or **Performance Scale 3:** bedridden less than 50% of the day during the past month

Clinical Stage IV

- HIV wasting syndrome[a]
- *Pneumocystis carinii* pneumonia
- Toxoplasmosis of the brain
- Cryptosporidiosis with diarrhoea lasting more than 1 month
- Cryptococcosis, extrapulmonary
- Cytomegalovirus (CMV) disease of an organ other than liver, spleen or lymph node (e.g., retinitis)
- Herpes simplex virus (HSV) infection, mucocutaneous (lasting for more than 1 month), or visceral
- Progressive multifocal leukoencephalopathy (PML)
- Any disseminated endemic mycosis
- Candidiasis of the oesophagus, trachea, bronchi
- Atypical mycobacteriosis, disseminated or pulmonary
- Non-typhoid salmonella septicaemia
- Extrapulmonary tuberculosis
- Lymphoma
- Kaposi's sarcoma (KS)
- HIV encephalopathy[b]

And/or **Performance Scale 4**: bedridden more than 50% of the day during the last month

[a] HIV wasting syndrome: weight loss of more than 10% body weight, plus either unexplained chronic diarrhoea (lasting longer than 1 month) or chronic weakness and unexplained prolonged fever (lasting longer than 1 month)

[b] HIV encephalopathy: clinical findings of disabling cognitive and/or motor dysfunction interfering with activities of daily living progressing over weeks to months, in the absence of a concurrent illness or condition other than HIV infection that could explain the findings

Source: World Health Organization (WHO). 2004. *Scaling up antiretroviral therapy in resource-limited settings: Treatment guidelines for a public health approach, 2003 Revision,* Appendix D: WHO staging system for HIV infection and disease in adults and adolescents, p. 42

WHO staging system for HIV infection and disease in children

Clinical Stage I
Asymptomatic Generalised lymphadenopathy
Clinical Stage II
Chronic diarrhoea lasting more than 30 days in the absence of known aetiology Severe persistent or recurrent candidiasis outside the neonatal period Weight loss or failure to thrive in the absence of known aetiology Persistent fever lasting longer than 30 days in the absence of known aetiology Recurrent severe bacterial infections other than septicaemia or meningitis (eg, osteomyelitis, bacterial (non-TB) pneumonia, abscesses)
Clinical Stage III
AIDS-defining opportunistic infections Severe failure to thrive (wasting) in the absence of known aetiology [a] Progressive encephalopathy Malignancy Recurrent septicaemia or meningitis

[a] Persistent weight loss of more than 10% of baseline or less than 5th percentile on weight for height chart on 2 consecutive measurements more than 1 month apart in the absence of another aetiology or concurrent illness.

Source: World Health Organization (WHO). 2004. *Scaling up antiretroviral therapy in resource-limited settings: Treatment guidelines for a public health approach, 2003 Revision,* Appendix E: WHO staging system for HIV infection and disease in children, p. 44

Module 2

Stigma and Discrimination

OBJECTIVES

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

1. Define and give examples of stigma and discrimination
2. Explain issues related to HIV/AIDS and human rights
3. Explain factors which underlie stigma and discrimination
4. List possible impacts of stigma and discrimination, with particular reference to PMTCT services
5. Identify means by which stigma and discrimination can be addressed
6. Discuss the role of PMTCT staff in reducing stigma and discrimination

Time allowed for this session: ***2 hours 40 minutes***
(with Activity 1: Label Game – optional)
2 hours 20 minutes
(without Label Game)

Activity 1: Label Game (Optional)

Introduction to the concepts of stigma and discrimination

- » HIV/AIDS is not only the greatest health challenge of our time, but it is also the greatest human rights challenge. Stigma and discrimination remain major barriers to preventing HIV transmission and providing treatment, care, and support to people who are HIV-infected and their families.
- » HIV/AIDS-related stigma is increasingly recognised as the single greatest challenge to slowing the spread of the disease at the global, national, and community/provider level.
- » *The most effective responses to the HIV/AIDS epidemic are those that work to prevent the stigma and discrimination associated with HIV, and to protect the human rights of people living with HIV and those at risk of infection*
- » You will start this module with an exercise looking at stereotypes and stigma.

Labels interactive game	
Purpose	To help recognise the role of stereotypes in stigma.
Instructions	▪ A "label" will be attached to your back using tape as you enter the room. Please do not look at the label that has been attached to you. ▪ Move around the room and engage in conversation with other participants. With each participant, react as a member of society might react to a person with the label the participant is wearing. It is important to talk with other participants clearly, conveying societal attitudes toward the label they are wearing without telling them what their labels are. ▪ After 5–7 minutes, return to your seats and comment on your feelings as you circulated in the room talking to each other. ▪ Try to guess the label you were wearing based on the reactions of the other participants to you. ▪ Take the label off your back and look at it. ▪ In the large group discussion, share your thoughts about the following questions: ▪ Did you guess what your label was? ▪ How did it feel to be treated in a stereotyped way? ▪ What was the experience like for you? ▪ Were you puzzled or surprised by how you were treated?

Activity 2: Brainstorm: What is Stigma? What is Discrimination?

» You will be asked the questions:

What is Stigma?
What is Discrimination?

» You will have some time to discuss the answers

» Slides 6-8 summarise stigma and discrimination

What is Stigma?

- Stigma refers to negative attitudes and beliefs directed toward someone
- HIV/AIDS-related stigma means negative attitudes or beliefs directed towards
  - people known or thought to be HIV-infected,
  - their families, friends, social groups, communities

Stigmatisation reflects an attitude

6

What is Discrimination?

- Discrimination is the treatment of an individual or group with prejudice
- may be defined in terms of human rights or entitlements in:
  - Employment
  - The Health Care System
  - The Legal System
  - The Social Welfare System
  - Reproductive and Family life

Discrimination is an act or behaviour

7

Examples of Discrimination

- A health care worker denies services to a person with HIV infection
- A woman cannot find a job because it is known that she is HIV+
- A man loses his job when his employer finds out that he is HIV+
- The widow and children of a man who died of AIDS are forced to leave the community
- A woman who chooses not to breastfeed her baby is assumed to be HIV+ and sent away by her mother-in-law

Stigmatised people may suffer discrimination and human rights violations

8

Activity 3: Discrimination and Human Rights

» Slides 10-12

» People have a right to make their own decisions about matters which affect their lives

International Human Rights

- Freedom from discrimination is a fundamental human right
- Discrimination against people who are known or thought to be HIV-infected is a clear violation of human rights

10

PMTCT Services and Human Rights (1)

Women have the right to:

- determine the course of their sexual and reproductive lives
- choose to have or not to have children
- have access to information about HIV/AIDS
- obtain protection against HIV infection

Children have a right to:

- survival, development and health

11

PMTCT Services and Human Rights (2)

Women have the right to:

- access VCCT and know their HIV status
- choose not to be HIV tested or not to receive the result of their HIV test
- make decisions about infant feeding, based on full information, and to receive support for their decision

12

Activity 4: Key Words: What underlies HIV-related Stigma & Discrimination?

» You will be asked to think about factors which lie behind HIV-related stigma and how stigma may be expressed

» Slides 14-16 provide a summary

What Underlies HIV/AIDS-related Stigma and Discrimination?

Stigma and discrimination related to HIV/AIDS occur because of:

- Fear of becoming infected
- Lack of knowledge of HIV/AIDS
  - modes of transmission
  - meaning of HIV, AIDS
  - perception of HIV/AIDS as a death sentence
- The link between HIV transmission and sexual behaviour
- Fear of becoming stigmatised by association

14

Why is HIV/AIDS-related Stigma and Discrimination such a Problem?

- People with HIV/AIDS may be blamed for causing their own illness
- Stigma may be directed at behaviours believed to have caused HIV infection, e.g. prostitution
- Stigma may be very high against people who already belong to marginalised groups
  - Sex workers, injection drug users (IDU), Men who have sex with men (MSM)
  - poor people, minority peoples

15

How are Stigma & Discrimination expressed?

- Attitudes
  - Believing HIV-infected people are responsible for their own disease
  - Believing the disease is a punishment for misbehaviour
- Actions
  - Putting on gloves before touching an infected person
  - Not buying from an HIV+ person's market stall
  - Not visiting an HIV+ person's house
- Choice of language
  - Think about local names for HIV infection or infected people. Are these terms stigmatising?

16

Activity 5: Group Work: Examples of Stigma

» You will be divided into 3 groups to look at stigma and discrimination:

Group 1: In Healthcare Services

Group 2: In the Workplace

Group 3: In the Family and Community

» In your group, think of examples of stigma or discrimination which apply to your topic

» Slides 18-20 provide a summary

1. In Healthcare Services

- Refusing access to care and treatment
- Providing poor quality care
- Breaking confidentiality
- Applying infection control procedures only to patients thought to be infected, not to all
- Applying pressure to have procedures that would not be suggested for other people (e.g. abortion / sterilisation)

18

2. In the Workplace

- Requiring HIV testing before or during employment
- Not hiring HIV-infected individuals
- Dismissal because of HIV/AIDS status
- Breaking confidentiality
- Refusing to work with someone who is known to be HIV+

19

3. In the Family or Community

- Shunning or isolating people who are HIV-infected, or their partners and children
- Not allowing HIV-infected people to participate in local events
- Not allowing children of PLHA to attend school
- Using violence against someone who is HIV+
- Not supporting bereaved families, or orphaned children

20

Activity 6: Brainstorm: What are the Effects of Stigma & Discrimination?

» You will be asked to discuss the effects of stigma and discrimination

» Think in particular about:

1. People who do not know their HIV status (especially pregnant women) but think they may be at risk
2. People who are known to be HIV-infected

Effects of Stigma and Discrimination

Fear of stigma and discrimination may discourage pregnant women from:

- Accessing ANC
- Accepting VCCT
- Discussing their HIV tests and disclosing results
- Accepting PMTCT interventions
- Choosing recommended infant-feeding options

Stigma and discrimination may lead to family or social isolation and stigmatisation of children born to HIV-infected women

22

Activity 7: Debate: Addressing Stigma & Discrimination

» The purpose of this exercise is to look at how stigma can be addressed

» You will be divided into two groups:

Group 1: Responses at the National Level

Group 2: Responses at the Community Level

» Work in your group to come up with some discussion points

» Your facilitator will lead an interactive debate between the two groups looking at

1. What can be done at each level
2. How effective such efforts might be
3. What problems might be encountered when trying to promote the measures

Addressing Stigma and Discrimination

Efforts to address HIV/AIDS-related stigma and discrimination need to occur at all levels:

- National
- Community
- PMTCT Services
- Individual

Key requirements include being:

- properly informed about HIV/AIDS
- aware of issues relating to stigma
- open to talking about HIV/AIDS
- open to addressing stigma and discrimination actively
- willing to take responsibility and act as role models

24

National Level

- High-level political support for HIV/AIDS initiatives and policies
- High-profile individuals serving as role models
- Legislation
  - anti-discrimination
  - to protect the rights of women and PLHA
- Provision of services:
  - OI/ART services
  - Programmes for sex workers or IDUs
  - PMTCT services

25

Community Level

- HIV/AIDS education and training to increase knowledge and awareness, targeted at:
  - Key opinion and religious leaders
  - TBAs, traditional healers
  - Healthcare staff in the community
  - Business community
- Promote PMTCT activities and interventions as an integral component of Healthcare Services
- Community Partnerships
- Involve PLHA everywhere
- Open communication about HIV/AIDS is essential to help normalise HIV/AIDS and reduce stigma

26

Activity 8: Group work: Addressing Stigma through PMTCT Services

» The purpose of this exercise, which follows on from Activity 7, is to look at how PMTCT services can contribute to addressing stigma and discrimination

» You will be divided into 2 groups again, to look at the following topics:

Group 1: What can Managers do to address stigma through PMTCT services? What are their roles and responsibilities?

Group 2: What can Counsellors/Health Care Workers do to reduce stigma and discrimination in their work?

» You will be given 10 minutes to work

» One person from each group will be asked to present their group's suggestions

» Write these suggestions on the board and discuss them

» Slides 28-34 summarise the role of PMTCT Services, PMTCT Managers and HCWs in addressing stigma and discrimination

How Can PMTCT Services Address Stigma and Discrimination?

Managers and healthcare workers have a responsibility to work against the climate of stigma and discrimination associated with HIV/AIDS, to:

- change attitudes and practices in healthcare facilities
- change community practices

Examples:

- Healthcare worker training
  - Include discussion of HIV/AIDS-related stigma
- Integrate PMTCT services into standard ANC services
  - Offer VCCT to **all** pregnant women, to normalise HIV/AIDS
- Increase partner and family participation
  - Stress the importance of partner testing and family support
  - Reach-out to male-friendly settings if men do not come with their wives
- Involve PLHA in PMTCT programmes
  - PLHA can be trained as lay counsellors
  - PLHA can help to direct patients around the hospital

28

Roles and Responsibilities of PMTCT Managers

Managers play an important role in implementing and enforcing policies and procedures on:

- Protection of individuals against stigma and discrimination by ensuring
  - Equitable access to health care services and treatment
  - Fair recruitment and employment practices
  - Support for HIV-infected HCWs
- Confidentiality
  - Policies must be upheld
  - Breaches of confidentiality must be taken seriously and addressed
- Universal Precautions
- Post Exposure Prophylaxis for occupational exposures
- Reporting and disciplining discriminatory practices or behaviour

29

Breaches of Confidentiality

The success of PMTCT services depends on identifying HIV+ individuals

- HIV+ people and their families need to have confidence in the system
- If people feel that confidentiality is not properly maintained, trust will be undermined and people will not use the services

- Policies for addressing breaches of confidentiality must be developed and implemented
- Patients need to be informed about steps they can take to address breaches of confidentiality

30

Roles and Responsibilities of Health Care Workers

Health Care Workers should openly respect the rights of all women and men, irrespective of their HIV status

Health Care Workers need to be
1. Personally aware
2. Informed and knowledgeable
3. Actively involved

31

1. Personal Awareness

- Increase personal awareness of possible stigmatising behaviour and language or breaches of confidentiality
- Examine personal attitudes, assumptions or prejudices about people infected with HIV/AIDS

Note: The HIV/AIDS epidemic in Cambodia has spread to include people who do not belong to high-risk groups. Images about what kinds of people are affected by HIV/AIDS may no longer be true

32

2. Being Informed and Knowledgeable

- Identify and correct misinformation / misconceptions about HIV/AIDS
- Go over policies on confidentiality, informed consent, anti-discrimination practices, infection control
- Advocate for women's rights, know what they are and how to access help
- Be aware of the possibility of domestic violence, ask about it, know where to refer clients to
- Be aware of other health care and support services for PLHA

33

3. Active Involvement

- Identify local HIV/AIDS-related stereotypes and rumours
- Talk about these misconceptions at appropriate times during the PMTCT process e.g. during mothers class
- Facilitate peer and community support
  - Know what support is available
  - Make referrals and follow them up
  - Encourage peer support, link PLHAs with others
- Encourage, empower and support PLHA to disclose their status
- Promote HIV/AIDS-friendly workplaces

Increasing visibility of PLHA promotes community acceptance

34

Module 2: Key Points

- Stigmatisation reflects an attitude, discrimination is an act
- Discrimination is often defined in terms of human rights and entitlements
- Stigmatising thoughts can lead to discrimination and human rights violations
- All people have the right to be free from discrimination on the basis of HIV/AIDS status
- HIV/AIDS-related stigma may discourage PLHA from accessing HIV/AIDS services and:
  - Discourage disclosure of HIV/AIDS status
  - Reduce acceptance of safer infant-feeding practices
  - Limit access to education, counselling, and treatment
- PMTCT staff have a responsibility to respect the rights of all women and men, irrespective of their HIV/AIDS status

PMTCT staff can:

- Help reduce stigma and discrimination in the healthcare setting, in the community, and at the national level
- Serve as role models by treating PLHA just as they would treat patients assumed to be HIV-negative
- Involve PLHAs in every aspect of the PMTCT programme
- Promote partner participation and community support

Module 3

Mother-to-Child Transmission of HIV (MTCT)

OBJECTIVES

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

1. Discuss the implications of pregnancy in HIV-infected women
2. Explain Mother-to-Child transmission of HIV (MTCT): what is it, when may it occur and how big is the risk?
3. Identify risk factors for MTCT

Time allowed for this session: ***1 hour 40 minutes***

Activity 1: Qs & As: Pregnancy and HIV Infection

- » In this activity you will look at some questions about HIV in pregnancy
- » You will be asked to stand in the middle of the room. One side of the room will be for **True** and one for **False** answers
- » Read the first question and move to the side of the room which you think represents the correct answer
- » You will be given an opportunity to discuss the answer and you may change your mind and move to the other side if you wish

		T / F
1	Pregnancy causes HIV disease to progress more rapidly	
2	HIV probably does not cause congenital abnormalities	
3	HIV-related problems are worse in pregnant than non-pregnant women	
4	Pregnant women with HIV are more likely to have a spontaneous abortion or stillborn baby	
5	HIV+ women are just as fertile as HIV- women	
6	There is no relationship between HIV infection and premature labour or low birth weight babies	
7	Perinatal and newborn mortality is the same in babies born to mothers with and without HIV infection	
8	HIV infection can be passed from a pregnant woman to her baby	

2: Discussion: What is your experience of HIV in pregnancy?

This exercise links to the previous activity. Your facilitator will ask you to think about the following questions and will lead the group in a discussion.

- » What experience do you have of women with HIV in pregnancy in your work?
- » Have you followed many pregnancies in HIV+ women? What were the outcomes of the pregnancies, for the mother? and for the infant?
- » Are your stories in line with the answers to the questions above or are there differences?
- » If there appear to be differences, why might that be?
- » Slides 7-8 summarise points about HIV infection and pregnancy

Pregnancy and HIV Infection (1)

- Pregnancy does not seem to make HIV disease progress more rapidly
- HIV does not cause congenital abnormalities
- HIV-related problems are similar in pregnant and non-pregnant women
- Fertility is not affected, except in late HIV disease when it is reduced and interest in sex is less

7

Pregnancy and HIV Infection (2)

- Women with HIV/AIDS (especially late stage disease) are at increased risk of:
  - Spontaneous abortion
  - Stillbirth
  - Perinatal mortality
  - Low birth weight
  - Preterm delivery
- HIV infection may be passed from mother-to-child

8

Activity 3: Mother-to-Child Transmission of HIV. Pathophysiology, Risks, Risk Factors

Slides 10-14 explain what mother-to-child transmission of HIV is, how and when it takes place and what factors affect the risk of transmission

Mother-to-Child Transmission of HIV

- Mother-to-child transmission (MTCT) of HIV infection is when an infant is infected with HIV from its mother
- Transmission may occur during
  - Pregnancy
  - Labour and delivery
  - Breastfeeding
- This is also called vertical or perinatal transmission of HIV infection

Remember:

- The mother may be unaware of her HIV status
- Transmission is not deliberate
- Be careful not to attach blame or stigma to a mother

10

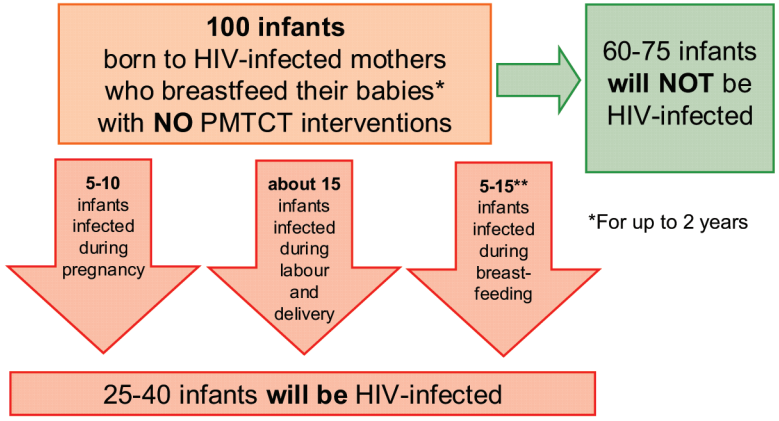
How does MTCT take place?

- **Pregnancy:** Normally the placenta acts as a barrier to stop HIV virus passing from mother to child, but transmission may occur, resulting in infection of the foetus
- **Labour and delivery:** exchange of blood or other body fluids during labour
- **Breastfeeding:** breast milk contains HIV virus which may infect the baby

11

- Imagine 100 infants born to HIV+ mothers who all breastfeed their infants for up to 2 years (see slide 12 for)
- With NO PMTCT interventions, 65-75 of the infants will not be infected with HIV, either at birth or after up to 2 years of breastfeeding
- 5-10 of the infants will have been infected with HIV during the pregnancy
- Approximately 15 of the infants will be infected during labour and delivery
- Between 5-15 of the infants will become infected with HIV during breastfeeding (the exact number depends on various factors, including how long the mother breastfeeds her infant for)
- So a total of 25-40 of the infants will be HIV-infected

HIV Outcomes of Infants born to HIV-infected Mothers



**WHO/CDC Prevention of Mother-to-Child Transmission of HIV Generic Training Package. WHO 2004

12

What are the Risk Factors for MTCT?

The most important risk factor for MTCT at any time is the amount of virus in the mother's blood (viral load)

High maternal viral load is related to either

- Recent HIV infection: viral load is often high in the first few months after infection
- Advanced HIV/AIDS: when it is accompanied by low CD4 count and late clinical stage

13

Other Risk Factors for MTCT

Pregnancy
- STIs
- Placental infection such as malaria
- Malnutrition

Breastfeeding
- Prolonged breastfeeding
- Early mixed feeding
- Cracked nipples, mastitis
- Oral thrush in the baby

Obstetric
- Prolonged rupture of membranes
- Invasive procedures at delivery
- First infant in twin pregnancy (multiple birth)
- Chorioamnionitis

Virus
- Type of virus
- Resistance to ARVs

14

Activity 4: Case discussion: Should HIV+ women have children?

» You will be asked to discuss the following statement:

"HIV+ women should not get pregnant or have children"

» Think of arguments in favour of or against women with HIV infection choosing to have a child

» Some examples are given below

Pros: In favour of having a baby

- All women have the right to choose to have children
- With access to high-quality care, treatment and support services an HIV+ woman can lead a healthy life for many years
- Having children makes women happy and can strengthen the relationship between husband and wife
- Having children is natural
- A family without children may be stigmatised

17

Cons: Against having a baby

- HIV is a serious disease, the mother will become sick and be unable to care for her family
- HIV/AIDS places a financial burden on a family, this will only be worse if there are children
- HIV/AIDS is fatal, the mother will die, leaving her children as orphans
- Society does not approve of HIV+ women having children, the mother may be subject to stigma and discrimination

Legal termination of pregnancy may be an appropriate option for a woman with HIV infection

Family planning services can give information on how a woman can access safe and legal abortion

18

Module 3: Key Points

- Pregnancy has no significant effect on HIV disease
- HIV+ pregnant women are at increased risk of some pregnancy-related complications, including spontaneous abortion and preterm delivery
- HIV infection can be transmitted from the mother to her infant, during pregnancy, during labour & delivery or during breastfeeding
- The risk of MTCT of HIV is 25-40% without PMTCT interventions
- The most important risk factor for transmission at any time is the viral load of the mother

Module 4

Prevention of Mother-to-Child Transmission of HIV

Introduction	Comprehensive Approach to Prevention of HIV Infection in Infants and Children
4.1	Primary Prevention of HIV Infection
4.2	Prevention of unintended pregnancies in HIV+ women
4.3	Prevention of HIV transmission from HIV+ women to their infants (PMTCT)
4.4	Continued Care and Support

OBJECTIVES

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

Explain the comprehensive approach to reducing HIV infection in infants and young children

1. Primary prevention of HIV infection
2. Prevention of unintended pregnancies in HIV+ women
3. Prevention of HIV transmission from HIV+ women to their infants (PMTCT)
4. Provision of treatment, care and support to HIV+ women, their children and their families

Comprehensive Approach to Prevention of HIV Infection in Infants and Children

Reducing HIV infection in infants and young children requires a comprehensive approach which includes the following four prongs:

1. Primary prevention of HIV infection
2. Prevention of unintended pregnancies in HIV+ women
3. Prevention of HIV transmission from HIV+ women to their infants (PMTCT)
4. Provision of treatment, care and support to HIV+ women, their children and their families

3

4.1 Primary Prevention of HIV Infection

OBJECTIVES

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

1. Describe options for primary prevention of HIV infection
2. Explain the importance of HIV counseling and testing for PMTCT
3. Identify advantages and disadvantages of HIV testing in pregnancy
4. Describe the provision of VCCT to pregnant women
5. List the guiding principles for VCCT
6. Identify different HIV tests and explain procedures for HIV testing
7. Explain the meaning of test results and window period
8. Describe procedures for testing of HIV-exposed infants

Time allowed for this session: ***2 hours 30 minutes***

Activity 1: Brainstorm: Prevention of HIV Infection

» You will be asked to brainstorm measures to prevent HIV infection in categories 1-3 on slide 8

Note: VCCT and PMTCT interventions will be addressed later in this module

Primary Prevention of HIV Infection Public Health Initiatives

HIV infection cannot be passed to the baby if the mother is not HIV-infected

The number of HIV-infected women can be reduced by addressing factors such as poverty, ignorance, sexual abuse and through public health initiatives including:

1. Prevention of blood-to-blood transmission
2. Behaviour change initiatives (A, B, C… approach)
3. STI management
4. VCCT
5. PMTCT interventions (see Section 3)

8

1. Prevention of Blood-to-Blood Transmission

- Screen all blood and blood products for HIV
- Always follow universal precautions

9

2. Behaviour Change Initiatives (1) (A, B, C… approach)

A bstinence
- Do not have sex, or
- Delay onset of first sexual activity

B e faithful…to one uninfected partner

10

Behaviour Change Initiatives (2)

C ondom Use

Condoms should be

- used for every sex act
- used with all sexual partners
- readily available, all the time
- used consistently even when client is on ART or both partners are HIV+*

Counsel on

- correct use of condoms
- skills to negotiate condom use with partners

*to prevent transmission of drug resistant virus or reinfection with a different strain of virus

11

Behaviour Change Initiatives (3)

D o not...

Do not share:

- Needles
- Razor blades
- Tattooing instruments....

