

# MODULE I

## 1. BASIC CONCEPT OF HIV/AIDS

### 1.1a. INTRODUCTION AND ORIENTATION

#### 1.1a. INTRODUCTION AND ORIENTATION

##### OBJECTIVES

By the end of the session, participants will:

- Begin to interact freely with each other
- Know the objectives, contents and methods of the training
- Develop the ground rules, and allocate the responsibilities for the total training period
- Feel comfortable in sharing their experiences

##### INTRODUCTION

At the opening session participants are unknown to each other and can feel uncomfortable interacting and sharing personal experiences. In this situation it is good idea to introduce each other and express themselves in front of a group. This exercise gives an opportunity to the group to share their views and experiences, which makes the climate more comfortable. After this session, the trainer also needs to give a brief introduction on training design and course structure and the training conduction procedures. It helps the participants to adjust in a new situation and mentally prepare for learning.

**TIME:** 60 minutes

**MATERIALS:**

Newsprint; Markers; Nametag holders; Copies of training program; Questionnaire for pre test

**METHODOLOGY:**

Plenary session; Discussion; Brainstorming

## CONTENTS

- Pair introduction
- Participants' expectations collection
- Briefing on training objectives
- Briefing on training program and activities
- Setting training rules, regulations and guidelines

## PROCEDURES

1. The Coordinator should start the opening session as per the schedule such as, welcoming the participants, opening remarks, chief guest's remarks and content briefing.
2. Pair up the participants and introduce each other for five minutes
  - Their name, and what would they like to be called
  - Place of origin
  - Place of work
  - Their professional experience
  - Occupation/profession
  - Likes/hobbies; dislikes
  - Previous experience with HIV and AIDS
  - What do they expect from the training
3. Ask each partner in the pair to introduce each other to the rest of the class following the guidelines above.
4. Ask participants what they expect to achieve in the training. Their expectation will be analyzed and if necessary will be incorporated after the discussion with the coordinating team.
5. Housekeeping issues
  - a. Welcome the participants. Discuss per diems, meals, transportation arrangements, course times and remind people to be prompt. Locations of toilets, smoking, fire regulations; telephones, food, etc should be informed properly.

6. Acknowledge that there may be HIV positive people in the course or people who have had a family member who is HIV positive. Indicate that the course may raise issues for these people and provide all group members with a telephone counseling contact number or means of debriefing privately with one of the trained facilitators. Establish "group norms"
  - a. Brainstorm what should be the guiding principles for the group and only put down what the group has agreed upon and participants commit to respect.
  - b. Guide participants in setting ground rules/training norms and ask participants to respect that the content of the training and the experiences of each participant are: confidential to the group, without reference to the work hierarchy, to be based on an attitude of mutual support and disciplined but informal (using first names only, not professional titles).
  - c. Record the group contracts for future reference and put it up on the wall emphasizing that these are guiding norms to facilitate coherence in the training.
  - d. Explain that the key points emerging from each day will be summarized the following morning and that the contents of each day's sessions will be presented so the participants know what to expect.
7. During the registration process on the first morning of the training, the trainer should give each participant the questionnaire (see annex IV). The same questionnaire will be distributed during the evaluation session at the end of the training. You can then compare the two to determine what was learned and areas that need to be strengthened or followed up. The Sample Lesson Plan in each chapter includes a method of evaluation for each exercise. These can be helpful in determining the level of understanding and learning during the course of the training. The training facilitation team should meet at the end of each day to evaluate the day's work, and to plan and modify the training program as necessary. A final training evaluation will be given at the end of the training.
8. Explain that there will be two types of course evaluation. An anonymous session evaluation will provide the facilitator with feedback. An anonymous course evaluation will be conducted at the end of the course. Distribute the questions to the participants.
9. Inform the participants of the short break and after the tea, and start the next session.

## Session 1.1b An overview to Voluntary Counseling and Testing (VCT)

### 1.1b. AN OVERVIEW TO VOLUNTARY COUNSELING AND TESTING (VCT)

#### OBJECTIVES

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

- Understand what VCT is and where it fits into the continuum of HIV/AIDS services and the importance of VCT for youth
- Know the role VCT plays in both HIV prevention and, for people with HIV infection, as an entry point to care
- Know the goals of VCT according to national guidelines of Nepal
- Gain insight into their motivation for becoming a VCT counselor

#### INTRODUCTION

The “HIV prevention counseling” component of this VCT curriculum is the product of years of research and practice in many parts of the world. Concerns about the efficacy of HIV counseling have their roots in the earliest days of HIV testing in the United States, when laboratorians began returning ELISA results to waiting clients. The results needed to be explained to clients who did not always return following the two-week processing time. Those who did return often received nothing more than an explanation of the laboratory results and some educational material from their counselor. Public health experts began emphasizing the importance of identifying personal risk during the pre-test counseling session to ensure program uptake. Furthermore, experts warned that HIV counseling approaches that did not focus on goal setting, reinforcement of risk-reduction activities already begun, problem solving and skills building were unlikely to be effective at preventing HIV infections. In 1990, the Centers for Disease Control and Prevention (CDC) sent experts to Uganda to collaborate in the establishment of the AIDS Information Center (AIC), which at that time conducted HIV testing and counseling around a standard ELISA test. AIC began with a relatively low number of clients. Unfortunately, the HIV epidemic in Uganda continued to grow, but AIC’s capacity to respond also increased, and by 1996 more than 3000,000 clients had received an HIV test from the Center. The experience was groundbreaking for the CDC and Ugandan personnel, who identified interesting parallels and contrasts with the HIV counseling and testing experience in the United States. In both nations, HIV counseling was not as effective as it could be at preventing new infections, and many people did not return for their test. More work needed to be done.

In response, a group of experienced counselors developed the interactive HIV prevention counseling approach aimed at risk reduction that is presented in this VCT curriculum. The approach was first introduced as “client’-centered” HIV prevention counseling in CDC’s 1993 HIV counseling and testing guideline. Those guidelines recommended use of the new

counseling approach for all clients who had HIV testing in publicly funded test sites in the United States. Although retaining a two session “pre-test” and post-test” format, the new counseling approach was otherwise a major shift from the previously recommended informational models (“old-style”) that focused on HIV test readiness, test information, and general HIV prevention messages. The new HIV prevention-counseling model used the powerful influence of the HIV testing experience to focus the client on HIV risk reduction. Using a one-on-one, interactive approach, the new HIV prevention counseling model actively encouraged HIV testing for high-risk persons, engaged the client as part of the counseling process, focused the discussion on the client’s own risk situation and circumstances, and asked the client to set specific risk reduction goals.

**TIME :** 60 minutes

**MATERIALS:**

News-prints, OHP transparencies, Markers

**METHODOLOGY:**

Brain storming, Mini-lecture and discussion

## CONTENTS

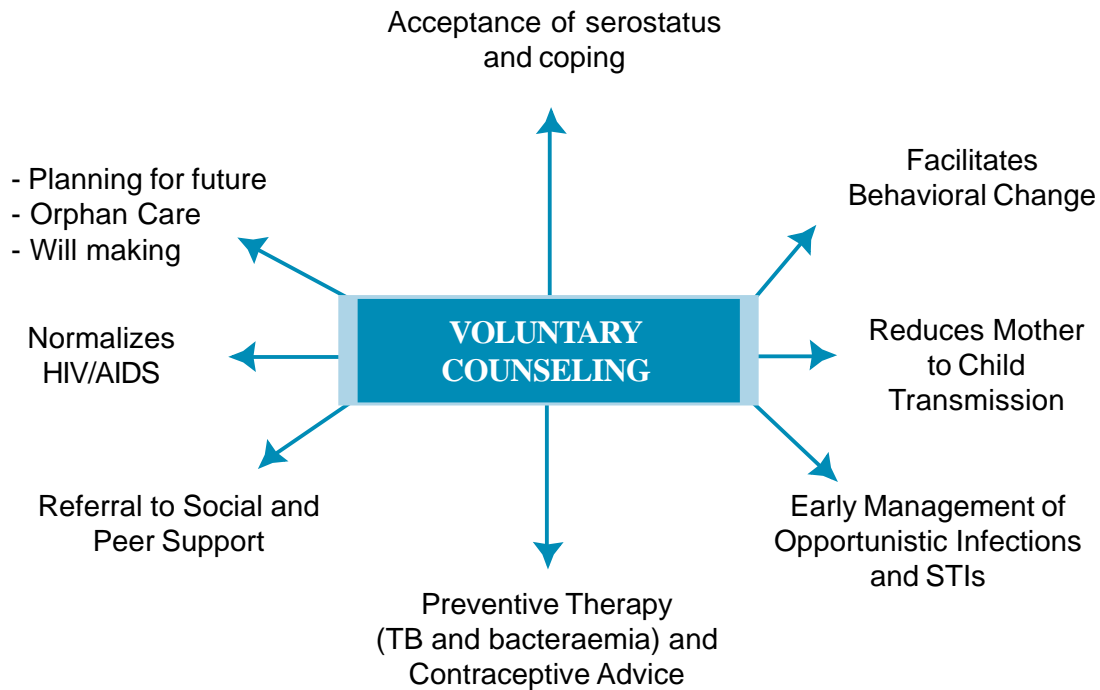
- Concept and importance of VCT
- Goals of VCT according to national guidelines of Nepal

