

**Dallas National HIV Behavioral  
Surveillance System  
2011 Annual Data Report  
Men Who Have Sex with Men**



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**National HIV Behavioral Surveillance System  
Men who Have Sex with Men in Dallas, Texas, 2011**

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## **National HIV Behavioral Surveillance System Men who Have Sex with Men in Dallas, Texas, 2011**

### **EXECUTIVE SUMMARY**

The National HIV Behavioral Surveillance System (NHBS) is an ongoing behavioral surveillance system that collects cross-sectional data among populations at high risk for acquiring HIV. This report focuses on activities from the data collection cycle that examined men who have sex with men (MSM). Men who have sex with men from the Dallas Metropolitan Division were recruited using venue-based, time sampling from August-December 2008. The following are key findings presented in the report.

#### **Demographics**

Study participants were:

- Whites (35%), Black (35%) and Hispanic (22%)
- Predominantly 25-34 years of age (34%)
- Educated with at least some college (36%) and mostly employed (60%)

#### **Sexual Behaviors**

- 9 out of 10 MSM engaged in unprotected anal intercourse (UAI) with a man in the past 12 months
- Among single race categories, Hispanic MSM experienced the highest proportion of UAI in the past 12 months.
- The highest proportions of UAI in the past 12 months were among the 30-39 and 50 and older age cohorts.
- Almost a third had UAI at their last sexual encounter
- White MSM experienced the highest proportion of UAI at their last sexual encounter.
- The majority of UAI at last sex was among the 30-39 age cohort.
- Among MSM3 participants who had more than one partner in the past year, 1 in 4 had UAI.
- Among those who had casual partners in the past year, almost half of participants engaged in UAI.
- Among participants who had a partner of HIV+ or unknown status at last sex, 1 out of 10 had UAI.
- About 1 in 10 reported using methamphetamine and 2% reported using Viagra or Levitra in combination with methamphetamine

#### **Drug Use**

- Overall, 9% of MSM participants reported using injection drug in the past year. Of those who injected drugs, a majority began between ages 20-29 years.
- The prevalence of non-injection drug use was higher than injection drug use.
- Marijuana was the most commonly used non-injection illicit drug followed by powdered cocaine.
- Binge drinking was reported by 75% of the surveyed MSM and more than a third reported weekly binge drinking.

### **Access to Healthcare**

- 73% had seen a healthcare provider in past 12 months but less than one-third were offered an HIV test at the visit
- 25% of surveyed MSM tested HIV positive; 30% of those testing positive were unaware of their status

### **Health Conditions**

- Almost two-thirds of the surveyed MSM reported being tested for hepatitis C in their lifetime
- In the past 12 months, 5% were diagnosed with gonorrhea, 3% with herpes and HPV, 2% with chlamydia and syphilis.

### **HIV Testing and Prevention**

- 89% reported ever being tested for HIV; the most recent test was a rapid test for one-third of those who have ever tested
- 30% had never been tested at least once for HIV in the past 2 years
- 23% tested at a public or community health clinic, 16% at an HIV testing site and 15% at a private doctor's office
- 34% MSM who had never tested HIV positive and those who have not tested for HIV in the past 12 months, said the reason they did not test was because they believe they are at low risk
- Most participants have never heard of people who are HIV negative taking antiretroviral medication to prevent HIV infection.
- More than half (55%) of the self-reported negative respondents answered that they will be willing to take anti-HIV medicines every day to lower the chances of getting HIV.
- Participants agreed with these statements: 1) most people in the Dallas area would discriminate against someone with HIV (56% agreed); 2) most people in the Dallas area would support the rights of a person with HIV (50% agreed).
- Participants disagreed with these statements: 1) most people in the Dallas area would not be friends with someone with HIV (50% disagreed); 2) most people in the Dallas area think that people who got HIV through sex or drugs have gotten what they deserved (46% disagreed).

### **Incarceration**

- 66% of the surveyed MSM who were incarcerated for more than 24 hours in the previous 12 months reported not being tested for HIV.
- 84% of the surveyed MSM who were incarcerated for more than 24 hours in the previous 12 months reported not being tested for HCV.

## INTRODUCTION

### The National HIV Behavioral Surveillance System

The National HIV Behavioral Surveillance System is a comprehensive survey for measuring behaviors that place people at risk for HIV infection in cities where approximately 60% of all cases of AIDS had been reported. Initiated and funded in 2003 by the Centers of Disease Control and Prevention, NHBS is an on-going behavioral surveillance system that collects cross-sectional data on sexual and drug use risk behaviors, HIV, sexually transmitted disease (STD), testing behaviors, and utilization of prevention services among population at high risk for acquiring HIV. The surveillance system runs in annual rotating cycles, each year addressing a different high risk population: injection drug users (IDU), men who have sex with men (MSM), and heterosexuals at increased risk of HIV infection (HET). In 2011, Dallas, Texas, was one of 20 cities with high HIV/AIDS morbidity in the U.S. participating in NHBS (Figure 1).

**Figure 1. National HIV Behavioral Surveillance System Sites, 2011.**



Source: The Centers for Disease Control and Prevention (CDC), 2011.

The third cycle of NHBS that examined men who have sex with men (MSM3) occurred from August - November 2011. The following report presents data that was collected during MSM3 in the Dallas Metropolitan Division (MD).

### Formative Assessment

Formative research is conducted prior to implementation of each NHBS cycle in order to guide and maximize data collection activities. The goals of the formative research activities are to describe the characteristics of MSM in the Dallas Metropolitan Division,

to gain an understanding of the context of HIV risk behavior among Dallas MSM, to garner the support of community stakeholders for the NHBS MSM behavioral survey, to identify venues attended by MSM, to assess the suitability of venues for recruiting participants and conducting surveillance activities, and to monitor the ongoing implementation of the NHBS MSM cycle. The formative research is an iterative process that involved four phases where the NHBS staff:

1. Compiled a list of agencies and organizations providing HIV Prevention and Services in the Dallas-Fort Worth Metropolitan Division
2. Conducted key informant interviews
3. Interviewed focus groups; and
4. Conducted brief street intercepts and observations.

Once the NHBS staff identified local community stakeholders providing HIV prevention and services, NHBS staff began informal conversations to gain an understanding of the context of HIV risk behavior among Dallas MSM. Additionally, formal interviews with key informants of various races, ages, and gender were conducted. The majority of key informants were staff from community based organizations serving the Dallas area. These agencies conduct ongoing and current outreach into the Dallas MSM community. Other key informants worked for agencies which specifically target African American and Hispanic MSM in the Dallas area, thus giving valuable insights into the social networks of these MSM subgroups. Three focus groups which consisted of the general MSM population, African American MSM population, and Hispanic MSM population were conducted to ensure completeness of qualitative data collected and to confirm results found in the key informant interviews. Topics explored with key informant and focus groups included general characteristics of MSM in Dallas, barriers to recruiting MSM for surveys, and ideal venues for recruiting and conducting surveillance activities.

Qualitative data collected during the formative assessment were compiled in a comprehensive report and used to guide data collection activities. Formative research continued even during data collection to monitor important indicators such as enrollment numbers, sample characteristics, participation barriers, identification of one-time recruitment events selected non-randomly, and the opening of new venues and the closing of existing venues.

Findings from the formative research indicate that the Dallas area gay and MSM community is fragmented, though within subpopulations, the MSM communities feel a sense of unity or “in-group” dynamism. Divisions arise among age and economic groups as easily as they do among racial and ethnic lines. The fear of HIV/AIDS and the stigma of homosexuality continue to exist in the community. The fear of government involvement in their communities is often seen as unnerving or intrusive, but these fears have been mitigated through ongoing community involvement by NHBS staff. Many venues are viewed by the minority MSM groups to be mostly “white” clubs, leading NHBS to identify and include a number of formal and informal venues frequented by

African American and Hispanic MSM. Additionally, as many varied venues as possible were identified in order to recruit non-gay identifying MSM. As a result, 28 venues were sampled in the MSM3 cycle with the majority of venues being bars. Other venues include dance clubs, restaurants, social organizations, pride events, retail businesses, and sexually oriented establishments.

### **Venue Based Sampling**

NHBS MSM3 used Venue-Based, Time Sampling (VBS) to recruit individuals into the project in accordance with the national protocol (1). The VBS methodology was used to generate probability estimates of hard to reach populations when sampling frames of the individual members of those populations do not exist (2). The first component consists of NHBS staff conducting formative research to learn about the venues, times, and methods to recruit MSM. This objective was achieved through a thorough review of print and online advertisements for MSM and key informant interviews with community-based organizations, service providers, and MSM venue owners. The next component consists of NHBS staff constructing monthly sampling frames of eligible venues and venue-specific, day-time periods (VDTs). Venue day time units (e.g. venue, Monday, 6pm-8pm) represented the type of locations (e.g. bars, public parks), days, and times where MSM congregate. These venue day time units formed the sampling frame. After the venue day time units were identified, NHBS staff randomly selected and visited the venue during that prescribed day and time. In the last component, two NHBS staff (one assigned as the recruiter and another as the counter) recruited individuals from a randomly selected venue. During this time, all men who appeared 18 years or older and who crossed a predetermined line or entered a defined space were counted. The staff who served as a recruiter approached those men counted and conducted a brief street interview. The street interview determined whether the individual was eligible to participate in the survey. If the individual was eligible, the recruiter described the general purpose of the study, explained what was requested of participants, and attempted to recruit the individual for the survey. VBS data collection events continued until an eligible sample size close to 500 participants was met.

### **Methods**

From August to November 2011, 471 MSM were sampled. Individuals who were eligible were assigned unique identifiers so that no names or other identifying information was collected, and administered a face-to-face interview if they consented. Participants were also asked to consent to an anonymous HIV test. All survey responses were collected anonymously on hand-held computers. Participants received \$20 upon completion of the survey and an additional \$20 for taking the rapid HIV test.

If a positive HIV result was obtained during the rapid test, oral mucosal transudate sample was collected and sent to the DSHS laboratory for confirmatory testing. Participants who self-identified as HIV positive before testing were only given



confirmatory testing. All participants received HIV prevention counseling with trained staff and a referral sheet with local HIV service organizations. Individuals with preliminary positive test results scheduled follow-up appointments to return for confirmatory tests results.

A total of 414 participants were included in the statistical figures that follow. Participants who self-reported a positive HIV status (n=39) were excluded from the calculations because awareness of being HIV positive tends to make individuals alter their behavior so that it is less risky than the general at-risk population (3). Additionally, although VBS methodology was used, no weighting was used in this analysis.

### **Residential Zip Code of MSM3 Participants**

In 2011, the Texas NHBS MSM3 was conducted in the Dallas Metropolitan Division (Dallas MD) of the Dallas-Fort Worth Arlington Combined Metropolitan Statistical Area (DFWA CMSA). Seventy-eight of the participants resided in one zip code in the central Dallas County area. This zip code is in an area identified during the formative assessment process as one with high concentration of MSM and MSM-oriented businesses. Overall, a plurality of participants (42%) lived in six zip codes in the northwest, northeast and southwest areas of the City of Dallas (Figure 2).

## **DEMOGRAPHIC CHARACTERISTICS OF MSM3 PARTICIPANTS**

### **Race and Ethnicity**

Of the HIV infections diagnosed in 2011 in the United States among adults and adolescents, approximately 62% were attributed to male-to-male sexual contact (4). An additional 3% of diagnosed infections were attributed to male-to-male (MSM) sexual contact and injection drug use (4). Among the HIV infections attributed to MSM in 2011, an estimated 38% were among Blacks/African Americans, 34% were among Whites, and 24% were among Hispanics/Latinos. Approximately 2% each were among Asians and persons reporting multiple races (4). American Indians/Alaska Natives and Native Hawaiians/other Pacific Islanders accounted for less than 1% of diagnosed infections each (4).

