

**Dallas National HIV Behavioral  
Surveillance System  
2007 Annual Data Report  
High Risk Heterosexuals**



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**National HIV Behavioral Surveillance System  
High Risk Heterosexuals in Dallas, Texas, 2007**

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## **National HIV Behavioral Surveillance System High Risk Heterosexuals in Dallas, Texas, 2007**

### **EXECUTIVE SUMMARY**

The National HIV Behavioral Surveillance System is an ongoing effort to collect cross-sectional data among populations at high risk for acquiring HIV. This report focuses on activities from the data collection cycle that examined high-risk heterosexuals (HET1) residing in areas with high rates of heterosexually acquired HIV and poverty. Participants were recruited from the Dallas Metropolitan Division using respondent-driven sampling from January - October 2007. The following are key findings presented in the report.

#### **Demographics**

Survey participants were:

- Predominantly Black (92%) and female (69%)
- Younger than the general Dallas Metropolitan Division population and younger than the HIV positive population in Texas (48% were 18-29 years of age)
- Low income (56% made <\$10,000 annually), less educated (81% had high school education or less) and only 39% employed full or part time

#### **HIV Prevalence**

- Less than 1% (n=9) of the HET1 participants tested positive for HIV and all nine were also unaware of their HIV status

#### **Sexual Behaviors**

- Unprotected sex with opposite sex main partners in the past 12 months (77% males, 88% females), casual partners (67% males, 81% females), or exchange partners (87% males, 83% females)
- 66% of males and 68% of females reported concurrent sexual partners
- Participants most commonly reported 2-5 sexual partners in the past year

#### **Drug Use**

- Marijuana use reported by over 90% of participants
- 95% of those that injected drugs shared some part of injection equipment

#### **Access to Healthcare**

- 62% of participants had no health insurance
- Only 56% visited a healthcare provider in past year and less than half of those were offered a HIV test during that visit

#### **Health Conditions**

- 3% ever had hepatitis and 68% had never been tested for hepatitis C
- Chlamydia and gonorrhea were the most commonly reported STD

**HIV Testing and Prevention**

- 48% of participants had never been tested for HIV
- Of participants not tested for HIV in the past year, 32% said it was due to cost or access issues and 29% because they were afraid to receive test results

**Incarceration**

- 17% of participants were arrested in the past year, of which less than 20% were tested for HIV during incarceration

## INTRODUCTION

### The National HIV Behavioral Surveillance System

In 2000, the Centers for Disease Control and Prevention (CDC), in collaboration with representatives from state and local health departments, academic institutions, and clinical and prevention entities initiated a strategic planning process that culminated in the development of the CDC's HIV Prevention Strategic Plan Through 2005 (CDC, 2001). As part of this plan, four national goals were identified to reduce by half the annual number of new HIV infections in the United States. One of the four identified goals is to strengthen the national capacity to monitor the HIV epidemic to better direct and evaluate prevention efforts.

As a first step to meet this goal, the CDC awarded funds to state and local health departments to develop and implement a surveillance system that would monitor behaviors that put people at risk for HIV infection. This system is called the National HIV Behavioral Surveillance (NHBS) System. Among the 25 eligible awardees was the Dallas Metropolitan Division (Figure 1) due to the location's high AIDS prevalence in 2000.

**Figure 1. National HIV Behavioral Surveillance System Sites**



Source: The Centers for Disease Control and Prevention (CDC), 2010.

NHBS is an ongoing behavioral surveillance system that collects cross-sectional data among populations at high risk for acquiring HIV, including men who have sex with men (MSM), injection drug users (IDU), and heterosexuals at high risk for HIV infection (HET). NHBS activities are implemented in one-year cycles so that data are collected from each risk group every three years; these study cycles are referred to as NHBS-

MSM, NHBS-IDU, and NHBS-HET. Individuals who consent to participate undergo an anonymous interview, receive an HIV test and are given a monetary incentive for their participation.

This cycle of data collection focused on heterosexuals at high risk for HIV infection (HET1). For this cycle, CDC defined a heterosexual at risk for HIV infection as an adult with:

1. A physical or social connection to a high-risk area and
2. At least one opposite-sex partner in the past year.

High-risk areas (HRA) were defined as geographic areas with high rates of heterosexually acquired HIV and poverty. Findings from NHBS will be used to enhance the understanding of risk and testing behaviors, and to develop and evaluate HIV prevention programs that provide services to heterosexuals at high risk for HIV infection.

### **Formative Assessment**

Formative research is conducted prior to implementation of each NHBS cycle in order to enhance data collection activities. NHBS project sites gather information about the public health-related attributes of the study population, determine how that population should be defined, and find the best ways to access it through the formative assessment (Higgins et al., 1996; Ulin et al., 2005).

Activities in the formative assessment for NHBS HET1 included:

- Secondary data review where information was gathered from published and unpublished data from a variety of sources about HET networks in Dallas.
- Analysis of the general characteristics of the population, along with the status of the HIV epidemic and where HIV prevention services were being utilized.
- Semi-structured interviews of key informants in the Dallas HET community that included individuals of various races, ages, and gender who provided services to the HET community.

### **Methods**

#### ***Respondent Driven Sampling***

Data was collected using respondent-driven sampling (RDS). RDS builds on the concept of “snowball sampling” where individuals refer people they know to a study, and then those people refer others they know, and so on.

- RDS studies begin with assessment of the population of interest, typically conducted by an ethnographer, to determine behavioral trends in the population and locate initial recruits for the study called “seeds.”
- The CDC recommends using 5-15 seeds for each NHBS cycle.

- Seeds are each given 3-5 coupons to distribute to other potential recruits for the study.
- Individuals that return to study sites with their coupons will in turn receive 3-5 coupons to distribute to other potential recruits until the desired sample size is met.
- A modest incentive is provided to participants for completing the interview, recruitment of peers and for taking an HIV test.
- Data collected from an RDS study can be analyzed using RDSAT software.
- Population estimates generated by RDSAT are weighted to adjust for recruitment bias (some participants may recruit 5 other people to the study while some may recruit none), homophily (tendency for people to recruit others with demographic traits similar to themselves, e.g. Hispanic females tend to recruit other Hispanic females rather than black or white males), and differential personal network size among study participants.

### ***Targeted Population***

- At risk heterosexuals throughout the Dallas Metropolitan Division were recruited during the Dallas NHBS HET1 cycle that spanned January 2006-October 2007, including formative assessment.
- Fifteen seeds were recruited and efforts were made to ensure diversity among the seeds.
- To participate in the study, subjects were required to be 18 years of age and older, have had vaginal or anal sex with a person of the opposite sex in the past 12 months, be either male or female (not transgender), be able to complete the interview in English or Spanish, and have not previously participated in the HET1 cycle.
- The original 15 seeds yielded 969 eligible participants.
- Participants were asked to give their informed consent to an interview and for a voluntary anonymous HIV test prior to eligibility screening.
- Some participants reported being HIV positive during the interview.
- Consent to the HIV test was not necessary for participation in the HET1 interview.