## PROCEDURES

1. Ask the participants what they understand by voluntary counseling and testing
  - Write their answer on the newsprint
  - Then give a mini-lecture explaining how the national VCT guidelines define VCT
2. Show **MI: Session 1.1b OHP # 1** on VCT as an entry point for HIV prevention and care and explain it
3. Discuss with the participants why VCT sites in youth friendly/freestanding centers are important. Write the reason on newsprint and explain the implementation plan of VCT sites in youth friendly sites.
4. Explain the goals of VCT according to national guidelines of Nepal
5. Summarize the session and ask participants to ask the questions.

## Concept and Importance of VCT

VCT, an important entry-point for HIV Prevention and Care



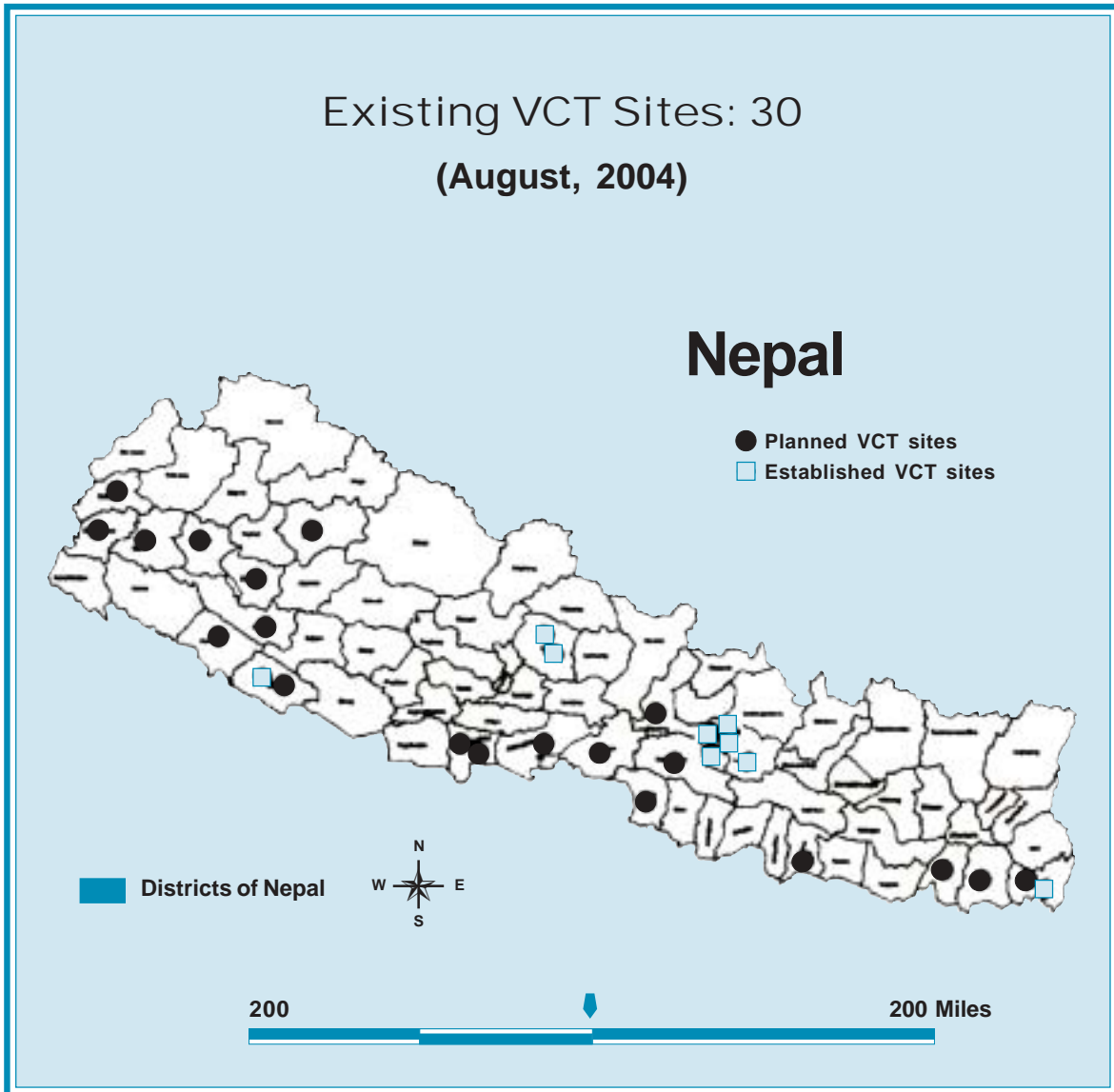
Source : WHO, 1999

## Goals of VCT

- Prevention of HIV transmission
- Early uptake of services
  - Counseling for positive living
  - Social support
  - Legal advice
  - Future planning
  - Normalization of HIV
  - Reduction of stigma
  - Promotion of VCT awareness
  - Support of human rights
  - ARV regimens for PMTCT
  - Infant feeding choices

## Goals of VCT

- Societal benefits
  - Normalization of HIV
  - Reduction of stigma
  - Promotion VCT awareness
  - Support of human rights
- Increase adherence to
  - ARV therapy
  - Preventive therapies
  - ARV regimens for PMTCT
  - Infant feeding choices





## 1.2 REVIEW OF BASIC FACTS ABOUT HIV/AIDS

### OBJECTIVES

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

- ❑ Explain the meaning of HIV and AIDS
- ❑ Describe how HIV and AIDS is transmitted and how it is not transmitted

### INTRODUCTION

#### What is HIV?

A tiny organism called a virus causes Acquired Immune Deficiency Syndrome or AIDS. This virus is called HIV, or Human Immunodeficiency Virus. HIV lives in the blood of an infected person. The virus affects the body's immune system so that the body cannot fight certain infections that it would normally be able to fight. When people become infected with HIV, they do not become sick with AIDS immediately. A person may be infected for many years with HIV and look and feel completely healthy. During this time he or she can spread the virus to other people. Eventually, a person infected with HIV will get AIDS. There is no vaccine or cure for AIDS. AIDS doesn't kill people; they die of an opportunistic infection.

**TIME:** 60 minutes

**MATERIALS:**

Markers; Newsprints; OHPs

**METHODOLOGY:**

Brainstorming; Mini lecture; Discussion; Question & answer

## CONTENTS

- Meaning of HIV
- Meaning of AIDS
- How HIV is transmitted and not transmitted

## PROCEDURES

1. Ask the participants what they know about HIV. Process the responses. Display **M I: Session 1.2 OHP #1** and explain the meaning of HIV.
2. Ask participants what HIV does to the human body? Process the responses and explain immunity and how it is affected by HIV infection.
3. Ask participants to explain AIDS. Process the responses and, reflecting on the discussion on the effect of HIV on the body's immunity, explain the meaning of AIDS by showing **M I: Session 1.2 OHP #2**.
4. Ask participants to brainstorm the ways that HIV can be passed from one person to another (modes of transmission). List responses on a flip chart. Be sure that all of the following HIV transmission modes are included. Show **M I: Session 1.2 OHP # 3 and 4** and explain them.
5. Summarize the session and evaluate the class by asking questions on the discussed topic.

## Meaning of HIV

<b>H – Human</b>	→	This virus can only infect human beings.
<b>I – Immuno-deficiency</b>	→	Effect of the virus, is to create a deficiency (a failure to work properly) within the body's immune system.
<b>V – Virus</b>	→	This organism is a virus, which means one of its characteristics is that it reproduces itself taking over the machinery of the human cell.

