

## Undiagnosed HIV Disease

At the end of 2011, approximately one in seven HIV-infected individuals in the United States or 168,300 persons were unaware of their HIV status (CDC, 2014). HIV testing is an essential component of a comprehensive strategy to address HIV. Persons living with HIV disease who are diagnosed can be linked to care and treatment services. In addition, reduced viral loads in persons living with HIV who are on effective treatment greatly reduces the probability of transmission of the virus to others, and those diagnosed can benefit from counseling for risk behaviors (Hall, Holtgrave, and Maulsby, 2012).

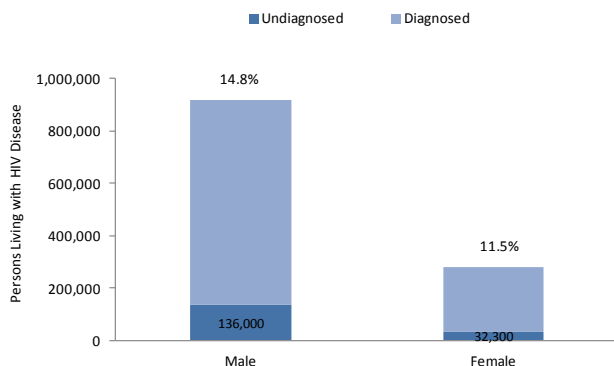
To increase rates of diagnosis among HIV-infected individuals, CDC testing guidelines were modified in 2006 from requiring written consent for HIV testing to opt-out testing (patient notified test will be performed and consent inferred unless the patient declines testing) (Branson et al., 2006). Routine HIV testing in health care settings of patients 13–64 years is recommended with repeat annual testing for high risk patients (Branson et al., 2006).

### National Estimates of Persons ≥13 Years Living with Undiagnosed HIV Disease

#### Sex

In 2011, there were an estimated 136,000 males in the U.S. living with undiagnosed HIV disease or 14.8% of all males estimated to be infected with HIV (CDC, 2014). Among U.S. females, an estimated 11.5% (n=32,300) of those living with HIV disease were undiagnosed in 2011.

**Figure 1. Estimated Number and Percentage of Persons Living with Diagnosed and Undiagnosed HIV Disease by Sex, United States, 2011**

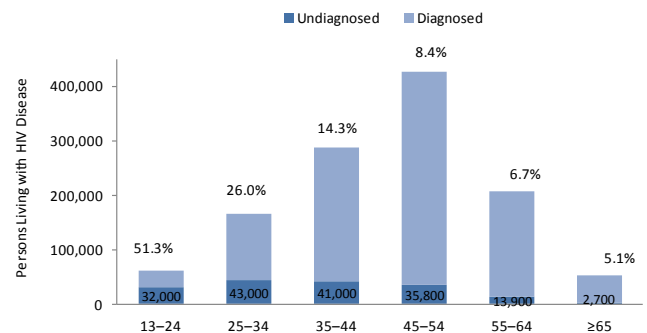


Source: Centers for Disease Control and Prevention, 2014

#### Age

Nationally, in 2011, the estimated percentage of persons with undiagnosed HIV infection decreased with increasing age. The highest percentage of undiagnosed infections was among persons aged 13–24 years where 51.3% of all those infected were estimated to be undiagnosed (CDC, 2013). Among adults aged ≥65 years infected with HIV, 5.1% were estimated to be unaware of their HIV status (CDC, 2013).

**Figure 2. Estimated Number and Percentage of HIV Infected Individuals with Undiagnosed HIV Disease by Age, United States, 2011**

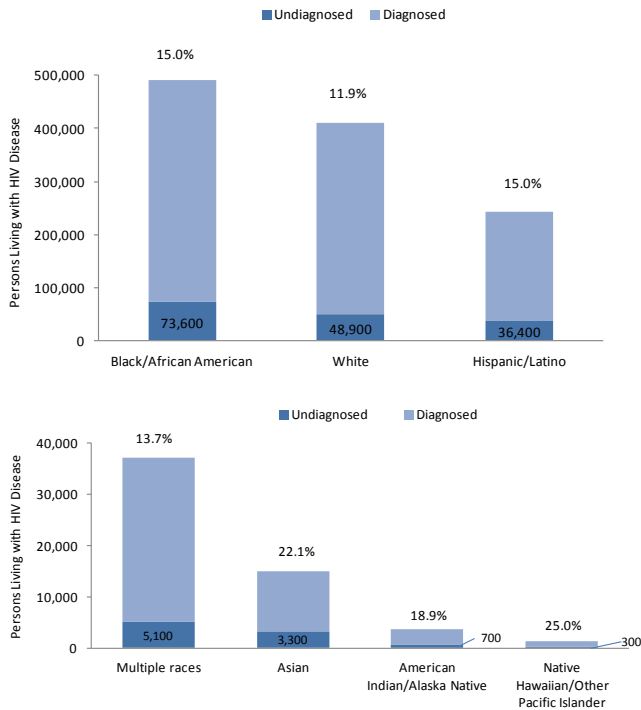


Source: Centers for Disease Control and Prevention, 2014

#### Race/Ethnicity

Nationally, there were estimated to be more NH blacks living with undiagnosed HIV disease than any other racial/ethnic group in 2011. However, the racial/ethnic group estimated to have the highest percentage of persons with undiagnosed HIV infection was Native Hawaiians/Other Pacific Islanders (25.0%). Compared to other racial/ethnic groups, NH whites and persons of multiple races had lower rates of persons living with undiagnosed HIV disease (CDC, 2014).

