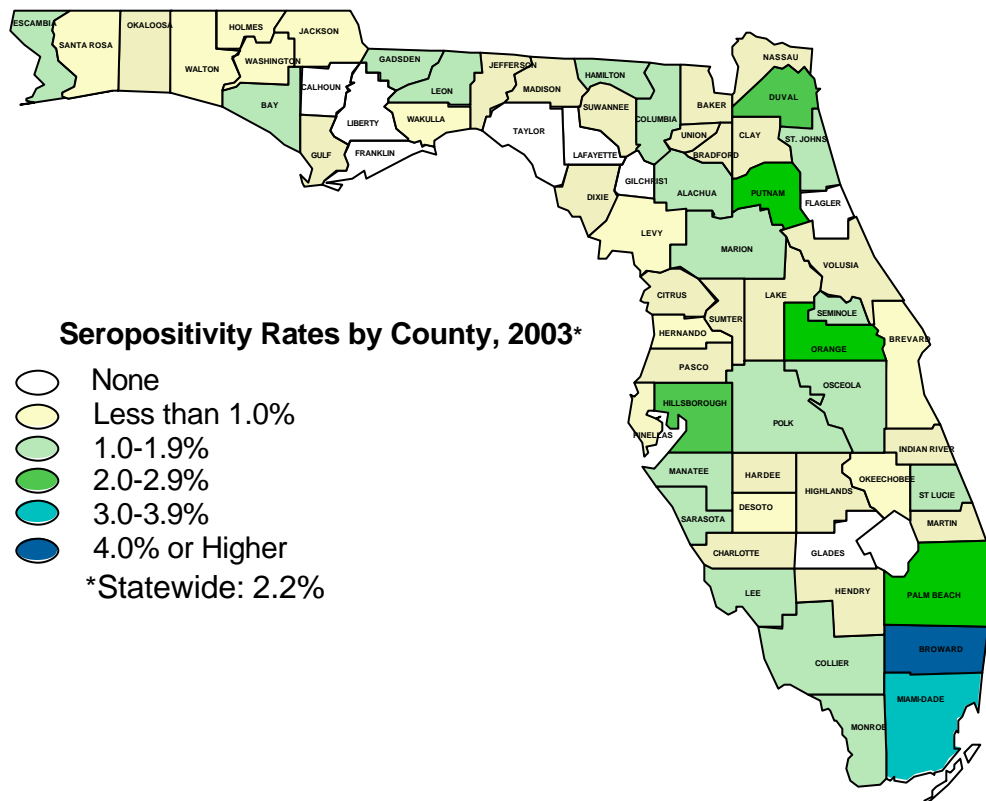




Florida Department of Health  
Division of Disease Control  
Bureau of HIV/AIDS

# HIV Counseling and Testing Annual Report, 2003



For additional information regarding this report, please contact the Early Intervention Section of the Bureau of HIV/AIDS at (850) 245-4424, or SC 205-4424, or visit our website at [www.doh.state.fl.us](http://www.doh.state.fl.us).



## Executive Summary

In 2003, 301,687 HIV tests were conducted at Florida's registered testing sites, representing a 2.4% increase (approximately 7,000 tests) over the previous year and a new record high in the history of counseling and testing programs in the United States. Repeat HIV testers made up over 65% of the testing volume in 2003. In addition, this large increase was composed entirely of confidential tests, as anonymous testing declined. Large increases in testing were also recorded among Hispanics, and substantial increases were recorded in every age group, with the exception of children under age 13. By far, persons who reported that they had sexual relations with someone else at risk accounted for the majority of the increase in testing. A sizeable rise in testing was also recorded in three other major risk groups: STD diagnosis, IDU and MSM. A much smaller increase was recorded for persons identifying heterosexual sex as their highest risk, although this group accounted for the majority of tests. From 2001 to June 2003, more than 50% of the negatives and 94% of the positives were post-test counseled. Testing with OraSure accounted for 26% of all HIV tests conducted in 2003.

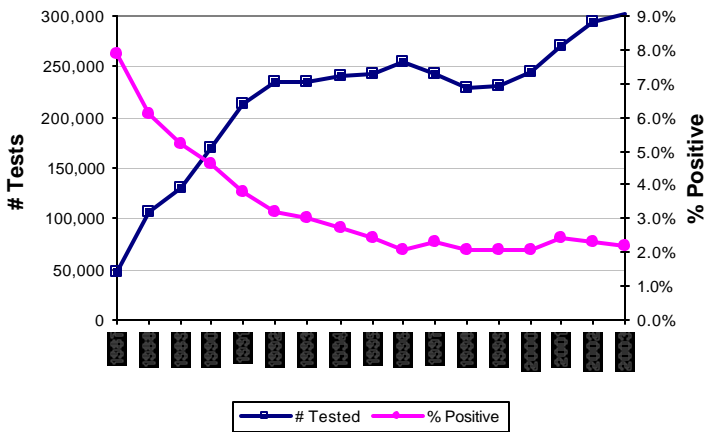
The number of positive HIV tests recorded decreased by 2.2% in 2003. The overall positivity rate also decreased from 2.3% in 2002 to 2.2% in 2003. MSM accounted for 27.8% of all positive tests reported in 2003, yielding a positivity rate of 10.0% (12.6% when combined with MSM/IDU). While heterosexuals accounted for 20.6% of positive tests, the positivity rate for this risk group was only 0.8%. Adults age 30 and older continue to record high positivity rates. Black MSM and IDU also continued to experience higher positivity rates than their white and Hispanic counterparts. The overall positivity rate with OraSure testing was 2.9%; however, analysis indicated that a decreasing number of counties were using OraSure to reach potentially inaccessible populations. The Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) was applied to all positive blood specimens between 1998 and 2001. The STARHS method indicated that approximately 18% were recent infections.

Since 1985, when the Florida Department of Health began collecting data on HIV testing at registered testing sites across the state, over 3.7 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 Early Intervention Section of the Bureau of HIV/AIDS in Tallahassee. While this database is currently not unduplicated, and as such cannot be used to provide data on the number of individuals tested, it does constitute a record of the number of tests conducted. It is a crucial indicator 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.

### Trends in HIV Testing

Testing levels are now at the highest level in sixteen years (Figure 1a). In contrast, positivity rates dropped sharply in the 1980s, as more and more people at relatively lower risk were tested, and have remained generally stable throughout the 1990s (Figure 1b). In 2003, the overall positivity rate was 2.2%, slightly lower than that reported in 2002 (2.3%). The actual number of positive tests identified each year has also declined at a relatively steady rate since peaking in 1991, although increases have been recorded from 1999 to 2002.

**Figure 1a. HIV Tests Conducted in Florida and Seropositivity Rates, 1987-2003**



**Figure 1b. HIV-Positive Tests in Florida and Seropositivity Rates, 1987-2003**

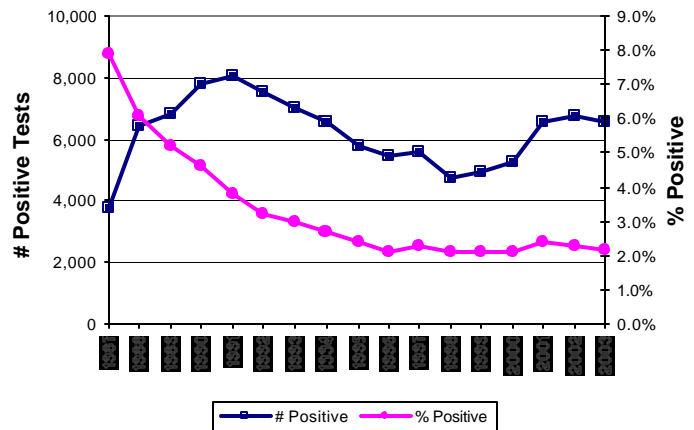


Figure 2 compares testing levels at anonymous and confidential sites by quarter, from January 1998 through December 2003. Some observable patterns may be seasonal or related to specific events; National HIV Testing Day occurs annually on June 27, and sharp increases in testing numbers have been recorded in the weeks around this event. Increasing levels of confidential testing are most apparent in the first two quarters of 1998, followed by stronger declines in the third and fourth quarters. The same upward and downward trend occurred in 1999, but with little overall effect on annual testing totals. In 2000 and 2001, the late year downward trend was not as strong as first and second quarter gains, resulting in an overall increase in testing those years. In 2002 and 2003, large increases in the first three quarters were followed by a relatively moderate decline in the fourth quarter, resulting in an overall increase in testing volume. In contrast, quarterly levels of anonymous testing have remained fairly stable over most of this period, although a sizeable decline was observed in the last

quarters of 2002 and 2003. Anonymous testing accounted for 8.4% of all tests conducted in the last quarter of 2003, compared to 9.6% in the last quarter of 2002.