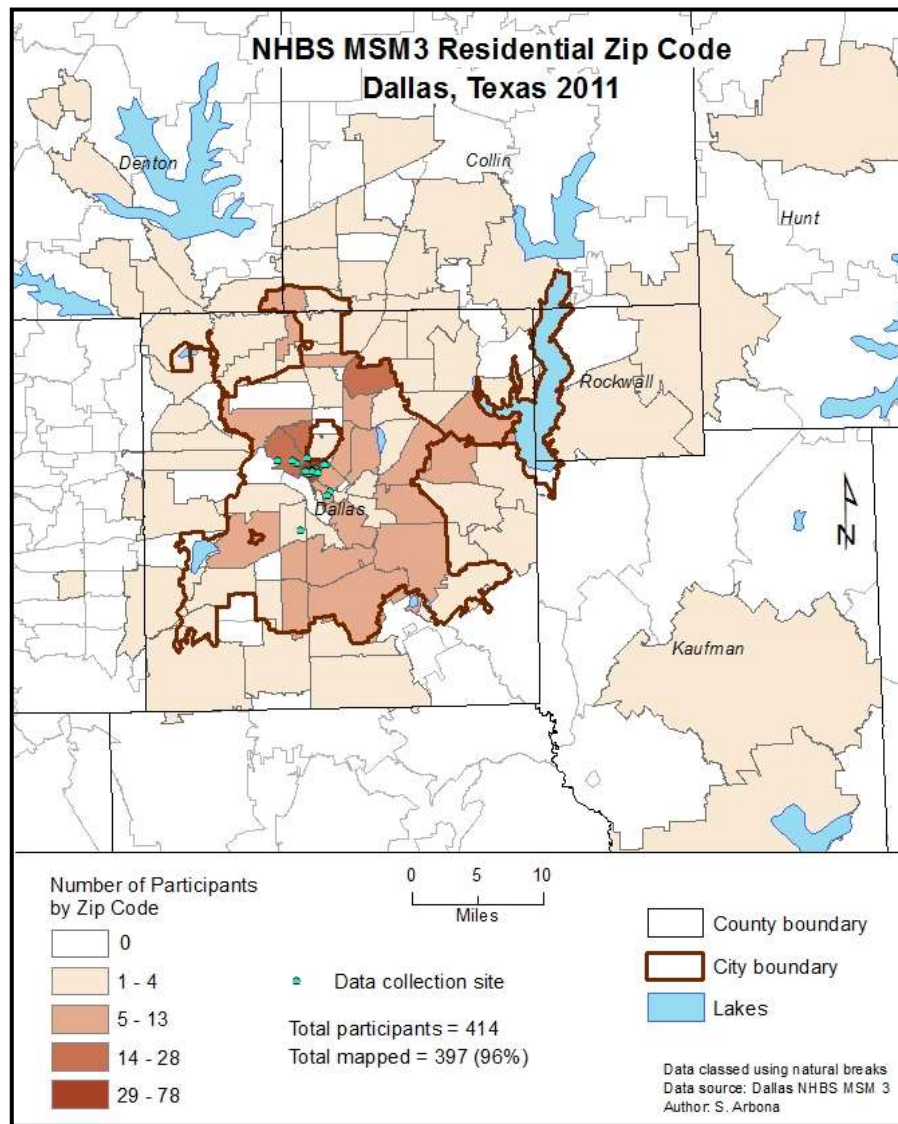
The national NHBS MSM3 conducted in 2011, which included the Dallas NHBS, found a race/ethnicity distribution where 28% of Black MSM were HIV-infected, compared to 18% of Hispanic MSM and 16% of White MSM (5).

In the United States MSM are disproportionately affected by HIV. Among MSM, black/African American MSM—especially young black/African American MSM—are at highest risk of HIV (6). The 2011 rate of PLWH in Texas shows an uneven burden of disease. Black persons had the highest rate (897/100,000). This rate was more than four times higher than the rate in White persons (191/100,000) and Hispanic persons

(187/100,000). The most common exposure group was MSM (72%). MSM with a history of injection drug use (MSM-IDU) accounted for another 8% of the PLWH. (7. Texas DSHS, HIV Surveillance Report 2011).

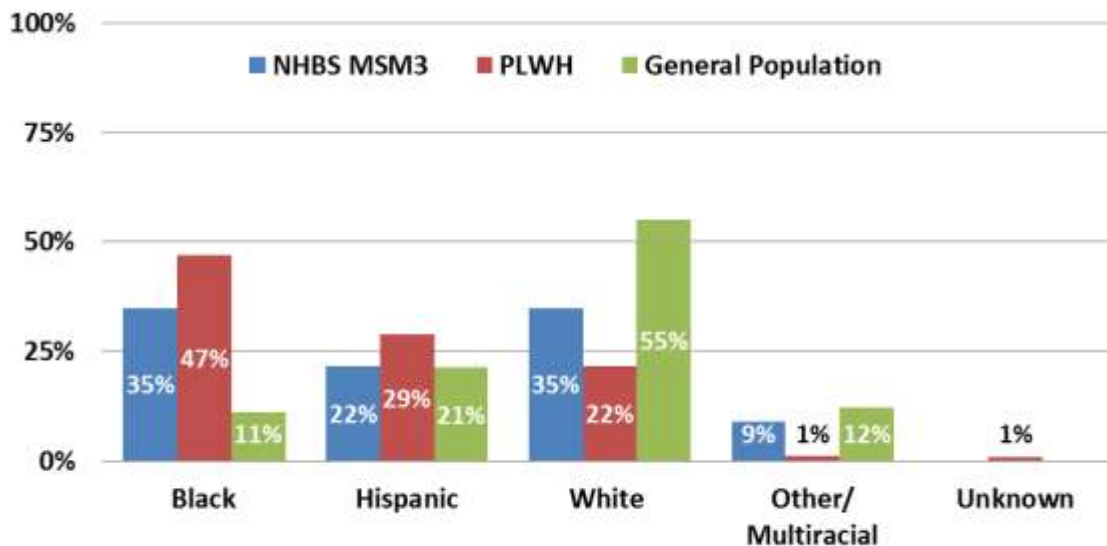
Population estimates from the US Census 2007-2011 American Community Survey for the Dallas-Plano-Irving Metropolitan Division, and among the most common racial and ethnic groups in Texas, indicate that more than half of the estimated general population 18 years of age and older was White, followed by Hispanic and Black (Figure 3). PLWH in the Metropolitan Division were also predominantly White but the second largest group was Black. Participants in the Dallas NHBS MSM3 had a different composition with Black as the largest population group, followed by White and Hispanic.

**Figure 2. Residential Zip Codes**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas Metropolitan Division, 2011.

**Figure 3. Estimated General Population, People Living with HIV/AIDS, and the DallasMSM3 Sample in the Dallas-Plano-Irving Metropolitan Division by Race and Ethnicity, 2011**



Sources: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011. Enhanced HIV/AIDS Reporting System (eHARS), March 2013. US Census 2007-2011 American Community Survey 5-Year Estimate.

## Age

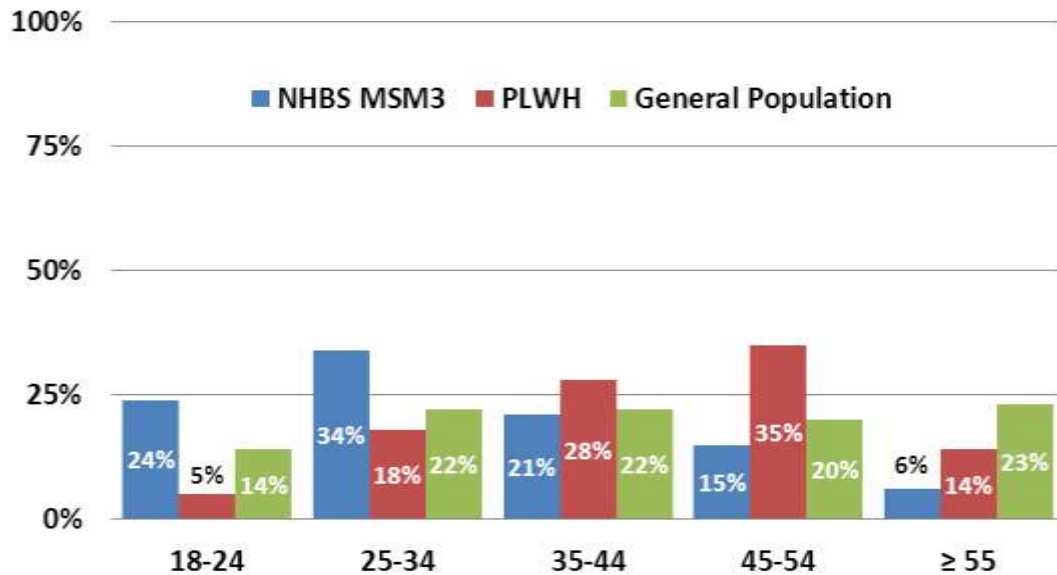
At the end of 2009, an estimated 1,148,200 persons aged 13 and older were living with HIV infection in the United States. The highest prevalence rate was that among persons aged 45-54 years. Followed by the rates among those aged 35-44 years. (8).

In Texas the age distribution of PLWH at the end of 2011 continued to shift to those over the age of 45, reflecting the aging infected population. PLWH in the Metropolitan Division were predominantly within the 35 to 54 age group. Participants in the Dallas NHBS MSM3 were younger than both, the PLWH in the Metropolitan Division and the estimated general population in the Metropolitan Division in 2011. More than half (58%) of the NHBS MSM3 sample was 18 to 34 years age and only 6% was 55 and older (Figure 4).

## Other Socio-Economic Characteristics

Overall, participants in the MSM3 did not show indicators of extreme poverty. While 12% reported ever being homeless, more than half of the sample had some college or a higher education attainment. A majority (60%) of participants were employed and 28% earned \$50,000 or more annually (Table 1).

**Figure 4. Estimated General Population, People Living with HIV/AIDS, and Dallas NHBS MSM3 Sample in the Dallas-Plano-Irving Metropolitan Division, by Age, 2011**



Sources: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011. Enhanced HIV/AIDS Reporting System (eHARS), March 2013. US Census 2007-2011 American Community Survey 5-Year Estimate.

## SEXUAL BEHAVIORS AND RISK FACTORS

Sexual behavior is paramount in the exploration of attitudes, actions and activities that may lead to HIV infection in the MSM population. Fifty six percent of people in Texas living with HIV at the end of 2011 were infected through male to male sexual contact (7). Among MSM who participated in NHBS, the mean age at first MSM encounter was 18 years of age and 20% reported having a female sex partner in the past 12 months. The remainder of the sexual risk indicators are limited to male partners.

Researchers from the EXPLORE cohort study determined that having four or more male sex partners within a six month period was the leading behavioral factor that contributed to HIV incidence, with an attributable risk of 32.3% (9). About a quarter of MSM in NHBS reported having one partner, 41% reported having 2 to 4 partners, and more than a third reported having greater than 4 partners. The mean number of main partner is 1, while the mean number of casual partner among MSM3 participants is 6. White and Hispanics had the highest mean number of casual partner at 7. Blacks had slightly less at 5 casual partners.

