Islamic Republic of Afghanistan
Ministry of Public Health

HIV Training Manual 2009

National AIDS Control Program (NACP)
2009
Introduction

The Response to HIV Afghanistan Manual 2008 provides current and essential information on the national response to HIV formulated in the ANASF 2006 and POP 2007. This manual will offer “foundations of knowledge” for HIV service providers, program managers, trainers, and persons living with HIV.

Capacity building of program managers, service providers, and trainers is critical and requires 1) knowledge, 2) practice, 3) training, 4) monitoring, and 5) supervision. This manual will support the trainers and managers knowledge of HIV prevention, treatment, care, and support within the Afghan response to HIV.

The Manual can be used as the central material for 2, 3 and up to 5 days training program. The reader will find directions and materials on using HIV training in the Annexes. The trainer will want to use the provided material as the foundation of training programs for specific groups, such as harm reduction workers, TB/HIV care providers, prison health care providers and so forth. The health care provider will want to refer to this manual as a reference for current information on HIV. The trainee will find this manual provides good foundation for what HIV is.

Please send any questions and comments to Dr. Saifurrehman, director National AIDS Control Program, MOPH. <saifurrehman.dr@gmail.com>
Acknowledgements
The HIV Manual was prepared by the HIV training working group formed by the NACP, NGOs, and donors in 2008.

According to the evidence base needs of National HIV/AIDS Control Program to provide the valuable and acceptable HIV national training manual.

This manual has HIV/AIDS subjects and contents for specific target groups like medical staff, Religious leaders, Sex workers, Police, School teachers, students, community leaders and others, to increased the knowledge, attitude and skill of targeted people to HIV/AIDS and decrease the stigma and discrimination against HIV clients and AIDS patients. Manual will have positive role in awareness and prevention of HIV in Afghanistan.

We appreciate the efforts of Dr. Joseph Rittman, HIV advisor NACP, Dr. Abdul Rashid from Action Aid and Dr.Mirzaman Malakzai HIV guidelines development Advisor NACP, and contribution of Swedish Committee for Afghanistan in preparation of this manual.

Thanks must also go to the HIV training committee for their participation in drafting the contents of this manual, along with their assistance in reviewing and finalizing the manual.

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The contents of this HIV Manual are obtained from well recognized sources; these are listed in the HIV reference list.

NACP Director
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<th>Full Form</th>
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<td>AEM</td>
<td>Asia Epidemic Model</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
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<td>ANASF</td>
<td>Afghanistan’s National Strategy for HIV/AIDS</td>
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<td>ANDS</td>
<td>Afghanistan’s National Development Strategy</td>
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<td>ART</td>
<td>Antiretroviral Therapy</td>
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<tr>
<td>CBB</td>
<td>Central Blood Bank</td>
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<td>DIC</td>
<td>Drop-In Centers</td>
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<td>FSW</td>
<td>Female Sex Workers</td>
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<td>HACCA</td>
<td>HIV/AIDS Coordination Committee for Afghanistan</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>HMIS</td>
<td>Health Management Information Systems</td>
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<td>IBBS</td>
<td>Integrated Biological and Behavioral Survey</td>
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<td>IDU</td>
<td>Injecting Drug Users</td>
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<tr>
<td>KAP</td>
<td>Knowledge, Attitudes, and Practices</td>
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<td>MoPH</td>
<td>Ministry of Public Health</td>
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<td>MSM</td>
<td>Men who have sex with men</td>
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<td>MSW</td>
<td>Male Sex Workers</td>
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<td>NACP</td>
<td>National AIDS Control Program</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>OST</td>
<td>Opium Substitution Therapy</td>
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<td>PMTCT</td>
<td>Prevention of mother-to-child transmission</td>
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<td>SGS</td>
<td>Second Generation Surveillance</td>
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<td>STD</td>
<td>Sexually Transmitted Disease</td>
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<td>STI</td>
<td>Sexually Transmitted Infection</td>
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<td>SW</td>
<td>Sex Workers</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<td>UNAIDS</td>
<td>Joint UN Programme on HIV/AIDS</td>
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<td>UNGASS</td>
<td>UN General Assembly Special Session</td>
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<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
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<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
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<td>WB</td>
<td>World Bank</td>
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Module One

Basic of HIV and AIDS
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Introduction

Objectives: By end of the session the participants should have been able to:
- Reach consensus on workshop expectation and objectives
- Agree on workshop norms
- Agree on timetable and working hours

Session Contents
- Introduction of participants
- Expectation of workshop
- Objectives of the workshop
- Norms of workshop
- Timetable of working hours

Session Instructions:
Activity 1: Introduction My name is … and I love to …

The facilitator welcomes the participants. Workshop can be opened by a guest with a brief address. The facilitator asks the participants to stand up, in a circle. Ask everyone to think of something they love doing, and an action that goes with it (e.g. playing football, cooking, dancing etc). One person steps forward and says “My name is …… and I love to ………” (With an action), then steps back. Everyone else steps forward together and repeats exactly what the person just did and said this with the same expression, intonation and actions. Each person (including facilitators) takes their turn at introducing themselves in this way, followed by everyone else imitating their introduction.
**Human Immune Deficiency Syndrome (HIV)**

**Objectives:** By end of the session the participants should have been able to:

- Explain HIV
- Familiar with the structure of HIV
- Understand the life cycle of HIV

**Session Contents**

- What is HIV? What HIV stands for?
- Define the structure of HIV
- Describe the life cycle of HIV

**What is HIV?**

HIV is an infection that cause AIDS, and stand for Human Immune deficiency Virus (HIV). Like all viruses, HIV cannot grow or reproduce on its own. In order to make new copies of itself it must infect the cells of a living organism. HIV belongs to a special class of viruses called retroviruses. Unlike most bacteria, HIV particles are much too small to be seen through an ordinary microscope. However they can be seen clearly with an electron microscope.

**The structure of HIV**

HIV particles surround themselves with a coat of fatty material known as the viral envelope (or membrane). Projecting from this are around 72 little spikes, which are formed from the proteins gp120 and gp41. Just below the viral envelope is a layer called the matrix, which is made from the protein p17.

**HIV Life Cycle**

**Entry**

HIV can only replicate (make new copies of itself) inside human cells. The process typically begins when a virus particle bumps into a cell that carries on its surface a special protein called CD4. The spikes on the surface of the virus particle stick to the CD4 and allow the viral envelope to fuse with the cell membrane. The contents of the HIV particle are then released into the cell, leaving the envelope behind.

**Reverse Transcription and Integration**

Once inside the cell, the HIV enzyme reverse transcriptase converts the viral RNA into DNA, which is compatible with human genetic material. This DNA is transported to the cell's nucleus, where it is spliced into the human DNA by the HIV enzyme integrase. Once integrated, the HIV DNA is known as provirus.
Transcription and Translation

HIV provirus may lie dormant within a cell for a long time. But when the cell becomes activated, it treats HIV genes in much the same way as human genes. First it converts them into messenger RNA (using human enzymes). Then the messenger RNA is transported outside the nucleus, and is used as a blueprint for producing new HIV proteins and enzymes.

Assembly, Budding and Maturation

Among the strands of messenger RNA produced by the cell are complete copies of HIV genetic material. These gather together with newly made HIV proteins and enzymes to form new viral particles, which are then released from the cell. The enzyme protease plays a vital role at this stage of the HIV life cycle by chopping up long strands of protein into smaller pieces, which are used to construct mature viral cores.

The newly matured HIV particles are ready to infect another cell and begin the replication process all over again. In this way the virus quickly spreads through the human body. And once a person is infected, they can pass HIV on to others in their bodily fluids.

HIV AND Immune System

Objectives: By end of the session the participants should have been able to:

- Know how HIV damage the immune system

Session Contents
- Disorder of immune system and AIDS
- Immune System
- Normal defense mechanism of body
- Main location of body of defense system
- HIV damage to immune system
Know the Immune system
Understand the function of immune system
Understand the T-Helper cells and their function

Immune System

How Immune System fight disease?

Immune system: The ability of human body to resist the all types of organisms or toxin that tends to damage the tissues or organs.¹

There are two aspects of the immune system’s response to disease: innate and acquired. The innate part of the response is mobilized very quickly in response to infection and does not depend on recognizing specific proteins or antigens foreign to an individual’s normal tissue. It includes complements, macrophages, dendritic cells and granulocytes.

The acquired, or learned, immune response arises when dendritic cells and macrophages present pieces of antigen to lymphocytes, which are genetically programmed to recognize very specific amino acid sequences. The ultimate result is the creation of cloned populations of antibody-producing B cells and cytotoxic T lymphocytes primed to respond to a unique pathogen².

The immune system can mount a variety of responses to attack specific infection. One of these responses is coordinated by T-helper cells (also known as T cells, T4 cells, or CD4 cells), which act as a kind of orchestra conductor.

The T-helper cells tell other cells what to do when this response is triggered. We are interested in this immune response because it is the one that is most disrupted by HIV infection.

How HIV damage the immune system?

The HIV RNA has an enzyme called "reverse transcriptase" that is crucial for viral replication inside T cells, white blood cells that help coordinate activities of the immune system.

HIV, like all other viruses, has proteins that are particular to itself. These proteins are called antigens. Antigens have diverse functions in viral replication. In the case of HIV, a combination of two antigens, gp120 and gp41, allow the virus to hook onto T cells and infect them. These antigens are located on the surface of the virus. (Another HIV antigen is p24, an antigen of the core of the virus that is measured to estimate the amount of active free-floating virus in the blood of HIV positive people).

HIV Targets T Cells

T cells are the main target of HIV in the blood, and they act as the host that the virus needs in order to replicate. (However, macrophages, B cells,
monocytes, and other cells in the body can also be infected by HIV.) One important feature in the T cell's structure is the CD4 receptor site. CD4 is a protein on the surface of the T cell. HIV's gp120 antigen is a mirror image of the CD4 protein. If HIV bumps into the right place on the T cell's surface, the gp120 of the virus will lock onto the CD4 site of the T cell. Because of this, CD4 is called the receptor site or docking port for HIV.

**What is AIDS?**

AIDS stands for Acquired Immune Deficiency Syndrome. A person has AIDS when the virus has done enough damage to the immune system to allow infections and other diseases to develop.

HIV, like other viruses, is too small to be seen with an ordinary microscope. It may live in the human body for years and can be transmitted to others before any symptoms appear.

As it affects the body's defense mechanisms, the body becomes unable to fight disease and infections. HIV leaves the body poorly protected against particular types of diseases, which these cells normally deal with. Infections that develop due to HIV's weakening of the immune system are called "opportunistic infections". Examples are respiratory, gastro-intestinal, and skin infections. Persons infected with HIV may not exhibit symptoms of the disease and can, therefore, infect others without knowing it.

### HIV Transmission

**Objectives:** By end of the session the participants should have been able to:

- Explain the main ways of HIV transmission
- Know the ways do not transmit HIV
- Familiar with myths about HIV

**Session Contents**

- Ways of HIV transmission
- Ways HIV do not pass on

**Transmission of HIV**

HIV transmits through:

- Injection sharing (through drug use and also used)
- Sex without or improper use of, a condom
- Infected blood
- Mother to child where the mother is infected

Since HIV is transmitted via bodily fluids (semen, vaginal secretion), having sex with someone who is HIV positive without protection (by a condom) poses a risk. In most societies this represents the mode of transmission for most cases. Among routes of sex that are the most likely to transmit HIV (and quickly) are anal sex and sex with those with obvious (visible) sexually
transmitted (venereal) diseases. This of course does not mean that unprotected sex by other routes is safe.

Contaminated needles are a big problem in Afghanistan. Injections and drips are used very frequently and often without a good reason. Many a time individuals other than trained doctors practice this. Frequently, needles are used and re-used. This is a major hazard for transmission of HIV, Hepatitis and other diseases. Mother to child transmission is particularly important where the mother's HIV status is unknown.

**HIV in the environment**

Scientists and medical authorities agree that HIV does not survive well in the environment, making the possibility of environmental transmission zero.

**Kissing**

Casual contact through kissing is not a risk for transmission of HIV.

**Saliva, Tears, and Sweat**

HIV has been found in saliva and tears in very low quantities from some AIDS patients. It is important to understand that finding a small amount of HIV in a body fluid does not necessarily mean that HIV can be transmitted by that body fluid. HIV has not been recovered from the sweat of HIV-infected persons. Contact with saliva, tears, or sweat has never been shown to result in transmission of HIV.

**Insects**

From the onset of the HIV epidemic, there has been concern about transmission of the virus by biting and blood sucking insects. The results of experiments and observations of insect biting behavior indicate that when an insect bites a person, it does not inject its own or a previously bitten person’s or animal's blood into the next person bitten. Rather, it injects saliva, which acts as a lubricant or anticoagulant so the insect can feed efficiently. Such diseases as yellow fever and malaria are transmitted through the saliva of specific species of mosquitoes. However, HIV lives for only a short time inside an insect and, unlike organisms that are transmitted via insect bites, HIV does not reproduce (and does not survive) in insects. Thus, even if the virus enters a mosquito or another sucking or biting insect, the insect does not become infected and cannot transmit HIV to the next human it feeds on or bites. HIV is not found in insect feces.

**The ways HIV do not transmit**

You do not get HIV from:

- Mosquito bites or bites from other bugs.
- Sneezes or coughs.
- Touching, hugging or kissing a person with HIV.
- The urine or sweat of an infected person.
- Public restrooms, showers or pools.
- Sharing towels or clothing.
- Sharing eating utensils or drinks.
• Being friends with a person who has HIV/AIDS.

**HIV and Public Health in Afghanistan**

HIV data for Afghanistan is sparse. Available information, however, indicates that there are multiple links between populations most-at-risk of HIV infection and links to otherwise low risk populations (e.g. wives and other regular sex partners of those most-at-risk). These transmission dynamics exist within a larger context of the 'social drivers' of HIV in Afghanistan including violent conflict, gender inequity, mobile populations, lack of access to HIV and sex information, and policy barriers. Furthermore, the high prevalence of tuberculosis (TB) and sexually transmitted infections (STIs) in Afghanistan are patterns commonly associated with increased HIV transmission in other countries.

As in neighboring countries, the HIV epidemic in Afghanistan began among IDUs (HIV prevalence of 3.0% of IDUs in Kabul and 3.1% of IDUs in Herat). Depending on their injecting behaviors and sexual practices, HIV-positive IDUs may spread the infection to other populations (the majority of IDUs are married, with 20% reported having ever had sex with a man or boy, and 70% have ever paid a woman for sex. Currently, the number of injecting drug users is rising in Afghanistan and sharing needles is common. According to the United Nations Office on Drugs and Crime (UNODC), in 2005 an estimated 200,000 Afghans used opium or heroin of which 7,500 injected heroin, figures which have likely increased since the estimate was completed.

In the absence of targeted prevention programs, HIV may spread from IDUs to SWs and their clients (70% of IDUs reported having paid a woman for sex. A 2007 study found that SWs have low levels of knowledge about HIV, low levels of condom use, and are unlikely to be tested for HIV. Commercial sex work occurs within major cities of Afghanistan, with a conservative estimate of 1,200 SWs across Kabul, Mazar-i-Sharif, and Jalalabad.

Sexual activity between males in Afghanistan likely occurs within mainstream society, but the associated stigma has made it difficult to gather reliable data. In the absence of prevention programming including condom distribution and male sexual health campaigns, HIV epidemics are likely to spread among MSM and their regular sex partners. Sexual activity between males has been documented in multiple settings in Afghanistan including military camps, wedding halls and other entertainment settings, as well as among males purchasing sex from Male Sex Workers (MSWs).

Prisons may function as reservoirs for HIV transmission in Afghanistan, where prisoners often have limited access to services and where injecting drug use, sexual activity between males, and sexual abuse may be common. This year, data collected from the Herat prison found 11% of IDUs in prison to be HIV positive.
Truck drivers often participate in multiple risk behaviors including the purchase of sexual services, sexual activity between males, and in some cases drug use. Afghanistan, a landlocked country, relies on a few principal road transport routes for international trade over international border crossings. A recent study found that 39% of truck drivers surveyed reported that sex work was available where they stayed at night.

Drawing on lessons learned from HIV epidemics in the region, the Government of Afghanistan should focus its efforts to target those most at risk to HIV, fight stigma and discrimination, and provide universal access to prevention and treatment services. By establishing HIV as a national priority now, the Government of Afghanistan can blunt the impending HIV epidemic. This is an opportunity to limit the loss of lives and livelihoods of many Afghans and their families who might otherwise be affected by a rapid spread of HIV in Afghanistan.
**Stigma and HIV/AIDS**

**Objectives:** By end of the session the participants will be able to:

- Define Stigma
- To discuss stigmatization and HIV/AIDS (the social dimension of the epidemic)
- To discuss the impact of stigma on people with HIV
- To discuss the main reasons for stigmatization
- To understand the types of stigma and discrimination

**Session Contents**

- Stigma
- Discrimination
- Causes of HIV related stigma and discrimination
- Impact of HIV stigma

**Stigma and Discrimination**

Stigma, discrimination, blame and collective denial make it very difficult to effectively tackle the epidemic at its various stages. HIV&AIDS-related stigmatization and discrimination make prevention difficult by forcing the epidemic out of sight and underground. Stigma and discrimination associated with HIV and AIDS are the greatest barriers to preventing further infections, providing adequate care, support and treatment. HIV&AIDS-related stigma and discrimination are universal, occurring in every country and region of the world.

**What is Stigma?**

Stigma a sign of disgrace or shame and has been described as a quality that "significantly discredits" an individual in the eyes of others. People with HIV/AIDS are often believed to be promiscuous and deserve what has happened to them. Often these are linked to sex or to undesirable and socially unacceptable activities, such as injecting drugs. Men who become infected may be seen as homosexual, bisexual or having sex with prostitutes.

**Self Stigmatization**

Self-stigmatization is a shame that people living with HIV/AIDS experience when they are discriminated by others. Self-stigmatization can lead to depression, withdrawal and feeling of worthlessness. It saps the strength of the individual, and causes them to blame themselves for their misery.

**What is Discrimination?**

Discrimination occurs when a distinction is made against an HIV/AIDS infected person and is treated unfairly and unjustly. Hospitals, for example, may not offer health services to a person with HIV/AIDS, employers may terminate the worker's employment, or schools refuse admission to a student on the grounds of his or her actual or presumed HIV-positive status.
It is silence, exclusion and isolation that limit our ability to provide the care and services needed by people living with HIV. It is the silence, exclusion and isolation of our leaders that prevent us from developing and marketing effective HIV prevention efforts.

Activity 6: Game “In the river, on the bank”

Ask participants to stand in a line all facing same direction. Then explain the game.

Where you are standing is the bank. When I say, “In the river”, you should take one step forward. If, however, I say “On the river”, you should not move. When I then say, “On the bank”, you should take one step back to the starting point “On the bank”. If, however, I say “In the bank”, you should not move. If anyone makes a mistake, they will be eliminated from the game. Start the game. Give the commands quickly. If anyone makes a mistake, ask them to leave the game. After a few minutes, stop and debrief.

Debriefing

Note that everyone laughed when the first person made a mistake. Ask the person who made the mistake—“How did that make you feel?” (Embarrassed, angry, stigmatized, the laughter made me feel bad…). Then explain that this game shows us that “We are all in the same boat.” There is no separation between “us and them.” We are all facing and living with this epidemic together. We are all affected—we have all taken risks at one time in our lives and many of us still do and we all have family members and friends who have died of AIDS. Lots of people like to laugh at, blame and judge others, but one day they may also “fall into the river”— and others will laugh at them. Remember: HIV affects everyone. All of us are at risk of getting HIV so there is no point in stigmatizing or blaming those who are already affected. We could join them any day.

Reasons for Stigma and Discrimination

People may lack the information and education to understand that HIV&AIDS cannot be transmitted through everyday contact, and they may not be aware that infection may be avoided by taking simple precautions. This leads people to stigmatize and discriminate against those infected, or presumed to be infected with HIV&AIDS. The reasons are many and include:

• Lack of understanding of the disease
• Myths about HIV transmission
• Prejudice
• HIV&AIDS being incurable
• Lack of treatment available
• Irresponsible media reporting
• Fears about sexuality
• Fears about illness and death
• Fears about illicit drugs use and injecting drugs

Key Messages on Stigma and Discrimination

• Fear of stigma and discrimination can prevent us from talking openly and honestly about HIV/AIDS. The same fears can also prevent us from finding out about our HIV status.
• We may worry that being seen somewhere where HIV counseling and testing services are available will mean that others may assume that we are HIV positive or have AIDS. But knowing our status means that we can be supported to talk openly and frankly about HIV/AIDS, helping to reduce stigma and discrimination in the community.

• HIV counseling and testing must be confidential. The counselor should not discuss any of the information, including the test result, unless we give our consent. They should also make sure that the record-keeping is done in a way that confidentiality is maintained. If we are reassured that voluntary HIV counseling and testing is confidential, we are more likely to seek these services.

• Discussions around disclosure should be handled with sensitivity and with the individual’s situation in mind. Disclosure of HIV status should be voluntary, regardless of the person’s age. It is important to choose the right time, place and person for disclosure of your HIV&AIDS status.

Discrimination against people living with HIV/AIDS, or those thought to be infected, is a clear violation of their human rights.
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Universal Access, Human Rights and HIV/AIDS

**Objectives:** By end of the session the participants will be able to:
- Understand the basic of Universal Access
- Explain fundamentals of human rights
- Understand the relationship between human rights and HIV/AIDS
- Understand the rights of HIV people and the responsibilities of government

**Session Contents**
- What is Universal Access
- Definition of human rights
- Fundamentals of human rights
- Relationship between human rights and HIV/AIDS
- Guidelines of human rights for HIV

**Session Instructions:**

**Activity** “The Baby in the Picture”
Paste a picture of a baby on a board/wall. Divide the participants into groups of 6–7 members per group and provide each group with a paper and markers. Instruct the members of each group to write down their answers on the strips of paper to the question: **What does the baby need to have a full life and live as a human being?** Every answer is to be posted on the board/wall around the picture of the baby.

