

### HIV Testing in the United States

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HIV testing is integral to HIV prevention, treatment, and care efforts. Knowledge of HIV status is important for preventing the spread of disease, since HIV testing provides an opportunity for people to receive counseling and information about risk reduction. Studies indicate that many who learn they are HIV positive modify their behavior to reduce the risk of HIV transmission. Early knowledge of HIV infection is also critical for linking people to needed medical care and services that can reduce morbidity and mortality and improve their quality of life.<sup>1,2</sup>

#### Testing Recommendations & Requirements

The U.S. Centers for Disease Control and Prevention's (CDC) new *Advancing HIV Prevention (AHP) Initiative* includes a focus on making HIV testing a routine part of medical care and implementing new models for diagnosing HIV outside of the medical setting.<sup>1</sup> The CDC recommends that HIV testing be offered in all high HIV-prevalence clinical settings, to those at risk for HIV in low HIV-prevalence clinical settings, and recommends routine testing of all pregnant women and of any infant whose mother was not screened.<sup>1,2</sup> There are also mandatory testing requirements in the U.S. in certain cases, including for: all blood donors; all military applicants and active duty personnel; federal and state prison inmates under certain circumstances; newborns in at least 2 states; and immigrants (waivers for HIV positive immigrants and visitors may be granted).

Factors that increase risk for HIV include ever having:

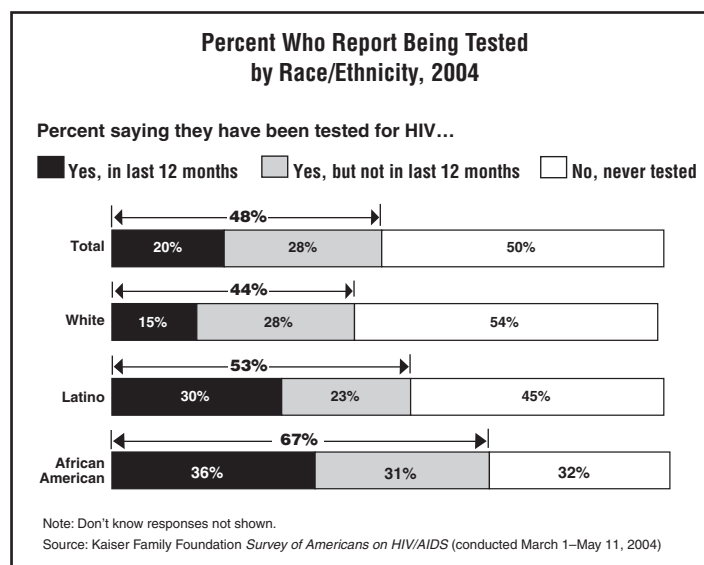
- had unprotected sex with someone who is infected with HIV
- shared injection drug needles and syringes
- had a sexually transmitted disease, like chlamydia or gonorrhea
- received a blood transfusion or blood clotting factor between 1978 and 1985
- had unprotected sex with someone who has done any of these things<sup>3</sup>

While prevention counseling is recommended for all persons at risk for HIV, the CDC's AHP Initiative promotes the adoption of simplified HIV-testing procedures that do not require prevention counseling before HIV testing in medical-settings.<sup>1</sup>

#### Testing Statistics

- In 2004, about half (48%) of U.S. adults, 18 years and older, reported ever having been tested for HIV, including 20% in the prior 12 months (see Figure).<sup>4</sup> The overall percent who say they have been tested has increased over time.<sup>4,5</sup>
- HIV testing rates vary by state, age, and race/ethnicity.<sup>4,6,7</sup> For example, among the non-elderly (those under age 65), 55% reported ever having been tested for HIV. African Americans and Latinos are more likely to report having been tested for HIV than whites (see Figure).<sup>4</sup>
- Of the 850,000 to 950,000 people estimated to be living with HIV/AIDS in the U.S., an average of one-quarter, but as many as a third (180,000 to 280,000), do not know they are infected.<sup>8</sup>
- Among those who tested positive at CDC-funded sites in 2000, almost one third (31%) did not return for their test results.<sup>1</sup>
- Knowledge of one's HIV status appears to be particularly low in some populations. A study in 6 major U.S. cities found that 77% of young gay and bisexual men infected with HIV, ages 15–29, including 91% of African Americans, did not know they were HIV-positive.<sup>9</sup>

