



## **Executive Summary**

In 2008, 373,102 HIV tests were conducted at Florida's registered testing sites, representing a 13% increase (approximately 43,000 tests) over the previous year. This marks the 8<sup>th</sup> consecutive year that number of HIV tests performed in Florida exceeded 250,000.

Increases in testing were recorded among all racial/ethnic groups, but especially in blacks. 2008 was the first full calendar year for the African American Testing Initiative (AATI) which contributed to the 21% increase (approximately 27,000 tests) in testing among blacks. Persons who reported heterosexual sex as their highest risk represent the majority of the tests. Post-test counseling rates were 70.3% for negatives and 95.5% for positives. Testing with OraSure and rapid testing in 2008 account for 13.2% and 37.8% of all HIV tests conducted, respectively.

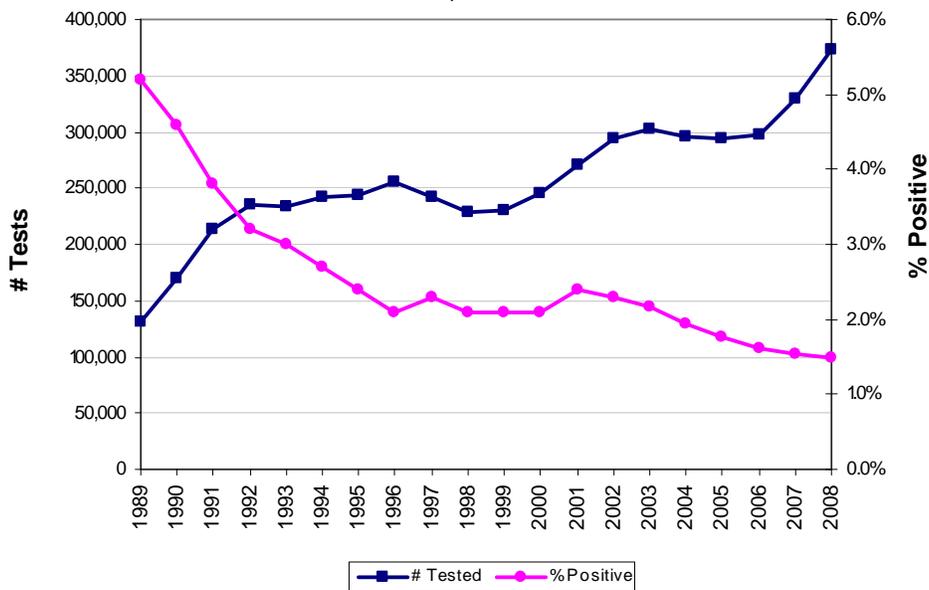
The number of positive HIV tests increased by 9.8% in 2008. The overall positivity rate however decreased slightly from 1.53% in 2007 to 1.48% in 2008. Persons who reported MSM (men who have sex with men) as their highest risk account for 30.9% of all positive tests reported in 2008, yielding a positivity rate of 7.7%. Although heterosexuals represent 60.1% of all testing and 34.1% of positive tests, the positivity rate for this risk group is only 0.6%. Blacks and adults age 30 and older continue to record higher than average positivity rates.

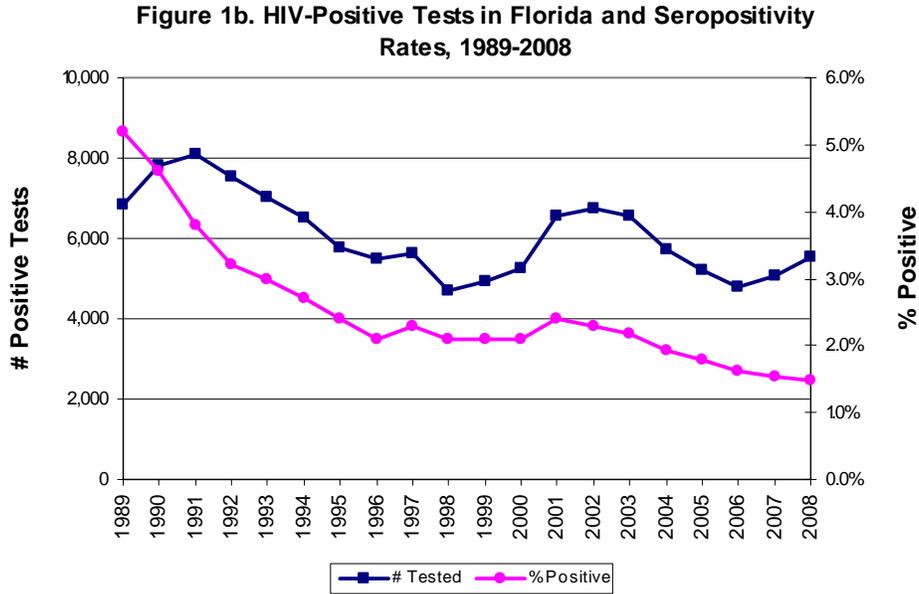
**Trends in HIV Testing**

Since 1985, when the Florida Department of Health began collecting data on HIV testing at registered testing sites across the state, 5.3 million anonymous and confidential tests have been conducted. Today over 2,100 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 Prevention 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 about the nature and direction of the epidemic, and is used to inform and evaluate HIV prevention activities and policy making at the state and local level.

**Figures 1a and 1b** show testing trends in Florida between 1989 and 2008 with **Figure 1a** illustrating all HIV tests and positivity rates and **Figure 1b** illustrating HIV-positive tests and positivity rates. Testing levels increased rapidly through the early 1990's and remained fairly steady during the mid-1990's and early 2000's, with a marked increase for 2007 and 2008. Compared with 2003, the testing level increased by 71,415 (23.7%) in 2008. In contrast, positivity rates remained fairly stable between 1996 and 2003 but have declined steadily since 2001. These rates dropped sharply in the 1980's as more and more people at relatively lower risk began to be tested. Positivity rates will continue to decline as HIV-infected people learn their status and opt-out of further testing. The number of positive tests identified each year fluctuates but overall has declined since peaking in 1991.

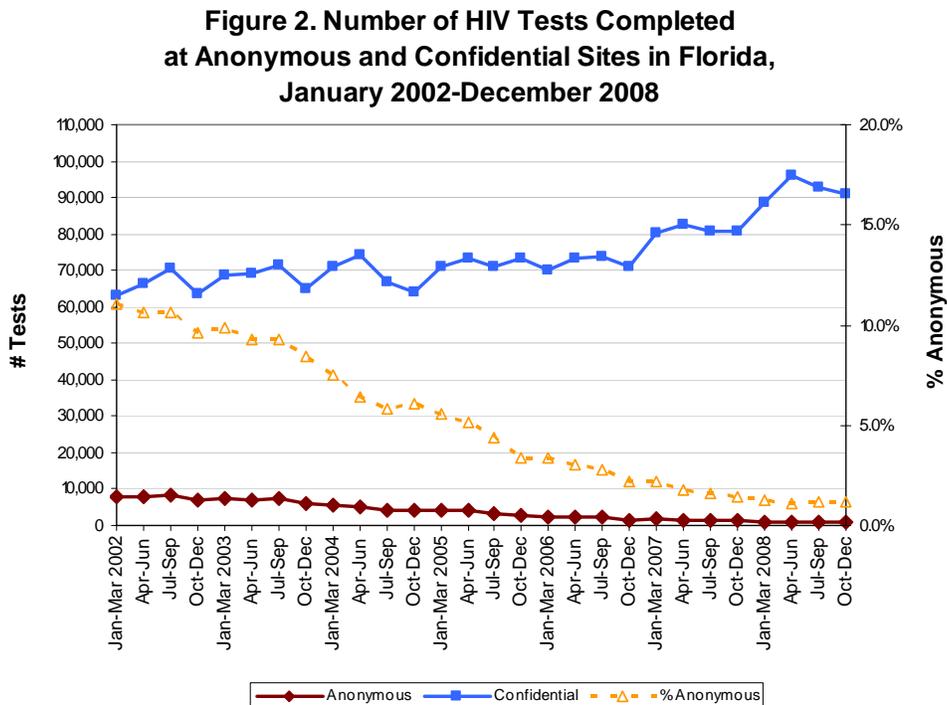
**Figure 1a. HIV Tests Conducted in Florida and Seropositivity Rates, 1989-2008**





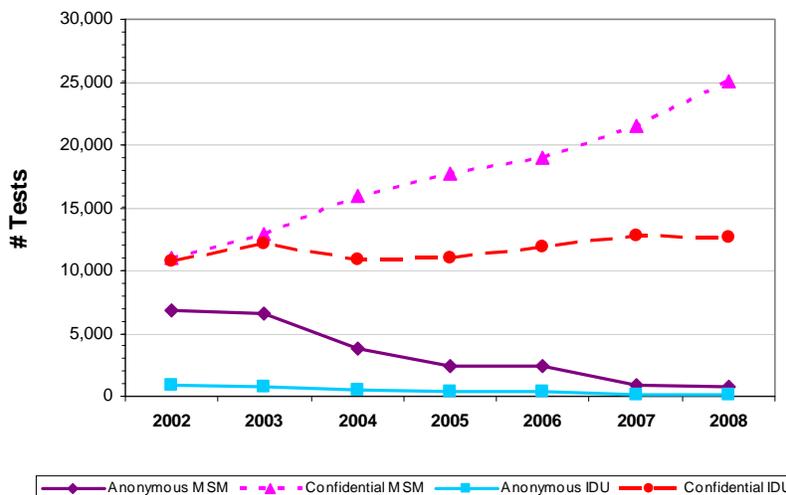
**Figure 2** compares testing levels at anonymous and confidential sites by calendar year quarters, from 1<sup>st</sup> quarter 2002 through 4<sup>th</sup> quarter 2008. Some observable patterns may be seasonal or related to specific events. Sharp increases in testing numbers have been recorded in the weeks around National HIV Testing Day which occurs annually on June 27.

Anonymous testing has steadily declined over the past 7 years, accounting for 1.2% of all tests conducted in 2008, compared to 10.5% in 2002. In contrast, confidential testing continues to increase annually.



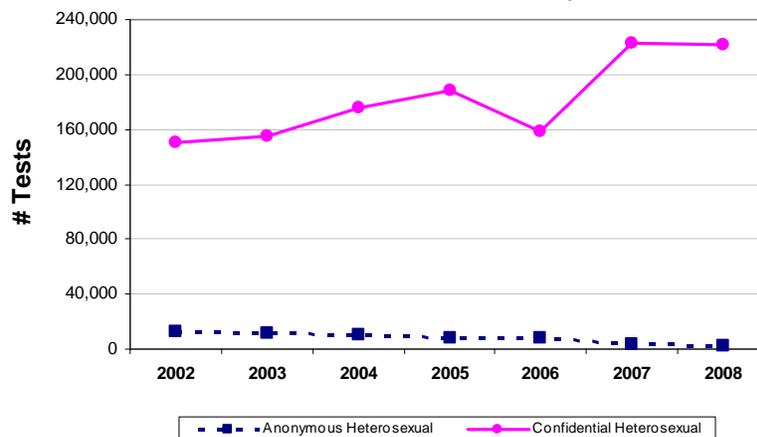
**Figure 3a** displays trends in anonymous and confidential testing within two high-risk groups: men who have sex with men (MSM)<sup>1</sup> and injection drug users (IDU). While the overall trend is declining anonymous testing with increasing confidential testing, the MSM risk group has seen the biggest change. Confidential testing increased 126.9% (over 14,000 tests) and anonymous testing decreased 89.1% (over 6,100 tests) from 2002 to 2008. For the IDU risk group, the decrease in anonymous testing is similar to MSM at 89.0%; the increase in confidential testing is much lower at 17.8% (over 1,900 tests).

