

STD and HIV/AIDS

Sexually Transmitted Disease (STD): The National Challenge*

Sexually transmitted diseases (STDs) refer to the more than 25 infectious organisms transmitted primarily through sexual activity. They remain a significant public health problem. STDs cause many harmful, often irreversible, and costly clinical complications, such as reproductive health problems, fetal and perinatal health problems, and cancer. In addition, studies of the worldwide HIV/AIDS pandemic link other STDs to a causal chain of events in the sexual transmission of HIV infection.

STDs are common, costly, and preventable. Worldwide, an estimated 333 million cases of curable STDs occur annually. STDs are the most common reportable diseases in the United States. In 1995, they accounted for 87 percent of the top 10 infections most frequently reported to the

CDC. Of the top 10 infections, 5 were STDs (chlamydia, gonorrhea, AIDS, syphilis, and hepatitis B). Each year an estimated 15 million new STD infections occur in the United States, and nearly 4 million teenagers are infected with an STD. The direct and indirect costs of the major STDs and their complications, including sexually transmitted HIV infection, are conservatively estimated at \$17 billion annually.

Gender disparities: Women are at higher risk than men for most STDs because STDs are transmitted more easily from a man to a woman. Women also suffer more frequent and more serious STD complications than men do. Among the most serious STD complications are pelvic inflammatory disease (PID), ectopic pregnancy, infertility, and chronic pelvic pain.

Age disparities: In 1997, females aged 15 to 19 years had the highest reported rates of both chlamydia and gonorrhea among women. While males 20 to 24 years had the highest reported rates of both chlamydia and gonorrhea among men. The herpes infection rate of white youth aged 12 to 19 years increased nearly five fold from the period 1976-80 to the period 1988-94.

Racial and ethnic disparities: STDs occur more frequently in certain racial and cultural groups. Although widely distributed in all population groups, African Americans accounted for about 77 percent of the total number of reported cases of gonorrhea—31 times the rate in

Human Immunodeficiency Virus (HIV): The National Challenge*

In 1981, a new infectious disease, AIDS, or acquired immunodeficiency syndrome, was identified in the United States. Several years later, the causative agent of AIDS—human immunodeficiency virus (HIV)—was discovered. Currently, HIV/AIDS has been reported in virtually every racial and ethnic population, every age group, and every socioeconomic group in every State and most large cities in the United States. HIV/AIDS is a significant cause of illness, disability, and death, despite declines in 1996 and 1997.

Current surveillance provides population-based HIV/AIDS data for tracking trends in the epidemic, targeting and allocating resources for prevention and treatment services, and planning and conducting program evaluation activities. Since the early 1980s, surveillance studies have identified four distinct populations and issues that have affected the epidemic in these populations: 1) Men who have sex with men, 2) Injection drug users, 3) Heterosexual persons, and 4) perinatal transmission among infants.

Trends: HIV infection rates appear to have stabilized in the U.S. since the early 1990s at about 40,000 new infections per year. The rate of increase is slower than growth rates experienced in the mid-1980s. However, the number of persons reported living with AIDS increased in

This Issue:

STD: The National Challenge	1
HIV: The National Challenge	1
Jacksonville STD and HIV/AIDS Health Report Card	2
An Update on HIV/AIDS Trends in Jacksonville	3
STD Health Disparities: A New Focus and Direction	4