- In addition, many people with HIV are diagnosed late in their illness. Forty-one percent of those diagnosed between 1994–1999 received an AIDS diagnosis, the most advanced stage of HIV infection, within 1 year of their positive HIV test.<sup>10</sup>
- People report many reasons for getting tested, including wanting to learn their HIV status, feeling at risk, illness, and because the test was offered.<sup>1,11</sup> The main reason given for not getting tested is not feeling at risk.<sup>4</sup>
- Many want more information about HIV testing including: the different types of HIV tests available (36%), how much testing costs (31%), whether test results are confidential (24%), and where to get tested (23%).<sup>4</sup> African Americans and Latinos are much more likely than whites to say they need more information about HIV testing.<sup>4</sup>
- Stigma and misconceptions about HIV testing also remain. Three in ten (31%) say they would be concerned that people would think less of them if they found out they had been tested. A third think that blood drawn at the doctor's office is automatically tested for HIV, or they don't know for sure. And, among those who report having been tested, nearly a quarter (23%) were under the impression that the test was done as a routine part of an exam.<sup>4</sup>



#### Testing Sites & Policies

- HIV testing is offered at CDC-publicly funded testing sites (approximately 11,600 in the U.S.—about 2 million tests were given in the year 2000) and in other public and private settings. Testing sites include free-stand HIV counseling and testing centers, health departments, hospitals, private doctors offices, and STD clinics.<sup>12</sup> People who have been tested in the last year are most likely to have done so in a private doctor's office.<sup>4</sup>
- Studies indicate that people with HIV are most likely to be diagnosed in hospital inpatient settings, followed by private medical doctor's offices/HMOs and HIV counseling and testing sites.<sup>13</sup> Those at-risk are most likely to be tested in public health clinics followed by private doctors offices/HMOs.<sup>14</sup>

- An HIV test is either **confidential** or **anonymous**. With confidential testing, a person's name is used and recorded with test results. Medical personnel and state health departments may have access to these results. Confidential HIV testing is used by all states/territories and is typically the kind of testing available through private doctors' offices. With anonymous HIV testing, no name is used or connected to test results. Eleven states/territories offer only confidential testing; 45 offer anonymous, in addition to confidential, testing (see Table).<sup>15</sup>

### HIV Testing & Reporting Policies, January 2004<sup>15</sup>

State/Territory	Confidential/ Anonymous Testing	HIV Case Reporting Policy
Alabama	C	Name
Alaska	C, A	Name
Arizona	C, A	Name
Arkansas	C, A	Name
California	C, A	Code
Colorado	C, A	Name
Connecticut	C, A	Name <sup>1</sup>
Delaware	C, A	Name-to-Code
District of Columbia	C, A	Code
Florida	C, A	Name
Georgia	C, A	Name
Hawaii	C, A	Code
Idaho	C	Name
Illinois	C, A	Code
Indiana	C, A	Name
Iowa	C	Name
Kansas	C, A	Name
Kentucky	C, A	Code
Louisiana	C, A	Name
Maine	C, A	Name-to-Code
Maryland	C, A	Code
Massachusetts	C, A	Code
Michigan	C, A	Name
Minnesota	C, A	Name
Mississippi	C	Name
Missouri	C, A	Name
Montana	C, A	Name-to-Code
Nebraska	C, A	Name
Nevada	C	Name
New Hampshire	C, A	Other <sup>2</sup>
New Jersey	C, A	Name
New Mexico	C, A	Name
New York	C, A	Name
North Carolina	C	Name
North Dakota	C	Name
Ohio	C, A	Name
Oklahoma	C, A	Name
Oregon	C, A	Name-to-Code
Pennsylvania	C, A	Name <sup>3</sup>
Rhode Island	C, A	Code
South Carolina	C	Name
South Dakota	C	Name
Tennessee	C	Name
Texas	C, A	Name
Utah	C, A	Name
Vermont	C, A	Code
Virginia	C, A	Name
Washington	C, A	Name & Name-to-Code <sup>4</sup>
West Virginia	C, A	Name
Wisconsin	C, A	Name
Wyoming	C, A	Name
American Samoa	C, A	Name
Guam	C, A	Name
Northern Mariana Islands	C, A	Name
Puerto Rico	C, A	Name
U.S. Virgin Islands	C	Name

(1) Required for pediatric, age <13; name or code for those 13 and older. (2) Reporting with or without name. (3) Outside of Philadelphia only. (4) Requires name-based reports of symptomatic HIV infection and AIDS; name-to-code for asymptomatic HIV cases.

