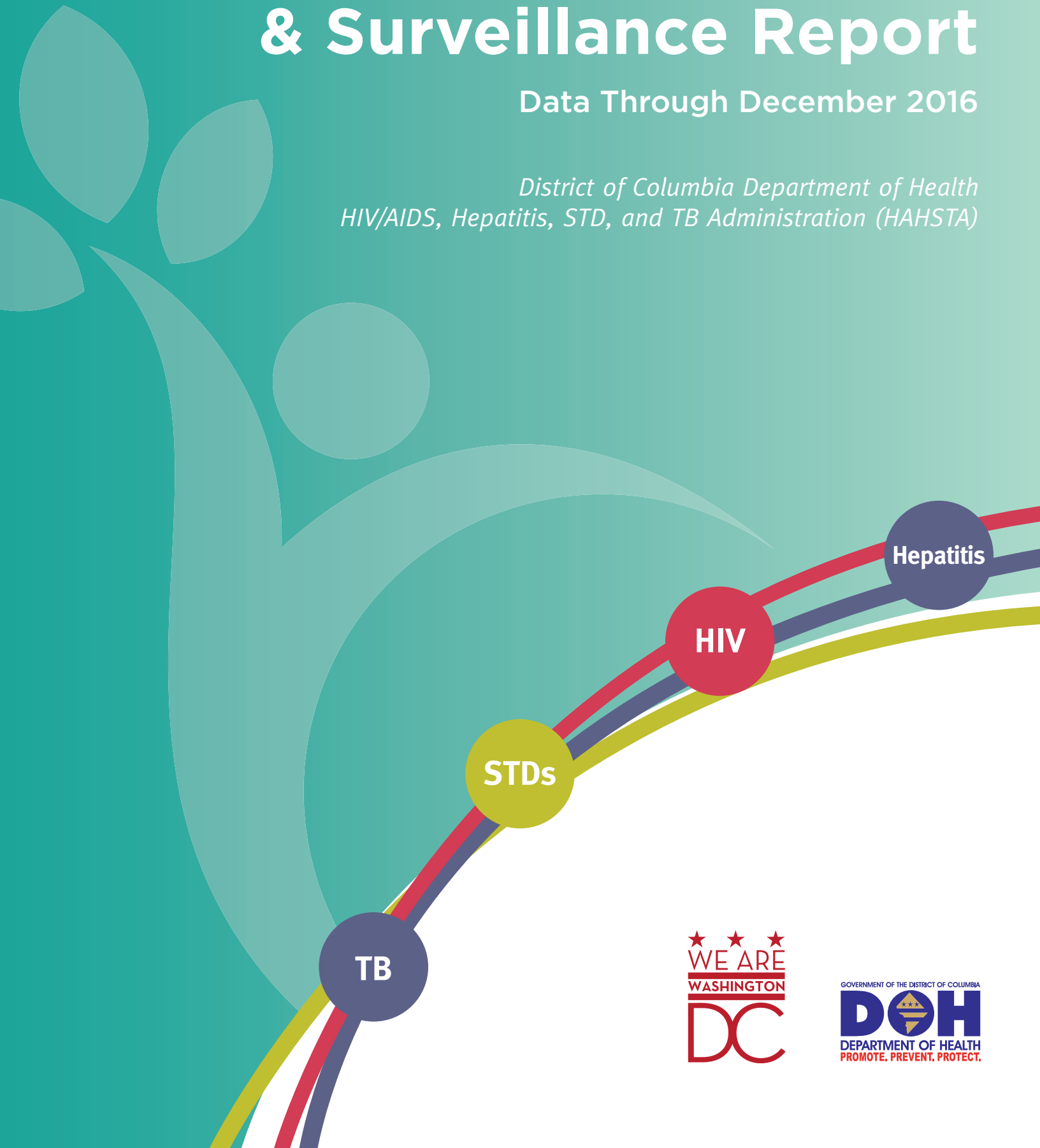
Annual Epidemiology & Surveillance Report

Data Through December 2016

District of Columbia Department of Health
HIV/AIDS, Hepatitis, STD, and TB Administration (HAHSTA)



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Acknowledgments

This report was compiled through the combined efforts of many individuals in the District of Columbia Department of Health's HIV/AIDS, Hepatitis, STD, and Tuberculosis Administration, with major contribution from the Milken Institute School of Public Health at George Washington University. This report would not have been possible without the hard work, dedication, and contribution of health care providers, community groups, researchers, and members of the community.

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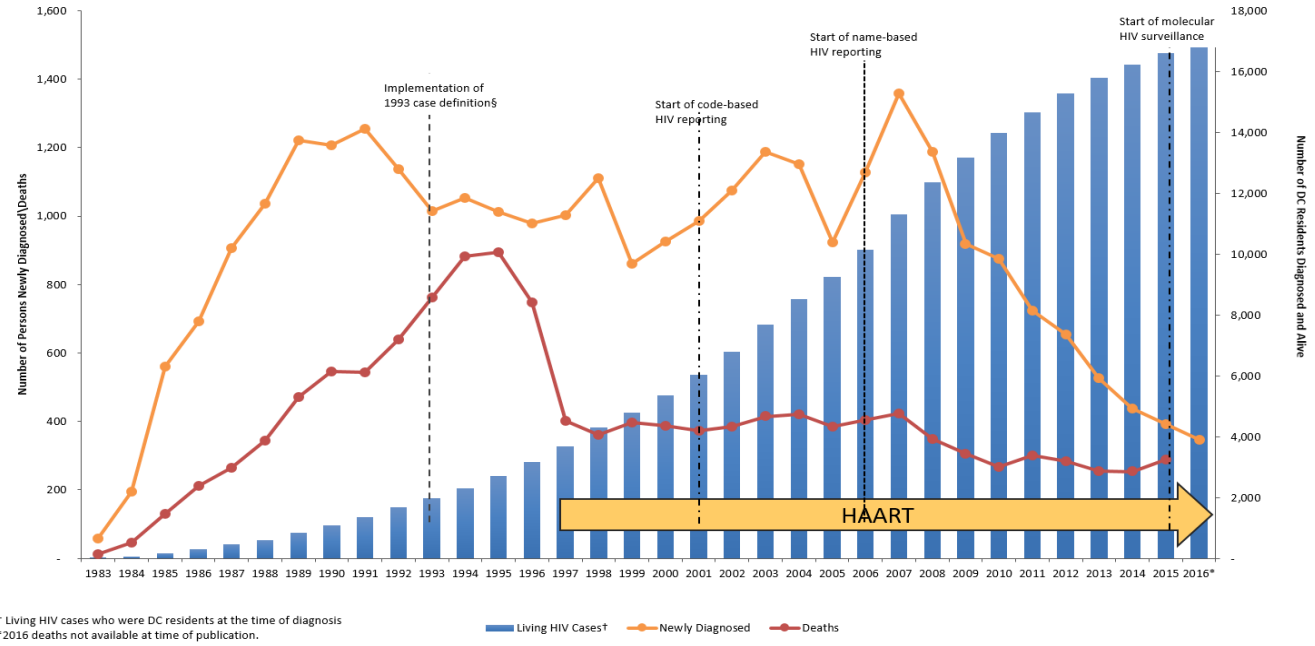
Executive Summary

The Annual Epidemiology and Surveillance Report for the District of Columbia shows the District continues to make progress on addressing the epidemics of HIV, Sexually Transmitted Diseases (STDs), Hepatitis, and Tuberculosis (TB). The Department of Health (DOH) reports that the number of new HIV cases decreased for the ninth consecutive year. The District also maintained encouraging efforts to reduce TB. With the advances in cure treatments, the District is developing a framework to eliminate hepatitis C. The District continues to experience high rates of STDs that necessitates new strategies to avert potential health consequences.

Figure E1. Newly Diagnosed HIV Disease Cases, Deaths, and Living HIV Cases, by Year, District of Columbia, 1983-2016



† Living HIV cases who were DC residents at the time of diagnosis
*2016 deaths not available at time of publication.

In December 2016, Mayor Bowser released the 90/90/90/50 Plan Ending the HIV Epidemic in the District of Columbia by 2020 developed by DOH in a public-private partnership with the DC Appleseed Center and Washington AIDS Partnership. The Plan contains 42 tasks and seven demonstration projects to achieve the goals of 90% of HIV-positive District residents to know their status, 90% of District residents diagnosed with HIV to be on treatment and 90% of District residents living with HIV who are in treatment to reach viral load suppression contributing to a 50% reduction in new HIV infections. The Plan focuses on increasing routine and targeted testing, accelerating initiation of treatment medication, enhancing supports to maintain consistent treatment, expanding access for Pre-Exposure Prophylaxis and addressing social and health equity factors of housing, stigma, wellness, education, employment and insurance to ensure success. This report documents that the District is making headway on the goals. DOH and DC Appleseed will be preparing a status report on the plan in December 2017. Subsequent Annual Reports will also update the District's advances on the Plan's goals.

While this report presents steps forward on the Plan's goals and improved health outcomes, the District maintains significant rates of HIV, STDs, hepatitis and TB. Health disparities also remain a significant feature of the epidemics in the District. In particular, blacks are disproportionately impacted by HIV, chlamydia, and

gonorrhea; black gay or bisexual men and black women have the highest rates of new HIV diagnoses; Hispanics/Latino have a higher proportion of new HIV diagnoses; and adolescents and young people have higher rates of chlamydia and gonorrhea than adults.

New In this Report

Molecular HIV Surveillance: The aim of molecular HIV surveillance and epidemiology is to better understand the connections between medications and genetic traits to ensure the effectiveness of treatment regimens and the connections of genetic traits and behavioral factors in HIV transmission among networks of people. For the first time, this report contains data on the patterns of medication resistance among persons living with HIV. The District has a diverse epidemic with many genetic varieties of HIV. Changes in resistance, sometimes attributable to inconsistent medication use, can potentially undermine the effectiveness of the medications among persons living with HIV. DOH is also partnering with District researchers on understanding the dynamics of how HIV is passed from one person to another by analyzing genetic variations in the virus. .

Hepatitis C Cure Cascade: For the past years, DOH has developed a cascade or continuum on HIV that encompasses persons diagnosed, linked to treatment and achieving viral load suppression. For the first time, DOH has developed a preliminary framework for a hepatitis C cure cascade to understand the numbers of persons who received treatment and were cured. This is a very limited snapshot based on partial data. However, this is a start that DOH will enhance into a fuller assessment of how the District is progressing to eliminate hepatitis C among residents.

Populations: Improving strategies to reduce the impact of HIV, STDs, hepatitis and TB requires an understanding of how populations are experiencing those conditions. This report includes sections on women, men who have sex with men, Hispanics/Latino, Transgender Persons, young people, older adults, and persons who inject drugs.

HIV Behavioral Surveillance: This report primarily contains a description or snapshot of the numbers of persons experiencing HIV, STDs, hepatitis and TB. DOH conducts regular studies to better understand the behavioral factors related to the three primary modes of HIV transmission — heterosexual contact, men who have sex with men contact and injection drug use. This report includes key findings of the three most recent studies on knowledge of HIV status, testing, condom use, knowledge of partner status, needle sharing and other substance use.

Epidemiological Summary

Key points in this surveillance update of the District epidemics in the year 2016 include:

- 12,964 current residents of the District of Columbia or 1.9% of the population are living with HIV. The estimated prevalence rate of 1.9% exceeds the World Health Organization definition of 1% as a generalized epidemic.
- The number of newly diagnosed HIV cases in the District decreased to 347 cases in 2016, a decline of 52% from 720 cases in 2011 and 73% from 1,333 cases in 2007.
- There was one baby born with HIV in 2016.
- The number of newly diagnosed HIV cases attributable to injection drug use decreased by 95% from 149 cases in 2007, prior to the scale up of DC's needle exchange program, to 7 cases in 2016.
- Blacks and Hispanics with HIV exceed 1% of their respective populations, with blacks disproportionately impacted at 3.1%.
- Men who have sex with men and heterosexual contact are the two leading transmission modes reported among

newly diagnosed and identified HIV cases.
- The majority of persons diagnosed with HIV at stage 3 initially improved significantly to stages 1 or 2 within 12 months.
- There were 8,569 cases of chlamydia, 3,797 cases of gonorrhea and 181 cases of primary and secondary syphilis reported in 2016.
- There were 1,406 persons newly diagnosed and reported with hepatitis C in 2016.
- There was a 32% decrease in new TB cases from 37 in 2012 to 25 in 2016.

HIV Care Continuum

DOH tracks the District's efforts to improve the care continuum for persons living with HIV to sustain their health from diagnosis to linkage and retention in care. The care continuum measures persons linked to care, received care and viral load suppression. Surveillance data includes all persons known to be living in the District. DOH administers the Ryan White CARE Program that serves nearly half of all persons living with HIV in the District. Consistent viral suppression ensures a strong immune system, healthier outcomes for persons living with HIV and does not transmit HIV to other persons. The District saw these improvements:

- 80% in 2015 to 81% in 2016 of persons linked to care within 3 months of diagnosis.
- 73% in 2015 to 76% in 2016 of persons in medical care.
- 57% in 2015 to 63% in 2016 of persons with viral load suppression.
- Among Ryan White clients, 88% retained in care, 95% prescribed treatment and 79% virally suppressed in 2016.

Scaling Up Success

The District Government and its community partners continue to scale up programs to reduce the impact of HIV, STDs, hepatitis and TB on residents of Washington, DC. These successes are the most recent achievements by the District.

- Publicly supported 145,146 HIV tests in 2016.
- Distributed more than 6 million male and female condoms in 2016.
- Supported more than 1,000 persons to obtain Pre-Exposure Prophylaxis (PrEP) in 2016 through DOH funding.
- Removed 803,596 needles from the street in 2016 through the DC needle exchange programs.
- Provided free STD testing for 6,248 youth ages 15 to 19 years old through the school based STD screening and community screening programs in 2016.
- Provided HIV medical care and support services to 8,526 persons through the Ryan White Program.

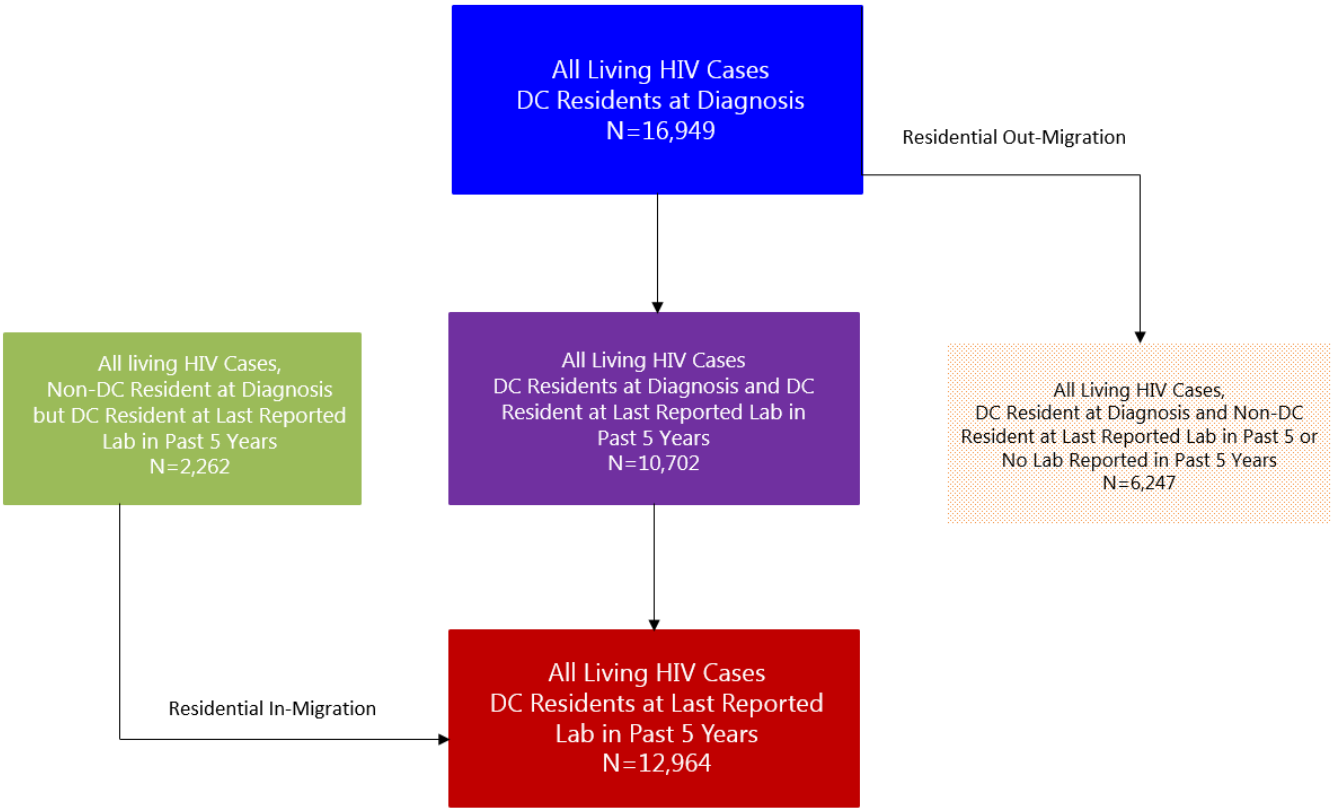
Table E1. HIV Wellness and Prevention Measures of the 90-90-90-50 Plan, 2016

HIV Wellness and Prevention Measures	2015	2016	2020 Goal
Goal #2: 90% of District Residents living with HIV are in treatment	73%	76%	80%
Goal #3: 90% of District residents living with HIV who are in treatment reach viral suppression	78%	82%	90%
Goal #4: 50% reduction in new HIV diagnoses	392	347 (11% below 2015)	196

Section 1. HIV Cases Living in DC

In 2016, this report, for the first time, devised a methodology to more accurately count the number of persons diagnosed with HIV actually living in the District as compared to previous reports that contained data of the cumulative number of known living individuals diagnosed with HIV that were residents of the District at the time of diagnosis. The new methodology is repeated here. As presented in Figure 1, the number of all diagnosed stands at 16,949. Figure 1 accounts for new HIV diagnoses among current District residents, reported deaths among those previously diagnosed, and the residential migration of HIV positive individuals in and out of the District over time. The report uses residence at last lab to more accurately assess the number of individuals diagnosed with HIV living within the District (Figure 1). This methodology not only provides a better foundation for understanding the extent of HIV within the District, but also an improved baseline from which to evaluate the population coverage of HIV prevention and care activities.

Figure 1. People Living with HIV in the District of Columbia as of December 31, 2016



New Approach to Assessing HIV Burden

Figure 1 provides a schematic for understanding the assumptions and population dynamics underlying the estimation of the number of individuals diagnosed with HIV currently living within the District. Of the 16,949 individuals diagnosed with HIV while a District resident, approximately 37% (n=6,247) were presumed to have moved outside of the jurisdiction prior to the end of 2016, as evidenced by a non-District residential address on their last reported laboratory report or the lack of any reported laboratory information for more than 5 years. In addition to the impact of this residential out-migration on the number of persons with HIV in the District, laboratory

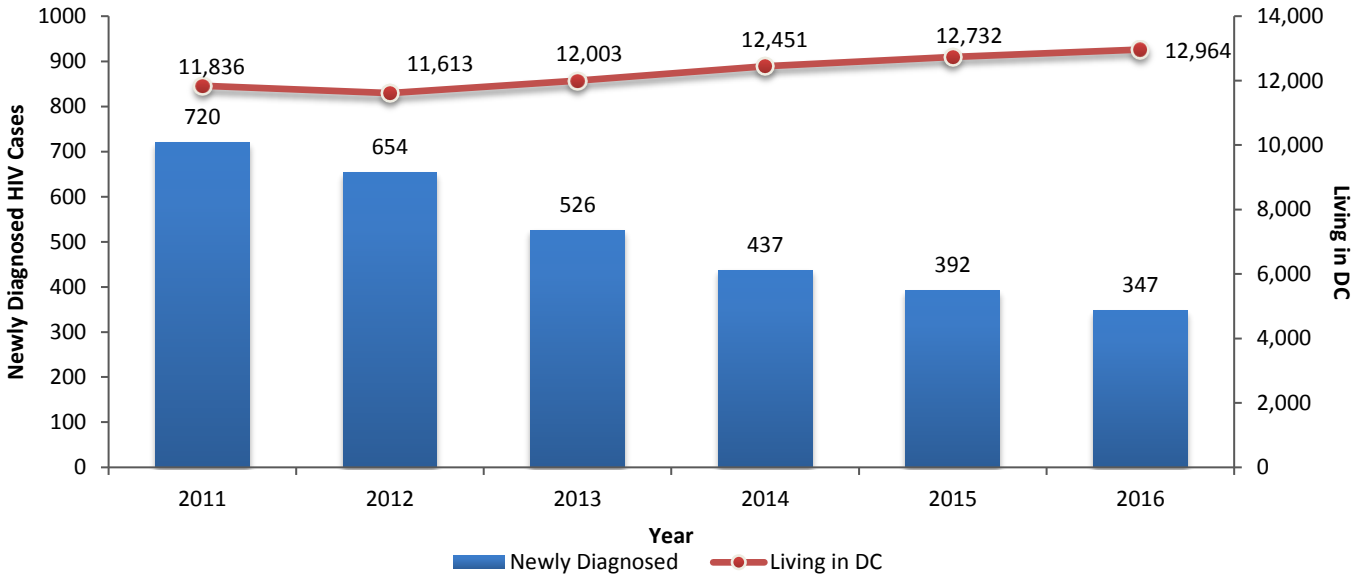
data was also utilized to conversely assess the number of individuals diagnosed with HIV while a resident of other jurisdictions that have moved into the District over time. In examining the last documented residential address on individual laboratory reports, 2,262 individuals initially diagnosed with HIV outside of the jurisdiction were identified as currently living in the District. As indicated in Figure 1, after adjusting the initial count of all living HIV cases for the migration of individuals in and out of the jurisdiction over time, an estimated 12,964 individuals diagnosed with HIV were presumed to be living in the District at the end of 2016. Detailed characteristics of HIV positive individuals based on residential migration status since diagnosis are included in **appendix tables B1 and B2**. HAHSTA expects further refining of this estimation from improved data sharing processes with surrounding jurisdictions and additional information sources are ascertained for assessing the completeness and accuracy of residential address information.

Summary

The World Health Organization defines generalized HIV epidemics as those in which the prevalence of HIV is greater than 1% in the overall population. As of December 31, 2016 there were 12,964 residents of the District of Columbia living with HIV; this number accounts for approximately 1.9% of the population and is indicative of a continued generalized epidemic.