Do not directly touch open cuts or sores

- **instead** use gloves and disinfectant

Do not discard sharp instruments anywhere

- **instead** dispose of them safely

Do not use drugs

- if drugs are used...**Do not** Inject
- if drugs are injected... **Do not** share needles or syringes

12

Behaviour Change Initiatives (4)

E scape... from:

- Unsafe sex by using non-penetrative sex
- Risky behaviours such as:
  - excessive alcohol use
  - drug use
  - sexual coercion or violence

F amily Planning:

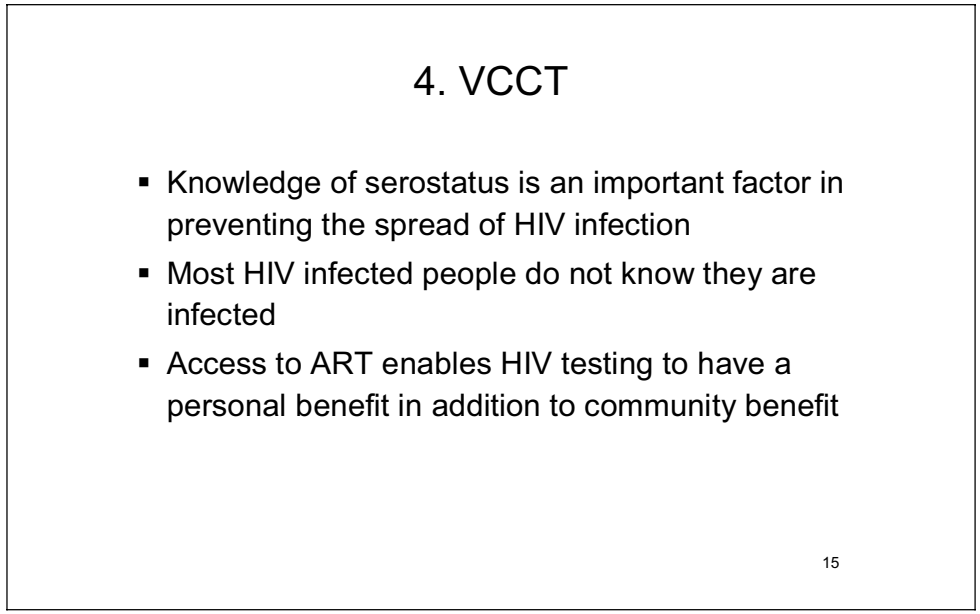
- Facilitate access to Family Planning Services

13

3. STI Management

- If either partner has an STI, the chance of HIV transmission during a sexual encounter is increased
- Treating STIs reduces the risk of HIV transmission
- Educate about STI prevention
- Promote access to health facilities for early diagnosis and treatment for STIs

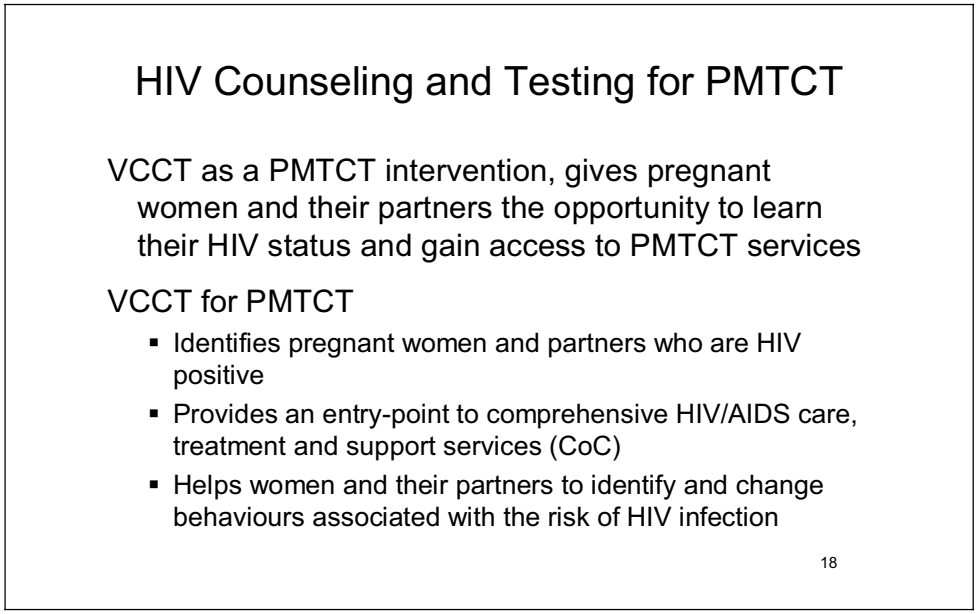
14



Activity 2: HIV Counseling and Testing for PMTCT

» HIV counselling and testing are critical for the success of PMTCT interventions

» Women and their partners must learn their HIV status before they can access available services



VCCT for Pregnant Women

Pregnant women who do not know their HIV status should:

- be considered at risk for MTCT and counselled accordingly
- be made aware that testing can be done at any ANC visit
- be reminded of the benefits of knowing their HIV status
- know that care and treatment for HIV/AIDS can greatly improve quality of life for HIV+ pregnant women

19

VCCT and Partner Involvement

For VCCT to be as effective as possible, both partners must be involved and

- should undergo VCCT and know their HIV status
- should be aware of PMTCT interventions and be able to access them
- need to understand the importance of safer sex practices during pregnancy and breastfeeding

HIV/AIDS affects whole families. Partners should be encouraged at every opportunity to come for VCCT

20

Activity 3: Pros & Cons Exercise: VCCT for PMTCT

- » You will be asked to consider HIV counseling and testing. Do you think it is a good idea for people to be tested or do you think there are problems associated with VCCT?
- » You will be divided into 2 groups: one group acts in favour (Pro) of VCCT and the other acts against (Con) VCCT
- » Come up with ideas to support your positions, for or against VCCT
- » Your facilitator will start a discussion between the two groups
- » Examine whether there are different advantages or disadvantages according to whether the person tested is HIV positive or negative

Advantages of VCCT for PMTCT

VCCT gives **HIV-negative women**:

- information and education about HIV/AIDS
- knowledge of their HIV status
- the opportunity to modify risky behaviour
- strategies for remaining uninfected

22

Advantages of VCCT for PMTCT

VCCT allows **HIV-positive women** to receive:

- information and education about HIV/AIDS
- knowledge of their HIV status
- information about prevention of HIV transmission to others
- interventions to reduce MTCT

23

Disadvantages of VCCT for PMTCT

Women and their partners may experience:

- Some discomfort while the blood is taken for testing
- Emotional reactions: e.g. grief, anger, fear, loss of hope when they learn their HIV result
- Stigma and discrimination from their partner, family members, community, employer, health care workers…

24

Activity 4: How is VCCT provided in ANC?

How is VCCT provided in ANC?

Who should be counselled?	▪ all pregnant women and their partners
Who provides counseling?	▪ trained PMTCT counsellors
When?	▪ at the first antenatal visit if possible ▪ at any other time
How?	▪ Group counseling in the Mother Class (pre-test) ▪ Couple counseling (pre- or post-test) ▪ Individual counseling (pre- or post-test)
Where?	▪ in the Mother Class or ▪ in a private counseling room in the antenatal facility

26

Activity 5: Key Words: Guiding Principles for VCCT

» You will be asked to think about the most important principles for VCCT

Guiding Principles for VCCT

VCCT must be:

1. Voluntary
2. Confidential

The client must:

3. give informed consent
4. have access to post-test support

28

Activity 6: Group Work: Guiding Principles for VCCT

» The purpose of this exercise is to examine in more depth the Guiding Principles for VCCT

» You will be divided into four groups:

Group 1: Voluntary
Group 2: Confidentiality
Group 3: Informed Consent
Group 4: Post-test Support

» Work in your group to think of important points related to your topic and write them down

» One member of each group will be asked to present the group's findings

» The topic will be discussed after each presentation

1. Voluntary

- No-one must ever be forced to have counselling or testing for HIV
- HIV counseling and testing is offered to all pregnant women as part of their antenatal care
- Women may choose not to be tested

30

2. Confidentiality (1)

- Confidentiality is necessary for client trust
- Without trust, the woman may not agree to HIV testing
- Assurance and perception of confidentiality is a key to successful PMTCT services

31

2. Confidentiality (2)

- The VCCT room used for individual or couple counseling must be private
- Information given by the client to the counsellor must be kept private
- All medical records and registers should be confidential and stored in a safe place

Information (including the HIV test result) may be disclosed to other healthcare providers to ensure the woman receives appropriate medical care, but only if the client agrees

32

3. Informed Consent

Each person has the right to:

- receive clear and accurate information about HIV testing before giving their consent, so they understand:
  - the purpose and benefits of HIV counseling and testing
  - the purpose and benefits of other available services if their HIV test is positive
  - the counseling and testing process
- decline testing and must be given the opportunity to do so
- have their testing decision respected

33

4. Post-test Support

Test results must be given in a private room, if possible by the same person who gave pre-test counselling

The Counsellor must:

- reassure the client that the test result will be kept confidential
- inform the client about available treatment, care and support services and make the necessary referrals
- provide support when needed for the client to disclose her results to her partner or family

34

Activity 7: HIV Tests

HIV testing: Antibody Test (1)

- After a person is infected with the HIV virus, their body makes antibodies against HIV*
- The antibodies usually appear 4-6 weeks after infection, but the process may take up to 3 months
- This time, before the antibodies have appeared, is called the Window Period

Standard HIV tests detect HIV antibodies

*Note: unlike in some other diseases, HIV antibodies are not protective

37

HIV testing: Antibody Test (2)

- If the person is not infected, the test will be negative
- If the HIV-infected person has started to make antibodies the test will be positive

However

- if the person is tested during the "window period", after HIV infection but before the appearance of HIV antibodies, the HIV test result may be negative
- In case of recent exposure, the HIV test should be repeated 3 months after the exposure

38

Types of HIV Antibody Test:

	Rapid Test	ELISA	Western Blot
Accuracy	Very high	Very high	good for indeterminate samples
Cost	+	++	++
Time until results are ready	30 minutes	days to weeks	days to weeks
Needs special lab equipment	no	yes	yes
Needs highly skilled lab personnel	no	yes	yes

39

HIV Testing: Viral Assay

These tests:

- detect the actual HIV virus in an infected person's blood
- must be done by trained lab personnel
- need a laboratory
- are expensive and are not performed routinely

P24 antigen test: measures a protein found in HIV

PCR tests*:

- DNA PCR detects the presence of virus in the blood and is used for diagnosing HIV infection in infants < 18 months
- RNA PCR detects and measures the amount of virus in the blood (viral load)

40

*available in Phnom Penh

Activity 8: Brainstorm or Role Play*: Procedures for HIV Testing

Brainstorm

» You will be asked to list, in the correct order, the HIV testing steps which must be followed after pre-test counseling has been given

Role Play

» Two participants will be asked to volunteer to play the roles of a counsellor and a client who has just received pre-test counseling

» The counsellor should act out the steps of the HIV testing procedure she would follow

*Choose whichever form of the activity you prefer or think will work best

Procedures for HIV Testing

After giving pre-test counseling, the PMTCT counsellor should:

1. Obtain informed consent from the pregnant woman and her partner (if he is also being tested)
2. Put on latex gloves and draw blood into tube
3. Discard gloves
4. Label blood collection tube and log book with client's PMTCT code number and date of visit
5. Send blood to laboratory for testing
6. Explain to the person when to come for their results

42

PMTCT Code Numbers

- Each woman who receives pre-test counseling is given a PMTCT code number and is entered in the PMTCT register
- The PMTCT code number is entered on the lab request slip and sent with the blood to the VCCT laboratory

43

Activity 9: HIV test results, what do they mean?

HIV Testing in the Laboratory

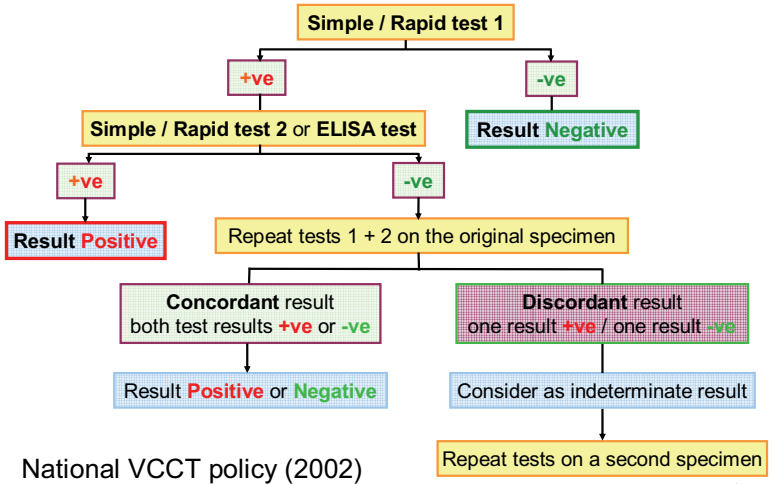
» Slide 45 shows the testing steps which are followed in the VCCT laboratory

» Note that any HIV positive result is double checked with a second test

» If the second test result does not agree with the first, the sample is retested using two tests

» If these results are not in agreement, a second blood sample is requested from the patient. This sample must be taken at least 15 days after the first sample

What happens in the VCCT Laboratory?



National VCCT policy (2002)
HIV testing algorithm

45

What do the HIV Test Results mean?

HIV positive (+) result:

- means the person **IS** infected with HIV
- the sample has been tested with a second rapid test (or an ELISA test) to make sure the result is correct

HIV negative (-) result:

- means the person **IS NOT** infected with HIV or
- has been infected with HIV, but is still in the window period. The test should be repeated after 3 months

46

Indeterminate Test Results

If the first test result is positive + the second test result negative: the laboratory will repeat the two tests on the original sample

Results of repeat tests:

Both +ve

- means the person **IS** infected with HIV

Both -ve

- means the person **IS NOT** infected with HIV

One +ve, one –ve

- this is called an indeterminate result
- a second blood sample must be taken from the person (after at least 15 days) and the testing process repeated from the start

47

Activity 10: HIV Testing in Children

» Slides 49-51 explain HIV testing in infants

» Note that HIV viral assays can be used to make a diagnosis of HIV very early, if the test is available and accessible to the child

HIV Antibody Testing for HIV-exposed Infants and Children

Not all babies born to HIV-infected mothers have HIV infection themselves, but

If an HIV antibody test is used, all babies born to HIV-infected mothers will test HIV positive

- even if the infant does not have HIV infection
- because the mother's own HIV antibodies cross the placenta into the baby

Maternal antibodies may persist in the infant for up to 18 months

49

Viral Assays (PCR)

Viral Assays (PCR)

- Detect the actual HIV virus, and
- Can be used to test HIV-exposed infants as early as six weeks of age

If PCR is available, do a PCR test at 6 weeks

- If the PCR test is positive, the baby has HIV infection
- If the PCR test is negative, the baby does not have HIV infection

If an HIV-negative baby is breastfeeding, the PCR test must be repeated 3 months after breastfeeding has completely stopped, to make sure the baby has not become infected through breastfeeding

50

Policy for testing HIV-exposed Infants

HIV-exposed infants should be followed by the nearest paediatric OI/ART services* and

- with the mother's consent, receive HIV antibody testing at 18 months of age
- receive testing by viral assay at an earlier age if this is feasible and affordable
  - this allows a definite diagnosis of HIV infection to be made
  - if positive, the infant can be evaluated for eligibility for ART
  - if negative, the infant can stop cotrimoxazole OI prophylaxis

*or if not available, the Paediatric Services in the nearest Referral Hospital

51

Module 4.1: Key Points

- Primary prevention of HIV infection is the most effective way of reducing mother-to-child transmission of HIV
- Pre-test information, HIV testing and post-test counselling should be available to all pregnant women and their partners
- Partner testing and couple counselling are encouraged
- The counsellor and the facility must maintain confidentiality
- Rapid tests allow same day results and are the recommended procedure for ANC settings
- Infant HIV diagnosis is complex but important for clinical management
- Standard infant HIV diagnosis is done by antibody test at 18 months. Earlier diagnosis is possible with PCR testing

4.2 Prevention of Unintended Pregnancies in HIV+ Women

OBJECTIVES

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

1. Explain the importance of Family Planning services
2. List family planning methods suitable for use by HIV positive women

Time allowed for this section: ***30 minutes***

Activity 1: Prevention of Unintended Pregnancies in HIV+ Women

Prevention of Unintended Pregnancies in HIV+ Women

The number of unintended pregnancies in HIV+ women can be reduced through access to:

- High-quality reproductive health counselling
- Safe and effective contraception

Links between ANC, Family Planning services and VCCT are very important as many women attending for ANC and Family Planning do not know their HIV status

6

Family Planning Services

- Prevention of unwanted pregnancies and planned birth-spacing can contribute to a reduction in
  - maternal and infant mortality
  - MTCT of HIV
  - psychosocial problems
- Access to high quality family planning information and services for women and their partners is very important
- Adolescents, unmarried women and women from marginalised groups must have equitable access to such services

7

Activity 2: Brainstorm

Family Planning Methods for HIV+ Women

» You will be asked to work in pairs to identify suitable and unsuitable methods of contraception for HIV+ women

» Two headings will be written on the whiteboard:

Suitable Methods, **Unsuitable Methods**

» You will be asked to take it in turns to mention a family planning method and state which heading it belongs under

» For each method, see if you can explain why the method is either suitable or unsuitable for HIV+ women

Family Planning Methods

Condoms (male or female): have a dual role, if used consistently and correctly

- prevention of pregnancy
- prevention of STIs and HIV infection or re-infection

All HIV+ women should be counselled about

- correct use of condoms
- skills to negotiate condom use with their partner(s)
- the importance of continuing to practice safer sex

If possible, the partner should be involved in all aspects of counseling, either separately or together

9

Use of Condoms to Prevent Re-infection

Condoms should be used even when:

- both partners are HIV+, to reduce the risk of re-infection with a different strain of HIV virus which may be
  - more virulent or
  - resistant to antiretroviral drugs
- the person is on ART

10

Other Family Planning Methods

The following methods are suitable for HIV+ women and may be used in addition to condoms

- Oral contraceptive pills (if not taking ART)
  Note: Some ARVs reduce the efficacy of oral contraceptive drugs. Women taking ART who do not wish to become pregnant should use alternative or additional methods of contraception
- Injectable progesterone
- Progesterone implant
- Sterilisation (tubal ligation or vasectomy)

11

FP Methods NOT for use by HIV+ Women

Intrauterine Devices (IUDs)

- increase the risk of pelvic inflammation
- are associated with heavier menstrual blood loss
- may increase the risk of HIV transmission

Spermicides

- can cause vaginal irritation and inflammation
- may increase the risk of HIV transmission between partners

12

Module 4.2: Key Points

- Access to reproductive health counseling and safe contraception can reduce the number of unintended pregnancies amongst HIV+ women
- Condoms can be used to prevent pregnancy but also to reduce the risk of HIV infection and other STIs
- HIV+ women and their partners should be counselled on the correct use of condoms
- Other contraceptive methods suitable for use by HIV+ women, in addition to condoms, include oral contraceptive pills, progesterone injections and tubal ligation or vasectomy
- Intrauterine devices and spermicides should not be used by HIV+ women

4.3

Prevention of HIV transmission from HIV+ women to their infants (PMTCT)

4.3.1	PMTCT services ART and ARV Prophylaxis
4.3.2	Antenatal and Labour & Delivery Care Postpartum Care and Follow-up
4.3.3	Infant Feeding in the Context of HIV
4.3.4	Safety in the Workplace

4.3.1

PMTCT Services
ART and ARV Prophylaxis

OBJECTIVES

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

1. Explain why PMTCT services are needed and list the core PMTCT interventions
2. Discuss the efficacy of PMTCT interventions
3. Define ARVs and ART and explain the role of ART in the management of HIV/AIDS
4. Describe the use of Antiretroviral Therapy (ART) and ARV prophylaxis for HIV+ pregnant women
5. Explain the ARV prophylaxis regimen recommended for use in Cambodia
6. Explain the importance of adherence to ART and ARV prophylaxis

Time allowed for this session: ***2 hours 40 minutes***

Activity 1: PMTCT Services

Note:

Without PMTCT interventions approximately 3,000 babies may be infected with HIV from their mothers in Cambodia each year

This number could be reduced by about 40% (that is to about 1,800 babies each year) if all HIV-infected pregnant women received PMTCT interventions

Why are PMTCT Services Needed?

- The estimated annual number of live births in Cambodia in 2005 was 461,000*
- An estimated 9,000 - 10,000 newborn infants are at risk each year of HIV transmission from their mothers
- With no intervention, MTCT rates are ~ 30%, so up to 3,000 babies may be infected with HIV from their mothers in Cambodia each year
- Many of the mothers are unaware of their HIV status and many do not have access to or utilise PMTCT services

PMTCT services offer a vital opportunity to reduce the number of new HIV infections in infants

7

Prevention of MTCT of HIV

The goal of PMTCT services
is to reduce the number of HIV-infected infants born to HIV-infected mothers

This can be achieved by

- identifying HIV+ pregnant women, especially those whose HIV status was previously unknown
- enabling them to access PMTCT and CoC services

Every opportunity must be taken to identify HIV-infected people and enable them and their families to access care and support services

8

PMTCT Services: What are they?

PMTCT core interventions include:

1. VCCT (Section 1 of this module)
   to give pregnant women the opportunity to learn their HIV status
2. ART or ARV prophylaxis
   to reduce maternal viral load and reduce transmission
3. Safer delivery practices
   to reduce infant exposure during labour and delivery
4. Safer infant feeding practices
   to reduce infant exposure during feeding

9

Efficacy of Interventions to Reduce MTCT

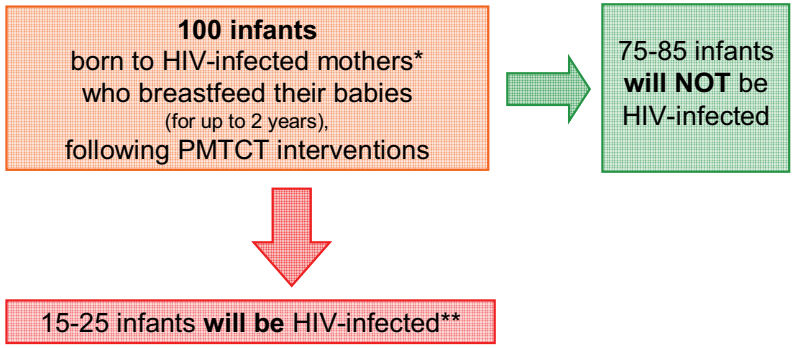
Combination PMTCT interventions can reduce the risk of MTCT by

- up to 40%* in breastfeeding populations (so the rate = 15-25%)
- up to 70%* in the absence of breastfeeding (so the rate = 5-15%)

*the exact reduction depends on a number of factors including details of PMTCT interventions and the maternal viral load

10

HIV Outcomes of Infants born to HIV+ mothers after PMTCT interventions



*HIV-exposed infants
**HIV-infected infants

11

HIV-exposed or HIV-infected?

An HIV-exposed infant
is an infant born to an HIV+ mother

An HIV-infected infant
is an infant born to an HIV+ mother who has been infected with HIV during pregnancy or labour & delivery or through breastfeeding

Remember most HIV-exposed infants are **NOT** HIV-infected
But all HIV-exposed infants need careful follow-up to allow early detection of problems

12

Activity 2: ARV drugs and ART, what are they?

What are Antiretroviral Drugs?

- **ARV**s or **A**nti**R**etro**V**iral drugs are medicines which are active against the HIV virus
- They work by interfering with HIV replication and reducing the number of HIV viruses in the body

15

What is Antiretroviral Therapy?

ARVs work much better when they are used in combinations of 3-4 drugs

ART or **A**nti**R**etroviral **T**herapy is treatment using ARV drugs in combination

This is also known as:

HAART or **H**ighly **A**ctive **A**nti**R**etroviral **T**herapy

= combination therapy with at least 3 potent ARV drugs

16

Activity 3: What can ART do? What are the limitations of ART?

» You will be asked to think about what ART can achieve

» What problems associated with the use of ARVs are you aware of?

What can ART do?

ART suppresses HIV viral replication and allows
- the immune system to recover and
- symptoms to improve

So ART can:
- improve quality of life by reducing HIV-related disease (fewer OIs)
- prolong life and reduce HIV-related deaths
- prevent mother-to-child-transmission of HIV

18

What can ART not do?

ART is not a cure
- it suppresses HIV replication only while the drugs are being taken
- if treatment is interrupted, the HIV virus will quickly begin to replicate again

ART does not get rid of the HIV virus completely
- a person taking ART can still transmit HIV infection to their sexual partner and must use condoms to prevent this

19

What are some of the problems with ART?

Drug-related problems:
- regimens may be complicated to take
- the drugs have side-effects which may be serious

Adherence:
- has to be very high to get the maximum benefit from ART
- must be lifelong

Poor adherence:
- leads to resistance of the HIV virus, which can be transmitted to others

20

Activity 4: Brainstorm: Antiretroviral Therapy (ART) and ARV Prophylaxis

» You will be asked to think about

1. What is ARV prophylaxis and what is it for?
2. How is ARV prophylaxis different from ART?

» You will have an opportunity to present and discuss your answers

ARV Therapy (ART)

ART is long-term use of antiretroviral drugs to treat HIV/AIDS

ART taken during pregnancy, labour + delivery, breastfeeding and then long-term, can
- improve the mother's health, allowing her to take better care of her children and family
- decrease the risk of HIV transmission to the infant by reducing maternal viral load

HIV+ women who are pregnant and who NEED ART for their own health, should receive it

22

ARV Prophylaxis

ARV prophylaxis is short-term use of antiretroviral drugs to reduce HIV transmission from a mother to her infant

ARV prophylaxis:

- does not treat maternal HIV infection
- does not protect breastfeeding infants from HIV infection
- does not provide long-term protection from HIV infection for the infant

HIV+ women who are pregnant and who DO NOT meet the criteria for ART for their own health, should receive ARV prophylaxis to protect their infants

23

Who is eligible for ART?

HIV+ pregnant women with:

- WHO Clinical stage 4 disease (AIDS) or
- CD4 count ≤250 cells/mm^3

should receive ART for their own HIV disease*

Pregnant women with advanced HIV infection need ART to treat their own HIV disease.
ART also protects their infant from HIV infection

*National Guidelines for PMTCT - 2005

24

Who is eligible for ARV Prophylaxis?

HIV+ pregnant women with:

- WHO Clinical stage 1, 2 or 3 disease or
- CD4 count > 250 cells/mm^3

are not eligible for ART but should receive ARV prophylaxis to protect their infant

Pregnant women with less advanced disease should receive ARV prophylaxis to protect their infant

25

When should ARVs be started in HIV+ pregnant women?

