Revised CDC Recommendations

HIV Testing

of Adults, Adolescents, and Pregnant Women in Health-Care Settings

Annotated Guide

The HIV incidence data estimates included in this document have been updated since the publication of the recommendations in the September 22, 2006, MMWR. Please visit www.cdc.gov/HIVStandardCare to access the most recent incidence estimates.
A summary of major revisions to previous CDC guidelines:
(see page 1 for annotation)

- Opt-out HIV screening is now recommended in all health-care settings.
- Opt-out screening means patients must be notified that screening will be done; they may decline testing.
- All patients at high risk for HIV infection should be tested at least annually.
- Separate written consent for testing is not recommended.
- No prevention counseling is required in conjunction with HIV screening.
- HIV screening should be included in routine prenatal screening, with repeat screening in the third trimester for high-risk women; the notification and consent guidelines above apply.

Additional CME accreditation forms and other HIV materials at no cost:
Go online to www.cdc.gov/HIVStandardCare, send an e-mail to cdcinfo@cdc.gov, call 800-CDC-INFO (232-4636), or use the enclosed reply card.
Annotated Guide

This document is intended as a reference guide to assist you with incorporating HIV screening into your daily office practice. Note that laws governing HIV screening differ from state to state.
Objectives of these recommendations for all health-care providers, including primary care physicians and gynecologists, are to:

- increase HIV screening of patients
- foster earlier HIV detection
- link infected persons to counseling and treatment
- further reduce perinatal HIV transmission

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See pages 7-10 for more details about the recommendations covered here.
Since 1994, the annual number of reported AIDS cases has increased among racial/ethnic minority populations and heterosexual women and men.

Infected persons may be unaware.
- By the end of 2003, about 25% of the roughly 1 million persons living with HIV were unaware of their infection. As a result...
  - they received no treatment
  - many likely unknowingly transmitted HIV to others

Treatment has improved survival rates dramatically.

Not enough progress has been made in diagnosing people early.
- Many are diagnosed late in the course of their infection
- Many are infected through heterosexual contact

Providers are encouraged to conduct diagnostic HIV testing for patients with HIV symptoms and HIV screening for all patients.

Patients should be notified that HIV testing will be done; consent is inferred unless they decline.
In 2003, CDC first introduced new strategies to make HIV testing a routine part of medical care.

In 2003, CDC introduced the initiative Advancing HIV Prevention: New Strategies for a Changing Epidemic (19). Two key strategies of this initiative are 1) to make HIV testing a routine part of medical care on the same voluntary basis as other diagnostic and screening tests and 2) to reduce perinatal transmission of HIV further by universal testing of all pregnant women and by using rapid tests during labor and delivery or postpartum if the mother was not screened prenatally (19). In its technical guidance, CDC acknowledged that prevention counseling is desirable for all persons at risk for HIV but recognized that such counseling might not be appropriate or feasible in all settings (20). Because time constraints or discomfort in discussing their patients’ risk behaviors caused some providers to perceive requirements for prevention counseling and written informed consent as a barrier (12,21–23), the initiative advocated streamlined approaches.

These revised 2006 recommendations were based on a broad base of information, including:

- A comprehensive review of literature on HIV testing
- A consensus of professional medical opinions
- The input of community-based health organizations
- The opinions of persons living with HIV
Screening is justified for conditions such as HIV which…

- can be diagnosed before symptoms develop
- can be easily detected by noninvasive, cost-effective, reliable methods
- can be managed with early intervention to increase life expectancy

Screening of pregnant women is much more effective than risk-based testing in preventing perinatal transmission.

Often, persons with HIV visit health-care settings but go undiagnosed for many years.

Risk-based testing misses many infected persons who are...

- under age 20
- women
- members of minority races/ethnicities
- nonurban dwellers
- heterosexual men and women who are unaware of their risk for HIV

Universal HIV screening has been proven highly effective.

Most persons who know they are infected reduce behaviors that might transmit HIV.

The Institute of Medicine and other medical experts encourage HIV screening to foster early diagnosis and treatment, and help destigmatize the testing process.

