

# STAGES OF HIV INFECTION\*

## ▶ ABOUT THIS ACTIVITY

- 🕒 **Time:** 30 minutes
- ➔ **Objectives:** By the end of this session, participants will be able to:
  - Understand basic concepts about how HIV infection affects the body.
- ★ **Training Methods:** Lecture, Large Group discussion
- ✓ **In This Activity You Will...**
  - Lead an activity of common terms and definitions in the field of HIV/AIDS (15 minutes).
  - Answer questions to ensure understanding (10 minutes).
  - Lead group discussion to summarize (5 minutes).
- ✂ **Materials:**
  - Handout: The Stages of HIV Infection
  - Newsprint and markers
- ✍ **Preparation:**
  - Print handout

## Instructions

1. At the beginning of this activity, explain that they have discussed basic facts about HIV and AIDS. Now, they will learn how HIV infection affects the human body.
2. Distribute The Stages of HIV Infection handout to each participant.
3. Ask participants to look at the handout. Point to the circle, “Person becomes infected with HIV.” Explain that for an infection to occur, a “germ” (disease agent) must enter into the body of a “susceptible person” in a particular way (“route”) and in the sufficient amount (“dose”).
4. Print the words germ, dose, route and susceptible person on newsprint. Explain what is meant by each term:
  - In an HIV infection, the germ is HIV, and HIV is a particular kind of germ called a “virus.”
  - Viruses are different from other kinds of germs, such as bacteria or fungi, because viruses cannot reproduce and survive on their own.
  - Viruses have to have a host cell in order to survive and reproduce.
  - In the case of HIV, the host cell is the T-helper cell or CD4+ cell, a white blood cell essential to the body’s immune system.
  - HIV can get into cells because a part of HIV and the host cell fit together like pieces of a jigsaw puzzle.
  - The primary host cell used to reproduce more HIV is the T-helper cell. HIV can also infect other cells in the human body.

\* This module comes from the Missouri People to People Training Manual, 2008.

# STAGES OF HIV INFECTION



*For years I heard that HIV lies dormant in the body for up to 10 years, but after understanding how the disease progresses in the body and how the meds work to slow it down, I knew I had to share this [information] with newly infected people. I really wanted to ease their fears about dying and help them know why it's important to take their medications the right way.*

Sheila Jackson,  
HIV Program Director for  
Living by Design



5. Explain that it is not possible to say what dose (amount) of HIV is needed to infect people. Scientists have identified four body fluids that can carry enough HIV to infect people. These fluids are blood, semen, vaginal fluids and breast milk.
6. Ask participants the open-ended questions below to initiate a discussion on the stages of HIV infection.

## Discussion Questions

[Correct answers are provided so that you can add to incomplete information and correct misinformation.]

1. *What are the routes through which HIV can enter the body?*
  - HIV can enter the body through several routes:
    - Blood-to-blood contact, such as sharing needles and syringes
    - Sexual contact in which blood, semen, or vaginal fluids from an infected person enter the body of another person
    - An infected mother can spread the virus to her child during pregnancy, birth or breast-feeding.
2. *Explain what is meant by a susceptible person.*
  - People are susceptible to HIV infection if they engage in behaviors that put them at risk.
  - A susceptible person is someone who allows or in some way gives the germ a chance to enter and affect the body. A person can be susceptible for many reasons, depending on the disease. For example, malnutrition may make people susceptible to diseases that well-nourished people can resist. Sometimes susceptibility to a disease runs in families (heredity).

# STAGES OF HIV INFECTION

### 3. What behaviors put people at risk for HIV infection?

- Sexual activities that involve the exchange of body fluids, such as vaginal, oral or anal sex with an infected partner.
- Behaviors that involve blood-to-blood contact with an infected partner, such as sharing needles to inject drugs, or for other reasons, such as ear piercing or tattooing.
- Use of non-injection drugs, such as marijuana, crack cocaine, and alcohol may also put people at risk. Because their judgment may be impaired, they may engage in risky behaviors, such as injecting drugs or having sex without a latex (or polyurethane if allergic to latex) condom. Anyone who participates in these behaviors is “susceptible” to possible HIV infection.
- Some people may be less able to resist a germ because of their overall health.
- A person who has a sexually transmitted disease (STD) is at greater risk for being infected with HIV through sex than someone who does not have a sexually transmitted disease.
- People who for some reason already have an impaired immune system may be more susceptible to HIV infection.