*From Healthy People 2010, U.S. Department of Health and Human Services

Jacksonville STD and HIV/AIDS Health Report Card

Obj. #	Objective	U.S. 2000	FL 2002/2003	Duval 2002/2003	2010 Target
25-1	Reduce the rate of adolescents and young adults with Chlamydia Trachomatis infections	1387.6 ¹	1473.8 ² 1457.9 ²	2389.4 ² 2798.8 ²	NA*
25-2	Reduce Gonorrhea (new cases per 100,000 population)	125.0 ³	127.4 ² 110.7 ²	355.2 ² 285.7 ²	19.0
25-2a	Females (incidence of Gonorrhea)	125.0 ³	120.8 ² 107.2 ²	313.1 ² 253.2 ²	–
25-2b	Males (incidence of Gonorrhea)	124.0 ³	134.4 ² 114.3 ²	399.9 ² 320.1 ²	–
25-3	Eliminate sustained domestic transmission of primary and secondary syphilis (cases per 100,000 population)	2.4 ³	3.7 ² 3.9 ²	2.0 ² 2.5 ²	0.2
25-9	Reduce congenital syphilis (new cases per 100,000 live births)	13.4 ²	14.1 ² –	DSU ^{2**} DSU ^{2**}	1
13-1	Reduce AIDS among adolescents and adults (new cases per 100,000 persons aged 13 years and older)	18.0 ⁴	36.0 ^{5,6} 33.4 ^{5,6}	37.1 ^{5,6} 40.2 ^{5,6}	1
13-2	Reduce the number of new AIDS cases among adolescents and adult men who have sex with men (among males aged 13 years and older)	13562 ⁴	1488 ⁵ 1514 ⁵	69 ⁵ 92 ⁵	13385 64 ^{***}
13-3	Reduce the number of new AIDS cases among females and males who inject drugs (among people aged 13 years and older)	8531 ⁴	320 ⁵ 268 ⁵	33 ⁵ 29 ⁵	9075 20 ^{***}
13-4	Reduce the number of new AIDS cases among adolescents and adult men who have sex with men and inject drugs (among males aged 13 years and older)	1548 ⁴	115 ⁵ 127 ⁵	7 ⁵ 13 ⁵	1592 10 ^{***}
13-5	Reduce the number of new cases of HIV infection (developmental)	21704 ⁴	7137 ⁵ 6654 ⁵	406 ⁵ 367 ⁵	NA
13-14	Reduce deaths from HIV infection (cases per 100,000 population)	– –	11.9 ⁷ –	12.7 ⁷ 10.4 ⁷	0.7

¹Source: Center for Disease Control and Prevention (www.cdc.gov/nchstp/dstd/Stats_Trends/Stats_and_Trends.htm)

²Source: Florida Department of Health – Bureau of Sexually Transmitted Diseases Prevention and Control

³Source: Center for Disease Control and Prevention (<http://wonder.cdc.gov/data2010/focus.htm>)

⁴Source: Center for Disease Control and Prevention (<http://www.cdc.gov/hiv/stats/>)

⁵Source: Duval County Health Department HIV/AIDS Reporting System (HARS)

⁶Source: FDOH Office of Planning, Evaluation and Data Analysis - Population

(<http://www.floridacharts.com/charts/CensusData.aspx>)

⁷Source: FDOH, Office of Vital Statistics

*The target is not set at this objective level by Healthy People 2010. It is set for clinic subgroups.

**The number of congenital syphilis cases for this cell was less than 6. The data are considered statistically unreliable.

***This represents the Duval Target. It was calculated using the National Target methodology, a 25% improvement from 1998.

An Update on HIV/AIDS Trends in Jacksonville by Paula P. Burns, MSH, Area 4 AIDS Program Office

Nationally, Florida ranks third for adult and adolescent cases among states in the number of reported AIDS cases with a total 95,141 of AIDS cases as of December 2003 (Florida Department of Health, Bureau of HIV/AIDS). Cumulatively through 2003 1,476 pediatric AIDS cases have been reported in Florida. Florida ranks second in the nation in the number of pediatric AIDS cases.

Florida is composed of 67 counties, in 2003, at least one AIDS case was reported in all but seven counties. Although the AIDS epidemic is widespread throughout Florida, the majority of cases were reported from the seven most populous counties: Broward, Duval, Hillsborough, Miami-Dade, Orange, Palm Beach, and Pinellas. Through December 2003, 4,851 AIDS cases have been reported in Florida, the above mentioned counties account for 70% or 3,395 of the reported AIDS cases in Florida.

