



DC HIV Behavior Study Series #3

# Injection Drug Use: IDUs and HIV Infection in DC



GOVERNMENT OF THE DISTRICT OF COLUMBIA





## Executive Summary

In the diversity of the HIV/AIDS epidemic in the District of Columbia, injection drug use (IDU) continues to be complex and challenging. Active injection drug users tend to be in closed social networks, isolated from individual or family support and public health systems. More than 20% of the District's epidemic is attributed to IDU. Of the 16,721 persons living with HIV/AIDS in DC as of 2009, 3,308 have as their mode of transmission injection drug use. Among those persons, 65% are men and 35% women, with 91% being African American. Among newly reported cases of HIV/AIDS from 2005 to 2009, 778 or 14.2% were attributed to injection drug use. This report revealed 13% of injection drug users in the study were HIV positive.

There cannot be a discussion of injection drugs and HIV without considering the scientifically-proven intervention of needle exchange. The harm reduction approach of supplying clean needles and works (includes the cooker, cotton or water related to injection use which can result in transmission), along with the personal interaction between program providers and substance users, has been shown to work in reducing HIV transmission. While states and cities across the country have supported needle exchange programs, DC was barred for 10 years by Congress from using its own local dollars to support local needle exchange programs. In 2008, the ban was lifted and the DC

Department of Health committed funding to the long-time community provider *PreventionWorks!* and engaged three new providers in integrated service models of needle exchange, primary medical care and other target populations – homeless and commercial sex workers. From 2008 to 2010, the four DC programs exchanged nearly 800,000 needles, enrolled over 3,000 new clients, linked more than 900 persons into detox and drug treatment, and provided over 5,000 HIV tests. This study found that the top source of needles was needle exchange programs at 99% with 97% using the free needles. The results have been dramatic. There was a 60% decrease in the number of new HIV/AIDS cases attributable to injection drug use from 153 in 2007 – prior to the scale up of DC's needle exchange programs – to 62 in 2009. The Department is convinced that the expansion of needle exchange programs has resulted in this decrease in new HIV/AIDS cases.

This third report in the series on DC HIV behaviors among injection drug users shows that there is still more work to be done to reduce the sharing of needles and works, promoting safer sex and reaching newer users and younger users to reduce the risk of HIV infection. Studies have shown that that greater the number of available syringes resulted in



significantly lower chances of needle sharing (CITE). It is noteworthy that the second top source of needles among study participants was friend/partner at 65%, which shows that there is room to increase availability of needles through secondary distribution. Secondary distribution involves drug users exchanging clean needles among peers. With 1 in 5 injection drug users still sharing needles and 3 out of 4 sharing works, the District has yet to reach the level of needle exchange services to interrupt more needle and works sharing.

The majority of the participants in the study were long-time injection drug users. More than three-quarters have been injecting drugs for more than six

years, with an average of 30 years of injection history. Nearly 60% were 50 years old and older. Yet, the average age persons started injection drugs was 21 years old. As the majority of the study participants was an older age group, long duration of drug use, high unemployment and low income, a gap in the study is reaching younger and newer, more functional injection drug users.

Even with high rates of HIV among the population, more than two-thirds of study participants were not using condoms. Also, there continues to be missed opportunities among medical providers for diagnosing HIV.

Here are the major findings of the study conducted among 553 IDU participants:

## HIV/Hepatitis Positive

- 13% were confirmed HIV-positive, with no difference between men and women.
- 30% were unaware of their HIV diagnosis prior to the study.
- Of persons told they had hepatitis, 90% reported that they were positive for hepatitis C.



## HIV Risk Behavior

- Overall, 20% shared needles with their last injecting partner and 74% shared works.
- Women were more than 2½ times more likely to share needles than men.
- Among those newly diagnosed with HIV, 22% shared needles in the past year.
- More than half did not know their last injection partner's HIV status.
- Two-thirds reported using non-injection drugs in addition to injection drugs.
- Two-thirds did not use a condom at last sex.

## HIV Testing and Missed Opportunities

- Among those newly diagnosed with HIV, 73% had seen a health care provider at least once in the past 12 months and had not been diagnosed.
- Only 13% of newly diagnosed individuals reported having a health care provider offering them a HIV test at their last medical visit.
- Overall, 80% had seen a medical provider in the last year, of which 60% were offered a HIV test.

This study provides insightful guidance as to policy direction and program activities for intensifying the District's efforts to reduce HIV transmission among injection drug users. The three top take home messages are:

- 1. Increasing the availability of free needles, including secondary distribution.**
- 2. More targeted outreach to younger and newer injection drug users and women.**
- 3. Enhanced efforts addressing co-infection of HIV and hepatitis C.**

## Study Basics: Who, What and Where

The District of Columbia is one of the 21 cities in the country participating in the U.S.

Centers for Disease Control and Prevention (CDC) funded National HIV Behavioral Surveillance (NHBS) system to learn more about what puts people at risk for HIV. The CDC identified three target populations for the national system: heterosexuals at increased risk of HIV infection, men who have sex with men, and injection drug users. CDC compiles all the data from the cities into a national report. The DC Department of Health (DOH) contracted with the George Washington University School of Public Health and Health Services, Department of Epidemiology and Biostatistics (GWU) to conduct the study. GWU named it the WORD UP (Washington Outreach Research Drive to Understand Prevention) Study. DOH has named the local version of the NHBS studies as the DC HIV Behavioral Study Series. The first report covered heterosexuals, followed by men who have sex with men and concludes with this report on injection drug users.

The study followed the CDC protocol for injection drug users and, similar to the heterosexual study, recruited individuals through respondent driven sampling. Self-identified injection drug users were recruited and were eligible to refer others in their social network to be surveyed. The study results which are adjusted for the sampling method are thought to be representative of the population of injection drug users in the District.



The chart below describes the characteristics of the study participants. The majority of the participants was African American, older, had lower incomes and long-time drug users. Two-thirds of the participants were men, half had a history of homelessness and four out of five had ever been incarcerated.