**What is Universal Access?**

Universal access is part of a long historical movement to expand HIV prevention, treatment, care and support to reach a maximum of people in need of HIV services. It is both a concrete and joint commitment made by countries and the United Nations as well as renewed engagement from people around the world to jointly work together and reverse the course of the epidemic.

It all started in December 2005 when the United Nations General Assembly adopted a resolution that requested UNAIDS and its co-sponsors to assist in facilitating inclusive, country-driven processes, including consultations with relevant stakeholders, including non-governmental organizations, civil society and the private sector, within existing national AIDS strategies, for scaling up HIV prevention, treatment, care and support with the aim of coming as close as possible to the goal of universal access to treatment by 2010 for all those who need it.”

Between January and March 2006, thousands of people from all sectors mobilized to seize this extraordinary opportunity. People living with HIV, community groups, civil society organizations, governments and international organizations were mobilized in more than 130 countries to participate in a
country led process to set ambitious national targets for achieving universal access in 2010, and accelerating the response towards the MDGs.

In June 2006, following these worldwide consultations, the 2006 High-Level Meeting on AIDS in the Political Declaration on HIV and AIDS in which countries around the world committed to revise their national AIDS plans and targets to significantly scale up their response towards universal access to HIV prevention, treatment, care and support by 2010.

By the end of 2007 an estimated 33 million people worldwide were living with HIV. That same year, some 2 million died of AIDS. Globally, less than one person in five at risk of HIV has access to basic HIV prevention services. Only 31% of people who needed HIV treatment had access to it by end-2007.

### What are Human Rights?

Human Rights are universal legal guarantees protecting individuals and groups against actions that interfere with fundamental freedoms and human dignity. Human rights are guaranteed by international standards and are legally protected so that they cannot be waived or taken away by any person or government. Both human rights and public health share the common goal of promoting and protecting the wellbeing of all individuals.

Human rights instruments serve as powerful advocacy tools for protecting the rights of gender and sexual minorities and other marginalized communities.

- Human rights are what make us human—human rights encompass individual and social needs.
- Human rights are a set of guarantees—human rights constitute a contract between people and governments and this gives a social character to human rights.
- Human rights are entitlements—that is, the legal development of the social contract of human rights.

### Fundamental Rights of Human

Human Rights in 1948, this declaration has been recognized as the Magna Carta of human. The basic tenets of this declaration are:

- The right to liberty security and freedom of movement
- The right to dignity
- The right to work
- The right to education
- The right to social security and services
- The right to equality — equal protection before the law
- The right to marriage and family life
- The right to health

These rights have been further reinforced by subsequent international institutes, including:

- The International Covenant on Civil and Political Rights
- The Convention on the Rights of the Child
- The Convention on the Elimination of All Forms of Discrimination against Women
Recognition of the Relationship between Human Rights and HIV/AIDS

Human rights promotion and protection is central to the response to HIV/AIDS. Denying the rights of people living with HIV, and those affected by the epidemic, imperils not only their well-being, but life itself. Across the globe more than 33 million people live with HIV, half of whom are women, and half the new infections are occurring in young people under 25. Many millions more are affected.

Twenty-eight years since the first reported case of AIDS, the truth is only just dawning that we are still in the early stages of the epidemic. Developing a response that is robust, and, above all, effective, is more vital than ever before.

Guide lines of Human Right for HIV

**Guideline 1:** States should establish an effective national framework for their response to HIV/AIDS which ensures a coordinated, participatory, transparent and accountable approach, integrating HIV/AIDS policy and program responsibilities across all branches of government.

**Guideline 2:** States should ensure, through political and financial support, that community consultation occurs in all phases of HIV/AIDS policy design, programme implementation and evaluation and that community organizations are enabled to carry out their activities, including in the field of ethics, law and human rights, effectively.

**Guideline 3:** States should review and reform public health laws to ensure that they adequately address public health issues raised by HIV/AIDS, that their provisions applicable to casually transmitted diseases are not inappropriately applied to HIV/AIDS and that they are consistent with international human rights obligations.

**Guideline 4:** States should review and reform criminal laws and correctional systems to ensure that they are consistent with international human rights obligations and are not misused in the context of HIV/AIDS or targeted against vulnerable groups.

**Guideline 5:** States should enact or strengthen anti-discrimination and other protective laws that protect vulnerable groups, people living with HIV/AIDS and people with disabilities from discrimination in both the public and private sectors, ensure privacy and confidentiality and ethics in research involving human subjects, emphasize education and conciliation, and provide for speedy and effective administrative and civil remedies.

**Guideline 6:** States should enact legislation to provide for the regulation of HIV-related services and information, so as to ensure widespread availability of qualitative prevention measures and services, adequate HIV prevention and care information and safe and effective medication at an affordable price.

**Guideline 7:** States should implement and support legal support services that will educate people affected by HIV/AIDS about their rights, provide free legal services to enforce those rights, develop expertise on HIV-related legal issues and utilize means of protection in addition to the courts, such as offices of ministries of justice, health complaint units and human rights commissions.
Guideline 8: States, in collaboration with and through the community, should promote a supportive and enabling environment for women, children and other vulnerable groups by addressing underlying prejudices and inequalities through community dialogue, specially designed social and health services and support to community groups.

Guideline 9: States should promote the wide and ongoing distribution of creative education, training and media programmes explicitly designed to change attitudes of discrimination and stigmatization associated with HIV/AIDS to understanding and acceptance.

Guideline 10: States should ensure that government and private sectors develop codes of conduct regarding HIV/AIDS issues that translate human rights principles into codes of professional responsibility and practice, with accompanying mechanisms to implement and enforce those codes.

Guideline 11: States should ensure monitoring and enforcement mechanisms to guarantee the protection of HIV-related human rights, including those of people living with HIV/AIDS, their families and communities.

Guideline 12: States should cooperate through all relevant programmes and agencies of the United Nations system, including the Joint United Nations Programmed on HIV/AIDS, to share knowledge and experience concerning HIV-related human rights issues and should ensure effective mechanisms to protect human rights in the context of HIV/AIDS at the international level.

It is understood that, for every human right, governments have responsibilities at three levels:
1. They must respect the right
2. They must protect the right
3. They must fulfill the right
Gender, Poverty and HIV/AIDS

Objectives: By end of the session the participants will be able to:
- Explain difference between Sex and Gender
- Understand the gendered vulnerabilities to HIV/AIDS
- Understand relationship between HIV and Gender
- Understand the relationship of HIV and Poverty

Session Contents
- Definition of Gender and Sex
- Gendered Vulnerability to HIV/AIDS
- Poverty and HIV
- Poverty and HIV response in Asia

Gender and Sex

Gender: refers to the socially constructed roles, responsibilities, and expectations of males and females in a given culture or society. These roles, responsibilities, and expectations are learned from family, friends, communities, opinion leaders, religious institutions, schools, the workplace, advertising, and the media.

Sex: refers to the biological differences between males and females. These differences are concerned with physiology and are generally permanent and universal. Sex identifies a person as male or female through type of genital organs (penis, testicles, vagina, and ovaries), type of predominant hormones circulating in the blood (estrogens, testosterone), ability to produce sperm or ova (eggs), ability to give birth and breastfeed Children.

Definition Box
Human Rights are universal legal guarantees protecting individuals and groups against actions that interfere with fundamental freedoms and human dignity. Human rights are guaranteed by international standards and are legally protected so that they cannot be waived or taken away by any person or government. Both human rights and public health share the common goal of promoting and protecting the wellbeing of all individuals. Human rights instruments serve as powerful advocacy tools for protecting the rights of gender and sexual minorities and other marginalized communities.

Gender refers to the roles that men and women play and the relations that arise out of these roles, which are socially constructed, not biologically determined (Pan American Health Organization, 1997). Gender prescribes a set of qualities and behaviors expected from a female or male by society. Gender roles are learned and can be affected by factors such as education or economics. They vary widely within and among cultures. Gender roles are socially determined and can evolve over time.
Sexuality is distinct from gender yet intimately linked to it. An individual’s sexuality is defined by whom one has sex with, in what ways, why and under what circumstances, and with what consequences. ‘It is more than sexual behavior; it is a multidimensional and dynamic concept’. Explicit and implicit rules imposed by society, as defined by one’s gender, age, economic status, ethnicity and other factors influence an individual’s sexuality. In each society there are a multitude of sexualities.

**Gendered Vulnerability to HIV/AIDS**

**Biological Factors**
Specific biological factors place women at a greater risk of contracting HIV than men. The soft tissue in the female reproductive tract tears easily, producing a transmission route for the virus. Additionally, vaginal tissue absorbs fluids more easily, including sperm, which has a higher concentration of the HIV virus than female vaginal secretions and may remain in the vagina for hours following intercourse. When comparing the risk of transmission from male to female and vice versa, it has been estimated that women’s risk of exposure is up to 2 to 5 times higher than men’s. In both women and men, tears in sensitive anal tissue increase the risk of transmission during anal sex.

Another risk factor for HIV infection is the presence of other sexually transmitted infections (STIs). A woman are more likely than men to have other untreated STIs, primarily because STIs in women are more often asymptomatic, but also because the shame or fear of visiting a doctor may prevent women from seeking screening and treatment. The risk of infection among young girls is significantly higher because their reproductive tracts contain fewer layers of epithelial cells, which offer a less effective barrier against viral infection, than the multiple layers of modified epithelial (squamous) cells found in the vaginas of adult women. And other biological factors which mention before.

**Social Factors**
Women’s increased biological vulnerability is compounded by their subordinate social status. A woman is more likely to have sexual contact even though she does not want to, whether she is raped or because she lacks the power to refuse her partner’s demands (forced sex). When the vagina is not lubricated, the tissue tears more easily, increasing women’s risk of exposure to HIV.

**Gender and HIV**
Women and girls face a range of HIV-related risk factors and vulnerabilities that men and boys do not—many of which are embedded in the social relations and economic realities of Asian societies. Women generally have more difficulty than men in gaining access to education, accessing credit and support services, and finding formal employment that matches their skills. In many countries, laws and customs prevent them from controlling property and other assets (especially in South Asia). These gender inequalities...
compromise women’s economic security and reduce their ability to avoid behaviors that involve high risks of HIV infection. 9

Women in Afghanistan suffer from extremely high rates of maternal mortality (1600 per 100,000 live births), low longevity and less than men (45 years), high prevalence of TB (231 per 100,000), poor access to safe drinking water (40%), contraceptive prevalence (15.4%), high total fertility rates of 6.3 births, low antenatal care 32.3%, lower skilled birth attendance (18.9%), pregnant women with low tetanus coverage (24.8%), as well as poor nutrition, extreme hardship, and other threats to their health.10

Women’s unequal social status is also reflected in sexual relationships, where men are more likely than women to initiate, dominate and control sexual and reproductive decisions. In a society dominated by patriarchal values, where men dominate decision-making in the household and society, women are not usually free to decide when and with whom to have sex, and whether or not to use a condom when doing so. As a result, many women are unlikely to negotiate condom use even when they are aware of the risk involved or suspect the HIV status of their husband.

Studies show that it is much easier for women to contract HIV from sexual contact with a man than for a man with a woman. Untreated sexually transmitted infections can make an individual 10 times more likely both to get and to transmit HIV. The majority of STIs do not give rise to any symptoms in women. Pregnancy related complications expose women to risk of infection related to transfusion of blood or blood products.

As HIV can be transmitted through breast milk, breastfeeding presents a dilemma for many women. Early initiation of sexual activity among girls is directly related to practice of early marriage. Early marriage may expose girls to an increased risk of STIs and HIV infection, especially if their partners are older and have had more sexual exposure. For many women, being at risk for HIV results simply from being married, especially sexual relations in men are not limited by marriage. Violence in the form of coerced sex or rape may also result in HIV transmission, especially as forced sex may lead to the tearing of sensitive tissues which increases the likelihood of transmission.11

Economic assets, such as land and housing, provide women with a source of livelihood and shelter, thereby protecting them when a husband or father's disability or death places the family at risk of poverty. Control over such assets can give women greater bargaining power within households and can act as a protective factor in domestic violence. Moreover, land and housing provide a secure place to live, serve as collateral for loans during financial crisis, and are symbols of status in most societies—all of which can benefit women who are contending with a health crisis in the household. But, in Afghanistan, laws and customs prevent women from owning or inheriting property and other assets. This gender inequalities in women’s rights to property significantly compromises women’s economic security and reduce their ability to avoid situations that involve a high risk of HIV infection.12
HIV and poverty

Studies have established that the poor and marginalized are disproportionately vulnerable to HIV and AIDS. Poverty impacts men and women differently and is a key factor leading to behaviors that expose people to the risk of HIV infection. Poverty increases susceptibility to contracting HIV through several channels, including increased migration to urban areas; limited access to health care, nutrition and other basic services; limited access to education and information; sexual exploitation; and gender inequality.13

U.N. Declaration of Commitment: Recognizing that poverty, underdevelopment and illiteracy are among the principal contributing factors to the spread of HIV/AIDS and noting with grave concern that HIV/AIDS is compounding poverty and is now reversing or impeding development in many countries and should therefore be addressed in an integrated manner (Paragraph 11)

Poverty increases the risk of HIV transmission by limiting access to information related to HIV prevention. Data available from various countries show that men and women of high economic status know more about HIV prevention than those economically worse off.

Poverty can also pressure women and men to exchange sex for food or other material favors in order to ensure daily survival for themselves and their families.

Poverty and HIV response in Asia14

The history of HIV & AIDS response has been behavior focused. Structural aspects triggering HIV spread have received scant attention. More often than not, the poor, marginalized, women, and children bear the full brunt of the pandemic. Poverty, illiteracy, exclusion and patriarchy have systematically thrown many women, girls and children into the trafficking industry. People are becoming innocent sufferers inescapably caught in the vicious circles of exploitations where they live a life not of choice but of compromise.

Migration has been a reality for millions of people across Asia. The increasing incidents of displacements, poverty, corporate globalization, and urbanization have hard-pressed people to look for alternatives for better living conditions. Different studies on migration show that majority of migrant workers, particularly from the developing countries, are uneducated or poorly educated. They are semi or unskilled laborers and most of them are from poor families. Many are still dependent on agro-economy, however, in the absence of pro-poor land reform policies (with an exception of perhaps China), they seek employment abroad to support their families.

Policies that are formulated to improve human behaviors hardly take stock of problems and challenges poor people face for survival.
Trade liberalization and privatization have posed serious threats to poor people resulting in their exclusion from health, education, and other basic services. Food insecurity looms large in the region. Health systems are weak, and accessible and affordable if at all to a few. Poor families in many Asian countries are forced to take livelihood options fraught with risks and hazards.

Drug users are always treated with indifference and scorn, while psychosocial contexts, which are partly responsible for the vulnerability, are largely ignored. Intravenous drug use, for example, is increasingly becoming a potential mode of HIV transmission. Narcotics industry is gradually embedded in the regional economy, and the vulnerable groups take drug trafficking as survival means. In Tajikistan, where about 80 percent of the population lives below the poverty line, many war widows are reportedly involved in drug trafficking to support their children.

Women and children engaged in commercial sex face higher risk of contracting sexually transmitted diseases (STDs), HIV & AIDS. Mobile populations, in general, face greater risks of contracting STDs as their family and social lives are disrupted. Children at risk of being trafficked, particularly urban street children, are also among the high-risk groups feared for contracting HIV & AIDS through drug use, sexual contacts, and other risky behaviors. But then, links between trafficking and HIV & AIDS have to be ascertained with caution. Many anti-trafficking campaigns have unwittingly spread the often misleading message that all trafficking survivors are infected with the disease, leading to further stigmatization of women returning to their communities.

Poor health increases poverty, which in turn perpetuates poor health. Although HIV & AIDS is an epidemic that can cut across any caste, class, gender, ethnicity, and race, growing incidents indicate that it hits poor the hardest in the absence of employment, education, and social safety-nets.

Many Asian countries are experiencing a dramatic switch from a concentrated epidemic to a generalized epidemic. The already weak health system in the region can barely bear the burden of the disease. There are clear projections that failure to curb the epidemic now will push tens of millions of people into poverty traps, and national efforts to achieve Millennium Development Goal (MDG) of poverty reduction will remain a far cry. Studies detailing the poverty impact of HIV & AIDS in Cambodia, India, Thailand, and Vietnam show that significant numbers of households are being pushed into poverty, and households that are already poor are being rendered destitute, particularly in areas, where epidemics are more advanced.

Unless structural aspects of poverty and epidemic are acknowledged, it is difficult to cope with multiple challenges emerging from HIV & AIDS.

**HIV Advocacy**

**Objectives:** By end of the session the participants will be able to:

- What is advocacy?
- Role of advocacy
- Basic steps for advocacy work
- Advocacy work in practice
- Define advocacy
- Establish the importance of advocacy in a human rights-based HIV/AIDS work.
- Identify the basic steps in the conduct of advocacy work.

**Session Instructions:**
**Strategies/Activities: Word Association**

Provide the participants with strips of paper and markers. Instruct each one to write down a word or phrase which they associate to the word ADVOCACY. *(What comes to your mind when you hear the word advocacy? or what is your understanding of the word advocacy?)* Ask the participants to paste the strips of paper on the board. Once this is done, process the responses by putting together the words/phrases closely related or similar with the trainees participating in the sorting process.
What is advocacy?

Advocacy is an organised or planned effort to influence decision/policy-making and program implementation. People who act to inform decision/policy makers and to influence their decisions/policies, as well as those who exert efforts to direct the implementation of programs are called advocates. Advocacy is very much related to policy formulation and development, and program implementation at various levels. Advocacy efforts may be directed at the decision/policy-making body and/or executive arm of a corporation or organisation or politicians and government officials.\(^{15}\)

The goal of advocacy is to convince decision/policy makers and program implementers to act in favour of the issue or cause being supported and/or promoted by an NGO, CBO, alliance or coalition. The advocacy message is a brief, clear statement of the problem and a recommendation for its solution. In particular, advocacy work is commonly undertaken by NGOs, CBOs for any one or more of the following reasons:

- To alert decision/policy makers to the problems and concerns of the people they represent;
- To provide potential solutions or options to those problems;
- To alert decision/policy makers for the need to review, improve and update existing policies and programs; and/or
- To provide support to decision/policy makers on issues of mutual concern.

Why advocacy?

Advocacy is crucial in the conduct of a human rights-based response to HIV/AIDS. It is valuable primarily for the following reasons:

- To heighten awareness of HIV/AIDS as a national and human rights issue among decision/policy makers and the general public;
- To contribute to a favorable and supportive environment for HIV/AIDS prevention, care and support through the formulation and implementation of relevant policies and programs;
- To mobilise the community and relevant social organisations and institutions for prevention care and support;
- To popularise technical information about prevention, care and support; and
- To deal with specific community problems/issues through appropriate messages and media directed at identified target audiences.

In human rights and HIV/AIDS work, NGOs, ASOs and CBOs face numerous problems and concerns that require the need to engage in advocacy. Lessons from successful advocacy initiatives in HIV/AIDS underline the importance of several key factors:
• **Work in partnerships** with other organizations and individuals that can strengthen the resources of the advocacy campaign, for example the media, academics and sympathetic public figures.

• **Be well prepared.** When dealing with the targets of the advocacy it is very important to be well-informed about the issue which is your focus of your advocacy.

• **Think strategically.** Use the most appropriate strategies and opportunities to get your message across.

**Basic steps for advocacy work**

There are several basic steps in the conduct of advocacy work that can be translated into an advocacy plan. These are the following:

1. **Identifying the Problem/Prioritizing/Research**

Advocacy work is necessary because there are problems or issues in the community or area which need to be solved or addressed primarily by the formulation, revision or improvement of relevant policies and/or programs.

Examples of problems/issues related to HIV/AIDS are:

- Mandatory testing as a requirement for employment.
- The persistence of misconceptions about HIV/AIDS in the community.
- The demotion, forced transfer or practice of any form of harassment and unfair labour practices against a worker/employee because of his/her HIV status.
- Patients being refused admission in health facilities/hospitals because of being HIV+.
- Children of HIV+ persons being denied admission in schools.
- Individuals being tested without their knowledge or consent.

HIV/AIDS NGOs, ASOs and CBOs are in a position to identify the prevalent problems faced by people infected and affected by the epidemic in different communities. While there may be numerous problems and issues facing people with HIV/AIDS and the organisations that work with them, there is also a need to prioritise which of the problems or issues will be the object of advocacy work at a particular period.

Some of the criteria which can be used by NGOs, ASOs and CBOs to help them prioritise and select the main problem/issue to be the focus of advocacy work at a particular point in time are the following:

- Is the solution of the problem a concern of the organisation or relevant to the organisation’s goals and objectives?
- Will a solution to this problem result in a real improvement in people’s lives?
- Is the solution to this problem realistically achievable?
- Do we have the organisational capability and resources to solve the problem?
• Are there other groups/organisations interested in the solution of this problem?

2. Conduct research to gather and analyse data relevant to the chosen problem/issue

Research is an integral component of advocacy work. Gathering the necessary data and information that will establish the importance of the problem and support the recommended solution is crucial. The research need not be complex or sophisticated. The purpose of the data is primarily to:
(1) Demonstrate the problem or issue; and (2) support the recommended solution or course of action.

What kinds of data/information are needed? Ordinarily, some of the data commonly needed would be in response to the following questions:

• What is it about the situation that is unacceptable or wrong?
• Who is affected by the problem?
• In what ways are the groups/sectors affected by the problem?
• What factors in the community (for example, values, attitudes, and economic difficulties) influence the problem?
• What actions/efforts have been taken to try to resolve the problem?
• What should be done to resolve the problem?

It is important to find out if the information you need is already available. In many instances, NGOs, ASOs and CBOs because of their extensive grassroots work and experiences may have the necessary information. It is just a matter of identifying what is relevant, collating, organising and analysing any data so that it is useful for the purpose of advocacy work. Possible sources of information may be:

Past and present records of the NGOs, ASOs, CBOs, as well as other organisations involved in the same or similar line of work; Written reports of programs/committees, assessment or evaluation reports, year-end reports, etc.; Publications, newsletters; Government records, documents/materials; and Private and public offices and institutions. For example, government departments like the Ministry of Health, Labour and Education. However, if data is not available, then there is the need to systematically gather and collate it. In both instances, research is a MUST
3. Core group formation.

