

# HIV Screening. Standard Care.™

## A Guide for Primary Care Providers



HIV SCREENING. STANDARD CARE.™

# HIV Testing. Linkage to Care. The Time Is Now.

An estimated 1.1 million people in the United States have the human immunodeficiency virus (HIV), and approximately 1 in 7 (nearly 15%) are unaware of their status. About 40% of new HIV infections are transmitted by people undiagnosed and unaware they have HIV. Diagnosing HIV quickly and linking people to treatment immediately are crucial to achieving further reduction in new HIV infections.<sup>1</sup>

Primary care providers (PCPs) are the front line for detecting and preventing the spread of HIV. The Centers for Disease Control and Prevention (CDC) is asking PCPs to<sup>2</sup>:

- Conduct routine HIV screening at least once for all their patients
- ▼ Conduct more frequent screenings for patients at greater risk for HIV
- Link all patients who test positive for HIV to medical treatment, care, and prevention services

▼ Indicates content concerning patients at high risk for acquiring HIV

# Many People Have HIV for Years Before They Know It<sup>3-4</sup>



number of people in 2017 who received an HIV diagnosis



An estimated 1 in 2 people with HIV have the infection 3 or more years before being diagnosed



1 in 4 live with HIV 7 years or more before diagnosis

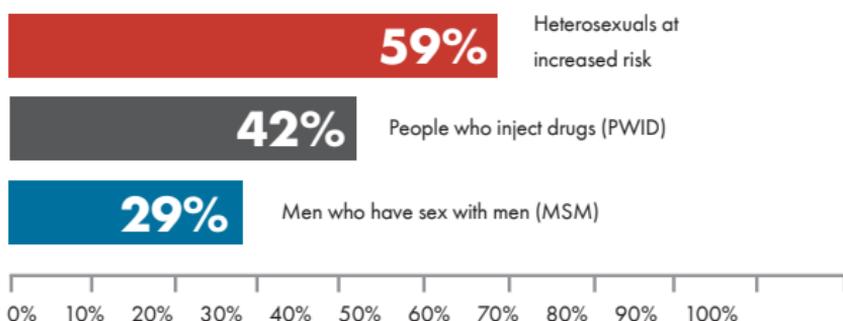


1 in 5 already have AIDS

# Missed Opportunities for HIV Testing

- ▼ Despite seeing a PCP, many people at high risk\* for HIV are not getting tested every year.<sup>4</sup>
- ▼ More than 75% of patients at high risk for HIV who saw a PCP in the last year weren't offered an HIV test<sup>4</sup> during their visit.

## ▼ Percent of patients at high risk not tested last year



\*Persons likely to be at high risk include: PWID and their sex partners, persons who exchange sex for money or drugs, sex partners of persons with HIV infection, and MSM or heterosexual persons who themselves or whose sex partners have had more than one sex partner since their most recent HIV test.

Learn more about how often patients should be screened on page 9.

## Benefits of Early HIV Diagnosis

People with HIV who are aware of their status should be prescribed antiretroviral therapy (ART) and, by achieving and maintaining an undetectable (<200 copies/mL) viral load, can remain healthy for many years.<sup>5</sup> ART is now recommended for all people with HIV, regardless of CD4 count.<sup>6</sup> Studies show that the sooner people start treatment after diagnosis, the more they benefit from ART. Early diagnosis followed by prompt ART initiation<sup>5,7</sup>:

- Reduces HIV-associated morbidity and mortality
- Greatly decreases HIV transmission to others
- May reduce the risk of serious non-AIDS-related diseases

Learn more about undetectable viral load and effectively no risk of transmission on page 5.

### **Early ART keeps people with HIV alive and healthier.**

In the large, multinational Strategic Timing of Antiretroviral Treatment (START study)<sup>8</sup>, asymptomatic patients with HIV infection who started ART immediately had a >50% reduction in morbidity and mortality compared with patients who deferred treatment until they had a CD4 count  $\leq 350$  cells/mm<sup>3</sup>.