ART

- start ART as soon as possible, especially if the woman is very sick
- consider delaying ART until after the first trimester if the woman is not very sick

ARV prophylaxis

- start at 28 weeks of gestation or as soon as possible thereafter

26

Note: Explanation of acronyms and terms

Antiretroviral Drugs

» NVP Nevirapine

» AZT Zidovudine

» 3TC Lamivudine

» Hb haemoglobin

this is a measure of how much blood the mother has. If her Hb is low, she is anaemic. She may look pale and feel tired and breathless

Note: Antiretroviral Regimens

If the mother receives the labour dose of NVP, she must be given 3TC and AZT after the delivery, because of the risk of NVP resistance (see Background Information)

If the mother arrives too late and does not receive the labour dose of NVP, there is no need for her to receive 3TC and AZT after the delivery, because NVP resistance is not a concern (slide 30)

Which regimen should be used?

ART

- Use standard regimens*

ARV prophylaxis

- Before 2006: single dose NVP to mother and infant
- From 2006: change to AZT, NVP and 3TC because this regimen is more effective

*avoid Efavirenz (see slide 31)

27

Mother taking ART: Regimen

WHO Clinical Stage 4 or CD4 ≤ 250 cells/mm^3

Mother receives:

- AZT + 3TC + NVP (standard doses) if mother is not anaemic (Hb > 9 g/dl)
- D4T + 3TC + NVP (standard doses) if mother is anaemic (Hb ≤ 9 g/dl)

Continue throughout pregnancy and during labour

Infant receives:

- single dose NVP (2mg/kg) within 72 hours of birth
- + AZT (4mg/kg) twice daily for 7 days*

(*if the mother received < 4 weeks of ART during pregnancy, the infant should receive **four** weeks of AZT)

28

ARV Prophylaxis Regimen

National Guidelines for PMTCT - 2005

WHO Clinical Stage 1, 2 or 3 or CD4 > 250 cells/mm^3
or PMTCT site where OI/ART services are not available

Mother receives:

- AZT (300mg) twice daily from 28 weeks of pregnancy
- AZT (300mg) at onset of labour + every 3 hours until delivery
- Single dose of 200mg NVP at onset of labour
- AZT (300mg) + 3TC (150mg) twice daily for 7 days after delivery

Infant receives:

- single dose of NVP (2mg/kg) within 72 hours of birth*
- + AZT (4mg/kg) twice daily for 7 days*

(*if the mother receives < 4 weeks of AZT during pregnancy, the infant should receive **four** weeks of AZT)

*When delivery occurs less than 2 hours after the maternal labour dose of NVP, the neonate should receive the first dose of NVP immediately after birth

29

ARV Prophylaxis for the Infant
HIV+ mother who did not receive ARVs

- during pregnancy or labour and
- arrived at the PMTCT hospital within two hours of delivery

Infant receives:

- single dose of NVP (2mg/kg) as soon as possible (do not give if more than 72 hours after delivery)
- + AZT (4mg/kg) twice daily for four weeks

Mother receives no drugs as the baby is already born and NVP resistance is not a concern

30

Special Situations

HIV+ pregnant women on anti-TB treatment

- can be offered ART or ARV prophylaxis
- an alternative ART regimen and additional monitoring of treatment may be needed

HIV+ women already on ART who become pregnant

- should continue ART
- if their ART regimen includes Efavirenz, change this drug to NVP, because of the risk of harm to the foetus

31

Toxicity Concerns with ART in Pregnancy

- Anaemia (AZT)
- Adverse pregnancy outcomes
  - Low birth weight
  - Preterm delivery
  - Fetal or newborn death

These outcomes are also associated with severe HIV/AIDS disease in the mother and successful ART may reduce the risks

32

Activity 5: Discussion: Adherence to ARV Drugs

» You will be asked to think about "Adherence":

What is it and why is it important?

» Your facilitator will lead a discussion on adherence and its importance

Adherence to ARV Drugs (1)

Adherence to ARVs means taking all drugs in a regimen
- as prescribed
- at the right time
- in the right doses

Adherence is a key factor for successful ART or ARV prophylaxis

If doses of drugs are missed
- the amount of HIV virus increases and leads to
- HIV/AIDS disease progression
- increased risk of HIV transmission
- increased risk of ARV drug resistance

34

Adherence to ARV Drugs (2)

- Adherence to ARV drugs is critical, should be promoted before ART is started and reinforced throughout treatment, ideally at an individual, family and community level
- Providers should discuss the known side-effects of the ARV regimen and the importance of adherence, to help women:
  - anticipate side-effects
  - know how to manage minor side-effects
  - not to stop therapy inappropriately
- After starting ART, women should be seen frequently to support adherence and to assess and manage any side-effects of the drugs

35

Adherence to ARV Drugs during pregnancy and after delivery:

Adherence may be more difficult in pregnant and postpartum women because of:
- morning sickness which may be increased by drug-related nausea
- fears that ARV drugs might harm the foetus
- physical changes of the postpartum period coupled with stresses and demands of caring for a newborn infant

Provide additional support for adherence to ARVs during ante- and post-natal periods so that women do not stop using ARVs because of minor side-effects

36

Activity 6: Exercise: ARV Prophylaxis for the Infant: Dose Calculation

- » In this exercise you will calculate how much NVP and AZT syrup you need to give to babies of different weights
- » The required dose of each syrup is shown on the slide
- » Look at the weight of each baby and then work out how much of each syrup to give to the baby

Calculate the volume of NVP and AZT syrup required for each dose for each baby

Baby	Birth Weight	Dose of NVP (ml) 0.2 ml / kg, single dose	Dose of AZT (ml) 0.4 ml / kg, twice daily dose
1	2.50 kg		
2	2.25 kg		
3	3.01 kg		
4	2.70 kg		
5	3.24 kg		

38

Instructions for Mothers

- Syrup must be decanted into sterile containers for the mother to take home
  - For one week of AZT decant 20 ml
  - For 4 weeks of AZT give one bottle
- If the bottle does not have a dropper lid, give a 1 ml syringe to the mother to use
- Using an indelible pen, place a mark on the syringe to show the mother how much syrup to give her baby each dose
- The mother must clean the syringe after each use by flushing it several times with boiled water
- No need to clean if the bottle has a dropper lid

39

Instructions for Mothers cont.

- Dose: 4mg/kg ie. for 2.5kg baby = 1ml syrup
- give dose twice daily, exactly 12 hours apart
- keep the drug in a clean dry sealed container, away from direct sunlight
- if the baby vomits within 10 minutes of taking the dose, give the dose again
- make sure the baby takes every single dose
- if a dose is more than 6 hours late, leave it out
- DO NOT share the drug with other children, inadequate treatment carries the risk of HIV developing drug resistance

40

Module 4.3.1: Key Points

- Access to PMTCT services can reduce the number of new HIV infections in infants
- Without intervention the risk of MTCT is 25-40%, combination PMTCT interventions can reduce the rate by up to 40% in breastfeeding populations, to a rate of 15-25%
- PMTCT core interventions include:
  1. VCCT (Section 1 of this module)
  2. ART or ARV prophylaxis
  3. Safer delivery practices (Part 2a of this module)
  4. Safer infant feeding practices (Part 3 of this module)
- ART is used to treat the mother's HIV disease. It also reduces the risk of MTCT
- ARV prophylaxis does not treat the mother, but does reduce the HIV transmission risk to her infant
- Adherence is a key factor for successful ART or ARV prophylaxis

Appendix 4.3.1: Background Information

ARV Prophylaxis Regimens

Mother taking ART: Regimen

WHO Clinical Stage 4 or CD4 ≤250 cells/mm^3

Course	Antenatal	Intrapartum	Postpartum	Postnatal
ART (mother)	Mother: ART	Mother: ART	Mother: ART	Infant: NVP (2mg/kg) oral suspension immediately after birth and AZT (4mg/kg) twice daily for 7 days*

*if the mother received < 4 weeks of ART during pregnancy, the infant should receive **four** weeks of AZT

ARV Prophylaxis Regimen

National Guidelines for PMTCT - 2005

WHO Clinical Stage 1, 2 or 3 or CD4 > 250 cells/mm^3
or PMTCT site where OI/ART services are not available

Course	Antenatal	Intrapartum	Postpartum	Postnatal
Zidovudine (AZT) and Nevirapine (NVP) and Lamivudine 3TC	Mother: AZT (300mg) twice daily starting at 28 weeks gestation or as soon as feasible thereafter	Mother: AZT (300mg) at onset of labour and every 3 hours until delivery and single-dose NVP (200mg) at onset of labour	Mother: AZT (300mg) and 3TC (150mg) twice daily for 7 days	Infant: NVP (2mg/kg) oral suspension immediately after birth and AZT (4mg/kg) twice daily for 7 days*

*if the mother received < 4 weeks of AZT during pregnancy, the infant should receive **four** weeks of AZT

ARV Prophylaxis for Infant

Course	Antenatal	Intrapartum	Postpartum	Postnatal
AZT and/or NVP for infant (when mother has received no ARV prophylaxis during pregnancy)	Mother: None	Mother: None	Mother: None	Infant: NVP (2mg/kg) oral suspension immediately after birth and AZT (4mg/kg) twice daily for **four** weeks

Summary: Use of ARVs in Women

Pregnant Women	
Newly diagnosed HIV+ pregnant women ELIGIBLE for ART	Counsel and start ART as soon as possible
Newly diagnosed HIV+ pregnant women NOT ELIGIBLE for ART	Give ARV prophylaxis from 28 weeks gestation
HIV+ pregnant women who did not receive ART or ARV prophylaxis during pregnancy or labour, who arrive at PMTCT hospital within two hours after delivery	Give NVP and AZT to infant
HIV+ pregnant women newly diagnosed at the time of delivery	Give NVP and AZT to infant Counsel and encourage VCCT
HIV+ women on ART for their own disease who become pregnant	Continue ART with change of regimen if required (e.g. EFV→NVP)
Non-Pregnant Women	
Newly diagnosed HIV+ women eligible for ART who might become pregnant	Counsel and start ART when ready. Use NVP, avoid EFV

Drug Information - Zidovudine (AZT)

- Good absorption after oral administration
- Well tolerated by the infant before and after delivery
- May be taken with or without food

Main side effects: (usually occur after 3-6 weeks)

- Nausea
- Dizziness, especially on standing
- Anaemia* (with tiredness, breathlessness, pallor…), usually resolves when the drug is stopped

*this anaemia is due to bone marrow suppression and cannot be treated by giving iron and folate supplements

Considerations when prescribing AZT

1. Health workers must be trained in the use of:
   - AZT
   - iron and folate supplements
2. The lab at the PMTCT site must offer Hb tests
3. HIV+ pregnant women must
   - have a Haemoglobin (Hb) test before starting AZT
   - attend for follow-up every 2 weeks for the first month and monthly until delivery for review and follow-up Hb tests
   - understand the importance of adherence and be willing to comply with treatment
   - be encouraged to deliver in a PMTCT maternity unit

Drug Information - Lamivudine (3TC)

- Good absorption after oral administration
- Safe to take with other drugs used to treat HIV-related symptoms
- May be taken with or without food

Main side effects:

- rarely causes any side-effects

Drug Information - Nevirapine (NVP)

- Good absorption after oral administration
- Long half-life which benefits the infant
- May be taken with or without food

Single dose NVP rarely causes any side effects

Main side effects when used as part of ART:

- rash
- liver toxicity (nausea, loss of appetite, jaundice, abdominal pain, tiredness, fever

These side effects are sometimes severe enough to require a change in medication

Starting ART with a lower “lead-in” dose of NVP (200mg daily) for the first 2 weeks reduces the risk of serious side effects

Why is resistance a problem with NVP and not AZT?

- AZT is given as a single drug for up to ~3 months when used for ARV prophylaxis during pregnancy
- Full ART is given long-term and always includes at least 3 drugs to minimise the development of resistance to ARVs
- Resistance to AZT:
  - requires a number of changes (mutations) in the HIV virus and develops slowly
  - is not always total, ie. AZT can still have some benefit even in the presence of some resistance mutations
- Resistance to NVP:
  - requires only a single change in the HIV virus and can happen very quickly
  - is total
  - results in cross-resistance with Efavirenz

First-line ART: side-effects

these usually occur during the first month of ART

Common, minor side-effects:

- nausea, diarrhoea, headache, fatigue, abdominal pain, insomnia

Serious side-effects:

- 3TC: rarely causes serious side-effects
- D4T: peripheral neuropathy: numbness/tingling of hands/feet
- NVP: rash, liver toxicity (jaundice, nausea, abdominal pain, fatigue, fever)
- AZT: severe anaemia (tiredness, breathlessness, pallor…)
- EFV: severe rash, liver toxicity, severe confusion/depression, do not use in pregnancy (risk of teratogenicity)

Any pregnant woman on ART who develops symptoms should be reviewed by the OI/ART team to assess whether the symptoms are due to ART, an OI or due to pregnancy

Some Important Opportunistic Infections and their Prophylaxis

Pneumocystis carinii Pneumonia (PCP)

- This is a serious, life-threatening pneumonia caused by the fungus *Pneumocystis carinii (*renamed *Pneumocystis jirovecii)*
- It affects HIV+ patients with low CD4 counts (< 200 cells/mm^3) who are not taking prophylaxis against PCP
- It presents with a gradual onset of dry cough, fever and increasing breathlessness on exertion
- There is no response to standard antibiotic therapy for pneumonia
- It is treated with high dose Cotrimoxazole for three weeks, together with steroids if the patient is very severely ill
- Successful treatment must be followed by secondary prevention to prevent relapse

Prevention of PCP

- **Primary prophylaxis** is offered to all HIV-infected individuals with any of the following:
  - Advanced symptomatic HIV disease (WHO clinical stage 2, 3 or 4)
  - CD4 count less than 200 cells/mm³
- **Secondary prophylaxis** is given to anyone who has been treated for PCP
- Prophylaxis is given as Cotrimoxazole 960mg daily
  This may also prevent some bacterial infections and toxoplamosis
- Prophylaxis must be continued lifelong or until a patient on ART has a CD4 count of > 200 cells/mm³ for at least 6 months
- PCP is very unlikely in a patient who is taking propyhlaxis correctly

Cryptococcal Meningitis

- Cryptococcal infection is the most common life-threatening fungal infection in patients with HIV infection
- It occurs in advanced HIV disease, usually the CD4 count is < 50 cells/mm^3
- Approximately 90% of cases of cryptococcal infection present with meningitis, with constant headache increasing in severity over days to a week or more, fever, vomiting and altered level of consciousness
- Treatment is with intravenous infusion of Amphotericin B for 2-3 weeks followed by Fluconazole tablets for 8 weeks
- Successful treatment must be followed by secondary prevention to prevent relapse

Prophylaxis of Cryptococcal Infection

- **Primary prophylaxis** is given to HIV+ patients whose CD4 count is < 100 cells/mm^3
- **Secondary prophylaxis** is given to anyone who has been treated for Cryptococcal disease
- Prophylaxis is given as Fluconazole 100-200 mg/day*
- Prophylaxis must be continued lifelong or until a patient on ART has a CD4 count of > 100 cells/mm³ for at least 6 months

*Note that for primary prophylaxis 100 mg/day is sufficient (see National Guidelines on OI prophylaxis)

Note: *Pneumocystis carinii* has been renamed *Pneumocystis jirovecii*

Tuberculosis (TB)

- TB is the most common OI and the leading cause of death in people with HIV infection, both worldwide and in Cambodia
- HIV/AIDS is not associated with higher rates of TB infection but the immune suppression caused by HIV infection results in people with HIV/AIDS being at very high risk of progressing to active TB
- TB may occur at any stage of HIV infection but the clinical presentation is variable and reflects the degree of immune suppression
- Treatment is similar to that of HIV-negative patients but rates of side effects, relapse, reinfection and death are higher

Clinical Presentations

- **Pulmonary TB** (PTB) presents with fever >3 weeks with cough and weight loss, also malaise, night sweats, loss of appetite
- Diagnosis depends on finding Acid Fast bacilli (AFB) in sputum samples:

  this is smear-positive PTB

  (note that in HIV+ patients, increased numbers of cases of smear-negative PTB occur)

Clinical Presentations

- **Extrapulmonary TB** is more common in HIV+ people especially when the CD4 count falls
- Most common form is TB lymphadenopathy,
  - peripheral lymph nodes: localised lymphadenopathy with fever and weight loss
  - abdominal lymph nodes: abdominal pain, fever, weight loss and sometimes diarrhoea
- Other forms include pleural effusion or meningitis or there may be involvement of the brain, heart, spine or other bones and joints
- Diagnosis is often presumptive as it is usually difficult to find AFBs

Treatment of TB

Treatment:

- Requires multiple drugs for prolonged periods of time, usually 4 drugs for 2 months, followed by 2 drugs for 4 months
- The regimens are the same for HIV-positive and HIV-negative patients
- Interactions occur between anti-TB drugs and ARV drugs
- ART may need to be delayed or changed* if a patient requires anti-TB treatment

*Efavirenz is usually used in ART regimens for patients also being treated for TB, treatment of TB in pregnant women on ART is difficult and requires specialist advice

Common Signs and Symptoms of HIV Infection in Children

Also seen in non HIV-infected children:

- Low weight and/or growth failure
- Recurrent ear infections
- Persistent diarrhoea
- TB

Uncommon in children without HIV infection:

- Pneumonia (including PCP)
- Oral candidiasis
- Lymphadenopathy
- Parotid gland swelling

Cotrimoxazole for OI Prophylaxis in Children

Cotrimoxazole is used for prophylaxis against:

- PCP
- Cerebral toxoplasmosis
- Some bacterial infections

PCP pneumonia

- HIV-related pneumonia caused by *Pneumocystis carinii**
- leading cause of death in infants with HIV/AIDS
- presents with fever, cough, shortness of breath
- no response to standard antibiotics

Cerebral toxoplasmosis

- Neurological disease caused by *Toxoplasma gondii*
- Presents with convulsions and focal neurological signs

*renamed *pneumocystis jirovecii*

Cotrimoxazole Prophylaxis

Dose of Cotrimoxazole	When to start	When to stop
tab = 480mg, syrup = 240mg/5ml once daily dose 5-9kg ½ tab or 5ml 10-14kg 1 tab or 10ml 15-24kg 1½ tabs or 15 ml >25kg 2 tabs or 20ml	**Primary Prophylaxis:**	
	1. HIV-exposed infants at 6 weeks 2. HIV+ infants with CD4<15%	1. if HIV test result negative 2. at 12 months if asymptomatic 3. If CD4 count >15% on 2 consecutive occasions, 6 months apart
	Secondary Prophylaxis: Following a diagnosis of PCP, continue lifelong	

4.3.2

Antenatal and Labour & Delivery Care
Postpartum Care and Follow-up

OBJECTIVES

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

1. Discuss the antenatal management of HIV+ women
2. Describe the procedures for referral of pregnant women to other services
3. Explain the management of HIV+ women during labour and delivery
4. Discuss the management of women whose HIV status is unknown, during labour and delivery
5. Describe the key components of immediate care for the newborn infant
6. List and describe the essential components of postpartum care for mothers and their infants

Time allowed for this session: ***3 hours 20 minutes***

Activity 1: Key Words: PMTCT Interventions and Antenatal Care

» You will be asked to work in pairs and to list important information which pregnant women should receive during Mother's Class in ANC

Integrated Antenatal Care Services

- Antenatal care is an important source of health care and provides health benefits to mothers and their families
- All pregnant women are at risk of HIV infection
- Integration of PMTCT into essential ANC services can provide all pregnant women with better care for themselves and their infant
- Healthy women can care for their children better

7

Elements of PMTCT in ANC

All women attending ANC should receive:

- Health information and education
- Education about safer sex and HIV/AIDS
- HIV counseling and testing - including partner counseling and testing
- Interventions to reduce the risk of MTCT if needed
- Infant-feeding counseling
- Diagnosis and treatment of STIs
- Family planning information
- Safe motherhood initiatives including treatment of TB and malaria (in endemic areas)

8

Management of HIV+ Pregnant Women in ANC

- If a pregnant woman is found to be HIV+ she must be referred to OI/ART services for assessment for ART eligibility* as soon as possible
- If eligible, OI/ART services will provide and monitor ART, and liaise with support services and other components of CoC
- If not eligible, OI/ART services or former district hospitals will provide and monitor ARV prophylaxis from 28 weeks gestation and liaise with support services and other components of CoC
- All HIV+ pregnant women will be advised to deliver in a PMTCT facility

*Eligible = WHO Clinical stage 4 or CD4 $\leq$250 cells/mm^3

9

Activity 2: Case Study. Provision of Antenatal PMTCT Services

- » The purpose of this activity is to review antenatal management in the context of women who are HIV-infected
- » You will be given copies of the case study to read
- » A volunteer will read the first part of the case study and the first question and participants will be invited to answer
- » There will be an opportunity for discussion after each question
- » Think about whether you have encountered a similar situation in your own work
- » Were the management steps followed the same as in the case study or not?

Antenatal Case Study:	
Part 1	Nana is 22 years old and pregnant for the first time. She came to the ANC at 24 weeks. After listening to the mother's class she chose to receive pre-test counselling.
Q1	What steps should the counsellor take now?
Part 2	Nana returned for post-test counseling later that day and was found to be HIV positive
Q2	What are the ANC management steps that should be taken now?
Part 3	Nana was seen at OI/ART services. Her CD4 count was found to be 350 cells/mm^3
Q3	What advice should Nana be given now?

Activity 3: Exercise: Referral Procedures and Forms

- » The purpose of this exercise is to practise filling out:
  1. Counseling registration sheet
  2. Appointment card
  3. Referral card (for VCCT, PMTCT and TB services)
  4. Lab form

  (These can be found in the Appendix to this module)
- » You will be given copies of these forms or cards and asked to work in groups of 4 or 5 to fill them out

Activity 4: Case Study: The Management of HIV+ Women in Labour

- » The purpose of this exercise is to review the management of HIV+ women in labour
- » Refer to the case study which you have been given
- » Volunteers will read each paragraph and the questions which follow
- » The group will be asked to answer the questions and participate in the discussion

Activity 4: Maternity Ward Case Study

Part 1	Nana arrives at the Maternity Ward in labour. You check the records and find that she is HIV-infected and has been taking AZT as ARV prophylaxis. She says her contractions are steady now and about four minutes apart. You perform a vaginal examination and estimate that Nana has at least 2 more hours until delivery. You give her the labour dose of Nevirapine
Q1.1	Are you required to use gloves when caring for patients who are HIV-infected? According to universal precautions, would the same gloving requirements apply for all labour and delivery patients, regardless of HIV status?
Q1.2	In your facility, are gloves in good supply and available in a variety of sizes?
Q1.3	What do we know about the relationship between MTCT and vaginal examinations for pregnant women who are HIV-infected?
Part 2	It has now been more than 4 hours since Nana's waters broke (rupture of membranes). She is exhausted. After checking her partogram the physician examines the woman and decides to use oxytocin to shorten her labour
Q2.1	Why is it important to shorten the time between the rupture of membranes and delivery by a woman who is HIV-infected?
Part 3	Nana is now fully dilated and ready to deliver. As the head is delivered, you use gauze to carefully free the infant's mouth and nostrils of fluids. Then, with one final push, the infant is delivered completely. You hand the newborn to a gloved assistant, who wipes him dry and continues with neonatal care. Then the placenta is delivered.
Q3.1	Itemise the protective clothing that would be appropriate in a labour and delivery setting
Q3.2	Consider the need for proper disposal of sharps used in labour and delivery. Does your facility have conveniently located containers for the disposal of sharps?
Q3.3	At your facility, what are the policies for disposing of waste materials? What should be done with the placenta and other contaminated materials?
Part 4	Nana was your 8th delivery in the past 24 hours. You need to get home and tend to your family but your replacement has not yet arrived. You speak with your supervisor and she is able to locate someone else to take your place
Q4.1	How do you feel when your supervisor tells you that you can go home?
Q4.2	In your facility, do you have someone who will help you find staffing relief if needed?