Once the research has been completed, the next step is identifying and reaching out to other key and potential partners, groups and organisations. This involves networking with potential partners who also have an interest in the issue. Selecting potential partners may be based on the background and experience of the NGO, ASO or CBO and the viability of establishing good working relationships.

In human rights and HIV/AIDS-related problems, networking and coalition building is necessary because of: (1) the magnitude of the problems that exist; and (2) the presence of many organisations interested and/or committed to solving such problems.

After conducting one or two meetings or brainstorming sessions, a core group of perhaps 8 to 10 committed individuals from a number of the organisations can be formed. The core group is the body responsible for developing the advocacy plan, mobilising resources and mapping the strategies to be used. This will also be the body providing day-to-day leadership/direction. It is important that this group reaches agreement on its mandate or overall aims and on the various roles and responsibilities of its members. Members of the core group should be people who are willing and able to commit the necessary time and resources required to achieve the aims the group has set.

4. Developing the advocacy campaign plan

One of the first tasks of the core group is the development of the advocacy plan. This can be achieved through a series of meetings/brainstorming sessions of the core group and consultations with individuals who are in a position to provide support and input into the design and conduct of the advocacy campaign. For example, academics, health professionals, legislators, religious leaders and media people may be useful resources in this respect.

5. Identify the principal targets of the advocacy campaign

An advocacy campaign may have many targets. Targets are those who have the capacity to respond and bring about the desired changes the organisation or coalition is seeking. However, the targets may have varying degrees of influence, and more often, because organisational resources that can be devoted to advocacy work are limited, it is important to focus the advocacy efforts to key targets. These would mean those with the greatest influence and power to bring about the desired changes like policy and/or decision-makers.

Example 3: If the problem is raising the level of awareness of the police force in a province, the key targets may be the head of the local government unit if the local police forces are directly under the control and supervision of the local government officials.
6. Identify potential allies/supporters who may be interested in the issue and may be mobilised in the advocacy campaign activities.

This involves engaging in networking with other organisations, individuals, both locally and internationally. Such groups and individuals may include:

- Other NGOs, ASOs, CBOs, including human rights and health organisations, Sectoral groups for example organisations of women, workers, residents, youth and student groups.
- Opinion makers in the community, for example media personalities, academics, lawyers, religious and community leaders, etc.
- Sympathetic government officials and legislators.
- International allies and sympathisers for example country and regional based NGOs, ASOs and CBOs.

7. Implement, monitor and evaluate the plan of action

Once the plan of action is implemented, monitoring becomes necessary. This involves keeping track of how the various activities are being carried out, the problems/difficulties encountered, adjustments in the plan that need to be made, and what results are being achieved. For example, has there been a change of policy as a result of the advocacy? Data acquired from monitoring will be valuable in evaluating the plan of action implemented and in developing future initiatives. Bear in mind that change may be slow and that in many cases advocacy requires an

Advocacy Work in practice

The successful implementation of HIV programmes demands, first of all, addressing barriers at community level, thus creating an ‘enabling environment’. Such an environment removes local hindrances to access to services. Also, political action can create such an environment for most-at-risk groups by decriminalizing sex work, homosexuality, and the use of needles and syringes for drug use. It demands thoughtful advocacy and bridge-building with local authorities and powerbrokers. Barriers should also be removed by providing subsidized transport to clinics, free antiretroviral treatment, and the involvement of community groups and NGOs in bringing poor households into the treatment network.

Advocacy to amend or relax such laws remains weak, as does the appetite of political leaders for taking up these issues. This poses a problem. The criminalization of these risk behaviors can effectively neutralize otherwise supportive HIV policies—unless the cooperation of law enforcement agencies and the judiciary can be achieved. Such a feat requires methodical and patient liaison work and bridge-building, and is more likely to be achieved if underwritten by strong support from the highest levels of Government.

Politicians have key roles to play. Some politicians and parliamentarians have made valuable efforts to build awareness among their constituencies, lobby for HIV-related legislation, ensure that intellectual property laws support
equitable access to medicines, press for more HIV resources, and hold their Governments accountable for their countries' HIV responses. Parliamentary committees on HIV have been set up in a number of countries. Increasingly, regional networks of Parliamentarians are also focusing on issues related to HIV and sexual and reproductive health.

Leadership and political commitment are the most important prerequisites for an effective HIV response. Afghanistan has an opportunity to slow even avoid an HIV epidemic. Seizing that opportunity requires stronger leadership across the board. Leaders should begin by clearly demonstrating their support for HIV strategies that are pragmatic and of proven effectiveness.

Activism, advocacy and the active participation of people living with or threatened by HIV have been key elements in mobilizing and sustaining enhanced responses elsewhere in the world. Afghanistan HIV partners should encourage and build these vital elements of the overall response, and United Nations agencies and other development partners need to do more to foster partnerships and dialogue between Government and civil society.

Engaging affected communities in planning, implementing and assessing HIV responses is important. Because of the marginalization of people most at risk and the stigma experienced by people living with HIV, AIDS policies and programmes need to be informed by engagements with the affected communities. The involvement of such affected populations in national HIV responses is weak and, in many places, tokenistic.

Activism and advocacy is essential to keep HIV constantly on the agenda. Civil society organizations, the media, opinion leaders, United Nations agencies and external donors all need to support such activism and advocacy in order to help build an effective and sustainable response. At the global level during the last five years, such advocacy and activism has helped increase resources devoted to HIV, reduce antiretroviral drug prices, and ensure greater involvement of civil society networks in the planning, programming and monitoring of HIV responses.

It is important to expand the base of HIV champions to raise HIV’s public profile. Social and religious leaders, media, entertainment and sports celebrities are potential helpers. We need to build capacity to create sustained pressure exists among civil society groups and citizens for dealing with HIV issues. Societal leaders must encourage such people to become actively engaged and help in raising public awareness.

We need to encourage advocacy partnerships and activism around HIV issues. Governments should be open to these important dimensions of the overall response, while United Nations agencies and other development partners have a special responsibility to foster partnerships and activism at various levels, both among organization, in communities, and at leadership levels.16

### HIV Communication Strategy
Better knowledge about sexual and reproductive health can enable people to make better-informed choices about their sexual behavior, and to guard their health with greater success. High levels of ignorance about HIV (and about sex in general) persist in much of Asia, largely because sex education is either poor or non-existent.

Such ignorance includes even those people most at risk of HIV. It is possible to overcome such ignorance among most-at-risk populations in ways that are non-judgmental and that do not fuel wider social prejudice and taboos. Knowledge of HIV was shown to be poor among surveyed groups of men who have sex with men. Basic HIV knowledge is also lacking among injecting drug users. Studies of sex workers and injecting drug users in Afghanistan, as well as among students and other groups, show low levels of knowledge about HIV prevention.

The goal of the national HIV communication strategy is to engage stakeholders and actors in the HIV response at every level to reduce stigma and discrimination associated with HIV by communicating to promote knowledge of prevention behaviors and HIV prevention services to most at risk groups through targeted interventions.

The following may be considered objectives of the strategy.

1. Increase commitment of national decision makers to respond to HIV.
2. Increase knowledge of most at risk and others on HIV transmission and HIV prevention through safe blood, safe sex, and safe injecting equipment.
3. Reduce stigma and discrimination of persons living with or at risk of HIV.
4. Increase access to HIV prevention, treatment, care and support of services.\textsuperscript{17}

**Role of Strategic Communication**

The ultimate goal of any communication effort is to change behaviour and not just to disseminate information. The development of a communication strategy to achieve the desired behavior is in itself a systematic process. In fact, the end product maybe as important as the process used to develop it. Regardless of how it is done, there are some basic elements which need to be addressed: \textsuperscript{18}

- How will communication help in solving the problem?
- Having reliable and correct information for analyzing the situation through research or other means
- Gaining essential knowledge of the characteristics and needs of the target audiences; and
- Setting realistic objectives which target knowledge, attitude and behavior.

Some audiences need to know more about existing services (i.e. VCT centers), while others need to develop positive attitudes (i.e. stigma reduction associated with HIV) and still other groups need to practice the behaviour (i.e. proper condom use, cleaning needles, etc).
Coordination and Multisectoral Approach

How is the response to HIV/AIDS organized in Afghanistan?

HIV/AIDS Coordinating Committee of Afghanistan (HACCA) will provide assistance to the NACP by coordinating the effective implementation of the HIV/AIDS interventions within the framework of the POP. HACCA aims to be a broad-based and effective mechanism of technical oversight to NACP. HACCA would ensure involvement of representatives of all provinces by facilitating information and knowledge sharing, coordination and partnership among all stakeholders. HACCA will provide inputs to the NACP by reviewing implementation of the national HIV response on a routine basis (semi-annually and annually), providing assistance for the formulation of a national HIV policy, facilitate resource mobilization, foster HIV advocacy within the government’s structures, as well as among development partners and the donor community.

HACCA will include representatives of the following agencies:
1. **Public Sector** MoPH, MoCN, MoHE, MoE, MoDMLSA, MoF, MoD, MoJ, Mol, MoICYA, MRR.
2. **UN and Donor Partners** the UN agencies (UNODC, UNDP, UNFPA, UNICEF, UNIFEM, UNESCO, WHO, UNHCR), the World Bank, French Cooperation, GTZ-IS, EU, USAID.
4. **Private sector**: private practitioners, blood collection services.

While multiple HIV-related policies have been developed by particular line ministries, these policies and strategies have not been made national law. In addition, while the NACP has developed prevention programs for HIV with a variety of local and international partners (over USD 40 million has been allocated toward government HIV prevention programs) these activities are just getting under way. Meanwhile, sharing of information and coordination between existing NGOs that provide services to those most-at-risk to HIV (many of which function largely independent of the government) remains weak. The Government of Afghanistan now has a window of opportunity, when targeted prevention programs could contain the spread of HIV in Afghanistan.

HIV and AIDS and Islam

Some Muslims may think that HIV and AIDS are not issues for the community. The reality is that HIV and AIDS are major issues in many Muslim countries. It is therefore becoming extremely important that we accept that we are equally vulnerable to HIV and AIDS. Given the increase in HIV infection globally, it is more important than ever that we discuss HIV and AIDS openly.
Islam is a religion that is very close to human nature. It appreciates the powerful sexual desires that humans have. Therefore it encourages that these desires be fulfilled, and advocates and encourages (Nekah)marriage, so that through marriage sexual desires can be fulfilled. Like other heavenly religions, Islam provides us with a moral code for sexual enjoyment. Islam also prohibits the use of substances which may impair the senses. Therefore the use of narcotics such as heroin and alcohol is strictly prohibited.

Sexual practices that may not be allowed by our religion do nevertheless exist. Therefore, there is the need to accept reality and develop HIV and AIDS educational programs for all our communities. These programs must emphasize Islamic moral values, but should also inform people about methods of protection from this life threatening illness.

**Islam's view on human life and health**

Human life is highly valued in Islam; it is considered a gift from Allah. In the Islamic view, Muslims are not supposed to think that it is their life with which they can do what they want. Instead, individuals have been entrusted with life by Allah. We are supposed to look after life and not abuse it. A healthy body is a gift from Allah, we are the trustees, and therefore we have no right to misuse and abuse it.

Our Holy Prophet Mohammed, (peace be upon him), has stressed the importance of health at many times. He once said to his one of his companion, "O' Abbas ask Allah for health in this world and in the next." (Al-Nasa‘i).

And another hadith "No supplication is more pleasing to Allah than a request for good health." (Tirmidhi)

The Prophet Dawud (pbuh) said, "Health is a hidden kingdom." Our bodies are trusts from Allah that must be returned one day and we will be asked how looked after them. Therefore we should avoid any act which will harm our physical or spiritual health.

Modesty in Islam does not mean that we should not discuss sexual matters. Muslim men and women never felt shy to ask the Prophet (PBUH) about intimate sexual matters. The Holy Qur’an has discussed reproduction, creation, family life, menstruation and ejaculation.

The Prophet (PBUH) has said, "Blessed are the women of the Ansar (citizens of Madinah): shyness did not stand in their way for seeking knowledge about their religion." (Bukhari & Muslim).

The Qur’an and hadith have repeatedly stressed the importance of acquiring knowledge: “Are they equal those who do know, and those who do not know?” (Qur'an 39:9). It is through knowledge that we can achieve closeness to Allah. We should not feel embarrassed or shy when discussing or reading about HIV / AIDS.
Islamic statements point out that among the purposes of marriage is the protection of men and women against immoral behavior resulting from sexual permissiveness. A married person is, generally speaking, satisfied with what God has lawfully provided for him or her, and would not go beyond that and infringe upon the limits laid down by God. It is for this reason that the Prophet of Islam (PBUH) urges those who can afford marriage not to delay it. He says:

"Young men! Whoever has sufficient means should get married. It would help him to lower his gaze and protect his chastity. But those who cannot should resort to fasting for fasting is a good restraint of the sexual drive" (Related by Al-Bukhari and Muslim on the authority of Abdullah ibn Massoud).

Emphasizing that chastity is one of the aims of marriage, the Prophet says:

"When one of you looks at a woman (in a sensual sense) he should go to his wife for that would satisfy his desire" (Related by Muslim on the authority of Jabir ibn Abdulah).

**How should Muslims behave towards people who are living with HIV or AIDS?**

It is reported on the authority of Abu Hurayrah that the Messenger of Allah (PBUH) observed: Whoever believes in Allah and the Last Day should either utter good words or better keep silence; and whoever believes in Allah and the Last Day should treat his [her] neighbour with kindness and whoever who believes in Allah and the Last Day should show hospitality to his [her] guest. (Muslim, 2000)21

There are many Muslims who are affected by AIDS. These people are someone’s son or daughter, brother or sister: they are part of the Muslim community. We cannot shun people living with HIV or AIDS. Any person with AIDS should be given attention, care, love and affection, so the person can lead his/her life with dignity. We also have no right to judge or condemn people. It is up to the Almighty to forgive or punish. AIDS and HIV are all around us, around our mosques and in many of our homes.

It does not help to ask if someone is innocent or guilty in this. All of us know that alcohol is prohibited in Islam (and all of us know of some Muslims who do drink); All of us know that sex outside marriage is not allowed in Islam, but all of us also know that some Muslims will have extra-marital sex. Suppose a Muslim arrives at the scene of a motor car accident and he or she notices that a number of people are badly injured. Is our first concern how it happened or to get help? Do we go around and point fingers at the guilty driver and then say, "Well he caused it," and then just move on? Do we go around and smell the breath of the injured and when we find that they smell of alcohol, do we say, "Alcohol is haram; they should not have taken it and they asked for it"? No, as Muslims we know the Prophet Muhammad (PBUH) said: "Have compassion towards those who are on earth and the One who is beyond will have compassion towards you."
Islam is a religion that is full of compassion, love and mercy. The Prophet Muhammad (PBUH) reminded Muslims that: "You will not enter into paradise until you believe, and you will not believe until you love one another."

In another Hadith, it has been said, "Allah shows compassion only to those of his servants who are compassionate."

Love and compassion are the qualities of a good Muslim, and people with AIDS cannot be denied these powerful emotions.

Visiting and caring for the sick is another good deed that is highly recommended by the Prophet (PBUH). "Whoever visits a sick person is walking along the high road to heaven." (Bukhari)

"A visit to a sick person is only complete when you have put your hand on his forehead and asked him how he is." (Tirmidhi)

People with AIDS need our compassion, our love, and our affection, so do not be afraid to embrace them or touch them. There are many more sayings from the messenger of Allah about showing love and compassion to people in ill health. Therefore, we must remember what is expected from us by Allah.
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Prevention of sexual transmission of HIV

Objectives: By end of the session the participants will be able to:
- Understand the main preventive measure for HIV
- Explain prevention from the sexual transmission of HIV
- Understand the importance of blood safety and Universal Standard Precaution
- Understand the parenteral prevention of HIV

Session Contents
- Prevention of sexual transmission
- Behavior Change Program
- Correct and consistent use of condom
- STIs Control
- Voluntary Testing and

1. Prevention of sexual transmission of HIV

The most frequent mode of HIV infection, sexual transmission, is normally a result of unprotected vaginal or anal intercourse. Worldwide, heterosexual transmission is responsible for the majority of new HIV infections.

Estimates of the probability of HIV transmission per act of heterosexual intercourse have varied between different countries and settings. Commercial sex workers represent an especially vulnerable and epidemiologically important population for the sexual transmission of HIV.

Men who have sex with men (MSM) make up 5 to 10 percent of HIV infections globally and up to 70 percent of infections in industrialized countries. Official surveillance figures may, however, understate the extent of transmission via sexual contact between men, as such contact may not always be acknowledged by individuals who test positive or by national authorities. Most cases of HIV transmission among MSM stem from unprotected anal intercourse, although there appears to be a real, but much smaller, risk of transmission from oral sex.

An important subset of sexually transmitted cases of HIV involves sexual activity that occurs when one or both participants are under the influence of various substances, such as drugs or alcohol. Intoxicants may increase risk for transmission by clouding individual judgment and reducing inhibitions regarding behaviors that facilitate HIV transmission.

Effective interventions to prevent sexual transmission include
- Behavior change programs,
- prevention and treatment of sexually transmitted diseases (STDs),
- And voluntary counseling and testing (VCT).

Randomized trials in areas of high HIV prevalence have demonstrated that male circumcision reduces the risk of heterosexually acquired HIV in men by approximately 60 per cent. This evidence supports the findings of numerous
observational studies. There is no definitive evidence that male circumcision reduces the risk of HIV transmission from men to women or between men and clinically appropriate antiretroviral (ARV) treatment of sexually active, HIV-infected individuals.

A. Behavior Change Programs

Programs to encourage safer sexual behaviors are anchored in a wide range of recognized behavioral theories.

Theory-based prevention programs include those that attempt to directly alter personal beliefs, attitudes and behaviors, as well as interventions that indirectly seek to influence personal behavior by affecting social networks and community norms. Specific behavioral approaches include social marketing, small group interventions, safer sex workshops that provide information and build skills, and popular opinion leader and peer based interventions, including those that seek to model positive attitudes toward safer sex. These approaches seek to increase condom use among people, who are sexually active, persuade individuals to reduce their number of sexual partners, and encourage young people to remain abstinent or delay initiation of sexual activity.

Correct and Consistent Use of Condoms

Condoms are the most reliable method available for situations where people want to protect themselves or their partner from any risk of STI. Used correctly, they form a barrier that keeps out even the smallest bacteria and viruses.

STIs can still occur despite condom use, however. Genital ulcers or warts can be transmitted through contact with parts of the body not covered by the condom. More commonly, though, people get an STI because they misuse condoms, or use them inconsistently. When handled or stored incorrectly—in wallets or in a hot place, for example—or if used with oil-based lubricants, condoms may fail. Condom breakage is usually due to incorrect use, not to defects in the device.

Most importantly, condoms can only protect against STI when they are used consistently and correctly. When used correctly during every act of intercourse, condoms can greatly reduce the risks of both pregnancy and STI (dual protection), including HIV infection.

Instructions for use of a male condom

1. Choose a brand that fits comfortably. Remove the condom from the package carefully, to avoid tearing. Do not use teeth to open packet. Be careful not to tear condom with nails. Check ‘use by’ date (expiry date).
2. Holding the tip, unroll the condom on to erect penis. Pull back on foreskin before applying condom (if uncircumcised). Squeeze the air out of the tip of the condom.
3. Unroll the condom onto the erect penis. • Always use water-based lubricant. Do not use oil or Vaseline, petroleum jelly. During sex, check condom is still in place.
4. After ejaculation, withdraw the penis from the vagina while the penis is still erect. Hold on to the rim of the condom while withdrawing to prevent it from slipping off and the semen spilling into the vagina. • Use condom only once.
5. Remove condom from penis, and tie a knot in it to prevent spills or leaks. Dispose of condom safely (where it cannot cause any hazard). Dispose of condom safely.

The use of water-based lubricant is essential because it reduces trauma during sex and is compatible with latex condoms. Oil-based lubricant like massage oil, skin moisturizer, cooking oil, butter or sun lotion must be avoided as they damage latex condoms, making them more likely to break during sex. Hereby, possibly exposing each partner to the risk of sexually transmitted infections including HIV.

B. STIs Control

Sexually transmitted diseases increase HIV risk by at least two to five times. Untreated STDs enhance the infectivity of HIV-positive individuals and render uninfected people more susceptible to transmission of the virus. Experts agree that an integral component of a comprehensive HIV prevention effort is the early detection and treatment of STDs.

STEPS TO FEWER STIs/RTIs

Step 1 Raise awareness about STIs/RTIs and their consequences—infertility, pregnancy loss, maternal death and HIV
Step 2 Prepare your clinic so that people feel comfortable coming to the clinic with STI/RTI concerns.
Step 3 Promote services. Find ways to involve men in STI prevention and make sure that young people know about services and are comfortable using them. Reach vulnerable populations as one of the best ways to control STI transmission in the community.
Step 4 Provide condoms, promote use of condoms and counsel about reducing number of partners or delaying sexual activity to reduce STI risk.
Step 5 Perform transcervical procedures safely to prevent iatrogenic infection.
Step 6 Tell women about simple things they can do to prevent endogenous infections.
Step 7 Consider patient’s individual risk for STI/RTI in order to offer prevention advice or treatment.
Step 8 Counsel about STI/RTI prevention and ask about STI/RTI symptoms at each visit for family planning or antenatal care. Look for signs of STI/RTI each time you do an examination for other reasons.
Step 9 Screen for syphilis, and look at opportunities to screen for other STIs/RTIs.
Step 10 Take care not to label people as having an STI when the diagnosis is not certain.
Step 11 Educate all patients about STI/RTI prevention.
Step 12 Educate patients with STI/RTI about completing their full course of treatment and referring partners for treatment.
Step 13 Learn to counsel to support patients in changing behaviour.
Step 14 Promote dual protection to prevent both STI/RTI and pregnancy.
Step 15 Encourage early attendance at antenatal clinic. Counsel about STI/RTI prevention for a safer pregnancy.
Step 16 Screen all pregnant women for syphilis at least once during each pregnancy and make sure women with reactive tests (and their partners) are treated.
Step 17 To women who have been raped, offer emergency contraception, presumptive STI treatment, and, if available, HIV post exposure prophylaxis.
Step 18 Manage symptomatic STIs/RTIs effectively using syndromic flowcharts, or where available, laboratory-based diagnosis.
Step 19 Treat partners when an RTI is likely to be sexually transmitted but counsel the patient and partner carefully when you are not sure.
Step 20 Treat upper genital tract infections—especially infections following abortion or childbirth—aggressively to protect the woman’s life and fertility.