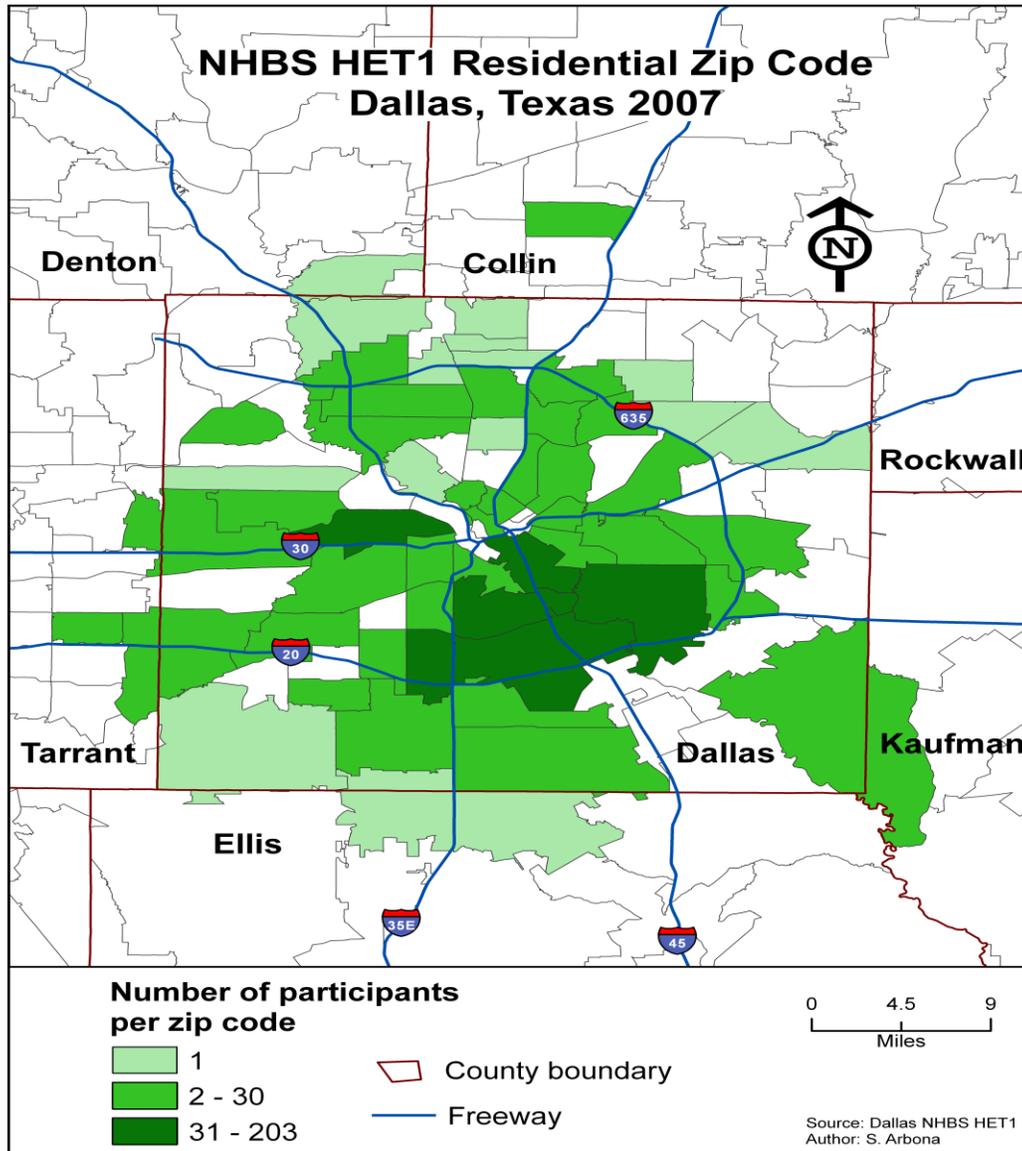
Study participants were free to decline to answer any question in the survey and therefore some questions received only a few responses. Rather than omit variables with few responses from the report entirely, unweighted frequencies are presented for these variables instead of weighted estimates. Unweighted frequencies should be interpreted with caution.

### **Residential Zip Code of HET1 Participants**

The formative assessment for the activities in the Dallas NHBS HET1 in 2007 included the 12 counties in the Dallas Metropolitan Division, but most participants resided within Dallas County at the time of the survey. The main concentration of participants (71%) came from zip codes in the central and Southeast part of the county (Figure 2). This

distribution corresponds with the findings of the formative assessment process that identified clusters of HRAs in these areas. The one exception is the relatively lower participation from individuals residing in zip codes in the North-Northeastern Dallas area.

**Figure 2. Geographic Location of Dallas NHBS HET1 Participants, 2007**



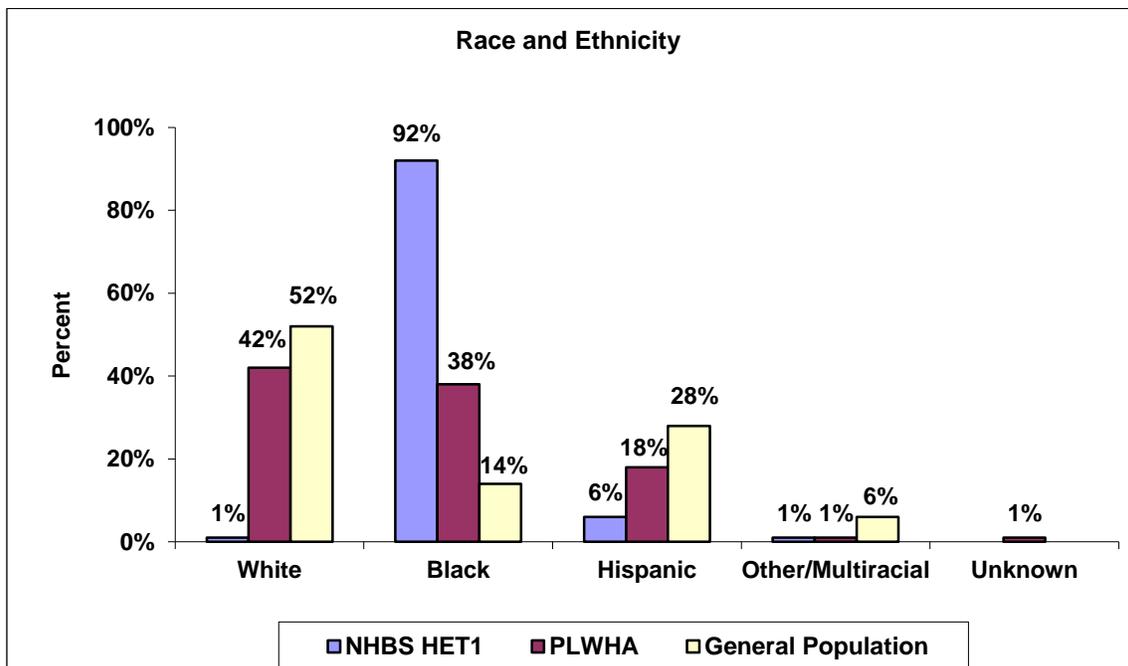
Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## DEMOGRAPHIC CHARACTERISTICS

### Race and Ethnicity

The majority of People Living with HIV/AIDS (PLWHA) in Texas is Black. The rate of Black PLWHA in 2008 (850/100,000) was over four times the rate in White PLWHA (197/100,000) and nearly five times the rate in Hispanic PLWHA (174/100,000). These rates are 15% to 25% higher when calculated for age groups greater than 12 years old (Texas DSHS, 2010). PLWHA in the Dallas Metropolitan Division as of December 31, 2007 were predominantly White; the second largest racial/ethnic group was Black and the third largest group was Hispanic. Among the 2007 estimated population 18 to 54 years of age in the Dallas Metropolitan Division, the largest population group was also White, but the second largest group was Hispanic, followed by the Black population group. The racial and ethnic composition in the NHBS HET1 sample is different; the vast majority of the sample was Black (92%), and only 8% of the participants identified themselves as belonging to other races and ethnicities (Figure 3). This distribution reflects the racial and ethnic composition of the South-South Central Dallas County area in the survey, where the population is predominantly Black.