Activity 5: Review: Management of HIV+ Women in Labour

» Slides 14-20 review procedures for management of women in labour

MTCT of HIV During Labour & Delivery

- The risk of HIV transmission from mother to child during labour and delivery is about 15%
- Transmission occurs through foetal exposure to infected maternal blood and body fluids
- The risk of MTCT during labour and delivery can be reduced by:
  1. always using Universal Precautions
  2. applying safer delivery practices to all women

14

Universal Precautions for Labour & Delivery (1)

- Cover open wounds* with watertight dressings
- Wear gloves when exposure to blood or body fluids is likely
- Wear a plastic apron during the delivery
- If blood splashes on skin, immediately wash the area with soap and water. If splashed in the eye, wash the eye with water only
- Dispose of solid waste (eg, blood-soaked dressings and placentas) safely according to local procedures

15

*Workers with dermatitis should not work in obstetrics

Universal Precautions for Labour & Delivery (2)

- Wear goggles during caesarean section and episiotomy suturing
- Use long, cuffed gloves during manual removal of a placenta
- When episiotomy is necessary, use an appropriate-size needle (21 gauge, 4 cm, curved) during the repair
- Use needle holders not fingers for needle placement
- Pass all sharp instruments onto a receiver, not hand-to-hand

16

Safer Delivery Practices

- Administer ART or ARV prophylaxis during labour according to protocols
- Minimise cervical examinations
- Avoid prolonged labour
- Avoid routine rupture of membranes
- Avoid unnecessary trauma during delivery
- Minimise the risk of postpartum haemorrhage
- Use blood transfusions only when necessary and use only blood which has been screened for HIV

17

Mode of Delivery

Elective Caesarean Section can reduce the risk of HIV transmission if:

- the maternal viral load is high
- it is conducted before the onset of labour

but there are associated risks, related to anaesthesia and surgery

Note: Currently in Cambodia, Caesarian section is performed for standard obstetric indications only and elective Caesarian section is not recommended

18

Women with unknown HIV status in Labour (1)

Some women who come to the hospital in labour have:

- not attended ANC
- chosen not to have VCCT
- not collected their HIV test results
- accessed care and services elsewhere but come without their papers

Such women will miss the opportunity to access PMTCT services

Risk of MTCT during labour and delivery ~ 15%

19

Women with unknown HIV status in Labour (2)

An HIV+ pregnant woman who does not know her HIV status:

- will not receive ARV prophylaxis for her infant
- will not receive appropriate counselling on infant feeding

Difficulties of giving VCCT in labour include:

- lack of time, staff and space in labour ward
- problems of conducting and receiving counselling if the woman is in advanced labour

Encourage counseling and testing as soon as possible after delivery, so that the baby can still be given ARV prophylaxis (within 72 hours of delivery) if the mother is found to be HIV+

20

Activity 6: Key Words: Immediate Care of the Newborn

- » You will be asked to think about what needs to be done immediately following the delivery of an infant
- » What is the first thing that needs to be done once the baby is delivered and what precautions should be taken while performing this task?
- » This point will be written on the whiteboard
- » What is the next step and what precautions must be taken (if any)?
- » Add the points to the list on the board
- » Continue in this way until there are no more suggestions

Immediate Newborn Care

- Maintain Universal Precautions whenever caring for the newborn
- Wear gloves and goggles when handling the newborn baby
- Clamp the cord immediately after birth, do not "milk" the cord, cover with gauze before cutting to avoid blood spray
- Wipe the infant's mouth and nose with gauze when the head is delivered
- Do not use routine suction, use mechanical suction if meconium is present
- Dry the infant with a towel
- Confirm the mother's feeding choice
- Give Vitamin K 1mg im., apply silver nitrate eye ointment

22

Activity 7: Brainstorm: Components of Postpartum Care

- » You will be asked to work in pairs to brainstorm a list of all the things which should be included in postpartum care for HIV+ women
- » Slide 27 summarises the management of women whose HIV status is unknown

Postpartum Care

Irrespective of HIV status, before they leave the hospital, all women must be counselled on

- Infant feeding
- Nutrition
- Immunisation
- Family planning

and given appropriate information on how, when and where to access these services

HIV+ mothers need additional postpartum monitoring and support, facilitated through strong referral links between different services, in health facilities and in the community

25

Postpartum Care of HIV+ Women & their Infants

Before the HIV+ mother leaves hospital she should receive information about the following:

1. ARV prophylaxis for herself and her infant
2. Newborn feeding
3. Immunisations for her infant
4. General education
5. Family Planning (see Section 2 of this module)
6. Signs and symptoms of postnatal infection
7. Ongoing treatment, care and support for HIV/AIDS for herself and for her infant
8. Ongoing psychological support

26

Women with Unknown HIV Status & their Infants

Women of unknown HIV status should:

- receive the same postpartum care as known HIV+ women
- receive information and education about HIV/AIDS and VCCT from the counsellor in the maternity or postnatal ward
- be encouraged, with their partner, to access VCCT within 72 hours of delivery
  - ARV prophylaxis can be given to the infant if she is HIV+
  - helps guide infant feeding choices
- be given infant feeding counselling

Their infants should receive the same immunisations as other infants

27

Activity 8: Group Work: Components of Postpartum Care

» The purpose of this activity is to look at Components of Postpartum Care in more detail

» You will be divided into groups and allocated the following topics:

Group 1: ARV Prophylaxis for the mother and baby
Group 2: Newborn Feeding and Immunisations
Group 3: General education for the mother
Group 4: OI/ART Services for the mother and her infant
Group 5: Psychological support

» Work in your group to write down some important points about your topic

» Someone from each group in turn will be asked to present their group's work

1. ARV Prophylaxis

For HIV+ women taking ARV prophylaxis:

- ensure the mother is prescribed:
  AZT (300mg) + 3TC (150mg) twice daily
  for 7 days after delivery
- explain to her the importance of taking the drugs correctly

If the woman has been receiving ART, she must be reminded to:

- continue her regimen
- return to OI/ART on schedule for follow-up and to collect further supplies of medication

29

Why does the mother get AZT + 3TC after delivery?

- NVP has a long half-life of 25-30 hours
- this means the labour dose of NVP stays in the mother's body for several days (3-7 days)
- there is evidence to show that HIV can develop resistance to NVP during this time
- Resistant virus can
  - affect the mother's response to ART in the future
  - be spread to her infant or partner
- taking a combination of AZT and 3TC for 7 days after delivery reduces emergence of HIV resistance during the time when NVP is still in the mother's body

30

ARV Prophylaxis for the Infant

ARV prophylaxis

- Give a single dose of NVP within 72 hours of delivery
- Ensure AZT is prescribed for 7* (or 28) days
- Ensure mother understands the purpose of giving AZT and how to give it

*if the mother has received at least 4 weeks of ART or ARV prophylaxis before delivery

31

Why is AZT given to the baby after delivery?

AZT is given to the infant for 7 days after delivery to make sure that any HIV virus which has entered the baby's blood during late pregnancy, labour or delivery cannot lead to established HIV infection

AZT is given to the infant for 28 days if the mother has not completed 4 weeks of ART or ARV prophylaxis before delivery because the risk of HIV transmission to the baby is higher

Try to assess the mother's beliefs and understanding of drugs and treatment before explaining to her about AZT

32

2. Newborn Feeding

After delivery and before being discharged from the hospital, the counsellor must ensure that the HIV+ mother has been:

- counselled about different feeding options
- able to make a choice of feeding option
- trained in how to apply the feeding option and observed while doing so
- given information about how and from whom to seek further help if needed
- referred to a HBC team or PLHA support group if she is willing

33

3. Immunisations

- HIV-exposed infants are given the same childhood immunisations as other children, starting immediately after birth with BCG* and Hep B(0)
- At 6 weeks, all infants should be taken to the Health Centre for DTP + Hep B(1) + Polio(1)
- The schedule is the same for all infants, HIV-exposed or not

*Do not give BCG to babies with symptoms of HIV/AIDS

34

4. General Education

Instruct the mother on:

- care of the perineum and breasts
- what to do with infectious materials such as blood stained cloths or sanitary pads
- importance of adequate nutrition for the mother, exercise, rest, good hygiene practices
- harmful effects of alcohol, smoking, drug abuse
- symptoms and signs of STIs, importance of early STI treatment, where to go for help

35

Nutritional Strategies for the HIV+ Mother

Drink liquids often:

- include high-energy, high-protein liquids (e.g. soya milk) for fever or fatigue
- dilute fruit juice if there is nausea, vomiting or diarrhoea
- use a straw if the mouth is sore
- soup

Eat small meals and snacks frequently:

- include soft foods which the person likes
- increase calorie intake by 500 Kcal/day if breastfeeding
- avoid fried food if there is diarrhoea or malabsorption
- give thick rice porridge for sore mouth, nausea, vomiting or diarrhoea
- give bananas for diarrhoea

In some areas community-based organisations may be able to provide feeding support

36

5. Family Planning

- Addressed in Module 4, Section 2

37

6. Postnatal Infection

The counsellor should review signs and symptoms of infection and provide information on where to get treatment for symptoms such as:

- Burning on urination
- Fever
- Foul-smelling lochia
- Cough, sputum, shortness of breath
- Redness, pain or drainage from abdominal incision or episiotomy site
- Severe lower abdominal tenderness

38

7. Treatment, Care and Support

- All HIV+ women on ART should continue to have their treatment monitored after delivery by OI/ART services
- HIV+ mothers who received ARV prophylaxis should return to OI/ART services for follow-up of their own disease. Even if they have no symptoms, their CD4 count may fall to a point where they need ART
- All HIV+ women should continue to have access to all CoC services after delivery

39

Follow-up by OI/ART Services

- OI prophylaxis and management
- Treatment and monitoring of TB
- Prevention and treatment of malaria in endemic areas
- Monitoring of ART or
- Re-evaluation of eligibility for ART
- Care and support in the community from HBC teams, PLHA groups, and other sources of support
- MMM

40

Infant Follow-up in the Health Centre

Infant follow-up in the Health Centre includes:

- Immunisation
- Nutrition assessment
  - growth charts
  - review of feeding option
  - need to change feeding option
- Health check
  - signs and symptoms of illness including HIV infection
  - referral to Paediatric HIV/AIDS services if needed
- Referral to Community-based support if willing

41

Follow-up by Paediatric HIV/AIDS services

All HIV-exposed infants should be referred to the Paediatric HIV/AIDS Services for follow-up from 6 weeks of life until at least 18 months of age

Follow-up includes:

- Checking for signs and symptoms of HIV infection
- Growth and development checks
- OI prophylaxis (for PCP)
- TB screening and treatment
- Prevention and treatment of malaria (in endemic areas)
- Management of illness, including OIs
- HIV testing at 18 months
- Provision of ART if eligible*

*see National Guidelines for the use of Paediatric ARV for details

42

Follow-up by Paediatric HIV/AIDS services (2)

OI Prophylaxis

Cotrimoxazole prophylaxis should be provided from 6 weeks until the child is either

- found to be HIV-negative or
- without symptoms at 12 months of age

HIV Testing

All HIV-exposed children should be offered HIV testing at 18 months, with the mother's consent

43

Follow-up by Paediatric HIV/AIDS services (3)

Paediatric HIV/AIDS services will also:

- liaise with HBC teams and PLHA-SGs to
  - Follow-up known HIV-exposed infants in the community (with permission from their family)
  - Identify and refer previously unknown HIV-exposed infants in the community for follow-up care and HIV testing
- provide information on other support services including "little mmm"

44

8. Psychological Support

Psychological support for the mother postnatally is necessary because:

- Some mothers may have only recently learned their HIV status and may not have had time to adjust
- The mother is tied to her home, so the importance of home-based care and community support is greater
- Now that the mother has an infant she will have increased worries related to her child

45

Psychological Support Options

- Postnatal counseling by PMTCT staff
- Referral to community-based organisations
  - Home-based care
  - PLHA support groups
  - Faith-based organisations
  - Other community-based organisations
- MMM, accessed through OI/ART services

Some organisations may be able to help with specific needs such as housing, transportation, food, income-generation

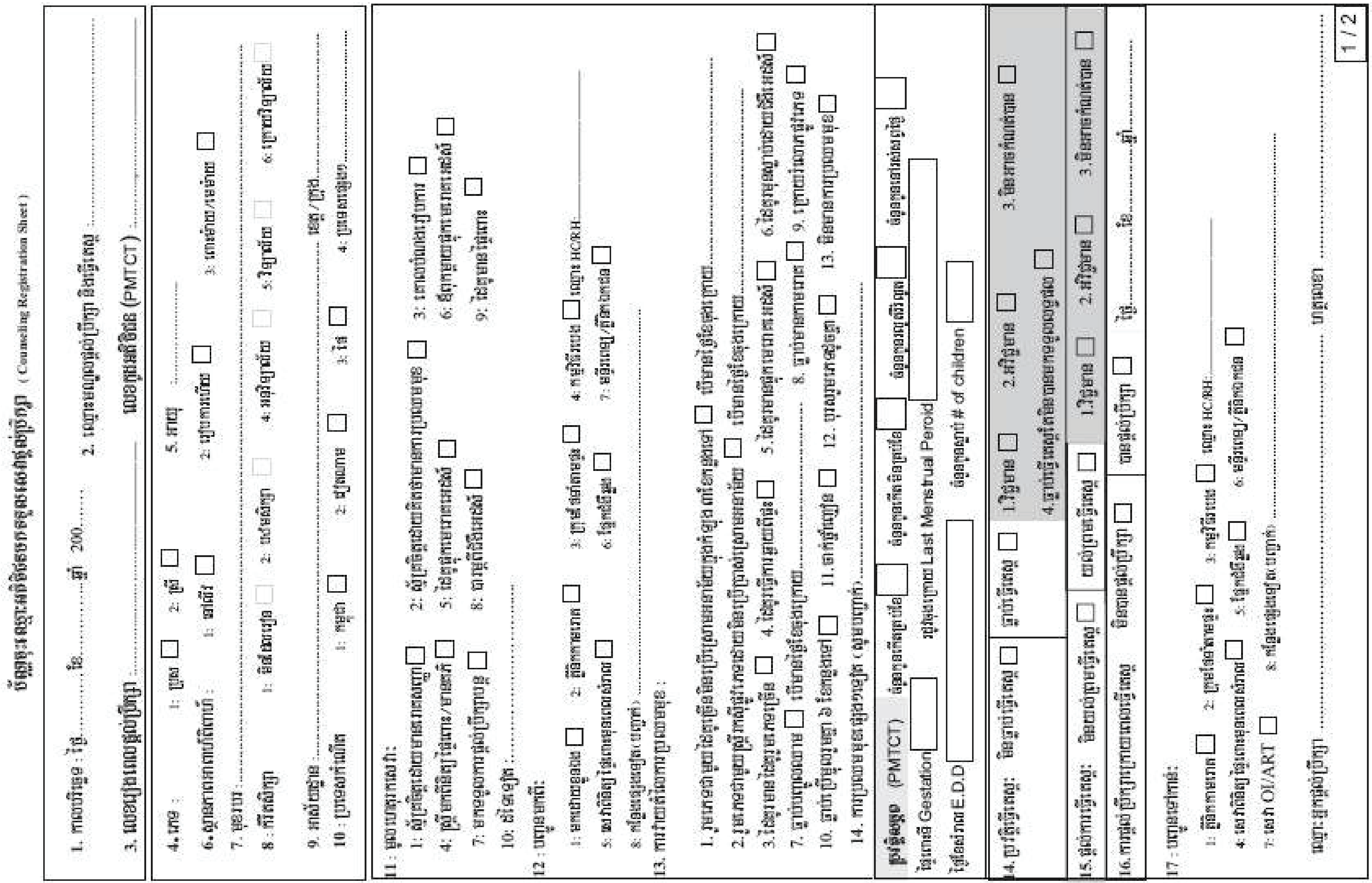
46

Module 4.3.2: Key Points

- Safer delivery includes avoiding unnecessary invasive procedures and using Universal Precautions always
- Infant feeding counseling should start in the antenatal period and continue through labour and delivery and the postpartum period
- Postpartum care and follow-up of all mothers and their infants must include the following components:

  1. ARV prophylaxis for the mother and her infant
  2. Newborn feeding
  3. Immunisations for the infant
  4. General education
  5. Family Planning (see Section 2 of this module)
  6. Signs and symptoms of postnatal infection
  7. Treatment, care & support for HIV/AIDS for the mother and her infant
  8. Ongoing psychological support

Activity 3: Counselling Registration Sheet. Page 1


(Counselling Registration Sheet)
200
(PMTCT)
HC/RH
Gestation
Last Menstrual Peroid
E.D.D
# of children
OI/ART
1 / 2

តារាងចំនួយសំរាប់ការផ្តល់ប្រឹក្សាមុនពេលធ្វើតេស្ត PMTCT

ការពិនិត្យមើលរូបរាងខាងក្រៅ: សុខភាពល្អ ☐ សុខភាពមិនល្អ ☐ មានការព្រួយបារម្ភ ☐ រីករាយ ☐

ប្រធានបទនៃការផ្តល់ប្រឹក្សា:

1. ពន្យល់អំពីការការពារការសំងាត់ ☐ 2. វាយតំលៃចំណេះដឹងអំពី HIV/AIDS របស់អតិថិជន ☐ 3. ពិភាក្សាអំពីជំងឺសង្វាក់ឆ្លងៗសំរាប់ការពារបន្ថែមការប្រឈមមុខ ☐
4. ពិភាក្សាអំពីផលប្រយោជន៍នៃការចូលរួមក្នុងកម្មវិធី PMTCT ដោយរួមបញ្ចូល ការការពារកូនចំពោះពីម្តាយទៅកូន និងជំងឺសង្វាក់ឆ្លងៗក្នុងការបង្ការ ☐
5. ការបង្ហាញពីការប្រើប្រាស់គ្រោងអង្គាម័ប ☐ 6. ពិភាក្សាអំពីការរួមភេទដែលមានសុវត្ថិភាព ទៅកំឡុងពេលមានផ្ទៃពោះ និងក្រោយសំរាល ☐
7. ពិភាក្សាអំពីជំងឺសង្វាក់ឆ្លងការផ្តល់អាហារដល់ទារក ☐ 8. ពិភាក្សាអំពីវិធានការគ្រួសារ ☐
9. ពិភាក្សាជំរើសការងារនៃការធ្វើតេស្តឈាមរកមេរោគអេដស៍ និងរយៈពេលធំហែរ ☐
10. ពិភាក្សាអំពីការប្រឈមមុខផ្សេងៗ និងអត្ថប្រយោជន៍នៃការធ្វើតេស្តឈាមរបស់ដៃគូរ ☐
11. ពិភាក្សាសេវាសុខភាពផ្សេងៗដែលមានសំរាប់អ្នកជុំវិញមេរោគអេដស៍និងអ្នកជិតស្និទ្ធ ☐

ចំណុចផ្សេងៗទៀត និងចំណាំ

តារាងចំនួយសំរាប់ការផ្តល់ប្រឹក្សាក្រោយពេលធ្វើតេស្តសំរាប់ PMTCT

ប្រធានបទនៃការផ្តល់ប្រឹក្សាសំរាប់អតិថិជនត្រឡប់ទៅ:

1. ពិនិត្យឡើងវិញនូវអ្វីមានដែលបានផ្តល់អោយក្នុងពេលផ្តល់ប្រឹក្សាមុនពេលធ្វើតេស្ត ☐
2. ពិភាក្សាអំពីអត្តចរិយរបស់ពេក្យ លទ្ធផលវិជ្ជមាន លទ្ធផលអវិជ្ជមាន និងរយៈពេលធំហែរ ☐
3. វាយតំលៃទៅលើអនុលោមភាពរបស់អតិថិជនចាប់ពីពេលទៅដែលលទ្ធផលវិជ្ជមាន រីករវិជ្ជមាន ☐

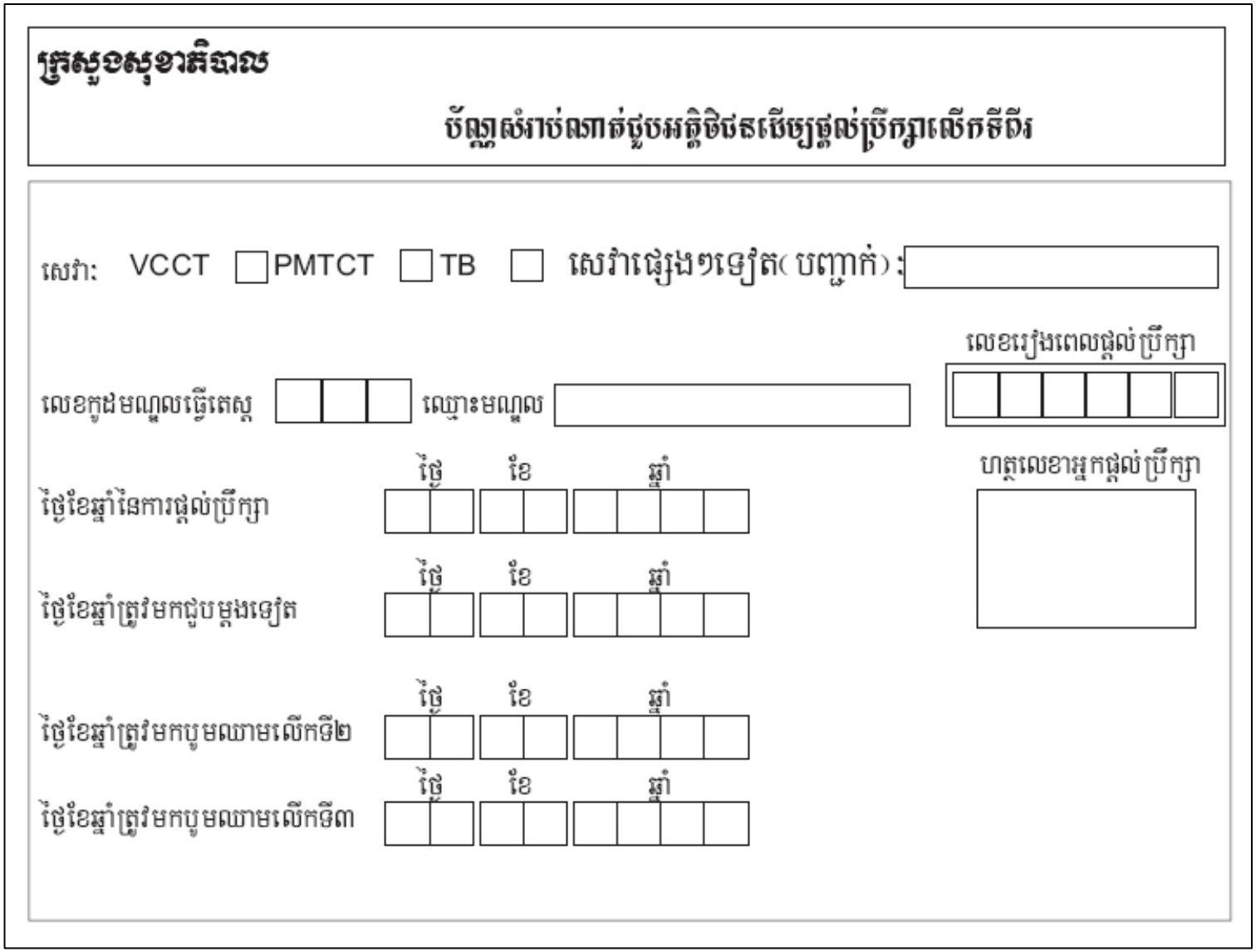
ប្រសិនបើលទ្ធផលវិជ្ជមាន

1. ពន្យល់ឡើងវិញអំពីរយៈពេលធំហែរ និងសំរួលការនៃការធ្វើតេស្តម្តងទៀត ☐
2. ពន្យល់អំពីការការពារខ្លួនបើម្តីកុំអោយឆ្លងមេរោគអេដស៍ ☐
3. ជំរុញដល់ដល់ស្ត្រីអោយប៉ះពាល់កូនដោយមិនបានម្តាយសុទ្ធក្នុងរយៈពេល ៦ខែដំបូងបន្ទាប់ពីសំរាល ☐
4. ពិភាក្សាអំពីអត្ថប្រយោជន៍នៃការការពារខ្លួនកុំអោយឆ្លងមេរោគអេដស៍ ទៅពេលមានផ្ទៃពោះ និងការប៉ះពាល់កូនដោយមិនបានម្តាយ ☐
5. ជំរុញដល់ម្តាយអោយយកកូនទៅមាក់ថ្នាំបង្ការ ☐
6. ពិភាក្សាអំពីអនាម័យ និងអាហារូបត្ថម្ភ ☐
7. ជំរុញលើកទឹកចិត្តអតិថិជនក្នុងការមកមួយទៀតទៅពេលត្រួវការ ☐

ប្រសិនបើលទ្ធផលអវិជ្ជមាន

1. បញ្ជាក់អោយបានច្បាស់ថាអតិថិជនយល់អំពីលទ្ធផលតេស្ត ☐
2. ជួយផ្តល់ប្រឹក្សាដល់អតិថិជនអំពីផ្លូវដោះស្រាយចំពោះបញ្ហាផ្សេងៗដែលកើតឡើងក្នុងនាម និងការការពារខ្លួនបន្ថែមទៀត ☐
3. ពិភាក្សាអំពីគុណសម្បត្តិ និងគុណវិបត្តិចំពោះការបង្ហាញលទ្ធផលឱ្យគេដឹង ☐
4. ពិនិត្យមើលឡើងវិញអំពីវិធានការក្នុងការកាត់បន្ថយការប្រឈមមុខ ☐
5. បញ្ជូនអតិថិជនទៅកាន់សេវាដែលចាំ និងគាំទ្រ ☐
6. ពិភាក្សាអំពីជំងឺសង្វាក់ឆ្លងការប៉ះពាល់កូន ដោយរួមមាន គ្រោងថ្នាក់ និងអត្ថប្រយោជន៍ផ្សេងៗដែលបណ្តាលមកពីការប៉ះពាល់ដោយមិនបានដោះ ☐
7. ជំរុញដល់ដៃគូរក្នុងការប្រើប្រាស់សេវាពន្យាកំណើត ☐
8. ជំរុញដល់ម្តាយអោយយកកូនទៅមាក់ថ្នាំបង្ការ ☐
9. ពិភាក្សាអំពីអនាម័យ និងអាហារូបត្ថម្ភ ☐
10. ពន្យល់អំពីជំងឺសង្វាក់ការបង្ហាញរបស់ PMTCT ☐
11. ពិភាក្សាអំពីសោះសំខាន់ក្នុងការសំរាលកូនទៅកន្លែងផ្តល់សេវាសុខភាពដែលមានកម្មវិធី PMTCT ☐

ឈ្មោះអ្នកផ្តល់ប្រឹក្សា ..... ហត្ថលេខា .....



ក្រសួងសុខាភិបាល

បណ្ណាសំរាប់ណាត់ជួបអត្តិថិជនដើម្បីផ្តល់ប្រឹក្សាលើកទីពីរ

សេវា: VCCT ☐ PMTCT ☐ TB ☐ សេវាផ្សេងៗទៀត(បញ្ជាក់) :

លេខកូដមណ្ឌលផ្ទៀតស្ត ☐☐☐ ឈ្មោះមណ្ឌល

លេខរៀងពេលផ្តល់ប្រឹក្សា ☐☐☐☐☐☐

ថ្ងៃខែឆ្នាំនៃការផ្តល់ប្រឹក្សា ថ្ងៃ ☐☐ ខែ ☐☐ ឆ្នាំ ☐☐☐☐

ថ្ងៃខែឆ្នាំត្រូវមកជួបម្តងទៀត ថ្ងៃ ☐☐ ខែ ☐☐ ឆ្នាំ ☐☐☐☐

ថ្ងៃខែឆ្នាំត្រូវមកបូមឈាមលើកទី២ ថ្ងៃ ☐☐ ខែ ☐☐ ឆ្នាំ ☐☐☐☐

ថ្ងៃខែឆ្នាំត្រូវមកបូមឈាមលើកទី៣ ថ្ងៃ ☐☐ ខែ ☐☐ ឆ្នាំ ☐☐☐☐

ហត្ថលេខាអ្នកផ្តល់ប្រឹក្សា

លេខយៀង: ..... **លិខិតបញ្ជូន(REFERRAL CARD)**

១.លេខកូដវិឈ្មោះអតិថិជន ..... ភេទ..... អាយុ.....

២.បញ្ជូនមកពី (Referred from): ឈ្មោះកន្លែង:.....

មណ្ឌលផ្តល់ប្រឹក្សា និងធ្វើតេស្តឈាមរកមេរោគអេដស៍ (VCCT) ☐ សេវា OI/ART ☐ ក្រុមថែទាំតាមផ្ទះ ☐

កម្មវិធីការពារការចម្លងពីម្តាយទៅកូន (PMTCT) ☐ កម្មវិធីរបេង (TB) ☐ គ្លីនិកកាមរោគ ☐

សេវាផ្សេងៗ (Other).....

៣.បញ្ជូនទៅកាន់ (Referred to): ឈ្មោះកន្លែង:.....

មណ្ឌលផ្តល់ប្រឹក្សា និងធ្វើតេស្តឈាមរកមេរោគអេដស៍ (VCCT) ☐ សេវា OI/ART ☐ ក្រុមថែទាំតាមផ្ទះ ☐

កម្មវិធីការពារការចម្លងពីម្តាយទៅកូន (PMTCT) ☐ កម្មវិធីរបេង (TB) ☐ គ្លីនិកកាមរោគ ☐

សេវាផ្សេងៗ (Other).....