## Meaning of AIDS

**AIDS**

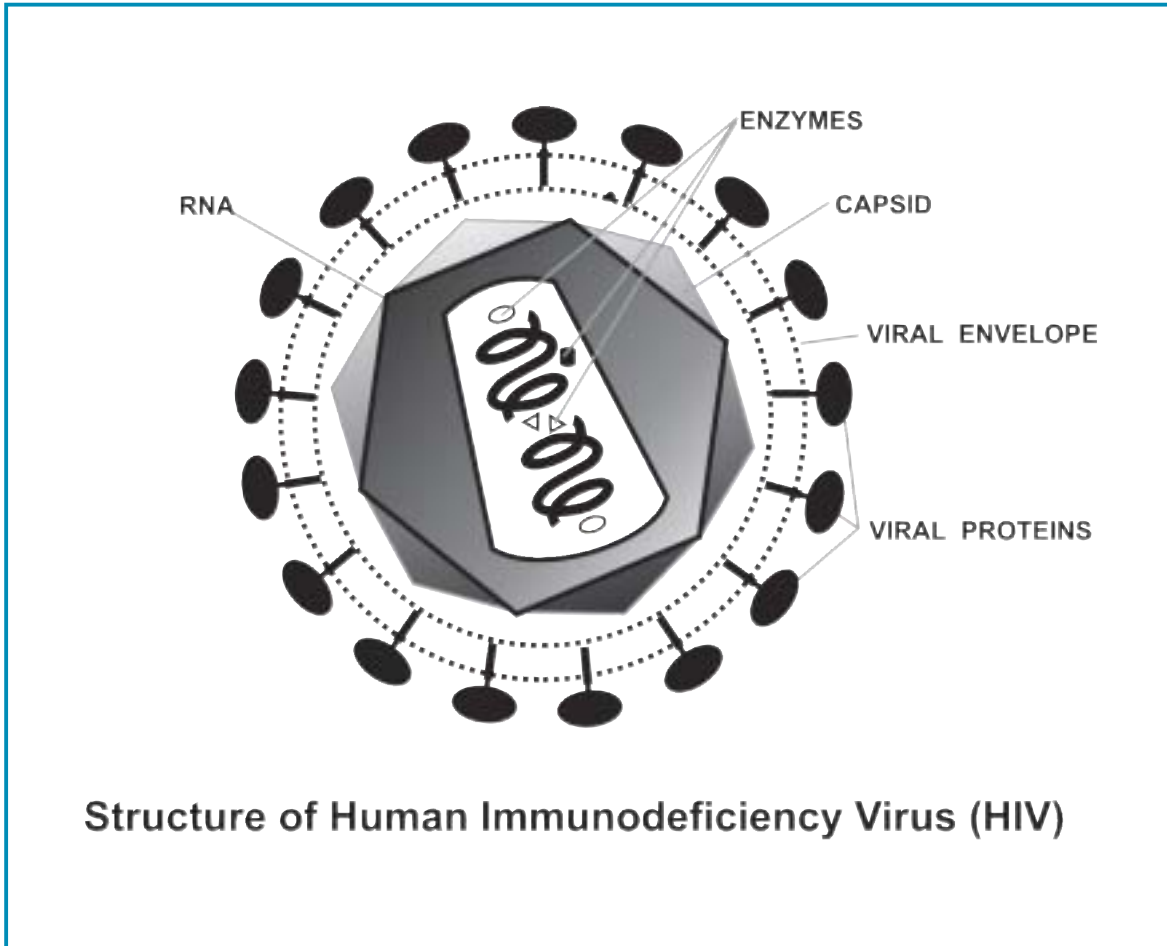
**A – ACQUIRED**

**I – IMMUNE**

**D – DEFICIENCY**

**S – SYNDROME**

## STRUCTURE OF HUMAN IMMUNODEFICIENCY VIRUS (HIV)



## How HIV is transmitted

- Sexual fluids
- Blood, blood products, tissues and organs
  - Transfusion, transplant
  - Contaminated needles, syringes, medical utensils and other piercing instruments
- Mother to child during pregnancy, delivery and breast feeding

## Activities that do not allow HIV Transmission

- Casual contacts (sharing food, shaking hands, hugging or kissing, coughing, sneezing, using public phone, visiting a hospital)
- Feces, urine, saliva, sweat, tears
- Donating blood
- Sharing toilets
- Insect bites
- Swimming pools

## 1.3 PROGRESSION OF HIV INFECTION IN THE HUMAN BODY

### OBJECTIVES

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

- ❑ Explain the progression of HIV infection in the human body
- ❑ Know the continuum of HIV to AIDS
- ❑ Describe minor and major signs of AIDS
- ❑ Know the symptoms and consequences of AIDS
- ❑ Explain WHO clinical staging system for HIV Infection and disease

### INTRODUCTION

#### **Natural History of HIV Infection**

The term “natural history” refers to the clinical evolution of an infection. It may take ten years for a person who is infected with HIV to develop AIDS, as the HIV virus takes long time to cause damage to the body. It is therefore important to distinguish between being infected with HIV and having AIDS. Several phases occur between HIV infection and the beginning of AIDS

**TIME:** 60 minutes

**MATERIALS:**

Markers; Newsprint; OHPs

**METHODOLOGY:**

Brainstorm; Lecture and discussion

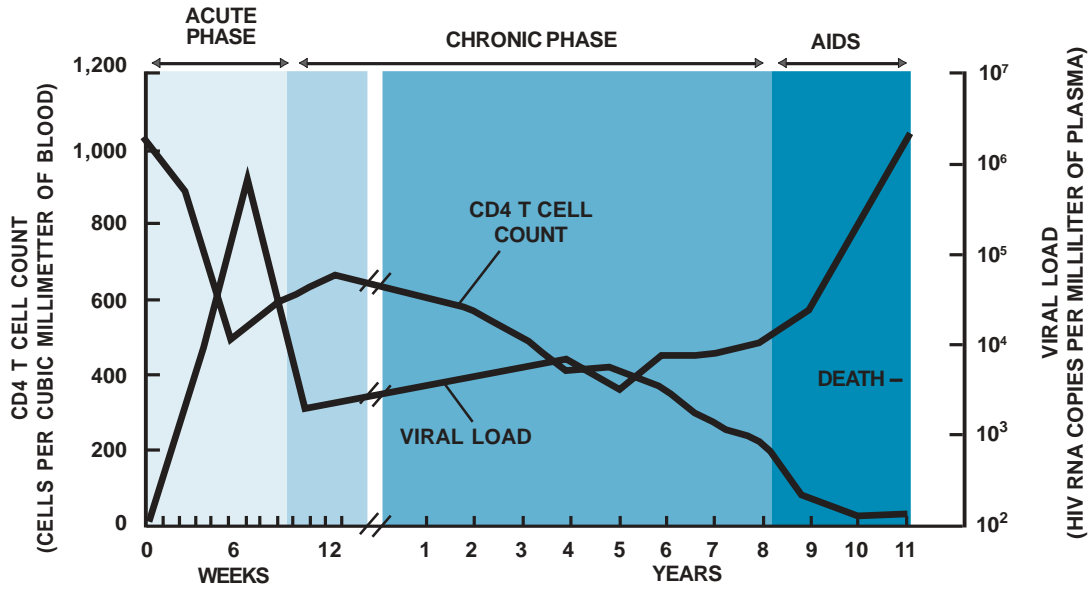
## CONTENTS

- Natural history of HIV progression
- Continuum of HIV/AIDS
- Minor and Major signs of AIDS
- WHO clinical staging system for HIV Infection and disease

## PROCEDURES

1. Ask participants what they know about the stages of HIV development in the human body, based on their experiences with people living with HIV, or according to what they have read. Record the responses on newsprint. Justify their answers and correct the answers if needed.
2. Ask participants how they think this information is relevant to HIV prevention and care.
3. Show disease progression diagram **M I: Session 1.3 OHP #1a**, and **1b** and explain to them.
4. Discuss and process the responses to highlight signs and symptoms of HIV progression in the human body in the different stages. Display **M I: Session 1.3 OHP #2**
5. Ask the participants what they know about symptoms of HIV and AIDS. Record all the responses in newsprint. If needed correct the answers.
6. Ask the participants about HIV/AIDS consequences and record all the answers in newsprint. Correct the concepts if needed. Display **M I: Session 1.3 OHP#3** and explain it.
7. Display **M I: Session 1.3 OHP#4a, 4b, and 4c** on WHO clinical staging system and explain it.
8. Wrap up the session by emphasizing the role of counseling in managing the effects of HIV on the human body.