**Figure 3. Estimated General Population, People Living with HIV/AIDS (PLWHA), and Dallas HET1 Sample in the Dallas Metropolitan Division by Race and Ethnicity, 2007**



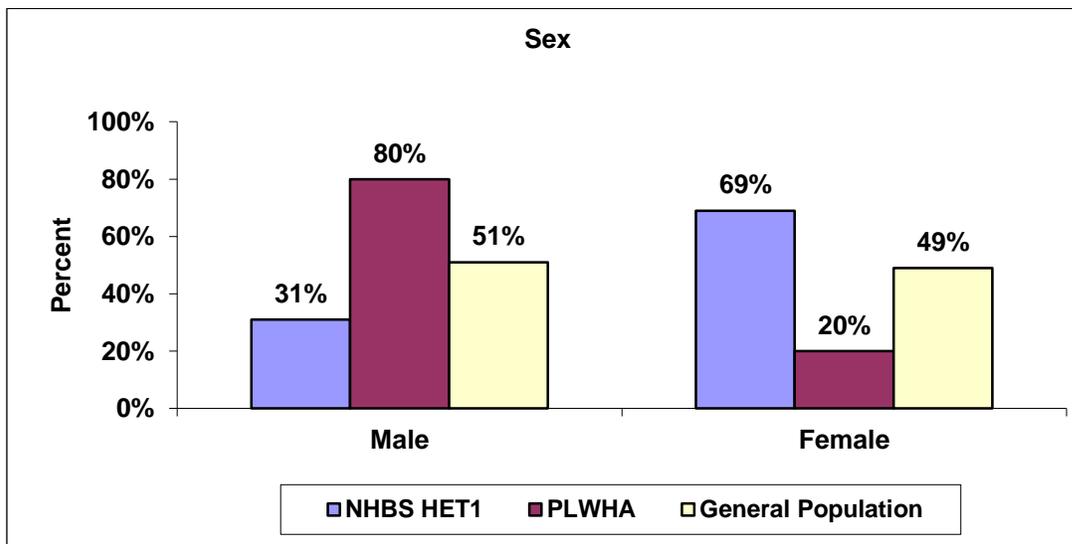
Sources: Texas Population Data Detailed Data (online), <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>, San Antonio, TX: Texas State Data Center and Office of the State Demographer, Institute for Demographic and Socioeconomic Research, The University of Texas at San Antonio, September 16, 2011. Enhanced HIV/AIDS Reporting System (eHARS), September 9, 2011. Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

### Sex

In the United States in 2009, nearly a quarter of diagnoses of HIV infection were among women and girls aged 13 years and older. Additionally, the rate of diagnoses of HIV infection for black females was nearly 20 times as high as the rate for white females and approximately 4 times as high as the rate for Hispanic/Latino females (Centers for Disease Control and Prevention, 2011).

The distribution of cases between sexes from 2002 to 2008 among PLWHA in Texas was over three quarters male. A comparison by sex in the Dallas Metropolitan Division in the general population, PLWHA and the NHBS HET1 sample (Figure 4) shows that while the gender distribution in the general population is almost evenly distributed between sexes, male PLWHA are four times the number of female PLWHA. The participants in the NHBS HET1 sample have a different sex distribution being mostly female (over two-thirds).

**Figure 4. Estimated General Population, People Living with HIV/AIDS (PLWHA), and Dallas NHBS HET1 Sample in the Dallas Metropolitan Division by Sex, 2007**

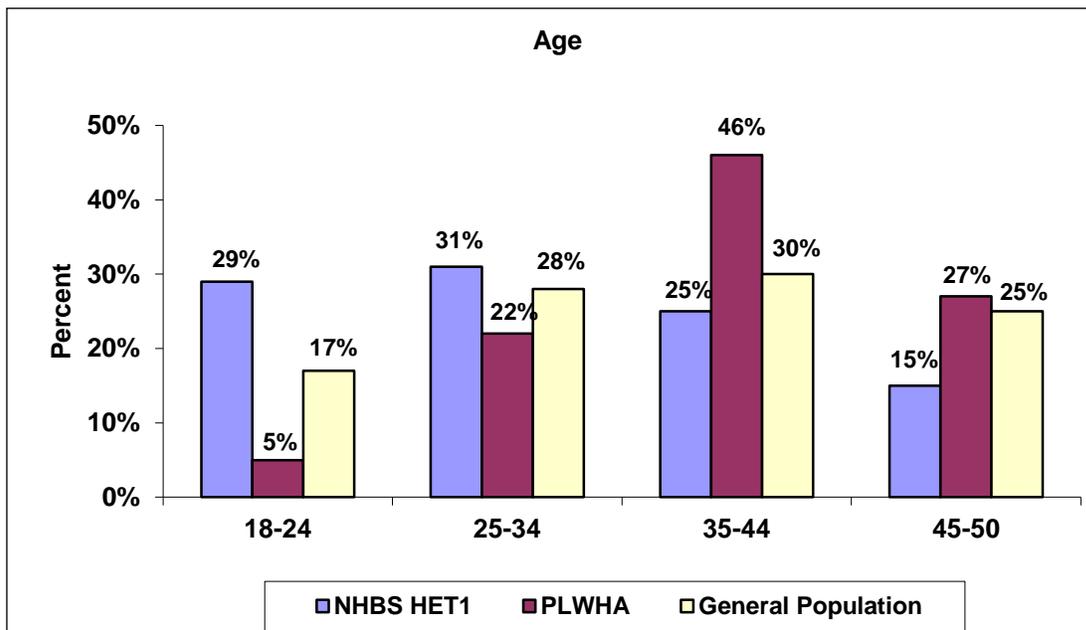


Sources: Texas Population Data Detailed Data (online), <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>, San Antonio, TX: Texas State Data Center and Office of the State Demographer, Institute for Demographic and Socioeconomic Research, The University of Texas at San Antonio, September 16, 2011. Enhanced HIV/AIDS Reporting System (eHARS), September 9, 2011. Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

Age

The age distribution of PLWHA in Texas from 2002 to 2008 continued to shift to those over the age of 45, reflecting the aging of the population infected with HIV (Texas DSHS, 2010). Figure 5 shows a comparison of the age groups in the Dallas Metropolitan Division among the estimated general population, PLWHA and the Dallas NHBS HET1 sample. Thirty percent of the general population 18 to 54 falls into the 35 to 44 age group. The youngest age group (18-24) account for the smallest proportion (17%). PLWHA in the Dallas Metropolitan Division are younger than PLWHA in the rest of Texas with the largest concentration in the 35 to 44 age group, but only 5% in the youngest age group. HET1 study participants were younger with only 15% in the 45 to 50 age group. The age eligibility criterion for participation in the NHBS HET1 survey was from 18 to 50 years of age.

**Figure 5. Estimated General Population, People Living with HIV/AIDS (PLWHA), and Dallas NHBS HET1 Sample in the Dallas Metropolitan Division by Age, 2007**



Sources: Texas Population Data Detailed Data (online), <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>, San Antonio, TX: Texas State Data Center and Office of the State Demographer, Institute for Demographic and Socioeconomic Research, The University of Texas at San Antonio, September 16, 2011. Enhanced HIV/AIDS Reporting System (eHARS), September 9, 2011. Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## Other Socioeconomic Characteristics

Analysis of the national NHBS HET1 data indicated that HIV prevalence rates in urban poverty areas were inversely related to annual household income: the lower the income, the greater the HIV prevalence. The inverse relationship between HIV prevalence and socioeconomic status (SES) was observed for other SES measures such as education, annual household income, employment, and homeless status (Centers for Disease Control and Prevention, 2010a).

The level of education, household income and employment status of the Dallas NHBS HET1 sample are shown in Table 1. Among HET1 participants who answered questions about socioeconomic status, a majority had a high school education or less, an annual household income less than \$10,000, and was unemployed. Of the HET1 participants who answered questions about homelessness, a relatively small percentage responded that they were currently homeless (3%) or had been homeless at some point within the 12 months prior to the interview date (10%).

