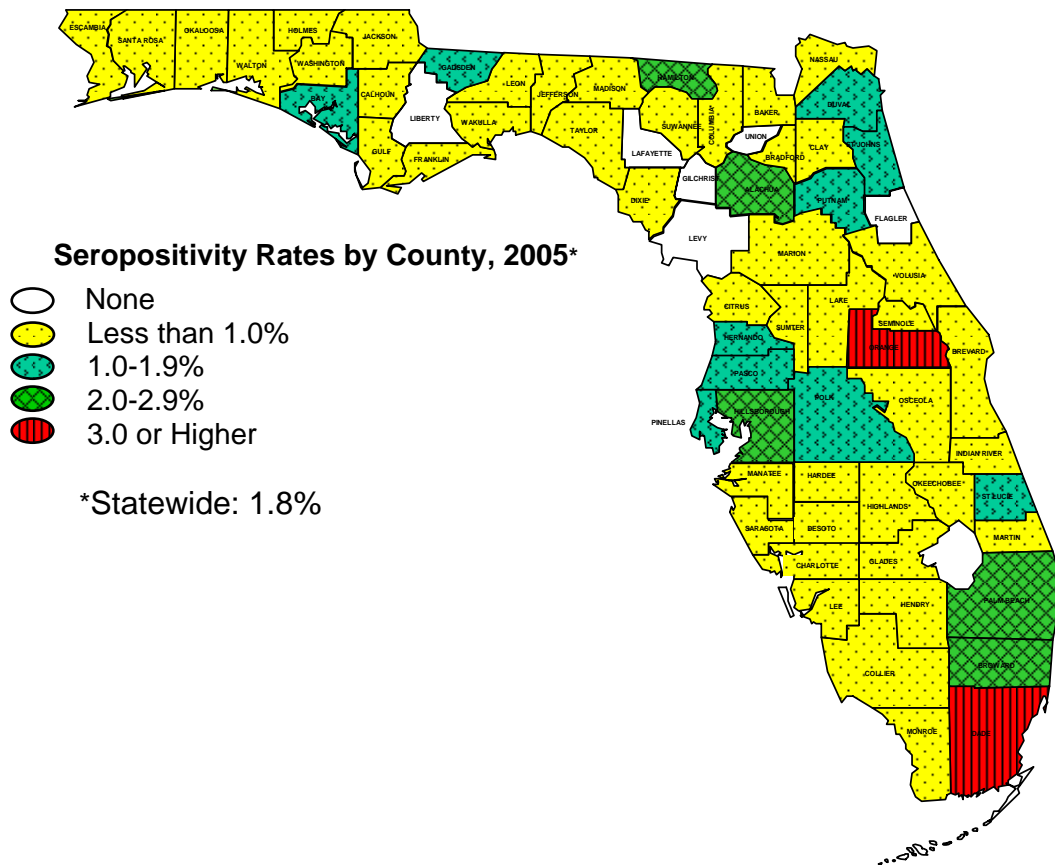




Florida Department of Health
Division of Disease Control
Bureau of HIV/AIDS

HIV Counseling and Testing Annual Report, 2005



For additional information regarding this report, please contact the Early Intervention Section of the Bureau of HIV/AIDS at (850) 245-4424, or SC 205-4424, or visit



Executive Summary

In 2005, 294,545 HIV tests were conducted at Florida's registered testing sites, representing a 0.4% decrease (approximately 1,000 tests) over the previous year. This marks the fourth consecutive year within which the number of HIV tests performed in Florida exceeded 250,000. In 2005, HIV counseling and testing services were briefly interrupted in south Florida due to the closing of many sites from hurricanes Katrina and Wilma.

Repeat HIV testers made up over 65% of the testing volume in 2005. Almost all tests were done confidentially, and anonymous testing declined. Increases in testing were recorded among Hispanics and blacks, and a substantial increase was recorded in the 20-29 age group. By far, persons who reported heterosexual sex as their highest risk accounted for the majority of the increase; other important increases in testing were reported in persons who had sexual relations with someone at risk. From January to June 2005, approximately 55% of the negatives and 84% of the positives were counseled after testing. OraSure and rapid testing accounted for 20.3% and 11.8% of all HIV tests conducted in 2005, respectively.

The number of recorded HIV-positive tests decreased by 8.6% in 2005. The overall positivity rate also decreased from 1.9% in 2004 to 1.8% in 2005. MSM accounted for 29.7% of all positive tests reported in 2005, yielding a positivity rate of 8.1% (8.9% when combined with MSM/IDU). While heterosexuals accounted for 25.5% of positive tests, the positivity rate for this risk group was only 0.7%. Adults age 30 and older continued to record high positivity rates. Black MSM and IDU also continued to experience higher positivity rates than their white and Hispanic counterparts. The overall positivity rate with OraSure and rapid testing was 2.5%; however, less OraSure was used in 2005 as the use of rapid testing became more widespread.

Since 1985, when the Florida Department of Health began collecting data on HIV testing at registered testing sites across the state, 4.3 million anonymous and confidential tests have been conducted. Today, over 1,550 public and private sites are registered with the Department of Health to provide HIV counseling, testing and linkage services. Social and demographic data, including risk behaviors, are collected at these sites and are compiled along with test results by the Early Intervention Section of the Bureau of HIV/AIDS in Tallahassee. While this database is currently not unduplicated, and, as such, cannot be used to provide data on the number of individuals tested, it does constitute a record of the number of tests conducted. It is a crucial indicator regarding the nature and direction of the epidemic and informs and evaluates HIV prevention activities and policy making at the state and local level.

Trends in HIV Testing

Figures 1a and 1b show testing trends in Florida between 1989 and 2005. Testing levels increased rapidly through the early 1990's. During the mid-1990's, the number of tests performed remained fairly steady and peaked at just over 301,687 in 2003. The testing level dropped by over 7,000 (approximately 2.4%) in 2005 compared with 2003. In contrast, positivity rates dropped sharply in the 1980's as more and more people at relatively lower risk began to be tested, and these rates have remained generally stable since 1996. The actual number of positive tests identified each year has also declined at a relatively steady rate since peaking in 1991, although increases were recorded from 1999 to 2002.

Figure 1a. HIV Tests Conducted in Florida and Seropositivity Rates, 1989-2005

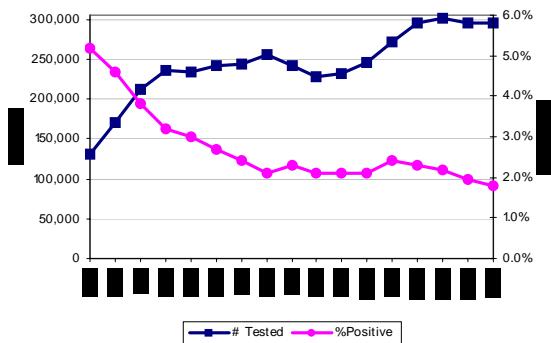


Figure 1b. HIV-Positive Tests in Florida and Seropositivity Rates, 1989-2005

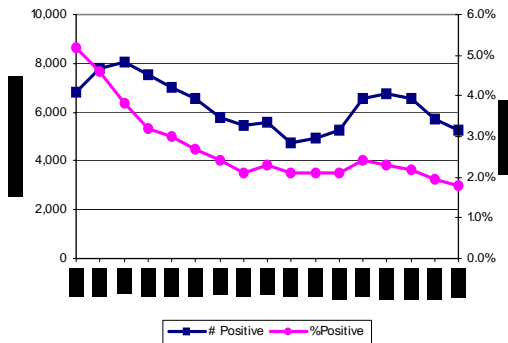


Figure 2 compares testing levels at anonymous and confidential sites by quarter, from January 2001 through December 2005. Some observable patterns may be seasonal or related to specific events. For instance, National HIV Testing Day occurs annually on June 27, and sharp increases in testing numbers have been recorded in the weeks around this event. In 2002, 2003 and 2005, large increases in the first three quarters were followed by a sharp decline in the fourth quarter. The decline in testing observed in the fourth quarter of 2005 could be related to the disruption in services caused by two major hurricanes in south Florida. In 2004, increases are seen in the first two quarters, followed by sharp decreases in the third and fourth quarters, again a likely result of multiple hurricanes disrupting services in many parts of the state. In contrast, quarterly levels of anonymous testing have remained fairly stable over most of this period, although a sizeable decline was observed in the last quarters of 2002, 2003, and 2005. Anonymous testing accounted for 3.8% of all tests conducted in the last quarter of 2005, compared to 6.1% in the last quarter of 2004.

