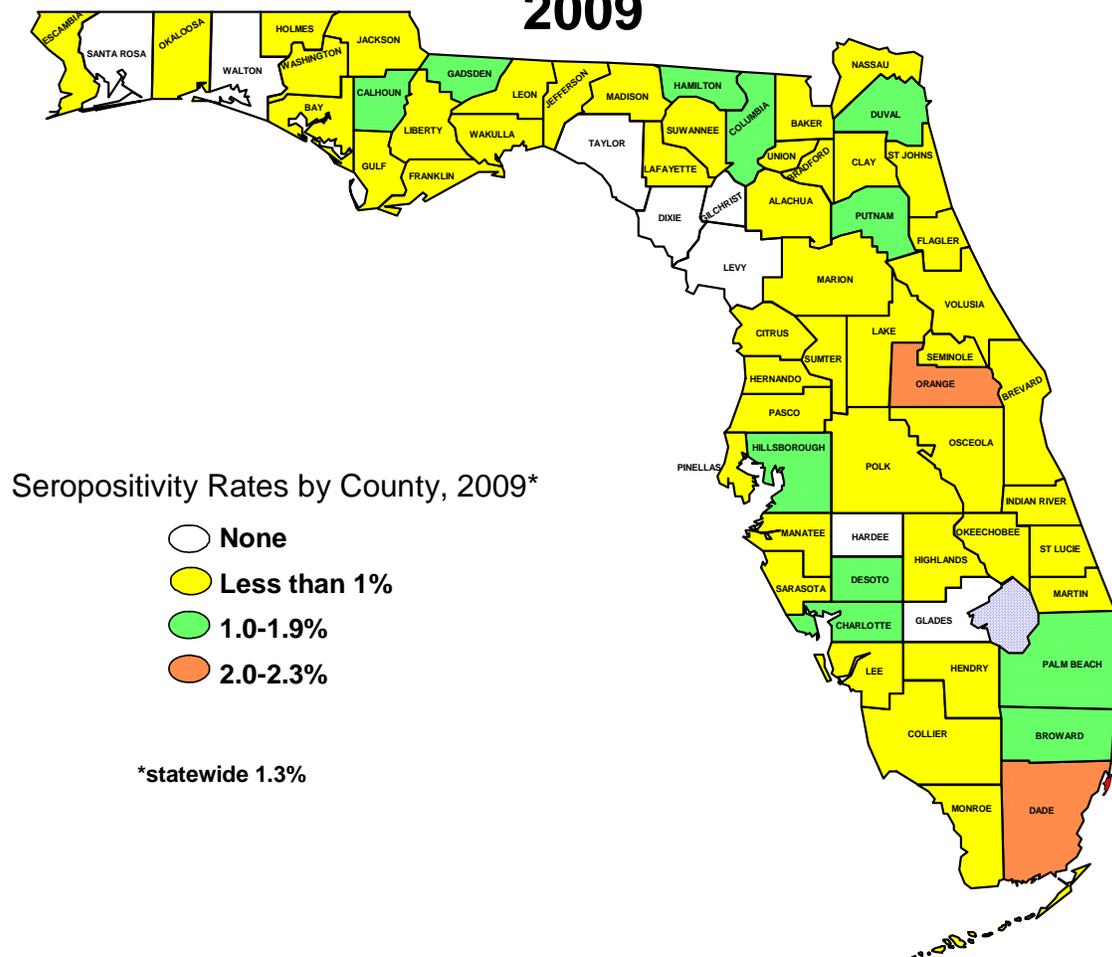




Florida Department of Health  
Division of Disease Control  
Bureau of HIV/AIDS

## HIV Counseling and Testing Annual Report, 2009



For additional information regarding this report, please contact the Prevention Section of the Bureau of HIV/ADS at (850) 245-4336, or visit our website at [www.floridaaids.org](http://www.floridaaids.org)



**Executive Summary**

In 2009, 395,299 HIV tests were conducted at Florida's registered testing sites, representing a 6% increase (approximately 22,000 tests) over the previous year. This marks the 9<sup>th</sup> consecutive year that the number of HIV tests performed in Florida exceeded 250,000.

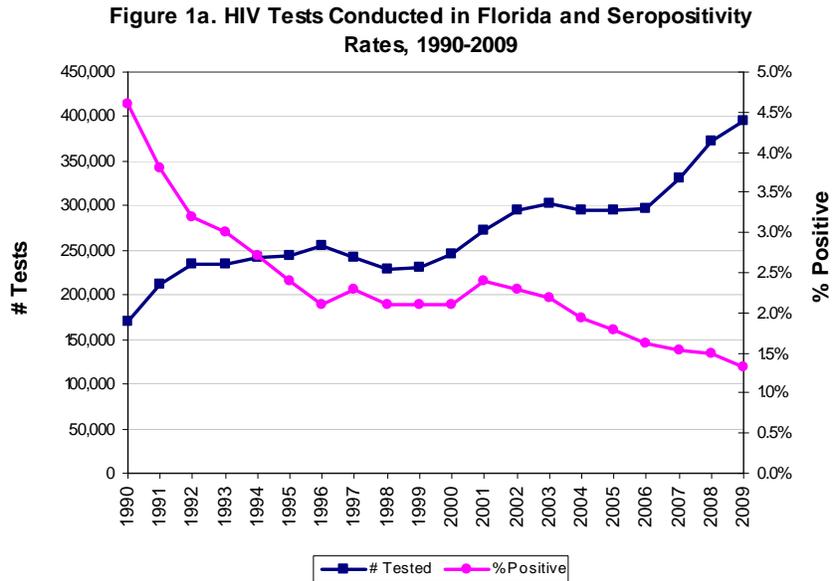
Increases in testing were recorded among all racial/ethnic groups, but especially in blacks. The African American Testing Initiative (AATI) continued in 2009 which contributed to the 10% increase (approximately 15,600 tests) in testing among blacks. Persons who reported heterosexual sex as their highest risk represent the majority of the tests. Post-test counseling rate for positives was 95.7%. Testing with OraSure and rapid testing in 2009 account for 11.0% and 45.1% of all HIV tests conducted, respectively.

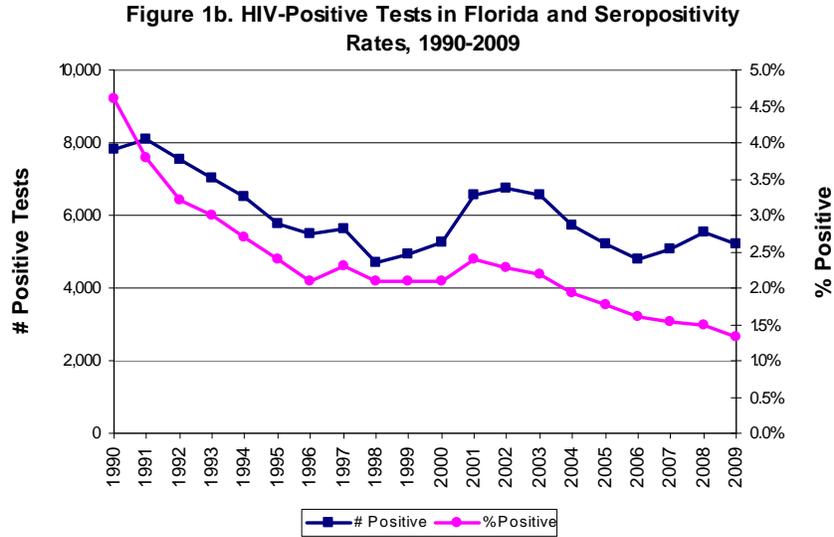
The number of positive tests decreased by 6% (335) and the overall positivity rate decreased from 1.5% in 2008 to 1.3% in 2009. Persons who reported MSM (men who have sex with men) as their highest risk account for 36.1% of all positive tests reported in 2009, yielding a positivity rate of 7.3%. Although heterosexuals represent 59.9% of all testing and 23.6% of positive results, the positivity rate for this risk group is only 0.5%. 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, over 5.6 million anonymous and confidential tests have been conducted. Today over 2,200 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.

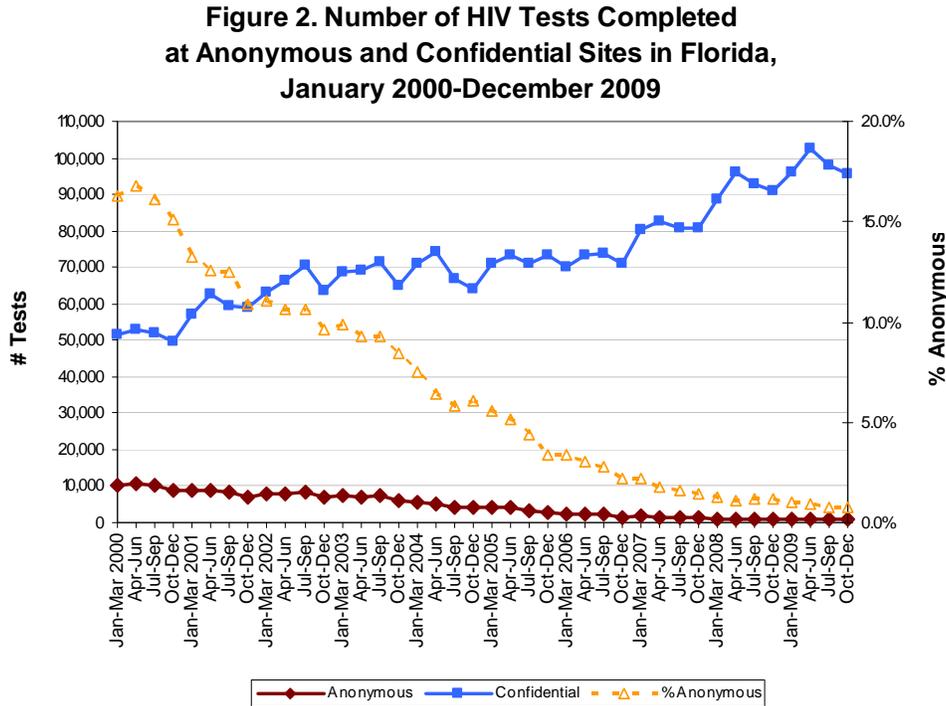
**Figures 1a and 1b** show testing trends in Florida between 1990 and 2009 with **Figure 1a** illustrating all HIV tests and positivity rates and **Figure 1b** illustrating HIV-positive tests and positivity rates. Testing levels increased rapidly through the early 1990's and remained fairly steady during the mid-1990's and early 2000's, with a marked increase since 2007. Compared with 2003, the testing level increased by 93,612 (31%) in 2009. In contrast, positivity rates remained fairly stable between 1996 and 2003 but have declined steadily since 2001. Although not shown, 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.