ហត្ថលេខានិង ឈ្មោះអ្នកបញ្ជូន

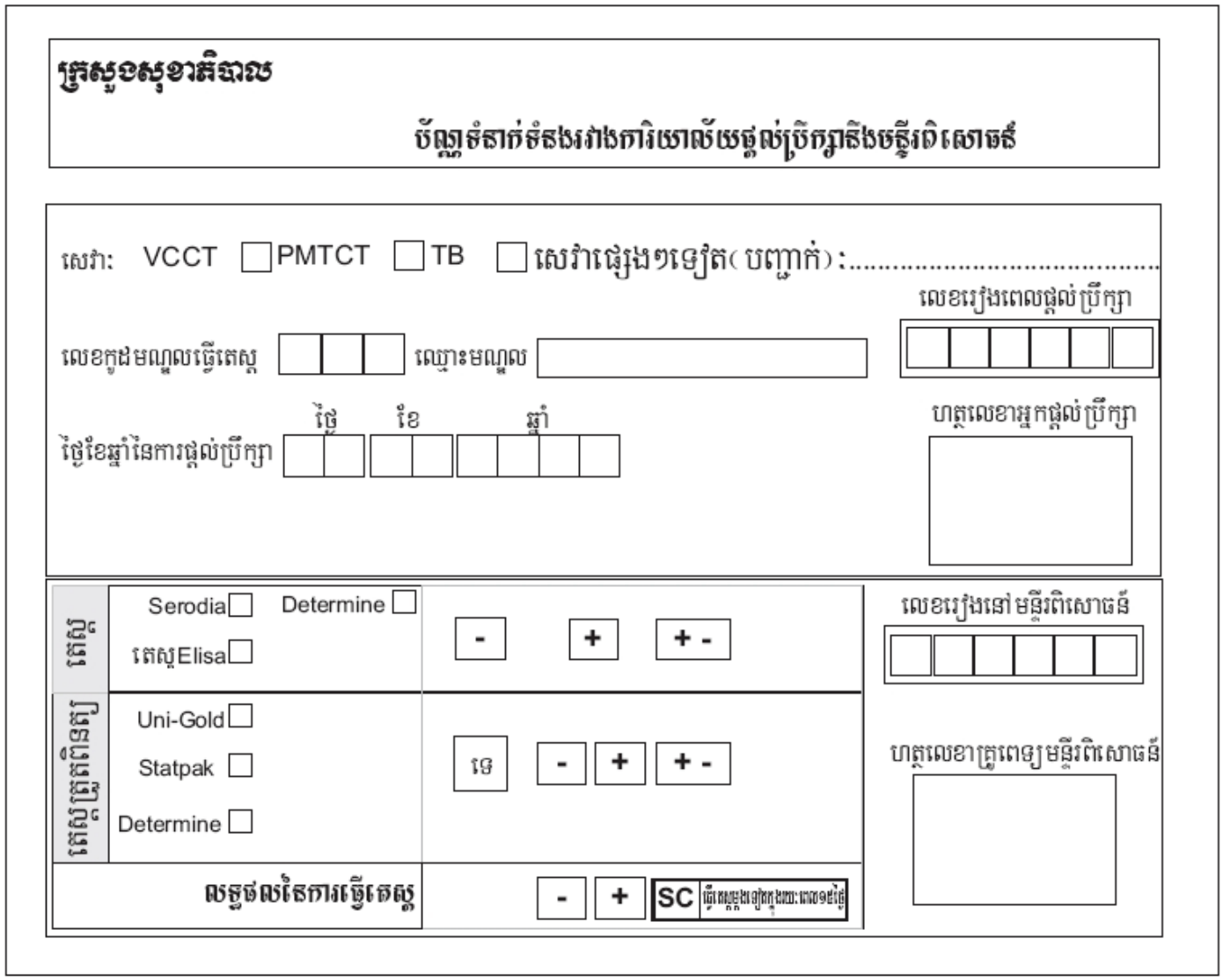
ថ្ងៃ.....ខែ.....ឆ្នាំ.....

សំរាប់ PMTCT តែប៉ុណ្ណោះ

1. រដូវវិធុងក្រោយ: ថ្ងៃ.....ខែ.....ឆ្នាំ.....
2. ថ្ងៃប្រហាក់ប្រហែលសំរាល: ថ្ងៃ.....ខែ.....ឆ្នាំ.....
3. ការព្យាបាល:

បង្ការជាមួយ ARV ☐ ថ្ងៃខែឆ្នាំចាប់ផ្តើមប្រើ: .....

ART ☐ ថ្ងៃខែឆ្នាំចាប់ផ្តើមប្រើ: .....



ក្រសួងសុខាភិបាល

បណ្ណទំនាក់ទំនងរវាងការិយាល័យផ្តល់ប្រឹក្សានិងមន្ទីរពិសោធន៍

សេវា: VCCT ☐ PMTCT ☐ TB ☐ សេវាផ្សេងៗទៀត(បញ្ជាក់) :.....

លេខកូដមណ្ឌលធ្វើតេស្ត ☐☐☐ ឈ្មោះមណ្ឌល

លេខរៀងពេលផ្តល់ប្រឹក្សា ☐☐☐☐☐☐

ថ្ងៃខែឆ្នាំនៃការផ្តល់ប្រឹក្សា ថ្ងៃ ☐☐ ខែ ☐☐ ឆ្នាំ ☐☐☐☐

ហត្ថលេខាអ្នកផ្តល់ប្រឹក្សា

តេស្ត	Serodia ☐ Determine ☐ តេស្ត Elisa ☐	-	+	+ -	
តេស្តឆ្នូតពណ៌	Uni-Gold ☐ Statpak ☐ Determine ☐	ទេ	-	+	+ -
លទ្ធផលនៃការធ្វើតេស្ត			-	+	SC ធ្វើតេស្តដដែងទៀតក្នុងរយៈពេល១ខែទៀត

លេខរៀងនៅមន្ទីរពិសោធន៍ ☐☐☐☐☐☐

ហត្ថលេខាគ្រូពេទ្យមន្ទីរពិសោធន៍

4.3.3

Infant Feeding in the Context of HIV/AIDS

OBJECTIVES

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

1. Explain the principles underlying infant feeding recommendations in the context of HIV
2. Explain the goals and provision of infant feeding counseling for PMTCT
3. Discuss the most important feeding options available to HIV-infected mothers in Cambodia and explain their advantages and disadvantages
4. Discuss the implications of different feeding options on disclosure of HIV status

Time allowed for this session: ***3 hours***

Activity 1: Brainstorm: Basic Concepts of Infant Feeding

» You will be asked to think about infant feeding, in general terms and in relation to mothers infected with HIV

» Think about the goals of feeding infants, different feeding options, the importance of HIV infection in relation to feeding practices

The Global Strategy for Infant and Young Child Feeding (IYCF)

- Malnutrition has been responsible, directly or indirectly, for >50% of the 10.9 million deaths worldwide in children <5 years each year
- > b of these deaths occur in children < 1 year
- The Global Strategy for IYCF* has been developed by WHO and UNICEF to draw attention to the impact that feeding practices have on infants and young children

*see appendix to this module for details of the Global Strategy

7

The Impact of Infant Feeding Practices

- Poor feeding practices, leading to poor nutrition or diarrhoea, are a major cause of morbidity and mortality in infants and young children
- For HIV+ mothers, there is also the risk of HIV transmission

Infant feeding counseling and support can improve feeding practices, prevent malnutrition and mortality and reduce the risk of HIV transmission

8

Activity 2: Game: Feeding Practices and HIV Transmission

- » The purpose of this exercise is to think about the risks of HIV transmission associated with breastfeeding and how they can be reduced
- » You will be asked to move the chairs to one side and to stand in a circle in the middle of the room
- » Everyone will be asked to think of factors which may increase the risk of HIV transmission associated with breastfeeding
- » Each person who mentions a risk factor correctly moves into the middle of the circle (inwards)
- » You will then be asked to also to think of things which can help to reduce the risk
- » For each correct risk-reduction answer, one of the people in the middle may rejoin the outer circle (outwards)
- » Continue with both types of points until there are no more answers
- » See whether the middle group can all join the big group again

Feeding Practices and HIV Transmission

Breastfeeding
- provides the most appropriate nutrition for the infant, but
- carries a risk of transmission of HIV of between 5-20*%

Replacement feeding with formula milk:
- may be associated with an increased risk of diarrhoea, respiratory illness and malnutrition if the feed is not prepared safely and correctly, but
- carries no risk of HIV transmission

10

* Infant and Young Child Feeding Counselling: An Integrated Course. WHO, 2005

How big is the problem of HIV Transmission through Breastfeeding?

- The HIV prevalence in Cambodia is ~ 2%
  Of 1000 women about 20 will have HIV infection
- The risk of HIV transmission through breastfeeding is ~15%
  Of 20 HIV-infected women with 20 infants
  - about 4 infants will be HIV-infected during pregnancy or labour & delivery
  - about 3 infants will be infected through breastfeeding

11

Risk Factors for HIV Transmission through Breastfeeding

The risk of HIV transmission through breastfeeding is increased with:

- High viral load in the mother, due to
  - Recent HIV infection (late in pregnancy or during breastfeeding)
  - Advanced HIV disease / AIDS
- Longer duration of breastfeeding
- Mixed feeding compared with exclusive breastfeeding
- Mastitis or cracked nipples
- Oral thrush or ulcers in the baby's mouth

12

Breastfeeding, ARV prophylaxis and ART

- ARV prophylaxis **does not** provide long-term protection for the infant during breastfeeding
- ART **does** provide ongoing protection against HIV transmission during breastfeeding by lowering the mother's viral load

13

The Risks of Mixed Feeding

A baby who is breastfeeding should not be given any other food or drinks, as there is evidence that there is a higher risk of HIV transmission from mother to her infant because of

- damage to the infant's gut
- a higher risk of diarrhoea

which make it easier for the HIV virus to enter the baby's body

14

Activity 3: Discussion: Infant Feeding Policies and Recommendations

» Slides 16-17 outline WHO recommendations for infant feeding
» Slide 18 outlines the Cambodia National Guidelines on infant feeding recommendations for HIV+ women

Infant Feeding Policies

"As a general principle, in all populations, irrespective of HIV infection rates, breastfeeding should continue to be protected, promoted and supported."

HIV and Infant Feeding: a policy statement, developed collaboratively by UNAIDS, WHO and UNICEF, 1997

16

Infant Feeding Recommendations for HIV negative women

Women who are HIV negative or who do not know their HIV status should be encouraged and supported to:

- exclusively breastfeed their infants for the first 6 months
- continue breastfeeding for up to 2 years or longer
- introduce safe complementary foods which provide the correct nutritional balance after 6 months of age

Couples should understand the risk to the baby if the mother becomes HIV-infected during breastfeeding and practise safer sex to reduce the risk of HIV infection and transmission

17

Infant Feeding Recommendations for HIV positive women

- HIV+ women are encouraged to exclusively breastfeed their infants for the first 6 months of life
- Breastfeeding should be discontinued as soon as feasible, and the mother should wean the infant over a period of 2-3 days to 2-3 weeks
- Formula feeding may be chosen by an HIV+ mother, if it is acceptable, feasible, affordable, sustainable and safe
- All HIV+ mothers should receive infant feeding counselling

18

Definitions

Acceptable
formula feeding is acceptable to the mother's family, friends, community or society

Feasible
the mother or family member has the knowledge, skills, time and other resources to prepare formula feeds

Affordable
the family can afford to buy sufficient formula (+ supplements, water and fuel to boil the water) to adequately feed the infant, without sacrificing other essential needs of the family

Sustainable
the supply of formula is sufficient and reliable

Safe
the family has access to a reliable supply of safe water for mixing feeds and washing containers and affordable health care is available nearby

19

Participants may also wish to refer to the "Ten Steps to Successful Breastfeeding" (WHO, UNICEF), see Appendix to this module

Activity 4: Infant Feeding Counselling

Note: The mother must be the one who makes the decision about how to feed her baby

Goals of Infant Feeding Counseling

To promote the use of safe feeding practices and minimise:

- the risk of HIV transmission from mother to child
- morbidity and mortality associated with malnutrition and infection
- the risk of stigmatisation of the mother and her family

Recommended feeding practices, when followed correctly, can reduce the risk of MTCT of HIV and infant death due to diarrhoea and other infections

21

Infant Feeding Counselling

Counseling must include information and education on:

- the risk of HIV transmission through breastfeeding
- the importance of good feeding practices for optimal child health, nutrition, growth and development
- different feeding options and their advantages and disadvantages

Counseling must take into account local practices, beliefs and customs

22

Making decisions about Infant Feeding

The HIV+ mother

- has the right to choose her preferred feeding option
- needs skilled counseling to be able to make an appropriate and informed choice

The Counsellor

- has a responsibility to promote and support safe and appropriate feeding practices
- should guide the HIV+ mother to make the correct choice of feeding option for her particular situation

23

Activity 5: When should Infant Feeding Counselling be given and by whom?

Note:

» There is a need for repeated infant feeding counseling, throughout pregnancy and the postnatal period

» It is very important that the mother should feel confident in her choice and, if possible, be supported in that choice by her family and community

When should Infant Feeding Counseling be given?

- Antenatally
  - providing information and education to enable the mother to make an informed choice of feeding option
- Postnatally
  - providing guidance and support for implementing the chosen feeding option

25

Who should give Infant Feeding Counseling?

PMTCT-trained staff in the ANC, Maternity and Postnatal Wards should:

- introduce information about infant feeding options to HIV+ pregnant women and then
- provide ongoing guidance and support to women throughout their pregnancy and after delivery

Paediatric HIV services play an important role in nutritional assessment and follow-up of HIV-exposed infants and children

26

Support in the Community

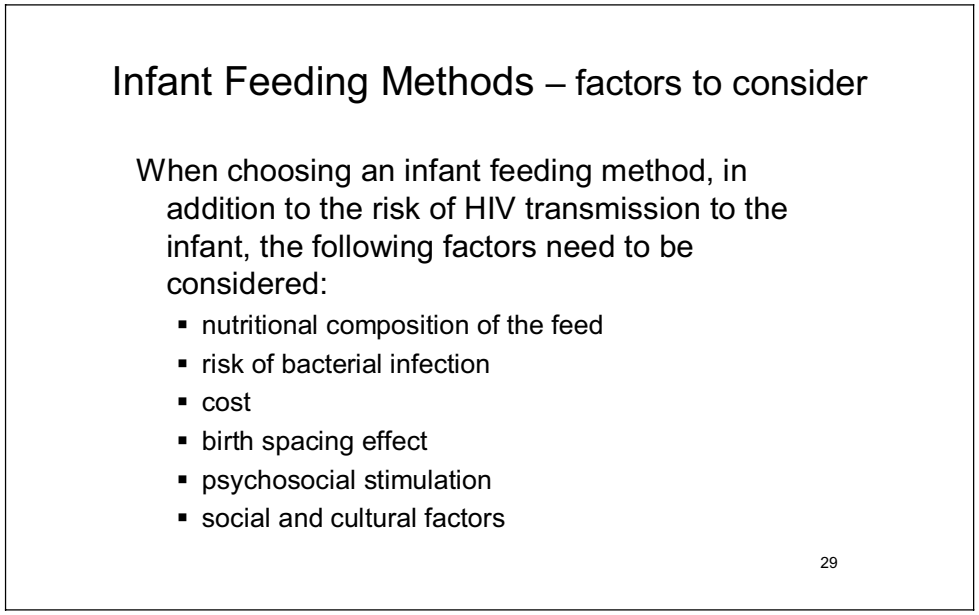
- Community education and mobilisation activities can increase the impact of infant feeding counseling given in health facilities
- HBC teams, PLHA support groups and other organisations can play an important role in supporting mothers in their homes

PMTCT counsellors should ensure that HIV+ women have access to community support if it is available and the mother agrees to be referred

27

Activity 6: Key Words: Infant Feeding Methods

» You will be asked to list factors which need to be taken into consideration when comparing different feeding options



Activity 7: Group Work: Infant Feeding Options

» The purpose of this activity is to examine different feeding options and their advantages and disadvantages

» You will be divided into four groups and each group assigned one of the following topics:

Group 1: Slides 32-38
Exclusive breastfeeding with early cessation

Group 2: Slides 39-45
Replacement feeding using commercial infant formula

Group 3: Slides 46-48
Feeding the infant heat-treated, expressed breast milk

» Think about your feeding option and write down as many advantages and disadvantages of the feeding method, and also any other points, as you can

» Each group in turn will be asked to summarise their group's suggestions

» After each group has presented, you will discuss each feeding option, concentrating on the benefits and risks of each method and how risks can be minimised

Infant Feeding Options: first 6 months

1. Exclusive breastfeeding with early cessation
   recommended feeding option for HIV+ mothers in Cambodia
2. Replacement feeding using commercial infant formula
3. Feeding the infant heat-treated expressed breast milk

All children require adequate complementary foods from six months of age

31

Exclusive breastfeeding with early cessation

Exclusive breastfeeding means giving the infant only breast milk
- no other food or drink should be given (even water is not necessary)
- medicines or vitamin supplements may be given if required

Early cessation means stopping exclusive breastfeeding as soon as replacement feeding is appropriate*: at 6 months or earlier

32

*appropriate means: acceptable, feasible, affordable, sustainable, safe (slide 19)

Advantages of Breast milk

Breast milk:
- provides all the nutrients and water a baby needs
- is easily digested
- contains antibodies and protects infants from disease, especially diarrhoea and respiratory infection
- is free, always available and needs no special preparation

33

Advantages of Breastfeeding

Breastfeeding:
- Promotes bonding between the infant and mother
- Supports birth-spacing
- Protects the mother's health
- Has a lower risk of HIV transmission than mixed feeding
- Is cheaper than artificial feeding
- Is commonly practiced, so people will not ask why mothers are breastfeeding

34

Disadvantages of Breastfeeding

- The risk of HIV transmission continues throughout the breastfeeding period and is increased with:
  - breast problems such as cracked nipples or mastitis
  - oral thrush in the baby
- Breastfeeding mothers require an extra 500 kcal/day* through food to support exclusive breastfeeding
- May be difficult if mother is also working or if she is sick

*see WHO Infant and Young Child Feeding Counselling training course, session 19

35

Early Cessation of Breastfeeding

- HIV can be transmitted at any time during breastfeeding.
- Early cessation reduces the risk of transmission by reducing the time the infant is exposed to the virus in breast milk
- Breastfeeding may be stopped at any time and as soon as replacement feeding becomes appropriate*
- The transition to feeding replacement milk should take place over 2-3 days to 2-3 weeks
- Before changing the feeding method, HIV+ mothers should receive:
  - counseling and guidance on how to stop breastfeeding while maintaining breast health
  - psychosocial support
  - infant nutrition support

36

*appropriate means: acceptable, feasible, affordable, sustainable, safe (slide 8)

The benefits of early cessation

The infant's exposure to HIV through breastfeeding stops when breastfeeding stops*

This feeding option

- retains the advantages of breastfeeding during the first 6 months of life when it offers most benefit

  and
- ends the exposure to HIV as soon as possible, once breastfeeding is no longer as vital for the baby's well being

*If the infant is already known to be HIV infected, breastfeeding should not be stopped

37

The disadvantages early cessation

Early cessation of breastfeeding

- exposes the baby to all the risks of replacement feeding after the age of 6 months
- needs mechanisms to be in place to ensure safe replacement feeding before breastfeeding stops

Other considerations:

- changing to cup feeding may be difficult for both infant and mother
- the mother's breasts may become engorged and even infected, requiring extra support through the transition
- the contraceptive effect of breastfeeding will end

38

Replacement Feeding using commercial infant formula

Replacement feeding in the first 6 months means giving infants who are not breastfeeding a suitable breast milk substitute which provides all the nutrients the child needs

The risks of replacement feeding should be less than the risk of HIV transmission, otherwise there is no advantage

39

Replacement Feeding using commercial infant formula

Replacement feeding may be considered as a feeding option if the family:

- has reliable access to sufficient formula for at least six months and
- has the resources to prepare the feeds accurately and safely, including:
  - water and fuel
  - utensils
  - skills and time

40

Advantages of Infant Formula

Commercial Infant Formula:

- Has no risk of HIV transmission
- Is made especially for infants and includes most of the nutrients an infant needs
- Is usually fortified with necessary iron and other micronutrients

The infant can be fed by others: to help the mother or if the mother falls ill

41

Disadvantages of Infant Formula

Commercial Infant Formula:

- does not contain protective antibodies
- carries a higher risk of diarrhoea, respiratory infections, malnutrition, allergy
- offers no protection from pregnancy
- must be prepared correctly:
  - if too concentrated, may lead to salt overload
  - too dilute, may lead to malnutrition

42

Disadvantages of using Formula

- The mother must stop breastfeeding completely or the risk of HIV transmission continues
- The preparation of feeding cups, bottles etc. is time consuming, must be done correctly and requires clean water supply, fuel, and soap
- Formula must be made up fresh for each feed unless the mother has access to a refrigerator
- Family members or neighbours may question the use of formula
- Formula is expensive, the supply needs to be reliable and continuous

43

Replacement Feeding - requirements

A baby < 6 months of age needs
150 ml milk / kg body weight / 24 hours

Calculated over 6 months, this means the baby will need a total of:

- 40 x 500g tins of infant formula
- Cost per tin $2
- Total cost $80 for 6 months

44

Liquids not suitable for babies

The following liquids should not be used to feed an infant

- animal milk which has already been diluted
- skimmed or low fat milk powder
- sweetened or condensed milk
- cereal-based gruels
- fruit juice, tea, soda

45

Heat-treating Expressed Breast milk

Expressing and heat-treating breast milk is a option to consider:

- If a mother wishes to give her baby breast milk
- If formula is too expensive or is unavailable
- For sick or low-birth-weight babies

To heat-treat breast milk the milk must be heated to boiling point and then cooled quickly

46

Heat-treating Expressed Breast milk

Advantages:

- Heating kills the HIV virus
- most of the protective advantages of breast milk* are retained
- Breast milk is always available
- Other family members can help the mother by feeding the baby

*some antibodies may be destroyed by heating

47

Heat-treating - Disadvantages

Milk Disadvantages:

- heat-treated breast milk does not contain HIV, but is not as good as unheated milk at protecting against other diseases

Logistic Disadvantages:

- requires clean water to wash the utensils + fuel for heating
- time consuming: expressing + heating the milk, cup feeding
- the heated breast milk must be stored in a cool place and used within one hour of heating
- may raise questions about why the mother is expressing her milk

48

Activity 8: Discussion: Disclosure and Infant Feeding Choices

- » The purpose of this exercise is to look at infant feeding practices and disclosure of HIV status
- » Your facilitator will lead an interactive discussion looking at the relationship between choice of feeding method and disclosure of HIV status
- » Think about how different feeding methods are viewed by society in Cambodia
- » Are there any implications about HIV status which the choice of feeding method may have for the mother and her family?
- » Are there differences between perceptions in Phnom Penh and in rural areas?
- » What other factors may influence perceptions?
- » Do you have any examples from your own work where a particular feeding choice has resulted in the mother being asked difficult questions or being the subject of gossip relating to HIV
- » How was the situation managed? Could anything have been done differently?
- » What other suggestions do you have for how to address similar situations?
- » Note the importance of infant feeding counselling in helping a mother to understand and think about the implications of a particular feeding choice
- » Infant feeding counselling may provide an opportunity to talk more about disclosure

Disclosure and Infant Feeding Practices

- The infant feeding method chosen by a mother may have implications for disclosure of her HIV status, if it is outside the normal practice of her family or community
- People, including family members
  - may ask questions
  - make assumptions
  - gossip
- This may lead to difficulties implementing the chosen feeding option correctly or consistently
- The mother and her family may be stigmatised
- The feeding method may be abandoned completely
- The infant may be exposed to a higher risk of HIV transmission

50

Disclosure and Infant Feeding Practices

What can be done?

Antenatally:

- Encourage partner involvement
  - in the VCCT process
  - in decision-making about infant feeding
- Provide repeated high-quality infant feeding counseling
  - explore the implications of choosing a feeding option
  - anticipate questions from family or community
  - ensure the choice has been made by the mother and that she is committed to her choice
  - explore support mechanisms in the family and community

Postnatally:

- continue to provide counseling at every opportunity
- arrange community follow-up support if available and acceptable

51

Module 4.3.3: Key Points

- All HIV+ women need infant feeding counseling and support
  - to promote optimal growth and development of their infant
  - to minimise the risk of HIV transmission to their infant through breastfeeding
- The mother has the right to choose how she wants to feed her baby, the counsellor's role is to support her choice
- Exclusive breastfeeding with early cessation is the recommended feeding option for HIV+ women in Cambodia
- If replacement feeding is acceptable, feasible, affordable, sustainable and safe, an HIV+ woman should avoid breastfeeding her infant
- Counseling, education and support are key to establishing safer infant feeding practices

Appendix 4.3.3: Background Information

The Global Strategy – Operational Targets Developed by WHO and UNICEF	
1	Appoint a national breastfeeding coordinator
2	Ensure that all facilities providing maternity services practise all the "Ten steps to successful breastfeeding“ set out by WHO and UNICEF
3	Implement the International Code of Marketing of Breast milk Substitutes
4	Enact legislation protecting the breastfeeding rights of working women
5	Develop, implement, monitor and evaluate a comprehensive policy on IYCF
6	Ensure that all sectors support exclusive breastfeeding for 6 months and continued breastfeeding up to 2 years
7	Promote timely, adequate, safe and appropriate complementary feeding with continued breastfeeding
8	Provide guidance on feeding infants and young children in exceptionally difficult circumstances
9	Consider what legislation is required to implement the International Code of Marketing of Breast Milk Substitutes

Ten Steps to Successful Breastfeeding*

Ten Steps to Successful Breastfeeding	
Every maternity service should:	
1	Have a written breastfeeding policy that is communicated to all health care staff
2	Train all Health Care Workers to implement this policy
3	Inform all pregnant women about the benefits of breastfeeding
4	Help mothers start breastfeeding within one hour of birth
5	Show mothers how to breastfeed and how to maintain lactation even if they are separated from their infants
6	Give newborn infants no food or drink other than breast milk unless medically indicated
7	Allow mothers and their infants to stay together – 24 hours a day
8	Encourage breastfeeding on demand
9	Give no artificial teats or pacifiers to breastfeeding infants
10	Promote the establishment of breastfeeding support groups and refer mothers to them after discharge from hospital

* The “Ten Steps” are a summary of the main recommendations of a Joint Statement called “Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services”, issued by WHO and UNICEF in 1989

4.3.4

Safety in the Workplace

OBJECTIVES

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

1. Explain the importance of safe work practices in the maternity unit
2. Identify the main components of safe practices
3. Discuss the management of occupational exposures to HIV:
    1. define HIV Post Exposure Prophylaxis.
    2. identify different types of occupational exposure to HIV
    3. list the steps in the process of assessing and managing an occupational exposure
    4. describe each step in the management process

Time allowed for this session: ***3 hours***

Activity 1: Introduction to the Safe Working Environment

Transmission of HIV infection

Transmission of HIV infection:

- may occur through contact with blood or body fluids either by direct contact with an open wound or by needle stick injury
- to health care workers is most often due to a needle stick injury during the care of an HIV-infected patient
- from patient to patient can be prevented by proper disinfection or sterilisation of equipment

7

Safe Working Environment

Transmission of infectious agents in the health care setting can be prevented by:

- Practising Universal Precautions (UP)
- Managing the work environment
- Providing ongoing education for all employees in infection prevention

8

Activity 2: Group Work: What are Universal Precautions?