**Figure 3a. Number of HIV Tests Completed at Anonymous and Confidential Sites, MSM and IDU Risk Groups, 2002-2008**



**Figure 3b** shows anonymous and confidential testing trends among those who identified heterosexual sex as their highest risk factor. The number of confidential tests among heterosexuals has increased 47.6% (over 71,000 tests) from 2002 to 2008. The number of anonymous tests decreased 83.1% (over 10,000 tests) during that same time frame. This high-volume, typically low-risk group accounts annually for a very large proportion of all HIV tests.

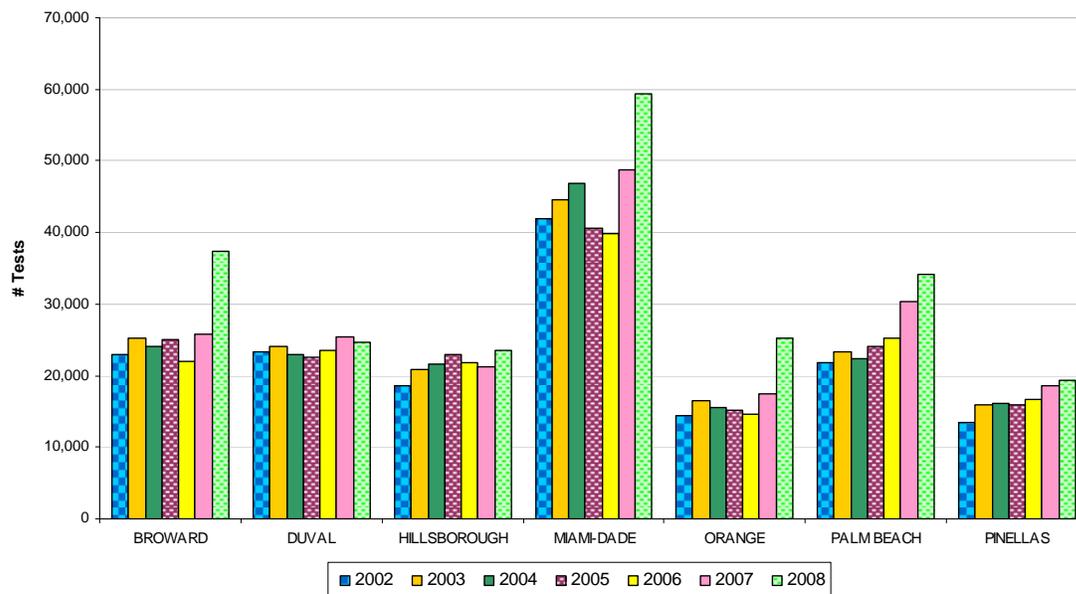
**Figure 3b. Number of HIV Tests Completed at Anonymous and Confidential Sites, Heterosexual Risk Group, 2002-2008**



<sup>1</sup> The MSM Category here includes MSM who are injection drug users (MSM/IDU)

Testing among the seven largest counties in Florida is shown in **Figure 4**. Together, the counties of Broward, Duval, Hillsborough, Miami-Dade, Orange, Palm Beach, and Pinellas account for 59.9% of all HIV tests conducted in 2008. The level of testing in these seven counties increased overall by 43.1% (over 67,000 tests) between 2002 and 2008. Except for Duval which had a 2.7% decrease, all of these counties had increases in testing in 2008, with the largest increases in Broward (45.5%) and Orange (43.4%).

Figure 4. HIV Testing Levels Among Florida Counties that Perform More than 10,000 HIV Tests per Year, 2002-2008



At least 80% of the estimated 125,000 persons with HIV in Florida know they are infected. Since 1999, the Department of Health has focused on increasing the proportion who know their HIV status. A variety of strategies have been pursued, including: the increased use of OraSure and rapid testing in outreach settings; testing in clinical settings such as emergency rooms; improved risk assessment and targeted testing; increased testing in correctional settings; increased emphasis on partner services; expansion of non-traditional, community-based testing programs; increased use of mobile vans; directly-funded CDC testing programs; a social marketing campaign encouraging persons at risk for HIV to be tested; and expanded testing and outreach focusing on minority populations. These strategies undoubtedly have led, at least in part, to the 52.2% increase in testing between 2000 and 2008.

In addition to these successful strategies, the African American Testing Initiative (AATI) completed its first full year of operation in 2008. This initiative is funded by the Centers for Disease Control and Prevention (CDC) to increase testing in clinical and non-clinical settings for those at increased risk of HIV, primarily African Americans and other black populations. Ten counties conducted expanded HIV testing in 2008, contributing to the overall increase in testing. These counties were Broward, Collier, Duval, Hillsborough, Manatee, Miami-Dade, Orange, Palm Beach, Pinellas, and St. Lucie. Data from this initiative can be found later in this document. A series of reports released by the DOH, including “Out in the Open” targeting MSM and “Organizing to Survive” targeting

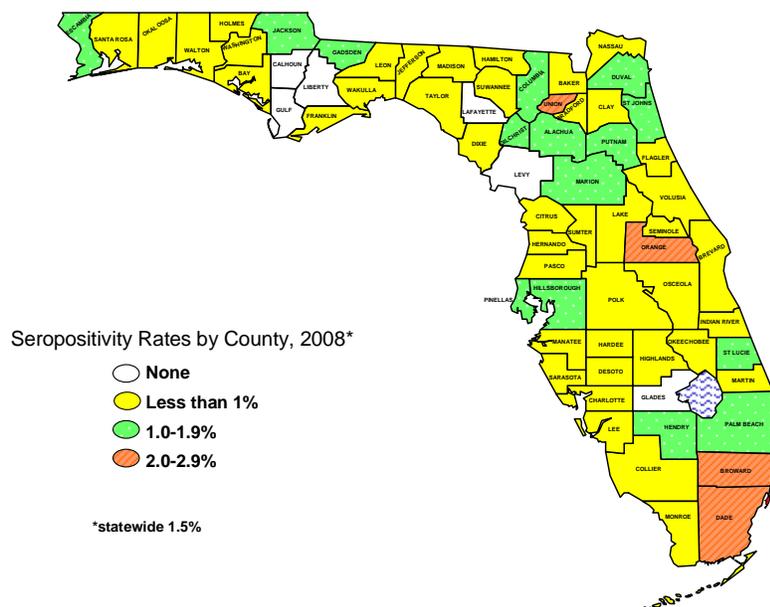
women, and the subsequent mobilization activities in 2008, have also led to increases in testing. Finally, our faith initiative, which includes a testing component, has been successful in increasing HIV testing among those communities.

**HIV Counseling and Testing in 2008**

In, 2008, 373,102 HIV tests were performed at registered HIV testing sites in Florida. Of these, 5,540 were positive, resulting in an overall positivity rate of 1.5%. Positivity rates for individual counties are shown in **Figure 5** (Data is also available in table form in Appendix Table 1). Miami-Dade County recorded the highest positivity rate (2.7%), followed by Broward County (2.3%). Overall, eight counties reported positivity rates higher than the state average of 1.5% for 2008. Six counties reported no positive HIV tests in 2008: these counties are Calhoun, Glades, Gulf, Lafayette, Levy, and Liberty.

As always, 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 may be a result of operational factors, such as a standard recommendation that all clients receiving a positive result seek a retest. Additional counseling and testing data for individual counties are available from the Prevention Section.

**Figure 5. HIV Seropositivity Rates by County, Florida, 2008**

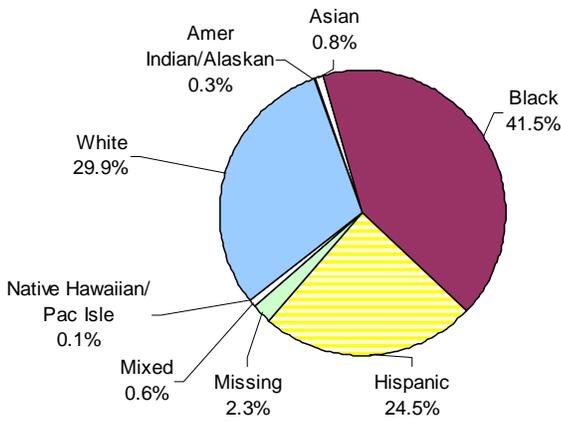


See Appendix Table 1 for data in table form

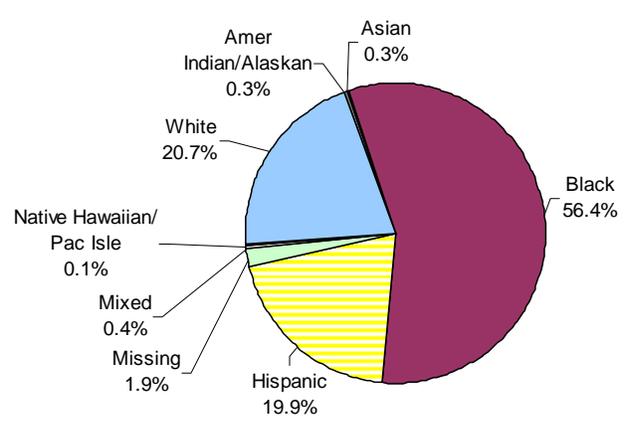
**Race/Ethnicity**

In 2008, blacks accounted for the greatest proportion (41.4%, 154,494) of all tests; 24.5% (91,338) were among Hispanics and non-Hispanic whites accounted for 29.9% (111,510) of persons tested (see **Figure 6a**). Blacks accounted for more than one-half (56.3%, 3,121) of all the positives, resulting in a positivity rate of 2.0% (see **Figure 6b**). Whites accounted for 20.6% (1,143) of all positive tests with a positivity rate of 1.0%. Among the Hispanic population, the proportion of positive tests (19.9%, 1,102) is more consistent with their proportion of tests (24.5%); the positivity rate for this group was 1.2%. Testing among Asians, Native Americans, and other racial/ethnic groups was minimal; when combined they account for 1.9% of all tests and 1.2% of positives.

**Figure 6a. Total HIV Tests by Race/Ethnicity, Florida, 2008 (N=373,102)**



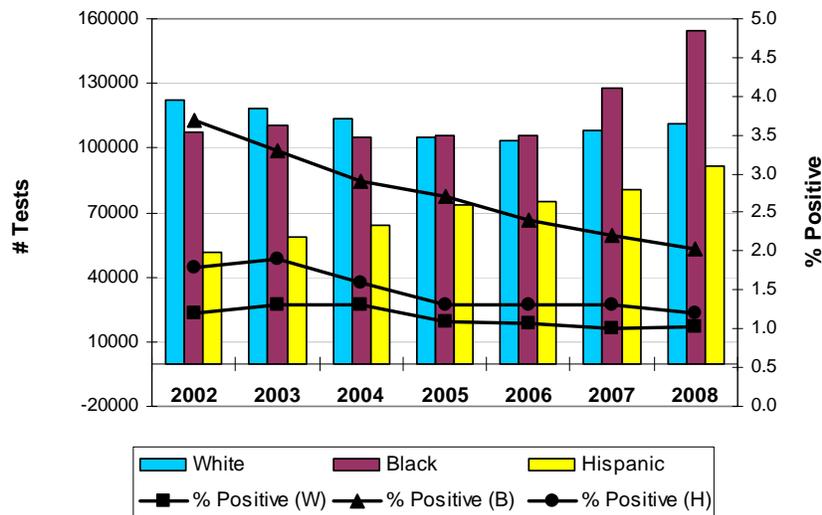
**Figure 6b. HIV-Positive Tests by Race/Ethnicity, Florida, 2008 (N=5,540)**



**Figure 6c** shows that the positivity rates for whites and Hispanics have been relatively consistent for the past four years while the positivity rate among blacks has been in a steady decline over the past seven years.