Figure 2. Number of HIV Tests Completed at Anonymous and Confidential Sites in Florida, January 2001-December 2005

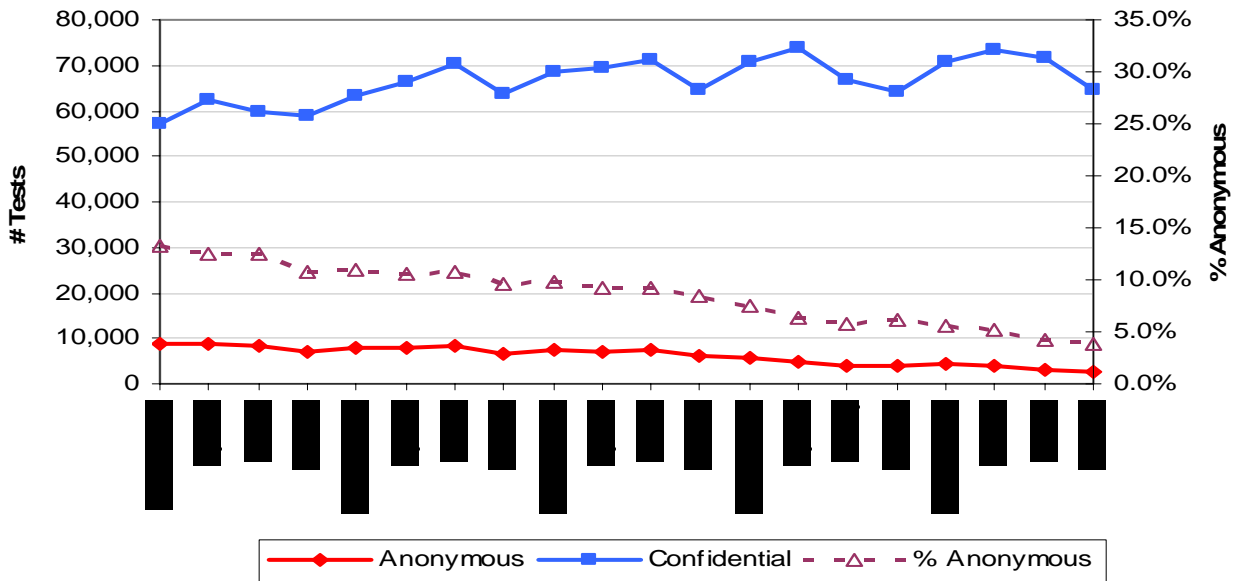


Figure 3 shows trends in testing among the seven largest counties in Florida. Broward, Duval, Hillsborough, Miami-Dade, Orange, Palm Beach, and Pinellas counties together account for 57% of all HIV tests conducted between 2001 and 2005. Between 2001 and 2003, the level of testing in these seven counties increased overall by almost 11% (over 30,000 tests), and Miami-Dade and Broward peaked with 32% and 30% increases, respectively. In 2003, statewide testing levels rose to an all-time high with large contributions from all counties except Duval. By 2005, compared with 2003, the level of testing decreased by 4.5%. Miami-Dade, Orange, Duval, Broward, and Pinellas experienced declines of 14.0%, 10.1%, 2.6%, 2.1% and 0.8%, respectively.

Figure 3. HIV Testing Levels Among Florida Counties that Perform More than 10,000 HIV Tests per Year, 2001-2005

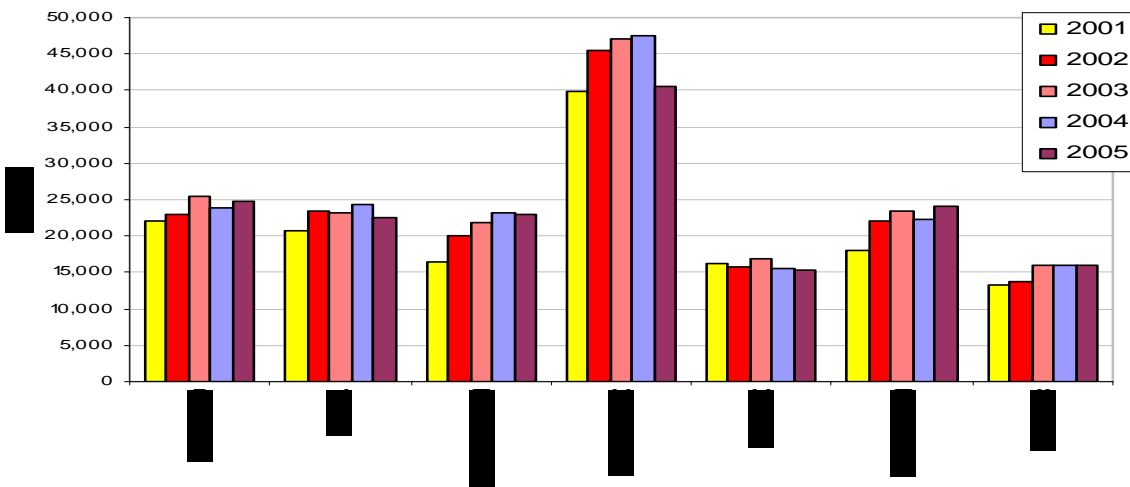


Figure 4a displays trends in anonymous and confidential testing within two high-risk groups: men who have sex with men (MSM)¹ and injection drug users (IDU). During the five years of analysis, MSM anonymous testing has consistently been much lower than confidential testing. Confidential testing in this risk group has increased except in 2002, while anonymous testing has decreased during the five years of comparison. The substantial increase in confidential testing in 2005 for MSM led to an overall increase in the number of tests despite the decline in anonymous testing.

Among IDU, levels of anonymous testing have consistently been much lower than levels of confidential testing. In 2001, 1,440 anonymous tests were recorded; this decreased to 352 in 2005. Confidential testing among IDU decreased between 2001 and 2002 and remained fairly level through 2005.

Figure 4a. Number of HIV Tests Completed at Anonymous and Confidential Sites, MSM and IDU Risk Groups, 2001-2005

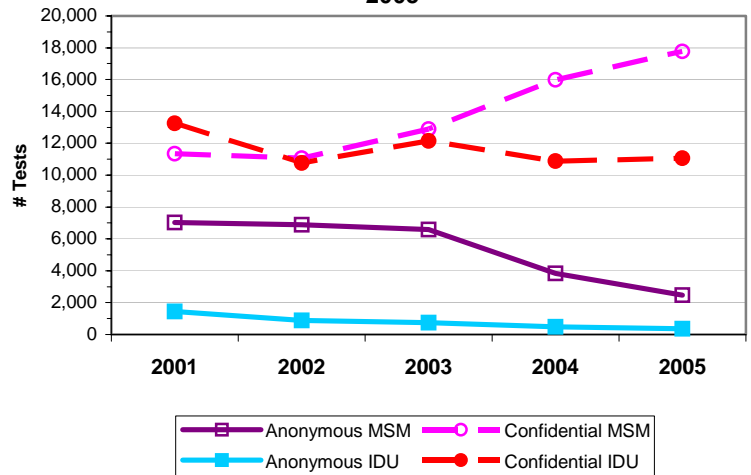


Figure 4b. Number of HIV Tests Completed at Anonymous and Confidential Sites, Heterosexual Risk Group, 2001-2005

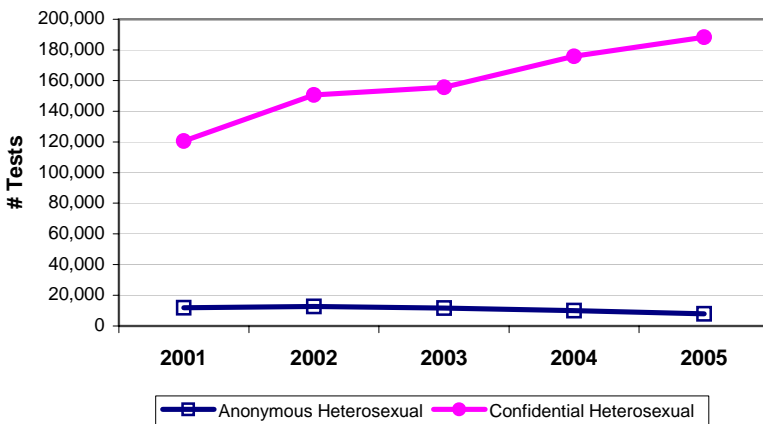


Figure 4b shows anonymous and confidential testing trends among those who identified heterosexual sex as their highest risk. The number of confidential tests administered in this risk group rose steadily throughout the years, and peaked in 2005 with over 188,000 tests. The trend for heterosexuals testing anonymously has been steady with an average of 11,000 in the first four years of analysis, but dropped 20.1% in 2005. This high-volume, low-risk group accounts for a very large proportion of all HIV tests annually.

¹ The MSM category here includes MSM who are injection drug users (MSM/IDU).

HIV Counseling and Testing in 2005

In 2005, 294,545 HIV tests were performed at registered HIV testing sites in Florida. Of these, 5,232 were positive, resulting in an overall positivity rate of 1.8%. Positivity rates for individual counties are shown in Figure 5. Miami-Dade County reported the highest positivity rate (3.3%), followed by Orange County (3.0%), and Broward County (2.6%). Overall, seven counties reported positivity rates higher than the state average for 2005. Six counties reported no positive HIV tests in 2005. Generally, these data should be viewed critically; while low positivity rates may be an accurate representation of HIV prevalence in a given area, they may also indicate that high-risk populations are not being reached. Conversely, high positivity rates could indicate access by high-risk populations, or they might be a result of operational factors such as a standard recommendation that all clients who receive a positive result should retest. Additional counseling and testing data for individual counties are available from the Early Intervention Section.

Race/Ethnicity

In 2005, a record number of tests (106,086 or 36%) were received by black men and women in Florida. Approximately 36% (105,316) were given to persons who identified themselves as non-Hispanic whites, and 73,830 (25.1%) to Hispanics (Figure 6a). Blacks accounted for 54.8% of all positive tests (2,869) resulting in a positivity rate of 2.7% (Figure 6b). Whites accounted for 22.7% (1,187) of all positive tests for a positivity rate of 1.1%. Among the Hispanic population, the proportion of positive tests (987 or 18.9%) was more consistent with their testing level; the positivity rate for this group was 1.3%. Testing among Asians, Native Americans, and other racial/ethnic groups was minimal; the combined category of "other" accounted for 1.5% of all tests and 0.6% of positive tests.