District residents aged 40 years and over continue to be disproportionately impacted by HIV. Approximately 3.7% of residents whose current age is 40 to 49 years and 5.2% of residents aged 50 to 59 years are living with HIV. Blacks still account for the majority of people living with HIV in the District. At the end of 2016, 3.1% of black residents were living with HIV, with the highest burden of disease among black males (4.4%). Approximately 1.2% of Hispanic/Latino residents and 0.9% of white residents were living with HIV. Please refer to appendix **tables B1-B4** for additional information regarding HIV cases living in the District and alive as of December 31, 2016.

Figure 2. Newly Diagnosed HIV Cases, Deaths, and Living HIV Cases by Year
District of Columbia, 2012-2016



- At the end of 2016, there were 12,964 residents that were living with HIV in the District, accounting for 1.9% of all DC residents.
- There has been a 51.8% decrease in the number of cases diagnosed and reported from 2011 to 2016.

Table 1. HIV Cases Living in the District and Alive as of December 2016: Rates per 100,000 by Gender Identity, Race/Ethnicity, and Current Age

	Total Living HIV Cases, 2016		Estimated DC Population†, 2015		Rate per 100,000
Gender Identity	N	%	N	%	
Male	9,352	72.1	318,601	47.4	2,935.3
Female	3,395	26.2	353,627	52.6	960.1
Transgender‡	217	1.7	N/A	N/A	N/A
Total	12,964	100.0	672,228	100.0	1,928.7
Race/Ethnicity					
White	2,076	15.8	242,981	36.1	854.4
Black	9,670	75.0	313,925	46.7	3,080.4
Hispanic/Latino	884	6.6	71,128	10.6	1,242.8
Other*	334	2.6	44,194	6.6	755.8
Total	12,964	100.0	672,228	100.0	1,928.7
Male					
White	2,016	21.6	121,181	38.0	1,663.6
Black	6,295	67.3	142,439	44.7	4,419.4
Hispanic/Latino	762	8.1	36,034	11.3	2,114.7
Other*	279	3.0	18,947	5.9	1,472.5
Total	9,352	100.0	318,601	100.0	2,935.3
Female					
White	48	1.4	121,800	34.4	39.4
Black	3,193	94.1	171,486	48.5	1,862.0
Hispanic/Latino	108	3.2	35,094	9.9	307.7
Other*	46	1.4	25,247	7.1	182.2
Total	3,395	100.0	353,627	100.0	960.33
Transgender‡					
White	12	4.6	N/A	N/A	N/A
Black	182	70.0	N/A	N/A	N/A
Hispanic/Latino	14	5.4	N/A	N/A	N/A
Other*	9	3.5	N/A	N/A	N/A
Total	217	100.0			
Current Age					
<13	22	0.2	92,375	13.7	23.8
13-19	60	0.5	47,386	7.0	126.6
20-24	331	2.6	59,997	8.9	551.7
25-29	908	7.0	78,205	11.6	1,161.1
30-39	2,452	18.9	128,369	19.1	1,910.1
40-49	2,963	22.9	80,198	11.9	3,694.6
50-59	3,957	30.5	75,794	11.3	5,220.7
≥60	2,268	17.5	109,904	16.3	2,063.6
Missing	3	0.0	N/A		N/A
Total	12,964	100.0	672,228	100.0	1,928.66

Source: 2015 US Census Estimates

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

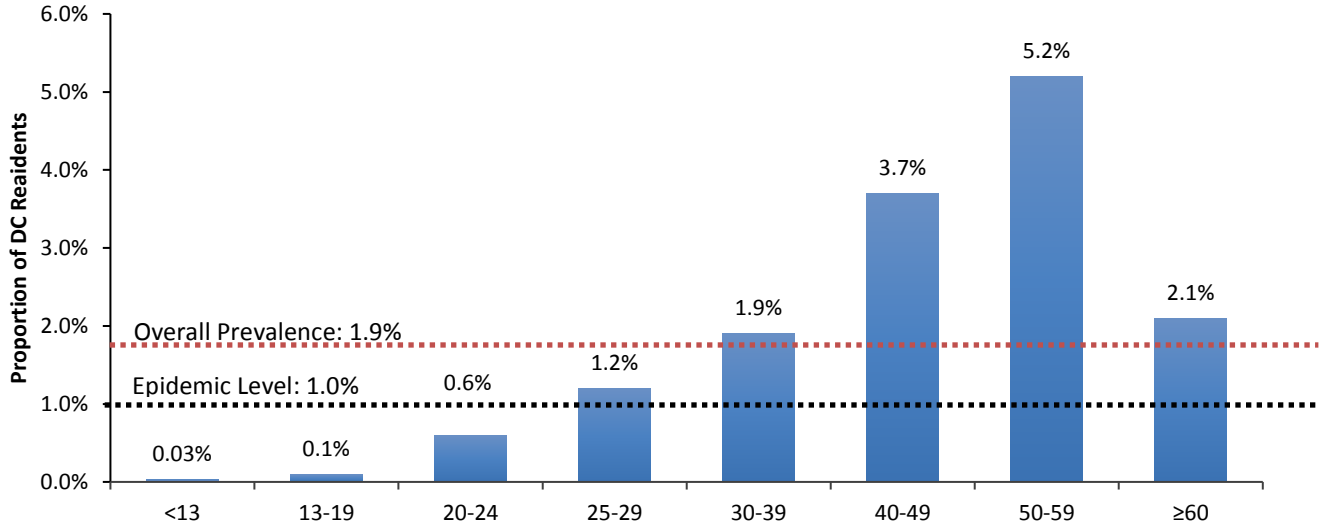
‡Population data on Transgender individuals are not collected by the US Census, therefore prevalence rates are not able to be calculated.

- Men accounted for less than half (47.4%) of District residents, but almost three-quarters (72.1%) of HIV cases living in DC. Although blacks accounted for just under half (46.7%) of District residents, they account

for three quarters (75.0%) of all HIV cases living in DC.

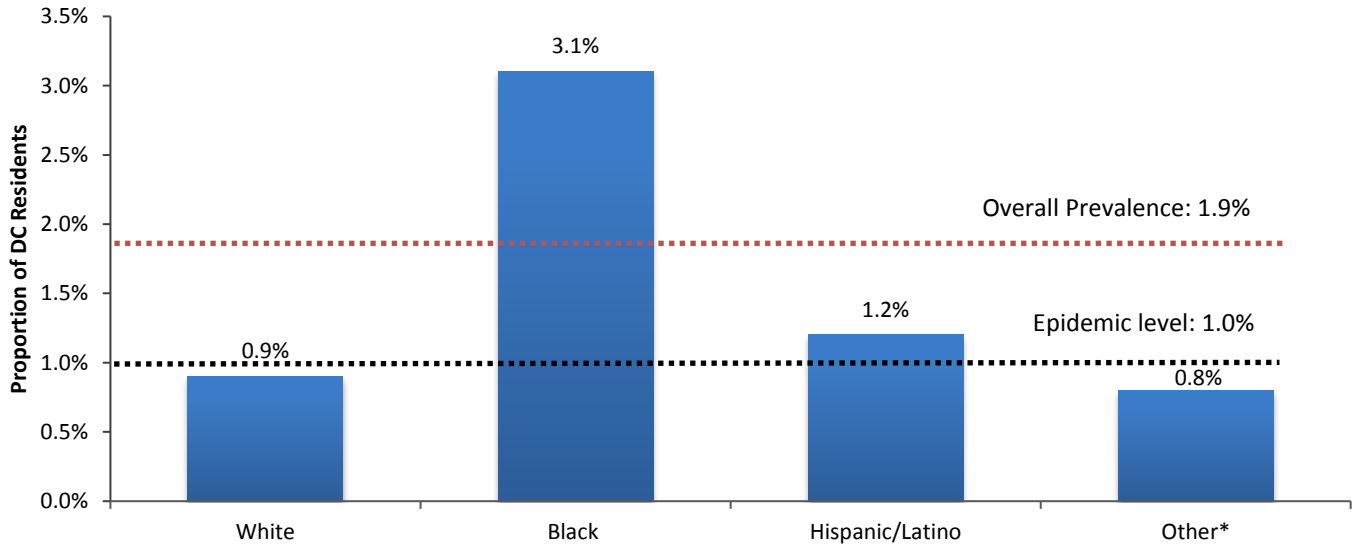
- Among women, black women accounted for the majority (94.1%) of HIV cases living in DC.
- Majority of transgender cases were black (83.9%).
- District residents between 40 and 49 years of age and 50 and 59 years of age have the highest rates of HIV at 3,694.6 and 5,220.7cases per 100,000 persons, respectively.

Figure 3. Proportion of HIV Cases Living with HIV in DC, by Current Age, District of Columbia, 2016



- Residents aged between 40 to 49 and 50 to 59 had the highest burden of HIV in the District at 3.7% and 5.2%, respectively. DC residents under the age of 13 had the lowest HIV prevalence at the end of 2016.

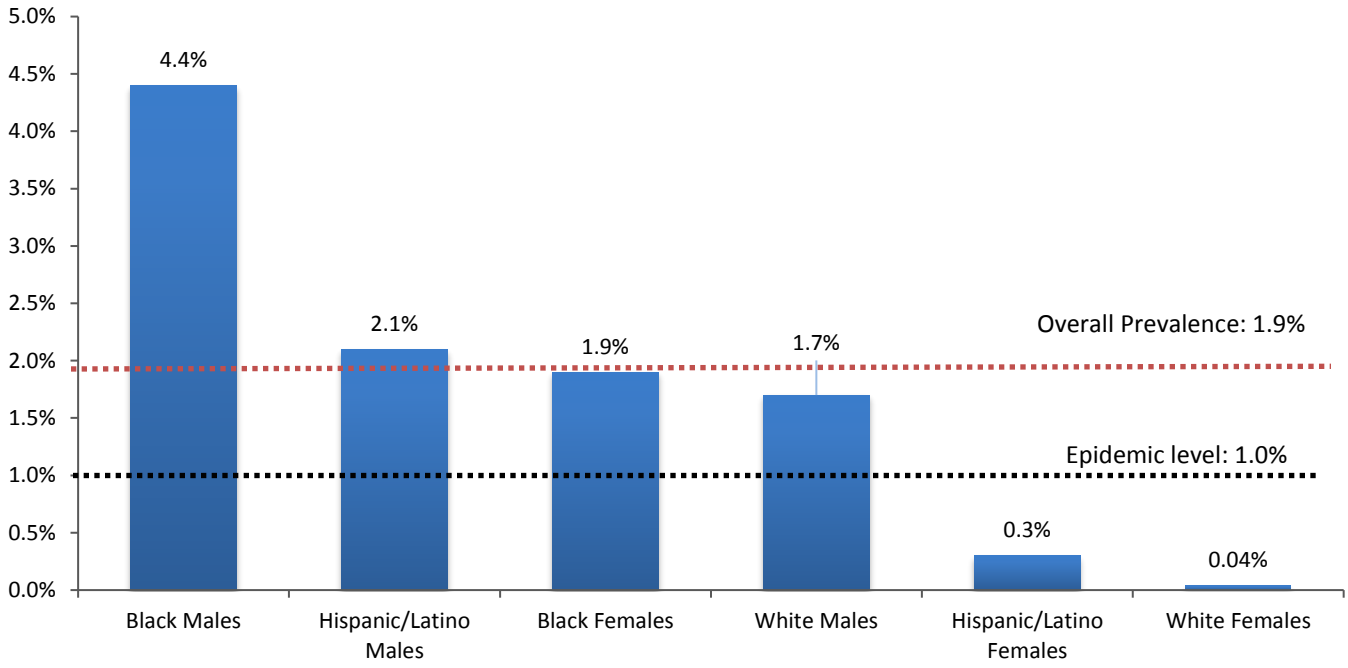
Figure 4. Proportion of Residents Diagnosed and Living with HIV by Race/Ethnicity, District of Columbia, 2016



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

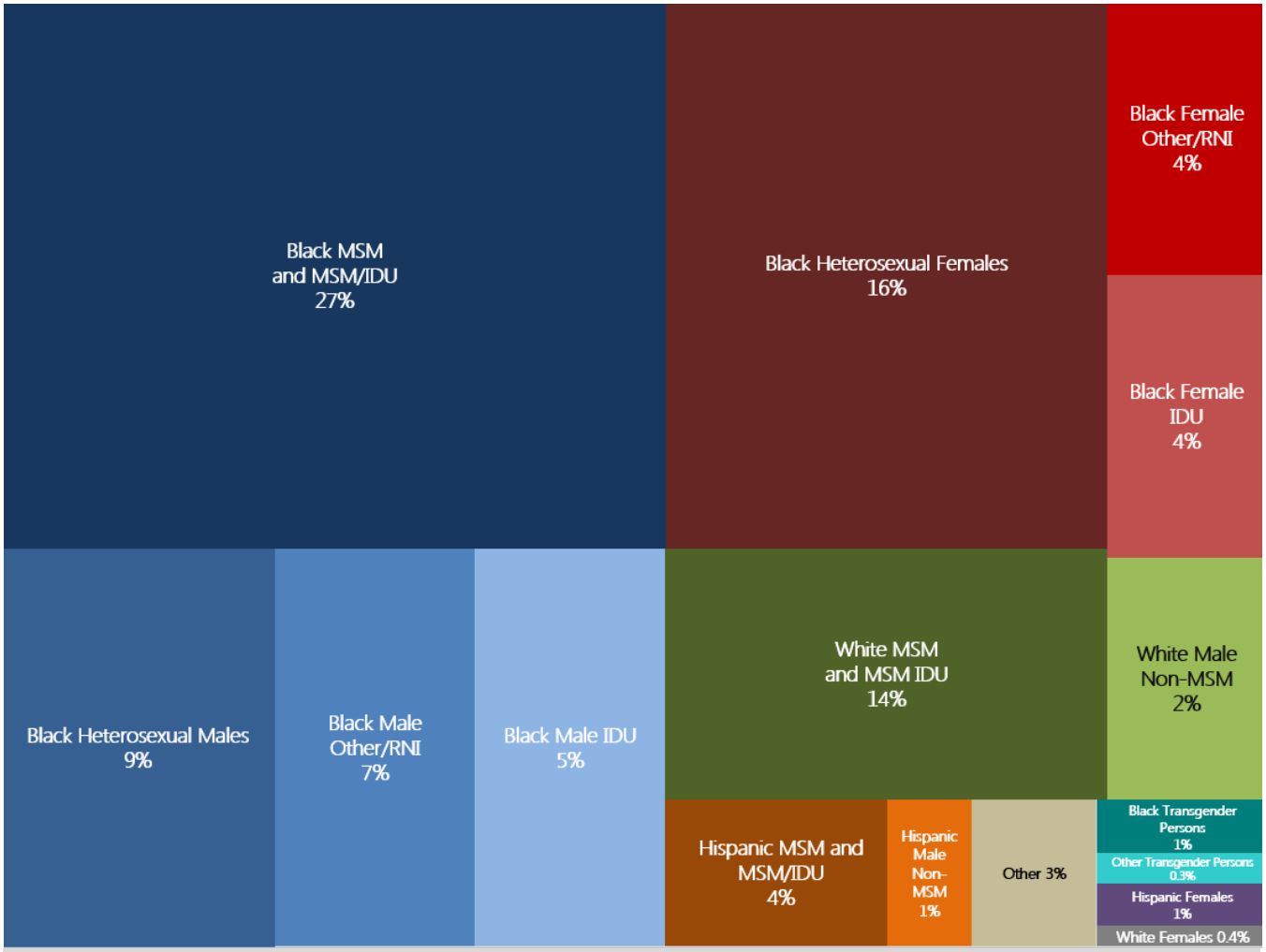
- At the end of 2016, an estimated 3.1% of black residents in the District were diagnosed and living with HIV, followed by 1.2% of Hispanics/Latinos and 0.9% of whites.

Figure 5. Proportion of Residents Living with HIV by Race/Ethnicity and Gender Identity, District of Columbia, 2016



- At the end of 2016, black and Hispanic/Latino men had the highest HIV prevalence in the District, with HIV prevalence among black men more than twice that of Hispanic/Latino men.
- The lowest prevalence of HIV are among white women (0.04%) and Hispanic/Latino women (0.3%); these rates are below the generalized epidemic rate of 1%.
- Black women had the highest rate of HIV among women, where HIV prevalence was over 6 times greater than for Hispanic/Latino women and nearly 50 times greater than white women.

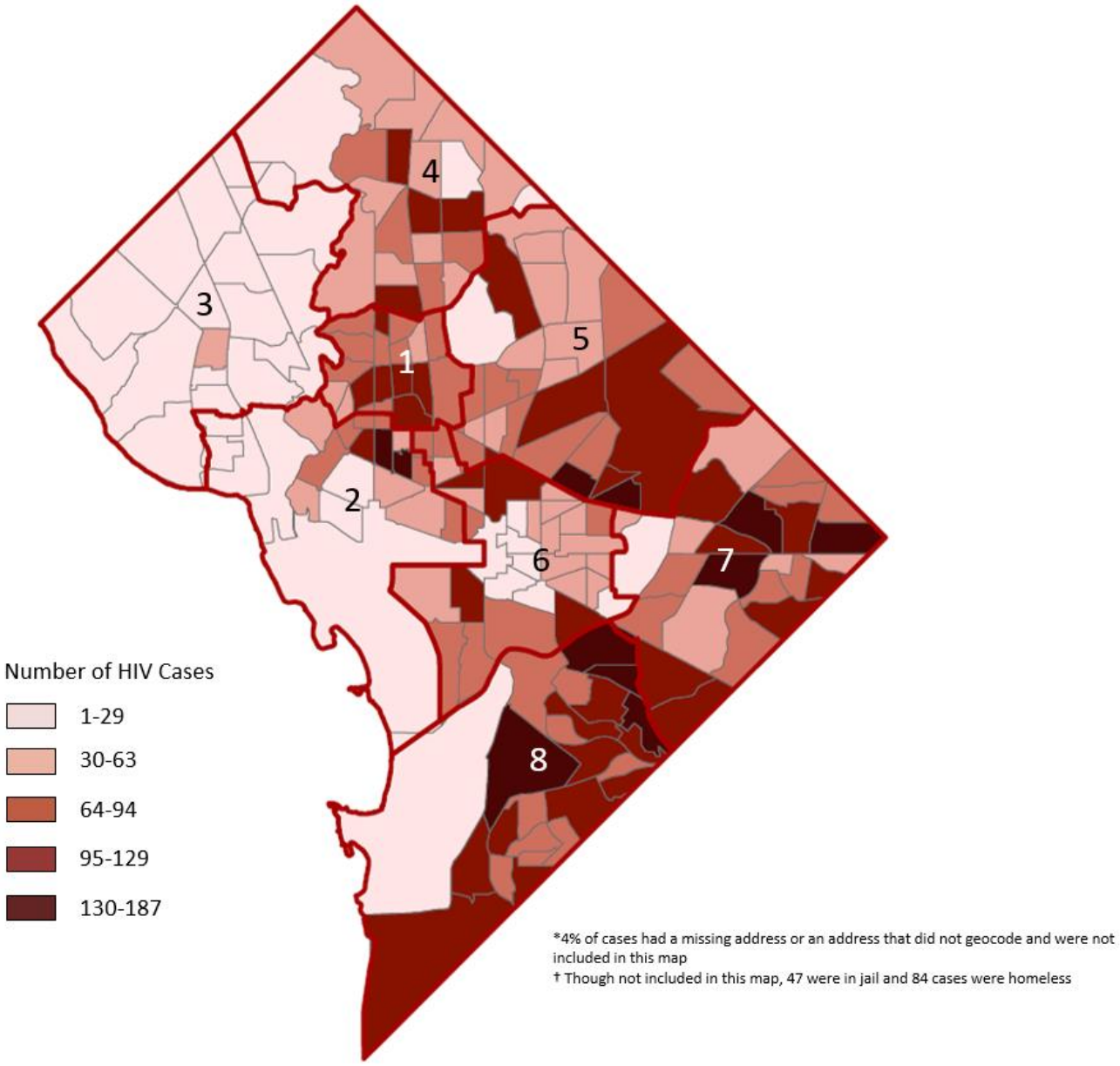
Figure 6. Proportion of Cases Living in DC, by Race/Ethnicity, Sex and Mode of Transmission, District of Columbia, 2016 (N=12,964)



*MSM: includes men who have sex with men;
IDU: injection drug use;
RNI: risk not identified;
Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers); Non-MSM: All modes of transmission excluding MSM and MSM/IDU.
Hispanic Male non-MSM: Heterosexual, IDU, RNI and other modes of transmission
Black Female Other: RNI and other modes of transmission
Black Male Other: RNI and other modes of transmission
Hispanic Female: All modes of transmission
White Female: All modes of transmission
Other: All persons of other race with all modes of transmission
Transgender persons: include both transgender men and transgender women

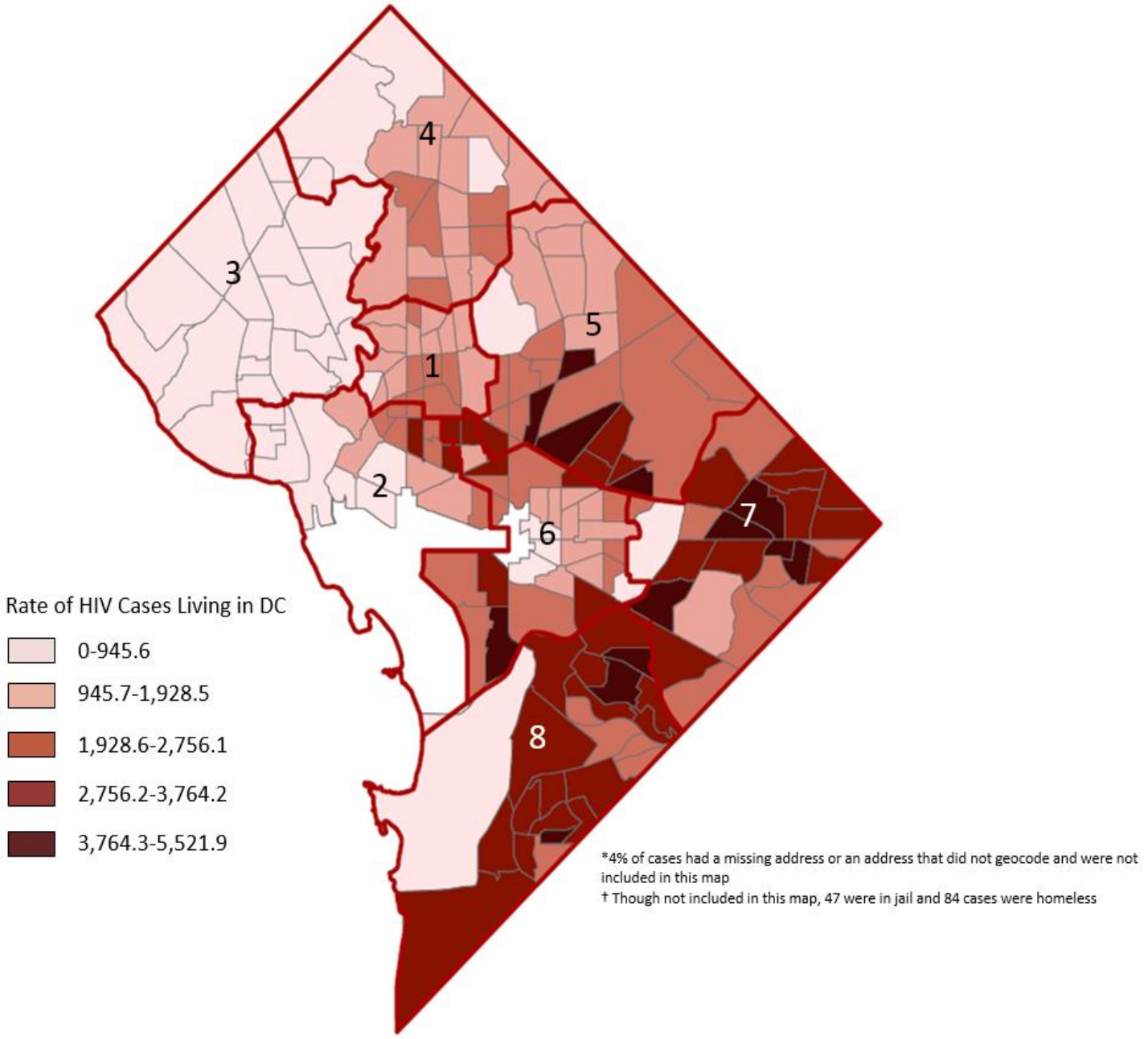
- Approximately one-quarter (27%) of HIV cases living in the District were black men who have sex with men.
- Black women who reported heterosexual contact as mode of transmission represent the second largest group (16%), while white men who have sex with men represent the third largest group (14%).
- Black transgender persons accounted for 1% of all cases living in DC.