**Figure 2. Number of HIV Tests Completed at Anonymous and Confidential Sites in Florida, January 1998-December 2003**

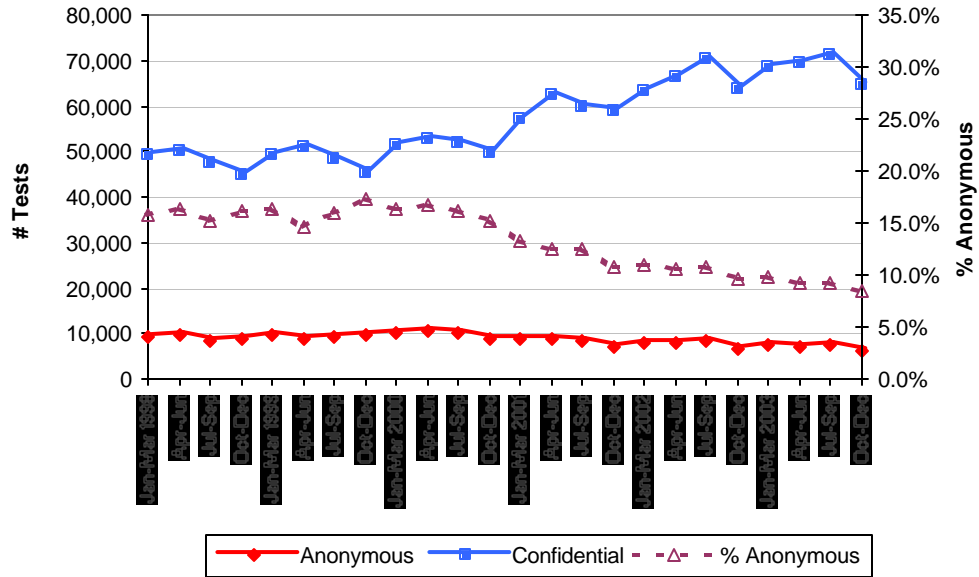


Figure 3 shows trends in testing among the seven largest counties in Florida. Broward, Duval, Hillsborough, Miami-Dade, Orange, Palm Beach and Pinellas counties together account for 54% of all HIV tests conducted between 1999 and 2003. Between 1999 and 2001, the level of testing in these seven counties increased overall by almost 26% (over 30,000 tests), although Hillsborough experienced a slight decrease. In 2002, the number of tests conducted continued to increase, with substantial increases from Duval, Miami-Dade, Hillsborough, and Palm Beach counties. By 2003, statewide testing levels rose to an all-time high, with large contributions from all counties except Duval.

**Figure 3. HIV Testing Levels Among Florida Counties that Perform More than 10,000 HIV Tests per Year, 1999-2003**

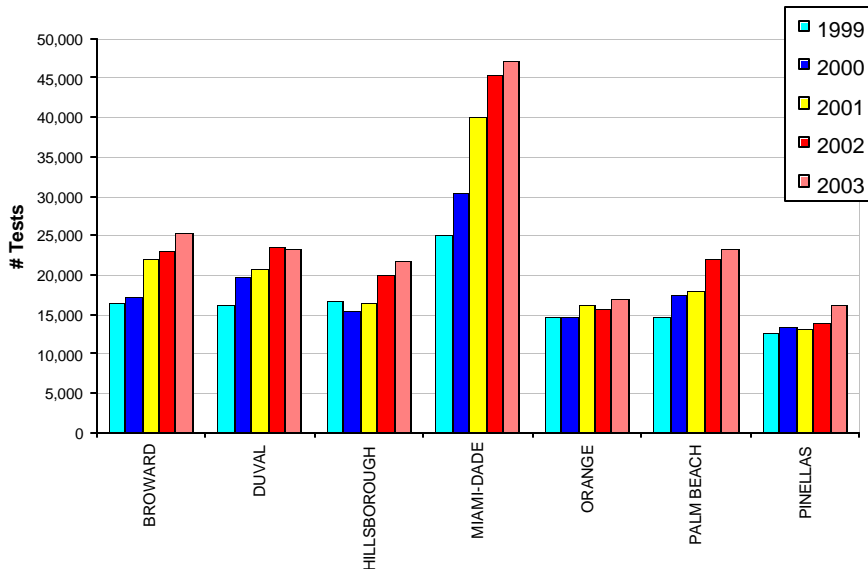
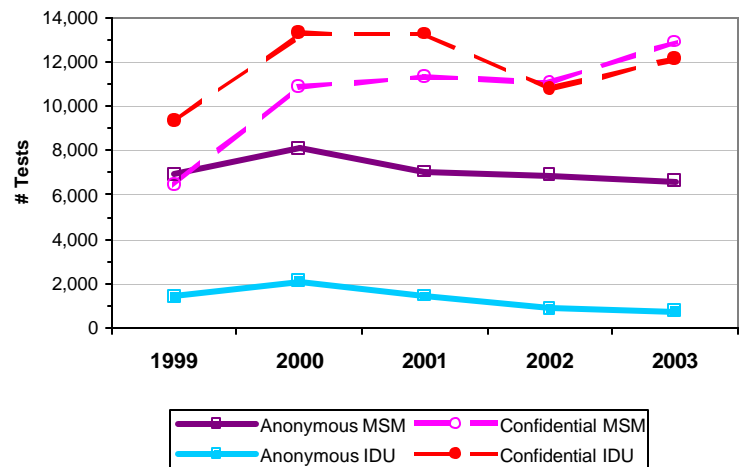


Figure 4a displays trends in anonymous and confidential testing within two high-risk groups: men who have sex with men (MSM)<sup>1</sup> and injection drug users (IDU). In 1999, the number of anonymous tests administered to MSM was greater than that of confidential tests. However, confidential testing in this risk group increased dramatically in 2000, while anonymous testing showed a much smaller increase. In 2002, although the number of confidential tests among MSM far exceeded the number of anonymous tests, the overall number of tests actually declined for this risk group. In contrast, the substantial increase in confidential testing in 2003 for MSM led to an overall increase in the number of tests, despite the decline in anonymous testing.

Among IDU, levels of anonymous testing have consistently been much lower than levels of confidential testing. In 1999, roughly 1,400 anonymous tests were recorded. In 2000, the number of tests increased by 46.9% from 1999, but decreased since. Confidential testing among IDU peaked at over 13,000 tests in 2000. By 2002, testing levels dropped considerably, but resumed an upward track in 2003.

**Figure 4a. Number of HIV Tests Completed at Anonymous and Confidential Sites, MSM and IDU Risk Groups, Florida, 1999-2003**



**Figure 4b. Number of HIV Tests Completed at Anonymous and Confidential Sites, Heterosexual Risk Group, Florida, 1999-2003**

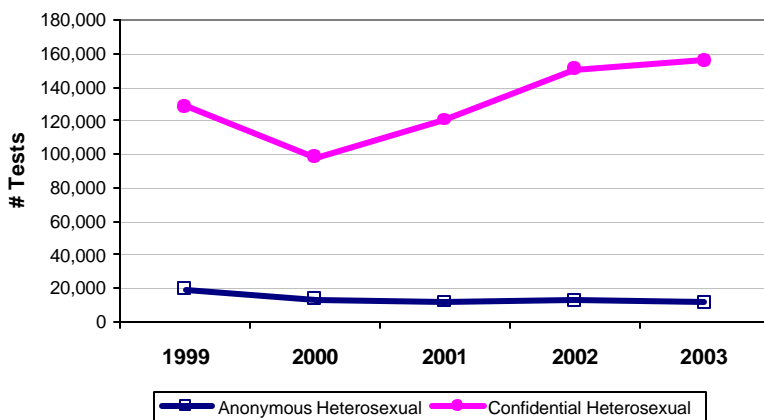
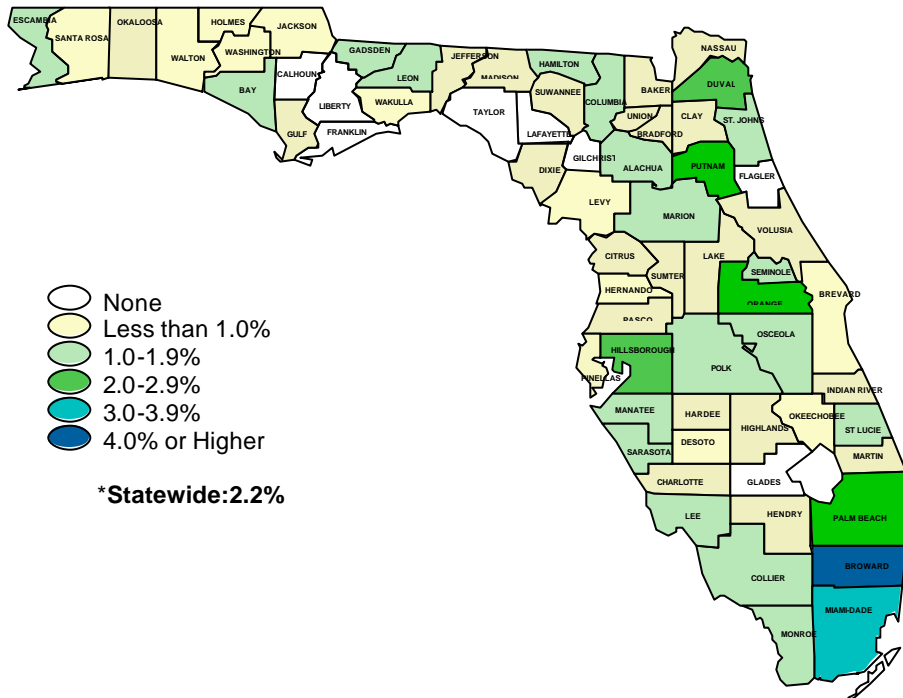


Figure 4b shows anonymous and confidential testing trends among those who identified heterosexual sex as their highest risk. The number of confidential tests dropped considerably in 2000, but by 2002, an additional 30,000 tests were conducted compared with the previous year. The testing volume continued to increase in 2003, representing the high for this five-year period. In the mid 1990s, the proportion of anonymous tests where heterosexual sex was identified as the highest risk varied between 25-40%, but following a pattern similar to confidential testing among heterosexuals, that share had risen to 58% by the end of 1998, and remained above 50% in 1999 (data not shown). During the next four years, testing levels decreased to roughly 11,500 in 2003. This high-volume, typically low-risk group annually accounts for a very large proportion of all HIV tests.

<sup>1</sup> The MSM category here includes MSM who are intravenous drug users (MSM/IDU).