Those tested for other STDs are often not tested for HIV.
Risk-based testing fails to identify many people with HIV.

Routine testing eliminates the need for risk assessment and reduces stigma.
- Many patients don’t know they’re at risk for HIV infection, or don’t disclose their risks to their health-care providers
- Patients are more likely to accept HIV testing when it is offered routinely to everyone without risk assessment

Lack of information and high-risk behavior among adolescents are common.
- In 2005, more than one-third of sexually active students reported having intercourse without always using condoms
- It is estimated that more than 50% of HIV-infected adolescents are unaware of their infection

The provider can make a difference.
- Adolescents prefer to receive information about HIV from their health-care providers
- In one study, 58% of adolescents agreed to HIV screening based on their providers’ recommendations

In 2006, approximately 65% of adults surveyed agreed that HIV screening should be performed without special procedures such as written consent.
Screening can help curtail the spread of HIV.
- Infected persons tend to reduce high-risk behavior when they become aware of their HIV status
- Theoretically, HIV infection could be reduced by >30% per year

Voluntary HIV screening in healthcare settings is cost-effective.

Linking patients with HIV to care yields survival benefits that justify the cost.

Identifying HIV early could reduce the spread that might occur during the acute phase of infection, when symptoms may mimic flu and other diseases.
- In one study, an estimated 0.5% to 0.7% of patients seeking treatment for fever or rash actually had acute HIV infection

Of the few perinatal infections that still occur in the United States, most can be attributed to lack of timely HIV testing and treatment of pregnant women.
Physicians can help ensure pregnant women get tested for HIV.

- Testing rates are higher with universal screening
- Women are much more likely to be tested if their health-care providers recommend it

Some women may become infected during pregnancy.

- A second HIV test during the third trimester for women in settings with high HIV incidence is cost-effective and may result in reduced perinatal transmission

All patients ages 13 to 64 should be screened for HIV routinely.

- Providers should screen all patients in their practice unless fewer than 1 patient per 1,000 tests positive for HIV

HIV screening is recommended for patients who are...

- starting treatment for TB
- seeking treatment for STDs (at every visit for a new complaint)

Repeat screening is recommended for...

- patients who are likely to be at high risk for HIV, at least annually
- anyone initiating a new sexual relationship
- any patient whom the physician considers to be at risk for HIV

For the safety of health-care providers:

- If a provider has been exposed to a patient's bodily fluids, the patient should be informed and tested for HIV immediately (unless recent HIV test results are available)

HIV screening should be voluntary and performed only with the patient's knowledge.

Patients should be provided pretest information:

- Providers should inform patients verbally or in writing that HIV screening is now part of routine health care
The patient should be offered the opportunity to ask questions and decline testing.

Written or oral patient information should...

-explain HIV infection and test results
-be easily understood and provided in languages that are most commonly used in the area

A patient’s decision to decline testing should be noted in the patient’s medical record.

All patients with symptoms of HIV infection or AIDS should be tested.

When acute HIV infection is suspected, the standard HIV antibody test and a plasma RNA test should both be administered.

Patients and/or their caregivers should be told verbally:

-Why diagnostic testing is advised
-Implications of test results, positive or negative

A separate consent form is not required apart from general consent for medical care.

Patients who test positive must be given access or referrals to care, counseling, and support.

Patients should be informed of HIV test results just as they would be informed of other medical test results.

Early screening in pregnancy permits timely antiretroviral treatment, which benefits HIV-infected mothers and their infants.

**Diagnostic Testing for HIV Infection**

-All patients with signs or symptoms consistent with HIV infection or an opportunistic illness characteristic of AIDS should be tested for HIV.
-Clinicians should maintain a high level of suspicion for acute HIV infection in all patients who have a compatible clinical syndrome and who report recent high-risk behavior. When acute retroviral syndrome is a possibility, a plasma RNA test should be used in conjunction with an HIV antibody test to diagnose acute HIV infection (96).
-Patients or persons responsible for the patient’s care should be notified orally that testing is planned, advised of the indication for testing and the implications of positive and negative test results, and offered an opportunity to ask questions and to decline testing. With such notification, the patient’s general consent for medical care is considered sufficient for diagnostic HIV testing.

