

# PART IV

## DIAGNOSTIC COUNSELING AND TESTING OF TB PATIENTS FOR HIV

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### Objectives:

By the end of Part IV of the training, the participants will be able to:

- Discuss basic information about HIV and AIDS: characteristics of the HIV pathogen, means of HIV transmission and prevention, disease progression, TB/HIV coinfection, diagnostic tests, and treatment.
- Describe diagnostic counseling and testing (DCT) for HIV.
- Explain how to support TB patients in deciding whether to get tested for HIV.

**Time:** 7 hours 30 minutes

### Sessions:

Session 19: Overview of HIV infection:

- History of the epidemic and characteristics of the HIV pathogen.
- Transmission of HIV infection.
- Diagnostic tests.
- Disease progression.
- TB/HIV coinfection.
- Treatment and monitoring of patients' health.

Session 20: Stigma and discrimination.

Session 21: Privacy and confidentiality.

Session 22: Counseling related to HIV. Pretest counseling.

Session 23: Posttest counseling. Counseling messages.

- HIV-negative result.
- HIV-positive result.
- Indeterminate result.

Session 24: Ukrainian legislation on HIV and AIDS.

Session 25: Burnout and stress management.

### Materials

1. Slides #51-96.
2. Handouts:
  - #20 HIV risk continuum.

- #21 Stigma and discrimination.
  - #22 Ensuring visual and auditory privacy: A checklist for providers.
  - #23 Ensuring confidentiality of patient information: A checklist for providers.
  - #24 Taking a sexual history.
  - #25 Pre-test HIV counseling guide.
  - #26 Post-test HIV counseling guide (negative result).
  - #27 Post-test HIV counseling guide (positive result).
  - #28 Post-test HIV counseling guide (indeterminate result).
  - #29 Ukrainian laws on HIV and AIDS.
  - #30 Understanding stress and burnout.
3. Case studies for role-plays.
  4. Video camera.

## SESSION 19

### Overview of HIV infection

#### Training steps:

1. Use the latest UNAIDS report on the global AIDS epidemic and summarize the state of the HIV epidemic globally, in the region, and in the country, including: recent epidemiological trends, main modes of HIV transmission, HIV risk and vulnerability, progress made in fighting HIV, and the remaining challenges.
2. Brainstorm and discuss with the participants factors that contributed to the progression of the HIV epidemic. (*See slides #51 and 52.*) Record their answers on the flip chart.

Responses should include the following:

- Increase in number of drug users; intravenous drug use.
  - High incidence rates of infectious diseases, including TB.
  - Lack of, or poorly organized, pre-test counseling before drawing blood from donors.
  - Large numbers of HIV-positive people and IDUs among the military and in penal institutions.
  - Lack of government and social anti-HIV programs.
  - Low quality of medical care.
  - Unfavorable economic situation.
  - Limited access to or high cost of essential drugs.
  - Low public awareness of STIs, including HIV.
  - Unstable relationships, multiple sexual partners.
  - Insufficient pre- and post-testing.
3. Brief participants on the history of the HIV epidemic. (*See Trainer's Resources on page 99, slide 53.*)
  4. Tell the participants that for the time being, there are two types of HIV infection: HIV-1 and HIV-2. HIV-1 is predominant in the world. Usually, when the term "HIV" is used without referring to type, HIV-1 is implied.
  5. Explain the characteristics of the HIV pathogen, its structure, life cycle, and its resistance in the environment. (*See Trainer's Resources on page 99, slide 54-56.*)
  6. Ask the participants what they know about the modes of HIV transmission. Record their responses on the flip chart. Ask the participants to provide examples. Match them with the appropriate ways of transmission on the flip chart. Use slides 57-61 and supplement participants' responses as needed. (*See Trainer's Resources on page 101.*)

7. Invite participants to conduct a “round table.” Distribute HO #20 and give participants 10 minutes to read it. Choose a volunteer and ask him/her to discuss the issue, “How would it be IMPOSSIBLE to get HIV infection?” Time allowed for each participant – 1 minute. Summarize the results of the discussion.
8. Ask the participants what can be done to prevent HIV transmission through sex, through blood, and in medical facilities. Record their responses on the flip chart. Use slides 62-65 and supplement participants’ responses as needed. *(See Trainer’s Resources on page 103.)*
9. Explain that HIV infection can be measured in terms of the amount of antigen circulating in the body, the amount of virus in the body, and the amount of proteins or cells that protect the body against HIV infection. *(See Trainer’s Resources on page 105, slide #66.)*

Describe the time frame during which antibodies are produced. Explain the meaning of the following terms:

- Window period – the phase when a person has been infected with HIV, but the antibody level is not detectable.
  - Seroconversion – a change from nondetectable to detectable antibody levels. This occurs during the window period.
  - Viral load – the amount of virus circulating in the body.
10. Ask the participants what negative, positive, and indeterminate HIV test results mean. Correct or supplement their responses as needed. *(See Trainer’s Resources on page 107, slides #67-68.)* Emphasize that in the process of counseling, it is important to explain to the client what positive and negative results mean. Some people may think that a negative result means the presence of HIV infection (i.e.: negative = bad result) and vice versa.
  11. Review with the participants the process of disease progression (acute infection, latent period, and AIDS) and characteristics of HIV infection (stages, their duration, immune system status, etc.). *(See Trainer’s Resources on page 107, slide #69.)*
  12. Brief the participants on TB and HIV coinfection, their impact on each other, testing, and preventive treatment. Emphasize the importance of collaboration between TB and HIV programs. *(See Trainer’s Resources on page 109, slides 70-73.)*
  13. Explain the problems related to treatment of AIDS and monitoring of patients’ health, advantages of ARV therapy, and risks associated with it. *(See Trainer’s Resources on page 112, slides 74-77.)*
  14. Review the key points of this section.

### Key points to emphasize

- All TB patients should be offered an HIV test. TB programs that offer HIV testing can make a major contribution by ensuring that those who are positive can access HIV care. Without treatment, TB and HIV infections can work together to shorten the life of the person infected with both.

## SESSION 20

### Stigma and discrimination

#### Training steps:

1. Invite participants to conduct a group exercise “Recognizing reasons for stigmatization and discriminatory actions.”
  - Split the participants into three groups. Each group will discuss one of the following issues:
    - Personal perception, attitudes, and experience with HIV and AIDS.
    - “In their shoes” – what if you had HIV or AIDS?
    - Professional experience with HIV and AIDS.
  - Provide each group with three questions from the list below and give them 15 minutes for discussion.
  - Invite a representative from each group to present the results of the discussion. Write down on the flip chart the main points of each group.
  - Ask the whole group the following questions:
    - What is stigma?
    - What is discrimination?
    - What are the reasons for stigmatization and discrimination?
    - What would you feel if you were HIV-positive?
  - Conclude by summarizing and highlighting the key points made during the discussion. Use slides #78-82. (See *Trainer’s Resources* on page 113.)

#### Suggested questions for group work<sup>13</sup>

##### Personal experiences with HIV and AIDS

- When was the first time you heard about HIV or AIDS? What was your reaction and how did you feel about it?
- Do you know anyone who has HIV or has died from AIDS? If you do, how did you react to that person when you first found out they had HIV?
- Have your reactions or feelings changed over time? If yes, in what way?
- Has your life changed because of HIV and AIDS? How? If it has not changed, why not?

<sup>13</sup> EngenderHealth. *Reducing Stigma and Discrimination Related to HIV and AIDS. Training for Health Care Workers*. 2004.

### **"In their shoes"**

- If you were infected with HIV, would you want to know?
- What would motivate you to want to know your HIV status?
- How would you feel if someone conducted an HIV test without your knowledge or without your permission?
- If you were told that you had HIV, in what ways would it change your life? If you were told that you had HIV, who would you want to share that information with? How would you want to share that information with them?
- If you were told that you had HIV, who would you want to keep that information secret from? Why would you want to keep the information secret from them?
- How would you feel if other people spread the information without your knowledge or permission that you were infected with HIV?
- What would happen to your job if your boss or coworkers found out that you were infected?
- If you were infected with HIV, how would you want to be treated by others?
- If you had HIV, how would you want to be treated at a health care facility?

### **Professional experiences with HIV and AIDS** *(use all three of these questions)*

- If you work directly with patients, recall the first time you interacted with a patient who you knew was HIV-positive. How did you feel providing health services for that person? Did you treat him or her differently than other patients? Why or why not? Thinking back, what things would you do differently now than what you did then?
- Do you think HIV-positive patients should be treated differently from patients who are not infected? Why or why not?
- What are your fears or concerns about providing health services for patients who are or might be infected with HIV?

2. Tell the participants that many medical providers hold the same prejudices that exist within the general society. It is important to understand one's own beliefs and attitudes and how they could lead to stigma of people living with HIV (PLHIV). Select belief statements from the following list and ask participants whether they agree or disagree. Ask them to explain why.

- If HIV status is not available, providers have a right to test patients for HIV so their status is known.
- Health care staff should have the right to refuse to provide services if the supplies they need to practice standard precautions are not available.
- A provider should be much more careful of needle stick injuries or other potential exposure with a patient who is a sex worker than with a monogamous married woman.
- It is acceptable to reveal the HIV status of a patient to his or her spouse or close relatives.
- HIV-positive patients should be isolated in a separate ward.
- All patients, regardless of their HIV status, should be treated the same.

3. Discuss with the participants the consequences of stigma and discrimination. *(See Trainer's Resources on page 115, slide 83.)*
4. Ask participants what can be done to change the situation and reduce stigma and discrimination of PLHIV in medical facilities? Write their answers on the flip chart.

Possible responses are:

- Protect the patient's right to privacy by ensuring that no one can hear your conversation with him/her during counseling.
  - Protect the patient's right to confidentiality by keeping patient records in a secured place.
  - Avoid any labeling of the patient's documents that would draw attention to his or her HIV status.
  - Avoid separating PLHIV from general patients.
  - Avoid using nonverbal communication that shows disrespect or disgust.
  - Avoid any behavior that would show that the patient is viewed as different.
5. Emphasize that in order to effectively fight the epidemic, we must do everything we can to reduce stigma, especially in health care settings. Once medical providers recognize their discriminatory actions and the reasons for them, they can change their behavior and offer PLHIV the best services possible. The ways that stigmatization and discrimination are expressed depend in many ways on the support of family and society, as well as on the degree of openness that people are able to show when it comes to their sexual orientation and serological status. Changing of public consciousness, effective prevention measures, and gradual elimination of stigma and discrimination are possible only through recognition of the problem by society, recognition of PLHIV, and provision of adequate support and care to them.
  6. Distribute HO #21 for participants to read at home.
  7. Review the key points of this section.

### Key points to emphasize

- As a result of stigma and discrimination, PLHIV may avoid participating in HIV prevention programs or refuse treatment. This will contribute to the spread of the epidemic, decrease the efficacy of prevention efforts, and lead to premature sickness and death.
- It is important to understand one's own beliefs and attitudes and how they could lead to stigma of PLHIV. Once medical providers recognize their discriminatory actions and reasons for them, they can change their behavior and offer PLHIV the best services possible.
- Stigma causes PLHIV to be seen as a problem for society. Instead they should be seen as part of the solution to the epidemic.