**Figure 5. HIV Seropositivity Rates by County, 2003\***



The overall decline in testing that was observed in the latter half of the 1990s might be due to the historical progression of the epidemic. A natural decline in testing levels may be expected as the proportion of the population who know their HIV status increases over time relative to the proportion of the population who do not. The accessibility and acceptance of HIV testing has also changed considerably since the beginning of the epidemic. In the early years, a high proportion of HIV testing occurred in the health department. Over time, HIV testing became a routine procedure in more and more situations outside of the health department, such as blood donation, routine doctor visits, prenatal care, application for insurance, application for military service or employment. The increased presence of private laboratories and home testing methods has also diminished the untested population base from which the health department can draw.

At least 75% of persons with HIV in Florida know they are infected (based on estimates from the Centers for Disease Control and Prevention). Since 1999, the Department of Health has focused on increasing that proportion. A variety of strategies have been pursued, including the increased use of OraSure in outreach settings; broader use of incentives; piloting rapid HIV testing services; improved risk assessment and targeted testing; increased testing in correctional settings; increased emphasis on partner counseling and referral services; expansion of non-traditional, community-based testing programs; increased use of mobile vans; directly-funded CDC testing programs; and a social marketing campaign encouraging persons at risk for HIV to be tested. In early 2001, the Bureau of HIV/AIDS adopted several goals that will continue to guide our prevention, early intervention, and care efforts. One of those goals is to increase the proportion of HIV-infected persons who know their status from 75% to 95% by 2005. It is hoped that these strategies and initiatives will help us achieve that goal. These strategies may have led to the 30.6% increase in testing between 1999 and 2003.

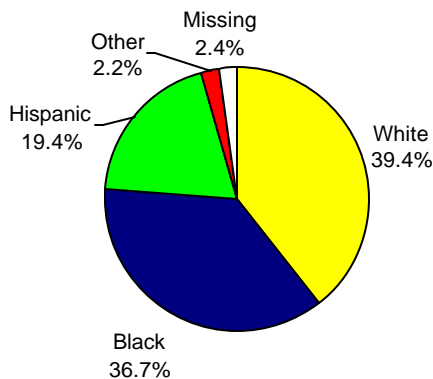
### HIV Counseling and Testing in 2003

In 2003, 301,687 HIV tests were performed at registered HIV testing sites in Florida. Of these, 6,574 were positive, resulting in an overall positivity rate of 2.2%. Positivity rates for individual counties are shown in Figure 5. Broward County recorded the highest positivity rate (4.4%), followed by Miami-Dade County (3.7%), Palm Beach County (2.9%), and Duval County (2.8%). Overall, seven counties reported positivity rates higher than the state average for 2003. Eight counties reported no positive HIV tests in 2003. 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 might be a result of operational factors, such as, a standard recommendation that all clients receiving a positive result retest. Additional counseling and testing data for individual counties are available from the Early Intervention Section.

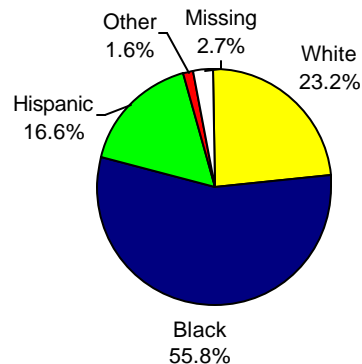
### Race/Ethnicity

Approximately 40% of all tests (118,598) were performed on persons who identified themselves as non-Hispanic white, as compared to 110,595 (36.7%) for non-Hispanic blacks, and 58,599 (19.4%) for Hispanics (Figure 6a). However, whites only accounted for 23.2% (1,528) of all positive tests (Figure 6b), with a positivity rate of 1.3%. In contrast, blacks accounted for 55.8% (3,671) of positive tests, resulting in a positivity rate of 3.3%. Among the Hispanic population, the proportion of positive tests (1,092 or 16.6%) was more consistent with their testing level; the positivity rate for this group was 1.9%. Testing among Asians, Native Americans, and other racial/ethnic groups was minimal; the combined category of "other" accounted for 2.2% of all tests and 1.6% of positive tests.

**Figure 6a.**  
Total HIV Tests by Race/Ethnicity,  
Florida, 2003  
(N=301,687)



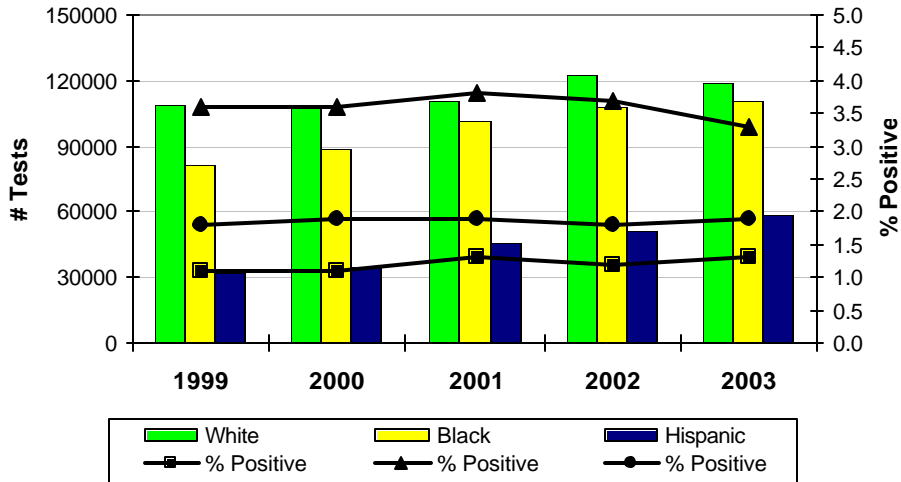
**Figure 6b.**  
HIV-Positive Tests by Race/Ethnicity,  
Florida, 2003  
(N=6,574)



As Figure 6c shows, testing levels among these three racial/ethnic groups increased considerably in 2002. Specifically, between 2001 and 2002, testing increased by 10.8% (11,822 tests) among whites, 12.0% (5,513 tests) among Hispanics, and 5.8% (5,925 tests) among

blacks. By 2003, testing levels among blacks and Hispanics continue to increase, while testing levels for whites decreased by 3.2% (almost 4,000 tests). Positivity rates in all three of these groups have remained fairly stable for the past five years.

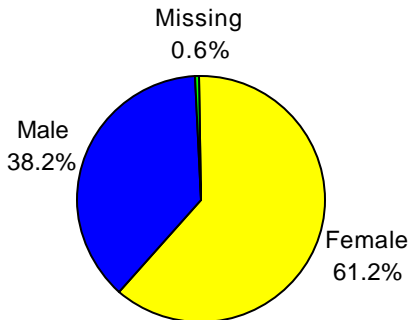
**Figure 6c. Number of HIV Tests & Positivity Rates by Race/Ethnicity, Florida, 1999-2003**



**Sex/Gender**

Figures 7a and 7b show the number of HIV tests by gender. In 2003, 184,566 HIV tests were performed on females (61.2%); 115,394 (38.2%) were performed on males (Figure 7a). However, males accounted for 63.6% of all positive tests, yielding a positivity rate of 3.6%, while females accounted for 35.9%, with a 1.3% positivity rate (Figure 7b). As with race/ethnicity, these patterns have remained very stable for several years (data not shown).

**Figure 7a. Total HIV Tests by Gender, Florida, 2003 (N=301,687)**



**Figure 7b. HIV-Positive Tests by Gender, Florida, 2003 (N=6,574)**

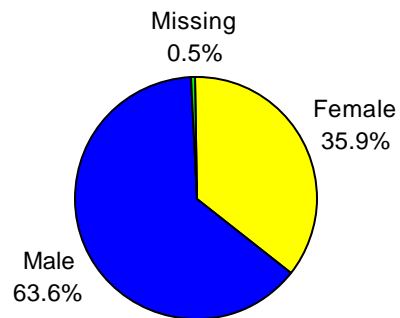
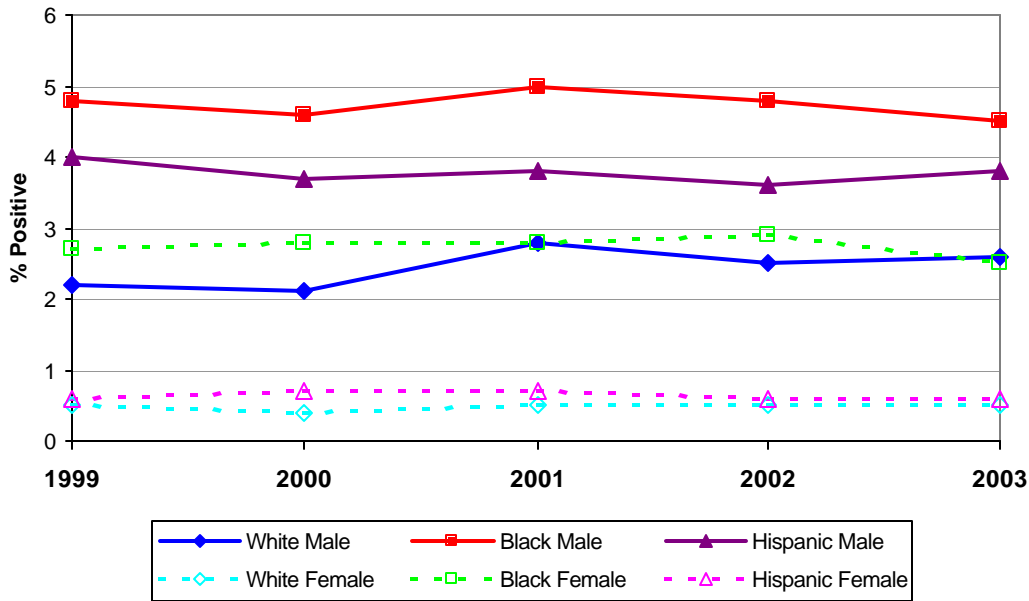


Figure 8 shows positivity rates for males and females by race/ethnicity from 1999 to 2003. Black males continue to have the highest positivity rates, followed by Hispanic males. In 2003, positivity rates for black females were slightly surpassed by white males. Over these five years, positivity rates for Hispanic females were low; however, white females exhibited the lowest positivity rates over time.

