

Executive Summary

In 2010, 410,678 HIV tests were conducted at Florida's registered testing sites, representing a 4% increase (approximately 15,000 tests) over the previous year. This marks the 10th consecutive year that the number of HIV tests performed in Florida exceeded 250,000.

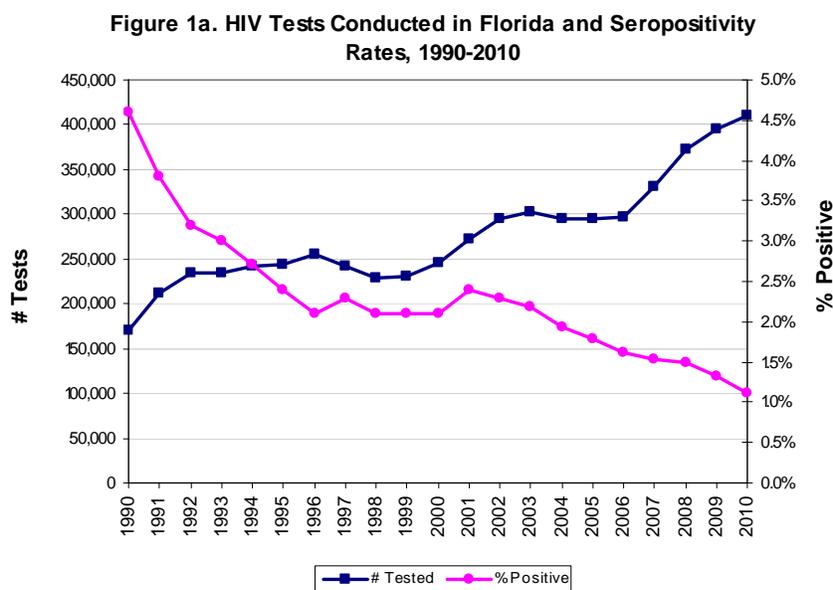
Increases in testing were recorded among all racial/ethnic groups, but especially in blacks (7.2% or approximately 12,000 tests). The African American Testing Initiative concluded in 2010 and contributed to the continued increase in testing among blacks. As with previous years, persons who reported heterosexual sex as their highest risk represented the majority of the tests. For the second straight year, rapid testing accounted for the largest number of tests with 49.8%, followed by blood at 40.0% and OraSure at 10.2%.

The number of positive tests decreased by 12.8% (664) and the overall positivity rate decreased from 1.3% in 2009 to 1.1% in 2010. Men who have sex with men (MSM) account for 39.7% of all positive tests reported in 2010, yielding a positivity rate of 6.0%. Although heterosexuals represent 59.2% of all testing and 23.4% of positive results, the positivity rate for this risk group is only 0.4%. 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 6 million anonymous and confidential tests have been conducted. Today over 1,600 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 2010 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 1990s and remained fairly steady during the mid-1990s and early 2000s, with a marked increase since 2007. Compared with 2003, the testing level increased by 108,991 (36%) in 2010. 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 1980s as 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.



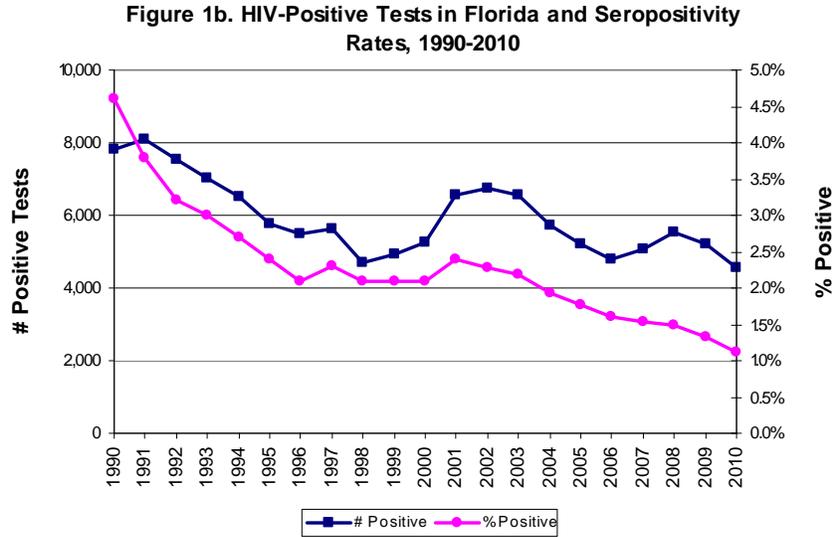


Figure 2 compares testing levels at anonymous and confidential sites by calendar year quarters, from 1st quarter 2001 through 4th quarter 2010. Some observable patterns may be seasonal or related to specific events. Sharp increases in testing numbers have been recorded in the weeks around National HIV Testing Day which occurs annually on June 27.

Anonymous testing has steadily declined over the past 10 years, accounting for 0.5% of all tests conducted in 2010, compared to 12.3% in 2001. In contrast, confidential testing continues to increase annually.

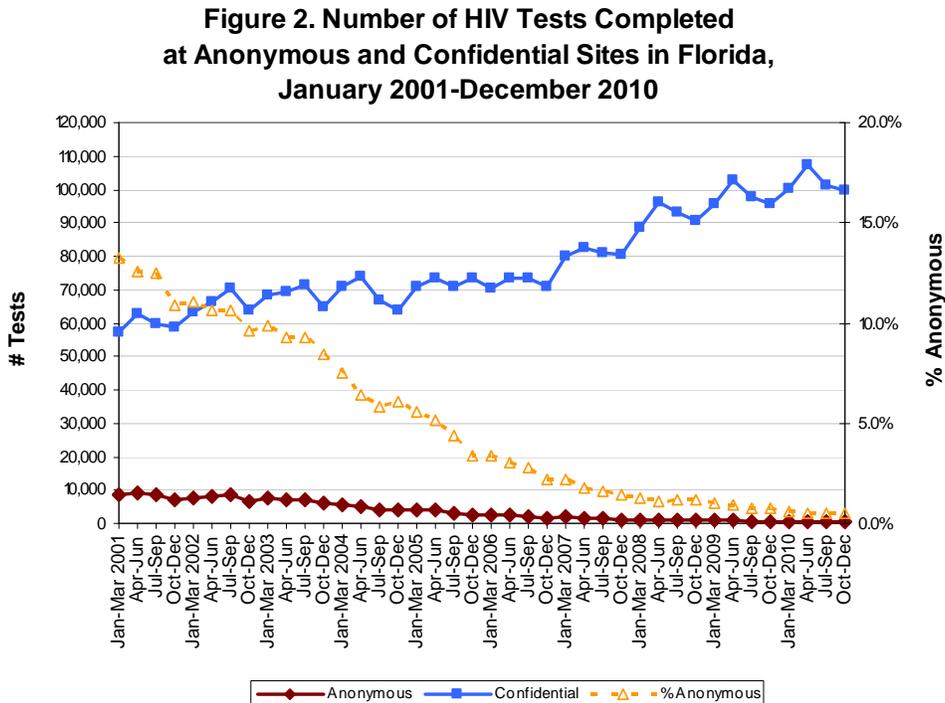


Figure 3a displays trends in anonymous and confidential testing within two high-risk groups: men who have sex with men (MSM)¹ and injection drug users (IDU). While the overall trend is declining anonymous testing with increasing confidential testing, the MSM risk group has seen the biggest change. Confidential testing increased 172.6% (over 19,000 tests) and anonymous testing decreased 94.9% (over 6,600 tests) from 2001 to 2010. For the IDU risk group, the decrease in anonymous testing is higher than MSM at 96.2%; the increase in confidential testing is much lower at 13.5% (over 1,700 tests).

Figure 3a. Number of HIV Tests Completed at Anonymous and Confidential Sites, MSM and IDU Risk Groups, 2001-2010

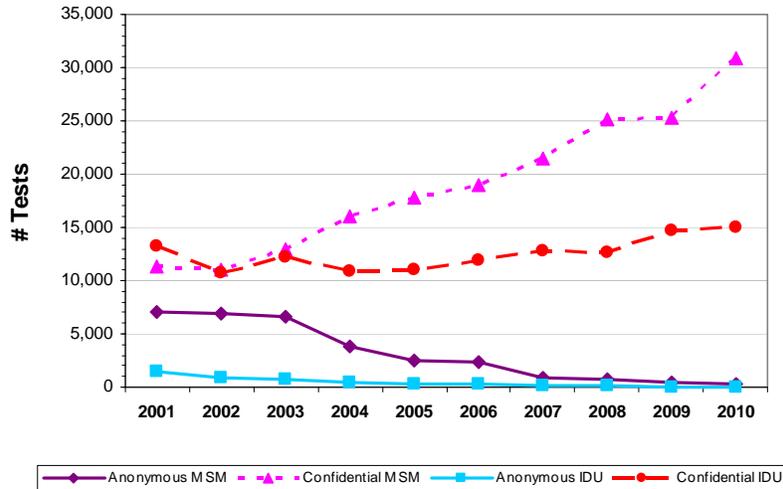
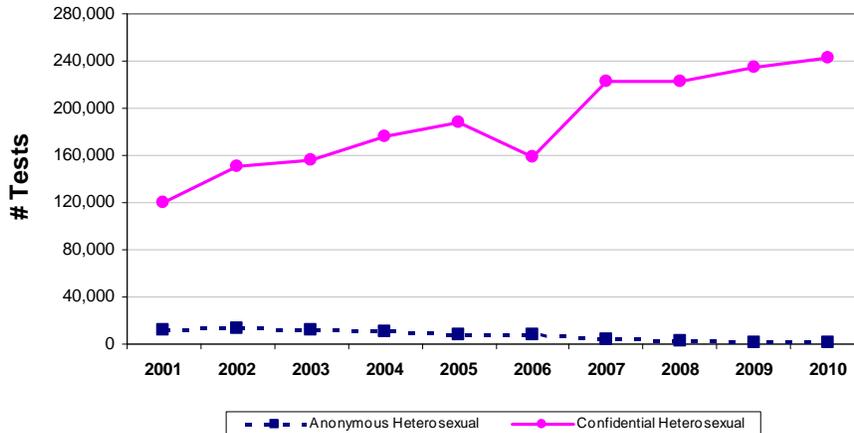


Figure 3b shows anonymous and confidential testing trends among those who identified heterosexual sex as their highest risk factor. The number of confidential tests among heterosexuals has increased 101.2% (over 121,000 tests) from 2001 to 2010. The number of anonymous tests decreased 90.6% (over 10,000 tests) during that same time frame. This high-volume, typically low-risk group accounts annually for a very large proportion of all HIV tests.