## SESSION 21

### Privacy and confidentiality

#### Training steps:

1. Tell the participants that the issue of privacy and confidentiality is especially important when discussing the process of counseling. Ask them what is the meaning of privacy and confidentiality. Write their responses on the flip chart. Provide them with the WHO definition of these terms. (*See Trainer's Resources on page 115, slides 84-85.*)
2. Tell the participants that some potential patients do not seek treatment or voluntary HIV testing because they are afraid that information about their health might reach their parents, family members, or society.<sup>14</sup> Refer them to HO #21 and 23 and review with them the elements of privacy (auditory and visual) and providers' checklists for ensuring privacy and confidentiality. (*See Trainer's Resources on page 117, slide 86.*)
3. Invite participants to conduct the exercise, "Ensuring privacy and confidentiality in medical facilities." The goal of this exercise is to demonstrate the ways of ensuring privacy and confidentiality in real work situations.
  - Divide participants into three groups. Each group should discuss examples of violating privacy and breaking confidentiality in their medical facilities at all levels (by receptionist, doctor, nurse, etc.), reasons for such violations, and their suggestions for improvement.
  - Each group should divide the flip chart into two columns and list in one column examples of violations of privacy and confidentiality and in another column – how to ensure that such violations do not happen. If possible, they should also propose an algorithm (scheme) for ensuring privacy and confidentiality in medical facilities.
  - Invite one group to present their results. Ask other groups to add and comment.
4. Emphasize that at the beginning of counseling, medical providers must verbally guarantee that confidentiality will be strictly followed.
5. Review the key points of this section.

#### Key points to emphasize

- Some medical providers do not completely understand the full meaning of privacy and confidentiality and how they should be maintained in the workplaces.
- Privacy also commonly refers to the right of individuals not to be physically exposed against their will. Confidentiality is "the duty of those who receive private information not to disclose it without the patient's consent" (WHO 2000b).

<sup>14</sup> International HIV/AIDS Alliance in Ukraine and All-Ukrainian Network of People Living with HIV. *Access to Rights and Services of People Living with HIV in Ukraine: Social Research Results*. Ukraine, 2004.



- Studies have demonstrated that the right of patients to confidentiality has often been violated, resulting in refusal of many patients to medical care or to quit treatment programs.
- It is very important that the whole process of ensuring confidentiality is understood by everyone who communicates with patients, including administrative and non-medical personnel.
- Medical providers must verbally guarantee that all forms of confidentiality will be strictly followed, and that only the patient can give consent for the disclosure of medical or personal information to others.

## SESSION 22

### Counseling related to HIV. Pretest counseling

#### Training steps:

1. Ask participants what DCT (diagnostic counseling and testing) for HIV is and why it is important to conduct DCT.
2. Review with the participants the objectives, main elements of DCT (pre-test counseling, HIV testing, post-test counseling, partner notification, and follow-up and referrals), and types of counseling on HIV (pre-testing counseling and post-testing counseling). (*See Trainer's Resources on page 118, slides 87-89.*)
3. State the main objectives of pre-test counseling. Emphasize that in Ukraine, pre-test counseling should be conducted according to the recommendations of the *National Protocol on Voluntary Counseling and Testing on HIV* developed by the Ministry of Health of Ukraine, 2005.\* (*See Trainer's Resources on page 119, slide 90.*)
4. Refer participants to HO #24 and 25 and discuss with them the main steps of pre-test counseling. Emphasize that the health care worker must obtain informed consent from the patient. Those who refuse to get tested should receive information about HIV transmission, HIV prevention, and where they can receive additional information and HIV services if needed. (*See Trainer's Resources on page 120, slide 91.*)
5. Invite participants to conduct role-plays to practice pre-test counseling:
  - Divide participants into three groups. Provide each group with one of the case studies provided below.
  - Each group should follow the counseling steps provided in HO #25 and develop a plan for pre-test counseling of their patient. They should discuss the major barriers for communication that might occur with their client and propose the ways to address them. Encourage participants to use effective communication skills learned in the previous sections to approach their patients.
  - Give participants 15 minutes and then ask representatives from each group to present their counseling plan.

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\* Trainers should refer to the national protocol of the country where the training is being done.

- Ask participants from other groups for their comments. Note to participants that it is very important to follow counseling steps; however, the health care worker should find an individual approach to each patient based on his or her specific situation.

Client #1:

A 43-year-old man spent five years in prison and was released half a year ago. He was diagnosed with TB (first time). While in prison, he used to inject drugs; however, he denies using them now. He absolutely refuses to discuss issues related to his sexual life. The man is calm, a little uncertain, and says that he is willing to do everything that the doctor recommends. He is divorced, lives alone, and denies having sexual partners. The man knows that HIV is a dangerous disease, and he is ready to get tested for HIV. In his opinion, HIV is most common among commercial sex workers and IDUs. It doesn't matter to him what his HIV status is, but if the doctor needs to know it, it is no problem for him.

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Client #2:

A 32-year-old businessman was diagnosed with active TB disease for the first time. He is provocative, doesn't trust doctors, and agreed to get treatment only after long persuasions by the medical staff. The man said that he was thinking of being tested for HIV, but he refused to discuss the reasons for being tested as well as his individual risk of HIV. He agrees to hear about HIV prevention and treatment options and to get tested for HIV.

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Patient #3:

An unmarried 28-year-old woman was diagnosed with TB disease. Her clinical course is atypical, and the doctor recommends that she be tested for HIV. She is sexually active, changes partners pretty often, and some were IDUs. The woman is not sure that an HIV test is needed and hesitates to get one.

6. Review the key points of this section.

**Key points to emphasize**

- DCT is a confidential dialogue between the patient and the provider aimed at helping the client cope with stress and make personal decisions related to HIV.
- The main elements of DCT are: pre-test counseling, HIV testing, post-test counseling, partner notification, and follow-up and referrals.

- The objectives of HIV counseling are to: prevent HIV transmission, provide emotional support to those who are thinking about being tested for HIV, help them make a decision about whether or not to get tested, provide support and foster decision-making after the test, and support healthy behaviors for both positive and negative patients.
- If a person decides to get tested, the provider must obtain informed consent from the patient. He/she must never assume that the patient is willing and ready to be tested just because he or she came to the clinic. Patients who want to be tested do have the right to refuse pre-test counseling.

## SESSION 23

### Posttest counseling messages

#### Training steps:

1. State the main objectives of the post-test counseling. (*See Trainer's Resources on page 120, slide 92.*)
2. Refer participants to HO #26-28 and discuss with them the main steps of post-test counseling with negative, indeterminate, and positive results. (*See Trainer's Resources on page 120, slides 93-95.*)
3. Ask participants which behaviors a health care provider should avoid when counseling patients. Record their responses on the flip chart and supplement participants' responses as needed. (*See Trainer's Resources on page 121, slide 96.*)
4. Invite participants to conduct role-plays to practice post-test counseling:
  - Divide participants into three groups. Provide each group with one of the case studies provided below.
  - Based on the patient's test results provided in their case study, each group should follow the counseling steps provided in HO #26-28 and develop a plan for post-test counseling. They should discuss the major barriers for communication that might occur with their patient and propose ways to address them. Encourage participants to propose how to overcome counseling challenges and discuss behaviors to avoid when counseling patients.
  - Give participants 15 minutes and then ask representatives from each group to present their counseling plan (5-7 minutes per group).

- Ask participants from other groups for their comments.

Client #1 – positive test result:

A TB patient (43-year-old man and recently released prisoner) received pretest counseling and was referred for an HIV test by you. He came back for the result and looks a little nervous. His test was positive. When you tell him, he is perplexed. Although at pretest counseling he said that it doesn't matter to him what his HIV status is, he looks confused and asks, "How soon will I die?" While in prison, he used to inject drugs, but denies using them now. He is divorced, lives alone, and denies having sexual partners. Although he says that he is willing to do everything that a doctor recommends, the man listens to the doctor very indifferently and apathetically.

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Client #2 – negative test result:

A 32-year-old businessman, who was recently diagnosed with TB disease and was referred for an HIV test, returned for the results. He behaved very provocatively at the pre-test counseling, and now he looks very irritated, too. After you told him that his test result was negative, he refused to discuss his individual risk for HIV and wanted to leave. You emphasized that it is important to remember about the window period and to think about testing one more time. The man said that it was unbearable for him to wait for the test result, and he doesn't want to go through this again.

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Client #3 – indeterminate test result:

Your TB patient, a 28-year-old woman, was tested for HIV and came back for the test result. Her test was indeterminate. The woman is confused and does not understand what the result means. She is scared that she might have HIV. She is unmarried and sexually active, changes partners pretty often, and some were IDUs.

5. Invite participants to participate in the role-plays. The goal is to practice the skills of effective communication and counseling and to follow the main steps of effective counseling while conducting HIV post-test counseling for TB patients.
  - Ask participants to remain in the same groups and prepare a post-test counseling role-play of the TB patient according to the counseling plan that they developed for their situations.
  - Give participants 20 minutes and then ask representatives from each group (a doctor and a patient) to demonstrate their role-play. If possible, videotape the group presentations and then review and discuss them with the whole group.
  - During the role-play, observe as much as possible, but do not interrupt.

- After each presentation, bring the entire group together, play the videotaped presentation (if possible), so the presenters could also see their role-play, and discuss the following issues:
  - Interpersonal communication and counseling techniques that were used especially well;
  - Problems that were observed;
  - Ways to improve counseling.
- After all presentations are discussed, answer any questions that participants might have and conclude the exercise.

6. Review the key points of this section.

#### **Key points to emphasize**

- Post-testing counseling should be offered to patients in all cases, regardless of the test result. It is desirable that the same provider that conducted the pre-test counseling informs the patient about the test results and provides post-test counseling.
- Counseling messages will be different based on the test results: negative, indeterminate, or positive. It is important to make sure that the patient understands the meaning of the test result, risk factors, and ways to prevent HIV. The provider should provide emotional support and refer to additional services if necessary.
- Although it is very important to follow the counseling steps, the provider should find an individual approach to each patient based on his or her specific situation.

## SESSION 24

### Ukrainian legislation on HIV/AIDS

#### Training steps:

1. Tell participants that the basis for developing national policies and legislation in the HIV/AIDS domain is provided by the document titled *International Guidelines on HIV/AIDS and Human Rights 2006 Consolidated Version*.<sup>15</sup> It provides important guidance to governments, international organizations, nongovernmental organizations, and civil society groups on the development and implementation of effective national strategies for combating HIV and AIDS. Brief participants on the main Ukrainian laws related to HIV and AIDS.\* (See *Trainer's Resources* on page 122.)
2. Distribute HO #29. Ask participants to read it carefully and mark all issues that are not clear to them or raise questions.
3. After participants study the handout, ask them the following questions:
  - What do you think about Ukrainian HIV and AIDS legislation? Do Ukrainian laws meet international norms and requirements?
  - What is done in your medical institutions to make sure that staff comply with those laws?
  - What factors currently impede implementation of legally declared measures?
  - What could be done to overcome those barriers?
4. Answer any questions that participants might have.
5. Review the key points of this section.

#### Key points to emphasize

- To date, Ukraine has created a legal framework that meets the main requirements and recommendations of international guidelines, is able to ensure a coordinated approach to HIV and AIDS issues, and bridges HIV and AIDS policies and response programs at all levels of state and branch administration.
- According to Ukrainian law, Ukrainian citizens, foreigners, and people without citizenship who legally live in Ukraine have the right to information, voluntary HIV testing, confidentiality, anonymity, and free treatment.

<sup>15</sup> *International Guidelines on HIV/AIDS and Human Rights 2006 Consolidated Version*, Joint United Nations Programme on HIV/AIDS (UNAIDS) 2006.

\* Trainers should refer to the national legislation of the country where the training is being done.

## SESSION 25

### Burnout and stress management

#### Training steps:

1. State what burnout is. Tell participants that many experienced counselors are familiar with the feeling that their work no longer seems vibrant and exciting.
2. Ask the participants what the common signs are. Record their responses on the flip chart. Ask the participants to provide you with examples. Supplement participants' responses as needed. *(See Trainer's Resources on page 124.)*
3. Divide participants into three groups and ask them to participate in the exercise as follows:
  - Ask each group to divide the flip chart into two columns. In the left column, they should list the stress factors at their work that could lead to the development of burnout. In the right column, participants should list the ways of overcoming or eliminating those factors. Give the groups 10 minutes to prepare the lists and discuss the results.
  - Invite representatives of the groups to present their results.
  - After all presentations, ask participants the following questions:
    - What can be done to overcome stress factors?
    - What is done in your organizations to relieve stress among the staff?
    - What additional measures can be done to prevent burnout in your organizations?
  - Supplement participants' responses as needed. *(See Trainer's Resources on page 126.)*
4. Distribute to participants HO #30. Ask them to read it at home and fill out the burnout risk survey included in the handout, which might be helpful to identify whether they are at risk of burnout.