**Table 1. Education, Income, Employment Status and Homelessness among Heterosexuals in the Dallas Metropolitan Division, 2007**

<b>Characteristic</b>	<b>Weighted Frequency</b>	<b>Weighted Prevalence Estimate</b>
<b>Education Level</b>		
Less than high school	320	33.2%
High school/GED	461	47.8%
Some College	175	18.2%
College grad/post grad	8	0.8%
<b>Annual Household Income</b>		
\$0-\$9999	543	56.3%
\$10,000-\$19,999	221	22.9%
\$20,000-\$39,999	157	16.3%
\$40,000+	42	4.4%
Unknown	1	0.1%
<b>Employment Status</b>		
Unemployed	444	46.1%
Employed full or part time	382	39.6%
Other*	138	14.3%
<b>Currently Homeless</b>		
	33	3.4%
<b>Ever Homeless</b>		
	100	10.4%

\*Other includes retired, disabled, full time student and homemaker.

Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## **SEXUAL BEHAVIORS**

HET1 participants were asked questions about the number and type of sex partners and the sexual behaviors they had engaged in. Of the participants who answered these questions, 41.7% of the male participants (n=119) reported having two to five female partners in the past 12 months and 52.7% of the female participants (n=331) reported having two to five male partners in the past 12 months (Table 2).

**Table 2. Prevalence Estimates of the Number of Sex Partners among Heterosexuals in the Dallas Metropolitan Division, 2007**

Characteristic	Weighted Frequency	Prevalence Estimate
<b>Male Participants: Female Partners</b>		
None	0	0.0%
1 partner	69	25.6%
2-5 partners	119	41.7%
6-10 partners	65	14.8%
11+ partners	42	17.8%
<b>Female Participants: Male Partners</b>		
None	3	0.2%
1 partner	158	23.6%
2-5 partners	331	52.7%
6-10 partners	107	15.0%
11+ partners	70	8.5%

Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

Participants were also asked about main, casual or exchange sex partners (a person with whom money or drugs are exchanged for sex). Almost 77% of male participants engaged in unprotected sex with their main female partner, 67% sex with their casual female partner and 86% with their exchange female partner (Table 3).

**Table 3. Prevalence Estimates of Male Heterosexuals in the Dallas Metropolitan Division Engaging in Unprotected Sex with their Female Partners, 2007**

Partner Type	Group	Weighted Frequency	Prevalence Estimate	95% CI
Main	Yes	218	76.8%	54.2-88.9
	No	28	23.2%	11.1-45.8
Casual	Yes	158	67.0%	42.5-79.7
	No	48	33.0%	20.3-57.5
Exchange	Yes	46	86.9%	76.5-100
	No	19	13.1%	0-23.5

Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

At least 80% of female participants with male partners engaged in unprotected sex with either a main, casual or exchange partner (Table 4).

**Table 4. Prevalence Estimates of Female Heterosexuals in the Dallas Metropolitan Division Engaging in Unprotected Sex with their Male Partners, 2007**

<b>Partner Type</b>	<b>Group</b>	<b>Weighted Frequency</b>	<b>Prevalence Estimate</b>	<b>95%CI</b>
Main	Yes	511	87.7%	84.5-92.1
	No	60	12.3%	7.9-15.6
Casual	Yes	330	80.6%	72.8-86.2
	No	102	19.4%	13.8-27.2
Exchange	Yes	132	82.5%	71.8-95.1
	No	37	17.5%	4.9-28.2

Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

### **Last Sexual Partner Injected Drugs**

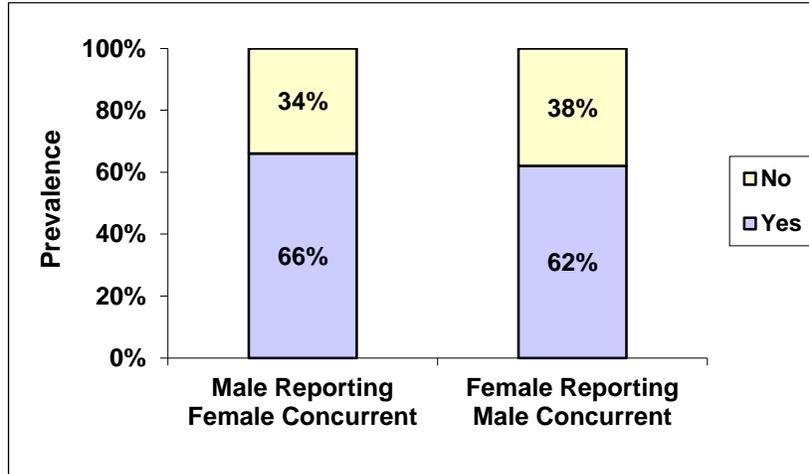
Among male heterosexual participants, the estimated proportion of female sexual partners that were injection drug users (IDU) varied depending on the type of partner: among main partners, 25%, among casual partners, 13% and among exchange partners, 44%. The higher proportion of IDU exchange partners is due to the nature of the sexual-exchange partnership, in which sex is traded for other needs (e.g., drugs, property, etc).

Among female heterosexual participants, the proportion of male sexual partners that were IDU also varied by the type of partner. Casual partners had the higher estimated proportion of IDU at 20%, compared with main partners at 4%. Only 1 female participant reported an exchange partner who injected drugs.

### **Concurrent Sex Partners**

Approximately 66% of the male heterosexuals in the Dallas Metropolitan Division have concurrent female sex partners, while an estimated 62% of female heterosexuals reported have concurrent male sex partners (Figure 6).

**Figure 6. Prevalence Estimates of Heterosexuals in the Dallas Metropolitan Division Having Concurrent Sex Partners, 2007**

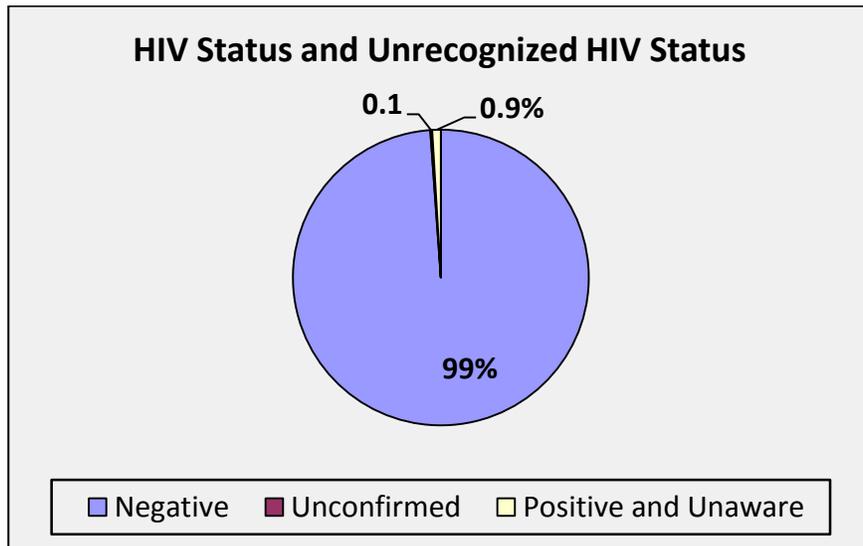


Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

**Awareness of HIV Status**

The CDC estimates that more than one million people are living with HIV in the United States. About one in five people (21%) living with HIV is unaware of their infection (Centers for Disease Control and Prevention, 2010b). In the Dallas NHBS HET1 sample, 965 participants tested for HIV. One percent (n=9) of participants were HIV positive and 2 participants had an unconfirmed HIV test result. All HIV positive persons were unaware of their HIV status (Figure 7). The results in Figure 7 were calculated from unweighted data.