## Course of the Disease





## Continuum of HIV Infection and Diseases

### Acute Infection

Possibly no symptoms: few weeks after infection  
Possible flu symptoms: resolves in 3 to 14 days  
Antibodies produced

### Asymptomatic Infection

No symptoms  
May go on to become sick  
Able to infect others  
Sometimes called HIV-positive  
May continue for 10 or more years

### Symptomatic HIV Infection

Not well-defined  
No specific set of illnesses/symptoms  
Chronic symptoms that do not resolve  
Sometimes called HIV-positive  
Can be fatal

### AIDS

Opportunistic infections such as tuberculosis, pneumonia and cancers  
Dementia and wasting syndrome  
Death

### Minor Signs of AIDS

- Cough for more than one month
- General itchy dermatitis
- Recurrent herpes zoster infection
- Recurrent oropharyngeal candidiasis
- Recurrent disseminated herpes simplex infection
- Generalized lymphadenopathy

### Major Signs of AIDS

- Fever for more than one month
- Diarrhea for more than one month
- Weight loss of more than 10% body weight
- Presence of opportunistic infections

The presence of at least 2 major signs and one major sign are suggestive of AIDS. However, it is suggested to carry out HIV tests to confirm the diagnosis. Presence of opportunistic infections like cryptococca meningitis, oesophagial candidiasis and cancer like Kaposi's sarcoma also suggest the diagnosis of AIDS.

### Symptoms and Consequences of HIV and AIDS

Disease	Symptoms	Consequences
HIV/AIDS	<p>Symptoms begin several months to years after infection and may include:</p> <ul style="list-style-type: none"> <li>• Persistent tiredness</li> <li>• Loss of over 10% of body weight</li> <li>• Persistent diarrhea</li> <li>• Persistent fever</li> </ul>	<ul style="list-style-type: none"> <li>• HIV-AIDS has no cure. AIDS related illness/symptoms can be treated. It is eventually fatal.</li> <li>• You can give HIV to your sexual partner or someone with whom you share a needle.</li> <li>• HIV can be passed from a pregnant woman to her unborn child or through breast milk</li> </ul>

## WHO Clinical Staging System for HIV Infection in Adults and Adolescents >13 years

### Clinical Stage I

Asymptomatic  
 Persistent generalized lymphadenopathy  
 Performance scale 1:  
 asymptomatic, normal activity

### Clinical Stage II

weight loss < 10% of body weight  
 Minor mucocutaneous manifestations  
 Herpes Zoster  
 Recurrent upper respiratory tract infections  
 Performance scale 2:  
 symptomatic, normal activity

## WHO Clinical Staging System for HIV Infection in Adults and Adolescents >13 years

### Clinical Stage III

- Weight loss > 10% of body weight
  - Unexplained chronic diarrhoea > 1 month
  - Unexplained prolonged fever (intermittent or constant) > 1 month
  - Oral candidiasis (thrush)
  - Oral hairy leukoplakia
  - Pulmonary tuberculosis, within the past year
  - Severe bacterial infections
- Performance scale 3: bed ridden, < 50% of the day during the last month

## WHO Clinical Staging System for HIV Infection in Adults and Adolescents

### Clinical Stage IV

- HIV wasting syndrome as defined by CDCa
  - Pneumocystis carinii pneumonia
  - Toxoplasmosis of the brain
  - Cryptosporidiosis with diarrhea > 1 month
  - Cryptococcosis, extra pulmonary
  - Cytomegalovirus (CMV) disease of an organ other than liver, spleen or lymph nodes
  - Herpes simplex virus (HSV) infection Mucocutaneous >1 month or visceral any duration
  - Progressive multifocal leukoencephalopathy (PML)
  - Any disseminated endemic mycosis (i.e., histoplasmosis, coccidioidomycosis)
  - Candidiasis of the oesophagus, trachea, bronchi or lungs
  - Atypical mycobacteriosis, disseminated
  - Non-typhoid salmonella septicemia
  - Extra pulmonary tuberculosis Lymphoma
  - Kaposi's sarcoma (KS)
  - HIV encephalopathy, as defined by CDC
- Performance scale 4: bed ridden, >50% of the day during the last month

## Session 1.4 The HIV and AIDS Epidemic (Current Information on Nepal and the World)

### 1.4 THE HIV/AIDS EPIDEMIC (Current Information on Nepal and the World)

#### OBJECTIVES

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

- Explain the local, national and global situation of HIV/AIDS based on available data
- Describe HIV/AIDS prevalence and surveillance
- Utilize HIV information
- State contributing factors for rapid spread of HIV in Nepal

#### INTRODUCTION

This session introduces participants to the local as well as the national and global epidemiological picture of HIV/AIDS. Participants need to know the extent of HIV risk in their communities and understand strategies for prevention and care for the infected.

**TIME:** 45 minutes

**MATERIALS:**

OHPs of relevant statistical information

**METHODOLOGY:**

Mini lecture and discussion

## CONTENTS

- Regional and global context
- The present HIV/AIDS situation of Nepal
- Contributing factors for rapid spread of HIV and AIDS in the context of Nepal

## PROCEDURES

1. Introduce and explain the purpose of the topic with the help of  
**M I: Session 1.4 OHP # 1**
2. Using an **M I: Session 1.4 OHP # 2a** and **2b**, present current statistics on the global situation of HIV/AIDS (based on UNAIDS information, Asia & Global HIV/AIDS slide)
3. Elicit participants' feelings about the presentation on the global and country situation of HIV/AIDS.
4. Using the **M I: Session 1.4 OHP# 3a** to **3c**, present statistics on the HIV/AIDS situation in Nepal.
5. After the above presentation, guide participants in visualizing some of the socio-economic and demographic implications of HIV/AIDS in Nepal.
6. Explain where and how HIV/AIDS data are collected in Nepal – the NCASC;
7. Ask the participants about the contributing factors that help to spread HIV. List out all the responses in the flip charts.
8. Explain contributing factor in the context of Nepal in **M I: Session 1.4 OHP # 4**.
9. Synthesize and summarize the discussion by emphasizing the importance of surveillance and prevalence information in enhancing HIV/AIDS control to target programs and to advocate.

## UNAIDS / WHO HIV Epidemic Definitions

- **Generalised**  
>1% in the general population.
- **Concentrated**  
< 1% in the general population but over 5% in high risk groups.
- **Low-level**  
<1% in the general population and < 5% in high-risk groups

M I: Session 1.4 OHP # 2a

## Current Projections of the HIV/AIDS Epidemic

- Additional 45 million people would become HIV infected between 2002-2010 in 126 low & middle-income countries if current prevention efforts are not continued
- >40% in Asia and the Pacific. -UNAIDS (2002)

M I: Session 1.4 OHP 2b

## Current HIV/AIDS Epidemic Information on Nepal

- First case detected in 1988
- Data indicates HIV Prevalence around 0.5% in general population
- Approximately 60000 people living with HIV/AIDS
- Prevalence in IDU-40.4% nation wide, 68% in Kathmandu valley as well as 17.3% in among FSWS in Kathmandu (NCASC, March 2004)
- Strong vulnerability factors-poverty, gender inequity, unsafe mobility, migration, trafficking, conflict
- Severe stigma, discrimination and denial

## Cumulative HIV/AIDS Situation of Nepal as of October, 2004

Condition	Male	Female	Total	New Cases in Oct. 2004
HIV Positives (Including AIDS)	3190	1164	4354	97
AIDS (out of total HIV)	596	239	835	26

*Note: This data needs to be updated every month*

Source: NCASC

## Cumulative HIV Infection by Sub-Group and Sex

Sub-groups	Male	Female	Total	New Cases in October 2004
Sex Workers (SWs)		546	546	7
Clients of SWs/STI	2340	61	2401	32
Housewives		510	510	14
Blood or organ recipients	7	2	9	
Injecting Drug Users	791	12	803	42
Children	52	33	85	2
<b>Total</b>	<b>3190</b>	<b>1164</b>	<b>4354</b>	<b>97</b>

*Note: This data needs to be updated every month*

Source: NCASC



### Cumulative HIV Infection by Age Group

Age group	Male	Female	Total	New Cases in October 2004
0-4 Years	30	21	51	
5-9 Years	21	12	33	1
10-14 Years	12	7	19	1
15-19 Years	168	168	336	10
20-24 Years	632	301	933	21
25-29 Years	826	298	1124	22
30-39 Years	1170	280	1450	32
40-49 Years	277	67	344	7
50-above	54	10	64	3
<b>Total</b>	<b>3190</b>	<b>1164</b>	<b>4354</b>	<b>97</b>

Note: This data needs to be updated every month

Source: NCASC

### MI: Session 1.4 OHP # 4

### Contributing Factors for Rapid Spread of HIV in Nepalese Population

- HIV prevalence high among FSWs.
- Seasonal migration and mobility of youth in search of jobs.
- Low level of awareness on prevention of HIV/AIDS
- Increasing number of IDUs
- Stigmatization and discrimination of HIV infected persons.
- Poor health infra structure and poor infection control measures at health institutions.
- Trafficking of young village girls for sex work outside the country.