## Early ART reduces the risk of HIV transmission to others.

Another compelling reason for treating HIV at all CD4 counts is to prevent HIV transmission. The multicontinental HIV Prevention Trials Network (HPTN) 052 trial compared the effects of immediate versus delayed ART (started when the CD4 count was  $<250$  cells/mm<sup>3</sup>) in 1,763 heterosexual mixed-HIV-status couples. Three versus 43 HIV-negative participants, respectively, acquired HIV from partners with HIV who received immediate versus delayed ART — a 93% reduction in the risk of HIV infection when ART was initiated early.<sup>9</sup> No linked infections were observed when the partner with HIV was virally suppressed.

Since HPTN 052, there have been additional studies of mixed-HIV-status couples that have found no HIV transmissions when the partner with HIV was virally suppressed. For more information, visit [www.cdc.gov/hiv/pdf/risk/art/cdc-hiv-art-viral-suppression.pdf](http://www.cdc.gov/hiv/pdf/risk/art/cdc-hiv-art-viral-suppression.pdf).

Based on the evidence, people with HIV who take HIV medicines as prescribed and achieve and maintain an undetectable viral load have effectively no risk of transmitting HIV to a sexual partner who is HIV-negative.<sup>10</sup>

## Risk of HIV transmission with undetectable viral load by transmission category.

Transmission Category	Risk for People Who Keep an Undetectable Viral Load
Sex (oral, anal, or vaginal) <sup>7</sup>	Effectively no risk
Pregnancy, labor, and delivery <sup>11</sup>	1% or less*
Sharing syringes or other drug injection equipment <sup>12</sup>	Unknown, but likely reduced risk
Breastfeeding <sup>13</sup>	Substantially reduces, but does not eliminate risk Current recommendation in the United States is that mothers with HIV should not breastfeed their infants <sup>11</sup>

\* The risk of transmitting HIV to the baby can be 1% or less if the mother takes HIV medicine daily as prescribed throughout pregnancy, labor, and delivery and gives HIV medicine to her baby for 4-6 weeks after giving birth.



## Early ART may reduce risk of serious non-AIDS-related diseases.

Mortality associated with uncontrolled HIV replication at higher CD4 counts is believed to be due to immune activation and an inflammatory milieu that promotes progression of end-organ disease.

ART is known to reduce levels of multiple markers of immune activation and inflammation. Evidence suggests that starting ART before advanced immunodeficiency is one of several interventions that reduce the risk of serious non-AIDS events and mortality.<sup>14</sup>

## Untreated HIV Replication Increases Risk of Serious Non-AIDS Events<sup>14-16</sup>

### Cardiovascular Disease

Increased risk of myocardial infarction and early carotid atherosclerosis

### Renal Disease

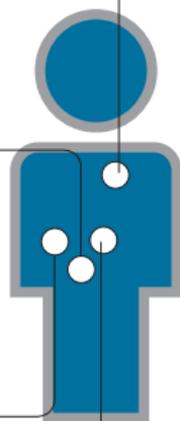
Increased risk of HIV-associated nephropathy, especially among African Americans and older patients and those with diabetes, hypertension, or a low CD4 count

### Hepatic Disease

Faster progression of fibrosis and increased risk of cirrhosis, end-stage liver disease, and hepatocellular cancer in patients with hepatitis B or C coinfection

### Cancer

Direct inflammatory effects of HIV infection can raise risk of some cancers





# How Often Should Patients be Screened?

The CDC recommends that individuals between the ages of 13 and 64 get tested for HIV at least once as part of routine health care and that those with risk factors get tested more frequently. Patients who may be at high risk for HIV should be screened at least annually <sup>2, 17</sup>:

- PWID and their sex partners
- People who exchange sex for money or drugs
- Sex partners of people with HIV
- Sexually active MSM (more frequent testing may be beneficial; e.g., every 3–6 months)
- Heterosexuals who themselves or whose sex partners have had  $\geq 1$  sex partner since their most recent HIV test
- People receiving treatment for hepatitis, tuberculosis, or a sexually transmitted disease

Routine HIV screening is endorsed by:

- U.S. Preventive Services Task Force:  
[www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/human-immunodeficiency-virus-hiv-infection-screening](http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/human-immunodeficiency-virus-hiv-infection-screening)
- American Academy of Family Physicians:  
[www.aafp.org/afp/2014/0415/p614.html](http://www.aafp.org/afp/2014/0415/p614.html)
- American College of Physicians:  
[www.annals.org/aim/fullarticle/744218/screening-hiv-health-care-settings-guidance-statement-from-american-college](http://www.annals.org/aim/fullarticle/744218/screening-hiv-health-care-settings-guidance-statement-from-american-college)