Testing levels for whites increased slightly from 2007 levels (3.1%), while testing among blacks increased 21.2%. Among Hispanics, testing levels also show an upward trend with an increase of 13.2% from 2007 to 2008.

**Figure 6c. Number of HIV Tests & Positivity Rates by Race/Ethnicity, Florida, 2002-2008**



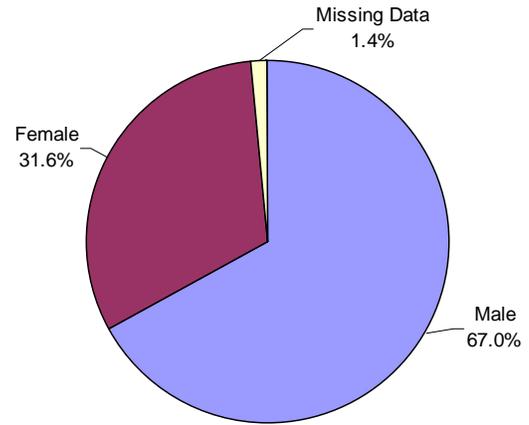
**Sex/Gender**

**Figure 7a** shows the number of HIV tests and **Figure 7b** shows HIV-positive tests by sex for 2008. Females account for 215,656 (57.8%) HIV tests and 154,824 (41.5%) were performed on males. However, males account for the greatest number of positive tests (3,713 or 67.0%), yielding a positivity rate of 2.4%, while females account for 31.6% (1,750) of positive tests with a positivity rate of 0.8%. The low rate among females is possibly due to large volumes of testing in low-risk family planning and prenatal care public health care settings.

**Figure 7a. Total HIV Tests by Sex, Florida, 2008 (N=373,102)**

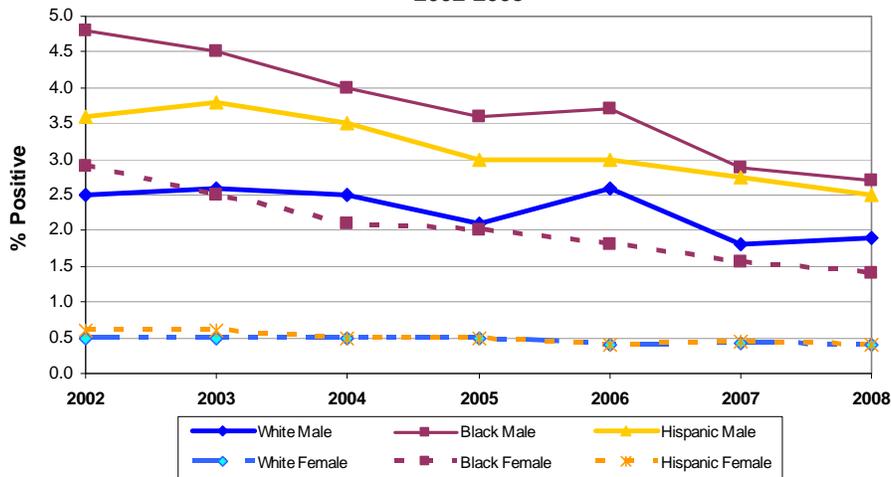


**Figure 7b. HIV-Positive Tests by Sex, Florida, 2008 (N=5,540)**



Positivity rates for males and females by race/ethnicity from 2002 to 2008 are shown in **Figure 8** (also see Appendix Table 2 for data in table form). Black males continue to have the highest positivity rate. While females as a whole have lower positivity rates than males, the rate for black females is almost a full percentage point higher than the rates for Hispanic or white females. The positivity rates for both Hispanic and white females have remained fairly constant, hovering around 0.5% for the past seven years.

**Figure 8. HIV Seropositivity by Sex and Race/Ethnicity, Florida, 2002-2008**

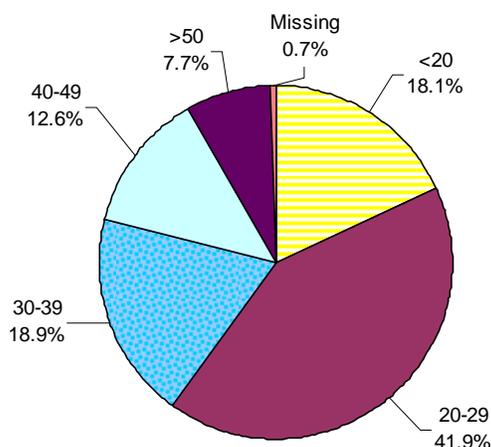


See Appendix Table 2 for data in table form

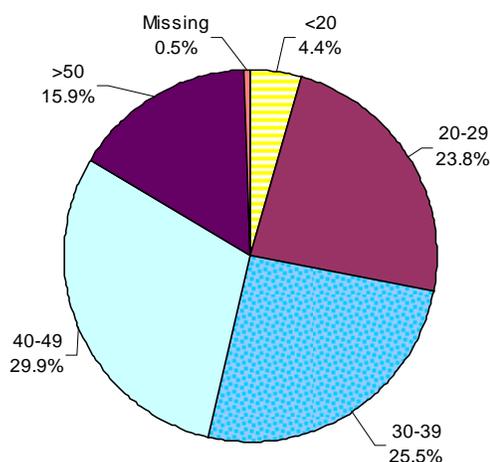
**Age**

**Figure 9a** shows the number of HIV tests by age group and **Figure 9b** shows HIV-positive tests by age group. Those under the age of twenty represent 18.1% (67,599) of all tests, while persons between the ages of 20-29 continue to represent the highest proportion of tests (41.9% or 156,503). The 30-39 age group accounted for nearly 19% of all tests. Persons age 50 and over had the smallest proportion of tests with 7.7% (28,830).

**Figure 9a. Total HIV Tests by Age Group, Florida, 2008 (N=373,102)**



**Figure 9b. HIV-Positive Tests by Age Group, Florida, 2008 (N=5,540)**

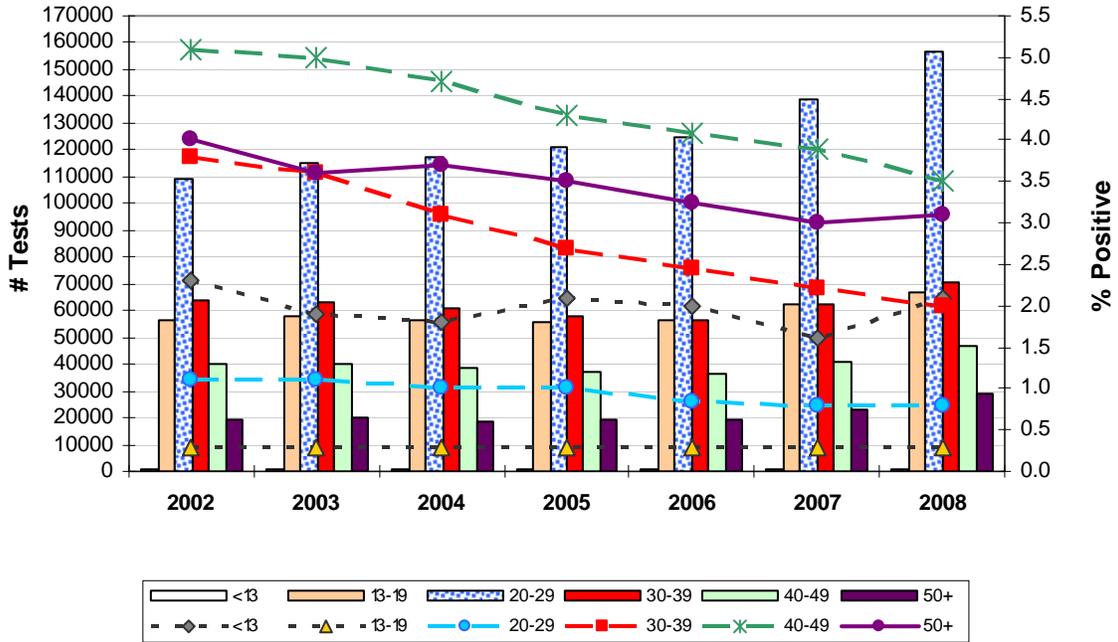


With only 12.6% (47,129) of all the tests conducted, the 40-49 age group accounted for the largest proportion of positive tests in 2008 (29.9% or 1,656) and the highest positivity rate among all age groups (3.5%). Persons between the ages of 30 and 39 accounted for 25.5% (1,411) of positive tests, resulting in a positivity rate of 2.0%. The 20-29 age group represented 23.8% (1,320) of positive tests and a positivity rate of 0.8%. Although the 50+ age group was not tested in very high numbers (7.7% or 28,830), they accounted for 15.9% of positive tests and had a positivity rate of 3.1%.

The distribution of testing across age groups has not changed significantly over time. In 2008, testing increased in all age groups when compared to 2007. **Figure 9c** (also see Appendix Table 3a and 3b for data in table form) shows testing numbers and positivity rates for 2002 to 2008 by age group. Positivity rates for persons aged 13-19 remained stable at 0.3% for the past seven years. The CDC estimates that ¼ of annual new HIV infections occur among those aged 22 years or less. The very low positivity rate in this age group suggests a need to recruit higher risk people for testing. Positivity rates among persons in the 30-39 age group have decreased by 52.4%. Between 2002 and 2008, positivity rates for children less than 13 years old fluctuated, although this variability is primarily attributed to the low volume of tests conducted. The 40-49 age group has

consistently recorded the highest positive rates between 2002 and 2008, while also showing a decrease of 31.4%.