## Session 1.5 Introduction to the National AIDS Program

### 1. 5 INTRODUCTION TO THE NATIONAL AIDS PROGRAM

#### OBJECTIVES

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

- ❑ Demonstrate understanding of the background of the national AIDS program
- ❑ Describe the VCT policy, strategies and related programs of NCASC
- ❑ Describe the relationship between the NCASC and other government sectors in relation to VCT program

#### INTRODUCTION

HIV/AIDS-related service provision is an urgent task for the government NCASC has developed national guidelines on HIV/AIDS voluntary counseling, testing and referral. It is vital for VCT counselors to have full knowledge of the policy, strategy, and programs of NCASC.

**TIME:** 30 minutes

**MATERIALS:**

Newsprint; Markers; OHPs

**METHODOLOGY:**

Mini lecture and discussion

## CONTENTS

- Background to the national program on HIV/AIDS
- Key functions and strategies of the NCASC
- The Government's multi-sectoral approach to HIV/AIDS
- Concept of the continuum of care

## PROCEDURES

1. Introduce and explain the two goals of the national AIDS program, which are:
  - a) to reduce HIV infection and transmission in Nepal, and
  - b) to reduce the impact of HIV/AIDS at all levels of society in Nepal.
2. Introduce and guide participants in understanding the National AIDS Policy, strategies, and programs as it concern HIV/AIDS counseling.
3. Explain the Government's multi-sectoral approach to HIV/AIDS prevention and care including:
  - a) the concept of a multi-sectoral approach;
  - b) the players in the multi-sectoral action; and,
  - c) the nature of involvement and participation at various levels.
4. Explain the structure/framework of the National AIDS Response with emphasis on district and VDC level.
5. Explain NCASC strategies and major activities including STI Control and Management, Home Based Care Counseling, Surveillance and Research, Clinical Management, Information, Education and Communication (IEC).
6. Introduce the session by explaining the importance for participants to understand how counseling fits into the total national HIV/AIDS response. Describe to the participants about the concept of the continuum of care in the context of Nepal. Highlight the way the programs in 7 above linked through the continuum of care.
7. Summarize the session.

## 1.6 REVIEW OF BASIC FACTS OF STIs

### OBJECTIVES

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

- Define STIs
- Explain modes of STI transmission and relationship between STI and HIV
- Describe the signs and symptoms of STIs and their consequences
- Explain 4 “C”s principle of STI management

### INTRODUCTION

Sexually Transmitted Infections, or STIs, are infections that are passed from one infected person to another person during sexual intercourse or sexual contact. STIs are caused by different organisms such as bacteria, viruses, and protozoa. During sexual intercourse there is close bodily contact. This is an ideal situation for transmission of germs or viruses. The germs that cause STIs die if they become dry or cool. They do not survive for long once they are outside the body. During sex, the germs can move easily between the penis and vagina. Being exposed to someone with an STI does not necessarily mean you will become infected with it. However, the more often you are exposed, the more likely you are to become infected. Some people become infected after only one contact. Some STIs such as gonorrhea and syphilis can be cured, while others, such as herpes and HIV infection cannot.

**TIME:** 60 minutes

**MATERIALS:**

Newsprint; Markers; OHPs

**METHODOLOGY:** Brainstorming; Lecture and discussion

## CONTENTS

- What are STIs?
- Mode of STI transmission
- Sign and symptoms of STIs
- Relationship between STI and HIV
- Misconception about STIs
- 4"C"s principle of STI management

## PROCEDURES

1. Briefly review the definition of STI and explain the meaning of STI with the help of **M I: Session 1.6 OHP #1**.
2. Instruct participants to describe general signs and symptoms of STIs in men and women. List their responses on a flipchart. Show your **M I: Session 1.6 OHP # 2** on sign and symptoms of STI.
3. Ask for a volunteer to explain what a counselor should do for a client who may have an STI.
4. Ask participants to share stories they have heard about STIs. Remember as counselors they have an important role to play in combating fear and misconception about STIs. Show **M I: Session 1.6 OHP # 3** Explain the relationship between STI and HIV. Display **M I: Session 1.6 OHP # 4**.
5. Explain 4"C"s principle of STI management by displaying **M I: Session 1.6 OHP #5**

## Sexually Transmitted Infections

Sexually Transmitted Infections, or STIs, are infections that are passed from one infected person to another person during sexual intercourse or sexual contact. They are caused by different organisms / germs such as bacteria, virus and protozoa.

### STIs in Women

- Foul-smelling or otherwise unusual vaginal discharge
- Pain during intercourse
- Pain in the pelvic area between the naval and the sex organs
- Pain or burning during urination, difficulty urinating
- Painful or itchy genitals
- Genital sores or blisters, painful and/or not painful
- Swollen and painful lymph glands in the groin
- Women who have an STI often have no symptoms

### STIs in Men

- Painful urination, difficulty urinating
- Sores on the penis
- Pus discharge from the penis
- Pain during intercourse
- Swollen and painful lymph glands in the groin

## Misconceptions about STIs

1. Transmission occurs from sharing clothes
2. Urinating at the source of water can cause STI
3. One can get STI sitting together, sleeping together
4. One can get STI due to "Naag"
5. One can get STI if "Boxi" bite
6. Masturbation can cause STI
7. Sharing soap can cause STI
8. If private parts were washed immediately after sexual intercourse it is not transmitted
9. Using the same toilet
10. If one sits immediately on warm seat of STI patient
11. One can get STI swimming in the same pond
12. STI patients can easily be identified
13. Bicycle ride can cause STI in women
14. "Dhaatu rog" does not effect if one urinates immediately after taking meal
15. Having sex with a virgin girl cures STI
16. Having sex with an animal cures STI

## Relationship between STI and HIV

- HIV and AIDS are linked because they are both sexually transmitted. People at risk of STI are also at risk of HIV through unsafe sexual behavior. Many STIs facilitate the acquisition and transmission of HIV infection through sores and bleeding
- Accessible, acceptable and effective STI services contribute to:
  - Prevention of complications and consequences of STIs
  - Reduction of sexually transmitted diseases including AIDS
- HIV and STIs are linked in prevention as well, both being prevented by:
  - engaging in safer sexual behavior
  - using condoms
- Health care seeking secondarily prevents STIs

## 4"C"s Principle of STI Management

- C = Compliance
- C = Condoms
- C = Counseling/Client education
- C = Contact tracing



## Session 1.7 Management of HIV Related Illness

### 1.7 MANAGEMENT OF HIV RELATED ILLNESS

#### OBJECTIVES

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

- Define the term opportunistic infection
- Describe the interaction between HIV and TB and how it is manifested
- Describe the clinical presentation of TB and prophylaxis treatment for TB and Pneumocystis Carinii Pneumonia (PCP)
- Discuss the role of counseling in the interventions for managing and controlling the effect of HIV infection.

#### INTRODUCTION

One of the “opportunistic” organisms that can attack people with HIV infection is *Mycobacterium tuberculosis*, which causes tuberculosis (TB). Though this organism is present in the bodies of one-third of the world’s population, it generally remains dormant in healthy individuals because of their strong immune systems. In people infected with HIV, it is able to gain the upper hand over the damaged immune system and spread to various parts of the body.

A parallel epidemic of TB is following the AIDS pandemic in many parts of the world. In some developed countries TB is becoming resistant to multi-drug therapy. In South-East Asia, where TB exists as a latent infection in nearly 40% of the population, the deadly duo of HIV and TB mean an additional drain on already over stretched health resources. Effective treatment of TB is important, not only to keep the affected individual alive, but also to prevent further spread of the disease.

