Unit 5

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| Overview  The purpose of this unit is to introduce the audience to the field of biomedical HIV prevention, including Voluntary Medical Male Circumcision (VMMC), Vaccines, Vaginal and Rectal Microbicides, Pre-Exposure Prophylaxis (PrEP), and Treatment as Prevention (TasP).  Objectives  By the end of the unit trainees will:   * Be familiar with the major areas of biomedical HIV prevention * Understand how these methods of HIV prevention add to the “prevention toolbox,” offering additional options to the public * Have a basic understanding of major clinical trials that have provided data to support use of these prevention methods   Materials   * TheNext6 exercise with handout to distribute after completion * Flipchart and markers, or a chalkboard/whiteboard * PowerPoint Slide Set: Introduction to Biomedical HIV Prevention – 1 copy per trainee * SmallGroupDiscussion\_handout   Approximate time 1 hour, 30 minutes |

Introduction to Biomedical HIV Prevention

# Warm-up/Introduction (25 Minutes)

## Trainer notes

The opening exercise is a nice way to acknowledge that your audience may have different amounts of familiarity with HIV and AIDS. This activity is designed to make sure that everyone is starting with the same foundation of information. The Next 6 is an extension of the Four-4s which was done in “Myths and “Misconceptions.” If this group is already familiar with the exercise let them know it is a review, and that you’ll be adding to it.

## Preparation



The Four Fours

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| 4 body fluids of transmission | 4 routes of transmission |
| 4 methods of prevention | 4 stages of disease |

On a flipchart, make a grid. Label the four sections ***4 Body Fluids of Transmission, 4 Routes of Transmission, 4 Means of Prevention, and 4 Stages of Disease.***  (Shown on the right)

On a new page, draw another box with the heading ***The Next 6*** (shown below) then fill in the answers. Do NOT distribute the handout in advance! You will be giving them a handout afterward.



6 methods of biomedical HIV prevention

* Voluntary Medical Male Circumcision (VMMC)
* Vaccines
* Vaginal and rectal microbicides
* Pre-Exposure Prophylaxis (PrEP)
* Post-Exposure Prophylaxis (PEP)
* Treatment as Prevention (TasP)

**Step 1:** Point to the first page, explain that the 4 squares represent key information to know about HIV/AIDS. Starting with the upper left square, ask the audience to call out the answers:

What are the 4 body fluids that transmit HIV? As people answer, write these responses on the numbered lines. \*\*One common FALSE answer that is often given is “saliva.” This is a chance to correct the audience, and undo this myth in a lighthearted way. For example, “I’m so glad that you gave this answer, because it is one of the most common myths, so we have a chance to set the record straight. Saliva does NOT transmit HIV. In fact, in laboratories, it has taken over one gallon/3.78 liters of saliva to even get HIV to grow. Can you imagine exchanging one gallon of saliva with someone you are kissing? Yuck!” The audience often can’t think of “vaginal fluid” or won’t know what to call it, and may need to be prompted: “Males have semen. What do females have?”

**Step 2:** Move to the top right square. “Now that we know the 4 fluids that transmit HIV, how do they get from the body of the first person to the body of the second person?” It is common for someone to answer “sex.” You may need to probe for further detail. “What kinds of sex?”

**Step 3:** Move to the lower left square. “Now that we know how HIV is transmitted, how can it be prevented?” It is common to get answers like “Don’t breastfeed” or “Don’t give blood,” but you may need to prompt them to go a little deeper. The key is knowing your HIV status so that you can make wise decisions about your health and any consequences. HIV testing is the key to preventing infections through mother-to-child transmission and blood transfusion/organ donation.

**Step 4:** Move to the lower right square. The final thing that people need to know is that HIV is an infection that develops and worsens over time. You will likely need to prompt the audience and help them with the correct terms. “What happens first? Yes, you get infected with HIV. And next? Do people usually know that they have been infected? That’s right, they may not have any symptoms and may not realize they have been infected. The correct term for that is asymptomatic.” (and so on).

**Step 5:** Move to the 5th box where for the ***6 methods of biomedical HIV prevention***. Explain that the information in the first 4 squares is the story of the first 40+ years of the HIV epidemic, and yet the methods of prevention discussed have not been enough to the epidemic. It is very hard for human beings to change their behavior, even when they know that it would be good to do so. For example, if changing behavior was easy we would all eat a proper diet, get enough exercise, wear our seatbelts in the car, and no one would smoke cigarettes, etc. In thinking about having additional methods to prevent HIV infections and AIDS, it is desirable to have methods that are less dependent on people changing their behaviors. That is where biomedical prevention comes in.

In the following presentation, you will be explaining more about each of these methods and the research that has shown them to be effective, or is underway.

# Presentation of Information (40 Minutes)

## Preparation

* Introduction to Biomedical HIV Prevention Powerpoint Presentation

## Procedure

**Step 1:** Present slides and stop for questions as they arise.

# Group work (15 Minutes)

## Preparation

* SmallGroupDiscussion\_handout

## Procedure

**Step 1:** Divide the audience into 5 small groups, one for each of the prevention methods that are presented in the slides.

**Step 2:** Distribute the handout to each group, and review the instructions.

**Step 3:** Allow about 10 minutes for the group to come up with answers to the questions.

**Step 4:** Have the groups share their answers back with the rest of audience. The answers to the last question (concerns about using each method), provide the transition into the wrap-up discussion below. If there are many concerns noted, a discussion about them (and how the concerns could be addressed) could replace the discussion questions shown below.

# Wrap-up Activities (10 Minutes)

## Procedure

**Step 1:** Engage the group in a discussion using these questions:

1. What would it look like to have a clinical trial that tested several different biomedical HIV prevention methods?

2. How might you design a research study to look at the combined use of several different biomedical HIV prevention methods, such as a vaccine plus PrEP, or a vaccine plus a microbicide?

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| Additional resources   * AVAC information page on long-acting injectable cabotegravir <https://www.avac.org/long-acting-injectable-cabotegravir> * K4 Vaginal Microbicide Toolkit * Excellent video on understanding PrEP: <http://www.whatisprep.org/> * AVAC information page on what is coming in HIV prevention in the years ahead <https://www.avac.org/infographic/years-ahead-hiv-prevention-research> |

The HIV Vaccine Trials Network is supported through a cooperative agreement with the National Institute of Allergy and Infectious Diseases