#### Key points to emphasize

- Burnout has been described as a “physical, emotional, psychological, and spiritual phenomenon; an experience of personal fatigue, alienation, and failure.” Counselors dealing with difficult issues such as HIV may be more likely to experience burnout than others.
- Our level of stress depends on how we perceive the world and ourselves in relation to it. Stress can also result from internal conflicts over values and responsibilities.
- Awareness is crucial in dealing with stress effectively. To be effective care providers, health workers need to learn to pay attention to their own needs and feelings and to develop effective ways to manage stress.

# CLOSING

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## Objectives:

1. Review the training objectives, and discuss with the participants whether the training achieved those objectives.
2. Conduct the post-training questionnaire.
3. Administer the participants' evaluation forms.
4. Obtain the participants' impressions of the training and receive suggestions for improving future trainings.
5. Distribute training certificates.

**Time:** 30 minutes

## Materials

1. Post-training questionnaire.
2. Participant evaluation form.
3. Training certificates.

## Training steps:

1. Before the group leaves, lead an informal evaluation of the three-day training. Go back to the training overview and ask participants if the training objectives were accomplished. Why or why not? Ask them what new skills they have learned. Are they prepared to transfer these skills to others? Why or why not? In what skill areas do participants feel they still need practice?
2. Distribute the post-training questionnaire. (*See page 128.*) Assure the participants that their responses will help the trainers evaluate the training and that they will be kept confidential. Allow participants 15 minutes to complete it. Then make sure you collect all of them.
3. Distribute the training evaluation form and ask participants to fill it out. (*See page 131.*) Let them know that this questionnaire is anonymous, and their responses will help the trainers to improve this training.
4. Conduct a closing session. Thank the participants and distribute training certificates.



# **Trainer's resources**

### SESSION 19

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#### Overview of HIV infection

##### **Slide #53**

There are several factors that could lead to a sudden rise in the epidemic, including increased international travel, work with blood and its products, and widespread use of narcotic drugs.

##### International travel

The role of international travel in the spread of HIV infection was emphasized after the case of "Patient Zero." Patient Zero was a Canadian steward who traveled extensively around the globe. Analysis of several early cases of AIDS revealed that infected individuals were directly or indirectly involved in sexual relationships with the steward. These cases were taking place in several American cities and demonstrated the role of international travel in the spread of the virus. Moreover, it was also suggested that the infection could have probably resulted from the activities of only one intermediary in virus transmission.

##### Work with blood

Since blood transfusions have become a routine procedure in medical practice, a whole industry to meet the need for blood has emerged. In the past, in some countries, such as the United States, some people donated their blood for money, among them IDUs. This blood was then used for manufacturing of blood preparations distributed around the world.

At the end of the 1960s, the coagulation factor, called Factor VIII, was introduced to treat people with hemophilia. To prepare Factor VIII it was necessary to use blood drawn from thousands of people. The distribution of this product around the globe increased the risk of HIV infection.

##### Use of narcotic drugs

In the 1970s, heroin became more accessible, and the numbers of addicts injecting drugs increased. More access and establishment of shooting "galleries" where people could buy and use drugs opened another gate for HIV transmission since often injection equipment and supplies were shared.

##### **Slide #54**

##### HIV structure

The causative agent of AIDS was isolated in 1983 by L. Montagnier in the Pasteur Institute in France from T-cells of a patient with lymphadenopathy and was called lymphadenopathy-associated virus (LAV). In May 1986, by the recommendation of the International Committee on Virus Taxonomy, and in compliance with the requirements of international terminology unification, this virus received the name of human immunodeficiency virus (HIV). In the same year, a new relative of human immunodeficiency virus was isolated in West Africa. This virus had immunological differences with the initially isolated virus. Nonetheless, both viruses were called human immunodeficiency viruses (HIV-1 and HIV-2).

The outer membrane of HIV, which is covered with scattered spikes, is composed of two membrane glycoproteins: Gp 120, the basic protein of the spikes; and Gp 41, which is attached to spikes and is immersed into the lipid membrane of the virus.

The core membrane is composed of protein p17, shaped as a 12-sided figure, and is located close to the outer membrane. The internal nucleotide, or the central core, is composed of the protein p24 and is spiral in shape. It forms the full cone with an open top and a dentate basis. HIV is about 1/10000 mm in diameter.

HIV belongs to the class of viruses called retroviruses, containing genes, which consist of ribonucleic acid (RNA) molecules. Retroviruses, like other viruses, can only replicate inside the living host cell, because they contain RNA but no DNA. Moreover, retroviruses use RNA to produce DNA. The infection commences when HIV particles collide with a cell containing CD4 molecules on its outer membrane. The virus uses gp120 to adhere to the cell membrane, and then enters the cell.

Inside the cell, the viral particle releases its RNA, and the enzyme called reverse transcriptase translates viral RNA into DNA. This new HIV DNA moves into the cell nucleus, where, with the help of the enzyme integrase, it is reproduced by the host cell, which then releases infectious viral particles.

### ***Slide #55*** HIV life cycle

After entering the human body, the virus rapidly replicates in the blood. Viremia occurs, which means the presence of the virus in the blood in significant quantities.

The immune system cells react to the invasion. T-helpers, monocytes/macrophages, whose cell receptors have an affinity to HIV-1, are called CD4+. They (CD4+) are the most important cells in the cell-mediated immune response. Their function is to fight infection. The virus is absorbed by these cells and invades the cytoplasm of the host cell. The process of viral replication is possible due to a unique enzyme of reverse transcriptase, which allows for synthesizing the DNA molecule using viral RNA as a model.

Viral DNA is transported to the cell nucleus and integrates into the host's DNA, forming the so-called provirus. Thus, the virus becomes part of the cell and will remain in the cell until its death.

Uncontrolled replication of HIV in various organs is accompanied by intensive viral mutations (10 mutations in each replication cycle). This leads to the formation of different strains of HIV (slowly and rapidly replicating, syncythium forming and non-forming, cytopathogenic and non-cytopathogenic, etc.).

The development and prevalence of aggressive viral strains leads to the destruction of CD4+ cells. As a result of cell immunity failure, opportunistic infections, autoimmune disorders, malignant neoplasms, and nervous system impairments may develop.

### ***Slide #56*** Resistance of the virus

The HIV virus is not stable when removed from blood and placed in other environments.

- Drying of the lymphoid cells, infected with HIV, inactivates the virus within 2-3 days.

- Drying of the extracellular fluid mixed with human plasma causes the virus to die within 7 days in the temperatures of 23-27°C.
- In liquid medium at temperatures of 23-27°C, the virus stays active for 15 days; under 36-37°C, it lasts about 11 days.
- In blood preserved for transfusion, HIV can survive for years; in frozen serum, it can survive for up to 10 years.
- HIV dies fast under the influence of disinfecting agents, UV radiation, and when heated over 56°C, it loses its activity within 30 minutes.

### **Slides #57-58**

The source of HIV infection is human – an asymptomatic HIV-positive person or AIDS patient. HIV can be isolated from the seminal fluid, cervical secretions, lymphocytes, blood plasma, cerebrospinal fluid, tears, saliva, urine, and breast milk; however, the most contagious substances are the sperm, blood, and cervical secretions. The probability of infection is different depending on the type of contact. HIV can get into the human body via open wounds and injuries or it can directly infect mucosal cells (even in the absence of tissue ruptures). Infection may occur via the anus and rectum, vagina or penis, mouth or eyes.

Whether an actual infection occurs depends on the virus concentration. HIV concentration in blood may be very high, whereas its concentration in saliva is very low (10,000 times less). It is important to remember that contact with HIV, even in high concentrations, does not necessarily result in infection. Healthy, undamaged skin is a good barrier for HIV. To cause infection, the virus needs to get into the bloodstream. To reach the bloodstream, the virus has to get into a wound or on mucous membranes, or enter directly into the bloodstream (during blood transfusion or through contaminated syringes, or via the placenta). With increased or repeated exposure to the virus, there is an increased risk of becoming infected.

### Conditions for HIV transmission:

1. Presence of HIV.
2. Sufficient amount of virus in the secreted body fluid.
3. Opportunity to enter to another body (wound, injection, transfusion, and penetrative sex).

Three ways of HIV transmission have been proven.

1. Sexual contact – the risk of HIV infection grows with an increase in the number of sexual partners.
2. From an infected mother to her fetus or infant.
3. During the transfusion of infected blood and administration of blood preparations; via sperm; via organ and tissue transplantations; via shared needles and syringes for injections without prior sterilization.

### **Slide #59**

#### Sexual transmission

The most common and risky ways of transmission are through unprotected penetrative sex – anal, oral, or vaginal.

Possible, but less common ways:

- Oral sex: very few cases reported; in all cases, the risk of infection during oral sex appears to depend on the presence of defects in the oral or pharyngeal mucosa, as well as on the presence of ulcerations on the penile mucosa.
- In all activities in which blood mixing is possible (e.g., mutual piercing, shaving, etc.).
- When the genital mucosa comes in contact with infected blood, even if such blood is present in previously uninfected biologic fluids – in the saliva in the oral cavity, in the rectum, in vaginal discharge during menses.
- During use of sex “toys” and related devices that are shared.

HIV transmission occurs only as a result of contact of a healthy person with infected biologic fluids – blood, sperm, vaginal discharge, tissues, and organs.

The presence of lymphocytes and associated virus in biologic fluids is most likely to occur in individuals suffering from STIs that cause inflammation in the urethra and other parts of the reproductive tract. The virus count increases in the vagina during menstruation because of the presence of infected blood and the virus associated with infected cells. The macrophage counts also increase in vaginal discharge during menstruation. Macrophages may serve as a temporary “shelter” for the virus. They are the first line of defense after the virus enters the bloodstream. It is known that the presence of STDs and an inflammatory process in the vagina increase lymphocyte counts in vaginal discharge.

### ***Slide #60***

#### **HIV transmission through blood**

Possible, but not as common as other routes of transmission:

- Contaminated blood or blood products; transfusion; and transplantation of organs, tissues, skin, etc., from infected donors.
- Surgical or other invasive procedures.
- Occupational risk – through contact of contaminated blood with injured skin and through sticks and scratches made by contaminated needles.
- Tattooing, acupuncture, electrolytic procedures (e.g., epilation, shaving).

### ***Slide #61***

#### **HIV transmission from mother to child**

All children born to HIV-positive mothers have positive test results for antibodies for around six months after birth, but in reality not all of them are infected. Maternal antibodies are usually cleared from a child's body by nine months. If antibodies can still be detected after the age of one-and-a-half years, this indicates that the child is likely infected. The polymerase chain reaction (PCR) test can determine the HIV status in the majority of children by the age of 4-6 months after birth.

There are three periods during which an infected mother may transmit the virus to her child:

1. Prenatal (during pregnancy, through the placenta).
2. During delivery.

During delivery, the risk of HIV infection can be increased by early separation of the placenta from the uterus, injuries to the skin of the fetus, and infectious diseases in the mother that weaken her immune system and enhance the risk of HIV transmission to the child.

### 3. Postnatal (after delivery) through breast milk.

Breast milk is the main nutritional source for the newborn. It is rich in leukocytes, including CD4+ cells. The gastrointestinal tract of a newborn is not mature. It absorbs albumins actively. Breastfeeding may result in contact with the infected mother's blood if she has skin tears or cracking around her nipples.

### **Slide #62**

#### Measures to lower the risk of transmission through sex

- Barrier methods (i.e., condoms).
- VCT for couples.
- One permanent sexual partner and monogamous relationships.
- Antiretroviral therapy (ART).

