

June, 2015 • Physicians

HIV

Still an Epidemic

We are now more than 30 years into the HIV epidemic. Increased HIV testing and improved treatments have resulted in more people in the United States living with HIV. This trend is expected to continue.

Prevention efforts have helped hundreds of thousands of people avoid HIV infection. But these efforts have not reached enough people at risk of getting HIV or of giving it to someone else. And so the epidemic goes on.

HIV testing is the first critical step to turn the tide.

Universal testing: a crucial step in the fight against HIV

In 2006, the Centers for Disease Control and Prevention (CDC) began recommending testing all adolescents and adults regardless of risk.¹ They did this for several reasons. One of the most important was that about a fourth of Americans infected with HIV did not know they were infected. Many of these were passing the virus to others. This is still a problem today. The most recent data show that about 14% of infected people don't know they are infected.²

The CDC recommends that everyone between the ages of 13 and 64 get tested at least once.¹ People at high risk should get tested every year.¹ This includes:

- Men who have sex with men (MSM)
- People with more than one sex partner
- People with other sexually transmitted diseases
- People who inject drugs

Women who are pregnant or planning to become pregnant should also be tested. And people who have been sexually assaulted should be tested as well.

HIV testing rates are far too low

Almost half of adults in the U.S. have never had an HIV test.² Some of the reasons why people might not want to get tested are:

- They don't believe they are at risk for HIV, even if they practice high-risk behavior.
- They are afraid they will test positive.
- They are concerned that other people will find out that they have tested positive. They don't know that testing is completely confidential.
- They don't believe that having HIV is a big deal anymore.



HIV testing and treatment are critical

A study published early this year shows testing and treatment can have a major impact on stopping the spread of HIV.³ The authors looked at more than a million people living with HIV in 2009. They compared modeled viral spread among different groups of people along the continuum of care. People with undiagnosed infection had the highest transmission rate. Simply being diagnosed made people 19% less likely to spread the virus.³ Being virally suppressed made people 94% less likely to spread the virus.³

Continuum of Care	Reduction in Transmission Rate, % ^{a,3}	% of Transmissions ³
Infected, not diagnosed	0	30
Diagnosed, no medical care	19	61
Medical care, but not ART	61	2.7
ART, but not virally suppressed	73	3.3
Virally suppressed	94	2.5

ART, antiretroviral therapy.

^a Cumulative, compared to those infected but not diagnosed.

Medical care, even without ART, greatly decreased the rate of viral spread. Those without diagnosis and medical care accounted for 91% of new HIV cases.³

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Testing rates remain far too low even among groups with a disproportionately high rate of new infections. It's especially important to make sure people from these groups get tested. For example:

- MSM account for 2% of the population, but 61% of new infections.⁴ More than a third of infected MSM don't know they are infected.²
- African American men and women account for 14% of the population, but 44% of new infections.⁴ More than a third have never been tested.²
- People 13 to 29 years of age account for 21% of the population, but 39% of new infections.⁵ More than 50% of adolescents with HIV don't know they are infected.⁵

What you can do to fight the HIV epidemic

- Offer your patients HIV testing as a routine part of their health care.
- Encourage all your patients to be tested for HIV at least once.
- Encourage your high-risk patients to be tested yearly.
- Test women each time they are pregnant.
- Connect people at high risk to services that help them lower their risk and prevent them from getting infected.
- Help your patients with HIV get treatment and the services they need to stay healthy. This will lower their risk of passing the virus to others.

How the laboratory can help

The laboratory plays a key role in screening, diagnosis, and management of patients with HIV. Routine tests are used to monitor the overall health of the patient. Highly sophisticated tests are used to help choose the best therapy. Many tests are available to detect comorbid conditions.

In 2014 the CDC recommended an HIV diagnostic testing algorithm based on the fourth-generation test.⁶ It's better at detecting acute HIV infection.⁶ It tests for both HIV-1/2 antibody and HIV-1 p24 antigen. Samples with repeatedly reactive screening test results are followed with an HIV-1/2 antibody differentiation test. If the result from this second test is "reactive" for either HIV-1 or HIV-2 antibody, then the corresponding type of HIV infection is diagnosed. If not, the presence of HIV infection is further analyzed using an HIV-1 RNA test.

You can find more information about selection and interpretation of HIV tests at Quest Diagnostics Web site:

[Test Summary](#)

[Test Guide](#)

[FAQ](#)

Proven HIV prevention methods

These strategies can help prevent the spread of HIV:

- HIV testing
- HIV medications
- Access to condoms
- Prevention programs for people at high risk for HIV infection
- Substance abuse treatment and access to sterile needles and syringes
- Screening and treatment for sexually transmitted infections
- Prevention programs for people with HIV and their partners

References

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