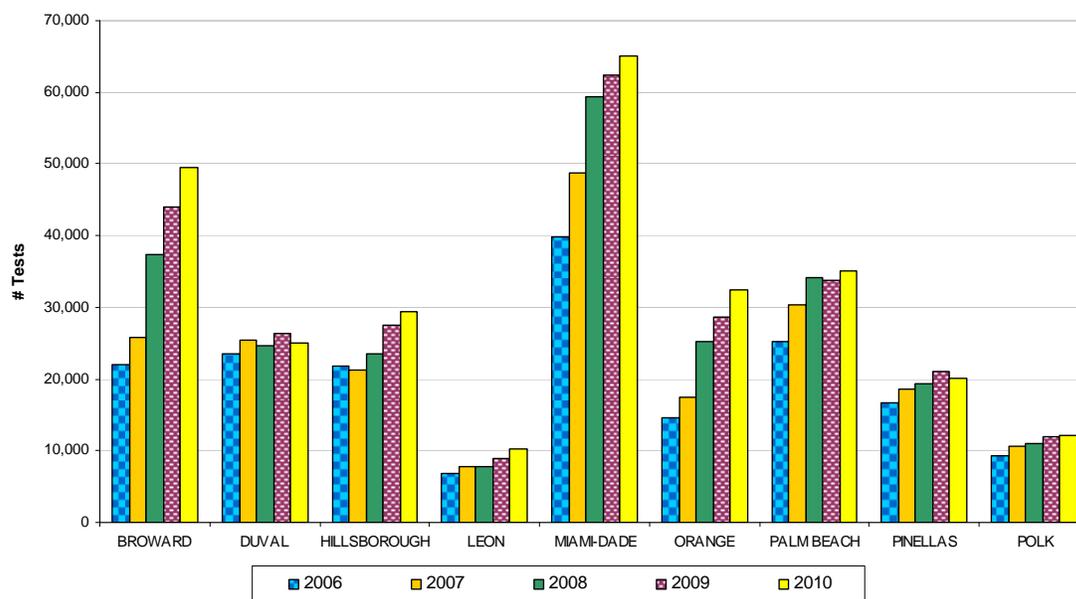
Figure 3b. Number of HIV Tests Completed at Anonymous and Confidential Sites, Heterosexual Risk Group, 2001-2010



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

Testing among the top nine counties by volume of HIV testing is shown in **Figure 4**. Together, the counties of Broward, Duval, Hillsborough, Leon, Miami-Dade, Orange, Palm Beach, Pinellas and Polk account for 68.0% of all HIV tests conducted in 2010. The level of testing in these nine counties increased overall by 55.1% (over 99,000) between 2006 and 2010. Most of these counties had an increase in testing between 2009 and 2010. Duval and Pinellas were the exceptions with decreases of 5.0% and 4.8%, respectively. Leon County had the largest increase at 16.0%, pushing it over the 10,000 tests in a year threshold to be counted among the top counties. Broward and Orange continued to have large increases as well (12.5% and 13.7%, respectively).

Figure 4. HIV Testing Levels Among Florida Counties that Perform More than 10,000 HIV Tests per Year, 2006-2010



At least 80% of the estimated 135,000 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 and men who have sex with men. These strategies undoubtedly have led, at least in part, to the 77.7% increase in testing between 1999 and 2010.

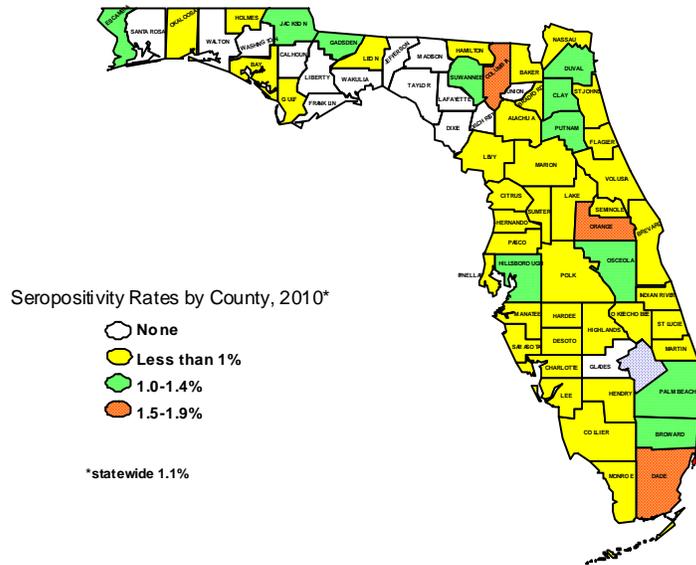
In addition to these successful strategies, reports released by the DOH and corresponding mobilization initiatives have led to increases in testing. In 2008, a report titled “Organizing to Survive” was released by the DOH. This led to a growing grass-roots effort known as S.O.S. (Sistas Organizing to Survive). Following a statewide conference, local areas have 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 was achieved with 100,715 black women tested in 2010. If all black women including multi-racial and Hispanics are included, then the number of black women tested in 2010 increases to 104,728. The African American Testing Initiative (AATI) ended in September of 2010 and the Expanded Testing Initiative began October 2010. This initiative aimed 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 2010, 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. Finally, our faith initiative, which includes establishing faith-based testing in all Florida counties, has been successful in increasing HIV testing among those communities.

HIV Counseling and Testing in 2010

In 2010, 410,678 HIV tests were performed at registered HIV testing sites in Florida. Of these, 4,541 were positive, resulting in an overall positivity rate of 1.1%. 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 (1.9%) followed by Columbia County (1.7%). Overall, eight counties reported positivity rates higher than the state average of 1.1% for 2010. Fifteen counties reported no positive HIV tests in 2010: the counties were Calhoun, Dixie, Franklin, Gilchrist, Glades, Jefferson, Lafayette, Liberty, Madison, Santa Rosa, Taylor, Union, Wakulla, Walton, and Washington.

Figure 5. HIV Seropositivity Rates by County, Florida, 2010



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

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.

Race/Ethnicity

In 2010, blacks accounted for the greatest proportion (44.4%, 182,392) of all tests; 23.4% (95,938) were among Hispanics and non-Hispanic whites accounted for 28.3% (116,034) of persons tested (see **Figure 6a**). Blacks accounted for more than one-half (56.6%, 2,569) of all the positives, resulting in a positivity rate of 1.4% (see **Figure 6b**). Whites accounted for 20.0% (906) of all positive tests with a positivity rate of 0.8%. Among the Hispanic population, the proportion of positive tests (19.6%, 889) is more consistent with their proportion of tests (23.4%); the positivity rate for this group was 0.9%. Testing among American Indians, Asians, and other racial/ethnic groups was minimal; when combined they account for 1.7% of all tests and 1.2% of positives.

Figure 6a. Total HIV Tests by Race/Ethnicity, Florida, 2010
(N=410,678)

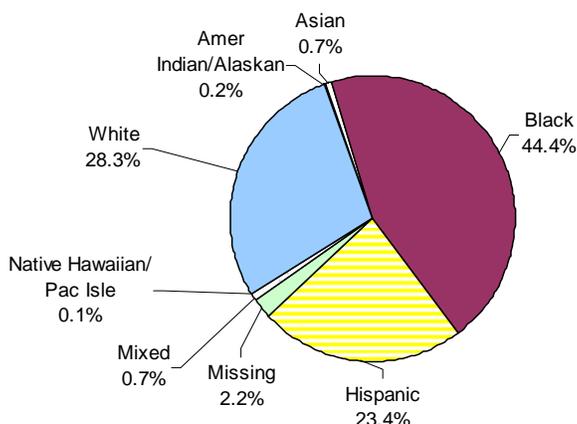


Figure 6b. HIV-Positive Tests by Race/Ethnicity, Florida, 2010
(N=4,541)

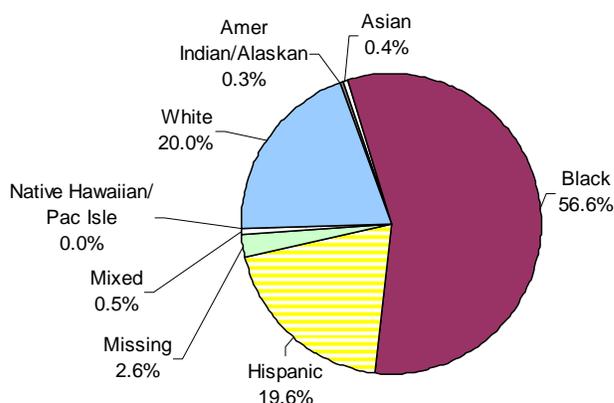
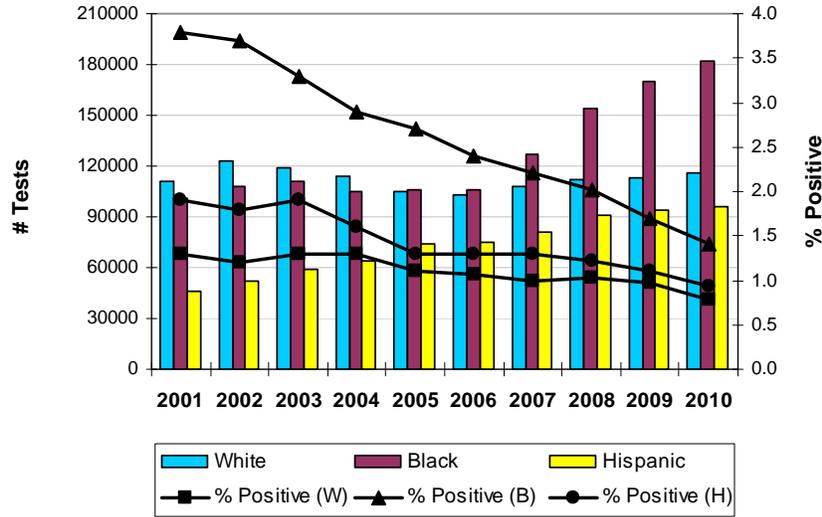


Figure 6c illustrates the number of HIV tests and positivity rates by race/ethnicity from 2001 through 2010. The positivity rates for blacks, Hispanics and whites all show a decline over the past decade. For whites and Hispanics, the decline has been small over the past three years after holding steady between 2005 and 2007. For blacks, the positivity rate has been steadily declining although their rate still remains higher than that of whites or Hispanics.