HIV prevention is based on the philosophy of risk (harm) reduction and recommends that risky behavior be substituted with less risky practices. Examples include:

- Offering to exchange used needles for clean ones in programs targeting IDUs, instead of relying on messages asking them to abstain from drug use;
- Recommending condom use during occasional sex.

Harm-reduction strategies are based on the principle of “minimum change” to protect oneself from infection. It is believed that reduction of risky behavior will be more likely and more consistent if only minimum changes are needed.

For the time being, the only effective method of HIV infection prevention for people who are sexually active is using barrier methods – condoms. Today there is a wide selection of condoms for various sexual practices. It is important to remember to tell patients to use latex condoms from known manufacturers, to buy them in a pharmacy, and to use them correctly and consistently. Condoms stored inappropriately (excessive heat, sun exposure, etc.) tend to lose their barrier properties.

In the process of counseling, it is important to find out what can hinder changes in the client's behavior, to show your patient the benefits of safer behavior, and to clarify your client's misunderstandings. It is also useful to help your patient learn how to use condoms. If your client not only knows that he (or his/her partner) needs to use a condom, but also that he/she knows how to use it, the chances are better that he/she will prefer safe sex.

### **Slide #63**

#### Measures to lower the risk of HIV transmission via blood

- Mandatory testing of donor's blood.
- Special treatment of blood products.

- Prevention of vertical transmission during delivery.
- Occupational prevention in medical facilities.

The issue of urgent blood transfusion still remains problematic. On one hand, the use of prepared and tested blood and plasma products is the recommended approach, yet insufficient supplies during emergencies leads to the use of untested blood. The laws of some countries allow urgent blood transfusions for life-saving emergencies, but in this case, many questions arise. For example, the law may not contain the definition of life-saving emergencies. The solution for this situation may be blood banks organized at clinics and medical facilities, drawing blood from the patient's relatives before delivery or planned surgeries. These approaches allow time to prepare minimum stocks of blood products to be used in cases of emergency.

HIV prevention should also be remembered during dental procedures, in cosmetology clinics, and in manicure and pedicure salons. Sterilization of instruments prior to use with each patient or client is not always the case, so he/she should always ask his or her dentist or cosmetologist about sterilization practices.

To avoid any potential blood contamination, it is advised that people do not share shaving equipment. In case of accidental contact of contaminated blood with unprotected skin, the affected area should be immediately washed with soap and water and treated with alcohol, if available.

### ***Slide #64***

#### **Prevention of HIV infection in medical facilities**

Since blood and other body fluids may carry HIV and other infectious agents, health care workers should always treat blood and other body fluids with caution, as if they were infected.

Basic preventive measures are the following:

1. Use of disposable instruments or thorough sterilization of reusable supplies.
2. Washing hands.
3. Use of individual protection: gloves, goggles, gowns, shoe covers, etc.
4. Established protocols for preventive measures in case of emergency.
5. Assumption that all patients or body fluids are potentially contaminated.
6. Use of biosafety disposal containers for sharp objects (needles, blades, etc.).

All workplaces should be provided with disinfecting agents and first aid kits. The chief of the department should be informed immediately of any emergency.

The aim of first aid after a potential exposure to HIV is to reduce contact time with the source person's body fluids (including blood) and tissues, and to clean and decontaminate the exposure site to reduce the risk of infection. The actions should be taken immediately afterwards. If the skin is broken following an injury with a used needle or other sharp instrument, take the following steps:<sup>16</sup>

- Wash the injury immediately, using soap.

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<sup>16</sup> WHO. *HIV/AIDS Treatment and Care: Clinical Protocols for the WHO European Region*. Copenhagen; 2007.

- Encourage the puncture wound to bleed freely under running water for several minutes or until bleeding ceases.
- If running water is not available, clean site with a gel or hand-cleaning solution.
- **Do not** use any strong solutions, such as alcohol, bleach, or iodine, as they may irritate the wound and make the injury worse.
- **Do not** squeeze or rub the injury site.
- **Do not** suck a puncture wound.

After a splash of blood or body fluids, do the following:

For a splash on unbroken skin:

- Wash the area immediately; if running water is not available, clean the area with a gel or hand-rub solution.
- **Do not** use any strong solutions, such as alcohol, bleach, or iodine, as they may irritate the affected area.
- Use mild disinfectants, such as chlorhexidine gluconate 2–4%.
- **Do not** rub or scrub area.
- **Do not** use a dressing.

For a splash in the eye:

- Irrigate the exposed eye immediately with water or normal saline. Sit in a chair, tilt the head back and have a colleague gently pour water or normal saline over the eye, gently pulling the eyelids up and down to make sure the eye is cleaned thoroughly.
- If wearing contact lenses, leave them in place while irrigating, as they form a barrier over the eye and will help protect it; once the eye has been cleaned, remove the contact lenses and clean them in the normal manner, which will make them safe to wear again.
- **Do not** use soap or disinfectant on the eye.

For a splash in the mouth:

- Spit the fluid out immediately.
- Rinse the mouth thoroughly, using water or saline, and spit out again. Repeat this process several times.
- **Do not** use soap or disinfectant in the mouth.

An exposure incident should be evaluated for the potential of HIV transmission and if necessary, post-exposure prophylaxis should be provided according to the country protocol.

**Slide #65**

Current recommendations of WHO and the International Society of Internal Medicine (ISIM):

1. Vaccinate all persons who have at least short-term contact with blood against hepatitis B.
2. Treat blood and other body fluids as being potentially contaminated.
3. Wear gloves during all direct contacts with blood and other biologic fluids.
4. Change gloves after each patient.

**Slide #66**

Routine tests for HIV antibodies, which are being widely used for testing blood and for diagnostic purposes, detect almost all types of HIV infection. HIV diagnosis was traditionally



made after HIV antibodies were detected. Since the first tests for HIV antibodies became commercially available in 1985, diagnostic technology has been developing rapidly. Today there is a broad range of tests for detecting HIV antibodies, including enzyme-linked immunosorbent assays (ELISA), and many simple, rapid tests for HIV. Most tests are able to detect antibodies to HIV in serum or plasma, although there are tests in which the whole blood, dried blood drops, saliva, and urine are used.

### Laboratory methods of HIV diagnosis:

1. Immunologic methods:
  - Enzyme-linked immunosorbent assay (ELISA).
  - Immune blot (Western blot).
2. Isolation of the virus or its fragments.
  - Isolation of the virus culture.
  - Determining the viral load.
  - Polymerase chain reaction (PCR).
3. Defining the level of immunosuppression.
  - Determining the CD4+ T-lymphocyte counts.

Although the methods of testing for HIV have become very sensitive and accurate, data show that without strict quality control, the emergence of large numbers of false-positive and false-negative results may occur frequently.

False test results not only may harm the patient psychologically, but also undermine his trust in the service. If, in all cases of testing, the rules of WHO/UNAIDS are followed irrespective of the method used, laboratory mistakes will be minimized.

In the organization of HIV testing services or with the change in the method of testing used, it is especially important to ensure cross-verification of test results in reference laboratories. Even with this precaution, quite a lot of bureaucratic mistakes can occur.

Given the profound medical and social importance of HIV infection, timely and accurate laboratory diagnosis is very important, especially in the early stages of infection when the patient is still asymptomatic or has minimal clinical signs. It is important to detect infection early, because ART may be started earlier, and this improves the patient's prognosis by keeping viral load low and prevents the development of AIDS.

The serodiagnostics of the overwhelming majority of viral infections is carried out through registration of growing titers of antibodies to a causative agent in blood, respiratory secretions, and other biologic fluids collected in the beginning and the end of the disease.

The characteristic feature of both screening and confirmatory blood tests for HIV is the indication of antibodies in a single sample of blood or plasma, with the test result being "yes" or "no." Although serum or blood plasma remain the most common substances for testing for HIV antibodies and antigens, the spectrum of biologic materials that can be tested has broadened significantly.

### **Slide #67**

A positive result means:

- The body has produced antibodies against HIV.
- This does not mean that the infected person will either remain healthy or has AIDS.
- It definitely means that this person is infectious. Studies show that the virus can be detected in almost all persons who have antibodies.

### **Slide #68**

A negative result means:

- HIV antibodies were not detected in the blood.
- If it has been more than two months since the last episode of risky behavior, most likely the person is not infected with HIV.
- Antibodies are produced on average within 2-3 months from the time of getting HIV. This period is often called the “window” period. During this time, the test result may be negative, while the person is actually infected. Therefore, it is important to repeat the test after this window period.

### **Slide #69**

Disease progression is closely related to the HIV life cycle. The following is a description of progression in the absence of ART treatment. The virus destroys the white blood cells as it replicates. Simultaneously, the newly formed virus disseminates in the lymphatic system and attacks new white blood cells. The body produces anti-HIV antibodies, which indicates HIV presence in the body. Antibodies may inhibit replication of the virus, but cannot destroy it, since it is incorporated into the cellular nucleus.

Gradually, most lymphocytes are destroyed. Cell immunity becomes impaired first, followed by the impairment of humoral immunity. The ability of the body to protect itself against many otherwise not dangerous infections, as well as malignant tumors, decreases dramatically. This final stage of the disease progression is called AIDS.

In healthy people, a long time elapses from the time of being infected to the emergence of the first symptoms of an impaired immunity. During this period the virus replicates in the body, and the infected person can infect others.

Clinical manifestations of HIV infection and AIDS are diverse and are defined by disease progression resulting from immune system impairment. The immune status of a person living with HIV can be assessed by measuring the absolute number (per mm<sup>3</sup>) or percentage of CD4+ cells, and this is regarded as the standard way to assess and characterize the severity of HIV-related immunodeficiency. The normal absolute CD4+ count in adolescents and adults ranges from 500 to 1500 cells per mm<sup>3</sup> of blood. Progressive depletion of CD4+ cells is associated with progression of HIV disease and an increased likelihood of opportunistic infections and other clinical events associated with HIV, including wasting and death.<sup>17</sup>

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<sup>17</sup> WHO Case Definitions of HIV for Surveillance and Revised Clinical Staging and Immunological Classification of HIV-Related Disease in Adults and Children. Geneva; 2007.

**WHO immunological classification for established HIV infection<sup>17</sup>**

HIV-associated immunodeficiency	Age-related CD4+ values			
	<11 months (%CD4+)	12–35 months (%CD4+)	36–59 months (%CD4+)	>5 years (absolute number per mm <sup>3</sup> or %CD4+)
None or not significant	>35	>30	>25	> 500
Mild	30–35	25–30	20–25	350–499
Advanced	25–29	20–24	15–19	200–349
Severe	<25	<20	<15	<200 or <15%

The likelihood of disease progression to AIDS or death without ART increases with increasing immunodeficiency (decreasing CD4+). Opportunistic infections and other HIV-related conditions are increasingly likely with CD4+ counts below 200 per mm<sup>3</sup>. The CD4+ count usually increases in response to effective combination ART therapy, although this may take many months. Response to ART is affected by the immune stage at which it is started. People commencing ART with advanced immunodeficiency (CD4+ >200–350 per mm<sup>3</sup>) appear to have better virological outcomes than those who commence with much more severe immunodeficiency (CD4+ <200 per mm<sup>3</sup>).

The WHO has developed a classification system that defines HIV infection by stage and describes the types of symptoms and opportunistic infections that a person may experience.