Figure 8. HIV Seropositivity by Sex and Race/Ethnicity, Florida, 1999-2003



### Age

Children under the age of 13 recorded approximately 800 tests in 2003 and accounted for less than 0.5% of positive tests (Figures 9a and 9b). However, the positivity rate for this age group was 1.9% in 2003 (Figure 9c). Teenagers represented 19.1% (57,677) of all tests, but only 2.6% (170) of positive tests, resulting in a positivity rate of 0.3%. Persons between the ages of 20-29 continued to represent the highest proportion of tests (115,166 or 38.2%), yet only 19.9% of the positive tests (1,306), resulting in a positivity rate of 1.1%. With only 20.9% of tests conducted, the 30-39 age group accounted for the highest proportion of positive tests in 2003 (2,267 or 34.5%). The 40-49 age group accounted for only 13.3% of all tests in 2003, but 30.4% of positive tests and the highest positivity rate among all age groups (5.0%). Although the 50+ age group was not tested in very high numbers (19,937 or 6.6%), they accounted for 10.9% of

Figure 9a.  
Total HIV Tests by Age Group,  
Florida, 2003 (N=301,687)

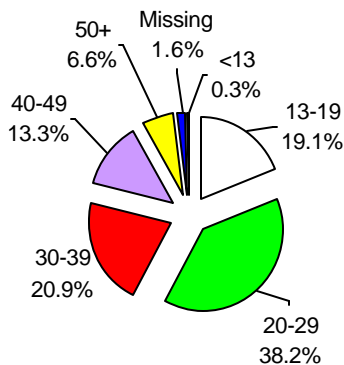
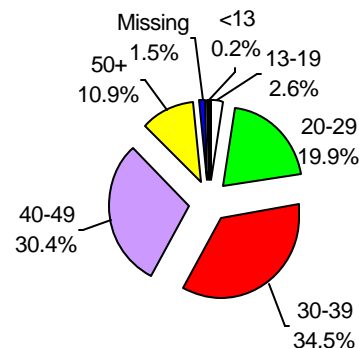


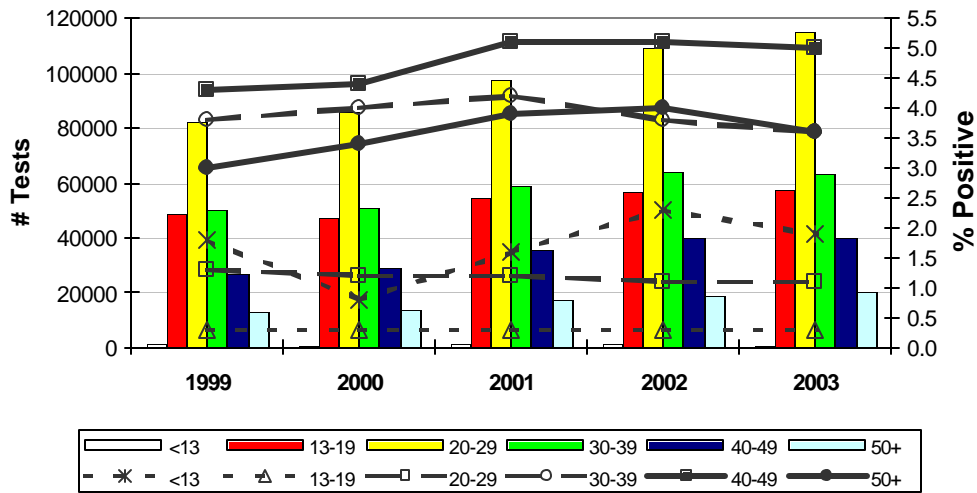
Figure 9b.  
HIV Positive Tests by Age Group,  
Florida, 2003 (N=6,574)



positive tests, giving this group a positivity rate of 3.6%. In 2003, a 3.6% positivity rate was also recorded for the 30-39 age group.

Figure 9c shows testing patterns and positivity rates from 1999 to 2003. The distribution of testing across age groups has not changed significantly over time. In 2002, marked increases in testing were seen in all age groups. Increased testing levels continue in 2003, with the 20-29 age group showing the most substantial increase (approximately 6,000 tests). Positivity rates for persons aged 13-29 were the least variable during the past five years. Between 1999 and 2003, positivity rates for children less than 13 years old fluctuated, although this variability is primarily attributed to the low volume of tests conducted. The 40-49 age group consistently recorded the highest positivity rates between 1999 and 2003.

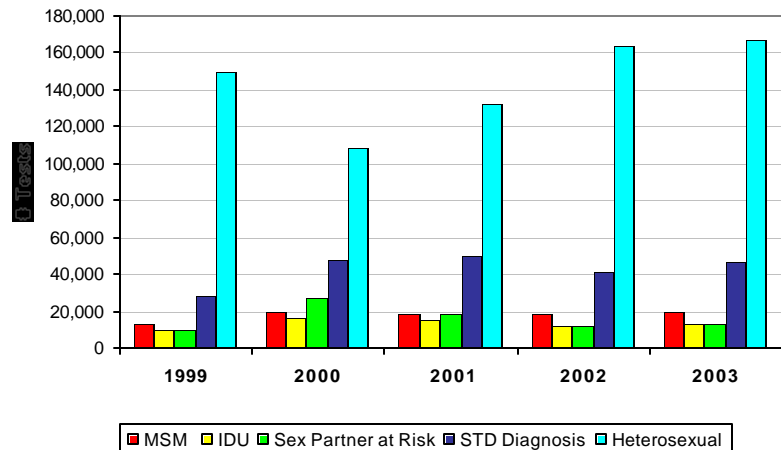
**Figure 9c. Number of HIV Tests & Positivity Rates by Age Group, Florida, 1999-2003**



### Risk Exposure

Since individuals may engage in more than one risk behavior, each self reported exposure is categorized according to the highest level of risk. As Figure 10 shows, persons who identified heterosexual sex as their highest risk behavior comprise the majority of HIV tests conducted from 1999 to 2003. The total number of tests conducted in this risk group increased steadily throughout the mid-1990s and by 1999, approximately 65% of HIV tests were performed on persons who identified heterosexual sex as their highest risk. The

**Figure 10. Number of HIV Tests Among Selected Risk Exposure Groups, Florida, 1999-2003**



proportion of tests administered to heterosexuals dropped to a low in 2000, only 43.9% of all tests. In 2001, the testing volume increased substantially, but this risk group still accounted for less than 50% of all tests. By 2002, this proportion had increased to 55.6%. Three other risk groups with relatively large testing volumes experienced significant fluctuations over the past five years: testing levels among those identifying a current or past sexually transmitted disease (STD) diagnosis have generally risen from 1999 to 2001 but declined by 17.5% in 2002 before rising again in 2003. Testing levels among injection drug users and persons with a sex partner at risk varied over time but were relatively low compared with heterosexuals. Among MSM<sup>2</sup>, testing levels fluctuated from 1999 to 2002, but in 2003 reached the highest level ever reported.