*Tell participants that for infection to occur, all four conditions (germ, dose, route and susceptibility) have to be present at the same time. The virus must enter the body through body fluids that carry enough virus to cause infection. The person must engage in activities that bring him or her into contact with the body fluids that carry the virus.*

*Point to the black dot that indicates the time of infection on the handout.*

### 4. Using the terms we’ve defined in this discussion, what does the black dot on the handout mean?

- The point at which a sufficient amount of HIV entered the body of a susceptible person by an effective route.

*Have participants look at the next segment on the handout, which represents acute infection.*

### 5. How long does acute infection last.

- A week to a month.

### 6. Does everyone who is infected with HIV experience the symptoms of acute infection?

- Not everyone has the flu-like symptoms of acute infection.
- People who do experience acute infection may not recognize it as a sign of HIV infection. The flu-like illness will go away on its own, and unless people realize they may have been exposed to HIV, they may not connect the symptoms with HIV infection.

*Draw attention to the window period.*

### 7. What is a window period?

- The period between infection and the point at which tests can detect signs of infection is sometimes called a window period. If people are tested during this time, they may have a negative test result even if they are infected.

*Have participants look at the asymptomatic period.*

# STAGES OF HIV INFECTION

8. *What affects the asymptomatic period?*

- Combination therapy slows the development of infection in people with HIV by blocking the ability of HIV to multiply, thus protecting the immune system for some time (6 months to more than 10 years).

9. Why is this time period called the asymptomatic period?

- This is the time when infected people look and feel healthy. People may not know they are infected. Even an infected person who looks and feels healthy can infect others.

10. Can someone explain what HIV is doing in the body during this time?

- The virus multiplies, infecting and destroying the T-helper cells and other cells in the body.

*Explain that once enough of the body's defenses are destroyed, the person begins to develop symptoms. This is called the symptomatic period.*

- The symptoms at first may be generalized complaints, such as the ones listed on the handout.
- Once the person's T cell count is at 200 ml or less and the person develops an AIDS-defining illness (such as *Pneumocystis carinii* pneumonia), the person is diagnosed with AIDS.

Continue the discussion using the following questions:

11. *Is there a test that determines if a person has AIDS?*

- The tests commonly used screen for signs of HIV. Only a doctor can look at a person's signs and symptoms and diagnose AIDS.

12. *What does the phrase incubation period mean?*

- Incubation period refers to the time from infection the black dot on the handout to the time when the AIDS defining signs and symptoms occur.

13. *How soon do people infected with HIV develop AIDS?*

- About half the people with HIV develop AIDS within 10 years of infection. Combination treatments that include protease inhibitors have been shown to slow the pace of infection in some people, extending and improving the quality of life for many.
- People with AIDS may have illnesses healthy people don't get. They may have more severe versions of other illnesses. People with AIDS have a T cell count that is usually below 200. People with healthy immune systems have T cell counts at around 1,000.

*Point to the segment on the activity sheet which shows the stage after a person develops AIDS.*

The maximum survival time is unknown.

## Summary

It is important for Peer Educators to understand fully the various stages of HIV infection, how to recognize them and what they mean for the person who is infected.

- Ask for volunteers to summarize points from the discussion and list these points on newsprint.
- Answer any final questions from participants.