**Over a sixth of new HIV diagnoses in the United States occur in young people aged 13 to 24.<sup>3</sup>**

# Routine Screening Should Be Implemented Using an “Opt-Out” Approach

When an opt-out approach is implemented, patients should be informed (e.g., through a patient brochure, practice literature/form, or discussion) that an HIV test will be included in the standard preventive screening tests and that they may decline the test (opt-out screening).<sup>2</sup> A patient’s decision to decline testing should be noted in their medical record. HIV prevention counseling should not be a requirement for HIV testing.

- Risk assessment should be included as part of routine primary care visits for all sexually active patients.
- Individuals at high risk may need to be screened more frequently.
- ▼ Prevention counseling also may be needed for patients at high risk for acquiring HIV but should not be required for general testing.

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- ▼ **1 in 10 HIV diagnoses are among PWID. Heroin use has increased more than 60% in recent years. The heroin and prescription opioid epidemics have led to new HIV outbreaks.<sup>18-19</sup> Routine screening offers PCPs an opportunity to screen patients who may be reluctant to discuss or disclose risk factors.**

# Why Routine, Opt-Out HIV Screening<sup>2</sup>

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## **Conducting risk-based screening may fail to identify persons with HIV**

- People <20 years of age
- Women
- Members of minority races/ethnicities
- Nonurban dwellers in low-incidence areas
- Heterosexual men and women who are unaware of their risk of HIV

... and many people with HIV are not diagnosed until they have advanced HIV or AIDS

## **Routine, opt-out screening has proved highly effective**

- Removes the stigma associated with HIV testing
- Fosters earlier diagnosis and treatment
- Reduces risk of transmission
- Is cost-effective

## **Justification for routine HIV screening by health care providers includes the following<sup>2</sup>:**

- Serious health disorder that can be detected before symptoms develop
- Detectable by reliable, inexpensive, acceptable screening tests
- People diagnosed with HIV have years of life to gain if treatment is started early, before symptoms develop
- Screening costs are reasonable in relation to anticipated benefits

# Newer, Improved HIV Tests Allow for Earlier HIV Detection

HIV tests have improved substantially over the years and are now easier and less expensive, with a more rapid turnaround time for results.<sup>20</sup>

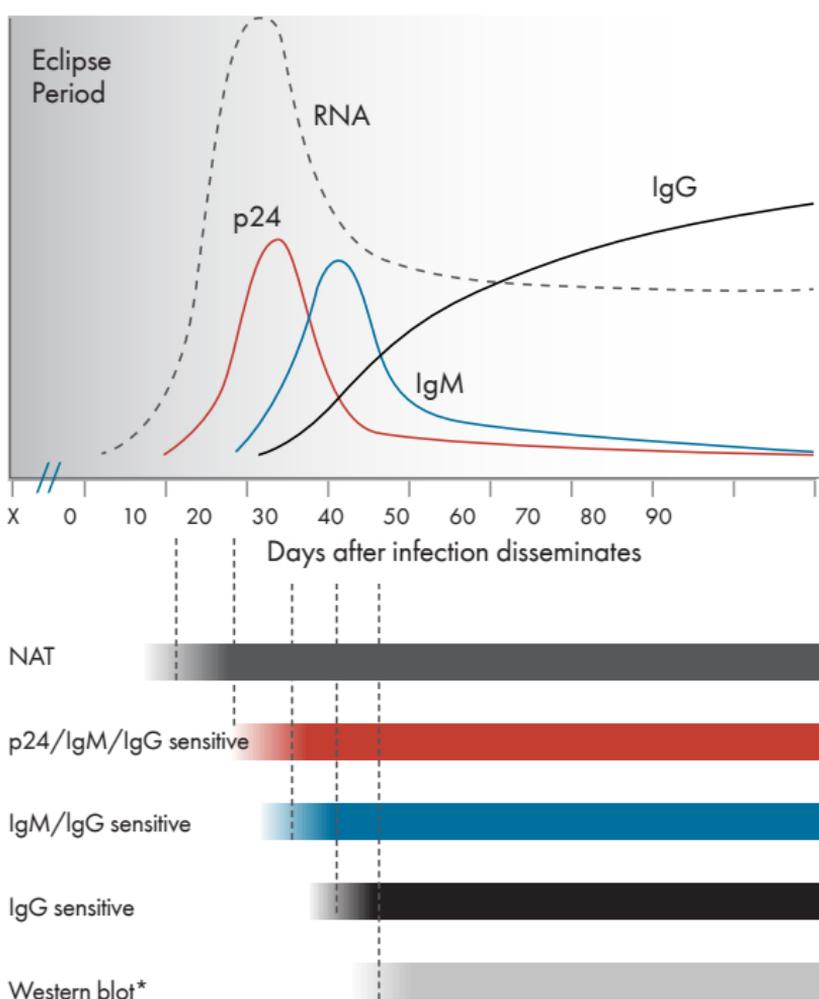
Three types of HIV tests are available:

