

# HIV Testing Trends in the United States, 2000-2011

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## Key Terms

**Ever been tested for HIV:** Responded “Yes” to the HIV test question “Except for tests you may have had as part of blood donations, have you ever been tested for HIV?”

**Health care setting:** Responded “Yes” to the HIV test question and reported that their last HIV test was conducted in a: private doctor/health maintenance organization; hospital, emergency room, outpatient clinic; public health department clinic; drug treatment facility; correctional facility; family planning clinic; prenatal clinic; sexually transmitted disease (STD) clinic; community health clinic; or other clinic.

**Non-health care setting:** Responded “Yes” to the HIV test question and reported that their last HIV test was conducted in a: AIDS clinic/counseling and testing site; home, employer or insurance company clinic; military induction or military service site; immigration site; or other nonclinical setting.

**Primarily publicly funded setting:** Responded “Yes” to the HIV test question and reported that their last HIV test was conducted in a: public health department clinic; drug treatment facility; family planning clinic; prenatal clinic; STD clinic; community health clinic; other clinic; or AIDS clinic/counseling and testing site (hereafter referred to as “publicly funded setting”).

**Not primarily publicly funded setting:** Responded “Yes” to the HIV test question and reported that their last HIV test was conducted in a location other than a setting identified as a publicly funded setting (hereafter referred to as “not publicly funded setting”).

**Tested for HIV in the last 12 months:** Responded “Yes” to the HIV test question and reported that their most recent test was conducted within 12 months of the date of the interview.

## Executive Summary

The purpose of this report is to examine HIV testing trends from 2000 to 2011 in the United States in order to consider the impact of CDC’s *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings* and other factors that may influence HIV testing. This report provides results of the analysis of four data sources (Behavioral Risk Factor Surveillance System (BRFSS), National Health and Nutrition Examination Survey (NHANES), National Health Interview Survey (NHIS), and Youth Risk Behavior Survey (YRBS)) containing HIV testing information for having ever been tested and tested in the last 12 months for HIV among adults, adolescents, and pregnant women, nationally and by state-level Expanded Testing Initiative funding status. SAS version 9.3 and SUDAAN were used in order to account for the complex sample designs. The analyses included descriptive statistics and linear regression modeling to determine if a significant change in testing occurred between the first and last years of data analyzed.

Despite increased testing among some populations, testing in the last 12 months, testing among adolescents, and testing among pregnant women did not change significantly. HIV testing is emphasized in the National HIV/AIDS Strategy (NHAS) and the Division of HIV/AIDS Prevention (DHAP) Strategic Plan. One of the targets set forth in the NHAS and the DHAP Strategic Plan is to increase the percentage of people who are living with HIV who know their serostatus from 79% to 90% by 2015. Monitoring and evaluating HIV testing, nationally and at the state-level, is necessary to monitor progress toward this goal and to ensure HIV testing resources are targeted to and reaching persons who are unaware of their infection.

## Key Findings At-a-Glance

### Trends in HIV testing in the United States from 2000 to 2011

Among Adults – Overall and by select characteristics			
	NHIS		NHANES
	Ever been tested	Tested in the last 12 months	Ever been tested
<b>Overall</b>	↑	ns	Ns
White, non-Hispanic	↑	↓	Ns
Black, non-Hispanic	↑	↑	↑
Hispanic	↑	↑	Ns
Other race/ethnicity	↑	↓	Ns
18-24 years	ns	ns	↓
25-34 years	↑	ns	Ns
35-44 years	↑	ns	Ns
45-64 years	↑	ns	↑
Male	↑	ns	Ns
Female	↑	ns	Ns
Reported risk for HIV	↑	ns	NA
Reported no risk for HIV	↑	ns	NA
Health care setting	↑	↑	NA
Non-health care setting	↓	↓	NA
Publicly funded setting	ns	ns	NA
Not publicly funded setting	ns	ns	NA

Note: ↑ – indicates a significant increase; ↓ – indicates a significant decrease; ns –no significant change; NA –not available.

- The percentage of **adults** who had **ever been** tested for HIV increased significantly overall, from 36.6% in 2000 to 45.0% in 2010, and among all race/ethnicity groups, adults aged 25-64 years, males and females, and adults who did and did not report a risk for HIV, based on NHIS.
- Based on NHANES, the percentage of **adults** who had **ever been** tested for HIV did not change significantly overall, from 42.5% in 1999-2000 to 43.1% in 2009-2010. The percentage of adults who had ever been tested did increase significantly among non-Hispanic blacks and persons aged 45-64 years, but decreased significantly among persons aged 18-24 years.
- The percentage of **adults** tested for HIV in the **last 12 months** increased significantly among non-Hispanic blacks and Hispanics, and decreased significantly among non-Hispanic whites and persons of other race/ethnicity, based on NHIS.
- The percentage of adults last tested in a **health care setting** increased significantly from 78.2% in 2000 to 83.4% in 2010 among adults who had ever been tested and from 80.7% in 2000 to 84.0% in 2010 among adults who tested in the last 12 months, based on NHIS.

Among Adolescents – Overall and by select characteristics, YRBS	
	Ever been tested
<b>Overall</b>	ns
White, non-Hispanic	ns
Black, non-Hispanic	ns
Hispanic	ns
Other race/ethnicity	↑
13-14 years	↑
15-16 years	ns
17 years	ns
Male	ns
Female	↑
Have ever had sex	ns
Have not ever had sex	ns

Note: ↑ – indicates a significant increase; ns –no significant change.

- The percentage of **adolescents** who had **ever been** tested for HIV increased significantly among persons of other race/ethnicity, persons aged 13-14 years, and females from 2005 to 2011, based on YRBS.

Among Pregnant women – Overall and by select characteristics, NHIS	
	Tested in the last 12 months
<b>Overall</b>	ns
White, non-Hispanic	ns
Black, non-Hispanic	ns
Hispanic	↑
18-24 years	ns
25-34 years	ns
35-44 years	ns

Note: ↑ – indicates a significant increase; ns –no significant change.

- The percentage of **pregnant women** tested for HIV in the **last 12 months** increased significantly among Hispanics from 2000 to 2011, based on NHIS.

## Introduction

Human immunodeficiency virus (HIV) continues to be a major public health problem in the United States. In 2009, CDC estimated that 1.2 million persons were living with HIV in the United States and approximately 50,000 persons are infected with HIV annually.<sup>1</sup> In 2009, the highest incidence rates were reported among males, blacks or African Americans, and persons aged 30-39 years.<sup>1</sup>

HIV testing identifies infected persons and is the entry point to a continuum of HIV health care and social services that improves health outcomes, including survival. However, as of 2010, 19% of people living with HIV were not aware they are infected and 32% of persons with HIV infection diagnosed in 2009 progressed to AIDS within a year, which indicates those infected may have been living with HIV for up to 10 years before being diagnosed and having access to HIV medical care.<sup>2</sup> Effective HIV care and treatment can suppress HIV viral load. A consistently suppressed HIV viral load is associated with reduced morbidity and mortality and a lower probability of transmitting HIV to sex partners.<sup>3</sup>

CDC is committed to reducing HIV infections and improving health through high impact prevention, which includes increasing access to HIV testing. CDC has provided recommendations for HIV testing since 1993.<sup>4</sup> The *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings* (hereafter referred to as “CDC’s Revised Recommendations”), published in September 2006, promote HIV screening in health care settings among all persons aged 13-64 years.<sup>4</sup> The purpose of promoting HIV screening is to diagnose infection earlier, link infected persons to medical care and ensure receipt of prevention services, and continue the reduction of perinatal transmission. CDC’s Revised Recommendations also urge private and public providers to conduct annual HIV screening for those at high risk of infection and to conduct screening as a routine part of prenatal care for all pregnant women.

To increase awareness of HIV status, CDC established the Expanded Testing Initiative in 2007, under which three programs have been launched and 30 jurisdictions have been funded. The Expanded Testing Initiative aimed to significantly increase the number of persons tested in jurisdictions with a high rate of HIV among disproportionately affected populations (i.e., blacks or African Americans, Hispanics, and men who have sex with men) and support implementation of CDC’s Revised Recommendations.<sup>5</sup>

## Purpose and Objectives

Monitoring and evaluating HIV testing, nationally and at the state-level, is necessary for ensuring HIV testing resources are targeted to and reaching persons who are unaware of their infection. The “*HIV Testing in the United States, 2002-2006*” report (hereafter referred to as “the Baseline Report”) established baseline estimates of the percentage of persons tested for HIV in the United States prior to the release of CDC’s Revised Recommendations.<sup>6</sup> The purpose of this report is to examine HIV testing trends from 2000 to 2011 in the United States in order to assess the impact of the release of CDC’s Revised Recommendations, initiatives to increase testing, and other factors that may affect HIV testing trends. This report provides results of the analysis of select data sources containing HIV testing information for having ever been tested and tested in the last 12 months for HIV, among adults, adolescents, and pregnant women.



## **Monitoring and Evaluation Questions**

This report addresses the following monitoring and evaluation questions:

1. Did the percentage of adults who had ever been tested for HIV change from 2000 to 2010?
2. Did the percentage of adults tested for HIV in the last 12 months change from 2000 to 2010?
3. Did the percentage of adolescents who had ever been tested for HIV change from 2005 to 2011?
4. Did the percentage of pregnant women tested for HIV in the last 12 months change from 2000 to 2010?
5. Among adults tested for HIV, did the location of their most recent test change from 2000 to 2010?
6. Did the percentage of adults who had ever been tested and who tested in the last 12 months for HIV differ between states that received funds for the Expanded Testing Initiative and those that did not receive funds?

Additional trend analyses were conducted by select characteristics to assess changes in testing among persons most affected by HIV.

# Methodology

## Data Sources

Data sources with HIV testing information were selected from the data sources included in the Baseline Report.<sup>6</sup> The Baseline Report included 7 data sources with national-level HIV testing information. Four data sources were selected for inclusion in this report based on the following criteria:

- Allows for calculations of “ever been tested” or “tested in the last 12 months”
- Includes adults, adolescents, or pregnant women
- Allows for national or state-level estimates
- Is conducted regularly (annually or bi-annually), so that HIV testing can be monitored in a timely manner

The data sources that met the inclusion criteria were the Behavioral Risk Factor Surveillance System (BRFSS), National Health and Nutrition Examination Survey (NHANES), National Health Interview Survey (NHIS), and Youth Risk Behavior Survey (YRBS).

### Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS), established in 1984, is an annual cross-sectional telephone survey among adults aged 18 years and older living in households that collects information on preventive health practices and risk behaviors associated with chronic diseases, injuries, and preventable infectious diseases. Prior to 2011, BRFSS was conducted using a Random Digit Dialing (RDD) sampling of landline telephones only. Starting in 2011, BRFSS expanded coverage to include respondents who received 100% of their calls on cell phones. Due to this change in methodology, data are not comparable to previous years; therefore, only 2011 data are presented to provide state-level estimates. Additional information on BRFSS can be found at: <http://www.cdc.gov/brfss/>.<sup>7</sup>

The following variables were included in the analysis:

- HIV testing - ever been tested and tested in the last 12 months (calculated variable using date of most recent HIV test and interview date)
- State of residence

### National Health and Nutrition Examination Survey

The National Health and Nutrition Examination Survey (NHANES), established in the 1960s, is a cross-sectional survey designed to assess the health and nutritional status of adults and children. The survey is unique in that it combines interviews and physical examinations. The NHANES interview includes demographic, socioeconomic, dietary, and health-related questions. The HIV test question was added in the 1999-2000 survey. Additional information on NHANES can be found at: <http://www.cdc.gov/nchs/nhanes.htm>.<sup>8</sup>

The following variables were included in the analysis:

- HIV testing - ever been tested for HIV
- Demographics - age, sex, and race or ethnicity

## **National Health Interview Survey**

The National Health Interview Survey (NHIS), established in 1957, is an ongoing cross-sectional survey of adults and children living in households and non-institutionalized group quarters.<sup>8</sup> NHIS collects information on a broad range of health topics used to track the health status, health care access, and progress toward achieving national health objectives. In 1997, NHIS began including questions related to HIV testing history, location, and risk for persons aged 18 years and older.<sup>9</sup> In 2011, NHIS excluded the AIDS Behavior and Knowledge section from the NHIS survey with the exception of the ever been tested for HIV question. Due to this change and the potential that data from 2011 may not be comparable to previous years, 2011 data are not presented. Additional information on NHIS can be found at: <http://www.cdc.gov/nchs/nhis.htm>.<sup>9</sup>

The following variables were included in the analysis:

- HIV testing – ever been tested for HIV and tested in the last 12 months (calculated variable using date of most recent HIV test and interview date)
- Demographics – age, sex, race or ethnicity (calculated variable using the race and ethnicity variables), and pregnant at time of interview
- HIV-related characteristics – reported a risk for HIV
- Setting type where the last HIV test was conducted

## **Youth Risk Behavior Survey**

The Youth Risk Behavior Survey (YRBS), established in 1990, is a bi-annual national school-based survey. YRBS is used to monitor asthma, obesity, and health risk behaviors; and it is conducted among a representative sample of students in grades 9 through 12 attending public and private schools.<sup>11</sup> YRBS collects information on tobacco, alcohol, and other drug use; unhealthy dietary behaviors; inadequate physical activity; sexual behaviors that contribute to unintended pregnancy, sexually-transmitted diseases, and HIV infection; and behaviors that contribute to unintentional injury and violence. In 2005, a question about “ever been tested for HIV” was added to the survey. Additional information on YRBS can be found at: <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>.<sup>10</sup>

The following variables were included in the analysis:

- HIV testing – ever been tested for HIV
- Demographics – age, sex, and race or ethnicity
- HIV-related characteristics – ever had sex

## **Data Analysis**

### **Inclusion Criteria**

There were two inclusion criteria for this analysis. First, only records with “yes” or “no” responses for “ever been tested” for HIV were included in the analysis (records with “unknown” or “refused” responses or missing data were excluded from the analysis to minimize underestimation). Second, only records from respondents living in the 50 states and the District of Columbia were included in the analysis to make it analogous across data sources.

To make data comparable across all data sources, adults were defined as respondents aged 18-64 years, adolescents were defined as respondents aged 13-17 years, and pregnant women were defined as respondents aged 18-49 years.

The surveys selected were used to monitor HIV testing as follows:

Variable	BRFSS	NHANES	NHIS	YRBS
<b>Tested for HIV:</b>				
Ever tested	X	X	X	X
Tested in the last 12 months	X		X	
<b>Population:</b>				
Adults (aged 18-64 years)	X	X	X	
Adolescents (aged 13-17 years)				X
Pregnant women (aged 18-49 years)			X	
<b>Select variables:</b>				
Demographics		X	X	X
Reported HIV risk/Ever had sex			X	X
<b>Test location:</b>				
Test setting			X	
State	X			
<b>Years analyzed:</b>	2011	1999-2000 to 2009-2010	2000 to 2010	2005 to 2011

### Data Analysis Methods

SAS version 9.3 and SUDAAN were used to account for the complex sample design. The analyses included the following descriptive statistical measures:

- Sample size
- Number (unweighted) of persons tested
- Percentage of persons tested with lower and upper 95% confidence intervals (CIs)

The purpose of assessing trends in the percentage of persons tested for HIV was to detect changes in testing from the first to last years analyzed (i.e., 2000 to 2010 for NHIS, 1999-2000 to 2009-2010 for NHANES, and 2005 to 2011 for YRBS). The first and last years were compared to determine if a significant change in testing occurred between the first and last years. If there was a significant change, cell-mean linear regression modeling was conducted to test, first, for a significant linear trend. Second, we assessed for curvature by seeing whether an added quadratic term was significant.

If there was no significant change between the first and last years, cell-mean linear regression modeling was conducted to assess whether the percentage of persons tested was stable over the time span. Again, we assessed for curvature by seeing whether an added quadratic term was significant. Describing the trend sometimes required the addition of a quadratic term. (e.g., the percentage decreased and then returned to the previous level); usually, the trend was modeled adequately with only a linear term (i.e., the percentage was stable over time and the quadratic term was not significant). The percentage change and p-values from the analyses were reported to indicate significant changes in the percentage of persons tested over time. A p-value less than 0.05 was considered a significant change in the percentage of persons tested.

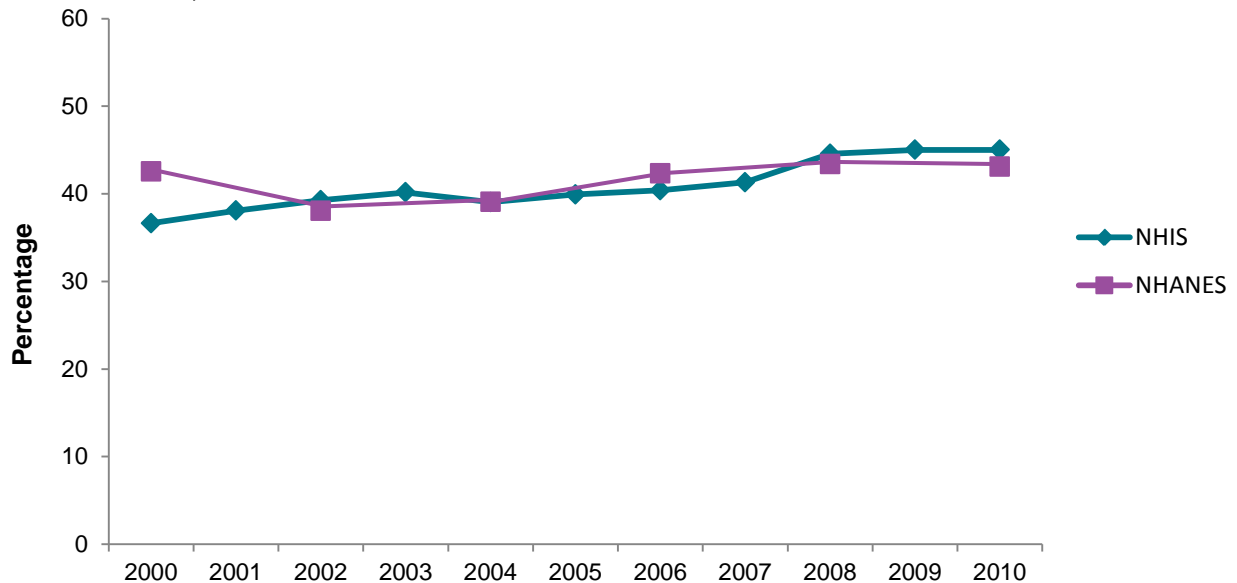
## Results

### HIV Testing among Adults

Based on NHIS, the percentage (22.9%) of adults who had ever been tested for HIV increased significantly from 2000 to 2010 (36.6% in 2000, 45.0% in 2010,  $p < 0.0001$ ; Table 1 and Figure 1). Using NHANES data, the percentage of adults who had ever been tested did not change steadily overtime. The percentage of adults who had ever been tested decreased from 42.5% in the 1999-2000 survey to 38.1% in the 2001-2002 survey and then increased to 43.1% in the 2009-2010 survey (Table 8 and Figure 1); a 1.3% increase from 1999-2000 to 2009-2010 ( $p < 0.7847$ ). Overall, the quadratic term was significant for NHANES; however, p-values reported represent results from cell-mean linear regression models with only a linear term to maintain comparability with results presented from NHIS.

The percentage of adults who had ever been tested varied by race/ethnicity, age group, sex, and reported risk for HIV (Tables 2a, 2b, and 9). Based on NHIS, the percentage increased significantly among Hispanics (30.0%,  $p < 0.0001$ ), non-Hispanic blacks (23.4%,  $p < 0.0001$ ), persons of other race/ethnicity (22.9%,  $p = 0.0385$ ), and non-Hispanic whites (20.1%,  $p < 0.0001$ ). Based on NHANES, the percentage increased significantly only among non-Hispanic blacks (23.9%,  $p = 0.0150$ ). Based on NHIS, the percentage increased significantly among persons aged 45-64 years (50.9%,  $p < 0.0001$ ), persons aged 35-44 years (34.6%,  $p < 0.0001$ ), persons aged 25-34 years (11.2%,  $p < 0.0001$ ), and females (27.9%,  $p < 0.0001$ ) and males (17.1%,  $p < 0.0001$ ). Based on NHANES, the percentage increased significantly among persons aged 45-64 years (22.1%,  $p = 0.0172$ ), and decreased significantly among persons aged 18-24 years (-20.1%,  $p = 0.0329$ ). Based on NHIS, the percentage increased significantly among persons who reported no risk for HIV (23.1%,  $p < 0.0001$ ) and who reported a risk for HIV (7.7%,  $p = 0.0082$ ).

