DISTRICT OF COLUMBIA HIV/AIDS EPIDEMIOLOGY UPDATE 2008

Government of the District of Columbia
Adrian M. Fenty, Mayor

DOH
DEPARTMENT OF HEALTH
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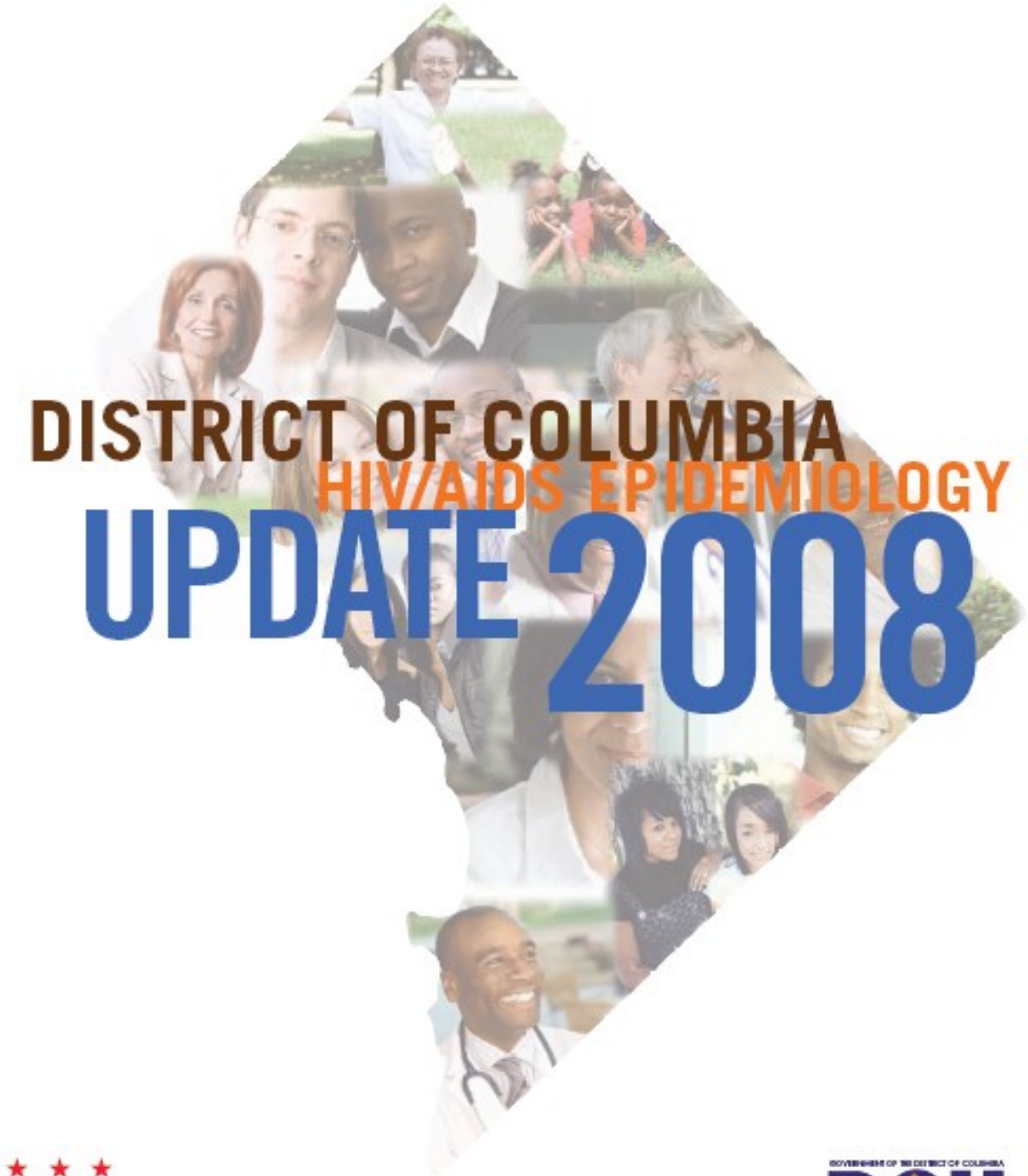

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UPDATE 2008

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To obtain a free copy of this report or to request additional HIV/AIDS data, please contact:

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The District of Columbia HIV/AIDS Epidemiology Update 2008 is available on the internet on the HIV/AIDS web page at: **www.doh.dc.gov/hiv**

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Health

HIV/AIDS Administration

March 2009

Greetings:

Upon taking office, Mayor Adrian Fenty made HIV/AIDS his top public health priority. He could see that HIV was having a tremendous impact on the District of Columbia. In his first year of office, he confirmed the breadth of the HIV burden on our city with the most comprehensive report on HIV and AIDS ever prepared. It showed that the District had the highest rates in the country and the most diverse epidemic affecting every population group and neighborhood.

Statistics are not merely numbers; they ensure that the District Government, our community providers and District residents can best fight this epidemic. Mayor Fenty has led the District's fight with the most informed and strategic response of promote, prevent and protect:

> **Promote**— increased publicly supported HIV testing by 70% from 2007 to 2008, doubled the number of young people tested and supported more than 50 small community organizations to join the fight in memory of Effi Barry.
>
> **Prevent**—increased funding to new large-scale interventions to reach more residents, distributed 1.5 million free condoms in one of only two such programs in the country and doubled the number of needles exchanged to stop HIV with DC funding after a 10 year ban by Congress.
>
> **Protect**—increased by 50% the number of people living with HIV receiving free HIV medications, reduced the number of babies born with HIV, increased the number of people receiving HIV care earlier that has resulted in improved CD4 counts.

This last year showed that an effective partnership among government, community and individuals can save lives and improve the health and well being of our fellow residents. This Report Update adds to our 2007 Report and shows how deeply and severely HIV has impacted our city across populations and communities. However, knowledge helps us choose the best tools to make change. And 2008 demonstrated that we can start to make profound change in our city and our country.

Not meant to sit on the shelf, the 2008 Update must be used every day to make 2009 a remarkable year of change in our fight against HIV.

Sincerely,

Shannon L. Hader, MD, MPH
Senior Deputy Director

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Executive Summary

In 2007, the DC Department of Health HIV/AIDS Administration released the first annual report on HIV/AIDS in over five years, with the first ever statistics on HIV. The report documented the District of Columbia as having a modern HIV/AIDS epidemic – modern because of its sheer size and complexity. This year's *2008 Report Update* reaffirms the depth and diversity of the epidemic showing in an updated snapshot of how severe an impact it has on District residents. The *Update* provides the "What" of the epidemic. Along side this report, the HIV/AIDS Administration will release a first ever report on the behavior of heterosexual District residents delving into the "Why" of this challenging epidemic.

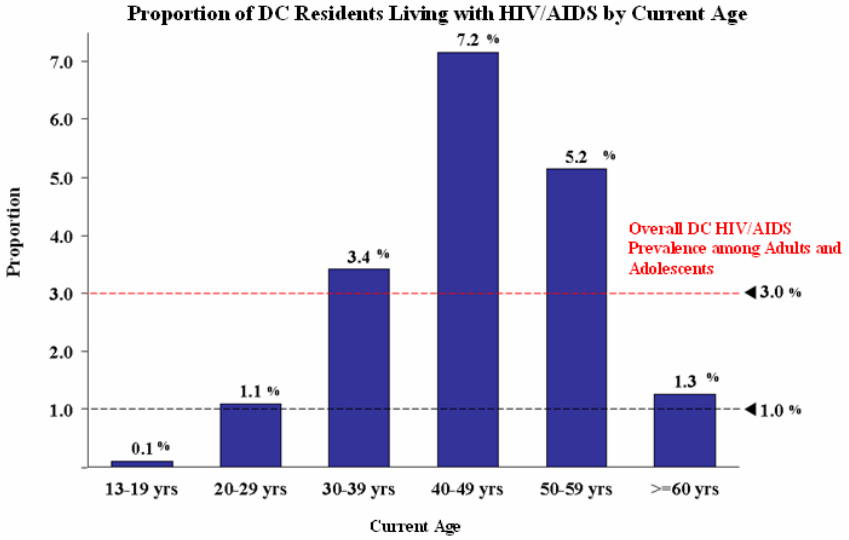
Statistics have far more potential than just reporting the facts, they equip government, community and individuals to better respond to the epidemic. The goal of the 2007 Annual Report was not to sit on a shelf, but to transform programs and policies. In one year, there has been a significant shift in the District's prevention interventions and care and treatment services which redirects resources and innovation to reduce infections and improve the health of persons living with HIV.

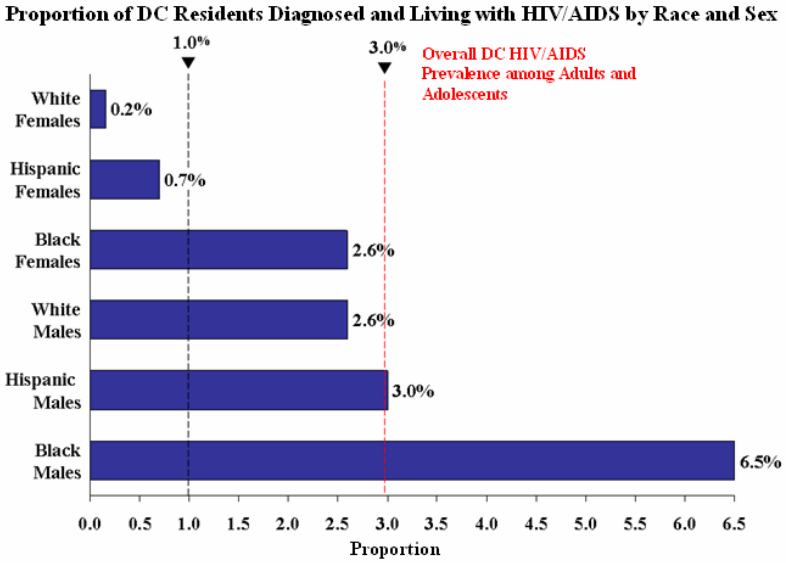
This *Update* is the first in an annual series that will release some current statistics on HIV/AIDS in the District while the HIV/AIDS Administration's surveillance system matures with full reporting. The data presented remain the strongest and best statistics compiled on HIV/AIDS in the District of Columbia.

Major Findings

1. Huge Impact Across Populations and Neighborhoods

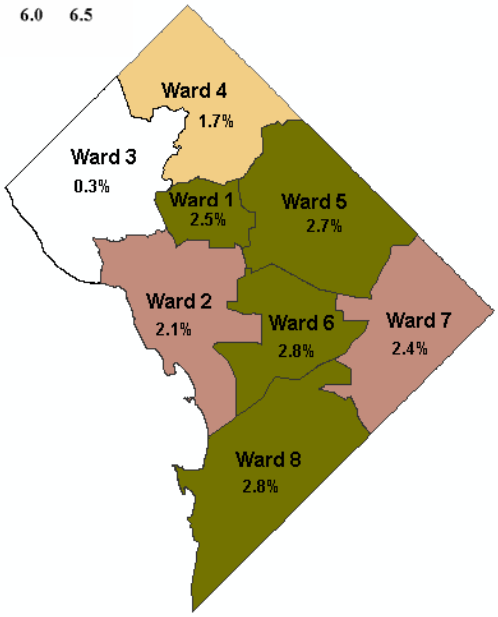
Overall, 3 percent of all District residents are currently known to be living with HIV/AIDS. To put that in context, the United Nations Joint Program on HIV/AIDS (UNAIDS) and the U.S. Centers for Disease Control and Prevention (CDC) have historically defined an HIV epidemic as generalized and severe when the overall percentage of disease among residents of a specific geographic area exceeds 1 percent. The overall proportion in the District is three times higher. This calculation is based on the number of cases already diagnosed and reported and U.S. Census figures of our population. Moreover, based on new targeted studies of behavior that indicate between one-third and one-half of residents may be unaware of their infection, we know that the true number of residents currently infected and living with HIV is certainly higher. In the District, nearly every population group and age is experiencing a substantial epidemic. The next charts and figures present visually the huge impact.





Currently, the highest rates of HIV are among residents aged 40 to 49 years old, and black men, with approximately seven percent of their respective adult populations already diagnosed and living with HIV. Notably, there are only a few exceptions to the one percent threshold of a severe epidemic across our many populations in the District.

Moreover, we find high rates of HIV in nearly every neighborhood in the District. The map below provides HIV rates by ward for persons diagnosed and living with HIV/AIDS. *Note—these ward-level rates are an* ***undercount****, as 20% of our reported cases do not have sufficient information to attribute to a specific ward.* Thus the true rates of persons diagnosed and living with HIV/AIDS in these wards are higher still.

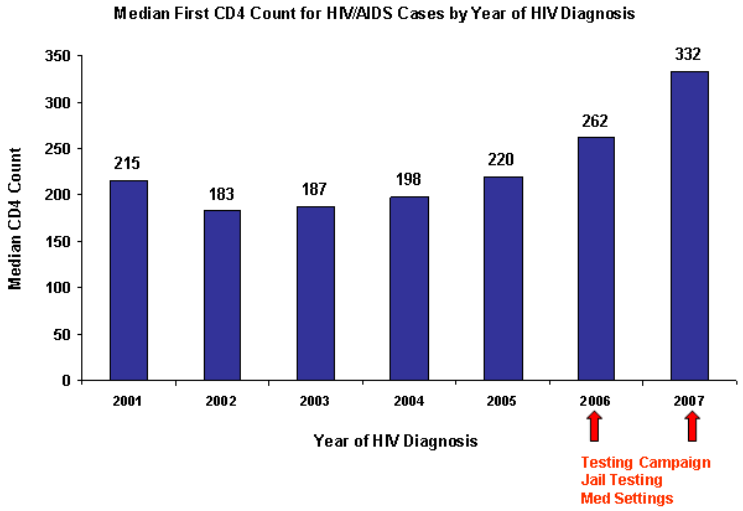


Rates of Persons Living with HIV/AIDS by Ward in the District of Columbia, through 2007 (N=12,174)

In addition to the District's overall population being affected, some groups remain even more severely and disproportionately affected. These rates are more challenging to calculate precisely, due to difficulties in estimating the overall number of persons with specific individual or group vulnerabilities. Smaller targeted studies will help to better estimate the severity of the HIV epidemic among specific at-risk groups. In 2009, the District will be able to provide information on HIV rates and behaviors among heterosexuals living in or connected to areas of both high HIV/AIDS and high poverty rates (National HIV Behavioral Surveillance Study or NHBS 2007), and on men who have sex with men frequenting social venues and clubs (NHBS 2008). In 2010, the District will be able to provide information on HIV rates and behaviors among Injection Drug Users (NHBS 2009).

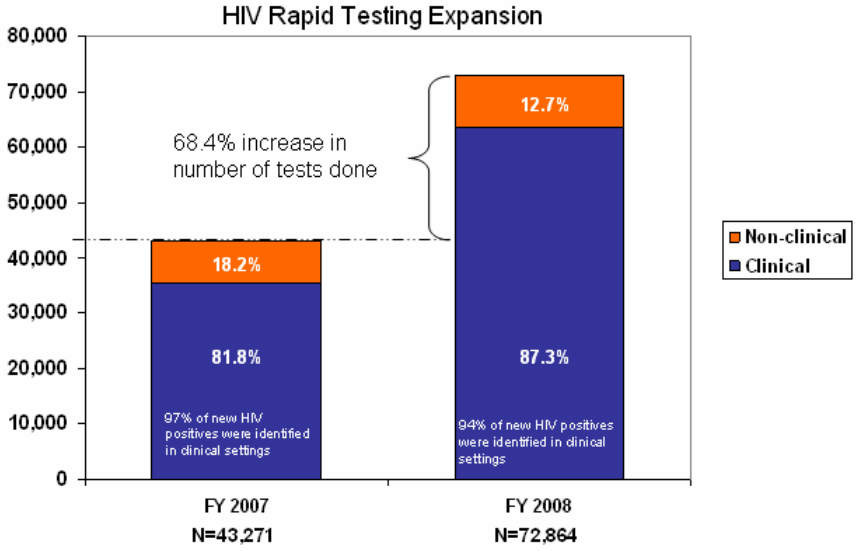
2. Earlier diagnosis of persons living with HIV

Being diagnosed with HIV earlier, before one's immune system is severely compromised and symptoms arise, provides greater opportunities for better health outcomes for those infected with the virus. It also helps prevent new transmissions by making those infected aware of their status.



In mid-2006, the District became the first city in the country to implement a policy of routine HIV testing, and implemented a series of measures to encourage residents to get tested and providers to normalize HIV testing as part of routine care.

Preliminary results from just the first 18 months of expanded testing suggest that this strategy has been successful in getting more people diagnosed with HIV while still healthy. CD4 counts are a measure of immune status—higher CD4 counts indicate that individuals are generally healthier and have not yet progressed to AIDS. A CD4 count below 200 is an AIDS diagnosis. In just the first 18 months of expanded HIV testing, the median first CD4 count had risen to 332, a 50 percent increase in CD4 counts since 2005.



Between 2007 and 2008, publicly-supported HIV testing expanded an additional 70%. We hope and anticipate that this continued expansion in HIV testing will result in continued gains helping residents to find out about their HIV early enough to stay healthy.

Making Progress to Stop HIV

The District Government has made progress in multiple program areas in the fight against HIV/AIDS. Here are a few highlights of those achievements:

- *Access to care and treatment.* Between 2007 and 2008, the HIV/AIDS Administration increased enrollment by 50 percent in its AIDS Drug Assistance Program through a District-wide advertising and outreach campaign called "It's Free to Treat Your HIV."

- *Youth HIV/STD testing.* The number of young people tested for HIV doubled between 2007 and 2008 from 10,000 to 20,000. Though fortunately the numbers of adolescents with HIV remain low, STD rates are extremely high revealing risky behavior which could lead to HIV infections as they get older. The District is one of only three cities implementing a school-based STD screening program. A pilot of the program showed a 34 percent reduction in infections in a repeat annual screening. In FY09, the HIV/AIDS Administration plans to more than double the number of young people tested for STDs to 5,000 and more than double that again to 12,000 in FY10.

- *Perinatal.* In 2005, there were 10 children born with HIV in the District, accounting for 9 percent of all mother-to-child (perinatal) HIV infections in the U.S. Mayor Fenty set a goal of eliminating mother-to-child transmission in the District by 2009. In 2006 and 2007, updated data show that only one new infection has occurred per year. In 2007, the HIV/AIDS Administration began working with the District's birthing centers (or Labor and Delivery Suites) to implement routine HIV screening. By 2008, the HIV/AIDS Administration hired a new perinatal coordinator and implemented routine HIV testing in three of the seven Labor and Delivery suites in the District. For FY09, the HIV/AIDS Administration will be expecting all seven to be routinely screening and supporting more OB/GYNs and primary care providers to ensure HIV is a part of routine perinatal care.

- *Harm Reduction and Needle Exchange.* Barred from using local funds for nearly ten years, in 2007, Congress lifted the ban on needle exchange and in 2008 Mayor Fenty allocated $650,000 to expand needle exchange and harm reduction services to reduce infection rates among injection drug users. In 2008, the HIV/AIDS Administration provided funding to four organizations, several in new models of integrated services, increasing the number of people served and exchanging 190,000 needles. For 2009, the plan is to increase both the number of people served and to exchange 250,000 needles.

- *Free Condoms.* The District of Columbia is one of only two cities in the country with a large scale condom distribution program. In 2008, the HIV/AIDS Administration distributed 1.5 million condoms, making progress toward the goal of three million condoms per year.

- *Expanding the Frontlines of the HIV Fight*. Starting in 2007 and continuing through 2008, the HIV/AIDS Administration has expanded its partnerships with District Government agencies and communities to broaden the frontline on the fight against HIV in the District. The HIV/AIDS Administration launched its Faith-Based Initiative to fully engage the interfaith community by incorporating HIV into its day-to-day faith and community program activities. The HIV/AIDS Administration built on the earlier East of the River HIV/AIDS Initiative to develop the Effi Barry HIV/AIDS Program. The Effi Barry Program has provided capacity building training and technical assistance in both organizational development and HIV skills to more than 50 small Ward-based organizations. In 2008, the HIV/AIDS Administration has provided new support and enhanced investment into the official community planning panels – the Ryan White HIV/AIDS Planning Council and HIV Prevention Community Planning Group – for their effectiveness in assessing need and direction for care and treatment programs and guidance for prevention directions. Lastly, the HIV/AIDS Administration translated data into funding opportunities by retooling the prevention and care and treatment Request for Applications to guide community provider proposals.

Living Longer with HIV

The District's overall goal is to reduce new transmissions of HIV and new diagnoses of AIDS. While those trends will eventually move downward due to an effective HIV response, the overall number of people living with HIV/AIDS will continue to trend upward. With early diagnosis and consistent treatment, the District is already seeing an aging population living with HIV/AIDS. Although 45 percent of HIV/AIDS cases were 40 and older at the time of diagnosis, over 70 percent of persons living with HIV/AIDS are currently 40 and over. This growing population will have significant implications on the District's health care system.

Next Steps

Overall, the District continues to experience a high burden of HIV/AIDS. To some, three percent of the city's population living with HIV/AIDS may seem like a small number. In comparison, of all Americans, less than one-half of one percent are living with cancer. The District is committed to a data-driven response, by using facts and science to deploy the best interventions and medical treatment. However, self-perception of risk, that HIV/AIDS affects only certain individuals, is a significant barrier that must be changed. 2008 was a remarkable year where the word "change" has taken on new meaning and power. It resulted in a change of direction for the country and it can change the direction of the District's HIV/AIDS epidemic.

"Good HIV data is vital to our work and the 2007 Epi Data report gave us our first real look at the epidemic in DC. I know that I speak for many when I say that while this data is long overdue, we're ready to build a surveillance system that is responsive to the needs of DC residents. This report is a great first step."

– Adam Tenner, Executive Director, Metro TeenAIDS

Abbreviations and Acronyms

AIDS: Acquired Immunodeficiency Syndrome

CDC: United States Centers for Disease Control and Prevention

DOH: District of Columbia Department of Health

HAA: HIV/AIDS Administration

HAART: Highly Active Anti-Retroviral Therapy

HARS: HIV/AIDS Reporting System

HIV: Human Immunodeficiency Virus

IDU: Injection Drug User

MSM: Men who have Sex with Men

RNI: Risk Not Identified

STD: Sexually Transmitted Disease

UIS: Unique Identifier System

2008 Annual Report Update

What this report tells us

This Annual Report Update serves to update the *2007 District of Columbia HIV/AIDS Epidemiology Annual Report*. This report updates some of the basic information on persons living with HIV/AIDS in the District of Columbia at the end of December 2007 and new, never reported data on the health of people diagnosed with HIV/AIDS. While the Update contains data through year 2007 on many indicators, it does not cover all the statistics in the 2007 report due to transitions in the reporting system. Therefore, specific data in that report remain valid and can be used as a current, accurate description of elements of the District's HIV/AIDS epidemic.

In 2007, the District moved from a code-based system of reporting HIV cases to confidential name-based reporting. The transition was critical to ensure the most accurate data on the epidemic and to meet federal requirements for continued funding for programs and services. In this Report Update, HIV cases include those cases reported under either the name-based or code-based HIV reporting system through December 31, 2007. The Department of Health HIV/AIDS Administration (HAA) has made extensive efforts to remove any potential duplicates between the two reporting systems. The HAA continues to estimate that 95% of the cases reported were counted only once. However, due to this transition between databases, direct comparisons between current and previous reports are not possible until a fully mature and integrated name-based HIV/AIDS reporting system is in place.

The U.S. Centers for Disease Control and Prevention (CDC) anticipate that it will take approximately five years after transitioning from a code to a name-based system for the reporting system to be mature. Due to this continued transition here in the District, detailed information on newly reported HIV cases or trend data on HIV cases is not included in this report. For the most current information on trends for HIV cases refer to the 2007 Annual Epidemiology Report.

Over the last two years, both the number and accuracy of diagnosis dates of HIV and AIDS cases have increased. In addition, it is important to note that delays in both HIV and AIDS case reporting have been observed. Adjustments for these delays, such as those performed by the CDC, have not been made to the data presented in this report. However, HAA expects that the number of cases will continue to increase as new reports of cases are received.

How to interpret the findings in this report and how to use it in relation to the 2007 Annual Report

Throughout this report, the major focus is on persons living with HIV/AIDS. Where appropriate, the Update makes comparisons of data to that reported in 2007. The Update also highlights any significant variation from the national HIV/AIDS epidemic.

In an effort to improve the completeness of surveillance data, the HAA has conducted reviews with medical providers to find previously unreported HIV and AIDS cases; worked with providers who previously had not consistently reported to the HAA; and examined other databases for previously unreported cases. All of these efforts have resulted in increased case counts and unless comparisons are directly indicated, the numbers may vary from last year's report.

The HAA, along with many of its partners, has undertaken many initiatives to raise awareness of HIV infection and prevention. Some of these achievements include an emphasis on HIV routine screening, increasing access to care and treatment for infected individuals, distribution of condoms, needle exchange programs and an emphasis on reducing perinatal transmission. All of these efforts have resulted in improving our understanding of the epidemic and the effects of these programs may be reflected in the surveillance data presented in this report.

SECTION I. OVERVIEW OF HIV/AIDS IN THE DISTRICT OF COLUMBIA

This section provides an overview of the HIV/AIDS epidemic in the District. The individual sections that follow this overview will provide a more detailed look at HIV/AIDS with regard to sex, race, ethnicity, current age, age at diagnosis, and mode of transmission. They also provide information on the geographic distribution of cases in the city.

Summary

UNAIDS and CDC define high prevalence epidemics as those where the prevalence of HIV/AIDS is greater than 1%. As of December 31, 2007 there were 15,120 residents of the District of Columbia living with HIV/AIDS, 3% of the population over the age of 12 years (adults and adolescents). This is a 22% increase from 12,428 cases reported at the end of 2006.

Residents who currently fall in the 40-59 age bracket are disproportionately impacted, with 7.2% of 40-49 year olds and 5.2% of 50-59 year olds living with HIV/AIDS. Rates by race/ethnicity show that 4.3% of blacks, 1.9% of Hispanics and 1.4% of whites are living with HIV/AIDS. The highest burden of disease is among black males with 6.5% of all black males in the District living with HIV/AIDS.

Among HIV/AIDS cases, nearly 70% are men, 76% black and 70% are currently over the age of 40. Overall, men who have sex with men (MSM) is the leading mode of transmission of HIV/AIDS accounting for 37% of living cases, followed by heterosexual contact and injection drug use with 28% and 18%, respectively. Distribution of HIV/AIDS cases by mode of transmission also differs by race. While MSM transmission is the leading mode of transmission of HIV/AIDS among whites (78%) and Hispanics (49%), transmission in new HIV (not AIDS) cases (detailed in the 2007 Annual Report) and in newly reported AIDS cases this year demonstrate an increasing trend in the role of heterosexual contact.

Detailed Description

The following contains the detailed description of the HIV/AIDS epidemic in the District with tables, figures and specific data points.