Testing levels for Hispanics increased slightly from 2009 levels (1.6%), while testing among blacks increased by 7.2%. Among whites, testing levels show a modest upward trend with an increase of 2.3% from 2009 to 2010.

Figure 6c. Number of HIV Tests & Positivity Rates by Race/Ethnicity, Florida, 2001-2010



Sex/Gender

Figure 7a shows the number of HIV tests and **Figure 7b** shows HIV-positive tests by sex for 2010. Females account for 231,507 (56.4%) HIV tests and 176,089 (42.9%) were performed on males. However, males account for the greatest number of positive tests (3,258 or 71.7%), yielding a positivity rate of 1.9%, while females account for 27.8% (1,261) of positive tests with a positivity rate of 0.5%. 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, 2010 (N=410,678)

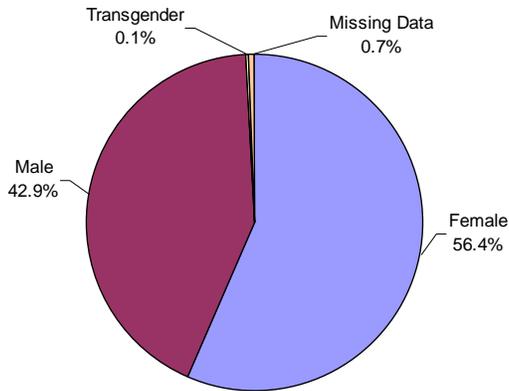
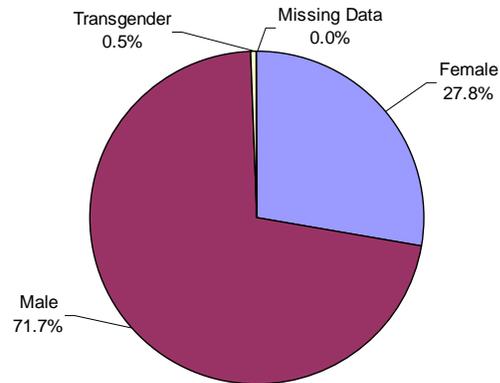
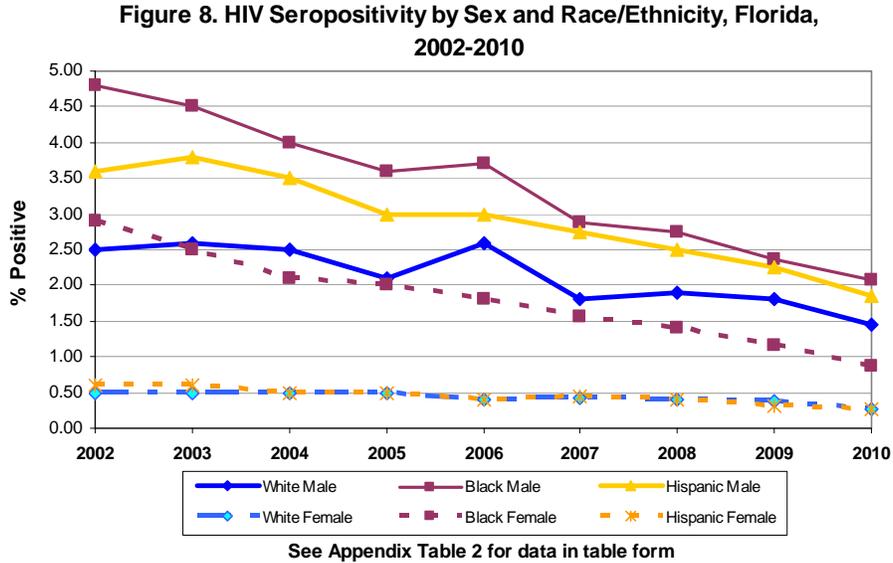


Figure 7b. HIV-Positive Tests by Sex, Florida, 2010 (N=4,541)



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 2010, the positivity rate for black females declined by 69.7% and the rate for black males declined by 56.9%. While Hispanic females have historically had one of the lowest positivity rates, they had the third largest decrease at 55.0%.



Age

Figure 9a shows the number of HIV tests by age group and **Figure 9b** shows HIV-positive tests by age group. As with other demographics, the distribution of HIV-positive tests does not mirror the distribution of total HIV tests by age group. Persons between the ages of 20 and 29 represent the largest testing population at 40.1% (176,506). While they also represent the largest proportion of the HIV-positive tests they do so at a much smaller proportion (29.0%, 1,315). Persons age 50 and older make up only 8.1% (35,654) of total tests, but disproportionately have 17.7% (803) of the HIV-positive tests. Conversely, persons under the age of 20 make up 14.7% (64,561) of the total tests but only 4.2% (190) of the HIV-positive tests.

Figure 9a. Total HIV Tests by Age Group, Florida, 2010 (N=410,678)

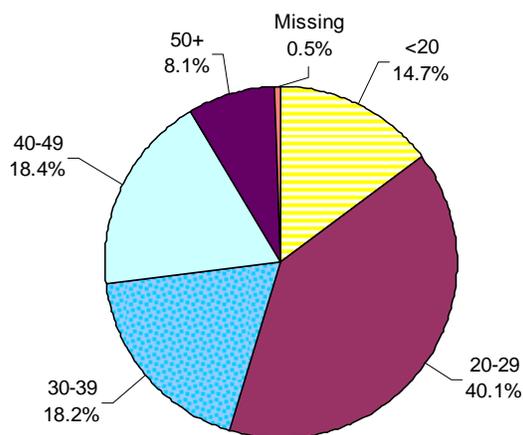
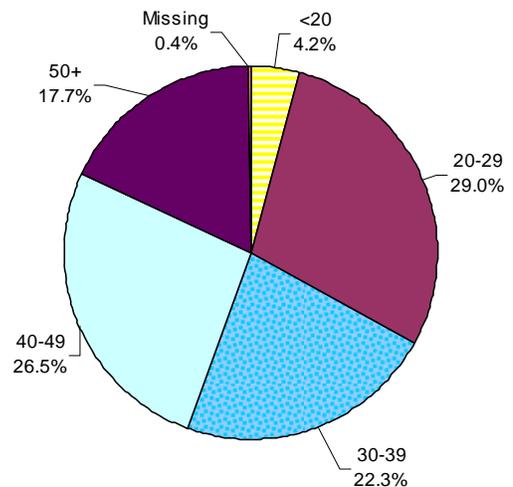
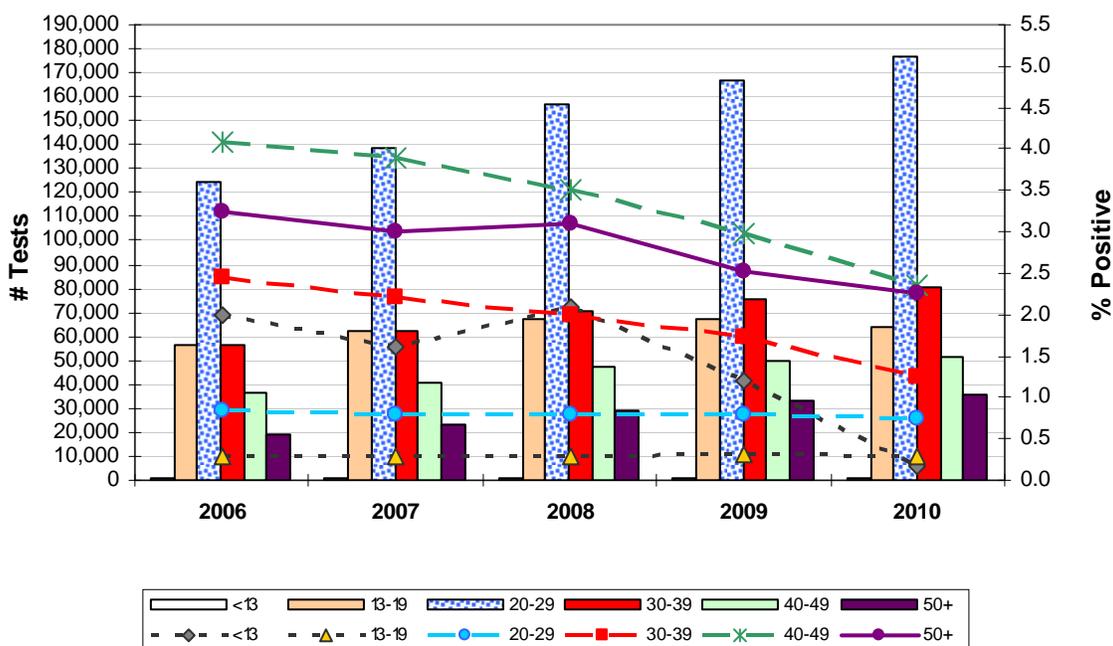


Figure 9b. HIV-Positive Tests by Age Group, Florida, 2010 (N=4,451)



The distribution of testing across age groups has not changed significantly over time. In 2010, testing increased in all age groups except those under the age of 20 when compared to 2009. **Figure 9c** (also see Appendix Table 3a and 3b for data in table form) shows testing numbers and positivity rates for 2006 to 2010 by age group. Positivity rates for persons aged 13-19 remained stable at 0.3% for the past five 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 2006 and 2010, 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 48.4%. The 40-49 age group has consistently recorded the highest positivity rates, while also showing a decrease of 42.4%.

Figure 9c. Number of HIV Tests & Positivity Rates by Age Group, Florida, 2006-2010



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. **Figure 10** illustrates the testing volume for the past five years for the top five risk behaviors identified. Persons who identified heterosexual sex as their highest risk behavior consistently compose the majority of HIV tests conducted. Testing levels have increased among those identifying a current or past sexually transmitted disease (STD) diagnosis. Testing numbers among men who have sex with men (MSM) have fluctuated over the years, while testing among injection drug users (IDU) has remained fairly consistent each year. Between 2006 and 2008, persons with a sex partner at risk, which combines the sex with an HIV-Infected

person, sex with an MSM, and sex with an IDU risk groups fluctuated greatly but then remained fairly consistent between 2008 and 2010.