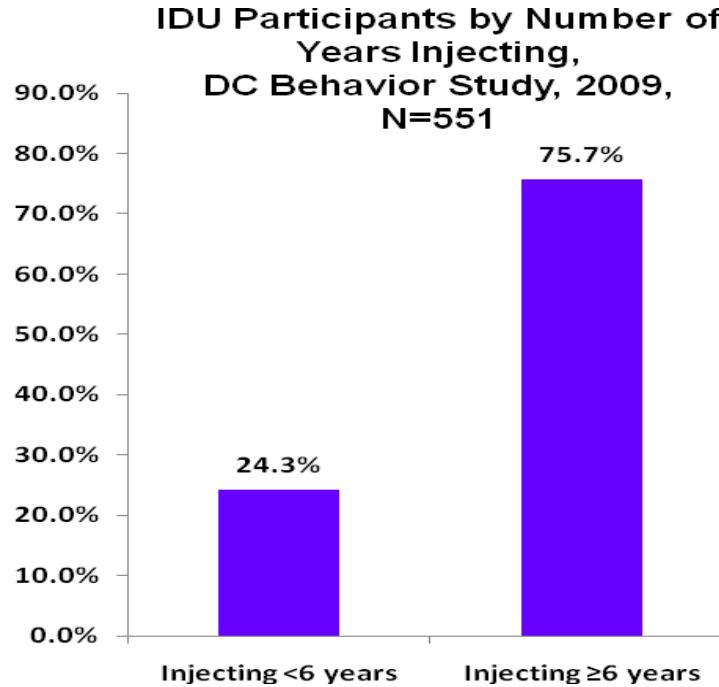
<b>Demographic Statistics</b>	<b>Total (N=553) %*</b>
<b>Sex</b>	
Male	62.7
Female	36.4
Transgender	1.0
<b>Age Group</b>	
≤50	42.1
>50	57.9
<b>Length of Years Injecting Drugs</b>	**30.6
<b>Age Started Injecting Drugs</b>	**21.3
<b>Race/Ethnicity</b>	
Black	96.4
Non-Black	3.9
<b>Marital Status</b>	
Never been married	42.8
Married or living together	23.0
Separated, widowed, or divorced	34.2
<b>Sexual Orientation</b>	
Heterosexual	94.3
Homosexual or bisexual	5.7
<b>Education</b>	
High school degree or higher	67.6
<b>Employment Status</b>	
Unemployed	52.8
<b>Yearly Household Income</b>	
< \$10,000	65.3
<b>Housing</b>	
Ever been Homelessness	49.1
<b>Ever Incarcerated</b>	
<i>Lifetime: Ever been to jail, prison, or juvenile detention***</i>	79.6

\*Estimates weighted for respondent-driven sampling

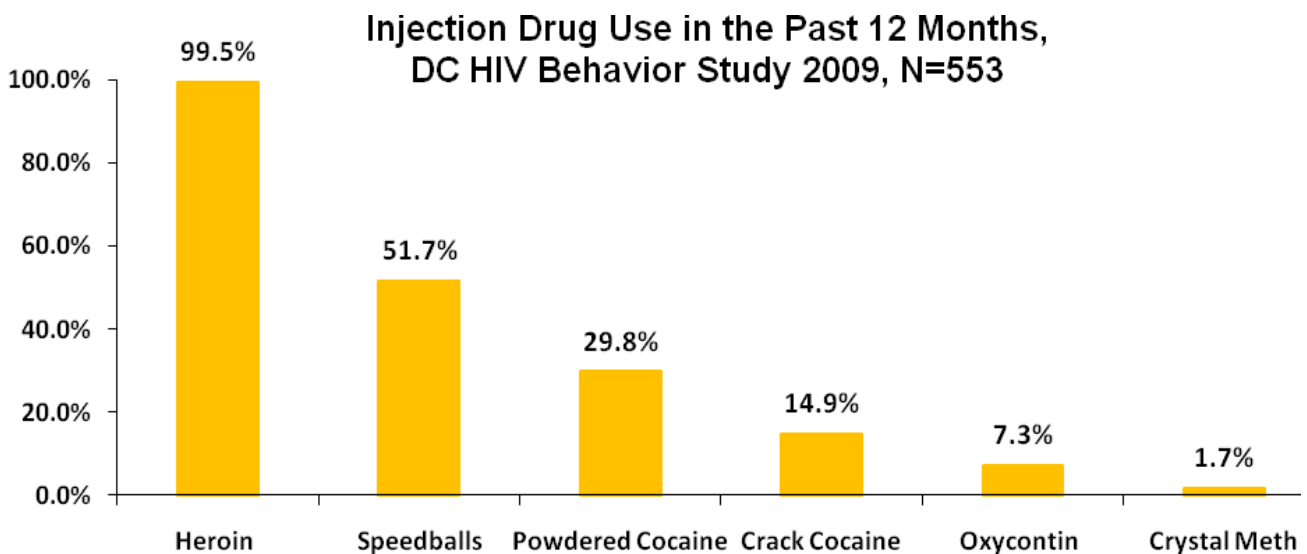
\*\* Mean

\*\*\*Missing n=33

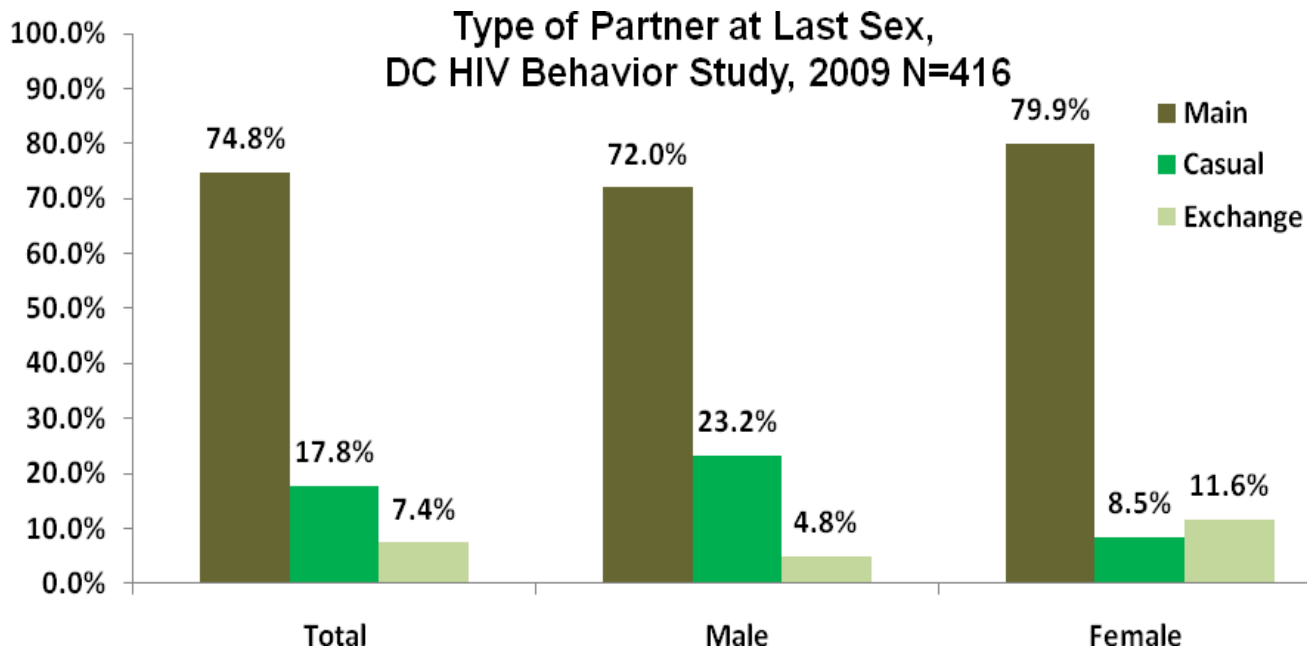
As mentioned in the previous table, most of the participants had been using injection drugs for a long time. Three-quarters of the participants had been injecting drugs for 6 or more years.