Figure 6a.
Total HIV Tests by Race/Ethnicity,
Florida, 2005 (N=294,545)

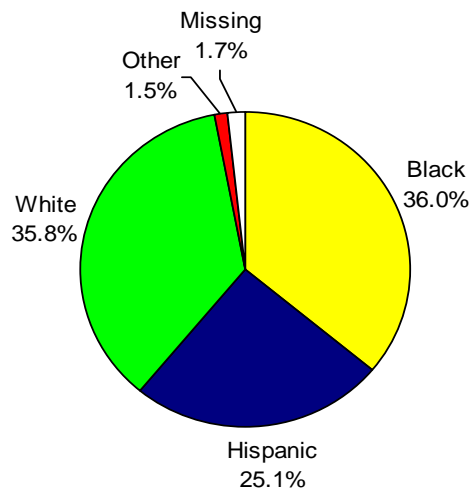
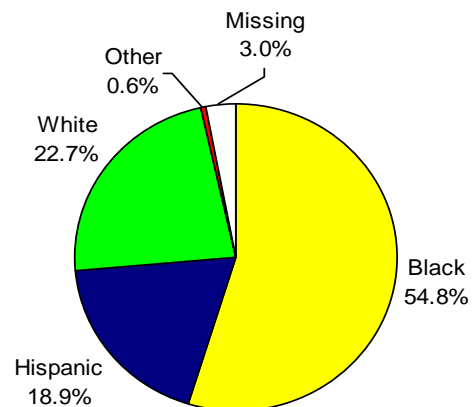
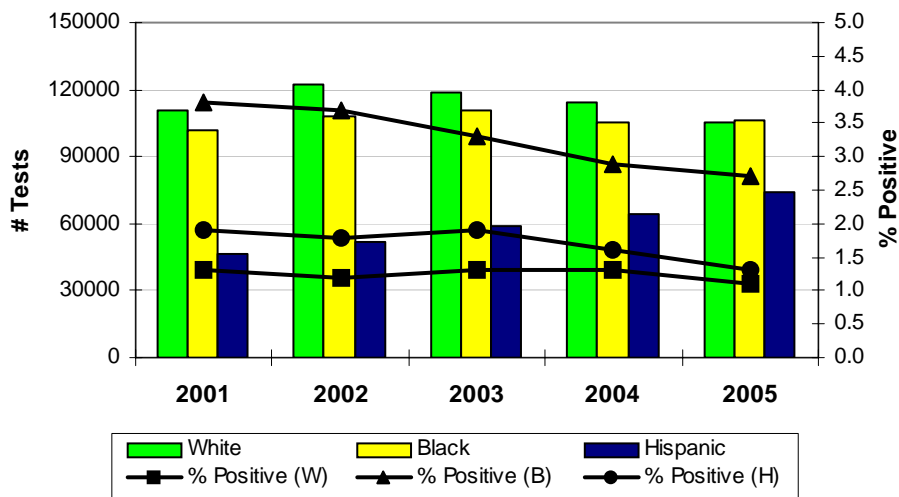


Figure 2b.
HIV-Positive Tests by Race/Ethnicity
Florida, 2005 (N=5,232)



As Figure 6c shows, testing levels among these three racial/ethnic groups increased considerably in 2002. Specifically, between 2001 and 2002, testing increased by 10.8% (11,822 tests) among whites, 12.0% (5,513 tests) among Hispanics, and 5.8% (5,925 tests) among blacks. By 2005, testing levels among Hispanics continued to increase by 15.1% (9,676); testing levels for blacks presented an increase compared with 2004 of 1.1% (1,015), while testing levels for whites decreased by 7.6% (8,676). Positivity rates for whites remained fairly stable for the five years of comparison; for blacks, the rate remained stable during the first two years but declined 27.0% since 2002. Among Hispanics, the positivity rate, which had been stable the first three years, declined in 2005 by 31.6%.

Figure 6c. Number of HIV Tests & Positivity Rates by Race/Ethnicity, Florida, 2001-2005



Gender

Figures 7a and 7b show the number of HIV tests by gender. In 2005, 180,343 HIV tests were performed on females (61.2%); 113,322 (38.5%) were performed on males (Figure 7a). However, males accounted for 63.4% of all positive tests, yielding a positivity rate of 2.9%, while females accounted for 35.8%, with a 1.0% positivity rate (Figure 7b).

Figure 7a. Total HIV Tests by Gender, Florida, 2005 (N=294,545)

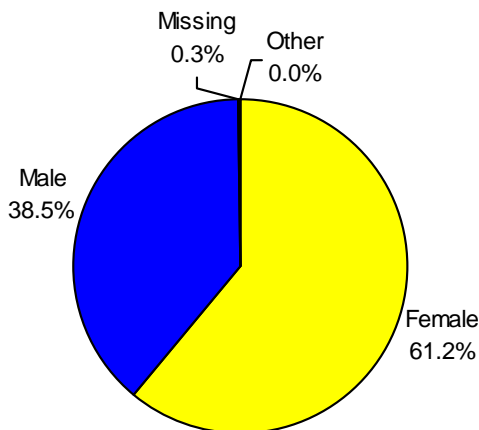


Figure 7b. HIV-Positive Tests by Gender, Florida, 2005 (N=5,232)

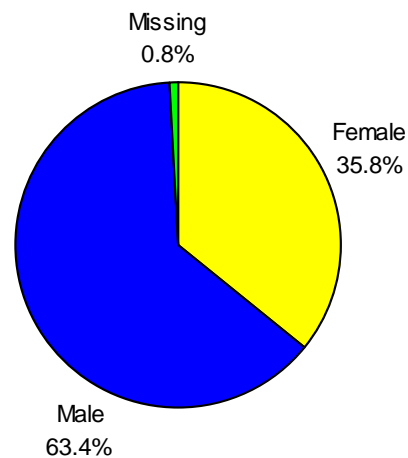
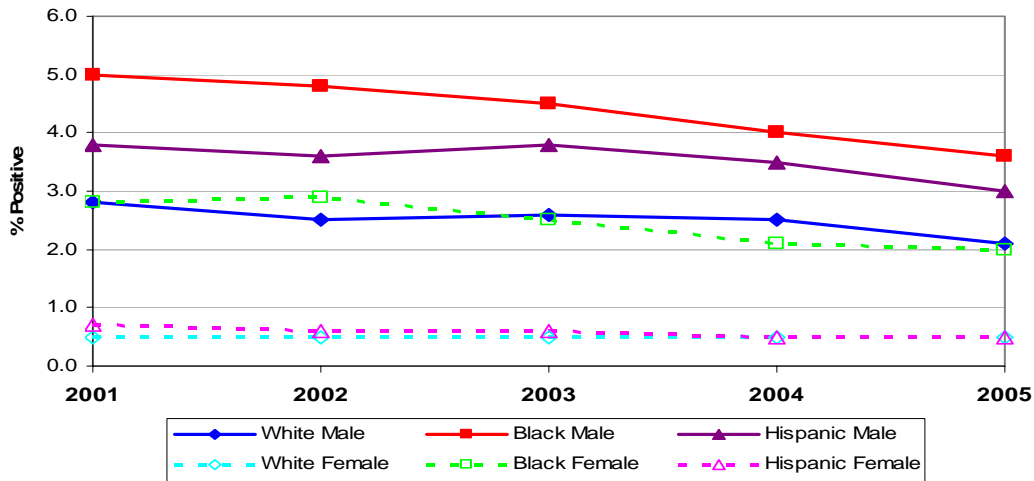


Figure 8 shows positivity rates for males and females by race/ethnicity from 2001 to 2005. Black males continue to have the highest positivity rates, followed by Hispanic males. In 2003, the positivity rate for black females was slightly surpassed by white males. This difference grew in 2004 and narrowed again in 2005 (2.1% for white males vs. 2.0% for black females). Over these five years, positivity rates for Hispanic females were low; however, white females showed the lowest positivity rates until 2004 and 2005, when their rate equaled that of Hispanic females (0.5%).

Figure 8. HIV Seropositivity by Sex and Race/Ethnicity, Florida, 2001-2005



Age

Children under the age of 13 received 724 tests in 2005 and accounted for 0.2% of all tests given in Florida. They represented 0.3% of positive tests (Figures 9a and 9b). However, the positivity rate for this age group was 2.2% in 2005 (Figure 9c). Teenagers represented 18.9% (55,807) of all tests but only 3.1% (161) of positive tests. This resulted in a positivity rate of 0.3%. Persons between the ages of 20-29 continued to represent the highest proportion of tests (121,164 or 41.1%), yet only 22.1% of the positive tests (1,154), resulting in a positivity rate of 1.0%. With 19.7% of tests conducted, the 30-39 age group accounted for 29.8% of positive tests, resulting in a positivity rate of 2.7%. The 40-49 age group accounted for the highest rate of positive tests in 2005 (1,619 or 30.9%) and the highest positivity rate among all age groups (4.4%), yet accounted for only 12.6% of all tests conducted. Although the 50+ age group did not receive many tests (19,316 or 6.6%), they accounted for 13.1% of positive tests, giving this group a positivity rate of 3.6%.