**Figure 11. Positivity Rates by Self-Reported Risk Exposure, Florida, 2003**

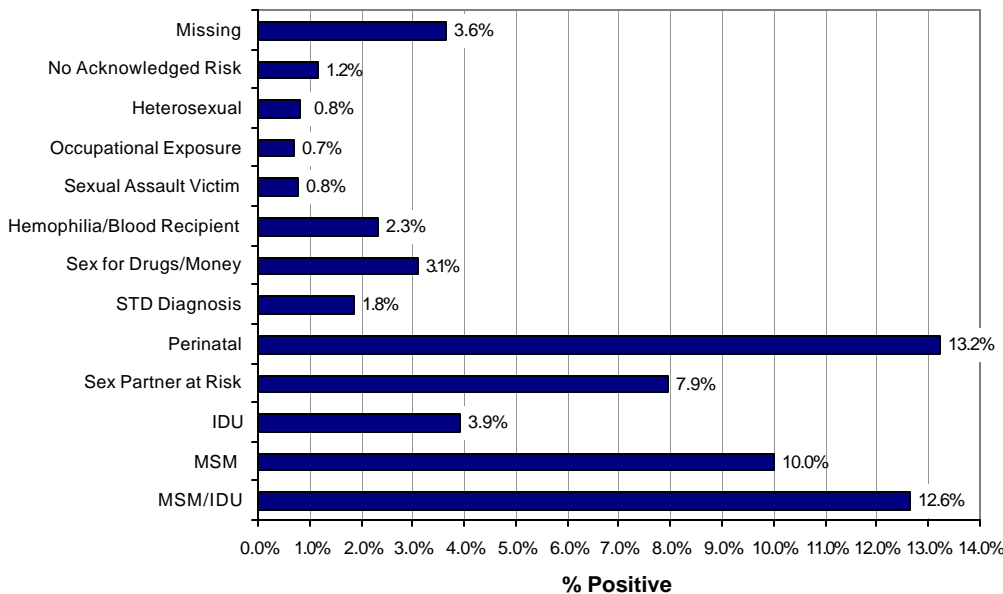


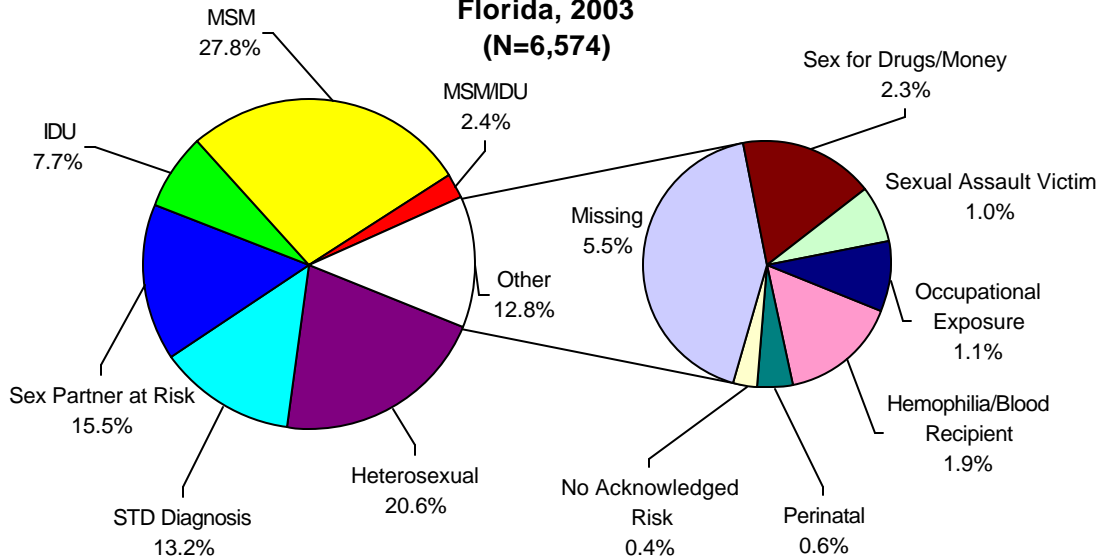
Figure 11 displays positivity rates for all risk exposure groups hierarchically, starting with the lowest risk level. Perinatal exposure accounted for the highest positivity rate in 2003 (13.2%). This could be due in part to the small volume of tests conducted in this risk group (280 tests). MSM/IDU continued to be a risk group with very high positivity rates (12.6% and 10.0% for MSM alone). Positivity rates were also relatively high among the sex partner at risk (7.9%), IDU (3.9%), and sex for drugs or money (3.1%) categories. Alternatively, the positivity rate for the heterosexual risk group remained at less than 1.0% even though they accounted for the majority of tests conducted. Over 12,000 HIV tests were recorded in 2003 with missing risk data or no acknowledged risk. The number of tests, as well as the positivity rates within these categories (3.6% and 1.2%, respectively), suggests that some improvement in the evaluation of risk at the time of testing is warranted.

Figure 12 shows the distribution of HIV-positive test results by self-reported risk exposure for 2003. MSM accounted for the greatest number of positive tests (1,828 or 27.8% and 1,985 or 30.2% when combined with IDU). Persons who identified heterosexual sex as their highest risk behavior comprised 20.6% (1,351) of all positive tests. Those who reported that they had sexual relations with someone else at risk for HIV accounted for 15.5% (1,022) of all positive tests. Persons who reported injection drug use as their highest risk accounted for 7.7% (505) of all

<sup>2</sup> The MSM category here includes MSM who are intravenous drug users (MSM/IDU).

positive tests. Although no other risk group accounted for more than 3% of positive tests in Florida in 2003, 5.9% of the positive tests (386) were reported with no acknowledged risk or missing risk data.

**Figure 12. Distribution of HIV-Positive Tests by Self-Reported Risk Exposure, Florida, 2003 (N=6,574)**



### Focus on Minorities

According to the 2000 Census, almost 16 million people reside in the state of Florida. The racial composition of this population is as follows: 65% white, 14% black, 17% Hispanic, and 4% "other". However, blacks comprised 54% of HIV cases and 55% of AIDS cases reported cumulatively through 2003 in Florida. Analysis of HIV counseling and testing data has also revealed disproportionately higher positivity rates among blacks. Further specification of the distribution of HIV testing and positivity rates across racial/ethnic populations can provide useful insights into the nature and course of the epidemic in Florida's minority communities.

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

One way to obtain a more specific description of HIV testing patterns and positivity rates in a population is to look at the intersection of race/ethnicity, sex, and age. Figure 8 shows that over time, black males have experienced the highest positivity rates, followed by Hispanic males, black females, or white males. White and Hispanic females consistently recorded positivity rates below 1.0%. This pattern has been further specified for 2003 by the incorporation of age.

The overall positivity rate for black males in 2003 was 4.5% (Figure 8). However, as Figure 13a shows, this rate varied considerably by age. The highest positivity rate was found among black males age 40-49 (8.5%), followed by those aged 30-39 (7.0%) and 50+ (6.5%). This is particularly informative because 20-29 year olds accounted for the largest proportion of HIV tests conducted among black males (33.6%, data not shown), and yet their positivity rate was relatively low (2.3%). Significant variation in positivity rates by age also exists among Hispanic males, whose overall positivity rate in 2003 was 3.8% (Figure 8). The highest positivity rate was found in the 40-49 age group (8.0%); the lowest in the 13-19 age group (0.3%).

The overall positivity rate for black females in 2003 was 2.5% (Figure 8). However, Figure 13b shows that black females over the age of 30 are experiencing much higher positivity rates. Fewer tests were administered to black females aged 30 and older, yet positivity rates were quite high: 4.4% for those in the 30-39 age group, 5.7% for those aged 40-49, and 4.7% for those aged 50 and over. While 63.0% of black females tested were between the ages of 13 and 29 (data not shown), the corresponding positivity rates were only 0.5% for 13-19 year olds and 1.6% for 20-29 year olds. Among Hispanic females, positivity rates were below the state's positivity rate of 2.2% for all age groups. However, the positivity rates for Hispanic females in the 40-49 and 50+ age groups were 1.9% and 1.4%, respectively, slightly higher than the 0.6% reported for all Hispanic females (Figure 8). These figures suggest that increased HIV testing of older minority men and women is needed.

Over the past five years, testing levels among blacks have increased by 32.3% (over 10,000 tests) for males and 40.2% (over 18,000 tests) for females (data not shown). While actual numbers are much smaller, testing levels among Hispanics have increased by an even larger margin over the past five years, 93.2% (about 10,000 tests) for males, and 80.0% (about 16,000 tests) for females. These trends signal a growing awareness of HIV prevention among minority populations and increased accessibility of testing through outreach. The data presented here indicate that prevention efforts must continue to be directed toward older blacks and Hispanics in order to limit new infections and to ensure that access to education and care is maintained or improved.

Figure 13a. Seropositivity Among Males, by Age and Race/Ethnicity, Florida, 2003

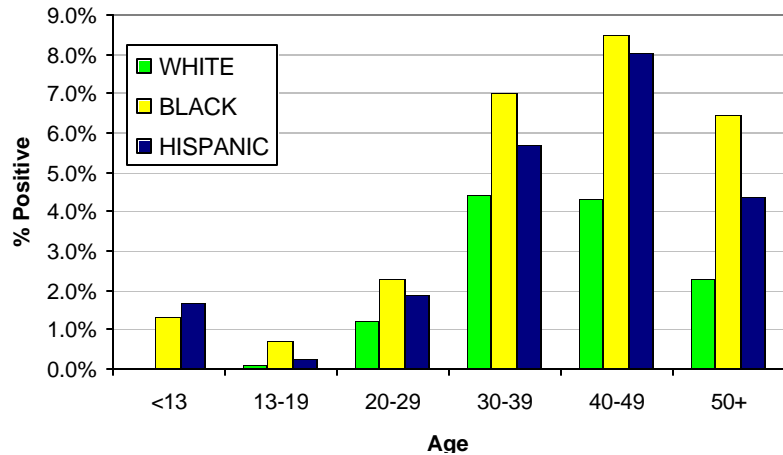
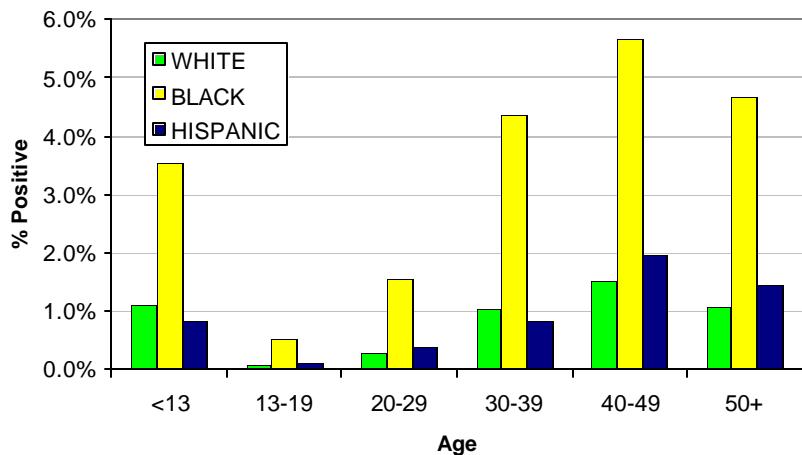


Figure 13b. Seropositivity Among Females, by Age and Race/Ethnicity, Florida, 2003



### The Intersection of Race/Ethnicity and Risk

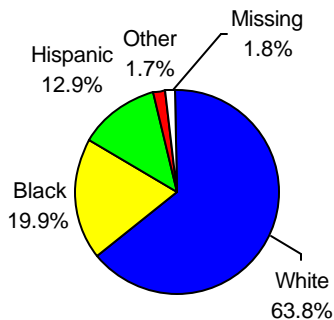
Male-to-male sex and injection drug use (separately or in combination) are behavioral practices that place individuals at high risk for HIV infection. In 2003, 32,387 HIV tests (10.7%) were performed on persons who identified themselves as men who have sex with men (MSM), IDU, or both MSM and IDU. As shown in Figure 11, the positivity rate among MSM/IDU in 2003 was

12.6%, 10.0% among MSM, and 3.9% among IDU. However, sharp differences in testing patterns and positivity rates are evident across racial/ethnic categories within these risk groups.