Persons Living with HIV/AIDS in the District

Figure 1. Rates of Living HIV/AIDS Cases among Adults and Adolescents by Current Age in the District of Columbia, 2007

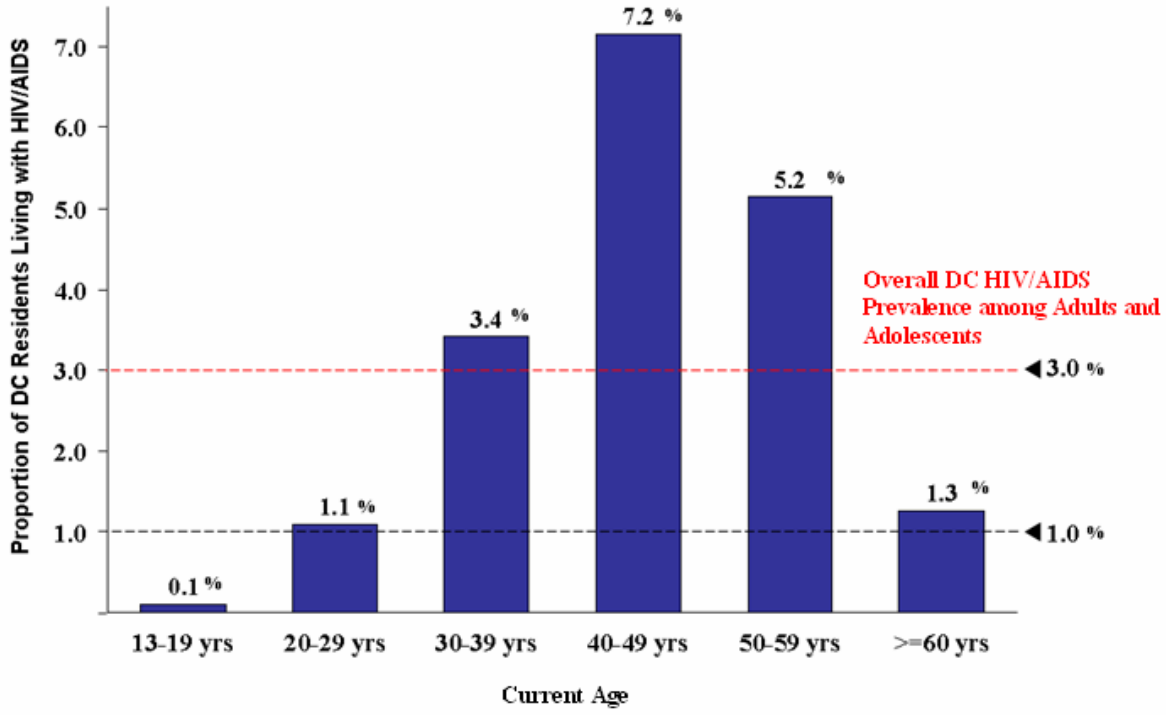
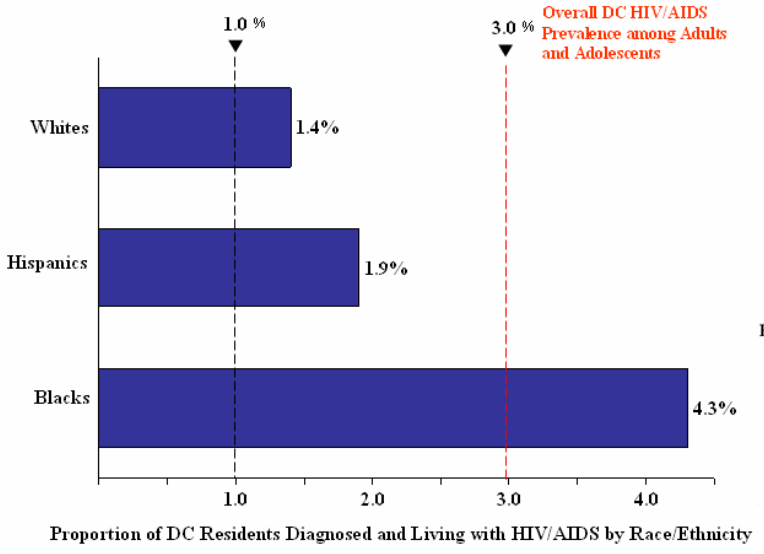
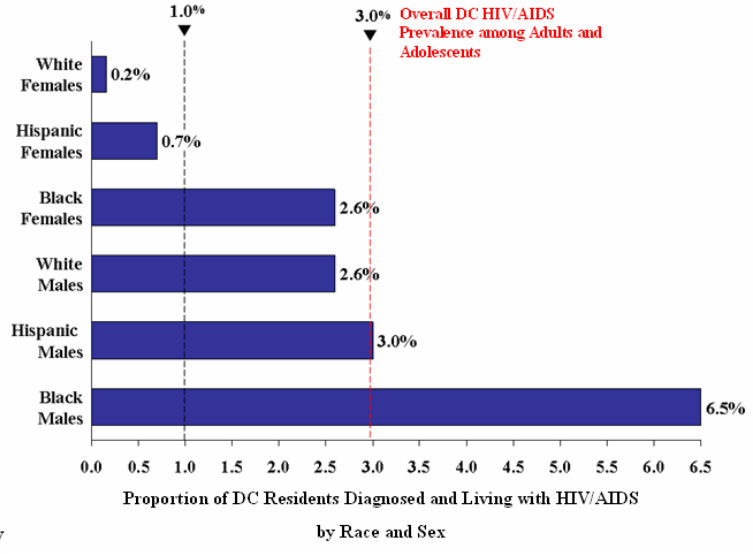


Figure 2. Rates of Living HIV/AIDS Cases among Adults and Adolescents by Race/Ethnicity, and Sex in the District of Columbia, 2007





- At the end of 2007, a total of 15,120 people were living with HIV/AIDS in the District, accounting for about 3% of all District residents.
- District residents age 40-49 are the most significantly impacted by HIV/AIDS with over 7% of residents in this age group living with HIV/AIDS.
- Blacks continue to be the most severely impacted with over 4% of black residents infected with HIV followed by Hispanics (1.9%) and whites (1.4%).
- Black males have the highest burden of disease with 6.5 % of all black males in the District living with HIV/AIDS.

Table 1. Living HIV/AIDS Cases among Adults and Adolescents by Sex, Race/Ethnicity, and Current Age in the District of Columbia, 2007

Characteristic	Living HIV/AIDS Cases as of 12/31/07		DC Population, 2007		Rate per 100,000
	N	%	N	%	
Sex					
Male	10,835	71.7	236,323	46.6	4,584.8
Female	4,285	28.3	270,399	53.4	1,584.7
Total	**15,120**	**100.0**	**506,722**	**100.0**	**2,983.9**
Race/Ethnicity					
White	2,423	16.0	173,552	34.2	1,396.1
Black	11,539	76.3	268,012	52.9	4,305.4
Hispanic	780	5.2	40,432	8.0	1,929.2
Other*	378	2.5	24,726	4.9	1,528.8
Total	**15,120**	**100.0**	**506,722**	**100.0**	**2,983.9**
Male					
White	2,284	21.1	86,335	36.5	2,645.5
Black	7,637	70.5	117,563	49.7	6,496.1
Hispanic	646	6.0	21,221	9.0	3,044.2
Other*	268	2.5	11,204	4.7	2,392.0
Total	**10,835**	**100.0**	**236,323**	**100.0**	**4,584.8**
Female					
White	139	3.2	87,217	32.3	159.4
Black	3,902	91.1	150,449	55.6	2,593.6
Hispanic	134	3.1	19,211	7.1	697.5
Other*	110	2.6	13,522	5.0	813.5
Total	**4,285**	**100.0**	**270,399**	**100.0**	**1,584.7**
Current Age					
13-19	55	0.4	52,765	10.4	104.2
20-29	1,229	8.1	111,967	22.1	1,097.6
30-39	3,188	21.1	93,207	18.4	3,420.3
40-49	5,728	37.9	79,926	15.8	7,166.6
50-59	3,702	24.5	71,884	14.2	5,150.0
≥60	1,218	8.1	96,973	19.1	1,256.0
Total	**15,120**	**100.0**	**506,722**	**100.0**	**2,983.9**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

† The total DC population of 506,722 does not include children ages 12 and under.

Table 2. Cumulative Number of Living HIV/AIDS Cases among Adults and Adolescents by Race/Ethnicity and Mode of Transmission in the District of Columbia, through 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Mode of Transmission										
MSM	1,881	77.6	3,217	27.9	383	49.1	104	27.5	5,585	36.9
IDU	91	3.8	2,576	22.3	57	7.3	28	7.4	2,752	18.2
MSM/IDU	62	2.6	389	3.4	25	3.2	6	1.6	482	3.2
Heterosexual contact	162	6.7	3,790	32.8	221	28.3	73	19.3	4,246	28.1
Risk not identified	217	9.0	1,511	13.1	89	11.4	165	43.7	1,982	13.1
Other**	10	0.4	56	0.5	5	0.6	<3	--	73	0.5
Total	**2,423**	**100.0**	**11,539**	**100.0**	**780**	**100.0**	**378**	**100.0**	**15,120**	**100.0**
Male										
MSM	1,881	82.4	3,217	42.1	383	59.3	104	38.8	5,585	51.5
IDU	47	2.1	1,506	19.7	38	5.9	16	6.0	1,607	14.8
MSM/IDU	62	2.7	389	5.1	25	3.9	6	2.2	482	4.4
Heterosexual contact	91	4.0	1,524	20.0	127	19.7	27	10.1	1,769	16.3
Risk not identified	194	8.5	976	12.8	70	10.8	114	42.5	1,354	12.5
Other**	9	0.4	25	0.3	3	0.5	<3	--	38	0.4
Subtotal	**2,284**	**100.0**	**7,637**	**100.0**	**646**	**100.0**	**268**	**100.0**	**10,835**	**100.0**
Female										
IDU	44	31.7	1,070	27.4	19	14.2	12	10.9	1,145	26.7
Heterosexual contact	71	51.1	2,266	58.1	94	70.1	46	41.8	2,477	57.8
Risk not identified	23	16.5	535	13.7	19	14.2	51	46.4	628	14.7
Other**	<3	--	31	0.8	<3	--	<3	--	35	0.8
Subtotal	**139**	**100.0**	**3,902**	**100.0**	**134**	**100.0**	**110**	**100.0**	**4,285**	**100.0**

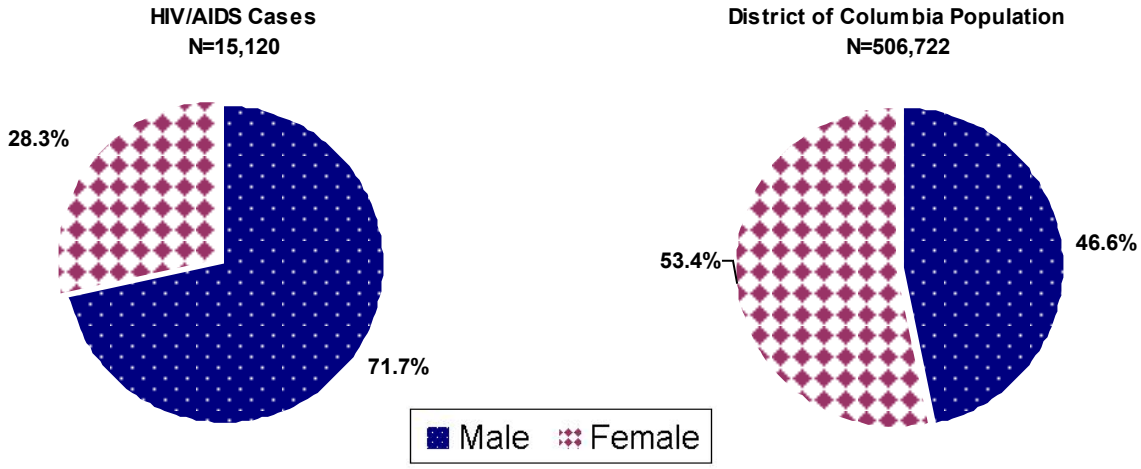
*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- Of the District residents living with HIV/AIDS, 76.3% were black and 71.7% were males.
- More than one in five persons living with HIV/AIDS in the District are black MSM. Black and white MSM comprise 33.7% of all males living with HIV/AIDS.
- The most commonly reported mode of transmission among persons living with HIV/AIDS was MSM sexual contact (36.9%), followed by heterosexual contact (28.1%), and IDU (18.2%).
- The total number of reported MSM living with HIV/AIDS in the District increased by 35% from last year, with increases in cases attributed to heterosexual contact and IDU as modes of transmission by 16% and 8%, respectively. The HIV/AIDS Administration attributes most of the MSM increase to better case reporting and not to a trend in increasing MSM cases at this time.
- Mode of transmission differs greatly by race; among whites, MSM sexual contact was the most commonly reported mode of transmission (77.6%), while heterosexual contact (32.8%) is the leading mode of transmission among blacks, followed closely by MSM sexual contact (27.9%) and IDU (22.3%). The leading mode of transmission among Hispanics is MSM sexual contact (49.1%), followed by heterosexual contact (28.3%). Trends in mode of transmission of new HIV (not AIDS) cases should be referred to in the 2007 Report.
- Females comprise 28.3% of all persons living with HIV/AIDS. Heterosexual contact is the leading mode of transmission (57.8%) followed by IDU (26.7%). Black females comprise 25.8% of all persons living with HIV/AIDS in the District.

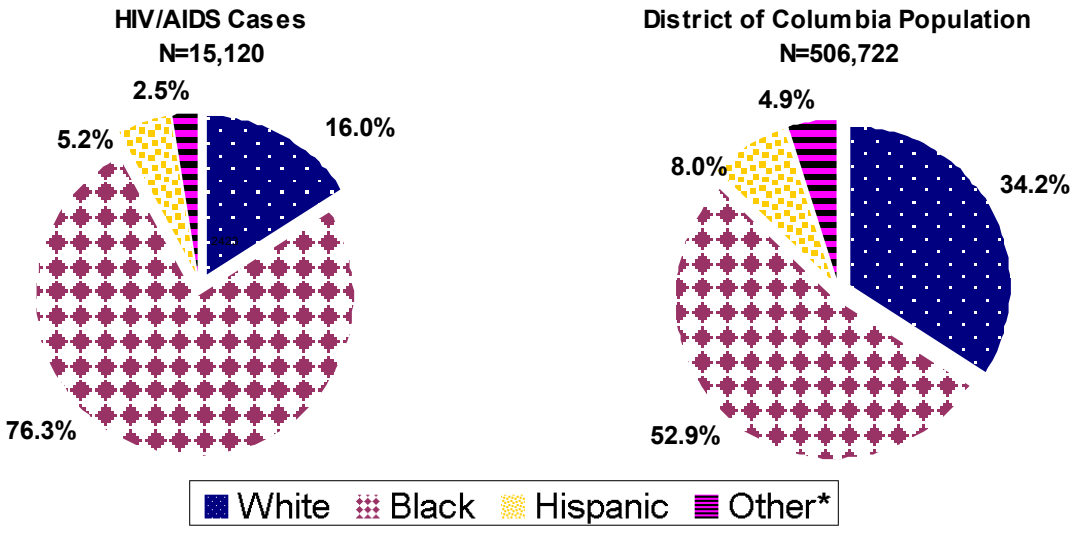
In addition to high rates of HIV/AIDS in the District, substantial disparities are observed in the distribution of HIV/AIDS cases among District residents. The following figures highlight disparities that exist among living HIV/AIDS cases by sex and race. Although males make up 46.6% of District residents, they account for 71.7% of people living with HIV/AIDS cases. Black residents are 53% of the District population but represent 76% of all living HIV/AIDS cases.

Figure 3. Proportion of Adults and Adolescents Living with HIV/AIDS and Population Estimates by Sex in the District of Columbia, 2007



- Males were overrepresented among persons living with HIV/AIDS in the District of Columbia in 2007. Although females comprise a larger proportion (53.4%) of the population, males account for 71.7% of cases living with HIV/AIDS. By comparison, in 2006, males accounted for 70% of persons living with HIV/AIDS, indicating a slight increase in the proportion of cases that are men.

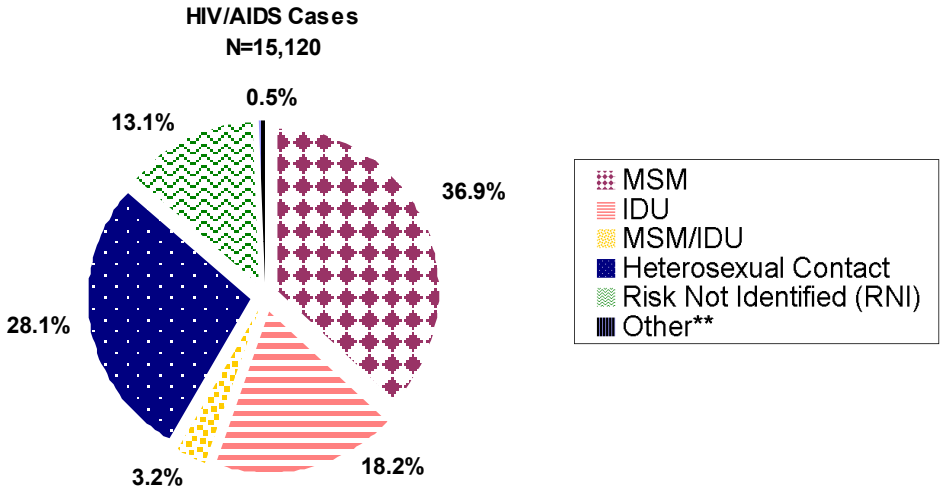
Figure 4. Proportion of Adults and Adolescents Living with HIV/AIDS and Population Estimates by Race/Ethnicity in the District of Columbia, 2007



*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

- HIV/AIDS among blacks continues to be a major public health concern. The largest proportion of residents living with HIV/AIDS in the District was reported among blacks (76.3%) in 2007, a slight decrease from 80.7% in 2006.
- From 2006 to 2007, the proportion of whites living with HIV/AIDS in the District increased from 12.7% to 16.0%, respectively.

Figure 5. Proportion of Adults and Adolescents Living with HIV/AIDS by Mode of Transmission in the District of Columbia, 2007



**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- MSM is the leading mode of transmission among living HIV/AIDS cases in the District with 36.9% of cases in this category.
- Heterosexual contact is the second leading mode of transmission with 28.1% of cases, followed by IDU which accounts for 18.2% of living HIV/AIDS cases.

Figure 6. Proportion of Adults and Adolescents Living with HIV/AIDS by Age at Diagnosis and Current Age in the District of Columbia, 2007

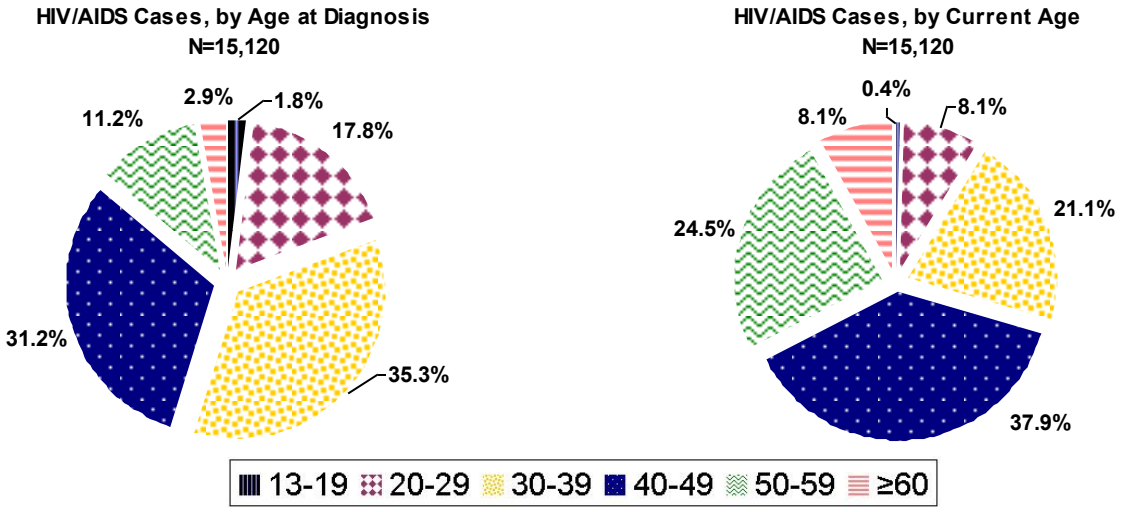


Table 3. Living HIV/AIDS Cases among Adults and Adolescents, by Race/Ethnicity, Age at Diagnosis and Current Age in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Age at Diagnosis										
13-19	10	0.4	236	2.0	15	1.9	12	3.2	273	1.8
20-29	396	16.3	2,001	17.3	209	26.8	81	21.4	2,687	17.8
30-39	1021	42.1	3,871	33.5	306	39.2	132	34.9	5,330	35.3
40-49	711	29.3	3,723	32.3	172	22.1	105	27.8	4,711	31.2
50-59	245	10.1	1,343	11.6	60	7.7	39	10.3	1,687	11.2
≥60	40	1.7	365	3.2	18	2.3	9	2.4	432	2.9
Total	**2,423**	**100.0**	**11,539**	**100.0**	**780**	**100.0**	**378**	**100.0**	**15,120**	**100.0**
Current Age										
13-19	<3	--	51	0.4	<3	--	3	0.8	55	0.4
20-29	104	4.3	991	8.6	88	11.3	46	12.2	1,229	8.1
30-39	544	22.5	2,297	19.9	246	31.5	101	26.7	3,188	21.1
40-49	976	40.3	4,349	37.7	264	33.8	139	36.8	5,728	37.9
50-59	596	24.6	2,914	25.3	126	16.2	66	17.5	3,702	24.5
≥60	203	8.4	937	8.1	55	7.1	23	6.1	1,218	8.1
Total	**2,423**	**100.0**	**11,539**	**100.0**	**780**	**100.0**	**378**	**100.0**	**15,120**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

- Advancements in treatment are allowing people with HIV/AIDS to live longer. Although 45% of cases were 40 and older at the time of diagnosis, over 70% of living HIV/AIDS cases are currently 40 and over.
- Also notable, 32.6% of cases are currently 50 years and older, while approximately 14% of all cases diagnosed were at the age of 50 and above.

Figure 7. Number of Persons Living with HIV/AIDS by Year and Sex in the District of Columbia, 2003-2007

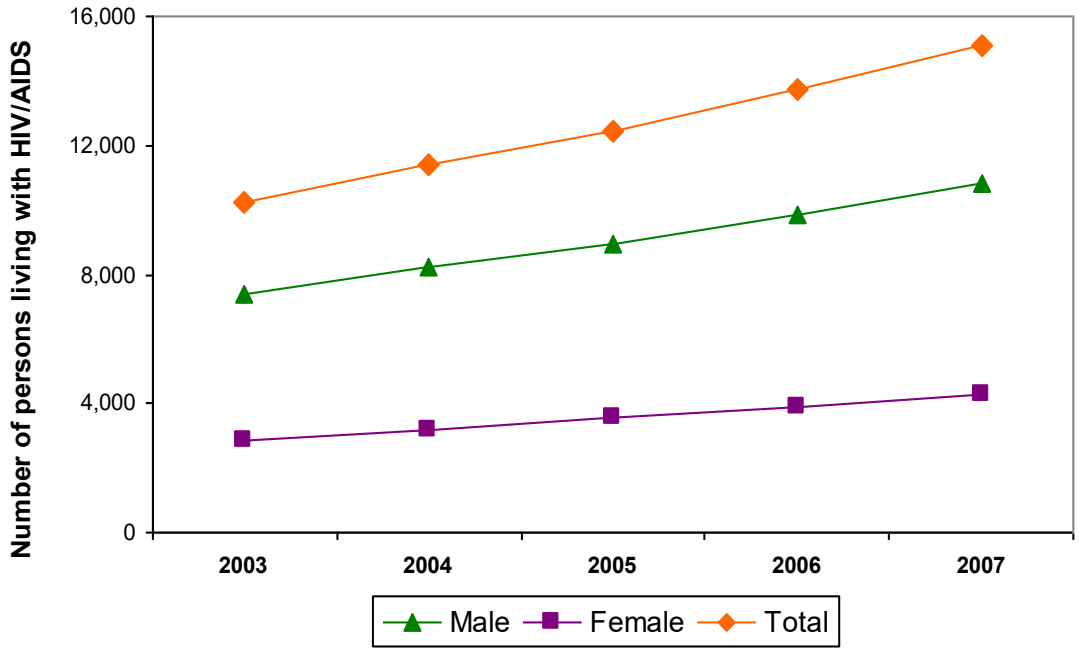
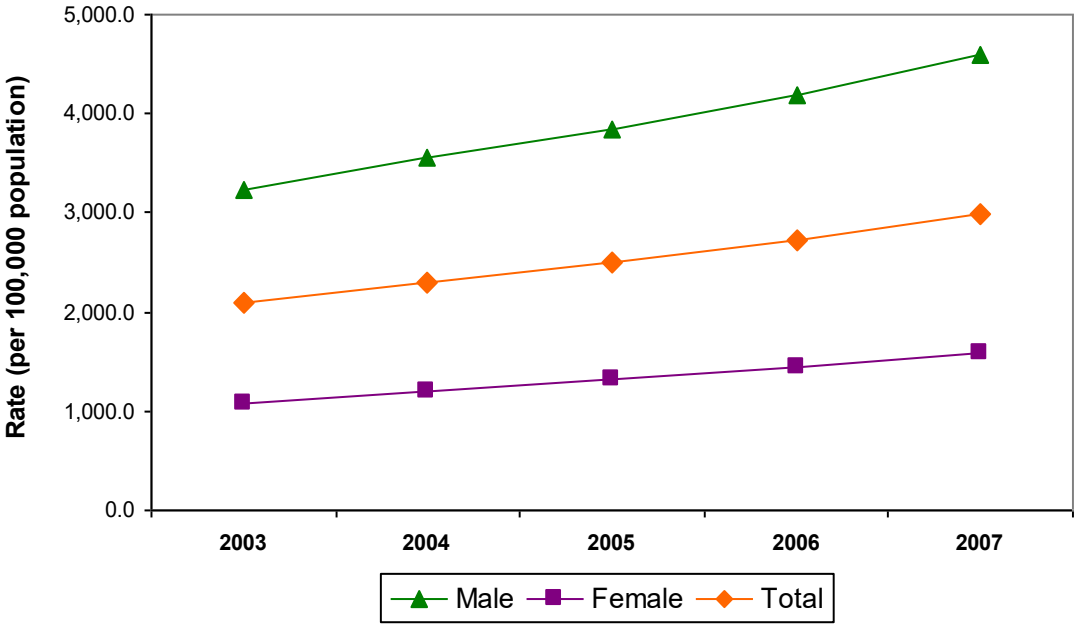


Figure 8. Rate per 100,000 Population Living with HIV/AIDS by Year and Sex in the District of Columbia, 2003-2007



- The number of persons living with HIV/AIDS in the District has continued to increase from 2003 (n=10,255) to 2007 (n=15,120).
- During this 5-year period, the number of male cases has been consistently higher than the number of females cases.

SECTION II. AIDS TRENDS IN THE DISTRICT OF COLUMBIA

This section provides an overview of the AIDS epidemic in the District. The individual sections that follow this overview will provide a more detailed look at AIDS with regard to sex, race, ethnicity, current age, age at diagnosis, and mode of transmission. This section presents trend data on AIDS cases only. Please refer to the 2007 Annual Report to review detailed trends in AIDS deaths. Updated mortality data will be available at a later date.

Summary

As of December 31, 2007, a total of 8,737 people were living with AIDS in the District of Columbia. Of those 73% were male and 81% were black. Black men and women are disproportionately affected by AIDS accounting for 76.5% and 92.4% of cases among men and women, respectively. The majority (69.4%) of people living with AIDS in the District were diagnosed between the ages of 30-49. The largest percentage of people living with AIDS were those who reported MSM sexual contact (37.5%), followed by heterosexual sexual contact (25.6%) and injection drug use (23.5%).

Between January 1, 2003, and December 31, 2007, a total of 3,622 new AIDS cases were diagnosed among District residents. Consistent with last year's report, blacks account for the overwhelming majority of new AIDS diagnoses with 81% of all new AIDS cases. Among living AIDS cases, although MSM sexual contact is the leading mode of transmission, among newly diagnosed AIDS cases, heterosexual contact is the leading mode of transmission at 31.5% followed by MSM sexual contact at 29%. The leading mode of transmission reported among newly diagnosed AIDS cases for each year since 2003 has been heterosexual sex with the exception of 2007 where the leading mode of transmission reported was MSM sexual contact. This exception is attributable mostly to improved reporting of MSM cases and not necessarily to a change in trends at this time. The shift experienced in the District from MSM to heterosexuals as the leading mode of transmission is mostly observed among blacks and Hispanics with newly reported AIDS cases among whites remain largely attributable to MSM sexual contact.