**Figure 9c. Number of HIV Tests & Positivity Rates by Age Group, Florida, 2002-2008**

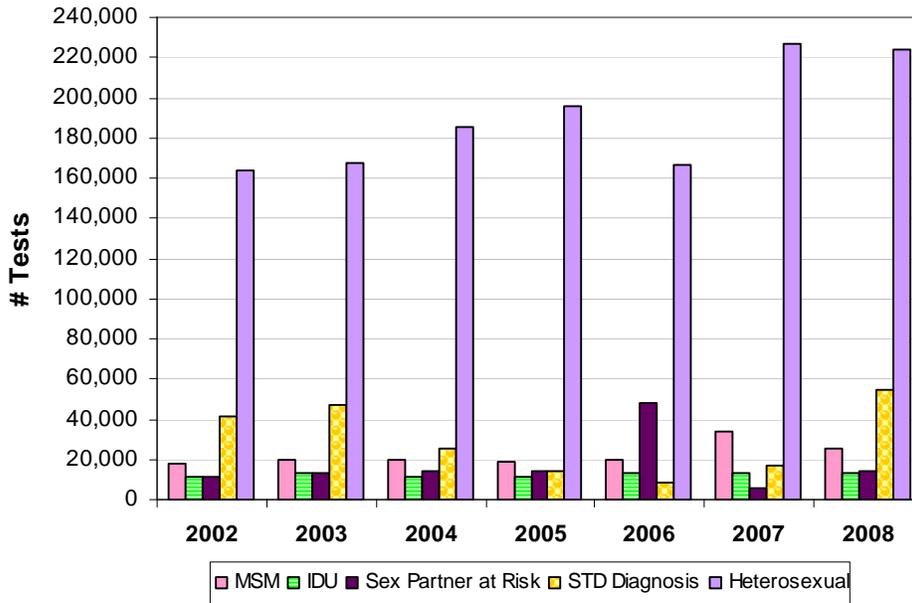


See Appendix Tables 3a and 3b for data in table form

**Risk Behaviors**

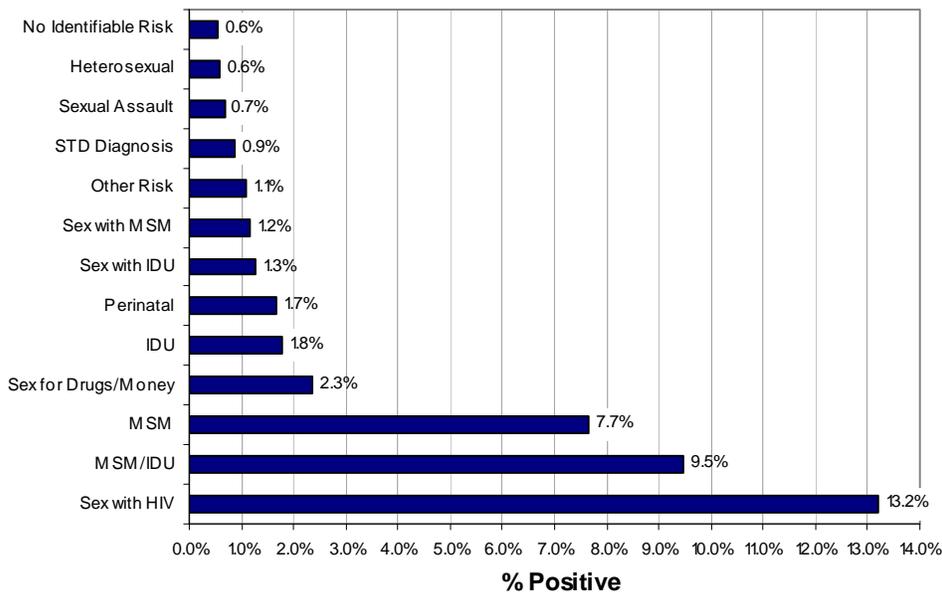
Since individuals may engage in more than one risk behavior, each self-reported exposure is categorized according to the highest level of risk. As **Figure 10** shows, persons who identified heterosexual sex as their highest risk behavior comprise the majority of HIV tests conducted in 2008. Three other risk groups with relatively high testing volumes experienced significant fluctuations over the past seven years: testing levels among those identifying a current or past sexually transmitted disease (STD) diagnosis, men who have sex with men (MSM) and persons with a sex partner at risk which combines sex with an HIV-infected person, sex with an MSM, and sex with an IDU risk groups. In contrast, the fifth highest risk group, injection drug users (IDU), has remained fairly consistent in the number of tests conducted each year.

**Figure 10. Number of HIV Tests Among Selected Risk Behavior Groups, Florida, 2002-2008**



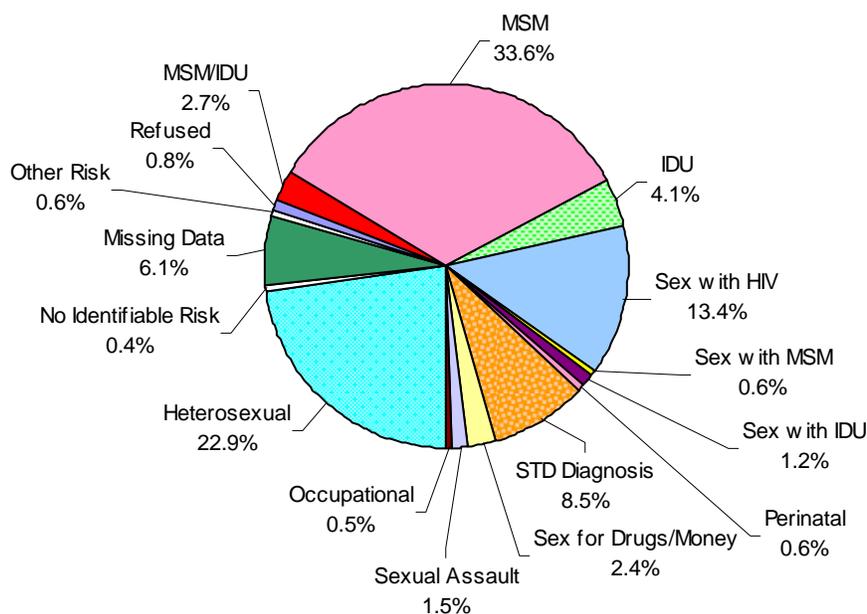
**Figure 11** displays positivity rates for all risk groups hierarchically starting with the lowest risk level. In 2008, the “sex with HIV positive” group had the highest positivity rate (13.2%). The men who have sex with men and are injection drug users (MSM/IDU) continue to be a very high-risk group with a 9.5% positivity rate. The positivity rate is also high among MSM (7.7%). Alternatively, the positivity rate for the heterosexual risk group remains at less than 1% even though they account for the majority of tests conducted.

**Figure 11. Positivity Rates by Self-Reported Risk Behaviors, Florida, 2008**



**Figure 12** shows the distribution of HIV-positive test results by self-reported risk exposure for 2008. MSM (including MSM/IDU) account for the greatest number of positive tests (36.3% or 2,013). Persons who identified heterosexual sex as their highest risk comprised 22.9% (1,268) of all positive tests. Those who reported having sexual relations with someone who has HIV account for 13.4% (741) of all positive tests.

**Figure 12. Distribution of HIV-Positive Tests by Self-Reported Risk Exposure, Florida, 2008 (N=5,540)**



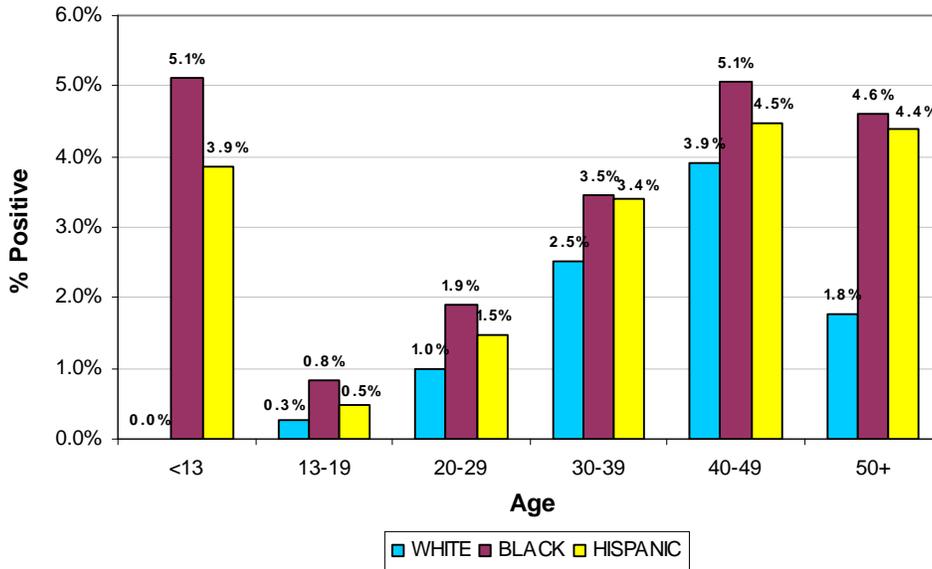
### The Intersection of Race/Ethnicity, Sex, and Age

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** and Appendix Table 2 show that over time black and Hispanic males have experienced the highest positivity rates, followed by white males and black females. White and Hispanic females consistently recorded positivity rates below 1.0%. This pattern has been further specified for 2008 by the incorporation of age.

The overall positivity rate for black males in 2008 was 2.7%. However as **Figure 13a** shows, this rate varies considerably by age. The highest positivity rate is found both among black males aged 40 – 49 and in the under 13 age group (5.1%).

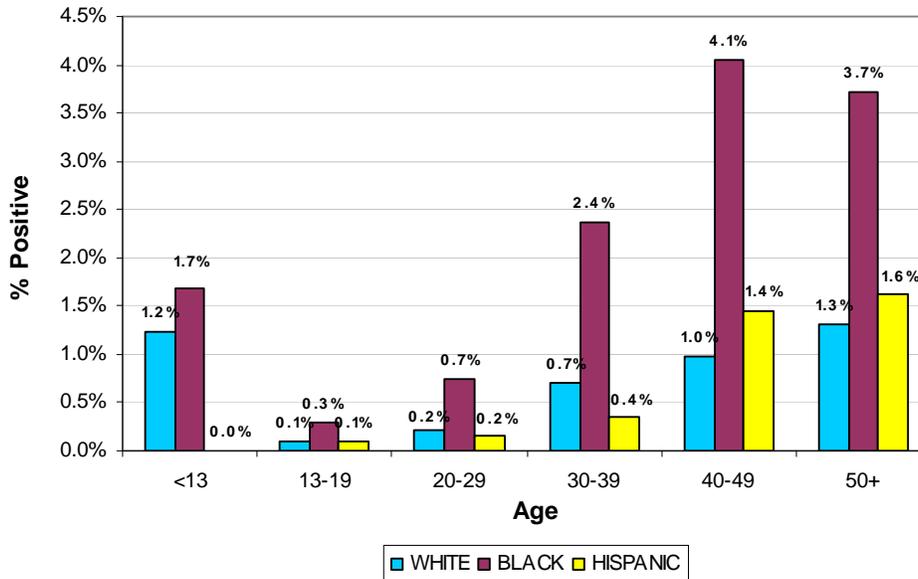
Black and Hispanic males in the 30 and older age groups experienced much higher positivity rates than their overall positivity rate of 2.7% and 2.5%, respectively. White males between the ages of 30 and 49 also had higher positivity rates when compared to their overall rate of 1.9%

**Figure 13a. Seropositivity Among Males, by Age and Race/Ethnicity, Florida, 2008**



As with black males, black females had the highest positivity rate for each age bracket (See **Figure 13b**). With females, the trend towards higher positivity rates in the older age groups was noticeable. White and black females had higher positivity rates in the age groups of 30 and older than their overall positivity rate, and Hispanics had higher rates in the 40 and older age groups.

**Figure 13b. Seropositivity Among Females, by Age and Race/Ethnicity, Florida, 2008**



When comparing the positivity rates of males by age and race/ethnicity (**Figure 13a**) to the positivity rates of females by age and race/ethnicity (**Figure 13b**), the 13 and under

age bracket has a wide variation. In this age bracket, Hispanic males had a positivity rate of 3.9% while Hispanic females had a positivity rate of 0.0%. The reverse was found to be the case for whites, where the males had a positivity rate of 0.0% and the females had a positivity rate of 1.2%. Compared to other age groups, the numbers are very small in this category, which could explain the variation.

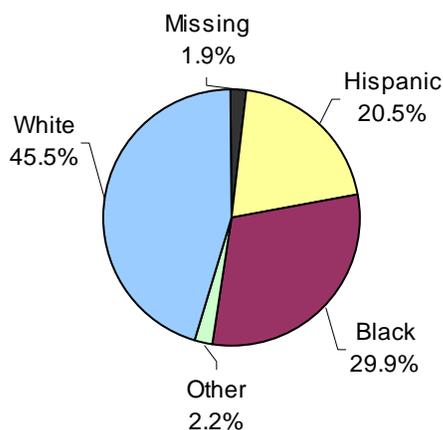
The data presented here indicate that prevention efforts must continue to be directed towards older populations particularly of blacks and Hispanics in order to limit new infections and to ensure that access to education and care is maintained or improved.

**The Intersection of Race/Ethnicity and Risk**

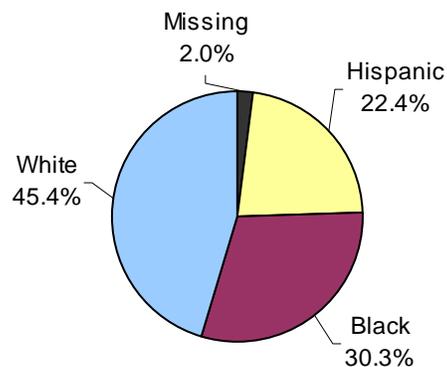
Male-to-male sex and injection drug use (separately or in combination) are behavioral practices that place individuals at high risk for HIV infection. In 2008, 38,629 HIV tests (10.4%) were performed on persons who identified themselves as MSM, IDU, or both MSM and IDU. As shown in **Figure 11**, the positivity rate in 2008 among MSM/IDU was 9.5%, 7.7% among MSM, and 1.8% among IDU. However sharp differences in testing patterns and positivity rates are evident within these risk groups.