**Table 1. Education, Income, Employment Status and Homelessness among Men who Have Sex with Men in the Dallas-Plano-Irving Metropolitan Division, 2011 (N=414)**

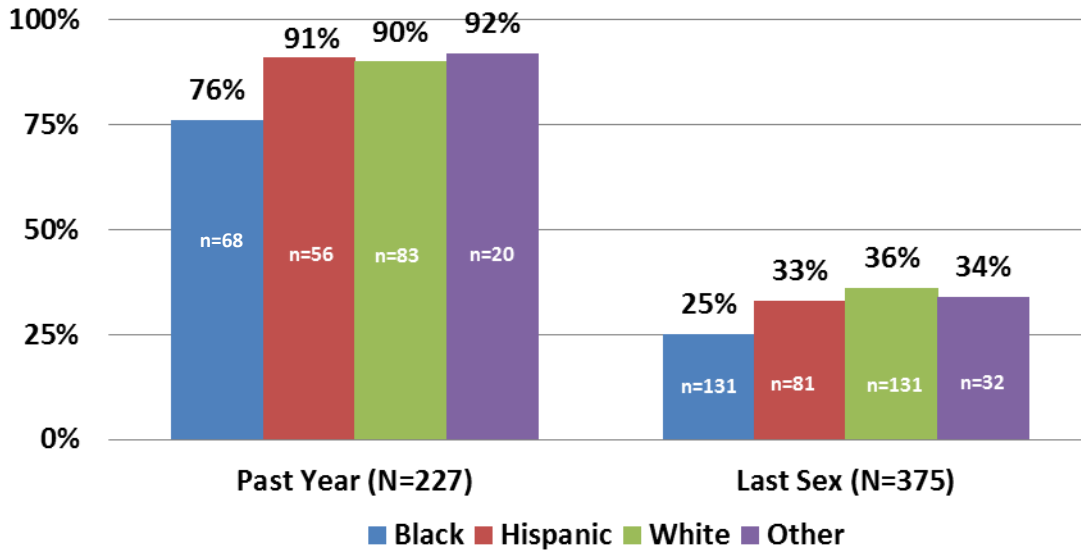
<b>Characteristic</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Highest education completed</b>		
Less than high school	45	10.9%
High school/GED	136	32.9%
Some college or technical degree	147	35.5%
College or post-grad education	86	20.8%
<b>Annual Household Income*</b>		
\$0 to \$4,999	38	9.2%
\$5,000 to \$14,999	95	23.1%
\$15,000 to \$29,999	76	18.5%
\$30,000 to 49,999	87	21.1%
\$50,000 +	116	28.2%
<b>Employment Status</b>		
Employed	248	59.9%
Unemployed	71	17.2%
Other	95	23.0%
<b>Homelessness</b>		
Currently homeless	26	6.3%
Ever been homeless	49	11.8%

\* Two missing records.

Source: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011.

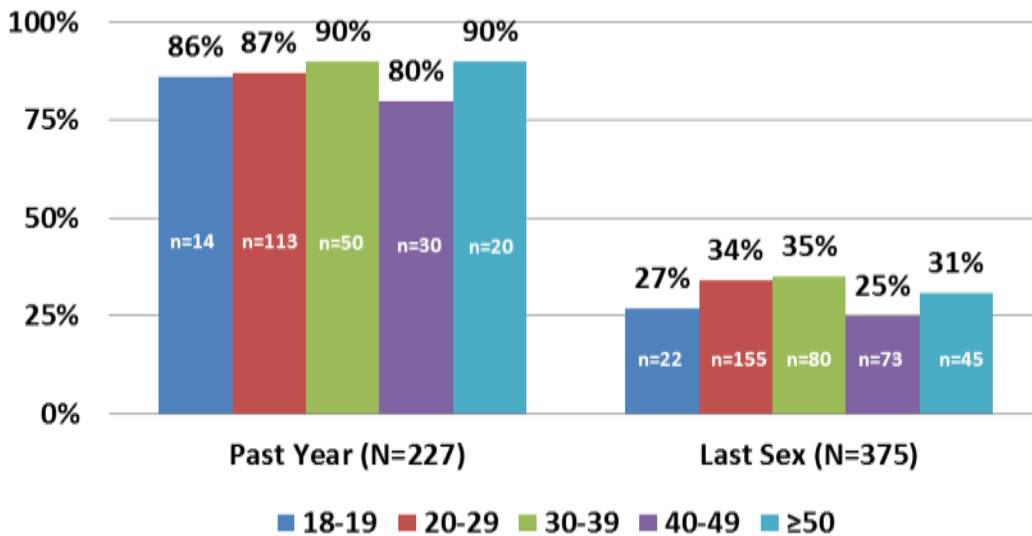
The main sexual risk factor for HIV among MSM has been unprotected anal intercourse (UAI) with higher risk associated with receptive intercourse compared to insertive intercourse (10-13). Of the MSM3 study participants, almost 9 out of 10 engaged in UAI with a man in the past 12 months and almost a third had UAI at their last sexual encounter. Among single race categories, Black MSM experienced the lowest proportion of UAI in the past 12 months, as well as the lowest proportion of UAI at their last sexual encounter (Fig. 5). The 30-39 and 50 and older age cohorts accounted for the highest proportion of UAI in the past 12 months (Fig. 6). The majority of UAI at last sexual encounter was among the 30-39 age cohort.

**Figure 5. Unprotected Anal Intercourse (UAI) in Past 12 Months and Last Sex by Race/Ethnicity**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

**Figure 6. Unprotected Anal Intercourse (UAI) in Past 12 Months and Last Sex by Age**



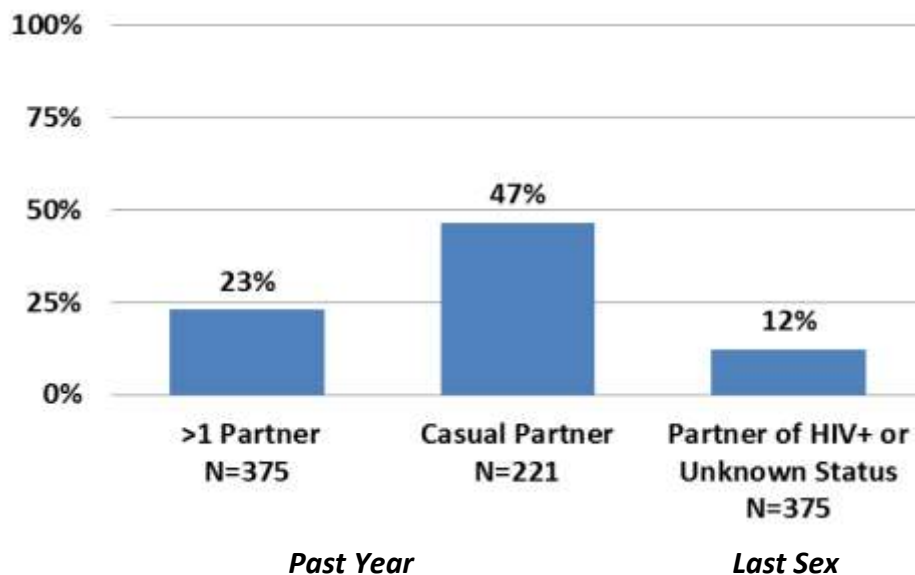
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

Risk behaviors are compounded when participants engage in UAI with multiple partners, with non-primary partners, or with partner who is HIV+ or unknown status. Among MSM3 participants who had more than one partner in the past year, almost a quarter had UAI (Fig. 7). Additionally, among those who had casual partners in the past year, almost half engaged in UAI. Casual partner is defined as a non-primary partner with whom the participant do not feel committed to or don't know very well. Further, among participants who had partner of HIV+ or unknown status at last sex, 12% had UAI.

Other contributing HIV risk factors include not being circumcised, Viagra use, and methamphetamine use. Three randomized controlled trials of adult male circumcision in Africa uniformly found that circumcised heterosexual men are less likely to be infected with HIV than others who were not circumcised (14-16).

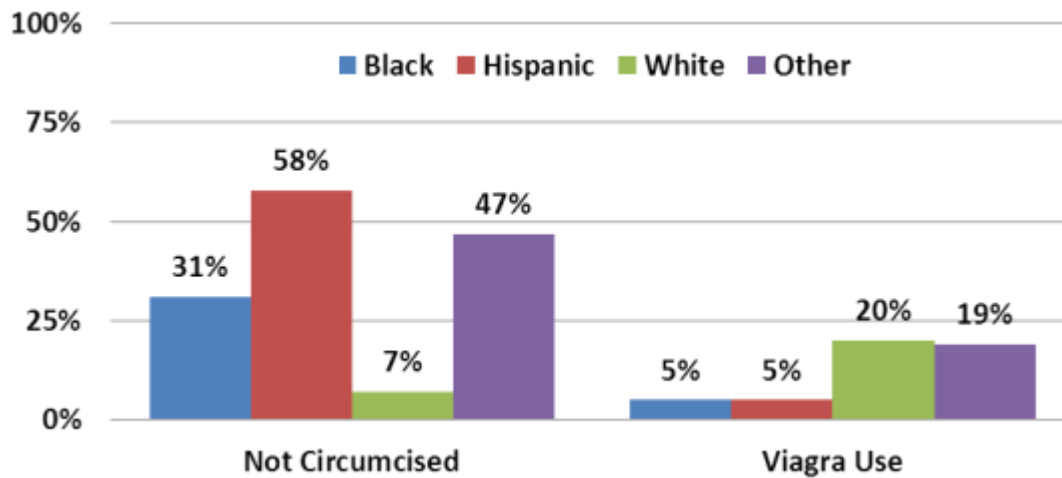
In MSM3, a third reported lack of circumcision. Hispanics had the highest proportion of not being circumcised followed by Blacks. There is strong evidence that the use of Viagra and/or methamphetamine is also associated with high-risk sexual behavior whereby further increasing the risk of HIV seroconversion among MSM (17). About 1 in 10 MSM in NHBS reported using Viagra in the past 12 months (Fig. 8). The proportion of Viagra use among MSM3 participants was higher among Whites than Blacks and Hispanics. Almost a tenth of participants, who were mostly Whites and Hispanics, reported methamphetamine use. About 2% reported using Viagra or Levitra in combination with methamphetamine (Fig. 9). The use of Viagra or Levitra in combination with methamphetamine was highest among Whites.

**Figure 7. High Risk Unprotected Anal Intercourse (UAI)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

**Figure 8. Other HIV Risk Factors by Race/Ethnicity, N=375**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

## **ALCOHOL AND DRUG USE BEHAVIORS**

### **MSM Drug Use**

According to the Texas Integrated Epidemiologic Profile for HIV/AIDS Prevention and Services Planning, HIV infection in MSM represents an overwhelming 56% of reported cases in Texas. Moreover, MSM using injection drugs represented 6% of Texans living with HIV at the end of 2011 (7). The sharing of needles and paraphernalia has been widely recognized as a high risk behavior. In addition to the direct relationship between injection drug use and HIV infection, drug abuse plays other roles in HIV transmission. Drug use may affect user judgment and reasoning, which may lead to an increase in the likelihood of engaging in high risk sexual behavior. It is important to determine what drugs, both injection and non-injection, are most commonly used by MSM in order to develop targeted interventions.