Figure 10. Number of HIV Tests Among Selected Risk Behavior Groups, Florida, 2006-2010

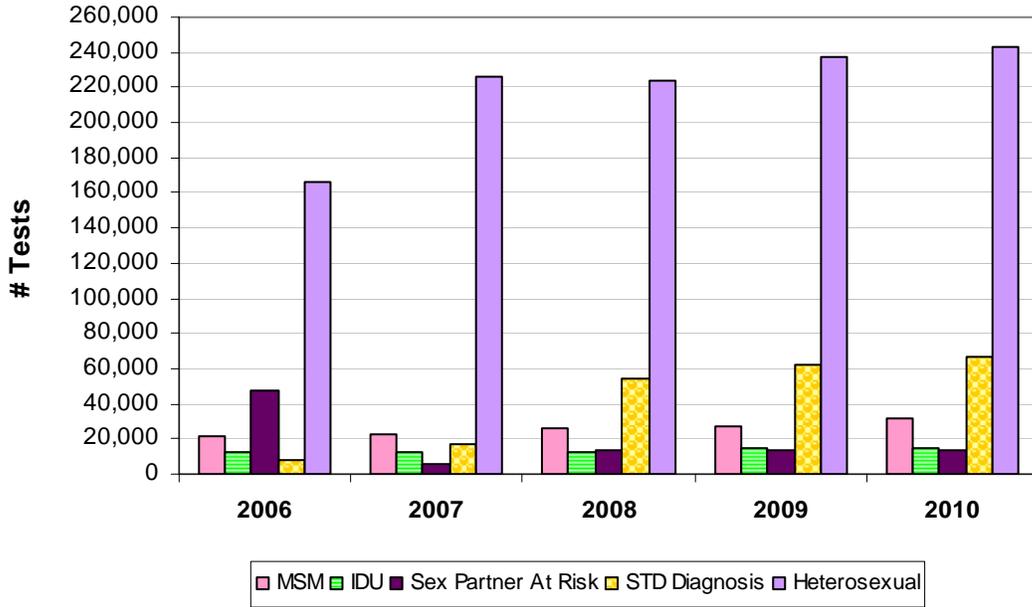


Figure 11 displays positivity rates for all risk groups hierarchically starting with the lowest risk level. In 2010, the “sex with HIV positive” group had the highest positivity rate (9.8%). Men who have sex with men and are injection drug users (MSM/IDU) continue to be a very high risk group with an 8.1% positivity rate. MSM also experience a high positivity rate at 6.0%. Alternatively, the positivity rate for the heterosexual risk group remains at less than 0.5% even though they account for the majority of tests conducted.

Figure 11. Positivity Rates by Self-Reported Risk Behaviors, Florida, 2010

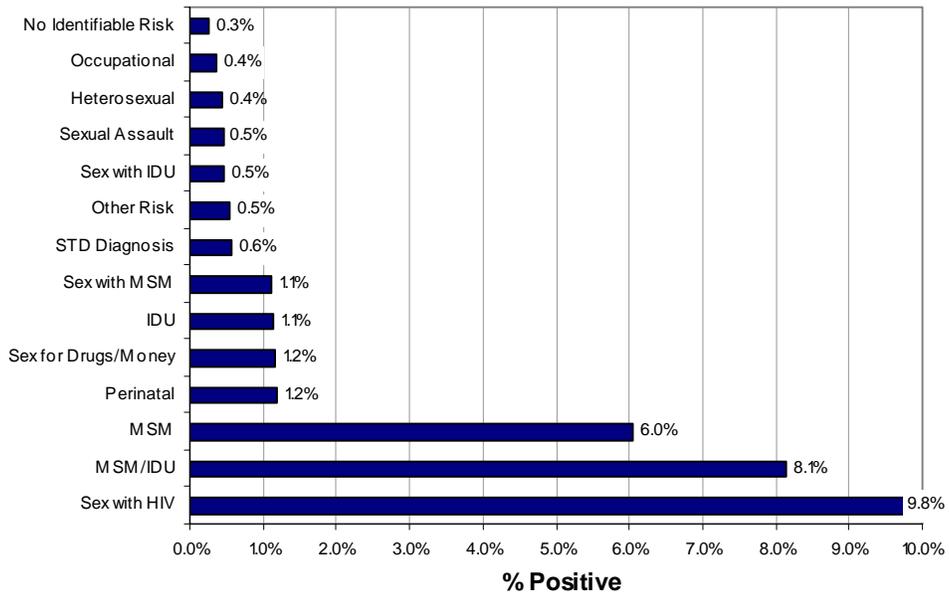
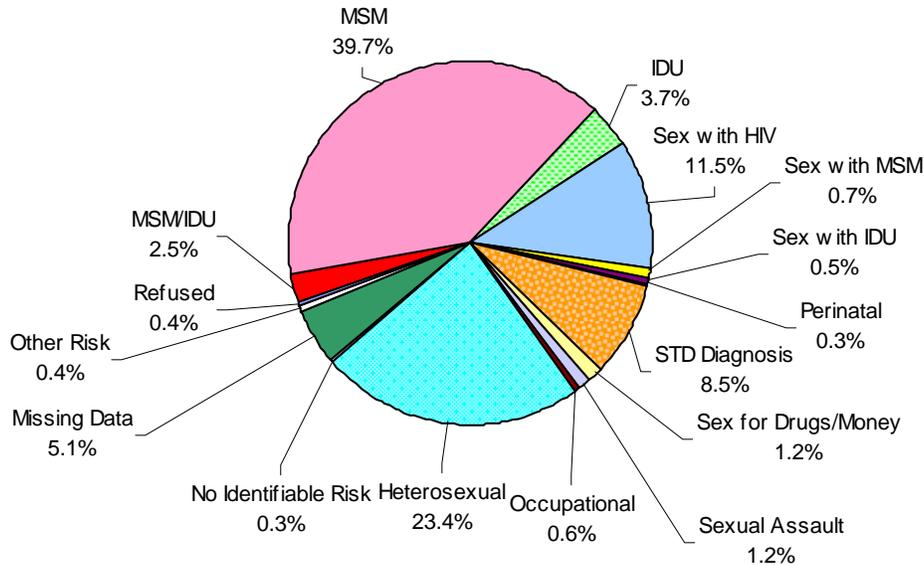


Figure 12 shows the distribution of HIV-positive test results by self-reported risk exposure for 2010. MSM (including MSM/IDU) account for the greatest number of positive tests (42.2% or 1,918). Persons who identified heterosexual sex as their highest risk comprised 23.4% (1,062) of all positive tests. Those who reported having sexual relations with someone who has HIV account for 11.5% (524) of all positive tests.

Figure 12. Distribution of HIV-Positive Tests by Self-Reported Risk Exposure, Florida, 2010 (N=4,451)



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 2010 by the incorporation of age.

The overall positivity rate for black males in 2009 was 2.1%. 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 2.1%, 1.9% and 1.5%, respectively.

Figure 13a. Seropositivity Among Males, by Age and Race/Ethnicity, Florida, 2010

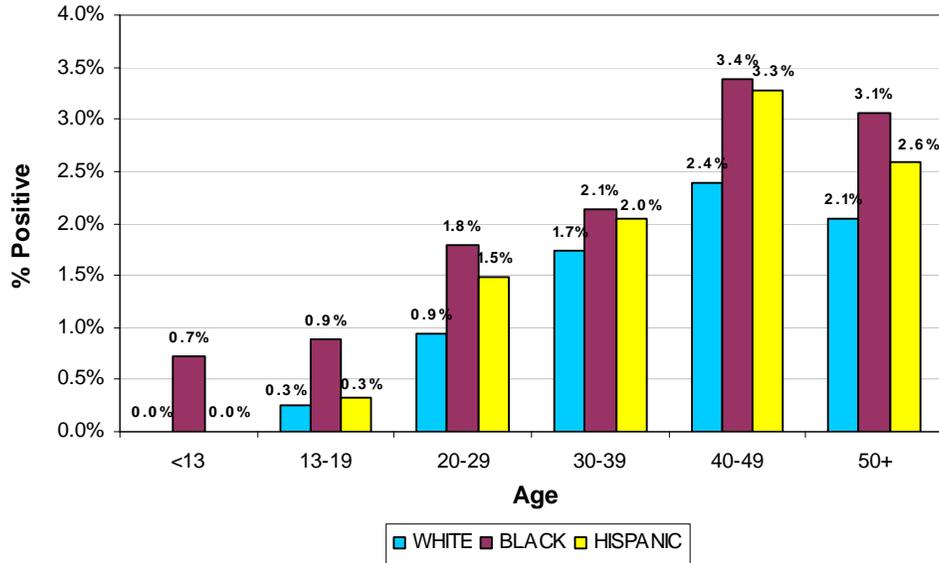
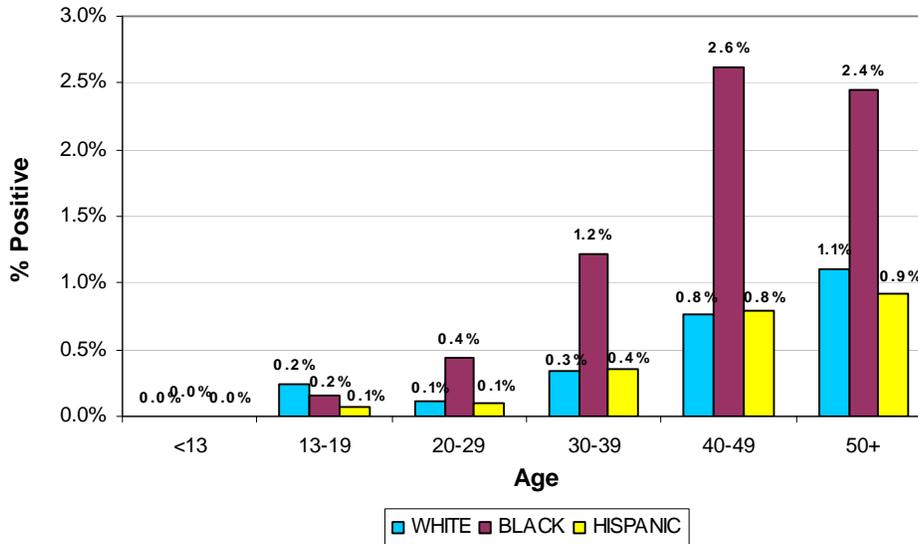


Figure 13b shows the positivity rate by race/ethnicity and age for females. The 13 to 19 age group is the only group in which the positivity rate for white females (0.24%) is higher than the rates for black (0.16%) and Hispanic (0.1%) females. As with males, the trend towards higher positivity rates in the older groups was noticeable. Black, Hispanic and white females aged 30 and higher experienced positivity rates higher than their overall positivity rate.