**Figure 1. Percentage of adults who had ever been tested for HIV, NHIS and NHANES,<sup>a</sup> United States, 2000-2010**

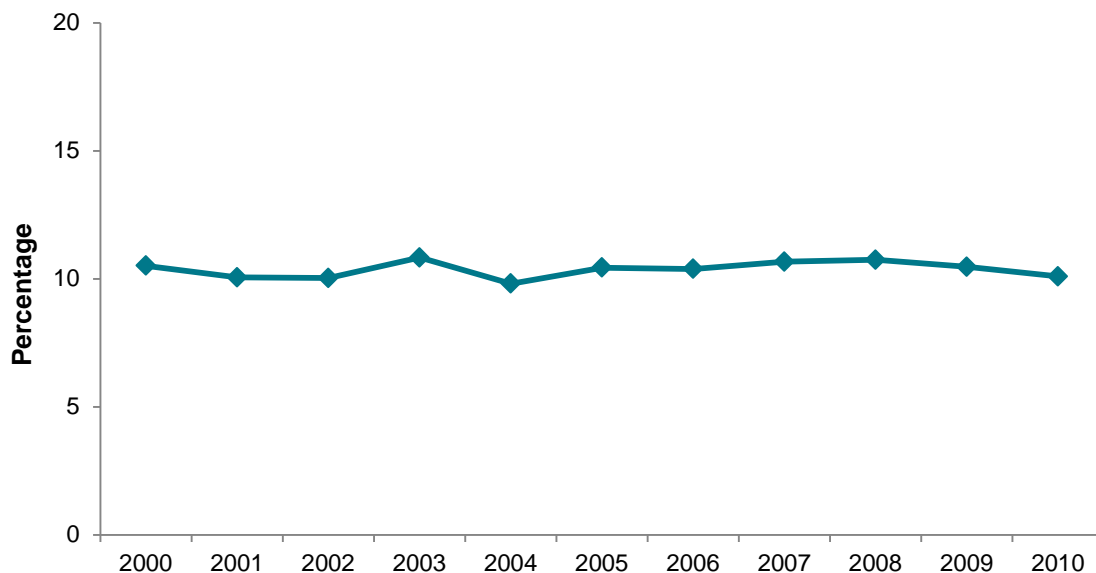


Note. Based on NHIS, the percentage of adults who had ever been tested for HIV increased significantly from 2000 to 2010 ( $p < 0.0001$ ). Based on NHANES, the percentage of adults who had ever been tested for HIV did not change significantly from 1999-2000 to 2009-2010 ( $p = 0.7847$ ).

<sup>a</sup>The NHANES survey is conducted in two-year time intervals. The results from each two-year survey are presented as the second year of the time interval (e.g., the 1999-2000 survey is presented as 2000).

**The decrease in the percentage (-4.0%) of adults tested for HIV in the last 12 months was not significant** from 2000 to 2010 (10.5% in 2000, 10.1% in 2010,  $p=0.9079$ ; Table 1 and Figure 2). The percentage of adults tested in the last 12 months varied by race/ethnicity, age group, sex, and reported risk for HIV (Tables 3a and 3b). The percentage increased significantly among non-Hispanic blacks, (6.9%,  $p=0.0340$ ) and Hispanics (6.6%,  $p=0.0004$ ) and decreased significantly among persons of other race/ethnicity (-22.0%,  $p=0.0103$ ) and non-Hispanic whites (-13.7%,  $p=0.0017$ ).

**Figure 2. Percentage of adults tested for HIV in the last 12 months, NHIS, United States, 2000-2010**



Note. The percentage of adults tested for HIV in the last 12 months did not change significantly from 2000 to 2010 ( $p=0.9079$ ).

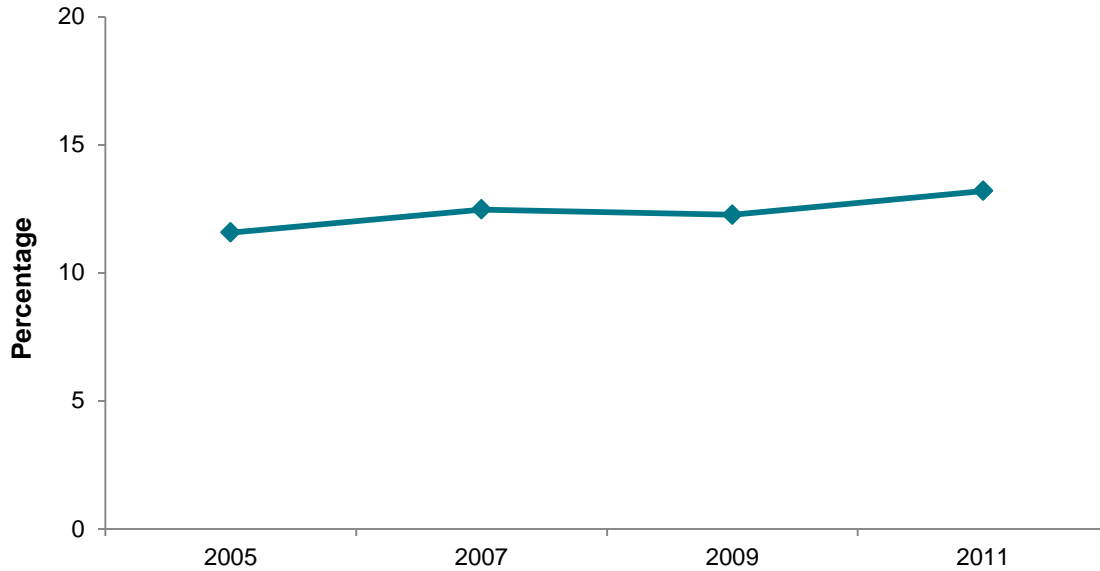
### HIV Testing by Test Setting

Among adults who had ever been tested and who tested in the last 12 months, **the majority of adults were last tested in a health care setting** (Table 4). Among adults ever tested, the percentage of adults last tested in a health care setting increased 6.6% from 78.2% in 2000 to 83.4% in 2010 ( $p<0.0001$ ). Similarly, among adults tested in the last 12 months, the percentage of adults last tested in a health care setting increased 4.1% from 80.7% in 2000 to 84.0% in 2010 ( $p=0.0022$ ). Among adults who had ever been tested and who tested in the last 12 months, **approximately 20% of adults were last tested in a publicly funded setting** (Table 5).

## HIV Testing among Adolescents

The increase in the percentage (14.0%) of adolescents who had ever been tested for HIV was not significant from 2005 to 2011 (11.6% in 2005, 13.2% in 2011,  $p=0.1279$ ; Table 10 and Figure 3). The percentage of adolescents who had ever been tested for HIV varied by race/ethnicity, age group, sex, and ever had sex (Table 11). The percentage increased significantly among persons of other race/ethnicity (36.8%,  $p=0.0345$ ), persons aged 13-14 years (71.5%,  $p=0.0025$ ), and females (21.4%,  $p=0.0421$ ).

**Figure 3. Percentage of adolescents who had ever been tested for HIV, YRBS, United States, 2005-2011**



Note. The percentage of adolescents who had ever been tested for HIV did not change significantly from 2005 to 2011 ( $p=0.1279$ ).

## HIV Testing among Pregnant Women

The decrease in the percentage (-9.5%) of pregnant women tested for HIV in the last 12 months was not significant from 2000 to 2010 (59.3% in 2000, 53.7% in 2010,  $p=0.6554$ ; Table 6 and Figure 4). The percentage of pregnant women tested for HIV in the last 12 months varied by race/ethnicity and age group (Table 7). The percentage increased significantly among Hispanics (4.1%,  $p=0.0481$ ).

**Figure 4. Percentage of pregnant women tested for HIV in the last 12 months, NHIS, United States, 2000-2010**



Note. The percentage of pregnant women tested for HIV in the last 12 months did not change significantly from 2000 to 2010 ( $p=0.6554$ ).

## HIV Testing by State and Funding for the Expanded Testing Initiative

In 2011, 42.9% of persons had ever been tested for HIV, based on BRFSS (Table 12). The percentage of adults who had ever been tested was highest among states that were funded for the Expanded Testing Initiative (44.9%) compared to states that were not funded for the Expanded Testing Initiative (36.7%). The states with the higher percentage of persons who had ever been tested were the District of Columbia (73.5%), Maryland (53.4%), Florida (51.3%), Georgia (51.1%), and New York (50.4%).

Based on BRFSS, 13.5% of persons had tested for HIV in the last 12 months (Table 13). The percentage of adults tested in the last 12 months was highest among states that were funded for the Expanded Testing Initiative (14.8%) compared to states that were not funded for the Expanded Testing Initiative (9.5%). The states with the higher percentage of persons tested in the last 12 months were the District of Columbia (42.5%), Maryland (21.5%), and New York (20.4%).



## Commentary

This report provides a range of estimates of the percentage of persons tested for HIV in the United States from 2000 to 2011 to provide information on the following monitoring and evaluation questions:

1. Did the percentage of **adults** who had **ever been** tested change from 2000 to 2010?
  - **Mixed results:** Based on NHIS, the percentage of adults who had ever been tested increased significantly overall, from 36.6% in 2000 to 45.0% in 2010, and among all race/ethnicity groups, adults aged 25-64 years, males and females, and adults who did and did not report a risk for HIV. Based on NHANES, the change in the percentage of adults who had ever been tested for HIV was not significant overall, from 42.5% in 1999-2000 to 43.1% in 2009-2010, increased significantly among non-Hispanic blacks and persons aged 45-64 years, but decreased significantly among persons aged 18-24 years.
    - Initially, the percentage of adults who had ever been tested for HIV was higher based on NHANES as compared to NHIS; by 2010, the results were more comparable.
2. Did the percentage of **adults** tested in the **last 12 months** change from 2000 to 2010?
  - **Mixed results:** The percentage of adults tested in the last 12 months increased significantly among non-Hispanic blacks and Hispanics, but decreased significantly among non-Hispanic whites and adults of other race/ethnicity and did not change significantly overall, from 10.5% to 10.1%, or by age group, sex, or reported risk for HIV, based on NHIS.
3. Did the percentage of **adolescents** who had **ever been** tested change from 2005 to 2011?
  - **Mixed results:** The percentage of adolescents who had ever been tested for HIV increased significantly among adolescents of other race/ethnicity, persons aged 13-14 years, and females, but did not change significantly overall, from 11.6% to 13.2%, and among non-Hispanic whites, non-Hispanic blacks, Hispanics, adolescents aged 15-17 years, males, or by ever had sex, based on YRBS.
4. Did the percentage of **pregnant women** tested in the **last 12 months** change from 2000 to 2010?
  - **Mixed results:** The percentage of pregnant women tested in the last 12 months increased significantly among Hispanics, but remained stable overall and among non-Hispanic whites, non-Hispanic blacks, and all age groups, based on NHIS.
5. Among **adults** tested for HIV, did the **location** of their most recent test change from 2000 to 2010?
  - **Mixed results:** The percentage of adults last tested in a **health care setting** increased significantly among persons who had ever been tested (from 78.2% to 83.4%) and among persons tested in the last 12 months (from 80.7% to 84.0%), but the change in the percentage of adults last tested in a **publicly funded setting** was not significant, based on NHIS.
6. Did the percentage of **adults** who had ever been tested and who tested in the last 12 months differ between states that received funds for the Expanded Testing Initiative and those that did not receive funds?
  - **Yes:** Testing was higher among states funded for the Expanded Testing Initiative compared to states that were not funded, based on BRFSS.