**TIME:** 60 minutes

**MATERIALS:**

Newsprint; Markers; OHPs

**METHODOLOGY:**

Mini lecture; Discussion

## CONTENTS

- Definition of the term Opportunistic Infection
- HIV-TB Interaction and co-infection
- Clinical presentation of TB
- Prophylaxis of opportunistic infections including PCP and TB
- Food prohibitions for PLHA
- What is Antiretroviral Therapy (ART)
- Goals of ART
- When to start ART
- Where is ART available
- Factors affecting adherence
- Adherence intervention strategies

## PROCEDURES

1. Ask the participants about opportunistic infections. Record their responses. Display **M I: Session 1.7 OHP #1**.
2. Briefly outline common illnesses in HIV-infected people, show **M I: Session 1.7 OHP #2** and explain.
3. Explain why HIV people are susceptible? Discuss the interaction between HIV and TB and how it is manifested. Display **M I: Session 1.7 OHP#3** and explain.
4. Discuss with the participants the impact on disease progression and importance of seeking care.
5. Summarize the responses and add resource person's view on the issue of seeking prompt treatment. **Show M I: Session 1.7 OHP #4** on HIV – TB interaction & co-infection. Show the **M I: Session 1.7 OHP # 5** on Sign and Symptoms of TB
6. Explain the treatment of TB to the participants and also ask the participants to refer client to DOTs centers / hospitals for the treatment.
7. Explain current interventions to control and manage the effects of HIV infection including:
  - Vaccine developments;
  - Preventive therapies. Show **M I: Session 1.7 OHP # 6a** and **6b**.
  - Treatments including anti-retroviral therapy and treatment of symptoms. Show **M I: Session 1.7 OHP # 7-12** and explain all the OHPs in detail.
  - Explain the role of counseling in the above-enlisted interventions.
8. Evaluate the session by asking questions to participants and summarize the session.

## Definition of Opportunistic Infections

Infections caused by organisms that would not cause a disease in a person with a well-functioning immune system.

## Most Common Opportunistic Infections

- TB
- STIs
- Pneumonia (usually pneumocystis carinii)
- Recurrent fungal infections in mouth and throat
- Other skin diseases (e.g., Kaposi's sarcoma).

## Relationship between HIV/AIDS and OIs

1. People with HIV/AIDS are especially susceptible to OIs. This is the result of:
  - a. Suppression of the immune system
  - b. Psychological stress, which can influence the immune system
  - c. Depletion of nutritional status
2. Co infections with pathogens such as TB, Malaria etc. increase the HIV burden and thus accelerate the disease progression.
3. Many people learn they have AIDS through diagnosis of an OI.
4. OIs may be bacterial, viral, fungal, or protozoal.

## HIV and TB Interaction and Co-infection

- TB infection progresses rapidly in HIV infected person .
- HIV infection progresses rapidly in TB infected person.
- HIV is the most potent factor known to increase risk of progression from tuberculosis infection to disease.
- Among HIV-infected individuals, lifetime risk of developing active TB is 50% compared to 5-10% in persons who are not HIV-infected.
- HIV related TB can present any typical/atypical/clinical/radiological features, but atypical features are more common in HIV-infected person with severe immunosuppression.

## Clinical Presentation of TB

### Signs and symptoms:

- Cough lasting more than two weeks and not responding to usual antibiotic treatment
- Production of purulent, sometimes blood stained sputum
- Evening fevers
- Night sweats
- Weight loss
- Loss of appetite

## Prophylaxis of Opportunistic Infections

Some of the low cost prevention measures recommended in the U.S. (see: “Prophylactic Treatment as Recommended in the U.S.” below) may provide opportunities to prevent OIs in developing countries. These include:

- Cotrimoxazole for PCP, cerebral toxoplasmosis and various bacterial infections
- INH for tuberculosis

## Food Prohibition for PLHA

- Avoid unpasteurized dairy products, raw or undercooked eggs, meat, poultry, or fish as these are sources of salmonella infection
- Avoid undercooked or raw meat as a source of toxoplasmosis. Risk of transmission can be reduced if meat is adequately cooked and vegetables and fruit are carefully washed before eating. Also avoid exposure to cats.
- If no safe water supply is available, advise patients and family to boil drinking water to avoid diarrheal diseases such as cryptosporidiosis
- Moldy sugar cane or bamboo are possible sources of penicillium marneffeii infection (in Thailand)

## What is Antiretroviral Therapy

If your immune system is very weak, the doctor may advise you to consider taking treatment called ART. The full name for ART is Antiretroviral Therapy

If your immune system is still strong, there are other ways that you can protect yourself from opportunistic infections.

Antiretroviral drugs inhibit the replication of HIV. When antiretroviral drugs are given in combination, HIV replication and immune deterioration can be delayed, and survival and quality of life improved.

## Goals of Antiretroviral Therapy

- Reduction of HIV related morbidity and mortality
- Maximal and durable suppression of viral load
- Restoration and/or presentation of immunologic function
- Improvement of quality of life of those who are infected by HIV

## When to Start ART

**Start ART in the following instances**

**If CD4 Testing is available:**

- WHO Stage IV disease irrespective of CD4 cell count
- WHO Stage I, II or III with CD4 cell counts less than 200/mm<sup>3</sup>

**If CD4 Testing is not available:**

- WHO Stage IV disease irrespective of total lymphocyte count
- WHO Stage II or III disease with a total lymphocyte count less than 1200/mm<sup>3</sup>

**Note: IN WHO Stage I, Treatment is not recommended**

## Where is ART Available

### Existing ART services in Nepal

#### Teku Hospital

*Note: This OHP needs to be updated by the resource person*

## Factors Affecting Adherence

- a. Patient-related factors**
  - Patient readiness and commitment
  - Forgetfulness
  - Being away from home
  - Lifestyle
  - Depression
  - Cultural elements
  - Socioeconomic elements
- b. Provider-related factors**
  - Provider readiness (knowledge, skills)
  - Counseling
  - Patient education
  - Medication alerts, for example, charts and diaries
  - Adherence team
  - Provider support
- c. Regimen and drug-related factors**
  - Pill burden
  - Frequency
  - Side effects
  - Food restrictions
  - Drug interactions
- d. Other factors**
  - Cost

## Adherence Intervention Strategies

Educate and motivate, provide basic drug information, and discuss importance of adherence, timing of medications, drug interactions, etc

- Simplify regimen
- Tailor treatment to patient's lifestyle
- Prepare for and manage side effects
- Use an adherence team
- Address patient-related issues
- Recruit an adherence monitor
- Provide adherence promoting devices
- Use home-based care staff to promote adherence
- Use adaptation of directly observed therapy for a time to be determined



## Session 1.8 Prevention of HIV Infection and Universal Precaution

# 1.8 PREVENTION OF HIV INFECTION AND UNIVERSAL PRECAUTION

### OBJECTIVES

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

- Explain the different methods of prevention
- Describe the ABCs of HIV prevention and safe injecting
- Explain the meaning of universal precaution

## INTRODUCTION

### Universal Precautions

“Universal precautions” is a term usually used by health care workers. It means that you should assume that everyone, regardless of how they appear or seem, should be considered potentially infected with HIV. This means that no matter who you are working with, you should use barriers to protect yourself as if you were protecting yourself against the virus that causes AIDS. So whenever you are handling blood or body fluids (blood, semen, vaginal fluids, breast milk, vomit, feces, and so on), you must create some kind of a barrier between that fluid and your skin. Proper disposal of the barrier is also very important, as is washing your hands thoroughly after the event. These precautions will protect you from HIV and any other blood-borne disease such as Hepatitis B, as well as many other infectious diseases carried in bodily fluids.

**TIME:** 60 minutes

**MATERIALS:**

OHPs; Newsprints; Markers; Gloves; Puncture proof container

**METHODOLOGY:**

Mini lecture; Group discussions; Demonstration and Game

## CONTENTS

- Review methods of HIV prevention
- Activity prevention facts ABC
- Universal precautions

## PROCEDURES

1. Ask participants the different methods of HIV prevention and write in the newspaper. Review their answers.
2. Ask participants about most at risk group. Review their answers.
3. Assess the participants' knowledge on ABCs of HIV prevention. Ask whether they have understood it or not. Show **M I: Session 1.8 OHP #1** and explain.
4. Discuss with the participants safe injecting and safe sex. Display **M I: Session 1.8 OHP #2** and relate OHP#1 for the safe sex.
5. Briefly summarize the session up to this point—review all of the suggested ways to prevent HIV. We have now discussed sexual transmission of HIV at length, and we have decided to postpone our discussion of PMTCT until a later time. We can now turn our attention to ways to protect ourselves from transmission of HIV through contact with blood or bodily fluids.  
Start Universal Precaution
6. Ask whether participants have ever heard the term universal precautions. Can anyone give a definition for this term? Write responses on the flipchart. Show **M I: Session 1.8 OHP #3** and explain.
7. Ask participants some possible ways to form barriers between their own skin and blood or other fluids. Record their answers on the flipchart. Be sure that the end of the discussion has covered the following points. Display **M I: Session 1.8 OHP #4**.
8. After clarifying any questions participants may have about preventing HIV infection, indicate that we are now going to play a game to review all of the information we have been discussing in this session. This game is called the *Glove Game*.
  - Provide each participant with a latex glove (or other plastic barrier). Indicate that they should place that barrier on one of their hands, while leaving the other free. State that you will read different situations or activities aloud. Participants should raise their gloved hand if the situation requires protection against HIV using some kind of barrier or universal precaution. They should raise their bare hand if no barrier or protection is required.
9. Read out situations. Answer any questions participants may have.