**WHO clinical staging of HIV/AIDS for adults and adolescents with confirmed HIV infection<sup>17</sup>**

HIV-associated symptoms	Clinical stage	Types of symptoms and opportunistic infections
Asymptomatic	Clinical stage 1	<ul style="list-style-type: none"> <li>Asymptomatic</li> <li>Persistent generalized lymphadenopathy</li> </ul>
Mild symptoms	Clinical stage 2	<ul style="list-style-type: none"> <li>Moderate unexplained weight loss (&lt;10% of presumed or measured body weight)</li> <li>Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media, and pharyngitis)</li> <li>Herpes zoster</li> <li>Angular cheilitis</li> <li>Recurrent oral ulceration</li> <li>Seborrheic dermatitis</li> <li>Fungal nail infections</li> </ul>
Advanced symptoms	Clinical stage 3	<ul style="list-style-type: none"> <li>Unexplained severe weight loss (&gt;10% of presumed or measured body weight)</li> <li>Unexplained chronic diarrhea for longer than one month</li> <li>Unexplained persistent fever (above 37.6°C intermittent or constant, for longer than one month)</li> <li>Persistent oral candidiasis</li> </ul>

HIV-associated symptoms	Clinical stage	Types of symptoms and opportunistic infections
		<ul style="list-style-type: none"> <li>• Oral hairy leukoplakia</li> <li>• Pulmonary tuberculosis (current)</li> <li>• Severe bacterial infections (such as pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, or bacteremia)</li> <li>• Acute necrotizing ulcerative stomatitis, gingivitis, or periodontitis</li> <li>• Unexplained anemia (&lt;8 g/dl), neutropenia (&lt;0.5x10<sup>9</sup> per liter) or chronic thrombocytopenia (&lt;50x10<sup>9</sup> per liter)</li> </ul>
Severe symptoms	Clinical stage 4	<ul style="list-style-type: none"> <li>• HIV wasting syndrome</li> <li>• Pneumocystis pneumonia</li> <li>• Recurrent severe bacterial pneumonia</li> <li>• Chronic herpes simplex infection (orolabial, genital, or anorectal of more than one month's duration or visceral at any site)</li> <li>• Esophageal candidiasis (or candidiasis of trachea, bronchi, or lungs)</li> <li>• Extrapulmonary tuberculosis</li> <li>• Kaposi's sarcoma</li> <li>• Cytomegalovirus infection (retinitis or infection of other organs)</li> <li>• Central nervous system toxoplasmosis</li> <li>• HIV encephalopathy</li> <li>• Extrapulmonary cryptococcosis, including meningitis</li> <li>• Disseminated nontuberculous mycobacterial infection</li> <li>• Progressive multifocal leukoencephalopathy</li> <li>• Chronic cryptosporidiosis (with diarrhea)</li> <li>• Chronic isosporiasis</li> <li>• Disseminated mycosis (coccidiomycosis or histoplasmosis)</li> <li>• Recurrent nontyphoidal <i>Salmonella</i> bacteremia</li> <li>• Lymphoma (cerebral or B-cell non-Hodgkin) or other solid HIV-associated tumors</li> <li>• Invasive cervical carcinoma</li> <li>• Atypical disseminated leishmaniasis</li> <li>• Symptomatic HIV-associated nephropathy or symptomatic HIV-associated cardiomyopathy</li> </ul>

## Slide #70

### TB and HIV coinfection

People infected with HIV have compromised immune systems and are more likely to get other infections and diseases. TB is one of these diseases, and it remains a serious threat for HIV-

positive persons. In fact, worldwide, TB is responsible for the deaths of one in three people living with HIV – making it the leading cause of death among people with HIV.

Because HIV weakens the immune system, people with latent TB infection (LTBI) and HIV infection are at very high risk of developing active TB disease. (LTBI is when a person has been exposed and infected with *Mycobacterium tuberculosis* (MTB), but the body has contained the infection and the MTB is not replicating.) In fact, PLHIV are up to 50 times more likely to develop TB disease over their lifetime than those who are HIV negative. HIV also increases the chance of relapse in previously treated TB patients.<sup>18</sup> Each disease speeds the other's progress. The TB bacterium enhances HIV replication and might accelerate the natural progression of HIV infection. Without treatment, these two infections can work together to shorten the life of the person infected with both.

About one-third of all HIV-positive people worldwide are coinfecting with TB. The two diseases represent a deadly combination, since both are more destructive together than either is alone. HIV infection is the most potent risk factor for converting latent TB into active transmissible TB – accelerating the spread of the disease, while TB bacteria help accelerate the progression to AIDS in the patient. Globally, 12% of all TB deaths occur in PLHIV. Without proper treatment, approximately 90% of PLHIV die within two to three months of contracting TB.<sup>18</sup>

The good news is that HIV-positive persons with either latent TB infection or active TB disease can be effectively treated. The first step is to identify HIV-positive persons with latent TB infection or active TB disease by ensuring that they are screened regularly for TB. The second step is to help people with latent TB infection and those with active TB disease get proper treatment. Rapid progression from latent TB infection to active TB disease can easily be prevented. PLHIV who have latent TB infection and who do not have active TB disease should receive TB preventive therapy, which can reduce the risk of developing TB by about 60% in the short term. Active TB disease can be treated and cured in HIV-positive persons with a combination of powerful antibiotics over a period of six to eight months. It is important for HIV-positive patients to be closely monitored by a physician during any type of treatment to prevent negative drug interactions.

All TB patients should be offered an HIV test. Research showed that TB patients are more likely to accept HIV testing than the general population. Thus, TB programs that offer HIV testing can make a major contribution by ensuring that those who are positive can access HIV care, including ART treatment.

### **Slide #71**

#### **Impact of HIV on TB**

HIV infection markedly increases the risk for developing active TB. Comparison of risks for progressing to active TB in latently-infected persons:

HIV-negative persons	Lifetime risk of 10%
HIV-infected persons	About 10% per year

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<sup>18</sup> WHO, 2008, [http://www.who.int/tb/challenges/hiv/talking\\_points/en/index.html](http://www.who.int/tb/challenges/hiv/talking_points/en/index.html), December 3, 2008.

### **Slide #72**

#### Impact of TB on HIV

Active TB accelerates the course of HIV infection. The risk for opportunistic infections and death is higher in HIV/TB-coinfected persons than in HIV-positive persons without TB. The increased mortality is directly attributable to HIV.

### **Slide #73**

#### Impact of antiretroviral therapy (ART)

ART has decreased the risk for developing active TB. It has also decreased the risk for death among HIV-positive persons who develop active TB. ART has been shown to reduce the incidence of TB among persons with HIV infection. Two large observational studies performed in Europe and the United States (low-HIV, low-TB settings, use of HAART) obtained 60-80% reduction of the incidence of active TB. Similarly in a high-TB/HIV transmission setting like Brazil, an 80% reduction in the incidence of active TB using HAART was also achieved.<sup>19, 20</sup>

Active tuberculosis can occur at any CD4+ cell count but atypical presentations (i.e., extrapulmonary, unusual patterns on chest X-ray) are more likely with advanced HIV infection or AIDS. Thus, the clinical presentation is affected by the degree of immunosuppression. Fever, weight loss, and constitutional symptoms, commonly accompanied by cough and chest pain, may be the presenting features.

Coinfected patients are slightly less likely to have positive sputum smears than non-HIV-infected individuals. Coinfected patients with advanced AIDS commonly have negative tuberculin skin tests. Chest radiographic findings can vary depending on the degree of immunosuppression. Patients with CD4+ cell counts greater than 200 are more likely to have classic findings of upper lobe infiltrates with cavitary lesions, while those patients with AIDS may be more likely to have hilar lymphadenopathy and pleural effusions.

Mycobacteremia and extrapulmonary tuberculosis, especially meningitis and adenopathy, also correlate with diminishing numbers of CD4 cells and degree of immunosuppression. TB lymphadenitis is seen most frequently in cervical, supraclavicular, and axillary lymph nodes. Focal brain lesions are also more common in coinfecting patients.

#### Diagnostic tests

The disease picture is often atypical, which can lead to delays in diagnosis.<sup>21</sup> Clinical suspicion of TB is based on the presence of TB risk factors, signs and symptoms of TB, and findings on chest X-rays. The great majority of HIV-positive patients with TB will have an abnormal chest X-ray, but the classic TB findings (e.g., apical infiltrates and cavities) are seen in only one-third of coinfecting cases.

Sputum microscopy reveals acid-fast bacilli (AFB) in 31% to 82% of coinfecting patients. The sensitivity of sputum microscopy is lowest in patients with significant immunosuppression and progressive primary or disseminated disease. Ideally, three sputum samples should be collected

<sup>19</sup> Girardi E. AIDS 2000. International Journal of Tuberculosis and Lung Diseases, 2000.

<sup>20</sup> Santoro Lopes G. Clinical Infectious Diseases, 2002.

<sup>21</sup> McShane, H. *Co-infection with HIV and TB: Double Trouble*. International Journal of STD & AIDS (ISSN: 0956-4624); Volume 16, No. 2, pp. 95-101(7); February 2005, Royal Society of Medicine Press.

for microscopy, culture, and susceptibility testing. This may not always be feasible in resource-poor settings. Clinicians may have to rely on their clinical assessment and a sputum AFB smear. Subtle and atypical findings – such as lymphadenopathy, pleural effusions, interstitial infiltrates and miliary disease – are seen more commonly.

A normal chest radiograph can be seen in 12% to 14%<sup>22</sup> of HIV-infected patients with pulmonary TB. Further evaluation for active TB may be conducted with microscopy, culture, and molecular methods.

### Treatment issues

Anti-TB therapy is equally effective in HIV-negative and HIV-positive patients. In TB-endemic areas, recurrent TB disease after completion of a course of therapy is more likely to be due to exogenous reinfection than to relapse. There are complex drug-drug interactions between ARVs and the rifamycins (rifampin, rifabutin, and rifapentine). Current ARV regimens usually consist of three or more drugs from two or three different classes of drugs: nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs), and protease inhibitors (PIs). Two of these classes, NNRTIs and PIs, have clinically relevant drug interactions with the rifamycins.

### Need for collaboration between HIV and TB programs

TB and HIV programs are quite separate in most countries. Control of both diseases would improve if their respective programs collaborated more effectively. TB prevention, diagnosis, and treatment must be included as an integral component of HIV care. Integrating TB and HIV services within one point of patient care is considerably easier for patients.

WHO has published an interim policy on collaborative TB/HIV activities. Twelve collaborative activities between TB and HIV control programs are recommended in three broad categories: establishing mechanisms for collaboration, reducing the burden of TB in PLHIV, and reducing the burden of HIV in patients with TB. These activities should be included in national TB control plans.<sup>23, 24, 25</sup>

### **Slide #74**

#### Problems related to treatment of AIDS

- Drugs are not always affordable.
- Lack of individual approaches due to insufficient funds for treatment.
- Lack of opportunities for quality monitoring of the patient and his or her viral load.
- Treatment is for life, so treatment adherence is very important.
- Pill burden (a lot of different pills to take).
- Side effects.

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<sup>22</sup> Lam PK, Catanzaro A, Lobue P, Perry Sharon. *Diagnosis of Pulmonary and Extrapulmonary Tuberculosis* In Reichman and Hershfield's *Tuberculosis. A Comprehensive, International Approach*. Third Edition. Informa HealthCare, New York, 2006.

<sup>23</sup> The Stop TB Strategy. Building on and enhancing DOTS to meet the TB-related Millennium Development Goals, WHO, 2006.

<sup>24</sup> Interim Policy on Collaborative TB/HIV Activities, WHO, 2004.

<sup>25</sup> Guidelines for Implementing Collaborative TB and HIV Programme Activities, WHO, 2003.

With the advent of antiretroviral drugs, many people living with HIV now have hope for a normal life. The problem is that HIV is prone to mutations; hence the emergence of resistant strains due to improper or incomplete treatment is always possible.

### **Slide #75**

#### Advantages of antiretroviral therapy:

- Decreases viral load.
- Reduces the risk of vertical transmission during pregnancy, labor, and delivery.
- Prolongs the patient's life.

Combined use of polyvalent chemotherapy and active antiretroviral therapy increases the number of side effects. For example, mycoses incidence grows 3-4-fold. However, mortality rates decrease to 13% versus 83% in those who were not receiving highly active antiretroviral therapy.