C. Voluntary Counseling and Testing

The vast majority of people living with HIV/AIDS in low-income countries are unaware they are infected, a factor that substantially weakens efforts to respond effectively to HIV/AIDS in resource-limited settings. Voluntary counseling and testing (VCT) is not only a gateway to care for people living with HIV but also a critical component of a comprehensive strategy to prevent HIV transmission.

D. Targeted Intervention for Most at Risk of HIV

The chief, and first, response for the HIV epidemic in Afghanistan are targeted interventions for the most at risk, that is, injecting drug users, sex workers, and men who have sex with men, whether they are in communities or in prisons and detention centers, so that HIV is not transmitted as severely or quickly to others. These interventions include harm reduction for IDUs including NSP, OST, outreach for IDUS, along with education, medical care, increased access to HIV testing, improved blood safety, and anti-retroviral treatment (ART)—all of which Afghanistan is preparing to ensure for persons living with HIV.

The elementary reason for responding to the HIV epidemic first among the most at risk groups is to reduce the speed and severity of transmission to others by increasing use of safe injecting equipment and condoms for disease prevention of blood borne viral infections. To reverse the epidemic, it is necessary that effective prevention services reach a critical mass of people who are most at risk of HIV infection, also known as threshold of coverage. Coverage must reach 80% of most at risk to initiate the 60% behavior change needed to reverse the epidemic.

Social drivers of HIV transmission
Behaviors that put people and countries most-at risk for HIV transmission need to be understood through the lens of the social, economic, and cultural factors that generate HIV vulnerability and influence provision and use of HIV services. Afghanistan contains many of the ‘social drivers’ of HIV epidemics: violent conflict, gender inequities, migration and repatriation, complicated dynamics between boys and older men, lack of knowledge and information (especially about sex and HIV), legal and policy barriers, and popular beliefs which may influence HIV-related policies as well as access to services.

Afghanistan ranks among the lowest in gender development, according to the UNDP Human Development Report. In countries where women have a lower socioeconomic status than men, women tend to experience difficulty in maintaining control over their sexual choices and negotiating for safe sex. HIV awareness and knowledge are low in Afghanistan, with more than a quarter of the population having never heard of AIDS and 40% having never heard of HIV. Over 75% of Afghanistan’s population is illiterate, which compounds the task of raising awareness.

### Prevention of parenteral transmission of HIV

**Objectives:** By end of the session the participants will be able to:
- Understand the parenteral prevention of HIV
- Understand blood safety and its importance
- Acquint with the skills to apply universal standard precautions in health care settings

**Session Contents**
- Needle and Syringe Programs
- Drug Treatment
- Behavior Change Programs
- Improving the Safety of the Blood Supply

2. Prevention of parenteral transmission of HIV

Direct exposure to the virus through the bloodstream is the most efficient route of HIV transmission. Most cases of parenteral transmission occur as a result of the sharing of needles during injection drug use, but a notable percentage also stem from improper blood collection and transfusion practices. Injection drug use accounts for an estimated 10 percent of the world’s HIV infections, although it is the cause of a majority of infections in certain Asian and European countries. The transfusion of HIV-infected blood or blood products is believed to be responsible for 5 to 10 percent of cumulative infections worldwide. Substandard hygienic practices in health care settings—including improper sterilization and the reuse of medical equipment—also pose a risk of HIV transmission, although the precise contribution of such practices to the spread of HIV/AIDS is unclear.
HIV Prevention among Injection Drug Users

More than 20 years’ experience in responding to AIDS has helped identify a variety of cost-effective interventions that significantly reduce the risk of HIV transmission through needle sharing:

Needle and Syringe Programs

Needle exchange projects have been shown to reduce the risk of transmission without contributing to an increase in drug use. Indeed, extensive research points to early implementation of needle and syringe projects as a critical factor in helping several cities avoid a serious HIV outbreak among IDUs. An international analysis of available data found that HIV prevalence decreased 5.8 percent in 29 cities with needle and syringe projects, while HIV infection increased nearly 6 percent in 51 cities without such programs.

Evidence of the effectiveness of needle and syringe projects is well illustrated by experience in New York City, which is perhaps home to more IDUs than any other municipality in the world. In addition to providing clean injection equipment, needle and syringe projects link users with other programs that promote risk reduction.

Needle and syringe projects are often hampered by law enforcement agencies and the communities in which such programs are situated. Numerous programs in both developed and developing countries have managed to overcome such obstacles to reach IDUs at risk of infection, underscoring the importance of enhanced technical assistance to fledgling programs.

Drug Treatment

Methadone maintenance and other forms of substance abuse treatment are effective in preventing HIV transmission. Not only does drug treatment reduce drug use and therefore help prevent practices that can lead to HIV transmission, but initiation of drug treatment often produces significant reductions in HIV-related sexual risk behaviors.
Behavior Change Programs

Small group interventions, individual counseling, and other psychosocial programs have also proven effective in encouraging many IDUs to reduce the frequency with which they inject drugs or have unprotected sex.

Community-based outreach has been shown to be especially effective in encouraging IDUs to access available prevention options. Psychosocial interventions for IDUs appear most effective when they are intensive and long-lasting, but not all people are willing to make such an extended personal investment. Moreover, behavior change programs for IDUs seem to have been more successful in encouraging safer injection practices than safer sex.

Improving the Safety of the Blood Supply

Available data, based on blood screening throughout Afghanistan from 1989 to 2008, shows a rate of 100 per 100,000 HIV positive donations from a total of almost 500,000 donations. In addition, blood donations are also screened for other blood borne viruses, including Hepatitis B (HBV), Hepatitis C (HCV) and Syphilis. Prevalence rates of these are higher even than HIV. Considering that blood donors can be considered to not be exclusively from the most at risk groups, but are usually family members or blood relations in Afghanistan, the importance of blood safety is crucial. All blood borne viruses are transmitted through use of contaminated injection equipment, unsafe blood transfusions, and unprotected sexual activity. There is strong evidence for need to strengthen blood safety practices by medical providers as well as by consumers.

Blood Borne Viruses Screening 1989-2008, MOPH, Afghanistan

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Universal Precautions and Infection Control

What are Universal Precautions?
Simple procedures to reduce the risk of transmission of ANY infection through exposure to blood or body fluids, which include:

- Safe blood transfusions
- Safe injections
- Safe surgical procedures
- Safe technique
- Safe processing of instruments
- Safe environment
- Post-exposure prophylaxis

Staff working in HIV should handle all biological specimens with precaution. The standard procedure for preventing occupational hazard is the implementation and adoption of universal precautions to minimize the exposure of health care staff to blood and body fluids of patients. Staff who handle client’s biological samples should adhere to the following:

1. Maintain a source of clean water
2. Practice routine hand washing before and after any contact with blood samples
3. Safe handling and disposal of sharp instruments should be planned before beginning a procedure
4. Use sterilized/disposable lancets, needles and syringes for drawing blood. Discard disposable all sharp material in a puncture resistant container after disinfection with bleach solutions

Blood collection site: Blood samples should be taken in a safe and clean environment, such as the counseling room. Suggested equipment at blood collection sites:

1. Rapid test kits (3 types)
2. Cotton swabs
3. Cleaning materials such as spirit/antiseptic lotion
4. Bleach solution
5. Sharp containers
6. Gloves, laboratory coat/plastic apron
7. Sink and soap
8. Color coded disposal mechanisms and equipment during needle destroyer

Improving the Safety of Health Care Settings

Industrialized and many middle-income countries have long required workers to take “universal precautions” in health care settings to prevent transmission of HIV and there blood borne pathogens. This approach, which treats each patient as potentially infectious, requires that workers routinely wear gloves, masks, goggles, and other protective gear, as well as properly sterilize equipment, devices, and surfaces. Health care institutions should be designed to promote safety (such as having repositories for the disposal of needles and other sharp devices), and workers should have access to the safest possible syringes and other devices. Although universal precautions cannot prevent all
possible exposures to blood, this approach has succeeded in making transmission extraordinarily rare in health care settings in industrialized countries. To achieve similar success in resource-limited countries, health care facilities require access to safer technologies, workplace training in infection control, and assistance in developing and implementing policies and practices to promote universal precautions.

### Prevention of Mother To Child Transmission (PMTCT) of HIV

**Objectives:** By end of the session the participants will be able to:
- Understand the mother to child HIV transmission
- Understand the measures to reduce MTCT

**Session Contents**
- Mother to Child Transmission of HIV
- Factors that may increase the risk of transmission
- Measures to reduce MTCT

### 3. Prevention of Mother to Child Transmission (PMTCT) of HIV

HIV may be transmitted to the infant during pregnancy, at the time of delivery, and through breast feeding; most transmission is thought to take place during delivery. For a mother known to be HIV-infected prenatally, the additional risk of transmitting HIV to her infant through breast feeding has been estimated at 14 percent. For mothers who acquire HIV postnatally, the risk is as high as 29 percent. Many studies indicate that the risk of breast milk transmission is higher in the first few months of life, with a subsequent tapering off of risk. However, the risk persists as long as the infant is breast fed. HIV transmission is also higher if the mother has mastitis.

**Factors that may increase the risk of transmission**\(^{27}\):
- High maternal viral load: >5-10,000 copies/ml (at time of seroconversion), and, during late HIV disease, CD4 cell counts <100 cells/mm
- Recurrent STDs
- Malaria interferes with placental functions and eases viral transmission across the placenta
- Vitamin A deficiency
- Preterm delivery
- Firstborn twin
- Infected amniotic fluid (chorioamnionitis) (Limited data; recent studies do not suggest increased risk)
- Vaginal delivery
- Duration of rupture of membranes is longer than four hours
- Placental disruption
- Invasive procedures during delivery (for example, vacuum extraction, episiotomy, use of forceps, fetal scalp monitoring)
- Mechanical nasal suction after delivery
- Breast feeding, and especially mixed feeding
Measures to reduce MTCT

During pregnancy

1. Provide voluntary counseling and HIV testing, plus psychosocial support.
2. Diagnose and provide aggressive treatment of malaria, STDs and other infections as early as possible.
3. Provide basic antenatal care including:
   - Iron supplementation
   - Discussion of MTCT and infant feeding options
   - Starting ART for MTCT (see recommendations below)
   - Information on practicing safer sex

During labor and delivery

1. Delay rupturing of membranes
2. Do only minimal digital examinations after rupture of membranes
3. Reduce use of assisted delivery with forceps and the like and episiotomies
4. Elective caesarean section has been demonstrated to have a more protective effect against MTCT than vaginal delivery. However, caesarean section has limited applications in resource-constrained settings

After delivery

1. Avoid mechanical nasal suction.
2. Cleanse the newborn immediately of all maternal secretions and blood.
3. Support safer infant feeding (according to national guidelines about mother’s choice to put the infant to breast within 30 minutes of birth).
4. If mother chooses breast feeding, encourage exclusive breast feeding, and advise early cessation (up to six months) or BMS.
5. Advice giving milk substitutes where conditions are suitable, and no breast feeding after six months.

Prevention of prenatal transmission

1. The use of ARV therapy can reduce MTCT significantly. Studies conducted in industrialized countries in 1994 showed that administering AZT to women from the 14th week of pregnancy and to the newborn during labor decreased the risk of MTCT by nearly 70 percent in the absence of breast feeding.
2. A shorter regimen of AZT alone, starting from the 36th week of pregnancy, was shown to reduce the risk of transmission of HIV at six months by 50 percent in the nonbreastfeeding population and by 37 percent in those breastfeeding.
3. A short course of NVP (HIVNET 012 study) has been shown to reduce the risk of transmission and is the protocol most commonly used because clinical trials have demonstrated its efficacy in reducing MTCT; it has a low cost and it is easy to use in MTCT programs. The regimen is:
   - Intrapartum short course: 200 mg at start of labor or at hospital intrapartum
• Postpartum infant: 2mg/kg stat within 48-72 hours
• Other trials of short course ARV regimens using a combination of AZT and lamivudine also substantially decrease the risk of transmission (PETRA study).

4. Women on treatment with ARVs for HIV infection have very low transmission if viral load is <1000 copies/ml. Women first diagnosed with HIV infection during pregnancy

5. Women in the first trimester may consider delaying initiation of ART to avoid the potential teratogenic effect.

6. Consider severity of maternal HIV disease and potential benefits and risks of delaying ART until after first trimester.

7. For women who are severely ill, the benefit of early initiation may outweigh theoretical risk to fetus; in these cases, recommend initiating with drugs such as AZT, 3TC and NVP or NFV.

8. HIV-infected women on ART who become pregnant

9. Options are:
   • Suspend therapy temporarily during first trimester
   • Continue same therapy
   • Change to a different regimen

10. Issues to consider:
   • Gestational stage of the pregnancy
   • Severity of maternal disease
   • Tolerance of regimen in pregnancy
   • Potential for adverse fetal effects
   • Fetus is most susceptible to potential teratogenic effects of drugs during the first 10 weeks of gestation; risks of ART to fetus during this period are unknown.

11. ART and breast feeding
   • Women who require ART and who are breast feeding should continue their current ART regimen.
   • Efficacy of potent ART taken by the mother solely to prevent postnatal transmission of HIV through breast milk is unknown, but is currently under study.
Harm Reduction and IDUs

**Objectives:** By end of the session the participants will be able to:

- Familiar with the epidemiology of drug use and HIV in Afghanistan.
- Understand the distinction between licit and illicit drug use.
- Understand the comprehensive package of services for IDUs.

**Session Contents**

- What are the drugs?
- Drug use in Afghanistan
- Harm reduction Program in Afghanistan

Harm Reduction and HIV

**What are drugs?**

In pharmacology: any chemical agent that alters the biochemical physiological processes of tissues or organisms.

**Legal = Licit such as** Medications, tobacco, alcohol, coffee/tea

**Illegal = Illicit such as** Opium, heroin, cocaine, ATS, cannabis: 200 million people use illicit drugs in the World

**Current situation of Drug Use in Afghanistan**

Drug use in Afghanistan was reviewed in the 2005 UNODC Drug Use Survey. It estimates there are 7000 injecting drug users out of about 200,000 opium and heroin smokers and eaters, mostly men. The causes for transition of smokers and eaters to injecting drug use are generally expected to be associated with economic, social, and individual reasons, related to the supply, cost, and need for euphoria. There is some indication that having been exposed to injecting use in prisons or other situations is a strong determinant. Harm reduction services generally apply to both groups.

**WHAT IS HARM REDUCTION?**

Harm reduction is a way of dealing with behavior that damages the health of the person involved and of their community. Harm reduction tries to improve individual and community health.
Harm Reduction Program in Afghanistan

The program objectives for harm reduction are to provide a comprehensive package of harm reduction services to a targeted number of IDUs for a continuing period of time. The comprehensive package of services is described below. The proposed World Bank financed Afghanistan HIV/AIDS Prevention Project (AHAPP) includes the introduction and/or scale-up of comprehensive package of interventions/services targeted to about 300 most at risk IDUs per contract in four cities of Afghanistan (Kabul with 3 contracts, Jalalabad, Mazari-Sharif, and Herat with one contract per city, with 6 contracts in all plus 100 prison IDUs included). These tasks are listed below.

1. Needle and syringe access and disposal as well as sterile injecting equipment, sterile water and bleach.
2. Oral substitution therapy
3. Outreach and drop in center services with peer counselors
4. Appropriate behavior change interventions delivered through various channels to encourage drug users to avoid dangerous practices and adopt safe injecting practices, safe sex practices, and appropriate health seeking behavior
5. Condom skills and distribution of condoms and lubricants.
6. Primary healthcare curative services and services for STIs based on syndromic management using national guidelines
7. Education on sexual health and STIs, and access to acceptable and appropriate services for STIs and TB.
8. Referral for related services, such as detoxification and treatment as appropriate.
9. Voluntary testing and counseling and services.
10. How to promote an enabling environment in the project area.

Note: References for further reading

12 components of a comprehensive service for IDUs

Source: Mesquita F. 2006
Peers and Community

A peer educator is a person who, in order to provide knowledge and bring positive behaviour change(s) related to STD/HIV, educates his/her friends individually or in a group by using different educational activities. For example, a peer educator can educate his/her friends by telling a story, playing a game, showing a picture, etc.34

1. Persons from any profession, such as sex workers or transport workers, men who have sex with men (MSM), injecting drug users (IDU) or people living with HIV can be peer educators. A peer educator is also someone who is not a member of the community, but is closely linked to the community – for example managers being peer educators in a truckers project.
2. To be a peer educator, it is not necessary to leave one’s current job or profession.
3. A person should receive peer educator training in order to be an effective peer educator.

The use of members of the community or key populations (KP) such as sex workers, men who have Sex with men (MSMs), injecting drug users (IDUs) and people living with HIV/AIDS (PLHAs) as agents of change in the community is known as peer education. Peer education occurs in a variety of settings and includes many different activities. It is effective as the communicators share the same life experience as that of key population group and hence act as credible sources of information for behaviour change. Peer education can take place on a street corner, at a social club, in a bar, in a bus station, in a factory or any other place where people feel comfortable.

**Peer education is effective because it is:**

1. Culturally appropriate – from "within"
2. Community-based
3. Accepted by the target audience / community
4. Economically effective
5. Enabling for the marginalized community
Peer educators role includes
1. Educating peers on STIs and HIV in one-on-one and small group sessions.
2. Assisting peers to access condoms, STIs and voluntary counseling and testing (VCT) services.
3. Distributing condoms / lubricants and demonstrate correct condom use
4. Participating in HIV outreach awareness and other public events.
5. Distributing educational materials.
6. Training other peers.
7. Holding regular meetings.
8. Teaching peers to negotiate safer sex

HIV Epidemic and Surveillance

Objectives: By end of the session the participants will be able to:
- Understand the main type of HIV epidemic
- understand the distinction between licit and illicit drug use
- Understand the comprehensive package of services for IDUs

Session Contents
- HIV Epidemic
- HIV Sentinel Surveillance
- HIV sero-surveys in the general population
- Second generation surveillance for HIV

HIV Epidemic and Surveillance

Typology of HIV Epidemics

WHO and UNAIDS define the different types of HIV epidemics as follows:

Low-level HIV epidemics

Although HIV may have existed for many years, it has never spread to substantial levels in any sub-population. Recorded infection is largely confined to individuals with higher risk behaviour: e.g. sex workers, drug injectors, men having sex with other men. Numerical proxy: HIV prevalence has not consistently exceeded 5% in any defined sub-population.

Concentrated HIV epidemics

HIV has spread rapidly in a defined sub-population, but is not well established in the general population. This epidemic state suggests active networks of risk within the sub-population. The future course of the epidemic is determined by the frequency and nature of links between highly infected sub-populations and the general population. Numerical proxy: HIV prevalence is consistently over 5% in at least one defined subpopulation but is below 1% in pregnant women in urban areas.
Generalised HIV epidemics

In generalized epidemics, HIV is firmly established in the general population. Although sub-populations at high risk may contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of sub-populations at higher risk of infection. Numerical proxy: HIV prevalence consistently over 1% in pregnant women.36 Within generalized epidemics, there is a large range of HIV prevalence, including countries with HIV prevalence greater than 15%. The guidance provided for generalized epidemics in this document would also apply to these epidemics.

HIV Sentinel Surveillance

- Repeated cross-sectional HIV prevalence studies in selected population groups at selected sites.
- Trends of HIV infection are monitored over time, by group and by place or site.
- Results can be applied confidently only to the selected population and sites surveyed.
- Community (population)-based (e.g., CSW, IDUs, MSM)
- Clinic/health facility based (e.g., ANC, STI, TB)

Advantages of sentinel surveillance

- Monitors trends of infection in a chosen population
- Can be successfully carried out among high-risk population groups even when HIV infection in the general population is very low.
- Can conveniently choose high-risk and low-risk groups for study and follow-up.
- Less expensive to conduct than general population surveys.
- The process can become “routine” over a period of time.
- No participation bias as it is done in an unlinked anonymous manner.
Disadvantages of sentinel surveillance
- Results from studies of sentinel groups cannot be applied to the general population.
- Results from sentinel sites can be considered representative only of the population utilizing the services of the sentinel site.
- Results could still be biased due to non-participation of sentinel group members (i.e. selective access to health facilities).