**Similarities and Differences Between Current and Previous Recommendations for Adults and Adolescents**

Aspects of these recommendations that remain unchanged from previous recommendations are as follows:

- HIV testing must be voluntary and free from coercion. Patients must not be tested without their knowledge.
- HIV testing is recommended and should be routine for persons attending STD clinics and those seeking treatment for STDs in other clinical settings.

**Recommendations for Pregnant Women**

These guidelines reiterate the recommendation for universal HIV screening early in pregnancy but advise simplifying the screening process to maximize opportunities for women to learn their HIV status during pregnancy, preserving the woman’s option to decline HIV testing, and ensuring a provider-patient relationship conducive to optimal clinical and preventive care. All women should receive HIV screening consistent with the recommendations for adults and adolescents.

HIV screening should be a routine component of preconception care, maximizing opportunities for all women to know their HIV status before conception (109). In addition, screening early in pregnancy enables HIV-infected women and their infants to benefit from appropriate and timely interventions (e.g., antiretroviral medications [45], scheduled cesarean delivery [44], and avoidance of breastfeeding* [16]).

*To eliminate the risk for perinatal transmission, HIV-infected women in the United States should not breastfeed. Support services for use of appropriate breast milk substitutes should be provided when necessary. In international settings, UNAIDS and World Health Organization recommendations for HIV and breastfeeding should be followed (46).
All pregnant women should be screened for HIV in a manner consistent with other recommended screenings.
• They also should receive information about ways to reduce the risk of perinatal HIV transmission

Pregnant women should be tested for HIV as early as possible.

All pregnant women in the third trimester, before the 36th week, should consider getting a second HIV test, and women in this stage of pregnancy meeting the following criteria are recommended to have a second HIV test...
• are known to be at high risk of HIV infection
• have signs or symptoms of acute HIV infection
• live in areas with high incidence of HIV/AIDS

Rapid testing is advised during labor for any woman whose HIV status is unknown.
• If a woman tests HIV-positive, antiretroviral treatment should be initiated immediately, even without confirmatory test results

If a pregnant woman declines HIV screening, the provider should...
• discuss her concerns and offer testing at a later time during her pregnancy
• emphasize the importance of retesting during each pregnancy

HIV Screening for Pregnant Women and Their Infants

Universal Opt-Out Screening
• All pregnant women in the United States should be screened for HIV infection.
• Screening should occur after a woman is notified that HIV screening is recommended for all pregnant patients and that she will receive an HIV test as part of the routine panel of prenatal tests unless she declines (opt-out screening).
• HIV testing must be voluntary and free from coercion. No woman should be tested without her knowledge.
• Pregnant women should receive oral or written information that includes an explanation of HIV infection, a description of interventions that can reduce HIV transmission from mother to infant, and the meanings of positive and negative test results and should be offered an opportunity to ask questions and to decline testing.
• No additional process or written documentation of informed consent beyond what is required for other routine prenatal tests should be required for HIV testing.
• If a patient declines an HIV test, this decision should be documented in the medical record.

Addressing Reasons for Declining Testing
• Providers should discuss and address reasons for declining an HIV test (e.g., lack of perceived risk; fear of the disease; and concerns regarding partner violence or potential stigma or discrimination).
• Women who decline an HIV test because they have had a previous negative test result should be informed of the importance of retesting during each pregnancy.
• Logistical reasons for not testing (e.g., scheduling) should be resolved.
• Certain women who initially decline an HIV test might accept at a later date, especially if their concerns are discussed. Certain women will continue to decline testing, and their decisions should be respected and documented in the medical record.