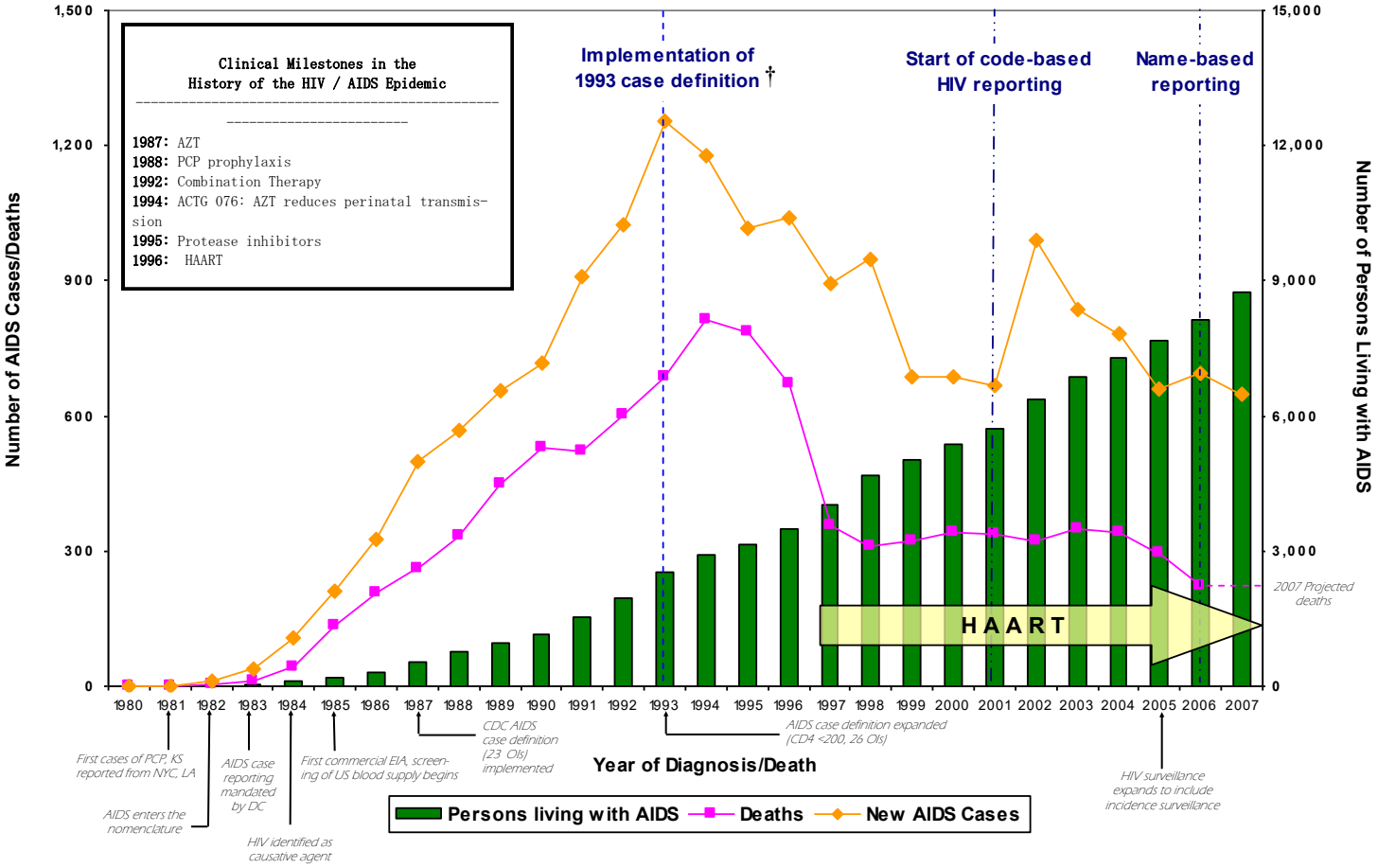
Since 2003 the District has experienced a decline in the rate of newly diagnosed AIDS cases reaching its lowest point in 2007 with a rate of 127.9 newly diagnosed AIDS cases per 100,000 population. At the same time the number of persons living with AIDS has increased steadily, moving from an AIDS prevalence rate of 1,395.5 in 2003 to 1,724.2 cases per 100,000 population in 2007.

Detailed Description: Cumulative Through 2007

The following contains the detailed description of the AIDS epidemic in the District with tables, figures and specific data points.

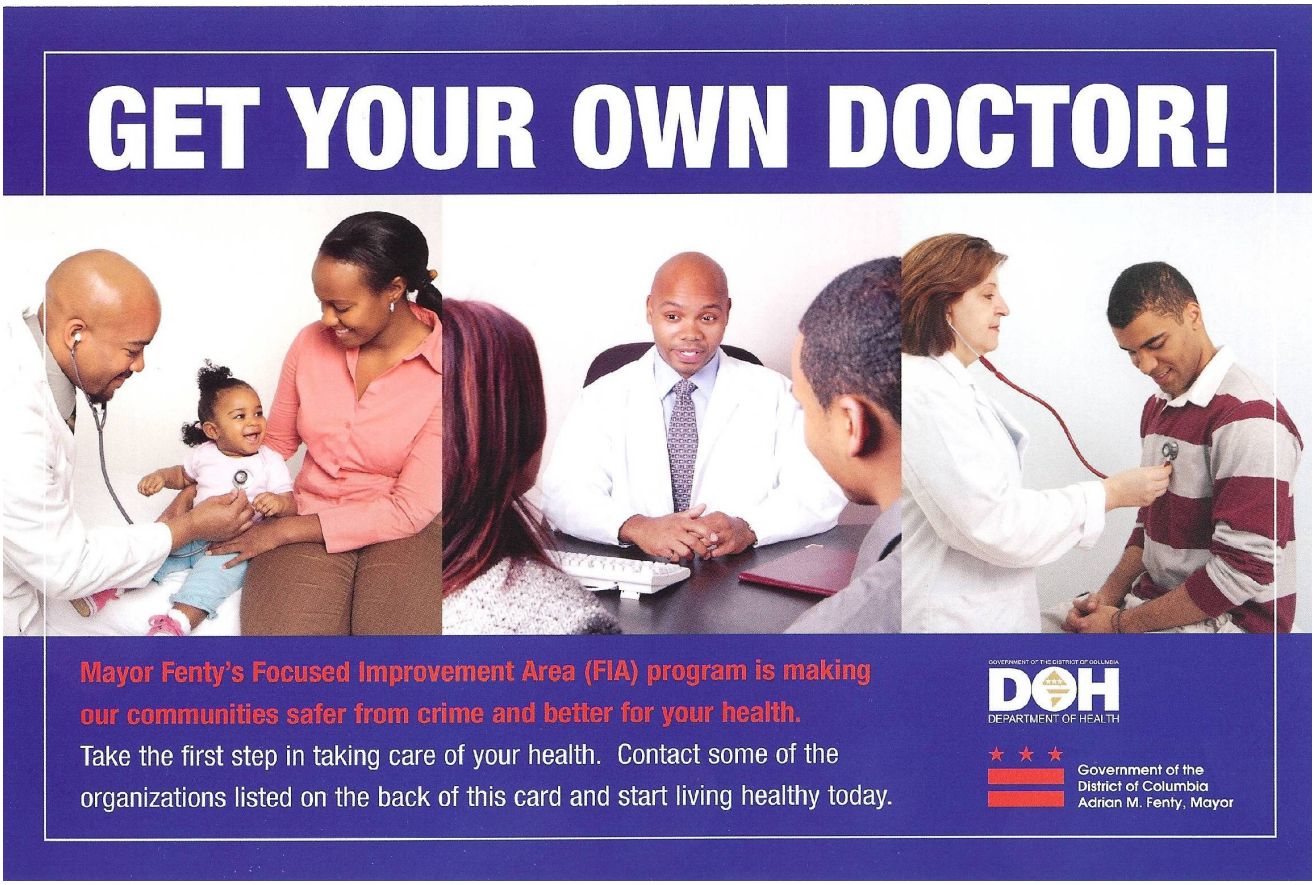
Since 1985, AIDS case surveillance has been conducted in the District. Over the years, the declines in the number of newly diagnosed AIDS cases have been influenced by the advent of medications to treat HIV. These medications have also had an impact on AIDS-related mortality as fewer people are dying as a result of complications from AIDS. As such, these factors allow the number of people living with AIDS to continue to increase mainly due to longer survival times and not exclusively as a result of more AIDS diagnoses. The figure below summarizes AIDS diagnoses, deaths and prevalence since 1980, with key milestones highlighted that have influenced the changing trends in AIDS.

Figure 9. AIDS Cases, Deaths, and Prevalence in the District of Columbia, 1980-2007



† *Effective January 1, 1993, the CDC Surveillance case definition for AIDS was expanded to include all HIV-infected persons with CD4 counts of < 200 cells/uL or a CD4 percentage of <14. In addition to retaining the 23 clinical conditions in the previous AIDS surveillance definition, the expanded definition includes pulmonary tuberculosis (TB), recurrent pneumonia, and invasive cervical cancer. This expanded definition requires laboratory confirmation of HIV infection in persons with a CD4+ T-lymphocyte count of less than 200 cells/uL or with one of the added clinical conditions.*

- As of December 31, 2007, 18,049 cases of AIDS have been diagnosed and reported in the District since the beginning of the epidemic in the early 1980s.
- Of these cases, 9,312 (51.6%) have died.
- Overall, the total number of new AIDS cases has declined since 1993, when it reached its peak at the implementation of the new case definition for AIDS.
- The number of deaths has significantly declined starting in the late 1990's, which coincided with the introduction of HAART.
- By the end of 2007, there were 8,737 persons diagnosed and presumed to be living with AIDS in the District .



Persons Living with AIDS in the District

Table 4. Persons Living with AIDS by Race/Ethnicity, Sex, and Mode of Transmission in the District of Columbia, 2007

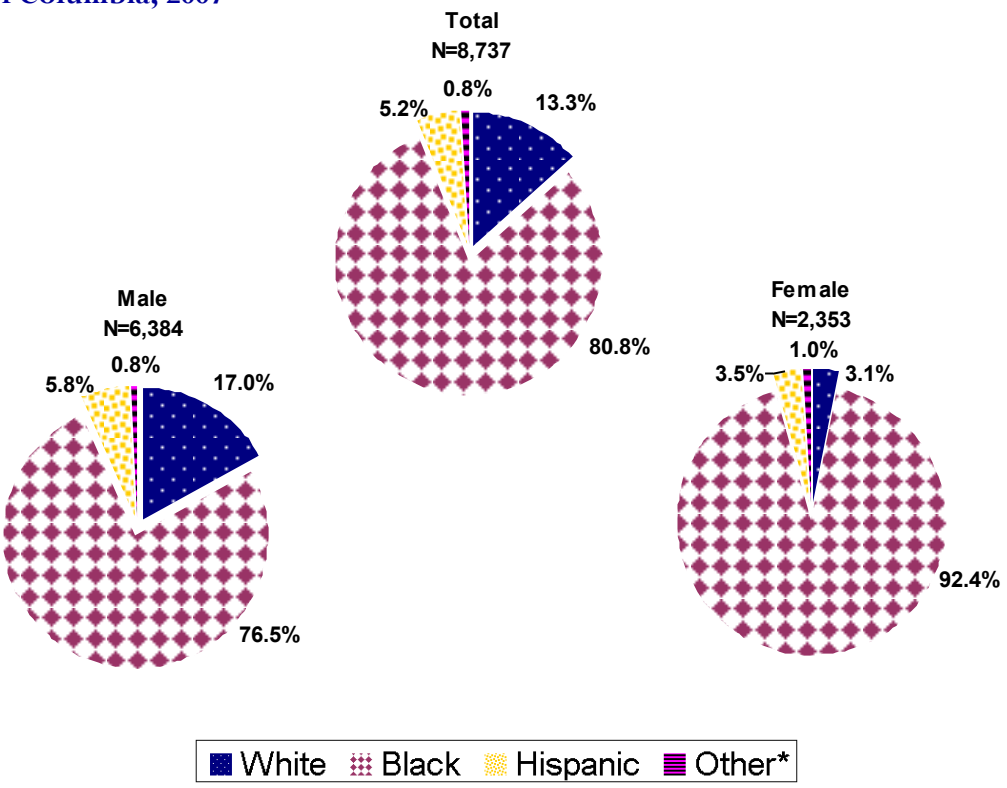
	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	1,086	93.7	4,881	69.2	368	81.8	49	68.1	6,384	73.1
Female	73	6.3	2,175	30.8	82	18.2	23	31.9	2,353	26.9
Total	**1,159**	**100.0**	**7,056**	**100.0**	**450**	**100.0**	**72**	**100.0**	**8,737**	**100.0**
Mode of Transmission										
MSM	922	79.6	2,107	29.9	215	47.8	35	48.6	3,279	37.5
IDU	56	4.8	1,949	27.6	41	9.1	9	12.5	2,055	23.5
MSM/IDU	41	3.5	307	4.4	16	3.6	<3	--	365	4.2
Heterosexual contact	72	6.2	2,015	28.6	131	29.1	18	25.0	2,236	25.6
Risk not identified	62	5.3	633	9.0	43	9.6	7	9.7	745	8.5
Other**	6	0.5	45	0.6	4	0.9	<3	--	57	0.7
Total	**1,159**	**100.0**	**7,056**	**100.0**	**450**	**100.0**	**72**	**100**	**8,737**	**100.0**
Male										
MSM	922	84.9	2,107	43.2	215	58.4	35	71.4	3,279	51.4
IDU	28	2.6	1,167	23.9	28	7.6	4	8.2	1,227	19.2
MSM/IDU	41	3.8	307	6.3	16	4.3	<3	--	365	5.7
Heterosexual contact	34	3.1	845	17.3	70	19.0	<3	--	951	14.9
Risk not identified	56	5.2	434	8.9	36	9.8	6	12.2	532	8.3
Other**	5	0.5	21	0.4	3	0.8	<3	--	30	0.5
Subtotal	**1,086**	**100.0**	**4,881**	**100.0**	**368**	**100.0**	**49**	**100.0**	**6,384**	**100.0**
Female										
IDU	28	38.4	782	36.0	13	15.9	5	21.7	828	35.2
Heterosexual contact	38	52.1	1,170	53.8	61	74.4	16	69.6	1,285	54.6
Risk not identified	6	8.2	199	9.1	7	8.5	<3	--	213	9.1
Other**	<3	--	24	1.1	<3	--	<3	--	27	1.1
Subtotal	**73**	**100.0**	**2,175**	**100.0**	**82**	**100.0**	**23**	**100.0**	**2,353**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.
**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- At the end of 2007, 8,737 District residents were living with AIDS, a 4.4% increase from 8,368 persons in 2006.
- The male to female ratio of persons living with AIDS in the District was 2.7 in 2007, consistent with 2006 estimates.
- Of the 8,737 persons living with AIDS, 37.5% of transmission was attributed to MSM, followed by heterosexual contact (25.6%) and IDU (23.5%), trends relatively unchanged from last year.
- Among males, MSM continues to be the leading mode of transmission, with a 6.9% increase from 2006. White males were more likely to report MSM as the mode of transmission (84.9%), in comparison to Hispanic (58.4%) and black males (43.2%).
- Among females, more than half (54.6%) of transmission was attributed to heterosexual contact, a 4% increase from 2006.
- Gender proportions differ by race in persons living with AIDS. Among whites, more than 93% of cases were male. Among blacks, almost 70% were male while in Hispanics, more than 80% were male.

- Blacks are disproportionately affected by AIDS in the District; black MSM comprise 24.1% of all living AIDS cases while black females comprise 24.9% of all living AIDS cases.
- More than 93% of all white AIDS cases are male; in addition, nearly 80% of all whites living with AIDS are MSM.
- Mode of transmission differs greatly by race in persons living with AIDS; among whites, MSM was the most commonly reported risk, while in blacks, MSM, IDU and heterosexual contact make up nearly equivalent proportions. The leading mode of transmission in Hispanics was MSM followed by heterosexual contact.

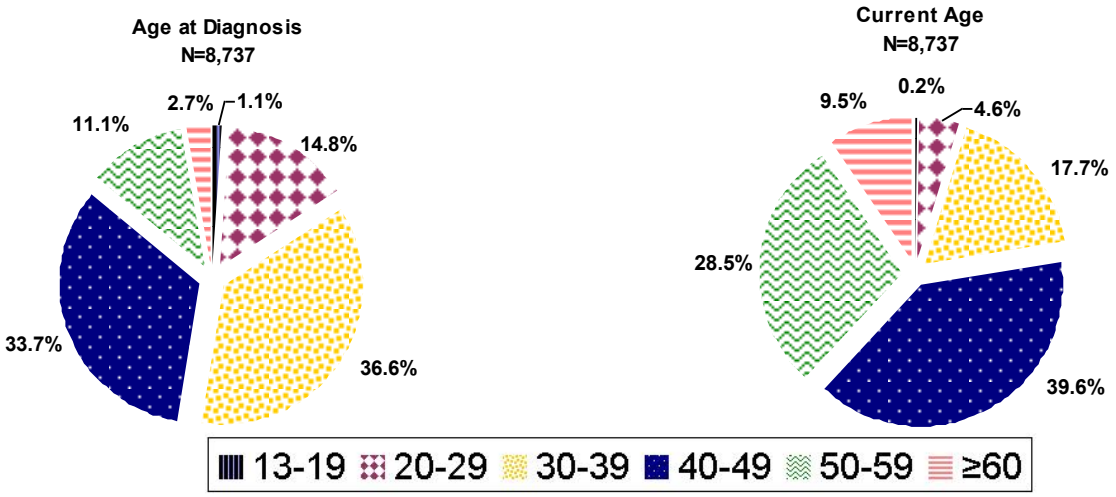
Figure 10. Proportion of Persons Living with AIDS, by Sex and Race/Ethnicity in the District of Columbia, 2007



*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

- Black men and women are disproportionately affected compared with all other racial/ethnic groups living with AIDS. Black males and females accounted for 76.5% and 92.4% of persons living with AIDS at the end of 2007, respectively.
- In the District of Columbia, by comparison, blacks comprise 80.8% of all living AIDS cases in 2007.
- Black and Hispanic women in the District constitute 95.9% of all women with AIDS in 2007.

Figure 11. Proportion of Persons Living with AIDS by Age at Diagnosis and Current Age in the District of Columbia, 2007



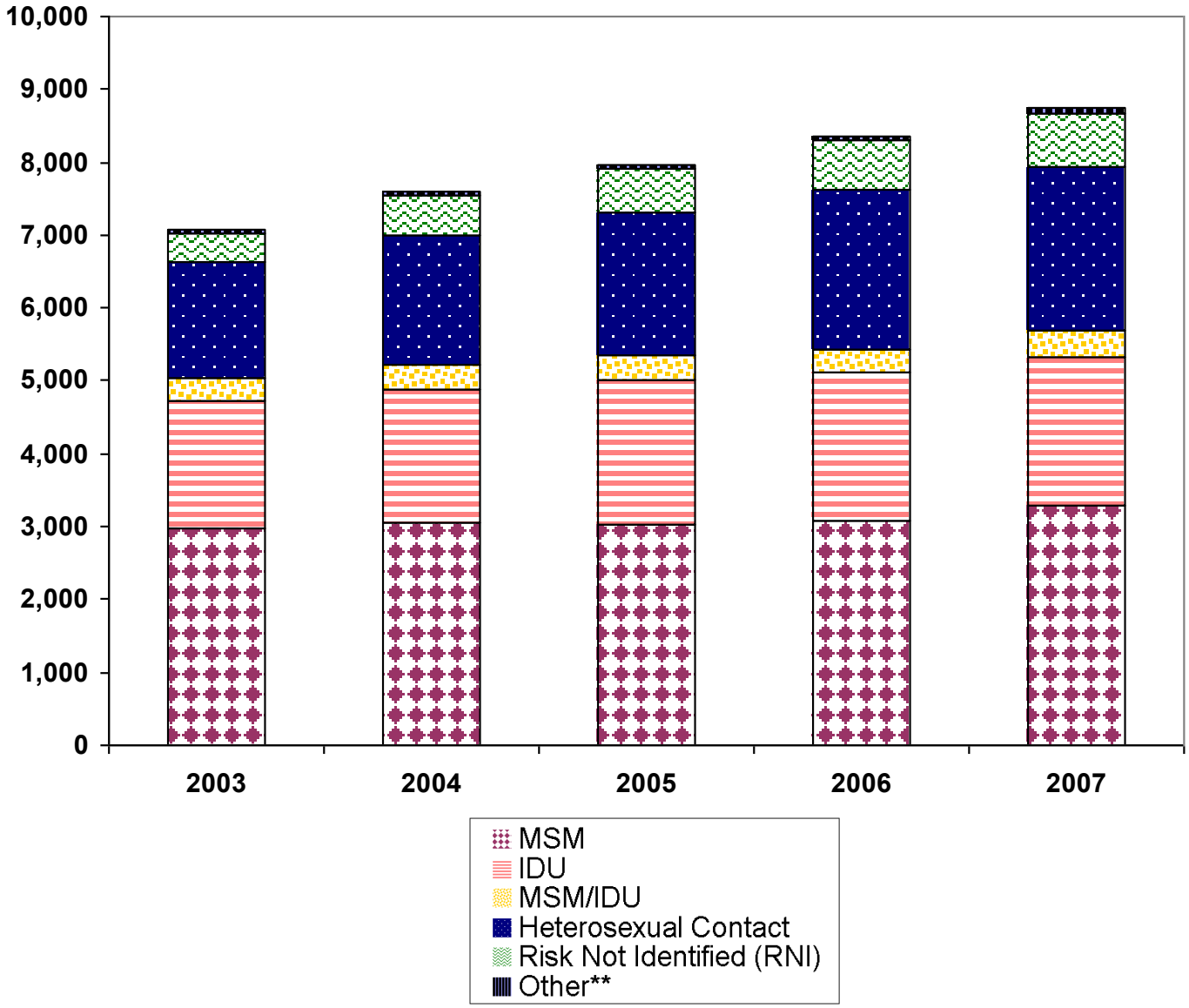
*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

Table 5. Persons Living with AIDS by Race/Ethnicity, Age at Diagnosis and Current Age in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Age at Diagnosis										
13-19	<3	--	84	1.2	7	1.6	<3	--	93	1.1
20-29	150	12.9	1,022	14.5	106	23.6	13	18.1	1,291	14.8
30-39	504	43.5	2,501	35.4	172	38.2	25	34.7	3,202	36.6
40-49	365	31.5	2,439	34.6	115	25.6	25	34.7	2,944	33.7
50-59	120	10.4	804	11.4	40	8.9	5	6.9	969	11.1
≥60	18	1.6	206	2.9	10	2.2	4	5.6	238	2.7
Total	**1,159**	**100.0**	**7,056**	**100.0**	**450**	**100.0**	**72**	**100.0**	**8,737**	**100.0**
Current Age										
13-19	<3	--	18	0.3	<3	--	<3	--	18	0.2
20-29	20	1.7	341	4.8	35	7.8	4	5.6	400	4.6
30-39	180	15.5	1,228	17.4	121	26.9	14	19.4	1,543	17.7
40-49	474	40.9	2,791	39.6	163	36.2	28	38.9	3,456	39.6
50-59	346	29.9	2,032	28.8	91	20.2	17	23.6	2,486	28.5
≥60	139	12.0	646	9.2	40	8.9	9	12.5	834	9.5
Total	**1,159**	**100.0**	**7,056**	**100.0**	**450**	**100.0**	**72**	**100.0**	**8,737**	**100.0**

- Advancements in treatment are allowing people with HIV/AIDS to live longer. Nearly half (47.5%) of persons living with AIDS were 40 and older at the time of diagnosis, while more than three-fourths (77.6%) of those living with AIDS are currently 40 and over.
- Among Hispanics, the majority (63.1%) of those living with AIDS are younger (30-49 years) compared to whites and blacks, in which the majority (82.8% and 77.6%, respectively) are currently 40 and older.
- In the District, 38% of persons living with AIDS in 2007 are currently over 50 years old, even though only 13.8% were diagnosed at the age of 50 and above.

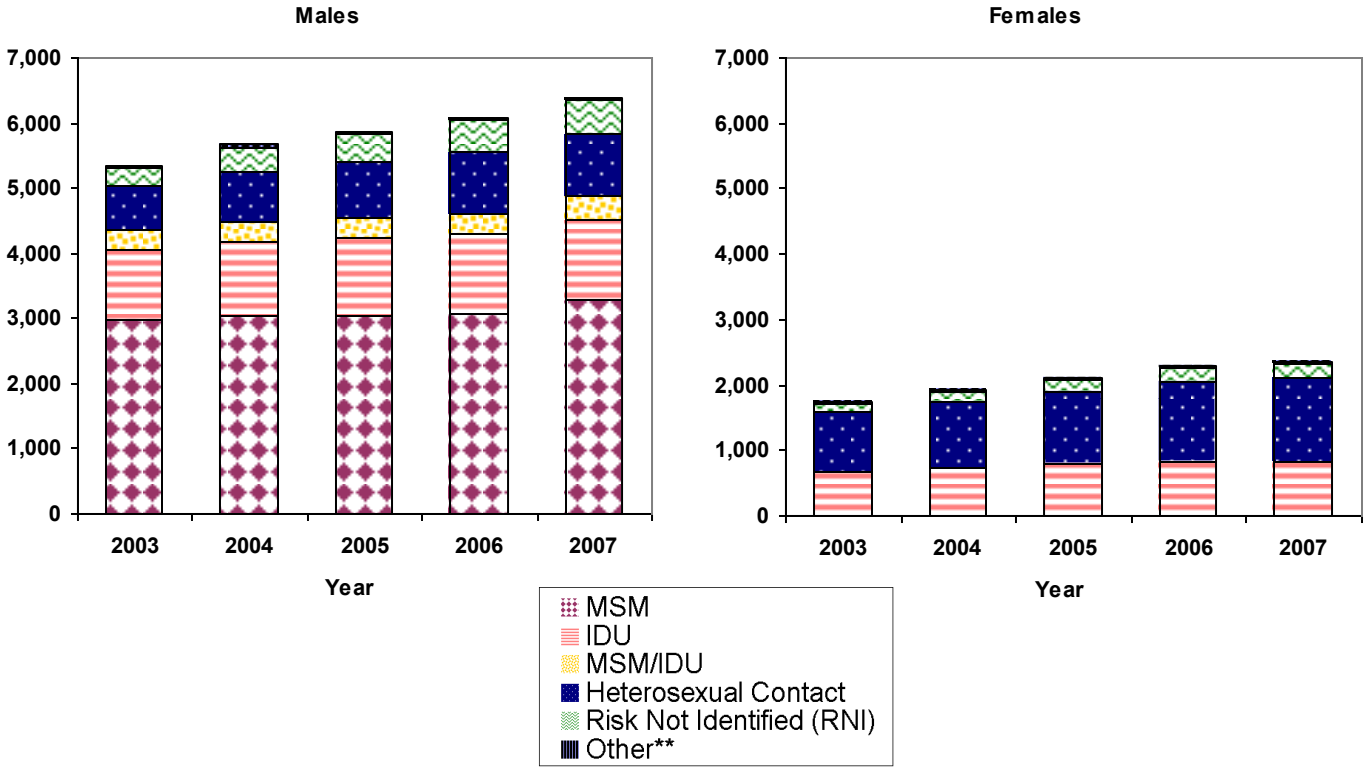
Figure 12. Number of Persons Living with AIDS by Year and Mode of Transmission in the District of Columbia, 2003-2007



**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- Between 2003 and 2007 among persons living with AIDS, the highest number of cases were consistently among those attributed to MSM sexual contact, followed by heterosexual contact, and IDU.
- The number of cases within each transmission category increased during the 5-year period.
- The largest proportional increase in the number of cases where the mode of transmission was known from 2003 to 2007 was among cases attributed to heterosexual contact (40.8%).

Figure 13. Number of Persons Living with AIDS by Year, Sex and Mode of Transmission in the District of Columbia, 2003-2007



**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- Among women who were living with AIDS in 2007, 54.6% were attributed to heterosexual contact (n= 1,285) and 35.2% to IDU (n= 828). Between 2003 and 2007, the total number of women living with AIDS attributable to heterosexual contact has increased from 904 to 1,285, a 42.1% increase.
- Among males living with AIDS in 2007, 51.3% were attributed to MSM, followed by IDU and MSM/IDU at 24.9%, all of which are consistent with last year's annual report data. The total number of males living with AIDS attributable to MSM sexual contact continued to increase from 3,068 in 2006 to 3,279 in 2007. Since 2003, this total has increased from 2,988 cases, an overall increase of 9.7%.
- Overall, the total number of persons living with AIDS has increased for both males and females for nearly every mode of transmission since 2003.

New AIDS Diagnoses in the District

The following tables and figures depict trends in new annual AIDS diagnoses over the most recent 5 year period (2003-2007). Examining these recent trends facilitates a better understanding of the characteristics of persons newly diagnosed with AIDS. Of importance to note is the difference in the distribution of the mode of transmission among newly diagnosed AIDS cases in comparison to all living AIDS cases. For all living AIDS cases, MSM sexual contact is the leading mode of exposure at 37.5% in comparison to newly diagnosed AIDS cases where heterosexual sexual contact is the leading mode of exposure at 31.5% followed by MSM sexual contact at 29%. Also, there is a shift in the proportion of newly diagnosed AIDS cases attributable to women in comparison to all living AIDS cases. Among newly diagnosed AIDS cases from 2003-2007, women account for 30.5 % of newly reported cases and 27% of all living AIDS cases. These data give us hints about the possible shifts in the demographics and behaviors of people who were recently diagnosed with HIV/AIDS.