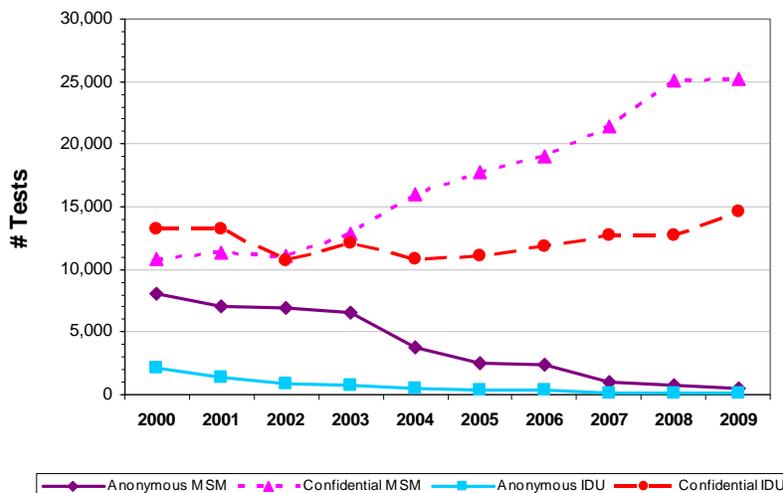
**Figure 2** compares testing levels at anonymous and confidential sites by calendar year quarters, from 1<sup>st</sup> quarter 2000 through 4<sup>th</sup> quarter 2009. Some observable patterns may be seasonal or related to specific events. Sharp increases in testing numbers have been recorded in the weeks around National HIV Testing Day which occurs annually on June 27.

Anonymous testing has steadily declined over the past 10 years, accounting for 0.9% of all tests conducted in 2009, compared to 16.1% in 2000. In contrast, confidential testing continues to increase annually.



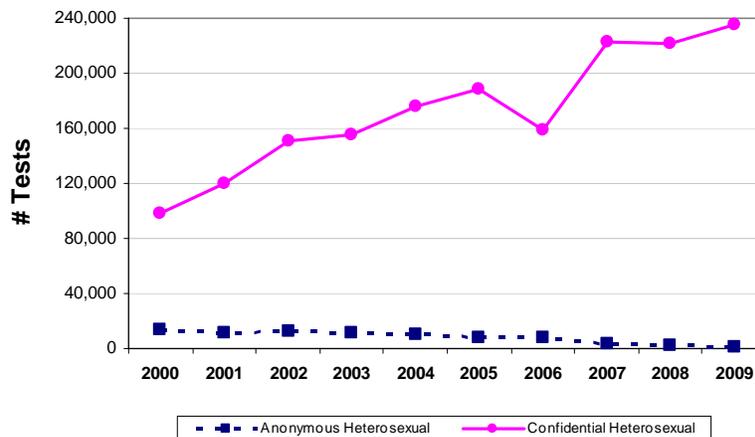
**Figure 3a** displays trends in anonymous and confidential testing within two high-risk groups: men who have sex with men (MSM)<sup>1</sup> and injection drug users (IDU). While the overall trend is declining anonymous testing with increasing confidential testing, the MSM risk group has seen the biggest change. Confidential testing increased 132.4% (over 14,000 tests) and anonymous testing decreased 93.8% (over 7,500 tests) from 2000 to 2009. For the IDU risk group, the decrease in anonymous testing is higher than MSM at 96.5%; the increase in confidential testing is much lower at 10.3% (over 1,300 tests).

**Figure 3a. Number of HIV Tests Completed at Anonymous and Confidential Sites, MSM and IDU Risk Groups, 2000-2009**



**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 139.7% (over 137,000 tests) from 2000 to 2009. The number of anonymous tests decreased 87.5% (over 11,000 tests) during that same time frame. This high-volume, typically low-risk group accounts annually for a very large proportion of all HIV tests.

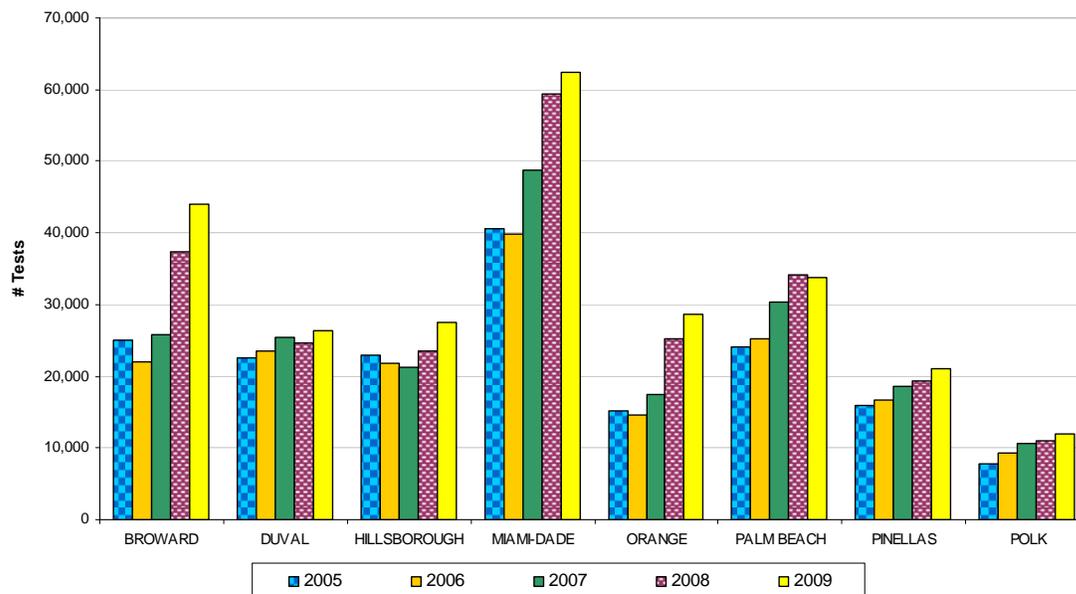
**Figure 3b. Number of HIV Tests Completed at Anonymous and Confidential Sites, Heterosexual Risk Group, 2000-2009**



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

Testing among the eight largest counties in Florida is shown in **Figure 4**. Together, the counties of Broward, Duval, Hillsborough, Miami-Dade, Orange, Palm Beach, Pinellas, and Polk account for 64.7% of all HIV tests conducted in 2009. The level of testing in these eight counties increased overall by 44.7% (over 81,000) between 2005 and 2009. Except for Palm Beach which had a 1.1% decrease, all of these counties had increases in testing in 2009, with the largest increases in Broward (17.6%) and Hillsborough (17.1%).

Figure 4. HIV Testing Levels Among Florida Counties that Perform More than 10,000 HIV Tests per Year, 2005-2009



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 61.2% increase in testing between 2000 and 2009.

In addition to these successful strategies, reports released by the DOH and corresponding mobilization initiatives have led to increases in testing. In 2008, a report titled “Organizing to Survive” was released by the DOH. This led to a growing grass-roots effort known as S.O.S. (Sistas Organizing to Survive). Following a statewide conference, local areas have held their own S.O.S. conferences empowering women to know their status and to encourage their friends and family to know their status as well. S.O.S. also established a goal to test 100,000 black women each year by 2010. This goal seems achievable since in 2009 almost 94,000 black women were tested. 2009 was also the second full calendar year of the African American Testing Initiative (AATI). This

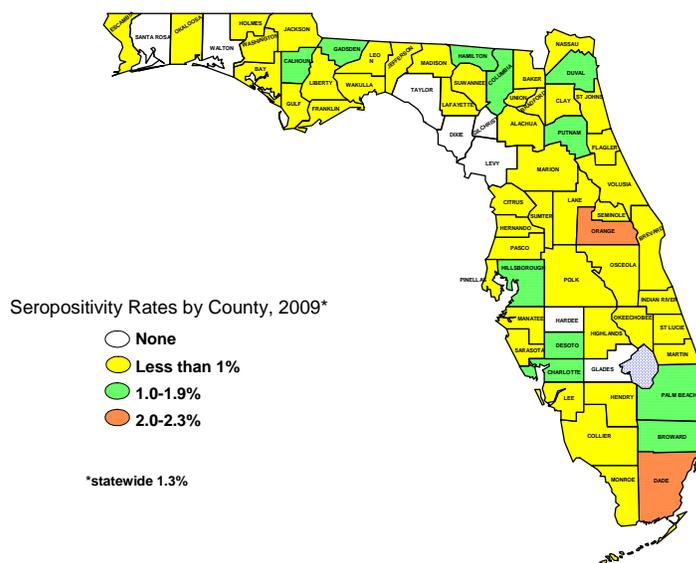
initiative aims to increase testing in clinical and non-clinical settings for those at increased risk of HIV, primarily African Americans and other black populations. Eleven counties conducted expanded HIV testing in 2009, contributing to the overall increase in testing. These counties were Alachua, 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. Another report, “Out in the Open”, was released by the DOH and focused on mobilizing the MSM community. Finally, our faith initiative, which includes a testing component, has been successful in increasing HIV testing among those communities.

### **HIV Counseling and Testing in 2009**

In 2009, 395,299 HIV tests were performed at registered HIV testing sites in Florida. Of these, 5,205 were positive, resulting in an overall positivity rate of 1.3%. Positivity rates for individual counties are shown in **Figure 5** (Data are also available in table form in Appendix Table 1). Miami-Dade County recorded the highest positivity rate (2.3%) followed by Orange County (2%). Overall, four counties reported positivity rates higher than the state average of 1.3% for 2009. Eight counties reported no positive HIV tests in 2009: these counties are Dixie, Glades Gilchrist, Hardee, Levy, Santa Rosa, Taylor, and Walton.

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 or at [www.floridaaids.org](http://www.floridaaids.org).

**Figure 5. HIV Seropositivity Rates by County, Florida, 2009**

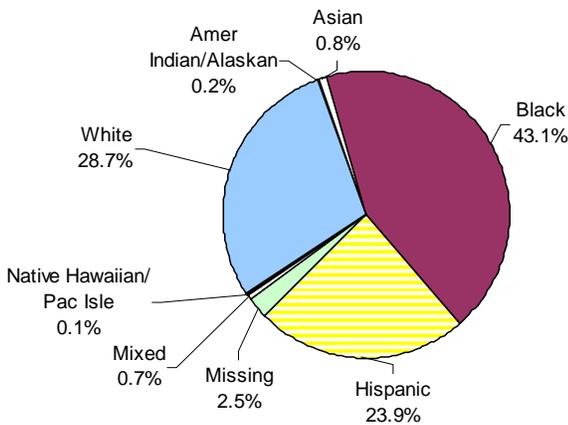


Data also available in table form (See Appendix Table 1)

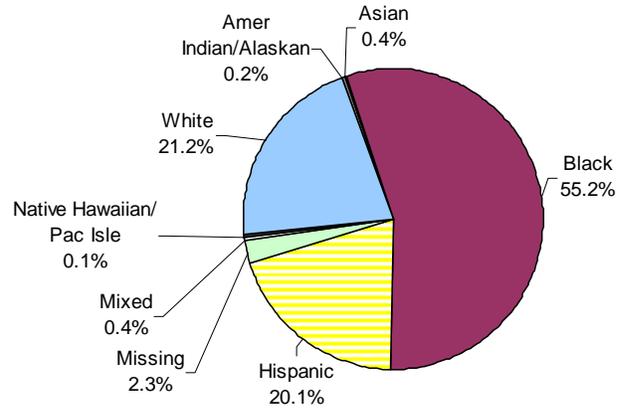
**Race/Ethnicity**

In 2009, blacks accounted for the greatest proportion (43.1%, 170,116) of all tests; 23.9% (94,427) were among Hispanics and non-Hispanic whites accounted for 28.7% (113,476) of persons tested (see **Figure 6a**). Blacks accounted for more than one-half (55.2%, 2,872) of all the positives, resulting in a positivity rate of 1.7% (see **Figure 6b**). Whites accounted for 21.2% (1,105) of all positive tests with a positivity rate of 1.0%. Among the Hispanic population, the proportion of positive tests (20.1%, 1,045) is more consistent with their proportion of tests (23.9%); the positivity rate for this group was 1.1%. Testing among Asians, Native Americans, and other racial/ethnic groups was minimal; when combined they account for 1.8% of all tests and 1.1% of positives.