Implemented in 1997, HIV case reporting tends to indicate newer infections that are reflected by AIDS case data. Confidential HIV results have been reported in Florida since July 1997. Through June 30, 2004, 1,668 HIV cases have been reported in Duval County. The majority of all HIV cases reported are from the same zip codes or areas in Jacksonville.

Duval County HIV and AIDS cases by zip code: An analysis of HIV and AIDS cases by zip code in Duval County identifies that the majority of both HIV and AIDS cases in the area are originating from specific zip codes in Duval County. Most of these zip codes are in the core, inner city area that have a large concentration of African Americans and the highest poverty rate in the area. These zip codes are 32202, 32204, 32205, 32206, 32207, 32208, 32209, 32210, 32211, and 32218 as can be seen in Figure 1.

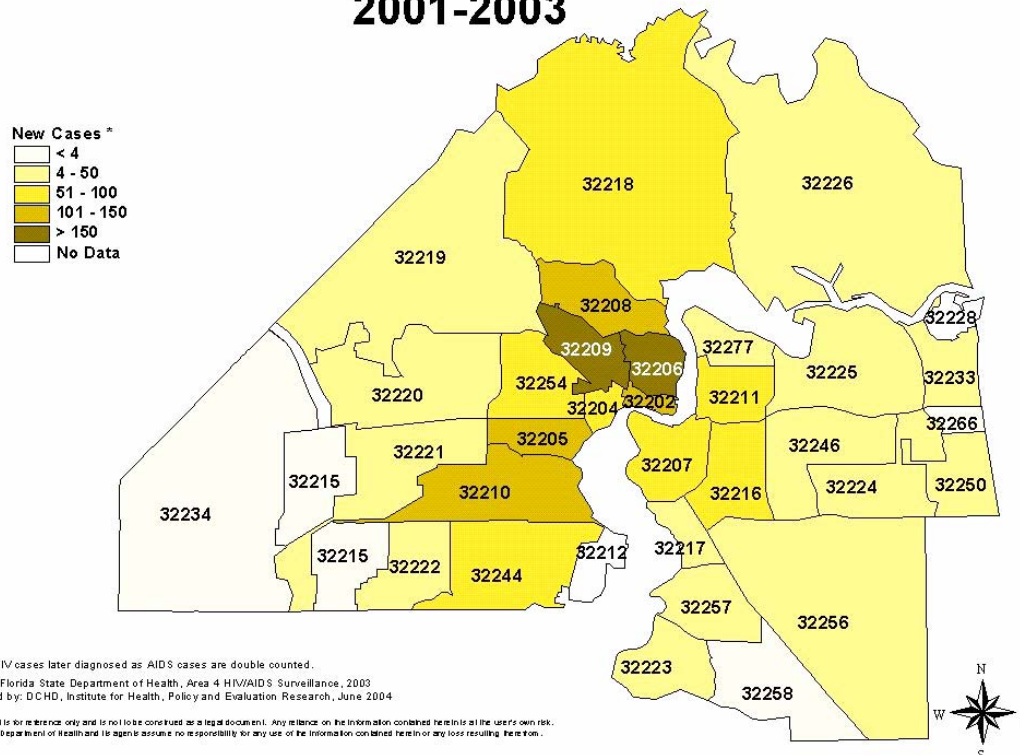
The distribution of HIV cases in the ten highly affected zip codes are predominantly African American. The gender breakdown for these cases is approximately 50% for males and 50% for females.

HIV/AIDS data: Since July 1997, positive results from confidential HIV testing have been reported to the Florida Department of Health. From July 1997 through June 30, 2004 a total of 1,668 HIV cases have been reported in Duval County. Other than the first full year since confidential HIV reporting became mandatory in Florida, there has been an increase of twenty percent or higher in the reported HIV cases in Duval County each subsequent year.

Current HIV statistics provide a more detailed view of who is becoming infected and how they are getting infected. In Duval County, HIV cases

(Continued on page 6)

Figure 1 Reported HIV/AIDS New Cases in Duval County 2001-2003



STD Health Disparities: A New Focus and Direction

by Chip Seaman, DCHD STD Program

In 2003, Duval County reported 4,548 cases of chlamydia and 2,360 cases of gonorrhea. Of the reported cases of chlamydia, 73% were from the 15–24 age group. Of the reported cases of gonorrhea, 54% of cases were from the 15–24 age group. These figures illustrate a glaring age disparity in Duval County disease incidence (See graphs 1 and 2).