Figure 9a.
Total HIV Tests by Age Group,
Florida, 2005 (N=294,545)

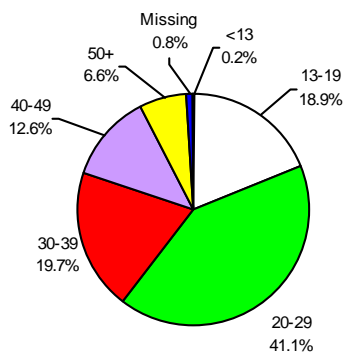


Figure 9b.
HIV-Positive Tests by Age Group,
Florida, 2005 (N=5,232)

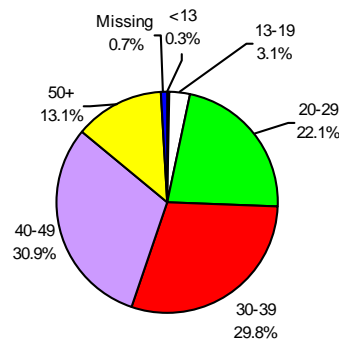
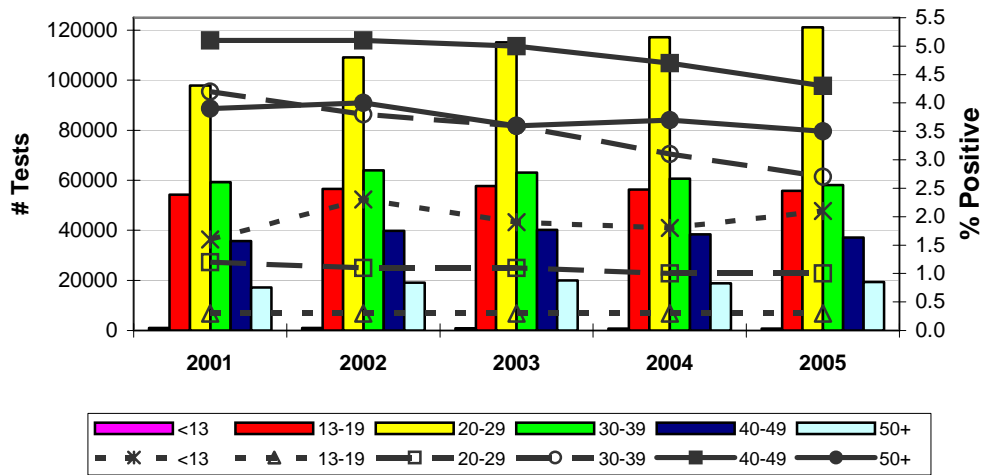


Figure 9c shows testing patterns and positivity rates from 2001 to 2005. The distribution of testing across age groups has not changed significantly over time. However, in 2002 marked increases in testing were seen in all age groups. In 2005, there were slight decreases in the 13-19, 30-39 and 40-49 age groups. The <13, 20-29 and 50+ groups showed increases in 2005 when compared to 2004. Positivity rates for persons aged 13-29 were the least variable during the past five years. Between 2001 and 2005, positivity rates for children (<13 years) fluctuated; this variability is primarily attributed to the low volume of tests conducted. The 40-49 age group consistently recorded the highest positivity rates between 2001 and 2005.

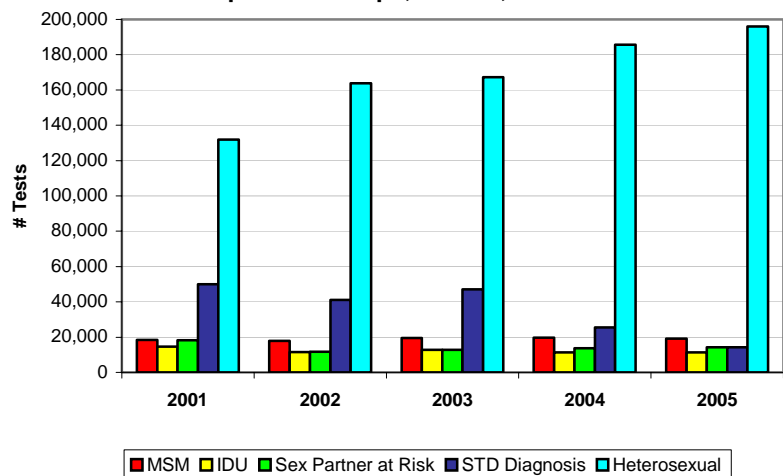
Figure 9c. Number of HIV Tests & Positivity Rates by Age Group, Florida, 2001-2005



Risk Exposure

Since individuals may engage in more than one risk behavior, each self reported exposure is categorized according to the highest level of risk. As Figure 10 shows, persons who identified heterosexual sex as their highest risk behavior comprise the majority of HIV tests conducted from 2001 to 2005. The total number of tests conducted in this risk group increased steadily throughout the mid-1990s and by 1999, approximately 65% of HIV tests were performed on persons who identified heterosexual sex as their highest risk. The percentage of tests administered to heterosexuals dropped to a low in 2000, accounting for only 43.9% of all tests. In 2001, the testing volume increased substantially, but this risk group still accounted for less than 50% of all tests. By 2005, this percentage was 66.6%. Three other risk groups with relatively large testing

Figure 10. Number of HIV Tests Among Selected Risk Exposure Groups, Florida, 2001-2005



to heterosexuals dropped to a low in 2000, accounting for only 43.9% of all tests. In 2001, the testing volume increased substantially, but this risk group still accounted for less than 50% of all tests. By 2005, this percentage was 66.6%. Three other risk groups with relatively large testing

volumes experienced significant fluctuations over the past five years: testing levels among those identifying a current or past sexually transmitted disease (STD) diagnosis peaked in 2001 but declined by 17.5% in 2002, rising again in 2003, and declining in 2004 and again in 2005. Testing levels among injection drug users and persons with a sex partner at risk varied over time but were relatively low compared with heterosexuals and those with STD diagnoses. MSM² testing levels remained fairly stable, accounting for about 20,000 tests each year.

Figure 11. Positivity Rates by Self-Reported Risk Exposure, Florida, 2005

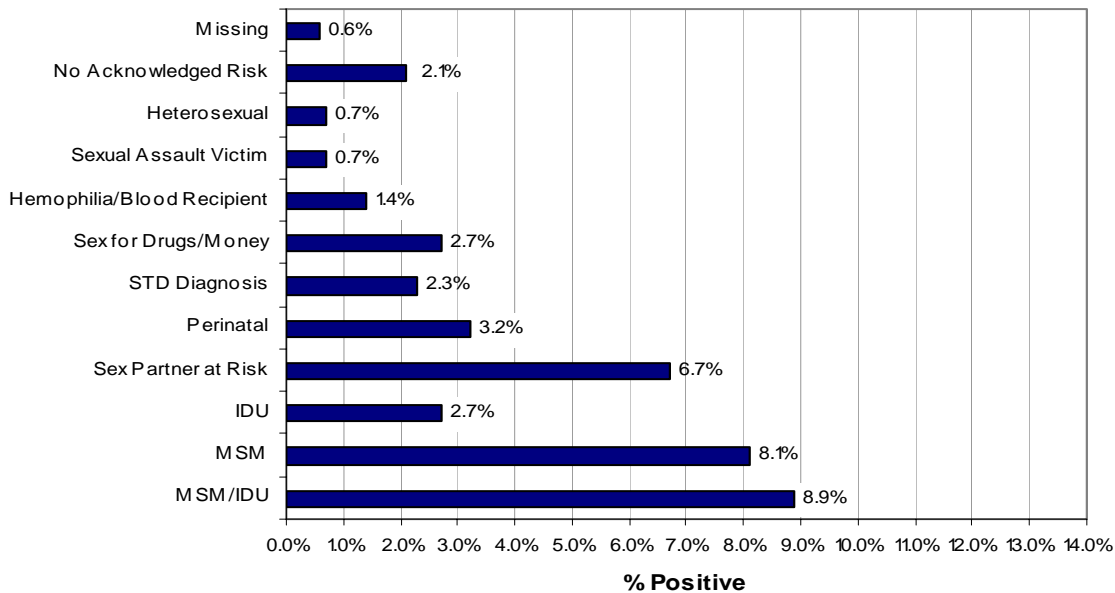
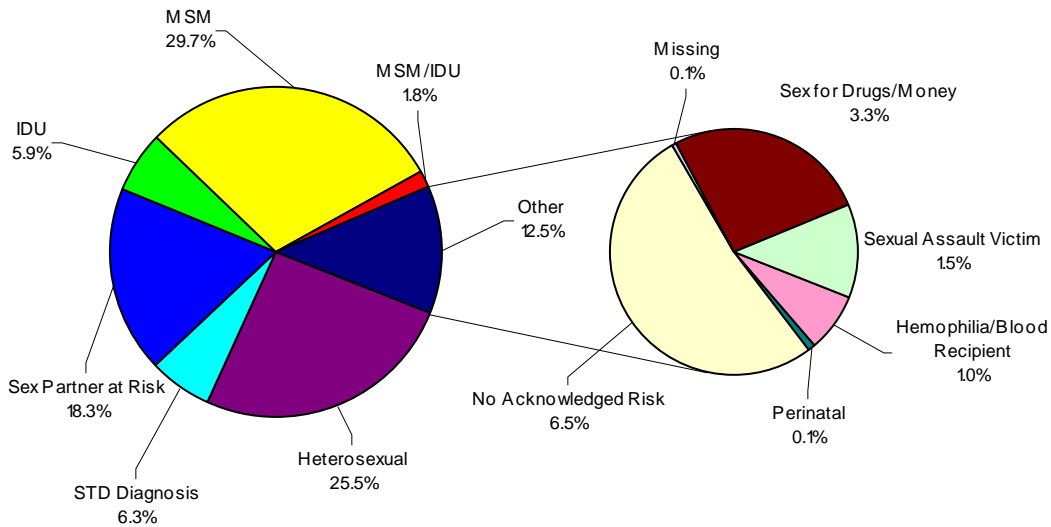


Figure 11 displays positivity rates for all risk exposure groups hierarchically, starting with the lowest risk level. MSM/IDU accounted for the highest positivity rate in 2005 (8.9%), which could be due to the small volume of tests conducted in this risk group (1,038). MSM continued to have a very high positivity rate (8.1%), as did those who reported having a sex partner at risk (6.7%). Relatively high rates were also found among the perinatal (3.2%), sex for drugs/money (2.7%) and IDU categories (2.7%). Alternatively, the positivity rate for the heterosexual risk group remained at less than 1.0% even though they accounted for the majority of tests conducted. In 2005, only 521 tests (2.1% positivity rate) were received by persons with no acknowledged risk for infection.