Table 6. Newly Reported AIDS Cases among Adults and Adolescents by Year of Diagnosis, Sex, Race/Ethnicity, and Age at Diagnosis in the District of Columbia, 2003-2007

	2003		2004		2005		2006		2007		2003-2007 5-Yr Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Sex												
Male	596	71.1	552	70.7	444	67.2	474	68.3	453	69.9	2,519	69.5
Female	242	28.9	229	29.3	217	32.8	220	31.7	195	30.1	1,103	30.5
Total	**838**	**100.0**	**781**	**100.0**	**661**	**100.0**	**694**	**100.0**	**648**	**100.0**	**3,622**	**100.0**
Race/Ethnicity												
White	75	8.9	63	8.1	56	8.5	62	8.9	55	8.5	311	8.6
Black	714	85.2	655	83.9	557	84.3	603	86.9	551	85.0	3,080	85.0
Hispanic	42	5.0	49	6.3	43	6.5	25	3.6	35	5.4	194	5.4
Other*	7	0.8	14	1.8	5	0.8	4	0.6	7	1.1	37	1.0
Total	**838**	**100.0**	**781**	**100.0**	**661**	**100.0**	**694**	**100.0**	**648**	**100.0**	**3,622**	**100.0**
Age at Diagnosis												
13-19	10	1.2	13	1.7	8	1.2	7	1.0	9	1.4	47	1.3
20-29	94	11.2	109	14.0	93	14.1	92	13.3	73	11.3	461	12.7
30-39	304	36.3	234	30.0	194	29.3	173	24.9	166	25.6	1,071	29.6
40-49	271	32.3	271	34.7	239	36.2	252	36.3	242	37.3	1,275	35.2
50-59	122	14.6	115	14.7	91	13.8	136	19.6	118	18.2	582	16.1
≥60	37	4.4	39	5.0	36	5.4	34	4.9	40	6.2	186	5.1
Total	**838**	**100.0**	**781**	**100.0**	**661**	**100.0**	**694**	**100.0**	**648**	**100.0**	**3,622**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

- From 2003 to 2007, there have been more than 3,600 newly reported AIDS diagnoses. Among these cases, males comprise a larger proportion of these cases than females.
- Blacks have consistently represented a higher proportion of newly reported AIDS cases than any other racial or ethnic group.
- Overall, 35.2% of all newly diagnosed AIDS cases were diagnosed among District residents between the ages of 40-49, followed by those in the 30-39 age group (29.6%).

Table 7. Newly Reported AIDS Cases among Adults and Adolescents by Year of Diagnosis and Mode of Transmission in the District of Columbia, 2003-2007

	2003		2004		2005		2006		2007		2003-2007 5-Yr Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Mode of Transmission												
MSM	254	30.3	216	27.7	163	24.7	202	29.1	217	33.5	1,052	29.0
IDU	168	20.0	182	23.3	185	28.0	135	19.5	117	18.1	787	21.7
MSM/IDU	26	3.1	28	3.6	23	3.5	29	4.2	21	3.2	127	3.5
Heterosexual contact	282	33.7	229	29.3	200	30.3	247	35.6	183	28.2	1,141	31.5
Risk not identified	103	12.3	123	15.7	88	13.3	78	11.2	107	16.5	499	13.8
Other**	5	0.6	3	0.4	<3	--	3	0.4	3	0.5	16	0.4
Total	**838**	**100.0**	**781**	**100.0**	**661**	**100.0**	**694**	**100.0**	**648**	**100.0**	**3,622**	**100.0**
Male												
MSM	254	42.6	216	39.1	163	36.7	202	42.6	217	47.9	1,052	41.8
IDU	96	16.1	109	19.7	113	25.5	71	15.0	70	15.5	459	18.2
MSM/IDU	26	4.4	28	5.1	23	5.2	29	6.1	21	4.6	127	5.0
Heterosexual contact	143	24.0	101	18.3	84	18.9	112	23.6	73	16.1	513	20.4
Risk not identified	74	12.4	96	17.4	61	13.7	59	12.4	71	15.7	361	14.3
Other**	3	0.5	<3	--	<3	--	<3	--	<3	--	7	0.3
Subtotal	**596**	**100.0**	**552**	**100.0**	**444**	**100.0**	**474**	**100.0**	**453**	**100.0**	**2,519**	**100.0**
Female												
IDU	72	29.8	73	31.9	72	33.2	64	29.1	47	24.1	328	29.7
Heterosexual contact	139	57.4	128	55.9	116	53.5	135	61.4	110	56.4	628	56.9
Risk not identified	29	12.0	27	11.8	27	12.4	19	8.6	36	18.5	138	12.5
Other**	<3	--	<3	--	<3	--	<3	--	<3	--	9	0.8
Subtotal	**242**	**100.0**	**229**	**100.0**	**217**	**100.0**	**220**	**100.0**	**195**	**100.0**	**1,103**	**100.0**

**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- In 2007, there were 648 new AIDS diagnoses in the District, a 22.7% reduction from 2003 (N=838).
- From 2003 to 2007, heterosexual contact continues to be the leading mode of transmission in newly reported AIDS cases (31.5%), followed by MSM (29%) and IDU (21.7%).
- In men, 41.8% of newly reported AIDS diagnoses were among MSM over the last 5 years. Also among men, 20.4% of newly reported AIDS diagnoses were attributed to heterosexual contact, 18.2% to IDU, which are consistent with previously reported data.
- In women, more than half (56.9%) of newly reported AIDS cases were attributed to heterosexual contact. IDU remains the second leading mode of transmission in women (29.7%) consistent with previously reported data.

Table 8. Newly Reported AIDS Cases among Adults and Adolescents by Race/Ethnicity, Sex, Mode of Transmission, and Age at Diagnosis in the District of Columbia, 2003-2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	297	95.5	2,052	66.6	146	75.3	24	64.9	2,519	69.5
Female	14	4.5	1,028	33.4	48	24.7	13	35.1	1,103	30.5
Total	**311**	**100.0**	**3,080**	**100.0**	**194**	**100.0**	**37**	**100.0**	**3,622**	**100.0**
Mode of Transmission										
MSM	226	72.7	745	24.2	68	35.1	13	35.1	1,052	29.0
IDU	14	4.5	744	24.2	23	11.9	6	16.2	787	21.7
MSM/IDU	12	3.9	106	3.4	8	4.1	<3	--	127	3.5
Heterosexual contact	29	9.3	1,027	33.3	73	37.6	12	32.4	1,141	31.5
Risk not identified	30	9.7	443	14.4	21	10.8	5	13.5	499	13.8
Other	<3	--	15	0.5	<3	--	<3	--	16	0.4
Total	**311**	**100.0**	**3,080**	**100.0**	**194**	**100.0**	**37**	**100.0**	**3,622**	**100.0**
Male										
MSM	226	76.1	745	36.3	68	46.6	13	54.2	1,052	41.8
IDU	12	4.0	429	20.9	15	10.3	3	12.5	459	18.2
MSM/IDU	12	4.0	106	5.2	8	5.5	<3	--	127	5.0
Heterosexual contact	17	5.7	454	22.1	40	27.4	<3	--	513	20.4
Risk not identified	30	10.1	311	15.2	15	10.3	<3	--	361	14.3
Other	<3	--	7	0.3	<3	--	<3	--	7	0.3
Subtotal	**297**	**100.0**	**2,052**	**100.0**	**146**	**100.0**	**24**	**100.0**	**2,519**	**100.0**
Female										
IDU	<3	--	315	30.6	8	16.7	3	23.1	328	29.7
Heterosexual contact	12	85.7	573	55.7	33	68.8	10	76.9	628	56.9
Risk not identified	<3	--	132	12.8	6	12.5	<3	--	138	12.5
Other	<3	--	8	0.8	<3	--	<3	--	9	0.8
Subtotal	**14**	**100.0**	**1,028**	**100.0**	**48**	**100.0**	**13**	**100.0**	**1,103**	**100.0**
Age at Diagnosis										
13-19	<3	--	42	1.4	4	2.1	<3	--	47	1.3
20-29	28	9.0	395	12.8	35	18.0	3	8.1	461	12.7
30-39	119	38.3	861	28.0	78	40.2	13	35.1	1,071	29.6
40-49	102	32.8	1,106	35.9	53	27.3	14	37.8	1,275	35.2
50-59	47	15.1	515	16.7	16	8.3	4	10.8	582	16.1
≥60	14	4.5	161	5.2	8	4.12	3	8.1	186	5.1
Total	**311**	**100.0**	**3,080**	**100.0**	**194**	**100.0**	**37**	**100.0**	**3,622**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

- The demographic distribution of newly reported AIDS cases in the previous reporting period 2001-2006 and 2003-2007 has remained consistent.
- Between 2003 and 2007, there were 3,622 new reports of AIDS cases, the majority of which were among black males (n=2,052), followed by black females (n=1,028) and white males (n=297).
- Black MSM (n=745) and black IDU (n=744) comprise more than 40% of all newly reported AIDS cases.
- Black women account for 93.2% of newly reported AIDS cases in women.
- Men who have sex with men (MSM) continues to be the leading mode of transmission in white males (72.7%).
- Heterosexual contact remains the leading mode of transmission among women across all races.

Figure 14. Proportion of Newly Reported AIDS cases by Sex and Age at Diagnosis in the District of Columbia, 2003-2007

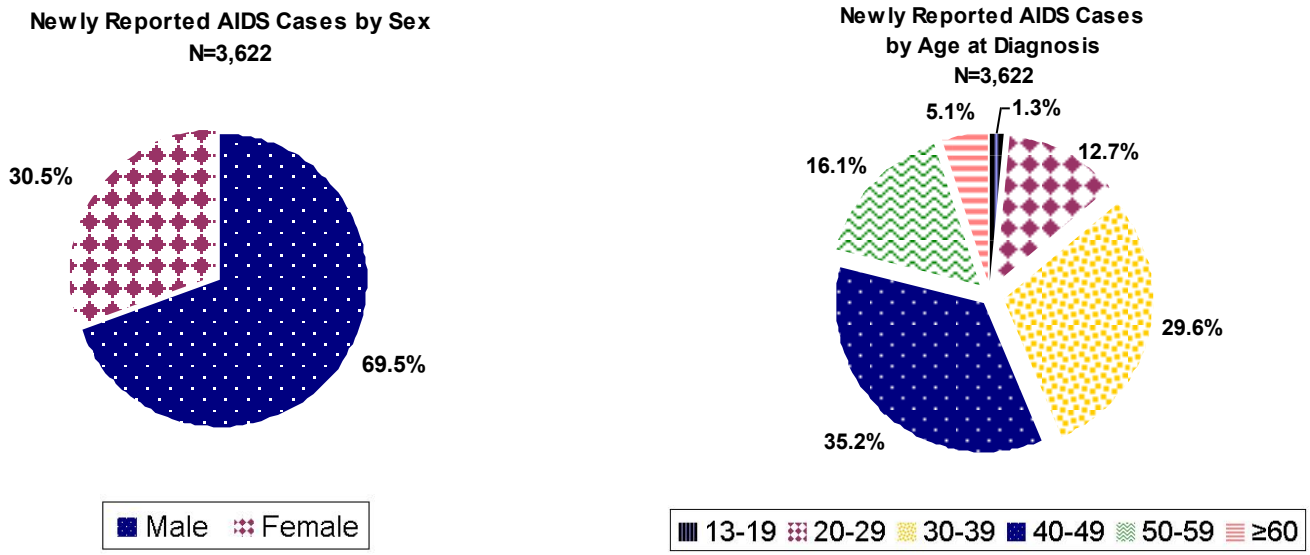
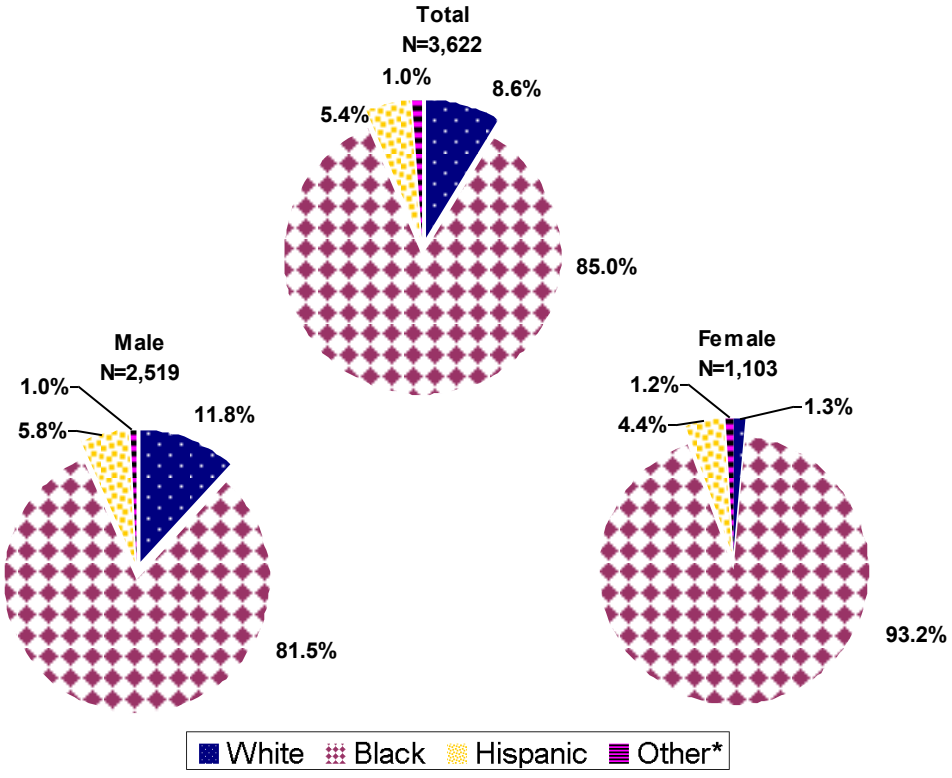
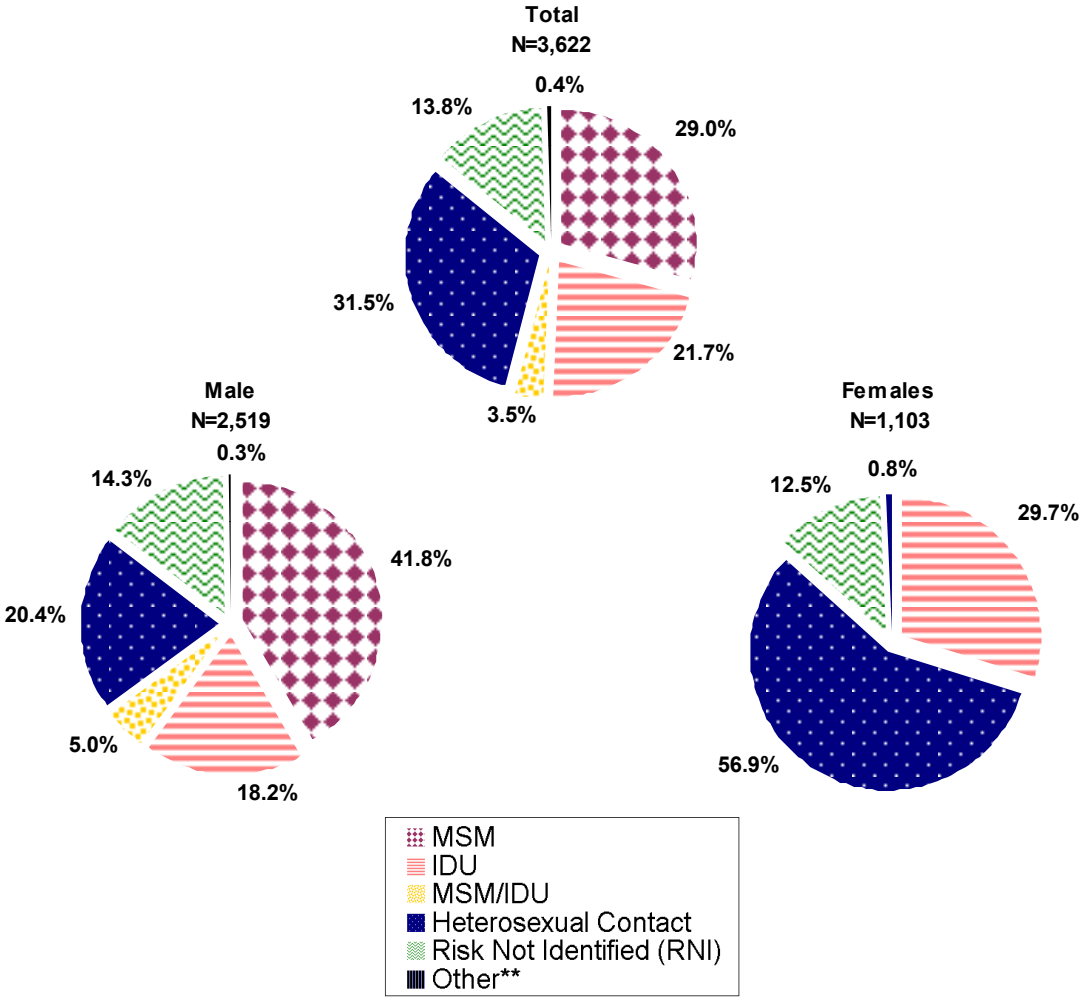


Figure 15. Proportion of Newly Reported AIDS cases by Race/Ethnicity in the District of Columbia, 2003-2007



*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

Figure 16. Proportion of Newly Reported AIDS cases by Sex and Mode of Transmission in the District of Columbia, 2003-2007

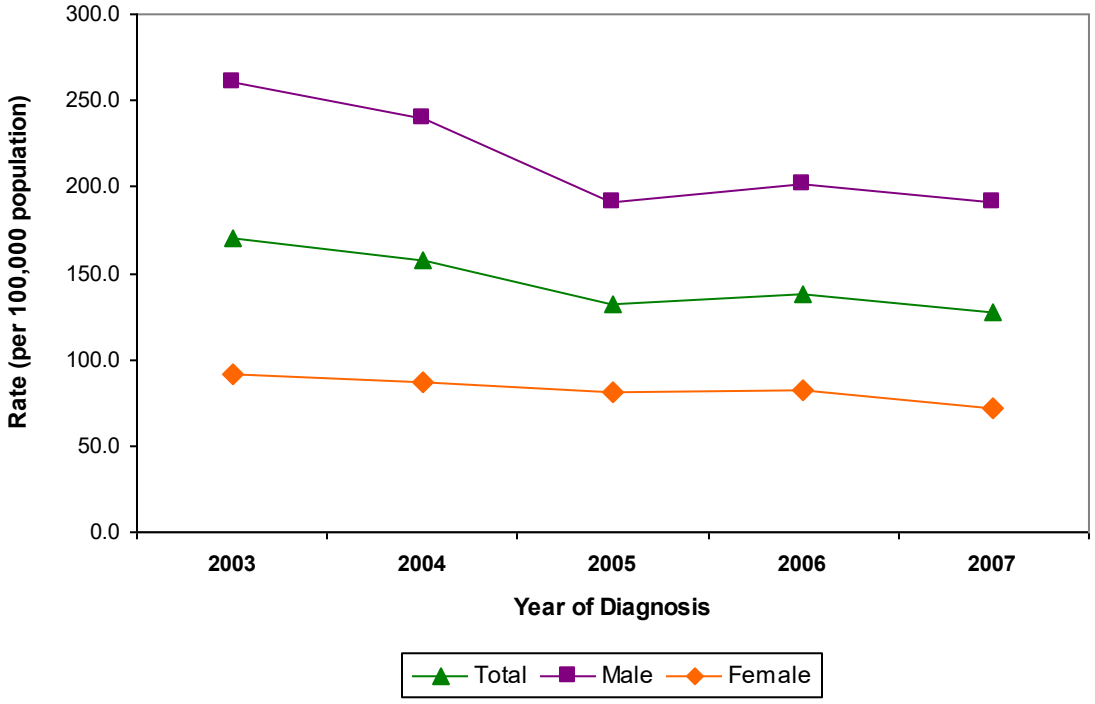


**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

Trends in AIDS Diagnoses in the District

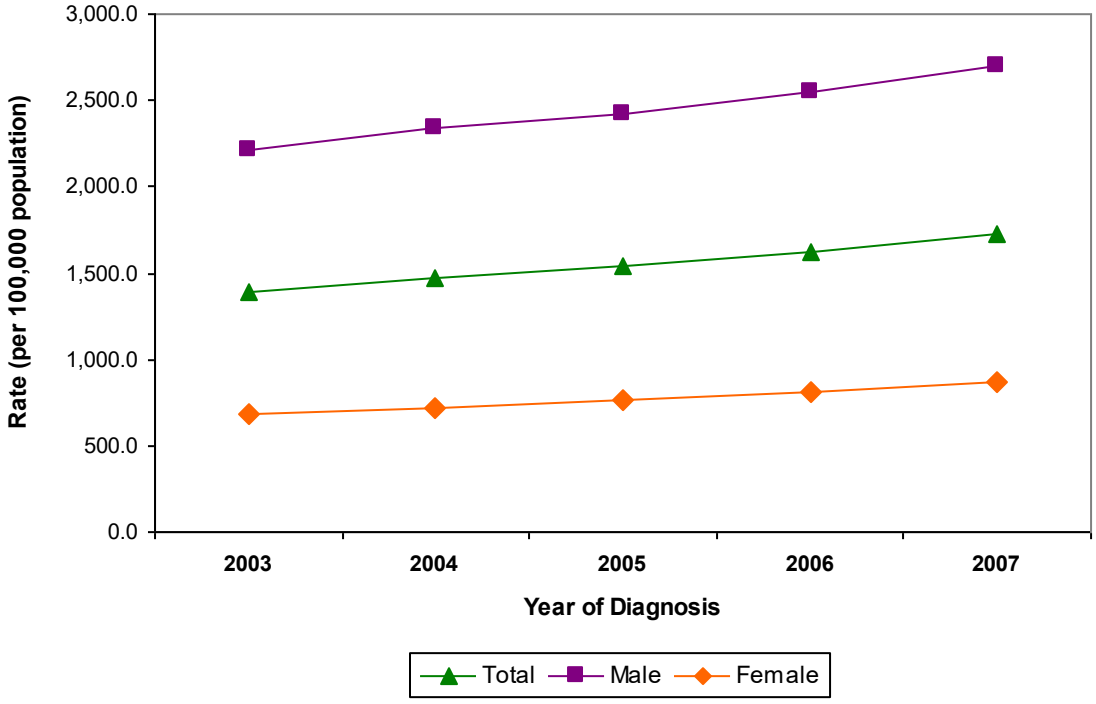
The following figures depict trends in new annual AIDS diagnoses and persons living with AIDS over the most recent 5 year period (2003-2007).

Figure 17. Rates of Newly Reported AIDS cases by Year of Diagnosis and Sex in the District of Columbia, 2003-2007



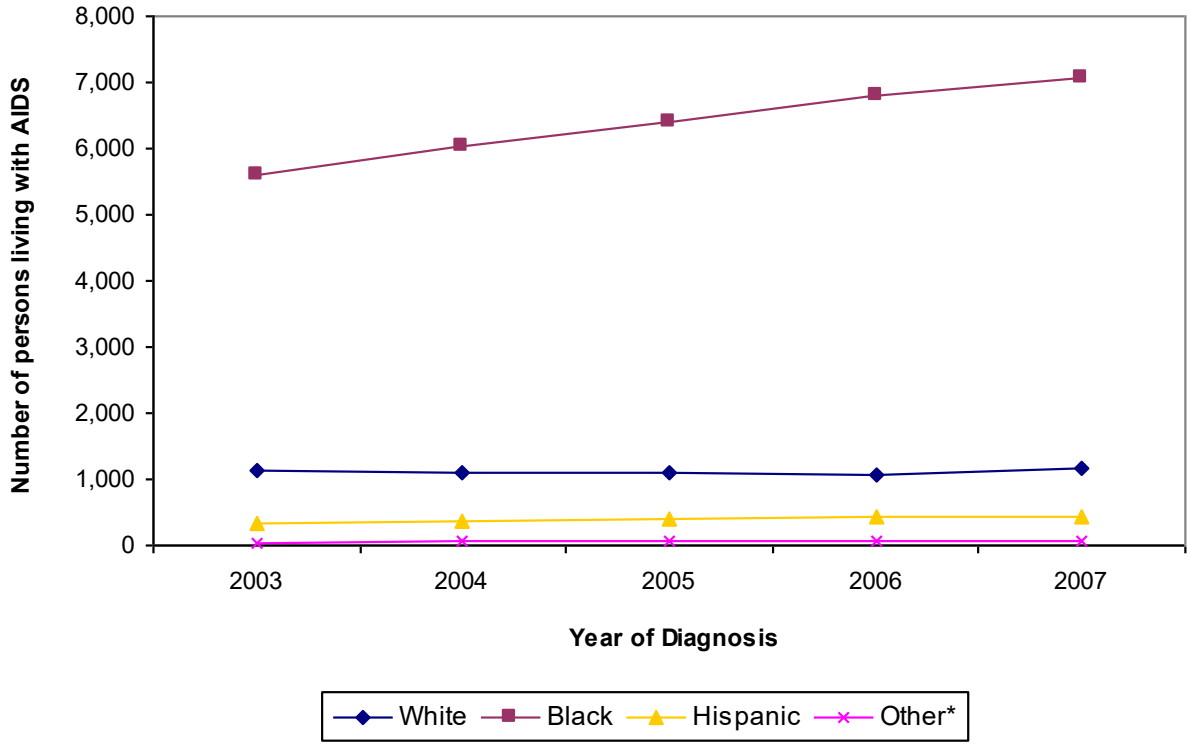
- Since 2003, the rate of newly reported AIDS cases has declined. In 2007 the overall rate reached its lowest point, 127.9 cases per 100,000 population.
- Though the trends in rates of newly reported AIDS cases for males and females are both declining, the rate for males is still 2.7-times greater than females in 2007.
- In 2007, the rate of newly reported AIDS cases among males and females was 191.7 and 72.1 cases per 100,000 population, respectively.

Figure 18. Rates for Persons Living with AIDS by Year of Diagnosis and Sex in the District of Columbia, 2003-2007



- The overall rate of persons living with AIDS increased from 1,395.5 in 2003 to 1,724.2 cases per 100,000 population in 2007, a 23.6% increase. Within the past year, the overall rate of persons living with AIDS increased by 6.5%.
- The rate of male persons living with AIDS increased from 2,213.1 to 2,701.4, a 22.1% increase from 2003 to 2007.
- The rate of female persons living with AIDS increased from 684.1 to 870.2, a 27.2% increase from 2003 to 2007.
- During the past year, the rate of persons living with AIDS increased by 6.2% in males and 7.4% in females.
- Rates for males living with AIDS remained consistently higher than those in females.

Figure 19. Number of Persons Living with AIDS by Year and Race/Ethnicity in the District of Columbia, 2003-2007



*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

- Between 2003 and 2007, the number of persons living with AIDS in the District has increased by 23.4%.
- While the number of persons living with AIDS among whites, Hispanics, and other racial groups has remained relatively constant since 2003, among blacks, the number of living AIDS cases has steadily increased over the last 5 years.

SECTION III. CLINICAL INDICATORS

Ideally a person should be diagnosed early on the course of their infection, when the CD4 count is still high, so that care and treatment options may prevent illness and disease progression. If a person has a CD4 count of less than 200, they are considered an AIDS diagnosis, and are at risk for severe illnesses such as opportunistic infections.

This section of the report focuses on select clinical indicators related to HIV/AIDS. Laboratory measures and clinical indicators such as CD4 counts, time from HIV to AIDS diagnosis and the development of opportunistic infections are used to give us a glimpse of when in the course of the illness people are being diagnosed, whether they are accessing medical care and how suppressed their immune systems are. Reporting of these measures has increased, and this section provides us with new information not previously available and helps us to measure the effects and impact that HIV prevention and routine testing programs are having in the District. As laboratory reporting becomes increasingly complete, we will have even better understandings of the clinical indicators of HIV in the District.