### **Slide #76**

#### Risks associated with antiretroviral therapy:

- Possibility of viral resistance.
- Side effects, decreasing the patient's quality of life.
- Necessity for life-long treatment.
- Difficulties related to combined treatment (interruption increases the risk of resistance).
- High cost of drugs (although costs are declining).
- Drug interactions (with TB medicine).

### **Slide #77**

#### Patient monitoring

- Viral load:
  - PCR test;
  - Test for HIV genome presence.
- Immune system functioning – trends in CD4+ cell counts.

## **SESSION 20**

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### **Stigma and discrimination**

#### **Slides #78-79**

There are many people in the world who suffer discrimination, labeling, or social isolation because they have HIV. The demoralizing effect of isolation, indifference, moral condemnation, and stigma very often fosters self-isolation, apathy, and indifference in HIV-positive people. So what exactly is stigma and what is discrimination?

Stigma is an undesirable or discrediting attribute that a person or group possesses that results in the reduction of that person's status in the eyes of society. It can result from a physical characteristic (symptoms of a disease) or negative attitudes toward the behavior or sexual orientation of the group (drug users or homosexuals). Discrimination is a distinction that is made about a person that results in being treated unfairly and unjustly on the basis of belonging or not



belonging to a given group (a woman who is refused a job because she's not a man experiences discrimination).<sup>26</sup>

Stigma and discrimination associated with HIV and AIDS are the greatest barriers to preventing further infections, providing adequate care, accessing support and treatment, and alleviating the impact of HIV and AIDS.<sup>27</sup>

Stigma and discrimination related to HIV and AIDS are almost as old as the epidemic itself. In most cases, they are related to the stigma of sexual relations. This happens because HIV is mostly transmitted via sexual routes and in most regions of the world the epidemic affects sexual minorities, especially men who have sex with men (MSM). Stigma and discrimination increase due to existing stigma associated with sexual relations, sexually transmitted diseases, homosexuality, having multiple sexual partners, and sex work.<sup>28</sup> Many believe that homosexuality is the cause of the epidemic and that homosexuals are the only "group" at high risk for HIV transmission. Many also believe that women who have multiple sexual partners are responsible for the spread of heterosexual epidemic.

Because HIV is associated with marginalized groups and perceived marginalized behavior, many people living with HIV are viewed as worthy of social condemnation and, as a result, are subject to being labeled in ways that may not necessarily correspond to reality. For example, often men do not disclose their HIV status because of fear that people will think that they are gay or bisexuals. For the same reasons, women might not tell their partners about their serological status for fear of being labeled promiscuous. HIV enhances stigmatization of individuals and groups of people who are oppressed and isolated already, which can make their situations even worse.

Stigma and discrimination are part of the three main phases of an AIDS epidemic:

1. First stage – the silent spread of HIV throughout a society.
2. Second stage – the rising number of HIV-positive people.
3. Third stage – the spread of stigma, discrimination, collective denial, and blame. This stage is probably the most damaging to society, because the lack of open discussion of the issues related to HIV makes it difficult to establish effective prevention efforts.

### **Slides #81-82**

Stigma and discrimination due to HIV appear in various forms and at various levels – social, household, individual, and in various contexts. HIV-positive children or children from families with HIV-positive parents experience stigma and discrimination in educational institutions. Often discrimination of PLHIV takes place at work. For example, screening for HIV before employment, delaying employment to those people whose results are positive, breaching of contracts with people living with HIV, and stigmatizing of people who openly declare their serological status.<sup>29</sup> Sometimes people refuse to work with HIV-positive individuals, AIDS patients, or people they suspect as having HIV or AIDS.

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<sup>26</sup> *Reducing Stigma and Discrimination Related to HIV and AIDS. Training for Health Care Workers.* EngenderHealth, 2004.

<sup>27</sup> UNAIDS, 2002.

<sup>28</sup> Gagnon and Simon 1973; Plummer 1975; Weeks 1981.

<sup>29</sup> Gostin and Lazzarini, 1997; Panos, 1990; Barragan, 1992; Gostin, 1992; Panos, 1992; Shisam, 1993; Omangi, 1997.

Unfortunately, many PLHIV are discriminated against even when they seek assistance from those who are supposed to help them – health care providers. Studies show that health care providers sometimes test people for HIV without their consent, violating the patient's right to confidentiality and informed choice. HIV-positive individuals are sometimes refused medical treatment, or their serological status is disclosed to relatives without their prior consent. In addition, their personal information may be released to the media or the police.<sup>30</sup>

The following factors contribute to the creation of stigma and discrimination towards PLHIV:

1. Societal factors:
  - Lack of knowledge about HIV transmission and AIDS;
  - Association of AIDS with death;
  - Pre-existing prejudices – belief that people who became infected with HIV are being punished for their "immoral" behavior.
2. Causal factors (specific to health care settings):
  - Fear of getting infected while working;
  - Lack of resources (drugs, staff, etc.) – causing medical providers to feel that treating PLHIV is not worth the time or effort;
  - Insufficient level of knowledge;
  - Medical providers' moral values and biases.

### ***Slide #83***

#### Consequences of stigma and discrimination

There are two types of consequences:

- Consequences for the individuals targeted with stigma and discrimination;
- Consequences for the whole society.

In addition to creating problems for PLHIV (or those presumed to be HIV-positive) in accessing prevention and care services, stigma and discrimination can also cause severe psychological trauma and social isolation. Stigma causes PLHIV to be seen as a problem for society. Instead, they should be seen as part of the solution to the epidemic.

Some people living with HIV or AIDS may go to extreme measures to avoid disclosing their status to others. For example, people at risk may avoid getting tested or using condoms, or refuse treatment. This will contribute to the spread of the epidemic and decrease the efficacy of prevention efforts.

## **SESSION 21**

### **Privacy and confidentiality**

#### ***Slides #84-85***

The issue of privacy and confidentiality is especially important when discussing the process of counseling. Unfortunately, this issue is inadequately addressed in our medical facilities, and confidentiality is often difficult to achieve and maintain. Sometimes, several doctors see patients in the same room simultaneously, other doctors may be present, and a nurse is practically

<sup>30</sup> AIDS Bhedhav Virodhi Andolan, 1993; Tirelli et al., 1991.

always present in the exam room. Patients would probably be willing to share their problems with the doctor individually, but they may not want to reveal their personal information when someone else is in the room. This problem in many instances can be solved by telling the patient that the nurse also will uphold confidentiality. However, doctors do not completely understand the full meaning of privacy and confidentiality and how to ensure it in the workplace.

The World Health Organization (WHO) defines privacy as “the right and power to control information (about oneself) that others possess” (WHO 2000b). Privacy also commonly refers to the right of individuals not to be physically exposed against their will.

Confidentiality is “the duty of those who receive private information not to disclose it without the patient’s consent” (WHO 2000b). Confidentiality is the mechanism through which the patient’s right to privacy is protected. In other words, privacy, the fundamental right of humans, is fulfilled by respecting confidentiality.

Despite the fact that the terms “privacy” and “confidentiality” are often confused, there is a difference between them in both the definition and the legal sense of these concepts.

The right to privacy is a basic human right. It is guaranteed by international acts and decrees, and protected by the law. This right cannot be temporarily removed or put aside, and is generally acknowledged. Many international conventions have ratified the right to privacy as a basic human right, and every country has signed at least one of these documents (WHO, 2002).

Respecting the confidentiality of personal information is the responsibility of those who receive this information. Consequently, the right to privacy cannot be respected without keeping information confidential; these notions are often interchanged or confused.

Privacy and confidentiality have been defined as two important components of high quality, patient-oriented health services.<sup>31</sup> Violation of a patient’s privacy and confidentiality could have harmful consequences for his or her health. To protect confidential information, health care workers should be aware of the legal, moral, and ethical aspects of these rights.

Although abiding by confidentiality and privacy has always been important for patients, the HIV epidemic has drawn more attention to this issue. Studies have demonstrated that the right of patients with HIV to confidentiality has often been violated, resulting in many patients being refused medical care or quitting treatment programs.

Fear that privacy and confidentiality would not be respected has discouraged many people from seeking medical care, particularly young people and people with infectious diseases.<sup>32</sup>

Some people do not seek treatment or voluntary HIV testing because they are afraid that confidential information will be given to their parents, family members, or society.<sup>33</sup> They may fear being abandoned by their spouse or losing their job or insurance. These fears ultimately put

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<sup>31</sup> Bruce, 1990; Huezo and Diaz, 1993.

<sup>32</sup> American Institute of Pediatrics, 1989, 1996; Allen, 1997; UNFPA, 1999.

<sup>33</sup> International HIV/AIDS Alliance in Ukraine. *Access to Rights and Services of People Living with HIV in Ukraine: Social Research Results*. 2004. Available at: [http://www.aidsalliance.org.ua/ru/library/our/policy5/pdf/policy5\\_en.pdf](http://www.aidsalliance.org.ua/ru/library/our/policy5/pdf/policy5_en.pdf).

patients at risk, because they may not tend to their health or the health of their sexual partners or unborn babies.

Health care workers and counselors have to emotionally understand this idea and support the desire and the right of the patient to possess and control personal and medical information. It is necessary to care for patients in the same way that we would like to receive care ourselves.<sup>34</sup>

It is very important that the whole process of ensuring confidentiality is understood by everyone who communicates with patients, including administrative and non-medical personnel. Ensuring that the visual and auditory environment of the patient is completely private guarantees that information is not heard or seen by outside parties.

### **Slide #86**

Elements of privacy include:

- Auditory privacy (no auditory interruptions or breaches)

It is necessary to make every effort that individual counseling is conducted privately, out of the range of hearing of other persons, including children, family members, friends, teachers, and neighbors. Conversations in which any intimate questions are discussed should be stopped immediately if a third person who does not have medical authority enters the room.

- Visual privacy (no visual interruptions or breaches)

The right to privacy includes protection from unnecessary exposure of one's body to other persons during medical check-ups and procedures. Individuals not involved in the medical check-up or procedure cannot enter the room without the patient's consent. Understanding that it is necessary to ask the patient for his or her permission when a visitor enters the room is not obvious to some health care workers. They may think that their status as medical doctor or nurse allows them, at their own discretion, to invite other individuals into the exam room.

It is necessary to use an enclosed exam room to ensure privacy of the patient's hearing and visual environment. The science of health care administration confirms that in planning and organizing a clinical environment, the main principle should be the quality of medical care, including the guarantee of privacy and confidentiality. There are techniques for how to improve the use of clinic space, taking into account the architectural plan and how the space will be used.

Some procedures may need to be changed, for example, to see patients in a separate counseling room before an exam, or to offer various services at certain times of the day and on specific days of the week. The use of a mobile room divider as a barrier allows for visual privacy, but it is not sufficient for auditory privacy.

In the course of counseling, particularly about family planning or HIV, a medical provider may conduct a sexual history of the patient. He or she may take note of the patient's number of sexual partners, ability to control the use of contraception during sex, sexual violence, or the opportunity or ability of the partner to use condoms to prevent disease transmission. This

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<sup>34</sup> Diaz, 1994.

information is necessary to provide adequate care, but it should be collected with the strictest respect for the patient's privacy and confidentiality.

Medical providers have to verbally guarantee the patient that all forms of confidentiality will be strictly followed, and that only the patient can give consent for the disclosure of medical or personal information to others.

### SESSION 22

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#### Counseling related to HIV. Pre-test counseling.

##### **Slide #87**

Diagnostic counseling and testing (DCT) is a model for HIV testing that seeks to ensure patients' rights and quality of care. It is a confidential dialogue between the patient and the medical worker aimed at helping the patient cope with stress and make personal decisions related to HIV. DCT includes counseling a person prior to testing, performing the actual test, and counseling the person about the results of the test. Confidentiality is essential for successful counseling. The process of counseling ensures that a patient receives the information he or she needs to make a decision about whether or not to get tested and what test results mean. It includes assessment of personal risk of transmission of HIV and helps in the transition to healthy, self-protecting behavior. The main elements of DCT are: pre-test counseling, HIV testing, post-test counseling, partner notification, and follow-up and referrals.