Map 1. Number of HIV Cases Living in the District, by Census Tract, District of Columbia, 2016, N=12,964*



- Census tract information was available for 96.0% of HIV cases living in DC at the end of 2016.
- Though cases reside all throughout the city, census tracts with the highest number of HIV cases include wards 2, 5, 7 and 8.
- Though not included in this map, at the end of 2016 there were 47 cases whose address was listed as the DC jail and 84 cases who were listed as homeless.

Map 2. Rate of HIV Cases Living in the District, by Census Tract, District of Columbia, 2016*

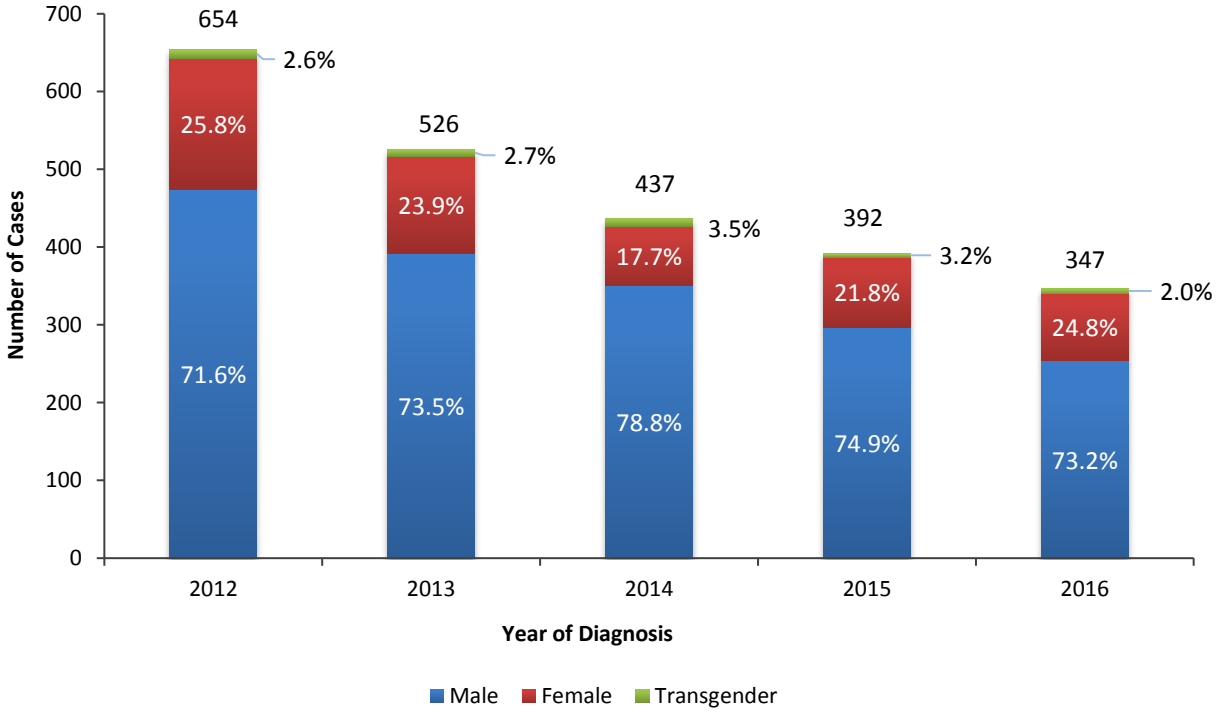


- Census tracts with the highest rates of HIV include wards 5, 6, 7 and 8.
- Though not included in this map, at the end of 2016 there were 47 cases whose address was listed as the DC jail and 84 cases who were listed as homeless.

Section 2. Newly Diagnosed HIV Cases

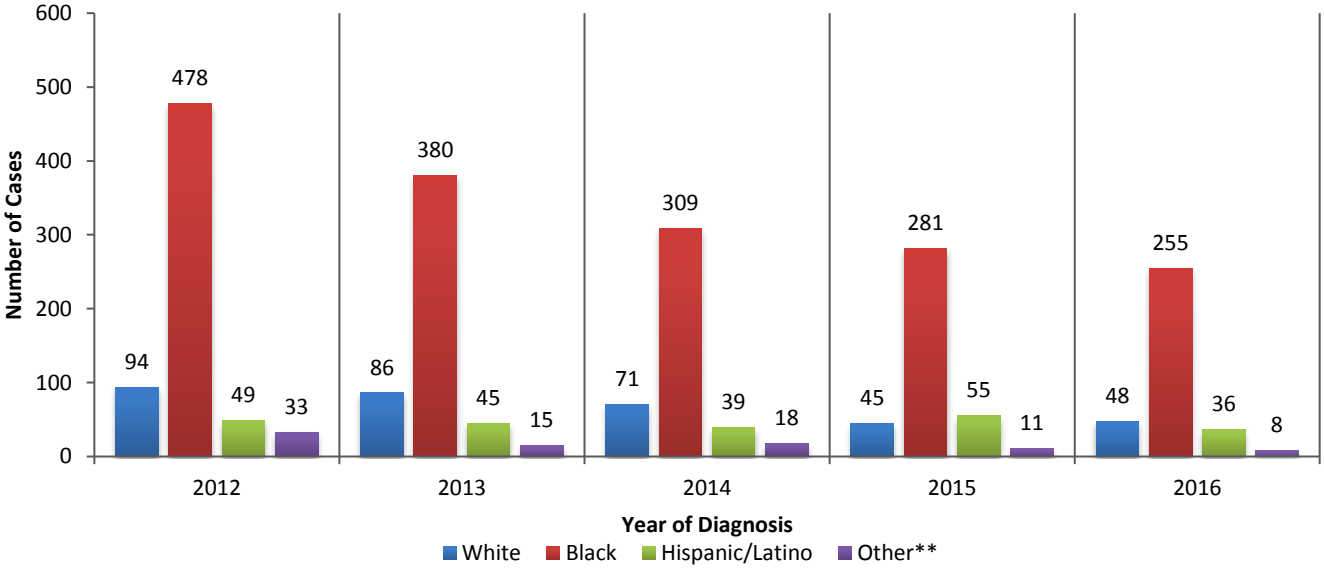
There were 2,356 HIV cases diagnosed and reported among residents of the District between 2012 and 2016. The number of newly diagnosed HIV cases declined each year, from 654 cases in 2012 to 347 cases in 2016; this represents a 46.9% decline in the number of diagnosed cases. Three-quarters of these cases were men, approximately three-quarters (72.3%) were black, and about two-thirds (60.7%) were between 25 and 49 years of age. The leading mode of transmission among newly diagnosed cases was sexual contact (73.6%). Mode of transmission was not identified in 21.6% of newly diagnosed HIV cases. Please refer to appendix table **B5-B7** for additional data regarding newly diagnosed HIV cases.

Figure 7. Newly Diagnosed HIV Cases by Year of Diagnosis and Gender Identity
District of Columbia, 2012-2016



- Although the number of newly diagnosed cases has declined from 2012 to 2016, the proportion of cases by gender identity has remained constant.
- Men in the District continue to be disproportionately affected by HIV; men represent 47% of the District's population, but over 70% of new HIV diagnoses.

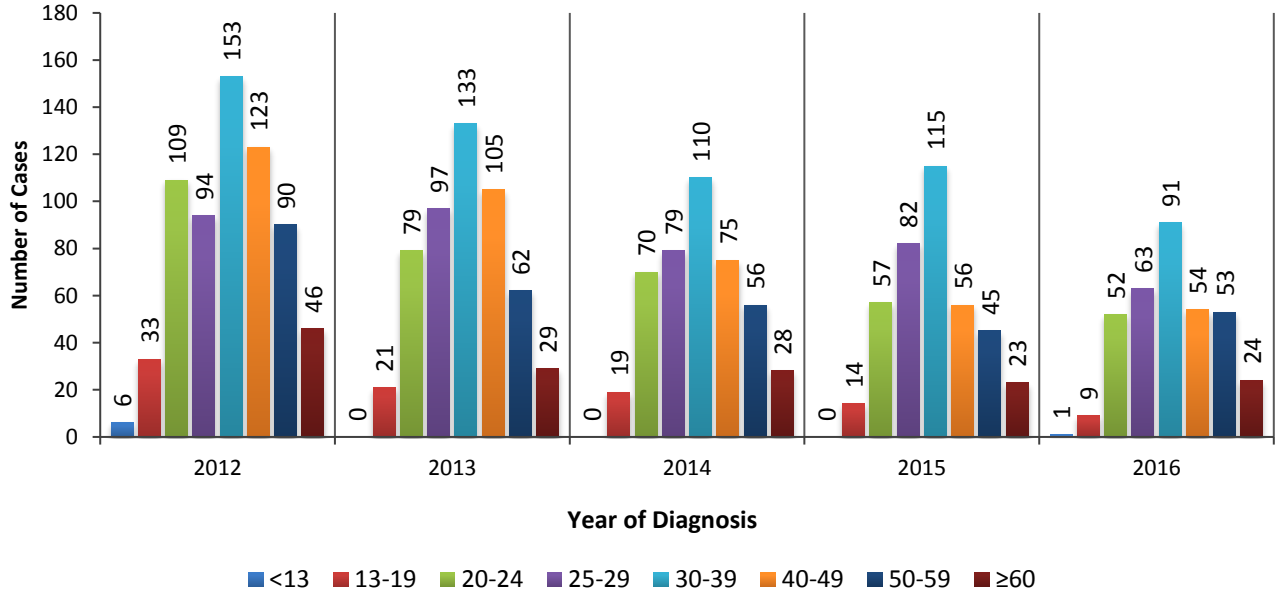
Figure 8. Newly Diagnosed HIV Cases by Year of Diagnosis and Race/Ethnicity
District of Columbia, 2012-2016



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

- The number of newly diagnosed HIV cases among blacks declined 46.7% between 2012 and 2016 and among whites decreased 48.9%. Blacks still represent the majority of HIV cases diagnosed in the District (73.1% in 2012 and 73.5% in 2016), while whites represent 14.6% of newly diagnosed cases (14.4% in 2012 and 13.8% in 2016).
- Although the overall number of newly diagnosed HIV cases declined, the racial distribution has remained relatively stable over time.

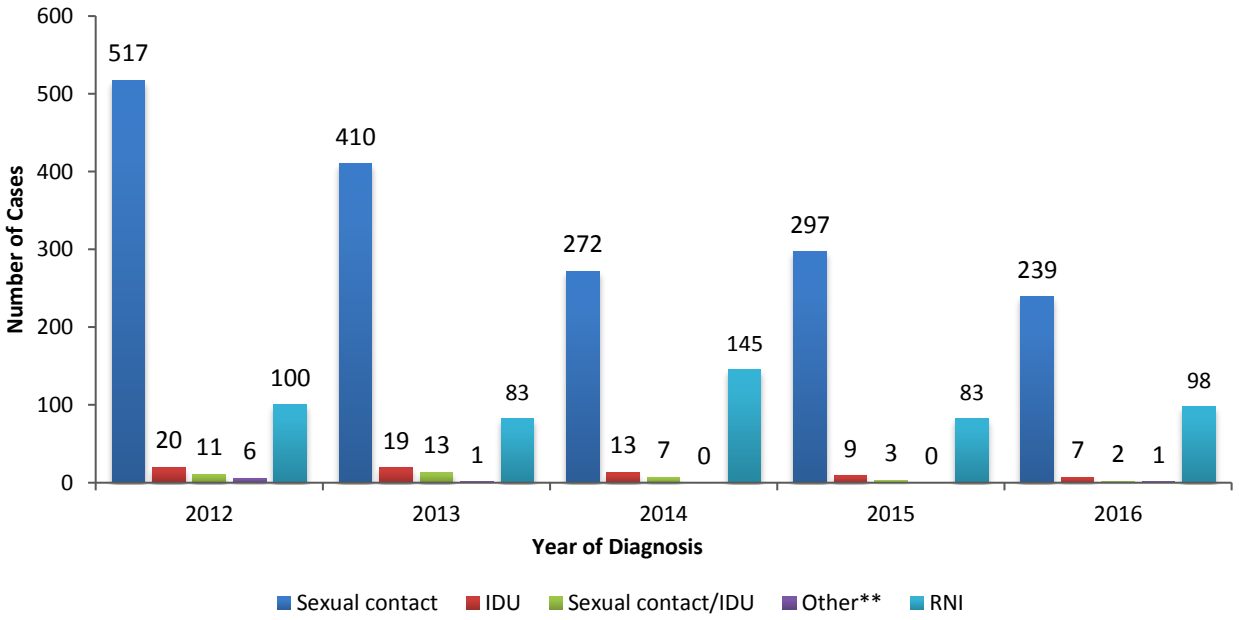
Figure 9. Newly Diagnosed HIV Cases by Year of Diagnosis and Age at Diagnosis
District of Columbia, 2012-2016



- Between 2012 and 2016, the majority of new HIV cases were diagnosed between the ages of 20-29 (33.2%), followed by cases aged 30-39 (25.6%) and aged 40-49 (17.5%).
- Though the number of newly diagnosed HIV cases 20 to 29 years of age declined 43.3% between 2012 and 2016, this age group has emerged as the leading group newly diagnosed with HIV by age.
- The number of newly diagnosed HIV cases 30 to 49 years of age declined 47.5% between 2012 and 2016.

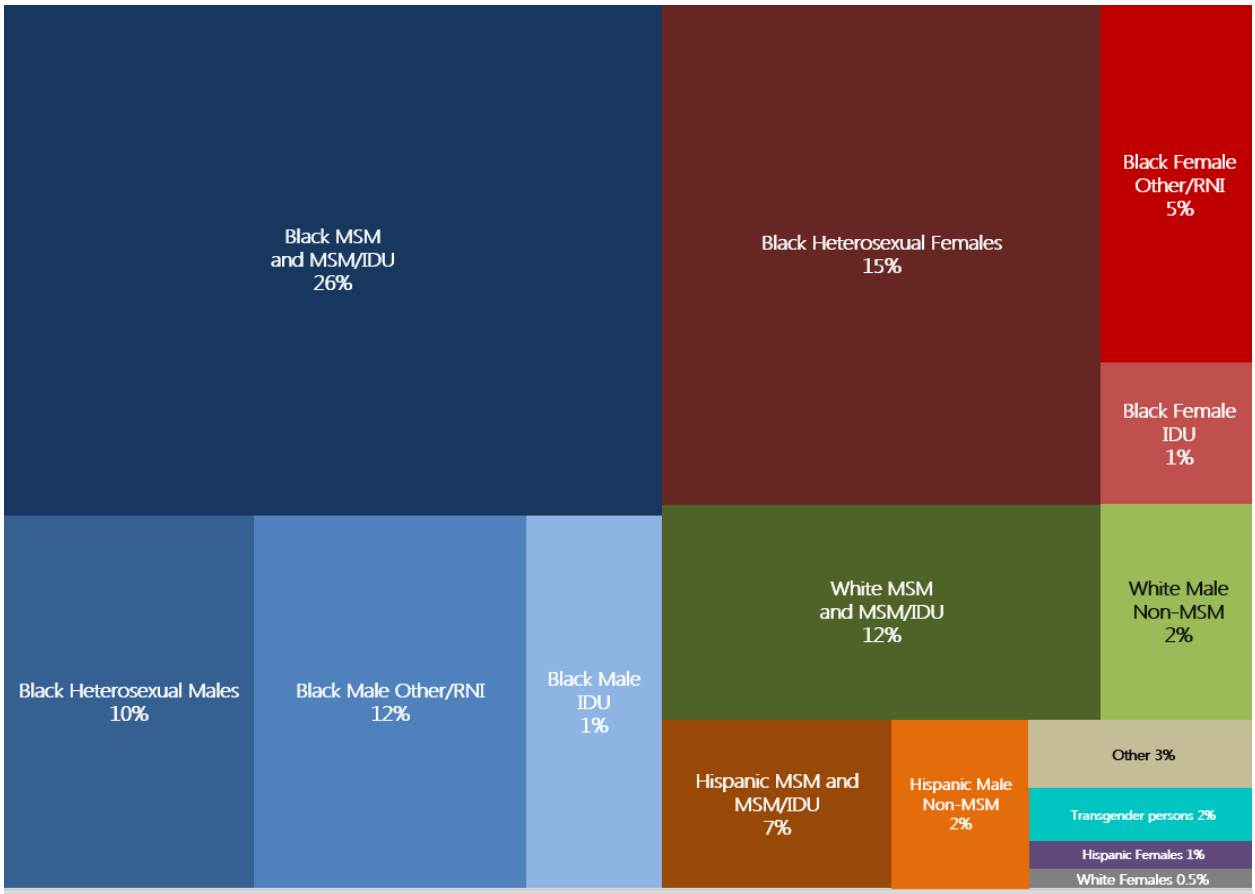
Figure 10. Newly Diagnosed HIV Cases by Year of Diagnosis and Mode of Transmission,

District of Columbia, 2012-2016



- Sexual contact was the leading mode of transmission among newly diagnosed HIV cases from 2012 to 2016 (73.6%).
- A decline of 53.5% was seen in the number of HIV cases diagnosed by sexual contact, between 2012 (514 cases) and 2016 (239 cases).
- Injecting drug use had the largest decline of newly diagnosed cases from 2012 to 2016 at 65.0%.
- The proportion of cases where mode of transmission is unknown, or not reported due to incomplete case reports, remains large (21.6%). HAHSTA continues to have a priority of reducing the number of cases where mode of transmission is unknown. HAHSTA will implement a new electronic reporting form, form new staff teams based on medical provider and ward, and enhance education of providers on fulfilling reporting of risk factors.

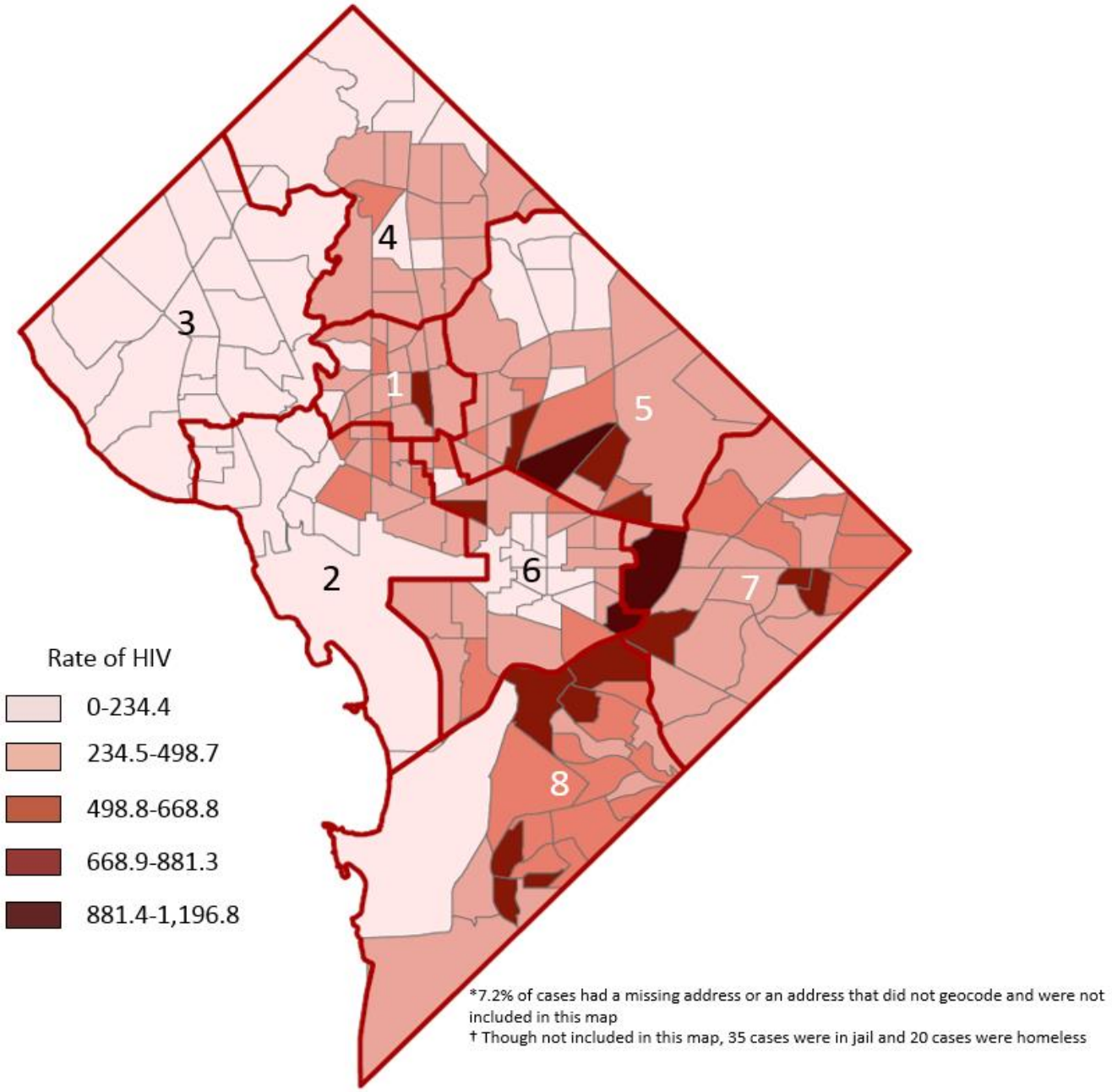
Figure 11. Proportion of Newly Diagnosed HIV Cases by Race/Ethnicity, Sex and Mode of Transmission, District of Columbia, 2012-2016 (N=2,356)



MSM: includes men who have sex with men;
IDU: injection drug use; RNI: risk not identified;
Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers);
Non-MSM: All modes of transmission excluding MSM and MSM/IDU.
Hispanic Male non-MSM: Heterosexual, IDU, RNI and other modes of transmission
Black Female Other: RNI and other modes of transmission
Black Male Other: RNI and other modes of transmission
Hispanic Female: All modes of transmission
White Female: All modes of transmission
Other: All persons of other race with all modes of transmission

- Figure 11 represents newly diagnosed HIV cases in the District of Columbia by gender identity, race/ethnicity, and mode of transmission.
- The largest proportion of HIV was among black MSM and MSM/IDU (26%). Black women with heterosexual contact as mode of transmission represent the second largest group (15%) of persons newly diagnosed with HIV in the District.