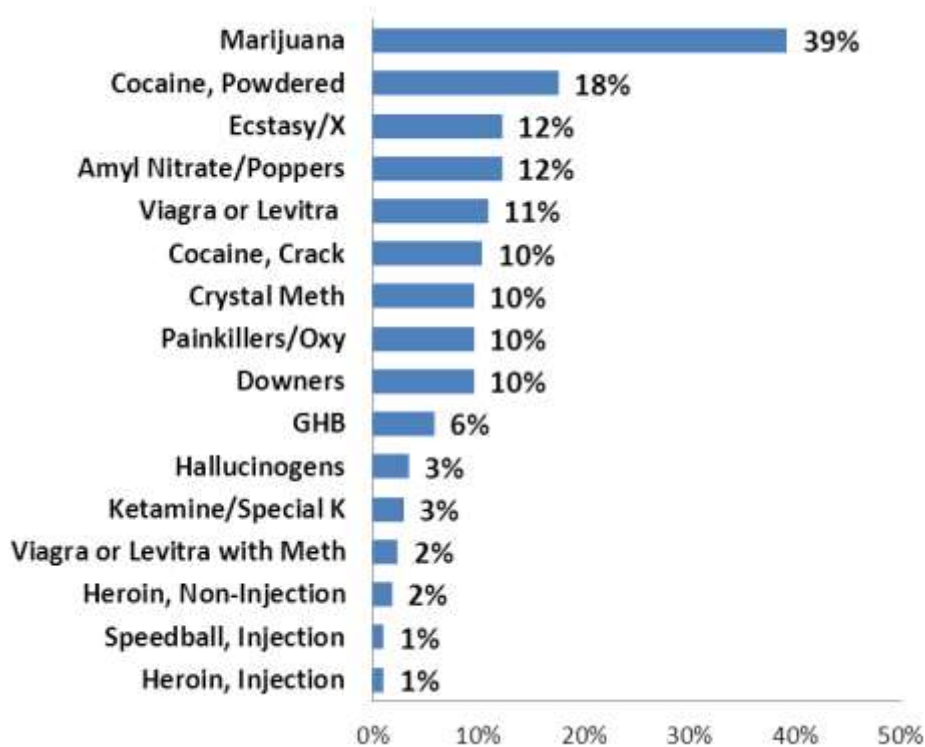
Overall, only 9% of MSM participants reported using injection drug in the past year. Participants who admitted injection drug use first used between the ages of 20-29 years old (49%). This was followed closely by ages 13-19 years old (40%). None of the MSM3 population first used injection drugs under the age of 12.

The prevalence of non-injection illicit drug use among MSM was higher than injection drug use. The most commonly used non-injection drug was marijuana with 39% reporting use followed by powdered cocaine with 18% reporting use. Other drugs used



by MSM participants include crack cocaine (10%), ecstasy and amyl nitrate (poppers) each reporting 12% use and crystal meth with 9% reporting use. Viagra was also reported with 11% of participants reporting use and one in five of those had used methamphetamines along with Viagra.

**Figure 9. Injection and Non-injection Drug Use in the Past 12 Months (N=375)**



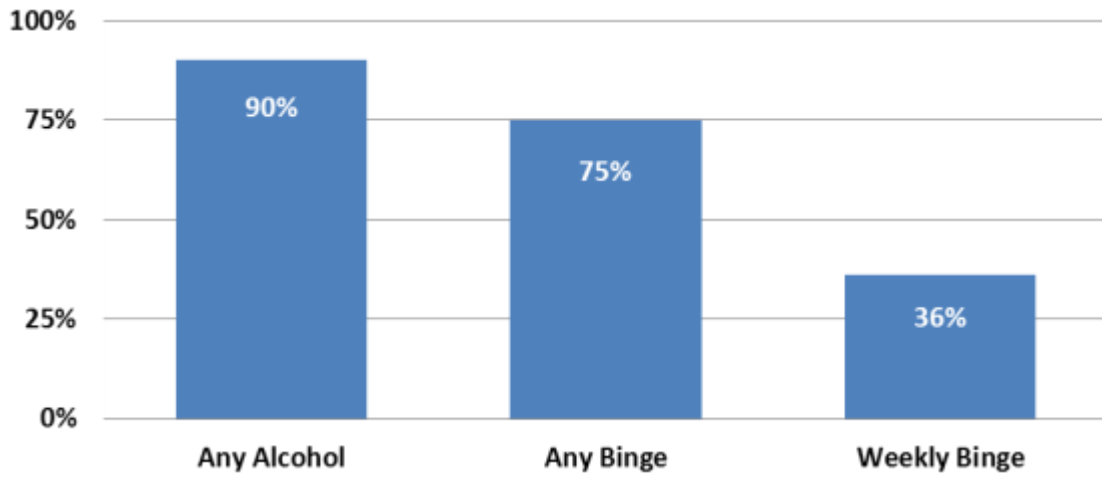
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

### MSM Alcohol Use

As with drug use, alcohol use may affect the judgment and mental faculties of an individual, which may lead to an increased likelihood of engaging in high risk sexual behavior (18). Also, the physiological consequences of alcohol abuse may lower the immune response and interfere with HIV treatment drugs.

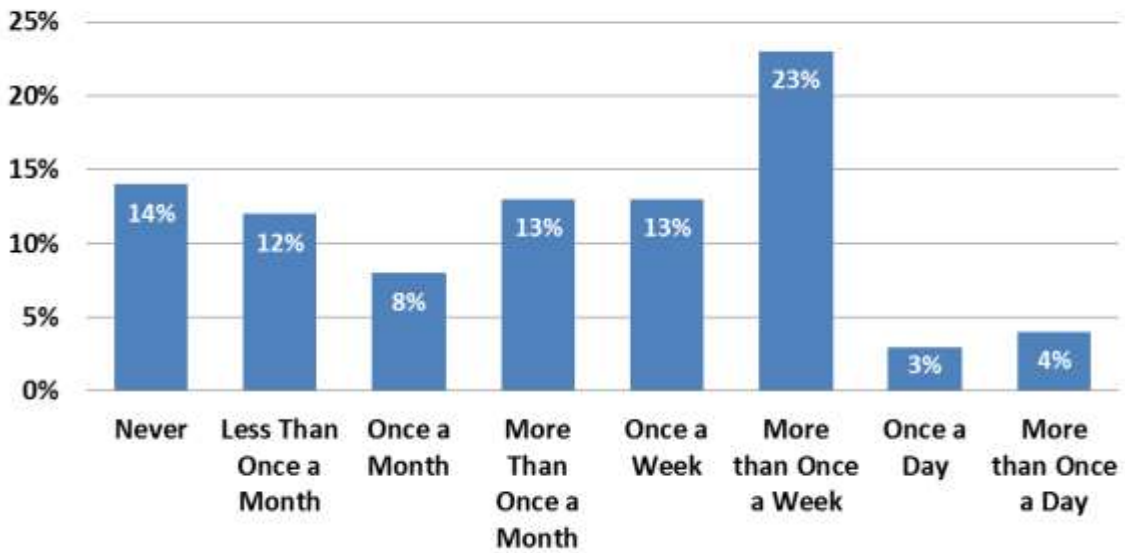
Five or more drinks at one time are an accepted marker of binge drinking. Binge drinking has independently been shown to influence sexual decision making, and undermine skills for condom negotiation and correct condom use (19). Among MSM study participants, 75% engaged in binge drinking in the past 12 months with more than a third reported weekly binge drinking (Fig. 10). Of those who engaged in binge drinking, the most common self-reported frequency was “More than once a week” at 23% of those interviewed (Fig. 11). This was followed by a binge drinking frequencies of “Once a week” and “More than once a month” with 13% each.

**Figure 10. Alcohol Use in the Past 12 Months, N=375**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

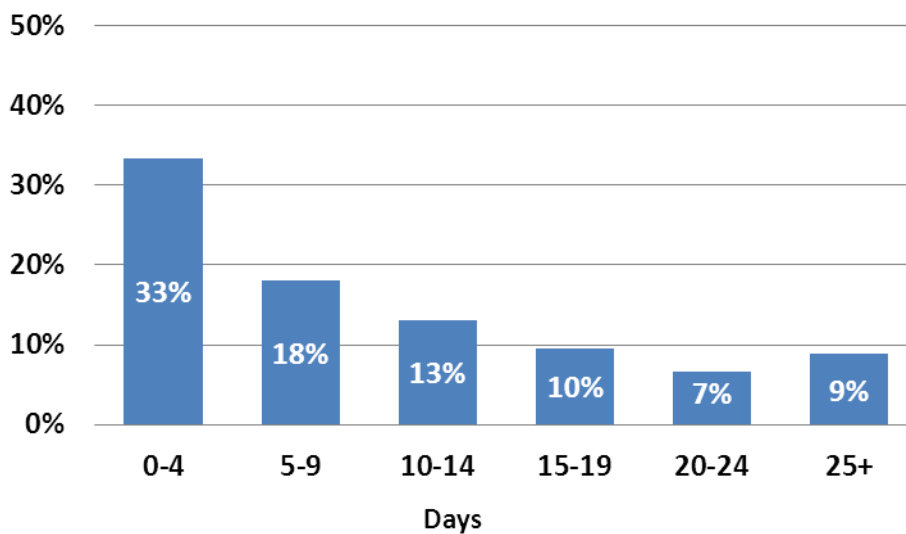
**Figure 11. How Often MSM Had 5+ Alcoholic Drinks at One Time over the Past 12 Months (N=336)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

Days of alcohol use in the past 30 days is another good marker for alcohol abuse. CDC’s 2010 Binge Drinking Fact Sheet defines heavy drinking in males as “drinking more than two drinks per day on average” or 60 or more drinks in the past 30 days (20). According to the Behavioral Risk Factor Surveillance System (BRFSS) survey, more than half of the adult U.S. population drank alcohol in the past 30 days; approximately 5% drank heavily, while 15% engaged in binge drinking.

**Figure 12. Days of Alcohol Use Within the Last 30 Days (N=336)**

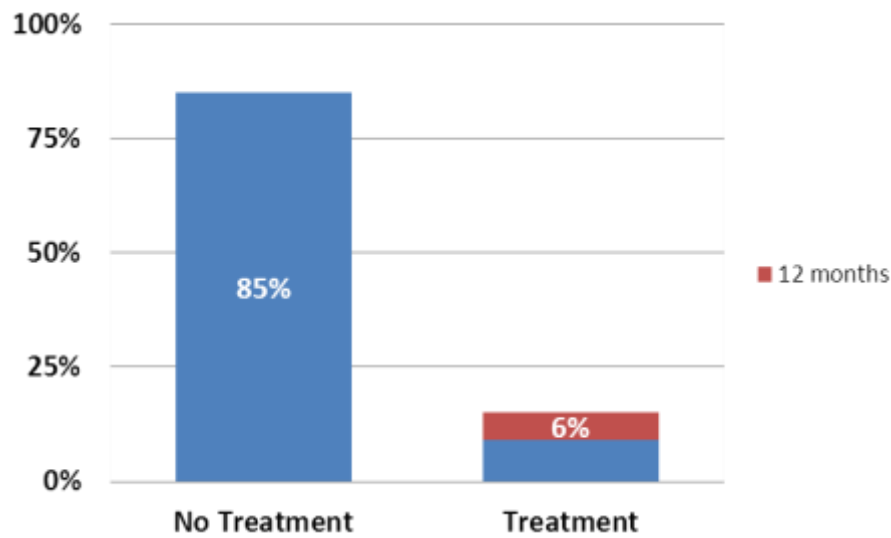


Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011

MSM responses showed a slightly elevated rate (compared to BRFSS) in heavy drinking and binge drinking. Though one third of participants had between zero and four days of drinking in the previous 30 days, one in six participants (16%) reported drinking in excess of 20 days in the last 30 days (Fig. 12).

Of 375 participants, 57 participants (15%) reported ever participating in a drug or alcohol treatment programs and 6% of those reported participation within the last year (Fig. 13).

**Figure 13. Alcohol and Drug Treatment Participation (N=375)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

### **ACCESS TO HEALTH CARE**

Social and economic factors present challenges to HIV prevention. One of these challenges is manifested by a limited access and use of quality health care.