##### **Slide #88**

The objectives of HIV counseling are to:

1. Prevent HIV transmission.
2. Provide emotional support to those who are thinking about being tested for HIV.
3. Help them decide about whether or not to get tested.
4. Provide support and foster decision-making after the test.
5. Support healthy behaviors for both positive and negative patients.

Under certain circumstances, HIV-related counseling may be done without testing. It may help a patient change his or her risky sexual behavior. Ongoing counseling for people living with HIV (PLHIV) is also possible. In this case, the task of those who provide support to PLHIV is to prolong the asymptomatic period of the disease for as long as possible (it may range from 5 to 17 years).

High-quality medical care and the patient's psychological state of mind both influence the ability to prolong the asymptomatic period. It is the patient's psychological status that determines his or her physical state to a tremendous degree. The psychological condition and attitude of a person toward his or her disease influences the course of the disease.

While HIV is not completely curable, PLHIV can and should be supported emotionally. A whole range of interventions can be developed and planned that can help the patient overcome inevitable difficulties due to disease progression, reinforce the adoption of healthy lifestyle practices, and deal with challenges in his or her social life (stigma, disclosure, etc.).

With the patient's consent, a provider can offer counseling to a spouse and/or other sexual partners, and when needed – to other family members or close friends. Counseling should be flexible and should concentrate on the concrete needs and specific situation of a given patient. Health workers doing counseling must be trained in counseling for people infected and affected by HIV/AIDS.

### **Slide #89**

#### HIV counseling:

Counseling related to HIV can be divided into pre-testing counseling and post-testing counseling.

Depending on results, there is:

- Post-test counseling for a negative result.
- Post-test counseling for a positive result.
- Post-counseling for indeterminate result.

### **Slide #90**

Pre-test counseling should be proposed before testing for HIV. In Ukraine, pre-test counseling should be conducted according to the recommendations of the *National Protocol on Voluntary Counseling and Testing on HIV* developed by the Ministry of Health of Ukraine.

#### The main objectives of pre-test counseling are to:

1. Assess the client's individual risk of HIV.
2. Identify and negotiate safer behaviors and develop an individual plan for risk reduction.
3. Help the client make a decision about whether or not to get tested.
4. Explain the test and clarify its meaning.

Everybody, including those who refuse to get tested, should receive information about how HIV is transmitted, HIV prevention methods, and where they can receive additional information and HIV services if needed.

HIV testing in Ukraine can be anonymous. If a person decides to get tested, the medical worker must obtain informed consent from the patient. Informed consent means that the patient has received and understood all information about the purpose of HIV testing and its procedure, HIV transmission and its prevention, and the consequences of a positive HIV test result. The medical worker must never assume that the patient is willing and ready to take test just because he or she came to the clinic. Some people may come to be tested, but then change their minds. The medical worker bears full responsibility for explaining the principles and possible results of the test to the patient; the medical worker should make sure that the patient understands the essence of HIV testing and agrees to have the test done. When giving informed consent, the patient must evaluate the information he or she received without any pressure from the medical worker, and give consent for testing and sign the informed consent form voluntarily. When the patient wants to take an anonymous test, the form should not be filled out. If the patient refuses to receive pre-test counseling or does not want to sign the informed consent form, he or she can still be tested for HIV.<sup>35</sup>

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<sup>35</sup> National Protocol of Voluntary Counseling and Testing on HIV-infection. Ministry of Health of Ukraine, 2005.

### **Slide #91**

The main steps of pre-test counseling are:

1. Introduction and orientation to the process.
2. Helping the patient to assess his or her risk.
3. Identifying and negotiating safer behaviors.
4. Helping the client make a decision about whether or not to take the HIV test.
5. Conclusion.

It is desirable that the same medical worker that conducted the pre-test counseling informs the patient about the test results and provides the post-test counseling. This allows the patient to feel more secure and may increase his or her trust in the facility's adherence to confidentiality. If it is impossible, you should explain the patient the reasons for your absence when he or she receives the results and ask the patient's permission to pass his or her medical information to another medical worker.

## **SESSION 23**

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### **Post-test counseling**

#### **Slide #92**

Post-testing counseling should be offered to patients in all cases, regardless of the test result.

The main objectives of post-test counseling are to:

1. Help the client understand his or her test results.
2. Provide emotional support.
3. Help the patient make choices for follow-up steps based on his or her test results.

It is desirable that the same medical provider that conducted the pre-test counseling informs the patient about the test results and provides post-test counseling. This allows the patient to feel more secure and may increase his or her trust in adherence to confidentiality. If pre-test counseling was conducted by another medical provider, it is important to determine the timing, location, and the name of the provider who provided pre-test counseling and check the patient's understanding about HIV.

#### **Slides #93-95**

Counseling messages will be different for those who test positive and for those who test negative. If the result is negative, the following issues should be discussed:

- Meaning of the test results.
- Risk-reduction plan.
- Referrals to additional services if necessary.
- Repeat test (if necessary – patients who have engaged in risky behavior within the last three months should retest three months from the last risky behavior).

If the result is indeterminate (was not clear and did not allow the laboratory to determine the status), it is important to make sure that the patient understands the meaning of the test result, HIV risk factors and the ways of HIV prevention, and why the test should be repeated. The medical worker should provide emotional support and help the patient to cope with uncertainty, refer to additional services if necessary, and schedule a repeat test.

If the result is positive, it is important to discuss the following:

- Patient's understanding of the test results.
- Coping with a positive result and needed psychological/emotional support.
- Prevention of HIV transmission to others.
- Further medical follow-up.
- Appropriate referrals to medical, social, and spiritual support services, as well as peer groups.
- Partner notification.

### ***Slide #96***

#### Things to avoid when counseling

- Do not make unrealistic promises or lie to a patient for any reason.
- Do not postpone counseling after an indeterminate result.
- Be sure to identify sources of support for a patient waiting for test results.
- Do not smother the patient with care or probe unnecessarily about his or her personal life.
- Do not give advice when the patient does not ask for it; if you would like to offer unsolicited advice, ask the patient if he or she would like to hear your ideas.
- Do not express excessive sympathy or denunciation. Remember that the main objective of the provider is to provide support to the patient, but not to impose his emotions.

For the time being, both false-positive and false-negative test results are quite rare since testing systems have significantly improved; however, such results are possible, in which case the provider should be prepared to offer support and information to the patient.

The medical provider should remember that waiting for test results is very stressful and even agonizing. The objectives of counseling during this period are to help the patient wait for the final results with minimum anxiety and stress. Making an action plan with the patient for the waiting period is an effective way to help him or her structure his or her time and priorities. The medical worker should find out who can support the patient during this difficult period, and if there is nobody around, then the medical worker should offer his or her support.

People who are prone to destructive behavior are especially vulnerable during this period. They should be reminded that with timely treatment and preventive measures, an individual with HIV can remain healthy for many years before developing AIDS. The medical worker can provide hope or share his or her professional experiences with the patient but should be careful not to mislead the patient with false promises. The patient has the right to know the truth about what he or she can expect. This may help the patient prepare for a possible positive result.



### SESSION 23

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#### Ukrainian legislation on HIV and AIDS

The basis for developing national policies and legislation in the HIV and AIDS domain is provided by the document entitled *International Guidelines on HIV/AIDS and Human Rights 2006, Consolidated Version*. It provides important guidance to governments, international organizations, nongovernmental organizations, and civil society groups on developing and implementing effective national strategies for combating HIV and AIDS. This document consolidates the Guidelines adopted at the Second International Consultation on HIV/AIDS and Human Rights, held in Geneva in 1996, and revisions adopted at the Third International Consultation on HIV/AIDS and Human Rights held in Geneva in 2002.

The document consists of 12 Guidelines. Most are of direct importance for national voluntary counseling and testing policy formulation. Thus, Guideline 2 stipulates that governments should allocate sufficient funds, including those for holding training workshops, developing advertising and awareness materials, and providing patient counseling.

Guideline 3 stipulates that the government should finance public health care facilities to ensure accessibility of voluntary medical examination and counseling upon receipt of a patient's informed consent, including at home. Exclusion of the voluntary principle in these issues is allowed only with a special court permit. Herewith by law a permit to carry out a medical activity in the field of HIV and AIDS, including counseling and testing, can be granted only to specially trained health professionals.

Guideline 4 stipulates that administrations of penal settings are obliged to provide prisoners (and prison staff, as appropriate), with access to HIV-related prevention information, education, voluntary testing and counseling, means of prevention (condoms, bleach, and clean injection equipment), treatment and care, and voluntary participation in HIV-related clinical trials, as well as ensure confidentiality, and should prohibit mandatory testing. Compassionate early release of prisoners living with AIDS should be considered.

Guideline 5 stipulates legal regulation of a person's right not to undergo HIV testing when hired for work, when getting a promotion, or at admission to school, as well as the right to accessible HIV and AIDS information and awareness programs and counseling opportunities. A separate item of this Guideline, as well as Guideline 8, legally ensures access for women, adolescent girls, and children to information and awareness programs, counseling, and voluntary medical examinations upon their consent or by consent of their parents/legal representatives.

Guideline 6 stipulates that states should take measures necessary to ensure for all persons, on a sustained and equal basis, the availability and accessibility of quality goods, services, and information for HIV/AIDS prevention, treatment, care, and support, including antiretroviral and other safe and effective medicines and diagnostics.

Guideline 7 recommends state support to programs aimed at raising awareness of HIV-positive people and people with AIDS.

Guideline 9 recommends all states to encourage academic institutions, trade unions, and enterprises to incorporate HIV/AIDS issues into their training programs, including those on social support/counseling – as well as to run purpose-specific professional training programs for

interactive training of personnel providing care to HIV-positive people and people with AIDS, including training in counseling.

The same recommendations regarding voluntary counseling and testing are contained in the *Handbook for Legislators on HIV/AIDS, Law and Human Rights. Action to Combat HIV/AIDS in View of Its Devastating Human, Economic and Social Impact*.<sup>36</sup>

To date, Ukraine has created a legal framework that meets the main requirements and recommendations of international guidelines, is able to ensure a coordinated approach to HIV and AIDS issues, and bridges HIV and AIDS policies and response programs at all levels of state and branch administrations. The national legislation of Ukraine ensures provision of comprehensive HIV prevention and treatment services. It not only reflects but requests the health system to provide the society at large as well as every individual citizen with appropriate medical care and to carry out awareness activities.

The right of each Ukrainian citizen to medical care is safeguarded by Article 49 of the Constitution of Ukraine and is ensured by the state funding of medical/sanitary and prevention/health maintenance programs. Prevention and comprehensive social, economic, and medical approaches to public health are also stipulated by Article 4 of the *Principles of Legislation of Ukraine on Health Protection*. In addition, Article 32 of this law contains information that is just as important to general health as it is to the HIV/AIDS response, as follows: "... the government's responsibility is to promote healthy lifestyles among the population through disseminating scientific knowledge on health protection; organizing health, environmental, and physical education; carrying out activities to develop the population's hygienic culture, etc."

Ukraine adopted a special law devoted to HIV/AIDS – the Law of Ukraine *On Prevention of the Acquired Immune Deficiency Syndrome (AIDS) and Social Protection of the Population* (1998). According to this law, Ukrainian citizens, foreigners, and people without citizenship who legally live in Ukraine have a right to HIV medical examination, being informed about test results and receiving medical help and recommendations on HIV prevention. Medical examination is voluntary and can be anonymous. Test results are confidential and can be provided to others only in situations stipulated by Ukrainian laws. This law also stipulates obligations of HIV-positive people and determines that all donor blood (and its products) must be tested for HIV.

*The Criminal Code of Ukraine* (2001) stipulates that HIV-positive people who intentionally infect others with HIV should bear responsibility and be punished with deprivation of liberty.