This section provides information on three areas: time between HIV diagnosis and entry to HIV-related medical care; stage of disease at diagnosis with a focus on new AIDS diagnoses overall as well as those related to late testing; and the reasons for new AIDS diagnoses including the types of opportunistic infections being seen.

Summary

To better understand how long it takes newly diagnosed HIV-infected persons to seek and access medical care, we measured the time interval between the first HIV-diagnosis and the first CD4 count. CD4 counts are generally drawn during the initial or early medical assessment for HIV care. During 2001 through 2006, on average, less than 50% of newly diagnosed HIV/AIDS cases had a CD4 count within 6 months of the initial HIV diagnosis.

To better understand stage of disease at diagnosis, we examined both median CD4 counts at the time of entry into care among all new HIV/AIDS cases in the District. Of note, the District started promoting expanded HIV testing in June 2006, with the "Come Together DC, Get Tested for HIV" campaign. During the first 18 months of expanded early HIV testing, the median first CD4 count has increased to 332, a 50% increase in CD4 counts since 2005. Higher CD4 counts indicate that individuals are being diagnosed earlier before their immune systems have been significantly compromised.

HIV is a preventable infection. However, after HIV infection, early diagnosis along with modern care and treatment options make progression to AIDS a largely preventable condition as well. To better understand burden of severe disease and possible missed opportunities for prevention of AIDS, we examined both the total number of new AIDS cases diagnosed each year and also trends among "late testers." Importantly, late testing persists as a major missed opportunity for prevention of AIDS. We examined all persons newly diagnosed with AIDS between 2001 and 2007 to determine how many had their first HIV diagnosis within 12 months of their AIDS diagnosis, called "late testers." Late testers are thus exclusively a subset of newly diagnosed AIDS cases and not all HIV infected persons. This analysis uses the same approach as that presented in the 2007 Epidemiology Annual report and serves to update that information.

Overall, the number of new AIDS cases each year has declined from a peak of 992 new cases per year in

Overall, the number of new AIDS cases each year has declined from a peak of 992 new cases per year in 2002 to 646 cases per year in 2007. In this updated analysis, the proportion of late testers was 61.0%. Late testing was consistent across race/ethnicity, age and mode of transmission. The proportion of AIDS cases that are late testers has slightly declined (from a peak of 69.7% in 2003 to 66.1% in 2007). Continued promotion of early and routine testing is critical to impact these numbers.

The defining characteristics for the new AIDS cases and relationship to specific AIDS-related illnesses called opportunistic infections (OIs) are as follows:

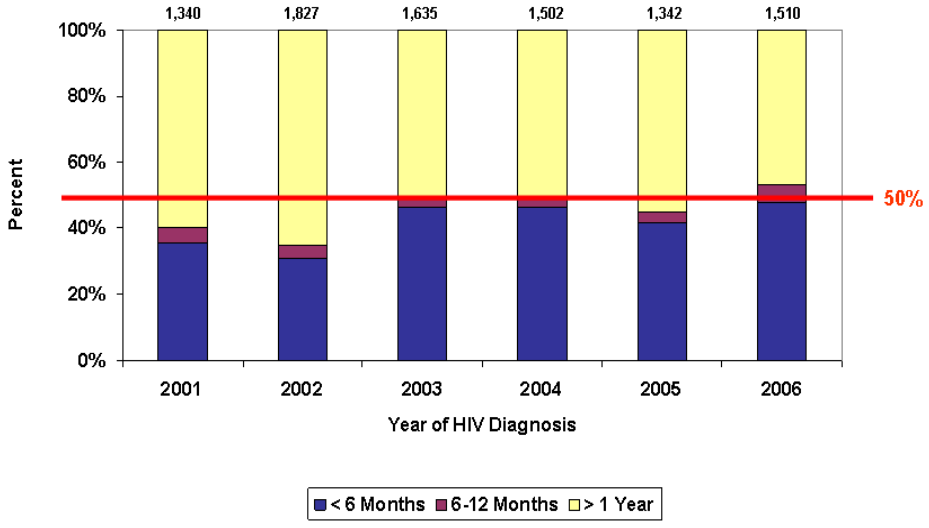
- Between 1980 and 2002, 77.1% of AIDS cases were diagnosed based on the development of an OI. In more recent years, 2003-2007, only 37.5% of AIDS cases were diagnosed based on the development of an OI, a 51.4% decrease. This significant decrease most likely reflects earlier virologic diagnosis among AIDS cases and better availability of treatment.
- The most commonly reported OI between 1980 and 2002 was *Pneumocystis carinii* pneumonia (PCP) (21.5%); however, in recent years, fungal infections, mostly attributed to candidiasis (11.2%) accounted for the majority of OIs among AIDS cases.
- PCP, wasting syndrome and fungal infections continue to account for the top three OIs reported with a 55.8% decrease in PCP infections from 1980-2002 and 2003-2007.

Detailed Description

Early entry into primary care may improve management of HIV disease by preventing the development of opportunistic infections, and aid in reducing the further spread of HIV by suppressing the amount of virus in the body. According to the U.S. Public Health Service Guidelines, HIV infected persons should have one CD4 count or viral load test performed at least annually. CD4 laboratory results reported to the surveillance system were used to assess whether District cases are accessing primary medical care and how long after their initial HIV diagnosis they received services. Figure 20 shows time from initial HIV diagnosis to first CD4 test. Ideally, we would like to see almost everyone accessing routine HIV care within 6 months of diagnosis.

Note: Incomplete reporting suggests that the below data underestimate the proportions entering care.

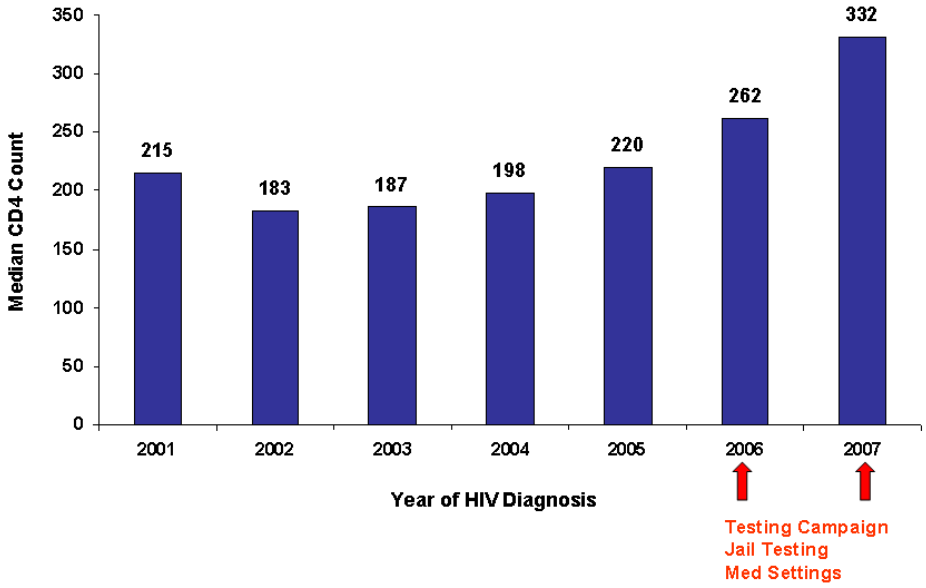
Figure 20. Time of Entrance to Care as Evidenced by First CD4 Count Test among HIV/AIDS cases by Year of HIV Diagnosis, District of Columbia, 2001-2006 (N=9,156)



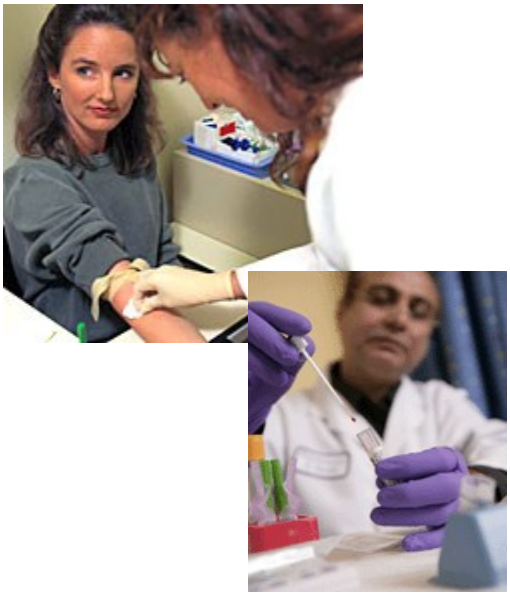
† Those persons with a CD4 count test occurring more than one year after an HIV diagnosis includes cases for whom a CD4 count test has not yet been reported. Among the 9, 156 cases reported in this figure, 58.1% had a CD4 test reported to the surveillance system.

- There were 9,156 HIV/AIDS cases diagnosed with HIV between 2001 and 2006.
- Among the 9,156 cases, between 2001 and 2006, 45.2% of cases had entered into care within 6 months of their HIV diagnosis as evidenced by the presence of at least one CD4 count during that time period. This has improved, with 50% of persons in 2006 having at least one CD4 count within 6 months.

Figure 21. Median CD4 Count for HIV/AIDS Cases by Year of HIV Diagnosis, District of Columbia, 2001-2007 (N=6,379)



- Among all persons newly diagnosed with HIV/AIDS for whom at least one CD4 count is reported (N=6,379), the median CD4 count by year of HIV diagnosis is presented in this figure.
- Since 2003, the median CD4 count has increased steadily, a 54% increase between 2005 and 2007 indicating that infected persons are being diagnosed earlier in the course of the disease. This upward trend may be explained by an increased emphasis on routine testing in the District.



Late Testing

In this table, we determined the proportion of persons diagnosed with AIDS between 2001 and 2007 whose HIV diagnosis occurred within 12 months of their AIDS diagnosis, also referred to as "late testers". This analysis uses the same approach as that presented in the 2007 Epidemiology Annual report and serves to update that information.

Table 9a. Characteristics of Late Testers among AIDS cases Diagnosed between 2001-2007, District of Columbia (N=5,286)

Characteristic	≥ 12 months after diagnosis of HIV		< 12 months after diagnosis of HIV (Late Testers)		Total
	N	%	N	%	
Year of Diagnosis					
2001	289	43.3	379	56.7	668
2002	536	54.0	456	46.0	992
2003	255	30.3	587	69.7	842
2004	252	32.3	528	67.7	780
2005	252	37.8	414	62.2	666
2006	257	37.1	435	62.9	692
2007	219	33.9	427	66.1	646
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Sex					
Male	1,383	37.8	2,271	62.2	3,654
Female	677	41.5	955	58.5	1,632
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Race/Ethnicity					
White	203	44.4	254	55.6	457
Black	1,770	39.1	2,756	60.9	4,526
Hispanic	77	30.0	180	70.0	257
Other*	10	21.7	36	78.3	46
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Mode of Transmission					
MSM	640	40.9	926	59.1	1,566
Injection Drug Use (IDU)	513	45.8	606	54.2	1,119
MSM/IDU	98	53.0	87	47.0	185
Heterosexual Contact	567	34.8	1,064	65.2	1,631
Risk not identified	218	29.5	520	70.5	738
Other**	24	51.1	23	48.9	47
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Age at Diagnosis					
<13	3	14.3	18	85.7	21
13-19	24	40.0	36	60.0	60
20-29	196	31.1	434	68.9	630
30-39	629	38.8	992	61.2	1,621
40-49	786	41.6	1,104	58.4	1,890
50-59	344	42.0	476	58.0	820
≥60	78	32.0	166	68.0	244
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

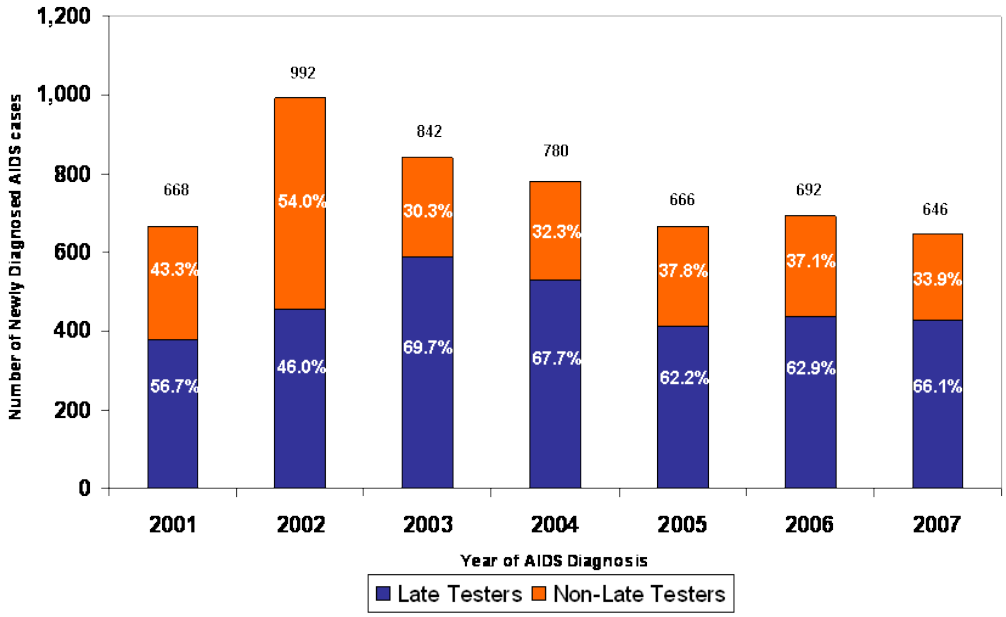
- Of the 5,286 AIDS cases diagnosed between 2001 and 2007, 61% progressed from HIV to AIDS less than 12 months after their initial HIV diagnosis. These persons are referred to as "late-testers."
- Despite small numbers, Hispanics (70%) and foreign-born persons (79%) had higher rates of late testing, which may indicate lower testing rates among this population.
- Among those who were <13 at the time of diagnosis, 86% were late testers. The high rate of late testers seen among those under 13 years old may be attributed to the rapid progression of HIV in perinatally infected children who, if undiagnosed, are likely to progress to AIDS within 1 year of infection.

Table 9b. Characteristics of Late Testers among AIDS cases Diagnosed between 2001-2007, District of Columbia (N=5,286)

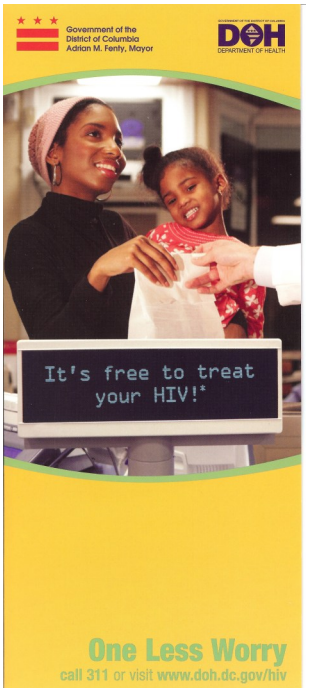
Characteristic	≥ 12 months after diagnosis of HIV		< 12 months after diagnosis of HIV (Late Testers)		Total
	N	%	N	%	
Incarceration Status					
Incarcerated	133	32.4	277	67.6	410
Non-incarcerated	1,927	39.5	2,949	60.5	4,876
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Insurance at time of AIDS diagnosis					
Public	1,099	39.9	1,657	60.1	2,756
Private	622	41.1	891	58.9	1,513
None	105	32.7	216	67.3	321
Unknown	234	33.6	462	66.4	696
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Country of Birth					
US	1,991	39.8	3,007	60.2	4,998
US Dependency	5	45.5	6	54.5	11
Outside of US	43	21.0	162	79.0	205
Unknown	21	29.2	51	70.8	72
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**
Initial AIDS Diagnosis					
CD4 count≤200	1,516	41.4	2,147	58.6	3,663
Opportunistic infection	118	40.3	175	59.7	293
Low CD4 and OI	426	32.0	904	68.0	1,330
Total	**2,060**	**39.0**	**3,226**	**61.0**	**5,286**

- Among those persons who were incarcerated at the time of AIDS diagnosis, almost 68% were late testers. However, this number was not very different compared to the proportion of late testers among those not incarcerated at the time of diagnosis (60.5%).
- Approximately two-thirds of those who were uninsured or whose insurance status was unknown at the time of diagnosis were late testers.
- Nearly 80% of those born outside of the US were late testers, consistent with previously reported data.

Figure 22. Persons Newly Diagnosed with AIDS and Proportion First Diagnosed with HIV within 12 months, District of Columbia, 2001-2007 (N=5,286)



- The number of newly diagnosed AIDS cases has decreased over recent years, which most likely is a result of earlier diagnosis and earlier entry into care.
- Since 2003, there has been an overall decline in the proportion of AIDS cases that were late testers (from a peak of 69.7% in 2003 to 66.1% in 2007), indicating both the benefit of and a continued need for routine screening.



Opportunistic Infections

Table 10. Opportunistic Infections (OI) among AIDS cases Diagnosed between 1980-2002 and 2003- 2007, District of Columbia

Opportunistic Infections (OI)	1980 - 2002		2003 - 2007	
	N	%	N	%
Low CD4 only[1]	4,450	22.9	2,541	62.5
PCP	4,178	21.5	387	9.5
Wasting	2,258	11.6	217	5.3
Fungal (Candidiasis and others)	2,125	10.9	456	11.2
Viral (Herpes and CMV)	1,531	7.9	104	2.6
TB/Mycobacteria (mostly MAC)	1,487	7.7	51	1.3
Cancer (Kaposi's sarcoma and others)	1,238	6.4	64	1.6
Other infections (mostly recurrent pneumonia)	895	4.6	168	4.1
Parasitic (Toxoplasmosis and others)	547	2.8	49	1.2
Other diagnoses (Dementia and others)	704	3.6	27	0.7
Total[2]	**19,413**	**100.0**	**4,064**	**100.0**

Note: Effective January 1, 1993, the CDC Surveillance case definition for AIDS was expanded to include all HIV-infected persons with CD4 counts of < 200 cells/uL or a CD4 percentage of <14. In addition to retaining the 23 clinical conditions in the previous AIDS surveillance definition, the expanded definition includes pulmonary tuberculosis (TB), recurrent pneumonia, and invasive cervical cancer. This expanded definition requires laboratory confirmation of HIV infection in persons with a CD4+ T-lymphocyte count of less than 200 cells/uL or with one of the added clinical conditions.

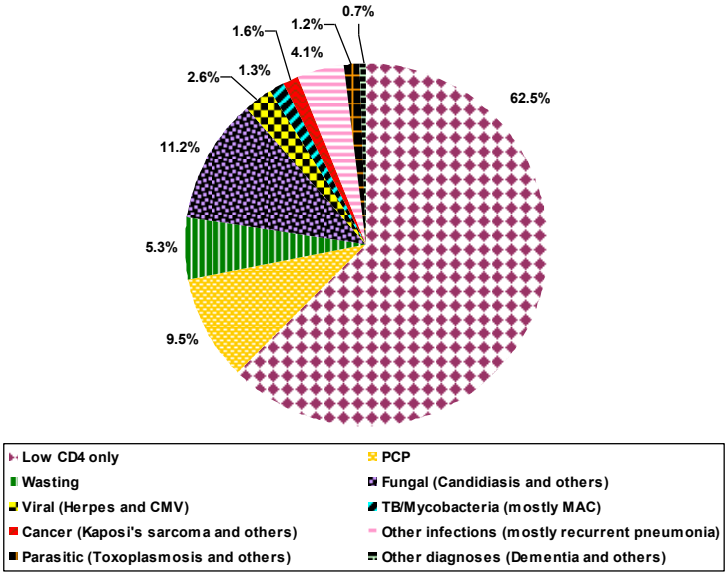
[1]This is an AIDS defining diagnosis (not an opportunistic infection).

[2]Each AIDS case may have had more than one OI diagnosis. The total number reflects the number of AIDS cases that had a particular diagnosis.

† Definitions for these OIs can be found in Section VIII.

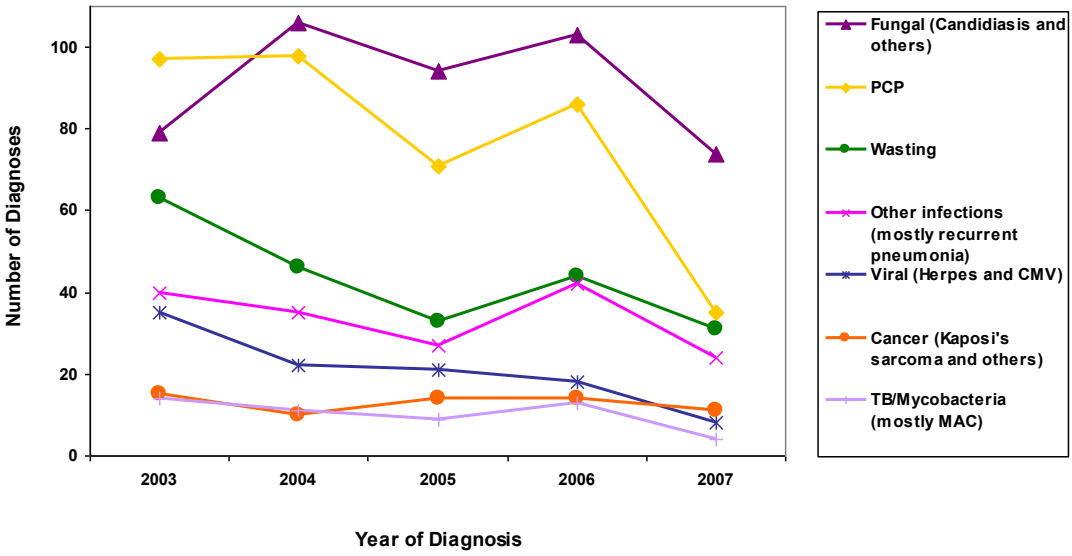
- There were 19,413 opportunistic infection diagnoses among AIDS cases reported from 1980 through 2002. Between 2003 and 2007, 4,064 OIs were diagnosed.
- From 1980 to 2002, 22.9% of AIDS cases were diagnosed based on a low CD4 count. This number increased to 62.5% between 2003 and 2007, an almost three-fold increase.
- Between 1980 and 2002, 77.1% of AIDS cases were diagnosed based on the development of an opportunistic infection (OI). In more recent years, 2003-2007, only 37.5% of AIDS cases were diagnosed based on the development of an OI, a 51.4% decrease. This significant decrease most likely reflects earlier virologic diagnosis among AIDS cases and better availability of treatment.
- The most commonly reported OI between 1980 and 2002 was *Pneumocystis carinii* pneumonia (PCP) (21.5%); however, in recent years, fungal infections, mostly attributed to candidiasis (11.2%) accounted for the majority of OIs among AIDS cases.
- PCP, wasting syndrome and fungal infections continue to account for the top three OIs reported with a 55.8% decrease in PCP infections from 1980-2002 and 2003-2007.
- The largest decline in OIs was seen among Tuberculosis and *Mycobacterium avium* infections as well as among other diagnoses including dementia.
- Many of these reductions in reported opportunistic infections may be attributed to earlier diagnosis and initiation of appropriate prophylaxis when warranted.

Figure 23. Proportion of Opportunistic Infections (OI) among AIDS cases Diagnosed between 2003- 2007, District of Columbia



† Definitions for these OIs

Figure 24. Opportunistic Infections among AIDS Cases Diagnosed between 2003-2007, 5-Year Trend, District of Columbia



† Definitions for these OIs can be found in Section VIII.

- Five year trends in opportunistic infections (OI) show a consistent decline in the overall number of reported diagnoses.
- Five year trends show that since 2004, fungal infections have consistently made up the largest number of OI diagnoses followed by PCP.
- A dramatic decline was observed in the number of reported PCP infections among AIDS cases over the last five years, previously the leading OI.
- Tuberculosis, *Mycobacterium avium* and AIDS-defining cancers have consistently accounted for the smallest number of opportunistic infections during this time period.

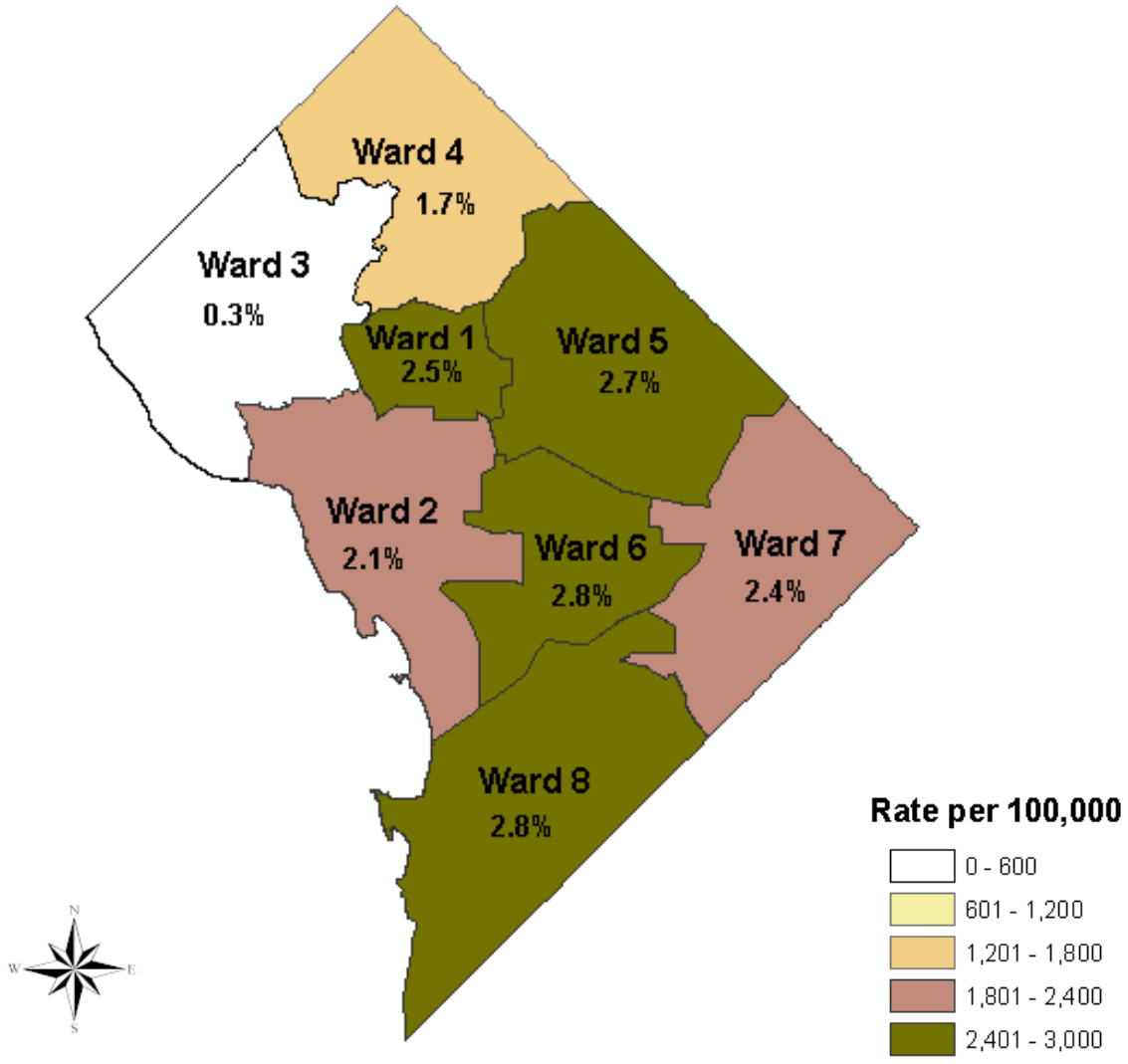
Section IV. Geographic Distribution of HIV/AIDS Cases in the District of Columbia

The following maps contain a detailed description of the geographic distribution of HIV/AIDS cases in the District with maps and specific data points. The District is divided into eight geopolitical areas called "Wards." Ward information is collected for all HIV/AIDS cases. For persons who were incarcerated or in temporary housing or lacking housing at the time of diagnosis, the ward of residence is not collected and is reported separately from the maps as "jail" or "homeless" cases. For up to 20% of cases, ward data were not available and these cases were therefore not included in the maps. When calculating rates by ward, the base population used is the total number of persons over the age of 12 years (adults and adolescents) from the most recent census data, in 2000. It is also important to note that the ward of residence is not indicative of where a person was infected but represents where the person resided at the time of diagnosis. Thus, although these cases reported living in these wards at the time of diagnosis, they may no longer live in these wards as there is a large amount of movement both within and outside of the District.