Potential Sentinel Groups
- Moderate to High Risk of HIV Infection
  - STD Clinic Attendees
  - Commercial Sex Workers (Male and Female)
  - Male homosexuals and bisexuals
  - Intravenous drug users
  - Multiple Blood Recipients
  - Frequent Travellers
  - Prisoners

- Low Risk of HIV Infection
  - Antenatal Clinic Attendees (Pregnant Women)
  - Voluntary Blood Donors
  - Health Care Workers
  - Factory Workers
  - Persons taking patients to clinics
  - Newborns
  - Military/Police Recruits
  - Adult Medical Outpatients
  - TB patients
  - Participants in surveillance of other diseases

HIV sero-surveys in the general population
- In theory, the best method to obtain a reliable estimate of HIV prevalence in the general population
- Normally quite expensive, difficult to conduct and presenting serious ethical problems
- Requires informed consent and counselling
- Would be useful from time to time to “calibrate” regular HIV surveillance (males/females ratio, urban/rural)
- HIV testing can be added to other population-based studies conducted for other public health objectives (e.g.: DHS+, HBV, Malaria, anaemia)
- Most of the cost and logistics problems already included in the original study design.
- Consistent sampling frame
- If appropriate samples are already being collected, unlinked anonymous testing is still possible.
- Potential negative impact on the original objectives of the study.
- Only feasible when and where these studies are conducted

HIV Surveillance in populations at high risk
- HIV surveillance in sub-populations whose behaviour may carry a higher risk than average of HIV infection
- Most useful for concentrated or low epidemics
- Mainly for trend analysis
- Limited use for prevalence or impact assessment

**Challenges**

- Many risk behaviours are highly stigmatised and some are illegal
- Little support for intervention in these groups
- Hard to reach populations
- Anonymity or confidentiality is essential in order to avoid negative effects on prevention efforts

**Testing, Screening, Surveillance**

**Selection of Sentinel Sites**

- Sites where blood is already being drawn for other purposes
- Representative of high-risk and low-risk groups and/or areas
- Accessible and convenient
- Sufficient number of patients
- Staff willing to participate in surveillance activity

**Second generation surveillance for HIV**

The diversity of HIV epidemics around the world is becoming ever more apparent. Existing HIV surveillance systems are ill-equipped to capture this diversity, or to explain changes over time in mature epidemics. Efforts are now being made to build on existing systems, strengthening their explanatory power and making better use of the information they generate. Strengthened systems, dubbed “second generation surveillance systems”, aim to concentrate resources where they will yield information that is most useful in reducing the spread of HIV and in providing care for those affected. That means tailoring the surveillance system to the pattern of the epidemic in a country. It means concentrating data collection in populations most at risk of becoming newly infected with HIV—populations with high levels of risk behaviour or young people at the start of their sexual lives. It means comparing information on HIV prevalence and on the behaviours that spread it, to build up an informative picture of changes in the epidemic over time. It also means making best use of other sources of information—communicable disease surveillance, reproductive health surveys, etc.—to increase understanding of the HIV epidemic and the behaviours that spread it. This document suggests classifying the epidemic into different states—lowlevel, concentrated and generalized—depending on the prevalence of the virus in various population sub-groups. The most efficient mix of data collection for surveillance will depend on the epidemic state in a country. The recommended choice of populations among whom data are collected will vary
from epidemic to epidemic; so will the mix of behavioural and bio-medical surveillance.

Data use will also vary according to the epidemic state. Where HIV is uncommon, biomedical surveillance and especially behavioural data can provide early warning of a possible epidemic. Where it is concentrated in sub-populations with high-risk behaviour it can provide invaluable information for designing focused interventions. In generalized epidemics it can help indicate the success of the response and provide information essential for planning care and support. In all epidemic states, surveillance systems aim to provide information that will increase and improve the response to the HIV epidemic.

Goals of second generation surveillance systems
- Better understanding of trends over time
- Better understanding of the behaviours driving the epidemic in a country
- Surveillance more focused on sub-populations at highest risk of infection
- Flexible surveillance that moves with the needs and state of the epidemic
- Better use of surveillance data to increase understanding and to plan prevention and care

A decade has passed since the initial guidelines on HIV surveillance were drafted by WHO in 1989. As HIV continues to spread around the world, it has become increasingly apparent that the epidemic does not follow the same course in all societies. Rather it affects different geographical areas and population sub-groups in different ways at different times. This complicates the task of monitoring its course, intervening to prevent the further spread of HIV, and planning to minimize its impact. It also makes a thorough understanding of the nature of each country’s epidemic more vital than ever.

Such an understanding can only be achieved with more information about who is most at risk in a country, and which behaviours put them at risk. Solid behavioural data will identify sub-populations at risk and will help focus serosurveillance* resources where they will yield maximum information about the epidemic. Behavioural data also help explain trends in prevalence in mature epidemics.

Second generation surveillance systems aim at monitoring trends in behaviour as well as HIV infection, they build on the lessons learned in the first decade of surveillance, strengthening and expanding existing systems to achieve the goals of second generation surveillance.

Second generation surveillance systems do not propose any radically new methods of data collection. Rather, they focus existing methods on appropriate populations and sub-populations, and combine them in ways that have the greatest explanatory power.

Second generation systems aim to expand the use of some of the more rarely used methods, particularly behavioral data collection. Recommendations for the appropriate method mix for each epidemic state are made later in this document.
New HIV surveillance approaches have moved away from seroprevalence surveys in antenatal clinics, in favor of targeted surveillance among those most-at-risk of HIV transmission (including IDUs, SWs, and MSM). This more proactive approach to providing HIV estimates, called Second Generation Surveillance (SGS), aims to assess the epidemic in subpopulations before it reaches a generalized level. SGS tracks the locations, sizes, behaviors, and HIV prevalence of risk groups over time in order to capture the trajectory of the HIV epidemic among those most-at-risk and predict how the epidemic may bridge to seemingly low-risk populations. Consequently, SGS can be used to provide an early warning system for countries at early epidemic states.

This approach is well suited for examining the HIV epidemic in Afghanistan in greater detail, where epidemics are largely concentrated among those most-at-risk of HIV transmission. In addition, the information collected through SGS (location, size, risk behaviors, and HIV prevalence of risk groups) can more readily be used to inform HIV prevention and treatment programs than seroprevalence data alone. Its use in Afghanistan will help inform HIV prevention programs where HIV transmission is likely to resemble the Asian model.

Following Second Generation Surveillance guidelines, six key questions are to be addressed to properly initiate surveillance efforts within concentrated epidemics:  

1. **Is there risk behavior that might lead to an HIV epidemic?**
2. **In which sub-populations is that behavior concentrated?**
3. **What is the size of those sub-populations?**
4. **What is the HIV prevalence in those sub-populations?**
5. **Which behaviors expose people to HIV in those sub-populations?**
6. **What are the links between sub-populations at risk and the general population?**
Module Four

VCCT and HIV Co Infections
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<td>Management of HIV Infection and Antiretroviral Therapy in Infants and Children</td>
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**HIV testing and Counseling Services**

**Objectives:** By end of the session the participants will be able to:
- Understand the definition and main purpose of counseling
- Explain the principle of HIV counseling
- Understand the stages of HIV counseling
- Explain the steps in HIV counseling
- Explain the types of HIV counseling
- Explain the clinical staging of HIV/AIDS

**Session Contents**
- What is counseling?
- Counseling process stages
- Steps in HIV counseling
- Types of HIV counseling
- HIV Code of ethics
- WHO Clinical Staging of HIV/AIDS

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**HIV Testing and Counseling**

**What is HIV counseling?**

HIV/AIDS counseling/education is a confidential dialogue between a client and a counselor aimed at providing information on HIV/AIDS and bringing about behaviour change in the client. It is also aimed at enabling the client to take a decision regarding HIV testing and to understand the implications of the test results and in any case must observe the “three C’s” – informed consent, counseling and confidentiality.

HIV counseling and testing is currently provided at HIV health centers in certain cities (Kabul, Jalalabad, Herat, Mazari-Sharif, and Faizabad) and in BPHS health centers throughout Afghanistan. Other NGO and private health care providers may also conduct HIV testing. Trained counselors should assist the clients or patients to understand the process. A three-step parallel or series rapid test requires a pin prick drop of blood and can be conducted by a trained person. In the event that one rapid test of high sensitivity is returned positive, another rapid test of a different assay with complementary high specificity should be conducted. If two rapid tests of different assays are positive, a third rapid test or other confirmatory test should be done to confirm HIV serostatus.

Ethical practice requires that HIV counseling and testing is confidential. Following testing, the person should be informed of the results, unless he or she refuses, and counseled and referred to on-going and follow-up services. Counseling includes information on how to prevent HIV transmission to others, to understand their symptoms for opportunistic infections, and to seek regular medical care that may include ART when needed. The HIV continuum of care is provided throughout the NGO operated BPHS system, with safe blood and donation testing through the Blood Bank system and with HIV counseling and testing services available from some BPHS partners and
urban HIV service Centers. ART services for PLHIVs and NGO operated targeted interventions for most at risk groups are currently under development in four urban cities of Kabul, Jalalabad, Herat, and Mazar i Sharif.38

Counseling process stages

**Stage 1. Listening and Exploring:** During this stage the counselor establishes rapport, gains client's trust, and defines roles, boundaries and needs of the client.

**Stage 2. Understanding:** During this stage the counselor develops insight into client’s problem and deals with his intense feelings through positive regard, empathy, interpretation and probing

**Stage 3. Problem solving:** During this stage the counselor helps the client generate and evaluate possible solutions to problems, encourages him/her and gives feedback on results of client's action. The goal is to empower the client to reach a stage of solving problems associated with his/her life-stresses.

**Stage 4. Termination:** The counselor brings an end to the counseling process without leaving the client in an uncomfortable state. S/he achieves this by giving feedback, reviewing, summarizing and planning for follow-ups.

Confidential. Information shared during counseling must not be shared with others. The HIV test result must only be reported to the client unless the client states the desire to shared the test result with a family member, partner or close friend. Confidentiality is defined as the state of being ‘private’. Maintaining client’s privacy by restricting access to personal and confidential information, especially in respect to HIV test results, demonstrates sensitivity and respect towards the basic rights of the client. The physical environment in an HIV counseling and testing health center must allow private discussion between client and counselor.

Disclosure. In the context of HIV, disclosure refers to the act of informing any individual or organization [such as health authority, an employer or an school] of the HIV sero-status of an infected person or it refers to the fact that such information has been transmitted, by any means, by the person or third party with or without the consent. Except in circumstances, when disclosure to another person is required by law or for ethical considerations, the person with HIV has the right to privacy, and also the right to exercise informed consent in all decisions about disclosure in respect of his/her status.

Beneficial disclosure of HIV status is voluntary, respects the autonomy and dignity of the affected individuals, maintains confidentiality as appropriate, leads to beneficial results for the individual, his/her sexual or drug injecting partners, and family, leads to greater openness in the community about HIV and meets ethical imperatives so as to maximize good for both the un-infected and infected. It also assists care providers in identification of health needs of PLHIV.
The steps in HIV counseling are:

**HIV pre-test counseling/information:** This involves provision of basic information on HIV/AIDS and risk assessment to direct walk-in clients.

**HIV post-test counseling:** Here the client is helped to understand and cope with the HIV test result:

In case of a negative test result, the counselor reiterates basic information on HIV and assists the client to adopt behaviour that reduces the risk of getting infected with HIV in the future. In case the client is in the window period, a repeat test is recommended. Those clients with suspected tuberculosis are referred to the nearest microscopy centre.

Post test counseling for individuals with HIV-negative test results should include the following minimum information:

- An explanation of the test result, including information about the window period for the appearance of HIV-antibodies and a recommendation to re-test in case of a recent exposure.
- Basic advice on methods to prevent HIV transmission.
- Provision of male and female condoms and guidance on their use.
- The health care provider and the patient should then jointly assess whether the patient needs referral to more extensive post-test counseling session or additional prevention support, for example, through community-based services.

In case of a positive test result, the counsellor assists the client to understand the implications of the positive test result and helps in coping with the test result. The counsellor also ensures access to treatment and care, and supports disclosure of the HIV status to the spouse.

Post test counseling for individuals with HIV-positive test results should include the following minimum information:

- Inform the patient of the result simply and clearly, and give the patient time to consider it.
- Ensure that the patient understands the result.
- Allow the patient to ask questions.
- Help the patient to cope with emotions arising from the test result.
- Discuss any immediate concerns and assist the patient to determine who in her/his social network may be available and acceptable to offer immediate support.
- Describe follow-up services that are available in the health facility and in the community, with special attention to the available treatment, PMTCT and care and support services.
- Provide information on how to prevent transmission of HIV, including provision of male and female condoms and guidance on their use.
• Provide information on other relevant preventive health measures such as good nutrition, use of co-trimoxazole and, in malarious areas, insecticide-treated bed nets.
• Discuss possible disclosure of the result, when and how this may happen and to whom.
• Encourage and offer referral for testing and counseling of partners and children.
• Assess the risk of violence or suicide and discuss possible steps to ensure the physical safety of patients, particularly women.
• Arrange a specific date and time for follow-up visits or referrals for treatment, care, counseling, support and other services as appropriate (e.g. tuberculosis screening and treatment, prophylaxis for opportunistic infections, STI treatment, family planning, antenatal care, opioid substitution therapy, and access to sterile needles and syringes).

Follow-up counseling: In follow-up counselling there is a re-emphasis on adoption of safe behaviours to prevent transmission of HIV infection to others. Follow-up counseling also includes establishing linkages and referrals to services for care and support including ART, nutrition, home-based care and legal support.

A Classic VCT Package ensures that:39
1. Knowledge of status is voluntary.
2. Pre-Test Counseling is offered either through one or more sessions with a trained counselor, after which the client may choose to test on the same or different day.
3. Informed Consent is obtained from the client by the service provider
4. HIV Test is performed using approved HIV test kits and testing protocols
5. Post Test Counseling [one or more sessions] that includes informing clients of their HIV test results takes place on the same or different day.

The two settings in which counseling and testing can be offered to clients are as follows:

**Client-initiated HIV testing and counseling “Opt In”**

Involves individuals actively seeking HIV testing and counseling at a facility that offers these services. Client-initiated HIV testing and counseling usually emphasizes individual risk assessment and management by counselors, addressing issues such as the desirability and implications of taking an HIV test and the development of individual risk reduction strategies. Client-initiated HIV testing and counseling is conducted in a wide variety of settings including health facilities, stand-alone facilities outside health institutions, through mobile services, in community-based settings and even in people’s homes.40

Informed consent should always be given individually, in private, in the presence of a health care provider. Patients should also be made aware of relevant laws in jurisdictions that mandate the disclosure of HIV status to
sexual and/or drug injecting partners. Verbal communication is normally adequate for the purpose of obtaining informed consent.

**Provider-initiated HIV testing and counseling “Opt Out”**

Refers to HIV testing and counseling which is recommended by health care providers to persons attending health care facilities as a standard component of medical care. The major purpose of such testing and counseling is to encourage more people to know their HIV status. In the case of persons presenting to health facilities with symptoms or signs of illness that could be attributable to HIV it enables specific clinical decisions to be made and/or specific medical services to be offered that would not be possible without knowledge of the person’s HIV status. In such cases it is a basic responsibility of health care providers to recommend HIV testing and counseling as part of the patient’s routine clinical management. Provider-initiated HIV testing and counseling is neither mandatory nor compulsory.

Informed consent should always be given individually, in private, in the presence of a health care provider. Verbal communication is normally adequate for the purpose of obtaining informed consent is still a requirement for conducting the test. The individual has the right to accept or refuse to be tested. Provider initiated testing and counseling observes the requirement that HIV testing should always be accompanied by appropriate counseling. Mandatory or compulsory testing of individuals on public health grounds is plainly not ethical.

**Provider-initiated HIV testing and counseling** also aims to identify unrecognized or unsuspected HIV infection in persons attending health facilities, often in connection with STI, TB, injecting drug use, prison experience. Health care providers may therefore recommend HIV testing and counseling to patients in some settings even if they do not have obvious HIV-related symptoms or signs. Such patients may nevertheless have HIV and may benefit from knowing their HIV status in order to receive specific preventive and/or therapeutic services. In such circumstances, HIV testing and counseling is recommended by the health care provider as part of a package of services provided to all patients during all clinical interactions in the health facility. This includes recommending HIV testing and counseling to tuberculosis patients and persons suspected of having tuberculosis.

**Minimum Information for Informed Consent** When recommending HIV testing and counseling to a patient, the health care provider should at a minimum provide the patient with the following information:

1. The reasons why HIV testing and counseling is needed or being recommended.
2. In some cases, explanation of the window period and joint decision on whether the test should take place immediately or deferred till later due to the window period, along with prevention risk reduction plans and supply of prevention material.
3. The services that are available in the case of either an HIV-negative or an HIV-positive test result, including whether antiretroviral treatment is available.
4. The fact that the test result will be treated confidentially and will not be shared with anyone and that patients should be advised that information about their test may be conveyed to other than health care providers directly or on referral in order to assure quality of care, as in the case of TB suspects.
5. The fact that the patient has the right to decline the test.
6. The fact that declining an HIV test will not affect the patient's access to services that do not depend upon knowledge of HIV status.
7. In the event of an HIV-positive test result, discuss to whom the result may be disclosed, i.e. to family members or friends who may be potential care givers and supporters as well as sexual partners or injection partners. Assure the client that disclosure would happen only if he or she approves.
8. Basic advice on methods to prevent HIV transmission.
9. Provision of male and female condoms and guidance on their use.
10. An opportunity to ask the health care provider questions

**HIV Counseling and Code of Ethics**

All HIV counseling and testing services will be provided according to the ethical principles in the national HIV Service Code of Ethics 41

1. All persons seeking HIV prevention treatment, care, and support services should be treated with respect and have their well-being and security safeguarded.
2. All persons will be assured of voluntary and confidential access to the information, diagnosis, and testing they need to protect themselves against HIV infection.
3. No one may disclose the HIV status of any individual expect the person him or herself.
4. People living with HIV and AIDS will have the same rights as all other citizens, and will not be discriminated against or stigmatized on the basis of their HIV status, gender, socioeconomic status, or HIV-risk behaviors.
5. HIV prevention, treatment, care, and support practices will follow evidence based, international best practices in the context of Afghanistan’s religious and cultural values.

**HIV Testing Guideline**

A variety of HIV antibody assays 42 are available. These assays can be broadly classified into three groups: rapid tests, Enzyme Linked Immunosorbent Assay [ELISA], and Western blot assay. These assays use different methodologies that are described below. Most current HIV antibody tests are capable of detecting antibodies to both HIV-1 and HIV-2.

**1. Rapid Tests**

A variety of rapid tests are available, which employ a variety of techniques including particle agglutination; lateral flow membrane and comb or dipstick-based assay systems. Rapid tests are quick, do not require specialized equipment, and are cost-effective and appropriate for smaller health
institutions where only a few samples are processed daily. Most rapid tests have a sensitivity of over 99% and specificity of about 98%, respectively.

The major advantage of the rapid HIV test is that it allows results to be given on the same day as testing. There is also an increased likelihood of clients receiving test results as opposed to the numbers who may not return when same day testing regimes are not used. A further benefit is that subjects are more likely to receive their results from the same health care worker who performed the pre-test counseling since the test requires 10-20 minutes to perform. Preferably ‘WHO recommended’ tests should be used to ensure a high level of sensitivity and specificity as well as tests that are ideal for limited-resource settings.

2. ELISA

HIV antibodies in the test serum are detected using an antibody sandwich capture technique. Essentially, HIV antibodies, if present, in the test serum are ‘sandwiched’ between HIV antigen, which is fixed to the test well, and to ‘enzymes’ that are added to the test well following addition of test serum. The test well is washed thoroughly to remove any unbound enzyme. A color reagent is then added to the well. Any bound enzyme will catalyze a change in color in this reagent. The presence of HIV antibodies is thus inferred from the change in color. Some of the more recent ELISA's have the capacity to detect both HIV antibodies and HIV antigen.

3. Western Blot

HIV antibodies in the test serum are detected by reacting to a variety of viral proteins. The viral proteins are initially separated into bands according to their molecular weight on an electrophoresis gel. These proteins are then transferred or ‘blotted’ to nitrocellulose paper. The paper is then incubated with the patient’s serum. HIV antibodies to specific HIV proteins bind to the nitrocellulose paper at precisely the point to which the target protein migrated. Bound antibodies are detected by colorimetric techniques.

HIV testing should follow recommended CDC-UNAIDS-WHO HIV testing strategies and relevant national HIV testing algorithms. In all cases, WHO and UNAIDS recommend that HIV tests used should have a sensitivity of at least 99% and a specificity of 98%.

HIV Testing Algorithm
Algorithm for the use of HIV Rapid Tests in VCT Services

- Perform A1
  - A1+ Perform A2
  - A1 – Report
    - A1+ A2+ Perform A3
      - A1+ A2+ A3+ Report positive
      - A1+ A2+ A3- Report indeterminate
    - A1+ A2+ A3- Report indeterminate
    - A1+ A2+ Report positive
      - A1+ A2- A3- Report neg
      - A1+ A2- A3+ Report indeterminate
NACP Algorithm: HIV Case registered at Infectious Disease Hospital (IDH)

Client → Pre-test counseling!!!
Laboratory or on the spot for rapid test HIV

If positive* the second and third tests should be performed for diagnosis

Post-test counseling, condoms

HIV Case registered at IDH

If negative*

Post-test counseling, condoms

Accuracy of HIV Tests

Biological assays are not always accurate. Each biological assay has the potential to give false positive or false negative results. The accuracy of a certain assay to distinguish between HIV infected and uninfected subjects are described by the following characteristics: sensitivity, specificity and predictive value. A working understanding of this concept is important when giving test results or developing testing programmes.

False negative. A false negative result reports that the sample is not HIV infected when in fact it is infected. The most common reason for a false negative HIV antibody test result is that the patient is recently infected with HIV and is currently in the window period. Therefore accurate HIV risk assessment during the period must be undertaken.

False positive results. Currently available HIV antibody tests are extremely sensitive and false positive rates are low. All clinical HIV testing strategies require repeated HIV antibody assays to be undertaken. A false positive on one assay is unlikely to also test positive on the second assay. Potential reasons for false positives include- technical error, serological cross reactivity, repeat thawing and freezing of sample.
Window period of HIV Infection

The window period typically lasts for 6 to 12 weeks. Very sensitive ELISAs have shorter window periods. HIV infection cannot be diagnosed during this period using antibody-based assays. Assays that detect part of the virus component as opposed to the antibody of the infected host are employed in this situation.\(^{44}\)

Diagnosis of HIV in the newborn

HIV antibody tests cannot be used to diagnose HIV infection in the infant because of transmission of maternal antibodies via the placenta. Maternal antibodies may be present in the newborn for up to 18 months. Newborn infants may therefore test HIV antibody positive even if they do not have HIV infection. Transmission of HIV to the baby is confirmed at 18 months of age by a positive HIV antibody test. HIV can be provisionally diagnosed in the newborn before this time-point by using a variety of non-antibody-based assays including DNA or RNA PCR. These tests are ideally done twice, the first one when the infant is six weeks old and the second one at six months of age or later, depending on whether the infant was breastfed or not as laid out in the pediatric ART guidelines.\(^{45}\)

Universal Standard Precautions (USP)

Staff working in the blood collection room and laboratory should observe simple precautions while handling blood and blood products. These include:

- Using gloves when handling blood samples
- Using disposable needles and syringes for drawing blood
- Practicing routine hand-washing before and after any contact with blood samples
- Disposing of sharp instruments safely as per procedure, e.g. discard disposable syringes in a puncture-resistant container after disinfection with bleach solution. In areas where such work is undertaken a source of clean water should be maintained.
Post-exposure prophylaxis (PEP)

The term post-exposure prophylaxis is generally understood to mean the medical response given to prevent the transmission of blood-borne pathogens following a potential exposure to HIV.