Map 3. Rate of Newly Diagnosed HIV Cases in the District, by Ward and Census Tract, District of Columbia, 2012-2016, N=2,356*



- Census tract information was available for 92.8% of new diagnosed HIV cases from 2012-2016.
- Though cases were diagnosed all throughout the city, census tracts with the highest rate of new HIV disease diagnosis include wards 5, 6 and 7.
- Though not included in this map between 2012 and 2016 there were 35 cases whose address was listed as the DC jail and 20 cases who were listed as homeless.

Section 3. Perinatal HIV Cases

Perinatal HIV cases are defined as those in which transmission occurs during pregnancy, labor and delivery, or breastfeeding. Since the introduction of recommendations to provide anti-retroviral medication to women during pregnancy, during 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 those who receive recommended treatment during pregnancy, at labor and delivery, and newborn period are as low as 1%.

Table 2. Perinatal HIV cases by Year of Birth, District of Columbia, 2012-2016

	Year of Birth				
	2012	2013	2014	2015	2016*
Number of perinatal cases born	3	0	0	0	1

*There was one perinatal case born in 2016 and diagnosed in 2017.

- Table 2 depicts the number of perinatal cases with a date of birth between 2012 and 2016. Not all HIV diagnoses are confirmed at the time of birth as noted in the tables below.

Table 3. Perinatal HIV Cases Living in the District and Alive as of December, 2016

Perinatal HIV Cases		
Sex	N	%
Male	8	34.8
Female	14	60.9
Transgender	1	4.3
Total	23	100.0
Race/Ethnicity		
White	1	4.3
Black	21	91.3
Hispanic/Latino	1	4.3
Other*	0	0
Total	23	100.0
Current Age		
< 1	1	4.3
1 to 2	2	8.7
3 to 4	4	17.4
5 to 9	8	34.8
10-19	8	34.8
Total	23	100.0

- Table 3 depicts the number of perinatal cases living in DC at the end of 2016.
- More than half (59.1%) of these cases were female, the majority (91.0%) were black, and nearly three-quarters (72.8%) were 5 years of age and older.

Table 4. Newly Diagnosed Perinatal HIV Cases by Year of Diagnosis
District of Columbia, 2012-2016

	Year of HIV Diagnosis				
	2012	2013	2014	2015	2016
Number of perinatal cases diagnosed	6	1	0	0	1

- There were 8 perinatal HIV cases diagnosed in the District between 2012 and 2016 **(Table 4)**. Confirming HIV perinatal cases can take up to 18 months, therefore case totals should be interpreted with caution.
- These numbers have been updated from previous reports and may change in subsequent reports.

Table 5. Newly Diagnosed Perinatal HIV Cases by Age at Diagnosis
District of Columbia, 2012-2016

Age at HIV diagnosis	N	%
< 1 year	3	37.5
1 to 2 years	0	0
3 to 4 years	0	0
5 to 15 years	5	62.5
Total	8	100.0

- Table 5 shows the age at which perinatal cases were diagnosed with HIV. Five of the 8 perinatal HIV cases were diagnosed when older than one year of age.
- As stated above, confirming a perinatal case can take 18 months, therefore HAHSTA may not close an investigation until a child is almost two years of age.
- For children born in another country, HAHSTA must use the date of diagnosis by medical providers for surveillance purposes.

Section 4. Stage of HIV Disease

This section provides a summary of trends in stage 3 infection among HIV positive individuals diagnosed within the District. As outlined in **Table 6**, current CDC guidelines provide a classification system for assessing the severity of HIV disease based on CD4 cell counts and the presence of specific HIV-related conditions. Stage 3 infection signifies that an HIV positive individual has a compromised immune system (i.e., CD4<200 cells/µL and/or an HIV-related opportunistic infection), thereby increasing their susceptibility to adverse health conditions and symptoms associated with infection. As opposed to the traditional HIV disease dichotomy of HIV-only cases and HIV positive cases with AIDS, the HIV infection staging system provides the opportunity to reclassify individual health status dependent on clinical indicators at a given point in time. This flexibility in classifying HIV disease progression is reflective of current advances in HIV treatment contributing to improvements in disease management and prognoses. The subsequent tables and graphs provide an overview concerning trends in initial stage 3 infection diagnoses among District residents.

Table 6. Stages of HIV Infection

Measure	Definition
Stage 1	CD4 T-cell count of more than 500 cells/µL CD4 T-cell percent of more than 29%
Stage 2	CD4 T-cell count of between 200 cells/µL and 500 cells/µL CD4 T-cell percent of between 14% and 29%
Stage 3 (AIDS)	CD4 T-cell count of less than 200 cells/µL CD4 T-cell percent of less than 14% Previously diagnosed AIDS-related conditions
No Info	CD4 test result is unknown

Summary

There were 1,341 stage 3 (AIDS) cases diagnosed among residents of the District between 2012 and 2016. The number of newly stage 3 cases declined for the first four years, from 409 cases in 2012 to 195 cases in 2015, with a slight increase to 211 cases in 2016; this represents an overall 48% decline in the number of diagnosed stage 3 cases. More than two-thirds of these cases (67.6%) were among men, the majority (81.1%) were black, and nearly one-half (48.9%) were between 30 and 49 years of age at stage 3 diagnosis. The leading mode of transmission among all stage 3 diagnoses was sexual contact (70.7%). Among men with stage 3 diagnoses, the leading mode of transmission was sexual contact (73%) with 52.2% men who have sex with men. Among women, the leading mode of transmission was heterosexual contact (67.1%). Please refer to appendix tables **B8** and **B9** for additional data regarding newly diagnosed stage 3 (AIDS) cases.

Although subsequent changes in an individual's HIV disease stage may have occurred since their last reported laboratory information, stage 3 HIV disease is not a static state and many individuals experience improvements in clinical health status after an initial Stage 3 disease diagnosis.

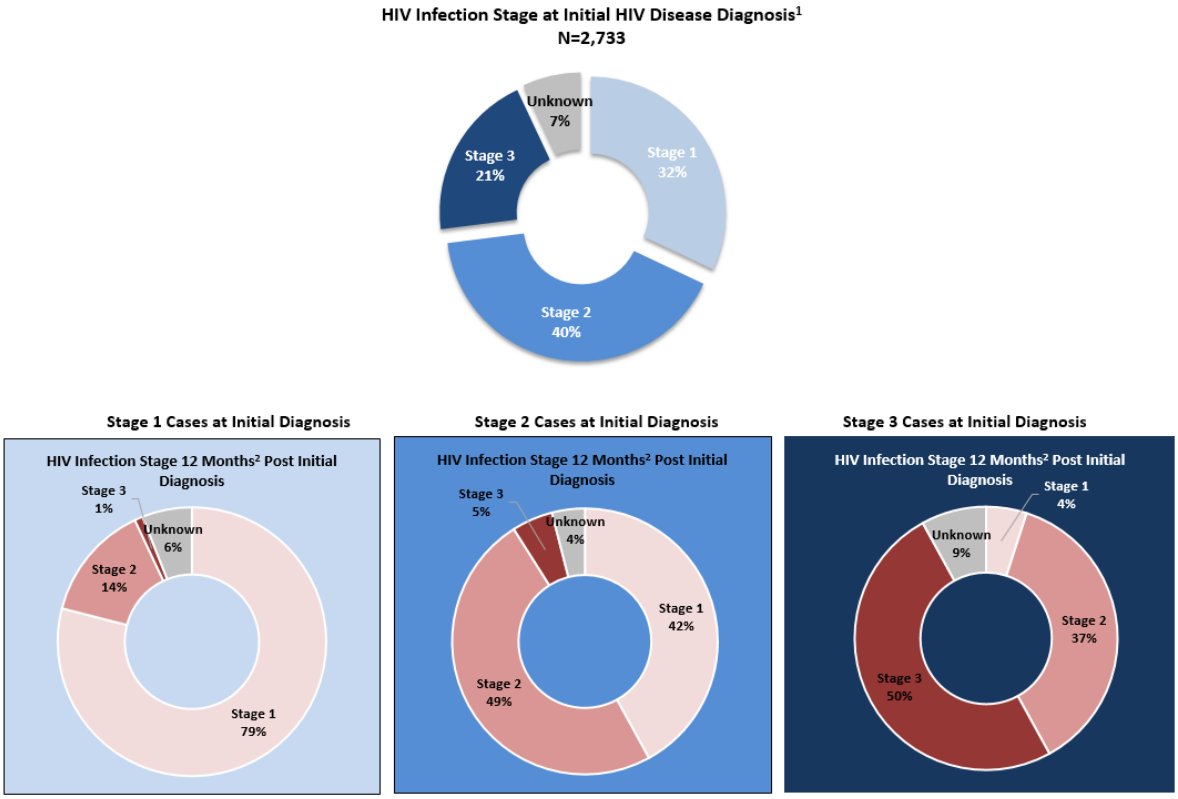
Table 7. Newly Diagnosed Stage 3 (AIDS) Cases by Year of Diagnosis, District of Columbia, 2012-2016

	Year of Stage 3 (AIDS) Diagnosis				
	2012	2013	2014	2015	2016
Number of HIV Cases Diagnosed with Stage 3 Disease (AIDS) for the First Time	409	300	226	195	211
Concurrent stage 3 diagnosis*	166	140	97	73	72
Non-concurrent stage 3 diagnosis	243	160	129	122	139

*A stage 3 diagnosis within 30 days of initial HIV diagnosis

- Of the 1,341 HIV positive individuals newly diagnosed with stage 3 (AIDS) disease in the District between 2012 and 2016, 40.9% were diagnosed with stage 3 disease within 1 month of receiving an initial HIV positive test result (i.e., concurrent diagnoses), potentially indicating delays in testing and/or the receipt of appropriate care services.
- Between 2012 and 2016, the number of newly diagnosed stage 3 infections (AIDS) within the District declined 48.4% (409 cases vs. 211 cases, respectively). The documented decline in the number of newly diagnosed stage 3 infections (AIDS) was evident for both concurrent and non-concurrent stage 3 cases.

Figure 12. HIV Infection Stage at Diagnosis and at 12 Month Follow-up among Newly Diagnosed Cases, District of Columbia, 2012-2016



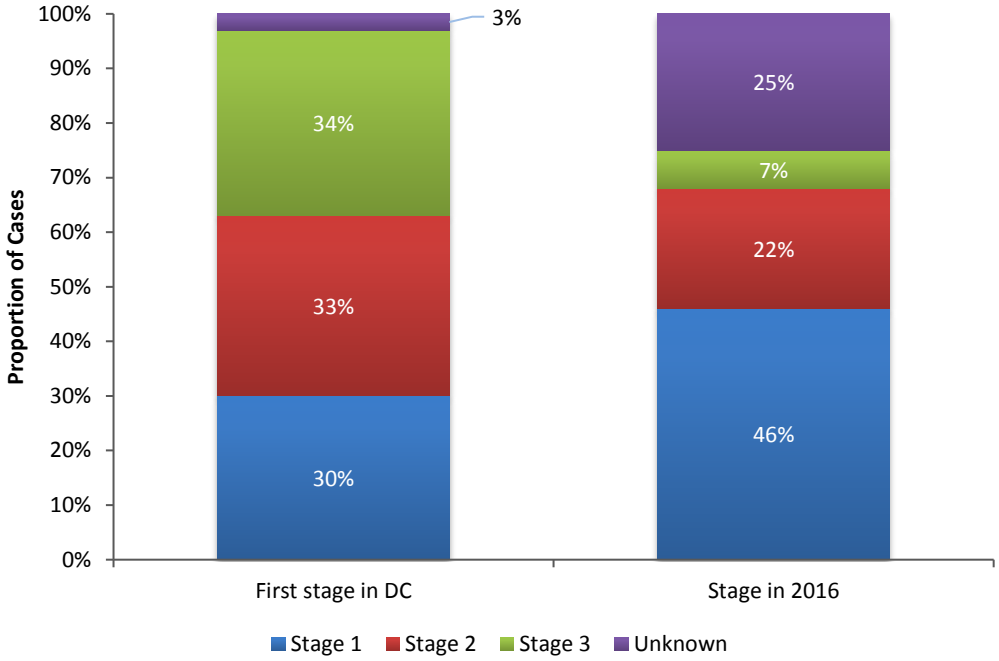
[1] Initial stage of HIV infection based on initial CD4 and/or HIV related opportunistic infection information after initial HIV diagnosis.
[2] Follow-up stage of HIV infection based on CD4 and/or HIV related opportunistic infection information 12 months after initial HIV diagnosis date.

- Infection stage at HIV diagnosis and at 12 months following diagnosis is summarized in **Figure 12**. This data provides evidence of both positive and negative disease progression 1 year after initial HIV diagnosis. Such information offers another metric by which to assess the effectiveness of the District in meeting the needs of those living with HIV.
- Among the 2,733 HIV cases diagnosed between 2011 and 2015, at diagnosis, 32% of cases were at stage 1

HIV disease, 40% were at stage 2 and 21% were at stage 3 HIV disease (AIDS).

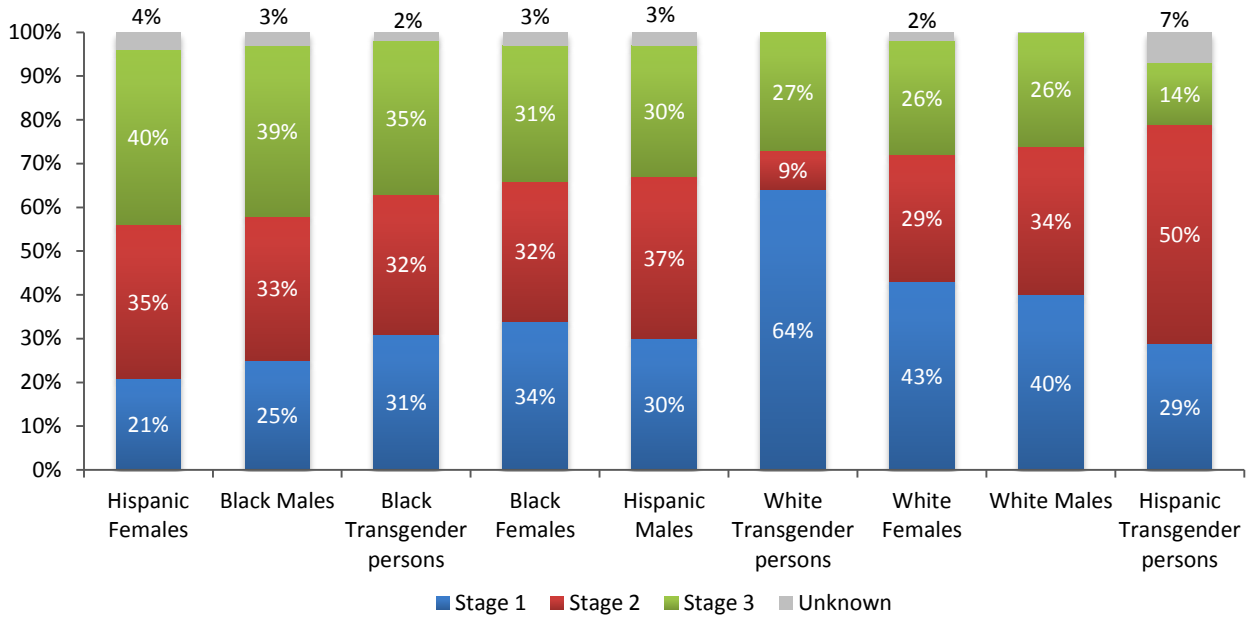
- Of the individuals at stage 3 infection at diagnosis, after one year of follow-up, 4% transitioned to stage 1 HIV disease, 37% to stage 2 and 50% remained at stage 3 HIV disease.
- Among individuals with stage 2 or stage 1 infection at the time of HIV diagnosis, only a small percentage had evidence of transitioning to stage 3 (AIDS) infection, 5% and 1% respectively, based on the assessment of initial CD4 and opportunistic infection information ascertained at least 1 year after HIV diagnosis.

Figure 13. Stage of Disease at First Lab in DC and in 2016 among Cases Presumed Living in DC, District of Columbia



- Figure 13 portrays the stage of HIV disease among all living cases in DC at first lab drawn in Washington DC and in 2015. The denominator for each is persons diagnosed with HIV and presumed living in DC with a CD4 count reported to HAHSTA. Reductions in the proportion of individuals found in stage 3 (AIDS) indicate improvements in earlier testing and identification of HIV cases before health deterioration. The explanation for the large percentage of unknown in 2016 is attributable to persons who have no indication of receiving HIV care in DC.
- The data shows an 81% reduction in stage 3 disease among HIV cases living in DC.

Figure 14. Stage of Disease at First Lab in DC by Gender Identity and Race/Ethnicity, District of Columbia



- Hispanic/Latino women had the highest proportion of stage 3 disease (AIDS) at 40% at their first CD4 count in DC, followed by black men (39%) and black transgender persons (35%).

Section 5. HIV Incidence

HIV Incidence Estimate and Mayor's 90/90/90/50 Plan

The Mayor's 90/90/90/50 Plan provides a framework based on the National HIV/AIDS Strategy that accelerates the District's response to HIV with enhanced actions to diagnose more persons, support sustained treatment to reach viral load suppression, address health equity and disparities, improve data use and program coordination and reduce the number of people who become infected with HIV by 50% by 2020.

Understanding the HIV Incidence Estimate

The 2016 HIV incidence estimate provides an estimated number of new infections of HIV occurring each year among DC residents during the five year span from 2012-2016. The estimate takes into consideration the probability of being newly infected within the entire population at risk, thus including cases that are not yet diagnosed. For this reason, in general, the incidence estimate should not be compared with the annual new diagnoses reported in the Annual Epidemiology and Surveillance Report. However, the similarity of the numbers infers that the proportion of persons unaware of their diagnosis is smaller. The objective of reducing new infections tackles the leading edge of the epidemic by reducing transmissions as well as determining where and among whom new infections are occurring. This insight can inform prevention strategies and allow for more effective resource allocation to best address the HIV epidemic in DC.

Methodology of the HIV Incidence Estimate

The Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) method is used to estimate HIV incidence. STARHS is a two test methodology which uses the enzyme-linked immunoassay (EIA) to determine if an individual is HIV-positive and then utilizes the BED HIV-1 capture enzyme immunoassay (BED) to classify blood samples from those newly diagnosed individuals as either recent (less than 5 months) or long-standing infections. Recently a transition was made from BED to the Avidity assay. Specimen collected for cases diagnosed in 2013 or prior were tested using BED. Those diagnosed in 2014 and later were tested with the Avidity assay. Eligible samples for STARHS must be collected within 90 days of diagnosis of HIV and are transported to the New York State STARHS Lab for testing directly from participating laboratories. The incidence estimate uses statistical imputation to estimate the number of newly infected individuals in DC based on the number of recent classifications. This statistical algorithm also relies on the testing and antiretroviral use history information collected from new diagnoses through the adult case report form for its imputation. For cases where this information was missing, a stratified extrapolation approach was used to impute the missing information.

Limitations and Assumptions of the Incidence Estimate

- **Repeat Testing:**

  People who test more than once a year can overestimate the incidence of HIV because their likelihood of being BED/Avidity recent will inflate the average probability. This limitation is inherent as it is the recommendation that some risk categories test more frequently than others.

- **Delayed Reporting:**

  The incidence estimates are subject to variation by year since they are based on reported surveillance data. Fluctuations in timing of data reported to the DC DOH may affect data availability at the time of reporting. The statistical imputation of the estimate adjusts for reporting delays using historic data to estimate current timeliness.

- **Reporting Completeness:**
  The completeness of STARHS results are limited by laboratory participation. Currently, laboratories representing approximately 90% of identified cases participate in the HIV Incidence Surveillance Program.

- **Missing Data:**
  Incidence testing can only be assessed among persons with reported laboratory data and testing and antiretroviral use history data. Proportions of the diagnosed population may not have these data, but as diagnosed cases in the District, are included in the report. For these cases it is assumed that the information is missing at random and, statistical imputation was used to estimate the missing information.

- **Insufficient Quantities:**
  Some sub-groups do not contain sufficient quantities, thus reducing the reliability of the estimate for those particular sub-groups. Due to this limitation, sub-groups with insufficient quantities are deemed unreliable and will not have values reported.

Overview of Incidence Estimate

The estimated rate of new infections of HIV in the District remains stable from 2012 to 2016. The estimated rate of new infections in the District in 2012 exceeded the national rate in 2010 at 80.6 estimated cases/ 100,000 compared with 27.5 estimated cases/ 100,000 respectively. By the end of 2016, the highest proportion of estimated new infections were found among men (76.2%), blacks (72.5%), and individuals age 30-49 (34.2%).