The two leading drugs of choice among study participants were heroin and speedballs (a combination of injecting heroin and cocaine).



Among study participants, nearly 75% reported their partner as a main partner. Women were slightly more likely to identify their partner as a main partner; they also reported more exchange partners than men. Men were more likely to report a casual partner than women.



## High Rate of HIV ■

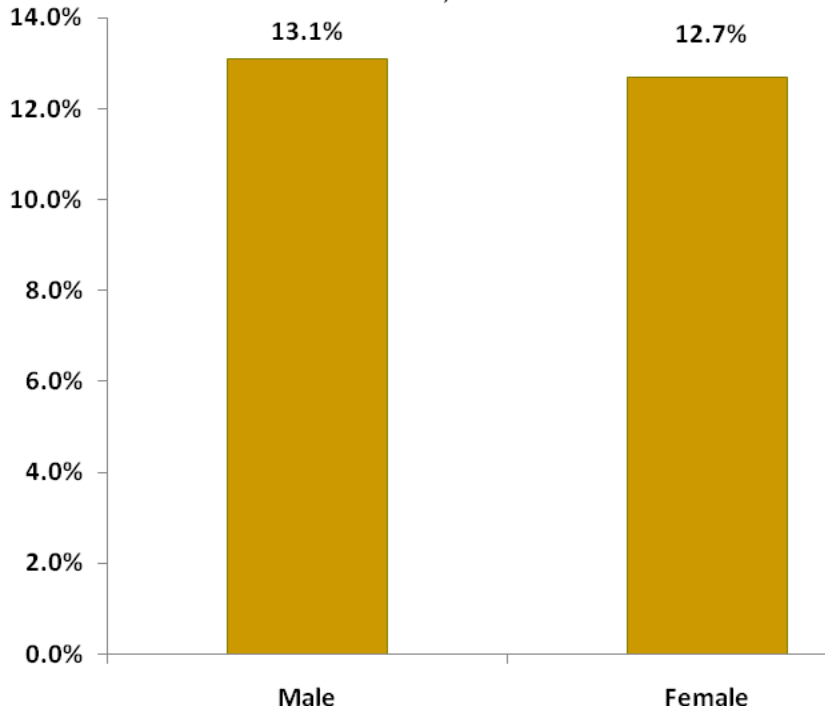
The study found that overall 13% of the participants were HIV positive. This figure is much higher than the 3% rate of HIV/AIDS among District residents and exceeds the 1% threshold for a severe epidemic as defined by the World Health Organization. The rate of HIV is a key factor in the increased risk of transmission. In areas or populations of high prevalence, it takes little risk behavior to be exposed to HIV. The potential exposure is two-fold with injection drug users as they risk transmission through both sharing of needles and related injection items and sexual activity.

The data show that the HIV positivity rate was nearly equal between men and women. As part of the study, all participants were tested for HIV. Of those participants who tested positive, 30% were previously unaware of their status.

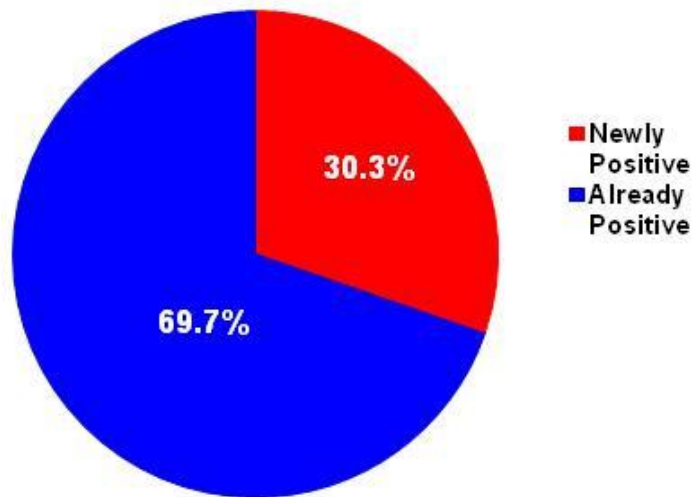




HIV Prevalence by Gender, DC Behavior Study, 2009, N= 553



Knowledge of HIV Status Among Positives, DC Behavior Study 2009  
Overall HIV Prevalence=13.0%