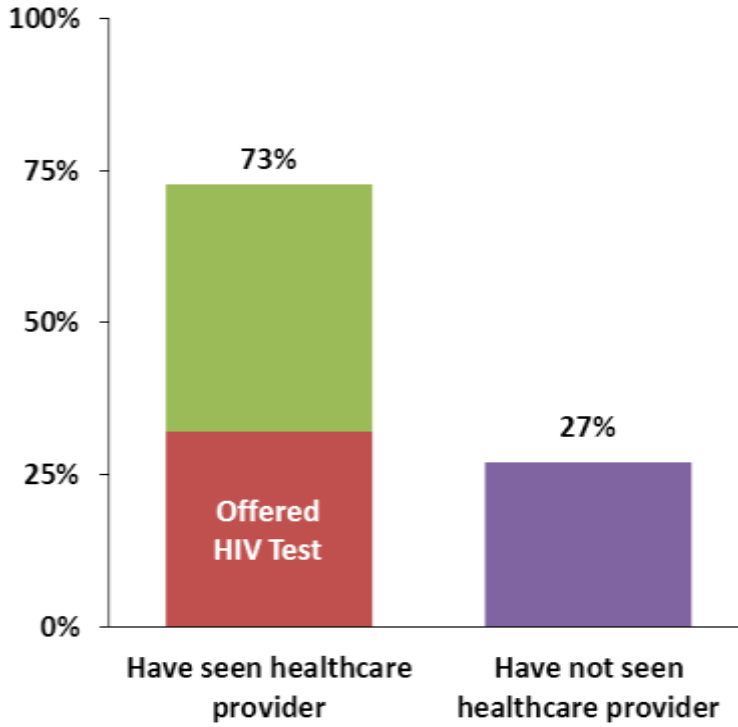
Among the survey participants who did not self-report an HIV positive status, more than two-thirds had access to health care, as indicated by having visited a health care provider during the 12 months prior to the interview. More than half of these individuals (56%) reported not being offered an HIV test (Fig. 14).

### **Awareness of HIV Status**

Many MSM with HIV are unaware of their HIV infection, especially MSM of color and young MSM. Low awareness of HIV status among young MSM likely reflects several factors: they may have been infected more recently, may underestimate their personal risk, may have had fewer opportunities to get tested, or may believe that HIV treatment minimizes the threat of HIV (21. Same reference as in MSM2 report: Centers for Disease Control and Prevention, 2010c).

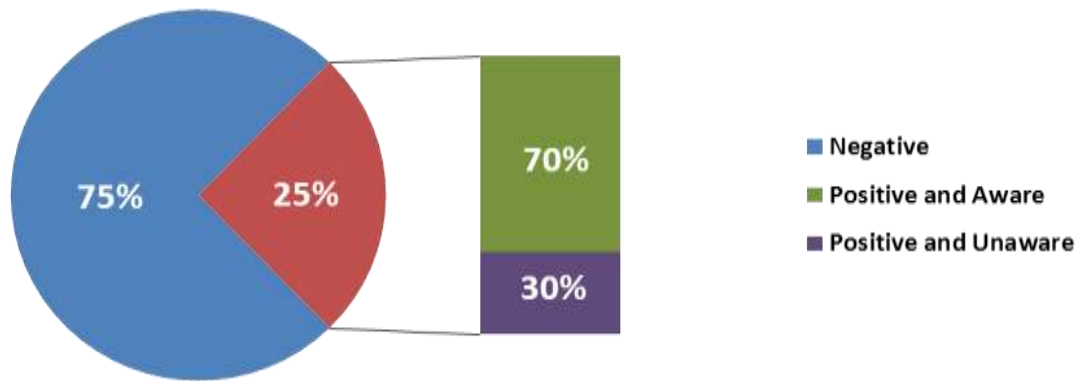
Four hundred and fourteen Dallas NHBS MSM3 participants were tested for HIV and 25% (n=105) tested positive. Among the 105 positive persons, 30% (n=31) were unaware of their HIV positive status (Fig. 15).

**Figure 14. Access to Health Care and HIV Testing Offered Among MSM in the Past 12 Months (N=375)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 15. HIV Status and Awareness of HIV Status among MSM3 Participants (N=414)**

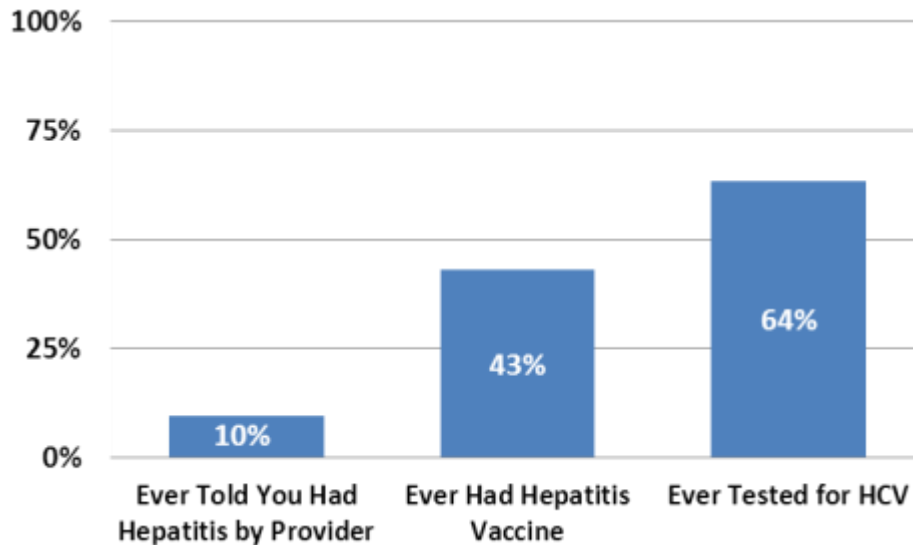


Source: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011.

## HEALTH CONDITIONS

Regarding hepatitis testing among MSM, 64% of the participants who answered this question had ever been tested for the hepatitis C virus (Fig. 16). Ten percent of MSM reported having ever been diagnosed with hepatitis and 43% had received a hepatitis vaccine at some point in time.

**Figure 16. Hepatitis Testing and Vaccination among MSM (N=375)**



Source: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011.

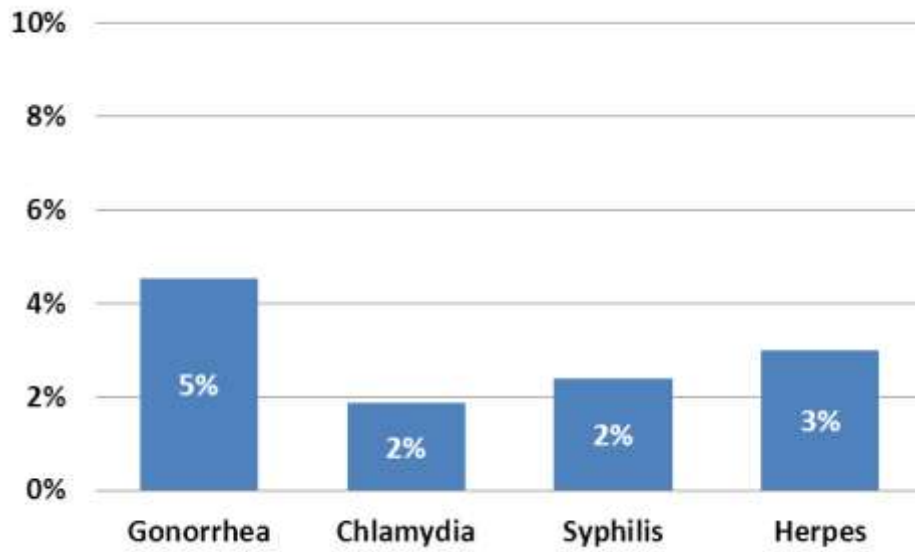
Of the 375 MSM who responded to the questions regarding the diagnosis of an STD in the 12 months prior to their interview date, 2% were diagnosed with syphilis and chlamydia, and 5% were diagnosed with gonorrhea (Fig. 17). Furthermore, 3% of respondents were diagnosed with herpes and HPV.

## HIV TESTING EXPERIENCES

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

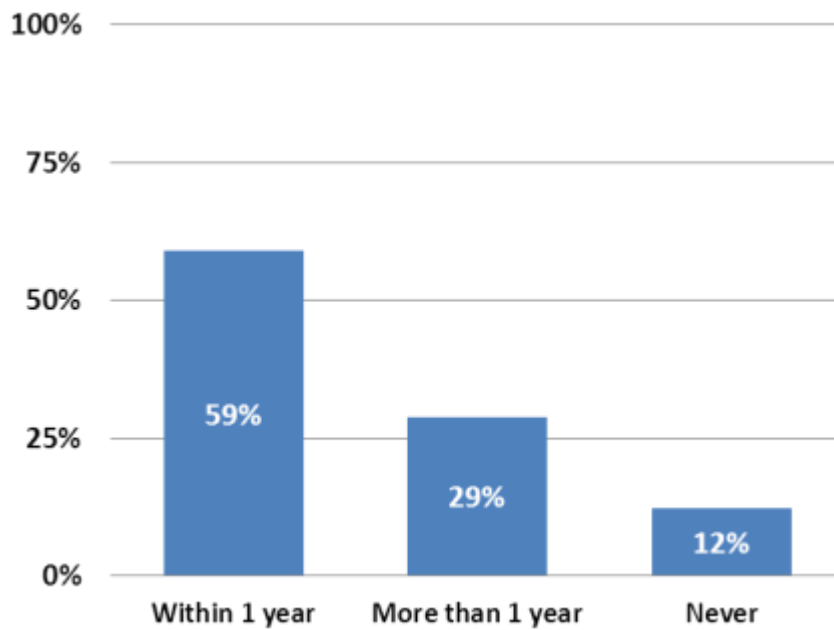
HIV testing has been recommended at least annually for persons with ongoing risk for exposure to HIV infection but recent data suggest that MSM might benefit from being tested more frequently than once per year (22). Among the MSM participants who did not self-report a positive HIV status, most (88%) study said to have tested for HIV. The majority (59%) reported testing within the previous year (Fig. 18).

**Figure 17. Self-reported Sexually Transmitted Infection in the past 12 months (N=375)**



Source: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 18. HIV Testing Experience at Time of Interview among MSM (N=375)**



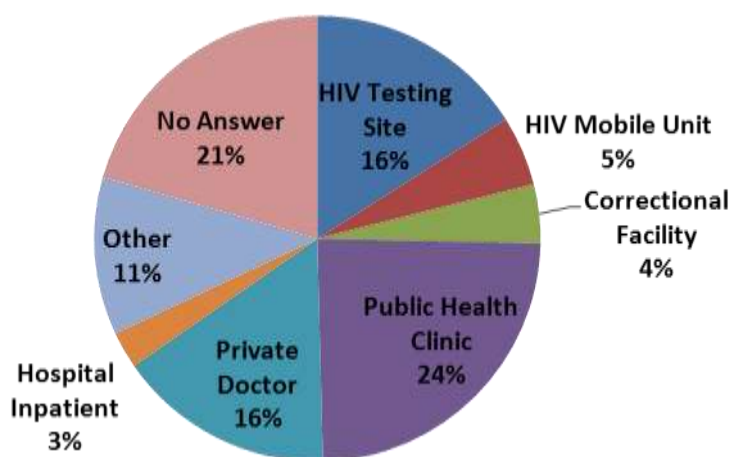
Source: Texas Department of State Health Services, NHBS MSM3, Dallas-Plano-Irving Metropolitan Division, 2011.

### Recent HIV Test Characteristics Among Self-Reported HIV Negative

Among the MSM participants who reported on the type of the most recent HIV test, 119 (40%) indicated testing with a rapid test.

MSM tested for HIV at a variety of locations, as illustrated in Figure 19. Twenty-three percent of MSM tested at a public or community health clinic, 16% at an HIV testing site and 15% at a private doctor's office.

