How is HIV/AIDS affecting Men who have Sex with Men?

The HIV/AIDS crisis is not over. In the United States, Men who have Sex with Men (MSM) account for the largest number of people diagnosed with AIDS each year — nearly 42% of all AIDS cases in 2006. As of the end of 2006, more than 308,000 MSM have died with AIDS. Recent data indicates an increase in sexual risk taking among MSM. Social and economic factors, such as racism, homophobia, poverty and lack of access to health care, are barriers to receiving HIV prevention services, particularly for MSM of color, and can contribute to the high number of AIDS-related deaths.

What is a vaccine?

A vaccine “teaches” the immune system to recognize and defend against a virus (such as HIV), bacteria or other disease-causing agent.

Why do we need a preventive HIV vaccine?

- There is NO cure for AIDS. While the availability of anti-retroviral therapy has had a dramatic impact by decreasing AIDS-related deaths in this country, these treatment regimens are complex, costly and can cause serious side effects. In addition, patients can develop drug resistance.
- Like smallpox and polio vaccines, a preventive HIV vaccine could help save millions of lives.
- Developing safe, effective and affordable vaccines that can prevent HIV infection in uninfected people is the best hope for controlling and/or ending the AIDS epidemic.
- The long-term goal is to develop a vaccine that is 100% effective and protects everyone from getting infected with HIV. However, even if a vaccine only protects some people, it could still have a major impact on the rates of transmission and help in controlling the epidemic. A partially effective vaccine could decrease the number of people who get infected with HIV, further reducing the number of people who can pass the virus on to others.
- An HIV vaccine may also be beneficial for HIV-infected individuals by helping to delay the onset of AIDS or slowing disease progression. These types of vaccines are referred to as “therapeutic” vaccines. It is not known if a preventive HIV vaccine will have a therapeutic benefit in HIV-infected individuals. This would require additional clinical trials in those populations.
What is happening in preventive HIV vaccine research?

• Since 1987, the National Institute of Allergy and Infectious Diseases (NIAID) has enrolled more than 25,000 volunteers in more than 100 HIV vaccine clinical trials that have tested more than 60 different vaccine candidates.
• Despite these efforts, there is currently NO preventive HIV vaccine available.
• Scientists believe that an effective preventive HIV vaccine is possible and are working to speed up the research process.

How can I be sure the research is being done right?

• Safeguards and protections are built into HIV vaccine clinical trials to ensure that they meet the highest FDA standards to protect volunteers and assure the development of safe and effective vaccines.
• Clinical trials are monitored throughout the study to guarantee the safety of the participants and ensure that the trial can meet its objectives.
• Anyone who is interested can learn more about the NIAID clinical research process and get involved through participation in a Community Advisory Board (CAB). CABs are located in areas where NIAID-sponsored HIV vaccine trials are occurring. Through a CAB, members can provide input into study designs and local procedures and can help to prepare and educate the community about vaccine clinical trials. Participation in a CAB helps to ensure that a trial meets the needs of the community.

There is no preventive HIV vaccine available.

Scientists are working hard to develop HIV vaccines. HIV vaccines do not contain any actual HIV, and therefore, cannot cause HIV infection.

Who is doing the research?

• Many public and private research organizations, both domestic and international, are working in collaboration to develop preventive HIV vaccines. These include leading universities, biotechnology companies, pharmaceutical firms and government agencies such as NIAID.
• NIAID conducts and supports research to understand, treat and ultimately prevent the diseases that threaten hundreds of millions of people worldwide. This includes a broad and diverse research and development program for HIV/AIDS prevention and treatment.

Where can I learn more?

For more information on preventive HIV vaccine research, go to: http://bethegeneration.nih.gov, or e-mail bethegeneration@nih.gov.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Institute of Allergy and Infectious Diseases
Division of AIDS
May 2009

NIH Publication No. 09-6069