In 2001, CDC released guidelines for HIV counseling and testing that reiterated previous recommendations for routine testing in health care settings with HIV prevalence  $\geq 1\%$  and recommended targeted testing in health care settings with lower HIV prevalence and routine HIV testing for all persons seeking treatment for sexually transmitted diseases.<sup>11</sup> In 2006, CDC's Revised Recommendations were released to advocate voluntary "opt-out" HIV screening in health care settings, with appropriate follow-up care and treatment, eliminating requirements for separate, written consent for HIV testing.<sup>4</sup> Opt-out screening includes performing HIV screening after notifying the patient that 1) the test will be performed and 2) the patient may elect to decline or defer testing – assent is inferred unless the patient declines testing.<sup>4</sup>

CDC has supported these recommendations with a number of initiatives including the *Advancing HIV Prevention: New Strategies for a Changing Epidemic* (AHP) initiative launched in 2003<sup>12</sup> and the *Expanded Testing Initiative* (ETI) launched in 2007.<sup>5</sup> AHP increased emphasis on HIV testing and providing prevention and care services for persons infected with HIV. AHP had four priority strategies that emphasized the use of proven public health approaches to reduce the spread of HIV: making voluntary HIV testing a routine part of medical care; implementing new models for diagnosing HIV infection outside medical settings; working with persons diagnosed with HIV and their partners to interrupt transmission; and further reducing perinatal HIV transmission.<sup>12</sup> ETI sought to facilitate HIV screening and increase diagnoses of HIV infections and linkage to care among populations disproportionately affected by HIV, especially blacks or African Americans, Hispanics, and men who have sex with men.<sup>5</sup>

In addition to these initiatives, removal of state policy barriers, improvements in test technology, and improved treatment options may have facilitated the increases observed for the percentage of persons who had ever been tested. As of 2008, 11 of 16 states had changed legislation to reduce barriers to testing.<sup>13</sup> Technical advances in HIV diagnostics, including rapid tests, have made testing more feasible in a variety of venues.<sup>14</sup> The conventional HIV serological test required several days or weeks and up to one-third of HIV-infected patients in many settings never returned for their test results.<sup>14,15</sup> Since 2002, six rapid HIV tests have received approval from the U.S. Food and Drug Administration. These rapid tests can provide point-of-care results within 1 hour of testing.

Despite advances among some populations, testing in the last 12 months, testing among adolescents, and testing among pregnant women has not changed significantly. Substantial barriers to increase testing persist. Specific to CDC's Revised Recommendations, concerns remain regarding the variability in payment coverage for the test, laws in states that mandate signed consent and counseling,<sup>16-18</sup> concerns about stigma and discrimination that may accompany an HIV diagnosis,<sup>16,17,19-22</sup> and a perception that risk-based testing is more cost-effective.<sup>21</sup> Health care providers cite concern about reimbursement for an HIV test, follow-up, not being certified to provide HIV counseling, lengthy informed consent and pretest counseling process, and that HIV testing was not available in their institutions.<sup>23</sup> Furthermore, patients cite cost of an HIV test as a barrier in addition to being unaware of improved HIV treatment options and risk for HIV.<sup>24</sup> In a separate study, fear was cited as the number one reason patients did not test for HIV.<sup>24</sup>

One barrier to testing cited by health care providers and patients is concern about reimbursement (the cost) of the HIV test. The federal government financially supports HIV testing through multiple initiatives, as well as through funding to state and local health departments. However, only approximately

20% of adults were last tested in a publicly funded test setting, indicating that the majority of adults are tested in settings that require other forms of payment for an HIV test. The United States Prevention Task Force, whose recommendations guide payment coverage for HIV testing, recently released draft recommendations for public comment that could substantially change coverage of HIV screening.<sup>25,26</sup> The draft recommendations strongly recommend that clinicians screen all people aged 15-65 years for HIV, and younger adolescents and older adults at increased risk for HIV infection. If these recommendations are adopted, it could significantly increase the number of payers that cover routine HIV screening, subsequently decreasing the burden of payment for HIV testing and reducing a major barrier to HIV testing.

## **Limitations**

There are several limitations associated with this analysis. First, the surveys included in this report used different methodologies (e.g., inclusion of persons living in group quarters) that have also changed overtime. For example, the sampling frame for NHANES in 1999-2000 was based on a subset of the primary sampling units (PSUs) used for NHIS. In 2001-2002, NHANES updated the sampling frame to an independent set of PSUs to include all counties in the U.S.<sup>8</sup> This change in the sampling frame should be considered when comparing estimates from 1999-2000 to estimates from 2001-2002 and onward. Second, the information collected by the population-based surveys is self-reported and is therefore subject to recall bias and underreporting of personal information such as risk behaviors associated with HIV. Third, these surveys potentially excluded persons with higher risks for HIV (e.g., homeless and incarcerated persons). Fourth, percentages of pregnant women tested for HIV might be underestimated from NHIS because they account only for women that are currently pregnant and not for those who were pregnant or will be pregnant during the year.

## **Conclusion**

The percentage of persons who had ever been tested has increased since 2000, but the percentage of persons tested in the last 12 months and the percentage of adolescents and pregnant women tested has not changed significantly. CDC's high impact prevention approach includes a comprehensive HIV testing strategy that recommends 1) routine HIV screening in health care settings with prevalence of undiagnosed infection  $\geq 0.1\%$ , 2) targeted testing of persons with risk factors associated with increased HIV prevalence, and 3) retesting at least annually for HIV-negative persons at increased risk for HIV.<sup>4</sup> Increasing HIV testing is necessary to increase the percentage of persons aware of their infection in order to ultimately reduce the transmission rate and the number of new HIV infections. HIV testing is emphasized in the National HIV/AIDS Strategy (NHAS) and the DHAP Strategic Plan. One of the targets set forth in the NHAS and the DHAP Strategic Plan is to increase the percentage of people who are living with HIV who know their serostatus from 79% to 90% by 2015.<sup>27,28</sup> Monitoring and evaluating HIV testing trends is necessary to assess progress toward this goal and to ensure HIV testing resources are targeted to and reaching persons who are unaware of their infection.

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## Appendix A: Results by Data Source

### National Health Interview Survey (NHIS)

Table 1. Percentage of **adults** who had **ever been** tested and tested in the **last 12 months** for HIV, **NHIS**, United States, 2000-2010

Year	Ever been tested					Tested in the last 12 months				
	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
2000	24,478	9,595	36.6	35.8	37.4	24,075	2,795	10.5	10.1	11.0
2001	26,200	10,701	38.1	37.3	38.9	25,699	2,858	10.1	9.6	10.5
2002	24,253	10,234	39.3	38.4	40.1	23,800	2,648	10.0	9.6	10.5
2003	24,042	10,303	40.2	39.4	41.0	23,536	2,871	10.8	10.4	11.3
2004	24,377	10,188	39.0	38.2	39.8	23,982	2,617	9.8	9.4	10.3
2005	24,286	10,321	39.9	39.1	40.7	23,905	2,771	10.4	10.0	10.9
2006	18,807	8,213	40.4	39.4	41.4	18,061	2,189	10.4	9.9	10.9
2007	17,958	7,971	41.3	40.3	42.3	17,653	2,170	10.7	10.1	11.2
2008	16,593	7,856	44.6	43.6	45.5	16,346	1,990	10.7	10.1	11.3
2009	21,575	10,520	45.0	44.1	46.0	21,271	2,602	10.5	10.0	11.0
2010	20,878	10,224	45.0	44.1	45.9	20,595	2,480	10.1	9.6	10.6
Trend	% change: 22.9% (p<0.0001)					% change: -4.0% (p=0.9079)				

<sup>a</sup>Unweighted

<sup>b</sup>Confidence Interval

Table 2a. Percentage of **adults** who had **ever been** tested for HIV, by race/ethnicity and age group, **NHIS**, United States, 2000-2010

Race/ethnicity																				
Year	White, non-Hispanic					Black, non-Hispanic					Hispanic					Other <sup>a</sup>				
	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	15,377	5,539	34.4	33.5	35.3	3,507	1,897	52.3	49.8	54.7	4,508	1,748	35.7	33.7	37.6	1,086	411	34.3	31.0	37.7
2001	16,372	6,109	35.4	34.5	36.3	3,712	2,079	53.9	51.6	56.2	4,878	2,017	38.8	37.0	40.7	1,238	496	38.0	34.8	41.3
2002	15,205	5,839	36.3	35.4	37.2	3,325	1,937	56.3	53.9	58.7	4,566	1,989	40.3	38.4	42.3	1,157	469	39.3	36.2	42.4
2003	14,943	5,808	37.1	36.2	38.1	3,300	1,925	56.3	54.0	58.7	4,711	2,108	42.0	40.1	43.9	1,088	462	39.9	36.3	43.5
2004	14,883	5,659	36.2	35.3	37.2	3,495	2,001	55.3	53.3	57.2	4,828	2,060	40.1	38.3	41.9	1,171	468	37.3	34.1	40.6
2005	14,894	5,729	36.8	35.9	37.8	3,439	1,941	54.7	52.4	56.9	4,805	2,186	43.5	41.7	45.2	1,148	465	38.6	35.0	42.3
2006	10,646	4,146	37.1	35.8	38.3	3,155	1,869	57.0	54.5	59.4	3,668	1,673	42.8	40.7	44.9	1,338	525	39.0	36.0	42.1
2007	10,150	4,008	38.0	36.8	39.2	2,869	1,743	58.6	56.1	61.2	3,591	1,692	43.8	41.6	46.0	1,348	528	37.5	34.1	41.0
2008	9,577	4,102	40.9	39.8	42.1	2,622	1,677	61.8	59.4	64.2	3,101	1,545	47.6	45.3	50.0	1,293	532	42.0	38.9	45.1
2009	11,919	5,173	41.2	40.1	42.4	3,481	2,372	66.0	63.5	68.4	4,484	2,263	47.2	45.2	49.3	1,691	712	39.2	36.0	42.4
2010	11,236	4,903	41.4	40.2	42.5	3,431	2,326	64.5	62.1	66.9	4,416	2,207	46.4	44.5	48.2	1,795	788	42.2	39.1	45.3
Trend	% change: 20.1% (p<0.0001)					% change: 23.4% (p<0.0001)					% change: 30.0% (p<0.0001)					% change: 22.9% (p=0.0385)				
Age group																				
Year	18-24					25-34					35-44					45-64				
	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	3,296	1,249	34.2	32.0	36.4	5,909	3,135	51.1	49.7	52.6	6,457	2,861	42.2	40.8	43.6	8,816	2,350	24.4	23.4	25.5
2001	3,422	1,313	34.0	32.0	36.0	6,302	3,493	53.1	51.6	54.6	6,856	3,170	44.4	42.9	45.9	9,620	2,725	26.3	25.3	27.4
2002	3,295	1,233	32.2	30.1	34.3	5,663	3,299	56.6	55.0	58.1	6,245	3,063	46.4	44.8	48.0	9,050	2,639	27.5	26.4	28.6
2003	3,167	1,210	33.9	31.9	35.9	5,614	3,223	55.3	53.6	56.9	6,032	2,966	47.4	45.9	48.9	9,229	2,904	29.3	28.2	30.5
2004	3,207	1,121	30.7	28.6	32.7	5,462	3,064	53.6	51.9	55.2	6,102	3,085	49.0	47.5	50.6	9,606	2,918	28.2	27.1	29.3
2005	2,996	1,111	32.2	30.1	34.3	5,493	3,116	54.5	52.8	56.3	5,854	2,972	48.3	46.9	49.6	9,943	3,122	30.0	28.9	31.1
2006	2,599	986	33.5	31.1	35.8	4,265	2,394	53.5	51.5	55.5	4,466	2,350	49.5	47.6	51.3	7,477	2,483	30.9	29.5	32.2
2007	2,392	933	32.5	29.9	35.1	4,048	2,268	54.3	52.3	56.2	4,147	2,205	50.0	48.0	52.0	7,371	2,565	32.9	31.4	34.4
2008	2,059	804	33.9	31.3	36.5	3,801	2,270	57.8	55.8	59.9	3,804	2,185	56.7	54.6	58.7	6,929	2,597	35.0	33.7	36.3
2009	2,741	1,079	34.6	32.3	37.0	4,875	2,977	57.9	56.0	59.8	4,815	2,824	55.8	54.2	57.5	9,144	3,640	36.6	35.3	37.9
2010	2,737	1,078	34.5	32.2	36.8	4,813	2,907	56.9	55.1	58.7	4,624	2,750	56.8	55.0	58.6	8,704	3,489	36.9	35.7	38.1
Trend	% change: 0.9% (p=0.7949)					% change: 11.2% (p<0.0001)					% change: 34.6% (p<0.0001)					% change: 50.9% (p<0.0001)				