The important role in ensuring health protection and an effective response to HIV and AIDS, including voluntary counselling and testing, is also included in a whole range of other legal acts of Ukraine, including the following: *National Program on HIV Prevention, Treatment and Support of PLHIV* (2004), *The Law Code of Ukraine on Labour* (1991), the "Law of Ukraine "On Information" (1992), the *National Protocol on Voluntary Counseling and Testing on HIV* (2005), etc. The main issue, however, is that implementation of the legislation is often hindered by various financial and organizational constraints.

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<sup>36</sup> UN Joint Programme on HIV/AIDS, *Handbook for Legislators on HIV/AIDS, Law and Human Rights. Action to Combat HIV/AIDS in View of its Devastating Human, Economic and Social Impact*, UNAIDS, 1999.

### SESSION 25

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#### Burnout and stress management

Many experienced health care workers are familiar with the feeling that their work no longer seems vibrant and exciting. They feel tired, frustrated, and burned out. "Burnout" generally refers to a state of mental/physical exhaustion caused by excessive and prolonged stress. It is a gradual process by which a person, in response to prolonged stress and physical, mental, and emotional strain, detaches from work and other meaningful relationships. The result is lowered productivity, cynicism, confusion, and a feeling of being drained, or having nothing more to give. Burnout has been described as a "physical, emotional, psychological, and spiritual phenomenon; an experience of personal fatigue, alienation, and failure." It also has been described, with regard to people in the helping professions, as a "progressive loss of idealism, energy, and purpose." The term "burnout" evokes an image of a fire going out or the ashes left over.<sup>37</sup>

Almost anyone can experience burnout. Burnout cuts across demographic characteristics, affecting people regardless of age, length of time on the job, marital status, number of dependents, and number of hours worked per week.

Some people, however, may be more likely to experience burnout than others. For example:

- Highly committed individuals who hold high expectations of themselves.
- Frontline workers (more than behind the scenes); for example, nurses are more likely to suffer from burnout than some physicians.
- Counselors dealing with difficult issues such as HIV.<sup>28</sup>

Stress is an inevitable part of life. We can't avoid it and have to learn how to manage it. The following are common signs of stress:

- Loss of interest and involvement in work;
- Loss of punctuality and negligence;
- Feelings of inadequacy, helplessness, and guilt;
- Loss of confidence and self-respect;
- Tendency to feeling of alienation from colleagues, clients, or others;
- Loss of sensitivity in work with clients;
- Loss of quality of work;
- Irritability;
- Difficulties in relations with people;
- Prone to tears;
- Loss of concentration;
- Insomnia;
- Excessive tiredness;
- Depression;
- Indigestion.

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<sup>37</sup> VCT Toolkit. HIV Voluntary Counseling and Testing. A Reference Guide for Counselors and Trainers. Family Health International. January 2004.

Many of these signs are not healthy by themselves, but they become even more volatile if they are not addressed, but rather, suppressed and accumulated.

Psychological stress comes from our perception of what is happening in our lives, what this means to us, how much control we have over it, and how we feel about ourselves. Our level of stress depends on how we perceive the world and ourselves in relation to it. Stress can also result from internal conflicts over values and responsibilities.

Stress experienced by people who work with HIV-positive patients originates from the nature of their work – the fact that they deal with an incurable condition that kills young people and brings a lot of suffering. It is hard for them to avoid internal conflicts. Their own fears and phobias, and their moral and ethical issues are sometimes in conflict with the counseling, treatment, and education they must do with patients.

Stress may also originate from the following factors: how care and treatment programs are organized, financial problems, underestimation of their work, conflicts with administration, fear of getting HIV because of lack of supplies for individual protection, and feelings of guilt for not being able to provide good-quality services. By identifying the sources of stress in our lives, we can begin to devise ways to relieve the tension that it creates. The most common professional and personal causes of stress are the following:

### Work-related:

- Too much work.
- Not enough work.
- Non-supportive coworkers.
- Underfunded.
- Underpaid.
- Unrealistic job expectations.
- Perfectionism.
- Too many interruptions.
- Inadequate support, supervision, and acknowledgment of one's work.
- Inadequate skills, training, and preparation.
- A lack of drugs and tools for providing good-quality care.

### Personal factors:

- Unreliability and fear of the future.
- Money problems.
- Family problems.
- Difficulties in communicating with children.
- Inadequate sleep.
- No personal time.
- Health problems (yours or loved ones).
- Sexual problems.
- Car troubles.
- Can't take vacation.
- Death of family member or friend.

### Management of stress and burnout

Health care workers can recognize burnout by its physical, behavioral, and/or cognitive symptoms. The visible effects of burnout in HIV counseling are high turnover, absenteeism, declining quality of service, decreasing communication, disorganization, declining enthusiasm, and increasing patient complaints.<sup>32</sup>

Stress does not have to result in burnout. Awareness is crucial to dealing with stress effectively. Being aware of ourselves and our daily situations, aware of our ability to pull back, aware of our feelings and beliefs about cultural differences, and our sexual activity and drug use, enables us to take positive action. We can identify our strengths and our limitations and set realistic expectations for ourselves accordingly. If we do not manage our own stress, we set ourselves up for failure and discouragement, and possibly, for unrealistic anger with ourselves and people around us.

To be effective care providers, health workers need to learn to pay attention to their own needs and feelings and to develop effective ways to manage stress. This means knowing when to relax, get more sleep, or implement stress management strategies. There are several strategies to cope with stress and burnout. The selected techniques should depend on the cause of the stress and burnout and the situation in which stress occurs.

Effective techniques of stress management include the following:

- Adopt a healthy lifestyle (engage in physical exercise and recreation; avoid smoking; drink alcohol only in moderate quantities; adopt an adequate sleep routine; and eat balanced and regular meals).
- Manage time (work more efficiently rather than harder – set realistic goals; create more time; manage and avoid distractions; choose priorities, say "no," etc.).
- Change the way one thinks (avoid generalizing, focusing on unimportant details, jumping to conclusions, "making mountains out of molehills," and taking things too personally).
- Employ relaxation techniques.
- Develop boundaries between personal and professional life.
- Do the best you can and don't try to do more than you can do well.
- Don't criticize yourself for not being able to do more.
- Set limits for yourself.
- Talk to a friend, particularly one to whom you can reveal your deepest thoughts and feelings.
- Don't be afraid to see a therapist if you need help, even for short periods.
- Laugh. This is important – try to read or do something funny each day.
- Give your "child within" a chance to be present: play, sing, dance, paint, etc.
- Let the work constantly remind you how precious life is (see it, feel it, hear it, smell it, taste it, love it!).

# Appendices

## Pre/post training questionnaire

Date: \_\_\_\_\_ Pre-training? ☐ or Post-training? ☐

INSTRUCTIONS: Circle **ONE** letter of the response that you feel is most correct or true for each question.

1. How would you describe counseling?
  
  
  
  
  
  
  
  
  
  
2. What is a main purpose of TB counseling?
  - A. A medical provider must identify the client's health problem and tell the client how to solve it.
  - B. A medical provider must help the client cope with emotional stress and help the client make his or her own informed decisions.
  - C. A medical provider must educate the client on TB and must give the client full explanations about TB treatment, using scientific terms.
  
3. What are the medical provider's main tools for effective counseling?
  - A. Good communication skills, technical information, and self-confidence.
  - B. Good communication skills, technical information, and understanding of the stages of the counseling process.
  - C. Good communication skills, self-confidence, and the ability to convince the client to do what the medical provider says.
  
4. Nonverbal communication can be as important as verbal communication.
  - A. True
  - B. False
  
5. Please list the main steps of counseling a patient with TB disease.

6. An effective counselor:
- A. Avoids asking the client a lot of questions and chooses only the most important questions to save time.
  - B. Asks open-ended questions to get detailed and descriptive responses and encourages the client to ask questions.
  - C. Asks the client leading questions to lead him or her towards anticipated responses.
7. What is active listening?
- A. A natural skill that cannot be learned.
  - B. A tool for a medical provider to convey his or her approval or disapproval about the client's behavior or about what the client has said.
  - C. A tool for a medical provider to show respect and understanding for the client's feelings, needs, and concerns.
8. If there is constant feedback (verbal or nonverbal) and repetition of key information, communication is more effective.
- A. True
  - B. False
9. It is often difficult for clients to change their behavior, because behavior change is a process that takes time and motivation.
- A. True
  - C. False
10. Counselors should recognize that it is their job to change their clients.
- A. True
  - B. False
11. Fever, fatigue, sore throat, and weight loss are the most common symptoms of primary HIV infection.
- A. True
  - B. False
12. By three months after transmission, 99.3% of all HIV infections are detected through testing.
- A. True
  - B. False
13. One of the objectives of HIV counseling is to help the client improve their self-perception of risk.
- A. True
  - B. False
14. It is important to assess the client's emotional state when he or she comes to the clinic to pick up his or her HIV test result.
- A. True
  - B. False
15. What does an "indeterminate" HIV test mean?
- A. The client should receive further medical follow-up and be given referrals to other doctors.
  - B. The client most likely does not have HIV and can be told to go home.
  - C. The client's antibodies to HIV or other infections are cross-reacting or not showing up clearly and the client should be advised to retest.
  - D. The client probably has tuberculosis.



## ANSWERS FOR FACILITATORS TO PRE/POST TEST

- 1)
- 2) B (A medical provider must help the client to cope with emotional stress and help the client make his or her own informed decision.)
- 3) B (Good communication skills, technical information, and understanding of the stages of the counseling process)
- 4) A (True)
- 5)
- 6) B (Asks open-ended questions to get detailed and descriptive responses and encourages the client to ask questions.)
- 7) C (A tool for a medical provider to show respect and understanding for the client's feelings, needs, and concerns.)
- 8) A. (True)
- 9) A (True)
- 10) B (False)
- 11) A (True)
- 12) A (True)
- 13) A (True)
- 14) A (True)
- 15) C (The client's antibodies to HIV or other infections are cross-reacting or not showing up clearly and the client should be advised to retest.)

## Participant evaluation form

Please answer all sections of this evaluation form. Your responses will assist the training organizers in determining what modifications, if any, should be made to this training.

### Overall evaluation

Please check the choice that best reflects your overall evaluation of this training:

☐ Very good      ☐ Good      ☐ Fair      ☐ Poor      ☐ Very poor

### Achievement of objectives

For each training objective (below), please circle the appropriate number to indicate the degree to which you feel the objective was achieved:

5 = Totally achieved  
 4 = Mostly achieved  
 3 = Somewhat achieved  
 2 = Hardly achieved  
 1 = Not at all achieved

For each objective rated "1," "2," or "3," please offer your suggestions for improvement.

Objective	Score					Comments/Suggestions
To review the basic concepts and skills of interpersonal communication and counseling.	5	4	3	2	1	
To recognize the effects of personal attitudes and values in counseling.	5	4	3	2	1	
To identify ways to counter misinformation.	5	4	3	2	1	
To identify forms of verbal and nonverbal behavior used in communication and counseling.	5	4	3	2	1	
To practice active listening skills such as reflecting, paraphrasing, and summarizing.	5	4	3	2	1	
To become familiar with and practice the model of counseling.	5	4	3	2	1	
To discuss ways to identify clients' stages of behavior change adoption and help clients make decisions.	5	4	3	2	1	

### Training context

1. How important to your work were the aspects discussed during the training?  
☐ Very important    ☐ Important    ☐ Somewhat    ☐ Not very    ☐ Not at all
2. What aspects of the training were the **most** useful for you? Why?
3. What aspects of the training were the **least** useful for you? Why?

### Training materials

1. Were the materials you received during the workshop useful?  
☐ Very useful    ☐ Mostly useful    ☐ Somewhat    ☐ Not very    ☐ Not at all
2. Will you use them in the future?  
☐ Yes  
☐ No

### Training methods

1. What were the **most** effective training methods used? Why?
2. What were the **least** effective training methods used? Why?
3. What was not useful for you at this training?
4. What would you add to this training?

*Thank you for your input.*