Figure 15. Estimated Number of Newly Infected HIV Cases by Year, District of Columbia, 2012-2016

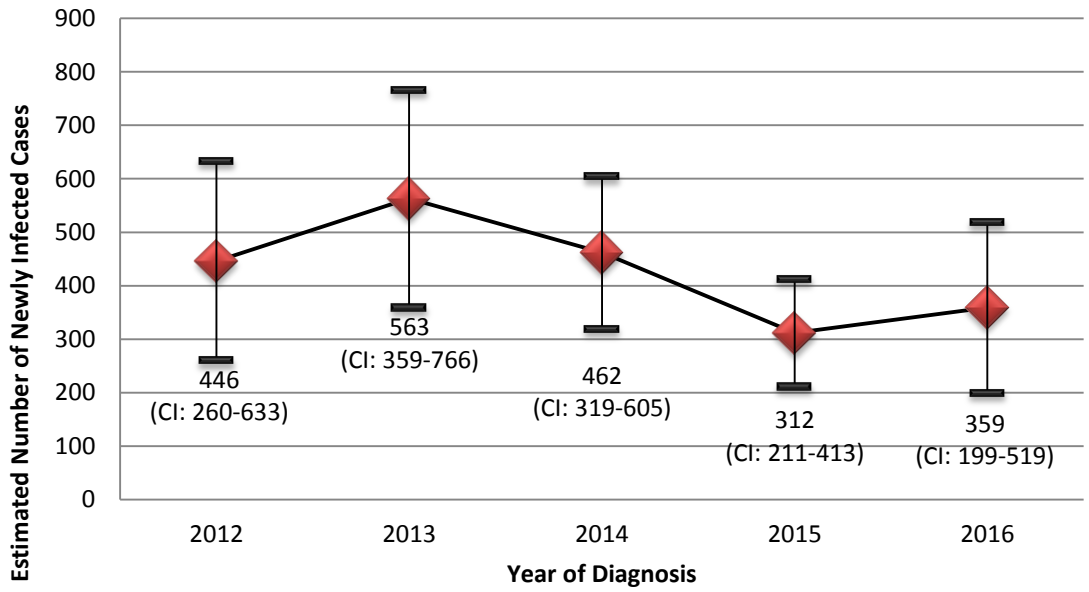


Figure 15 represents the overall estimated new infections of HIV in DC during the five year period from 2012 to 2016. Since the number of new infections of HIV is an estimate, the 95% confidence interval shows the range within which the estimate may lie after adjusting for variability in sampling and timing of testing. During the five year period, the estimated number of new infections remained relatively stable.

Table 8. Estimated Rate of New HIV Infections by Sex, Race/Ethnicity, and Age at Diagnosis, District of Columbia, 2012-2016†

	2012 Estimated Rate per 100,000 (95% CI)	2013 Estimated Rate per 100,000 (95% CI)	2014 Estimated Rate per 100,000 (95% CI)	2015 Estimated Rate per 100,000 (95% CI)	2016 Estimated Rate per 100,000 (95% CI)
Sex					
Male	133.0 (74.4-191.6)	159.5 (95.7-223.3)	146.3 (98.4-194.2)	100.6 (68.0-133.3)	100.6 (53.1-148.1)
Female	33.1 (8.0-58.2)	45.2 (13.6-76.9)	-- --	-- --	24.3 (2.7-46.0)
Transgender	-- --	-- --	-- --	-- --	-- --
Total	80.6 (46.9-114.3)	99.9 (63.7-136.0)	81.0 (55.9-106.2)	53.8 (36.4-71.3)	61.9 (34.2-89.5)
Race/Ethnicity					
Black	126.5 (66.2-186.8)	161.8 (96.1-227.4)	124.8 (78.8-170.8)	77.1 (48.3-106.0)	98.4 (50.2-146.7)
Other	40.0 (14.6-65.5)	46.0 (16.2-75.7)	43.6 (18.8-68.4)	-- --	-- --
Total	80.6 (46.9-114.3)	99.9 (63.7-136.0)	81.0 (55.9-106.2)	53.8 (36.4-71.3)	61.9 (34.2-89.5)
Age at Diagnosis					
13-29	92.1 (40.1-144.2)	82.4 (29.5-135.2)	-- --	-- --	-- --
30-49	76.0 (28.4-123.6)	115.2 (56.9-173.5)	83.8 (44.3-123.3)	51.8 (28.0-75.7)	59.0 (20.4-97.6)
>=50	35.7 (0.4-70.9)	-- --	27.7 (1.7-53.7)	-- --	-- --
Total	80.6 (46.9-114.3)	99.9 (63.7-136.0)	81.0 (55.9-106.2)	53.8 (36.4-71.3)	61.9 (34.2-89.5)

†strata with insufficient quantities will not have values reported

*Other race/ethnicity includes Hispanic/Latino ethnicity, mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, White, and unknown

- The estimated rate of new infections among men decreased by 24.8% from 2012-2016.
- From 2012-2016, the estimated rate of new infections decreased by 22.5% among blacks.
- Among people age 30-49, the estimated rate of new infections decreased by 22.4%.

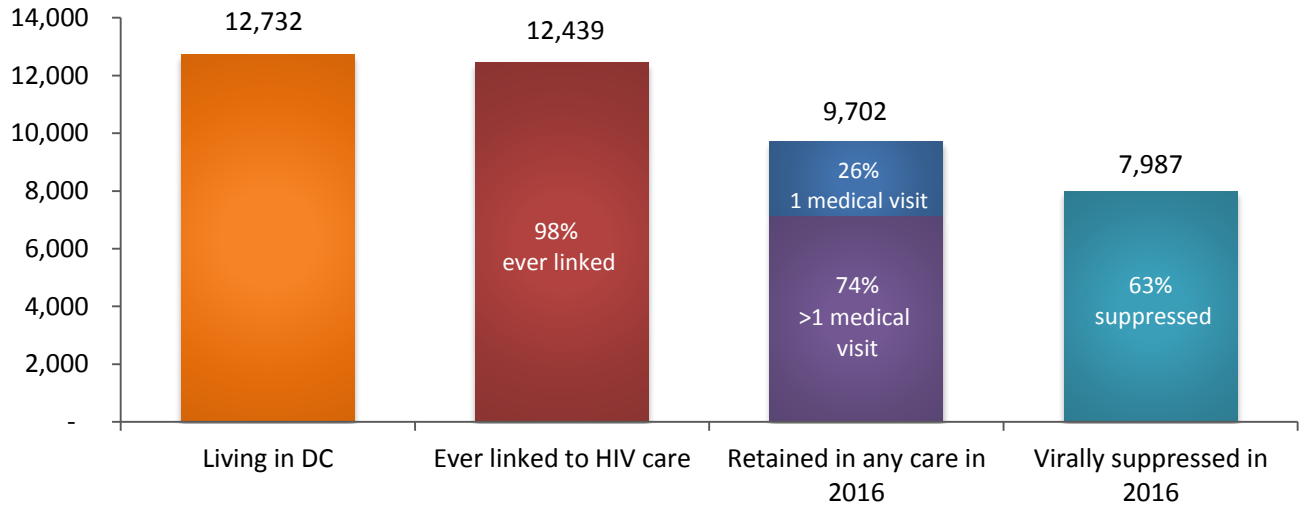
Section 6. HIV Care Dynamics

With the advances and effectiveness of care and treatment, HIV has transitioned to a chronic condition that can be managed successfully for persons living with HIV to maintain healthy outcomes and live a standard life span. The Care Continuum is the approach of diagnosing persons with HIV, linking them into care and treatment, retaining them in care and medication adherence and achieving viral load suppression, which is the marker of a person's and community's health. The Mayor's 90/90/90/50 Plan uses the Care Continuum as the framework for its strategies and tasks. In addition to the goal of healthy outcomes for persons with HIV, viral suppression can decrease new transmissions by vastly decreasing the amount of HIV circulating in the body and reduce the chances of transmitting the infection. Assessing HIV care dynamics is an essential step in understanding the strengths of HIV programs in the District, as well as an opportunity to identify and resolve gaps in the care continuum.

Table 9. Care Dynamics Measure Definitions

Measure*	Definition	Levels
HIV Cases Living in DC	Number of cases diagnosed with HIV through 2015 and presumed living in DC at the end of 2016	
Linkage to Care	Evidence of diagnosis date to first CD4 and/or viral load lab	Living in DC: any evidence of a CD4 and/or viral load after initial lab in DC Newly diagnosed: any evidence of a CD4 and/or viral load lab within 3 months initial HIV diagnosis
Care Status	Stability of care in 2016	More than 1 medical visit: At least two viral load and/or CD4 labs reported more than 90 days apart in 2016 1 medical visit: One viral load or CD4 lab reported in 2016 Out of care: No lab reported in 2016
Ever Virally Suppressed	Suppression any time after HIV disease diagnosis	Suppressed: reported viral load ≤200 copies/mL Not suppressed: reported viral load >200 copies/mL No viral load reported
Last Known Viral Status	Suppression status at last known viral load in 2016	Suppressed: reported viral load ≤200 copies/mL Not suppressed: reported viral load >200 copies/mL No viral load reported in 2016

Figure 16. Care Dynamics among HIV Cases Living in DC, District of Columbia, 2016



- Figure 16 represents the 2016 care continuum for HIV cases presumed living in DC. Each bar contains people who have been diagnosed with HIV and are living in DC; each bar presents a graduated view of care performance for each metric (defined in Table 10).
- This figure is intended to give a snapshot of the status of care in the District of Columbia using population-based data. Of the 12,732 cases diagnosed HIV cases presumed to be living in DC at the end of 2015, 98% were linked to HIV primary care, 76% were retained in any HIV care in 2016 and 63% were virally suppressed in 2016.

Table 10. Care Dynamics for HIV Cases Living in DC by Selected Characteristics, District of Columbia, 2016

	Living in DC *	Ever Linked to Care		Retained in Care any care in 2016		More than 1 medical visit in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2016	
	N	N	%	N	%	N	%	N	%	N	%
Sex											
Male	9,189	8,983	97.8	6,819	74.2	5,005	54.5	7,348	80.0	5,737	62.4
Female	3,330	3,249	97.6	2,713	81.5	2,022	60.7	2,510	75.4	2,117	63.6
Transgender	213	207	97.2	170	79.8	131	61.5	160	75.1	133	62.4
Race/Ethnicity											
White	2,053	2,028	98.8	1,458	71.0	1,018	49.6	1,847	90.0	1,359	66.2
Black	9,500	9,265	97.5	7,377	77.7	5,484	57.7	7,199	75.8	5,866	61.7
Hispanic/Latino	850	828	97.4	637	74.9	488	57.4	704	82.8	558	65.6
Other**	329	318	96.7	230	69.9	168	51.1	268	81.5	204	62.0
Mode of Transmission											
Sexual contact	9,189	9,026	98.2	6,948	75.6	5,127	55.8	7,297	79.4	5,779	62.9
IDU	1,372	355	98.8	1,101	80.2	844	61.5	1,060	77.3	870	63.4
Sexual contact/IDU	426	422	99.1	350	82.2	264	62.0	340	79.8	289	67.8
Other	145	145	100.0	126	86.9	102	70.3	80	55.2	71	49.0
RNI	1,600	1,491	93.2	1,177	73.6	821	51.3	1,241	77.6	978	61.1
Current Age											
0-19	97	90	92.8	77	79.4	64	66.0	56	57.7	47	48.5
20-24	388	367	94.6	298	76.8	194	50.0	225	58.0	185	47.7
25-29	927	889	95.9	690	74.4	477	51.5	623	67.2	523	56.4
30-39	2,436	2,351	96.5	1,711	70.2	1,241	50.9	1,757	72.1	1,328	54.5
40-49	3,140	3,083	98.2	2,391	76.1	1,712	54.5	2,506	79.8	1,973	62.8
50-59	3,783	3,735	98.7	3,037	80.3	2,322	61.4	3,142	83.1	2,586	68.4
60 and older	1,958	1,924	98.3	1,498	76.5	1,148	58.6	1,699	86.8	1,345	68.7
Missing	3	-	0.0	-	0.0	-	0.0	1	33.3	-	0.0
Grand Total	12,732	12,439	97.7	9,702	76.2	7,158	56.2	10,018	78.7	7,987	62.7

* HIV cases presumed living in DC at the end of 2015

**Other: mixed race individuals, Asians, Alaska natives, Native Hawaiians, Pacific Islanders and unknown

*** IDU: Injecting drug users; RNI: Reason not indicated; Other: perinatal transmission, hemophilia, blood transfusion and occupational exposure

- Slight disparities by gender identity were observed. Women and transgender persons living in DC were more likely to be retained in care in 2016 compared to men.
- Blacks had higher rates of retention in care, but whites had the highest rates of ever being virally suppressed and viral suppression in 2016 compared to all other racial groups.
- By age, persons between the ages of 30-39 had the lowest proportions of retention in any HIV care in 2016 compared to other age groups. Persons aged 0-19 were least likely to ever be virally suppressed and persons aged 20-24 were least likely to be virally suppressed in 2016.

Clinical outcomes among newly diagnosed HIV cases from 2011-2015 were also assessed. Cases diagnosed between 2011 and 2015 and living in 2016 were included to observe linkage to care within 3 months of diagnosis and viral

suppression within 12 months of initial HIV diagnosis.

Table 11. Care Dynamics for HIV Cases Newly Diagnosed with HIV by Selected Characteristics
District of Columbia, 2011-2015

	Newly Diagnosed between 2011-2015 and living in 2016	Linked with 3 months of diagnosis		Viral suppression within 12 months of HIV diagnosis	
	N	N	%	N	%
Sex					
Male	1,970	1,594	80.9	1,175	59.6
Female	605	503	83.1	363	60.0
Transgender	48	39	81.3	28	58.3
Race/Ethnicity					
White	393	352	89.6	281	71.5
Black	1,891	1,511	79.9	1,077	57.0
Hispanic/Latino	240	196	81.7	156	65.0
Other*	99	77	77.8	52	52.5
Mode of Transmission**					
Sexual contact	1,987	1,647	82.9	1,219	61.3
IDU	82	52	63.4	33	40.2
Sexual contact/IDU	52	38	73.1	28	53.8
Other	10	10	100.0	8	80.0
RNI	492	389	79.1	278	56.5
Age at Diagnosis					
0-19	122	103	84.4	64	52.5
20-24	426	335	78.6	241	56.6
25-29	444	364	82.0	249	56.1
30-39	644	514	79.8	396	61.5
40-49	495	411	83.0	298	60.2
50-59	347	284	81.8	226	65.1
60 and older	145	125	86.2	92	63.4
Year of Diagnosis					
2011	677	545	80.5	362	53.5
2012	627	530	84.5	387	61.7
2013	511	395	77.3	288	56.4
2014	424	325	76.7	259	61.1
2015	384	341	88.8	270	70.3
Grand Total	2,623	2,136	81.4	1,566	59.7

*Other: mixed race individuals, Asians, Alaska natives, Native Hawaiians, Pacific Islanders and unknown
**IDU: Injecting drug users; RNI: Reason not indicated; Other: perinatal transmission, hemophilia, blood transfusion and occupational exposure.

- Disparities between gender identity among newly diagnosed cases were slightly observed. Women had the highest proportion of linkage to care within 3 months of HIV diagnosis and the highest proportion of viral suppression within 12 months of initial diagnosis.
- Whites had higher rates of linkage within 3 months of diagnosis and rates of viral suppression compared to all other racial groups.
- Persons with IDU as reported mode of transmission had lower rates of linkage to care and viral suppression compared to all other transmission categories.

- Persons diagnosed between the ages of 20-24 had the lowest proportions of linkage to care, and persons aged 0-19 at diagnosis had the lowest proportion of viral suppression. Persons aged 60 and older had high rates of linkage and people age 50-59 had the highest proportion of suppression compared to other age groups.
- Linkage varied but suppression increased over the five-year period.

Ryan White Care Dynamics

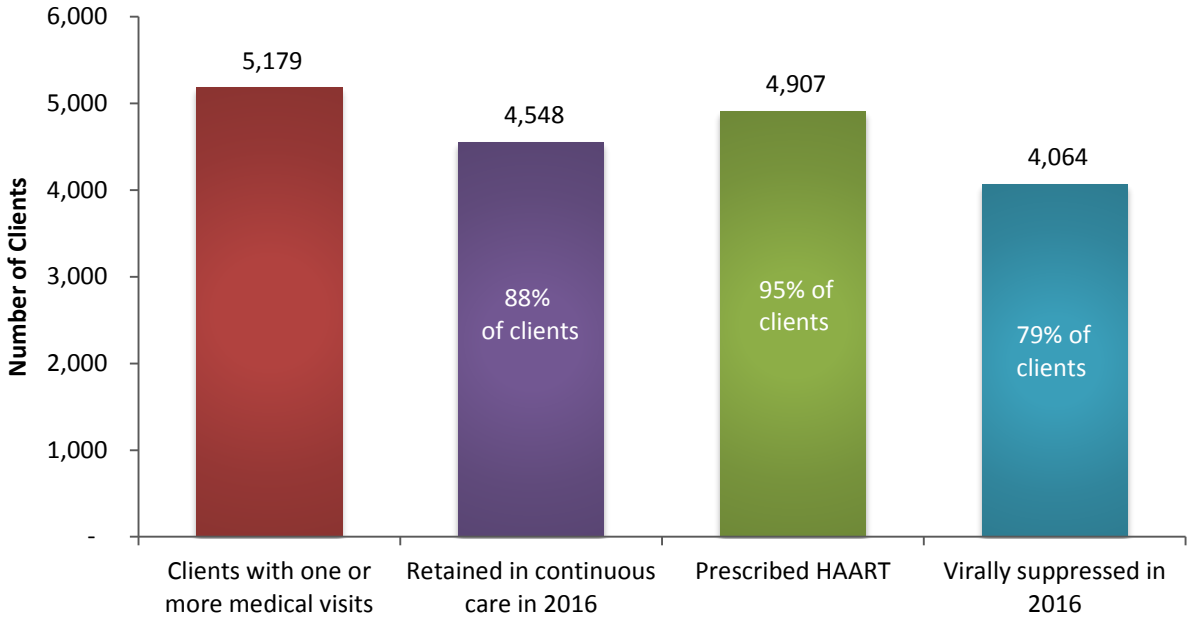
The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act is a program funded by the Health Resources and Services Administration (HRSA) to provide HIV-related services to people diagnosed with HIV. More specifically, it is a program for those who do not have sufficient health care coverage or financial resources. The Ryan White CARE program funds core medical and support services. Core medical services include outpatient and ambulatory medical care, AIDS Drug Assistance Program (ADAP), oral health care, early intervention services, health insurance premium and cost-sharing assistance, home health care, medical nutrition therapy, hospice care, home and community-based health services, mental health, outpatient substance abuse care, and medical case management including treatment-adherence services.

HIV Care dynamics among clients served through Ryan White in the District was examined to evaluate clients on the care continuum and assess their health outcomes. This continuum of care differs from what has been previously presented in several ways. First, the population used is a subset of the total number of HIV cases living in the District. These cases are not newly diagnosed in a given year, but are HIV cases who received any type of Ryan White CARE Act funded service in 2016. Second, care status was measured through documented medical visits, rather than laboratory tests. Finally, information is included on the number of clients who had been prescribed HIV medication.

Table 12. Ryan White Care Dynamics Measure Definitions

Measure	Definition
Clients with one or more medical visits	Ryan White clients with at least one documented primary care visit in 2016
Retained in continuous care in 2016	Having 2 more medical visits in 2016 that were at least 90 days apart
Prescribed HAART	Ryan White clients with documentation of having been prescribed HIV medication
Virally suppressed at last viral status in 2016	Having a viral load result of <200 copies/mL at last viral load test in 2016

Figure 17. 2016 Care dynamics among Ryan White Clients, District of Columbia



- At the end of 2016, there were 5,179 unique clients that had one or more primary medical care visit in 2016.
- The majority (87.8%) of clients had 2 or more primary care visits in 2016.
- Most (94.7%) clients were prescribed Highly Active Anti-Retroviral Therapy (HAART).
- Among Ryan White clients that had at least one primary care visit in 2015, 78.5% were virally suppressed at their last viral load test in 2016.

Table 13. Characteristics of Care Dynamics among Ryan White Clients, District of Columbia, 2016

	Clients with 1 or more medical visits	Retained in continuous care		Prescribed HAART		Virally suppressed at last recorded viral load test	
	n	n	%	n	%	n	%
Gender Identity							
Male	3,326	2,915	87.6	3,162	95.1	2,639	79.3
Female	1,679	1,482	88.3	1,588	94.6	1,301	77.5
Transgender	172	149	86.6	155	90.1	122	70.9
Missing	2	2	100.0	2	100.0	2	100.0
Age at Service							
0 - 12	11	11	100.0	11	100.0	8	72.7
13 - 24	167	146	87.4	148	88.6	90	53.9
25 - 34	881	760	86.3	823	93.4	632	71.7
35 - 44	986	863	87.5	935	94.8	766	77.7
45 - 54	1,586	1,388	87.5	1,513	95.4	1,270	80.1
55 - 64	1,225	1,089	88.9	1,169	95.4	1,009	82.4
65+	323	291	90.1	308	95.4	289	89.5
Race							
White	594	545	91.8	570	96.0	509	85.7
Black	4,329	3,778	87.3	4,110	94.9	3,351	77.4
Asian	25	25	100.0	23	92.0	21	84.0
Native Hawaiian/Pacific Islander	7	6	85.7	5	71.4	6	85.7
American Indian/Alaska Native	24	16	66.7	23	95.8	17	70.8
Unknown	200	178	89.0	176	88.0	160	80.0
Ethnicity							
Hispanic/Latino	526	481	91.4	480	91.3	439	83.5
Non-Hispanic/Latino	4,653	4,067	87.4	4,427	95.1	3,625	77.9
Mode of Transmission* **							
MSM	1,766	1,541	87.3	1,670	94.6	1,384	78.4
IDU	282	228	80.9	265	94.0	217	77.0
Heterosexual contact	2,442	2,135	87.4	2,326	95.2	1,934	79.2
Risk not reported or not identified	720	666	92.5	677	94.0	556	77.2
Other*	105	99	92.3	102	97.1	74	70.4
Total	5,179	4,548	87.8	4,907	94.7	4,064	78.5

* Other mode of transmission includes hemophilia, blood recipient and perinatal acquisition.

- By gender identity, retention in continuous care was comparable across all groups. Transgender persons had lower rates of prescription of HAART and viral suppression compared to men and women.
- By age at service, though more than 85% of RW clients had at least 2 or more visits in 2016 and over 88% had been prescribed ART, persons aged 13-24 had the lowest proportion of viral suppression in 2016 compared to all other age groups.
- By race, American Indian/Alaska Natives had the lowest rates of continuous care and viral suppression in 2016, while Native Hawaiian/Pacific Islander had the lowest rates of ART prescription.
- By mode of HIV transmission, clients who were listed as "other" had low rates of viral suppression in 2016.