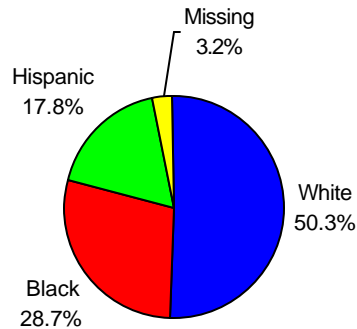
Figures 14 to 16 illustrate the distribution of HIV tests and HIV-positive tests by race/ethnicity for MSM/IDU, MSM, and IDU in 2003. Individuals identifying themselves as non-Hispanic white accounted for the largest proportion of HIV tests in all three of these risk groups: 63.8% of MSM/IDU, 49.6% of MSM, and 69.8% of IDU. Whites also accounted for the majority of positive HIV tests among MSM/IDU (50.3%) and MSM (41.8%), suggesting that racial/ethnic disparities among minorities might not be particularly high in these risk groups. However, the proportion of positive tests was still greater than the proportion of tests conducted for black men in both of these risk groups.

Racial/ethnic disparities appear to be stronger among injection drug users. Black females, who accounted for only 7.1% of tests among IDU in 2003, comprised 18.3% of positive tests in this risk group. Similarly, black males accounted for just 10.0% of tests, but 28.0% of the positives. In contrast, white males and females together accounted for over two-thirds of tests among IDU (36.5% for females and 33.3% for males), yet their combined share of positive tests was substantially lower (31.9%). The proportion of positive tests among Hispanic male IDU in 2003 was also fairly high (11.9%), although there was no substantial difference between the share of all tests and the share of positive tests among Hispanic females.

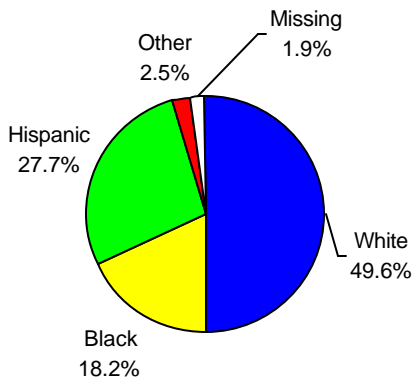
**Figure 14a.**  
HIV Tests among MSM/IDU by Race/Ethnicity,  
Florida, 2003  
(N=1,242)



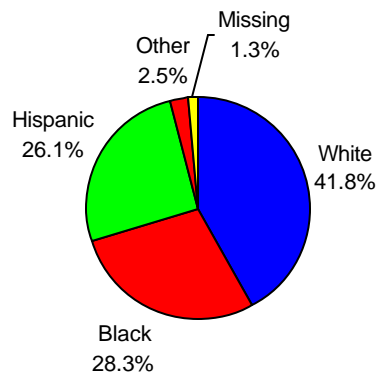
**Figure 14b.**  
HIV-Positive Tests among MSM/IDU by Race/Ethnicity,  
Florida, 2003  
(N=157)



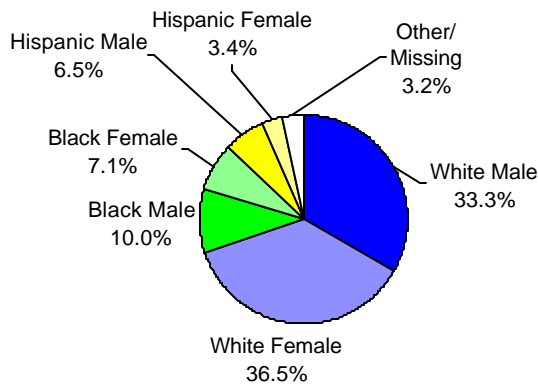
**Figure 15a.**  
HIV Tests among MSM by Race/Ethnicity,  
Florida, 2003  
(N=18,250)



**Figure 15b.**  
HIV-Positive Tests among MSM by Race/Ethnicity,  
Florida, 2003  
(N=1,828)



**Figure 16a.**  
HIV Tests among IDU by Gender and Race/Ethnicity,  
Florida, 2003  
(N=12,895)



**Figure 16b.**  
HIV-Positive Tests among IDU by Gender and  
Race/Ethnicity, Florida, 2003  
(N=505)

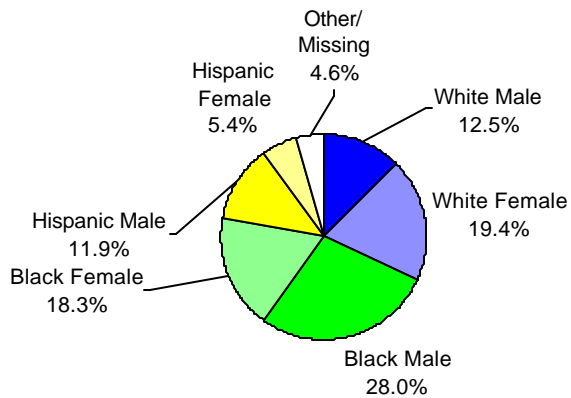
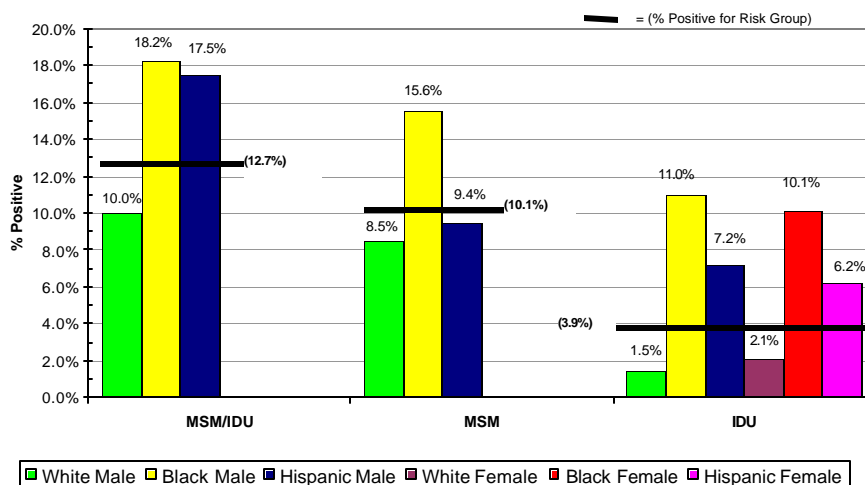


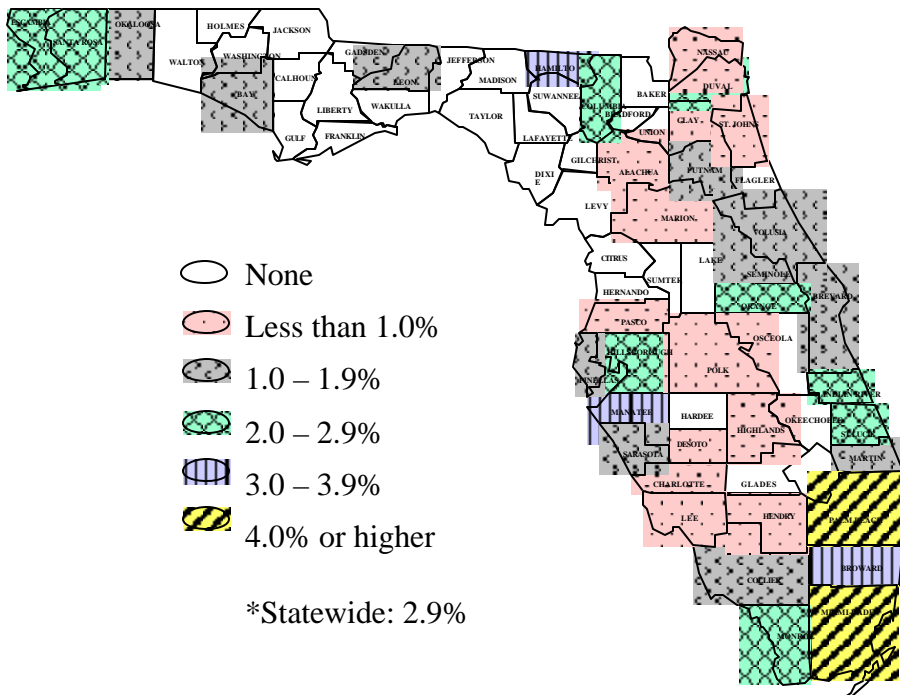
Figure 17 shows that aggregate positivity rates for MSM/IDU, MSM, and IDU mask important and occasionally dramatic differences between racial/ethnic groups. The relatively high volume of testing by whites combines with their generally lower positivity rates to pull down the average positivity rate for the whole population in each of these risk groups. For example, in 2003, the positivity rate for black MSM was 15.6%, approximately 5 percentage points higher than that for all MSM (10.1%). The difference is also apparent for black female IDU, whose positivity rate in 2003 (10.1%) was 6.2 percentage points higher than the 3.9% reported for all IDU. This figure shows that blacks experienced significantly higher positivity rates in these three risk exposure groups.

Overall, MSM, IDU, and MSM/IDU accounted for 32,387 HIV tests in 2003, 17.8% were blacks, 20.0% were Hispanics and 58.1% were whites. However, of the 2,490 positive tests that accrued to these three risk groups, 28.3% were blacks, 23.8% were Hispanics and 40.4% were whites (data not shown). The data presented here indicate that there is a continuing need to increase testing and prevention education among individuals that engage in very-high-risk behaviors.