» The purpose of this exercise is to summarise the most important components and points relating to Universal Precautions

» You will be divided into 5 groups and assigned one of the following topics:

Group 1: Cleaning and waste disposal
Group 2: Decontamination of Equipment
Group 3: Safe Handling of Sharps
Group 4: Protective barriers
Group 5: Policies, procedures and training

» Each group will be asked to quickly write down anything that they can think of about their topic

» Someone from each group will be asked to present their findings to the big group

Universal Precautions

Universal Precautions are a simple set of effective infection control practices to be used in the care of

- all patients
- at all times

to protect health care workers (HCWs) and patients from infection with a wide range of pathogens, including blood-borne viruses such as HIV, Hepatitis B and Hepatitis C

The level of precautions used depends on the procedure not on the patient's diagnosis

10

Implementation of Universal Precautions

Implementation of universal precautions requires:

- Provision of guidelines for prevention and control of infections
- Training of all employees in handling and disposal of infectious material
- Provision of necessary equipment and supplies, such as educational materials, disposable gloves, disposable syringes and needles and sharps bins
- Monitoring mechanisms to ensure implementation

11

UP: Cleaning and Waste Disposal

- Hand washing is one of the most important strategies for limiting the spread of infection. Wash with soap and running water for at least 15 seconds before and after
  - direct contact with patients or contaminated items
  - procedures involving contact with blood or body fluids
  - eating (before) or using the toilet (after)
- Detergents and hot water should be used for cleaning floors, beds, toilets, walls and rubber draw sheets
- Promptly and carefully clean spills involving blood or other body fluids with a chlorine-based disinfectant and wear heavy-duty rubber gloves
- Practise safe waste collection in leak-proof bags or containers and safe disposal by incineration or burying

12

UP: Decontamination of Equipment

- **Decontamination:** The first step in making equipment safe to handle. This requires a 10 minute soak in a 0.5% chlorine solution. This important step kills both hepatitis B and HIV
- **Cleaning:** Efficient cleaning with soap and hot water is essential prior to disinfection or sterilisation
  - Removes a high proportion of microorganisms
  - Removes contaminants such as dust, soil, salts, and the organic matter that protects them
- **Disinfection:** A chemical procedure that eliminates most recognised pathogenic microorganisms. Does not destroy all microbial forms (eg. bacterial spores)
- **Sterilisation:** Destroys all microorganisms

13

UP: Safe Handling of Sharps

- Avoid two-handed needle recapping
- If recapping is necessary, use a single-handed scoop method
  - place the needle cap on a hard, flat surface and remove your hand
  - with one hand, hold the syringe and use the needle to scoop up the cap
  - when the cap completely covers the needle, use the other hand to push the cap firmly down onto the hub of the needle
- Use new, disposable needles, syringes and scalpel blades and use them on one patient only
- Safely dispose of needles (hypodermic and suture) and sharps (scalpel blades, lancets, razors, and scissors) in designated safety boxes
- Safety boxes should be incinerated or buried and should not be reused

14

UP: Protective Barriers

- Use gloves when in contact with body fluids, non-intact skin, or mucous membranes
- Use masks, eye protection, gowns (or plastic aprons) and boots when blood or other body fluids could splash
- Apply waterproof dressings to cover all cuts and abrasions
- Use resources cost-effectively: prioritise use of materials for childbirth and suturing

15

Managing the Work Environment

- Establish and implement policies and procedures for reporting and treating occupational exposure to HIV infection
- Maintain adequate staffing levels
- Implement supportive measures that reduce staff stress, isolation, and burnout
- Acknowledge and address the needs of healthcare workers who are HIV-infected
- Provide all necessary supplies and equipment for implementing Universal Precautions: protective clothing and equipment, appropriate disinfectants, safety boxes
- Ensure proper disposal of used safety boxes and contaminated material

16

Ongoing Education in Infection Prevention

- Orient all staff, including peer and lay counsellors and cleaning and maintenance staff, to the site's infection control policies
- Ensure that all workers who are routinely exposed to blood and body fluids (eg, physicians, midwives, nurses, and cleaners) receive preliminary and ongoing training on safe handling of equipment and materials
- Require that supervisors regularly observe and assess safety practices and remedy deficiencies as needed

17

Activity 3: Key words: Definition of Post-Exposure Prophylaxis

» You will be asked what you know or understand about post-exposure prophylaxis or PEP

What is post-exposure prophylaxis (PEP)?

PEP is:

- antiretroviral treatment
- given to an HIV-negative health worker
- following a significant occupational exposure
- to prevent HIV infection in the HCW

20

Activity 4: Brainstorm: Types of Occupational Exposure and the Level of Risk of HIV Transmission

» You will be asked to think about what types of occupational exposures may occur

» Try to give an estimate of the level of risk associated with each type of exposure (e.g: low, medium or high…) and any additional factors which may affect this level of risk

» Then think about what kinds of fluids are HIV infectious

» List the answers on the whiteboard and try to draw up a table of type of exposure and level of risk

Which types of Occupational Exposure carry a risk of HIV transmission?

Type of exposure	Examples
Percutaneous injury	Needlestick injury Cut with a surgical scalpel
Contact with mucous membranes	Blood splash into eyes
Non-intact skin exposure	Blood spill onto skin damaged by cuts, wounds or dermatitis

These exposures carry the risk of transmission of Hepatitis B and Hepatitis C as well as HIV-infection

22

How High is the Risk of Transmission?

Type of exposure	Risk of HIV transmission	Explanation
Percutaneous needle stick	0.3%	3 per 1000 exposures
Mucous membrane	0.09%	9 per 10,000 exposures
Non-intact skin	<0.09%	<9 per 10,000 exposures

23

Needle Stick Injuries:

The risk of HIV transmission following a needle stick injury is higher if there is:

- a deep injury with a hollow-bore needle
- visible blood on the needle
- a needle placed directly in a blood vessel
- late stage HIV/AIDS disease in the source person (because the viral load in the source blood is high)

24

What types of Fluids are Infectious?

High risk:

- blood

Moderate risk: (higher if contaminated by blood)

- cerebrospinal, amniotic, pericardial, peritoneal, pleural, synovial fluids

No risk: (unless containing significant blood)

- nasal secretions, saliva, tears, sweat, sputum, gastric fluid, urine, faeces

25

How Effective is PEP?

If administered correctly, PEP can reduce the risk of HIV transmission by about 2/3

This means that:

- if the risk of transmission **without** PEP is 3 cases of HIV per 1000 exposures
- then **with** PEP, the risk would be reduced to about 1 case of HIV per 1000 exposures

26

Activity 5: What needs to be done after an occupational exposure?

» Slides 27-37 outline the different steps that need to be followed after an occupational exposure has occurred

» The aim of the process is to ensure that when PEP is indicated it is given promptly but that Healthcare Workers are not given PEP inappropriately

The important points are to:

» identify whether the exposure is serious enough for PEP to be considered

» determine whether or not the source person is HIV-infected

» determine whether or not the exposed HCW is HIV-infected

Management of an Occupational Exposure

- After exposure, a healthcare worker (HCW) should seek care immediately at an OI/ART clinic if available.
- If an OI/ART clinic provider is not immediately available, care should be sought at the nearest referral hospital emergency department.
- It is the responsibility of every emergency department to have personnel trained in this guideline and to have PEP drugs available to dispense.

28

What needs to be done after an occupational exposure?

1. Initial care of exposure site
2. Assess nature of exposure
   a. what kind of exposure is it?
   b. how long ago was the exposure?
   c. is the source person HIV-infected?
3. Assess the HCW
4. Determine whether to offer PEP
5. Arrange follow-up and provide counseling to the HCW
6. Reporting

29

1. Initial Care of Exposure Site

Wound and skin sites:

- clean with soap and water for 3 minutes

Exposed mucous membranes:

- flush with water for 10 minutes
  tap water is adequate for irrigation

Squeezing the wound to make it bleed is not recommended

30

2a. What kind of exposure is it?

Type and amount of fluid or tissue

- Blood
- Visibly bloody fluids
- Other potentially infectious fluid or tissue

Type and severity of exposure

- Percutaneous exposure
  - depth of injury?
  - type of device (large bore-hollow needle?)?
  - visible blood on device or not?
  - needle used in artery or vein?
- Mucous membrane exposure
- Non-intact skin exposure

} Volume of blood involved?

- Intact skin exposure – no risk

HCWs with less significant exposures should be reassured that they do not require PEP treatment

31

2b. How long ago was the exposure?

Whenever possible:
PEP treatment should be initiated within **FOUR HOURS** of exposure

- PEP needs to be started as soon as possible for maximum efficacy
- PEP treatment started up to 36 hours after exposure has been shown to reduce risk of infection
- do not delay while waiting for test results or while completing paperwork

32

2c. Is the Source Person HIV-infected (1)?

- Determine whether the source person is HIV-infected by performing an HIV antibody rapid test

  Note: You must
  - obtain informed consent
  - maintain confidentiality
  - respect the source patient's legal right to refuse testing
  - also perform HBsAg + HCV antibody tests, if available

- If the source person declines testing or cannot be tested, evaluate:
  - any clinical symptoms suggestive of HIV/AIDS disease
  - any history of risk behavior for HIV transmission
- If the exposure source is unknown, evaluate:
  - the prevalence of HIV/AIDS (and HBV + HCV) in the community to assess the likelihood that the exposure was from an HIV-infected patient

  Do not test a discarded needle for blood-borne pathogens

33

2c. Is the Source Person HIV-infected (2)?

Source person HIV-negative:

The HCW does **not** need:
- baseline HIV testing
- PEP
- further follow-up

An injury report should be completed

Source person HIV-positive:

Evaluate the source person
- stage of HIV disease
- CD4 count
- history of current or past ART
- (viral load/ARV resistance)

This information is used to decide the most appropriate PEP regimen to use

34

3. Assess the HCW: Baseline Information

Obtain information on:
- Hepatitis B vaccination and vaccine-response status
- medications currently being taken
- current or underlying medical conditions or circumstances e.g: pregnancy, breastfeeding, renal or hepatic disease (for purpose of considering / selecting PEP regimen)

Perform:
- A baseline HIV test to establish serostatus at the time of exposure
- HBsAg + HCV antibody tests (if available)

35

3. Assess the HCW: HIV testing

- The HIV test must be done in a confidential setting
- If the HCW prefers the test to be done at a VCCT site, that preference should be respected
- PEP treatment, if otherwise indicated, should not be delayed while waiting for the HIV test result
- If the test result of the HCW is HIV-positive
  - Stop PEP*
  - Refer the HCW for counseling and treatment of HIV

*in this situation PEP offers no benefit to the HCW and may cause harm through the development of drug resistance

36

4. Determine whether to offer PEP

In case of a significant occupational exposure:

	Source person HIV-ve	**Source person HIV+ve**
HCW HIV-ve	**No PEP**	**Give PEP***
HCW HIV+ve	**No PEP** Refer HCW to OI/ART services	**No PEP** Refer HCW to OI/ART services

*Dispense a four day supply initially

37

Activity 6: Case Study: an Occupational Exposure in the Maternity Ward

- » The purpose of this exercise is to recap and think about the management of an occupational exposure
- » You will be divided into 4 groups and given a copy of the case study and the questions
- » You will be given 20 minutes to work in your group to answer the questions
- » A volunteer from one of the groups will be asked to answer the first question
- » The facilitator will ask the remaining groups in turn to make a list of all the steps which need to be followed

Case Study
Sophana is working late in the maternity ward. She is removing an intravenous infusion from the arm of a patient. She accidentally pricks her finger with the IV needle after removing it.
Questions:
1. After this occupational exposure, what is the first thing Sophana should do?
2. What should she do next? List the steps.

Activity 7: Lecture on PEP Regimens, follow-up and adherence

» Slides 43-46 give details about follow-up and reporting procedures after an occupational exposure

Note: Adherence to the PEP regimen for 28 days is very important but not easy. HCWs require considerable support during this period

PEP Regimens

For most needlestick injuries and significant mucocutaneous exposures give:

- AZT* (300 mg) + 3TC (150 mg) every 12 hours for 4 weeks

Deep needlestick injuries with a hollow bore needle:

- AZT* (300mg) + 3TC (150mg) + Kaletra (133/33mg): 3 capsules, every 12 hours for 4 weeks

*If Zidovudine is poorly tolerated, it can be replaced with Stavudine in a combination pill with 3TC

Guidelines on the Management of Occupational Exposure to HIV, NCHADS Jan 2006 43

5. PEP Follow-up

Follow-up Schedule:

- Day 3-4, review:
  - the details of the exposure
  - the HIV status of the source person and the HCW
  - side-effects of PEP and adherence issues
- Day 14-16: discuss difficulties with regimen and assure good adherence
- 3 and 6 months post exposure: perform follow-up HIV test
- The HCW must be counseled to practise safe sex and not to donate blood until HIV is ruled out at 6 months
- Adherence to a four week course of a PEP regimen is a significant problem for HCWs
  - poor adherence has been associated with treatment failure
  - adherence must be emphasized at every visit

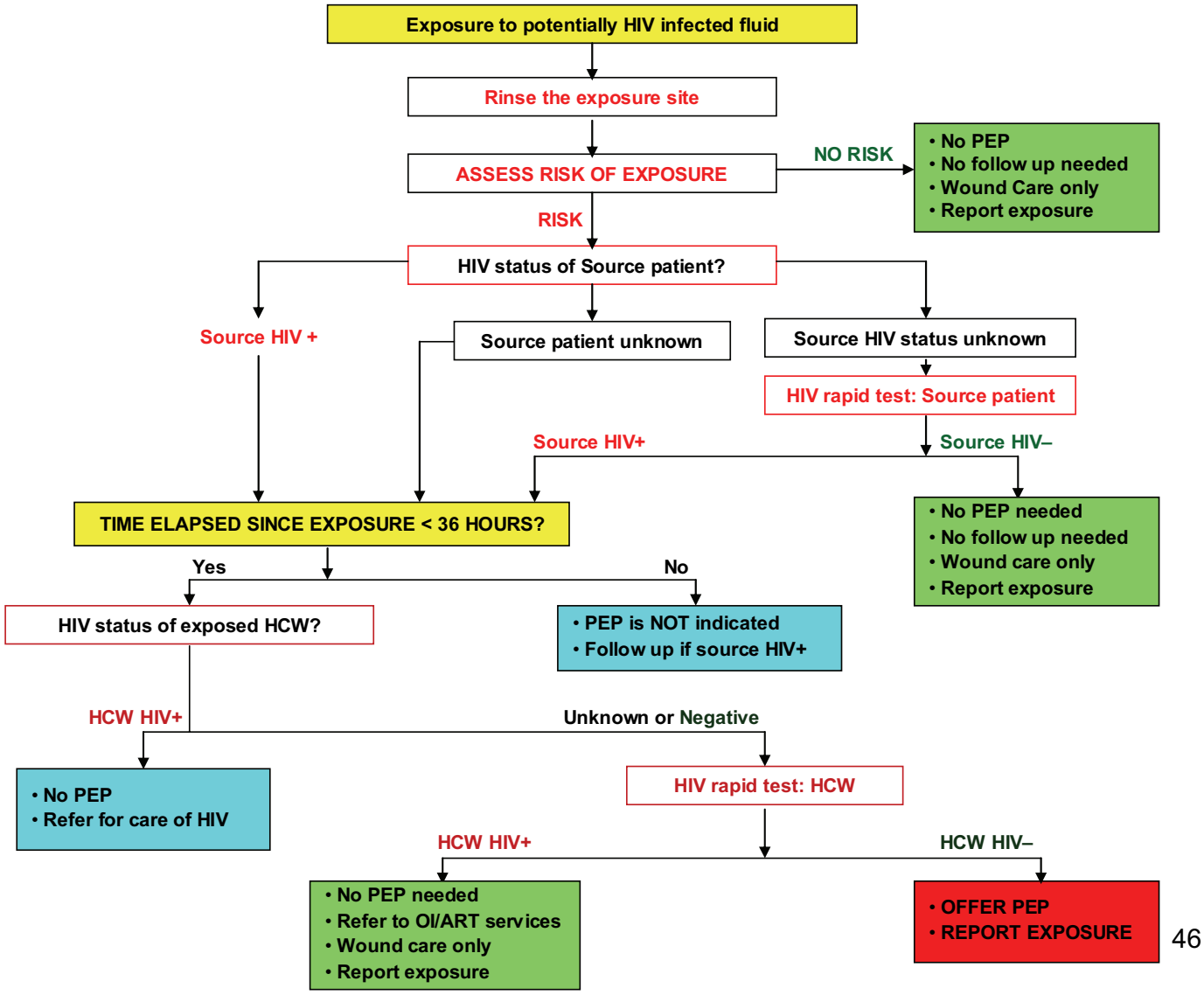
44

6. Reporting

- A form must be completed at the health care facility where PEP is provided for every HCW who presents with an exposure
- This should include all reported exposures including those judged to be clinically insignificant and not warranting PEP treatment
- A copy should be kept in the health care facility

45

Flow Diagram: Steps to follow after an Occupational Exposure



46

Module 4.3.4: Key Points

- Universal Precautions are a simple set of infection control practices which must be used on all patients at all times
- PEP is antiretroviral therapy given to prevent HIV infection following an occupational exposure
- An occupational exposure is a medical emergency and must be reported immediately because PEP is most effective when started within 4 hours of the exposure
- All health care personnel should receive information and training on management of occupational exposures
- HCWs must know whom to report an exposure to and should be able to access PEP, both during and outside normal working hours

4.4
Continued Care and Support

OBJECTIVES

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

1. Explain the concept of Continuum of Care (CoC) for PLHA
2. Describe the integration of PMTCT services into CoC
3. List CoC services in Health Facilities and the Community
4. Summarise task allocation in the provision of PMTCT services to HIV+ pregnant women
5. Explain the importance of links and referral pathways
6. Describe patient flow from entry at ANC

Time allowed for this session: ***2 hours***

Activity 1: Briefing on Treatment, Care and Support Services

Prong 4.
Treatment, Care and Support Services

- PMTCT programmes identify HIV+ women who need medical care and social support in addition to MCH services
- Availability of high-quality and accessible HIV/AIDS care and treatment services may increase the uptake of VCCT
- Knowledge of HIV status allows uptake of available PMTCT interventions
- Linkages to treatment, care and support services must be strengthened to promote long-term care of HIV+ women and their families

6

Care and Support of HIV-exposed Infants

HIV-exposed infants are especially vulnerable, even if they are not themselves HIV-infected

- They lack the protective benefits of breastfeeding if their mothers choose replacement feeding
- Mothers may become ill or die
- Families may be very poor due to AIDS-related illness and death

Such children need regular follow-up and care, especially in the first two years of life

7

Activity 2: Brainstorming: Why CoC for PLHA has been introduced in Cambodia

» Think about:

1. How long HIV has been in Cambodia
2. Approximately how many people are HIV+ in Cambodia

» Think about why CoC is needed in Cambodia

Why is a Continuum of Care for PLHA needed?

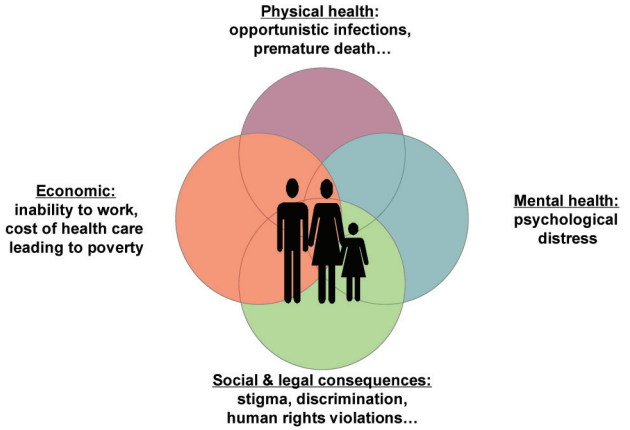
- Cambodia is now evolving into a phase of the HIV/AIDS epidemic in which an increasing number of people infected with HIV will become sick and seek care, including children
- Comprehensive care for people living with HIV/AIDS (PLHA) is an urgent need, in response to the current situation

9

Activity 3: Small group discussion: Comprehensive HIV/AIDS care components for PLHA

- » You will be divided into 3-4 groups
- » Think about
  1. The effects of HIV infection on the individual, families and on the community
  2. What services or actions are required to address these issues and needs?
- » 2 headings will be written on the whiteboard:
  1. Effects of HIV
  2. Responses to HIV
- » Someone from each group will be asked to write answers under the appropriate heading on the board
- » Your facilitator will lead a discussion

Consequences of HIV/AIDS



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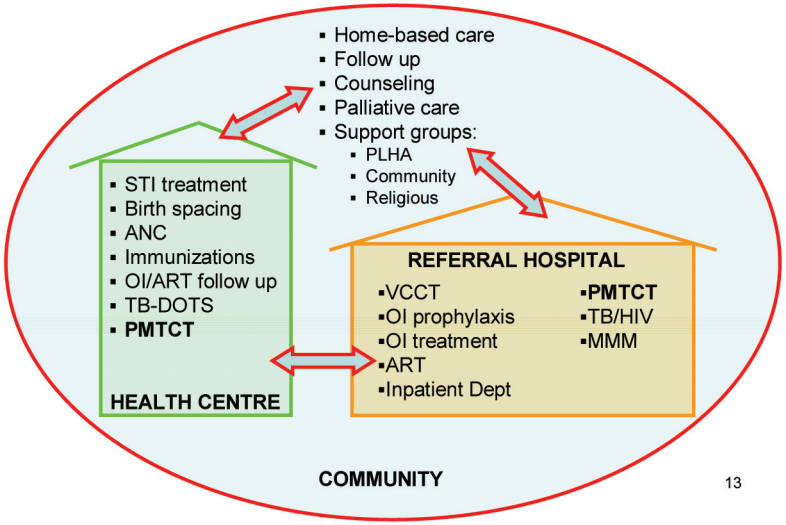
Where is HIV/AIDS care conducted?