Timing of HIV Testing
• To promote informed and timely therapeutic decisions, health-care providers should test women for HIV as early as possible during each pregnancy. Women who decline the test early in prenatal care should be encouraged to be tested at a subsequent visit.
• A second HIV test during the third trimester, preferably less than 36 weeks of gestation, is cost-effective even in areas of low HIV prevalence and may be considered for all pregnant women. A second HIV test during the third trimester is recommended for women who meet one or more of the following criteria:
  — Women who receive health care in facilities in which prenatal screening identifies at least one HIV-infected pregnant woman per 1,000 women screened.
  — Women who are known to be at high risk for acquiring HIV (e.g., injection-drug users and their sex partners, women who exchange sex for money or drugs, women who are sex partners of HIV-infected persons, and women who have had a new or more than one sex partner during this pregnancy).
  — Women who have signs or symptoms consistent with acute HIV infection. When acute retroviral syndrome is a possibility, a plasma RNA test should be used in conjunction with an HIV antibody test to diagnose acute HIV infection (96).

Rapid Testing During Labor
• Any woman with an undetermined HIV status at the time of labor should be screened with a rapid HIV test unless she declines (opt-out screening).
• Reasons for declining a rapid test should be explored (see Addressing Reasons for Declining Testing).
• Immediate initiation of appropriate antiretroviral prophylaxis (42) should be recommended to women on the basis of a reactive rapid test result without waiting for the result of a confirmatory test.

7 A second HIV test in the third trimester is cost-effective as other common health interventions when HIV incidence among women of childbearing age is 0.17 HIV cases per 100,000 person-years (105). In 2004, in jurisdictions with available data on HIV case rates, a rate of 17 new HIV diagnoses per year per 100,000 women aged 15–44 years was associated with an AIDS case rate of at least nine AIDS diagnoses per year per 100,000 women aged 15–44 years (CDC, unpublished data, 2003). As of 2004, the jurisdictions listed above exceeded these thresholds. The list of specific jurisdictions where a second test in the third trimester is recommended will be updated periodically based on surveillance data.
If the mother’s HIV status is unknown...

- Rapid screening of the mother should take place immediately.
- If she declines testing, or tests HIV-positive, the newborn should be tested immediately postpartum.
  - A positive HIV test result in a newborn indicates infection in the mother.
  - Neonatal antiretroviral treatment is most effective when administered within 12 hours after birth.

If confirmatory test results are not available, a woman should receive immediate antiretroviral treatment to reduce the risk of perinatal transmission.

Providers should follow up with HIV-negative patients.

- They may be informed of the results without direct personal contact.
- Persons known to be at high risk should receive prevention counseling and be tested periodically.

HIV-positive patients should be informed of their test results in a confidential manner.

Privacy of HIV-positive patients who have limited English language skills should be protected.

- They should not be informed of their HIV status by family or friends who act as interpreters.

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### Postpartum/Newborn Testing

- When a woman’s HIV status is still unknown at the time of delivery, she should be screened immediately postpartum with a rapid HIV test unless she declines (opt-out screening).
- When the mother’s HIV status is unknown postpartum, rapid testing of the newborn as soon as possible after birth is recommended so antiretroviral prophylaxis can be offered to HIV-exposed infants. Women should be informed that identifying HIV antibodies in the newborn indicates that the mother is infected.
- For infants whose HIV exposure status is unknown and who are in foster care, the person legally authorized to provide consent should be informed that rapid HIV testing is recommended for infants whose biologic mothers have not been tested.
- The benefits of neonatal antiretroviral prophylaxis are best realized when it is initiated ≤12 hours after birth (110).

### Confirmatory Testing

Whenever possible, uncertainties regarding laboratory test results indicating HIV infection status should be resolved before final decisions are made regarding reproductive options, antiretroviral therapy, cesarean delivery, or other interventions.

- If the confirmatory test result is not available before delivery, immediate initiation of appropriate antiretroviral prophylaxis (62) should be recommended to any pregnant patient whose HIV screening test result is reactive to reduce the risk for perinatal transmission.