This is a trend that has been steady year after year in Duval County. In order to improve these trends, the DCHD/STD Division has made some notable changes:

1. The DCHD/STD Clinic has decentralized operations. Male patients and their contacts may now be seen Monday through Friday at 1833 Boulevard, Suite 500, during traditional daytime hours. Male and female patients who require specialized STD services such as referrals for preventing the spread of syphilis, will continue to be seen at Boulevard. Female patients and their contacts may now visit the following health centers in their respective communities throughout Jacksonville during traditional daytime hours: Center for Women, West Jacksonville Health Center, Wesconnett Health Center, South Jacksonville Health Center, Beaches Health Center, Marietta Health Center, and Agape Community Health Center. The goal is to be more accessible to the public by offering services at multiple locations.

2. The DCHD Mobile Unit has established the following regular sites offering non-traditional service hours at varied venues around town:

The Magnolia Project, W.45th and Moncrief, Mondays, 5:30 – 9:30 pm.

River Region, 330 W. State Street, Wednesdays, 7:00 am – 2 pm.

Azalea, E. 8th and Market, Fridays, 6:00 pm – 10:00 pm.

For the first time ever, the DCHD is now offering STD services to the public via testing sites in high morbidity areas, at multiple venues, during evening hours.

The following STD/HIV tests are available at no cost to the public: HIV, syphilis, gonorrhea, and chlamydia. All sites will also include Partner Counseling and Referral Services (PCRS) and HIV early intervention linkage. The goal is to reach out to the public and to expand testing by making testing more convenient and cost-free.

3. The DCHD mobile sites now offer the OraQuick Rapid HIV test. This test is performed from a finger prick on a drop of blood after obtaining signed patient consent. It has proven to be a popular test. Patients obtain rapid results without having to wait the tradi-

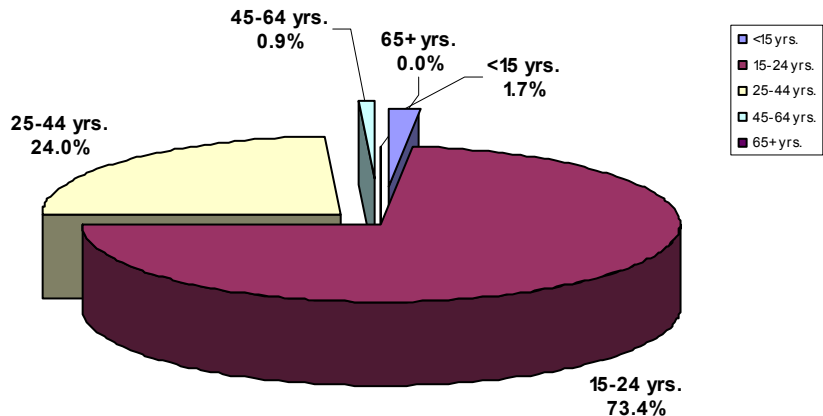
tional two weeks. Duval County is one of three programs in Florida selected to offer this service. The goal is to make testing both easier and quicker, while increasing the rates of testing, intervening in disease transmission, and linking new positives to follow up care more rapidly. During the fourth quarter of 2003, DCHD/STD performed 751 OraQuick tests and identified 22 positive infections that were confirmed by serology (3%). Many of the selected venues targeted men having sex with men and IV drug users, since morbidity data in Duval illustrates a high prevalence from these groups.

