

Spotlight on Health

Ending the HIV Epidemic

Nowadays, people with HIV can live normal lives. This is because medications called antiretroviral drugs can treat the infection. But many people with HIV do not know they have it. And every year many new people become infected.

In the 2019 State of the Union Address, the President announced the goal of ending the HIV epidemic. The plan is to end it in 10 years.¹ This newsletter will discuss HIV and AIDS. It will also discuss the plan, and how laboratory tests can help meet the goal. By getting tested for HIV, and getting treated if you have HIV, you can help end the HIV epidemic (see Sidebar).

HIV and AIDS

HIV stands for human immunodeficiency virus.² This virus harms the immune system by destroying the blood cells that fight infection. Without enough blood cells to fight infection, people can easily get very serious infections and even cancers.

People usually get HIV because they had sex with a person who has HIV, or because they injected drugs with a needle that was used by a person who has HIV. People do not get HIV just from being near other people with HIV. You cannot get HIV from casual contact, such as shaking hands, but coming in contact with blood from a person with HIV puts you at risk.

If not treated, HIV almost always progresses to AIDS (acquired immunodeficiency syndrome). This happens when HIV has destroyed most of the cells that fight infections. AIDS is the final stage of infection with HIV. It can take 10 or more years to develop AIDS after being infected with HIV. People with AIDS get infections that are very difficult to treat. If AIDS is not treated, people have a life expectancy of about 3 years.³

Ending the HIV Epidemic: A Plan for America

HIV is a serious problem in the United States (see Sidebar). The goal of the plan to end the HIV epidemic is to decrease the number of people who get HIV every year. If it succeeds, it will keep about 250,000 people from getting HIV.¹ The plan has 4 main parts: diagnosing HIV, treating HIV, preventing people from getting HIV, and responding to HIV outbreaks.

Diagnosing HIV. Around 165,000 people in the United States have HIV, but do not know it.¹ HIV is diagnosed with a simple blood test. Testing is available from healthcare providers and public health agencies (see Sidebar).

Treating HIV. HIV is treated with antiretroviral drugs.^{1,2} These drugs are meant to stop the HIV from multiplying and destroying the cells that protect you from infection. Two main tests are used to see if the drugs are working.

- The first test looks to see if there is any HIV in the blood. If no HIV is found in the blood, the test result is called “undetectable.” People with undetectable HIV have almost no chance of passing HIV to another person. The plan calls this “Undetectable = Untransmittable.”
- The second test counts the number of infection-fighting cells in the blood. When HIV can’t be detected in the blood, the number of these cells goes up. When the number of infection-fighting cells goes up, there is less chance that a person with HIV will get an infection (eg, *Pneumocystis carinii* pneumonia [PCP]).



Treating HIV Begins With Diagnosis

The CDC recommends⁵

- Everyone^a 13 to 64 years old should be tested for HIV at least once.
- People at high risk of getting HIV should be tested at least annually (eg, men who have sex with men, people who inject drugs, and people with a sex partner who has HIV).
- Sexually active gay and bisexual men may benefit from more frequent testing (eg, every 3–6 months).

HIV Is a Serious Problem in the United States

HIV can be successfully treated in most people. But HIV is still a big problem in the United States.^{1,4}

- Around 1.1 million people in the United States have HIV.
- Around 40,000 people get HIV every year.

^a Positive results for patients <18 years may need to be reported to the authorities under applicable law.

Preventing HIV. People who don't have HIV can take steps to help keep from getting it.

- A medication called pre-exposure prophylaxis (PrEP) is available for people who are at high risk of getting HIV (see Sidebar on previous page).⁶ PrEP can lower the chance of getting HIV by more than 90%.⁶ People who are considering PrEP need to have a number of tests to see if they are healthy enough to take the medication.
- Syringe services programs are available so people who use injection drugs do not have to share needles. This also helps prevent the spread of HIV and other viruses.
- More information on ways to protect yourself from getting or spreading HIV is available on the Centers for Disease Control and Prevention (CDC) website at [CDC.gov/hiv/basics/prevention.html](https://www.cdc.gov/hiv/basics/prevention.html).

Responding to HIV Outbreaks. In some areas of the United States, more people are getting HIV than in other areas. Public health organizations can focus on these areas. They can help stop the spread of HIV by quickly getting people tested and treated.

How Your Healthcare Provider Can Help

Healthcare providers can help you understand your risk for getting HIV and answer any questions you have about it. Importantly, they can order a blood test to see if you have HIV. Your healthcare provider may treat the HIV and check to see if the treatment is working, or ask you to see a doctor who specializes in HIV treatment.

How the Laboratory Can Help

Quest Diagnostics offers tests to find out if a person has HIV and if HIV treatment is working. For example, tests can help find out if HIV is undetectable. They can also count the number of infection-fighting cells in the blood. For people who are thinking about taking PrEP, Quest offers “PrEP panels” that include all of the needed tests. For more information, visit [KnowAboutHIV.com](https://www.knowabouthiv.com).

Additional Information

More information is available from these helpful websites:

- [HIV.gov](https://www.hiv.gov)
- Centers for Disease Control and Prevention: [CDC.gov/hiv](https://www.cdc.gov/hiv)

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HIV Treatment Can Stop the Spread of HIV

Most new HIV infections (8 out of 10) come from 2 groups of people. They include people who either do not know they have HIV, or know but aren't getting treated. A few new infections (2 out of 10) come from people who are being treated but still have some HIV in their blood. However, no new infections come from people who are being treated and have no HIV in their blood.⁵ Remember, undetectable = untransmittable.

References

- 1 What is 'Ending the HIV Epidemic: A Plan for America'? HIV.gov website. <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>. Updated September 3, 2019. Accessed September 19, 2019.
- 2 HIV/AIDS: the basics. AIDSinfo website. <https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/19/45/hiv-aids--the-basics>. Reviewed July 3, 2019. Accessed October 1, 2019.
- 3 What are HIV and AIDS? HIV.gov website. <https://www.hiv.gov/hiv-basics/overview/about-hiv-and-aids/what-are-hiv-and-aids>. Updated June 17, 2019. Accessed October 3, 2019.
- 4 CDC data confirm: progress in HIV prevention has stalled. HIV.gov website. <https://www.hiv.gov/blog/cdc-data-confirm-progress-hiv-prevention-has-stalled>. Published February 28, 2019. Accessed October 1, 2019.
- 5 Ending the HIV epidemic: HIV treatment is prevention. Centers for Disease Control and Prevention website. <https://www.cdc.gov/vitalsigns/end-hiv/index.html>. Reviewed March 18, 2019. Accessed October 1, 2019.
- 6 PrEP. Centers for Disease Control and Prevention website. <https://www.cdc.gov/hiv/basics/prep.html>. Reviewed September 25, 2019. Accessed October 1, 2019.