## The ABCs of Prevention

- A = Abstinence
- B = Being Faithful (with a faithful, tested partner)
- C = Use a condom correctly, every time, all the time

## Universal Precautions

“Universal precautions” is a term usually used by health care workers. It means that you should assume that everyone, regardless of how they appear or seem, should be considered potentially infected with HIV. This means that no matter who you are working with, you should use barriers to protect yourself as if you were protecting yourself against the virus that causes AIDS.

## Safe Injecting

- Stopping injecting drug use
- Using sterile needles, syringes and other equipment every time
- Not sharing injecting equipment
- Cleaning equipment between use

## Measures of Universal Precaution

- Practice proper Hand Washing
- Use latex gloves or plastic barriers if gloves are not available. (Be sure to pass around some latex gloves so participants can handle them. Also have some examples of other plastic barriers available in the local community—for example, plastic bags.)
- Clean up blood spills immediately using gloves or plastic barriers and wipe with a bleach and water solution (mix household bleach, one part to 20 parts water) then dispose soiled items in plastic bags.
- Wash your hands thoroughly with soap and water after handling blood or bodily fluids.
- Place used injection needles in puncture-proof containers. (Pass around the “sharps” container or other sample container.) Do not place the cap back on the needle after use, because this is the most common way that health workers have infected themselves.
- If a person you are working with begins to bleed, hand them a cloth to stop the bleeding themselves, if they can, until medical help arrives.
- If you are in a situation in which blood or other fluids may splatter into your face, for example, if helping with childbirth, cover your eyes with glasses and your nose and mouth with a mask or piece of cloth (if possible). The placenta should be handled with gloved hands, placed in plastic, and burned or buried deeply enough that animals or children will not dig it up.
- Keep a first aid kit with latex gloves or plastic barriers, bandages, and antiseptic available at your school, home, or work site.
- If you do become exposed to potential HIV infection, contact a medical officer immediately for possible HIV prophylactic treatment. Be sure that you do not treat the person whose blood or fluid you have touched only as a possible infector, but show concern for their health as well by offering compassion, information, and possible testing.

## Session 1.9 HIV Testing

### 1.9 HIV TESTING

#### OBJECTIVES

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

- Explain the meaning of HIV Testing
- Describe the objectives of the antibodies testing
- Describe the advantages and disadvantages of HIV testing
- Describe the benefits of HIV rapid test
- Explain the recommended testing strategy
- Explain result interpretation
- Explain the methods to ensure confidentiality

#### INTRODUCTION

The diagnosis of HIV has traditionally been based on the detection of antibodies against HIV. A wide range of different HIV antibody tests are available based on different principles and many newer simple and rapid HIV tests.

In most industrialized countries, current diagnostic testing procedures use enzyme linked immunosorbent assays (ELISA) to screen a specimen. If it is reactive, the result is confirmed by testing the specimen with another HIV test called the Western Blot.

However, studies have shown that the latest generation of ELISAs and rapid tests are as reliable for confirmation as Western Blots. In addition, compared with Western Blots, ELISAs, and rapid tests are less expensive, do not require as high a level of technical expertise to perform and interpret, and produce fewer indeterminate results.

Therefore, UNAIDS and WHO recommend alternative testing strategies using combinations of ELISAs or rapid tests to confirm initial positive tests (UNAIDS 1997).

**TIME:** 75 minutes

**MATERIALS:**

Newsprint; Marker; OHPs; Cue cards

**METHODOLOGY:**

Lecture; Interactive Discussion

## CONTENTS

- Antibodies testing
- Advantage and disadvantages of testing
- Benefits of the Rapid test
- Testing strategy
- Result interpretation
- Confidentiality

## PROCEDURES

1. Explore the meaning of antibody testing. Display **M I: Session 1.9 OHP# 1**
2. Ask the participants what are the advantages and disadvantages of knowing the HIV status. Show **M I: Session 1.9 OHP # 2**.
3. Ask the participants to identify benefits of the HIV Rapid Test. Record all the responses on the newsprint. Justify their responses and show **M III: Session 1.9 OHP # 3** and explain it.
4. Discuss with the participants what they know about testing strategy. Jot down the valid points and show **M I: Session 1.9 OHP # 4a, 4b, 4c, 4d** (see annex VI) and describe them. Allow the participants to ask the questions to facilitator and answer questions if have any.
5. Show **M I: Session 1.9 OHP # 5** and explain how result can be interpreted. Check participants understanding with the help of questions.
  - *Note: The practical session will be held during the field visit.*
6. Explain the importance of confidentiality. Ask the participants why it is needed. Show **M I: Session 1.9 OHP # 6a and 6b**.
7. Discuss with the participants about quality assurance program and show **M I: Session 1.9 OHP # 7**.
8. Ensure the learning and summarize the session.

## Meaning of Antibody Testing

The HIV antibody test looks for antibodies against HIV, they do not detect the virus itself. When the HIV enters the body it infects white blood cells known as T4 lymphocytes or CD4 cells. The infected person's immune system responds by producing antibodies to fight the new HIV infection. Presence of the antibodies is used to determine presence of HIV infection.

## Advantages and Disadvantages of HIV Testing

### Advantages

- Relief from anxiety
- Test can help motivate the person to change the risk behavior
- Person gets the time for planning (pregnant mother about termination of pregnancy or infant feeding options)
- Effective management of OI can be carried out.
- The person can adopt healthy life style

### Disadvantages

- Test may jeopardize the person's employment opportunities
- Difficulties in receiving medical treatment
- Loss of self confidence
- Loss of control over life.
- Self-imposed isolation.
- Interpersonal problems with family and friends
- May face social stigma, discrimination and blame
- Economic problem
- Problems in obtaining insurance policy

## The Benefits of HIV Rapid Tests

### HIV Rapid tests share common characteristics:

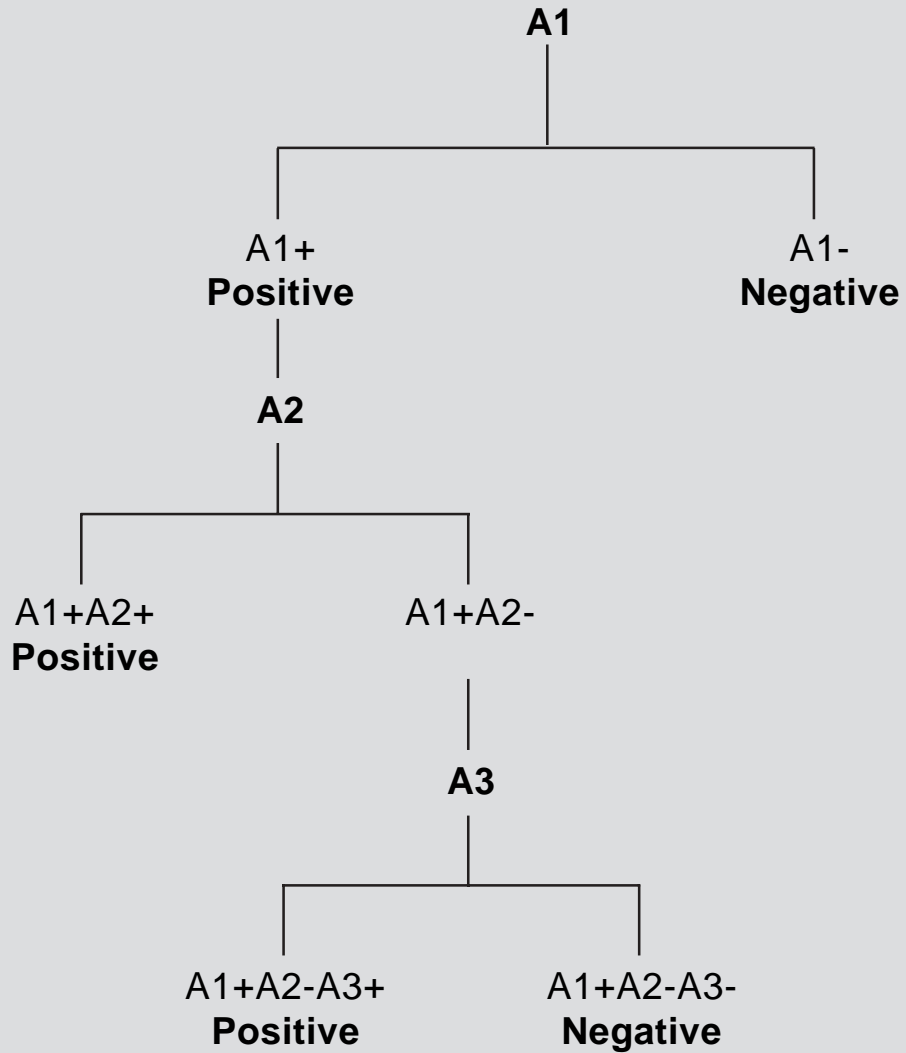
- Rapid tests require a blood sample, which can be collected by a finger-stick.
- They can be processed on site without laboratory equipment.
- They take 15 - 30 minutes to produce test result.
- Clients can receive their result the same day as the testing procedure.
- Quicker to perform
- Do not require batching
- Require specialized equipment or trained personnel.