Figure 13b. Seropositivity Among Females, by Age and Race/Ethnicity, Florida, 2010



The data presented here indicate that prevention efforts must continue to be directed towards older populations 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 2010, 46,377 HIV tests (11.3%) were performed on persons who identified themselves as MSM, IDU, or both MSM and IDU. As shown in **Figure 11**, the positivity rate in 2010 among MSM/IDU was 8.1%, 6.0% among MSM, and 1.1% 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 2010. Individuals identifying themselves as non-Hispanic white account for the largest proportion of HIV tests in all three of these risk groups: 58.5% of MSM/IDU, 43.4% of MSM and 72.0% 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, 2010 (N=1,402)

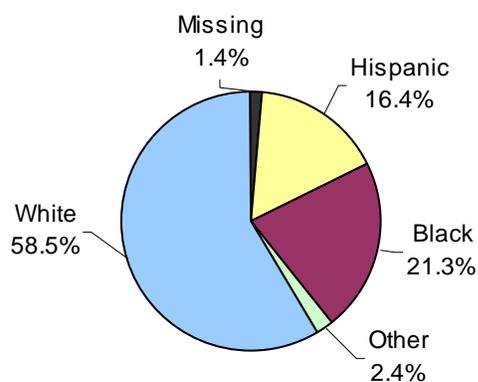


Figure 14b. HIV-Positive Tests among MSM/IDU by Race/Ethnicity, Florida, 2010 (N=114)

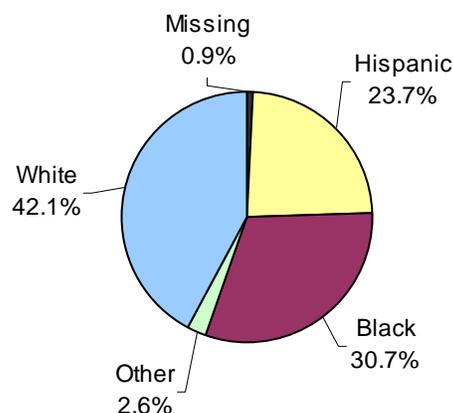


Figure 14a shows the distribution of HIV tests among MSM/IDU by race/ethnicity and **Figure 14b** shows the distribution of HIV-positive tests.

Figure 15a. HIV Tests among MSM by Race/Ethnicity, Florida, 2010 (N=29,875)

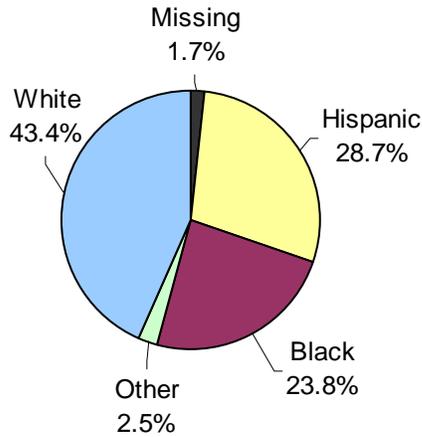


Figure 15b. HIV-Positive Tests among MSM by Race/Ethnicity, Florida, 2010 (N=1,804)

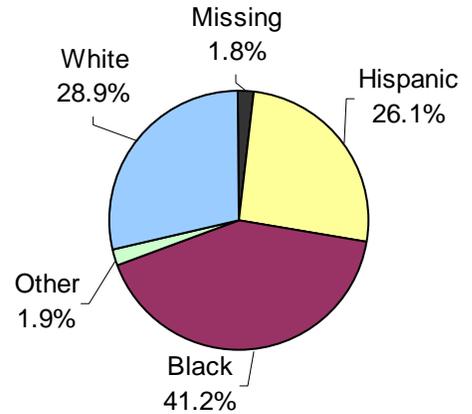


Figure 15a shows the distribution of HIV tests among MSM by race/ethnicity and Figure 15b shows the distribution of HIV-positive tests.

Figure 16a. HIV Tests among IDU by Sex and Race/Ethnicity, Florida, 2010 (N=15,100)

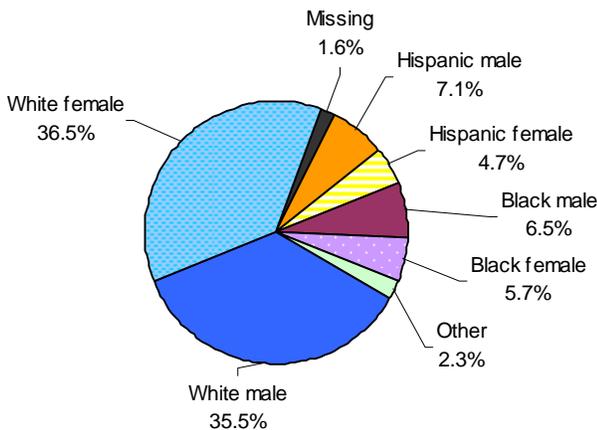


Figure 16b. HIV-Positive Tests among IDU by Sex and Race/Ethnicity, Florida, 2010 (N=170)

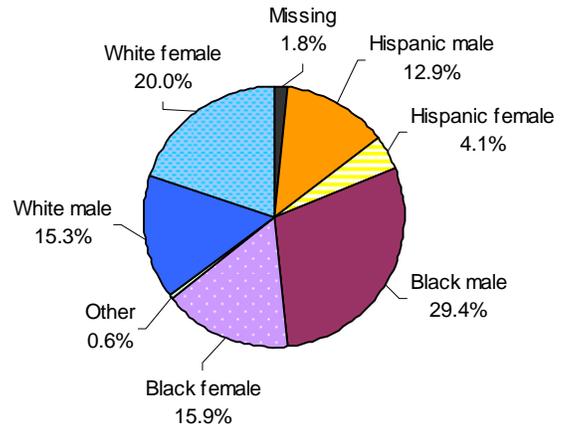


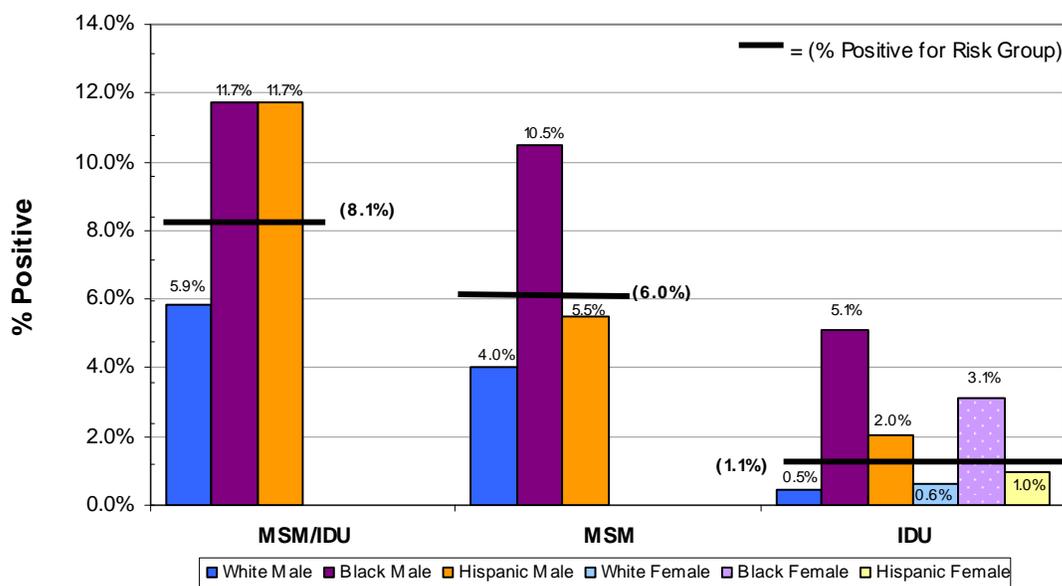
Figure 16a shows the distribution of HIV tests among IDU by sex and race/ethnicity while Figure 16b shows the distribution of HIV-positive tests among the same risk group.

These racial/ethnic disparities appear to be stronger among IDU. Black females, who account for 5.7% of tests among IDU in 2010, comprise 15.9% of positive tests in this risk group. Similarly, black males account for 6.5% of tests but 29.4% of the positives. Hispanic males are also disproportionately represented with 7.1% of the tests and 12.9% of the positive tests. In contrast, white males and females account for 72.0% of tests among IDU (36.5% for females and 35.5% for males), yet their combined share of the positive tests is substantially lower at 35.3% (20.0% for females and 15.3% for males).

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 2010, the positivity rate for black MSM was 10.5%, whereas both white MSM and Hispanic MSM were below the group rate of 6.0% (4.0% and 5.5%, respectively). Disparities are also apparent in the MSM/IDU risk group where black and Hispanic MSM/IDU have positivity rates of 11.7% which is well above the group rate of 8.1%, yet white MSM/IDU have a much lower rate of 5.9%. 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 (0.5% and 0.6%, respectively vs. 1.1%) whereas black males are more than quadruple and black females are more than double the group rate (5.1% and 3.1%, respectively vs. 1.1%).

Figure 17. Seropositivity Among Select Risk Exposure Groups by Sex and Race/Ethnicity, Florida, 2010



Together MSM, IDU and MSM/IDU account for 46,377 HIV tests in 2010; 19.9% were black, 22.8% were Hispanic and 53.2% were white. However, of the 2,088 positive tests for these three risk groups, 41.0% were black, 25.2% were Hispanic and 30.2% 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 2010, 41,705 HIV tests were administered with OraSure in Florida, a decline in usage of 46.8% 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 1.6% in 2010. 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 2010, Monroe² had the highest positivity rate (35.7%) followed by Gulf (9.1%). While the counties with the highest OraSure positivity rates had very low overall OraSure testing, Broward and Miami-Dade counties each had very high positivity rates (5.5% and 4.6%, respectively) along with high OraSure usage.

County	# of Tests	# of Positives	% Positive
Monroe	14	5	35.7%
Gulf	11	1	9.1%
Brevard	93	7	7.5%
Broward	2,806	155	5.5%
Seminole	40	2	5.0%
Miami-Dade	4,689	214	4.6%
Escambia	344	9	2.6%
Orange	1,251	32	2.6%
Lake	131	3	2.3%
Columbia	107	2	1.9%
Manatee	826	14	1.7%
Sarasota	894	13	1.5%
Palm Beach	2,407	35	1.5%
St Lucie	1,105	14	1.3%
Hendry	167	2	1.2%

Blacks accounted for the plurality of OraSure tests conducted in 2010 (17,938 or 43.0%) as compared to whites (15,047 or 36.1%) and Hispanics (6,756 or 16.2%). Females were tested more than males with 53.1% vs. 46.0% 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. Rapid

² 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 where proof of positivity was needed to access services.