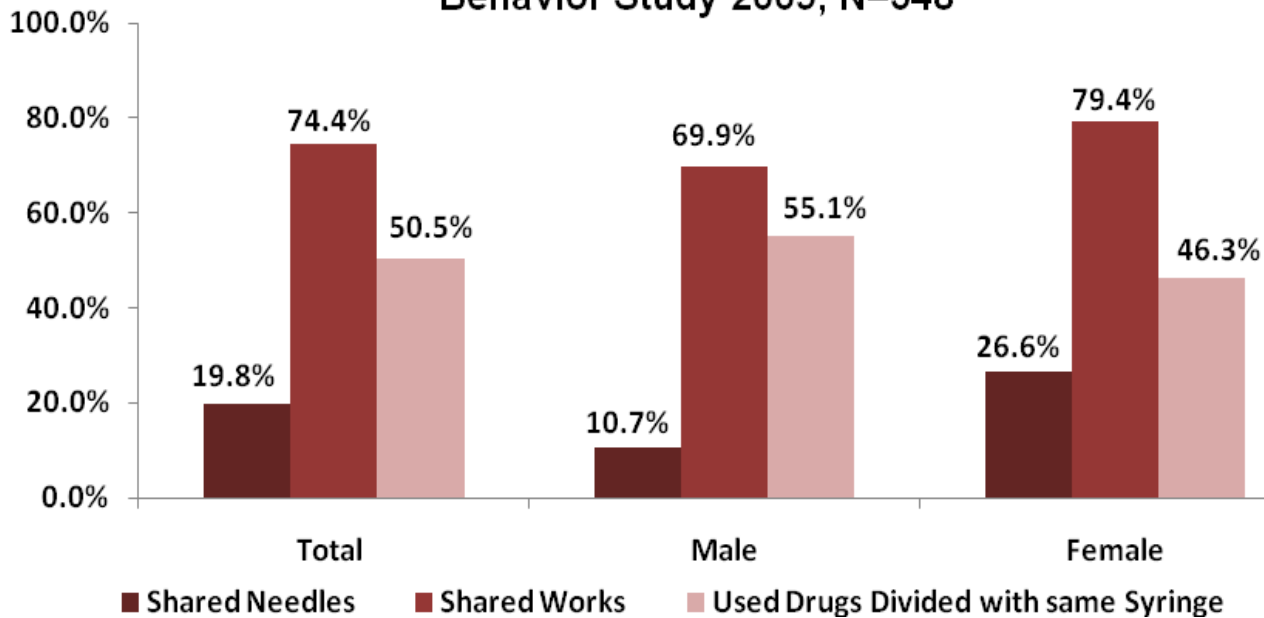
## HIV Risk Behavior

As mentioned earlier, injection drug users face potential HIV infection through both injection related activity and sexual activity. There are three ways that HIV can be transmitted involving injection drug use: sharing of needles, sharing of works (the related items to inject drugs, including a cooker, cotton swabs or water), and dividing drugs (the sharing or transferring of drugs from the needle of one person to the needle of another). The other way that HIV is transmitted among injection drug users is sexual activity. The risk factors include knowledge of one's one status, knowing a partner's status and use of condoms.

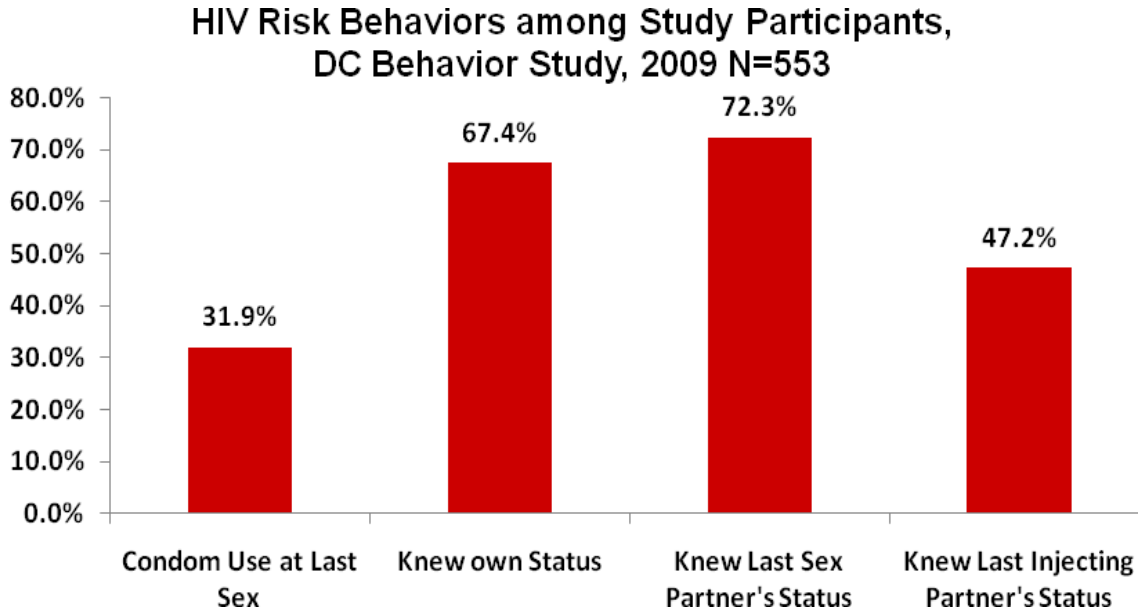


Overall, nearly 20% of participants shared needles with their last injecting partner. Three-quarters shared injection-related works and half used drugs divided with the same needle. Women were more than two and a half times likely to share needles with their partner than men and slightly more likely to share works than men. Men were more likely to divide drugs than women. Of the participants newly diagnosed through the study as HIV positive, 22% reported sharing needles. Even higher, 31% of the participants who knew they were HIV positive shared needles.

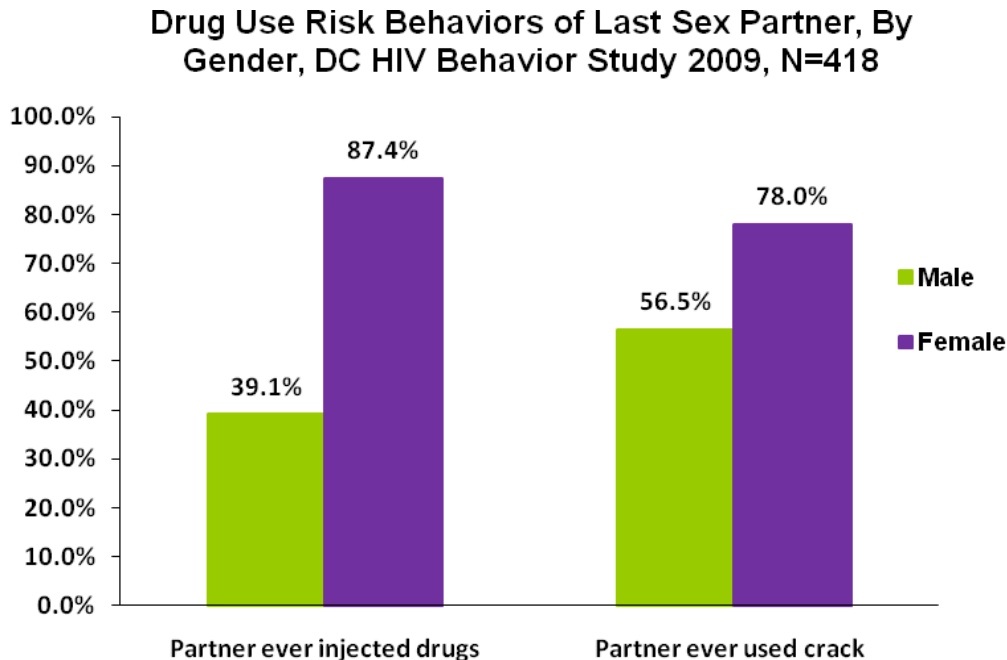
**Behaviors with Last Injecting Partner, By Gender, DC HIV Behavior Study 2009, N=548**