Summary

UNAIDS and the U.S. Centers for Disease Control and Prevention (CDC) have historically defined an HIV epidemic as generalized and severe when the overall percentage of disease among residents exceeds 1 percent. When the distribution of HIV/AIDS cases in the District was examined, the rates of persons living with HIV/AIDS at the end of 2007 were calculated as greater than 1% in all wards, with the exception of Ward 3 (0.3%). Wards 6 and 8 had the highest rate of persons living with HIV/AIDS in the District, with a rate of 2.8% for each ward, respectively. Ward 1 had the highest number of persons living with HIV/AIDS at the end of 2007. These findings are consistent with data reported in the 2007 annual report. When the distribution of HIV/AIDS service providers by ward was mapped in comparison to where the most affected populations were diagnosed, it was observed that although providers are available throughout the city, most of the publicly funded providers are centrally clustered throughout Wards 1, 2, 5 and 6.

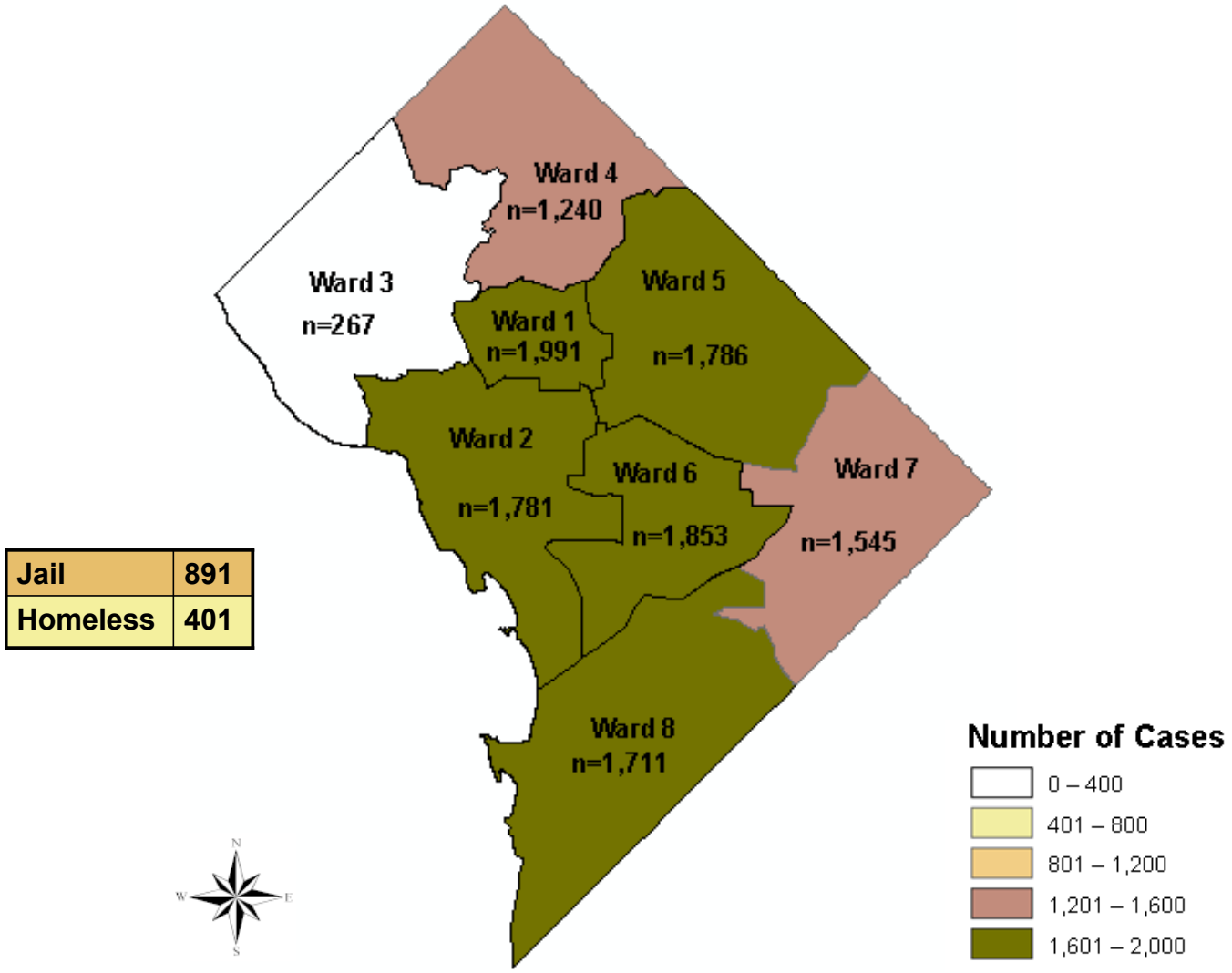
Map 1
Rates of Persons Living with HIV/AIDS among Adults and Adolescents by Ward in the District of Columbia, through 2007



For 19% of cases, ward information was not available and therefore not displayed on this map.

- Of the 15,120 persons living HIV/AIDS at the end of 2007, rates by ward were able to be calculated for 12,174 (80.5%) of cases.
- The rates of persons living with HIV/AIDS by ward at the end of 2007 ranged from 0.3% (Ward 3) to 2.8% (Wards 6 and 8).
- The highest rates of persons living with HIV/AIDS were found among those cases diagnosed in Wards 6 and 8, where the rates were 2.8% for each ward, respectively.
- Although the total numbers of persons living with HIV/AIDS were highest in Wards 1, 5, and 6 (as seen in Map 2), the rates in Map 1 show that Wards 6 and 8 have the highest rates of living HIV/AIDS cases by ward.

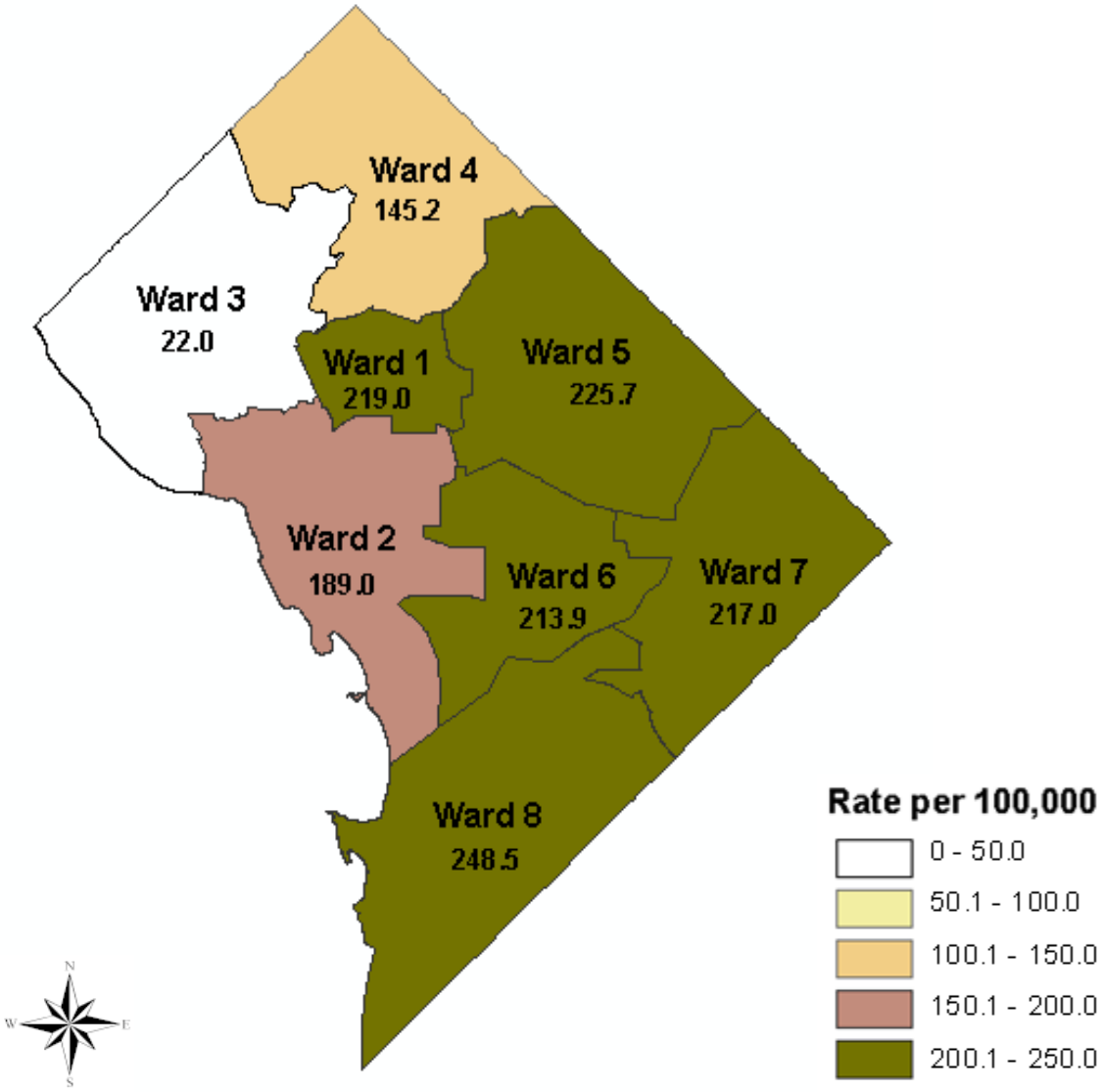
Map 2
Number of Persons Living with HIV/AIDS among Adults and Adolescents by Ward in the District of Columbia, through 2007 (N=13,466)



For 11% of cases, ward information was not available and therefore not displayed on this map.

- Among the 15,120 persons living HIV/AIDS at the end of 2007, 13,466 (89.1%) cases were able to be mapped by ward.
- The number of persons living with HIV/AIDS by ward ranged from 267 (Ward 3) to 1,991 (Ward 1) persons per ward.
- The largest numbers of persons living with HIV/AIDS were diagnosed in Wards 1 (n=1,997), 5 (n=1,786) and 6 (n=1,853).
- Over 1,200 persons living with HIV/AIDS were either in the DC jail (n=891) or homeless (n=401) at the time of diagnosis.
- All of these numbers are consistent with data presented in last year's annual report and have not changed significantly.

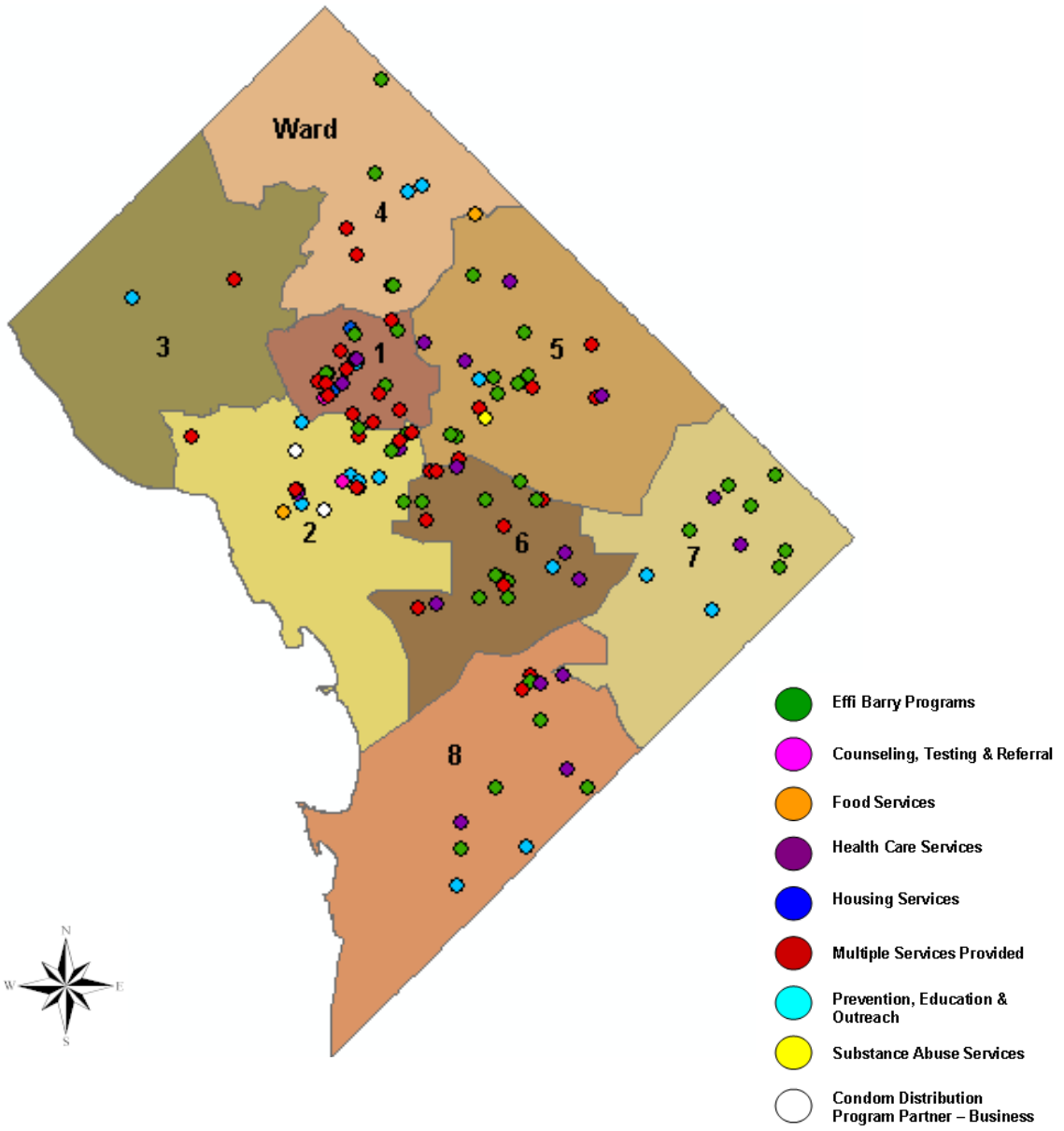
Map 3
Average Annual Rates of Newly Reported HIV/AIDS Cases among Adults and Adolescents by Ward in the District of Columbia, 2003 - 2007 (N=5,869)



For 21% of cases, ward information was not available and therefore not displayed on this map.

- Among the 7,432 newly reported HIV/AIDS cases in the District diagnosed between 2003 and 2007, for 5,869 (79%) cases, an average annual rate by ward was able to be calculated.
- The average annual rate of newly reported HIV/AIDS cases by ward ranged from 22.0 (Ward 3) to 248.5 (Ward 8) cases per 100,000 population.
- The highest rates were found among cases diagnosed in Wards 5 and 8, where the rates were 225.7 and 248.5 cases per 100,000 population, respectively.

Map 4
Geographic Distribution of Directly Supported HIV/AIDS Service Providers in the District of Columbia, at the end of 2008 (N=126)



- Locations of 126 publicly funded HIV/AIDS service providers in the District of Columbia were able to be mapped.
- The largest numbers of providers are located in Wards 1, 2 and 6, with approximately 20 service providers in each ward.

SECTION V. HIV/AIDS AMONG SELECTED SUBPOPULATIONS

This section of the report provides detailed descriptions of the characteristics of living HIV/AIDS cases within select subpopulations. Specifically examined are the three leading mode of transmission subgroups that include men who have sex with men (MSM), heterosexuals, and injection drug users. In addition, youth, as defined by those HIV/AIDS cases that were diagnosed between the ages of 13 to 24, are presented. Finally, HIV/AIDS cases among persons currently 50 and older are described.

Summary

Among living HIV/AIDS cases in the District, the leading modes of transmission reported are MSM sexual contact, heterosexual contact, and injection drug use with 37%, 28%, and 18% of living HIV/AIDS cases attributable to these modes of transmission, respectively. Trends in new AIDS cases presented in Section II of this Report Update (New AIDS Diagnoses in the District) as well as trends in new HIV (not AIDS) cases from the 2007 Annual Report suggest that heterosexual contact is slowly emerging as the leading mode of transmission in recent years.

In the District, MSM has been the predominant mode of transmission for adult and adolescent males of all races. Black MSM living with HIV/AIDS account for the largest proportion of MSM cases, comprising 58% of all MSM cases in the District. By comparison, among living MSM AIDS cases nationally, CDC estimates that black men comprise 29% of MSM cases.

Heterosexual sexual contact was the leading mode of transmission among newly reported HIV cases in the District in the 2007 report. This year, the Update shows us that it is also becoming the leading mode of transmission among newly diagnosed AIDS cases. By sex, 58% of heterosexuals living with HIV/AIDS cases in the District are female compared to 79% of national CDC estimates of living HIV/AIDS cases in states with mature HIV name based reporting systems. In the District, where HIV is a severe epidemic, persons engaging in any type of unprotected sex are at risk for becoming infected. Data from the National HIV Behavioral Surveillance Study (NHBS) which focused on individuals at high-risk for HIV infection will shed light on the behavioral and other risk factors that put DC residents at risk for HIV.

Injection drug use (IDU) has played a significant role in the spread of HIV. Nationally, IDU accounts for 22.0% of all living AIDS cases but only 13.5% of AIDS cases reported among adults and adolescents in 2006. In the District, IDU accounted for 18.2% of living HIV/AIDS cases and 18.1 % of newly reported AIDS cases in 2007. Needle exchange programs have been proven to help reduce the number of new infections. In December 2007, federal regulations prohibiting needle exchange programs in the District of Columbia were removed and the HIV/AIDS Administration began working with local needle exchange programs to promote HIV prevention. In future years, it is anticipated that due to these efforts, there will be a decline in the number of HIV cases attributed to injection drug use.

HIV also has an impact on persons of all ages in the District. According to the CDC, since the beginning of the epidemic, young people have accounted for about 4% of the estimated total of 1,014,797 AIDS diagnoses in the U.S. by the end of 2006. In the District, persons diagnosed between ages 13-24 account for about 8% of living HIV/AIDS cases. MSM and heterosexual sex are the leading modes of transmission among youth, accounting for 38% of the cases each. Youth are of particular concern because the behaviors they adopt today will follow them into adulthood, influencing their risk of HIV infection. Effective prevention strategies targeting youth that delay sexual debut, prevent sexually transmitted disease (STD) transmission, and empower youth to make healthy choices can reduce new HIV infections long term. With high rates of STDs among the District's adolescents, increasing efforts focused on HIV and STD screening paired with sexual health education have been underway. Efforts to reach youth early, before sexual activity, are paramount to having a significant impact in the reduction of new infections.

Older adults represent a third of all living HIV/AIDS cases in the District. Many of these individuals have benefited from advancements in HIV care and in some cases have been living with HIV/AIDS for over a decade. Fifty-seven percent of persons currently 50 and older were diagnosed with HIV/AIDS when they were under the age of 50. Despite persons aging with HIV, there remains a significant number of cases diagnosed among older adults, suggesting the need for prevention messages targeting all age groups. Over 14% of all living HIV/AIDS cases were 50 and older when diagnosed. In older HIV/AIDS cases, the leading modes of transmission are MSM sexual contact at 32%, followed by IDU and heterosexual contact at 27% and 24%, respectively. This sub-population is more heavily impacted by IDU than cases among younger adults and adolescents who are primarily impacted by MSM and heterosexual contact.

"For me the most significant advantage of last year's HIV/AIDS Epidemiology Annual Report was that I could now rely on Health Department data for program planning. I've witnessed the work of the Surveillance staff and Health Department leadership to clean up the data and present a coherent picture that speaks to the epidemic in DC. It is a different era. Years ago, I spent considerable time working with the Health Department to obtain or request data, but now I don't have to, I just go to the website. There are still gaps, but now we have data we can trust."

--Catalina Sol, HIV/AIDS Department Director, La Clinica del Pueblo

I. Heterosexual Contact

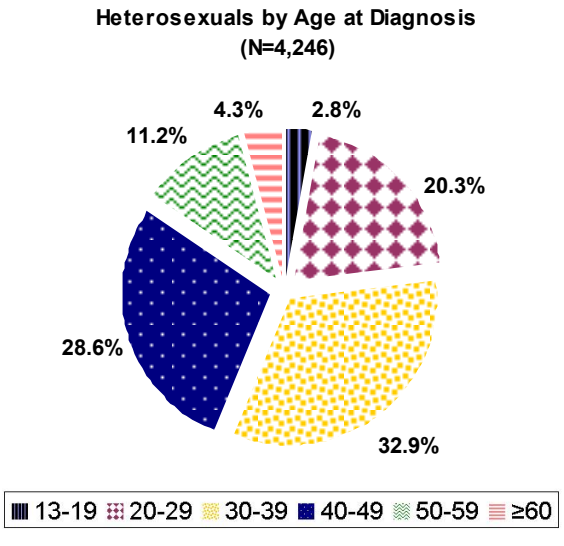
Heterosexual sexual contact is quickly becoming the leading mode of transmission among all HIV/AIDS cases, while already surpassing MSM among newly diagnosed AIDS cases. By sex, 42% of heterosexuals living with HIV/AIDS in the District are male compared to 21% of national CDC estimates of living HIV/AIDS cases in states with mature HIV name-based reporting systems. In the District, which has a severe and generalized HIV epidemic, any and all persons engaging in any type of unprotected sex are at risk for becoming infected.

Table 11. Heterosexuals Living with HIV/AIDS by Race/Ethnicity, Age at Diagnosis, and Sex in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	91	56.2	1,524	40.2	127	57.5	27	37.0	1,769	41.7
Female	71	43.8	2,266	59.8	94	42.5	46	63.0	2,477	58.3
Total	**162**	**3.8**	**3,790**	**89.3**	**221**	**5.2**	**73**	**1.7**	**4,246**	**100.0**
Age at Diagnosis										
13-19	4	2.5	102	2.7	7	3.2	4	5.5	117	2.8
20-29	30	18.5	754	19.9	63	28.5	15	20.5	862	20.3
30-39	60	37.0	1,249	33.0	70	31.7	19	26.0	1,398	32.9
40-49	43	26.5	1,099	29.0	54	24.4	17	23.3	1,213	28.6
50-59	19	11.7	424	11.2	18	8.1	13	17.8	474	11.2
≥60	6	3.7	162	4.3	9	4.1	5	6.8	182	4.3
Total	**162**	**3.8**	**3,790**	**89.3**	**221**	**5.2**	**73**	**1.7**	**4,246**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

Figure 25. Proportion of Heterosexuals Living with HIV/AIDS by Age at Diagnosis and Race/Ethnicity in the District of Columbia, 2007



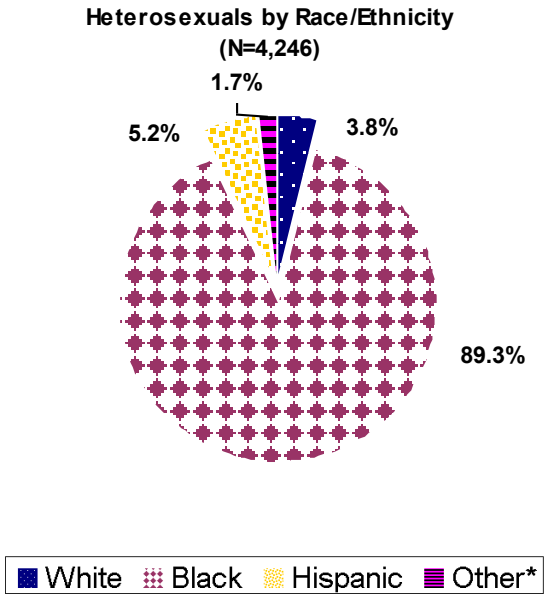
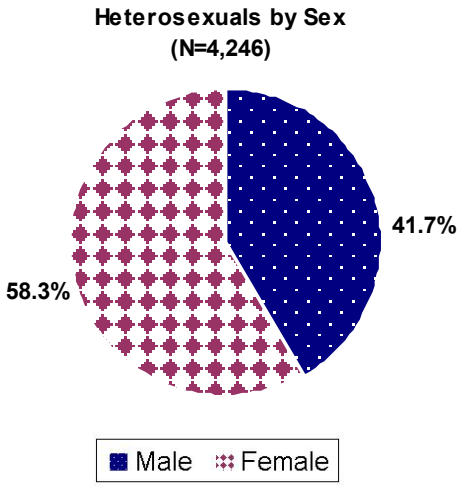


Figure 26. Proportion of Heterosexuals Living with HIV/AIDS by Sex in the District of Columbia, 2007



- Blacks and females are experiencing the greatest number of HIV infections via heterosexual contact.
- The majority of both men and women living with HIV/AIDS and infected by heterosexual contact were diagnosed between the ages of 20 and 49.

"The surveillance report documented what many of us knew and believed that a Heterosexual African-American epidemic was parallel to the Gay HIV epidemic. For the Community Education Group, the report really allowed us to justify and certify the crisis and enable us to receive more funding and resources for the city. The beauty of it is that it also brought attention from other levels and around the country."

--A. Toni Young, Executive Director, Community Education Group

II. Men who Have Sex with Men

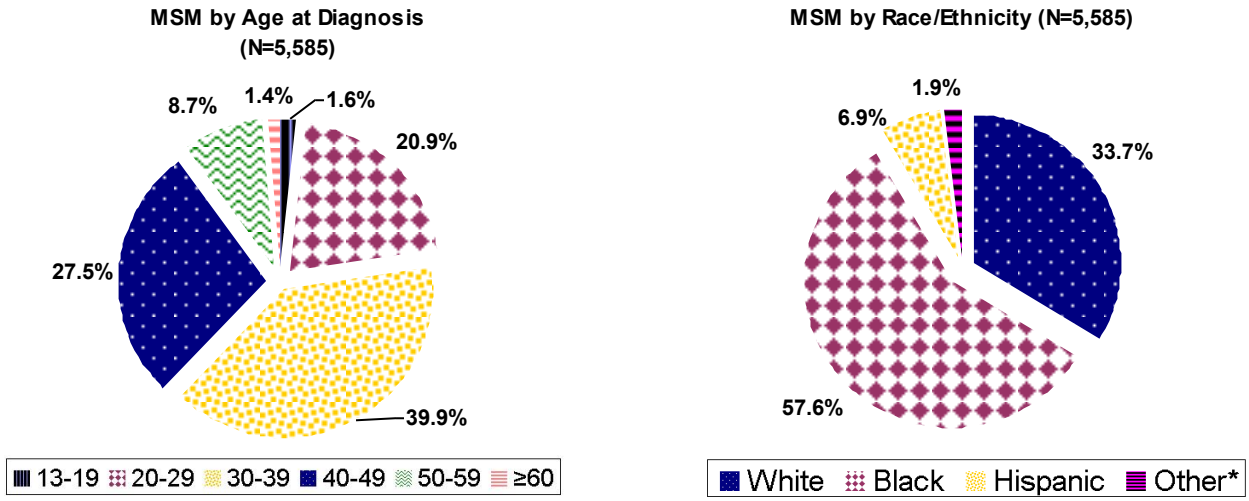
Nationally, MSM has been a leading mode of transmission and CDC estimates that 60% of living adult and adolescent male AIDS cases had been exposed through MSM sexual contact. In the District, MSM was reported for 51% of living adult and adolescent male cases.

Table 12. MSM Living with HIV/AIDS by Race/Ethnicity and Age at Diagnosis in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Age at Diagnosis										
13-19	<3	--	80	2.5	4	1.0	<3	--	88	1.6
20-29	310	16.5	718	22.3	118	30.8	22	21.2	1,168	20.9
30-39	810	43.1	1,200	37.3	169	44.1	47	45.2	2,226	39.9
40-49	563	29.9	884	27.5	65	17.0	26	25.0	1,538	27.5
50-59	176	9.4	280	8.7	24	6.3	6	5.8	486	8.7
≥60	20	1.1	55	1.7	3	0.8	<3	--	79	1.4
Total	**1,881**	**33.7**	**3,217**	**57.6**	**383**	**6.9**	**104**	**1.9**	**5,585**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and

Figure 27. Proportion of MSM Living with HIV/AIDS by Age at Diagnosis and Race/Ethnicity in the District of Columbia, 2007



- In 2007, the majority of MSM living with HIV/AIDS were black and aged between 30 and 39 at the time of diagnosis. White males comprised the second largest proportion of MSM with HIV/AIDS. Together, black and white males constitute 91% of all MSM living with HIV/AIDS.
- The vast majority of MSM (88%) living with HIV/AIDS were between 20 and 49 years old at the time of diagnosis.
- Among black and Hispanic MSM, a greater proportion of HIV/AIDS cases (24.8% and 31.8%, respectively) were diagnosed at an earlier age (under 30 years old) in comparison to white MSM (16.5%).