**Figures 14a to 16b** illustrate the distribution of HIV tests and HIV-positive tests by race/ethnicity for MSM/IDU, MSM, and IDU in 2008. Individuals identifying themselves as non-Hispanic white account for the largest proportion of HIV tests in all three of these risk groups: 45.5% of MSM/IDU, 42.3% of MSM, and 67.7% of IDU. However in the distribution of HIV-positive tests, whites only have the largest proportion in the MSM/IDU risk group. Therefore, blacks and Hispanics are over-represented among HIV-positive MSM and IDU's.

**Figure 14a. HIV Tests among MSM/IDU by Race/Ethnicity, Florida, 2008 (N=1,606)**

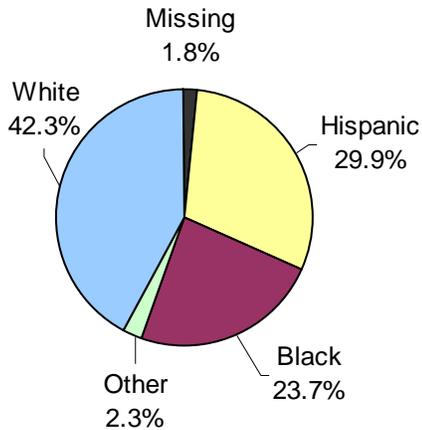


**Figure 14b. HIV-Positive Tests among MSM/IDU by Race/Ethnicity, Florida, 2008 (N=152)**

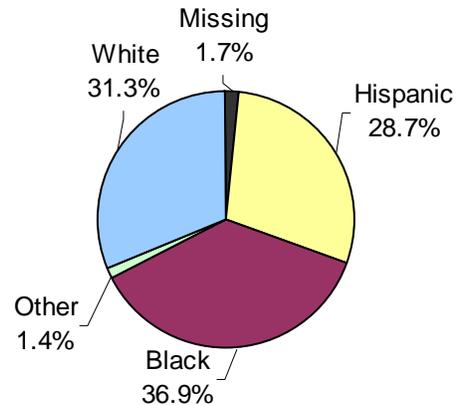


**Figure 14a** shows the distribution of HIV tests among MSM/IDU by race/ethnicity and **Figure 14b** shows the distribution of HIV-positive tests.

**Figure 15a. HIV Tests among MSM by Race/Ethnicity, Florida, 2008, (N=24,257)**

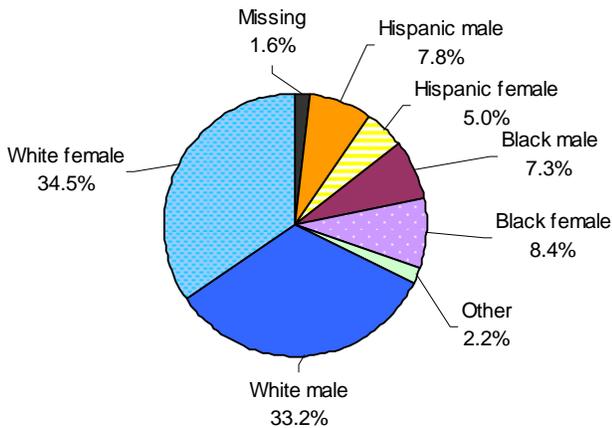


**Figure 15b. HIV-Positive Tests among MSM by Race/Ethnicity, Florida, 2008, (N=1,861)**

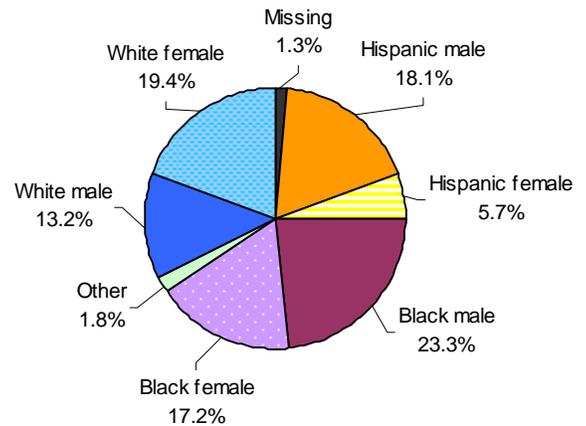


**Figure 15a** shows the distribution of HIV tests among MSM by race/ethnicity and **Figure 15b** shows the distribution of HIV-positive tests.

**Figure 16a. HIV Tests among IDU by Sex and Race/Ethnicity, Florida, 2008, (N=12,766)**



**Figure 16b. HIV-Positive Tests among IDU by Sex and Race/Ethnicity, Florida, 2008, (N=227)**

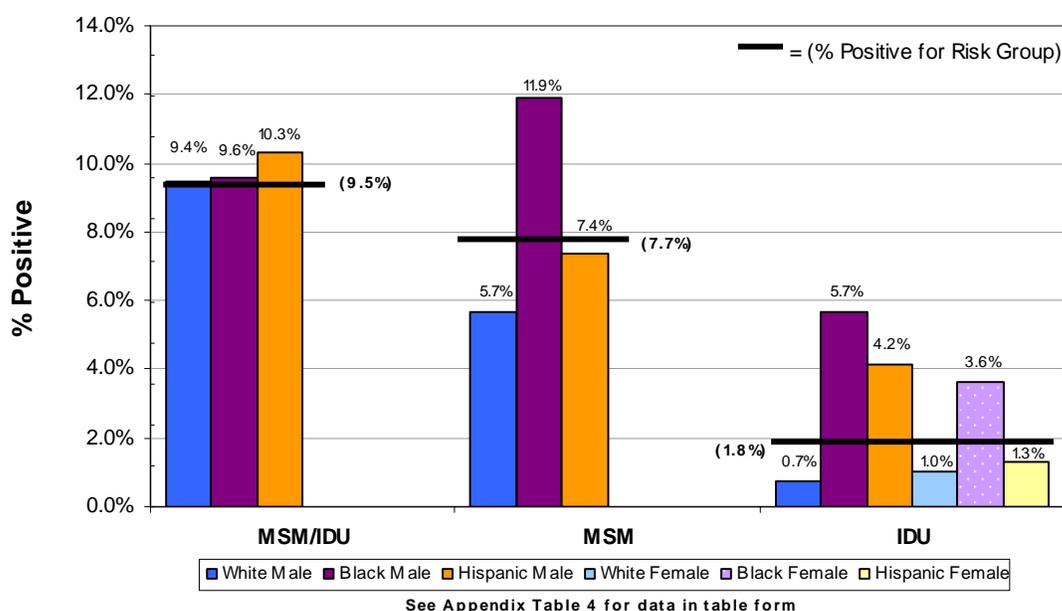


**Figure 16a** shows the distribution of HIV tests among IDU by sex and race/ethnicity while **Figure 16b** shows the distribution of HIV-positive tests among the same risk group.

These racial/ethnic disparities appear to be stronger among injection drug users. Black females, who account for only 8.4% of tests among IDU in 2008, comprise 17.2% of positive tests in this risk group. Similarly, black males account for 7.3% of tests but 23.3% of the positives. In contrast, white males and females account for two-thirds of tests among IDU (34.5% for females and 33.2% for males), yet their combined share of the positive tests is substantially lower at 32.6%. Hispanic males are also disproportionately represented with 7.8% of the tests and 18.1% of the positives. However, Hispanic females are equally represented with 5.0% of the tests and 5.7% of the positives.

**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, reduce the average positivity rate for the whole population in each of these risk groups. For example, in 2008, the positivity rate for black MSM was 11.9%, over 4 percentage points higher than that for all MSM (7.7%). The difference is also apparent in the IDU risk group, where white males and females have half the positivity rate as the group rate (0.7% and 1.0%, respectively vs. 1.8%), while black males are triple and black females are double the group rate (5.7% and 3.6%, respectively vs. 1.8%).

**Figure 17. Seropositivity Among Select Risk Exposure Groups by Sex and Race/Ethnicity, Florida, 2008**



Together MSM, IDU and MSM/IDU account for 38,629 HIV tests in 2008; 21.3% were blacks, 24.7% were Hispanics, and 50.7% were whites. However of the 2,237 positive tests for these three risk groups, 36.8% were blacks, 27.8% were Hispanics and 32.4% were whites (data not shown). The data presented here indicate that there is a continuing need to increase testing and prevention education among individuals that engage in very-high-risk behaviors.

### **Focus on OraSure**

The Bureau of HIV/AIDS has been providing Florida counseling and testing programs with OraSure Oral HIV-1 Antibody Testing Systems since February 1998. 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 for use in outreach settings, to reach high-risk persons who are less likely to access the

health care system and less accepting of conventional testing methods (e.g., persons who are homeless, drug users, younger, or those who live in rural areas).

In 2008, 49,085 HIV tests were administered with OraSure in Florida, a decline in usage of 37.4% when compared to five years ago (78,378). The statewide positivity rate using OraSure also decreased during that same time period from 2.9% in 2003 to 2.2% in 2008. The top 15 counties are listed by positivity rate in **Table 1**. 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 counties that used OraSure tests in 2008, Miami-Dade had the highest positivity rate (6.9%) followed by Broward (5.2%).

County	# of Tests	# of Positives	% Positive
<b>Miami-Dade</b>	6,041	417	6.9%
<b>Broward</b>	4,167	217	5.2%
<b>St. Johns</b>	190	9	4.7%
<b>Lake</b>	60	2	3.3%
<b>Orange</b>	2,311	67	2.9%
<b>Brevard</b>	258	6	2.3%
<b>Palm Beach</b>	3,969	83	2.1%
<b>Citrus</b>	103	2	1.9%
<b>Seminole</b>	104	2	1.9%
<b>Volusia</b>	809	15	1.9%
<b>Pinellas</b>	2,557	40	1.6%
<b>Escambia</b>	1,886	28	1.5%
<b>Marion</b>	476	7	1.5%
<b>Collier</b>	617	9	1.5%
<b>Columbia</b>	217	3	1.4%

Blacks accounted for the plurality of OraSure tests conducted in 2008 (22,049 or 44.9%), as compared to whites (16,954 or 34.5%) and Hispanics (7,909 or 16.1%). The proportion was almost evenly split between males and females with 49.7% and 49.5%, respectively.

### **Focus on Rapid Testing**

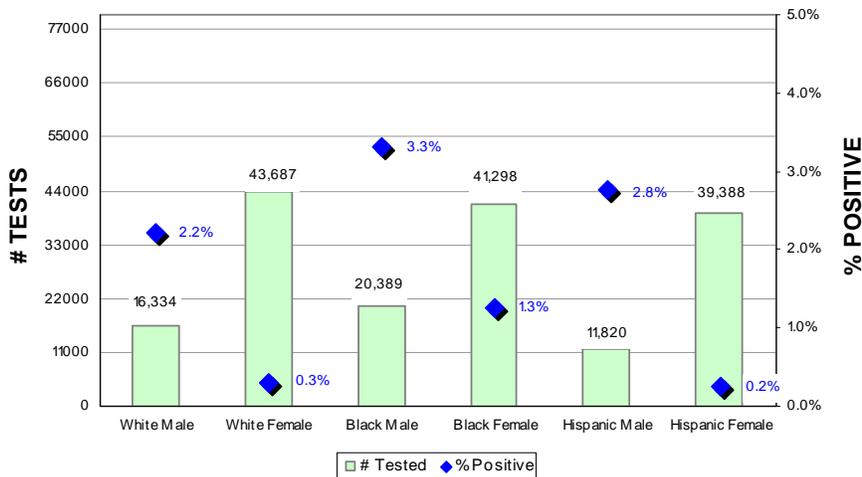
The first rapid HIV testing program in Florida was implemented in the Duval County Jail in 2003. Since then, rapid HIV testing has expanded to many counties in Florida. Rapid HIV tests are screening tests that produce very quick results usually in 10 – 40 minutes, and can be performed using whole blood through finger stick or venipuncture, or with an oral specimen. They are extremely accurate, and non-reactive (negative) results are final. Reactive rapid tests must be confirmed by a standard HIV test, which could be done using blood or OraSure.