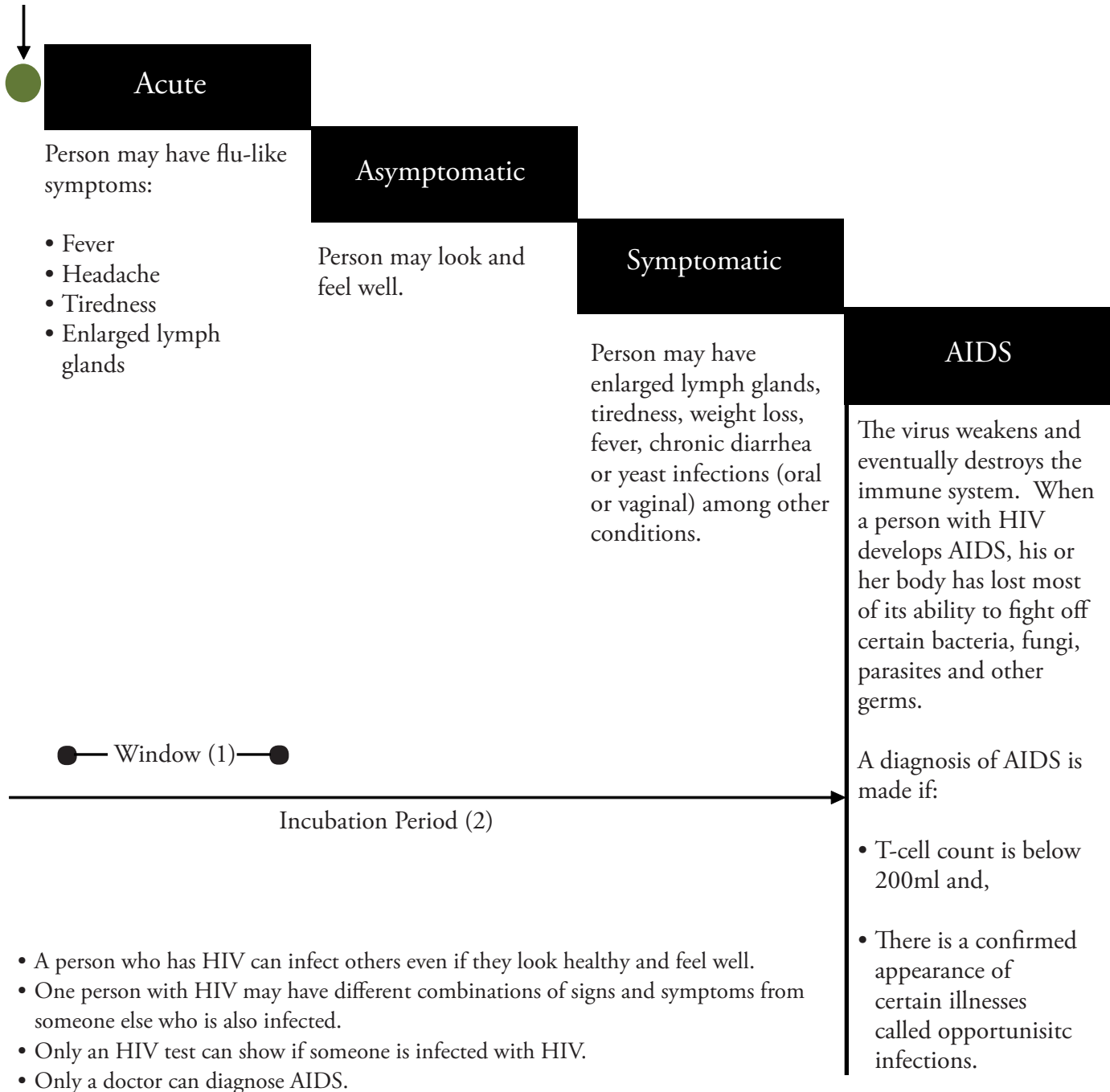
\* This module is part of the online toolkit *Building Blocks to Peer Success*. For more information, visit [http://www.hdwg.org/peer\\_center/training\\_toolkit](http://www.hdwg.org/peer_center/training_toolkit). This module comes from the Missouri People to People Training Manual, 2008.

# STAGES OF HIV INFECTION

## SESSION HANDOUT

### THE STAGES OF HIV

Person becomes infected with HIV



(1) Window Period: Time it takes for antibodies to become detectable in the body; usually within three months.

(2) Incubation Period: Time from point of infection to development of AIDS.