A key element of CoC are links between the home, the community and health facilities:

- Health Facilities Based Care (HFBC) - including the private sector
- Home-based care (HBC)
- Community-based care (CBC) including:
  - PLHA peer support groups (PLHA-SG)
  - Other community support organizations
  - By community members themselves

12

Components of the Continuum of Care



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Comprehensive HIV/AIDS Care (1)

Provision of comprehensive care involves:

- ✓ Not only medical care but also psychological, social and legal support
- ✓ Accurate planning, coordination, referral and monitoring across the continuum of care
- ✓ Broad based mobilization of the community and of organizations working outside the health sector, for sustainability

14

Comprehensive HIV/AIDS Care (2)

Clinical care includes:

- ✓ Diagnosis of HIV infection and VCCT
- ✓ Management of opportunistic infections including TB
- ✓ Prophylaxis of opportunistic infections (OI)
- ✓ Symptomatic & palliative care
- ✓ Antiretroviral therapy (ART)
- ✓ Universal precautions (UP) & post-exposure prophylaxis (PEP)
- ✓ Prevention of mother to child transmission of HIV (PMTCT)

15

Comprehensive HIV/AIDS Care (3)

Support involves:

- ✓ Counseling
- ✓ Psychological & Financial support
- ✓ Support for caregivers and children affected by HIV/AIDS
- ✓ Reduction of stigma & discrimination

16

Comprehensive HIV/AIDS Care (4)

Health promotion & education includes:

- ✓ Information & education for PLHA and their families about HIV/AIDS
- ✓ Nutrition
- ✓ Prevention of further HIV transmission
- ✓ Family planning

17

Activity 4: Lecture: Main strategies & mechanisms for implementing CoC

Key strategies for establishing a Continuum of Care for PLHA

- Partnerships between medical services, PLHA groups, the public health system & NGOs at OD
- Strong referral mechanisms between the home, the community & the institutional care level
- Effective involvement of PLHA in all aspects of the continuum of care
- Reinforcement of health care facilities to provide quality care services to PLHA
- Development of care packages at each level of the health system

19

Activity 5: Lecture: Brief review on existing CoC implementation activities in Cambodia

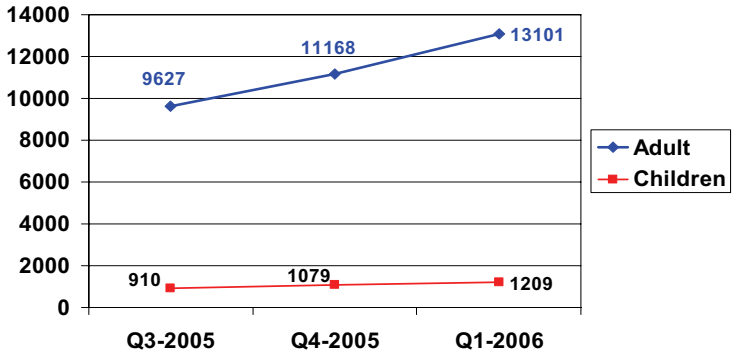
Status of CoC and PMTCT services in Cambodia: March 2006

- 112 VCCT sites in all provinces
- 39 health facilities offer OI and ART services in 17 provinces, Paediatric HIV/AIDS services: 12 sites
- 261 HBC teams in 17 provinces and Phnom Penh
- 562 peer support groups are currently established in 14 provinces
- PMTCT: 27 sites in 15 ODs in 10 provinces

21

Source: NCHADS Comprehensive report on HIV/AIDS activities in Cambodia, Quarter 1 2006

Number of Active Patients on ART: Q1-2006



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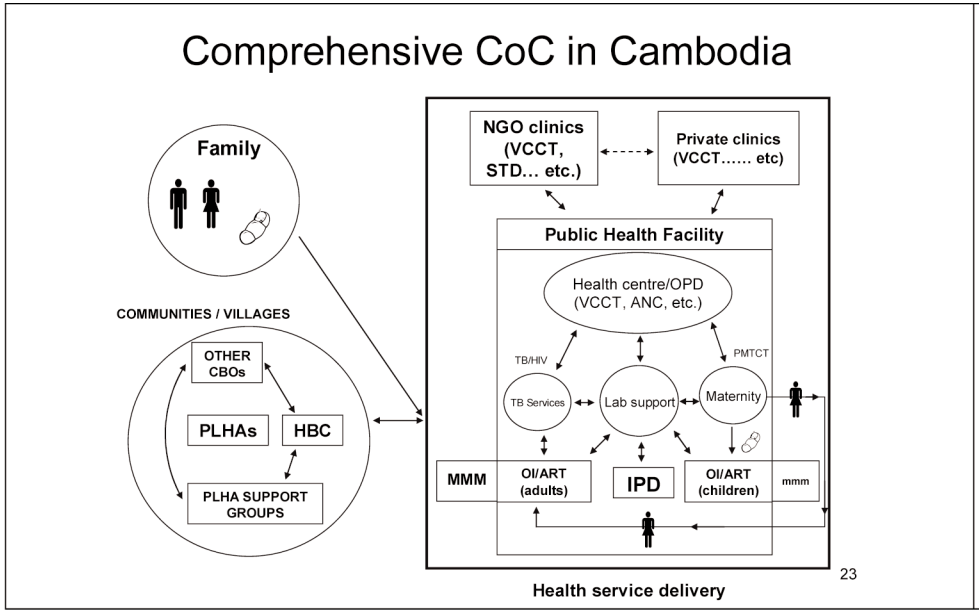
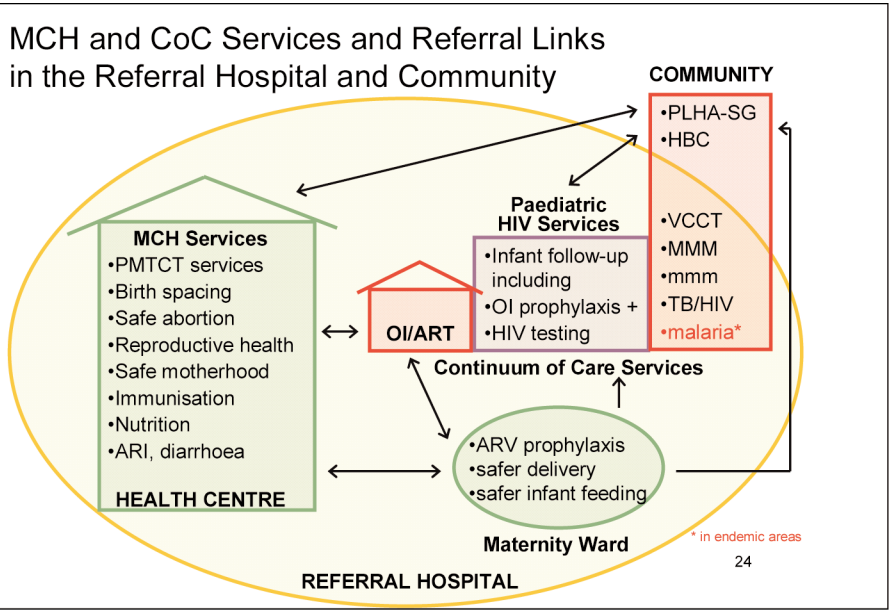
Source: NCHADS Comprehensive report on HIV/AIDS activities in Cambodia, Quarter 1 2006





» Slides 23 and 24 both illustrate the components of CoC in a Referral Hospital and the referral linkages between different services

Activity 6: Exercise: PMTCT Services Task allocation

» The purpose of this exercise is to look at provision of PMTCT services in different types of Health Facility

» You will be divided into four groups and allocated the following topics:

Group 1: Antenatal Care in a Health Centre **within** the compound of a Referral Hospital

Group 2: Antenatal Care in a Health Centre **outside** the compound of a Referral Hospital

Group 3: Antenatal Care in Former District Hospitals

Group 4: Care in the Maternity and Postnatal Wards of a Referral Hospital which offers PMTCT services

» Each group will be asked to make a list of all PMTCT services which are provided in the type of Health Facility they have been assigned

» Each group will write their answers on the whiteboard under the appropriate heading

Health Centres within the RH Compound

Summary: Provision of PMTCT services to HIV+ pregnant women and their partners

- Health education
- VCCT
- Referral to OI/ART services

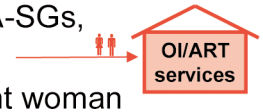
- Routine antenatal care

26

Health Centres outside the RH Compound

Summary: Provision of PMTCT services to HIV+ pregnant women and their partners

- Health education
- VCCT
- Referral to nearest OI/ART services with the help of HBC teams, PLHA-SGs, TBAs etc. if available



- Routine antenatal care, if pregnant woman chooses to access ANC at the HC
- Referral to nearest hospital with PMTCT services for delivery

27

Former District Hospitals

Summary: Provision of PMTCT services to HIV+ pregnant women and their partners

- Health education
- VCCT
- Refer to nearest OI/ART services

- Provision of ARV prophylaxis by PMTCT-trained staff if pregnant woman IS NOT eligible for ART
- Routine antenatal care + delivery services

28

Referral Hospital Maternity Ward

Summary: Provision of PMTCT services to HIV+ pregnant women IN LABOUR

- Support and care by PMTCT-trained staff
- ARV prophylaxis
- Use of safer delivery practices during labour and delivery

29

Referral Hospital Maternity Ward

Summary: Provision of PMTCT services to HIV+ pregnant women and her infant AFTER DELIVERY

- Support and care by PMTCT-trained staff
- ARV prophylaxis for mother and infant
- Counselling on safer infant feeding
- Arranging follow-up at Health Centre and paediatric HIV/AIDS clinic at 6 weeks
- Contacting HBC team or PLHA-SG for support with adherence to care and treatment

30

OI/ART Services in the Referral Hospital

Summary: Provision of OI/ART services to HIV+ pregnant women and their partners

- Priority access to all available CoC services
- Assessment of eligibility for ART or ARV prophylaxis
- Provision of ART or ARV prophylaxis for PMTCT
- TB/HIV screening
- Referral to appropriate PMTCT hospital for delivery
- Referral to HBC team or PLHA-SG for support with adherence to care and treatment

31

Referral Hospital Paediatric HIV/AIDS services

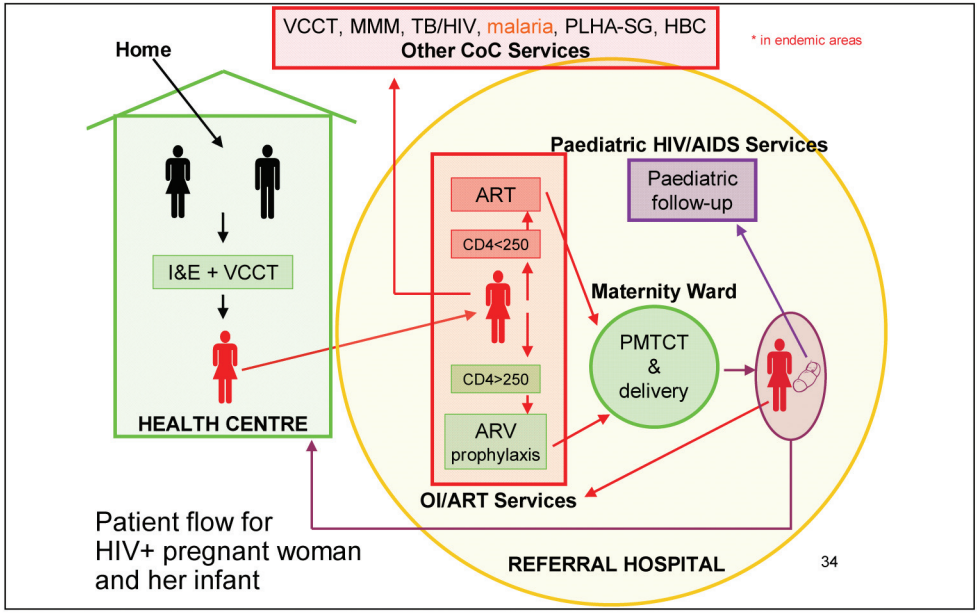
Summary:
Provision of services to HIV-exposed infants

- Identification HIV-exposed infants
- Provision of follow-up services including
  - OI prophylaxis
  - HIV testing
  - Medical care
  - Nutrition counselling
- Liaison with HBC teams and PLHA-SGs

32

Activity 7: Patient Flow

- The purpose of this exercise is to draw a map of how a pregnant woman who is found to be HIV+ moves through different PMTCT services at a Referral Hospital
- You will start with a pregnant woman and her husband coming to a Referral Hospital from their home
- A volunteer will be asked to come and indicate where the couple would first go to access antenatal and PMTCT services
- Another volunteer will be invited to draw the next step
- Continue step by step until the woman has delivered her baby and is about to leave the hospital to go home



Activity 8: The Continuum of Care Coordination Committee

PMTCT Services are an integral component of the CoC

Coordination and cooperation must happen at all levels so that patients can benefit from improved treatment, care and support services for HIV/AIDS

OD Continuum of Care Coordinating Committee - CoCCC

- Director of Operational District (OD)
- Director of Referral Hospital (RH)
- Chief or Deputy-Chief of RH
- OD HIV/AIDS/STD coordinator
- Head of infectious diseases or medical ward of RH
- Health care worker facilitating MMM
- Head of TB ward
- Representative of NGOs
- Representative of HBC teams
- Chief of VCCT service
- Representative of PLHA-SG
- Representative of CBO
- Religious and community leaders
- PMTCT OD Coordinator

36

Links between PMTCT and the CoC Coordinating Committee (CoCCC)

- Role of the CoC Coordinating Committee
  - identifies needs, gaps and areas of collaboration and coordination among partners involved in HIV/AIDS care in the OD
  - Defines referral mechanisms between health facilities, home and community-based care
  - Provides a forum for regular discussion of issues relating to CoC
- PMTCT OD coordinator is a core member of the CoCCC

37

Site Selection for PMTCT Services

Site requires:

- Capacity for antenatal and postnatal care and Family Planning
- VCCT or access to VCCT laboratory
- separate room for HIV/AIDS counselling which ensures privacy and confidentiality
- Capacity for delivery and newborn care
- Links with OI/ART services

Preferable additional services:

- MMM
- HBC
- Community care and support services
- Paediatric OI/ART services

38

Module 4.4: Key Points

- Treatment, care and support services are the 4th prong in the comprehensive approach to the reduction of HIV infection in infants and young children
- The CoC operates from the home, across the community, to Health Facilities
- Referral pathways and strong linkages between the different components of the CoC are critical
- Comprehensive care includes medical care and also psychological, social and legal support
- Every healthcare worker has a contribution to make towards the provision of high-quality, comprehensive treatment, care and support services for PLHA in Cambodia

Module 5

Care of the Counsellor

OBJECTIVES

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

1. Define stress and burnout and explain the differences between the two
2. Learn to recognize signs and symptoms of stress and burnout
3. List risk factors for burnout
4. Name stresses associated with working in PMTCT services
5. Identify strategies to manage stress and to prevent burnout in the context of HIV/AIDS counselling and PMTCT

Time allowed for this session: ***1 hour 50 minutes***

Activity 1: What is Stress? What is Burnout?

» You will start this module by working in small groups to identify work-related stresses which you have experienced

» Refer to the questions opposite if you need any help to get started

» You will need your list later in the module

1. What are the most important daily challenges in your work?
2. What is the staffing situation? Are there enough staff?, are staff oriented to the workplace?, is training adequate?, are skills updated?
3. Do you receive all the supplies and materials you need on time?
4. What mechanisms are there for staff support? Who do you turn to if there is a problem?
5. What are three things that would make your job easier?

Stress

Stress is physical, mental and emotional strain caused by overworking the mind and body

- Stress is caused by external events or circumstances that place demands on an individual's internal or external resources
- How stressful an event is felt to be depends partly on the individual
- If the demands on a person (e.g. disclosing an HIV-positive test result) exceed their ability to cope with them, the person experiences stress

5

Burnout

Burnout is a response to prolonged, relentless, physical or emotional stress

- Burnout is preventable or can be managed constructively
- The risk of burnout can be reduced or avoided by lowering stress or changing the response to stress

Burnout is common amongst healthcare workers who work under stressful conditions for long periods of time

6

Activity 2: Differences between Stress and Burnout — 10 minutes

- » Slide 8 explains the differences between stress and burnout
- » In Stress, many processes become overactive leading to tiredness or exhaustion: picture someone on a bicycle pedalling faster and faster, trying to keep up
- » In Burnout the body and mind can no longer cope with the prolonged over activity: the person on the bicycle stops pedalling and the bicycle slows down and eventually stops moving

Differences between Stress and Burnout

Stress	Burnout
Emotions become overactive	Emotions become blunted
Physical damage is primary	Emotional damage is primary
Exhaustion of stress affects physical energy	Exhaustion of burnout affects motivation and drive
Produces disintegration	Produces demoralization
Is a loss of fuel and energy	Is a loss of ideals and hope
Produces sense of urgency and hyperactivity	Produces sense of helplessness and hopelessness
Produces panic, phobias and anxiety-type disorders	Produces depersonalization and detachment

8

Activity 3: Key Words: Signs and Symptoms of Burnout

- » You will be asked to think about signs and symptoms that might be associated with increasing stress levels and the risk of burnout

Signs and Symptoms of Burnout

Behavioural
- Frequent mood changes
- Eating disorders
- Drinking too much alcohol
- Smoking too much

Physical
- High blood pressure
- Palpitations, trembling
- Dry mouth, sweating
- Stomach pains or diarrhoea

Cognitive
- Unable to make decisions
- Forgetful
- Poor concentration
- Sensitive to criticism

Occupational
- Taking days off sick
- Fighting with colleagues
- Low achievement
- Low energy
- Poor motivation

10

Activity 4: Brainstorm: Risk Factors for Stress and Burnout

» In this exercise you will be asked to refer to the lists you wrote in Activity 1

» Each small group will be asked to present some of the job-related stresses they identified

Risk factors for Stress and Burnout Practical

Burnout may be caused by physical work overload, including:

- Having more work to do than is possible in the time available
- Long working hours with breaks which are too few or too short
- Having many responsibilities with minimal support
- Multiple roles and expectations put on counselors (e.g. expected to be nurse and counselor and educator and trainer)
- Inadequate training
- Lack of supervision

12

Risk factors for Stress and Burnout Emotional

Burnout may be caused by emotional overload related to:

- Giving HIV-positive results to clients
- Death / multiple loss of patients
- Fear of becoming HIV-infected
- Multiple needs of clients (especially in high-poverty situations and where health services are poor or unavailable)
- Lack of comfort working with specific clients (e.g. homosexual, drug user, sex worker, young people, old people, men, women)
- Challenges to religious, personal or cultural ideals

13

The Role of Counseling Supervisors

Counseling supervisors:

- must be able to detect the signs of stress and burnout and to help counselors manage stress and prevent burnout
- are also prone to stress and burnout
- need to learn how to manage their own stress, to prevent burnout and to model appropriate practices.

14

Activity 5: Strategies for Preventing Burnout

- » You will be asked to develop ideas and suggestions for how to minimise or prevent stresses from leading to burnout
- » First think about how to approach stress reduction to prevent burnout
- » Next think of specific practical stress management strategies
- » You will be asked to present your answers for discussion

Approaches to Stress Reduction and Prevention of Burnout

Preventing burnout requires managing the stresses which may eventually lead to burnout.

Consider the following concepts:

You can try to:

1. Change the situation which is causing stress
2. Adapt to the source of stress
3. Avoid the stress

16

Strategy 1

Change the situation which is causing stress:

Ask yourself:

- What can I change or influence?
- Can I take action by myself?
- Who might help me?
- What are the advantages and disadvantages to myself and/or others if the stressor were changed?

17

Strategy 2

Adapt to the source of stress
(if it cannot be removed or changed):

- Can I take it less seriously?
- Can I turn it into something positive?
- Think: “I will be ok no matter what.”
- Look for solutions, but keep an open mind
- Do relaxation exercises (physical and mental)
- Be assertive, set boundaries and learn to say “no.”
- Take regular breaks
- Avoid negative reactions
(e.g., substance abuse, overeating, dumping on others, escapism, blaming others, ignoring the situation)

18

Strategy 3

Avoid the Stress:

Ask yourself:

- Is it best for me to avoid or withdraw from this stress?
- What would the benefits or costs be?
- Have I tried all other options?

19

Practical Stress Management Strategies (1)

Management at work:

- take breaks
- delegate tasks where appropriate
- promote team work
- address concerns before they get too big

Training:

- Increase your knowledge, skills and confidence
- Learn new subjects or seek refresher training

20

Practical Stress Management Strategies (2)

Look after yourself:

- **Peer support:** talk, laugh, spend time with friends
- **Mentoring:** find a trusted person who can listen, support and guide you
- **Protect leisure** and family time, do things you like doing, listen to music, sing, play with your children
- **Physical care:** exercise regularly, eat properly, get enough rest

Defuse stress:

- **Relaxation** exercises or activities, prayer, meditation
- **Think positively** and avoid negative influences if you can
- **Master the stress:** write it down, put it aside until later, put it in perspective (imagine yourself in 5 years time - will it still matter?)

21

Attitudes to Avoid

- **Feeling used** / being taken for granted
  know your rights and needs, and let others know them
- **Addiction to work**
  balance work, family, rest and play
- **Negative**, defeatist thoughts
  positive thoughts absorb energy; smiling releases tension
- **Punishing** yourself
  be as fair to yourself as you are to others
- **Disliking** yourself
  accept yourself as you are
- **Defensiveness**
  be yourself, and be human

22

Relaxation Exercises

Shoulder Shrug

- Inhale and pull your shoulders up to your ears.
- Rotate your shoulders backwards, pulling your shoulder blades together.
- Exhale with a grunt or sigh and let go.
- Repeat three times.

Face Relaxer

- Scrunch up your face as if you are trying to squeeze the tension right off the tip of your nose.
- Exhale and let go.
- Now inhale and open your mouth as wide as possible, lifting your eyebrows to make your face very long. This is like a yawn.
- Now exhale and let go (After doing this exercise, you may find yourself yawning. Don't worry, it just shows that you are relaxing.)
- Repeat once more

23

Key Points

Module 5: Key Points

- Working as a PMTCT counsellor is a stressful occupation
- Burnout syndrome is related to prolonged, intense job stress
- Signs of burnout include both physical and psychological symptoms
- Stress can be managed and the risk of burnout minimised by individual measures and organisational support

Module 6

Monitoring and Evaluation

OBJECTIVES

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

1. Explain the importance of accurate recording, registering and reporting
2. List the registers and summary forms used for recording and reporting PMTCT activities
3. Describe the purpose of each register and summary form
4. Complete the following, accurately and correctly:
    1. PMTCT registers
    2. Monthly summary report form at ANC
    3. Monthly summary report form at Maternity
    4. Monthly summary report form at OPD
5. Explain the purpose of monitoring and evaluation
6. Explain supervision of PMTCT services

Time allowed for this session: ***minimum time = 3 hours***

Activity 1: Brainstorm: Why is a Recording and Reporting System Needed?

» You will be asked to think about the importance of recording and reporting

Why is a recording and reporting system needed?

Patient Care
Each patient is looked after by a team of HCWs who need to communicate about medical, psychological and social issues

Follow-up
Pregnant women need to be followed from their first antenatal visit, through to delivery and postnatally

Quality Control
Can identify what is working well and what needs to be improved

Supplies
Accurate information is required to plan, order and deliver adequate supplies of drugs and consumables

Programme management
Managers need information for monitoring and evaluation

5

Activity 2: PMTCT Registers

PMTCT Registers

- The data compiled in patient registers allow HCWs to collect the following information about patients coming to ANC or Maternity services:
  - Who the patients are
  - When they came
  - What services they received
- Patients can be tracked for follow-up
- Data can be used to fill out summary forms

7

Overview of PMTCT Registers

There are 3 PMTCT registers:

1. PMTCT Register for ANC
2. PMTCT Register for HIV-positive pregnant women
3. Maternity PMTCT Register for HIV-positive mothers

8

Activity 3: Group Work: Completing Registers

» In this activity you will spend time filling in copies of the 3 PMTCT registers (Appendix 6)

Activity 4: PMTCT Summary Forms

PMTCT Summary Forms

- PMTCT summary forms are compiled from monthly data
- Summary forms are sent to the PMTCT Provincial coordinator each month
- All PMTCT summary forms are aggregated into one provincial report
- Individual site data and the Provincial reports are sent to the PMTCT Secretariat each month
- The PMTCT Secretariat aggregates the Provincial Level data by month, by quarter and by year into a National Report

11

Overview of PMTCT Summary Forms

There are 3 Summary Forms:

1. Monthly summary report form at ANC
2. Monthly summary report form at Maternity
3. Monthly summary report form at OPD

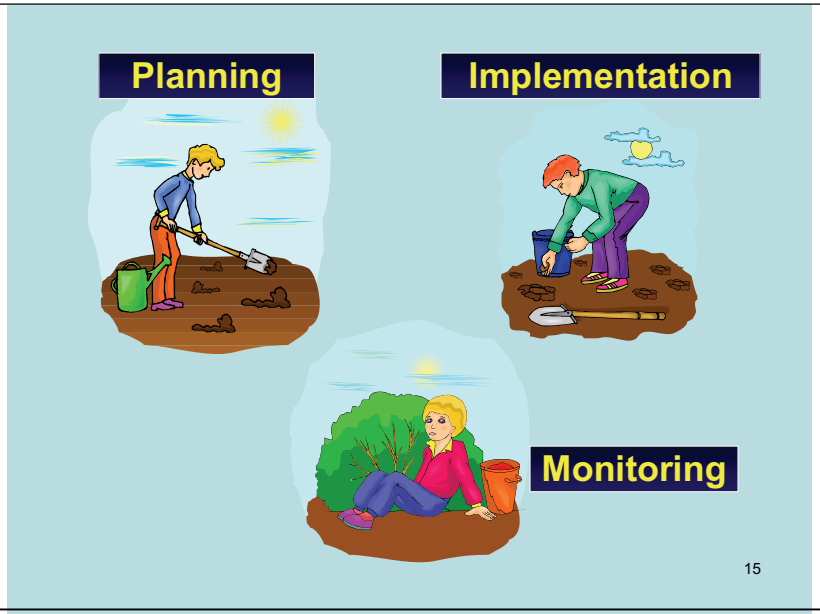
The summary forms can be filled out using the information contained in the PMTCT Register for ANC, the PMTCT Register for HIV-positive pregnant women and the Maternity PMTCT Register for HIV-positive mothers

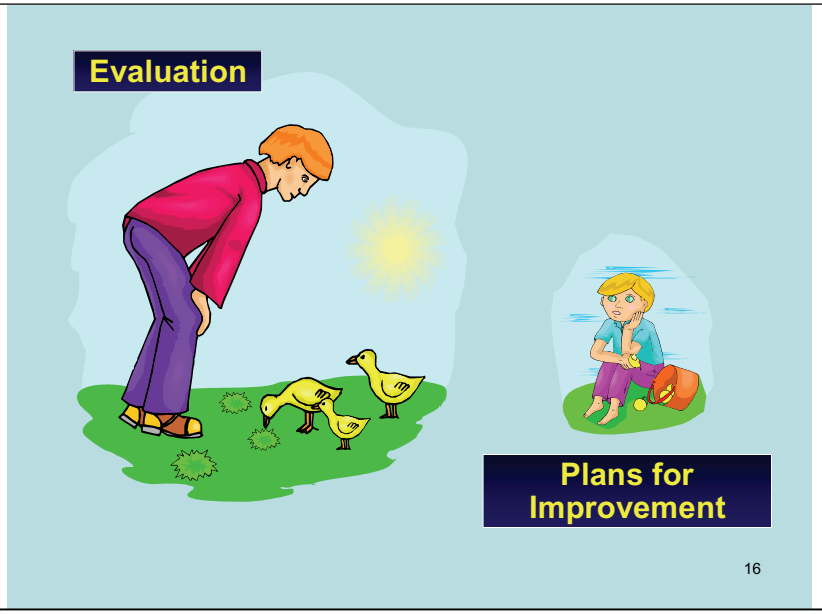
12

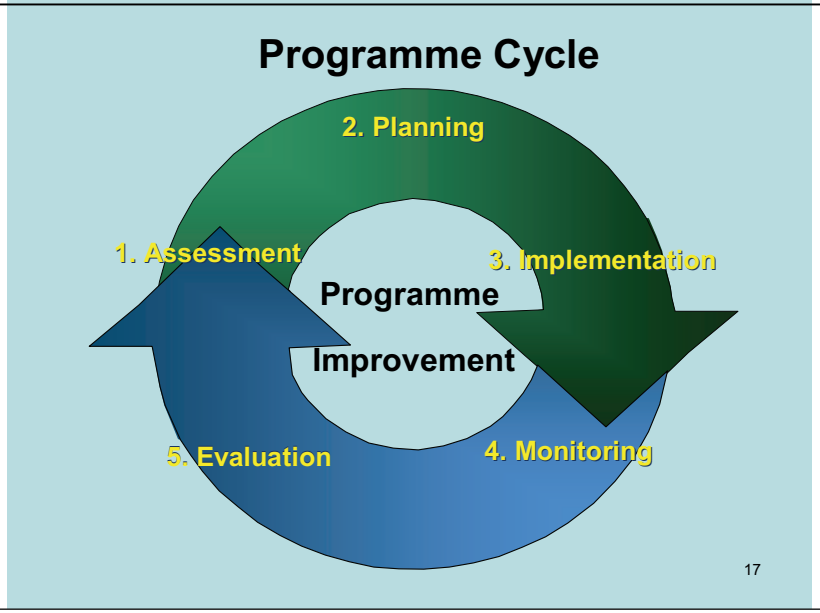
Activity 5: Group Work: Completing PMTCT Summary Forms

» In this activity you will spend time filling in copies of the 3 PMTCT Summary Forms (Appendix 6)

Activity 6: Monitoring and Evaluation







Programme Cycle for PMTCT Services

1. **Assessment:** There is a need to prevent MTCT
2. **Planning:** Provision of PMTCT services within the Continuum of Care, what are the goals?
3. **Implementing:** Staff training, establishing standard operating procedures (SOPs), integration of PMTCT into the Health Care System
4. **Monitoring:** How are PMTCT services performing?
5. **Evaluation:** What is the impact of PMTCT services, how may services be improved?