In 2008, 140,935 tests were recorded using rapid testing, an increase of 3,607.2% since 2003. From 2007 to 2008, there was an increase of 57.3% or 51,311 tests. The statewide positivity rate using rapid testing decreased from 2.2% in 2003 to 1.6% in 2008. Positivity rates for counties that used more than 1,000 rapid tests in 2008 are shown in **Table 2**. Among these counties, Pinellas had the highest positivity rate (3.1%) followed by Miami-Dade (2.0%).

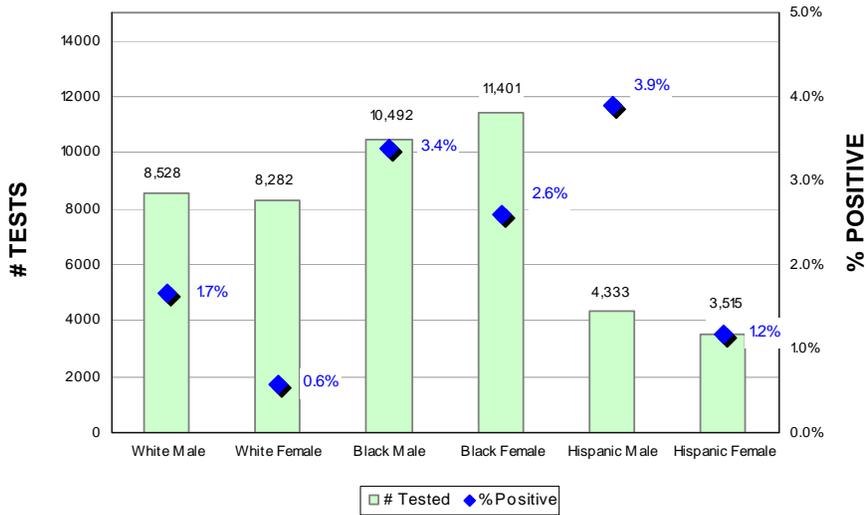
County	Total Tested	# Negative	# Confirmed Positive	Positivity Rate
Pinellas	3,208	3,096	98	3.1%
Miami-Dade	38,657	37,797	789	2.0%
Duval	10,478	10,260	184	1.8%
Broward	23,340	22,886	408	1.8%
Polk	1,382	1,359	23	1.7%
Orange	15,391	15,122	240	1.6%
Palm Beach	14,093	13,869	196	1.4%
Sarasota	1,155	1,136	12	1.0%
St. Lucie	4,229	4,183	41	1.0%
Hillsborough	13,856	13,716	128	0.9%
Collier	2,350	2,332	18	0.8%
Volusia	2,590	2,561	18	0.7%
Alachua	1,765	1,753	12	0.7%
Leon	1,499	1,487	8	0.5%
Manatee	2,573	2,561	12	0.5%
Brevard	1,300	1,294	4	0.3%

The next three figures compare the 2008 testing levels and positivity rates by race/ethnicity and sex among different types of testing with **Figure 18a** showing the testing levels and rates for blood tests, **Figure 18b** showing the testing levels and rates for OraSure tests, and **Figure 18c** showing rapid tests (which can be either blood or oral). White females had the highest number of blood tests followed by black females. For both OraSure and rapid testing, black males and females had the highest number of tests. Black and Hispanic males had the highest positivity rates, regardless of testing method.

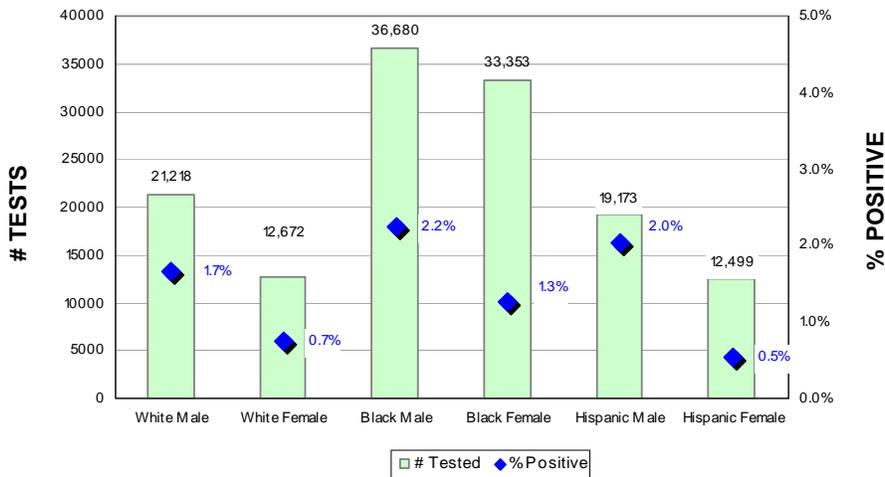
**Figure 18a. HIV Blood Tests by Race/Ethnicity and Gender, Florida, 2008**



**Figure 18b. HIV OraSure Tests by Race/Ethnicity and Gender, Florida, 2008**



**Figure 18c. HIV Rapid Tests by Race/Ethnicity and Gender, Florida, 2008**



**Figures 19a, 19b, and 19c** compare testing levels and positivity rates by risk groups for blood, OraSure, and rapid testing in 2008 with **Figure 19a** showing blood, **Figure 19b** showing OraSure, and **Figure 19c** showing rapid testing. The OraSure test had the highest overall positivity rate of 2.2% followed by rapid tests (1.6%) and blood tests (1.2%). Regardless of the type of test, the majority were administered to persons who identified heterosexual sex as their highest risk. While MSM (including MSM/IDU) had the highest positivity rates across all three test types, the rate for rapid tests was much lower than blood or OraSure (5.2% vs. 14.2% and 11.8%, respectively).

Figure 19a. HIV Blood Tests by Risk, Florida, 2008

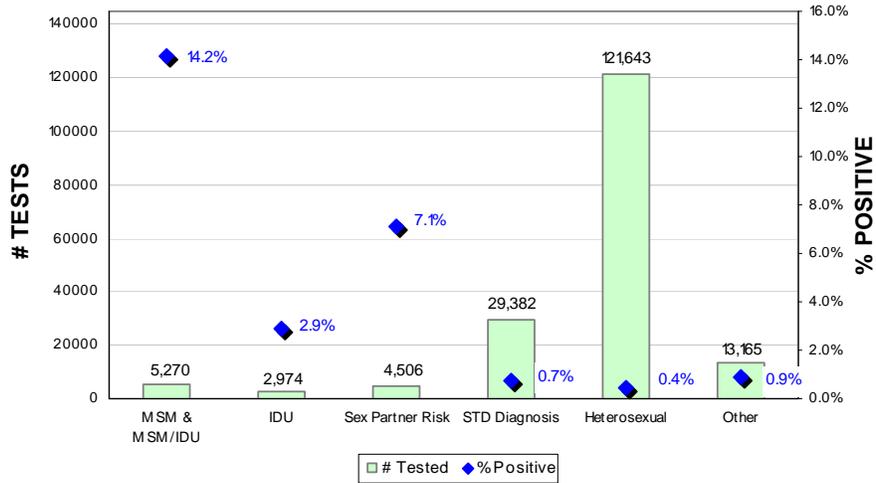


Figure 19b. HIV OraSure Tests by Risk, Florida, 2008

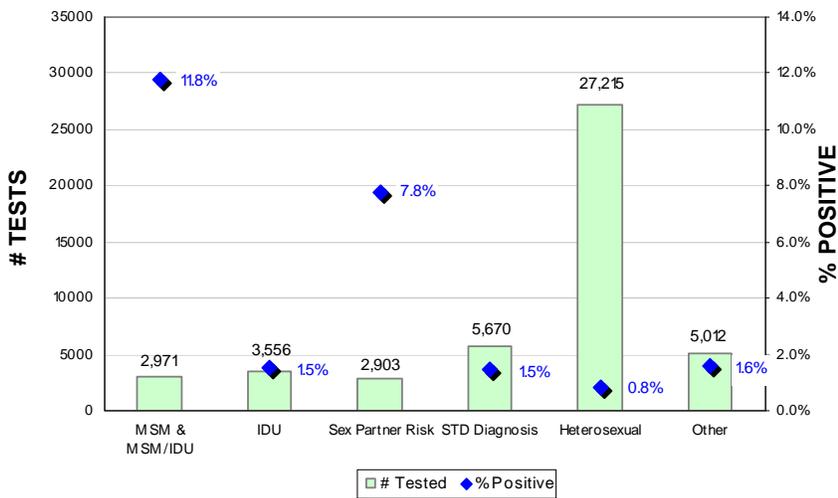
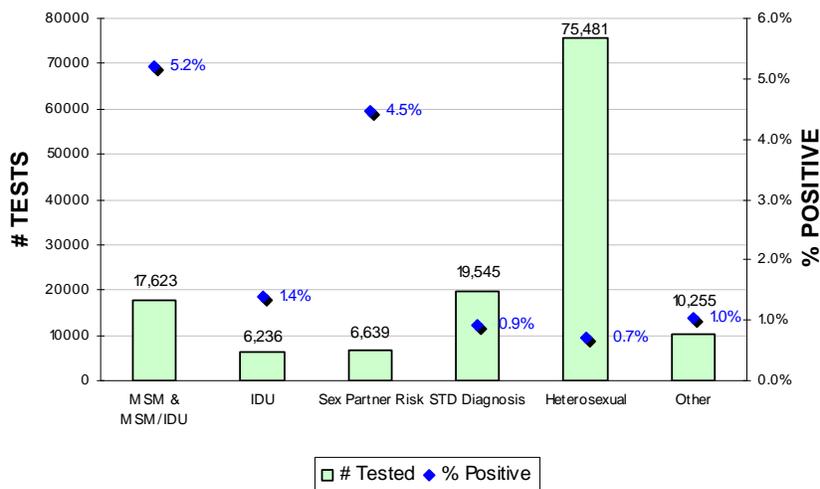


Figure 19c. HIV Rapid Tests by Risk, Florida, 2008



These data indicate that OraSure and rapid testing continue to be a valuable asset to HIV prevention programs throughout Florida. 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 2008, OraSure and rapid testing accounted for 51% of all HIV tests conducted at registered HIV counseling and testing sites. Their effectiveness as an outreach tool has been demonstrated in many counties, where the growth of street outreach and community-based testing sites demand faster, easier, and less threatening means of testing for HIV. 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 proportion of HIV-infected persons in Florida who know their status.

**Focus on Repeat HIV Testers**

Persons who have tested at least once before make up 70.0% (261,137) of the HIV tests conducted in 2008. The majority of these repeat testers were clients who previously tested negative (232,994 or 89.2%) while 2,876 (1.1%) previously tested positive or had a reactive rapid test. Among the 5,540 positives in 2008, 29.7% (1,643) previously tested negative and 41.7% (2,310) previously tested positive or had a reactive rapid test (some may have tested positive in previous years). Men who have sex with men (MSM) accounted for the largest proportion of positive tests among those who previously tested negative with 44.3% (728), while another 22.6% (372) of the positives that previously tested negative were identified as having heterosexual sex as their highest risk factor (data not shown.)