**Figure 6a. Total HIV Tests by Race/Ethnicity, Florida, 2009 (N=395,299)**



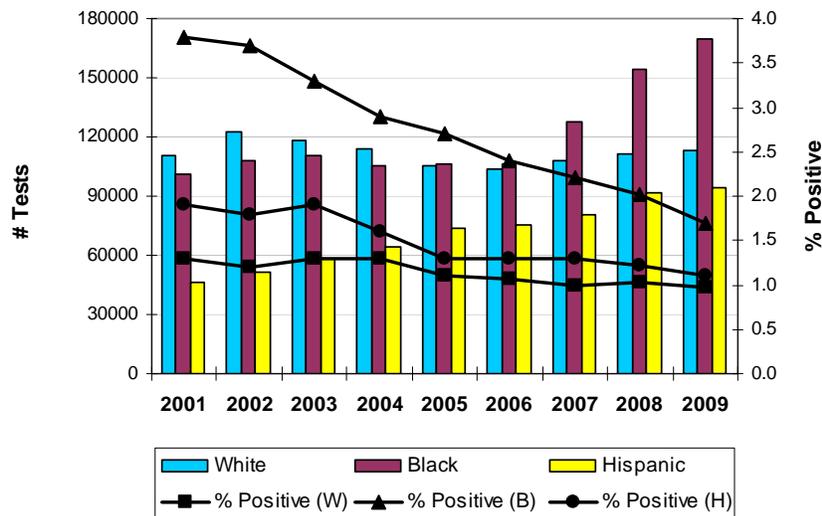
**Figure 6b. HIV-Positive Tests by Race/Ethnicity, Florida, 2009 (N=5,205)**



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

Testing levels for whites increased slightly from 2008 levels (1.8%), while testing among blacks increased 10.1%. Among Hispanics, testing levels show an upward trend with an increase of 3.4% from 2008 to 2009.

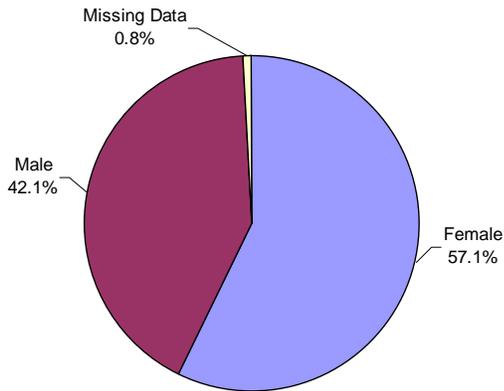
**Figure 6c. Number of HIV Tests & Positivity Rates by Race/Ethnicity, Florida, 2001-2009**



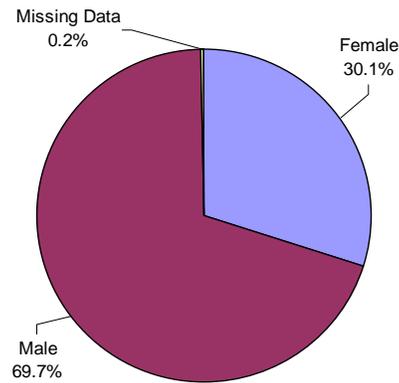
**Sex/Gender**

**Figure 7a** shows the number of HIV tests and **Figure 7b** shows HIV-positive tests by sex for 2009. Females account for 225,904 (57.1%) HIV tests and 166,292 (42.1%) were performed on males. However, males account for the greatest number of positive tests (3,630 or 69.7%), yielding a positivity rate of 2.2%, while females account for 30.1% (1,565) of positive tests with a positivity rate of 0.7%. 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, 2009 (N=395,299)**

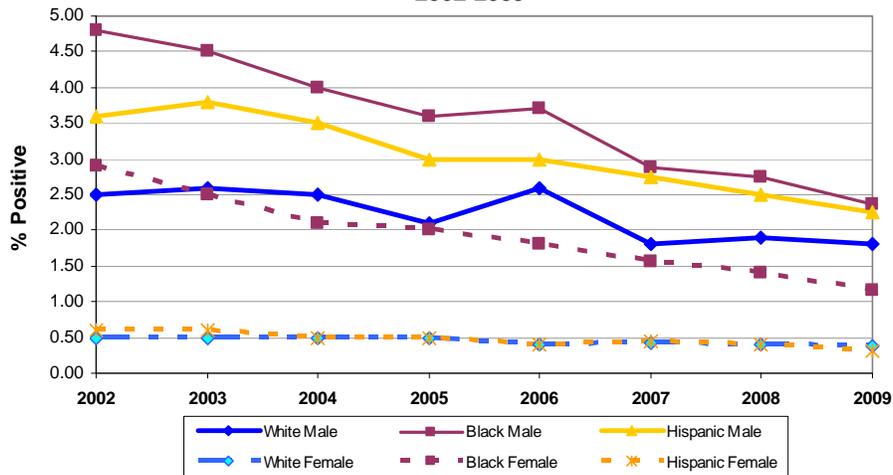


**Figure 7b. HIV-Positive Tests by Sex, Florida, 2009 (N=5,205)**



Positivity rates for males and females by race/ethnicity 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 over three times the rates for Hispanic or white females. Even though positivity rates as a whole have been declining, the reductions vary greatly by race/ethnicity and sex. From 2002 to 2009, the positivity rate for black females declined by 60% and the rate for black males declined by 50.6%. While not as drastic a reduction from 2002 to 2009, the positivity rate for Hispanic females declined by 46.6% and the rate for white females declined by 26.0%.

**Figure 8. HIV Seropositivity by Sex and Race/Ethnicity, Florida, 2002-2009**

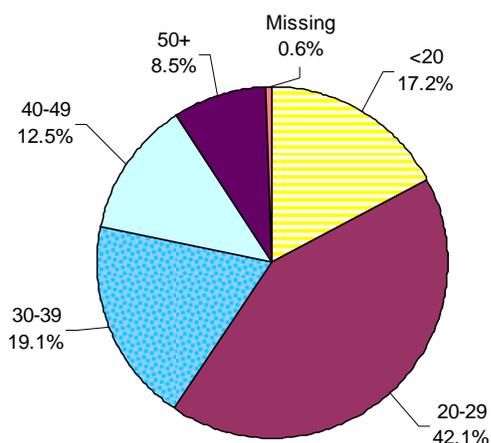


See Appendix Table 2 for data in table form

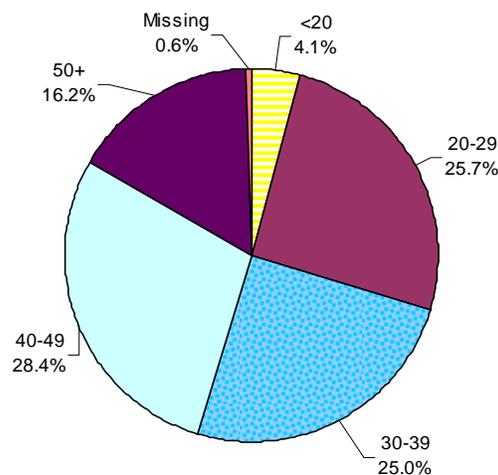
**Age**

**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 17.2% (67,982) of all tests, while persons between the ages of 20-29 continue to represent the highest proportion of tests (42.1% or 166,565). The 30-39 age group accounted for just over 19% (75,524). Persons age 50 and over had the smallest proportion of tests with 8.5% (33,450).

**Figure 9a. Total HIV Tests by Age Group, Florida, 2009 (N=395,299)**



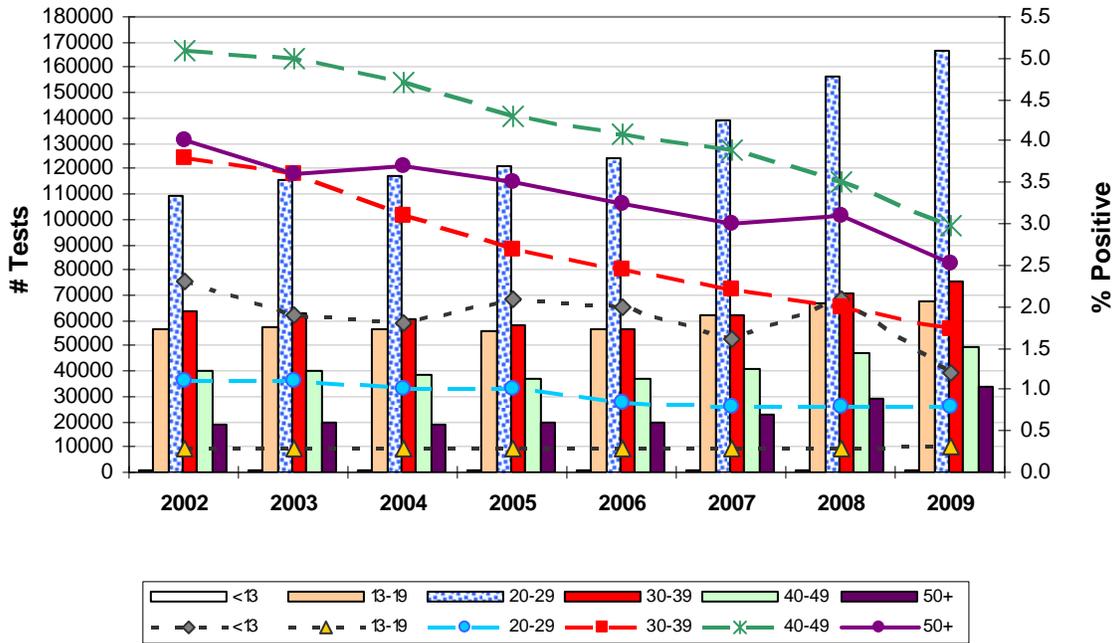
**Figure 9b. HIV-Positive Tests by Age Group, Florida, 2009 (N=5,205)**



With only 12.5% (49,517) of all the tests conducted, the 40-49 age group accounted for the largest proportion of positive tests in 2009 (28.4% or 1,479) and the highest positivity rate among all age groups (3.0%). Persons between the ages of 20 and 29 accounted for 25.7% (1,336) of positive tests, resulting in a positivity rate of 0.8%. The 30-39 age group represented 25.0% (1,303) of positive tests with a positivity rate of 1.7%. Although the 50+ age group was not tested in very high numbers (8.5% or 33,450), they accounted for 16.2% of positive tests and had a positivity rate of 2.5%.