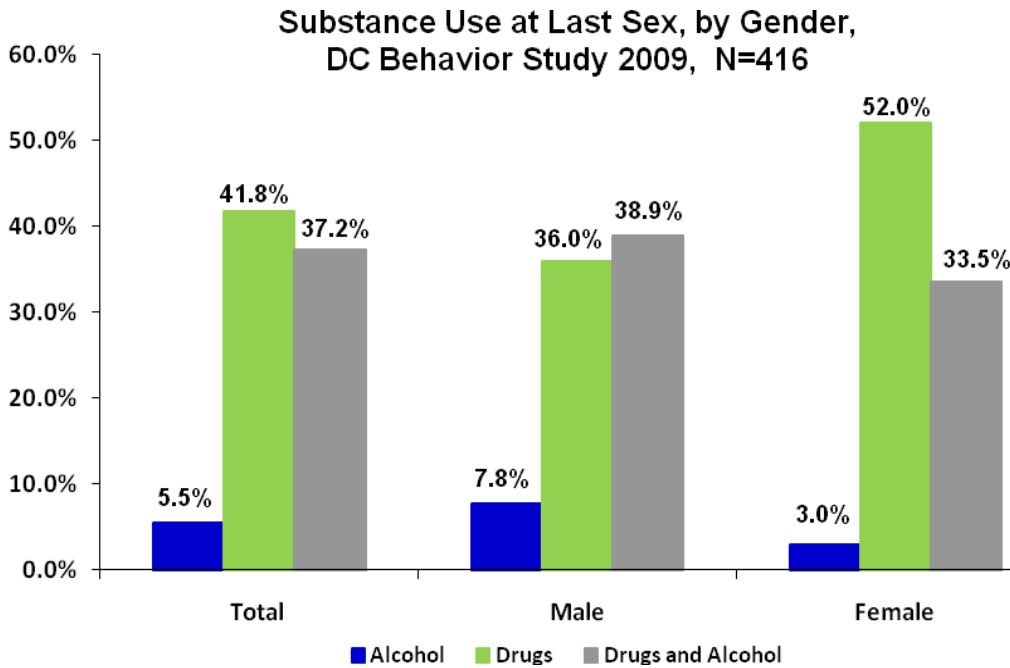
While two-thirds of participants stated they knew their own HIV status and 72% knew the HIV status of their last sex partner, less than half knew the HIV status of their last injecting partner. Overall, nearly 70% reported not using a condom at last sex. Among men, 66% did not use a condom, while 74% of women did not use a condom.



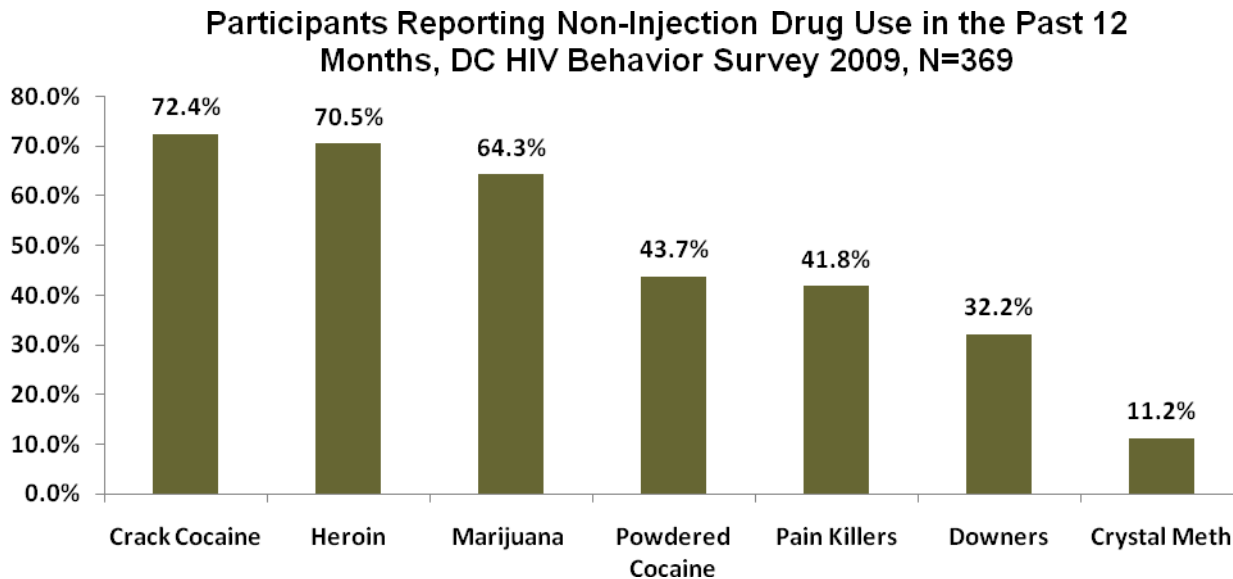
Women were more than two times more likely than men to report that their last partner ever injected drugs and were more likely to report that their partner used crack cocaine than men.



The use of drugs and alcohol during sexual activity can contribute to unsafe sexual activity. Around 40% of participants reported drug use and a combination of drugs and alcohol at last sex. Women more 30% more likely to report drug use at last sex compared to men. Men were more likely to report drugs and alcohol or alcohol alone than women. Among those who reported drug use at last sex, the vast majority used heroin at 84%. Other drugs included crack cocaine at 16%, 7% marijuana and 5% speedballs.



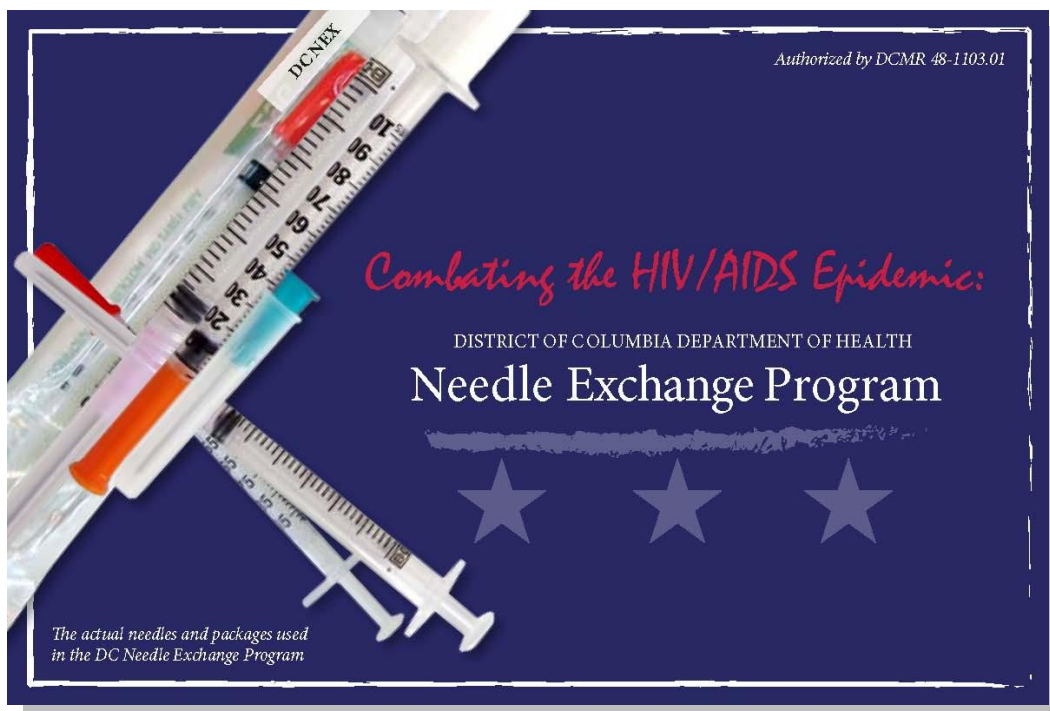
Among study participants, 67% reported using non-injecting drugs. The most frequently used were crack cocaine, heroin and marijuana.