**Figure 19. Testing Location for the Most Recent HIV Test (N=375)**



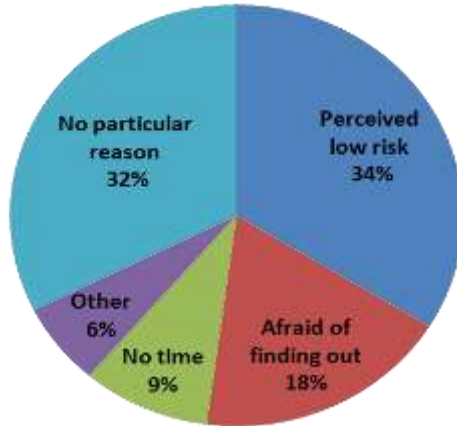
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

### Participants Who Have Never Tested HIV Positive and Have Not tested for HIV in the Past 12 Months

Among the MSM who have never tested HIV positive and have not tested for HIV in the past 12 months, approximately one-third (34%) said the reason they did not test was because they are at low risk, 32% said they have no particular reason, 18% said they were afraid of finding out they have HIV, 9% did not have time, and 6% gave other reasons (Fig. 20).



**Figure 20. Reasons for not testing for HIV in the past 12 months among MSM who have never tested positive (N=142)**

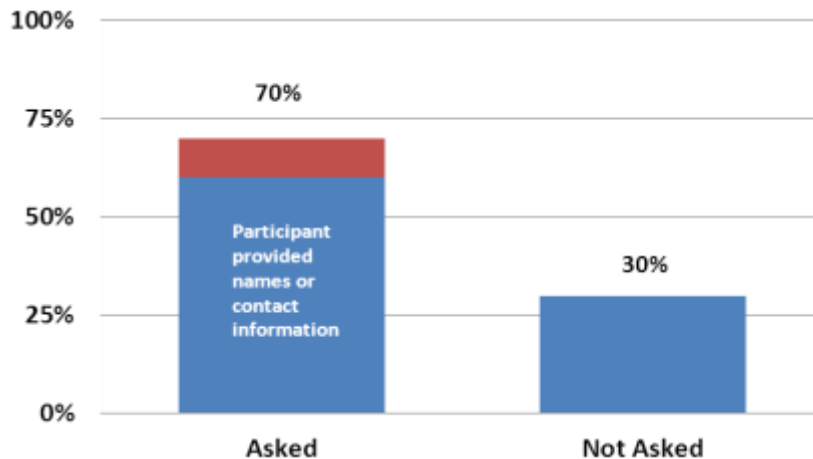


Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**For persons who have tested positive (self-reported positive)**

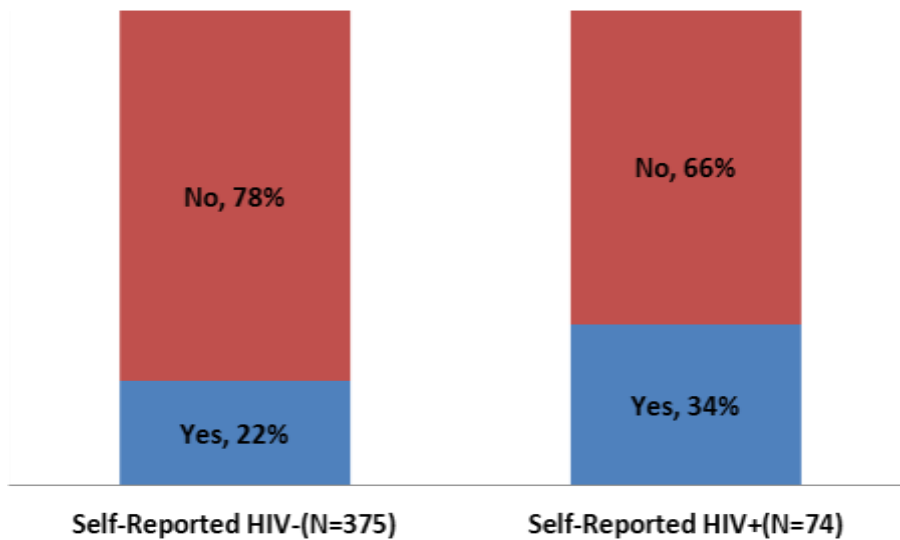
Contact tracing for individuals with acute HIV infection can lead to the diagnosis of other individuals with HIV. The CDC recommends that partner services be offered to patients as soon after their diagnosis as possible. Partners should be notified of their possible exposure and provided medical care for HIV as soon as possible (23). In MSM3 NHBS, 70% of participants were asked the names of sex or drug use partner after testing HIV positive by a healthcare provider and more than half of participants provided the names or contact information (Fig. 21). None of the respondents who self-reported an HIV positive status reported to have given antiretroviral medicines to a sex partner who was HIV negative. In addition, only about a third of participants who self-reported positive have ever heard of people who are HIV negative taking antiretrovirals to prevent HIV infection (Fig. 22).

**Figure 21. Healthcare Provider Asked for Names of Sex or Drug Use Partners After Testing HIV Positive (N=73)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 22. Ever heard of people who are not HIV+ taking antiretrovirals to prevent HIV infection**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

### **For persons who have tested negative (self-reported negative)**

Among the respondents who self-reported their HIV status as negative, 2 answered to have taken antiretroviral medicines after sex and 1 answered to have taken the medicines before sex to prevent HIV infection. More than half (55%) of the self-reported negative respondents answered that they will be willing to take anti-HIV medicines every day to lower the chances of getting HIV. Additionally, over three quarter of participants who self-reported HIV negative have never heard of people who are HIV negative taking antiretrovirals to prevent HIV infection (Fig. 22).

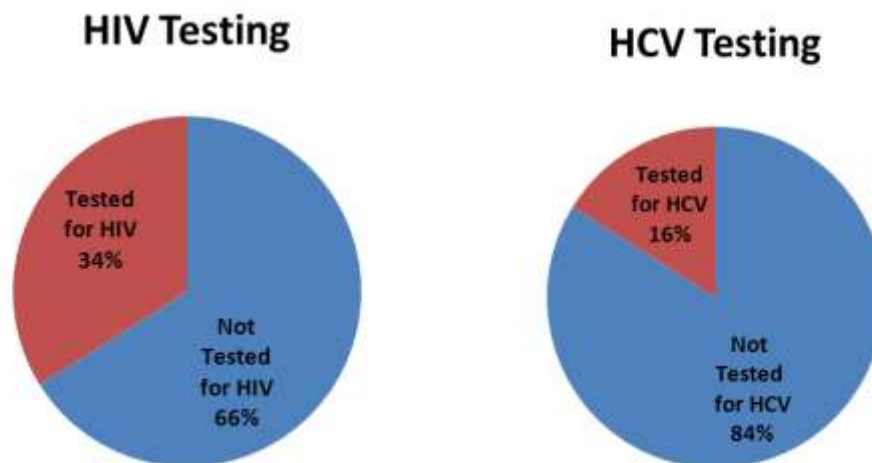
### **HIV and HCV Testing among incarcerated MSM**

People with HIV infection are disproportionately affected by viral hepatitis; about one-third are co-infected with either HBV or HCV, which more than triples the risk for liver disease, liver failure, and liver-related death from HCV. More people living with HIV have HCV than HBV. Viral hepatitis progresses faster and causes more liver-related health problems among people with HIV than among those who do not have HIV. Additionally, antiretroviral therapy (ART) related medication toxicity has also contributed to liver disease among people with HIV (24). Although drug therapy has extended the life expectancy of people with HIV, liver disease—much of which is related

to HCV, HBV, and ART-related medication toxicity —has become the leading cause of non-AIDS-related deaths in this population (24).

The implementation of HIV and HCV testing in correctional settings is an important consideration in reducing the annual number of new infections for these viruses (25). About a third of MSM3 participants reported being tested for HIV during more than 24 hours incarceration, while only 16% reported being tested for HCV (Fig. 23). This low number of HIV and HCV testing suggest missed opportunities for testing.

**Figure 23. HIV and HCV Testing among MSM While Incarcerated for More than 24 Hours (N=56)**

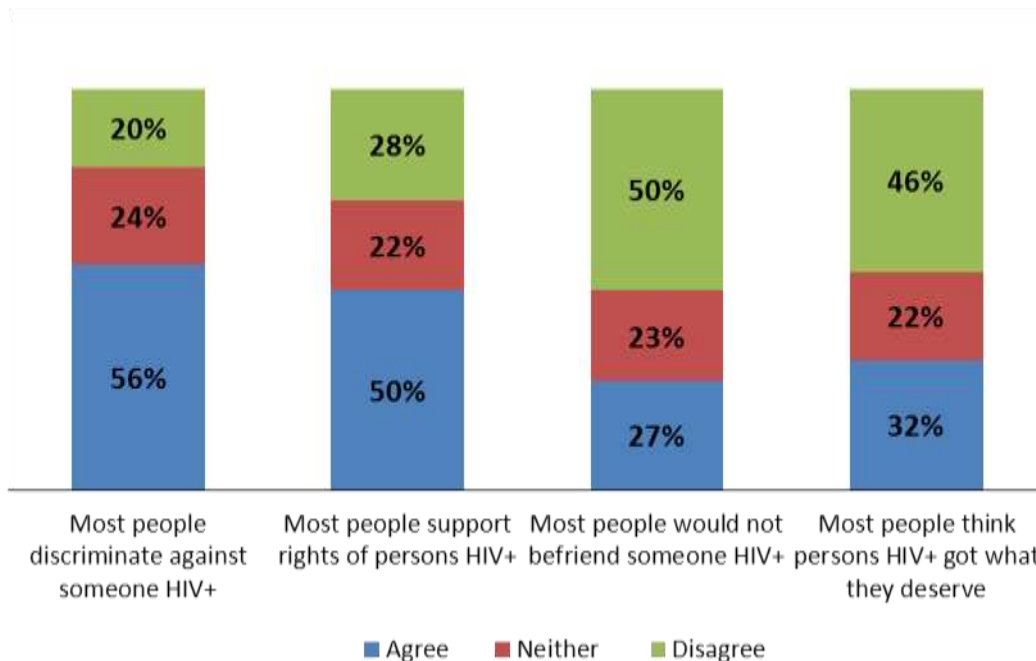


Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

### **Attitudes toward HIV+ persons**

Homophobia and discrimination put MSM at risk for physical and mental health problems. Experience with these attitudes in the social environment may affect whether MSM seek and are able to receive health services, including HIV testing, treatment, and other prevention services (26). Among NHBS participants, about half, agreed with the statement “most people discriminate against someone with HIV+” and “most people support rights of HIV+ persons” (Fig. 24). Approximately a quarter of NHBS participants agreed with the statement “most people would not befriend someone who is HIV+” and about a third agreed with the statement that “most people think that HIV+ persons got what they deserve” (Fig 24).