<sup>a</sup>Includes American Indian or Alaska Native, Asian, and Native Hawaiian or Pacific Islander.

<sup>b</sup>Unweighted

<sup>c</sup>Confidence Interval

Table 2b. Percentage of **adults** who had **ever been** tested for HIV, by sex and reported risk for HIV, **NHIS**, United States, 2000-2010

Year	Sex										Reported risk for HIV <sup>a,b</sup>									
	Male					Female					Yes				No					
	Sample size	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>	
2000	10,920	3,871	33.9	32.8	35.0	13,558	5,724	39.2	38.2	40.3	767	537	68.2	64.4	72.0	23,363	8,904	35.7	34.9	36.5
2001	11,724	4,374	35.2	34.1	36.3	14,476	6,327	40.9	39.9	41.9	846	577	64.6	60.6	68.5	24,840	9,888	37.2	36.4	38.0
2002	10,852	4,016	35.2	34.0	36.3	13,401	6,218	43.2	42.1	44.3	742	541	69.7	65.4	74.0	22,925	9,425	38.3	37.5	39.1
2003	10,776	4,060	35.8	34.7	37.0	13,266	6,243	44.3	43.2	45.4	638	477	69.2	64.6	73.9	22,866	9,577	39.4	38.6	40.2
2004	11,154	4,103	34.4	33.3	35.5	13,223	6,085	43.5	42.5	44.6	742	522	68.0	63.6	72.4	23,068	9,407	38.1	37.3	38.9
2005	10,870	4,107	35.8	34.7	36.9	13,416	6,214	43.9	42.9	45.0	755	549	68.2	63.7	72.6	22,950	9,492	39.0	38.2	39.8
2006	8,491	3,297	36.9	35.6	38.3	10,316	4,916	43.8	42.4	45.1	557	394	72.5	67.9	77.1	17,832	7,636	39.5	38.5	40.5
2007	8,132	3,164	37.3	35.8	38.9	9,826	4,807	45.2	44.0	46.4	592	416	66.3	61.4	71.2	16,979	7,380	40.5	39.4	41.5
2008	7,431	3,209	41.3	40.0	42.7	9,162	4,647	47.7	46.5	48.9	624	456	71.7	66.7	76.7	15,666	7,241	43.5	42.5	44.5
2009	9,724	4,109	39.8	38.5	41.2	11,851	6,411	50.0	48.8	51.3	913	710	75.6	71.6	79.5	20,360	9,665	43.8	42.8	44.7
2010	9,463	4,031	39.7	38.5	41.0	11,415	6,193	50.2	49.0	51.4	859	635	73.5	70.0	76.9	19,765	9,464	44.0	43.0	44.9
Trend	% change: 17.1% (p<0.0001)					% change: 27.9% (p<0.0001)					% change: 7.7% (p=0.0082)				% change: 23.1% (p<0.0001)					

<sup>a</sup>The sample size may not sum to the sample size in Table 1 because records with "do not know or not sure", "refused", or missing responses for the reported risk for HIV variable were excluded from the analysis for the reported risk for HIV.

<sup>b</sup>Persons were asked if any of the following HIV risk factors were true for them but not which applied to them: have hemophilia and have received clotting factor concentrations; was a man who has had sex with other men, even just one time; have taken street drugs by needle, even just one time; have traded sex for money or drugs, even just one time; have tested positive for HIV; or have had sex (even just one time) with someone who would answer "yes" to any of these statements.

<sup>c</sup>Unweighted

<sup>d</sup>Confidence Interval



Table 3a. Percentage of **adults** tested in the **last 12 months** for HIV, by race/ethnicity and age group, **NHIS**, United States, 2000-2010

Year	Race/ethnicity																			
	White, non-Hispanic					Black, non-Hispanic					Hispanic					Other <sup>a</sup>				
	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	15,191	1,386	8.7	8.2	9.2	3,393	738	21.2	19.4	23.1	4,420	546	11.3	10.1	12.4	1,071	125	10.5	8.4	12.7
2001	16,123	1,420	8.3	7.8	8.8	3,604	713	19.6	17.8	21.4	4,765	594	11.3	10.1	12.4	1,207	131	9.8	7.7	11.9
2002	15,011	1,294	8.1	7.6	8.6	3,190	632	19.0	17.5	20.5	4,463	595	12.2	10.9	13.4	1,136	127	11.6	9.2	13.9
2003	14,710	1,375	8.8	8.3	9.3	3,183	715	21.3	19.5	23.0	4,581	652	12.8	11.6	14.1	1,062	129	10.0	8.2	11.9
2004	14,705	1,242	8.0	7.4	8.5	3,393	682	19.6	17.9	21.2	4,738	570	11.2	10.0	12.4	1,146	123	9.1	7.3	10.8
2005	14,717	1,284	8.3	7.8	8.8	3,342	729	20.4	18.9	22.0	4,713	643	12.8	11.7	14.0	1,133	115	10.3	7.9	12.8
2006	10,278	898	8.0	7.4	8.5	2,986	668	21.8	19.7	24.0	3,512	496	12.6	11.2	13.9	1,285	127	9.8	7.9	11.7
2007	10,027	858	8.1	7.4	8.7	2,790	635	21.4	19.6	23.2	3,510	526	13.8	12.6	15.1	1,326	151	10.5	8.4	12.7
2008	9,467	825	8.2	7.5	8.8	2,560	617	22.9	20.9	24.8	3,043	421	12.4	10.8	13.9	1,276	127	10.5	8.4	12.7
2009	11,790	935	7.4	6.8	8.0	3,405	846	24.1	22.1	26.1	4,407	680	14.5	13.2	15.8	1,669	141	6.9	5.3	8.5
2010	11,125	906	7.5	6.9	8.1	3,348	800	22.7	20.9	24.4	4,343	600	12.0	10.7	13.3	1,779	174	8.2	6.8	9.6
Trend	% change: -13.7% (p=0.0017)					% change: 6.9% (p=0.0340)					% change: 6.6% (p=0.0004)					% change: -22.0% (p=0.0103)				
Year	Age group																			
	18-24					25-34					35-44					45-64				
	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	3,243	566	16.0	14.4	17.5	5,791	957	14.9	13.9	15.9	6,350	685	9.7	8.9	10.5	8,691	587	5.9	5.4	6.5
2001	3,350	530	14.1	12.6	15.5	6,172	983	14.2	13.2	15.1	6,726	712	9.5	8.7	10.3	9,451	633	6.3	5.7	6.8
2002	3,241	521	13.1	11.8	14.4	5,524	893	15.3	14.3	16.3	6,119	651	9.4	8.6	10.2	8,916	583	6.1	5.6	6.7
2003	3,094	557	15.3	13.9	16.7	5,469	967	15.6	14.6	16.6	5,929	691	10.4	9.6	11.1	9,044	656	6.5	5.9	7.1
2004	3,157	532	14.9	13.4	16.5	5,363	865	14.1	13.1	15.2	6,000	593	8.9	8.0	9.7	9,462	627	5.9	5.3	6.4
2005	2,938	533	15.7	14.1	17.4	5,396	934	15.2	14.1	16.3	5,749	610	9.3	8.5	10.1	9,822	694	6.4	5.9	7.0
2006	2,533	469	15.7	14.1	17.4	4,077	738	15.4	14.1	16.7	4,271	501	9.9	8.9	10.9	7,180	481	5.9	5.2	6.6
2007	2,344	448	15.5	13.8	17.2	3,981	696	15.8	14.4	17.3	4,077	471	9.9	8.8	11.1	7,251	555	6.5	5.8	7.2
2008	2,026	384	15.9	13.9	17.9	3,736	676	15.8	14.4	17.2	3,749	441	10.4	9.3	11.6	6,835	489	6.3	5.6	7.0
2009	2,702	520	16.0	14.2	17.8	4,789	915	16.5	15.1	17.8	4,744	526	9.1	8.2	10.1	9,036	641	6.0	5.5	6.6
2010	2,696	513	15.7	14.2	17.3	4,730	861	15.6	14.4	16.8	4,575	531	9.6	8.6	10.6	8,594	575	5.4	4.8	5.9
Trend	% change: -1.4% (p=0.9572)					% change: 4.5% (p=0.0647)					% change: -1.0% (p=0.3983)					% change: -9.7% (p=0.8391)				

<sup>a</sup>Includes American Indian or Alaska Native, Asian, and Native Hawaiian or Pacific Islander.