## Recommended HIV Testing Algorithm

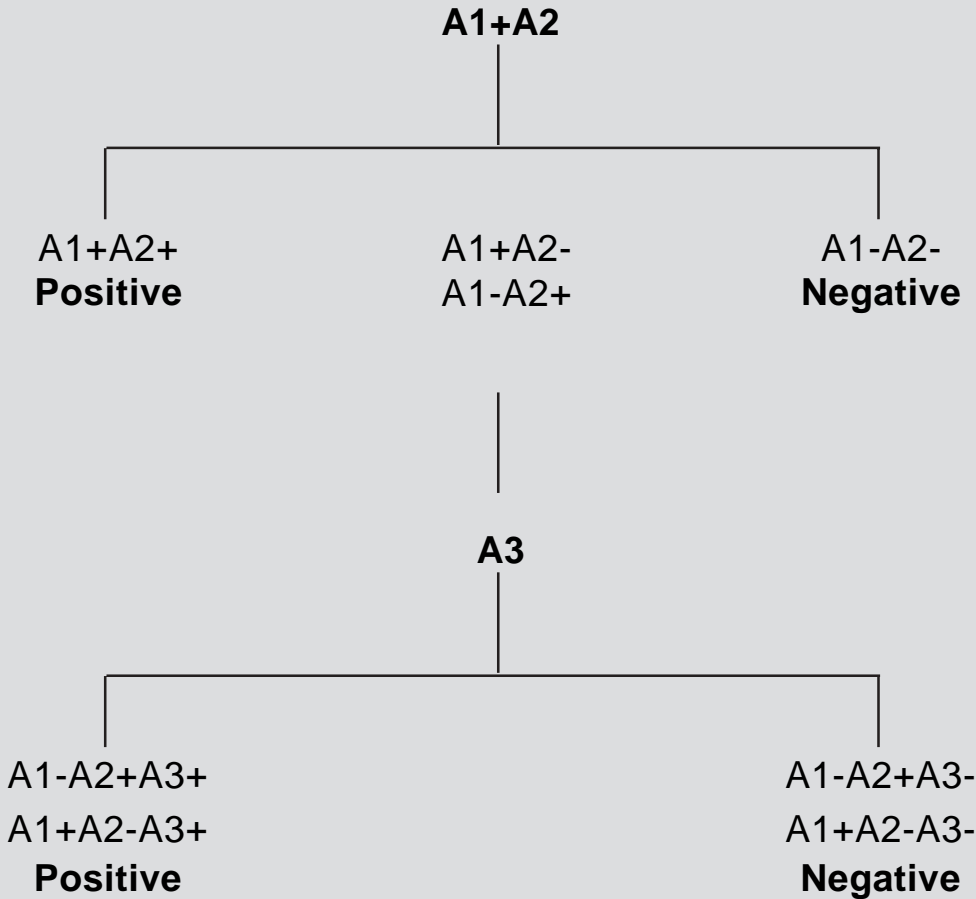
- **A Screening test** should be conducted first or at the same time as the confirmation test. A HIV rapid test is a good screening test when it can rule out all the people who do not have HIV.
- **A Confirmation test** should be conducted first or at the same time as the screening test. A HIV test kit is a good confirmation test when it can verify all the cases of people who are truly HIV positive.
- **A Tiebreaker** is the last test conducted. The tiebreaker test is typically **only** conducted when the results from the screening test and confirmation test are different. This does not happen often, so the majority of VCT clients will receive a correct result with a screening test and confirmation test.



## HIV Test Algorithms Strategy 1



## Strategy 2



## Serial Versus Parallel Testing

- Serial tests (most common):
  - The first test uses a highly sensitive assay to reduce false negative results.
  - Second test is not performed unless the first test is positive.
- Parallel tests:
  - Two antibody tests are always performed.
  - The tests differ in antigenic targets and methodologies.
  - One test is highly sensitive and the other test is highly specific
- Advantages of parallel testing include:
  - Reduction in the risk of false negative results in high prevalence populations.
  - Only a single finger prick is required.
  - Favourable perception that two tests are better than one.
  - Reduction in the stigma of the patient being called back for the second test.

### Parallel Testing

HIV Screening Test	HIV Confirmation Test	Client's HIV Result
Negative	Negative	Negative
Positive	Positive	Positive
Positive	Negative	Conduct Tiebreaker The client's HIV result is the result of this tiebreaker test.
Negative	Positive	Conduct Tiebreaker The client's HIV result is the result of this tiebreaker test.

## Methods to Ensure VCT Clients' Confidentiality

### ***Unique Identifier Number***

- The unique identifier keeps the client's name separate from his or her HIV result.
- The unique identifier is a series of letters and/ or numbers assigned to a client during registration.
- This letter and/ or number series is unique to that client.
- The unique identifier number should be labeled on the HIV rapid test in front of the client.
- The unique ID keeps the client's name separate from their HIV result.

### Sample Client Card with Unique Identifier

**This is your client card. Please keep it with you at all times during your visit here today.**

**The counselor will call you by this number:**

***01-834-HGO***

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## Tips to Maintain Confidentiality

- Counselors must maintain adequate records and also protect the identity of individuals.
- No information concerning the client, including HIV test results, should be given without the permission of the client. But “shared confidentiality” is encouraged.
- While working as a counselor in a hospital, persons with HIV positive result should be shared only with the permission of the person.
- Any agreement between counselor and client about confidentiality may be reviewed and changed by joint negotiation, but the counselor must work within the guidelines of the current agreement.

## Tips to Maintain Confidentiality contd..

- Counselors must maintain confidentiality in storing and disposing of client records.
- Counselors must not disclose any information about a client to colleagues or third parties without first seeking the client’s consent (except as noted below.)
- Counselors may break the confidentiality agreement only under the following circumstances:
  - The counselor believes a client might cause serious physical harm to himself or herself, or to another person or persons, or be harmed by another person or persons
  - The client is no longer able to take responsibility for his or her decisions and actions;
  - A court has ordered disclosure of such information;
  - The person infected with HIV continues to behave in a way that presents a clear threat to identifiable individuals’ lives;
- The client requests a release of record.

## Quality Assurance

- It is important that all VCT programs develop a quality assurance program relating to HIV testing.
- This must involve an external reference laboratory; each month 5% of the total sample load is sent to the reference laboratory for confirmation.

## Component 4: HIV Test Preparation

**Time: 7 minutes**

### Protocol

- Discuss client's HIV test history and behavioral changes in response to results.
- Address client's feelings about testing for HIV.
- Explore with whom client has shared his or her decision to come for VCT services. e.g., partners, family and friends
- Discuss the client's understanding of the meaning of positive and negative HIV test results.  
Clarify client's misunderstanding about the meaning of HIV test results.
- Assess client's readiness to be tested and receive the test results.
  - Response to positive results
  - Response to negative results
- Assess who will provide the client support if he or she were HIV infected.
- Discuss positive living
  - Staying well living longer
  - Obtaining support
  - Medical care and follow-up
- Weigh and discuss the benefits of knowing your serostatus (knowledge is power).
  - Preparing for the future.
- Determine client's test decision
- Identify and address examples when beliefs and behavior are at odds or when feelings are mixed about being tested and dealing with the results.
- If the client elects to be tested, describe the tests and the interpretation and reading of the test
- Direct client to lab to receive test and instruct him/her to return to the counselor or where to wait should the counselor be with another client.