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 2010, 204,654 tests were conducted using rapid testing, which is an increase of 14.7%, or 26,236 from 2009. The statewide positivity rate using rapid testing decreased from 2.2% when rapid testing began in 2003 to 1.1% in 2010. Positivity rates for counties that used more than 1,000 rapid tests in 2010 are shown in **Table 2**. Among those counties, Escambia had the highest positivity rate (1.6%) followed by Pinellas and Miami-Dade at 1.4%.

County	Total Tested	# Negative	# Confirmed Positive	Positivity Rate
Escambia	2,283	2,245	36	1.6%
Pinellas	4,096	4,020	58	1.4%
Miami-Dade	49,671	48,896	699	1.4%
Orange	24,630	24,301	302	1.2%
Leon	2,707	2,674	29	1.1%
Broward	38,836	38,396	390	1.0%
Duval	16,055	15,881	161	1.0%
Brevard	1,670	1,654	16	1.0%
Hillsborough	22,415	22,189	213	1.0%
Polk	1,337	1,316	12	0.9%
Sarasota	1,194	1,182	10	0.8%
Palm Beach	17,137	16,994	126	0.7%
St Lucie	6,025	5,982	37	0.6%
Alachua	3,375	3,354	20	0.6%
Monroe	1,381	1,373	6	0.4%
Manatee	3,448	3,435	12	0.3%
Volusia	2,729	2,711	8	0.3%
Collier	2,359	2,352	6	0.3%
Citrus	1,780	1,778	2	0.1%

The next three figures compare the 2010 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 rapid tests and Hispanic males had the highest positivity rate for OraSure tests.

Figure 18a. HIV Blood Tests by Race/Ethnicity and Gender, Florida, 2010

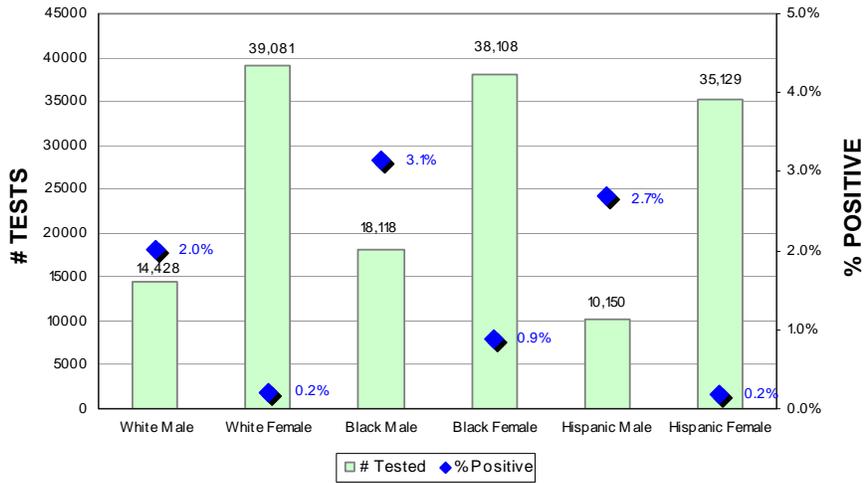


Figure 18b. HIV OraSure Tests by Race/Ethnicity and Gender, Florida, 2010

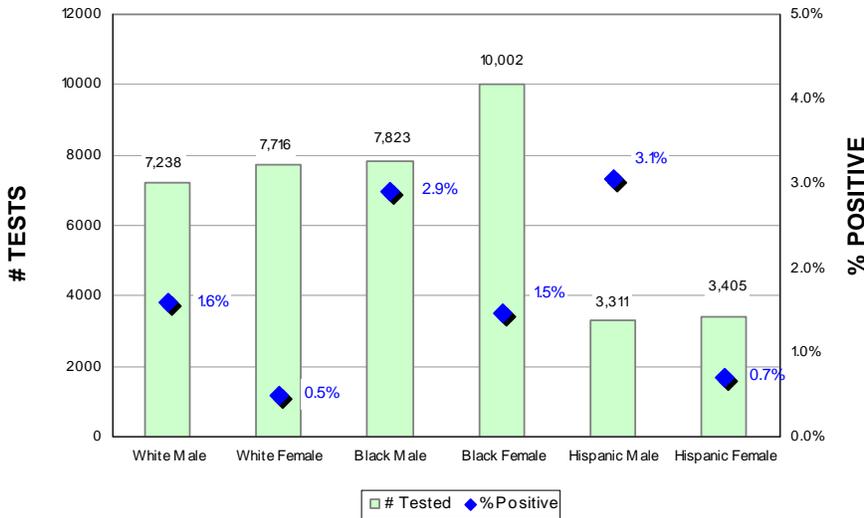
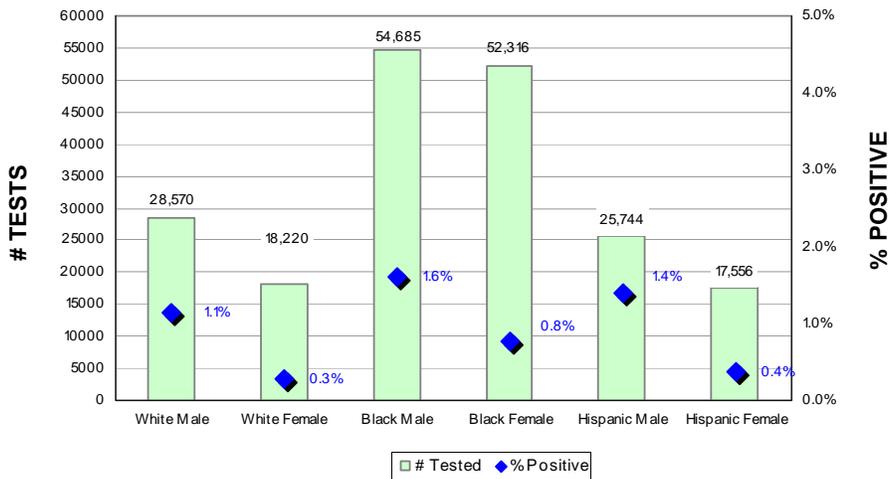


Figure 18c. HIV Rapid Tests by Race/Ethnicity and Gender, Florida, 2010



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 2010. The OraSure test had the highest overall positivity rate of 1.6%, followed by rapid tests (1.1%) and blood tests (1.0%). 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 (4.2% vs. 15.1% and 10.2%, respectively).

Figure 19a. HIV Blood Tests by Risk, Florida, 2010

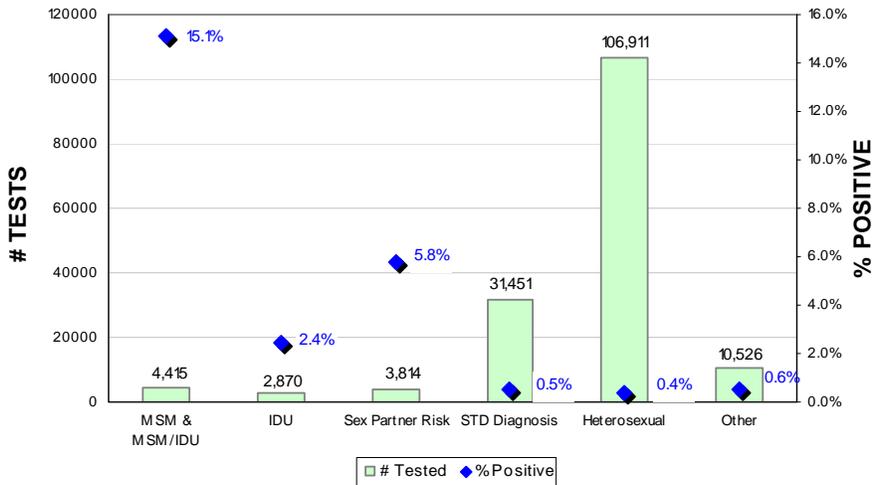


Figure 19b. HIV OraSure Tests by Risk, Florida, 2010

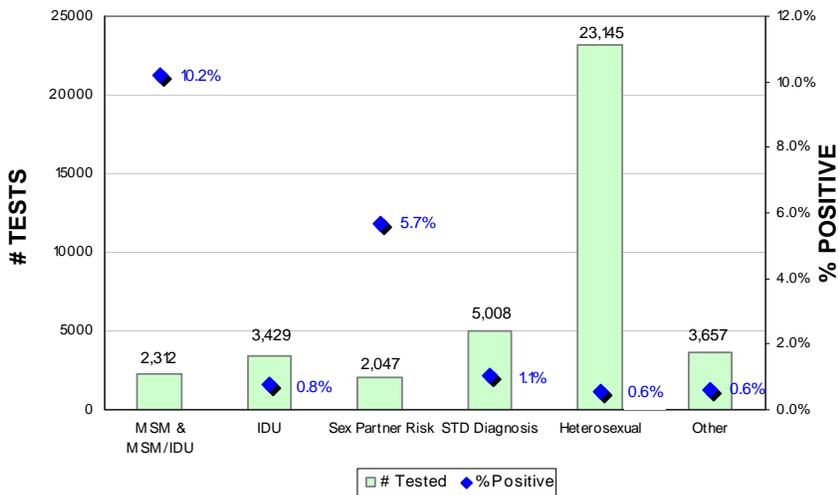
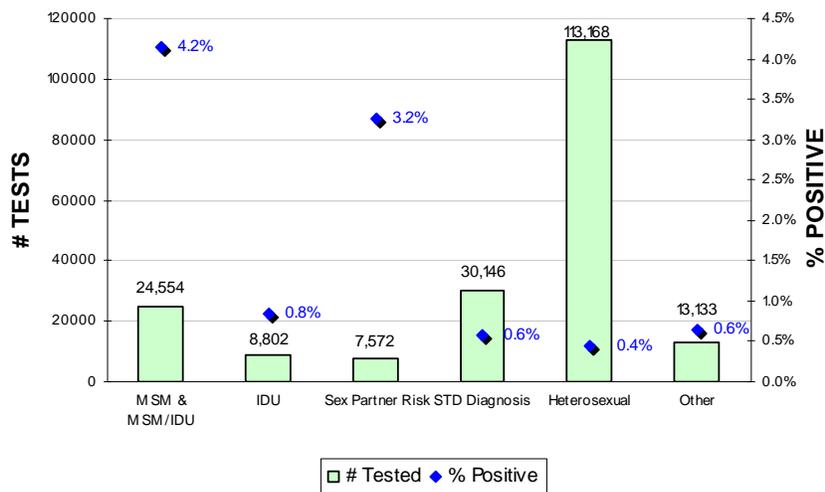