**Figure 3. Estimated Percentage and Number of Individuals with Undiagnosed HIV Disease by Race/Ethnicity, United States, 2011**

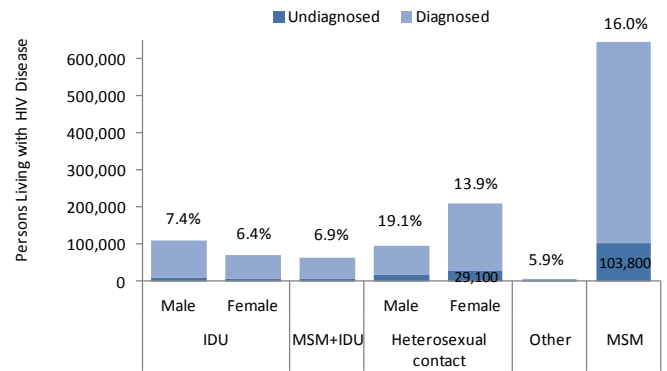


Source: Centers for Disease Control and Prevention, 2014

**Sex and Transmission Risk Category**

The transmission risk category with the highest estimated proportion of persons living with HIV disease who were undiagnosed were males with infection attributed to heterosexual contact (19.1%) (CDC, 2014). The risk group with the lowest estimated proportions of persons living with HIV disease was the “other” risk group (5.9%) which includes persons who acquired HIV disease through a blood transfusion, perinatal exposure or where a risk category was not reported or not identified. (CDC, 2014). The risk group with the highest number of individuals estimated to have undiagnosed HIV are men who have sex with men (MSM) with an estimated 103,800 MSM living with undiagnosed HIV disease in 2011.

**Figure 4. Estimated Percentage and Number of Individuals with Undiagnosed HIV Disease by Transmission Risk Category and Sex, United States, 2011**



Source: Centers for Disease Control and Prevention, 2014

**HIV Testing Rates among Illinois Adults**

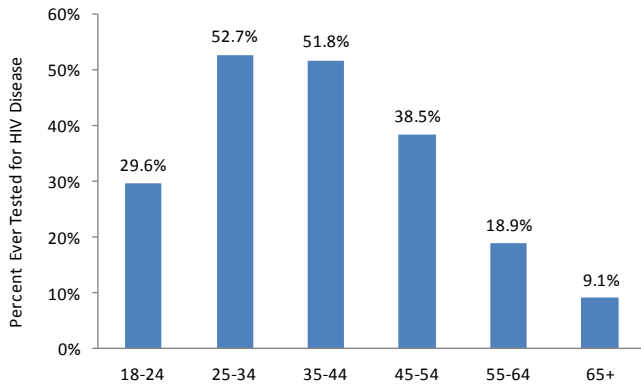
Although there are no specific estimates for the rates of undiagnosed persons with HIV disease living in Illinois, there is information available on HIV testing rates from the Behavioral Risk Factor Surveillance Survey, a phone survey conducted annually in Illinois (Illinois Department of Public Health, 2014).

In 2013, 33.5% of Illinois adults reported ever having had an HIV test (Illinois Department of Public Health, 2014). The percentage of Illinois adults who report having ever being tested for HIV has remained stable since 2009 (Illinois Department of Public Health, 2014). In 2013, Illinois women reported slightly higher rates of lifetime HIV testing than men (35.0% vs. 31.8%).

**Age**

Over 50% of Illinois adults between 25-44 years reported ever having an HIV test in 2013. The lowest rates of lifetime HIV testing were among adults aged ≥55 years with less than 20% reporting ever having had an HIV test. Adults ≥65 years had the lowest rates of HIV testing (9.1%).