**Figure 7. HIV Status and Awareness of HIV Status among Dallas NHBS HET1 Participants, 2007, Unweighted Data**



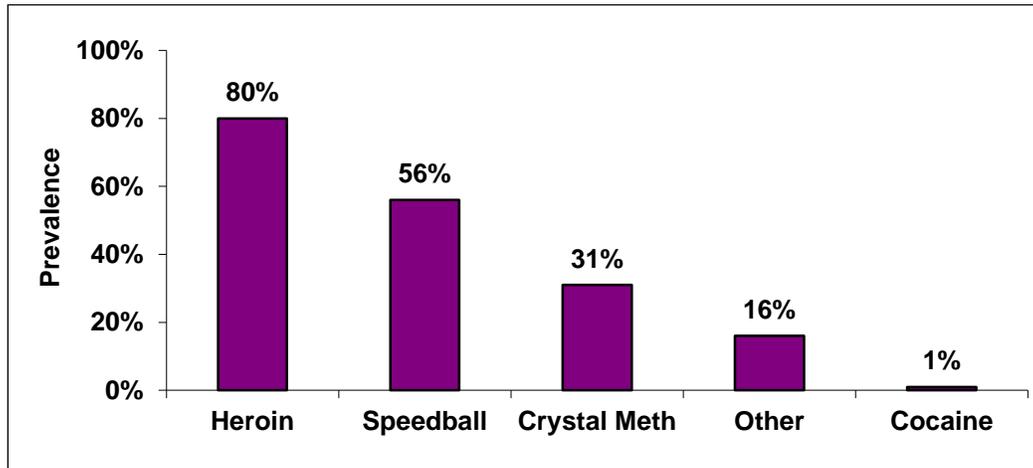
Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## INJECTION AND NON-INJECTION DRUG USE

HIV infection due to heterosexual contact represents 22% of Texans living with HIV. In addition to the direct relationship between injection drug use and the acquisition of HIV, drug abuse plays other, less recognized, roles in HIV transmission. Drug use may affect the users' judgment and mental condition, which may lead to an increase in the likelihood of engaging in high-risk sexual behaviors. Drug addiction can further increase users' exposure to unprotected sex as sex may be used as means to obtain drugs. Finally, the physiological consequences of drug abuse may alter susceptibility to infection and interact with HIV treatment drugs. Therefore it is important to determine what drugs, both injection and non-injection, are most commonly used in the study population so that education and prevention efforts can be properly focused to mitigate the effects and consequences of drug use.

The prevalence of heroin use among heterosexuals in the Dallas Metropolitan Division was estimated to be 80% (weighted frequency = 23). The second most reported drug was speedballs (combination of heroin and cocaine), with an estimated 56% (weighted frequency = 21) reporting use (Figure 8).

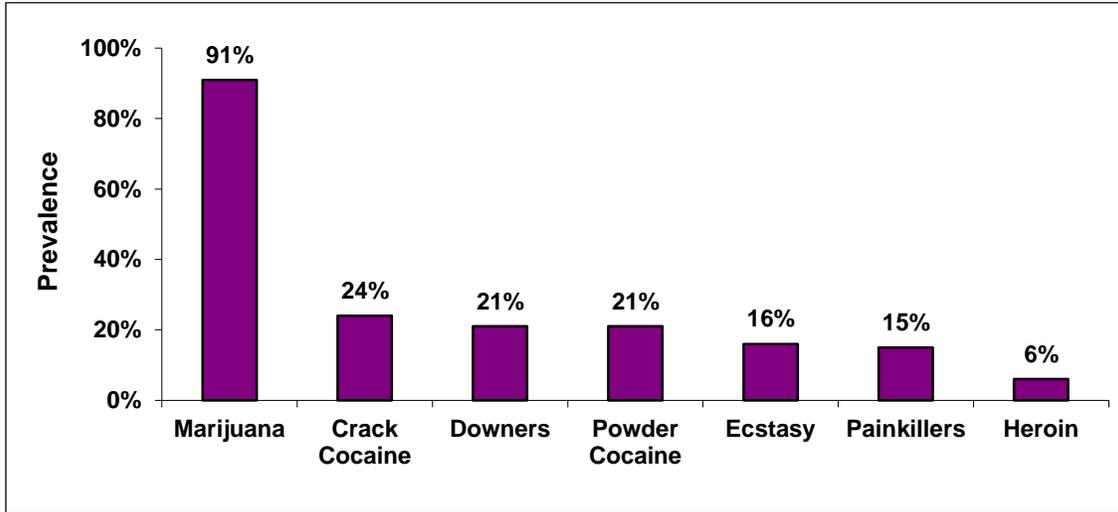
**Figure 8. Prevalence Estimates of the Injection Drugs Used in the Dallas Metropolitan Division, 2007\***



\*Participants could report use of more than one type of injection drug in the year prior to the interview.  
Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

Figure 9 illustrates the prevalence estimates of the non-injection drugs used by heterosexuals in the Dallas Metropolitan Division. The most commonly used non-injection drug was marijuana, estimated at 91% (weighted frequency = 389), followed by crack cocaine at 24% (weighted frequency = 89) and powdered cocaine at 21% (weighted frequency = 85).

**Figure 9. Prevalence Estimates of the Non-Injection Drugs Used in the Dallas Metropolitan Division, 2007\***



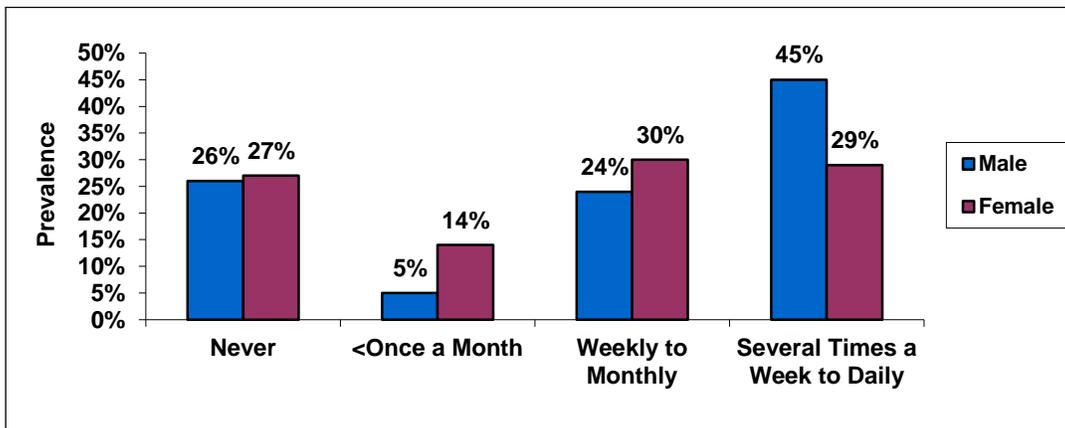
\*Participants could report use of more than one type of non-injection drug in the year prior to the interview; less than 5% of participants reported use of crystal meth, GHB, hallucinogens and amyl nitrate (poppers).  
Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

Seventy-two percent (n=52) of the 88 participants who reported injection drug use were estimated to have started injecting drugs when they were 19 years of age or younger. Twenty-two percent began using injection drugs between 20 and 29 years of age, and 6% began using injection drugs between 30 and 39 years of age.

### Alcohol Use

Of the participants that answered questions about alcohol use, the estimated prevalence of frequent alcohol use (several times a week to daily) was 45% among males and 29% among female heterosexuals in the Dallas Metropolitan Division (Figure 10).