<sup>b</sup>Unweighted

<sup>c</sup>Confidence Interval

Table 3b. Percentage of **adults** tested in the **last 12 months** for HIV, by sex and reported risk for HIV, **NHIS**, United States, 2000-2010

Year	Sex										Reported risk for HIV <sup>a,b</sup>									
	Male					Female					Yes					No				
	Sample size	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size	No. persons tested <sup>c</sup>	% tested	95% CI		Sample size	No. persons tested <sup>c</sup>	% tested	95% CI	
2000	10,757	1,077	9.3	8.7	9.9	13,318	1,718	11.7	11.1	12.3	746	170	21.1	17.5	24.7	23,001	2,587	10.2	9.8	10.7
2001	11,541	1,115	9.0	8.5	9.6	14,158	1,743	11.0	10.4	11.7	819	180	19.1	16.2	21.9	24,396	2,610	9.7	9.3	10.2
2002	10,686	977	8.5	7.9	9.1	13,114	1,671	11.5	10.9	12.1	723	173	21.9	18.5	25.3	22,532	2,404	9.7	9.2	10.1
2003	10,558	1,087	9.2	8.6	9.7	12,978	1,784	12.4	11.7	13.1	619	179	25.3	21.3	29.3	22,425	2,632	10.5	10.0	10.9
2004	10,981	980	8.0	7.3	8.6	13,001	1,637	11.6	10.9	12.3	728	154	19.9	16.2	23.6	22,727	2,397	9.5	9.0	9.9
2005	10,726	1,078	9.2	8.6	9.8	13,179	1,693	11.7	11.1	12.3	743	181	21.4	18.1	24.7	22,616	2,527	10.1	9.7	10.5
2006	8,167	817	9.1	8.4	9.9	9,894	1,372	11.6	10.9	12.3	524	114	23.0	17.7	28.3	17,162	2,042	10.1	9.6	10.6
2007	8,003	807	9.2	8.5	9.9	9,650	1,363	12.1	11.3	12.9	574	128	20.8	16.7	24.8	16,722	2,004	10.4	9.8	10.9
2008	7,304	757	9.2	8.4	10.0	9,042	1,233	12.2	11.4	13.1	614	137	20.9	16.7	25.1	15,452	1,823	10.4	9.8	11.0
2009	9,611	922	8.6	7.9	9.3	11,660	1,680	12.3	11.5	13.0	893	213	20.6	17.2	24.1	20,090	2,353	10.0	9.5	10.5
2010	9,352	875	8.1	7.5	8.8	11,243	1,605	12.0	11.2	12.8	844	205	23.2	19.5	26.8	19,519	2,249	9.6	9.1	10.1
Trend	% change: -12.3% (p=0.1620)					% change: 2.6% (p=0.2538)					% change: 9.7% (p=0.8338)					% change: -6.0% (p=0.5636)				

<sup>a</sup>The sample size may not sum to the sample size in Table 1 because records with "do not know or not sure", "refused", or missing responses for the reported risk for HIV variable were excluded from the analysis for the reported risk for HIV.

<sup>b</sup>Persons were asked if any of the following HIV risk factors were true for them but not which applied to them: have hemophilia and have received clotting factor concentrations; was a man who has had sex with other men, even just one time; have taken street drugs by needle, even just one time; have traded sex for money or drugs, even just one time; have tested positive for HIV; or have had sex (even just one time) with someone who would answer "yes" to any of these statements.

<sup>c</sup>Unweighted

<sup>d</sup>Confidence Interval

Table 4. Percentage of **adults** tested for HIV by **test setting**, **NHIS**, United States, 2000-2010

Year	Ever been tested									Tested in the last 12 months								
	Total no. persons tested <sup>a,b</sup>	Non-health care				Health care				Total no. persons tested <sup>a,b</sup>	Non-health care				Health care			
		No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>		No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>			No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>		No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>	
2000	9,436	1,905	21.8	20.7	22.8	7,531	78.2	77.2	79.3	2,777	497	19.3	17.5	21.1	2,280	80.7	78.9	82.5
2001	10,543	2,137	21.2	20.2	22.2	8,406	78.8	77.8	79.8	2,835	522	19.5	17.7	21.3	2,313	80.5	78.7	82.3
2002	10,088	1,914	20.2	19.2	21.2	8,174	79.8	78.8	80.8	2,633	502	20.2	18.4	22.1	2,131	79.8	77.9	81.6
2003	10,130	1,784	18.4	17.4	19.5	8,346	81.6	80.5	82.6	2,857	510	18.1	16.4	19.8	2,347	81.9	80.2	83.6
2004	10,037	1,842	19.0	17.9	20.1	8,195	81.0	79.9	82.1	2,608	452	17.8	15.7	19.8	2,156	82.2	80.2	84.3
2005	10,173	1,838	19.0	18.0	20.0	8,335	81.0	80.0	82.0	2,759	435	16.9	15.0	18.7	2,324	83.1	81.3	85.0
2006	8,069	1,344	17.4	16.3	18.4	6,725	82.6	81.6	83.7	2,176	351	17.4	15.4	19.5	1,825	82.6	80.5	84.6
2007	7,860	1,363	18.2	17.0	19.3	6,497	81.8	80.7	83.0	2,161	348	16.9	14.8	19.0	1,813	83.1	81.0	85.2
2008	7,762	1,265	16.6	15.6	17.6	6,497	83.4	82.4	84.4	1,987	299	14.9	13.1	16.7	1,688	85.1	83.3	86.9
2009	10,407	1,663	16.5	15.4	17.5	8,744	83.5	82.5	84.6	2,592	385	15.3	13.4	17.2	2,207	84.7	82.8	86.6
2010	10,110	1,625	16.6	15.7	17.5	8,485	83.4	82.5	84.3	2,471	382	16.0	14.3	17.7	2,089	84.0	82.3	85.7
Trend		% change: -23.8% (p<0.0001)				% change: 6.6% (p<0.0001)					% change: -17.2% (p=0.0022)				% change: 4.1% (p=0.0022)			

<sup>a</sup>The total number of persons tested may not equal the number of persons tested in Table 1 because records with "do not know or not sure", "refused", or missing responses for the test setting of the last HIV test variable were excluded from the analysis for test setting.

<sup>b</sup>Unweighted

<sup>c</sup>Confidence Interval

Table 5. Percentage of **adults** tested for HIV by **publicly funded test setting, NHIS, United States, 2000-2010**

Year	Ever been tested									Tested in the last 12 months								
	Total no. persons tested <sup>a,b</sup>	Publicly funded				Not publicly funded				Total no. persons tested <sup>a,b</sup>	Publicly funded				Not publicly funded			
		No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>		No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>			No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>		No. persons tested <sup>b</sup>	%	95% CI <sup>c</sup>	
2000	9,436	1,945	18.9	17.9	19.8	7,491	81.1	80.2	82.1	2,777	548	18.2	16.3	20.0	2,229	81.8	80.0	83.7
2001	10,543	2,057	17.7	16.8	18.6	8,486	82.3	81.4	83.2	2,835	515	16.4	14.8	18.0	2,320	83.6	82.0	85.2
2002	10,088	2,005	18.1	17.1	19.0	8,083	81.9	81.0	82.9	2,633	539	18.6	17.0	20.3	2,094	81.4	79.7	83.0
2003	10,130	1,948	16.9	16.1	17.8	8,182	83.1	82.2	83.9	2,857	563	17.0	15.5	18.5	2,294	83.0	81.5	84.5
2004	10,037	1,856	16.8	16.0	17.7	8,181	83.2	82.3	84.0	2,608	463	16.9	15.2	18.6	2,145	83.1	81.4	84.8
2005	10,173	1,956	17.7	16.8	18.6	8,217	82.3	81.4	83.2	2,759	520	16.8	15.2	18.4	2,239	83.2	81.6	84.8
2006	8,069	1,437	16.7	15.7	17.7	6,632	83.3	82.3	84.3	2,176	388	16.7	14.8	18.7	1,788	83.3	81.3	85.2
2007	7,860	1,455	17.1	15.9	18.2	6,405	82.9	81.8	84.1	2,161	387	16.4	14.5	18.3	1,774	83.6	81.7	85.5
2008	7,762	1,468	18.0	16.8	19.2	6,294	82.0	80.8	83.2	1,987	405	18.9	16.8	21.0	1,582	81.1	79.0	83.2
2009	10,407	2,048	18.7	17.7	19.7	8,359	81.3	80.3	82.3	2,592	535	19.9	17.9	22.0	2,057	80.1	78.0	82.1
2010	10,110	2,085	19.2	18.3	20.1	8,025	80.8	79.9	81.7	2,471	542	21.3	19.2	23.4	1,929	78.7	76.6	80.8
Trend		% change: 1.7% (p=0.7642)				% change: -0.4% (p=0.7642)					% change: 17.1% (p=0.2247)				% change: -3.8% (p=0.2247)			

<sup>a</sup>The total number of persons tested may not equal the number of persons tested in Table 1 because records with “do not know or not sure”, “refused”, or missing responses for the location of the last HIV test variable were excluded from the analysis for publicly funded test setting.

<sup>b</sup>Unweighted

<sup>c</sup>Confidence Interval

Table 6. Percentage of **pregnant women**<sup>a</sup> tested in the **last 12 months** for HIV, **NHIS**, United States, 2000-2010

Year	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	370	217	59.3	53.5	65.2
2001	338	188	53.0	47.1	58.9
2002	355	192	50.7	44.7	56.8
2003	336	212	59.8	53.9	65.8
2004	293	161	53.3	46.7	60.0
2005	334	199	56.9	51.1	62.8
2006	263	167	60.7	53.5	67.9
2007	262	153	56.3	49.0	63.6
2008	211	125	61.5	53.7	69.3
2009	287	173	57.1	49.3	64.9
2010	273	153	53.7	46.4	61.0
Trend	% change: -9.5% (p=0.6554)				

<sup>a</sup>Pregnancy status was asked of women aged 18-49 years.