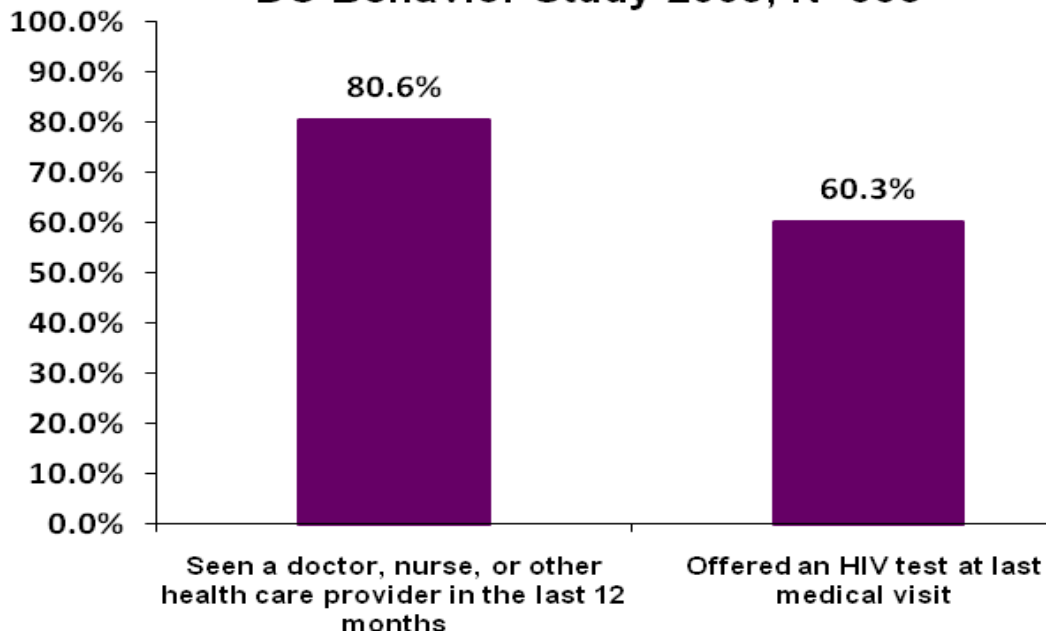
## HIV Testing

The DC Department of Health has said before that being tested for HIV once is not enough. The Department recommends annual testing for all sexually active adults and adolescents. However, when there is higher prevalence of HIV, such as among gay and bisexual men, the Department has recommended testing at least twice per year. Overall, 98% of the study participants stated they have ever been tested for HIV, with two-thirds testing within the past year. The highest reported locations for HIV testing were mobile outreach and HIV testing sites, followed by community health clinics. Despite these HIV testing rates, 30% of the participants were unaware of their HIV diagnosis prior to the study. The combination of high prevalence known and newly diagnosed HIV infections led the Department to recommend that injection drug users get tested HIV at least twice a year.

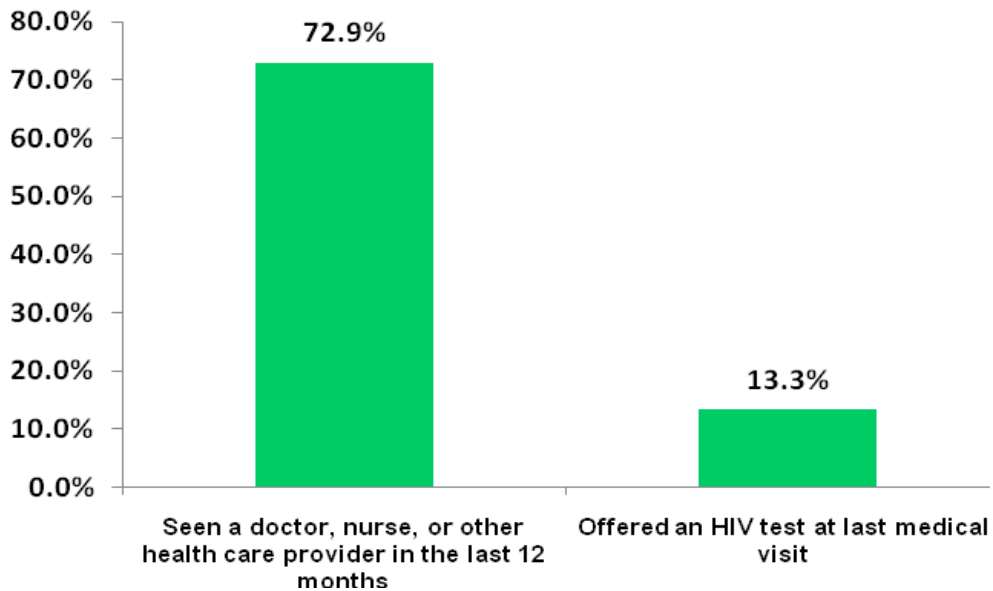
The study found missed opportunities by medical providers to offer HIV testing and diagnose individuals. A significant percentage of participants at 80% saw a medical provider in the past year. Of those who tested newly positive in the study, 73% had been to a medical provider at least once in the past 12 months and had not been diagnosed, while only 13% of medical providers had offered HIV test. There needs to be more work done to promote routine HIV testing among medical providers in DC.