The distribution of testing across age groups has not changed significantly over time. In 2009, testing increased in all age groups except those under the age of 13 when compared to 2008. **Figure 9c** (also see Appendix Table 3a and 3b for data in table form) shows testing numbers and positivity rates for 2002 to 2009 by age group. Positivity rates for persons aged 13-19 remained stable at 0.3% for the past eight years. The CDC estimates that ¼ of annual new 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. Between 2002 and 2009, the positivity rates for children less than 13 years old fluctuated, although this variability is primarily attributed to the low volume of tests conducted. Positivity rates among persons in the 30-39 age group have decreased by 54.6%. The 40-49 age group has consistently recorded the highest positivity rates, while also showing a decrease of 41.4%.

**Figure 9c. Number of HIV Tests & Positivity Rates by Age Group, Florida, 2002-2009**

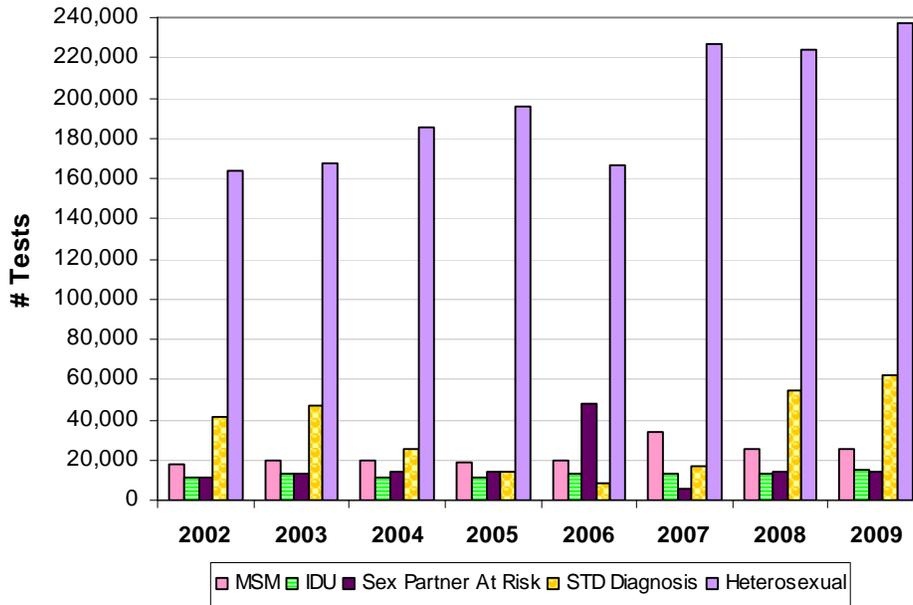


See Appendix Tables 3a and 3b for data in table form

**Risk Behaviors**

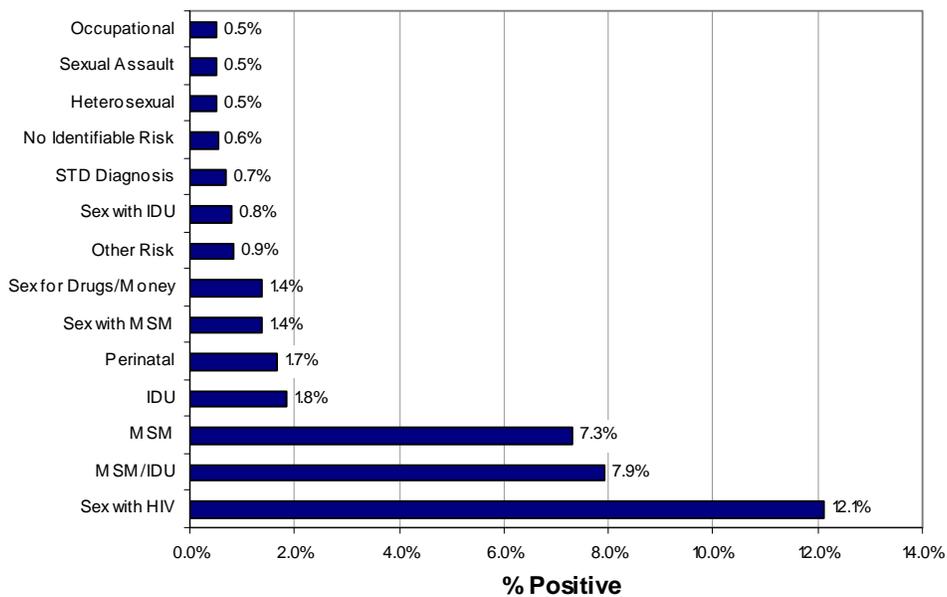
Since individuals may engage in more than one risk behavior, each self-reported exposure is categorized according to the highest level of risk. As **Figure 10** shows, persons who identified heterosexual sex as their highest risk behavior comprise the majority of HIV tests conducted in 2009. Three other risk groups with relatively high testing volumes experienced significant fluctuations over the past eight 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 testing 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, 2002-2009**



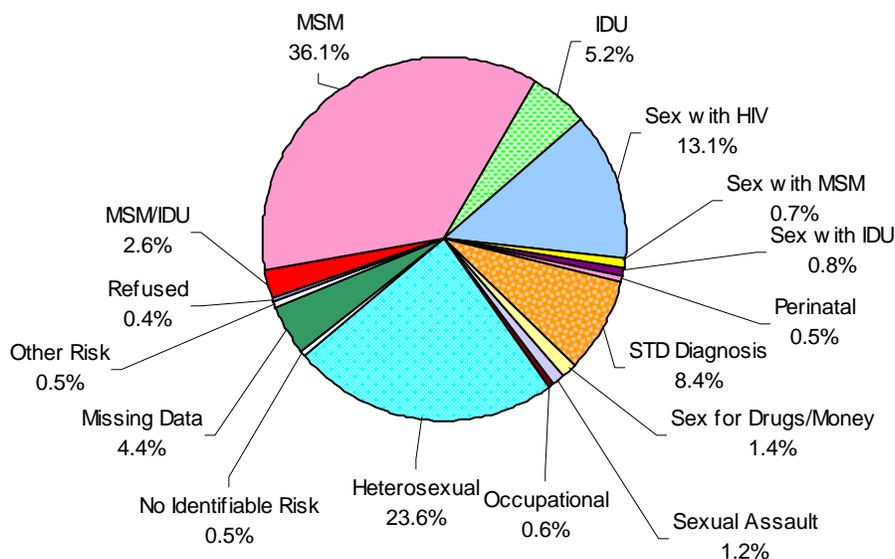
**Figure 11** displays positivity rates for all risk groups hierarchically starting with the lowest risk level. In 2009, the “sex with HIV positive” group had the highest positivity rate (12.1%). The men who have sex with men and are injection drug users (MSM/IDU) continue to be a very high risk group with a 7.9% positivity rate. MSM also experience a high positivity rate at 7.3%. 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, 2009**



**Figure 12** shows the distribution of HIV-positive test results by self-reported risk exposure for 2009. MSM (including MSM/IDU) account for the greatest number of positive tests (38.7% or 2,015). Persons who identified heterosexual sex as their highest risk comprised 23.6% (1,230) of all positive tests. Those who reported having sexual relations with someone who has HIV account for 13.1% (683) of all positive tests.

**Figure 12. Distribution of HIV-Positive Tests by Self-Reported Risk Exposure, Florida, 2009 (N=5,205)**

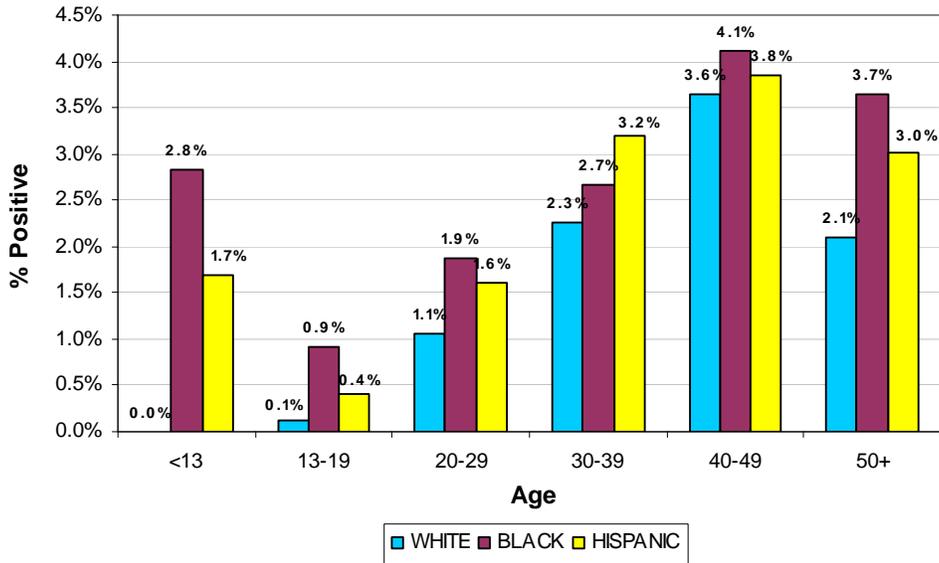


### **The Intersection of Race/Ethnicity, Sex, and Age**

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 2009 by the incorporation of age.

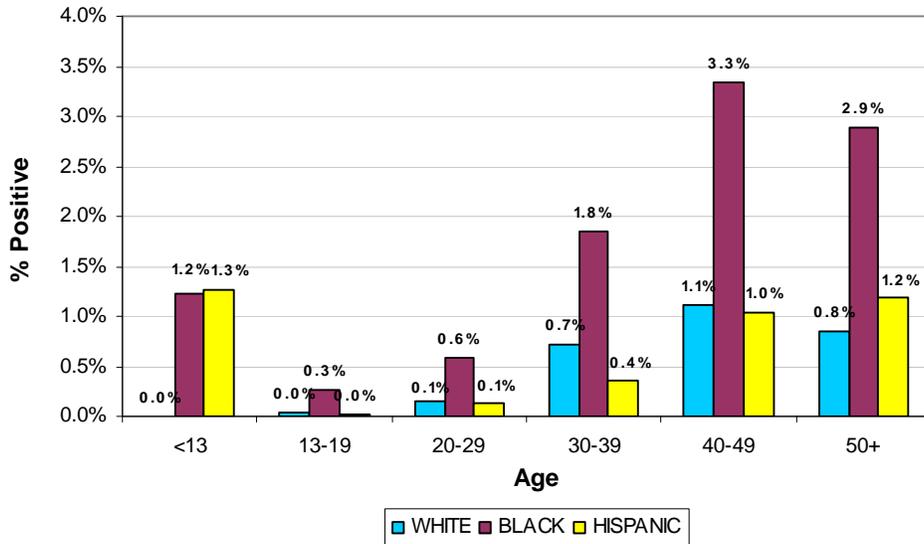
The overall positivity rate for black males in 2009 was 2.4%. However as **Figure 13a** shows, this rate varies considerably by age. The highest positivity rate is found among black males between the ages of 40 and 49. Black, Hispanic, and white males in the 30 and older age groups experienced much higher positivity rates than their overall rate of 2.4%, 2.3% and 1.8%, respectively.