III. Injection Drug Users

Injection drug use (IDU) has played a significant role in the spread of HIV and needle exchange programs have been proven to help reduce the number of new infections. In December 2007, federal regulations prohibiting needle exchange programs in the District of Columbia were removed and the HIV/AIDS Administration began working with local needle exchange programs. Although the data below may not reflect this ongoing work, in future years, we hope to see a decline in the number of HIV cases attributed to injection drug use.

Nationally, IDU accounts for 22% of all living AIDS cases but only 12% of AIDS cases reported in 2006. In the District, IDU accounted for 18.2% of living HIV/AIDS cases and 18.1 % of newly reported AIDS cases in 2007. Cases among IDU were primarily older adults with less than 10% percent of living HIV/AIDS cases diagnosed among person under the age of 30.

Table 13. IDU Living with HIV/AIDS by Race/Ethnicity, Age at Diagnosis, and Sex in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	47	51.6	1,506	58.5	38	66.7	16	57.1	1,607	58.4
Female	44	48.4	1,070	41.5	19	33.3	12	42.9	1,145	41.6
Total	**91**	**3.3**	**2,576**	**93.6**	**57**	**2.1**	**28**	**1.0**	**2,752**	**100.0**
Age at Diagnosis										
13-19	<3	--	6	0.2	<3	--	<3	--	7	0.3
20-29	10	11.0	209	8.1	7	12.3	3	10.7	229	8.3
30-39	39	42.9	781	30.3	19	33.3	9	32.1	848	30.8
40-49	33	36.3	1,158	45.0	22	38.6	16	57.1	1,229	44.7
50-59	8	8.8	375	14.6	5	8.8	<3	--	388	14.1
≥60	<3	--	47	1.8	3	5.3	<3	--	51	1.9
Total	**91**	**3.3**	**2,576**	**93.6**	**57**	**2.1**	**28**	**1.0**	**2,752**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

Figure 28. Proportion of IDU Living with HIV/AIDS by Age at Diagnosis and Race/Ethnicity in the District of Columbia, 2007

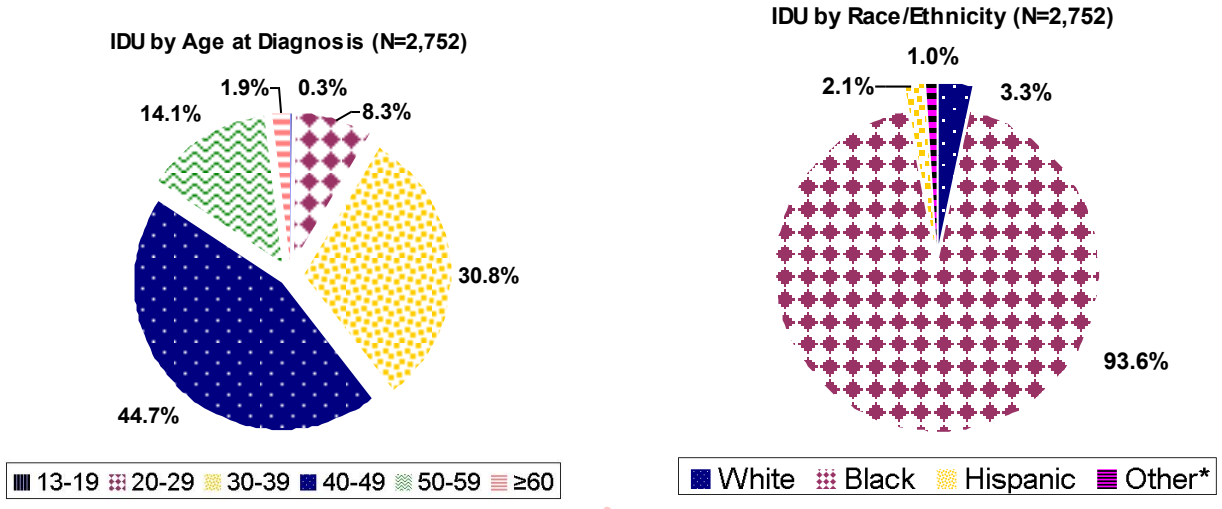
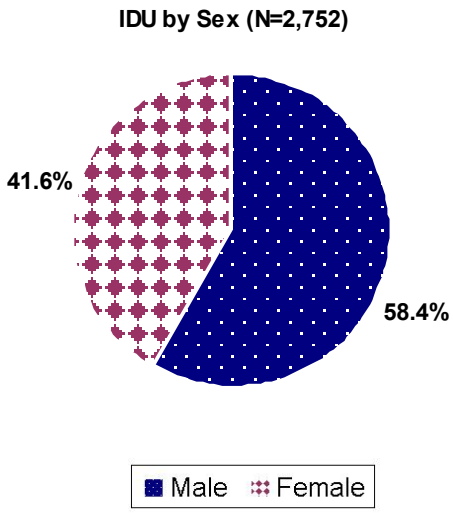
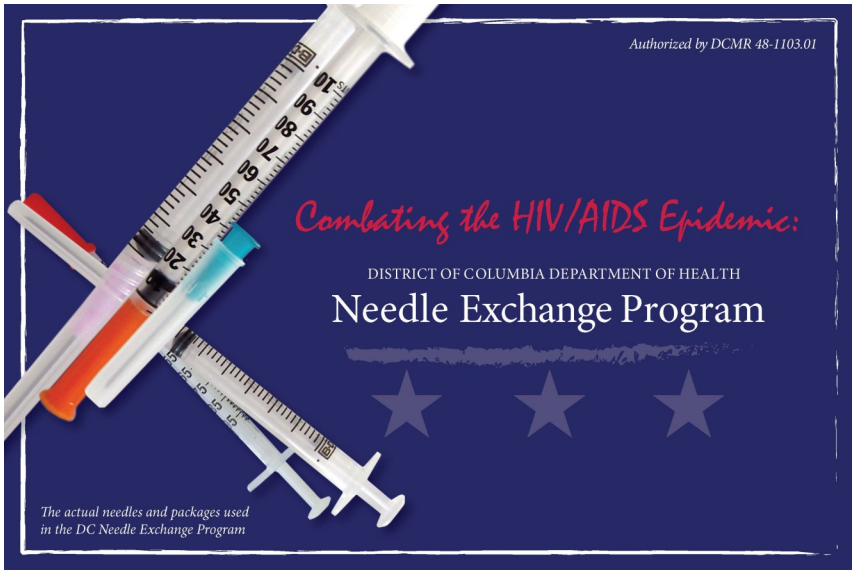


Figure 29. Proportion of IDU Living with HIV/AIDS by Sex in the District of Columbia, 2007



- Unlike persons infected through heterosexual contact, males represent the majority of persons living with HIV/AIDS infected via IDU.
- IDU infections appear to affect a slightly older age demographic than infections acquired through heterosexual contact or MSM. The majority of IDU HIV/AIDS cases are between 40 and 49 years old, with nearly 90% of all IDU infections occurring in persons between 30 and 59 years old.



IV. Youth (ages 13-24 at the time of diagnosis)

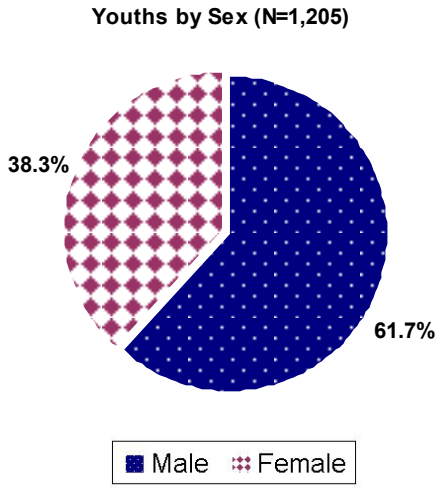
Youth are classified as persons aged 13 to 24 when they were diagnosed with HIV/AIDS. Youth account for less than 15% of living HIV/AIDS cases and primarily acquired HIV/AIDS through either MSM or heterosexual contact. Among 13 to 24 year olds, young people have the lowest prevalence rate at less than 1%. However, rates of sexually transmitted diseases (Chlamydia and gonorrhea) indicate that sexual behavior among adolescents poses a significant risk of later HIV infection. The HIV/AIDS Administration's effort to increase HIV and STD screening paired with sexual health education is showing promising results to reduce infection rates.

Table 14. Youths Living with HIV/AIDS by Race/Ethnicity, Sex, and Mode of Transmission in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	99	86.8	562	57.6	61	82.4	22	53.7	744	61.7
Female	15	13.2	414	42.4	13	17.6	19	46.3	461	38.3
Total	**114**	**9.5**	**976**	**81.0**	**74**	**6.1**	**41**	**3.4**	**1,205**	**100.0**
Mode of Transmission										
MSM	81	71.1	339	34.7	36	48.6	8	19.5	464	38.5
IDU	<3	--	66	6.8	4	5.4	<3	--	71	5.9
MSM/IDU	4	3.5	28	2.9	<3	--	<3	--	36	3.0
Heterosexual contact	15	13.2	410	42.0	22	29.7	11	26.8	458	38.0
Risk not identified	10	8.8	114	11.7	9	12.2	19	46.3	152	12.6
Other**	4	3.5	19	1.9	<3	--	<3	--	24	2.0
Total	**114**	**9.5**	**976**	**81.0**	**74**	**6.1**	**41**	**3.4**	**1,205**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.
**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

Figure 30. Proportion of Youths Living with HIV/AIDS by Sex and Race/Ethnicity in the District of Columbia, 2007



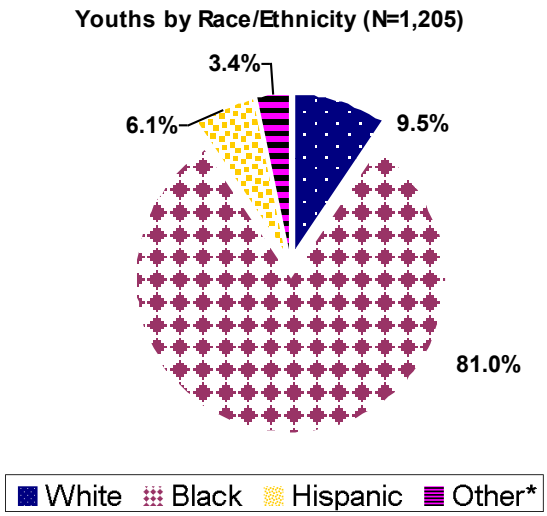
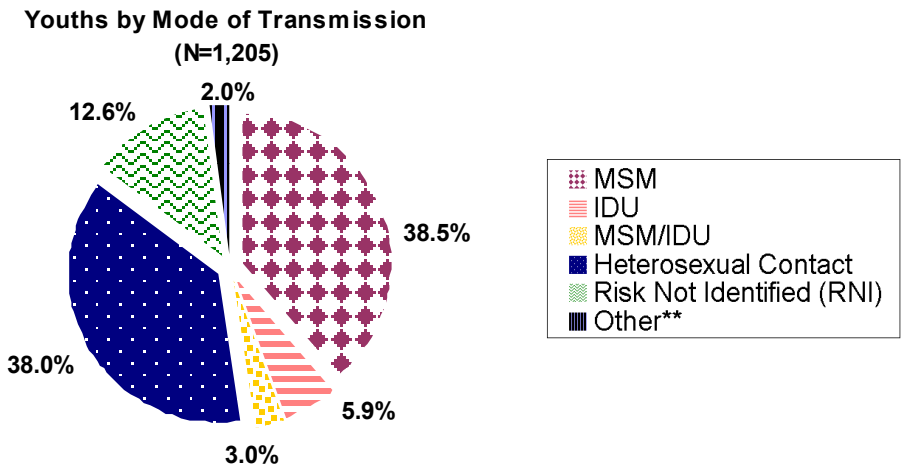


Figure 31. Proportion of Youths Living with HIV/AIDS by Mode of Transmission in the District of Columbia, 2007



**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- The greatest number of infections are occurring among black youths. However, among black youths, infections among males are only slightly higher than among females. Among white and Hispanic youths, males represent the majority of infections, more than 80% in both groups.
- Heterosexual contact and MSM are the two leading modes of transmission for all youth, with approximately the same proportion of cases attributed to each (~38%). However, among white youths, 71% of infections resulted from MSM, with only 13% from heterosexual contact.

V. Older Adults (currently 50 and older)

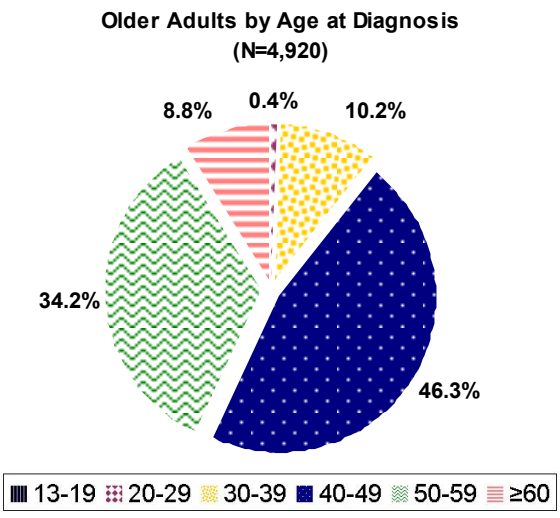
Persons currently over the age of 50 account for a third (32.6%) of the 15,120 living HIV/AIDS cases in the District. Over 14% of all living HIV/AIDS cases were 50 and older when diagnosed with HIV/AIDS. Many of these individuals have been living with HIV/AIDS for a long time and present new challenges to the management of HIV as they develop other conditions associated with aging. Among this group are some persons who have been living with HIV/AIDS for 20 years indicating successes in medical management of HIV.

Table 15. Older Adults Living with HIV/AIDS by Race/Ethnicity, Sex, and Mode of Transmission in the District of Columbia, 2007

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	765	95.7	2,751	71.4	147	81.2	68	76.4	3,731	75.8
Female	34	4.3	1,100	28.6	34	18.8	21	23.6	1,189	24.2
Total	**799**	**100.0**	**3,851**	**100.0**	**181**	**100.0**	**89**	**100.0**	**4,920**	**100.0**
Mode of Transmission										
MSM	628	78.6	864	22.4	75	41.4	21	23.6	1,588	32.3
IDU	35	4.4	1,270	33.0	21	11.6	5	5.6	1,331	27.1
MSM/IDU	13	1.6	150	3.9	8	4.4	<3	--	172	3.5
Heterosexual contact	43	5.4	1,059	27.5	51	28.2	24	27.0	1,177	23.9
Risk not identified	77	9.6	495	12.9	23	12.7	38	42.7	633	12.9
Other**	3	0.4	13	0.3	3	1.7	<3	--	19	0.4
Total	**799**	**100.0**	**3,851**	**100.0**	**181**	**100.0**	**89**	**100.0**	**4,920**	**100.0**
Age at Diagnosis										
20-29	7	0.9	12	0.3	<3	--	<3	--	22	0.4
30-39	144	18.0	335	8.7	21	11.6	4	4.5	504	10.2
40-49	364	45.6	1,797	46.7	80	44.2	36	40.4	2,277	46.3
50-59	244	30.5	1,342	34.8	60	33.1	39	43.8	1,685	34.2
≥60	40	5.0	365	9.5	18	9.9	9	10.1	432	8.8
Total	**799**	**100.0**	**365**	**100.0**	**181**	**100.0**	**89**	**100.0**	**4,920**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.
**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

Figure 32. Proportion of Older Adults Living with HIV/AIDS by Age at Diagnosis and Race/Ethnicity in the District of Columbia, 2007



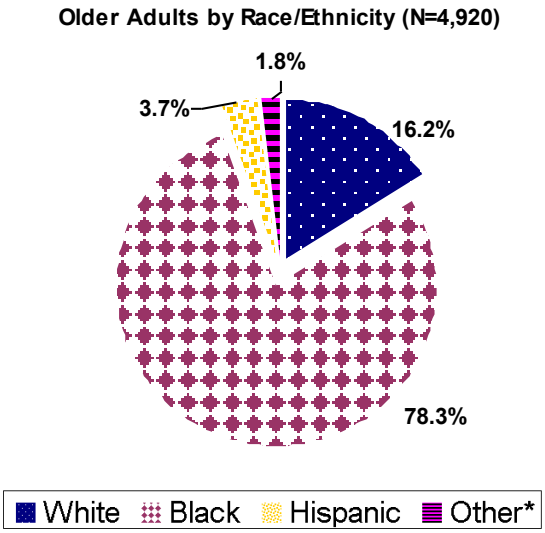
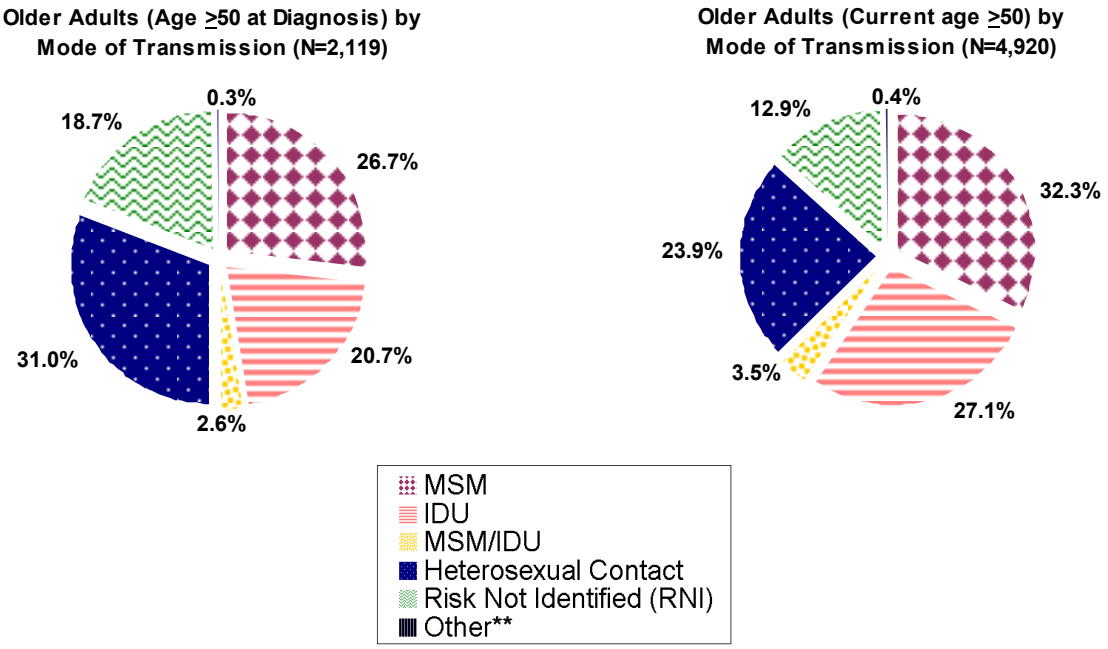


Figure 33. Proportion of Older Adults Living with HIV/AIDS by Mode of Transmission in the District of Columbia, 2007



**Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- Among persons currently 50 and older, 56.9% were under the age of 50 at the time of diagnosis.
- Older adults living with HIV/AIDS in the District are more likely to be black and to report MSM as the mode of transmission.
- The leading mode of transmission in blacks is IDU (33.0%), followed by heterosexual contact (27.5%), followed by MSM (22.4%). By comparison, cases among older whites are more likely to be attributable to MSM (78.6%).
- Among persons diagnosed when they were 50 or older, the leading mode of transmission was heterosexual contact, in comparison among all persons currently 50 or older, MSM is the leading mode of transmission.

SECTION VI. PEDIATRIC CASES

This section focuses on HIV/AIDS among children. Pediatric HIV and AIDS cases are defined as those cases diagnosed before the age of 13. Since the introduction of recommendations to provide antiretrovirals to women during pregnancy, labor and delivery and to the infant in the neonatal period, there has been a 95% reduction in mother to child transmission of HIV nationally. Transmission rates among mothers who receive proper treatment during pregnancy are as low as 1%.

Summary

In 2005, the District had 9% of all reported pediatric cases in the country, far disproportionate to our population. Mayor Fenty charged the HIV/AIDS Administration with eliminating mother-to-child transmission cases by 2009. The Administration has made significant progress in implementing routine prenatal testing and continues to extend outreach to birthing centers and OB/GYNs District-wide.

Only a small number of pediatric cases (fewer than five cases) have been reported since the 2007 annual report data. The cumulative number of cases has decreased compared to last year and these numbers will continue to be revised on an annual basis. Updated data however show that between 2001 and 2007, there were 63 cases of HIV/AIDS cases reported among children diagnosed at less than 13 years of age, of which 42 were HIV only cases. The number of cases diagnosed in a particular year may differ from the previous report due to reclassifications across state jurisdictions and updates on dates of diagnosis.

New this year is an examination of the number of perinatal infections by year of transmission. In 2005, there were ten perinatal transmissions. Just one year later, there was only one perinatal transmission per year for 2006 and 2007. This may be due to increased HIV screening activities as a result of the District's testing campaign in 2006 as well as increased labor and delivery HIV screening.

Among the reported HIV/AIDS cases, the District's pediatric HIV/AIDS epidemic is still primarily attributed to perinatal infections and black children continue to be disproportionately represented. Trends in maternal risk factors for infection have not changed with the majority of mothers not having a risk factor specified followed by heterosexual contact. Lastly, of mother and baby pairs in which transmission occurs, a very low proportion of pairs are getting the recommended three-prong intervention (ARVs during pregnancy, labor and delivery and in the newborn period) despite this being the standard of care for reducing mother-to-child HIV transmission.

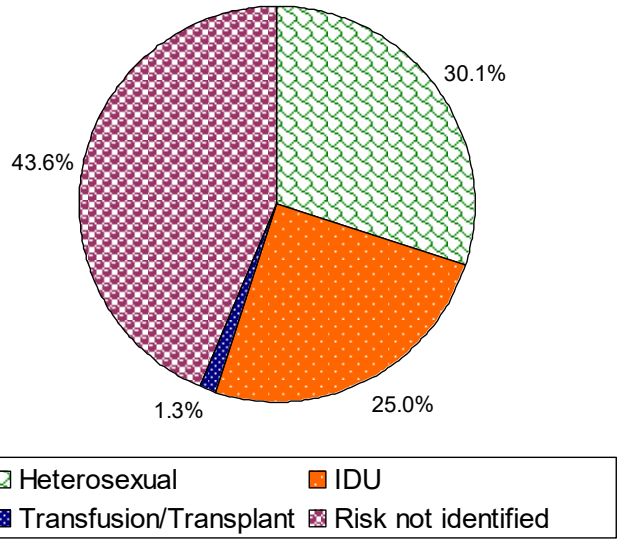
Table 16. Cumulative HIV/AIDS among Children (12 yrs and below) by Mode of Transmission, Sex and Race/Ethnicity in the District of Columbia, 1983 - 2007

Pediatric HIV/AIDS Cases	Cumulative through 2007	
	N	%
Mode of Transmission		
Perinatally acquired	312	93.7
Other**	21	6.3
Subtotal	**333**	**100.0**
Sex		
Male	155	46.5
Female	178	53.5
Subtotal	**333**	**100.0**
Race/Ethnicity		
White	4	1.2
Black	318	95.5
Hispanic	6	1.8
Other*	5	1.5
Total	**333**	**100.0**

*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.
**Other mode of transmission include MSM, transfusion/transplant, and risk not identified.

- Since the beginning of the HIV/AIDS epidemic in the District, 333 cases of HIV/AIDS among children 12 years and younger at the time of diagnosis have been reported. This number is four fewer cases than previously reported due to reassignment of cases based on residence at diagnosis.
- Perinatal transmission (from mother to child) continues to account for the majority of cases and accounted for 93.7% of HIV/AIDS cases among children at the end of 2007. This finding is consistent with national figures which show that an estimated 92% of pediatric living HIV/AIDS cases were perinatally infected.
- Black children also continue to account for the majority (95.5%) of pediatric infections, which is also consistent with the national estimates.

Figure 34. Proportion of Perinatally Acquired HIV/AIDS by Maternal Mode of Transmission in the District of Columbia, Cumulative through 2007 (N=312)

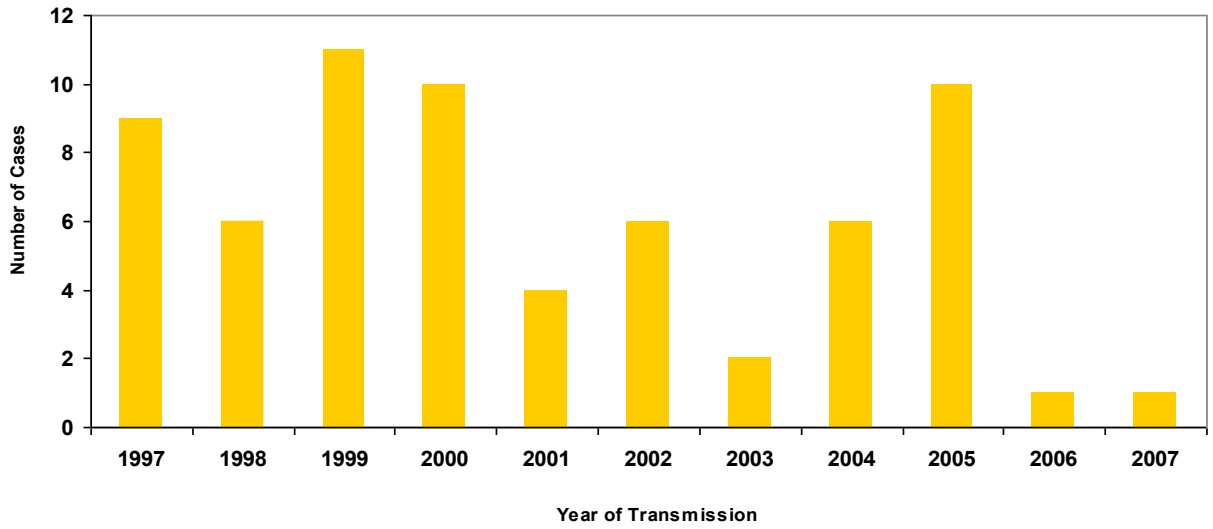


- At the end of 2007, among all perinatally infected children, 30.1% of mothers infected with HIV attributed their infections to heterosexual contact, 25% to IDU, and 43.6% did not have a risk factor for HIV specified.
- Additional efforts to collect maternal risk factor information at the time of the child's diagnosis will assist in reclassifying the high proportion of cases that did not yet have a risk factor specified.

Trends in Perinatal Cases and Infections

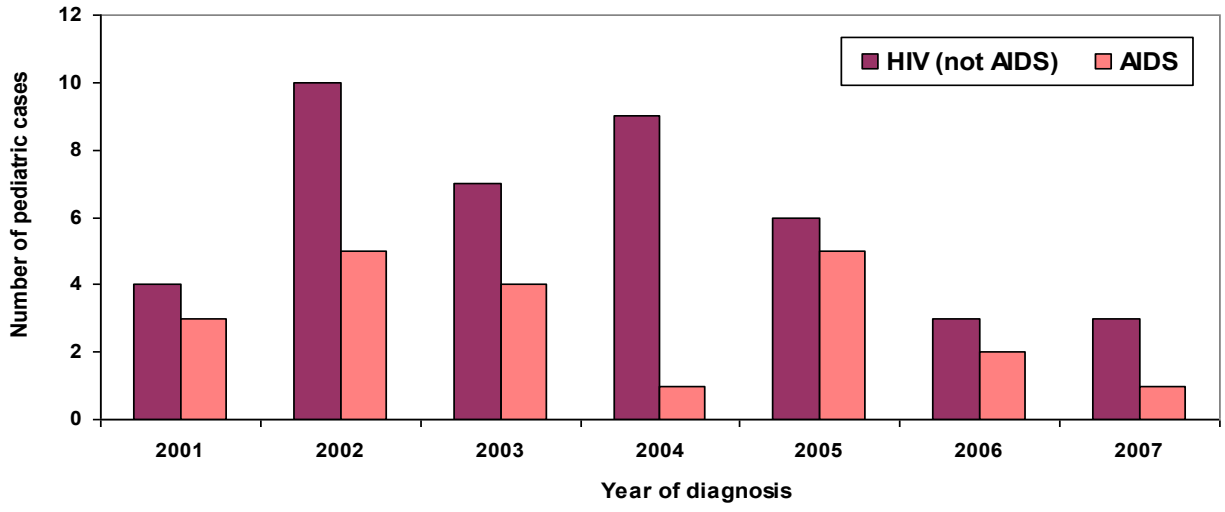
This section provides an updated presentation of perinatal data since the 2007 report. Monitoring perinatal transmission allows for tracking reductions in new mother-to-child transmissions and the impact of interventions. This year, perinatal cases are presented by year of infection corresponding to the year cases were born.