### HIV Testing Behaviors, DC Behavior Study 2009, N=553



### HIV Testing Behaviors among New Positives, DC Behavior Study, 2009, N=19

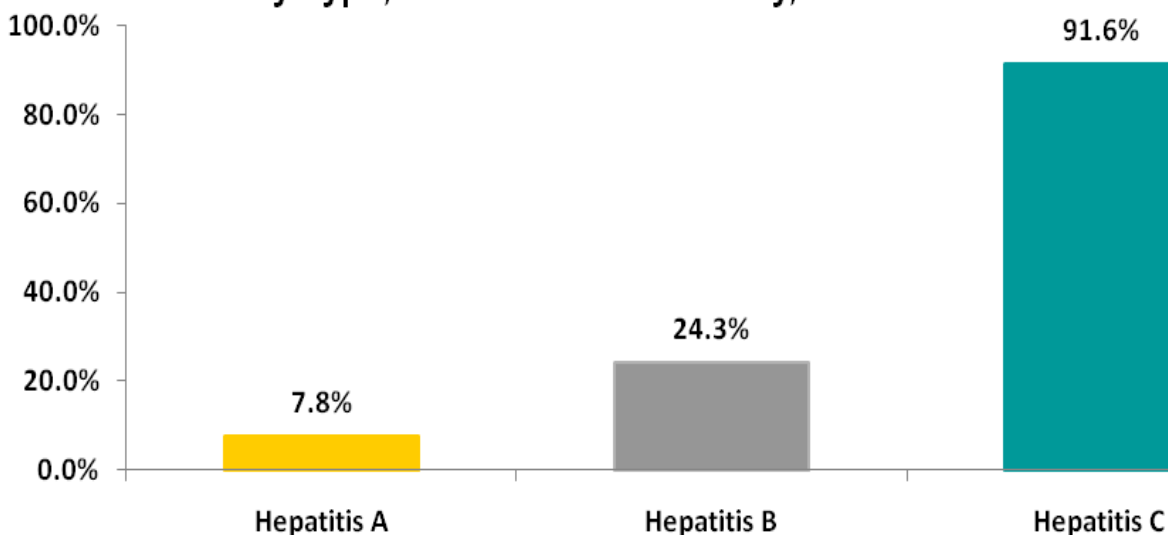


## Hepatitis and HIV Testing

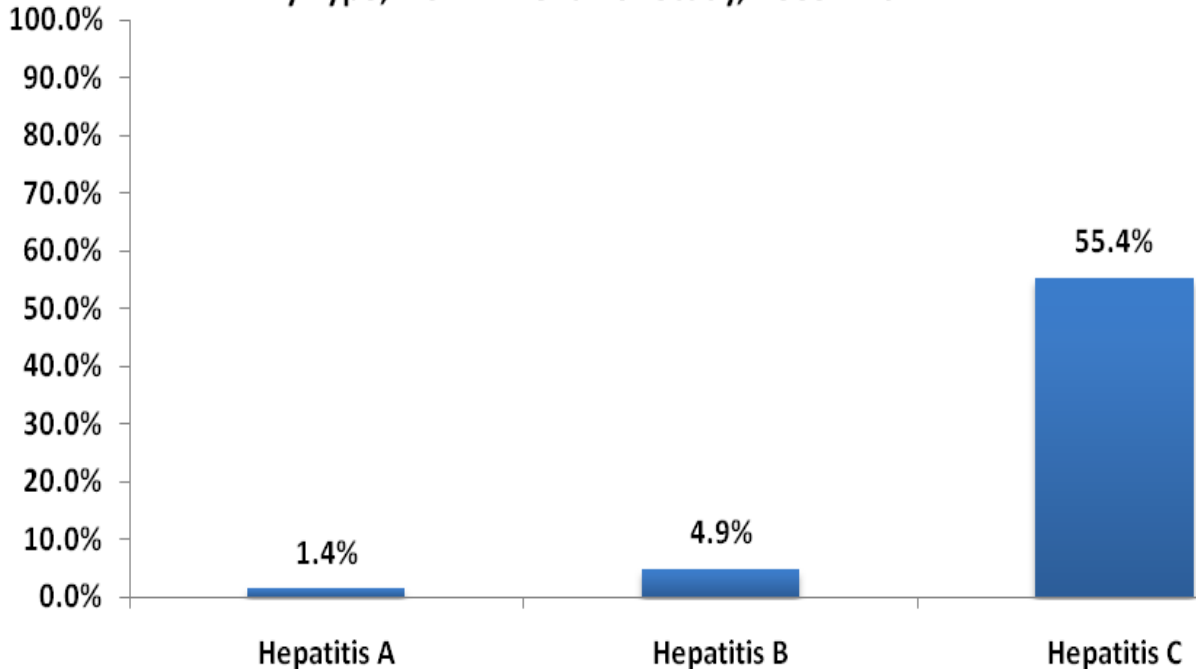
Hepatitis is a virus that causes liver disease. There are three strains: hepatitis A, hepatitis B and hepatitis C. Most people get hepatitis A through contaminated food. Hepatitis B and C are transmitted through blood or other bodily fluids. There are vaccines for hepatitis A and B, but none for C. Hepatitis B and C are chronic conditions that can be managed by medication, healthy diets and low alcohol use. Hepatitis C is mostly transmitted through the sharing of needles and other injection drug equipment. It is the leading cause of liver transplantation in the U.S. The Department reports in its 2010 Epidemiology Update that from 2005 to 2009 there were 2,893 cases of hepatitis B and 12,012 cases of hepatitis C. Because of the similar transmission of certain hepatitis viruses and HIV, there are persons with both diseases. According to the 2010 Epidemiology Update, there were 99 cases of persons with both hepatitis B and HIV and 773 cases of persons HIV and hepatitis C between 2005 and 2009. These persons acquired HIV from injection drug use. For hepatitis C, this represents 6% of all chronic hepatitis C cases reported in the District.

The study did not screen persons for hepatitis, but did ask participants if they had ever been told by a health care provider they had hepatitis. The numbers are significantly high. Approximately half of all the study participations (263) said they had hepatitis. Of those, more than 90% reported having hepatitis C. More than 60% of the participants who tested HIV positive also reported they had hepatitis, with more than 55% reported having been told they had hepatitis C.