**Figure 13a. Seropositivity Among Males, by Age and Race/Ethnicity, Florida, 2009**



**Figure 13b** shows the positivity rate by race/ethnicity and age for females. As with males, the trend towards higher positivity rates in the older groups was noticeable. Black, Hispanic, and white females aged 30 and higher experienced positivity rates higher than their overall positivity rate. Hispanic females aged 50 and older experienced a positivity rate of 1.2% which is four times greater than the average Hispanic female positivity rate of 0.3%

**Figure 13b. Seropositivity Among Females, by Age and Race/Ethnicity, Florida, 2009**



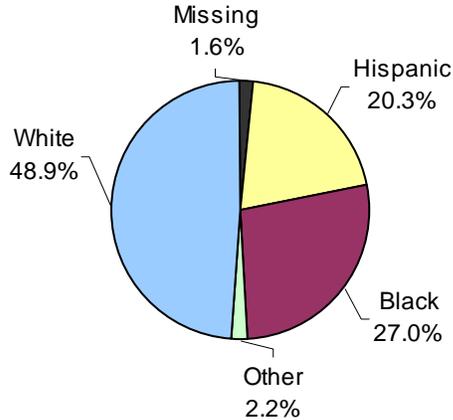
The data presented here indicate that prevention efforts must continue to be directed towards older populations particularly of blacks and Hispanics in order to limit new infections and to ensure that access to education and care is maintained or improved.

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

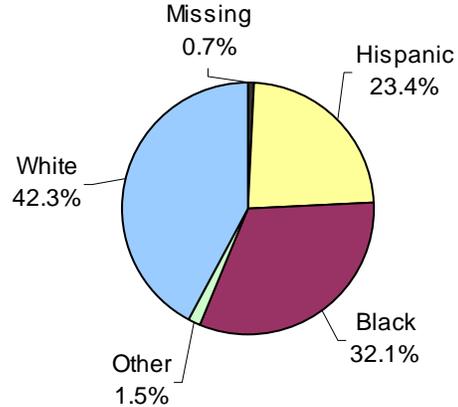
Male-to-male sex and injection drug use (separately or in combination) are behavioral practices that place individuals at high-risk for HIV infection. In 2009, 42,232 HIV tests (10.7%) were performed on persons who identified themselves as MSM, IDU, or both MSM and IDU. As shown in **Figure 11**, the positivity rate in 2009 among MSM/IDU was 7.9%, 7.3% 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 2009. Individuals identifying themselves as non-Hispanic white account for the largest proportion of HIV tests in all three of these risk groups: 48.9% of MSM/IDU, 42.6% of MSM, and 67.3% 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.

**Figure 14a. HIV Tests among MSM/IDU by Race/Ethnicity, Florida, 2009 (N=1,726)**

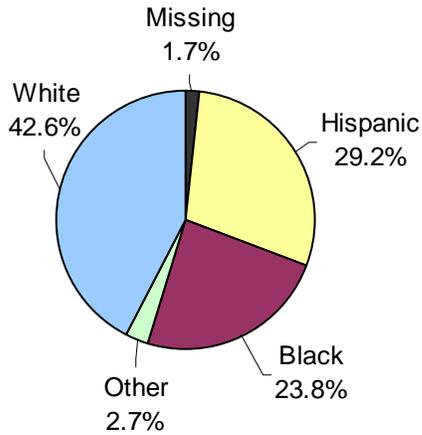


**Figure 14b. HIV-Positive Tests among MSM/IDU by Race/Ethnicity, Florida, 2009 (N=137)**



**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, 2009, (N=25,766)**



**Figure 15b. HIV-Positive Tests among MSM by Race/Ethnicity, Florida, 2009, (N=1,878)**

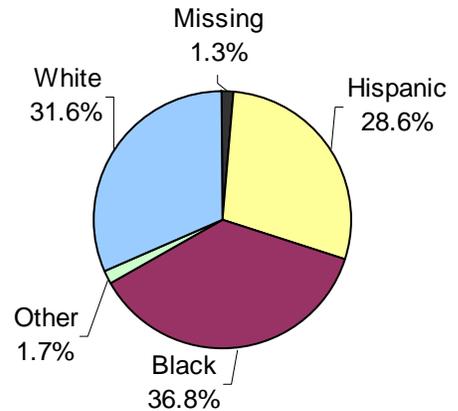
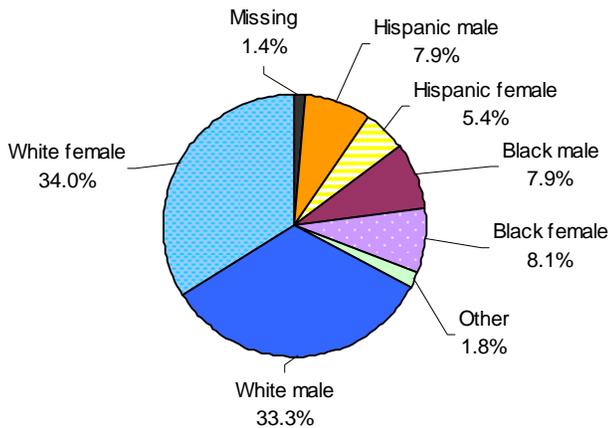


Figure 15a shows the distribution of HIV tests among MSM by race/ethnicity and Figure 15b shows the distribution of HIV-positive tests.

**Figure 16a. HIV Tests among IDU by Sex and Race/Ethnicity, Florida, 2009, (N=14,740)**



**Figure 16b. HIV-Positive Tests among IDU by Sex and Race/Ethnicity, Florida, 2009, (N=271)**

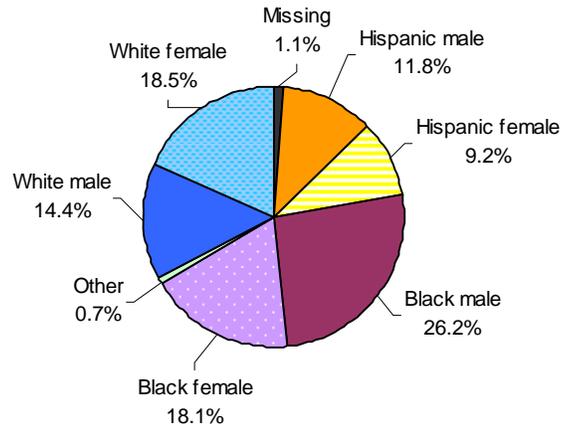
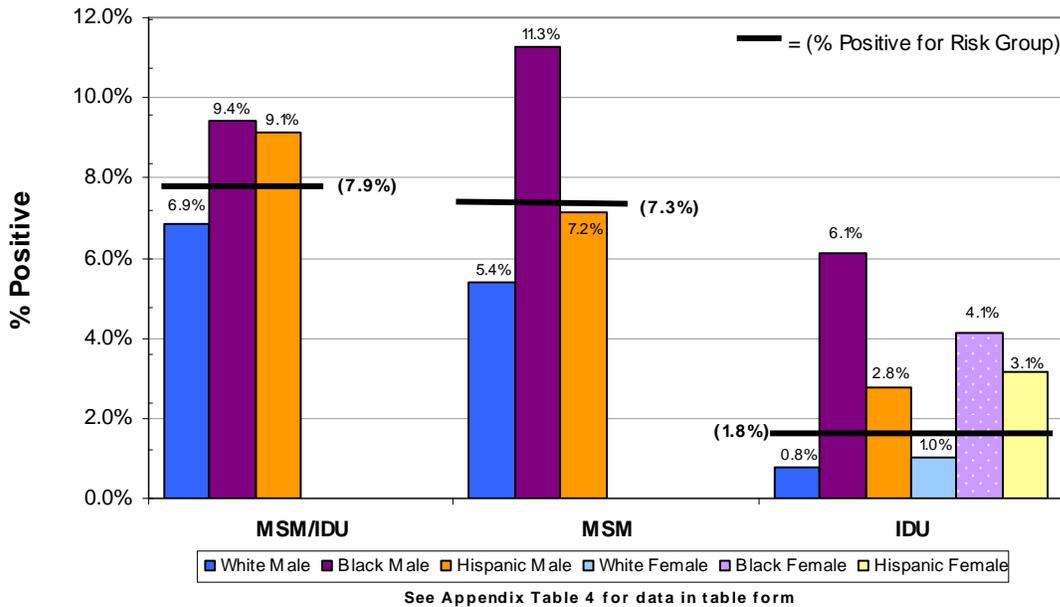


Figure 16a shows the distribution of HIV tests among IDU by sex and race/ethnicity while Figure 16b shows the distribution of HIV-positive tests among the same risk group.

These racial/ethnic disparities appear to be stronger among injection drug users (IDU). Black females, who account for 8.1% of tests among IDU in 2009, comprise 18.1% of positive tests in this risk group. Similarly, black males account for 7.9% of tests but 26.2% of the positives. Hispanic males and females are also disproportionately represented with 7.9% and 5.4% of the tests and 11.8% and 9.2% of the positive tests, respectively. In contrast, while males and females account for two-thirds of tests among IDU (34.0% for females and 33.3% for males), yet their combined share of the positive tests is substantially lower at 32.9%.

**Figure 17** (see Appendix Table 4 for data in table form) shows that aggregate positivity rates for MSM/IDU, MSM, and IDU mask important and occasionally dramatic differences between racial/ethnic groups. The relatively high testing volume 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 2009, the positivity rate for black MSM was 11.3%, 4 whole percentage points higher than that for all MSM (7.3%) and over twice the rate of white MSM (5.4%). The difference is also apparent in the MSM/IDU risk group where black and Hispanic MSM/IDU have positivity rates above the group rate of 7.9% (9.4% and 9.1%, respectively) yet white MSM/IDU have a much lower rate of 6.9%. The IDU risk group has the biggest variance between the group positivity rate and the rate for each sex and race/ethnicity. White males and females have about half the positivity rate as the group rate (0.8% and 1.0%, respectively vs. 1.8%) whereas black males are over triple and black females are double the group rate (6.1% and 4.1%, respectively vs. 1.8%).

**Figure 17. Seropositivity Among Select Risk Exposure Groups by Sex and Race/Ethnicity, Florida, 2009**



Together MSM, IDU, and MSM/IDU account for 42,232 HIV tests in 2009; 21.2% were black, 23.2% were Hispanic, and 51.3% were white. However of the 2,322 positive tests for these three risk groups, 36.8% were black, 27.0% were Hispanic, and 31.9% were white (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 2009, 43,574 HIV tests were administered with OraSure in Florida, a decline in usage of 44.4% when compared to 2003 when usage peaked at 78,378. The statewide positivity rate using OraSure also decreased during that same time period from 2.9% in 2003 to 2.1% in 2009. The top 15 counties are listed by positivity rate in **Table 1**. Compared to the overall positivity rates shown in **Figure 5** (also in Appendix Table 1), some counties were able to achieve much 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 2009, Broward<sup>2</sup> had the highest positivity rate (9.4%) followed by Orange (3.9%).