**Figure 5. Adults Reporting Ever Having an HIV Test by Age, Illinois, 2013**

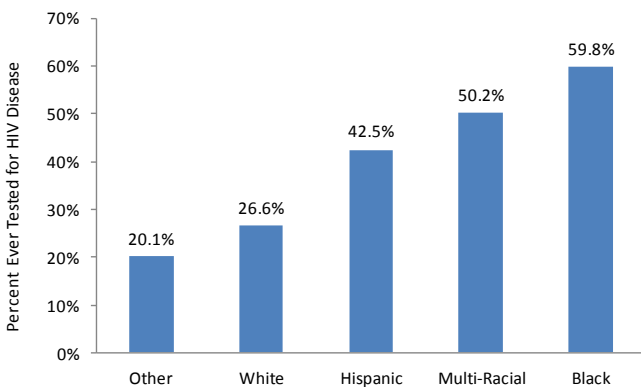


Source: Illinois Department of Public Health, 2014

**Race/Ethnicity**

Respondents who identified as black were almost twice as likely as whites to report having ever received an HIV test (59.8% vs. 26.6%). Hispanics reported a higher rate of testing than non-Hispanics (42.5% vs. 31.9%).

**Figure 6. Adults Reporting Ever Having an HIV Test by Race/Ethnicity, Illinois, 2013**

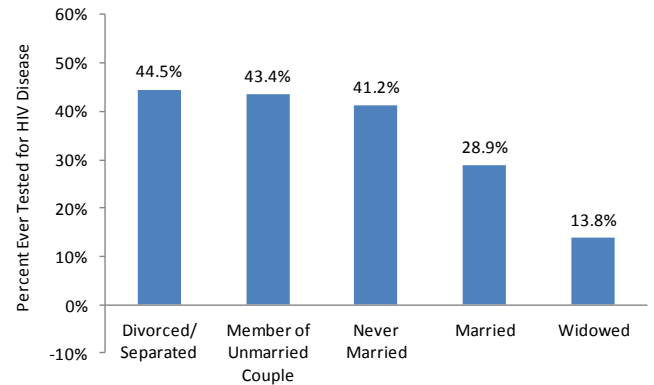


Source: Illinois Department of Public Health, 2014

**Marital Status**

In 2013, Illinois adults who reported being divorced or separated, a member of an unmarried couple or never married, had higher rates of HIV testing compared to adults currently married or widowed.

**Figure 7. Adults Reporting Ever Having an HIV Test by Marital Status, Illinois, 2013**

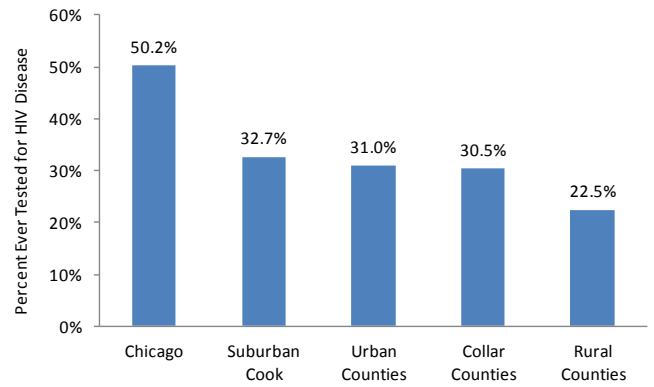


Source: Illinois Department of Public Health, 2014

**Geography**

People living in Chicago reported a higher rate of HIV testing than those who lived outside the city. Among Chicago adults, over 50% reported ever having had an HIV test. Less than 23% of adults living in rural counties reported ever having had an HIV test.

**Figure 8. Adults Reporting Ever Having an HIV Test by Geography, Illinois, 2013**



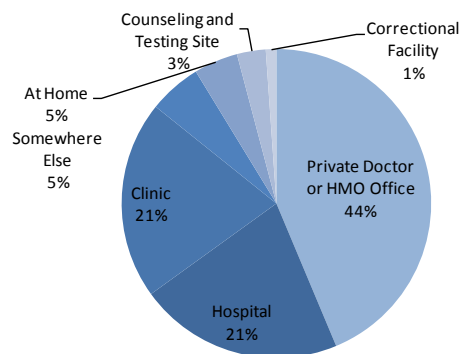
Source: Illinois Department of Public Health, 2014

**Test Location**

In 2010, the BRFSS asked survey respondents about the location of their last HIV test. The majority of Illinois adults who had ever received an HIV test reported last having been tested in a healthcare setting. Private doctors' offices or HMO offices were the most commonly reported testing sites. Five percent of adults reported being tested at home. With the introduction in 2012 of an FDA-approved rapid HIV test for home use, rates of HIV testing at

home may increase over time (Myers, El-Sadr, Zerbe, and Branson, 2013).

**Figure 9. Location of Last HIV Test, Illinois Adults, 2010**



Source: Illinois Department of Public Health, 2010

### HIV Testing Supported by IDPH

In 2014, IDPH supported testing of 207,889 individuals or an estimated 1.7% of the total state population. This was accomplished through various grants and targeted testing strategies, including testing of pregnant women (see section, “Perinatal Transmission”).

The overall new seropositivity rate of this testing was 0.1% or, one new HIV diagnosis per 1,000 persons tested. Although some of the testing was targeted to prioritized risk groups (8%), most testing was routine, such as perinatal testing. In 2014, 215 persons living with HIV disease were newly identified through IDPH-supported testing.

## REFERENCES

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