Figure 19c. HIV Rapid Tests by Risk, Florida, 2010



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 2010, OraSure and rapid testing accounted for 60.0% 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 70.9% (291,207) of the HIV tests conducted in 2010. The majority of these repeat testers were clients who previously tested negative (272,118 or 93.4%) while 2,157 (0.7%) previously tested positive or had a reactive rapid test. Among the 4,541 positives in 2010, 34.0% (1,546) previously tested negative and 39.5% 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 49.9% (772), while another 22.3% (344) 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 2010 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. Among those who had previously tested positive,

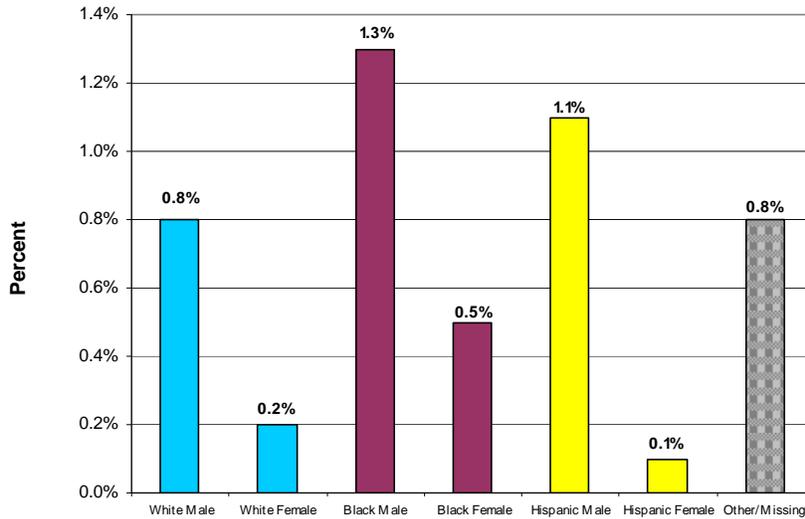
Hispanic females had the largest proportion at 51.3% of the total, followed by white males (43.5%).

Sex and Race/Ethnicity	Total Positives	# (%) Previously Tested Positive	# (%) Previously Tested Negative
White Male	731	318 (43.5%)	258 (35.3%)
White Female	172	74 (43.0%)	61 (35.5%)
Black Male	1,671	592 (35.4%)	607 (36.3%)
Black Female	887	368 (41.5%)	280 (31.6%)
Hispanic Male	728	308 (42.3%)	249 (34.2%)
Hispanic Female	154	79 (51.3%)	31 (20.1%)
Other/Missing M-F	198	57 (28.8%)	60 (30.3%)
Total	4,541	1,796 (39.5%)	1,546 (34.0%)

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 2010 (39.5%) 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 2010. Of the 4,541 positive test results obtained in 2010, 2,746 (60.5%) were among those who have either never tested before or their last test was not positive. These groups combined represent “new” positives in 2010. The positivity rate among the new positives was highest for black males (1.3%) followed by Hispanic males (1.1%), and white males (0.8%). 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 2010 (60.5%) is higher than previous years with 57.0% in 2009 and 58.3% in 2008. This indicates that expansion into clinical settings and better targeting may 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, 2010 (N=2,746)



Focus on the African American Testing Initiative (AATI) and the Expanded Testing Initiative (ETI)

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), had a nationwide goal of increasing HIV testing among blacks, primarily in clinical settings, by 1.5 million tests each year. AATI was in 11 Florida counties: Alachua, Broward, Collier, Duval, Hillsborough, Manatee, Miami-Dade, Orange, Palm Beach, Pinellas and St Lucie. In September 2010, the three-year grant ended.

In October 2010, a new grant from the CDC replaced AATI. This project, known in Florida as the Expanded Testing Initiative (ETI), expanded on the AATI grant to include all disproportionately affected persons including Hispanics and MSM, regardless of race/ethnicity, in addition to the previous focus on blacks. Testing under the ETI grant continued in the 11 counties previously mentioned, with Osceola added. The ETI grant also has the nationwide goal of increasing HIV testing, primarily in clinical settings, by 1.5 million tests each year.

In 2010, 138,653 tests were conducted under the combined AATI/ETI grants; of those 1,577 (1.1%) were positive. **Figure 21a** shows the distribution of tests and **Figure 21b** shows the distribution of HIV-positive tests, both by race/ethnicity. While the two grants targeted populations that were disproportionately affected, blacks still had a larger proportion of positive tests than for total tests (63.8% vs. 56.6%).

Figure 21a. Total HIV Tests by Race/Ethnicity for AAT/ETI, Florida, 2010 (N=138,653)

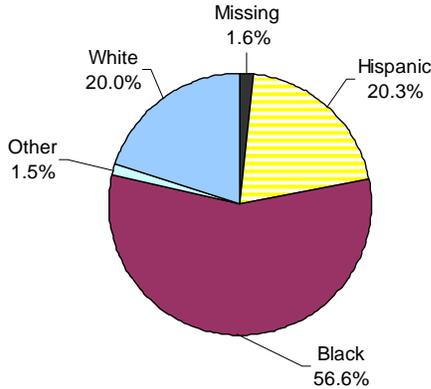
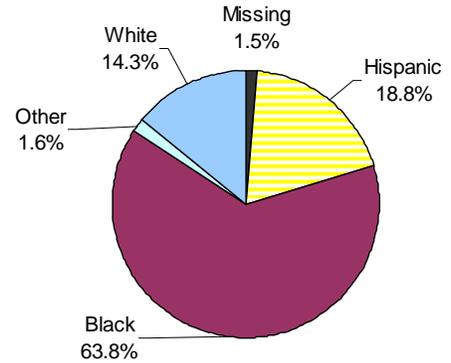


Figure 21b. HIV-Positive Tests by Race/Ethnicity for AAT/ETI, Florida, 2010 (N=1,577)



Another component of both the AATI and ETI grants 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 (79.7%) of tests were conducted at clinical venues, with the largest share (20.7%) of tests conducted at county health department/sexually transmitted disease (STD) clinics. While the non-clinical CBO sites conducted 20.3% (28,208) of the tests, they found 26.7% (421) of the positives.

Figure 22a. Total HIV Tests by AAT/ETI Testing Venue, Florida, 2010 (N=138,653)

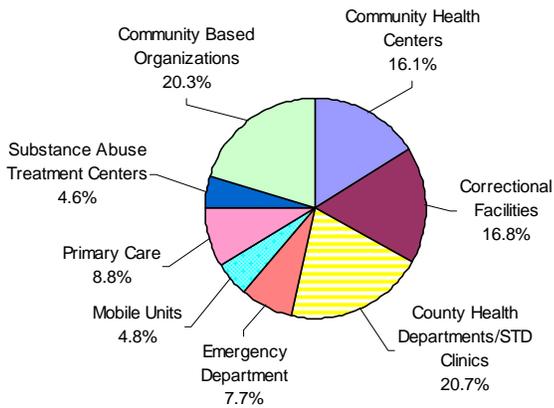
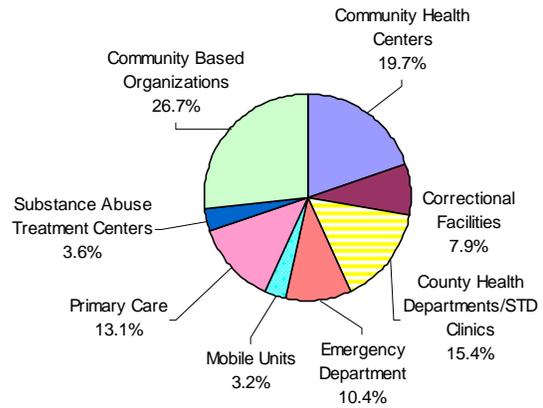


Figure 22b. Total HIV-Positive Tests by AAT/ETI Testing Venue, Florida, 2010 (N=1,577)



Linkage to Care

In 2010, the Prevention Section of the Bureau of HIV/AIDS developed a monitoring and evaluation plan that documented quality assurance procedures, goals specific to each component of HIV prevention and ways to measure achievements. The linkage of persons who test positive for HIV to medical care is one of the indicators now being measured. Our goal is that 80% of persons who test positive are linked to medical care within 90 days. This goal is required for the ETI grant, and has been adopted for all prevention-funded testing as well.

Linkage to care is determined through searches of several databases including Electronic Lab Reporting (ELR), CareWare, AIDS Drug Assistance Program (ADAP), HMS and STD's PRISM database. If a client has ELR verified viral load and/or CD4 testing or services listed in CareWare, ADAP, or HMS they are considered to be in care.

Table 4 compares linkage to care by testing venue for those who disclosed a prior HIV-positive test (previous positive) and those testing positive for the first time (new positive). Of the 43 positive test results from anonymous testing sites, none were linked to care. This illustrates the importance of confidential (named) testing since persons who test anonymously do not provide any personal identifiable information that could be used to link them to medical care or other services. In sharp contrast, the Prenatal/OB sites linked 100% of their positives to care.

The Special Project sites as a whole had poor linkage to care rates but this site type contains both anonymous and confidential testing. The majority of the positives were identified as a part of the National HIV Behavioral Surveillance Survey which is administered anonymously. Like the anonymous sites, none of these positives were linked to care. However, the Targeted Outreach for Pregnant Women Act (TOPWA) also conducts testing under the Special Projects site type. TOPWA sites identified 10 new positives and linked 8, or 80.0%, to care and identified 7 previous positives all of which were linked to care (data not shown). While community-based organizations found the most new positives, they also have the greatest need for improvement, with one of the lowest linkage rates (66.8%).