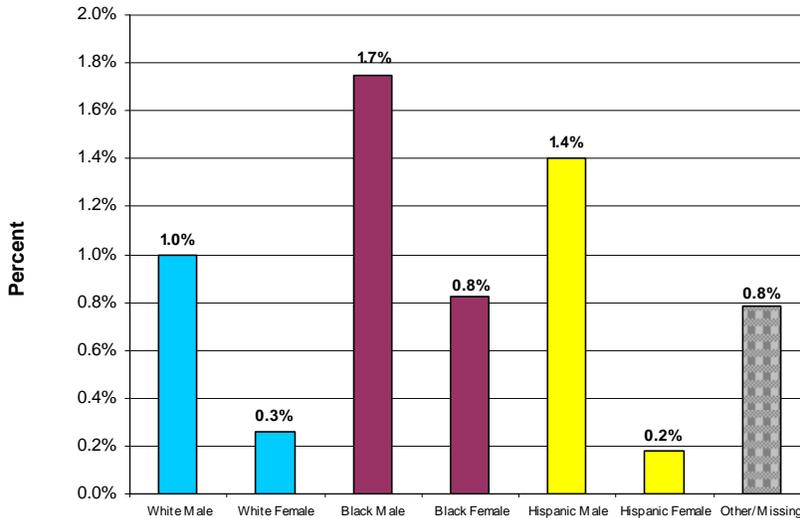
**Table 3** shows positives in 2008 that previously tested negative or positive (including a reactive rapid test), by sex and race/ethnicity. Black males and females account for the highest number of positives and the highest number of previous testers; however, the proportion of positive white males and females who previously tested negative is the highest (61.9%). Among Hispanics, males account for the highest number of positives and the highest number of previous testers; however, the proportion of positive Hispanic females who previously tested positive is the highest (51.9%).

<b>Sex and Race/Ethnicity</b>	<b>Total Positives</b>	<b># (%) Previously Tested Positive</b>	<b># (%) Previously Tested Negative</b>
<b>White Male</b>	855	391 (45.7%)	263 (30.8%)
<b>White Female</b>	270	106 (39.0%)	84 (31.1%)
<b>Black Male</b>	1,848	697 (37.7%)	582 (31.5%)
<b>Black Female</b>	1,237	535 (43.2%)	346 (28.0%)
<b>Hispanic Male</b>	882	395 (44.8%)	279 (31.6%)
<b>Hispanic Female</b>	206	107 (51.9%)	39 (18.9%)
<b>Other/Missing M-F</b>	242	79 (32.6%)	50 (20.7%)
<b>Total</b>	5,540	2,310 (41.7%)	1,643 (29.7%)

These data indicate that many of the positive tests are being identified among persons who previously tested negative. Many individuals may be concerned because of their continued practice of high-risk behaviors, and thus return often for testing. A large proportion of positives identified in 2008 (41.7%) have already been found to be infected with HIV. Persons who are HIV positive retest for a number of reasons, including: denial; belief that medicine has cured them; proof of positivity needed to access services; boredom (e.g., inmates); desire to try a new test (e.g., rapid testing); and desire to find out if they are still positive.

**Figure 20** shows HIV positivity rates by sex and race/ethnicity for those who tested positive for the first time in 2008. Of the 5,540 positive test results obtained in 2008, 3,230 (58.3%) were among those who had either never tested before or their last test was not positive. These groups combined represent “new” positives in 2008. The positivity rate among the new positives was highest for black males (1.7%), followed by Hispanic males (1.4%), and white males (1.0%). 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 repeat the test. The proportion of positives that were new positives in 2008 (58.3%) was much higher than that observed in 2007 (39.6%), indicating that expansion into clinical settings and better targeting have led to more effective identification of new positives.

**Figure 20. Positivity Rates Among Those Testing Positive for the First Time, by Sex and Race/Ethnicity, Florida, 2008 (N=3,230)**

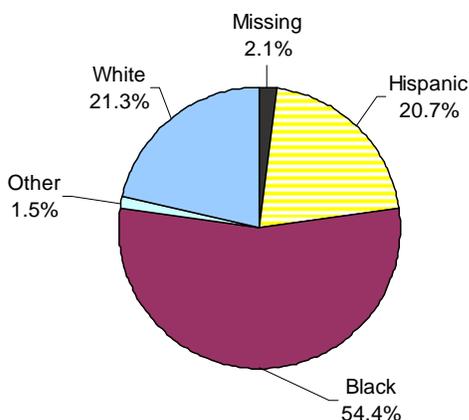


### **Focus on the African American Testing Initiative (AATI)**

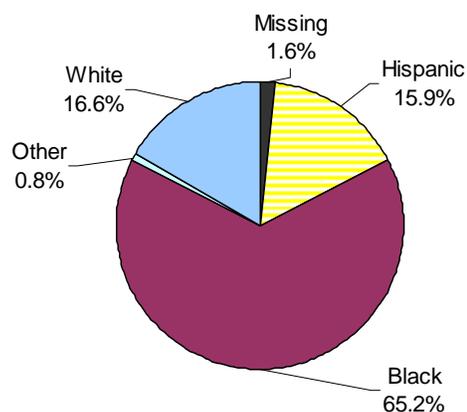
In late 2007, Florida began expanded and focused testing among blacks as part of a special grant from the CDC in the following counties: Broward, Collier, Duval, Hillsborough, Manatee, Miami-Dade, Orange, Palm Beach, Pinellas, and St. Lucie. This project, known in Florida as the African American Testing Initiative (AATI), has a nationwide goal of increasing HIV testing among blacks by 1.5 million tests each year. 2008 is the first calendar year for which data for this special project are available.

In 2008, 98,011 tests were conducted under the AATI grant; of those 1,964 (2.0%) were positive. While the goal of the initiative is to increase testing among blacks, no race/ethnicity is turned away. **Figure 21a** shows the distribution of tests and **Figure 21b** shows the distribution of HIV-positive tests, both by race/ethnicity. Blacks accounted for the majority of tests (54.4%) which is to be expected, but they had a much larger proportion of the positives (65.2%).

**Figure 21a. Total HIV Tests by Race/Ethnicity for AATI, Florida, 2008 (N=98,011)**

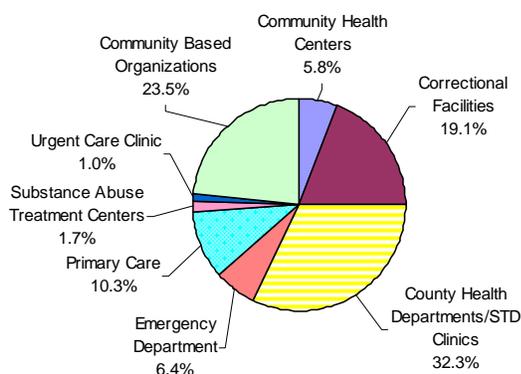


**Figure 21b. HIV-Positive Tests by Race/Ethnicity for AATI, Florida, 2008 (N=1,964)**

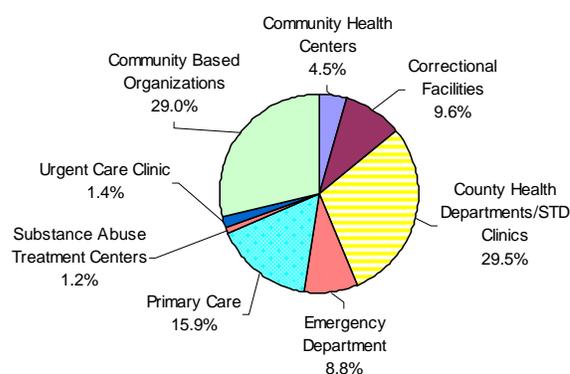


Another component of the AATI grant is to increase testing in clinical settings such as emergency departments, primary health clinics, substance abuse treatment centers, and community health centers. The focus on testing in clinical settings is in support of the CDC's Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings where in all health-care settings, screening for HIV infection should be performed routinely for all patients aged 13 - 64. **Figure 22a** shows the distribution of HIV tests and **Figure 22b** shows the distribution of HIV-positive tests by testing venue, including one non-clinical venue type: community-based organizations (CBO). Overall, the vast majority (76.5%) of tests were conducted at clinical venues, with almost a third (32.3%) of the tests conducted at county health department/sexually transmitted disease (STD) clinics. While the non-clinical CBO sites conducted 23.5% (23,004) of the tests, they found 29.0% (570) of the positives.

**Figure 22a. Total HIV Tests by AATI Testing Venue, Florida, 2008 (N=98,011)**



**Figure 22b. Total HIV-Positive Tests by AATI testing Venue, Florida, 2008 (N=1,964)**



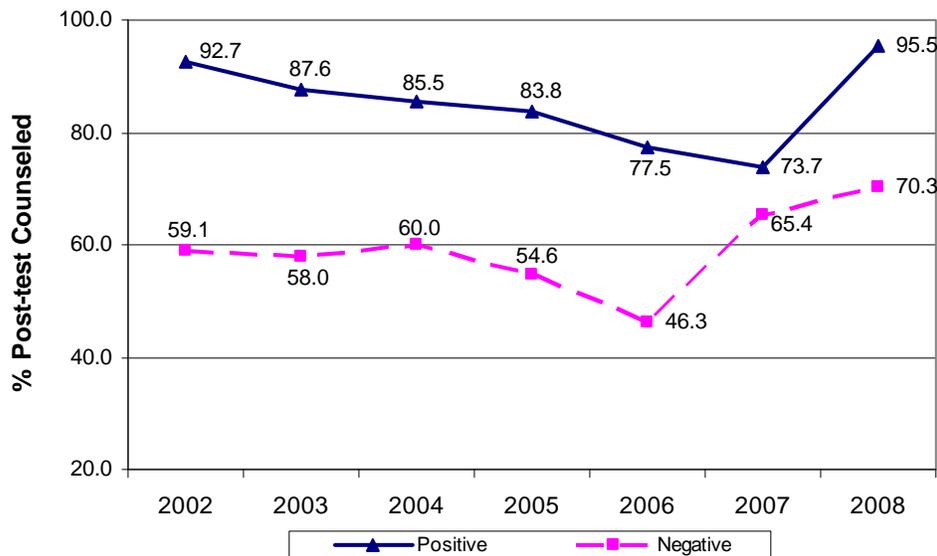
The observed positivity rate for AATI is a third (33%) higher than the positivity rate for all testing in 2008 (2.0% vs. 1.5%). Also noteworthy is that blacks tested through AATI had a positivity rate of 2.4% which is 20% higher than the statewide positivity rate of 2.0% for blacks. These data show that the African American Testing Initiative is reaching its target population and is conducting most of the tests in clinical settings. The success of AATI further underscores the need for expanded testing among populations disproportionately affected by HIV, as well as prevention efforts in order to limit new infections.

**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 patients’ understanding of the results and the need for follow up and care, and to discuss the importance of risk-reducing behavior regardless of the test results.

**Figure 23** shows the percentage of clients post-test counseled for negative and positive test results from 2002 through 2008. Increases were seen for both the negatives and the positives between 2007 and 2008. Clients with positive test results were post-test counseled 95.5% of the time, which was an increase of 29.5% over 2007. The post-test counseling rate for clients newly diagnosed with HIV was 94.6% (data not shown). Clients with negative results were post-test counseled 70.3% of the time, which was a modest increase of 7.5% over 2007. The increased post-test counseling rates are primarily the result of better data collection. Staffs now have direct access to PRISM, the STD data management system, which allows them to ascertain post-test data for persons contacted by STD Disease Intervention Specialists.

**Figure 23. Percentage of Clients Post-test Counseled, Florida, 2002-2008**



**Table 4** shows the number of clients with a positive or negative test result along with the number who received post-test counseling by site type for 2008. Correctional facilities, which primarily use rapid testing, had the highest post-test counseling rate for negatives with 91.3%, followed by private medical providers (88.1%) and community-based organizations with 86.9%. For positive tests, drug treatment facilities, family planning clinics, and prenatal/OB clinics all achieved 100% post-test counseling rates.