**Figure 24. Agreement with statements on attitudes toward persons HIV+ (N=414)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

## HIV PREVENTION ACTIVITIES

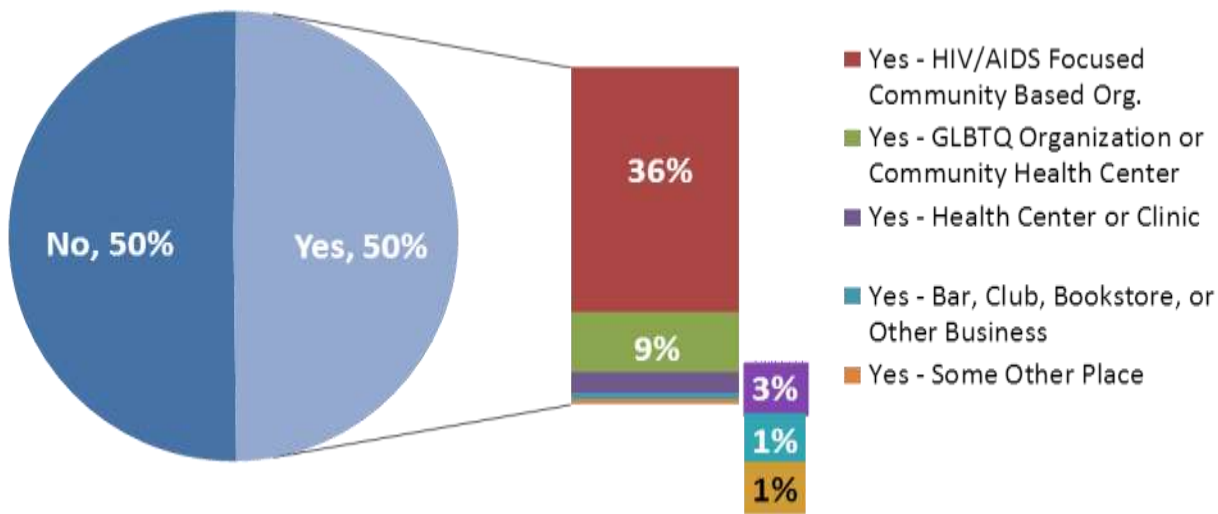
Agencies and programs that provide HIV testing and education are vital to preventing the spread of HIV. HIV prevention activities usually focus on three areas: behavioral interventions, HIV testing, and linkage to treatment and care. For every HIV infection that is prevented, an estimated \$355,000 is saved in the cost of providing lifetime HIV treatment – significant cost-savings for the U.S. federal government that spent an estimated \$12.3 billion on HIV care and treatment in 2009, and for the U.S. health care system as a whole (27).

### Free Condoms and Method of Acquisition

Of 375 MSM who answered questions about HIV prevention activities, half reported receiving free condoms with the majority receiving them from an HIV/AIDS focused community based organization. The GLBTQ (gay, lesbian, bisexual, transgender, or queer) organizations provided an additional 9% of free condoms. Of the remaining 5% MSM obtained free condoms from other sources including health centers and clinics, bars, clubs, and businesses (Figure 25). Only less than a fifth received individual HIV

counseling and about a tenth participated in a formal group discussion regarding HIV prevention. Of the 50% who received free condoms, nearly one quarter failed to use them.

**Figure 25. Type of Agency Where MSM Obtained Free Condoms in the Past 12 Months: Not Mutually Exclusive (N=375)**



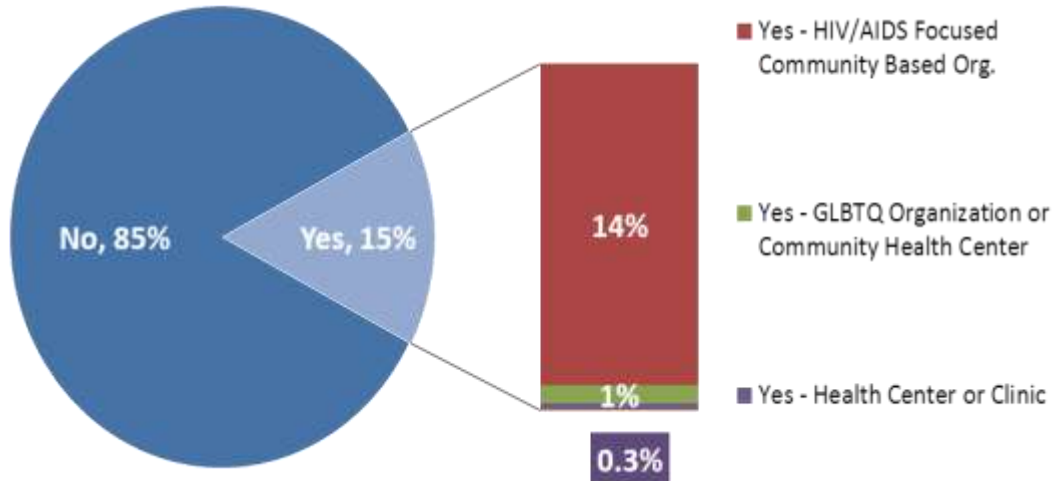
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

### Individual and Group HIV Counseling

Of the 57 MSM (15%) who received individual 1 on 1 HIV counseling in the 12 months preceding the interview, 53 received counseling from a HIV/AIDS focused community based organizations (CBOs), the remaining 4 participants received one-on-one counseling at either a GLBTQ organization, community health center or clinic (Figure 26). No counseling was reported in school or college, pride events, local businesses or drug treatment programs.

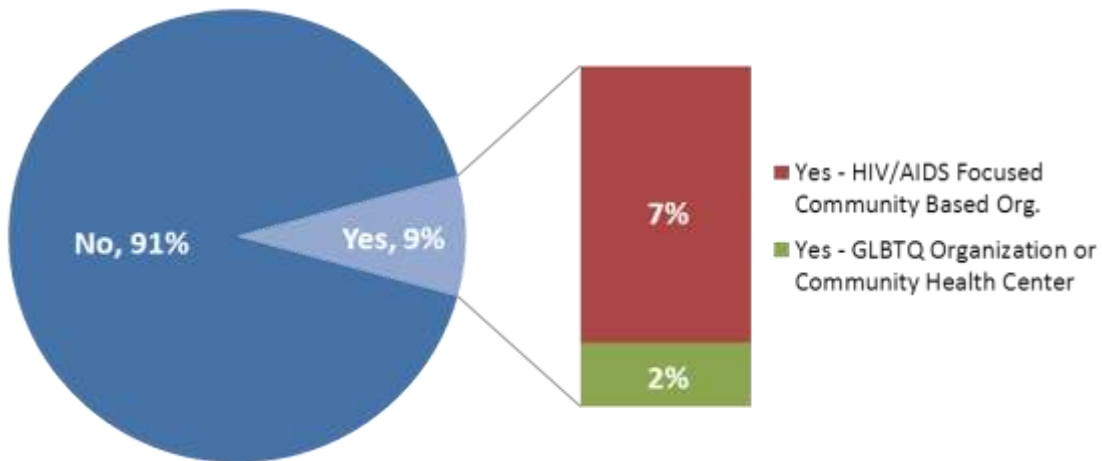
Of the 32 MSM (9%) who received group HIV counseling in the 12 months preceding the interview, 26 received counseling from a HIV/AIDS community based organization and 6 MSM (2%) received group counseling from a GLBTQ organization or community health center (Figure 27). Again, No counseling was reported in school or college, pride events, local businesses or drug treatment programs.

**Figure 26. Type of Agency Where MSM Received One-on-One Counseling in the Past 12 Months: Not Mutually Exclusive (N=375)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 27. Type of Agency Where MSM Received Group Counseling in the Past 12 Months: Not Mutually Exclusive (N=375)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

## **Free Sterile Needle Acquisition**

The sample yielded 16 cases of MSM who would also be classified as injection drug users. Of these reported cases only one had been able to receive free sterile needles at some point in the previous 12 months.

## **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 (28). For this NHBS cycle, MSM were asked about their arrest history, HIV and hepatitis C testing during last incarceration, and receipt of test results.

Among MSM who answered question about arrest history, two thirds who were incarcerated for more than 24 hours in the previous 12 month were not tested for HIV. This may have implications for HIV positive individuals who may be unaware of their status while being detained in a high risk environment with male to male sexual activity, tattooing without sterile equipment, and shared injection equipment. This may, in fact, pose a greater risk of HIV transmission among inmates. Of MSM incarcerated for more than one day, 84% reported not receiving a HCV test at last time in jail. 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 (29).

## **LOCAL QUESTIONS**

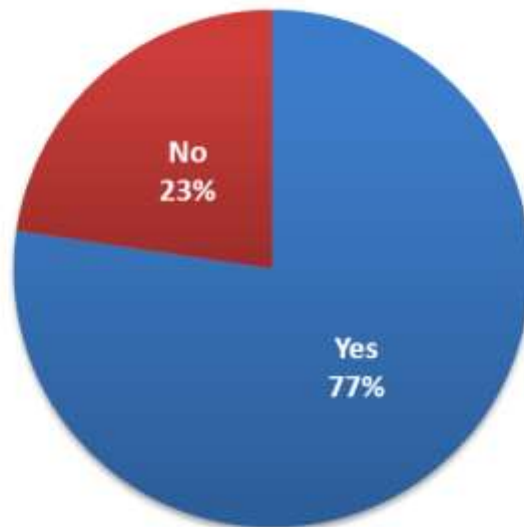
During each cycle of NHBS, all participating sites developed site specific questions of local interest for HIV prevention or other programmatic needs around each site. The Texas Department of State Health Services (DSHS) focused on the topics of sexual behavior and risk factors involving HIV status, sexual encounters that stem from online or telephone applications, and condom use. Figure 28 showed that nearly a quarter of MSM participants never ask serostatus of their sexual partners. In fact, almost a quarter did not consider HIV status to be an important factor when deciding to have sex with a partner (Figure 29).

**Figure 28. MSM participants' inquiry of HIV serostatus of sexual partner in the past 12 months (N=513)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 29. The importance of HIV status when considering whether or not to have sex (N=513)**



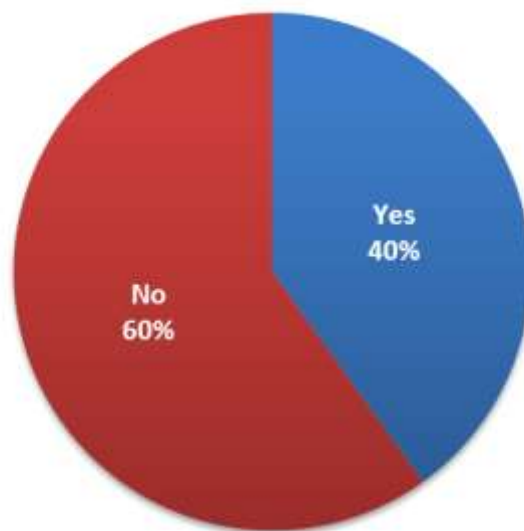
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

As technology advances people have turned to online and smart phone applications (apps) to navigate the modern romantic landscapes in search of relationships and sexual hookups. When participants were asked whether they had sexual relations with someone they met via online websites or smart phone apps, 40% responded that they had (Figure 30). Among the 206 respondents who had used online/apps in an attempt to



hookup, over three-quarters were successful and it was not uncommon for the participants to find multiple sexual partners using these tools (Figure 31). The reach of these applications is growing ever wider as technology shrinks our world, so we asked what the greatest distance our participants had travelled in order to meet a potential hookup they met online. The responses were a wide range with 30% estimating they had traveled over 20 miles in search of a hookup (Figure 32). Among participants who met partners via online site or app, only half always engaged in protected sex. (Figure 33).