**Figure 17. Seropositivity Among Selected Risk Exposure Groups by Gender and Race/Ethnicity, Florida, 2003**



**Figure 18. HIV Seropositivity Rates Using OraSure by County, 2003\***



**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. To receive OraSure, providers must complete a request form documenting their need, proposed usage, and target populations. This testing method, which tests for antibodies in oral mucosal transudate, is as accurate as a blood test for diagnosis in public health and clinical settings. In Florida, OraSure is primarily for use in outreach settings, to reach high-risk persons who are less likely to access health care

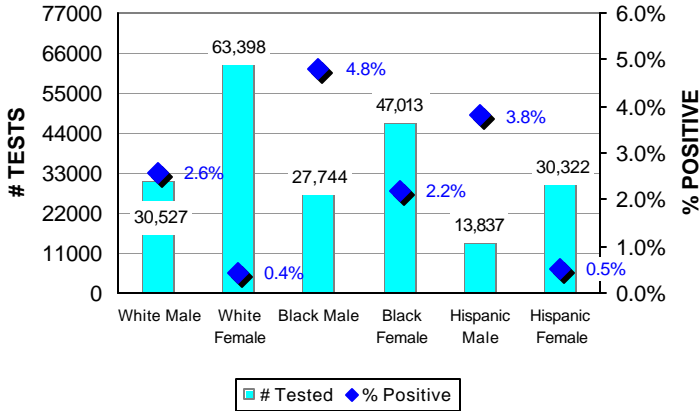
systems and less accepting of conventional testing methods (e.g., persons who are homeless, drug abusers, younger, or those who live in rural areas).

In 2003, 78,378 HIV tests were administered with OraSure, up from 68,766 in 2002, 63,015 in 2001, 43,764 in 2000, and 30,685 in 1999. The statewide positivity rate using OraSure also increased from 2.4% in 1999 to 2.9% in 2003. Positivity rates for individual counties are illustrated in Figure 18. Compared to the overall positivity rates shown in Figure 5, some counties were able to achieve higher positivity rates using OraSure. These differences may be evidence for the success of OraSure as an outreach tool. Among counties that used more than 100 OraSure tests in 2003, Miami-Dade County had the highest positivity rate (4.2%), followed by Palm Beach (4.0%), and Manatee (3.8%) counties. Thirty counties performed fewer than 100 tests in 2003; of these, ten counties did not administer OraSure tests.

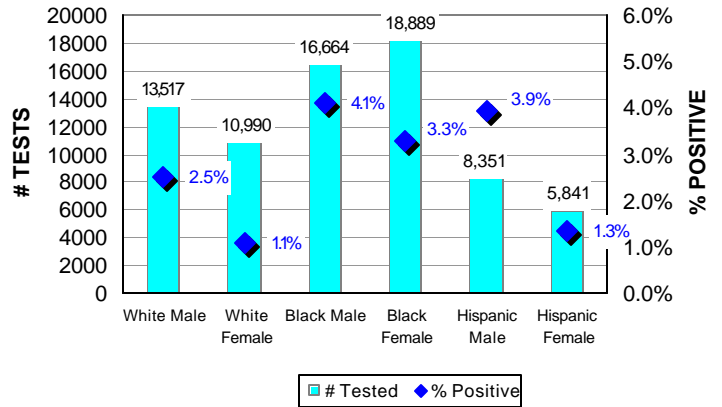
Non-Hispanic blacks accounted for the majority of OraSure tests conducted in 2003 (35,686 or 45.5%), as compared to non-Hispanic whites (24,563 or 31.3%), and Hispanics (14,288 or 18.2%). Males accounted for a slightly higher proportion than females (51.5% vs. 47.7%).

Figures 19a and 19b compare testing levels and positivity rates by race/ethnicity and gender for OraSure and blood testing in 2003. While white females dominated blood testing, the highest levels of OraSure testing were among blacks of both gender groups. White and Hispanic males were also tested in higher numbers than their female counterparts. Compared to blood testing, much higher positivity rates were recorded among black females using OraSure (3.3% vs. 2.2%). Substantial increases were also recorded for Hispanic females (1.3% vs. 0.5%).

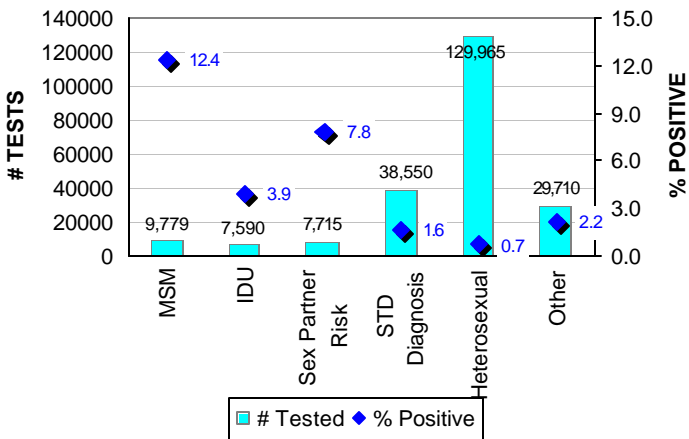
**Figure 19a. HIV Blood Tests by Race and Gender, Florida, 2003**



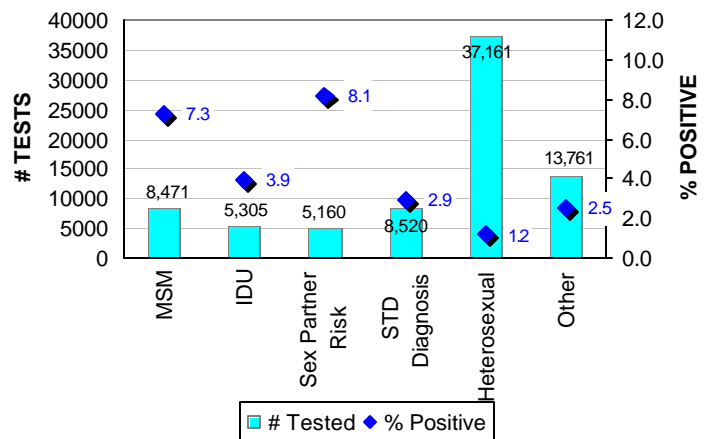
**Figure 19b. HIV OraSure Tests by Race and Gender, Florida, 2003**



**Figure 20a. HIV Blood Tests by Risk, Florida 2003**



**Figure 20b. HIV OraSure Tests by Risk, Florida 2003**



Conversely, the positivity rate for black men using OraSure was slightly lower than the rate obtained from blood tests (4.1% vs. 4.8%).

Figures 20a and 20b compare testing levels and positivity rates by risk groups for blood and OraSure testing in 2003. Regardless of the type of test, the majority of tests were administered to persons who identified heterosexual sex as their highest risk. Compared to blood testing, the positivity rate for MSM using OraSure testing was lower (12.4% vs. 7.3%). Higher positivity rates using OraSure were recorded for the sex partner at risk (8.1% vs. 7.8%), STD diagnosis (2.9% vs. 1.6%), and heterosexual (1.2% vs. 0.7%) exposure categories.

These data indicate that OraSure has become a valuable asset to HIV prevention programs throughout Florida. Growing evidence from the field suggests that the availability of OraSure has increased test acceptance in a variety of outreach settings, including housing projects, homeless shelters, rural communities, and high-risk youth programs. In 2003, OraSure testing accounted for over 26% of all HIV tests conducted at registered HIV counseling and testing sites, up from 23% in 2002 and 2001. Its effectiveness as an outreach tool has been demonstrated in larger counties, where the growth of street outreach and community-based

testing sites demands faster, easier, and less threatening means of testing for HIV. Similarly, OraSure has been very successful in uncovering HIV-positive cases in several rural counties with historically low positivity rates. OraSure is 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 over 65% (200,582)<sup>3</sup> of the HIV tests conducted in 2003. The majority of these tests are among clients who previously tested negative (189,415 or 94.4%).

Among the 6,574<sup>4</sup> positives in 2003, 28.0% (1,840) previously tested negative. Persons who identified MSM as their highest risk behavior accounted for the largest proportion (599 or 32.6%). Another 23.3% (428) of the positives that previously tested negative were identified as heterosexual, while 13.6% (250) had a current or previous STD diagnosis (data not shown).

Table 1 shows positives in 2003 that previously tested negative by gender and race/ethnicity. Although black males accounted for the highest number of positives and the highest number of previously negative testers, the proportion of positive white males who previously tested negative was highest (32.2%). Positive white and black females also have a high proportion of those who previously tested negative (30.3% each). In 2003, the 30-39 age group accounted for 35.4% (652, and 254 of which were MSM) of the positives that previously tested negative, followed by the 20-29 and 40-49 age groups (data not shown).

These data indicate that a large proportion of 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. Further assessment may be necessary to understand reasons for repeat testing practices.