<sup>b</sup>Unweighted

<sup>c</sup>Confidence Interval

Table 7. Percentage of **pregnant women** tested in the **last 12 months** for HIV, by race/ethnicity and age group, **NHIS**, United States, 2000-2010

Year	Race/ethnicity <sup>a</sup>														
	White, non-Hispanic					Black, non-Hispanic					Hispanic				
	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	183	107	57.8	49.8	65.8	69	46	71.7	59.0	84.5	95	53	54.0	41.5	66.5
2001	177	87	48.4	40.4	56.3	51	33	73.5	59.9	87.1	100	62	52.8	41.3	64.3
2002	188	91	45.4	37.7	53.2	43	33	80.1	66.9	93.4	105	58	52.9	40.9	64.9
2003	185	105	54.7	46.9	62.5	52	42	78.5	65.4	91.6	81	51	62.0	49.6	74.5
2004	149	82	52.7	44.0	61.5	43	29	66.5	48.7	84.3	89	44	47.7	36.3	59.2
2005	170	93	52.9	44.9	60.9	43	29	66.6	50.1	83.2	101	66	65.7	56.6	74.8
2006	122	75	58.9	49.4	68.5	42	31	67.4	48.4	86.5	81	46	54.8	41.7	67.8
2007	112	57	45.7	35.6	55.7	38	27	75.9	58.3	93.4	96	59	69.3	59.4	79.1
2008	105	57	57.3	46.3	68.3	36	24	75.3	61.9	88.8	48	32	70.2	54.5	85.8
2009	117	65	54.0	42.8	65.1	58	42	70.8	54.9	86.7	88	57	70.4	58.7	82.1
2010	107	56	48.8	38.2	59.5	53	35	65.4	50.0	80.9	92	52	56.2	44.0	68.5
Trend	% change: -15.5% (p=0.5899)					% change: -8.8% (p=0.9267)					% change: 4.1% (p=0.0481)				
Year	Age group														
	18-24					25-34					35-49				
	Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>		Sample size	No. persons tested <sup>b</sup>	% tested	95% CI <sup>c</sup>	
2000	127	74	61.1	50.9	71.3	184	110	58.3	49.7	67.0	55	33	60.5	47.0	73.9
2001	109	72	63.5	53.5	73.4	179	97	50.1	42.1	58.1	46	19	40.9	24.5	57.2
2002	112	67	52.6	41.3	64.0	187	98	51.5	43.3	59.7	55	27	45.5	31.3	59.7
2003	118	82	67.3	57.3	77.3	174	110	58.8	50.6	67.0	43	20	46.4	29.0	63.8
2004	95	63	69.6	59.5	79.6	148	80	46.3	37.2	55.4	46	18	40.8	25.5	56.0
2005	104	67	65.2	54.7	75.8	178	104	52.9	44.7	61.1	50	28	52.4	36.6	68.1
2006	81	59	70.0	58.0	82.0	148	91	59.0	49.8	68.3	33	17	44.3	25.9	62.6
2007	77	44	63.6	50.2	77.0	143	85	54.2	44.1	64.3	42	24	51.2	33.3	69.1
2008	66	42	71.0	59.2	82.8	116	67	55.6	45.2	65.9	29	16	60.0	38.0	82.0
2009	76	50	63.9	45.5	82.2	162	95	56.0	45.8	66.1	47	28	52.7	35.3	70.1
2010	83	51	61.1	48.0	74.3	159	89	51.4	42.0	60.7	30	13	46.1	27.1	65.2
Trend	% change: 0.1% (p=0.8015)					% change: -11.9% (p=0.7269)					% change: -23.7% (p=0.4795)				

<sup>a</sup>Data is not reported for pregnant women of other race/ethnicity because the sample size was too small to calculate stable estimates.

<sup>b</sup>Unweighted

<sup>c</sup>Confidence Interval

## National Health and Nutrition Examination Survey (NHANES)

Table 8. Percentage of **adults** who had **ever been** tested for HIV, **NHANES**, United States, 1999-2010

Year	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
99-00	3,449	1,430	42.5	39.0	46.1
01-02	3,963	1,545	38.1	36.6	39.6
03-04	3,560	1,436	39.1	36.2	42.0
05-06	3,835	1,695	42.3	39.8	44.8
07-08	4,090	1,808	43.4	41.0	45.8
09-10	4,186	1,841	43.1	41.1	45.1
Trend	% change: 1.3% (p=0.7847)				

<sup>a</sup>Unweighted

<sup>b</sup>Confidence Interval

Table 9. Percentage of **adults** who had **ever been** tested for HIV, by race/ethnicity, age group, and sex, **NHANES**, United States, 1999-2010

Year	Race/ethnicity																			
	White, non-Hispanic					Black, non-Hispanic					Hispanic				Other					
	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
99-00	1,310	573	42.8	39.5	46.2	685	341	51.6	44.2	59.0	1,321	471	39.2	33.5	44.9	133	45	30.6	17.5	43.8
01-02	1,819	712	37.5	35.0	40.0	841	414	53.5	49.6	57.4	1,143	363	31.5	27.8	35.1	160	56	30.3	24.4	36.2
03-04	1,680	644	37.0	34.3	39.8	850	432	54.0	49.4	58.6	875	303	37.7	33.1	42.4	155	57	36.6	25.6	47.7
05-06	1,668	726	41.4	38.9	43.8	964	517	56.3	53.7	58.8	1,028	380	36.4	31.7	41.1	175	72	38.3	31.8	44.8
07-08	1,684	726	42.3	39.1	45.5	906	516	60.4	57.3	63.6	1,327	507	40.7	36.8	44.6	173	59	28.6	19.3	37.9
09-10	1,819	768	40.9	38.2	43.6	789	490	63.9	57.6	70.2	1,344	496	39.3	34.7	43.8	234	87	36.7	29.5	43.8
Trend	% change: -4.5% (p=0.3881)					% change: 23.9% (p=0.0150)					% change: 0.2% (p=0.9806)				% change: 19.7% (p=0.4454)					
Year	Age group																			
	18-24					25-34					35-44				45-64					
	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
99-00	865	328	37.6	31.7	43.4	718	425	54.6	50.5	58.7	687	318	49.7	44.8	54.6	1,179	359	31.4	26.8	36.0
01-02	971	322	31.7	27.9	35.4	767	434	54.2	47.9	60.5	821	401	47.5	44.2	50.8	1,404	388	26.7	23.8	29.5
03-04	931	303	28.9	23.9	33.8	739	421	51.7	46.7	56.7	677	365	52.1	47.4	56.9	1,213	347	28.0	24.3	31.7
05-06	965	359	33.1	27.8	38.4	851	489	51.5	47.1	56.0	732	396	52.5	49.3	55.7	1,287	451	35.1	31.5	38.7
07-08	671	253	35.4	30.2	40.7	778	446	55.8	52.0	59.7	878	463	52.9	49.1	56.8	1,763	646	35.2	30.7	39.6
09-10	728	231	30.0	26.3	33.8	822	444	50.7	46.3	55.1	888	478	53.6	49.4	57.8	1,748	688	38.4	35.4	41.3
Trend	% change: -20.1% (p=0.0329)					% change: -7.1% (p=0.2110)					% change: 7.8% (p=0.2413)				% change: 22.1% (p=0.0172)					
Year	Sex																			
	Male									Female										
	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>		Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
99-00	1,596	580	39.9	36.0	43.8	1,853	850	45.1	40.8	49.4	1,596	580	39.9	36.0	43.8	1,853	850	45.1	40.8	49.4
01-02	1,920	657	37.1	35.5	38.6	2,043	888	39.0	36.9	41.1	1,920	657	37.1	35.5	38.6	2,043	888	39.0	36.9	41.1
03-04	1,699	595	35.9	31.9	39.9	1,861	841	42.1	38.5	45.7	1,699	595	35.9	31.9	39.9	1,861	841	42.1	38.5	45.7
05-06	1,799	650	37.2	34.9	39.5	2,036	1,045	47.3	43.5	51.1	1,799	650	37.2	34.9	39.5	2,036	1,045	47.3	43.5	51.1
07-08	2,034	855	41.7	39.2	44.1	2,056	953	45.1	42.1	48.2	2,034	855	41.7	39.2	44.1	2,056	953	45.1	42.1	48.2
09-10	2,079	848	39.9	37.3	42.5	2,107	993	46.4	43.4	49.4	2,079	848	39.9	37.3	42.5	2,107	993	46.4	43.4	49.4
Trend	% change: 0.1% (p=0.9871)									% change: 2.8% (p=0.6388)										

<sup>a</sup>Unweighted

<sup>b</sup>Confidence Interval



## Youth Risk Behavior Survey (YRBS)

Table 10. Percentage of **adolescents** who had **ever been** tested for HIV, **YRBS**, United States, 2005, 2007, 2009, and 2011

Year	Sample size <sup>a</sup>	No. persons tested	% tested	95% CI <sup>b</sup>	
2005	9,100	1,215	11.6	10.5	12.6
2007	9,425	1,269	12.5	10.9	14.0
2009	11,458	1,569	12.3	11.0	13.6
2011	8,718	1,312	13.2	11.5	14.9
Trend	% change: 14.0% (p=0.1279)				

<sup>a</sup>Unweighted

<sup>b</sup>Confidence Interval

Table 11. Percentage of **adolescents** who had **ever been** tested for HIV, by select characteristics, **YRBS**, United States, 2005-2011

Year	Race/ethnicity																			
	White, non-Hispanic					Black, non-Hispanic					Hispanic					Other <sup>a</sup>				
	Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>	
2005	4,227	447	10.0	8.8	11.1	1,888	435	19.6	16.7	22.4	1,423	136	11.5	9.7	13.2	1,421	176	11.7	9.5	13.8
2007	4,032	427	10.6	8.9	12.2	1,891	405	20.8	17.7	24.0	2,604	304	11.9	10.1	13.6	795	112	11.7	8.7	14.8
2009	5,235	598	10.8	9.4	12.2	1,835	420	19.7	16.2	23.1	3,167	405	12.0	10.4	13.7	1,069	120	10.1	8.3	11.9
2011	4,058	464	10.7	9.3	12.2	1,309	332	23.7	17.8	29.6	2,324	340	13.5	11.7	15.2	889	153	15.9	12.7	19.1
Trend	% change: 7.5% (p=0.4231)					% change: 20.9% (p=0.2136)					% change: 17.5% (p=0.1268)					% change: 36.8% (p=0.0345)				
Year	Age group																			
	13-14					15-16					17									
	Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>	
2005	930	68	6.0	4.3	7.7	5,218	637	11.2	10.0	12.4	2,952	510	14.8	13.0	16.5					
2007	1,044	73	7.4	5.6	9.2	5,429	671	11.5	9.9	13.0	2,952	525	16.8	14.1	19.5					
2009	1,309	104	6.9	5.2	8.5	6,538	814	11.1	9.7	12.5	3,611	651	17.0	15.1	18.9					
2011	999	103	10.3	8.2	12.3	5,046	696	12.3	10.1	14.5	2,673	513	16.4	14.3	18.6					
Trend	% change: 71.5% (p=0.0025)					% change: 9.7% (p=0.3799)					% change: 11.4% (p=0.2573)									
Year	Sex										Ever had sex									
	Male					Female					Yes				No					
	Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>		Sample size <sup>b</sup>	No. persons tested <sup>c</sup>	% tested	95% CI <sup>d</sup>	
2005	4,209	506	10.6	9.2	12.0	4,879	707	12.5	11.2	13.8	4,285	936	20.0	18.6	21.4	4,463	213	4.6	3.8	5.5
2007	4,555	534	11.0	9.6	12.4	4,867	734	13.9	11.6	16.2	4,583	1,031	22.1	20.1	24.0	4,584	198	4.2	3.1	5.3
2009	5,504	673	11.0	9.4	12.7	5,935	890	13.5	12.0	15.1	5,133	1,187	22.1	20.5	23.6	5,641	272	4.1	3.3	4.8
2011	4,253	567	11.2	9.3	13.2	4,454	740	15.2	13.2	17.2	4,043	1,001	23.2	20.4	26.1	4,342	244	4.7	3.8	5.6
Trend	% change: 6.0% (p=0.6002)					% change: 21.4% (p=0.0421)					% change: 16.1% (p=0.0523)				% change: 0.7% (p=0.9591)					

<sup>a</sup>Includes American Indian or Alaska Native, Asian, and Native Hawaiian or Pacific Islander.