- Nucleic acid tests (NATs) — detect HIV ribonucleic acid (RNA)
- Antigen/antibody combination tests — detect HIV p24 antigen as well as HIV immunoglobulin M (IgM) and immunoglobulin G (IgG) antibodies
- Antibody tests — detect HIV IgM and/or IgG antibodies

**For more information on FDA-approved HIV assays used for screening, visit [www.cdc.gov/hiv/testing/laboratorytests.html](http://www.cdc.gov/hiv/testing/laboratorytests.html)**

Following an exposure that leads to HIV infection, the amount of time during which no existing diagnostic test is capable of detecting HIV is called the *eclipse period*.<sup>21</sup> The time between potential HIV exposure and an accurate test result is referred to as the *window period*. Improvements in testing technology continue to reduce the detection window period and, therefore, the time to diagnosis and treatment of early HIV infection. As seen in the figure, each type of HIV test has its own testing window, with the NAT capable of detecting HIV the earliest, followed by the antigen/antibody combination test, and lastly, the antibody test.

## Improved diagnostic tests reduce the test-negative window period from HIV infection to detection<sup>21</sup>



\* Western blot is no longer used for HIV.

**For additional guidance and updated recommendations on HIV testing, visit [www.cdc.gov/hiv/testing/laboratorytests.html](http://www.cdc.gov/hiv/testing/laboratorytests.html)**

# It Is Essential to Link Patients to Care

Routine HIV screening is only the *first step* in ensuring that all people with HIV have access to the full *continuum of HIV* care. Linking patients who have received a diagnosis of HIV to prevention and care is essential.<sup>2</sup>

## What is the HIV Care Continuum?

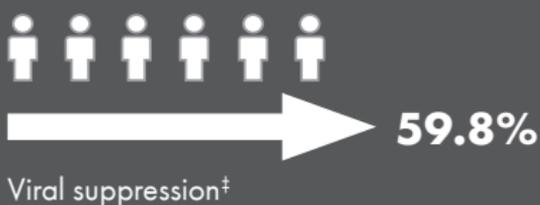
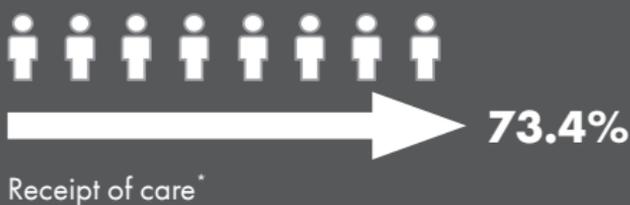
The ultimate goal of HIV treatment is to achieve viral suppression, meaning the amount of HIV in the body is very low or undetectable. This is important for people with HIV to stay healthy, live longer, and reduce their chances of transmitting HIV to others. The HIV care continuum consists of several steps required to achieve viral suppression<sup>3, 22</sup>:

- *Diagnosed*: 38,640 people received an HIV diagnosis in 2017<sup>3</sup>
- *Linked to care*: the patient visited a health care provider within 1 month after learning they were HIV positive
- *Received care*: the patient received medical care for HIV
- *Retained in care*: the patient has ongoing contact with a health care provider for HIV treatment
- *Viral suppression*: their viral load was at a very low level

Not all people with HIV are getting the care they need. PCPs who routinely screen for HIV play a key role in improving outcomes at each step of the HIV care continuum.<sup>22</sup>

# Continuum of Care Outcomes for People With HIV — There Is Room for Improvement <sup>22</sup>

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\*≥1 test (CD4 or viral load) in 2015; †≥2 tests (CD4 or viral load) ≥3 months apart in 2015; ‡<200 copies/mL on most recent viral load test in 2015.