Site Type	# Previous Positives	# Linked to Care (Previous Positives)	(%)	# New Positives	# Linked to Care (New Positive)	(%)
Anonymous	6	0	0.0%	37	0	0.0%
STD	401	321	80.0%	594	488	82.2%
Drug Treatment	22	17	77.3%	56	53	94.6%
Family Planning	9	9	100%	31	29	93.5%
Prenatal/OB	8	8	100%	18	18	100%
TB	16	15	93.8%	17	13	76.5%
Adult Health	344	297	86.3%	210	174	82.9%
Jail/Prison	66	46	69.7%	188	114	60.6%
College	11	10	90.9%	9	6	66.7%
Private MD	219	144	65.8%	451	320	71.0%
Special Projects	40	8	20.0%	39	16	41.0%
Community-based Organization	573	430	75.0%	914	611	66.8%
Health Department Field Visit	81	67	82.7%	182	133	73.1%
Total	1,796	1,372	76.4%	2,746	1,975	71.9%

Table 5 compares linkage to care by various demographics for both previous positives and new positives. Differences exist between sex, race/ethnicity, age and risk behaviors. Persons who are transgendered and test positive for HIV have the lowest linkage-to-care rates at 57.1%. Males who previously tested positive had the best linkage rate among the sexes at 77.2%, followed by females who tested positive for the first time at 75.4%. Among the age groupings for new positives, only 57.2% of teenagers (13 – 19) were linked to care. New positives among Hispanics were also the least likely to be linked to care with a rate of 67.5%. Overall, whites have the highest linkage rates with 81.7% for previous positives and 79.1% for new positives.

The overall linkage-to-care rate was 73.7% in 2010. This shows that we still have room for improvement but that our goal of an 80% linkage rate is feasible in the near future. For persons who self-disclosed a prior positive test, the rate was higher at 76.4%. This helps to validate the conventional theory that sometimes people test positive and are not yet ready to accept their diagnosis but when they are ready they will get retested and begin treatment. For persons testing positive for the first time, linkage to care was lower at 71.9% compared to the overall rate of 73.7%. The data indicate that targeted and culturally sensitive efforts should be directed towards persons testing positive who are between the ages of 13 and 19, Hispanic, or who engage in very-high-risk behaviors as they are the least likely to be linked to care. As more laboratories come online with ELR, more care information will be available.

Table 5. HIV-Positive Tests Linked to Care by Self-Disclosed Prior Test Results by Sex, Age, Race/Ethnicity and Risk Factors, Florida, 2010						
	# Previous Positives	# Linked to Care (Previous Positives)	(%)	# New Positive	# Linked to Care (New Positive)	(%)
Sex						
Male	1,255	969	77.2%	2,004	1,419	70.8%
Female	534	399	74.7%	727	548	75.4%
Transgender	7	4	57.1%	14	8	57.1%
Missing	0	0	n/a	1	0	0.0%
Total	1,796	1,372	76.4%	2,746	1,975	71.9%
Age						
Less than 13	0	0	n/a	1	1	100%
13-19	37	28	75.7%	152	87	57.2%
20-29	365	269	73.7%	950	672	70.7%
30-39	385	287	74.5%	630	464	73.7%
40-49	598	475	79.4%	605	463	76.5%
50+	408	312	76.5%	395	288	72.9%
Missing age	3	1	33.3%	13	0	0.0%
Total	1,796	1,372	76.4%	2,746	1,975	71.9%
Race/Ethnicity						
White	393	321	81.7%	513	406	79.1%
Black	966	730	75.6%	1,603	1,133	70.7%
Hispanic	387	286	73.9%	502	339	67.5%
Other/Missing	50	35	70.0%	128	97	75.8%
Total	1,796	1,372	76.4%	2,746	1,975	71.9%
Risk						
MSM/IDU and MSM	680	527	77.5%	1,238	862	69.6%
IDU	89	73	82.0%	81	61	75.3%
Partner at risk	327	249	76.1%	253	188	74.3%
Perinatal	7	7	100%	6	6	100%
STD diagnosis	146	116	79.5%	239	179	74.9%
Sex for drugs/\$	16	8	50.0%	40	24	60.0%
Other	11	6	54.5%	27	20	74.1%
Sexual assault	12	9	75.0%	41	28	68.3%
Heterosexual	350	266	76.0%	712	512	71.9%
No Identifiable risk	11	8	72.7%	6	2	33.3%
Missing/Refused	147	103	70.1%	103	93	90.3%
Total	1,796	1,372	76.4%	2,746	1,975	71.9%

Acknowledgement

The Bureau of HIV/AIDS would like to acknowledge the dedication and commitment of the many individuals who have worked 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

**Appendix Table 1 From Figure 5
HIV Seropositivity Rates by County, Florida, 2010**

County	Total	Negative	Positive	% Positive
MIAMI-DADE	65,065	63,751	1,230	1.9%
COLUMBIA	813	799	14	1.7%
ORANGE	32,517	31,962	526	1.6%
OSCEOLA	6,142	9,085	88	1.4%
HILLSBOROUGH	29,444	29,016	412	1.4%
SUWANNEE	841	830	11	1.3%
BROWARD	49,507	48,809	643	1.3%
GADSDEN	2,293	2,264	28	1.2%
DUVAL	25,074	24,785	271	1.1%
JACKSON	1,160	1,148	12	1.0%
PALM BEACH	35,146	34,755	362	1.0%
CLAY	782	773	8	1.0%
ESCAMBIA	6,016	5,951	60	1.0%
PUTNAM	1,641	1,625	16	1.0%
LAKE	2,776	2,748	25	0.9%
POLK	12,113	11,998	105	0.9%
NASSAU	957	949	8	0.8%
LEON	10,307	10,217	83	0.8%
MARION	5,996	5,948	48	0.8%
ALACHUA	8,159	8,090	65	0.8%
INDIAN RIVER	3,018	2,995	22	0.7%
HIGHLANDS	863	857	6	0.7%
MONROE	1,871	1,856	13	0.7%
ST LUCIE	8,208	8,146	56	0.7%
BAY	3,520	3,491	24	0.7%
PINELLAS	20,099	19,946	133	0.7%
DESOTO	1,044	1,038	6	0.6%
HAMILTON	355	353	2	0.6%
MANATEE	7,115	7,074	40	0.6%
LEE	7,223	7,180	39	0.5%
COLLIER	3,820	3,798	20	0.5%
GULF	386	384	2	0.5%
SARASOTA	5,600	5,565	29	0.5%
HERNANDO	1,750	1,741	9	0.5%

**Appendix Table 1 cont. From Figure 5
HIV Seropositivity Rates by County, Florida, 2010**

County	Total	Negative	Positive	% Positive
PASCO	3,208	3,192	16	0.5%
OKALOOSA	2,828	2,813	14	0.5%
SEMINOLE	5,051	5,024	25	0.5%
VOLUSIA	7,802	7,758	34	0.4%
BREVARD	8,584	8,549	35	0.4%
BAKER	755	752	3	0.4%
HENDRY	853	850	3	0.4%
CHARLOTTE	1,214	1,210	4	0.3%
MARTIN	2,188	2,180	7	0.3%
HOLMES	411	410	1	0.2%
FLAGLER	1,304	1,301	3	0.2%
BRADFORD	435	434	1	0.2%
LEVY	883	881	2	0.2%
SUMTER	1,449	1,446	3	0.2%
CITRUS	2,313	2,310	3	0.1%
HARDEE	910	909	1	0.1%
ST JOHNS	1,980	1,978	2	0.1%
OKEECHOBEE	1,050	1,048	1	0.1%
CALHOUN	235	235	0	0.0%
DIXIE	399	399	0	0.0%
FRANKLIN	274	274	0	0.0%
GILCHRIST	336	336	0	0.0%
GLADES	125	125	0	0.0%
JEFFERSON	295	295	0	0.0%
LAFAYETTE	149	149	0	0.0%
LIBERTY	138	138	0	0.0%
MADISON	603	603	0	0.0%
SANTA ROSA	983	983	0	0.0%
TAYLOR	414	414	0	0.0%
UNION	101	101	0	0.0%
WAKULLA	202	202	0	0.0%
WALTON	1,207	1,207	0	0.0%
WASHINGTON	375	375	0	0.0%

Appendix Table 2 (from Figure 8)									
HIV Seropositivity by Sex and Race/Ethnicity, Florida, 2002 - 2010									
	2002	2003	2004	2005	2006	2007	2008	2009	2010
White Male	2.50%	2.60%	2.50%	2.10%	2.60%	1.81%	1.90%	1.80%	1.46%
Black Male	4.80%	4.50%	4.00%	3.60%	3.70%	2.88%	2.74%	2.37%	2.07%
Hispanic Male	3.60%	3.80%	3.50%	3.00%	3.00%	2.75%	2.50%	2.25%	1.86%
White Female	0.50%	0.50%	0.50%	0.50%	0.40%	0.42%	0.40%	0.37%	0.26%
Black Female	2.90%	2.50%	2.10%	2.00%	1.80%	1.57%	1.40%	1.16%	0.88%
Hispanic Female	0.60%	0.60%	0.50%	0.50%	0.40%	0.44%	0.40%	0.32%	0.27%

Appendix Table 3a (from Figure 9c)						
Number of HIV Tests by Age Group, Florida, 2006 - 2010						
	<13	13-19	20-29	30-39	40-49	50+
2006	716	56,337	124,346	56,727	36,609	19,426
2007	668	62,015	138,870	62,224	41,024	22,961
2008	671	66,928	156,503	70,510	47,129	28,830
2009	586	67,396	166,565	75,524	49,517	33,450
2010	553	64,008	176,506	80,315	51,283	35,654

Appendix Table 3b (from Figure 9c)						
HIV Seropositivity Rates by Age Group, Florida, 2006 - 2010						
	<13	13-19	20-29	30-39	40-49	50+
2006	2.0%	0.3%	0.9%	2.4%	4.1%	3.3%
2007	1.6%	0.3%	0.8%	2.2%	3.9%	3.0%
2008	2.1%	0.3%	0.8%	2.0%	3.5%	3.1%
2009	1.2%	0.3%	0.8%	1.7%	3.0%	2.5%
2010	0.2%	0.3%	0.8%	1.3%	2.4%	2.3%

Appendix Table 4 (from Figure 17)			
HIV Seropositivity Among Select Risk Exposure Groups by Sex and Race/Ethnicity, Florida, 2010			
	MSM/IDU	MSM	IDU
White Male	5.9%	4.0%	0.5%
Black Male	11.7%	10.5%	5.1%
Hispanic Male	11.7%	5.5%	2.0%
White Female	n/a	n/a	0.6%
Black Female	n/a	n/a	3.1%
Hispanic Female	n/a	n/a	1.0%
Average for Risk Group	8.1%	6.0%	1.1%