Figure 12 shows the distribution of HIV-positive test results by self-reported risk exposure for 2005. MSM accounted for the greatest number of positive tests (1,556 or 29.7% and 1,648 or 31.5% when combined with IDU). Persons who identified heterosexual sex as their highest risk behavior comprised 25.5% (1,335) of all positive tests. Those who reported that they had sexual relations with someone else at risk for HIV accounted for 18.3% (960) of all positive tests. The proportion of positive tests among individuals who had a current or prior STD diagnosis was 6.3% (327). Persons who reported injection drug use as their highest risk accounted for 5.9% (310) of all positive tests. Although no other risk group accounted for more than 4% of positive tests in Florida in 2005, 6.6% of the positive tests were reported with no acknowledged risk or missing risk data.

² The MSM category here includes MSM who are injection drug users (MSM/IDU).

Figure 12. Distribution of HIV-Positive Tests by Self-Reported Risk Exposure, Florida, 2005 (N=5,232)



Focus on Minorities

According to projections from the Census Bureau³, 17.9 million people currently reside in the state of Florida. The racial composition of this population is as follows: 65% white, 14% black, 17% Hispanic and 4% "other." However, blacks and Hispanics comprised 71% (53% black and 18% Hispanic) of HIV cases and 64% (48% black and 16% Hispanic) of AIDS cases reported cumulatively through 2005 in Florida. Analysis of HIV counseling and testing data has also revealed disproportionately higher positivity rates among blacks. Further specification of the distribution of HIV testing and positivity rates across racial/ethnic populations can provide useful insights into the nature and course of the epidemic in Florida's minority communities.

The Intersection of Race/Ethnicity, Gender, and Age

One way to obtain a more specific description of HIV testing patterns and positivity rates in a population is to look at the intersection of race/ethnicity, sex, and age. Figure 8 shows that, over time, black males have experienced the highest positivity rates, followed by Hispanic males, white males, and black females. White and Hispanic females consistently recorded positivity rates below 1.0%. This pattern has been further specified for 2005 by the incorporation of age.

The overall positivity rate for black males in 2005 was 3.7% (Figure 8). However, as Figure 13a shows, this rate varied considerably by age. The highest positivity rate was found among black males age 40-49 (7.0%), followed by those aged 50+ (6.0%) and 30-39 (5.1%). This is particularly informative because 20-29 year olds accounted for the largest proportion of HIV tests conducted among black males (37.4%, data not shown), yet their positivity rate was relatively low (2.1%). Significant variation in positivity rates by age also exists among Hispanic males whose overall positivity rate in 2005 was 3.0% (Figure 8). Very high positivity rates were found in Hispanic men over the age of 30 and very low rates were found for those less than 30.

³ <http://www.census.gov/popest/counties/tables/CO-EST2004-01-12.xls>

The overall positivity rate for black females in 2005 was 2.0% (Figure 8). However, Figure 13b shows that black females over the age of 30 are experiencing much higher positivity rates. Fewer tests were administered to black females aged 30 and older, yet positivity rates were quite high: 3.0% for those in the 30-39 age group, 5.7% for those aged 40-49, and 5.8% for those aged 50 and over. While 67.1% of black females tested were between the ages of 0 and 29 (data not shown), the corresponding positivity rates were only 0.1% for less than 13 year olds, 0.5% for 13-19 year olds and 1.2% for 20-29 year olds. Among Hispanic females, overall positivity rates were low; however, the positivity rates for Hispanic females in the 40-49 and 50+ age groups were 1.6% and 2.3%, respectively. This is much higher than the 0.5% reported for all Hispanic females (Figure 8). These figures suggest that increased HIV testing of older minority men and women is needed.

Compared with the data from 2001, testing levels among blacks have increased by 0.1% (over 50 tests) for males and 9.1% (over 5,000 tests) for females (data not shown).

While actual numbers are much smaller, testing levels among Hispanics have increased by an even larger margin over the past five years: 43.8% (about 8,000 tests) for males, and 75.0% (about 21,000 tests) for females. These trends signal a growing awareness of HIV prevention among minority populations and increased accessibility of testing through outreach.

The data presented here indicate that prevention efforts must continue to be directed toward older blacks and Hispanics in order to limit new infections and to ensure that access to education and care is maintained or improved.

Figure 13a. Seropositivity Among Males, by Age and Race/Ethnicity, Florida, 2005

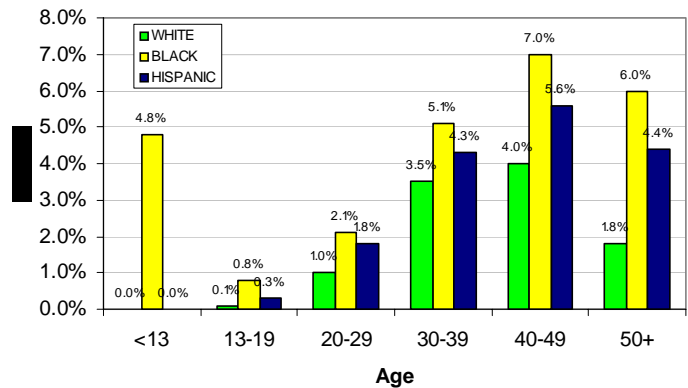
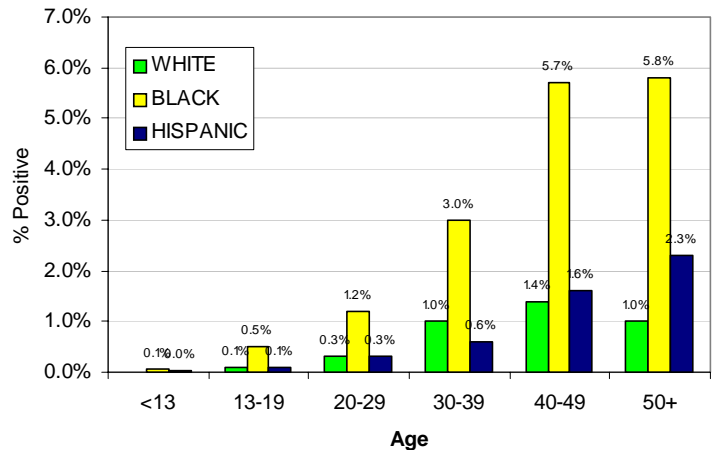


Figure 13b. Seropositivity Among Females, by Age and Race/Ethnicity, Florida, 2005



The Intersection of Race/Ethnicity and Risk

Male-to-male sex or injection drug use (separately or in combination) are behavioral practices that place individuals at high risk for HIV infection. In 2005, 31,650 HIV tests (10.7%) were performed on persons who identified themselves as MSM, IDU, or both MSM and IDU. As shown in Figure 11, the positivity rate among MSM/IDU in 2005 was 8.9%, 8.1% among MSM, and 2.7% among IDU. However, sharp differences in testing patterns and positivity rates are evident across racial/ethnic categories within these risk groups.

Figures 14 to 16 illustrate the distribution of HIV tests and HIV-positive tests by race/ethnicity for MSM/IDU, MSM, and IDU in 2005. Individuals identifying themselves as non-Hispanic whites accounted for the largest proportion of HIV tests in all three of these risk groups: 65.3% of MSM/IDU, 49.9% of MSM and 73.1% of IDU. Whites also accounted for the majority of positive HIV tests among MSM/IDU (57.6%) and MSM (38.2%), suggesting that racial/ethnic disparities among minorities might not be particularly high in these risk groups. However, the proportion of positive tests was still greater than the proportion of tests conducted for black men in both of these risk groups.

Racial/ethnic disparities appear to be stronger among IDU. Black females, who accounted for only 5.2% of tests among IDU in 2005, comprised 12.6% of positive tests in this risk group. Similarly, black males accounted for only 8.3% of tests, but 23.2% of the positives. In contrast, white females and males together accounted for over two-thirds of tests among IDU (37.5% for females and 35.6% for males), yet their combined share of positive tests was substantially lower (39.7%). The proportion of positive tests among Hispanic male and female IDUs in 2005 was also fairly high (15.5% and 6.5%, respectively) compared to their share of tests conducted.

Figure 14a. HIV Tests among MSM/IDU by Race/Ethnicity, Florida, 2005 (N= 1,038)

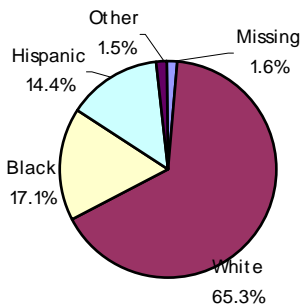


Figure 14b. HIV Positive Tests among MSM/IDU by Race/Ethnicity, Florida, 2005 (N= 92)

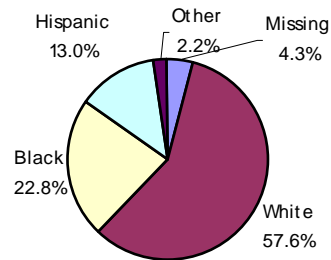


Figure 15a. HIV Tests among MSM by Race/Ethnicity, Florida, 2005 (N= 19,191)

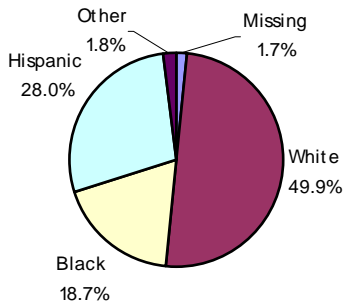


Figure 15b. HIV-Positive Tests among MSM by Race/Ethnicity, 2005 (N =1,556)