- All states/territories now **report HIV cases** (in addition to already reporting AIDS cases). HIV reporting is done using names, name-to-codes, and/or codes. Forty-two jurisdictions use name reporting for all or some of their HIV cases; 9 use codes; 5 use name-to-code systems (see Table).<sup>15</sup>

### Testing Techniques

HIV tests detect the presence of antibodies produced by the body to fight HIV infection; they do not test for the virus itself.<sup>16</sup> People infected with HIV generally develop detectable antibodies within 3 months after infection, but it can take longer.<sup>2</sup> There are several kinds of HIV tests available in the U.S.<sup>17</sup> They differ based on the type of specimen tested (e.g., whole blood, serum, or plasma; oral fluid; urine), how the specimen is collected (e.g., blood draw/venipuncture; finger prick; oral swab), where the test is done (e.g., a laboratory; testing site, doctor's office) and how quickly the results are available (conventional or rapid).<sup>1,2</sup> The main types of tests are:

- **Conventional blood test:** A blood sample is drawn by a health care provider and tested at a lab. Results are generally available within a few days to two weeks.
- **Conventional oral fluid test:** An oral fluid sample is collected by a health care provider, who swabs the inside of the mouth. The sample is tested at a lab. *OraSure* is the only Food and Drug Administration (FDA)-approved HIV oral fluid test. Results are generally available within a few days to two weeks.
- **Rapid tests:** Rapid HIV tests are performed at testing sites and can provide results in as little as 20 minutes, depending on the test. If a rapid test is negative, no further testing is needed. If a rapid test is positive, it must be confirmed with a more specific test performed in a lab. Three rapid tests recently approved by the FDA are commercially available: *OraQuick Rapid HIV-1 Antibody Test* (finger prick; venipuncture whole blood, serum, plasma; oral fluid); *Reveal Rapid HIV-1 Antibody Test* (serum, plasma) and the *Uni-Gold Recombigen HIV Test* (serum, plasma, venipuncture whole blood). *OraQuick* is the only rapid test approved for finger prick and oral fluid collection. The *OraQuick* rapid blood test was granted a Clinical Laboratory Improvement Amendments (CLIA) waiver to allow for use in settings other than labs; it is expected that the *OraQuick* rapid oral test will also receive a CLIA waiver.
- **Home Tests:** A home HIV test first came onto the market in 1997. *HomeAccess*, the only home HIV test currently approved by the FDA, may be purchased from many drug stores and online. An individual pricks their finger with a special device, places drops of blood on a specially treated card, and mails the card to a lab for testing. Using an identification number printed on the card, they phone for test results and may also receive counseling and referral by phone. Results can be obtained in as little as three days.
- **Urine Test:** A urine sample is collected by a health care provider and tested at a lab. *Calypte* is the only FDA-approved urine HIV test. Results are generally available within a few days to two weeks.

### References

- 1 CDC, *MMWR*, Vol. 52, No. 15, 2003.
- 2 CDC, *MMWR*, Vol. 50, No. R-19, 2001.
- 3 CDC, *HIV and AIDS: Are You at Risk?*, 2003.
- 4 Kaiser Family Foundation, *Survey of Americans on HIV/AIDS* (conducted 3/15–5/11, 2004).
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- 8 Fleming, P., et al., Abstract #11, Oral Abstract Session 5, 9th Conference on Retroviruses and Opportunistic Infections, 2002.
- 9 MacKellar, D. et al., Abstract MoPeC4327, XIV International AIDS Conference, 2002.
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- 11 CDC, Supplement to HIV and AIDS Surveillance Project, June 1997–December 2000.
- 12 CDC, *HIV Counseling and Testing in Publicly Funded Sites, Annual Report, 1997 and 1998*, 2001.
- 13 Kates, J. et al., Poster TuPeG 5690, XIV International AIDS Conference, 2002.
- 14 CDC, HITS, 2000 data.
- 15 CDC, *Current Status of HIV Infection Surveillance*, as of January 2004.
- 16 There are also HIV tests that can detect HIV before the development of antibodies, but these are not used as general screening tools.
- 17 [www.hivtest.org](http://www.hivtest.org).

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