Participants Ever Told They Had Hepatitis,  
By Type, DC HIV Behavior Study, 2009 N=263



HIV Positive Participants Ever Told They Had Hepatitis,  
By Type, DC HIV Behavior Study, 2009 N=64



## Other Factors



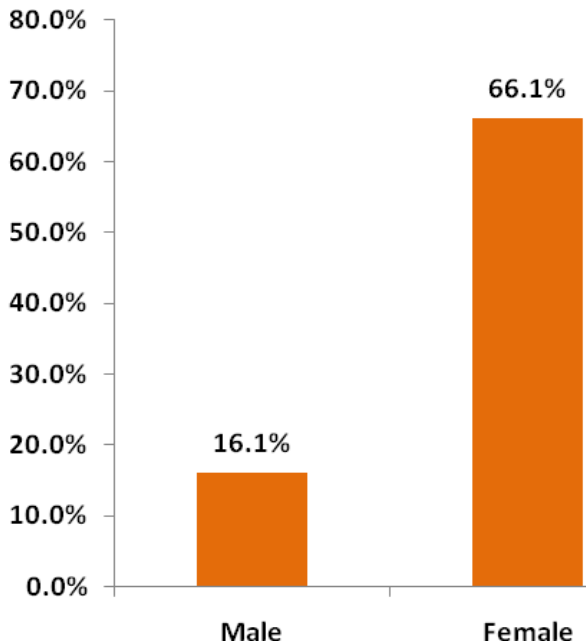
The study examined other factors that can influence how people feel and often increase one's HIV-related behavior. It is widely known that emotional and mental health problems impair a person's decision making abilities. Emotional and physical abuse can heighten those conditions. Those put individuals at greater risk for unsafe behaviors, and may make them more vulnerable to HIV transmission.



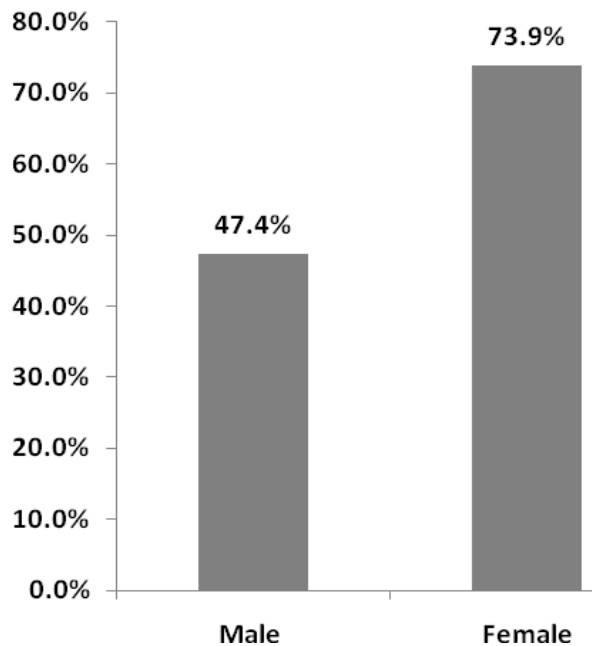
In the charts below, one-third of participants reported ever being emotionally or physically abused. Women were four times more likely to report abuse than men. Overall, nearly 60% of participants experienced depressive symptoms. Women were also more likely to report depressive symptoms than men.



Percentage of Participants Reporting Abuse by Gender, DC Behavior Study 2009, N=548



Percentage of Reported Depressive Symptoms among Participants, By Gender, DC Behavior Study 2009, N=548



## Lessons Learned and Next Steps

This study's results provide more guidance to the District in responding to the epidemic. We know that there is a lot of HIV in the District of Columbia and it impacts every type of individual in every community. Active drug users face HIV risk from both injecting drugs and sexual activity. We learned that HIV is impacting injection drug users as much as four times that of the entire city's adults and adolescents.

From the findings of this study, there are personal actions that active drug users can take to reduce their risk of HIV infection: (1) reduce/stop using injection drugs, (2) only use clean needles and works and not divide drugs among needles, (3) get tested for HIV at least twice a year, and (4) use condoms. Moreover, the study offers support for District policy and program directions to help support healthier choices by active drug users. The Department of Health will be using these findings as it completes its Strategic Plan for HIV and Substance Use. Harm reduction works and has been shown to lower the odds that someone can get HIV. Two fundamental harm reduction strategies are needle exchange and condoms. Science tells us that condoms prevent the transmission of HIV and other sexually transmitted diseases and use of clean needles and works prevents HIV transmission.

The benefit of harm reduction is that it can be done at a large scale to reach many individuals at a reasonable cost. DC has demonstrated the effectiveness of the harm reduction approach with its needle exchange programs. Since 2008 when the Congressional ban was lifted, the District has spent its own local funds to support traditional (stand alone) and new (integrated with medical care and other prevention services) needle exchange programs. As mentioned earlier, these efforts have led to a 60% decrease in the number of new HIV/AIDS cases attributable to injection drug use from 2007 to 2009. This study supports the effectiveness of the programs as it found: 98% received clean needles, 99% received works, and 77% received free condoms from needle exchange programs.



This study offers three programmatic directions for the District's effort to reduce HIV and hepatitis burden among active drug users:

- **Increasing the availability of free needles, including secondary distribution** – according to the Harm Reduction Coalition, needle exchange programs reach 5-10% of active drug users. Secondary distribution can expand the number of needles reaching drug users thereby reducing more potential infections. About 90% of needle exchange programs in the country have some form of secondary distribution. In Chicago, a study found that secondary exchange accounted for half of all needles exchanged in the program.
- **More targeted outreach to younger and newer injection drug users and women** – the District should explore new model programs to reach new users before they become entrenched in lifetime injection drug use. Also, DC should consider targeted programs to address higher rates of needle and works sharing among women.
- **Enhanced efforts addressing co-infection of HIV and hepatitis C** – the Department has scaled up prevention, treatment and surveillance of hepatitis. Through the Partnership for HIV/AIDS Progress made up of the National Institutes of Health, HAHSTA and community partners, there are four new subspecialty treatment clinics on HIV and hepatitis C. The Department has facilitated trainings of substance abuse agencies serving at-risk populations in DC on prevention, harm reduction, and screening for hepatitis. The Department has also developed outreach materials for persons living with hepatitis and is developing a handbook for medical providers. Further, the Department released its first hepatitis statistics in the 2009 integrated epidemiology update.

Lastly, the Department supports Bread for the City, a primary medical provider for homeless persons with a fully integrated needle exchange program, in the provision of Naloxone to injection drug users. Naloxone is a medication that blocks the effects of opiates, such as heroin, morphine, methadone, among others. It has potential to reducing dependency on injection drugs by active users.

As with all new studies on HIV in the District, this one is not meant to sit on the shelf. It is a new handbook on starting conversations among residents and policy makers and navigating it to protect the health of District residents.



This study was completed by the combined efforts of many individuals in the District of Columbia Department of Health HIV/AIDS Administration, with major contribution from The George Washington University School of Public Health and Health Services, Department of Epidemiology and Biostatistics. In addition, this study would not have been possible without the hard work, dedication and contribution of persons with HIV/AIDS, HIV/AIDS health care providers, community groups, researchers, and members of the community.

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The study results are available on the DC HIV/AIDS web page at:

**[www.doh.dc.gov/hiv](http://www.doh.dc.gov/hiv)**

# Notes:



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