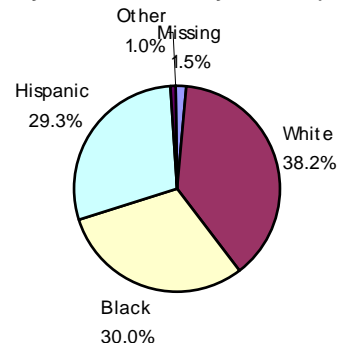


Figure 16a. HIV Tests among IDU by Gender and Race/Ethnicity, Florida, 2005
(N = 11,390)

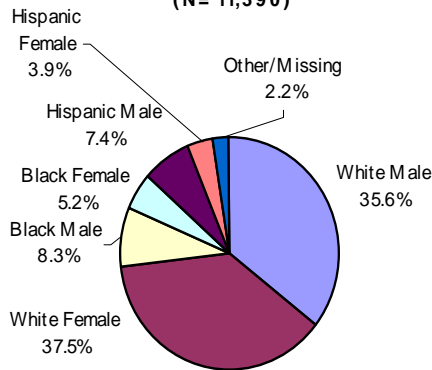


Figure 16b. HIV Positive Tests among IDU by Gender and Race/Ethnicity, Florida 2005
(N = 310)

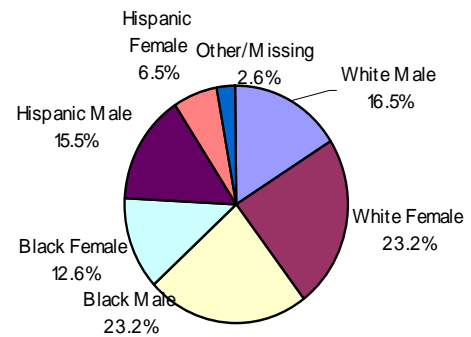


Figure 17 shows that aggregate positivity rates for MSM/IDU, MSM, and IDU mask important and occasionally dramatic differences between racial/ethnic groups. The relatively high volume of testing by whites combined with their generally lower positivity rates reduced the average positivity rate for the whole population in each of these risk groups. For example, in 2005, the positivity rate for black MSM was 13%, approximately five percentage points higher than that for all MSM (8.2%). The difference is also apparent for black female IDU, whose positivity rate in 2005 (6.6%) was much higher than the 2.7% reported for all IDU. This figure shows that blacks experienced significantly higher positivity rates in these three risk exposure groups.

Combined, MSM, IDU, and MSM/IDU accounted for 31,650 HIV tests in 2005; 16.7% were blacks, 21.5% were Hispanics, and 58.7% were whites. However, of the 1,958 positive tests for these three risk groups, 30.6% were blacks, 27.4% were Hispanics, and 39.3% were whites (data not shown). The data presented here indicate that there is still a need to increase testing and prevention education among individuals who engage in very high-risk behaviors.

Figure 17. Seropositivity Among Selected Risk Exposure Groups by Gender and Race/Ethnicity, Florida, 2005

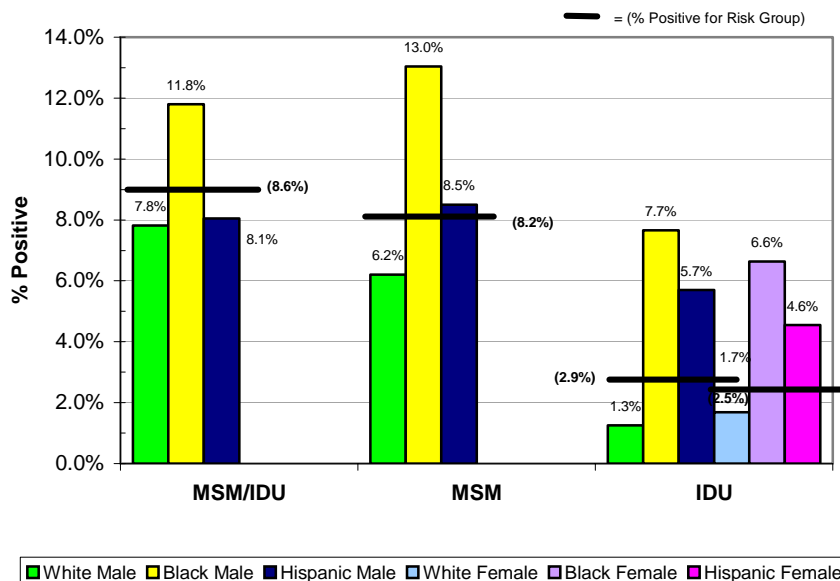
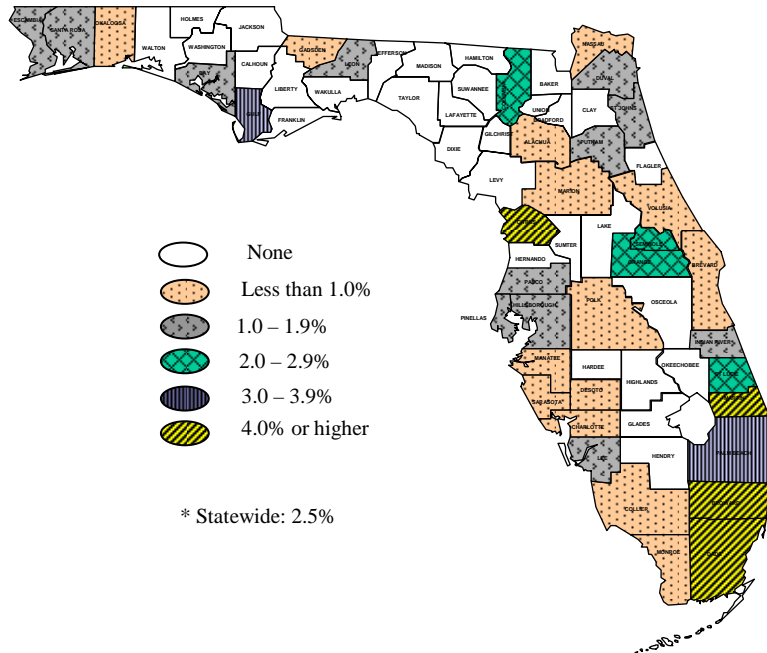


Figure 18. HIV Seropositivity Rates Using OraSure by County, 2005*



Focus on OraSure

The Bureau of HIV/AIDS has been providing HIV testing programs with OraSure Oral HIV-1 Antibody Testing Systems since February 1998. To receive OraSure, providers must complete a request form documenting their need, proposed usage and target populations. This testing method, which tests for antibodies in oral mucosal transudate, is as accurate as a blood test for diagnosis in public health and clinical settings. In Florida, OraSure is primarily used in outreach settings, to reach high-risk persons who are less likely to access the health care system and are often less accepting of conventional HIV testing methods (e.g., persons who are homeless, drug users, younger, or those who live in rural areas).

In 2005, 59,745 HIV tests were administered with OraSure in select counties in Florida. This represents a 5.6% and 23.8% decline in usage compared to 2004 (63,293) and 2003 (78,378), respectively. There were 68,766 OraSure tests given in 2002 and 63,015 OraSure tests administered in 2001. The decrease in OraSure usage since 2003 has coincided with the increase in rapid HIV testing during the same time period. The statewide positivity rate using OraSure also decreased from 3.1% in 2001 to 2.5% in 2005. Positivity rates for individual counties are illustrated in Figure 18. Compared to the overall positivity rates shown in Figure 5, some counties were able to achieve higher positivity rates using OraSure. These differences may result from the success of using OraSure in outreach settings. Among the 35 counties that used more than 100 OraSure tests in 2005, Miami-Dade and Broward counties had the highest positivity rate (4.4%), followed by Palm Beach County (3.5%). Twenty-two counties performed fewer than 100 tests in 2005; ten counties did not administer OraSure tests.

Non-Hispanic blacks accounted for the majority of OraSure tests conducted in 2005 (26,723 or 44.7%), as compared to non-Hispanic whites (19,759 or 33.1%), and Hispanics (11,244 or 18.8%). Males accounted for a slightly higher proportion than females (52.1% vs. 47.6%).

Focus on Rapid Testing

In July 2003, the first rapid HIV testing program was implemented in the Duval County Jail. The OraQuick Rapid HIV-1/2 Antibody Test is a screening test that produces results in 20-40 minutes, and can be performed using whole blood through finger stick or venipuncture or with an oral specimen. It is extremely accurate, and non-reactive (negative) results are final. Reactive results must be confirmed by a standard HIV test, which can be done using blood or OraSure.

In 2005, 34,780 tests were recorded using rapid testing, up from 3,790 in 2003 when the program started. The statewide positivity rate using rapid testing increased from 2.2% in 2003 to 2.5% in 2005. Positivity rates for individual counties are illustrated in Table 1. Among counties that used more than 100 rapid tests in 2005, Hillsborough had the highest positivity rate (7.8%), with 97.1% of the tests being done in the CHD STD and HIV clinics (a very large proportion tested were known positives), followed by Alachua (6.1%) with all tests recorded in correctional facilities, and Sarasota (3.7%) with almost all tests recorded in community-based organizations. One county, Lee, had 12 tests.