4. The DCHD/STD Division has ventured out into the community during all hours of the day and night, in search of disease, to target young adults at venues such as detention centers, gay bars, low income housing

(Continued on page 5)

Graph 1

Chlamydia by Age Group, Duval County 2003



n = 4,548
 Source: FDOH, Bureau of STD Prevention and Control
 Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, June 2004

STD Health Disparities: A New Focus and Direction

(Continued from page 4)

projects, and drug rehab facilities. Since July 2003, the STD Mobile Unit has identified an 8% positivity rate for chlamydia. This means 8% of patients tested during outreach were found to have chlamydia, did not know it, and were consequently treated and interviewed by Disease Intervention Specialists (DIS). The goal is to be more aggressive in searching out asymptomatic disease in the adolescent population in order to treat, interview, and intervene in disease transmission more rapidly.

5. Beginning in August 2003, the DCHD/STD Division became the only program area in the state to offer field treatment for chlamydia and gonorrhea by protocol. Developed out of a need to more rapidly inter-

vene in the spread of bacterial disease in Duval adolescents, a protocol was developed to enable Disease Intervention Specialists to treat patients in field settings who have already tested positive, to interview the patients, and to pursue partners for testing and treatment.

From the August 2003 inception through May 2004, DISs have been able to treat and interview 1,373 chlamydia and gonorrhea patients in the field. Because of this, we will be paying close attention to our ability to improve upon the percentage of patients treated for chlamydia and gonorrhea within 14 days of specimen collection date. For example, the Bureau of STD's goal for bringing positive chlamydia patients to treatment is 90% but the 2003 statewide average is only 70% compliance and

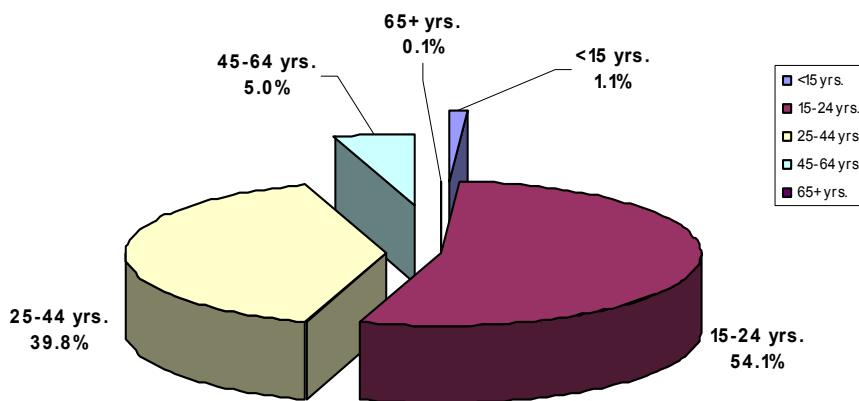
Duval had 63% compliance. We must do a better job. The goal is to treat disease more rapidly by having DIS treat patients in the field and to measure our progress in this area from the Bureau of STD Quarterly Program Indicators Report.

6. In order to be able to intervene more rapidly in disease transmission, the STD Program has to be able to receive laboratory reports from regional providers more rapidly. Beginning in April 2004, DCHD/STD Surveillance Division will identify all area labs and providers who report positive labs late (after 14 days). The Surveillance Coordinator has begun visitations to all providers identified as not in compliance. Visitations to providers include an informative session about the legal requirements of reporting, issuance of program literature and updated forms, and a discussion of recent reporting time frames for their organization based on an analysis from STD/MIS data. From April 1st – June 1st 2004, there were 45 visits performed by the STD Surveillance Coordinator. The Coordinator will calculate reporting percentages from the same organizations in the coming months to see if marked improvement occurs as a result of the visitations.

As we head into the next fiscal year, it is more apparent than ever, to recognize the value of partnering with other agencies. The DCHD does not have the financial resources to successfully tackle the burden of adolescent bacterial disease alone. Future success or failure will be based upon the ability to identify opportunities to partner with community-based organizations, to plan a new direction, and to measure the outcomes.

Graph 2

**Gonorrhea by Age Group
Duval County , 2003**



n = 2,360 (11 had missing value for age)

Source: FDOH, Bureau of STD Prevention and Control

Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, June 2004

An Update on HIV/AIDS Trends in Jacksonville

(Continued from page 3)

reported by race/ethnicity through July 2004, show that 73% are African Americans, 24% are white, 2% Hispanic, and 1% other. African Americans account for 60% of the presumed living AIDS cases. Females account for 26% of the AIDS Cases and 42% of the reported HIV cases.