# Resources for Linking Patients to Care

Connecting patients diagnosed with HIV to medical care, including ART and other services, is essential.

The following resources below can be used to find an HIV care provider when referral is needed:

American Academy of HIV Medicine (AAHIVM):  
[www.aahivm.org](http://www.aahivm.org)

HIV Medicine Association (HIVMA):  
[www.hivma.org](http://www.hivma.org); 703-299-1215

Ryan White HIV/AIDS Program:  
[www.findhivcare.hrsa.gov/index.html](http://www.findhivcare.hrsa.gov/index.html); 877-464-4772

HIV.gov: [www.hiv.gov/hiv-basics/starting-hiv-care/find-a-provider/locate-a-hiv-care-provider](http://www.hiv.gov/hiv-basics/starting-hiv-care/find-a-provider/locate-a-hiv-care-provider)

## Knowing Your State HIV Testing and Partner Services Policies and Laws

HIV testing laws vary from state to state. Some state laws require that health care providers offer all patients a voluntary (opt-out) HIV test. Each state also has specific HIV test reporting laws and regulations. Your state may also require that the partner(s) of a patient who tests positive for HIV be notified of the patient's HIV diagnosis.

For more information on Partner Services, visit [www.cdc.gov/hiv/guidelines/partners.html](http://www.cdc.gov/hiv/guidelines/partners.html), where you will find additional provider resources.

For the most up-to-date details on your state's HIV testing laws and policies, contact your health department. To find your local health department, go to [www.healthfinder.gov](http://www.healthfinder.gov) > Find Services Near You > State Health & Human Services.

# Additional Provider Resources

## CDC-INFO

1-800-232-4636; TTY: 888-232-6348; in English or Spanish

To find an HIV testing site, text ZIP code to KNOWIT (566948), call 800-CDC-INFO, or visit <https://gettested.cdc.gov/>

## CDC Guidelines

Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States, 2014: [www.cdc.gov/hiv/guidelines/recommendations/personswithhiv.html](http://www.cdc.gov/hiv/guidelines/recommendations/personswithhiv.html)

2015 Sexually Transmitted Diseases Treatment Guidelines: [www.cdc.gov/std/tg2015/default.htm](http://www.cdc.gov/std/tg2015/default.htm)

## CDC HIV Programs

HIV Screening. Standard Care. (Encouraging primary care providers to screen all patients for HIV): [www.cdc.gov/ScreenforHIV](http://www.cdc.gov/ScreenforHIV)

One Test. Two Lives.™ (Encouraging obstetric providers to test all pregnant women for HIV: [www.cdc.gov/stophivtogether/campaigns/ottl/index.html](http://www.cdc.gov/stophivtogether/campaigns/ottl/index.html))

Prevention IS Care (Tools and information for HIV care providers on HIV treatment and care and transmission prevention): [www.cdc.gov/preventioniscare](http://www.cdc.gov/preventioniscare)

Prescribe HIV Prevention (Information for health care providers about pre-exposure and post-exposure prophylaxis for HIV prevention): [www.cdc.gov/prescribeHIVprevention](http://www.cdc.gov/prescribeHIVprevention)

Transforming Health (Information for health care providers to reduce new HIV infections and improve the health of transgender patients): [www.cdc.gov/transforminghealth](http://www.cdc.gov/transforminghealth)

## The American Journal of Medicine HIV Resource Center

[hivscreening.amjmed.com](http://hivscreening.amjmed.com)

## Clinician Consultation Center

[www.nccc.ucsf.edu](http://www.nccc.ucsf.edu); 800-933-3413

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6. USDHHS. [Guidelines for the use of antiretroviral agents in adults and adolescents with HIV](#). Accessed June 28, 2018.
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19. USDHHS. [Results from the 2013 national survey on drug use and health: summary of national findings](#). Accessed June 28, 2018.

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**More Information:**

[www.cdc.gov/ScreenforHIV](http://www.cdc.gov/ScreenforHIV)  
800-CDC-INFO (800-232-4636)



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