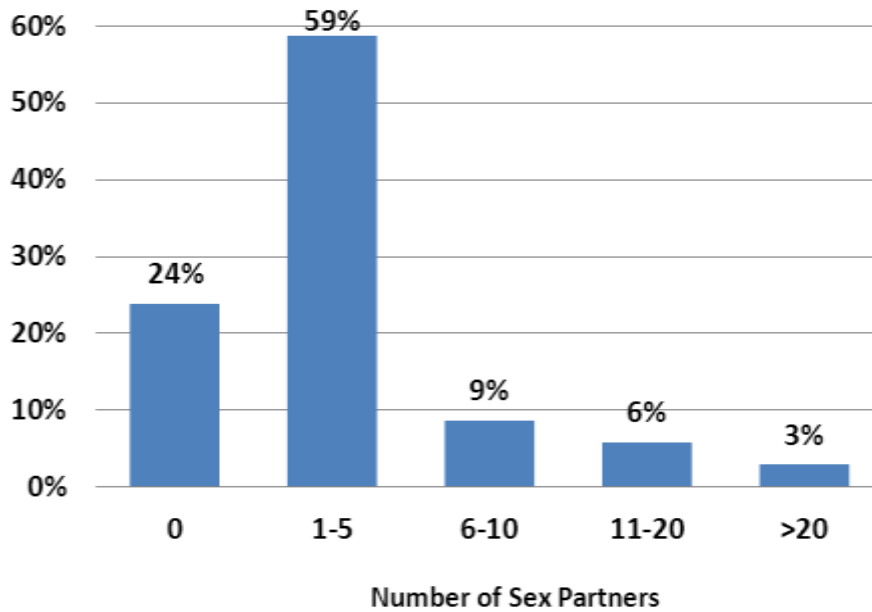
**Figure 30. MSM who had sex with someone they met via online or smartphone app, past 12 months (N=513)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

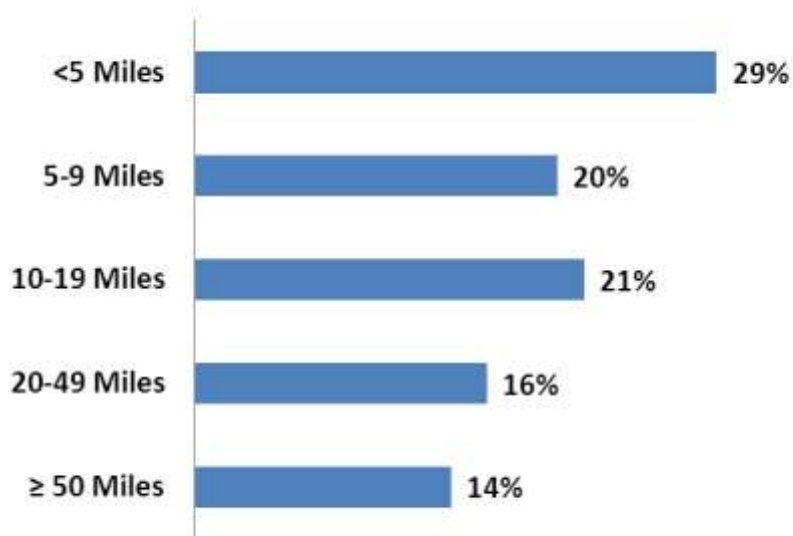
Knowledge and attitudes surrounding some methods of mitigating HIV transmission were explored. Almost two-thirds of those surveyed stated that they would commonly engage in oral sex instead of anal as a way of reducing risk of HIV transmission. The 'female condom,' also known as the femidom, is a barrier device used during intercourse to reduce risk of transmission of sexually transmitted infections. Nearly 40% of those asked had heard of female condom use as a means of protection during anal intercourse, only 6% of the participants had ever used one for this purpose (Figure 34). When asked how they felt about the phrase "the female condom is a good option for me," the results were anemic at best with 26% agreeing, 39% disagreeing, and 35% neither agreeing nor disagreeing (Figure 35). Almost a quarter of participants mentioned engaging in "bareback" sex which is anal intercourse without use of a condom (Figure 36).

**Figure 31. Number of sexual partners met online or by smartphone app, past 12 months (N=206)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 32. Greatest distance travelled in the past 12 months to meet a potential sexual partner met online or by smartphone app (N=206)**



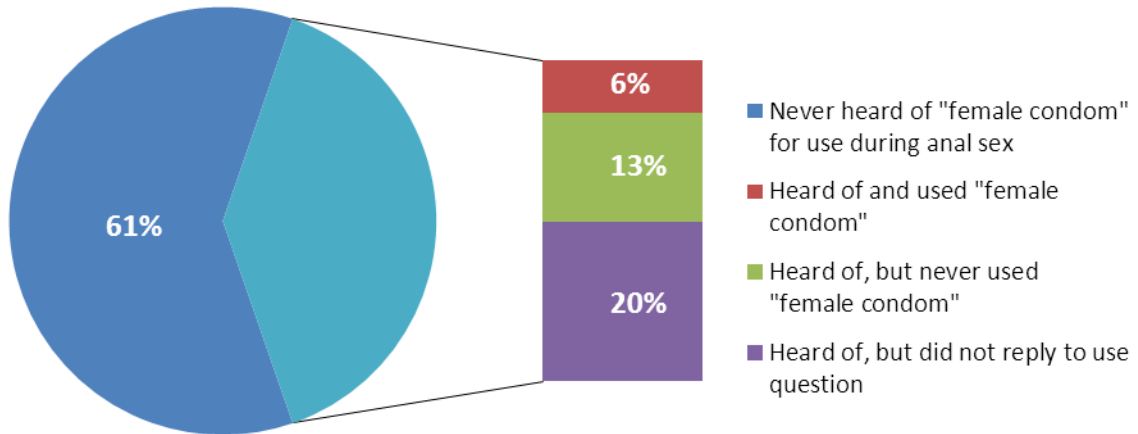
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 33. Frequency of condom use with a sexual partner met online or by smartphone app in the past 12 months (N=204)**



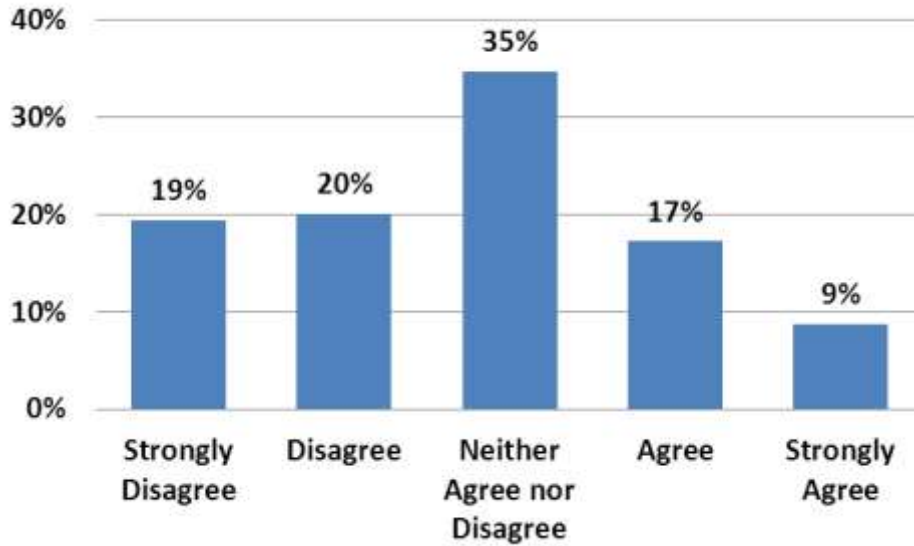
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 34. Use of "female condom" as a means of protection during anal intercourse (N=513)**



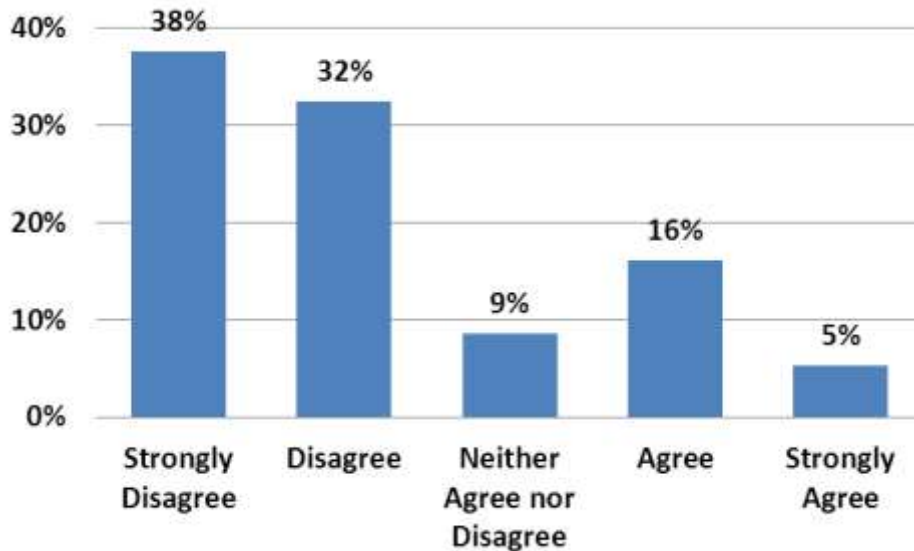
Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 35. How do you feel about the phrase "the female condom is a good option for me?" (N=513)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

**Figure 36. Responses to "I regard myself as someone who practices bareback sex" (N=514)**



Source: Texas Department of State Health Services, NHBS MSM3 Data, Dallas-Plano-Irving Metropolitan Division, 2011.

Table 2 illustrates the results of the remaining topics regarding HIV prevention and treatment. Over half of those surveyed do not believe that adhering to a regimen of combination drugs decreases the chance of infecting a sexual partner and 40% do not believe that HIV is a controllable disease. Only 11% of participants are willing to take a chance of getting infected or infecting someone else now that combination drug

treatment is available. A quarter of participants exhibited fatigue when it comes to monitoring their personal sexual behavior.

**Table 2. HIV prevention and treatment survey results**

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	Total
HIV is now a controllable disease	81(16%)	184(36%)	43(8%)	135(26%)	70(14%)	513
Taking combo drug treatments decreases chance of infecting partner	44(9%)	131(25%)	79(15%)	169(33%)	91(18%)	514
I am somewhat more willing to take a chance of getting infected or infecting someone else now that combo drug treatment is available	16(3%)	39(8%)	39(8%)	166(32%)	251(49%)	511
I regard myself as someone who practices bareback sex	27(5%)	83(16%)	44(9%)	167(32%)	193(38%)	514
I feel tired of always having to monitor my sexual behavior.	34(7%)	97(19%)	49(10%)	182(35%)	152(30%)	514

Further analysis was done by applying statistical tests to the data in order to determine significant results and relationships between survey responses to the local questions with the main survey results. The most notable responses indicated that:

1. Younger MSM age groups are more likely they are to engage in unprotected sex and risky sexual behaviors ( $t = -3.18$   $p = 0.0016$ ). There were no significant difference between older and younger MSM on whether they ask a new partner's serostatus ( $t = 1.80$   $p = 0.07$ ).
2. Those who have been diagnosed with HIV are significantly more aware of the fact that HIV is a controllable disease ( $\chi^2 = 11.9$ ,  $p = 0.018$ )
3. Twenty one percent of both White and Black respondents regard themselves as someone who practices bareback sex, or sex without the use of a condom.
4. Of those interviewed, 24% of Whites and 32% of Blacks expressed fatigue when it comes to being vigilant in monitoring their sexual behavior.

## LIMITATIONS

Data are 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 MSM2 data are prone to social desirability bias (30). Social desirability bias is described as the tendency of individuals to say things that will make them look good (31). For instance, HIV testing behaviors may be over reported because it is deemed to be a positively associated behavior, while high risk behaviors may be under reported since it is undesirable and therefore negatively associated behavior. Furthermore, given

the sensitive nature of this study, positive HIV status may be under reported 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 his/her HIV infection. There may be under reporting 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. 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 participants' ability to correctly recall certain facts and details. Additionally, data do not include all MSM living in the Dallas-Plano-Irving Metropolitan Division since the venue sampling frames do not account for MSM who do not attend venues. Incidentally, the percentage of MSM reported drinking alcohol may be higher than the actual percentage of MSM in general since. Furthermore, these data are a snapshot of risky behaviors among men who have sex with men in the Dallas County population who attended venues and therefore, cannot be generalized beyond this population.

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