Table 1. Total Number of Rapid Tests and Positivity Rates, Florida, 2005

	Total Tests	No. Negatives	No. Confirmed Positives	Positivity Rate
Broward	7,628	7,523	104	1.4
Duval	7,221	7,049	170	2.4
Miami-Dade	6,187	6,083	101	1.6
Hillsborough	4,250	3,916	333	7.8
Pinellas	2,569	2,503	55	2.1
Orange	1,915	1,886	29	1.5
Saint Lucie	1,626	1,613	13	0.8
Volusia	823	822	1	0.1
Manatee	625	623	2	0.3
Alachua	427	401	26	6.1
Collier	267	264	3	1.1
Palm Beach	232	227	5	2.2
Brevard	222	221	0	--
Sarasota	218	210	8	3.7
Pasco	211	210	1	0.5
Monroe	221	217	4	1.8
Polk	83	79	4	4.8
Bay	43	43	0	--
Lee	12	12	0	--
Total	34,780	33,902	859	2.5

Non-Hispanics blacks recorded a large proportion of rapid tests conducted in 2005 (14,175 or 40.8%), non-Hispanic whites recorded 12,730 or 36.6%, and Hispanics 6,847 or 19.7%. Males accounted for a higher proportion than females (66.9% vs. 33.0%)

Figure 19a. HIV Blood Tests by Race and Gender, Florida, 2005

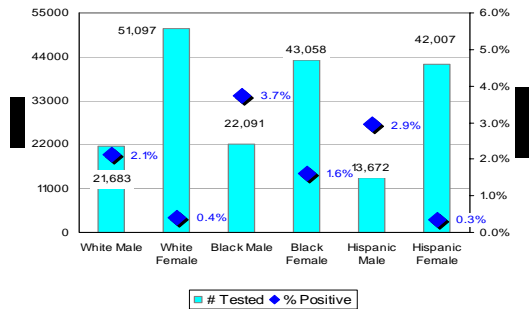


Figure 19b. HIV OraSure Tests by Race and Gender, Florida, 2005

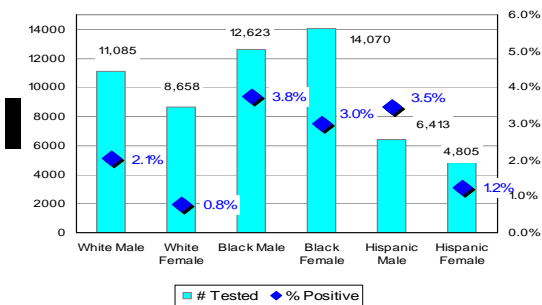


Figure 19c. HIV Rapid Testing Tests by Race and Gender, Florida, 2005

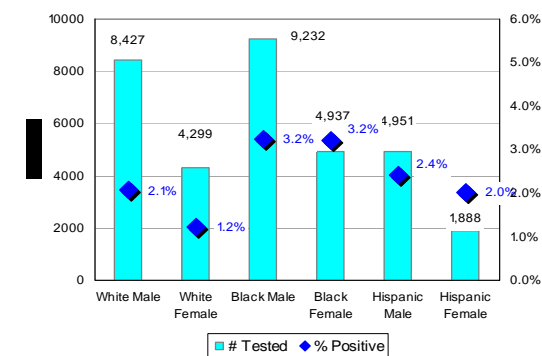
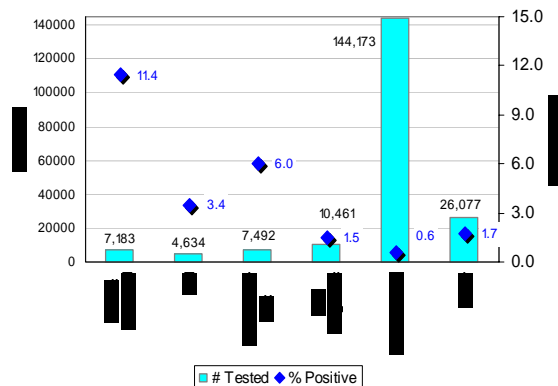


Figure 20a. HIV Blood Tests by Risk, Florida 2005



Figures 19a, 19b and 19c compare testing levels and positivity rates by race/ethnicity and gender for blood, OraSure and rapid testing in 2005. While white females had the highest number of blood tests, the highest levels of OraSure and rapid testing were among blacks, with more females testing with OraSure and more males by rapid testing. White and Hispanic males were also tested in higher numbers using OraSure and rapid testing than their female counterparts. Compared to blood testing, much higher positivity rates were recorded among black females using OraSure or rapid testing (3.0% and 3.2% vs. 1.6%). Substantial increases were also recorded for Hispanic females (1.2% and 2.0% vs. 0.3%).

The positivity rate for black men was virtually the same using blood, OraSure or rapid testing (3.7%, 3.8% and 3.2%, respectively).

Figures 20a, 20b, and 20c compare testing levels and positivity rates by risk groups for blood, OraSure and rapid testing in 2005. Regardless of the type of test, the majority of tests were administered to persons who identified heterosexual sex as their highest risk. Compared to blood testing, the positivity rate for MSM using OraSure or rapid testing was lower (11.4%, vs. 7.6% and 5.0%). Higher positivity rates using OraSure or rapid testing were recorded for those who had a sex partner at risk (7.9% and 7.0% vs. 6.0%), an STD diagnosis (3.1 and 6.7% vs. 1.5%) or were heterosexual (1.1% and 0.8% vs. 0.6%).

These data indicate that OraSure and rapid testing have become a valuable asset to HIV prevention programs throughout Florida. Growing evidence from the field suggests that the availability of OraSure and rapid testing has increased test acceptance in a variety of outreach settings, including housing projects, homeless shelters, rural communities, jails and high-risk youth programs. In 2005, OraSure and rapid testing accounted for over 32% of all HIV tests conducted at registered HIV counseling and testing sites, up from 30% in 2004, 26% in 2003, and 23% in 2002 and 2001. The

Figure 20c. HIV Rapid Testing Tests by Risk, Florida 2005

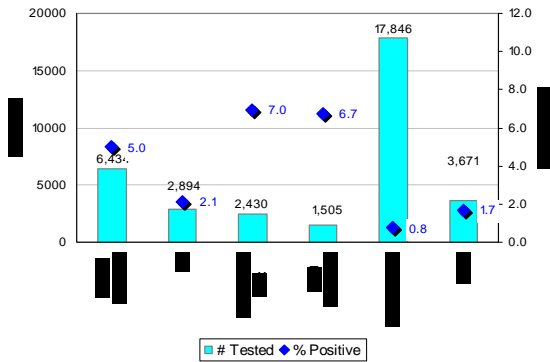
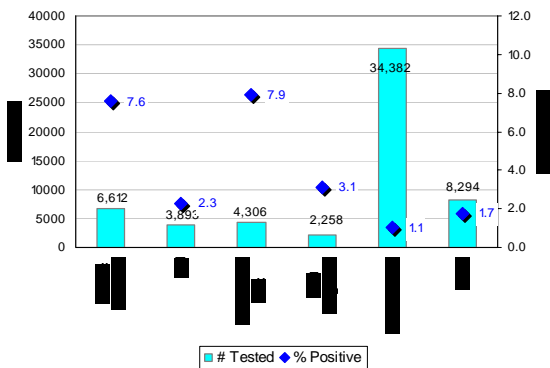


Figure 20b. HIV OraSure Tests by Risk, Florida 2005



effectiveness of OraSure and rapid testing as outreach tools has been demonstrated in larger counties, where the growth of street outreach and community-based testing sites demands faster, easier and less threatening means of testing for HIV. OraSure has been very successful in uncovering HIV-positive cases in several rural counties with historically low positivity rates. Rapid testing has been extremely valuable in jails, where inmates are often released and lost to follow-up before traditional test results are available and in mobile units, which allow the test to be taken to persons at highest risk. OraSure and rapid testing are an important part of ongoing efforts to increase access and availability of HIV testing and counseling services among high-risk populations and will continue to increase the number of HIV-infected persons who know their status.

Focus on Repeat HIV Testers

Persons who have tested at least twice constitute 65% (190,208) of the HIV tests conducted in 2005⁴. The majority of these repeat testers were clients who previously tested negative (182,673 or 96.0%), while 2,955 (1.6%) previously tested positive, and 4,580 (2.4%) had an inconclusive or unknown previous test result.

Among the 5,232 positives in 2005, 29.3% (1,534) previously tested negative and 45.6% previously tested positive (some may have tested positive in previous years). Table 2 shows positives in 2005 by gender, race/ethnicity and previous test result. Approximately one-third of positives found among white males and females, black males and females and Hispanic males had previously tested negative. Between 42% and 51% of the positives in each of the race/ethnicity/gender groups had previously tested positive.

Persons who identified MSM as their highest risk behavior accounted for the largest proportion (582 or 38.0%) of those who previously tested negative (data not shown). Another 29.6% (454) of the positives that previously tested negative were identified as heterosexual, while 11.7% (179) had partners at risk.

These data indicate that a large percentage of positive tests are being identified among persons who previously tested negative. This may be attributed to persons who continue to participate in high-risk behavior and thus return often for testing. Further assessment is necessary to understand reasons for repeat testing practices.

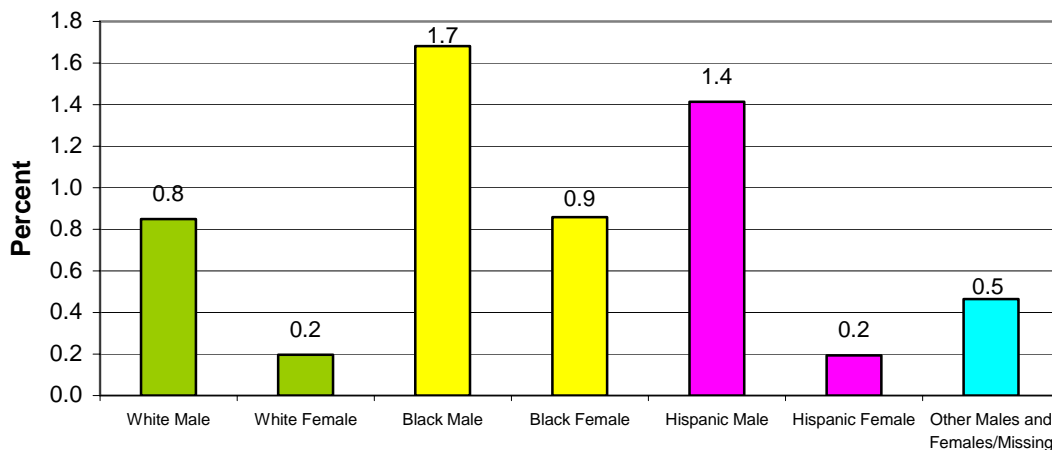
⁴ There were a total of 294,545 HIV tests conducted in 2005; 190,208 (64.6%) were repeat testers, 81,356 (27.6%) had not been tested before, and 22,981 (7.8%) records were missing test history information.