<b>County</b>	<b># of Tests</b>	<b># of Positives</b>	<b>% Positive</b>
<b>Broward</b>	3,176	297	9.4%
<b>Orange</b>	1,366	53	3.9%
<b>Miami-Dade</b>	5,681	216	3.8%
<b>Seminole</b>	64	2	3.1%
<b>Hamilton</b>	33	1	3.0%
<b>Columbia</b>	95	2	2.1%
<b>Palm Beach</b>	2,642	54	2.0%
<b>Escambia</b>	852	16	1.9%
<b>Brevard</b>	160	3	1.9%
<b>Sarasota</b>	1,239	21	1.7%
<b>St Johns</b>	442	7	1.6%
<b>Volusia</b>	602	9	1.5%
<b>Manatee</b>	791	11	1.4%
<b>Pinellas</b>	3,552	49	1.4%
<b>Hillsborough</b>	2,664	35	1.3%

Blacks accounted for the plurality of OraSure tests conducted in 2009 (18,712 or 42.9%) as compared to whites (15,086 or 34.6%) and Hispanics (7,937 or 18.2%). Females were tested more than males with 51.9% vs. 47.3% of the tests, 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. 2009 marks the first year in which more tests were conducted by rapid test than with the

<sup>2</sup> This positivity rate includes a large proportion of testers who had previously tested positive. The majority of these previous positives were tested at Adult Health Clinics and CBOs where proof of positivity was needed to access services.

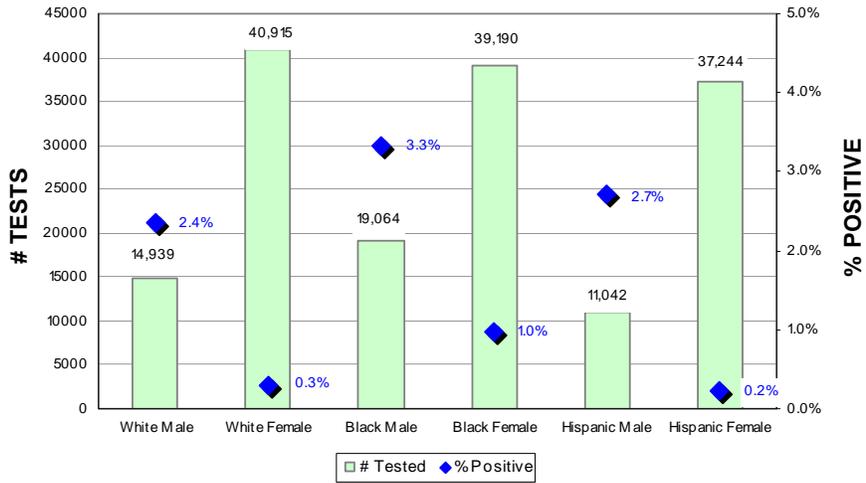
standard blood test. Rapid HIV tests are screening tests that produce very quick results usually in 10 – 40 minutes, and can be performed using whole blood through finger stick or venipuncture, or with an oral specimen. They are extremely accurate, and non-reactive (negative) results are final. Reactive rapid tests must be confirmed by a standard HIV test, which could be done using blood or OraSure.

In 2009, 178,418 tests were conducted using rapid testing, which is an increase of 26.6%, or 37,483, from 2008. The statewide positivity rate using rapid testing decreased from 2.2% when rapid testing began in 2003 to 1.3% in 2009. Positivity rates for counties that used more than 1,000 rapid tests in 2009 are shown in **Table 2**. Among those counties, Pinellas had the highest positivity rate (2.7%) followed by Miami-Dade (2.0%).

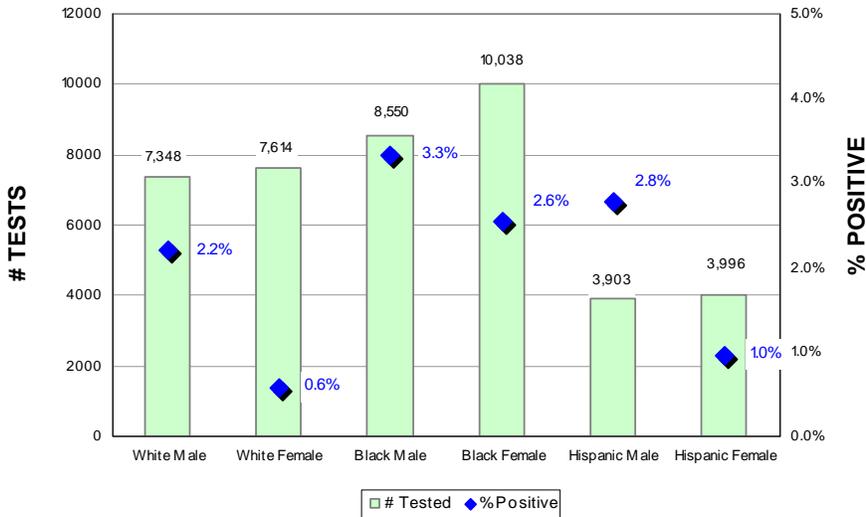
County	Total Tested	# Negative	# Confirmed Positive	Positivity Rate
Pinellas	3,172	3,076	87	2.7%
Miami-Dade	44,189	43,245	865	2.0%
Duval	14,874	14,596	234	1.6%
Orange	20,647	20,317	297	1.4%
Leon	1,854	1,824	24	1.3%
Sarasota	1,591	1,569	19	1.2%
Broward	30,593	30,212	324	1.1%
Escambia	1,107	1,096	11	1.0%
Palm Beach	16,054	15,881	149	0.9%
Hillsborough	19,294	19,108	166	0.9%
Alachua	4,389	4,351	36	0.8%
Brevard	1,353	1,338	11	0.8%
St Lucie	5,012	4,969	38	0.8%
Volusia	2,651	2,621	19	0.7%
Polk	1,395	1,385	8	0.6%
Manatee	2,866	2,852	12	0.4%
Collier	3,389	3,375	12	0.4%
Citrus	1,491	1,489	2	0.1%

The next three figures compare the 2009 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 use either blood or oral samples). 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 males had the highest positivity rates for blood and OraSure tests and Hispanic males had the highest positivity rate for rapid tests.

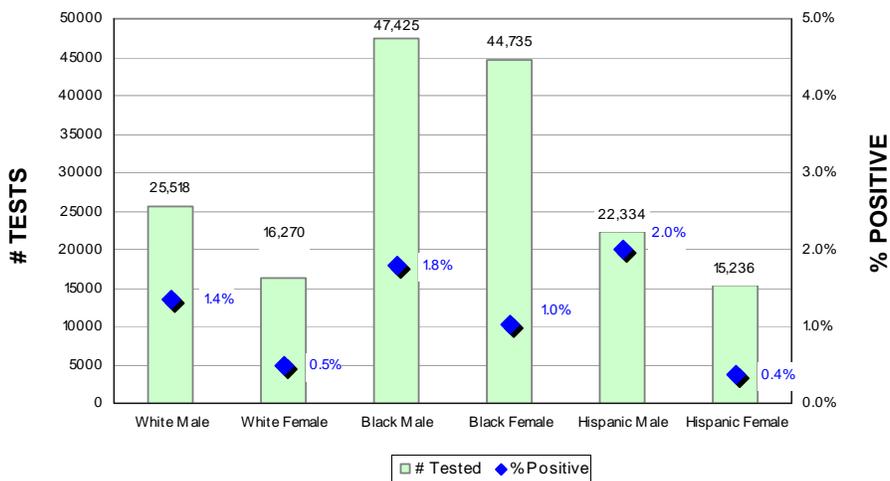
**Figure 18a. HIV Blood Tests by Race/Ethnicity and Gender, Florida, 2009**



**Figure 18b. HIV OraSure Tests by Race/Ethnicity and Gender, Florida, 2009**

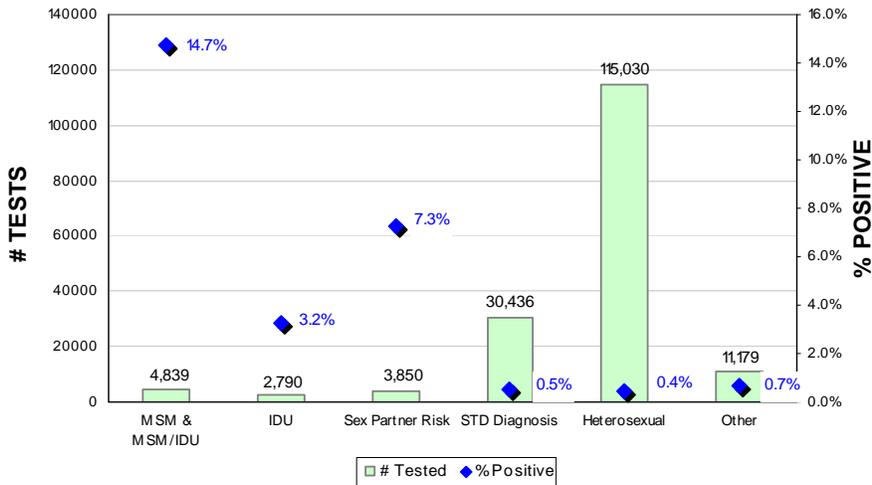


**Figure 18c. HIV Rapid Tests by Race/Ethnicity and Gender, Florida, 2009**

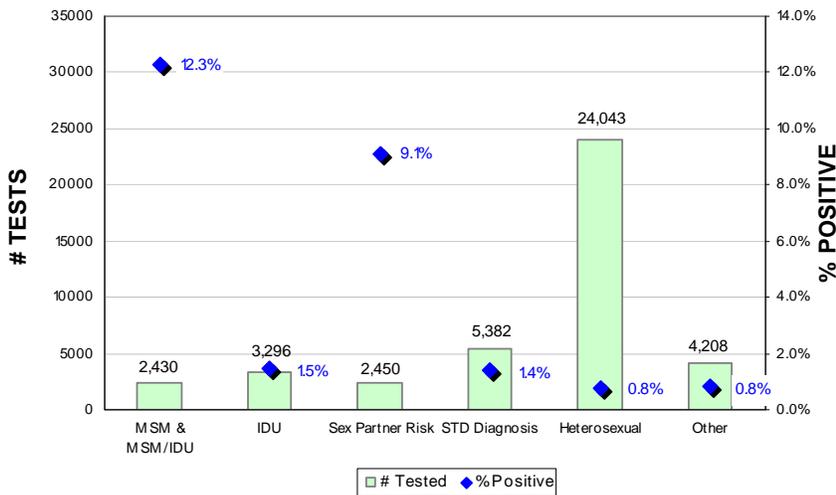


**Figures 19a, 19b, and 19c** compare testing levels and positivity rates by risk groups for blood (**Figure 19a**), OraSure (**Figure 19b**), and rapid testing (**Figure 19c**) in 2009. The OraSure test had the highest overall positivity rate of 2.1%, followed by rapid tests (1.3%) and blood tests (1.1%). 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 (5.0% vs. 14.7% and 12.3%, respectively).