### Additional Considerations for HIV Screening

**Test Results**

- **Communicating test results.** The central goal of HIV screening in healthcare settings is to maximize the number of persons who are aware of their HIV infection and receive care and prevention services. Definitive mechanisms should be established to inform patients of their test results. HIV-negative test results may be conveyed without direct personal contact between the patient and the healthcare provider. Persons known to be at high risk for HIV infection also should be directed of the need for periodic testing and should be offered prevention counseling or referred for prevention counseling. HIV-positive test results should be communicated confidentially through personal contact by a clinician, nurse, mid-level practitioner, counselor, or other skilled staff. Because of the risk of stigma and discrimination, family or friends should not be used as interpreters to disclose HIV-positive test results to patients with limited English proficiency. Active efforts are essential to ensure that HIV-infected patients receive their positive test results in a confidential manner.

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**Access to clinical care, prevention counseling, and support services is essential for women with positive HIV test results.**

Aspects of these recommendations that differ from previous recommendations are as follows:

- HIV screening should be included in the routine panel of prenatal screening tests for all pregnant women. Patients should be informed that HIV screening is recommended for all pregnant women and that it will be performed unless they decline (opt-out screening).
- Repeat HIV testing in the third trimester is recommended for all women in jurisdictions with elevated HIV or AIDS incidence and for women receiving health care in facilities with at least one diagnosed HIV case per 1,000 pregnant women per year.
- Rapid HIV testing should be performed for all women in labor who do not have documentation of results from an HIV test during pregnancy. Patients should be informed that HIV testing is recommended for all pregnant women and will be performed unless they decline (opt-out screening). Immediate initiation of appropriate antiretroviral prophylaxis should be recommended on the basis of a reactive rapid HIV test result, without awaiting the result of confirmatory testing.
A positive rapid HIV test result must be confirmed before establishing a diagnosis.

Patients who participated in HIV vaccine trials may test HIV-positive without having HIV infection.

- They should be advised to contact the organization that conducted their vaccine trials for confirmatory testing.

Rapid HIV testing increases the number of people who learn their test results, and expends fewer resources to locate infected persons.

All HIV-positive patients should receive prompt referral or clinical care based on thorough evaluation.

HIV-exposed infants should be given antiretroviral treatment.

Providers should urge HIV-positive patients to disclose their HIV status to their current and past partners so they may be tested.

- Local health departments may assist with partner notification.
- Providers should inform these patients that they may be contacted by health officials regarding partner notification.

Adolescents often are not required to have parental consent for HIV testing; however, laws for consent differ among states.

All adolescents should receive information about HIV infection, testing, transmission, and health implications, especially if they are sexually active.

A pregnant woman’s HIV test results should be documented in her infant’s medical record.

- If she is HIV-positive, her health-care provider should notify the infant’s pediatrician before delivery, with her permission.
- If the infant tests HIV-positive before the mother, her health-care provider should assist her with obtaining clinical care for herself.

All patients’ HIV test results should be documented in their medical records.

- If an individual is found to be HIV-positive, their treatment should be initiated as soon as possible.
For sexually active patients, risk assessment is encouraged, and prevention information should be provided as a routine part of primary care.

Providers should care for or refer high-risk patients and those who request help with changing high-risk behaviors to community resources for treatment and counseling.

Although prevention counseling is not required, HIV testing may offer an ideal opportunity to provide or arrange it.

All known high-risk behaviors for HIV-infected persons should be documented in a patient’s record.

- State and community resources may assist with tools for this type of surveillance
- This information is important for guiding public health decisions

Report all cases of HIV infection and AIDS to state or local health officials.

Surveillance agencies may contact providers regarding perinatal HIV exposure as reported by their practices.

If providers are uncertain about the level of HIV prevalence among their patients, laboratory information systems might be able to provide these data.
These recommendations are based on best practices and are intended to comply with ethical principles of informed consent.

Specific requirements for written consent and pretest counseling vary from state to state.
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115. CDC. CDC guidelines for national human immunodeficiency virus case surveillance, including monitoring for human immunodeficiency virus infection and acquired immunodeficiency syndrome. MMWR 1999;48(NR. RR-13):1-32.
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