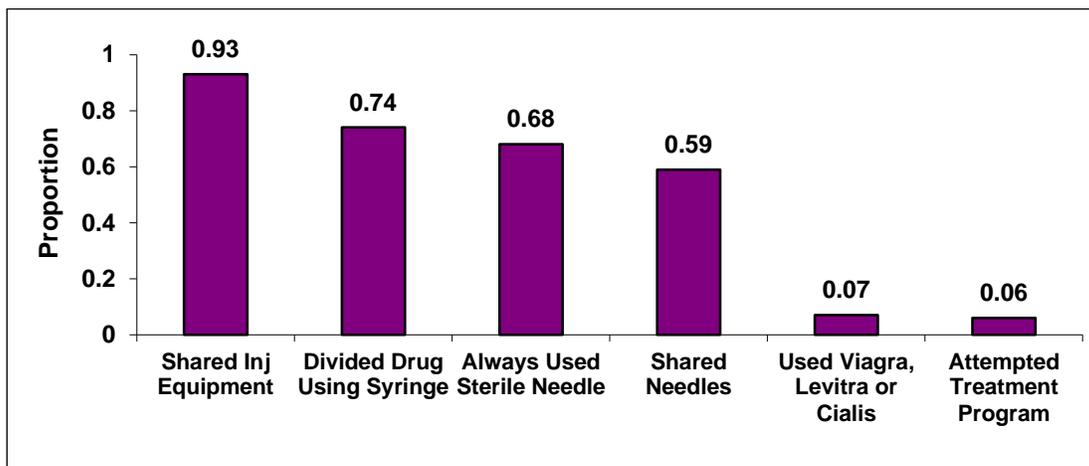
**Figure 10. Prevalence Estimates of Alcohol Use among Heterosexuals in Dallas Metropolitan Division, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

This population of high-risk heterosexual participants that reported using injection drugs also reported other high-risk behaviors for contracting HIV (Figure 11). Due to the low response rate for the following questions, however, weighted population estimates could not be calculated and the data displayed in Figure 11 are unweighted proportions. The proportion of participants that provided information about sharing injection equipment who reported that they had shared some in the past year was 0.93. More than half of heterosexuals that responded to questions about sharing equipment admitted that they had done so in the past year as well.

**Figure 11. Unweighted Proportions of Heterosexuals Reporting Risky Drug Use Behaviors in the Dallas Metropolitan Division, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## ACCESS TO HEALTH CARE

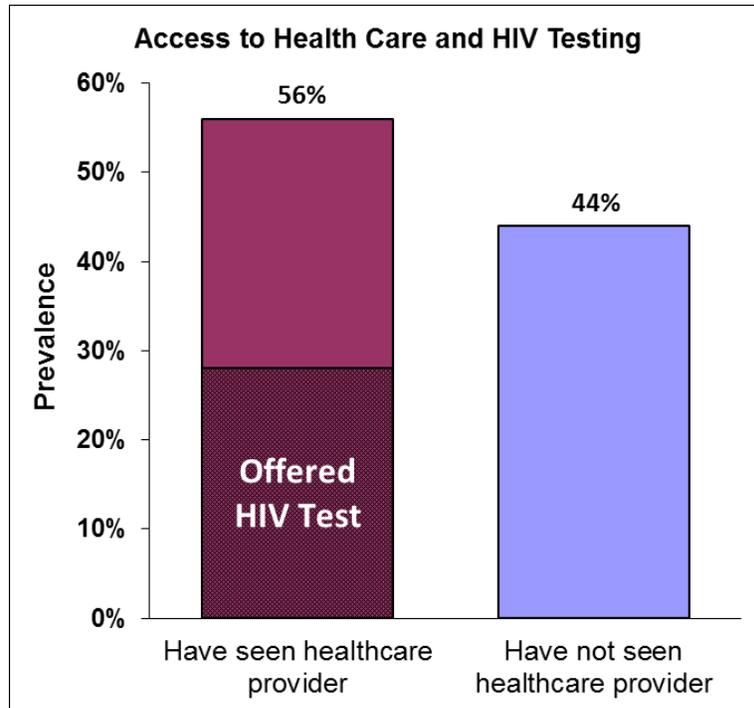
Prevalence estimates from the Dallas NHBS HET1 cycle indicate that 37% of the heterosexuals in the Dallas Metropolitan Division had some type of health insurance at the time of interview. Of the 37% with health insurance, 95% had private insurance with the remaining five percent covered by Medicaid. No participant reported they were covered by Medicare, Veterans Administration or Tricare/CHAMPUS. Sixty two percent of participants reported had no health insurance at the time of their interview.

A visit to a health care provider during the 12 months prior to the interview is one of the proxy measures used to assess access to care. Prevalence estimates from the Dallas NHBS HET1 cycle indicate that 44% of survey participants had not visited a health care provider. Less than half of those who did see a health care provider were offered an HIV test (Figure 12).

According to the CDC, more frequent HIV testing, particularly in health care settings, can help to identify more new cases. This, in turn, can lead to earlier treatment with life-extending drugs, fewer deaths, and reduced transmission of the virus. Testing is also

important because once someone finds out that they are infected with HIV, they often change their behavior (U.S. National Library of Medicine, 2011).

**Figure 12. Prevalence Estimates of Heterosexuals in the Dallas Metropolitan Division Having Access to Health Care and HIV Testing, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## HEALTH CONDITIONS

Prevalence estimates from the HET1 cycle indicate that 4% of heterosexuals in the Dallas Metropolitan Division have ever been diagnosed with hepatitis (3%). An estimated 68% have never been tested for HCV (weighted frequency = 610). Two hundred fifty one participants (prevalence estimate of 24%) reported they received a vaccination for hepatitis at some point in their lives: 3.7% of which were for HAV, 6% for HBV, and 67% for the combined HAV/HBV vaccine. The remaining 22.4% reported receiving a hepatitis vaccine but did not know which specific viral type (Table 6).

**Table 6. Prevalence Estimates of Hepatitis Testing and Vaccination among Heterosexuals in the Dallas Metropolitan Division, 2007**

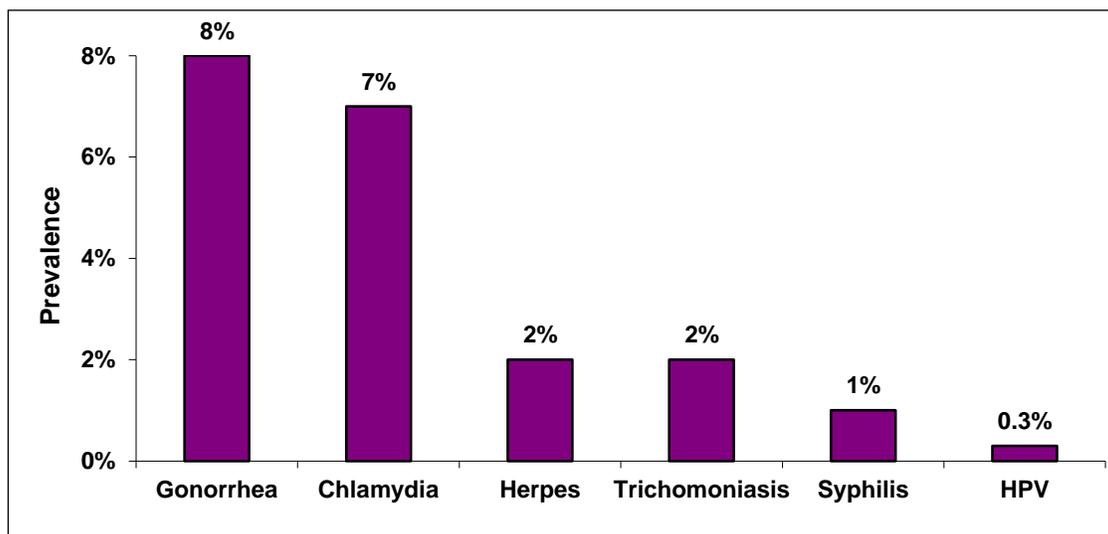
Characteristic	Group	Weighted Frequency	Prevalence Estimate	95% CI
Ever Had Hepatitis	Yes	39	3.5%	2.2-5.2
	No	923	96.4%	94.7-97.7
Ever Tested for HCV	Yes	317	29.5%	25.9-34.1
	No	610	68.3%	63.6-72.0
	Don't Know	18	2.1%	1.2-3.4
Ever Had Hepatitis Vaccine	Yes	251	24.4%	21.4-29.2
	No	689	73.0%	68.1-76.1
	Don't Know	24	2.6%	1.4-4.0
Type of Hepatitis Vaccine*	Hep A	11	3.7%	--
	Hep B	35	6.4%	2.7-15.6
	Hep A&B	168	67.4%	41.1-71.2
	Don't Know	37	22.4%	14.6-45.0

\*Among NHBS HET1 participants who reported ever having received a Hepatitis vaccine.

Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

Of the 962 persons who responded to the questions regarding the diagnosis of an STD within the 12 months prior to their interview date, 157 reported having had at least one STD, 28 reported two different STDs, eight persons reported three different STDs, two reported having four STDs, and a single individual reported having been diagnosed with five STDs during that time. Figure 13 shows the prevalence estimates of the STD diagnosed among heterosexuals in the Dallas Metropolitan Division in 2007.

**Figure 13. Prevalence Estimates of STDs Diagnosed among Heterosexuals in the Dallas Metropolitan Division, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## HIV TESTING EXPERIENCES

HIV testing provides an opportunity for people to receive counseling and information about risk reduction. Early knowledge of HIV status is important for linking individuals who are HIV positive to medical care and services that can reduce morbidity and mortality and improve quality of life.

Prevalence estimates from the Dallas NHBS HET1 cycle indicate that only 52% of heterosexuals in the Dallas Metropolitan Division have ever been tested for HIV. Of the participants that had ever been tested for HIV, 56% had at least one test in the past two years. Of the heterosexuals who had been tested in the past two years, 53% tested because they wanted confirmation of negative HIV status, 20% tested due to concerns about being exposed to HIV and 10% tested because it was required (Table 7). Nineteen percent of participants reported that their most recent HIV test had been anonymous and 19% received a rapid test, with results available within 30 minutes.

**Table 7. Prevalence Estimates of HIV Testing Characteristics of Heterosexuals in the Dallas Metropolitan Division, 2007**

Characteristic	Group	Weighted Frequency	Prevalence Estimate	95% CI
Ever tested for HIV	Yes	541	52.1%	48.6-57.5
	No	421	47.7%	42.3-51.3
	Don't Know	2	0.2%	0.0-0.3
Reason for most recent test*	None	52	9.9%	5.6-15.2
	Exposure concerns	106	19.9%	14.6-26.0
	Make sure negative	276	53.0%	44.6-59.6
	Doctor suggestion	23	5.5%	3.7-9.8
	Required	67	10.0%	6.5-13.1
Number of HIV tests in the past 2 years*	Pregnant	17	1.6%	0.5-3.1
	None	204	35.1%	29.1-42.3
	1 to 2	288	56.0%	47.8-61.5
	3+	47	8.7%	4.9-14.9
Most recent test anonymous*	Don't Know	2	0.2%	0.0-0.5
	Yes	72	19.0%	13.9-28.5
	No	468	80.9%	71.4-86.0
	Don't Know	1	0.2%	0.0-0.3
Most recent rapid test*	Yes	84	19.3%	13.1-25.9
	No	455	80.7%	74.1-86.9
	Don't Know	2	0.0%	--

\*Among NHBS HET1 participants who reported ever testing for HIV.

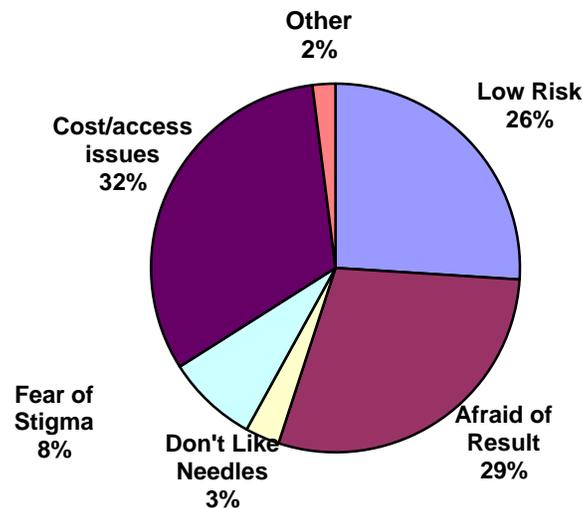
Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

NHBS HET1 participants tested for HIV at a variety of locations: 25% tested at a public health clinic, 14% in mobile health units, 10% in hospitals, 7% in correctional facilities

and 6% in family planning clinics, prenatal/OB clinics, or private doctors' offices. Other testing sites included: STD clinics, ERs, counseling/testing sites, adult HIV/AIDS specialty clinics and drug treatment programs.

Of 675 participants who did not test for HIV in the past year, 32% (n=217) stated their reason for not doing so involved cost or access issues (no money or insurance, no transportation, or no knowledge of testing sites), 29% (n=182) because they were afraid to receive test results and 26% (n=184) because they believed they were at low risk of contracting HIV (Figure 14).

**Figure 14. Prevalence Estimates of the Most Important Reason Dallas NHBS HET1 Participants Did Not Test for HIV in the Year Prior to 2007 Interview**

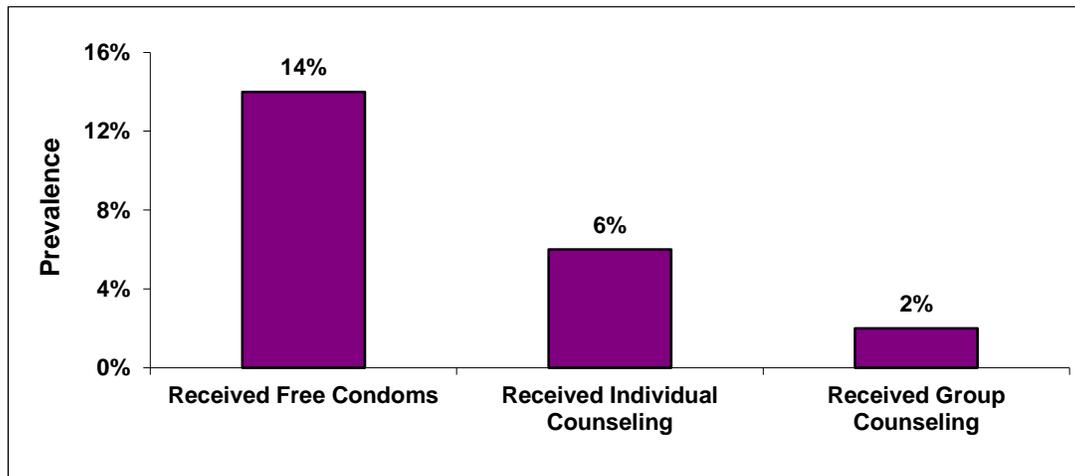


Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## **HIV PREVENTION ACTIVITIES**

Heterosexuals were asked questions about prevention activities they may have engaged in during the 12 months prior to their interview date (Figure 15). Prevalence estimates from the Dallas NHBS HET1 cycle indicate that 14% received free condoms, 6% engaged in a one-on-one discussion of HIV prevention with an outreach worker or counselor, and 2% participated in a formal group discussion about HIV prevention.