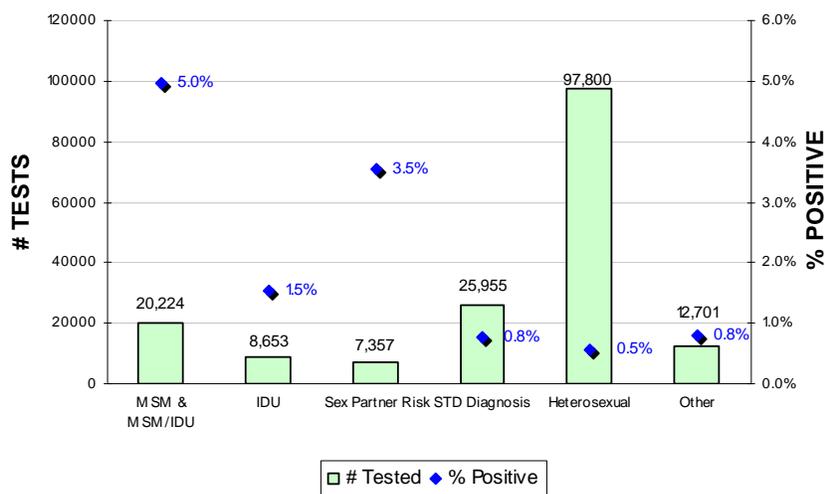
**Figure 19a. HIV Blood Tests by Risk, Florida, 2009**



**Figure 19b. HIV OraSure Tests by Risk, Florida, 2009**



**Figure 19c. HIV Rapid Tests by Risk, Florida, 2009**



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 on mobile units. In 2009, OraSure and rapid testing accounted for 56.1% 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 66.5% (262,747) of the HIV tests conducted in 2009. The majority of these repeat testers were clients who previously tested negative (256,436 or 97.6%) while 2,690 (1.0%) previously tested positive or had a reactive rapid test. Among the 5,205 positives in 2009, 30.7% (1,600) previously tested negative and 43.0% previously tested positive. Men who have sex with men (MSM) accounted for the largest proportion of positive tests among those who previously tested negative with 46.0% (736), while another 23.3% (373) 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 2009 that previously tested negative or positive, by sex and race/ethnicity. Black males and females account for the highest number of positives and the highest number of previous tests; however, Hispanic males and white males had the highest proportion of positives that had previously tested negative (33.5% and 33.2%,

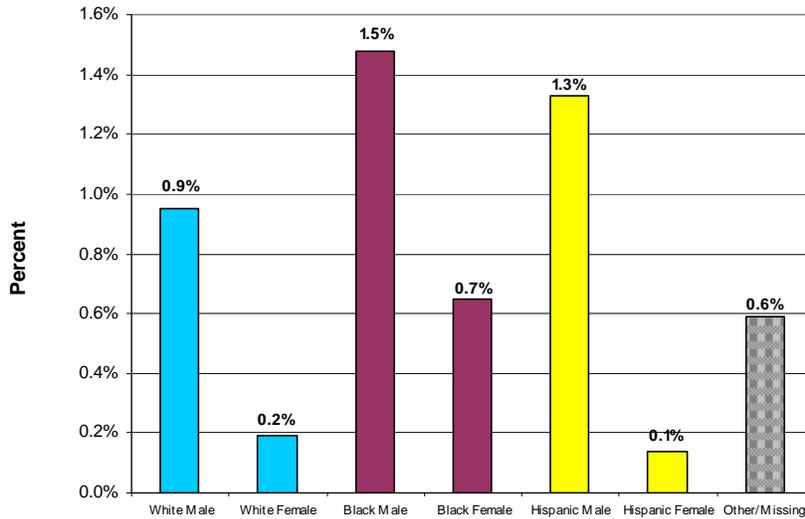
respectively). Among those who had previously tested positive, Hispanic females had the largest proportion at 55.2% of the total followed by white females (49.0%)

<b>Sex and Race/Ethnicity</b>	<b>Total Positives</b>	<b># (%) Previously Tested Positive</b>	<b># (%) Previously Tested Negative</b>
<b>White Male</b>	862	412 (47.8%)	286 (33.2%)
<b>White Female</b>	241	118 (49.0%)	73 (30.3%)
<b>Black Male</b>	1,781	681 (38.2%)	555 (31.2%)
<b>Black Female</b>	1,091	487 (44.6%)	312 (28.6%)
<b>Hispanic Male</b>	862	371 (43.0%)	289 (33.5%)
<b>Hispanic Female</b>	181	100 (55.2%)	37 (20.4%)
<b>Other/Missing M-F</b>	187	71 (38.0%)	48 (25.7%)
<b>Total</b>	5,205	2,240 (43.0%)	1,600 (30.7%)

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 2009 (43.0%) have already been found to be infected with HIV. Persons who are HIV positive retest for a number of reasons, including: denial; belief the 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 2009. Of the 5,205 positive test results obtained in 2009, 2,965 (57.0%) were among those who have either never tested before or their last test was not positive. These groups combined represent “new” positives in 2009. The positivity rate among the new positives was highest for black males (1.5%) followed by Hispanic males (1.3%), and white males (0.9%). These positivity rates are substantially lower than those presented in **Figure 8** (or Appendix Table 2) 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 are very likely to repeat the test. The proportion of positives that were new positives in 2009 was slightly lower than 2008 (58.3%) but still much higher than 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, 2009 (N=2,965)**

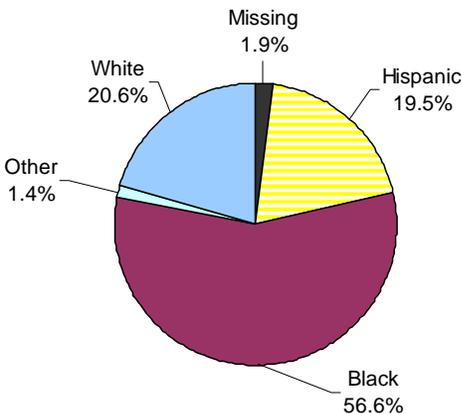


**Focus on the African American Testing Initiative (AATI)**

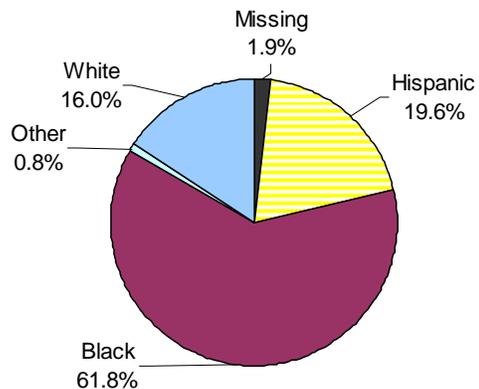
In late 2007, Florida began expanded and focused testing among blacks as part of a special grant from the CDC. This project, known in Florida as the African American Testing Initiative (AATI), has a nationwide goal of increasing HIV testing among blacks, primarily in clinical settings, by 1.5 million tests each year. AATI was initially in 10 Florida counties: Broward, Collier, Duval, Hillsborough, Manatee, Miami-Dade, Orange, Palm Beach, Pinellas, and St Lucie. In late 2008, Alachua County was added. 2009 is the second full calendar year for which data for this special project are available, and the first year with data from all eleven of the funded counties.

In 2009, 122,591 tests were conducted under the AATI grant; of those 1,779 (1.5%) 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 (56.6%) which is to be expected, but as in 2008 they still had a larger proportion of the positives (61.8%).

**Figure 21a. Total HIV Tests by Race/Ethnicity for AATI, Florida, 2009 (N=122,591)**

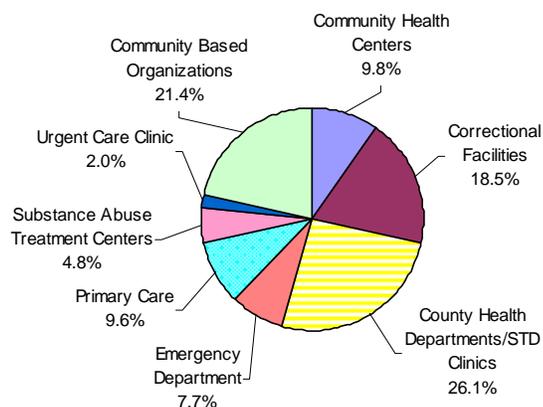


**Figure 21b. HIV-Positive Tests by Race/Ethnicity for AATI, Florida, 2009 (N=1,779)**

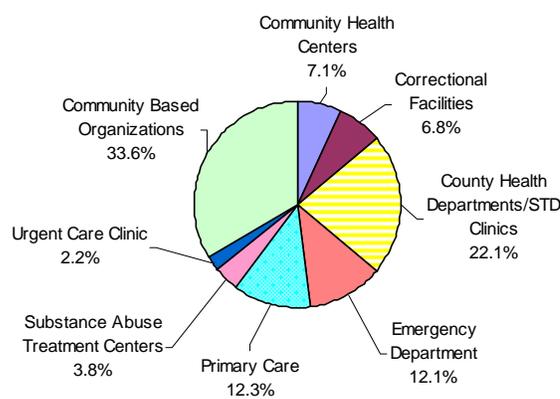


Another component of the AATI grant is to increase testing in clinical settings such as emergency departments, primary health clinics, substance abuse treatment centers, and community health centers. The focus on testing in clinical settings is in support of the CDC’s Revised Recommendations for HIV 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 (78.6%) of tests were conducted at clinical venues, with the largest share (26.1%) of tests conducted at county health department/sexually transmitted disease (STD) clinics. While the non-clinical CBO sites conducted 21.4% (26,219) of the tests, they found 33.6% (598) of the positives.

**Figure 22a. Total HIV Tests by AATI Testing Venue, Florida, 2009 (N=122,591)**



**Figure 22b. Total HIV-Positive Tests by AATI testing Venue, Florida, 2009 (N=1,779)**



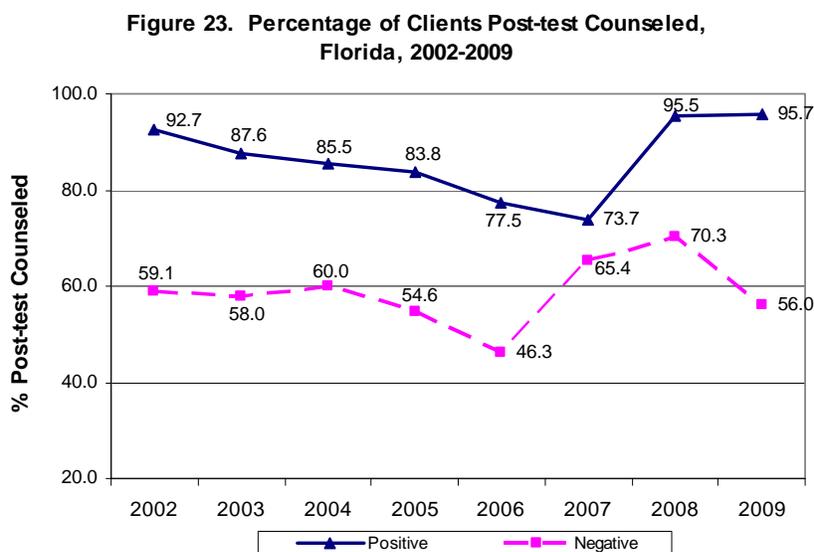
While the observed positivity rate for AATI is 15% higher than the positivity rate for all testing in 2009 (1.5% vs. 1.3%), the positivity rate for blacks was 5% lower (1.6% vs. 1.7%). These data show that the African American Testing Initiative is reaching its target population and is conducting most 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. In mid-2009, the Bureau of HIV/AIDS stopped requiring registered HIV test sites to mail documentation on post-test counseling for negatives to the bureau. However, the test sites are still required to post-test counsel all clients regardless of test result. This change in reporting requirements was to align our focus with CDC’s emphasis on collecting better linkage to care data for those who tested positive. This also enables financial and manpower resources to be reallocated to higher priorities during tough financial times like those experienced in 2009. It is noteworthy that the reporting

change only affects post-test counseling for blood or OraSure testing. Those who have negative rapid tests are post-test counseled the same day they take their test and that data is included with their testing information.