Section 7. Molecular HIV Surveillance

Understanding HIV-Related Drug Resistance

The 2016 HIV-related Drug Resistance profile provides information about drug resistance for HIV occurring each year among DC residents during the five year span from 2012-2016. The objective of HIV-related drug resistance is to track the prevalence of resistance to particular drug classes in DC. Drug resistance occurs when the HIV virus adapts to the effects of particular drugs making them ineffective to treat the infection. Genetic sequence testing is an essential tool for assessing an individual's drug resistance and developing an effective treatment plan. Resistance to integrase strand-transfer inhibitors was not included since this has not been conducted in a standard way across all 5 years of the analysis.

Table 14. Drug Resistance Definitions

Term	Definition
Nucleotide Reverse Transcriptase Inhibitors (NRTIs)	Class of drugs used to prevent the HIV virus from making copies within the cell.
Non-Nucleotide Reverse Transcriptase Inhibitors (NNRTIs)	Class of drugs used to prevent the HIV virus from making copies within the cell.
Protease Inhibitors (PIs)	Class of drugs used to prevent the virus from growing within the cell
Transmitted Drug Resistance	Drug resistant mutations are present at the time the person is infected
Acquired Drug Resistance	Drug resistance develops over time, likely in a person who is being treated for infection
Susceptible*	No evidence of ARV resistance
Potential Low Level Resistance*	The sequence has a mutation that increases the chance of developing low level resistance
Low Level Resistance*	The predicted level of resistance is similar to those with suboptimal response to treatment with the drug
Intermediate Resistance*	The predicted level of resistance may reduce drug effectiveness.
High Level Resistance*	The predicted level of resistance is similar to those with the highest levels of drug resistance

*Definitions and susceptibility were ascertained from the Stanford University Sierra HIV Drug Resistance Database. https://hivdb.stanford.edu/page/release-notes/

Limitations and Assumptions of HIV-Related Drug Resistance

- **Reporting Completeness:**
  The completeness of HIV-related drug resistance data are limited by laboratory participation. Due to the nature of the result, electronic laboratory reporting via HL7 messaging is required. Currently, genotypic laboratory results are reported by labs representing approximately ~90% of HIV-related tests conducted in the District.
- **Missing Data:**
  Drug resistance can only be assessed among persons with reported laboratory data. Proportions of the diagnosed population may not have this data, but as diagnosed cases in the District, are included in the report.

Overview of HIV-Related Drug Resistance

The proportion of newly diagnosed HIV cases with any drug resistance in the District was stable from 2012 to 2016 (figure 1). Transmitted drug resistance was found in 4.9% and acquired drug resistance was found in 5.1% of those newly diagnosed from 2012-2016. Timing of drug resistance was unable to be determined in 2.3% of the cases. Proportions of any resistance among newly diagnoses HIV cases were consistent across all gender identities, racial/ethnic groups, and modes of transmission. Individuals age 20-24 had the highest proportion of any resistance (15.5%) compared to other age groups. Any evidence of resistance was found in 16.7% of those diagnosed at stage 3 during this timeframe.

Figure 18. Proportion of Newly Diagnosed HIV Cases with Evidence of Drug Resistance by Year, District of Columbia, 2012-2016

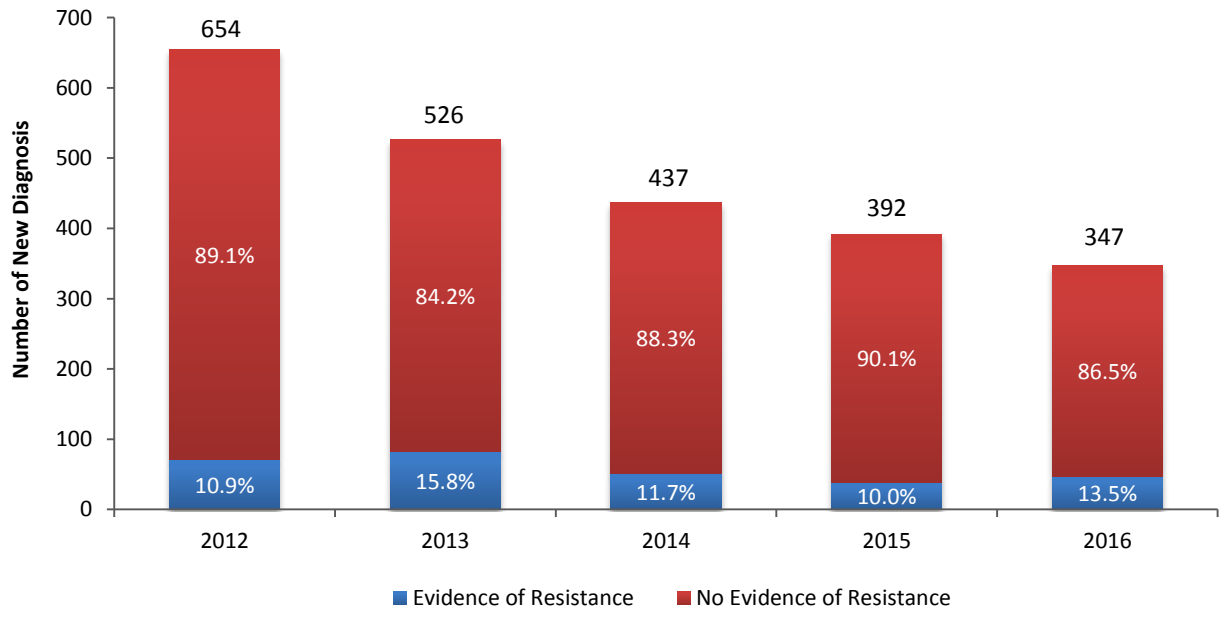


Table 15. Proportion of Newly Diagnosed HIV Cases with Available Genotype Sequences, Evidence of Drug Resistance by Resistance Level, District of Columbia, 2012-2016*‡

Antiretroviral Drug Classification	Antiretroviral Drug (ARV)	Susceptible N(%)	Potential Low Level Resistance N(%)	Low Level Resistance N(%)	Intermediate Resistance N(%)	High Level Resistance N(%)
Nucleotide Reverse Transcriptase Inhibitors	Abacavir (ABC)	1,169 (96.4)	5 (0.4)	23 (1.9)	7 (0.6)	8 (0.7)
	Zidovudine (AZT)	1,162 (95.9)	9 (0.7)	23 (1.9)	9 (0.7)	9 (0.7)
	Emtricitabine (FTC)	1,185 (97.8)	3 (0.3)	0 (0.0)	1 (0.1)	23 (1.9)
	Lamivudine (3TC)	1,185 (97.7)	3 (0.3)	0 (0.0)	1 (0.1)	23 (3.8)
	Tenofovir (TDF)	1,183 (97.6)	6 (0.5)	11 (0.9)	9 (0.7)	3 (0.3)
	Stavudine (D4T)	1,154 (95.2)	9 (0.7)	25 (2.1)	15 (1.2)	9 (0.7)
	Didanosine (DDI)	1,149 (94.8)	31 (2.6)	15 (1.2)	9 (0.7)	8 (0.7)
Non-Nucleotide Reverse Transcriptase Inhibitors	Efavirenz (EFV)	1,014 (83.7)	38 (3.1)	5 (0.4)	27 (2.2)	128 (10.6)
	Etravirine (ETR)	1,104 (91.1)	75 (6.2)	8 (0.7)	15 (1.2)	10 (0.8)
	Nevirapine (NVP)	1,012 (83.5)	31 (2.6)	9 (0.7)	17 (1.4)	143 (11.8)
	Rilpivirine (RPV)	1,104 (91.1)	30 (2.5)	41 (3.4)	8 (0.7)	29 (2.4)
Protease Inhibitors	Atazanavir (ATV/r)	1,209 (97.9)	6 (0.5)	11 (0.9)	2 (0.2)	7 (0.6)
	Darunavir(DRV/r)	1,230 (99.6)	0 (0.0)	2 (0.2)	3 (0.2)	0 (0.0)
	Lopinavir (LPV/r)	1,210 (98.0)	6 (0.5)	10 (0.8)	5 (0.4)	4 (0.3)
	Fosamprenavir (FPV/r)	1,201 (97.3)	11 (0.9)	14 (1.1)	3 (0.2)	6 (0.5)
	Indinavir (IDV/r)	1,206 (97.7)	9 (0.7)	1 (0.1)	13 (1.1)	6 (0.5)
	Nelfinavir (NFV)	1,194 (96.7)	9 (0.7)	10 (0.8)	4 (0.3)	18 (1.5)
	Saquinavir (SQV/r)	1,210 (98.0)	6 (0.5)	1 (0.1)	11 (0.9)	7 (0.6)
	Tipranavir (TPV/r)	1,212 (98.1)	9 (0.7)	7 (0.6)	6 (0.5)	1 (0.1)

*Darker shades indicate a larger proportion of resistant results.

‡ Only cases with available genotype sequences are included in this table.

- The largest proportions of high level resistance were found in Nevirapine (11.8%) and Efavirenz (10.6%).
- The smallest proportions of resistance were found in the protease inhibitors drug class with resistance ranging from 0%-1.1%.

Table 16. Drug Resistance among Newly Diagnosed Cases by Gender, Race/Ethnicity, Age, Mode of Transmission, and Stage at Diagnosis, District of Columbia, 2012-2016†‡

	Evidence of Resistance‡	No Evidence of Resistance	Total
	N (%)	N (%)	N(%)
Male	230 (13.0%)	1,537 (87.0%)	1,767 (100.0%)
Female	57 (10.4%)	490 (89.6%)	547 (100.0%)
Transgender	4 (9.5%)	38 (90.5%)	42 (100.0%)
Total	291 (12.4%)	2,065 (87.6%)	2,356 (100.0%)
White	36 (10.5%)	308 (89.5%)	344 (100.0%)
Black	218 (12.8%)	1,485 (87.2%)	1,703 (100.0%)
Hispanic	27 (12.1%)	197 (87.9%)	224 (100.0%)
Other*	10 (11.8%)	75 (88.2%)	85 (100.0%)
Total	291 (12.4%)	2,065 (87.6%)	2,356 (100.0%)
<13	-- (--%)	7 (100.0%)	7 (100.0%)
13-19	14 (14.6%)	82 (85.4%)	96 (100.0%)
20-24	57 (15.5%)	310 (84.5%)	367 (100.0%)
25-29	50 (12.0%)	365 (88.0%)	415 (100.0%)
30-39	69 (11.5%)	533 (88.5%)	602 (100.0%)
40-49	55 (13.3%)	358 (86.7%)	413 (100.0%)
50-59	31 (10.1%)	275 (89.9%)	306 (100.0%)
>=60	15 (10.0%)	135 (90.0%)	150 (100.0%)
Total	291 (12.4%)	2,065 (87.6%)	2,356 (100.0%)
Sexual Contact	221 (12.7%)	1,514 (87.3%)	1,735 (100.0%)
Sexual Contact/IDU	6 (16.7%)	30 (83.3%)	36 (100.0%)
IDU	7 (10.3%)	61 (89.7%)	68 (100.0%)
Other**	1 (12.5%)	7 (87.5%)	8 (100.0%)
Risk not Identified	56 (11.0%)	453 (89.0%)	509 (100.0%)
Total	291 (12.4%)	2,065 (87.6%)	2,356 (100.0%)
Stage 1	85 (11.6%)	648 (88.4%)	733 (100.0%)
Stage 2	126 (13.0%)	846 (87.0%)	972 (100.0%)
Stage 3	78 (16.7%)	389 (83.3%)	467 (100.0%)
Unknown Stage	2 (1.1%)	182 (98.9%)	184 (100.0%)
Total	291 (12.4%)	2,065 (87.6%)	2,356 (100.0%)

†strata with insufficient quantities will not have values reported.

‡ Evidence of resistance includes those with potential low level resistance.

*Other race/ethnicity includes Hispanic ethnicity, mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, White, and unknown.

- By age at diagnosis, the proportion of resistance is greatest among 20-24 year olds (15.5%)
- By HIV stage, people at stage 3 had the high proportion of evidence of resistance at 16.7%.

Section 8. HIV Mortality

Between 2012 and 2015*, there were 1,084 deaths among persons diagnosed with HIV in the District of Columbia. Approximately two-thirds (66.8%) of deaths occurred among men and 86.5% of deaths were among blacks. Over one-third (34.1% and 33.2%, respectively) of deaths occurred in people 50 to 59 years old and ages 60 and older. By mode of transmission, the largest proportion of deaths was among those with transmission attributed to sexual contact (56.7%), followed by IDU (24.3%). Among total deaths, 29.0% of the deaths were HIV related.

Table 17. Cause of Deaths among Persons with HIV Cases by Year of Death
District of Columbia, 2012-2016

	2012		2013		2014		2015		2016*		Total	
Cause of Death	N	%	N	%	N	%	N	%	N	%	N	%
HIV-related causes*	104	36.5	90	35.3	71	28.0	55	19.0	-	0.0	320	29.5
Non-AIDS Defining Malignancies	46	16.1	50	19.6	43	16.9	29	10.0	-	0.0	168	15.5
Cardiovascular	39	13.7	35	13.7	44	17.3	43	14.8	-	0.0	161	14.9
Substance Use	5	1.8	1	0.4	2	0.8	4	1.4	-	0.0	12	1.1
Accidental Death	14	4.9	13	5.1	17	6.7	22	7.6	-	0.0	66	6.1
Other**	57	20.0	47	18.4	51	20.1	35	12.1	-	0.0	190	17.5
Unknown	20	7.0	19	7.5	26	10.2	102	35.2	-	0.0	167	15.4
Total	285	100.0	255	100.0	254	100.0	290	100.0	-	-	1,084	100.0

*Information concerning deaths in 2016 is limited to preliminary data form the District of Columbia vital records only. The number of deaths may increase as information from other sources become available.
** Other causes of death include suicide, pneumonia, COP, diabetes, etc.

- Over 70% of deaths among persons diagnosed with HIV in the District were due to non-HIV related causes between 2012 and 2015.
- The underlying cause of death was unknown for 16.9% of deaths within this 5-year period. Cases who died in 2015 had the highest proportion of unknown cause of death (35.2%) due to incomplete reporting, which will be updated in the next annual report.

Section 9. Sexually Transmitted Infections

This section provides an overview of the incidence and trends of sexually transmitted infection – chlamydia, gonorrhea, and primary and secondary syphilis – in the District of Columbia. Sexually transmitted infections (STIs) continue to have a major impact on the health of District residents, particularly adolescents and men who have sex with men. At the end of 2013, data management systems collecting STI information were upgraded. Numbers for 2014, 2015, and 2016 remain preliminary as we actively work to improve the completeness and accuracy of these data.

Summary

From 2012 to 2016, the District received 37,920 reports of chlamydia infection, a 9.8% increase in the number of reported cases between 2012 and 2016 (34,536 cases). Among the reported cases with complete data, nearly two-thirds were women (61.0%), most were Black (88.9%), and nearly two-thirds (62.0%) were between 15 and 24 years of age. Geographically, the greatest number of chlamydia cases was reported among persons living in Wards 7 and 8 (35.5%). Please refer to appendix **Table B12** for more information on chlamydia infections reported between 2012 and 2016 in the District.

From 2012 to 2016, the District received 14,552 reports of gonorrhea infection, a 17.7% increase in the number of reported cases between 2011 and 2015 (12,364 cases). Unlike chlamydia, majority of diagnoses were among men compared to women at 64.7% and 34.9%, respectively. Approximately a third of reported cases were among blacks (36.2%) and nearly half (48.6%) were between 15 and 24 years of age. The greatest number of gonorrhea cases was also reported among persons living in Wards 7 and 8 (33.2%). Please refer to appendix **Table B13** for more information on gonorrhea infections reported between 2012 and 2016 in the District.

From 2012 to 2016, the District received 850 reports of primary and secondary syphilis infection, also known as infectious syphilis, a 6.5% increase in the number of reported cases between 2011 and 2015 (798 cases). Unlike chlamydia and gonorrhea, which predominantly affected youth and young adults less than 25 years of age, nearly two-thirds (61.9%) of primary and secondary syphilis cases were 30 years of age or older. About half (51.1%) of reported primary and secondary syphilis cases were among Blacks and almost all cases (92.5%) were reported among men. The highest number of primary and secondary syphilis cases were reported among persons living in Wards 1, 2, 5 and 6, (53.1%). Please refer to appendix **Table B14** for more information on primary and secondary syphilis infections reported between 2012 and 2016 in the District.

Reported Cases of Chlamydia, Gonorrhea and Syphilis in the District of Columbia

Chlamydia is the most commonly reported STD in the United States, sexually active women 25 years old and younger should be screened every year, and even though it is easy to cure, these bacteria can impact a woman's ability to have children if left untreated.

Because of emerging antibiotic resistance, Gonorrhea requires treatment with two different antibiotics (dual therapy). Gonorrhea infection can occur in anyone who is sexually active. If they occur, symptoms in men and women vary depending on what part of the body is infected: these bacteria can infect the anus, eyes, mouth, genitals, or throat. This disease can impact the ability to have children in both males and females if left untreated.

Syphilis is also a bacterial STD that is most commonly reported among male adults who are 30 years or older. It can cause long term complications and death if left untreated. Syphilis symptoms in adults are divided into 4 stages: primary, secondary, early latent, and late syphilis. The disease can spread by direct contact with a syphilis chancre

(sore) during oral, genital, or anal sex. It can also spread from a mother to her baby during pregnancy. All stages of syphilis can be cured with antibiotics.

Figure 19. Reported Chlamydia, Gonorrhea and Syphilis (Primary & Secondary) Cases by Year of Report, District of Columbia, 2012-2016

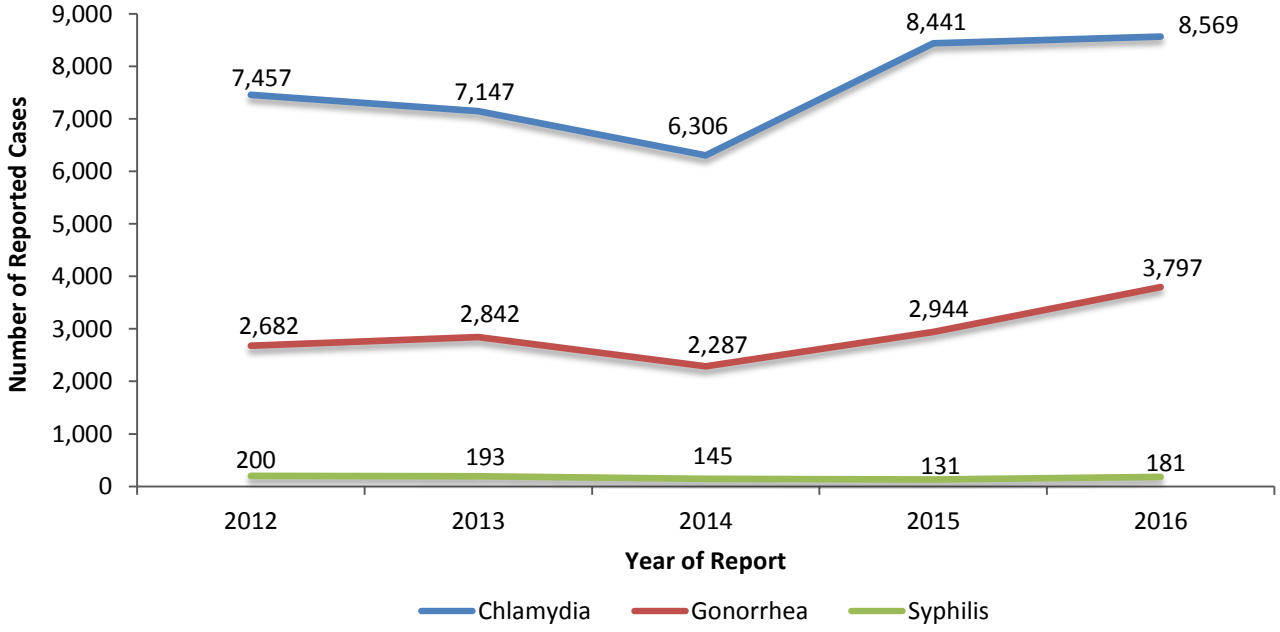
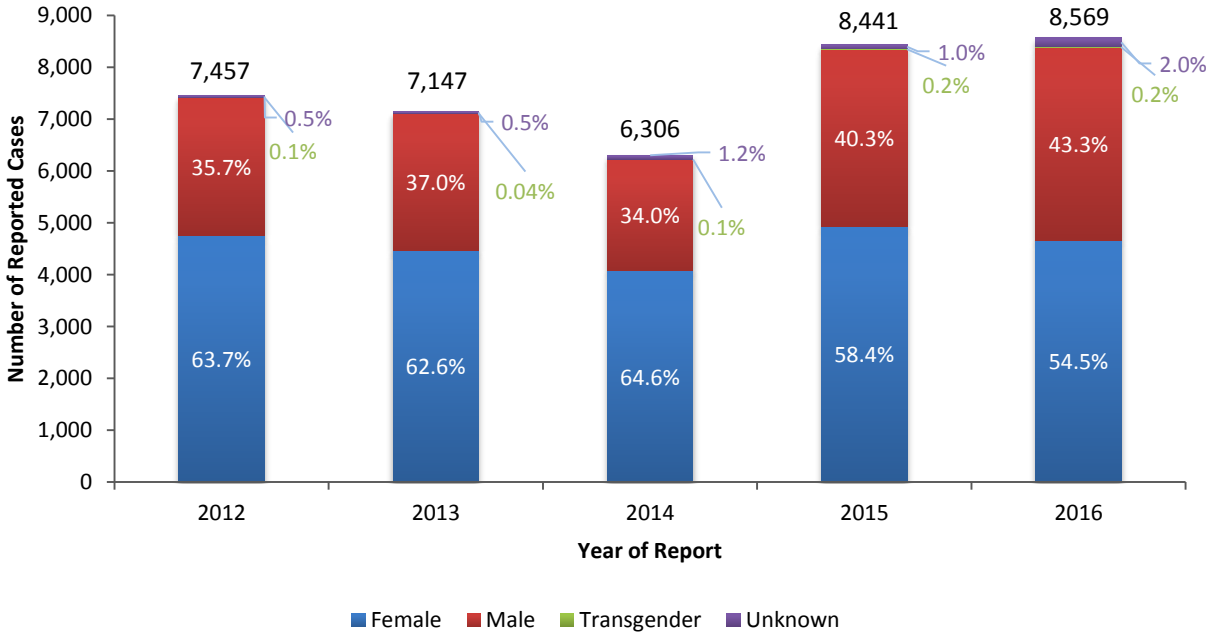
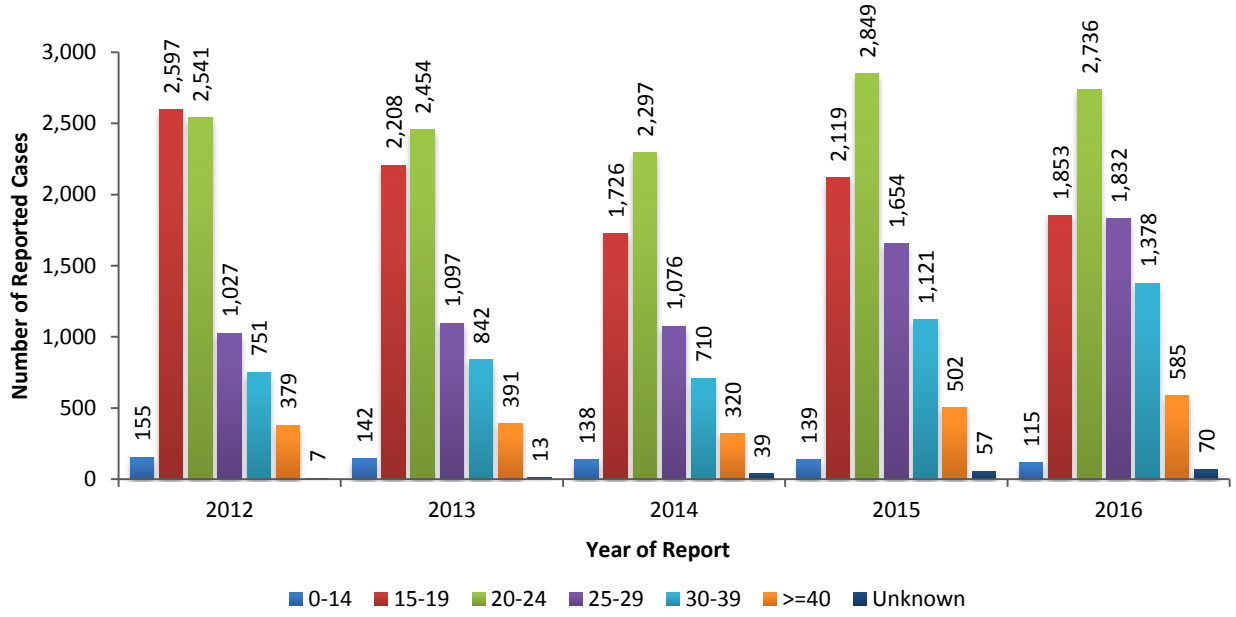