**Figure 15. Prevalence Estimates of Free Prevention Activities Received by Heterosexuals in the Dallas Metropolitan Division, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

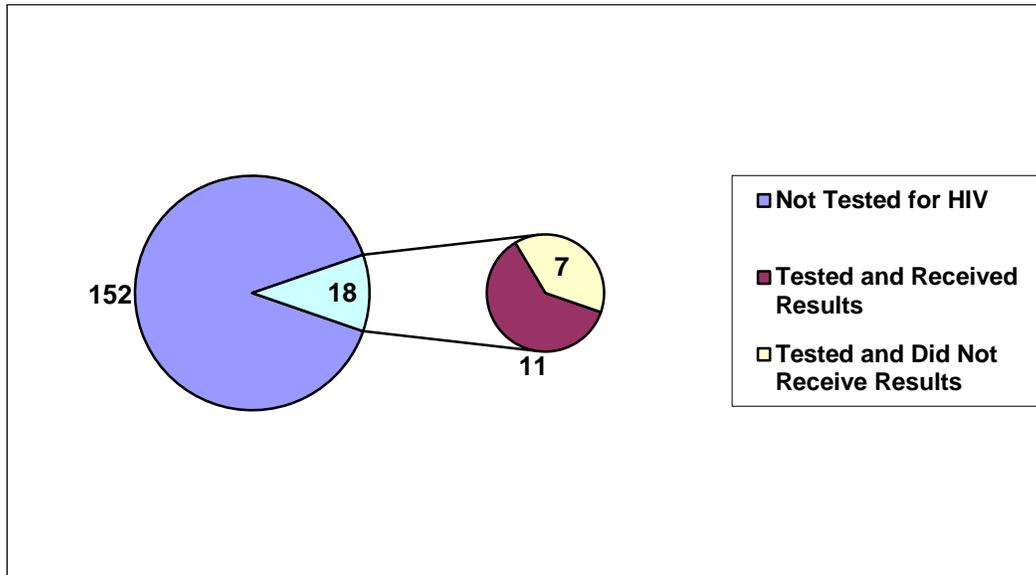
## **INCARCERATION**

According to an article from AIDS Action, although the majority of HIV-positive prisoners are infected prior to entering jails and prisons, individuals who are not HIV-positive at intake may be at increased risk of contracting HIV from participating in activities that can lead to HIV infection, such as continued injecting drug use, tattooing, and consensual sexual activity (AIDS Action, 2001). For this NHBS cycle, study participants were asked about their arrest history, HIV and hepatitis C testing at last arrest, and if they received those test results.

Seventeen percent (n=169) of NHBS HET1 participants reported being arrested in the past year and 83% reported that they had not been arrested. Regarding length of incarceration at last arrest, 62 (unweighted) out of 169 participants that had been incarcerated were detained for 2-7 days and 47 (unweighted) were detained for only one day. The remaining 61 (unweighted proportion of 0.36) participants that had been incarcerated were detained for longer than a week and would have had more opportunities to receive HIV testing while incarcerated.

Nineteen percent (n=18) of participants that had been incarcerated in the past year were tested for HIV during their last incarceration and 81% (n=152) were not tested (Figure 16). Of those tested for HIV, 42% (n=7) did not receive results of their test, which has serious implications regarding the potential spread of the virus to their partners in prison.

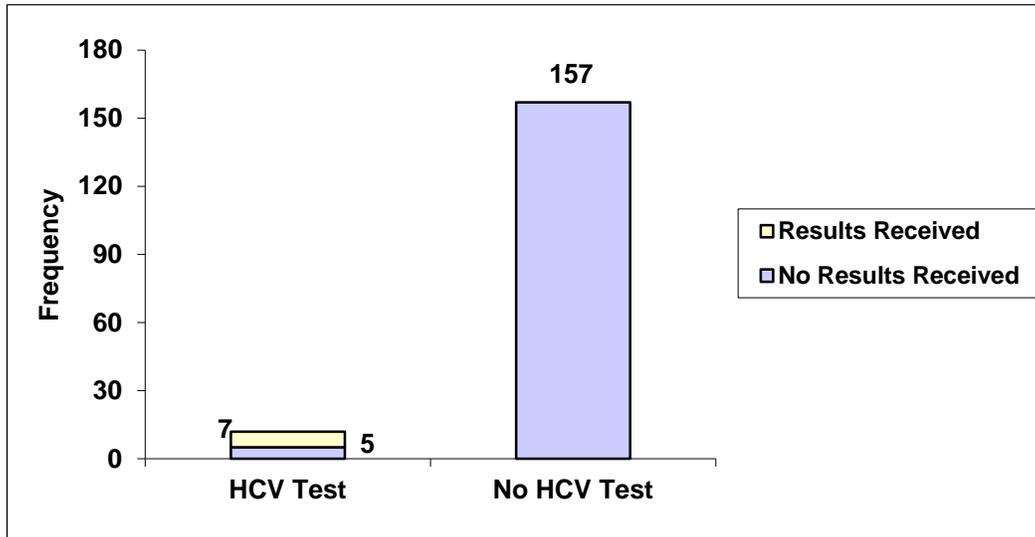
**Figure 16. Weighted Frequencies for HIV Testing Among Dallas NHBS HET1 Participants Who Had Been Incarcerated in the Past Year, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

Although the risk of becoming infected with hepatitis C through sexual contact is lower than contracting HIV, individuals incarcerated for long periods of time who engage in risky sexual behaviors should also be tested for hepatitis C as the disease is asymptomatic and can be more serious in individuals who are already HIV positive (Centers for Disease Control and Prevention, 2007). Only 6% (n=12) of NHBS HET1 participants that reported being incarcerated in the past year also reported being tested for HCV during their last incarceration (Figure 17). Of those that were tested, 7 reported that they received their test results and 5 reported that they did not (0.58 and 0.42 unweighted proportions, respectively).

**Figure 17. Weighted Frequencies for HCV Testing and Receiving Results During Last Incarceration among Dallas NHBS HET1 Participants, 2007**



Source: Texas Department of State Health Services, NHBS HET1 Data, Dallas Metropolitan Division, 2007.

## LIMITATIONS

Data were self-reported and thus may be subject to certain biases. Because participants were asked about sexual or drug-use behaviors that may be interpreted as undesirable, the HET1 data are prone to social desirability bias (Gallagher et al., 2007). Social desirability bias is described as the tendency of individuals to say things that will make them look good (Cohen, 2008). However, because the interview is anonymous and participants are assured that their responses will be kept confidential, this bias most likely has a minimal impact on the study findings. Participants had to remember past behaviors to answer interview questions; therefore, recall bias may affect study results since the quality and completeness of the data collected is limited by the participants' ability to correctly recall certain facts and details. Furthermore, given the sensitive nature of this study, positive HIV status may be underreported due to the fact that an interviewer directly asks the participant questions related to HIV risk behaviors. This method of questioning can lead to inflated estimates of individuals who are unaware of their HIV infection. There may be underreporting in the areas of drug use and sexual behaviors (especially among non-gay identified MSM) due to stigma associated with engaging in risky behaviors or being infected with HIV. In addition, the data is a snapshot of high risk behaviors among heterosexuals in the Dallas County population and cannot be generalized beyond this population.

## Respondent Driven Sampling

Potential biases associated with utilization of Respondent Driven Sampling are as follows (Behavioral Surveillance Team NCHHSTP/DHAP-SE/BCSB, 2010):

- Groups may be more likely to recruit within their own network, leading to over- or under-representation in the study sample;

- Groups with larger networks may be overrepresented in the sample because more recruitment paths lead to their members; and
- Groups less willing to participate in the survey may be underrepresented in the sample.

In order to minimize the impact of these biases, HET1 project staff were encouraged to ensure diversity among the initial seeds in terms of race/ethnicity, gender, age, geographic location and to conduct adequate formative research to determine the proper placement of field sites that may reduce barriers for individuals who want to participate in HET1 survey activities.

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