The leading mode of transmission for cumulative HIV cases through June 30, 2004, was heterosexual contact at 47%, followed by males having sex with males (MSM) at 29%, then IV drug users (IDU) at 12%, and combined MSM/IDU at 3%. The “No Identified Risk” category accounts for 9% of the reported HIV cases. Graphs 3 and 4 show the modes of transmission by gender.

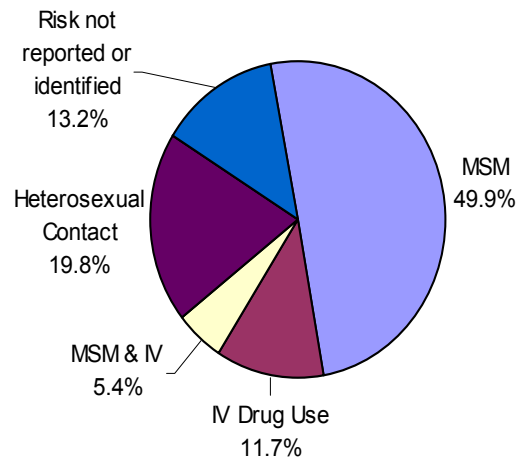
The greatest proportion of HIV cases reported by age through June 30, 2004 was among 30-39 year-olds for 35%, followed by the 20-29 year-olds 27%, then the 40-49 year olds 25%. Thirteen to 19 year-olds account for 6% of the reported HIV Cases in Duval County and those older than 50 account for 9% of the HIV cases in Duval County.

HIV prevalence estimate: Duval County is part of a defined five-county area by the Florida Department of Health. This area is called Area 4 and includes Baker, Clay, Duval, Nassau, and St. Johns Counties. Duval County accounts for 91% of the total reported HIV cases and 89% of the AIDS cases in Area 4.

In March 2002, the Florida Department of Health revised the HIV prevalence estimates for Florida based on findings from the Centers for Disease Control and Prevention. This updated report shows that the estimated HIV prevalence for Area 4 is 5,502 persons. Since Duval County accounts for 91% of the HIV cases in Area 4, an approximation for Persons Living With HIV in 2002 is 5,006.

Graph 3

New HIV/AIDS cases among males by Mode of Exposure, Duval County, 2003



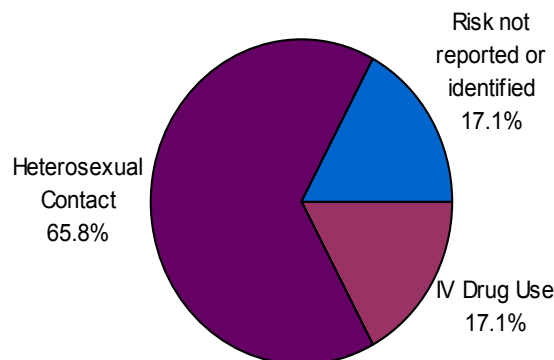
n= 409

Source: FDOH, Bureau of HIV/AIDS, HARS

Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, June 2004

Graph 4

New HIV/AIDS cases among females by Mode of Exposure, Duval County, 2003



n= 228

Source: FDOH, Bureau of HIV/AIDS, HARS

Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, June 2004

HIV: The National Challenge

(Continued from page 1)

all groups between 1992 and 1997. These increases were due to the 1993 expanded AIDS case definition and, more recently, improved survival rates due to new highly active anti-retroviral therapy (HAART) treatment.

Some efforts to control the spread of HIV have been successful. The development and use of guidelines to prevent HIV infection among health care workers and to test donated blood for HIV have resulted in a reduction in HIV transmission. Declines in new cases of AIDS among children have resulted from the use of guidelines for HIV counseling and voluntary testing as a part of routine prenatal care for all pregnant women.