**Figure 23** shows the percentage of clients post-test counseled for negative and positive test results from 2002 through 2009. There was a slight increase in post-test counseling in 2009 over 2008 (95.7% vs. 95.5%). This continued increase over 2007's post-test counseling levels for positives is primarily the result of better data collection and the increased use of rapid testing. 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. As expected with the reporting requirement change, there was a sharp drop in the number of negatives who were reported as being post-test counseled.



**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 2009. Correctional facilities and private medical provider test sites, which primarily use rapid testing, had the highest post-test counseling rates (90.0% and 92.0%, respectively) for negatives. For positive tests, family planning and prenatal/OB clinics achieved 100% post-test counseling rates.

<b>Table 4. HIV Tests and Post-test Counseling Sessions for Negatives and Positives by Site Type, Florida, 2009</b>						
<b>Site Type</b>	<b># Negative</b>	<b># Post-test Counseled (Negative)</b>	<b>(%)</b>	<b># Positive</b>	<b># Post-test Counseled (Positive)</b>	<b>(%)</b>
Anonymous	3,322	1,377	41.5%	44	20	45.5%
STD	86,798	30,347	35.0%	1,182	1,168	98.8%
Drug Treatment	11,681	5,336	45.7%	84	81	96.4%
Family Planning	53,827	13,682	25.4%	56	56	100%
Prenatal/OB	28,952	8,842	30.5%	29	29	100%
TB	2,685	785	29.2%	29	28	96.6%
Adult Health	20,034	9,139	45.6%	744	733	98.5%
Jail/Prison	39,262	35,320	90.0%	329	317	96.4%
College	2,828	1,208	42.7%	27	26	96.3%
Private MD	35,372	32,548	92.0%	576	545	94.6%
Special Projects	4,958	3,548	71.6%	124	40	32.3%
Community-based Organization	84,737	67,482	79.6%	1,729	1,690	97.7%
Health Department Field Visit	15,238	8,443	55.4%	252	250	99.2%
<b>Total</b>	<b>389,694</b>	<b>218,057</b>	<b>56.0%</b>	<b>5205</b>	<b>4,983</b>	<b>95.7%</b>

In 2009, there were some differences by sex, age, race/ethnicity, and risk factor in post-test counseling rates. Males and females were post-test counseled for positive results equally; however males had much higher reported post-test counseling rates for negative results (66.6% vs. 48.4%). For the breakdown by age: the younger the client, the higher the post-test counseling rate for positive results. Post-test counseling rates for positives by race/ethnicity were virtually identical. MSM/IDU and MSM, which have a very high positivity rate, have a high rate of post-test counseling for positive results with a rate of 96.5%. Three risk groups were post-test counseled for all of their positive test results in 2009: perinatal exposure, those who have sex for drugs and/or money, and those who classified their risk as “other.”

<b>Table 5. HIV Tests and Post-test Counseling Sessions for Negatives and Positives by Sex, Age, Race/Ethnicity, and Risk Factors, Florida, 2009</b>						
	<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	162,203	107,951	66.6%	3,607	3,460	95.9%
Female	224,172	108,558	48.4%	1,564	1,492	95.4%
Other/Missing	3,319	1,548	46.6%	34	31	91.2%
Total	389,694	218,057	56.0%	5,205	4,983	95.7%
<b>Age</b>						
Less than 13	572	276	48.3%	7	7	100%
13-19	67,166	32,607	48.5%	206	201	97.6%
20-29	165,107	88,798	53.8%	1,336	1,297	97.1%
30-39	74,124	42,494	57.3%	1,303	1,262	96.9%
40-49	47,949	31,147	65.0%	1,479	1,421	96.1%
50+	32,546	21,734	66.8%	844	778	92.2%
Missing age	2,230	1,001	44.9%	30	17	56.7%
Total	389,694	218,057	56.0%	5,205	4,983	95.7%
<b>Race/Ethnicity</b>						
White	112,268	56,224	50.1%	1,105	1,066	96.5%
Black	167,051	104,206	62.4%	2,872	2,742	95.5%
Hispanic	93,295	49,608	53.2%	1,045	1,000	95.7%
Other/Missing	17,080	8,019	46.9%	183	175	95.6%
Total	389,694	218,057	56.0%	5,205	4,983	95.7%
<b>Risk</b>						
MSM/IDU and MSM	25,316	20,124	79.5%	2,015	1,945	96.5%
IDU	14,450	9,621	66.6%	271	218	80.4%
Partner at risk	12,841	8,188	63.8%	763	749	98.2%
Perinatal	1470	753	51.2%	25	25	100%
STD diagnosis	61,302	31,997	52.2%	435	417	95.9%
Sex for drugs/\$	5,272	3,666	69.5%	73	73	100%
Other	9,112	6,026	66.1%	56	56	100%
Sexual assault	11,991	6,413	53.5%	61	58	95.1%
Heterosexual	235,551	125,791	53.4%	1,230	1,188	96.6%
No Identifiable risk	4,626	1,473	31.8%	26	23	88.5%
Missing/Refused	7,763	4,005	51.6%	250	231	92.4%
Total	389,694	218,057	56.0%	5,205	4,983	95.7%

## **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 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,
- 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 Seropositivity Rates by County, Florida, 2009</b>				
<b>County</b>	<b>Total</b>	<b>Negative</b>	<b>Positive</b>	<b>% Positive</b>
MIAMI-DADE	62,471	60,957	1,421	2.3%
ORANGE	28,606	28,008	562	2.0%
BROWARD	43,993	43,112	816	1.9%
HILLSBOROUGH	27,541	27,017	499	1.8%
DUVAL	26,407	26,004	352	1.3%
PALM BEACH	33,819	33,359	417	1.2%
COLUMBIA	804	794	9	1.1%
PUTNAM	1,704	1,388	19	1.1%
CALHOUN	273	270	3	1.1%
CHARLOTTE	1,110	1,097	12	1.1%
DESOTO	957	946	10	1.0%
HAMILTON	298	295	3	1.0%
GADSDEN	2,604	2,577	26	1.0%
PINELLAS	21,114	20,909	192	0.9%
JACKSON	775	768	7	0.9%
ESCAMBIA	5,125	5,079	45	0.9%
LEON	8,884	8,800	76	0.9%
BAY	3,780	3,744	32	0.8%
MARION	5,957	5,905	50	0.8%
ALACHUA	8,273	8,202	69	0.8%
ST LUCIE	7,607	7,541	60	0.8%
OSCEOLA	6,468	6,416	51	0.8%
SARASOTA	6,284	6,231	49	0.8%
LAKE	2,912	2,888	22	0.8%
LEE	6,269	6,221	47	0.7%
UNION	140	139	1	0.7%
LAFAYETTE	148	147	1	0.7%
POLK	11,984	11,898	80	0.7%
ST JOHNS	1,362	1,352	9	0.7%
SUMTER	1,405	1,396	9	0.6%
HENDRY	1,139	1,132	7	0.6%
COLLIER	4,609	4,578	28	0.6%
CLAY	659	655	4	0.6%
INDIAN RIVER	3,375	3,354	20	0.6%

<b>Appendix Table 1 cont. From Figure 5 HIV Seropositivity Rates by County, Florida, 2009</b>				
<b>County</b>	<b>Total</b>	<b>Negative</b>	<b>Positive</b>	<b>% Positive</b>
NASSAU	849	844	5	0.6%
VOLUSIA	7,438	7,382	43	0.6%
PASCO	3,560	3,538	20	0.6%
LIBERTY	188	187	1	0.5%
HIGHLANDS	1,078	1,071	5	0.5%
MANATEE	6,498	6,467	29	0.4%
WAKULLA	237	236	1	0.4%
HERNANDO	1,698	1,691	7	0.4%
FRANKLIN	244	243	1	0.4%
SEMINOLE	5,401	5,349	22	0.4%
BREVARD	8,542	8,504	33	0.4%
BAKER	794	791	3	0.4%
JEFFERSON	272	271	1	0.4%
BRADFORD	349	348	1	0.3%
MONROE	1,913	1,907	5	0.3%
HOLMES	419	418	1	0.2%
MARTIN	2,299	2,294	5	0.2%
WASHINGTON	460	459	1	0.2%
GULF	548	547	1	0.2%
OKALOOSA	2,844	2,838	5	0.2%
MADISON	673	672	1	0.1%
CITRUS	2,116	2,113	3	0.1%
SUWANNEE	1,028	1,027	1	0.1%
OKEECHOBEE	1,128	1,127	1	0.1%
FLAGLER	1,246	1,242	1	0.1%
DIXIE	431	431	0	0.0%
GILCHRIST	249	249	0	0.0%
GLADES	123	123	0	0.0%
HARDEE	956	956	0	0.0%
LEVY	878	878	0	0.0%
SANTA ROSA	700	700	0	0.0%
TAYLOR	405	405	0	0.0%
WALTON	1,177	1,177	0	0.0%

	2002	2003	2004	2005	2006	2007	2008	2009
<b>White Male</b>	2.50%	2.60%	2.50%	2.10%	2.60%	1.81%	1.90%	1.80%
<b>Black Male</b>	4.80%	4.50%	4.00%	3.60%	3.70%	2.88%	2.74%	2.37%
<b>Hispanic Male</b>	3.60%	3.80%	3.50%	3.00%	3.00%	2.75%	2.50%	2.25%
<b>White Female</b>	0.50%	0.50%	0.50%	0.50%	0.40%	0.42%	0.40%	0.37%
<b>Black Female</b>	2.90%	2.50%	2.10%	2.00%	1.80%	1.57%	1.40%	1.16%
<b>Hispanic Female</b>	0.60%	0.60%	0.50%	0.50%	0.40%	0.44%	0.40%	0.32%

	<13	13-19	20-29	30-39	40-49	50+
<b>2002</b>	1,083	56,565	109,162	63,989	39,790	19,023
<b>2003</b>	861	57,677	115,166	63,125	40,223	19,937
<b>2004</b>	707	56,257	117,183	60,629	38,401	18,842
<b>2005</b>	724	55,807	121,164	58,074	37,081	19,316
<b>2006</b>	716	56,337	124,346	56,727	36,609	19,426
<b>2007</b>	668	62,015	138,870	62,224	41,024	22,961
<b>2008</b>	671	66,928	156,503	70,510	47,129	28,830
<b>2009</b>	586	67,396	166,565	75,524	49,517	33,450

	<13	13-19	20-29	30-39	40-49	50+
<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>2009</b>	1.2%	0.3%	0.8%	1.7%	3.0%	2.5%

	MSM/IDU	MSM	IDU
<b>White Male</b>	6.9%	5.4%	0.8%
<b>Black Male</b>	9.4%	11.3%	6.1%
<b>Hispanic Male</b>	9.1%	7.2%	2.8%
<b>White Female</b>	n/a	n/a	1.0%
<b>Black Female</b>	n/a	n/a	4.1%
<b>Hispanic Female</b>	n/a	n/a	3.1%
<b>Average for Risk Group</b>	7.9%	7.3%	1.8%