<sup>b</sup>The number of persons may not sum to the total number of persons because records with “do not know or not sure” or “refused” answers were excluded from the analysis for the variable.

<sup>c</sup>Unweighted

<sup>d</sup>Confidence Interval

## Behavioral Risk Factor Surveillance System (BRFSS)

Table 12. Percentage of **adults** who had **ever been** tested for HIV by state, **BRFSS**, United States, 2011

State	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
<b>Funded for the Expanded Testing Initiative</b>	<b>143,124</b>	<b>61,603</b>	<b>44.9</b>	<b>44.4</b>	<b>45.3</b>
Alabama	4,608	2,127	48.4	46.4	50.4
Arizona	3,364	1,270	42.2	39.3	45.1
California <sup>c</sup>	10,891	4,897	43.8	42.5	45.0
Connecticut	4,251	1,817	43.6	41.5	45.8
District of Columbia	2,763	1,981	73.5	71.0	76.1
Florida	6,578	3,140	51.3	49.5	53.1
Georgia	6,091	2,801	51.1	49.3	52.9
Illinois <sup>d</sup>	3,455	1,124	37.0	34.7	39.3
Louisiana	6,606	2,991	49.4	47.5	51.2
Maryland	6,522	3,142	53.4	51.6	55.2
Massachusetts	13,502	6,134	45.5	44.2	46.9
Michigan	6,992	2,687	41.3	39.6	43.0
Mississippi	5,315	2,124	43.7	41.9	45.5
Missouri	3,865	1,371	38.3	36.2	40.4
New Jersey	9,447	4,204	45.0	43.5	46.5
New York <sup>e</sup>	4,908	2,542	50.4	48.4	52.3
North Carolina	6,897	2,985	47.7	45.9	49.5
Ohio	6,168	2,155	38.8	37.0	40.5
Pennsylvania <sup>f</sup>	6,998	2,488	38.2	36.6	39.8
South Carolina	7,663	2,980	40.7	39.0	42.3
Tennessee	3,230	1,273	46.4	42.9	49.9
Texas <sup>g</sup>	8,870	3,443	42.9	41.2	44.7
Virginia	4,140	1,927	48.9	46.7	51.2
<b>Not funded for the Expanded Testing Initiative</b>	<b>162,161</b>	<b>54,558</b>	<b>36.7</b>	<b>36.3</b>	<b>37.1</b>
Alaska	2,584	1,175	47.0	44.3	49.8
Arkansas	2,504	860	40.6	37.7	43.6
Colorado	8,407	3,110	41.8	40.2	43.3
Delaware	3,085	1,496	51.8	49.3	54.3
Hawaii	4,705	1,672	36.1	34.1	38.2
Idaho	3,685	1,125	33.5	31.2	35.8
Indiana	5,077	1,716	35.8	34.0	37.5
Iowa	4,480	1,328	31.6	29.9	33.3
Kansas	13,175	4,206	34.4	33.4	35.5
Kentucky	6,498	2,147	35.2	33.3	37.0
Maine	8,192	2,821	37.2	35.8	38.6
Minnesota	10,442	3,422	31.9	30.6	33.2
Montana	6,357	2,176	37.1	35.3	38.9
Nebraska	15,561	4,190	30.8	29.7	31.8
Nevada	3,259	1,420	45.7	42.8	48.6
New Hampshire	4,001	1,425	36.7	34.7	38.7

State	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
New Mexico	5,779	2,146	39.1	37.4	40.7
North Dakota	3,322	848	29.5	27.4	31.5
Oklahoma	5,201	1,763	35.5	33.7	37.3
Oregon	3,741	1,482	40.6	38.5	42.7
Rhode Island	4,090	1,656	40.9	38.8	43.0
South Dakota	5,133	1,435	29.3	27.0	31.7
Utah	8,787	2,383	27.4	26.2	28.6
Vermont	4,504	1,606	37.8	35.9	39.7
Washington	9,053	3,500	42.8	41.2	44.5
West Virginia	3,494	1,060	32.6	30.7	34.6
Wisconsin	3,163	1,005	32.4	29.9	34.9
Wyoming	4,389	1,385	34.0	32.0	35.9
<b>Total</b>	<b>305,792</b>	<b>116,161</b>	<b>42.9</b>	<b>42.5</b>	<b>43.3</b>

<sup>a</sup>Unweighted

<sup>b</sup>Confidence interval

<sup>c</sup>Los Angeles, San Francisco, and California health departments are funded for the Expanded Testing Initiative.

<sup>d</sup>Chicago and Illinois health departments are funded for the Expanded Testing Initiative.

<sup>e</sup>New York City and New York State health departments are funded for the Expanded Testing Initiative.

<sup>f</sup>Philadelphia and Pennsylvania health departments are funded for the Expanded Testing Initiative.

<sup>g</sup>Houston and Texas health departments are funded for the Expanded Testing Initiative.

Table 13. Percentage of **adults** tested in the **last 12 months** for HIV by state, **BRFSS**, United States, 2011

State	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
<b>Funded for the Expanded Testing Initiative</b>	<b>117,274</b>	<b>14,007</b>	<b>14.8</b>	<b>14.4</b>	<b>15.1</b>
Alabama	3,697	523	17.3	15.5	19.1
Arizona	2,851	238	12.7	10.4	15.1
California <sup>c</sup>	9,451	1,044	13.1	12.1	14.0
Connecticut	3,520	372	13.2	11.4	15.0
District of Columbia	2,176	763	42.5	39.3	45.6
Florida	5,221	704	18.2	16.5	19.8
Georgia	4,933	668	18.9	17.2	20.7
Illinois <sup>d</sup>	3,257	263	12.6	10.7	14.6
Louisiana	4,975	693	19.3	17.5	21.2
Maryland	5,092	750	21.5	19.6	23.3
Massachusetts	10,497	1,092	12.0	10.9	13.1
Michigan	5,881	529	10.9	9.8	12.1
Mississippi	4,396	585	16.4	14.9	18.0
Missouri	3,281	286	10.9	9.3	12.4
New Jersey	7,847	1,008	14.9	13.7	16.1
New York <sup>e</sup>	3,908	762	20.4	18.6	22.2
North Carolina	5,411	629	16.5	14.9	18.2
Ohio	5,164	374	10.7	9.4	12.1
Pennsylvania <sup>f</sup>	6,008	547	10.9	9.7	12.1
South Carolina	6,314	722	13.1	11.8	14.3
Tennessee	2,597	251	13.8	10.8	16.7
Texas <sup>g</sup>	7,508	782	14.2	12.8	15.6
Virginia	3,289	422	15.9	14.0	17.9
<b>Not Funded for the Expanded Testing Initiative</b>	<b>138,254</b>	<b>9,638</b>	<b>9.5</b>	<b>9.2</b>	<b>9.8</b>
Alaska	2,023	217	13.1	10.8	15.4
Arkansas	2,138	176	13.5	10.9	16.0
Colorado	6,830	513	12.0	10.8	13.2
Delaware	2,367	336	18.1	15.7	20.5
Hawaii	3,942	308	9.8	8.4	11.2
Idaho	3,213	159	7.5	5.9	9.1
Indiana	4,364	328	8.8	7.6	10.0
Iowa	3,809	241	7.7	6.6	8.8
Kansas	11,027	734	8.9	8.1	9.6
Kentucky	5,504	422	9.7	8.4	11.0
Maine	6,831	397	8.0	7.1	9.0
Minnesota	8,856	612	7.4	6.6	8.2
Montana	5,425	339	8.4	7.1	9.6
Nebraska	13,973	824	7.9	7.2	8.6
Nevada	2,686	258	13.3	11.0	15.5
New Hampshire	3,374	201	8.0	6.5	9.4
New Mexico	4,932	460	11.6	10.4	12.9
North Dakota	2,966	156	8.4	6.9	9.9
Oklahoma	4,414	336	9.4	8.0	10.7

State	Sample size	No. persons tested <sup>a</sup>	% tested	95% CI <sup>b</sup>	
Oregon	3,043	211	8.4	6.9	9.9
Rhode Island	3,436	359	13.6	11.8	15.4
South Dakota	4,385	282	7.5	6.1	9.0
Utah	7,806	432	6.6	5.8	7.4
Vermont	3,757	218	8.6	7.1	10.0
Washington	7,391	478	11.0	9.7	12.3
West Virginia	2,970	208	9.0	7.6	10.4
Wisconsin	2,912	213	8.1	6.4	9.8
Wyoming	3,880	220	7.8	6.6	9.1
<b>Total</b>	<b>255,528</b>	<b>23,645</b>	<b>13.5</b>	<b>13.2</b>	<b>13.8</b>

<sup>a</sup>Unweighted

<sup>b</sup>Confidence interval

<sup>c</sup>Los Angeles, San Francisco, and California health departments are funded for the Expanded Testing Initiative.

<sup>d</sup>Chicago and Illinois health departments are funded for the Expanded Testing Initiative.

<sup>e</sup>New York City and New York State health departments are funded for the Expanded Testing Initiative.

<sup>f</sup>Philadelphia and Pennsylvania health departments are funded for the Expanded Testing Initiative.

<sup>g</sup>Houston and Texas health departments are funded for the Expanded Testing Initiative.

## Appendix B: Variables and Questions from Data Sources

### Behavioral Risk Factor Surveillance System

Variable	2011
Ever been tested for HIV	HIVTST6
Tested in the last 12 months (calculated)	HIVTSTD3 ldate2
Age	AGE
State	_state

### National Health and Nutrition Examination Survey

Variable	1999-2000	2001-2002	2003-2004	2005-2006	2007-2008	2009-2010
Ever been tested for HIV				HSQ590		
Age				RIDAGEYR		
Gender				RIAGENDR		
Race/Ethnicity				RIDRETH1		

## National Health Interview Survey

Variable	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ever been tested for HIV						HIVTST					
Tested in the last 12 months (calculated)						TST12M_M TST12M_Y Timetst Fint_y_p Fint_m_p					
Age						AGE_P					
Sex						SEX					
Ethnicity						Origin_i					
Race	RACERP_I	RACERP_I	RACERP_I	RACERPI2	RACERPI2	RACERPI2	RACERPI2	RACERPI2	RACERPI2	RACERPI2	RACERPI2
Currently pregnant						PREGNOW					
Reported risk for HIV						STMTRU					
Test setting						LASTST_C CLNTYP_C					

## Youth Risk Behavior Survey

Variable	2005	2007	2009	2011
Ever been tested for HIV	Q93	Q94	Q94	Q93
Race/ethnicity	Q4		Raceeth	
Age			Q1	
Sex			Q2	
Ever had sex	Q57	Q58	Q58	Q60