Table 2. Total Number of HIV-Positive Tests and Number (%) of HIV-Positive Tests among Persons Who Previously Tested Positive, and Negative by Gender and Race/Ethnicity, Florida, 2005

	Total Positives	# (%) Previously Tested Positive	# (%) Previously Tested Negative
White Male	863	433 (50.2)	268 (31.1)
White Female	324	158 (48.8)	101(31.2)
Black Male	1,597	671(42.0)	464 (29.1)
Black Female	1,270	573 (45.1)	374 (29.4)
Hispanic Male	744	336 (45.2)	236 (31.7)
Hispanic Female	241	123 (51.0)	60 (24.9)
Other Males and Females/Missing	193	93 (48.2)	31 (16.1)
	5,232	2,387 (45.6)	1,534 (29.3)

Figure 21 shows HIV positivity rates by race/ethnicity and gender for those who tested positive for the first time in 2005. Of the 5,232 positive test results obtained in 2005, 695 (13.3%) were among persons who had never been tested. Another 1,534 (29.3%) were among persons who had previously tested negative. Combined, these groups represent “new” positives in 2005. The positivity rate among the new positives was highest for black males (1.7%), followed by Hispanic males (1.4%) and black females (0.9%). These positivity rates are substantially lower than those presented in Figure 8 and may be more reflective of the true prevalence among persons who receive voluntary HIV testing. Positivity rates, presented elsewhere in this report, are influenced by the large number of duplicate positives within the database, as persons receiving a positive test result are very likely to be retested.

Figure 21. Positivity Rates Among Those Testing Positive for the First Time, by Race/Ethnicity and Gender, Florida 2005 (N=2,229)



Focus on Post-Test Counseling

The post-test counseling (PTC) session provides an opportunity to inform the client of their HIV test result, to assess the patient's understanding of the results, to assess the need for follow up and care and to discuss the importance of risk-reducing behavior regardless of the test results. From 2001 to June 2005, more than 50% of negatives were post-test counseled. In June 2005, the statewide post-test counseling rate for positives was 84%, a slight decrease compared to 2004 (Figure 22).

Figure 22. Percentage of Clients Post-test Counseled, Florida, 2001-2005

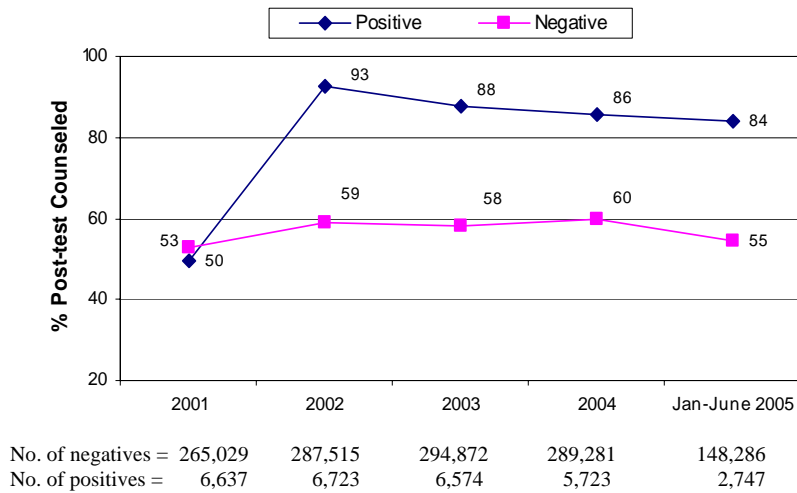


Table 3. Number Tested and Number (%) Post-test Counseled for Negatives and Positives by Site Type, Florida, January-June 2005

	No. Negative	No. Post-test Counseled (Negative)	(%)	No. Positive	No. Post-test Counseled (Positive)	(%)
Anonymous	8,005	5,371	67.1	146	95	65.1
CHD STD	35,065	18,166	51.8	664	549	82.7
Drug Treatment Center	6,793	4,400	64.8	71	65	91.6
CHD Family Planning	28,659	17,646	61.6	54	50	92.6
CHD Prenatal/OB	14,862	10,216	68.7	26	25	96.2
CHD TB	1,522	913	60.0	22	21	95.5
CHD Other	8,537	5,399	63.2	340	304	89.4
Correctional Facility	11,472	1,943	16.9	263	196	74.5
College/University	999	861	86.2	19	19	100.0
Private M.D.	2,754	732	26.6	97	76	78.4
Special Study	1,892	1,009	53.3	91	34	37.4
Community-based Organization	22,220	12,799	57.6	765	693	90.6
Health Department Field Visit	6,486	2,062	31.8	196	180	91.8
Total	149,266	81,517	54.6	2,754	2,307	84.0

In Table 3, the number of clients with a positive or negative test result in the first half of 2005 who received post-test counseling is shown. College and university sites recorded the highest post-test counseling rate for negatives (86.2%) followed by prenatal/OB sites with 68.7%. Anonymous testing constituted 67.1%, and other CHD sites 63.2%. College and university sites also had the highest post-test counseling rate for positives (100%). However, high post-test counseling rates were also observed in: drug treatment centers; prenatal/OB, TB, and family planning clinics; community-based organizations; and field visits. Special study sites recorded a much lower post-test counseling rate for positives (37.4%), as did anonymous testing (65.1%), correctional sites (74.5%), private providers (78.4%), and STD clinics (82.7%).

Table 4. Number Tested and Number (%) Post-test Counseled by Gender, Age, Race/Ethnicity and Serostatus, Florida, January-June 2005

	No. Negative	No. Post-test Counseled (Negative)	(%)	No. Positive	No. Post-test Counseled (Positive)	(%)
Gender						
Male	57,260	27,708	48.4	1,727	1,422	82.3
Female	91,574	53,591	58.5	1,001	865	86.4
Other/Missing	432	218	50.5	26	20	76.9
Total	149,266	81,517	54.6	2,754	2,307	84.0
Age						
Less than 13	374	204	54.5	13	8	61.5
13-19	28,691	16,320	56.9	84	72	85.7
20-29	61,415	33,799	55.0	598	506	84.6
30-39	29,373	15,612	53.2	847	695	82.1
40-49	18,505	9,524	51.5	861	723	84.0
50+	9,719	5,316	54.7	331	288	87.0
Missing age	1,189	742	62.4	20	15	75.0
Total	149,266	81,517	54.6	2,754	2,307	84.0
Race						
White	53,745	29,980	55.8	619	504	81.4
Black	53,455	27,256	51.0	1,493	1,271	85.1
Hispanic	37,820	21,963	58.1	538	445	82.7
Other/Missing	4,246	2,318	54.6	104	87	83.7
Total	149,266	81,517	54.6	2,754	2,307	84.0
Risk						
MSM/IDU and MSM	9,914	4,834	48.8	877	696	79.4
IDU	5,789	2,705	46.7	152	133	87.5
Partner at risk	6,761	3,661	54.1	476	407	85.3
Perinatal	115	80	69.6	6	1	16.7
STD diagnosis	7,633	3,712	48.6	163	135	82.8
Sex for drugs/money	3,400	1,574	46.3	104	85	81.7
Blood	1,845	1,519	87.8	16	14	87.5
Sexual assault	5,700	3,075	53.9	30	30	100.0
Heterosexual	102,169	57,247	56.0	733	625	85.3
No Identifiable risk/Missing data	5,940	3,010	50.7	196	181	92.3
Total	149,266	81,517	54.6	2,754	2,307	84.0

Between January and June 2005, there were some differences by gender, age, and race/ethnicity in post-test counseling rates. As shown in Table 4, females were more likely to be counseled following a negative test result (58.5%) and a positive test result (86.4%) compared to 48.4% and 82.3% for negative and positive males, respectively. Older persons were more likely to receive positive test results while no differences were observed by age among the negatives.

Hispanics were slightly more likely to receive negative results, while blacks were more likely to receive positive results. Wide variations exist in post-test counseling rates by risk category with persons who reported sexual assault most likely to receive a positive result and those with perinatal as a risk least likely. Post-test counseling rates for positive MSM/IDU and MSM were also low (79.4%).

Acknowledgement

The Bureau of HIV/AIDS would like to acknowledge the dedication and commitment of the many individuals who have worked so hard over the past year to make Florida's public HIV counseling, testing and linkage system one of the best in the nation. Although too numerous to list, these individuals include: our CHD administrators, HIV/AIDS Program Coordinators, nursing directors and the many health department staff who perform HIV counseling, testing and linkage services and oversee those programs; STD staff who have the difficult job of notifying the newly infected and conducting partner counseling and referral services; our 501 trainers who ensure that future counselors are prepared; our health educators and outreach workers who educate and inform; our colleagues in the state laboratories, without whom we would not have a testing program; our partners in community agencies, faith-based organizations, and correctional facilities who reach out to those we cannot reach; staff within the bureau who work tirelessly on this program; and finally, our Early Intervention Consultants, those front line staff who have worked so diligently to ensure the success of CTL in Florida. We look forward to our continued collaboration as we strive to ensure that all Floridians have the opportunity to learn their HIV status and take steps to protect themselves and those they love.