Drugs for PEP should be made available to any staff member who is accidentally exposed to HIV in all centers as early as 2 hours and within 24 hours of the accidental exposure and not later than 72 hours.

Eligibility for PEP

Individuals are eligible for HIV PEP if:

- exposure occurred within the past 72 hours; and
- the potentially exposed individual is not infected or not known to be infected with HIV; and
- mucous membrane or non-intact skin was significantly exposed to a potentially infectious body fluid; and
- The source is HIV-infected or the HIV status is unknown.

Clinical Staging of HIV/AIDS

WHO Clinical Staging of HIV Disease in Adults and Adolescents

<table>
<thead>
<tr>
<th>CLINICAL STAGE 1</th>
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<tbody>
<tr>
<td>Asymptomatic</td>
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<td>Persistent generalized lymphadenopathy</td>
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<tr>
<th>CLINICAL STAGE 2</th>
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<tr>
<td>Unexplained moderate weight loss (under 10% of presumed or measured body weight)</td>
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<tr>
<td>Recurrent upper respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis)</td>
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<tr>
<td>Herpes zoster</td>
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<td>Angular cheilitis</td>
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<td>Recurrent oral ulceration</td>
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<td>Papular pruritic eruptions</td>
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<td>Seborrhoeic dermatitis</td>
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<td>Fungal nail infection</td>
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<th>CLINICAL STAGE 3</th>
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<tr>
<td>Unexplained severe weight loss (over 10% of presumed or measured body weight)</td>
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<tr>
<td>Unexplained chronic diarrhoea for longer than one month</td>
<td></td>
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<tr>
<td>Unexplained persistent fever (intermittent or constant for longer than one month)</td>
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<tr>
<td>Persistent oral candidiasis</td>
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• Oral hairy leukoplakia
• Pulmonary tuberculosis (current)
• Severe bacterial infections (e.g. pneumonia, empyema, pyomyositis, bone or joint infection,
• meningitis, bacteraemia, severe pelvic inflammatory disease)
• Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis
• Unexplained anaemia (below 8 g/dl), neutropenia (below 0.5 x 10^9/l) and/or chronic thrombocytopenia (below 50 x 10^9/l)

CLINICAL STAGE 4c
• HIV wasting syndrome
• *Pneumocystis* pneumonia
• Recurrent bacterial pneumonia
• Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month’s
duration or visceral at any site)
• Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs)
• Extrapulmonary tuberculosis
• Kaposi sarcoma
• Cytomegalovirus infection (retinitis or infection of other organs)
• Central nervous system toxoplasmosis
• HIV encephalopathy
• Extrapulmonary cryptococcosis including meningitis
• Disseminated non-tuberculous mycobacteria infection
• Progressive multifocal leukoencephalopathy
• Chronic cryptosporidiosis
• Chronic isosporiasis
• Disseminated mycosis (coccidiomycosis or histoplasmosis)
• Recurrent septicaemia (including non-typhoidal *Salmonella*)
• Lymphoma (cerebral or B cell non-Hodgkin)
• Invasive cervical carcinoma
• Atypical disseminated leishmaniasis
• Symptomatic HIV-associated nephropathy or HIV-associated cardiomypathy

a Unexplained refers to where the condition is not explained by other conditions.

b Assessment of body weight among pregnant woman needs to consider the expected weight gain of pregnancy.

c Some additional specific conditions can also be included in regional classifications, such as the reactivation of American trypanosomiasis (meningoencephalitis and/or myocarditis) in the WHO Region of the Americas and penicilliosis in Asia.

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**HIV Co infections**

**HIV and Tuberculosis**

By the end of 2000, about 11.5 million HIV-infected people worldwide were coinfected with *M. tuberculosis*. 70% of coinfected people were in sub-
Saharan Africa, 20% in South-East Asia and 4% in Latin America and the Caribbean.
There were 1.8 million deaths from TB in 2000; with 226,000 attributable to HIV (12%). TB deaths comprise 25% of all avoidable adult deaths in developing countries.49

Consequence of HIV/M. tuberculosis co infection

HIV is the most powerful risk factor for progression from TB infection to TB disease. An HIV positive person infected with M. tuberculosis has a 50% lifetime risk of developing TB, whereas an HIV negative person infected with M. tuberculosis has only a 10% risk of developing TB. This is especially important in Afghanistan where it is estimated that almost half of the adult population harbors M. tuberculosis. HIV infected persons who become newly infected by M. tuberculosis rapidly progress to active TB. Among severely immuno-compromised patients hospitalized with AIDS and exposed to infectious patients, the median time between exposure and disease was 12 weeks.

TB shortens the survival of patients with HIV infection. TB may accelerate the progression of HIV, as observed by a six- to seven-fold increase in HIV viral load in TB patients. TB is the cause of death for one out of every three people with AIDS worldwide.

Afghanistan is categorized as III (3) country for TB/HIV activities, due to its low level HIV prevalence, according to the WHO Interim Policy on Collaborative TB/HIV activities (WHO, 2004), which provides guidance on starting recommended TB/HIV activities as shown in Figure 1. For Category 3 countries, WHO recommends national TB/HIV planning to conduct surveillance and to decrease the burden of TB in people living with HIV through intensified TB case finding, isoniazid preventive therapy, and TB control in health care and congregate settings.

HIV is the most powerful known factor governing the progression from TB infection to active TB. Where TB/HIV coexist, the risk of developing active TB disease is estimated to be 5%-15% per year, as opposed to 5-10% lifetime risk in the non-HIV-infected. TB leads to more rapid progression to AIDS, and considerably shortens the survival of PLHA. Because of the close link between TB/HIV, ideally, any patient diagnosed with TB should be offered HIV testing and counseling, and any patient diagnosed with HIV should be screened for TB. Where levels of TB infection are significant, the introduction of HIV will have a dramatic effect leading to a general increase in TB transmission for those who are and are not infected with HIV.

Tuberculosis is an important entry point into HIV care and a common opportunistic infection among persons already diagnosed with HIV, particularly in resource-limited settings. HIV infected persons with TB often require ART, and WHO recommends that ART be given to all patients with extrapulmonary TB (stage 4) and all those with pulmonary TB (stage 3) unless the CD4 count is above 350 cells/mm3.
For patients with active TB in whom HIV infection is diagnosed and ART is required the first priority is to initiate standard antituberculosis treatment (in accordance with national TB policy and guidelines). Case-fatality rates in patients with TB during the first two months of TB treatment are high, particularly in settings where there are high prevalences of HIV suggesting that ART should begin early.

**Impact of HIV on TB control**

The principles of TB control are the same even when there are many HIV/TB patients. However, in populations where HIV/TB is common, health services struggle to cope with the large and rising numbers of TB patients. The consequences include the following:

- Over diagnosis of sputum smear-negative PTB (due to difficulties in diagnosis);
- Under diagnosis of sputum smear-positive PTB (due to excess laboratory workload);
- Inadequate supervision of anti-TB chemotherapy;
- Low cure rates;
- High morbidity during treatment;
- High mortality rates during treatment;
- High default rates because of adverse drug reactions;
- High rates of TB recurrence;
- Increased transmission of drug-resistant strains among HIV-infected patients in congregate settings.

**HIV and Hepatitis B co infection**

Hepatitis B virus is immunopathic (the immune response to the virus causes most of the liver damage) and therefore in HIV infection there is often a decrease in the serum aminotransferase values and a decrease in the histological inflammatory indices. However, at very high levels of viral replication the virus may have a direct cytopathic effect. Co-infection with HIV is generally accompanied by an increase in HBV replication and there is some evidence for an increased rate of progression to cirrhosis.50

- Since the introduction of combination antiretroviral therapy and the dramatic improvement in the prognosis of people with HIV, liver disease due to chronic viral hepatitis has become an important cause of morbidity and mortality in co-infected patients
- HBV reactivation and reinfection can also occur and patients who appeared to have cleared HBV infection can present with a further episode of acute or, more commonly, be found to have abnormal liver function tests and chronic hepatitis. The risk of reactivation is higher in patients who are positive for anti-HBc antibody but negative for other markers of HBV infection. In one long-term follow-up study of anti-HBc-antibody positive, HIV-positive patients, transient HBsAg-positivity developed in 24%, HBV-DNA became positive in 60% and about a third of these had active liver disease.
• There is also a reduction in the rate of natural clearance of HBeAg by about 60% in coinfected patients compared to HIV negative patients. However, there are reports of patients clearing chronic HBV infection with recovery of CD4 count responses following anti-retroviral therapy.

**HIV and HCV Co-infections**

Only 20-30% of immunocompetent individuals with HCV will progress to cirrhosis over an average of 15-30 years. Evidence suggests that in HIV positive individuals progression is likely to occur more frequently and at a faster rate. A recent study estimated the median time to cirrhosis as 32 years and 23 years from time of acquisition in HCV and HCV/HIV co-infected individuals respectively. This is now manifest as a proportional increase in deaths from end stage liver disease (ESLD) throughout the HIV infected population such that HCV infection is one of the major causes of death in people with HIV.

HCV may have a deleterious effect on HIV progression. The Swiss HIV Cohort study and others have demonstrated that HCV infection was independently associated with an increased risk of progression to AIDS or death, despite a similar use of antiretroviral therapies within the co-infected group as those with HIV alone.

Most antiretroviral agents have the potential to cause hepatotoxicity, although the rate at which this may occur varies both between classes of drugs and between individual drugs within classes. The presence of hepatitis C co-infection increases the risk of developing hepatotoxicity on HAART by roughly 2-3 fold and clinicians must be alert to this possibility.\(^5\)

**HIV and Sexually Transmitted Infections\(^5\)**

Sexually transmitted infections (STIs) remain a public health problem of major significance in most parts of the world. The incidence of acute STIs is believed to be high in many countries. Failure to diagnose and treat STIs at an early stage may result in serious complications and sequelae, including infertility, fetal wastage, ectopic pregnancy, anogenital cancer and premature death, as well as neonatal and infant infections. The individual and national expenditure on STI care can be substantial.

The appearance of HIV and AIDS has focused greater attention on the control of STIs. There is a strong correlation between the spread of conventional STIs and HIV transmission, and both ulcerative and non-ulcerative STIs have been found to increase the risk of sexual transmission of HIV. The emergence and spread of HIV infection and AIDS have also complicated the management and control of some other STIs. For example, owing to HIV-related immunosuppression, the treatment of chancroid has become increasingly difficult in areas with a high prevalence of HIV infection.

**Genital Ulcers and HIV Infection**
There have been a number of anecdotal reports in the literature suggesting that the natural history of syphilis may be altered as a result of concomitant HIV infection. Some reports have indicated atypical presentations of both primary and secondary syphilis lesions. Some have noted an increase in treatment failure rates among patients with early syphilis who are treated with single-dose therapies of penicillin.

In chancroid, atypical lesions have been reported in HIV-infected individuals. The lesions tend to be more extensive, or multiple lesions may form that are sometimes accompanied by systemic manifestations such as fever and chills. Reports of rapidly aggressive lesions have been noted by some clinicians. This emphasizes the need for early treatment, especially in HIV-infected individuals. There is evidence to suggest that HIV infection may increase rates of treatment failure in chancroid, especially when single-dose therapies are given. More research is needed to confirm these observations. In immunosuppressed individuals, herpes simplex lesions may present as persistent multiple ulcers that require medical attention, as opposed to the self-limiting vesicles and ulcers which occur in immunocompetent individuals. Thus, antiviral treatment is particularly important in such instances, to be given therapeutically or prophylactically to offer comfort to the patient. Adequate education needs to be given to the patient as well, to explain the nature and purpose of treatment and in order to avoid false expectations of cure.

**Syphilis and HIV Infection**

All patients with syphilis should be encouraged to undergo testing for HIV infection because of the high frequency of dual infection and its implications for clinical assessment and management. Neurosyphilis should be considered in the differential diagnosis of neurological disease in HIV-infected individuals. In cases of congenital syphilis, the mother should be encouraged to undergo testing for HIV; if her test is positive, the infant should be referred for follow-up.

Recommended therapy for early syphilis in HIV-infected patients is no different from that in patients not infected with HIV. However, some authorities advise examination of the CSF and/or more intensive treatment with a regimen appropriate for all patients with the dual infections of T. pallidum and HIV, regardless of the clinical stage of syphilis. In all cases, careful follow-up is necessary to ensure adequacy of treatment.

**Herpes and HIV Co-infection**

In people whose immunity is deficient, persistent and/or severe mucocutaneous ulcerations may occur, often involving large areas of perianal, scrotal or penile skin. The lesions may be painful and atypical, making a clinical diagnosis difficult.

The natural history of herpes sores may become altered. Most lesions of herpes in HIV-infected persons will respond to acyclovir, but the dose may
have to be increased and treatment given for longer than the standard recommended period. Subsequently, patients may benefit from chronic suppressive therapy. In some cases the patients may develop thymidine-kinase deficient mutants for which standard antiviral therapy becomes ineffective.

Evidence for hepatitis B, hepatitis C, and syphilis infections have been found in blood donations and antenatal clinics in Kabul, as well as samples from IDUs and FSWs. The serological presence of these infections, which are commonly spread by sexual transmission, indicates the potential for rapid transmission of HIV among these same populations. The presence of syphilis and other sexually transmitted diseases in a population can facilitate infection with HIV. This is a further warning sign of the potential for rapid HIV spread in Afghanistan.
Module Five

Antiretroviral Treatment (ART)
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HIV and Pregnancy

Objectives

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

a. Describe the effects of HIV on pregnancy.
b. Discuss MTCT, factors that may increase transmission and measures that reduce transmission.
c. Describe how ART is used for the prevention of MTCT.
d. Describe the various regimens used during pregnancy, intrapartum and postpartum, including short course ART.
e. Discuss the relationship between ART and breast feeding and WHO recommendations.
f. Discuss national guidelines with regard to HIV and infant feeding.

Effects of HIV on pregnancy

a. Some studies in Africa suggest that HIV may have an adverse affect on fertility in both symptomatic and asymptomatic women. Pregnancy rates are lower and pregnancy loss more common in those who are HIV infected. Others state that fertility is affected only in late HIV disease.
b. When comparing changes in CD4 count/percentage over time, there is no difference between HIV-positive pregnant and non-pregnant women.
c. HIV does not seem to be a significant cause of congenital abnormalities or spontaneous abortion.
d. Pregnancy does not accelerate disease progression in early HIV infection.
e. Late HIV disease may affect the outcome of pregnancy, that is, poor fetal growth, preterm delivery, low birth weight and prenatal and neonatal death.
f. Common HIV-related problems are no different in pregnant and non-pregnant women, and both groups should receive the same management (except for drugs that are contraindicated or used with caution, like streptomycin and efavirenz)

ARV therapy and MTCT

a. Prevention of prenatal transmission

- The use of ARV therapy can reduce MTCT significantly studies conducted in industrialized countries in 1994 showed that administering AZT to women from the 14th week of pregnancy and to the newborn during labor
decreased the risk of MTCT by nearly 70 percent in the absence of breast feeding.

- A shorter regimen of AZT alone, starting from the 36th week of pregnancy, was shown to reduce the risk of transmission of HIV at six months by 50 percent in the nonbreastfeeding population and by 37 percent in those breastfeeding.

- A short course of NVP (HIVNET 012 study) has been shown to reduce the risk of transmission and is the protocol most commonly used because clinical trials have demonstrated its efficacy in reducing MTCT, it has a low cost and it is easy to use in MTCT programs. The regimen is:
  1. Intrapartum short course: 200mg at start of labor or at hospital intrapartum
  2. Postpartum infant: 2mg/kg stat within 48-72 hours
  3. Other trials of short course ARV regimens using a combination of AZT and lamivudine also substantially decrease the risk of transmission (PETRA study).

- Women on treatment with ARVs for HIV infection have very low transmission if viral load is <1000 copies/ml. Women first diagnosed with HIV infection during pregnancy
- Women in the first trimester may consider delaying initiation of ART to avoid the potential teratogenic effect.
- Consider severity of maternal HIV disease and potential benefits and risks of delaying ART until after first trimester.
- For women who are severely ill, the benefit of early initiation may outweigh theoretical risk to fetus; in these cases, recommend initiating with drugs such as AZT, 3TC and NVP or NFV.
- HIV-infected women on ART who become pregnant
- Options are:
  - Suspend therapy temporarily during first trimester
  - Continue same therapy
  - Change to a different regimen
- Issues to consider:
  - Gestational stage of the pregnancy
  - Severity of maternal disease
  - Tolerance of regimen in pregnancy
  - Potential for adverse fetal effects
  - Fetus is most susceptible to potential teratogenic effects of drugs during the first 10 weeks of gestation; risks of ART to fetus during this period are unknown.

- ART and breast feeding
  - Women who require ART and who are breast feeding should continue their current ART regimen.
  - Efficacy of potent ART taken by the mother solely to prevent postnatal transmission of HIV through breast milk is unknown, but is currently under study.
Recommendations for initiating ARV treatment in pregnant women based on clinical stage and availability of immunological markers

<table>
<thead>
<tr>
<th>WHO Clinical Stage</th>
<th>CD4 testing not available</th>
<th>CD4 testing available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do not treat (Level A-III recommendation)</td>
<td>Treat if CD4 cell count &lt;200 cells/mm3 (Level A-III recommendation)</td>
</tr>
<tr>
<td>2</td>
<td>Do not treat (Level B-III recommendation)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Treat (Level A-III recommendation)</td>
<td>Treat if CD4 cell count &lt;350 cells/mm3 (Level A-III recommendation)</td>
</tr>
<tr>
<td>4</td>
<td>Treat (Level A-III recommendation)</td>
<td>Treat irrespective of CD4 cell count (Level A-III recommendation)</td>
</tr>
</tbody>
</table>

Recommended first-line ARV regimens for treating pregnant women and prophylactic regimen for infants

<table>
<thead>
<tr>
<th>Mother</th>
<th>Antepartum</th>
<th>Intrapartum</th>
<th>Postpartum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AZT + 3TC + NVP twice daily</td>
<td>AZT + 3TC + NVP twice daily</td>
<td>AZT + 3TC + NVP twice daily</td>
</tr>
<tr>
<td>Infant</td>
<td>AZT × 7 days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recommended prophylactic ARV regimens for pregnant women who are not yet eligible for ART

<table>
<thead>
<tr>
<th>Mother</th>
<th>Antepartum</th>
<th>Intrapartum</th>
<th>Postpartum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AZT starting at 28 weeks of pregnancy or as soon as feasible thereafter</td>
<td>Sd-NVPb + AZT/3TCb</td>
<td>AZT/3TC × 7 daysb</td>
</tr>
<tr>
<td>Infant</td>
<td>Sd-NVP + AZT × 7 daysb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Adherence to therapy in pregnancy and postpartum
- Adherence may be more difficult in pregnant and postpartum women than nonpregnant women.
- Obstacles to adherence may include: Morning sickness and GI upset, which can be further compounded by ARV-associated nausea. Fears that ARV drugs might harm fetus.
- If for any reason there is a need to discontinue therapy temporarily during pregnancy, stop and restart all drugs together to reduce the potential for the emergence of resistance.
- Physical changes of postpartum period, coupled with stresses and demands of caring for a newborn infant, may make adherence to treatment especially difficult after birth. Providing additional support for maintaining adherence to therapy during ante- and postpartum periods is important.

**Anti Retroviral Therapy**

**Objectives**
By the end of this session, the participants will be able to:
- a. Describe the goals and basic principles of ART.
- b. List the criteria for when to start therapy, which regimen to use and when to change therapies.
- c. Describe the different types of therapy, their mode of action and WHO-recommended first-line and second-line regimens.
- d. Discuss adherence issues and discuss country-specific solutions.
- e. Discuss the importance of and how to monitor patients on ART.
- f. Discuss treatment options for patients who fail therapy, the barriers to treatment and how to address these in their local situation.
- g. Discuss in-country options and national guidelines for ART.

**Session content:**
- Antiretroviral drugs
- 3 Ss strategies for ARV drugs
- Adherence
- Treatment failure

**Antiretroviral Therapy**

The goal of antiretroviral therapy (ART) is to:
- a. Prolong and improve the quality of life
- b. Reduce the viral load as much as possible, for as long as possible, to halt disease progression and prevent or reduce resistant variants
- c. Achieve immune reconstitution that is quantitative (CD4 count in normal range) and qualitative (pathogen specific immune response)
- d. Provide an antiretroviral regimen that not only achieves reduced viral loads, but also preserves future therapeutic options, is relatively free of side effects and is tailored to individual needs for adherence
How ARVs interfere with the life cycle of HIV?

1. Attachment/cell entry
2. Reverse Transcription
3. Integration
4. Assembly
5. Budding/maturation

Drug Classes

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>NRTI (Nucleoside Reverse Transcriptase Inhibitors)</th>
<th>NNRTI (Nonnucleoside Reverse Transcriptase Inhibitors)</th>
<th>PI (Protease Inhibitors)</th>
<th>Fusion Inhibitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Name</td>
<td>3TC (Lamivudine) ABC (Abacavir) ZDV (Zidovudine) D4T (Stavudine) DDC (Zalcitidine) DDI (Didanosine) TDF (Tenofovir)</td>
<td>Nevirapin Efaverinz</td>
<td>Lopinavir/Rit Indinavir Retonavir Nelfinavir Saquinavir Fosamprenavir Atazanavir</td>
<td>ENF (Enfuvirtide)</td>
</tr>
</tbody>
</table>
The basic principles of therapy

There is a standardized formulary for first-line and second-line ART, as the use of two NRTIs and an NNRTI as the standard first-line approach and maintenance of the PI class as the mainstay of second-line regimens. The simplified patient management and standardized laboratory monitoring to indicate when to start, when to substitute for toxicity, and when to switch for failure or stop therapy (the “four Ss” of simplified clinical decision-making) also consider basic component of HIV treatment.