Figure 20. Reported Number of Chlamydia Cases by Year of Report and Gender Identity, District of Columbia, 2012-2016



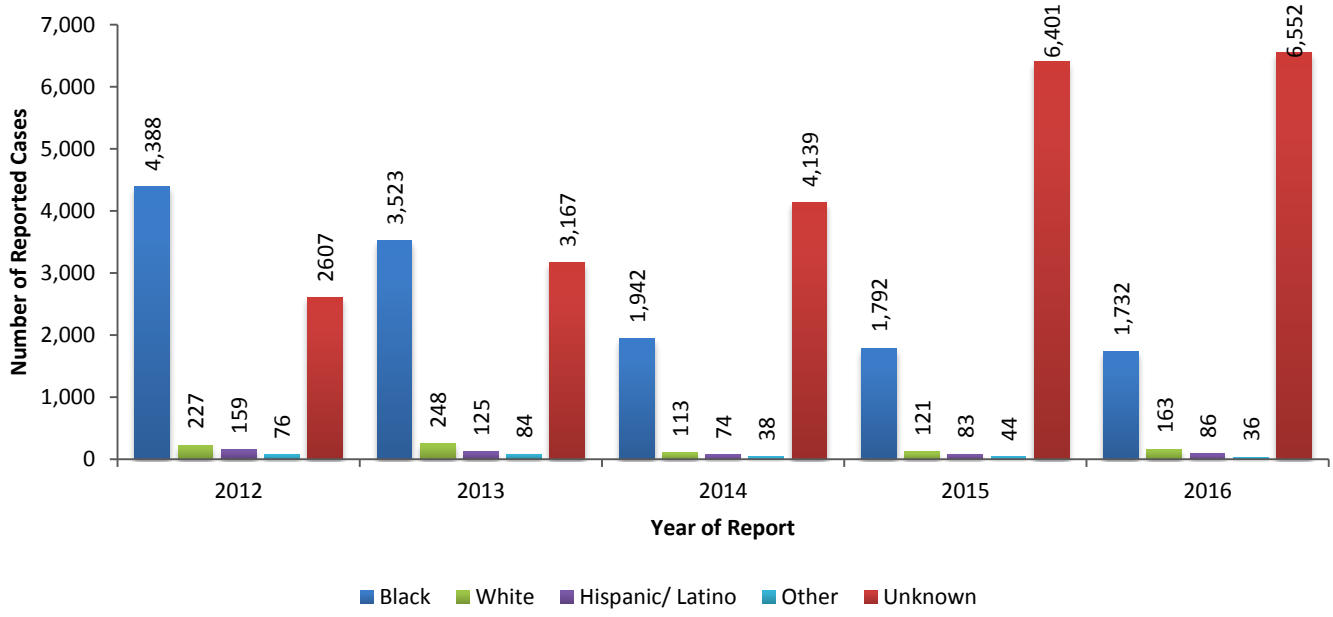
- Majority (60.4%) of Chlamydia diagnoses reported were among women between 2012 and 2016.

Figure 21. Reported Number of Chlamydia Cases by Year of Report and Age at Diagnosis, District of Columbia, 2012-2016



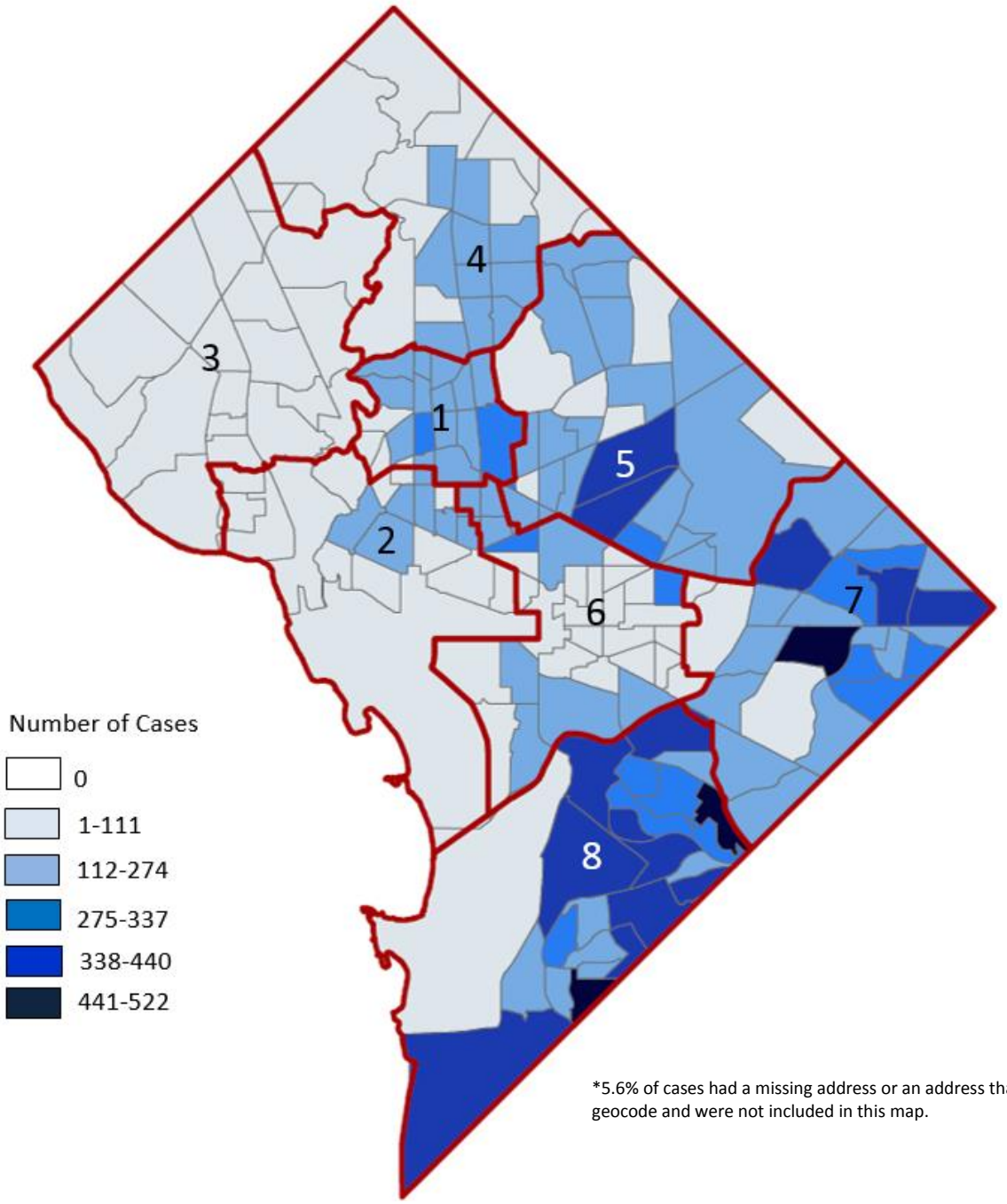
- From 2012-2016, the majority of diagnosed chlamydia cases was diagnosed among 20-24 year olds.

Figure 22. Reported Number of Chlamydia Cases by Year of Report and Race/Ethnicity, District of Columbia, 2012-2016



- The high percentage of chlamydia cases with an unknown race/ethnicity (59.7%) prevents a valid assessment of the racial/ethnic differences in the occurrence of chlamydia infections.

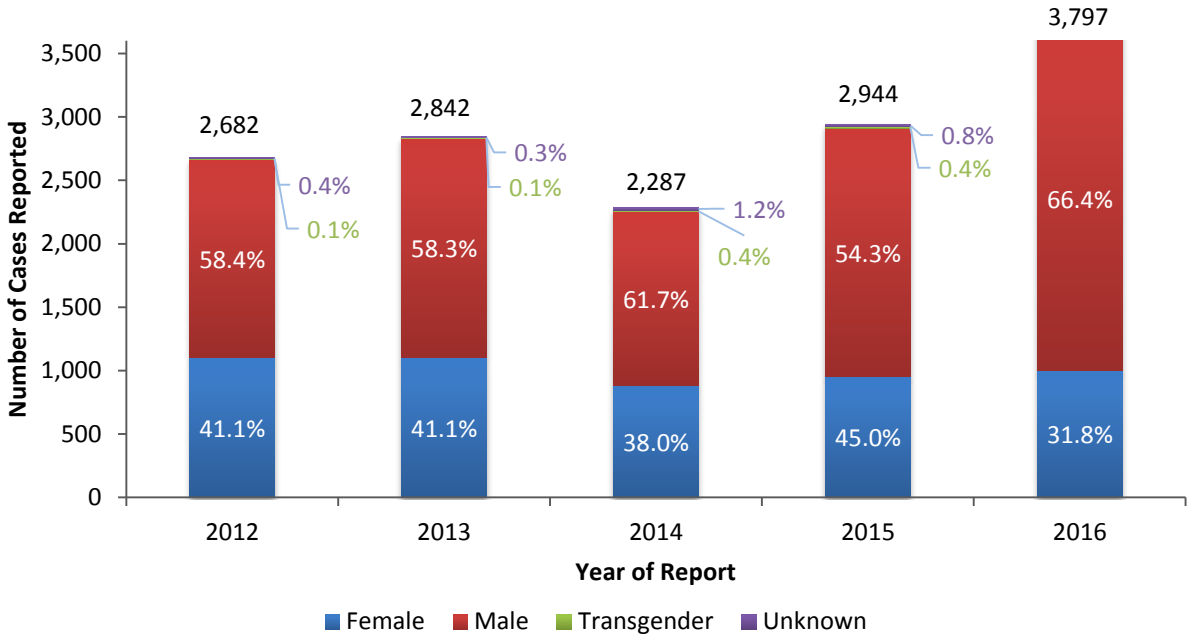
Map 4. Number of Reported Chlamydia Cases, by Census Tract, District of Columbia, 2012-2016, N=37,920*



*5.6% of cases had a missing address or an address that did not geocode and were not included in this map.

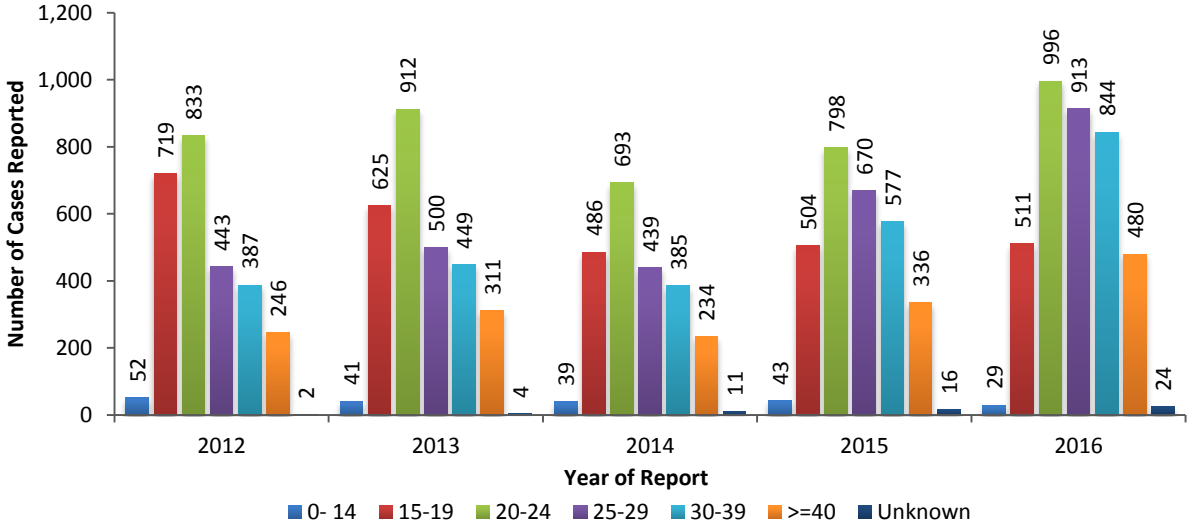
- Census tract information was available for 94.4% of reported chlamydia cases from 2012-2016.
- Though reported cases reside all throughout the city, census tracts with the highest number of reported chlamydia cases include wards 5, 7 and 8.

Figure 23. Reported Number of Gonorrhea Cases by Year of Report and Gender Identity, District of Columbia, 2012-2016



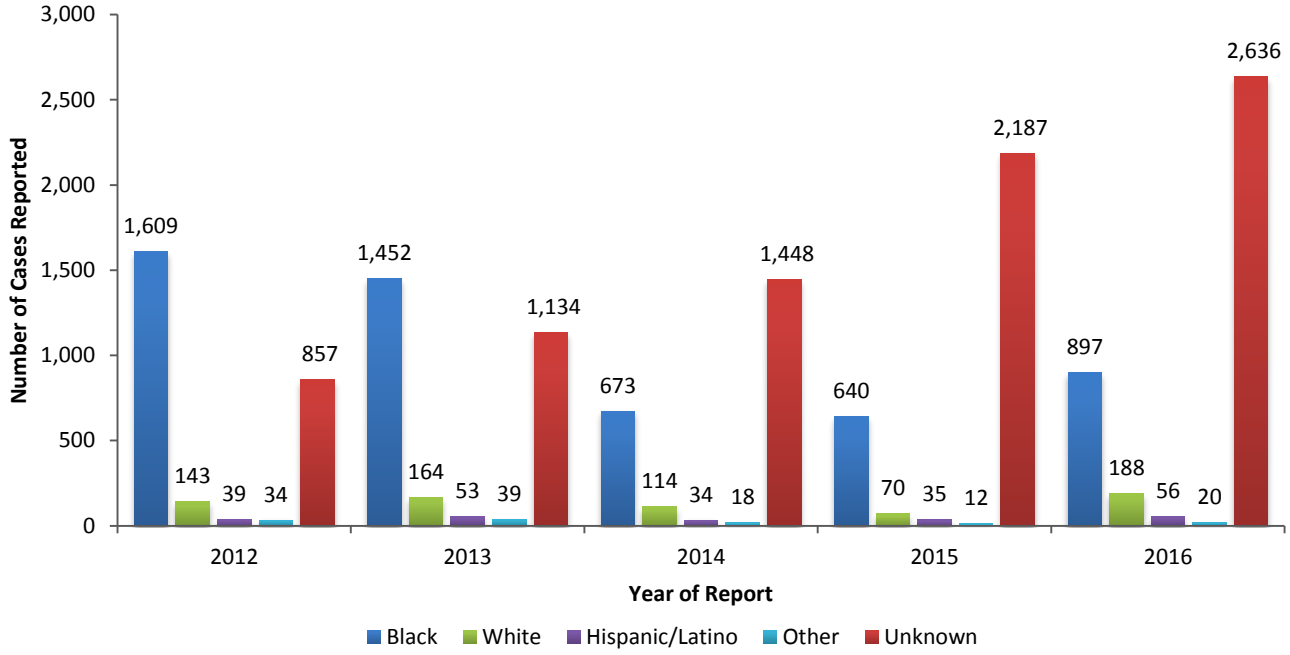
- Men had a 61.0% increase in gonorrhea diagnosis from 2012-2016, compared to 15.3% decrease among women.

Figure 24. Reported Number of Gonorrhea Cases by Year of Report and Age at Diagnosis, District of Columbia, 2012-2016



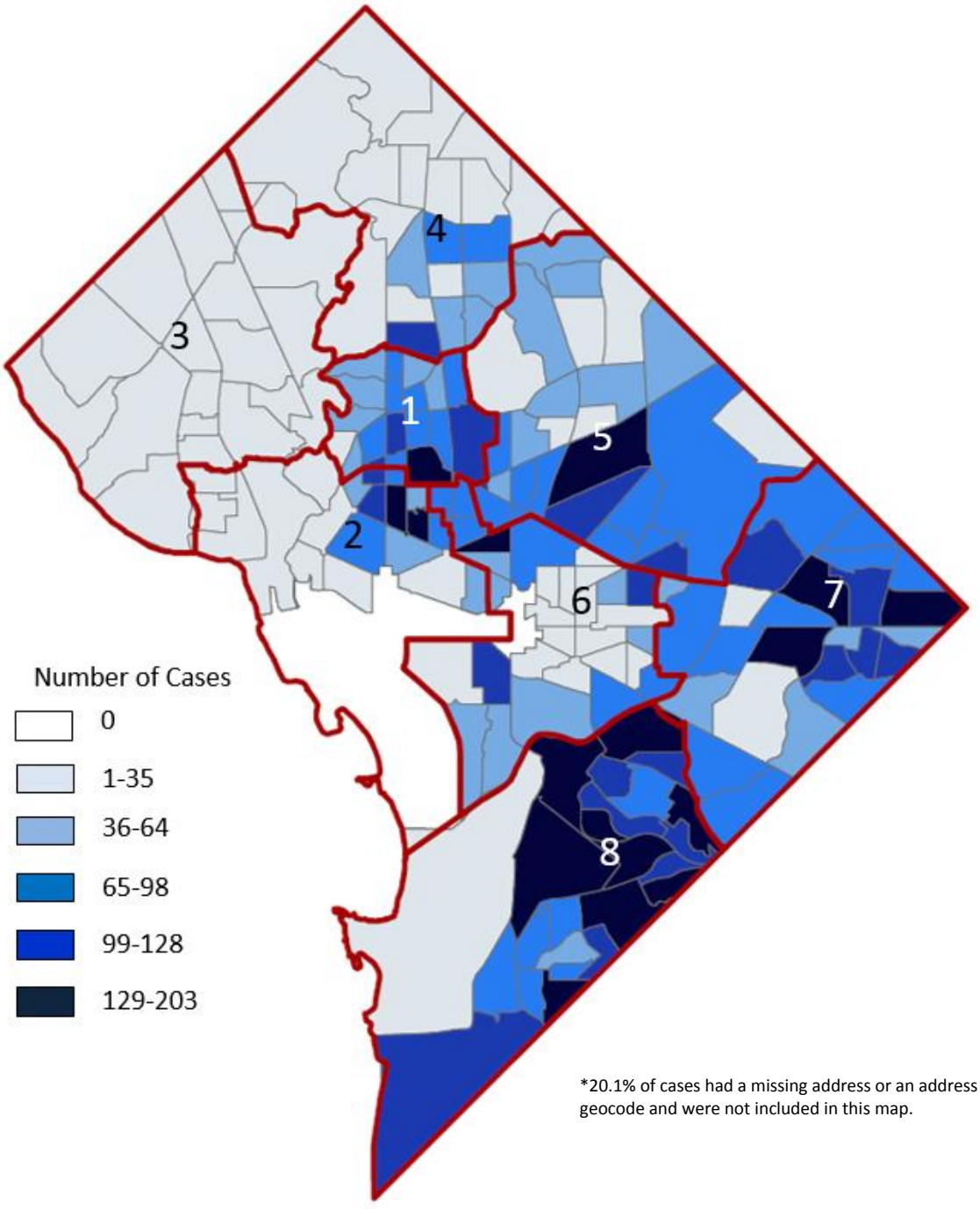
- People aged 20-24 had the highest proportion of cases in the five-year period, with 26.2% of cases reported in 2016.
- Reported cases among 25-29 year olds increased 106.1% in the-five year period and there was a 118.1% increase in reports among people aged 30-39.
- Gonorrhea reports among people ages 15-19 decreased 28.9% in the five-year period, from 719 in 2012 to 511 reported cases in 2016.

Figure 25. Reported Number of Gonorrhea Cases by Year of Report and Race,
District of Columbia, 2012-2016



- The high percentage of gonorrhea cases with an unknown race/ethnicity (56.5%) prevents a valid assessment of the racial/ethnic differences in the occurrence of gonorrhea infections within DC.

Map 5. Number of Reported Gonorrhea Cases, by Census Tract, District of Columbia, 2012-2016, N=14,552*



*20.1% of cases had a missing address or an address that did not geocode and were not included in this map.

- Census tract information was available for 79.9% of reported gonorrhea cases from 2012-2016.
- Though reported cases reside all throughout the city, census tracts with the highest number of reported gonorrhea cases include wards 1, 2, 5, 7 and 8.