The cycle is ongoing:
Evaluation leads to further planning and implementation

18

Monitoring

Monitoring depends on regular data collection and reporting, including:

- Registers
- Monthly summary forms
- Provincial reports
- National reports

This information is used to:

- Assess the performance of PMTCT services
- Detect and correct problems
- Use resources more efficiently

19

Evaluation

Evaluation measures changes in MTCT of HIV which are due to PMTCT services

Indicators are estimated from information provided at the local level to:

- Reflect the goals, objectives and activities of PMTCT interventions nationally
- Assess the effectiveness of the PMTCT response
- Address global PMTCT indicators

20

The Role of the Health Care Worker in Data Collection

Monitoring and evaluation is only useful if the data it depends on is relevant, accurate and complete

Health care workers need to be sure they:

- Understand the data to be collected
- Record the data every time
- Record all the data
- Record the data in the same way every time

Feedback on how the recording system is working and how it could be improved can also be useful

21

Indicators

National PMTCT Indicators:

- Have been developed to track achievements of National PMTCT interventions
- Are calculated from monthly PHD PMTCT reports and reports from the PMTCT Secretariat

The following 2 slides show National PMTCT Indicators for use at the central level:

22

Indicators

1. % of ODs that have at least one facility with minimum PMTCT package
   this measures National PMTCT coverage
2. % of first ANC attendees who receive VCCT
   this measures HIV testing participation rates in target Health Facilities
3. % of first ANC attendees who receive post-test counselling
   this measures the % of pregnant women who receive their HIV test results in target Health Facilities
4. % of husbands or partners who receive post-test counselling through the PMTCT programme
   this measures partner participation

23

Indicators (cont.)

5. % of HIV exposed children identified through PMTCT programme who receive a complete course of ARV prophylaxis for PMTCT
   this measures % of women and infants who complete the PMTCT programme
6. # and % of HIV exposed infants who received ARV prophylaxis at birth and test HIV+ at 18 months
   this measures the transmission rate of HIV from MTC after PMTCT prophylaxis
7. # of HCWs, counsellors and PLHA trained in PMTCT in the past 12 months
   this measures capacity building

24

Activity 7: Data Analysis

» The purpose of this exercise is to look at a data set and to perform some simple analyses

» You will be divided into small groups and given a copy of the data set which shows PMTCT data collected in an ANC over a period of six months

» Look carefully at the data and then answer the questions

Data Set

Pregnant women ANC / VCT	Jan	Feb	Mar	Apr	May	Jun	Jul	Total
Total # of ANC clients this month	345	287	299	302	355	260	280	2128
# 1st ANC this month (ANC02)	124	132	140	153	107	110	98	864
# pre-test counselled	65	80	50	56	80	82	60	473
# had first HIV test	58	70	40	38	71	68	49	394
# returned for test result	57	60	30	27	50	60	40	324
# tested HIV-negative	57	66	36	34	60	29	45	327
# tested HIV-positive	1	4	0	0	4	3	2	14
# had second HIV test	4	0	0	6	2	5	8	25
# returned for second test result	3	1	0	5	1	4	6	20
# tested HIV negative	3	1	0	5	1	3	5	18
# tested HIV positive	0	0	0	0	0	1	1	2
% ANC02 who accepted pre-test counseling	52	61	36	37	75	75	61	55
% of those tested who returned for their test result	98	86	75	53	70	88	82	80

Questions

Q1	What is the HIV prevalence amongst pregnant women taking their first HIV test for the six month period?
Q2	What is the HIV prevalence amongst pregnant women taking their second HIV test?
Q3	Do you have any comments about this result?
Q4	Looking at the % of ANC1 who accepted pre-test counseling each month, what do you notice?
Q5	Looking at the % of women who returned for post-test counseling each month, what do you notice?
Q6	What would you do next?

Activity 8: Supervision

What is the Purpose of Supervision

Supervision
- is a vital part of monitoring
- aims to identify both strengths in service provision and areas which need improvement
- provides feedback for programme improvement
- must be conducted at local, provincial and national levels

29

Key Issues for Supervision

Supervision looks for strengths + successes as well as problems and aims to identify mechanisms for addressing problems

Supervision issues related to Health Care Workers
- Supportive working environment
- Training and professional development

Supervision issues related to service provision:
- Appropriate ANC services for all pregnant women
- High quality counselling for pregnant women and their partners
- Confidentiality of HIV results
- Available and properly administered ARV prophylaxis
- Timely and consistent referral to other CoC services
- Continuous stocks of drugs and supplies

30

Supervision Visits

- Provincial PMTCT coordinators should conduct supervision visits to each PMTCT site in their province once a quarter and complete a supervision checklist*
- National programme staff will visit twice a year and conduct additional visits if required
- Completed checklists are sent to the PMTCT Secretariat
- Feedback should be provided to individual sites after visits and should include positive comments and identify areas where improvements are needed
- Laboratory quality control is conducted by NCHADS

*See Appendix F, National Guidelines for PMTCT, 2005

31

Module 6: Key Points

- Accurate Health Facility registers and records provide essential information for monitoring PMTCT activities
- Monitoring of PMTCT-related data allows:
  - Service provision to be assessed
  - Problems to be detected and corrected
  - Resources to be allocated and used more efficiently
- Evaluation looks at how changes in the indicators obtained from the monitoring data can be attributed to PMTCT interventions
- Results from evaluations are used to make and implement further plans for service improvement

PMTCT Register for ANC

PMTCT Register for ALL pregnant women receiving counselling and/or testing for HIV

PMTCT Code #	Age	Profession	Pre-test		HIV-test		Post-test		Transferred from (HBC, NGO, VCCT, OI/ART)	HIV Test Result						Appointment Date dd/mm/yy	Referred to CoC		Remark
			1st	2nd	1st	2nd	1st	2nd		1st			2nd				Yes	No	
										(-)	(+)	Ind	(-)	(+)	Ind				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)
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PMTCT Register for HIV-positive pregnant women ONLY

		AZT												
		Initial ARV dose		Refill 1		Refill 2		Refill 3		Refill 4		Total time on ARV		
PMTCT Code No.	Estimated Date of Delivery dd/mm/yy	Date dd/mm/yy	# of days given	Date dd/mm/yy	# of days given	Date dd/mm/yy	# of days given	Date dd/mm/yy	# of days given	Date dd/mm/yy	# of days given	< 4 weeks	> 4 weeks	Remark
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)

Maternity PMTCT Register for HIV-positive mothers ONLY

Date of Delivery	PMTCT Code No.	Weeks Woman Took HAART During Pregnancy		Weeks Woman Took AZT During Pregnancy		ARV administered during Labour				Infant Received SD NVP ONLY	Infant received SD NVP AND Discharged with AZT		ARV Mother Discharged with AZT+3TC		Infant Feeding		
(dd/mm/yy)		> 4	< 4	> 4	<4	AZT+NVP	NVP	HAART	None		1 week	4 weeks	Yes	No	B	R	Remark
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
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Monthly summary report form at ANC

Name of health facility……...level……Month of Report……..…Year of Report ……..….
OD…… Province-city…….Date of reporting……....

ANC

-ANC01 : Total number of ANC Clients……..…….. ☐
-ANC02 : Total number of 1st ANC Clients…… ☐
-ANC03 : Total number of ANC Clients who received Pre-test counseling…… ☐
-ANC04 : Total number of ANC Clients who accepted HIV testing……... ☐
-ANC05 : Total number of ANC Clients who returned for test result…… ☐
-ANC05.1 : Total number of HIV negative…… ☐
-ANC05.2: Total number of HIV positive…… ☐
-ANC05.3: Total number of indeterminate…….. ☐
-ANC06 : Total number of ANC clients had second HIV testing…… ☐
-ANC07 : Total number of clients who returned for test result……... ☐
-ANC07.1 : Total number of HIV negative…… ☐
-ANC07.2 : Total number of HIV positive……..…….. ☐
-ANC07.3: Total number of indeterminate…….. ☐

PARTNERS

-ANC08 : Total number of partner who accepted HIV testing…… ☐
-ANC09 : Total number of partner who returned for test result…….. ☐
-ANC09.1 : Total number of HIV negative…… ☐
-ANC09.2 : Total number of HIV positive……... ☐
-ANC09.3 : Total number of indeterminate…… ☐
-ANC10 : Total number of partner had second HIV testing…… ☐
-ANC11 : Total number of partner who returned for test result…….. ☐
-ANC11.1 : Total number of HIV negative…… ☐
-ANC11.2 : Total number of HIV positive…….. ☐
-ANC11.3 : Total number of indeterminate…… ☐

REFER

-ANC12 : Total number of ANC clients who received ZDV (New case)…….…... ☐
-ANC13 : Total number of HIV positive mothers referred from…….. ☐
-ANC14 : Total number of HIV positive mothers referred to CoC…….. ☐
-ANC15 : Total number of HIV positive partners referred to CoC…… ☐

Monthly summary report form at Maternity

Name of health facility……...level……Month of Report……..

OD…….. Year of Report…..……

Province-city…….Date of reporting……..……

DELIVERIES

-MAT 01 : Total number of deliveries…… ☐

-MAT 01.1 : Total number of known HIV negative clients…….... ☐

-MAT 01.2 : Total number of known HIV positive clients…… ☐

-MAT 01.3 : Total number of unknown HIV status……... ☐

-MAT 02 : Total number of delivery HIV positive women…… ☐

-MAT 02.1 : Total number of women who received ZDV during pregnancy……..…. ☐

-MAT 02.1.1 : Total number of women who received ZDV >4 weeks ……. ☐

-MAT 02.1.2 : Total number of women who received ZDV < 4 weeks…….. ☐

-MAT 02.1.3 : Total number of women who received ZDV + NVP during L&D*…….... ☐

-MAT 02.2 : Total number of women received ZDV+ NVP or SD NVP during L&D …….. ☐

-MAT 02.3 : Total number of women received HAART during pregnancy……... ☐

-MAT 02.3.1 : Total number of women received HAART >4 weeks…….. ☐

-MAT 02.3.2 : Total number of women received HAART <4 weeks…….. ☐

-MAT 02.4 :Total number of HIV positive women received no ARV…… ☐

-MAT 03 : Total number of children born to HIV positive mothers**…… ☐

-MAT 03.1 : Total number of exposed children received SD NVP + ZDV 1 week…….. ☐

-MAT 03.2 : Total number of exposed children received SD NVP + ZDV4 weeks…… ☐

-MAT 03.3 : Total number of exposed children received SD NVP…… ☐

-MAT 04 : Total number of breastfeeding……... ☐

-MAT 05 : Total number of replacement feeding……... ☐

* This number continues from the above mothers who received ZDV during labour.
It should not be added to MAT O2.1.1 or MAT02.1.2 to get MAT 02.1

**Total number of children (died and alive)

Monthly summary report form at OPD

Name of health facility……...level……Month of Report……..

OD…….. Year of Report…….……

Province-city…….Date of reporting…….……

EXPOSED CHILDREN

-OPD 01 : Number of exposed children returned for follow-up…….…….. ☐

-OPD 02 : Number of exposed children referred to HIV paediatric Care……..……...……..... ☐

-OPD 03 : Number of exposed children started Cotrimoxazole prophylaxis…….……..……..…… ☐

-OPD 04 : Number of exposed children tested at 18 months……..……..…… ☐

-OPD 04.1 : Infant boys tested HIV-positive……..……..……..……..…… ☐

-OPD 04.2 : Infant girls tested HIV-positive..……..……..……..…… ☐

-OPD 05 : Number of children that started ART this month..……..……..…… ☐

Week 1

Answers:

Purpose

- Answers to Questions and Case Study exercises used in the PMTCT Training programme may be found in this chapter

Module 1
Activity 5: Lecture: Progression from HIV to AIDS. Clinical Staging Questions

Q:	Slide 31	Stage
1	a 25 year old HIV+ man with oral thrush and intermittent diarrhoea for over one month	Stage 3
2	a 40 year old HIV+ woman with small, swollen lymph nodes in her neck and underarms. She is well and very active	Stage 1
3	a 36 year old HIV+ man who is extremely thin, complains of fever for 3 months and cannot get out of bed	Stage 4
4	a 30 year old HIV+ woman with pulmonary TB and herpes zoster on her chest	Stage 3
5	a 28 year old HIV+ sex worker with Herpes Zoster on her face and itching rash all over her body	Stage 2
6	a 34 year old HIV+ man with sores in and around his mouth and cryptococcal meningitis	Stage 4

Module 1
Activity 7: Questions and Answers: FAQ

Q.	Slide 38	A.
6.	Can a person get HIV infection if they eat at the same table as an HIV-infected person?	No
7.	Is a midwife at risk if she does not wear gloves while delivering an HIV+ woman?	Yes
8.	Are the other children at risk if there is an HIV+ child in their class at school?	No
9.	Can a person get HIV infection if he has penetrative anal sex with another HIV infected person?	Yes
10.	Can a woman get HIV infection if a man practices group sex with 2 women but uses a condom?	Yes

Module 3
Activity 1: Qs & As: Pregnancy and HIV Infection

	Slide 5	**T / F**
1	Pregnancy causes HIV disease to progress more rapidly	F
2	HIV probably does not cause congenital abnormalities	T
3	HIV-related problems are worse in pregnant than non-pregnant women	F
4	Pregnant women with HIV are more likely to have a spontaneous abortion or stillborn baby	T
5	HIV positive women are just as fertile as HIV negative women	?**
6	There is no relationship between HIV infection and premature labour or low birth weight babies	F
7	Perinatal and newborn mortality is the same in babies born to mothers with and without HIV infection	F
8	HIV infection can be passed from a pregnant woman to her baby	T

** This depends on the stage of HIV infection. Early on in HIV infection fertility is not affected. In late stage HIV disease, fertility is reduced and interest in sex is less

Module 4.3.1
Activity 6: Exercise: ARV Prophylaxis for the Infant: Dose Calculation

Baby	Birth Weight	Dose of NVP (ml) 0.2 ml / kg, single dose	Dose of AZT (ml) 0.4 ml / kg, twice daily dose
1	2.50 kg	0.5 ml	1.0 ml
2	2.25 kg	0.5 ml	1.0 ml
3	3.01 kg	0.6 ml	1.2 ml
4	2.70 kg	0.5 ml	1.1 ml
5	3.24 kg	0.7 ml	1.3 ml

Module 4.3.2
Activity 2: Antenatal Case Study

Antenatal Case Study:	
Part 1	Nana is 22 years old and pregnant for the first time. She came to the ANC at 24 weeks. After listening to the mother's class she chose to receive pre-test counselling.
Q1	What steps should the counsellor take now?
A1	1. The counsellor should obtain informed consent and take the blood sample 2. The blood sample should be sent to the designated lab together with a referral slip containing Nana's PMTCT code number 3. Nana should be asked to return in the afternoon to receive her results
Part 2	Nana returned for post-test counseling later that day and was found to be HIV positive
Q2	What are the ANC management steps that should be taken now?
A2	1. Nana should receive post-test counselling 2. She should be encouraged to bring her partner for counselling and testing 3. She should be given information about the benefits of OI/ART and, with her permission, she should be given a referral slip to go to OI/ART services in the Referral Hospital
Part 3	Nana was seen at OI/ART services. Her CD4 count was found to be 350 cells/mm^3
Q3	What advice should Nana be given now?
A3	1. Nana should be told that she does not require ART for her own disease at this time as her CD4 count is > 250 cells/mm^3 2. She should be told about ARV prophylaxis and how it can protect her baby 3. She should be asked to return to OI/ART at 28 weeks to receive ARV prophylaxis 4. She should be informed about other CoC care and support services and, if she is willing, she should be referred to home-based care, a local CBO or PLHA support group and told about MMM 5. She should be reminded to return to ANC for routine antenatal care 6. She should be informed about the importance of coming to the PMTCT hospital for delivery of her baby

Module 4.3.2 Activity 4: Maternity Ward Case Study

Part 1	Nana arrives at the Maternity Ward in labour. You check the records and find that she is HIV-infected and has been taking AZT as ARV prophylaxis. She says her contractions are steady now and about four minutes apart. You perform a vaginal examination and estimate that Nana has at least 2 more hours until delivery. You give her the labour dose of Nevirapine
Q1.1	Are you required to use gloves when caring for patients who are HIV-infected? According to universal precautions, would the same gloving requirements apply for all labour and delivery patients, regardless of HIV status?
A1.1	Gloves should be worn for all patients during vaginal examination, regardless of HIV status
Q1.2	In your facility, are gloves in good supply and available in a variety of sizes?
A1.2	*Given by participants*
Q1.3	What do we know about the relationship between MTCT and vaginal examinations for pregnant women who are HIV-infected?
A1.3	Vaginal examinations should be performed only when absolutely necessary as they may increase the risk of HIV transmission to the baby
Part 2	It has now been more than 4 hours since Nana's waters broke (rupture of membranes). She is exhausted. After checking her partogram the physician examines the woman and decides to use oxytocin to shorten her labour
Q2.1	Why is it important to shorten the time between the rupture of membranes and delivery by a woman who is HIV-infected?
A2.1	Prolonged labour is associated with a higher risk of MTCT
Part 3	Nana is now fully dilated and ready to deliver. As the head is delivered, you use gauze to carefully free the infant's mouth and nostrils of fluids. Then, with one final push, the infant is delivered completely. You hand the newborn to a gloved assistant, who wipes him dry and continues with neonatal care. Then the placenta is delivered.
Q3.1	Itemise the protective clothing that would be appropriate in a labour and delivery setting
A3.1	Gloves, masks, goggles, gowns and boots should be worn
Q3.2	Consider the need for proper disposal of sharps used in labour and delivery. Does your facility have conveniently located containers for the disposal of sharps?
A3.2	*Given by participants*
Q3.3	At your facility, what are the policies for disposing of waste materials? What should be done with the placenta and other contaminated materials?
A3.3	*Given by participants*
Part 4	Nana was your 8th delivery in the past 24 hours. You need to get home and tend to your family but your replacement has not yet arrived. You speak with your supervisor and she is able to locate someone else to take your place
Q4.1	How do you feel when your supervisor tells you that you can go home?
A4.1	You feel relieved. Overtired and overworked staff are at risk of making errors during management of patients and are themselves at risk of stress and burnout
Q4.2	In your facility, do you have someone who will help you find staffing relief if needed?
A4.2	*Given by participants*

Module 4.3.4
Activity 6: Answers to the Maternity Ward Occupational Exposure Case Study

Steps to be followed after an Occupational Exposure
1. If there is bleeding, allow a few seconds for the wound to bleed freely, do not squeeze, then wash thoroughly with soap and water
2. Inform the duty chief on the Maternity Ward
3. Explain to the patient what has happened and obtain patient's consent for HIV rapid testing
4. Obtain consent for HIV rapid testing from Sophana
5. Assure both the patient and Sophana that confidentiality will be strictly maintained
6. Provide support to Sophana and to the patient. Give Sophana a copy of the information sheet on Occupational Exposures
7. PEP should be started within 4 hours of exposure or as soon as possible thereafter up to a limit of 36 hours after which it is unlikely that there will be any benefit of PEP
8. Do not wait for the results of HIV tests before starting PEP
9. Provide follow-up to Sophana ▪ If the patient's HIV test is positive, finish course of PEP (usually 4 weeks of treatment) and provide support to Sophana, including HIV testing at 6 weeks, 3 months and 6 months after the exposure ▪ If the patient's HIV test is negative, discontinue PEP ▪ If Sophana's own HIV test is positive, do not start PEP, maintain confidentiality, counsel her and refer her to OI/ART services for care, treatment and support services

Module 6
Activity 5: Answers for Monthly summary report form at ANC

Name of health facility……...level……Month of Report……**JANUARY** ..…Year of Report ….. **2007**……..……
OD…… Province-city…….Date of reporting……...

ANC

-ANC01 : Total number of ANC Clients……..20
-ANC02 : Total number of 1st ANC Clients……10
-ANC03 : Total number of ANC Clients who received Pre-test counseling…… 5
-ANC04 : Total number of ANC Clients who accepted HIV testing……4
-ANC05 : Total number of ANC Clients who returned for test result……4
-ANC05.1 : Total number of HIV negative…… 3
-ANC05.2: Total number of HIV positive……0
-ANC05.3: Total number of indeterminate……1
-ANC06 : Total number of ANC clients had second HIV testing……2
-ANC07 : Total number of clients who returned for test result……2
-ANC07.1 : Total number of HIV negative…… 1
-ANC07.2 : Total number of HIV positive……1
-ANC07.3: Total number of indeterminate……0

PARTNERS

-ANC08 : Total number of partner who accepted HIV testing…… 1
-ANC09 : Total number of partner who returned for test result……1
-ANC09.1 : Total number of HIV negative…… 0
-ANC09.2 : Total number of HIV positive…… 1
-ANC09.3 : Total number of indeterminate……0
-ANC10 : Total number of partner had second HIV testing…… 0
-ANC11 : Total number of partner who returned for test result……0
-ANC11.1 : Total number of HIV negative…… 0
-ANC11.2 : Total number of HIV positive…… 0
-ANC11.3 : Total number of indeterminate……0

REFER

-ANC12 : Total number of ANC clients who received ZDV (New case)…… 3
-ANC13 : Total number of HIV positive mothers referred from……2
-ANC14 : Total number of HIV positive mothers referred to CoC……3
-ANC15 : Total number of HIV positive partners referred to CoC…… 1

Activity 5: Answers for Monthly summary report form at Maternity

Name of health facility……...level……Month of Report **FEBRUARY**..

OD…….. Year of Report…**2007**……

Province-city…….Date of reporting……..……

DELIVERIES

-MAT 01 : Total number of deliveries…… **100**

-MAT 01.1 : Total number of known HIV negative clients……..**92**

-MAT 01.2 : Total number of known HIV positive clients…… **8**

-MAT 01.3 : Total number of unknown HIV status……... **0**

-MAT 02 : Total number of delivery HIV positive women…… **8**

-MAT 02.1 : Total number of women who received ZDV during pregnancy…… 4

-MAT 02.1.1 : Total number of women who received ZDV >4 weeks …… 2

-MAT 02.1.2 : Total number of women who received ZDV < 4 weeks…….. 2

-MAT 02.1.3 : Total number of women who received ZDV + NVP during L&D*…….... 4

-MAT 02.2 : Total number of women received ZDV+ NVP or SD NVP during L&D only…….. 1

-MAT 02.3 : Total number of women received HAART during pregnancy……..2

-MAT 02.3.1 : Total number of women received HAART >4 weeks…….. 1

-MAT 02.3.2 : Total number of women received HAART <4 weeks…….. 1

-MAT 02.4 :Total number of HIV positive women received no ARV…… 1

-MAT 03 : Total number of children born to HIV positive mothers**……8

-MAT 03.1 : Total number of exposed children received SD NVP + ZDV 1 week……..3

-MAT 03.2 : Total number of exposed children received SD NVP + ZDV4 weeks…… 5

-MAT 03.3 : Total number of exposed children received SD NVP…… 0

-MAT 04 : Total number of breastfeeding……..6

-MAT 05 : Total number of replacement feeding……..2

* This number continues from the above mothers who received ZDV during labour.
It should not be added to MAT O2.1.1 or MAT02.1.2 to get MAT 02.1

**Total number of children (died and alive)

Module 6
Activity 7: Data Analysis

Q1	What is the HIV prevalence amongst pregnant women taking their first HIV test for the six month period?
A1	**(14/394) x 100 = 3.6%**
Q2	What is the HIV prevalence amongst pregnant women taking their second HIV test?
A2	**(2/25) x 100 = 8%**
Q3	Do you have any comments about this result?
A3	**Women having a second HIV test because of concerns about the window period might be expected to have a higher HIV prevalence**
Q4	Looking at the % of ANC1 who accepted pre-test counseling each month, what do you notice?
A4	**Low in March and April**
Q5	Looking at the % of women who returned for post-test counseling each month, what do you notice?
A5	**Low in April**
Q6	What would you do next?
A6	**Question why this might be: look at the registers to see if mistakes with data entry were made, think about factors which might cause fewer women to access pre- and post-test counseling…**

LIST OF RESOURCES

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   MoH, National Maternal and Child Health Centre June 2002

2. WHO/CDC Prevention of Mother-to-Child Transmission of HIV Generic Training Package
   WHO 2004

3. Voluntary Confidential Counseling and Testing for HIV (VCCT), A Guide for Implementation
   MoH, NCHADS, January 2004

4. HIV Sentinel Survey Report
   MoH, NCHADS, 2004

5. Voluntary Confidential Counseling and Testing for HIV, VCCT Counseling Training Manual
   MoH, NCHADS October 2004

6. Continuum of Care for People Living with HIV/AIDS, Operational Framework
   MoH, NCHADS 1st edition, April 2003

7. Cambodia National Guidelines for the use of Paediatric ÀRV
   MoH, NCHADS 1st edition, October 2004

8. Cambodia National Guidelines for the Prevention of Mother-to-Child Transmission of HIV
   MoH, National Maternal and Child Health Centre
   2nd edition, September 2005

9. Cambodia National Training Programme: Clinicians Training on Management of Opportunistic Infection and Antiretroviral Therapy for Adults
   MoH, NCHADS 1st edition, September 2004

10. Cambodia National Training Programme: Clinicians Training on Management of Opportunistic Infection and Antiretroviral Therapy for Children
    MoH, NCHADS 1st edition, 2006

11. Cambodia National Training Programme: Opportunistic Infection and Antiretroviral Therapy Counseling for Nurses
    MoH, NCHADS 1st edition, May 2005

12. Cambodia National Training Programme: Drugs and Logistic Management for Pharmacists of Referral Hospital Opportunistic Infection & Antiretroviral Services
MoH, NCHADS 1st edition, August 2005

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MoH, NCHADS 1st edition, February 2006

14. Infant and Young Child Feeding Counseling: An Integrated Course
WHO, 2005

15. HIV Prevention in Maternal Health Services: Training Guide: Session 8, Voluntary Counseling and Testing for HIV
UNFPA and EngenderHealth, 2004

16. Kenya PMCT Project, PMCT Training Curriculum: Module 4, Counseling Skills for the Prevention of Mother-to-child Transmission of HIV
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17. VCT Toolkit, Trainer's Manual: Counselling Supervision and Training
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WHO Regional Office for SE Asia, 2004
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www.whosea.org /LinkFiles/Training_Materials_voluntary-intro.pdf

19. Projections for HIV/AIDS in Cambodia: 2000-2010
The Cambodia Working Group on HIV/AIDS Projection
November 2002

20. PMTCT Programme Management Training
Thailand MOPH – US CDC collaboration
March 2003

21. Transplacental transmission of HIV: a potential role for HIV binding lectins
E.J. Soilleux, N. Coleman / The International Journal of Biochemistry & Cell Biology 35 (2003) 283–287
Retrieved June 2006 from: www.chu.cam.ac.uk/~EJS17/transplac.pdf