**Table 1. Total Number of HIV-Positive Tests and Number (%) of HIV-Positive Tests Among Persons that Previously Tested Negative by Gender and Race/Ethnicity, Florida, 2003**

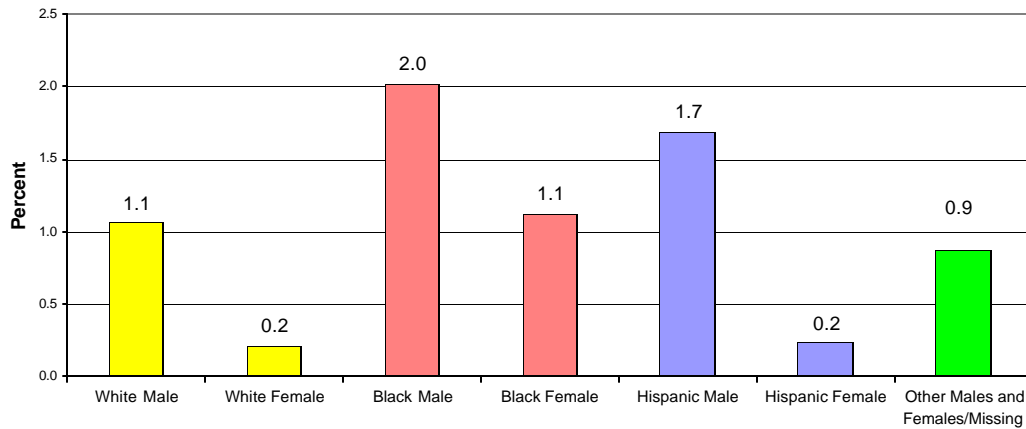
Race/Ethnicity and Gender	Total No. Positive	No. Positive s who Previously Tested Negative (%)
White Male	1,126	363 (32.2)
White Female	402	122 (30.3)
Black Male	2,020	499 (24.7)
Black Female	1,642	498 (30.3)
Hispanic Male	852	236 (27.7)
Hispanic Female	232	52 (22.4)
Other Males and Females/Missing	300	59 (19.7)
<b>TOTAL POSITIVE</b>	<b>6,574</b>	<b>1,840(28.0)</b>

<sup>3</sup> There were a total of 301,687 HIV tests conducted in 2003; 200,582 were repeat testers made up of 189,415 that previously tested negative, 3,673 that previously tested positive, and 7,494 that had an inconclusive or unknown previous test result.

<sup>4</sup> There were a total of 6,574 positive tests in 2003; 5,351 (81.4%) were repeat testers made up of 1,840 that previously tested negative, 3,189 that previously tested positive, and 322 that had an inconclusive or unknown previous test result.

Figure 21 shows HIV positivity rates by race/ethnicity and gender for those who tested positive for the first time in 2003. Of the 6,574 positive tests results obtained in 2003, 1,014 (15.4%) were among persons who had never been tested before. Another 1,841 (28.0%) were among persons who had previously tested negative. These groups combined represent “new” positives in 2003. The positivity rate among the new positives was highest for black males (2.0%), followed by Hispanic males (1.7%) and white males and black females (both at 1.1%). These positivity rates are substantially lower than those presented in Figure 8 and may be more reflective of the true prevalence among persons who receive voluntary HIV testing. Positivity rates presented elsewhere in this report are influenced by the large number of duplicate positives within the database, as persons receiving a positive test result are very likely to repeat the test.

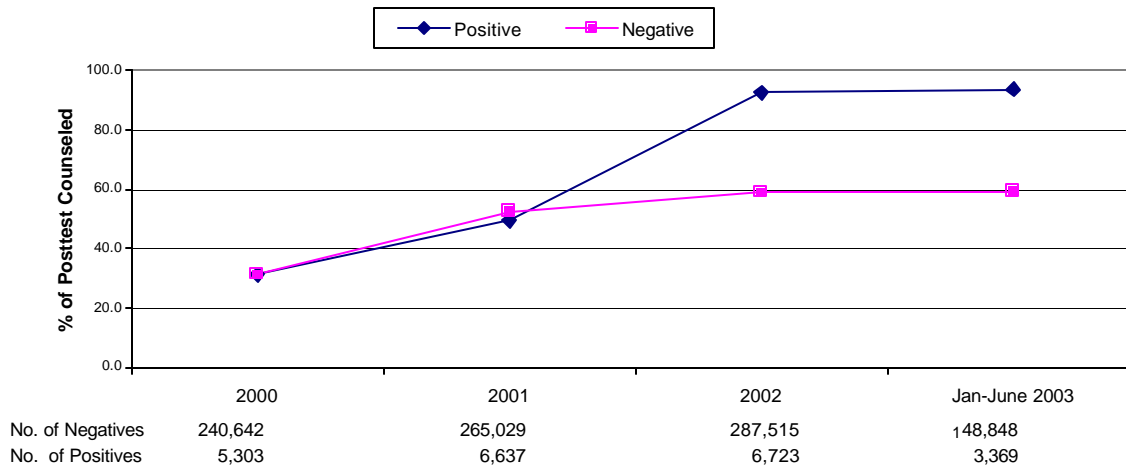
**Figure 21. Positivity Rates Among Those Testing Positive for the First Time, by Race/Ethnicity and Gender, Florida, 2003**



### Focus on Post-Test Counseling

The post-test counseling (PTC) session provides an opportunity to inform the client of their HIV test result and further offer HIV prevention services. From 2001 to June 2003, more than 50% of negatives were post-test counseled. In June 2003, statewide post-test counseling rates for positives rose to 93.9%. This rise may be attributed to the increased outreach effort of HIV staff to notify clients who test positive, or by the increased motivation of clients to learn their HIV test results.

**Figure 22. Percentage of Clients Post-test Counseled, Florida, 2000-June 2003**



In Table 2, the number of negatives and positives post-test counseled in the first half of 2003 is shown. Drug treatment centers recorded the highest post-test counseling rate for negatives (70.6%), followed by community-based organization (66.5), prenatal/OB (64.1%), and anonymous (62.5%). All positive tests in TB clinics had post-test counseling (100.0%). However, high post-test counseling rates were also recorded among adult health, private MD, and CBOs. Anonymous sites recorded a much lower post-test counseling rate for positives (74.2%) when compared to that of all other site types combined (96.6%). In January-June 2003, there was no substantial difference in post-test counseling rate by age, gender, or race/ethnicity.

**Table 2. HIV Test and Post-test Counseling Sessions Among Negatives and Positives by Site Type, Florida, January-June 2003**

Site Type	Negative			Positive		
	Total	Post-test Counseled	%	Total	Post-test Counseled	%
Anonymous	14,206	8,882	(62.5)	407	302	(74.2)
STD	34,779	19,094	(54.9)	727	701	(96.4)
Drug Treatment	8,850	6,248	(70.6)	226	219	(96.9)
Family Planning	31,946	19,673	(61.6)	53	51	(96.2)
Prenatal/OB	12,807	8,213	(64.1)	35	33	(94.3)
TB	1,465	829	(56.6)	23	23	(100.0)
Adult Health	7,362	4,519	(61.4)	493	485	(98.4)
Jail/Prison	10,350	4,816	(46.5)	310	291	(93.9)
College	829	501	(60.4)	26	25	(96.2)
Private MD	2,259	934	(41.3)	132	129	(97.7)
Special Projects	1,556	810	(52.1)	25	24	(96.0)
Community-based Organization	16,834	11,202	(66.5)	756	734	(97.1)
Health Department Field Visit	5,605	2,485	(44.3)	156	145	(92.9)
<b>Total</b>	<b>148,848</b>	<b>88,206</b>	<b>(59.3)</b>	<b>3,369</b>	<b>3,162</b>	<b>(93.9)</b>

### Focus on the Serologic Testing Algorithm for Recent HIV Seroconversion

The Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) is used to estimate what percentage of people in a population *may* have been recently infected with HIV. The STARHS method was developed to look at HIV infection in groups of people, not individuals. STARHS results indicate HIV infection within the last year and are meaningful only when applied on a population level. STARHS uses a combination of the standard enzyme immunoassays (EIA) and the new less sensitive EIA (LS EIA).

In 2000, Florida was funded to conduct HIV incidence estimation by applying the STARHS methods to the HIV counseling and testing system. Stored HIV-positive blood specimens from 1998 to 2001 were submitted to the designated CDC regional STARHS laboratory for analysis.

Results indicate that of the 12,266 HIV-positive specimens analyzed, 2,201 (17.9%) were identified as a recent HIV infection. Table 3 displays the proportion of recent infections among HIV-positive specimens by selected demographics and risk exposure. As the table shows, a higher percentage of white males (23.8%), white females (30.2%), and MSM (21.2%) had STARHS results that suggest recent infection. The percent of recent infections was also high for children less than age 13, teenagers and persons aged 20-29, with 34.7%, 35.1%, and 25.1% respectively. These findings, however, may be confounded by the fact that some individuals in certain subgroups may tend to be tested earlier in the course of their infection, perhaps being more acutely aware of personal risk.

To further our understanding of recent HIV transmission we need to collect information about an individual's testing history. Florida has been funded to further explore recent infection among the population. This new program, HIV Incidence Surveillance, will allow us to better estimate where the new infections are occurring and how the epidemic is affecting our communities. Understanding recent transmission will help us to achieve our goal of reducing new infections by 50%, by 2005.

**Table 3. Total Number of HIV-Positive and Number (%) Recently Infected, STARHS Database, Florida, 1998 – 2001<sup>5</sup>**

	No. Positive	No. Recently Infected (%)
<b>Age Group</b>		
<13	47	17 (34.7%)
13-19	376	132 (35.1%)
20-29	2,478	622 (25.1%)
30-39	4,871	764 (15.7%)
40-49	3,067	421 (13.7%)
50+	1,123	187 (16.7%)
<b>Gender</b>		
Male	7,985	1,340 (16.8)
Female	3,961	807 (20.4)
<b>Race/Ethnicity</b>		
Black	7,039	1,054 (15.0)
Hispanic	1,585	265 (16.7)
White	3,106	787 (25.3)

<sup>5</sup> Overall, 12,433 confidential HIV -positive specimens were submitted for STARHS analysis. Of these, 12,266 were analyzed. There were 2,201 (17.9%) recent infections. Data are unduplicated.

	No. Positive	No. Recently Infected (%)
<b>Males by Race/Ethnicity</b>		
Black Male	4,177	532 (12.7)
Hispanic Male	1,211	205 (16.9)
White Male	2,357	562 (23.8)
<b>Females by Race Ethnicity</b>		
Black Female	2,784	513 (18.4)
Hispanic Female	353	58 (16.4)
White Female	731	221 (30.2)
<b>Risk</b>		
IDU	1,056	121 (11.5)
MSM/IDU	352	66 (18.8)
Heterosexual	3,417	590 (17.3)
MSM	3,072	652 (21.2)

### **Acknowledgement**

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