Figure 35. Perinatal Infections by Year of Transmission, 1997-2007 in the District of Columbia (N=66)



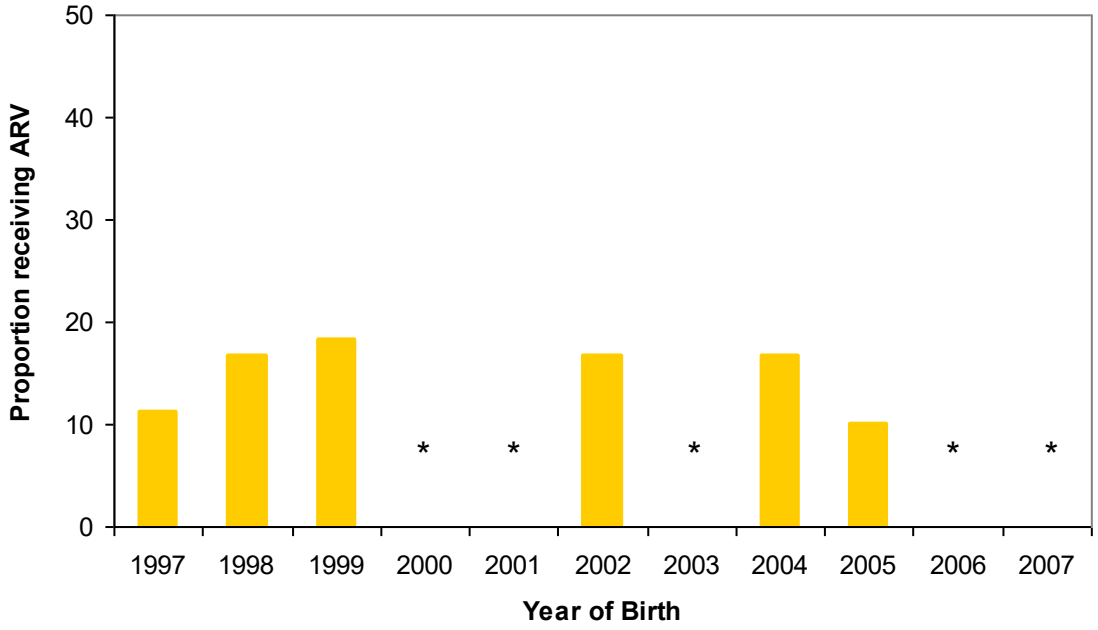
- Perinatal transmissions peaked most recently in 2005 with 10 babies born with HIV. To date only one new infection has occurred per year since 2005.
- Updated data show that between 2001 and 2007 (see figure below), there were 63 cases of HIV (not AIDS) and AIDS cases reported among children diagnosed at less than 13 years of age, of which 42 were HIV (not AIDS) cases.

Figure 36. Pediatric HIV (not AIDS) and AIDS Cases by Year of Diagnosis in the District of Columbia, 2001 - 2007



This figure illustrates the proportion of perinatal pediatric cases in which the mother received prenatal and intrapartum (i.e., during labor and delivery) antiretrovirals (ARVs) and the infant received neonatal (during the first 6 weeks of life) ARV. Ideally, all HIV infected women should receive triple-prong HIV therapy during pregnancy in order to prevent HIV transmission to their babies. The data presented here indicate the failures due to either incomplete or interrupted therapy that may have resulted in perinatal infections. Years with asterisks show that none of the mother-infant pairs received the recommended three-prong ARV therapy regimen needed to prevent transmission that year.

Figure 37. Anti-retroviral Therapy Use among HIV Positive Pregnant Women and their Perinatally Infected Children by Year of Birth for Children Born between 1997-2007 in the District of Columbia



Note: Proportion of HIV+ pregnant women or perinatal infected children who received prenatal, intrapartum, and neonatal ARV. Includes perinatal HIV and AIDS cases.
*Cases did not meet the criteria or information was not available on ARV use.

- Information was available for a total of 66 mother-infant pairs in which the child was perinatally infected.
- The proportion of mother-child pairs in which the child was perinatally infected who received ARV prenatally, intrapartum and in the neonatal period ranged from 10% to 18.2% between 1997 and 2007.

TECHNICAL NOTES

Understanding HIV/AIDS Surveillance for the District of Columbia

HIV/AIDS surveillance has evolved in the District over the past two decades. AIDS reporting began in 1985 in the District as confidential name-based reporting; that is, cases were reported to DOH by name. HIV (not AIDS) surveillance began as code-based (or non-name) reporting in 2001, with HIV (not AIDS) cases reported using a unique identifier code. In November 2006, the District began transitioning from code-based HIV (not AIDS) reporting to confidential, name-based HIV (not AIDS) reporting, as per CDC requirements.

The District of Columbia municipal code (22 DCMR § 206) mandates the reporting of HIV (not AIDS) and AIDS diagnoses. Only reports of confirmed cases are accepted, and anonymous tests are not reported. Surveillance reports for both HIV (not AIDS) and AIDS are received both passively and actively from a variety of sources including hospitals, private physicians' offices, community-based organizations, clinics, and laboratories. Data on AIDS cases are entered into the federally issued HIV/AIDS Reporting System (HARS), and de-identified case information is shared with CDC monthly and used for national surveillance reports. DOH has released data on reported AIDS cases in previous epidemiologic profiles. The last profile was issued in 2006 and included data on AIDS cases through December 2006. Until November 2006, HIV (not AIDS) data were entered into a separate code-based reporting database known as the Unique Identifier System (UIS). These code-based data did not meet CDC reporting requirements for HIV case reporting, and were not accepted by CDC for inclusion in the national HIV surveillance reports. Data from the UIS system has been previously reported by the DOH in the 2006 Annual Report.

An "HIV (not AIDS) case" refers to a person with a diagnosis of HIV infection who has not progressed to AIDS. An "AIDS case" refers to a person with a diagnosis of HIV infection and a later diagnosis of AIDS or a person with a concurrent diagnosis of HIV infection and AIDS. HIV (not AIDS) cases that were previously reported and have since progressed to AIDS are removed from the UIS system and entered into the HARS database. Every effort is made to ensure that cases are not counted twice as both HIV (not AIDS) and AIDS cases.

Transition to confidential name-based HIV reporting

HIV (not AIDS) code-based reporting began in the District in January 2001. A unique identifier was generated for each HIV (not AIDS) report which consisted of a combination of the person's last name, date of birth, sex, and social security number. Effective November 17, 2006, per CDC requirements, the District began implementing HIV reporting by name, which requires both laboratories and providers to report all HIV cases by name to DOH. In addition, laboratories are required to report all viral load tests, CD4 counts, and other tests indicative of HIV infection or an AIDS diagnosis. In this report there are 1,714 code-based HIV cases and 2,096 name-based HIV cases that occurred between 2001 and December 2007. The CDC estimates that in the District, as in other states, reporting of trend data using name-based HIV (not AIDS) reporting takes approximately five years, as the system matures. The District's transition to name-based reporting is now consistent with all other states and jurisdictions that report HIV (not AIDS) cases to the CDC, and will help to better define the HIV epidemic in the District.

The District's code-based reporting system has a number of limitations. As in most other jurisdictions using code-based systems, the District's system was never formally evaluated. For example, the unique identifier code created to report HIV (not AIDS) cases was not evaluated for the uniqueness of the code elements, redundancy, or the completeness of reporting. Moreover, the reported HIV (not AIDS) data are not complete. As a result, there is a potential for duplicative reports both within the code-based HIV (not AIDS) reporting system and between the individual HIV (not AIDS) and AIDS reporting systems. DOH has completed extensive de-duplication efforts, further described below, to remove any potential duplicates identified in its database systems.

HIV/AIDS Surveillance Methods

In the District, HIV/AIDS cases are reported through a combination of active and passive surveillance. The majority of cases are identified through laboratory reports; however, cases are also identified through sources such as medical providers, hospitals, clinics, and community based organizations that provide HIV testing and treatment. Active surveillance requires that DOH field investigators review laboratory reports and medical records to identify cases and complete case report forms. HIV/AIDS cases are also identified through passive reporting, review of death certificates, and reports from other state health departments. In the District, approximately 90% of HIV/AIDS case surveillance consists of active surveillance.

Delays in both HIV (not AIDS) and AIDS case reporting have been observed. In 2005, HAA staff were temporarily displaced due to an environmental incident, and there were significant disruptions to routine surveillance resulting in a large backlog of uninvestigated cases. HAA has since completely eliminated this case investigation and data entry backlog. Nonetheless, it is important to note that adjustments for delays in reporting, such as those performed by the CDC, have not been made to the data presented in this report. Therefore, the number of cases that were reported in recent years, including those in 2005 and 2006, may not reflect all cases diagnoses during that time period. Thus, the number of cases reported, for both HIV (not AIDS) and AIDS, may increase as new reports of cases are received.

HIV (not AIDS) case reporting under the code-based reporting system occurred from January 2001 through November 16, 2006, after which the District transitioned to name-based HIV (not AIDS) reporting. The data in this report are representative of a combination of code-based and name -based reporting

The District also conducts "incidence surveillance" which uses blood specimens from infected individuals to determine whether the individual was infected with HIV within the last 90 days. Incidence surveillance data is aggregated in order to determine trends in HIV infection at a population level. Data on the District's incidence surveillance program are not included in this report, but will be released in subsequent epidemiologic profiles. As a result, the HIV (not AIDS) cases reported in this report are referred to as "new reports" of HIV (not AIDS), since, without the benefit of the incidence surveillance data, we can not state with certainty that these cases represent new HIV infections.

De-duplication of data

Each database has been reviewed for the purpose of de-duplication and cleaning both the HIV (not AIDS) and AIDS data; however, there are existing common concerns which relate to the accuracy of code-based reports as well as with respect to underreporting. Moreover, as mentioned previously, the District's code-based system has never been formally evaluated. Each database has been reviewed for duplicates within the database as well as reviewed for duplicates between databases. Continuous data cleaning occurs and every effort has been made to ensure that each case is only counted once -- either as an HIV (not AIDS) case or as an AIDS case. HAA is confident that approximately 95% of cases were counted only once in each database. This data cleaning process does not, however, address the completeness or accuracy of code-based reporting.

Mode of transmission categories

Seven categories regarding mode of transmission for HIV are used throughout this report, including men who have sex with men (MSM); heterosexual contact; injection drug use (IDU); men who have sex with men and also inject drugs (MSM/IDU); transfusion/transplant; Risk Not Identified (RNI); and other. Definitions of each category can be found at the end of this report in the glossary. With the exception of heterosexual contact, these categories are the same as those routinely used when reporting mode of transmission. Heterosexual contact includes persons who had heterosexual sexual contact with an individual known to have been HIV infected, or to be at high risk for HIV infection (This is equivalent to the CDC "high-risk heterosexual" mode of transmission). In addition, for purposes of this report, the heterosexual contact category also includes persons who reported only heterosexual contact and who had no other identified risk factor for HIV. Also, although CDC redistributes cases with Risk Not Identified (RNI) into other modes of transmission, it has not been done in this report. Due to the small number of pediatric cases (<13 at the time of diagnosis) reported in the last year, this report does not update data for HIV/AIDS among children. This information will be updated in subsequent reports and epidemiologic profiles.

DEFINITIONS

Acquired Immunodeficiency Syndrome (AIDS): A disease of the body's immune system caused by the human immunodeficiency virus (HIV (not AIDS)). AIDS is characterized by the death of CD4 cells (an important part of the body's immune system), which leaves the body vulnerable to life-threatening conditions, including infections and cancers.

Active Reporting: State and local health department surveillance staff collect information by contacting health care practitioners, and reviewing medical records in hospitals, clinics, and doctor's offices.

Adjustments: Statistical calculations that allow the comparison of different groups (when the difference may affect what you are studying) as though they are alike. Differences in populations or subgroups make it difficult to make comparisons; adjustments remove the influence of a specific factor (for example, age, gender, race, or disease status) from the analysis.

Aggregated data: Information, usually summary statistics that may be compiled from personal information, but that is grouped or presented together to prevent the identification of individuals.

AIDS-defining illness: Any of a list of illnesses included that, when occurring in an HIV (not AIDS)-infected person, leads to a diagnosis of AIDS, the most serious stage of HIV (not AIDS) infection. AIDS is also diagnosed if an HIV (not AIDS)-infected person has a CD4 count below 200 cells/mm^3, whether or not that person has an AIDS-defining condition. The United States Centers for Disease Control and Prevention (CDC) published a list of 26 AIDS-defining conditions in 1993, including candidiasis, cytomegalovirus disease, Kaposi's sarcoma, mycobacterium avium complex, pneumocystis carinii pneumonia, recurrent pneumonia, progressive multifocal leukoencephalopathy, pulmonary tuberculosis, invasive cervical cancer, and wasting syndrome.

Analysis data, datasets, or database: A dataset created by removing personal data (for example, names, addresses, ZIP codes, and telephone numbers) so the record or records cannot be linked to an individual, but still allows the remaining data to be analyzed.

Antiretroviral therapy: Treatment with drugs that inhibit the ability of retroviruses (such as HIV (not AIDS)) to multiply in the body. The antiretroviral therapy recommended for HIV (not AIDS) infection is referred to as highly active antiretroviral therapy (HAART), which uses a combination of medications to attack HIV (not AIDS) at different points in its life cycle.

Average: The sum of a set of data divided by the number of cases.

Case: In epidemiology, a countable instance in the population or study group of a particular disease, health disorder, or condition under investigation, such as HIV (not AIDS) infection (for example, an HIV (not AIDS) case) or AIDS (for example, an AIDS case). A case may be an individual with the particular disease.

CD4 Cell: Also known as helper T cell or CD4 lymphocyte. A type of infection-fighting white blood cell that carries the CD4 protein receptor on its surface. CD4 cells coordinate the immune response, signaling other cells in the immune system to perform their special functions. The number of CD4 cells in a sample of blood is an indicator of the health of the immune system. HIV (not AIDS) infects and kills CD4 cells, leading to a weakened immune system.

CD4 Cell Count: A measurement of the number of CD4 cells in a sample of blood. The CD4 count is one of the most useful indicators of the health of the immune system and the progression of HIV/AIDS. A CD4 cell count is used by health care providers to determine when to begin, interrupt, or halt anti-HIV (not AIDS) therapy; when to give preventative treatment form opportunistic infections; and to measure response to treatment. A normal CD4 cell count is between 500 and 1,400 cells/mm^3, but an individual's CD4 count can vary. In HIV (not AIDS)-infected individuals, a CD4 count at or below 200 cells/mm^3 is considered an AIDS-defining condition.

Census: The enumeration of an entire population, usually with details being recorded on residence, age, sex, occupation, ethnic group, marital status, birth history, and relationship to head of household.

Centers for Disease Control and Prevention (CDC): An agency of the United States Department of Health and Human Services that is charged with protecting the health and safety of citizens at home and abroad.

Code-based Reporting: HIV (not AIDS) case reporting under the code-based era occurred from January 2001 through November 16, 2006 in the District of Columbia. The unique identifier code consists of a combination of the letters and number of letters in the last name, social security number, sex, and date of birth.

Core Surveillance: The primary source of population-based data on persons living with HIV/AIDS. Includes the number of annual cases of HIV (not AIDS) diagnosed; the prevalence of persons living with HIV (not AIDS) infection; and HIV (not AIDS)-related (including AIDS) morbidity and mortality in adults, adolescents, and children; perinatal exposure to HIV (not AIDS) and HIV (not AIDS) infection; access to care in HIV (not AIDS)-infected populations; and changes in trends of HIV (not AIDS) transmission.

Cumulative cases: The total number of cases of a disease reported or diagnosed during a specified time. Cumulative cases can include cases in people who have died.

Cumulative incidence rate: The total number of persons who experience the onset of a disease during a specified period of time among all people at risk for the disease. A cumulative incidence rate is calculated by dividing cumulative incidence for a specified period by the population in which cases occurred during that period. A multiplier is used to convert the resulting fraction to a number over a common denominator (often 100,000).

Data cleaning: A standard practice commonly employed to improve the usability, quality, integrity, completeness, and accuracy of information collected in a database system.

Demographic information: The "person" characteristics – age, sex, race, and occupation – of descriptive epidemiology used to characterize the populations at risk.

Denominator: The lower portion of a fraction used to calculate a rate or ratio. In a rate, the denominator is usually the population (or population experience, as in person-years, etc.) at risk.

Epidemic: A disease that has spread rapidly through a segment of the human population in a given geographic area.

Epidemiologic follow-up: The investigative process for obtaining additional information on a reported HIV/AIDS case.

Epidemiologic profile: See HIV/AIDS epidemiologic profile.

Epidemiology: The branch of medical science that studies the occurrence, distribution, and control of disease, injury, or health in human populations, and the application of this study to the prevention and control of health problems.

Estimate: In situations in which precise data are not available, an estimate may be made on the basis of available data and an understanding of how the data may be generalized to larger populations. In some instances, national or state data may be statistically adjusted to estimate local conditions. Good estimates are accompanied by statistical estimates of error (a confidence interval), which describe the limitations of the estimate.

Exposure: Contact with an infectious agent or other substance, or possession of a characteristic that is suspected to influence the risk of developing a particular disease.

Graph: A way to show quantitative data visually, using a system of coordinates.

Hemophilia: An inherited disorder of the blood clotting process that causes excessive and sometimes spontaneous bleeding; requires numerous transfusions of clotting factors, some of which, if required precautions have not been taken, may be contaminated by the HIV (not AIDS) virus.

Highly Active Antiretroviral Therapy (HAART): The name given to treatment regimens that aggressively suppress HIV (not AIDS) replication and progression of HIV (not AIDS) disease. The usual HAART regimen combines three or more anti-HIV (not AIDS) drugs.

HIV (not AIDS): See "Human Immunodeficiency Virus".

HIV/AIDS epidemiologic profile: A document that describes the HIV/AIDS epidemic in various populations in defined geographic areas, and identifies characteristics of the general population, HIV (not AIDS)-infected populations, and non-infected (and untested) persons whose behavior places them at risk for HIV (not AIDS) infection. It consists of information gathered to describe the effect of HIV/AIDS on an area in terms of socio-demographic, geographic, behavioral, and clinical characteristics. The epidemiologic profile serves as the scientific basis from which HIV (not AIDS) prevention and care needs are identified and prioritized for a jurisdiction.

HIV/AIDS surveillance: The systematic data collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a diagnosis of HIV (not AIDS) infection and persons with a diagnosis of AIDS.

HIV (not AIDS) diagnosis date: The earliest date at which HIV (not AIDS) infection was diagnosed from either a positive confirmatory laboratory test result or, in the absence of laboratory documentation, a documented physician diagnosis date.

HIV (not AIDS) disease: Any signs, symptoms, or other adverse health effects of HIV (not AIDS).

HIV (not AIDS) positive: A test result that indicates that antibody to the virus is found in the blood. This test does not predict whether the person will become ill with AIDS; however, it may indicate that one is contagious and capable of passing the virus on to others.

HIV/AIDS surveillance: The systematic collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a diagnosis of HIV (not AIDS) infection and persons with a diagnosis of AIDS. HIV/AIDS surveillance programs monitor the HIV/AIDS epidemic, and provide factual information that is critical to planning, setting priorities for, and funding HIV (not AIDS) prevention, care, and treatment.

Human Immunodeficiency Virus (HIV (not AIDS)): The virus that causes the Acquired Immunodeficiency Syndrome (AIDS). HIV is in the retrovirus family, and two types have been identified: HIV-1 and HIV-2. HIV-1 is responsible for most HIV infections throughout the world, while HIV-2 is found primarily in West Africa. Individuals with HIV in their system are referred to as HIV (not AIDS) infected.

Incidence: The number of new cases of a disease in a defined population during a specific period of time, often one year, which can be used to measure disease frequency. It is important to understand the difference between HIV (not AIDS) incidence and reported HIV (not AIDS) diagnoses. The number of new HIV (not AIDS) diagnoses does not necessarily reflect trends in HIV (not AIDS) incidence (that is, new infections) because some individuals will have been infected recently while others will have been infected some time in the past. Further, because the results of anonymous tests are not reported, not all diagnoses of HIV (not AIDS) infection are included in HIV/AIDS surveillance data. Therefore, surveillance data do not represent incident cases.

Incidence Rate: The frequency of new cases of a disease that occur per unit of population during a defined period of time – such as the rate of new cases per 100,000 population in the District of Columbia.

Incidence Surveillance: Provides estimates of the number of newly-acquired HIV (not AIDS) infections. Includes the collection and testing of diagnostic blood specimens from newly reported HIV (not AIDS) infections; calculation of population-based estimates of HIV (not AIDS) incidence using HIV (not AIDS) testing information; and monitoring HIV (not AIDS) strains for resistance to anti-retroviral drugs.

Infection: The establishment of an infectious micro-organism, such as bacteria, fungi, protozoa, or viruses, in the body. The term is also used to refer to disease caused by an infectious micro-organism.

Injection-drug users: Individuals who have ever used needles to inject illicit drugs.

Interpretation: The explanation of the meaning of the data. For example, interpreting a trend in the number of HIV (not AIDS) cases diagnosed during a five-year period enables a planning group to assess whether the number of cases has increased or decreased.

Intrapartum: The time period spanning labor and delivery.

Mode of transmission: The means by which HIV (not AIDS) is transmitted from one individual to another. It describes how an individual may have been exposed to HIV (not AIDS), such as injecting drug use, male-to-male sexual contact, or heterosexual sexual contact.

Mortality: The total number of persons who have died of a particular disease. Usually expressed as a rate, mortality (total number of deaths over the total population) measures the effect of the disease on the population as a whole.

Mother-to-Child Transmission: The passage of HIV (not AIDS) from an HIV (not AIDS)-infected mother to her infant. The infant may become infected while in the womb, during labor and delivery, or through breastfeeding.

Name-based Reporting: The District of Columbia transitioned from code-based to name-based HIV (not AIDS) reporting in November 2006. Confidential name-based reporting is done through laboratory reports; however, cases are also identified through reporters such as medical providers, hospitals, clinics and community based organizations that provide HIV (not AIDS) testing and treatment.

Neonatal: The time period from birth through the first four weeks after birth.

Numerator: The upper portion of a fraction.

Passive reporting: Health care practitioners, hospitals, clinics, and laboratories report cases of HIV/AIDS to state and local health departments.

Pediatric HIV/AIDS: The medical specialty concerned with the development, care, and treatment of children living with living HIV/AIDS from birth through adolescence.

Percentage: A proportion of the whole, expressed as parts per 100.

Perinatal: The time period spanning shortly before and after birth.

Perinatal transmission: The passage of HIV (not AIDS) from an HIV (not AIDS)-infected mother to her infant. The infant may become infected while in the womb, during labor and delivery, or through breastfeeding.

Population: The total number of inhabitants of a given area or country. In sampling, the population may refer to the units from which the sample is drawn, not necessarily the total population of people.

Prevalence: The total number of people in a population affected with a particular disease or condition at a given time. Prevalence can be thought of as a snapshot of all existing cases of a disease or condition at a specified time.

Prevalence rate: The total or cumulative number of cases of a disease per unit of population during a defined period of time, such as the rate of AIDS cases per 100,000 population diagnosed through December 31, 2006, in the District of Columbia or the EMA.

Proportion: A portion of the complete population or data set, usually expressed as a fraction or percentage of the population or data set.

Provider: Any source of HIV/AIDS surveillance information, such as physician, nurse, dentist, pharmacist, or other professional provider of health care or a hospital, health maintenance organization, pharmacy, laboratory, STD clinic, TB clinic, or other health care facility that forwards data into the surveillance system.

Public health uses of surveillance data: The principal public health uses of HIV/AIDS surveillance data at state and federal levels is for epidemiologic monitoring of trends in disease incidence and outcomes. This includes collection of data and evaluation of the collection system, as well as the reporting of aggregate trends in incidence and prevalence by demographic, geographic, and behavioral risk characteristics to assist the formulation of public health policy and direct intervention programs.

Range: The difference between the largest and smallest values in a data set.

Rate: A measure of the frequency of an event or a disease compared with the number or persons at risk for the event or disease.

Ratio: A way of showing the relative size of two numbers. The first number is divided by the second number to derive the ratio. The ratio may be expressed as fraction; for example, 2/3, or the two numbers may be separated by a colon; for example, 2:3.

Reliability: Refers to the consistency and dependability of a data-collection instrument or measure. For example, if you repeat a blood test three (3) times on the same specimen and the results are the same each time, the test is said to be reliable.

Reporting delay: The time between a diagnosis of HIV (not AIDS) infection or AIDS and the receipt of the report by the health department.

Risk: The probability that an event will occur; for example, that an individual will become ill or die within a stated period of time or age.

Risk factor: An aspect of personal behavior or lifestyle, an environmental exposure, or an inborn or inherited characteristic that is associated with an increased occurrence of disease or other health-related event or condition.

Risk Not Identified (RNI): Cases in which epidemiologic follow-up has been conducted and sources of data have been reviewed, which may include an interview with the provider, but no mode of exposure has been identified. Any case that continues to have no reported risk for twelve (12) or more months after the report date is considered RNI.

Sex: The biological state of maleness or femaleness determined at birth, as opposed to "gender," which is a psychosocial construct.

Sexually Transmitted Disease (STD): Any infection spread by the transmission of organisms from person to person during sexual contact.

Sociodemographic factors: Background information about a population of interest; for example, age, sex, race, educational status, income, and geographic location. These factors are often thought of as explanatory because they help to make sense of the results of analyses.

Socioeconomic status: A measure of social and economic factors that helps to describe a person's standing in society (for example, income level, relationship to the national poverty line, educational achievement, neighborhood of residence, home ownership).

Statistics: The collection, analysis, interpretation, and presentation of quantitative (numerical) data.

STD: See sexually transmitted disease.

Stratification: A technique for dividing data into homogenous groups (strata).

Surveillance (public health surveillance): The continuous, systematic collection, analysis, interpretation, dissemination, and evaluation of population-based health information for purposes of disease prevention and control.

Surveillance data: Statistics generated from disease surveillance in either paper or electronic format.

Surveillance information: Details collected on an individual or individuals for completing routine or special surveillance investigations. Examples of HIV/AIDS surveillance information are the HIV/AIDS report forms, ancillary notes about risk investigations and related questionnaires, notes about suspect cases, laboratory reports, line lists, discharge summaries, death certificates, and drug data stores.

Table: A set of data arranged in rows and columns.

Trend: A long-term movement or change in frequency, usually upward or downward; may be presented as a line graph.

Variable: Any characteristic or attribute that can be measured.

Virus: A microscopic organism that requires a host cell to make more copies of itself. Examples of human diseases caused by virus infections are AIDS, measles, mumps, polio, influenza, and the common cold.

Vital statistics: Systematically tabulated information about births, marriages, divorces, and deaths, based on registration of these events.

Year of diagnosis: The year in which a diagnosis of HIV (not AIDS) infection or AIDS was made.

Year of report: The year in which a person with a diagnosis of HIV (not AIDS) infection or AIDS was reported to the health department.

Definitions for Opportunistic Infections

Cancer: Burkitt's Lymphoma, Cervical cancer, Immunoblastic lymphoma, Kaposi's sarcoma, Primary lymphoma of the brain

Fungal: Candidiasis of the esophagus, Candidiasis of the lungs, Coccidioidomycosis, Cryptococcosis, Histoplasmosis

Low CD4 only†: AIDS diagnosis based on CD4 count below 200 cells/ul

Other diagnoses: Dementia, Progressive multifocal leukoencephalitis

Other infections: Recurrent pneumonia, *Salmonella septicemia*

Parasitic: Cryptosporidiosis, Isosporiasis, Toxoplasmosis of brain

PCP: *Pneumocystis carinii pneumonia*

TB/Mycobacteria: Atypical mycobacteria diagnosed, *Mycobacterium avium* complex, *Mycobacterium tuberculosis*, Pulmonary tuberculosis

Viral: Chronic mucocutaneous herpes, Cytomegalovirus disease, Cytomegalovirus retinitis

Wasting: Wasting syndrome

†This is an AIDS defining diagnosis (not opportunistic infection)

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