When to start therapy

<table>
<thead>
<tr>
<th>WHO Clinical Stages</th>
<th>CD4-Cells testing unavailable</th>
<th>CD4-Cells testing available</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO Stage 1 and 2</td>
<td>Do not treat</td>
<td>Treat if CD4-Cell count less than 200 cell/µL</td>
</tr>
<tr>
<td>WHO stage 3</td>
<td>Treat</td>
<td>Cosider treatment if CD4-Cell count falls below 350 cell/µL and start ART before CD4-cell count drop below 200 cell/µL</td>
</tr>
<tr>
<td>WHO Stage 4</td>
<td>Treat irrespective of CD4-cell count</td>
<td>n/a</td>
</tr>
</tbody>
</table>

ART has turned HIV into a manageable chronic disease

Sources: Viet Nam CDC, Harvard Medical School AIDS Partnership, Clinical training, Ho Chi Minh City, 2006.
Immunological assessment of HIV-infected adults and adolescents

<table>
<thead>
<tr>
<th>CD4 (cells/mm³)</th>
<th>Treatment recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;200</td>
<td>Treat irrespective of clinical stage</td>
</tr>
<tr>
<td>200-350</td>
<td>Consider treatment and initiate before CD4 count drops below 200 cells/mm³ [A-III]</td>
</tr>
<tr>
<td>&gt;350</td>
<td>Do not initiate treatment [A-III]</td>
</tr>
</tbody>
</table>

In the absence of a CD4 cell count, a total lymphocyte count (TLC) below 1200 cells/mm³ in patients with symptomatic HIV disease has been recommended as a guide to the initiation of ART. While the TLC correlates relatively poorly with the CD4 cell count in asymptomatic persons, in combination with clinical staging it has been reported as a useful marker of prognosis and survival.

It has not been possible to translate the predictive ability of TLC into a specific TLC threshold for determining treatment eligibility. Data suggest that a TLC below 1200 cells/mm³ as a surrogate for a CD4 count below 200 cells/mm³ has high positive predictive value but poor negative predictive value and that it cannot be used alone in asymptomatic patients to determine treatment eligibility. For the purpose of determining when to start treatment a single TLC threshold cannot be recommended. It remains a useful predictive marker of disease progression. The TLC is thus only useful in deciding when to initiate ART in symptomatic patients with WHO clinical stage 2 disease. It is not useful and is not recommended for monitoring the response to ART or for deciding whether ART is failing.

The TLC should be measured with an automated reader as manual counts are too inaccurate (especially in the presence of lymphopenia) and are too time-consuming for routine use. Many countries with automated machines also have CD4 (bench top) measurement technology available.

What to Start?
The first-line regimen for adults and adolescents contain two NRTIs plus one NNRTI (Fig. 1). Regimens based on combination of two NRTIs plus one NNRTI are efficacious, are generally less expensive than other regimens, have generic formulations are often available as FDCs and do not require a cold chain. In addition, they preserve a potent new class (protease inhibitors) for second-line treatments.

Disadvantages include different drug half-lives which complicate ART stopping procedures, the fact that a single mutation is associated with resistance to some drugs (3TC and the NNRTIs), and cross-resistance within the NNRTI class.

A triple NRTI regimen should be considered as an alternative for first-line ART in situations where NNRTI options provide additional complications and to preserve the PI class for second-line treatment [C-I] (e.g. in women with CD4
counts of 250–350 cells/mm³; coinfection with viral hepatitis or tuberculosis; severe adverse reactions to NVP or EFV, infection with HIV-2). Recommended triple NRTI combinations are zidovudine + lamivudine + abacavir [A-I] and zidovudine + lamivudine + tenofovir [A-II].

First line ARV drugs for adults and adolescents
1. AZT+3TC+EFV or NVP (Zidovudine+Lamivudine+Efavirenz or Nevirapine)

Alternative first line regimen
1. d4T+3TC+EFV or NVP (Stavudine+Lamivudine+Efavirenz or Nevirapine)
2. AZT+3TC+ABC (Zidovudine+Lamivudine+Abacavir)

1. Preferential two NRTIs/NNRTI approach is based upon a combination of three drugs: two NRTIs combined with either NVP or EFV as the NNRTI.
2. Preferred NRTI to be combined with 3TC or FTC in standard first-line regimens.
3. Triple NRTI approach (i.e. three NRTI drugs selected only from the options shown within the dotted circle) can be considered as an alternative for first-line regimens in situations where NNRTI options provide additional complications (e.g. women who have CD4 counts between 250 and 350 cells/mm³, viral hepatitis coinfection, TB coinfection, severe reactions to NVP or EFV, and HIV-2 infection) as discussed above.

Second-line ARV drugs in adults and adolescents: WHO guidelines, 2006

- TDF or ddI
- ABC or AZT ± 3TC

Pl/r*: EFV or NVP

NRTI switching option if simplified triple NRTI approach was used in first-line

* ritonavir-boosted PI are considered as the key component in second-line regimens and their use should be reserved for this situation. EFV/ has been recommended as the preferred NRTI/boosted PI as it is available as a TDF and a new formulation that does not need refrigeration was recently launched, but other boosted PIs (ATV/r, SQV/r, fos-APV/r) and IDV/r can be substituted based on individual programme priorities. In the absence of a cold chain and where the new LPV/r formulation is not available, unboosted ATV or NFV can be employed as the PI component but it is considered less potent than an RTV-boosted PI.
# ZDV + 3TC are listed here for "strategic" use as resistance to both drugs is predicted to be present following failure on the respective first-line regimen listed. ZDV may prevent or delay the emergence of the 3TC resistance strain; 3TC will maintain the M184V mutation which may decrease viral replicate capacity as well as induce some degree of viral desensitization to ZDV. It must be
What to expect in the first six months of therapy?

The first six months on ART are critical. Clinical and immunological improvement should manifest themselves but are not always apparent and drug toxicities may emerge.

1. CD4 Recovery
   In most patients, CD4 cell counts rise with the initiation of therapy and immune recovery. This may continue for many years into effective therapy, although this may be blunted if the baseline CD4 count is very low. However, even patients with CD4 counts below 10 cells/mm3 can achieve an effective CD4 recovery, given sufficient time after the initiation of ART. Some patients may never have CD4 counts that exceed 200 cells/mm3 and thus never leave the zone of severe immunosuppression. In those who achieve a substantial peak response, a subsequent progressive decline in CD4 counts in the absence of intercurrent illness indicates immunological failure. The baseline CD4 count and the trend of the CD4 response assessed by regular six monthly CD4 counts are needed to best characterize and define immunological failure. In a minority of patients with advanced disease and low CD4 counts when therapy is initiated, the CD4 counts may not rise or may fall slightly, even with clinical improvement.

2. Early ARV Toxicity
   First-line drug toxicities fall into two categories: early, usually presenting in the first few weeks to months of therapy, and later. Common early and potentially severe toxicities are hypersensitivity to NNRTIs (EFV and NVP), normally occurring within the first few weeks of therapy, and AZT-related anaemia and neutropenia, typically presenting in the first few months of therapy.

3. Mortality on ARV
   While ART significantly decreases mortality, the latter is higher in the first six months than during the subsequent time on therapy, particularly when patients start with stage 4 clinical events, severe immunosuppression and very low CD4 counts.

4. Immune Reconstruction Inflammatory Response
   The immune reconstitution inflammatory syndrome (IRIS) is a spectrum of clinical signs and symptoms resulting from the restored ability to mount an inflammatory response associated with immune recovery. IRIS occurs within two to twelve weeks of the initiation of ART, although it may present later.
ARV Toxicity and Treatment Failure

Objectives

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

h. Describe the goals and basic principles of ART.

i. List the criteria for when to start therapy, which regimen to use and when to change therapies.

j. Describe the different types of therapy, their mode of action and WHO-recommended first-line and second-line regimens.

k. Discuss adherence issues and discuss country-specific solutions.

l. Discuss the importance of and how to monitor patients on ART.

m. Discuss treatment options for patients who fail therapy, the barriers to treatment and how to address these in their local situation.

n. Discuss in-country options and national guidelines for ART.

Session content:
- Toxicity of ARV drugs
- Drug Substitution because of toxicity
- Treatment failure
- Choice of second line regimen after treatment failure

ARV Toxicity and Treatment Failure

Common ARV Toxicities

<table>
<thead>
<tr>
<th>Hematological Toxicity</th>
<th>Drug-induced bone marrow suppression, most commonly seen with AZT (anaemia, neutropenia).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitochondrial dysfunction</td>
<td>Primarily seen with the NRTI drugs, including lactic acidosis, hepatic toxicity, pancreatitis, peripheral neuropathy, lipoatrophy, myopathy.</td>
</tr>
<tr>
<td>Renal toxicity</td>
<td>Nephrolithiasis, commonly seen with IDV. Renal tubular dysfunction is associated with TDF.</td>
</tr>
<tr>
<td>Other metabolic abnormalities</td>
<td>More common with PIs. Include hyperlipidaemia, fat accumulation, insulin resistance, diabetes and osteopenia.</td>
</tr>
</tbody>
</table>
Allergic reactions

Skin rashes and hypersensitivity reactions, more common with the NNRTI drugs but also seen with certain NRTI drugs, such as ABC and some PIs.

**Drug substitution because of toxicity**

Given the limited number of ARV drug options available in resource-limited settings, drug substitutions should generally be limited to situations where toxicity is moderate to severe (grade 3) or life-threatening (grade 4)

<table>
<thead>
<tr>
<th>ARV drugs</th>
<th>Common associated toxicity</th>
<th>Suggested substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC</td>
<td>Hypersensitivity reaction</td>
<td>AZT or TDF or d4T</td>
</tr>
<tr>
<td>AZT</td>
<td>Severe anaemia a or neutropenia b</td>
<td>TDF or d4T or ABC</td>
</tr>
<tr>
<td></td>
<td>Severe gastrointestinal intolerance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lactic acidosis</td>
<td>TDF or ABC d</td>
</tr>
<tr>
<td>D4T</td>
<td>Lactic acidosis Lipoatrophy / metabolic syndrome</td>
<td>TDF or ABC</td>
</tr>
<tr>
<td></td>
<td>Peripheral neuropathy</td>
<td>AZT or TDF or ABC</td>
</tr>
<tr>
<td>TDF</td>
<td>Renal toxicity (renal tubular dysfunction)</td>
<td>AZT or ABC or d4T</td>
</tr>
<tr>
<td>EFV</td>
<td>Persistent and severe central nervous system toxicity</td>
<td>NVP or TDF or ABC (or any PI h)</td>
</tr>
<tr>
<td></td>
<td>Potential teratogenicity (first trimester of pregnancy or women not using adequate contraception)</td>
<td>NVP or ABC (or any PI h)</td>
</tr>
<tr>
<td>NVP</td>
<td>Hepatitis</td>
<td>EFV or TDF or ABC (or any PI h)</td>
</tr>
<tr>
<td></td>
<td>Hypersensitivity reaction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severe or life-threatening rash (Stevens-Johnson syndrome)</td>
<td>TDF or ABC</td>
</tr>
</tbody>
</table>

**Antiretroviral failure and when to switch therapy**

**Treatment failure**: when the ART regimen does not adequately suppress replication of HIV. HIV has become “resistant” to all the medications in the ART regimen.
Clinical failure  |  New or recurrent WHO stage 4 condition
---|---
**CD4 cell failure**  |  
- Fall of CD4 count to pre-therapy baseline (or below); or 
- 50% fall from the on-treatment peak value (if known); or 
- persistent CD4 levels below 100 cells/mm3

Virological failure  |  Plasma viral load above 10,000 copies/ml

**Choice of second line regimen for treatment failure**

The PI class is thus reserved for second-line treatments, preferably supported by two new NRTIs. Maximizing the potency of the PI component is critical for successful Virological suppression and durability of response. For this reason, a ritonavir-boosted PI (e.g. ATV/r, FPV/r, IDV/r, LPV/r or SQV/r) is recommended as the core of the second-line regimen.

<table>
<thead>
<tr>
<th>First-line regimen</th>
<th>Second-line regimen</th>
<th>Rti component</th>
<th>Pi component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard strategy</td>
<td>AZT or d4T + 3TC b + NVP or EFV</td>
<td>ddl + ABC or TDF + ABC or TDF + 3TC (± AZT)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TDF + 3TC b + NVP or EFV</td>
<td>ddl + ABC or ddl + 3TC (± AZT)</td>
<td>PI/r</td>
</tr>
<tr>
<td></td>
<td>ABC + 3TC b + NVP or EFV</td>
<td>ddl + 3TC (± AZT) c or TDF + 3TC (± AZT)</td>
<td></td>
</tr>
<tr>
<td>Alternative strategy</td>
<td>AZT or d4T + 3TC b + TDF or ABC</td>
<td>EFV or NVP ± ddl</td>
<td></td>
</tr>
</tbody>
</table>
**Treatment of HIV with other co infections**

**Objectives:**
By end of the session the participants will be able to:
- To explain the TB an HIV co infection
- To explain the HIV and HBV infection
- To know the HIV and HCV co infection

**Session content:**
- HIV and Tuberculosis
- HIV and Hepatitis B
- HIV and Hepatitis C

**Treatment of HIV with other co infections**

**TB and HIV**
Tuberculosis is an important entry point into HIV care and a common opportunistic infection among persons already diagnosed with HIV, particularly in resource-limited settings. HIV infected persons with TB often require ART, and WHO recommends that ART be given to all patients with extrapulmonary TB (stage 4) and all those with pulmonary TB (stage 3) unless the CD4 count is above 350 cells/mm3.

**When to start first-line ART in patients with active tuberculosis**

For patients with active TB in whom HIV infection is diagnosed and ART is required the first priority is to initiate standard antituberculosis treatment (in accordance with national TB policy and guidelines). Case-fatality rates in patients with TB during the first two months of TB treatment are high, particularly in settings where there are high prevalences of HIV suggesting that ART should begin early. On the other hand, considerations of pill burden, drug-drug interactions, toxicity and IRIS support the later initiation of ART.

**Initiating first-line ART in relationship to starting anti-TB therapy**

<table>
<thead>
<tr>
<th>CD4 count</th>
<th>cell</th>
<th>ART recommendations</th>
<th>Timing of ART in relation to start of TB treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;200 cells/mm3</td>
<td>Recommend ART</td>
<td>Between two and eight weeks</td>
<td></td>
</tr>
<tr>
<td>between 200 and 350 cells/mm3</td>
<td>Recommend ART</td>
<td>After eight weeks</td>
<td></td>
</tr>
<tr>
<td>&gt;350 cells/mm3</td>
<td>Defer ART</td>
<td>Re-evaluate patient at eight weeks and at the end of TB treatment</td>
<td></td>
</tr>
<tr>
<td>Not available</td>
<td>Recommend ART</td>
<td>Between two and eight weeks</td>
<td></td>
</tr>
</tbody>
</table>

**What to start: recommended ART for patients with active TB**
The recommended standard first-line ART regimen comprises two NRTIs plus one NNRTI. There are few drug interactions with TB drugs and the NRTI backbone and no specific changes are recommended. The situation is more complex with the NNRTI class because NNRTI levels are reduced in the presence of rifampicin. However, accumulating data support the use of first-line NNRTI-containing antiretroviral regimens in patients receiving rifampicin-containing treatment for TB. Here EFV is the preferred option, because the interactions with rifampicin are easier to manage; but the use of EFV may be limited by its restrictions in pregnant women or women of childbearing potential. NVP is an alternative agent, but carries the risk of hepatotoxicity, particularly in persons with higher CD4 counts or for whom no CD4 count is available.

**Hepatitis B and C co infection with HIV**

In situations where both HIV and HBV require treatment, the ART regimens must contain 3TC and/or TDF. It is preferable to use 3TC and TDF together as both drugs have anti-HIV and anti-HBV activity and the use of TDF or 3TC as the only anti-HBV drug can result in more rapid development of resistance.

**Considerations for Injecting drug users**

Principles for initiating ART in IDUs

- ART treatment should not be excluded or unnecessarily delayed in current or former IDUs.
- Issues related to comorbidities, treatment priorities and readiness to start ART should be adequately addressed from the scientific, social and ethical perspectives.
- A comprehensive approach to care and treatment of IDUs is recommended but the absence of specific components (e.g. opioid substitution therapy) should not be a barrier to starting ART in those who need it.

**Choice of ART in IDUs**

- The basic WHO-recommended first-line and second-line drug formulary can be used in selecting ART for the vast majority of IDUs.
- The choice of specific antiretroviral drugs should also take into consideration that the prevalence of hepatic, renal, neurological, psychiatric, gastrointestinal and haematological comorbidities is higher in IDUs.
- Potential drug interactions with other legal or illicit drugs should be considered.
Case study 1: Dave
A 38-year-old male ex-IDU has lost approximately 10 kg of weight over the past six months, and has been hospitalized four times recently for recurrent bacterial pneumonia. He is a heavy drinker but has good family support, and you think his adherence will be good. Twelve years ago he was hospitalized for six months for a psychotic episode. He complains of numbness in his toes. He also has oral candidiasis. His TLC is 900 cells/mm3. His ALT is 105 IU/L.

Case study 2: Navi
A 22-year-old woman presents with a recent diagnosis of HIV. She is four months pregnant. She has oral thrush but no other symptoms. She and her partner are both currently injecting heroin approximately five times a day. Her physical examination is normal except for several infected injecting sites. The CD4 count is 150 cells/mm3. Her Hb is 8.8 g/dl and other baseline laboratory tests are unremarkable.

Case study 3: Huong
A 25-year-old man requests ART. He had a CD4 count done at another health centre and it was 180 cells/mm3. He is hepatitis B and hepatitis C positive. He has been stable on 80 mg methadone daily for the past eight months. He has missed picking up his daily methadone dose only on four days out of those eight months. He still injects heroin occasionally and regularly takes benzodiazepines. His AST is 350 IU/L.

Case study 4: Tuyet
An 18-year-old woman presents with a CD4 count of 120 cells/mm3. She was admitted to hospital three months ago with TB meningitis and was started on buprenorphine at that time. She has been stable on 24 mg buprenorphine three times per week and has not used heroin since being discharged from hospital. She has finished the intensive phase of her TB treatment and is now on isoniazid and ethambutol for another six months. She has hepatitis B (HBsAg positive) and the AST is 55 IU/L. Hepatitis C is negative. Her Hb is 7.9 g/dl.

### Adherence to Antiretroviral Therapy

In HIV “treatment adherence” is about more than just taking medication
Taking tablets or liquid medications, applying ointment Returning to the clinic for injections, OST and follow-up clinical examinations and tests Attending referrals to outside agencies (e.g. TB, family planning, antenatal care) Adherence to transmission reduction
## Dosage of Antiretroviral drugs for adults and adolescents

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS</strong></td>
<td></td>
</tr>
<tr>
<td>Abacavir (ABC)</td>
<td>300 mg twice daily or 600 mg once daily</td>
</tr>
<tr>
<td>Zidovudine (AZT)</td>
<td>250–300 mg twice daily</td>
</tr>
<tr>
<td>Emtricitabine (FTC)</td>
<td>200 mg once daily</td>
</tr>
<tr>
<td>Didanosine (ddl)</td>
<td></td>
</tr>
<tr>
<td>Buffered tablets or enteric-coated (EC) capsules</td>
<td>&gt;60 kg: 400 mg once daily</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;60 kg: 250 mg once daily</td>
</tr>
<tr>
<td>Lamivudine (3TC)</td>
<td>150 mg twice daily or 300 mg once daily</td>
</tr>
<tr>
<td>Stavudine (d4T)</td>
<td>&gt;60 kg: 40 mg twice daily</td>
</tr>
<tr>
<td></td>
<td>&lt;60 kg: 30 mg twice daily</td>
</tr>
<tr>
<td><strong>NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS</strong></td>
<td></td>
</tr>
<tr>
<td>Tenofovir</td>
<td>300 mg once daily</td>
</tr>
<tr>
<td><strong>NON-NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITORS</strong></td>
<td></td>
</tr>
<tr>
<td>Efavirenz (EFV)</td>
<td>600 mg once daily</td>
</tr>
<tr>
<td>Nevirapine (NVP)</td>
<td>200 mg once daily for 14 days, followed by 200 mg twice daily</td>
</tr>
<tr>
<td><strong>PROTEASES INHIBITORS</strong></td>
<td></td>
</tr>
<tr>
<td>Atazanavir + ritonavir (ATV/r)</td>
<td>300 mg +100 mg once daily</td>
</tr>
<tr>
<td>Fos-amprenavir + ritonavir (FPV/r)</td>
<td>700mg + 100 mg twice daily</td>
</tr>
<tr>
<td>Indinavir + ritonavir (IDV/r)</td>
<td>800 mg + 100 mg twice daily</td>
</tr>
</tbody>
</table>

### Currently available fixed dose combination

<table>
<thead>
<tr>
<th>Three-drug fixed-dose combinations</th>
<th>AZT + 3TC + ABC (co-formulation and co-blister)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AZT + 3TC + NVP (co-formulation and co-blister)</td>
</tr>
<tr>
<td></td>
<td>AZT + 3TC + EFV (co-blister)</td>
</tr>
<tr>
<td></td>
<td>d4T + 3TC + NVP (co-formulation)</td>
</tr>
<tr>
<td></td>
<td>TDF + FTC + EFV (co-formulation)</td>
</tr>
</tbody>
</table>
Session content:
- HIV infection in children and infants less than 18 months
- Exclude HIV infection in infants and children
- HIV infection in children and infants of 18 months or more
- Initiation of Co-trimoxazole in children

Management of HIV Infection and Antiretroviral Therapy in Infants and Children

Excluding HIV infection in infants and children

- As maternal HIV antibody transferred passively during pregnancy can persist for as long as 18 months in children born to HIV-infected mothers, the interpretation of positive HIV antibody test results is more difficult in children below this age.
- HIV-exposed infants who have a positive HIV antibody test result at ages 9 to <18 months are considered at high risk of having HIV infection but a definitive diagnosis of HIV infection using antibody testing can only be done at ≥18 months of age.
- To diagnose HIV infection definitively in children aged <18 months, assays that detect the virus or its components (i.e. virological tests) are required. A range of laboratory-based techniques is available. These techniques are discussed in detail in the next section. Children who have a positive virological test result at any age are considered HIV-infected.
- Children who are breastfed have an ongoing risk for acquiring HIV infection; therefore, HIV infection can be excluded only after breastfeeding is stopped for >6 weeks.
There are two ways to exclude HIV infection in infants and children:

1. **HIV virological test**
   - A negative virological test result in an infant 6 weeks of age or more who has never breastfed
   - A negative virological test result in an infant who has completely stopped breastfeeding for at least 6 weeks

2. **HIV antibody test**
   - A child has a negative HIV antibody test result at ≥18 months of age if not breastfeeding and has completely stopped breastfeeding for >6 weeks.
   - A child who has a negative HIV antibody test result at ≥9 months of age and has completely stopped breastfeeding for at least 6 weeks is HIV-uninfected.
   - HIV antibody testing can be done as early as 9–12 months of age. By then,
     - 74% and 96% of HIV-uninfected children will test negative for HIV antibody at 9 and 12 months of age, respectively.