Site Type	# Negative	# Post-test Counseled (Negative)	(%)	# Positive	# Post-test Counseled (Positive)	(%)
Anonymous	4,377	2,925	66.8%	68	55	80.9%
STD	84,254	45,120	53.6%	1,226	1,210	98.7%
Drug Treatment	11,454	8,328	72.7%	75	75	100.0%
Family Planning	56,449	29,873	52.9%	90	90	100.0%
Prenatal/OB	29,454	20,383	69.2%	34	34	100.0%
TB	2,616	1,573	60.1%	25	24	96.0%
Adult Health	17,148	10,696	62.4%	776	770	99.2%
Jail/Prison	37,362	34,130	91.3%	432	417	96.5%
College	1,748	1,344	76.9%	19	18	94.7%
Private MD	16,570	14,596	88.1%	409	379	92.7%
Special Projects	4,603	3,912	85.0%	193	95	49.2%
Community-based Organization	86,392	75,100	86.9%	1,932	1,867	96.6%
Health Department Field Visit	14,817	10,142	68.4%	261	258	98.9%
<b>Total</b>	<b>367,244</b>	<b>258,122</b>	<b>70.3%</b>	<b>5,540</b>	<b>5,292</b>	<b>95.5%</b>

In 2008, there were some differences by sex, age, race/ethnicity, and risk factor in post-test counseling rates. Males have higher post-test counseling rates for negative tests (75.5% vs. 66.8%) while females have higher rates for positive tests (97.9% vs. 94.4%). Although children less than 13 years of age have the lowest post-test counseling rate for negatives (58.6%), they also have the highest rate for positives (100%). MSM/IDU and MSM which have very high positivity rates, have high rates of post-test counseling with 84.9% for negatives and 92.4% for positives.

	<b># Negative</b>	<b># Post-test Counseled (Negative)</b>	<b>(%)</b>	<b># Positive</b>	<b># Post-test Counseled (Positive)</b>	<b>(%)</b>
<b>Sex</b>						
Male	150,717	113,721	75.5%	3,691	3,484	94.4%
Female	213,750	142,885	66.8%	1,750	1,713	97.9%
Other/Missing	2,777	1,516	54.6%	99	95	96.0%
Total	367,244	258,122	70.3%	5,540	5,292	95.5%
<b>Age</b>						
Less than 13	643	377	58.6%	14	14	100.0%
13-19	66,690	43,015	64.5%	227	221	97.4%
20-29	155,112	107,429	69.3%	1,320	1,258	95.3%
30-39	69,009	49,966	72.4%	1,411	1,351	95.7%
40-49	45,383	34,454	75.9%	1,656	1,585	95.7%
50+	27,903	21,358	76.5%	882	841	95.4%
Missing age	2,504	1,523	60.8%	30	22	73.3%
Total	367,244	258,122	70.3%	5,540	5,292	95.5%
<b>Race/Ethnicity</b>						
White	110,260	73,567	66.7%	1,143	1,099	96.2%
Black	151,211	109,851	72.6%	3,121	3,022	96.8%
Hispanic	90,196	64,258	71.2%	1,102	1,006	91.3%
Other/Missing	15,577	10,446	67.1%	174	165	94.8%
Total	367,244	258,122	70.3%	5,540	5,292	95.5%
<b>Risk</b>						
MSM/IDU and MSM	23,746	20,160	84.9%	2,013	1,860	92.4%
IDU	12,522	9,576	76.5%	227	224	98.7%
Partner at risk	13,156	10,114	76.9%	844	830	98.3%
Perinatal	1,817	1,090	60.0%	31	31	100.0%
STD diagnosis	54,069	37,171	68.7%	473	461	97.5%
Sex for drugs/\$	5,623	4,354	77.4%	135	128	94.8%
Other	10,204	7,166	70.2%	52	50	96.2%
Sexual assault	11,723	8,006	68.3%	81	80	98.8%
Heterosexual	223,035	153,310	68.7%	1,268	1,223	96.5%
No Identifiable risk	2,849	1,672	58.7%	31	30	96.8%
Missing/Refused	8,500	5,503	64.7%	385	375	97.4%
Total	367,244	258,122	70.3%	5,540	5,292	95.5%

### **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:

- 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 services;
- 501 trainers who ensure that future counselors are prepared;
- Our prevention and training consultants and outreach workers who educate and inform;
- Our colleagues in the state laboratories, without whom we would not have a testing programs; 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,
- 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 collaborations as we strive to ensure that all Floridians have the opportunity to learn their HIV status and take steps to protect themselves.

**APPENDIX**

<b>Appendix Table 1 From Figure 5 HIV Testing Totals and Seropositivity Rates by County, Florida, 2008</b>				
<b>County</b>	<b>Total</b>	<b># Negative</b>	<b># Positive</b>	<b>% Positive</b>
MIAMI-DADE	59,397	57,750	1,611	2.7%
BROWARD	37,370	36,496	849	2.3%
ORANGE	25,116	24,576	523	2.1%
UNION	204	200	4	2.0%
HILLSBOROUGH	23,507	23,047	447	1.9%
PUTNAM	1,222	1,199	20	1.6%
JACKSON	861	847	14	1.6%
PALM BEACH	34,157	33,596	530	1.6%
DUVAL	24,637	24,302	330	1.3%
COLUMBIA	851	838	11	1.3%
GADSDEN	2,592	2,556	33	1.3%
ALACHUA	7,682	7,587	95	1.2%
ESCAMBIA	4,952	4,891	60	1.2%
MARION	6,100	6,033	66	1.1%
HENDRY	1,222	1,209	13	1.1%
PINELLAS	19,316	19,105	196	1.0%
ST LUCIE	7,501	7,425	74	1.0%
GILCHRIST	207	205	2	1.0%
ST JOHNS	1,660	1,643	16	1.0%
TAYLOR	551	545	5	0.9%
PASCO	3,473	3,441	31	0.9%
SEMINOLE	4,311	4,272	37	0.9%
COLLIER	4,191	4,153	35	0.8%
CLAY	977	969	8	0.8%
LEE	5,633	5,585	45	0.8%
HERNANDO	2,807	2,783	21	0.7%
VOLUSIA	7,111	7,056	53	0.7%
POLK	11,070	10,986	82	0.7%
LEON	7,848	7,787	58	0.7%
HAMILTON	285	283	2	0.7%
CITRUS	2,472	2,455	17	0.7%
NASSAU	1,044	1,037	7	0.7%
HIGHLANDS	1,090	1,083	7	0.6%
HOLMES	315	313	2	0.6%

<b>Appendix Table 1 cont. From Figure 5 HIV Testing Totals and Seropositivity Rates by County, Florida, 2008</b>				
<b>County</b>	<b>Total</b>	<b># Negative</b>	<b># Positive</b>	<b>% Positive</b>
OSCEOLA	7,161	7,114	43	0.6%
BRADFORD	708	704	4	0.6%
BAKER	729	725	4	0.5%
MONROE	2,012	2,002	10	0.5%
SUMTER	1,455	1,447	7	0.5%
WASHINGTON	424	422	2	0.5%
BAY	4,146	4,125	19	0.5%
HARDEE	909	905	4	0.4%
DIXIE	470	468	2	0.4%
SARASOTA	6,113	6,087	26	0.4%
INDIAN RIVER	3,104	3,090	13	0.4%
MARTIN	1,922	1,913	8	0.4%
BREVARD	8,813	8,773	34	0.4%
SUWANNEE	1,049	1,045	4	0.4%
LAKE	2,753	2,742	10	0.4%
MANATEE	6,073	6,049	22	0.4%
CHARLOTTE	1,115	1,111	4	0.4%
WAKULLA	290	289	1	0.3%
FLAGLER	1,169	1,164	4	0.3%
JEFFERSON	317	314	1	0.3%
SANTA ROSA	853	851	2	0.2%
FRANKLIN	441	440	1	0.2%
DESOTO	901	899	2	0.2%
MADISON	587	586	1	0.2%
OKALOOSA	3,213	3,206	5	0.2%
WALTON	1,468	1,466	2	0.1%
OKEECHOBEE	1,030	1,029	1	0.1%
CALHOUN	275	275	0	0.0%
GLADES	86	86	0	0.0%
GULF	380	379	0	0.0%
LAFAYETTE	146	146	0	0.0%
LEVY	886	885	0	0.0%
LIBERTY	170	170	0	0.0%

<b>Appendix Table 2 (from Figure 8)</b>							
<b>HIV Seropositivity by Sex and Race/Ethnicity, Florida, 2002 - 2008</b>							
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>White Male</b>	2.50	2.60	2.50	2.10	2.60	1.81	1.90
<b>Black Male</b>	4.80	4.50	4.00	3.60	3.70	2.88	2.74
<b>Hispanic Male</b>	3.60	3.80	3.50	3.00	3.00	2.75	2.50
<b>White Female</b>	0.50	0.50	0.50	0.50	0.40	0.42	0.40
<b>Black Female</b>	2.90	2.50	2.10	2.00	1.80	1.57	1.40
<b>Hispanic Female</b>	0.60	0.60	0.50	0.50	0.40	0.44	0.40

<b>Appendix Table 3a (from Figure 9c)</b>						
<b>Number of HIV Tests by Age Group, Florida, 2002 - 2008</b>						
	<b>&lt;13</b>	<b>13-19</b>	<b>20-29</b>	<b>30-39</b>	<b>40-49</b>	<b>50+</b>
<b>2002</b>	1083	56565	109162	63989	39790	19023
<b>2003</b>	861	57677	115166	63125	40223	19937
<b>2004</b>	707	56257	117183	60629	38401	18842
<b>2005</b>	724	55807	121164	58074	37081	19316
<b>2006</b>	716	56337	124346	56727	36609	19426
<b>2007</b>	668	62015	138870	62224	41024	22961
<b>2008</b>	671	66928	156503	70510	47129	28830

<b>Appendix Table 3b (from Figure 9c)</b>						
<b>HIV Seropositivity Rates by Age Group, Florida, 2002 - 2008</b>						
	<b>&lt;13</b>	<b>13-19</b>	<b>20-29</b>	<b>30-39</b>	<b>40-49</b>	<b>50+</b>
<b>2002</b>	2.3%	0.3%	1.1%	3.8%	5.1%	4.0%
<b>2003</b>	1.9%	0.3%	1.1%	3.6%	5.0%	3.6%
<b>2004</b>	1.8%	0.3%	1.0%	3.1%	4.7%	3.7%
<b>2005</b>	2.1%	0.3%	1.0%	2.7%	4.3%	3.5%
<b>2006</b>	2.0%	0.3%	0.9%	2.4%	4.1%	3.3%
<b>2007</b>	1.6%	0.3%	0.8%	2.2%	3.9%	3.0%
<b>2008</b>	2.1%	0.3%	0.8%	2.0%	3.5%	3.1%

<b>Appendix Table 4 (from Figure 17)</b>			
<b>HIV Seropositivity Among Select Risk Exposure Groups by Sex and Race/Ethnicity, Florida, 2008</b>			
	<b>MSM/IDU</b>	<b>MSM</b>	<b>IDU</b>
<b>White Male</b>	9.4%	5.7%	0.7%
<b>Black Male</b>	9.6%	11.9%	5.7%
<b>Hispanic Male</b>	10.3%	7.4%	4.2%
<b>White Female</b>	n/a	n/a	1.0%
<b>Black Female</b>	n/a	n/a	3.6%
<b>Hispanic Female</b>	n/a	n/a	2.0%
<b>Average for Risk Group</b>	9.5%	7.7%	1.8%