Principal health determinants: Behaviors (sexual practices, substance abuse, and accessing prenatal care) and biomedical status (having other STDs) are major determinants of HIV transmission. Unprotected sexual contact, whether homosexual or heterosexual, with a person infected with HIV and sharing drug-injection equipment with an HIV-infected individual account for most HIV transmission in the United States. High risk behavior also increase exposure to opportunistic infections for those with HIV/AIDS.

Interventions: Interventions for combating HIV are behavioral as well as biomedical. Effective community-level prevention strategies in the United States have included social marketing interventions to increase condom use and messages about the risk of sexual activity and needle-sharing. Detection and treatment of HIV and other STDs are also an important biomedical component of an HIV prevention program. Most experts agree that prevention programs should include both behavioral and bio-medical interventions.

Disparities: In the United States, African Americans and Hispanics have been affected disproportionately by HIV and AIDS, as compared to other racial and ethnic groups. While African Americans

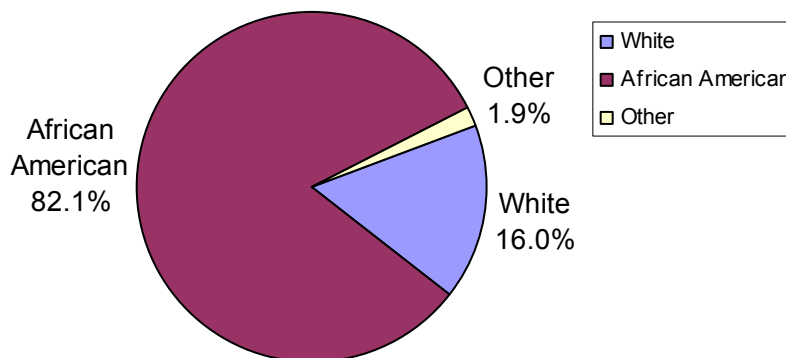
and Hispanics represent an estimated 13 percent and 12 percent, respectively, of the total U.S. population, they account for 55 percent of the reported AIDS cases. In 1997, AIDS remained the leading cause of death for all African Americans aged 25 to 44 years—the second leading cause among African American females and the leading cause among African American males. In 1996, for the first time, African Americans accounted for a larger proportion of AIDS cases than whites, and this trend has continued.

Among women with AIDS, African Americans and Hispanics have been especially affected, accounting for nearly 77 percent of cumulative cases reported among women by 1998. Of the 109,311 AIDS cases in women reported through December 1998, 61,874 cases occurred in African American women and 21,937 occurred in Hispanic women.

The disproportionate impact of HIV/AIDS on African Americans and Hispanics underscores the importance of implementing and sustaining effective prevention efforts for these racial and ethnic populations. HIV prevention efforts must take into account not only racial and cultural factors, but also other social and economic factors—such as poverty, underemployment, and poor access to the health care system.

Graph 5

Reported Gonorrhea Cases, Duval County 2003



n = 2,206, (65 had missing value for race)

Source: FDOH, Bureau of STD Prevention and Control

Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, June 2004

STDs: The National Challenge

(Continued from page 1)

whites. In Duval County, African Americans made-up over 82% of gonorrhea cases (See graph 5). African Americans accounted for about 82 percent of all reported cases of primary and secondary syphilis. The most recent syphilis epidemic occurred largely in heterosexual minority populations. Rates of primary and secondary syphilis have declined in all racial and ethnic groups except American Indians or Alaska Natives since 1990.

The hidden epidemics: The majority of STDs either do not produce any symptoms or signs, or they produce symptoms so mild that they often are disregarded. The result is many infected persons do not seek medical care and are able to transmit the disease to their partners. For example, as many as 85 percent of women and up to 50 percent of men with chlamydia have no symptoms. A person infected with HIV may be asymptomatic and may transmit the disease to another person. That person may, in turn, be infected for years but remain unaware until symptoms manifest themselves unknowingly infecting countless others during this time.

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Chlamydia Rates by Zipcodes, Duval County 2003