---

**Diagnosing HIV infection in infants and children less than 18 months of age with ongoing breastfeeding**

1. Check for signs and symptoms of HIV at follow-up visits
2. HIV antibody testing at 9–12 months
3. Assess for breastfeeding
4. Recommend to repeat HIV test
5. Likely to be HIV-positive
6. Repeat HIV antibody testing at >18 months and >6 weeks after stopping breastfeeding
7. Repeat HIV antibody testing >6 weeks after stopping breastfeeding

---

HIV Training Manual 2009 NACP
Diagnosing HIV infection in infants and children aged 18 months or more

Initiation of co-trimoxazole prophylaxis in children

<table>
<thead>
<tr>
<th>HIV-exposed infants and children</th>
<th>Confirmed HIV-infected infants and children</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td>1–5 years</td>
</tr>
<tr>
<td>CTX prophylaxis is universally indicated, starting at 4–6 weeks after birth and maintained until cessation of risk of HIV transmission and exclusion of HIV infection</td>
<td>CTX prophylaxis indicated regardless of CD4% or clinical status</td>
</tr>
</tbody>
</table>

Universal option: This strategy may be considered in settings such as in TB programmes with a high prevalence of HIV and limited health infrastructure.

- In resource-limited settings, co-trimoxazole may be started when the CD4 count has dropped to <25% at age ≤5 years or is <350 cells/mm3 at ≥6 years. The aim is to reduce the morbidity and mortality associated with malaria, bacterial diarrhoeal diseases and pneumonia, in addition to the prevention of PCP and toxoplasmosis. In other settings where the use of
co-trimoxazole is limited to preventing PCP, cotrimoxazole may be started when the CD4 count has dropped to <20% at age ≤5 years or is <200 cells/mm³ at ≥6 years.

- Asymptomatic children in WHO clinical stage I do not require co-trimoxazole prophylaxis. However, it is strongly recommended to measure the CD4 count as asymptomatic children may also have laboratory signs of immunodeficiency.

HIV staging in children using clinical and immunological criteria
Using clinical criteria

<table>
<thead>
<tr>
<th>Classification of HIV-associated clinical disease</th>
<th>WHO clinical stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic</td>
<td>1</td>
</tr>
<tr>
<td>Mild</td>
<td>2</td>
</tr>
<tr>
<td>Advanced</td>
<td>3</td>
</tr>
<tr>
<td>Severe</td>
<td>4</td>
</tr>
</tbody>
</table>

Using immunological criteria starting ART using clinical and immunological criteria

<table>
<thead>
<tr>
<th>Classification of HIV-associated immunodeficiency using CD4 count</th>
<th>Age-related CD4 values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;11 months (CD4%)</td>
</tr>
<tr>
<td></td>
<td>12–35 months (CD4%)</td>
</tr>
<tr>
<td></td>
<td>36–59 months (CD4%)</td>
</tr>
<tr>
<td></td>
<td>≥5 years (cells/mm³ or CD4%)</td>
</tr>
<tr>
<td>Not significant</td>
<td>&gt;35</td>
</tr>
<tr>
<td></td>
<td>&gt;30</td>
</tr>
<tr>
<td></td>
<td>&gt;25</td>
</tr>
<tr>
<td></td>
<td>&gt;500</td>
</tr>
<tr>
<td>Mild</td>
<td>30–35</td>
</tr>
<tr>
<td></td>
<td>25–30</td>
</tr>
<tr>
<td></td>
<td>20–25</td>
</tr>
<tr>
<td></td>
<td>350–499</td>
</tr>
<tr>
<td>Advanced</td>
<td>25–29</td>
</tr>
<tr>
<td></td>
<td>20–24</td>
</tr>
<tr>
<td></td>
<td>15–19</td>
</tr>
<tr>
<td></td>
<td>200–349</td>
</tr>
<tr>
<td>Severe</td>
<td>&lt;25</td>
</tr>
<tr>
<td></td>
<td>&lt;20</td>
</tr>
<tr>
<td></td>
<td>&lt;15</td>
</tr>
<tr>
<td></td>
<td>&lt;200 or &lt;15%</td>
</tr>
</tbody>
</table>
Starting ART using clinical criteria

Recommended (first-line) ART regimens: 2 nucleoside reverse transcriptase inhibitors (NRTIs) + 1 non-nucleoside reverse transcriptase inhibitor (NNRTI)
Case Studies

Case 1. A 6-month-old HIV-exposed male infant was brought into the clinic by his mother. She delivered the baby vaginally. Both she and her baby received a single dose of NVP. She is breastfeeding the baby. This is the first clinic visit.

Step 1: Assessment at first visit

Identify risk factors for HIV infection: This child is at risk for HIV infection via MTCT. The use of a single dose of NVP reduces the transmission risk by 50% but breastfeeding increases the transmission risk by about 10%.

Identify signs and symptoms of HIV and OIs, and assess the growth and nutritional status: The child is cachectic and his weight and length is below 3SD. He has tachypnoea and dry cough.

Concomitant medication: The child is not on co-trimoxazole. Co-trimoxazole once daily should have been started at 6–8 weeks of age. The risk of having PCP is high because of the lack of prophylaxis.

Perform laboratory diagnostic testing for HIV: At 6 months of age, the diagnostic method is detection of HIV DNA or HIV RNA by polymerase chain reaction (PCR) or p24 antigen.

Step 2: Identification of OIs and diagnosis of HIV

The infant is admitted to the hospital and a presumptive diagnosis of PCP is made. Chest X-ray shows bilateral perihilar diffuse infiltration. The infant is promptly given oral high-dose co-trimoxazole (trimethoprim 15–20 mg/ kg/day + sulfamethoxazole 75–100 mg/kg/day) 4 times a day for 3 weeks along with supportive care. The infant improves after this treatment. After completion of 3 weeks of high-dose co-trimoxazole, he is given co-trimoxazole prophylaxis at a dosage of 5 ml suspension or 2 paediatric tablets or ½ SS adult tablet equivalent to 200 mg sulfamethoxazole/40 mg trimethoprim once daily.

Step 3: Assessment of ART needs in the absence of a confirmed diagnosis of HIV infection

Without confirmation of the diagnosis, ART should be started only if a child fits the WHO presumptive diagnosis of severe HIV disease. It is possible that this child will fit this diagnosis because an AIDS-indicator condition has been diagnosed (probable PCP). In order to make a presumptive diagnosis of severe HIV disease, HIV antibody testing is done which is positive. The CD4% is 10%, which falls in the severe immune suppression range. ART should be started, preferably after completion of treatment for PCP in order to lower the risk of IRIS. Initiation of ART is not an emergency and assessment of the caregiver’s readiness to support the child is crucial. To ensure adherence to therapy, team effort is required.

Step 4: Choosing ART
Because this child is <3 years of age and weighs <10 kg, the WHO recommended first-line regimen is 2 NRTIs plus NVP. He has anaemia (Hemoglobin 7.5 g/dl); therefore, for the 2 NRTIs, d4T is selected instead of AZT, to be taken with 3TC. He has been exposed to NVP which may put him at risk for NVP resistance; however, data on whether this would affect treatment outcome are not available; therefore, the preferred first-line regimen is NVP-based ART.

Case 2

A 16-year-old adolescent girl infected via sexual transmission and having a CD4 count of 220 cells/mm3

Step 1: Staging of HIV disease and assessing the need for ART/cotrimoxazole

She is asymptomatic and classified as being in WHO clinical stage 1. Her CD4 count of 220 cells/mm3 signifies advanced immunodeficiency. Staging of HIV disease using a TLC is not needed as CD4 estimation is available. She may need co-trimoxazole at this time as CD4 count is slightly >200 cells/mm3. She fulfils the criteria for starting ART. She is on oral contraceptive pills (OCP). If there is a need to use ART in the future, she should be counseled that the effectiveness of OCP can be reduced when used with ART as ART can lower the level of OCP.

Assess the family situation: She lives with her mother. She is sexually active and uses a barrier contraceptive (male condom) most of the time.

Step 2: Starting ART

Though this girl fulfils the criteria to start ART, it is not started at this time as adherence to treatment is not assured. She is asked to take co-trimoxazole on time every day as a test for adherence to ART. She is subsequently followed up every month for 2 more months and reports that she is able to take cotrimoxazole on time and is ready to start ART. At every visit she receives counselling on HIV, ART, contraceptives and adherence to treatment. Six months after the first visit, her CD4 count is 170 cells/mm3 and she has oral candidiasis. It is decided that she should start ART.

Step 3: Choose the regimen

The regimen of choice is 2 NRTI + 1 NNRTI. For a teenage girl who is at risk for becoming pregnant, EFV should be avoided as it has a teratogenic effect. Females are at a higher risk of having NVP-related hepatotoxicity and rash if the CD4 count is >250 cells/mm3 but our patient has a CD4 count of <250 cells/mm3 and should be at similar risk as others. Therefore, the regimen of choice in this girl should be 2 NRTI + NVP. AZT + 3TC is chosen as she has a risk of pregnancy and these two NRTIs have a good safety profile in pregnancy. An alternative regimen, an FDC of AZT/3TC/
ABC has the advantage of a low pill burden and restriction of resistance to only the NRTI class in patients in whom poor adherence to treatment is anticipated. However, 3 NRTI regimens have been shown to be inferior in their ability to suppress HIV viraemia compared with regimens with at least 2 classes of drugs. In this case, an FDC of AZT/3TC/NVP is chosen in which 1 pill is taken twice daily.

**Step 4: Preparing the family and child for ART**

In this case, it is the patient who has to be responsible for taking ART. Adherence to treatment in teenagers depends on the personality and the living situation. In this case close follow up by telephone and a monthly visit during the first 3 months of ART is needed to ensure compliance and treat side effects promptly as these can affect adherence. Counselling on adherence as well as other psychosocial issues should be done at every visit. Her mother is encouraged to support the patient in complying with her treatment. The patient is encouraged to be involved in treatment decisions and is told the results of her CD4 estimation at every visit. She is encouraged to join the teenagers’ counseling group held by the clinic where she can make friends and learn more about her disease.
Annex 1: Tools for HIV Knowledge Evaluation

Basic Facts on HIV and AIDS Pre and Post Test

Participant Name--------------------------------- Date: ----------------------

Organisation---------------------------------------- Facilitator------------------

CIRCLE the appropriate letter (T (true) or F (false)).

1. about the History/Situation of HIV and AIDS
   01. T F mode of transmission is a way in which people are infected with HIV.
   02. T F Only people in Africa are at risk of HIV infection
   03. T F All vulnerable groups to HIV infection will eventually be infected.

2. The following are correct statements about HIV infection
   04. T F HIV damages the body by attacking the immune system.
   05. T F HIV infects cells of the immune system called Red Blood Cells
   06. T F HIV causes AIDS
   07. T F Infection can be stopped by taking ARV drugs
   08. T F During the window period people test positive for HIV.

3. The following are modes of transmission of HIV
   09. T F Sharing utensils or drinking cups with a person infected with HIV
   10. T F Mother-to-Child through delivery and breastfeeding
   11. T F Through male-female sexual intercourse but not male-male sexual intercourse
   12. T F Through tears, consoling someone who is crying
   13. T F Through insect bites

4. The following factors increase or decrease the risk of HIV transmission
   14. T F Presence of STIs increases risk of transmission
   15. T F War or conflict increases risk of the spread of HIV
   16. T F Stigma and denial isolate infected people thereby reducing risk of transmission
   17. T F Poverty reduces risk of transmission because people cannot pay for sex
   18. T F Alcohol consumption reduces risk as most drunks go to sleep before sex

5. HIV transmission can be prevented through the following
   19. T F Having sex during the window period
   20. T F Pregnant mothers taking ARV drugs as recommended by a doctor
   21. T F Having sex with a healthy looking partner
   22. T F Using condoms once in a while with untrustworthy partners
23. T FTaking ARVs just before sex

6. The following statements about HIV disease progression are correct
24. T FAAt the beginning of HIV infection, people will not experience any major symptoms
25. T FOpportunistic infections often occur several years after infection
26. T FOccurrence of Opportunistic Infections defines AIDS stage
27. T F TB, Candidiasis and PCP (pneumonia) are common Opportunistic Infections
28. T FAIDS is irreversible

7. The following statements about HIV Testing and Counselling are true
29. T FFInitials VCT stand for Volunteer Carer Training
30. T FBlood or saliva can be used in testing for HIV
31. T FEposure to HIV can be tested using ELISA
32. T FTTests offered at VCT centres are called rapid tests because people quickly agree to be tested
33. T FPRe-test counselling is done soon after the test

8. About HIV status
34. T FI n children, HIV antibody tests are conclusive only after 18 months
35. T FTThere is no need for HIV infected partners to use condoms
36. T FWestern blot is a test for viral load
37. T FPositive living means not worrying about re-infection
38. T FDuring the window period, a person cannot transmit HIV

9. The following are true about Discordant Couples
39. T FA discordant couple is where one partner tests HIV positive and the other tests negative
40. T FA discordant couple is a couple who have been having problems in their relationship prior to testing
41. T FA discordant couple is a couple where both partners test positive but the other refuses to know their status
42. T FCouples who are discordant should not use condoms
43. T FKNowing one's HIV status is important only for treatment purposes
### Annex 2 Exercises

#### Class Exercise 1

Questions to be answered by participants

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is HIV?</td>
<td></td>
</tr>
<tr>
<td>2. What is AIDS?</td>
<td></td>
</tr>
<tr>
<td>3. Name 3 ways that HIV is transmitted?</td>
<td></td>
</tr>
<tr>
<td>4. Name 3 ways that HIV is not transmitted?</td>
<td></td>
</tr>
<tr>
<td>5. Name 3 ways to reduce the risk of transmission?</td>
<td></td>
</tr>
<tr>
<td>6. How many people in Afghanistan are infected with HIV?</td>
<td></td>
</tr>
<tr>
<td>7. Suggest ways to make the public more aware of the issues around HIV &amp; AIDS?</td>
<td></td>
</tr>
</tbody>
</table>

#### Exercise 2

**HIV & AIDS Myth or Fact Game**

Please put T for True and F for False in front of the statement.

<table>
<thead>
<tr>
<th>T or F</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. T F</td>
<td>Needle-sharing among injecting drug users contribute to the spread of HIV infection.</td>
</tr>
<tr>
<td>2. T F</td>
<td>A person can get HIV from sitting next to a person who has it.</td>
</tr>
<tr>
<td>3. T F</td>
<td>HIV can infect a person by having sex with a prostitute.</td>
</tr>
<tr>
<td>4. T F</td>
<td>Household insects such as bedbugs and cockroaches can be HIV carriers and transmit the disease to people.</td>
</tr>
<tr>
<td>5. T F</td>
<td>If a mosquito bites a person with HIV and then bites somebody else, the second person it bites may get HIV.</td>
</tr>
<tr>
<td>6. T F</td>
<td>Women with HIV may sexually transmit HIV to men.</td>
</tr>
<tr>
<td>7. T F</td>
<td>You can get HIV by using a phone, which has just been used by someone with HIV.</td>
</tr>
<tr>
<td>8. T F</td>
<td>You can get HIV if a person with HIV coughs or sneezes near you.</td>
</tr>
<tr>
<td>9. T F</td>
<td>You can be infected with HIV from a toilet seat.</td>
</tr>
<tr>
<td>10. T F</td>
<td>You can get HIV from kissing an infected person on the cheek.</td>
</tr>
<tr>
<td>11. T F</td>
<td>You can be infected with HIV by drinking from the same glass as a person who is HIV positive.</td>
</tr>
<tr>
<td>12. T F</td>
<td>You can get HIV if you come in contact with an infected person's tears.</td>
</tr>
<tr>
<td>13. T F</td>
<td>You can get HIV by eating food cooked by someone who has HIV.</td>
</tr>
<tr>
<td>14. T F</td>
<td>You can be infected with HIV from sharing bath water.</td>
</tr>
<tr>
<td>15. T F</td>
<td>You are likely to get HIV if you sleep in the same bed as someone with HIV.</td>
</tr>
<tr>
<td></td>
<td>T F You can get HIV by hugging a person who has it.</td>
</tr>
<tr>
<td>----</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>16</td>
<td>T F School children can be infected with HIV by sitting next to or by playing ball with another student who is HIV-positive.</td>
</tr>
<tr>
<td>17</td>
<td>T F A person can get HIV by having sexual intercourse with an infected person.</td>
</tr>
<tr>
<td>18</td>
<td>T F Brothers and sisters of children with HIV usually also get HIV.</td>
</tr>
<tr>
<td>19</td>
<td>T F Doctors and nurses who treat HIV patients often get HIV as well.</td>
</tr>
<tr>
<td>20</td>
<td>T F A baby can get HIV by breast-feeding from an HIV-positive mother.</td>
</tr>
<tr>
<td>21</td>
<td>T F You can get HIV by shaking hands with an infected person.</td>
</tr>
<tr>
<td>22</td>
<td>T F You can be infected with HIV from needles used in IV injections or blood transfusion.</td>
</tr>
<tr>
<td>23</td>
<td>T F An HIV-positive person looking healthy is not likely to transmit the virus to others through sexual contact.</td>
</tr>
<tr>
<td>24</td>
<td>T F Persons with a negative blood test during the &quot;window period&quot; are not likely to transmit the virus through blood transfusion.</td>
</tr>
<tr>
<td>25</td>
<td>T F An unborn child can develop HIV if either parent is HIV-positive.</td>
</tr>
<tr>
<td>26</td>
<td>T F HIV affects only the poor and uneducated.</td>
</tr>
</tbody>
</table>

### Exercise 3

Directions: Put the letter of your answer after each number.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Agree</th>
<th>Disagree</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HIV means human immune deficiency virus.</td>
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<tr>
<td>2. Sharing of needles and syringes among intravenous drug users is a risk factor in HIV &amp; AIDS.</td>
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<tr>
<td>3. A person can be infected with HIV by donating blood.</td>
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<td>4. Persons with AIDS should be avoided.</td>
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<tr>
<td>5. Sex with multiple partners is a risk factor in HIV &amp; AIDS.</td>
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<tr>
<td>6. HIV weakens the body's natural defense against infections.</td>
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<tr>
<td>7. Persons with HIV &amp; AIDS should remain anonymous for security reasons.</td>
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<tr>
<td>8. AIDS is a &quot;gay disease&quot; because it occurs ONLY among homosexuals.</td>
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<tr>
<td>9. HIV-positive individuals should be protected by law against discrimination at the workplace.</td>
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<tr>
<td>10. One can get infected with AIDS by sharing glasses, plates, spoons or other personal things with an HIV-positive person.</td>
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<tr>
<td>11. HIV &amp; AIDS is not a problem among out-of-school youth.</td>
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<tr>
<td>12. False information about AIDS can cause unnecessary fears.</td>
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</tbody>
</table>
13. There is a self-instruction kit, which can determine if a person is infected with HIV.

14. HIV is spread by mosquito bites and other insect bites.

15. A person with full-blown AIDS obviously looks sick and weak.

16. At present there is no cure for AIDS.

17. AIDS is a fatal disease associated with a specific virus type.

18. AIDS is a preventable disease.

19. People in the provinces should not be concerned about HIV & AIDS.

20. Drug abuse contributes to vulnerability to HIV & AIDS.

21. AIDS is a disease of poverty and ignorance.

22. Responsible sexual behavior is a way to stop the spread of AIDS.

23. Immune deficiency syndrome means the virus has invaded the immune system and renders it unable to function normally.

24. The "Window" period is when the body shows no signs of the disease.

25. Persons who have multiple sexual partners are at greater risk of getting infected with HIV.

26. Many doctors and nurses caring for the AIDS patients eventually get the disease.

27. One can get AIDS by hugging or shaking the hands of the infected person.

28. Retired people do not get AIDS.
**Exercise 4**

Directions: Using the scale of 1 to 5, indicate whether you agree or disagree with the Statements below by circling your answer.

<table>
<thead>
<tr>
<th>Item</th>
<th>1 SA</th>
<th>2 D</th>
<th>3 Und</th>
<th>4 A</th>
<th>5 SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We should be afraid of getting infected with HIV.</td>
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<tr>
<td>2. People have changed their feelings about HIV in the past years.</td>
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<tr>
<td>3. We should be afraid to visit an AIDS patient.</td>
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<td>4. We should NOT allow students with HIV to go to our schools.</td>
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<td>5. Media have created unnecessary fear for HIV.</td>
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<td>6. Families of AIDS patients should leave their care to the government.</td>
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<td>7. We should support activities for the benefit of the HIV patients.</td>
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<td>8. We should discuss HIV with our families and friends.</td>
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<td>9. AIDS patients should be allowed to attend public gatherings.</td>
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<tr>
<td>10. Government should provide funds for the treatment and care of AIDS patients</td>
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<tr>
<td>11. Our communities are affected by problems related to HIV.</td>
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<tr>
<td>12. We should be willing to take care of our family member if he/she is infected with HIV.</td>
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<td>13. We can predict that the trends of HIV epidemic will go up in the coming years.</td>
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<tr>
<td>14. We should be angry with people who look down on persons with HIV,</td>
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<tr>
<td>15. Abuse of alcohol and other drugs can contribute to the spread of HIV.</td>
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</table>
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