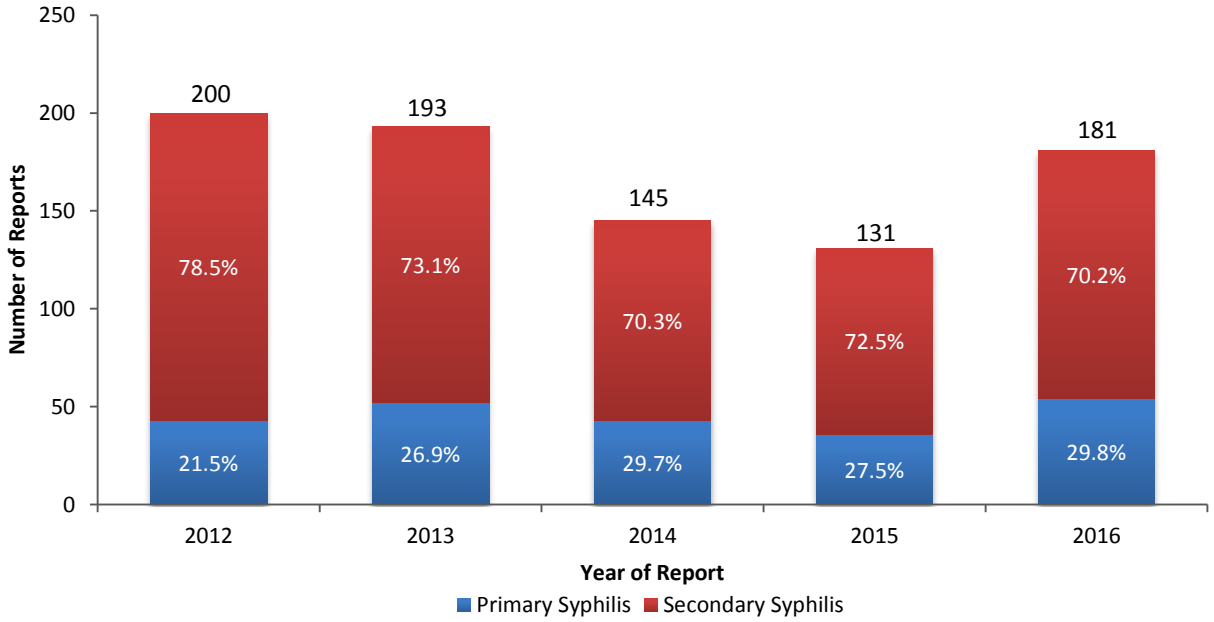
Congenital syphilis is a disease where a mother with syphilis transmits the infection to her baby during pregnancy. Congenital syphilis is preventable; however, untreated infection can lead to death, delays in development, seizures, rash, anemia, and damage to bones, eyes and brain.

Table 18. Number of Diagnosed Congenital Syphilis Cases, District of Columbia, 2012-2016

	2012	2013	2014	2015	2016
Number of cases	1	5	1	2	1

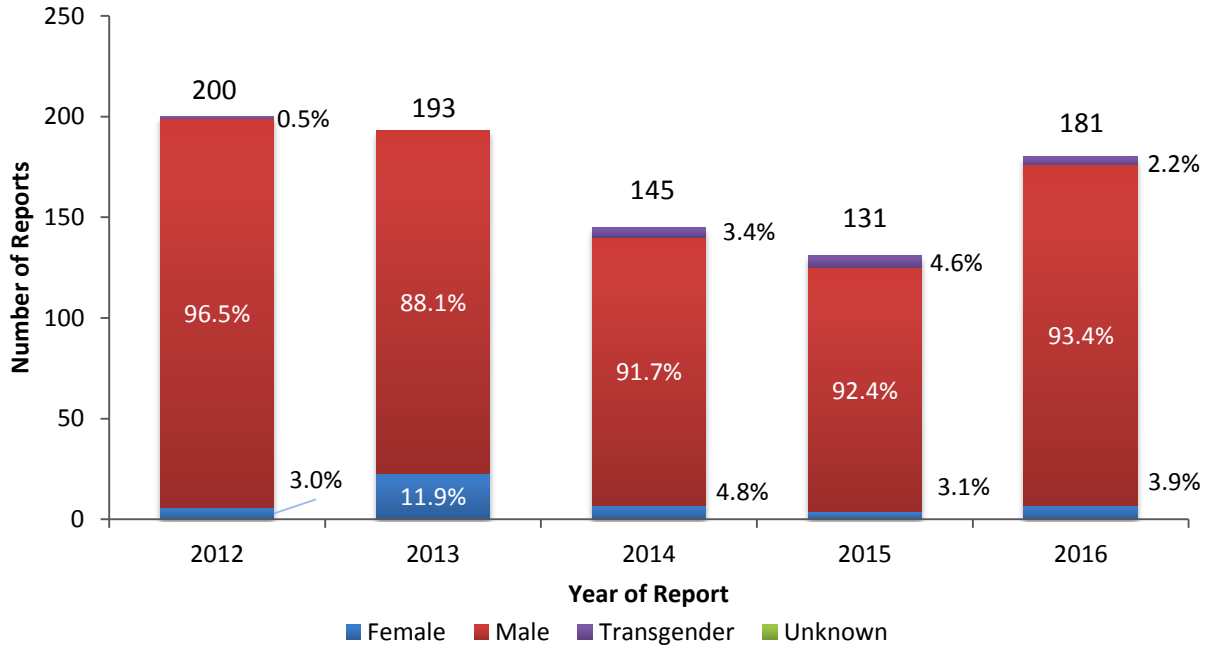
There were 10 cases of congenital syphilis diagnosed from 2012 to 2016, of which all were Black, 73.5% were male and all were diagnosed at birth. DOH investigated these cases and found that the mothers were not consistently in prenatal care. DOH reminds primary care, pediatric, and obstetric providers of the recommendations for routine serologic syphilis screening for all pregnant women early in pregnancy given high prevalence of syphilis in the District.

Figure 26. Reported Number of Syphilis Cases by Year of Report,
District of Columbia, 2012-2016



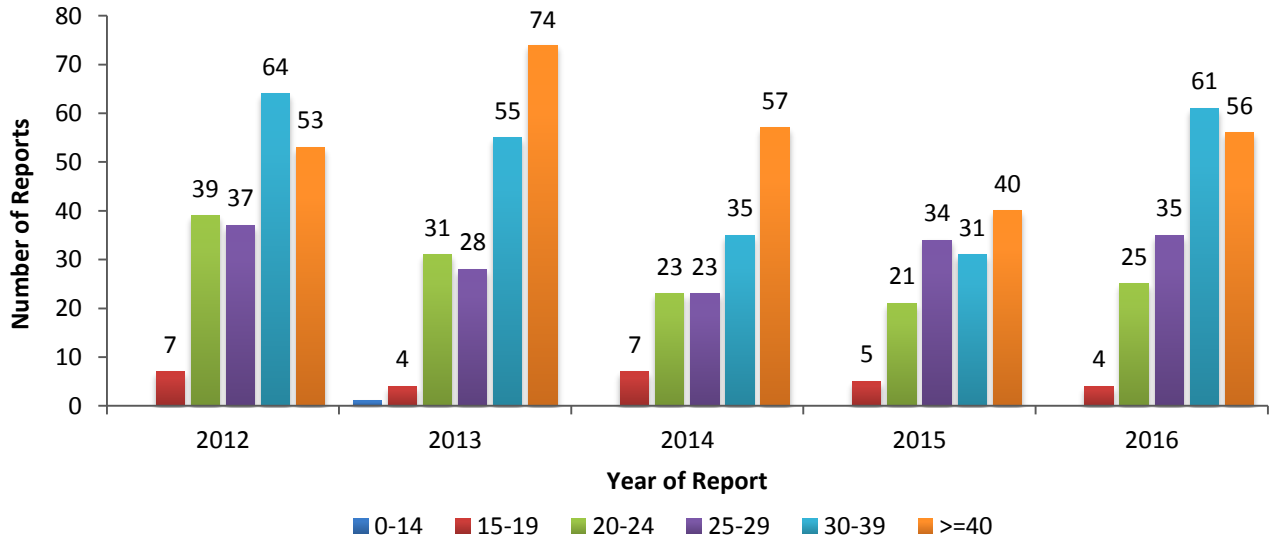
- Between 2012 and 2016, secondary syphilis represented over 70% of infectious syphilis cases reported each year.

Figure 27. Reported Number of Syphilis Cases by Year of Report and Gender Identity, District of Columbia, 2012-2016



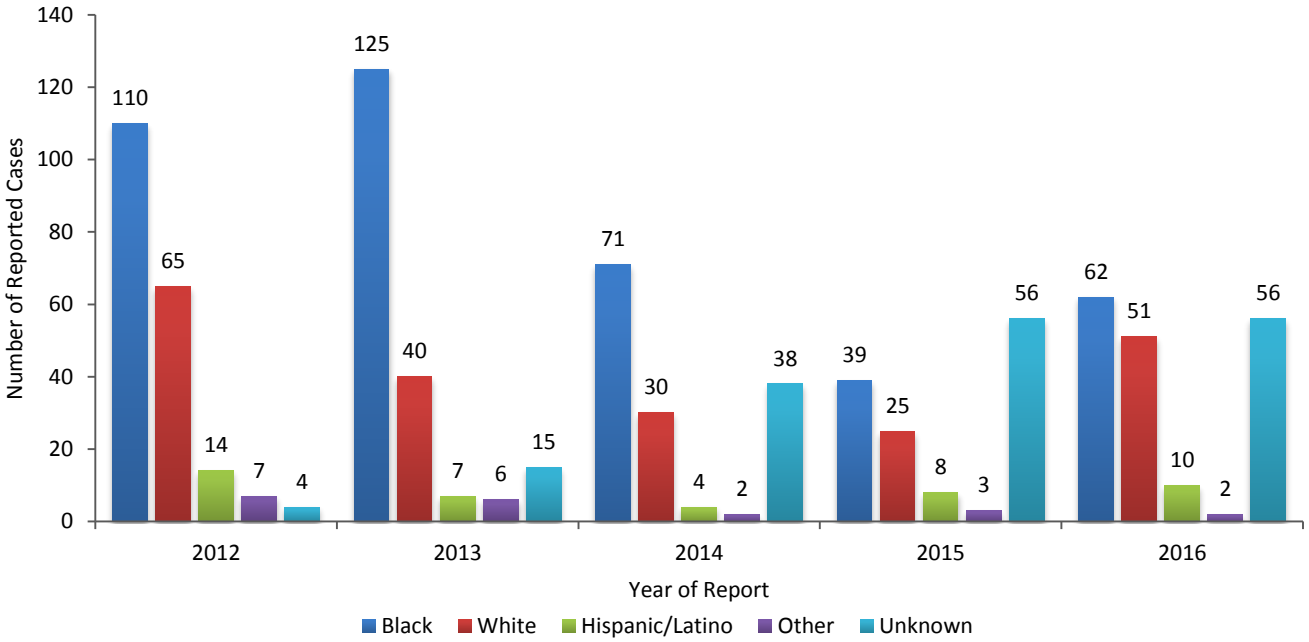
- Of the syphilis cases reported among men in 2016, nearly 90% reported having had sex with a man in the past 12 months.

Figure 28. Reported Number of Syphilis Cases by Year of Report and Age at Diagnosis, District of Columbia, 2012-2016



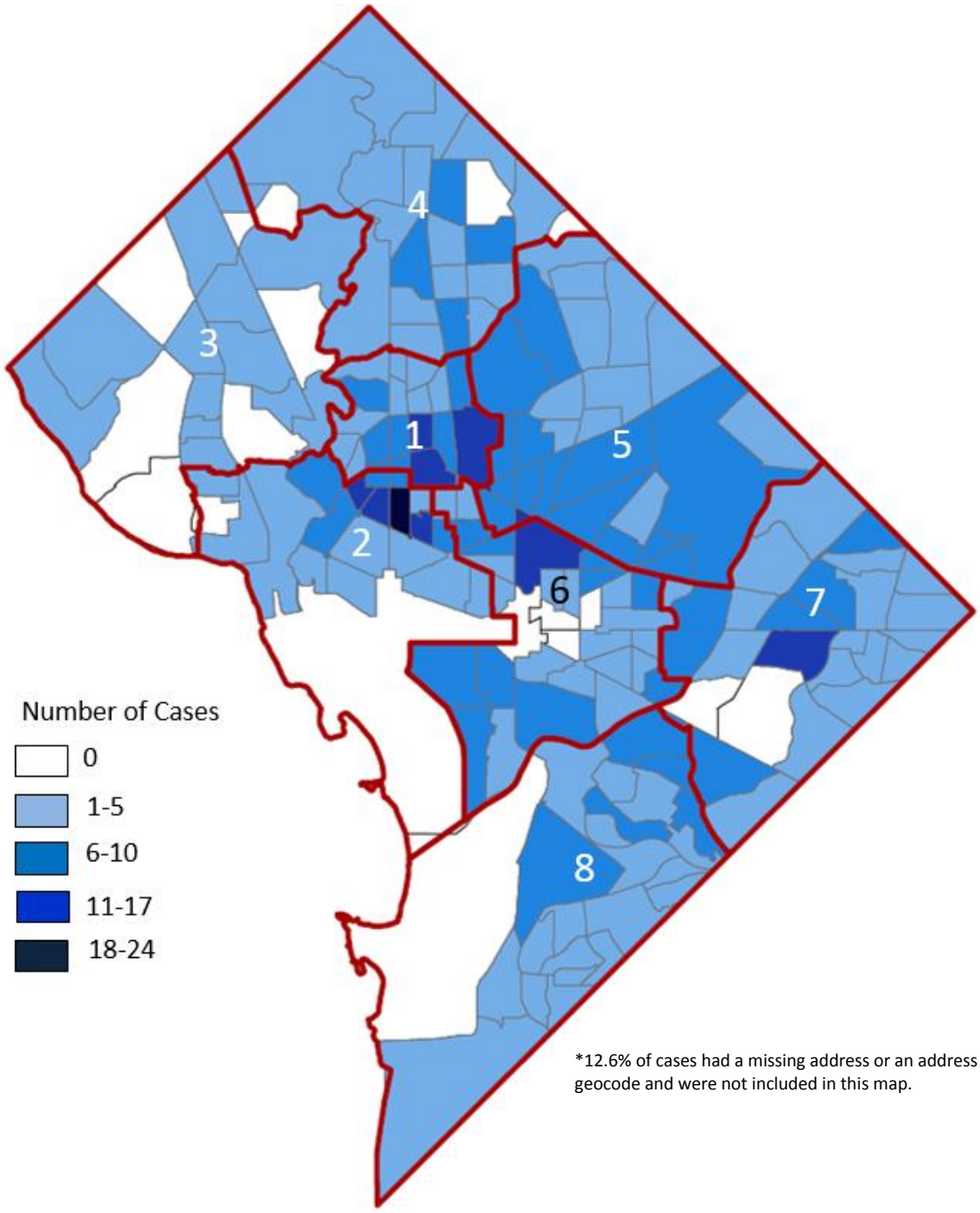
- From 2012-2016, nearly two-thirds (62%) of primary and secondary syphilis cases reported were among persons those 30 years of age and older.

Figure 29. Reported Number of Syphilis Cases by Year of Report and Race/Ethnicity, District of Columbia, 2012-2016



- From 2012 to 2016, Blacks represented 59.5% of reported syphilis cases with race/ethnicity data.
- HAHSTA has partial race/ethnicity data for 2014-2016. As continued review of reported cases occurs, updates to subsequent reports will present more accurate data.

Map 6. Number of Reported Syphilis Cases, by Census Tract, District of Columbia, 2012-2016, N=850*



*12.6% of cases had a missing address or an address that did not geocode and were not included in this map.

- Census tract information was available for 87.4% of reported syphilis cases from 2012-2016.
- Census tracts with the highest number of reported syphilis cases include wards 1, 2, 5 and 6.

Section 10. Viral Hepatitis

Hepatitis is a medical condition characterized by an inflammation of the liver. Often times initially occurring with few or no symptoms, many individuals remain unaware of their infection status until more chronic sequelae of hepatitis develop, including cirrhosis and liver cancer. Since 2000, 9,408 cumulative cases of chronic hepatitis b (HBV) and 29,652 cases of chronic hepatitis c (HCV) have been reported among District residents.

Under District of Columbia Municipal Regulations (DCMR), laboratories and health care providers are required to report positive hepatitis test results to the Department of Health. These test results are maintained in a registry as a means of monitoring and assessing infection patterns among District residents. For the purposes of this report, chronic HBV and HCV cases are classified as probable or confirmed according to standard laboratory criteria established by the US Centers for Disease Control and Prevention (CDC).

The data presented in the current section are limited to individuals with one or more reported positive hepatitis test results between 2012 and 2016. The majority of the subsequent tables and graphs focus solely on newly reported hepatitis cases (i.e., individuals without laboratory evidence of hepatitis diagnosis prior to 2012); however, some information is presented concerning both newly reported and previously diagnosed chronic HCV cases tested between 2012 and 2016 in order to better characterize the burden within the District and care engagement. When interpreting the information presented, consideration should be given to the fact that individuals infected with hepatitis who have not been tested are not represented in the current analysis. Additionally, individuals' diagnosis dates are based on the earliest date for which a positive laboratory test result was reported and are not necessarily indicative of the date on which an individual became infected.

Hepatitis C is the leading contributor to liver cancer, which is disproportionately high compared to national rates. The District's liver cancer rate is 11.4 per 100,000 (2013 latest data available) compared to the national rate of 7.9 per 100,000. DC is second highest to Hawaii. Among men, DC has the highest rate at 18.4 per 100,000 compared to all US men at 12.0 per 100,000. DC has the highest liver cancer death rate at 11.1 per 100,000 compared to US at 6.5 per 100,000. DC men and women rank the highest in liver cancer death rates at 15.9 per 100,000 and 7.0 per 100,000 respectively compared to US men at 9.5 per 100,000 and US women at 3.8 per 100,000. With the advances in curative therapies, the District has the opportunity to eliminate HCV in DC. DOH is developing an elimination framework that include strategies for increasing access and uptake to treatment. The first step is defining a HCV cure cascade to measure treatment readiness, initiation and cure. This report contains the first iteration of a cascade for the District.

Chronic Hepatitis B

Hepatitis B virus (HBV) is transmitted through contact with bodily fluids such as blood, semen, and/or vaginal fluid from an infected person. While HBV begins as an acute infection, in some individuals the immune system fails to clear the infection and it becomes chronic.

According to the CDC, the risk for chronic infection varies according to age at infection among persons exposed to HBV, with the greatest risk for chronic infection observed among those infected during early childhood. Approximately 90% of infants and 25% to 50% of children less than 5 years of age who acquire hepatitis B virus from their mothers remain chronically infected. By contrast, 94% to 98% of adults recover completely from acute infection and do not develop chronic disease.

Table 19. Newly Reported Chronic Hepatitis B Cases by Gender, Race/Ethnicity, Age at Diagnosis, and Year of Diagnosis, District of Columbia 2012-2016[1,2]

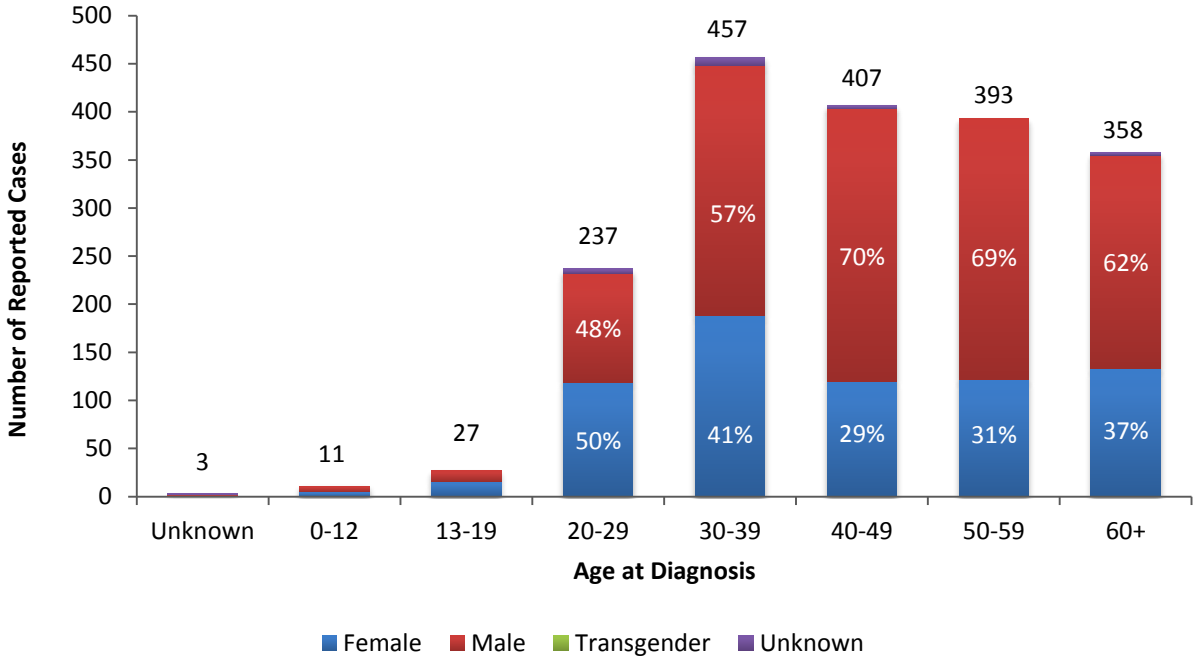
	N	%
Gender		
Female	704	37.2
Male	1,167	61.6
Transgender	0	0.0
Unknown	22	1.2
Total	**1,893**	**100.0**
Race/Ethnicity		
Black	246	13.0
White	36	1.9
Hispanic/Latino	7	0.4
Asian/Pacific Islander	26	1.4
American Indian	0	0.0
Unknown	1,578	83.4
Total	**1,893**	**100.0**
Age Group		
0 - 12	11	0.6
13 - 19	27	1.4
20 - 29	237	12.5
30 - 39	457	24.1
40 - 49	407	21.5
50 - 59	393	20.8
60 +	358	18.9
Unknown	3	0.2
Total	**1,893**	**100.0**
Diagnosis Year		
2012	348	18.4
2013	402	21.2
2014	397	21.0
2015	361	19.1
2016	385	20.3
Total	**1,893**	**100.0**

[1]Cases with reported residential address outside of the District of Columbia at the time of diagnosis are excluded from analysis

[2]Numbers may differ from previous publications due to additional record matching and/or data cleaning efforts

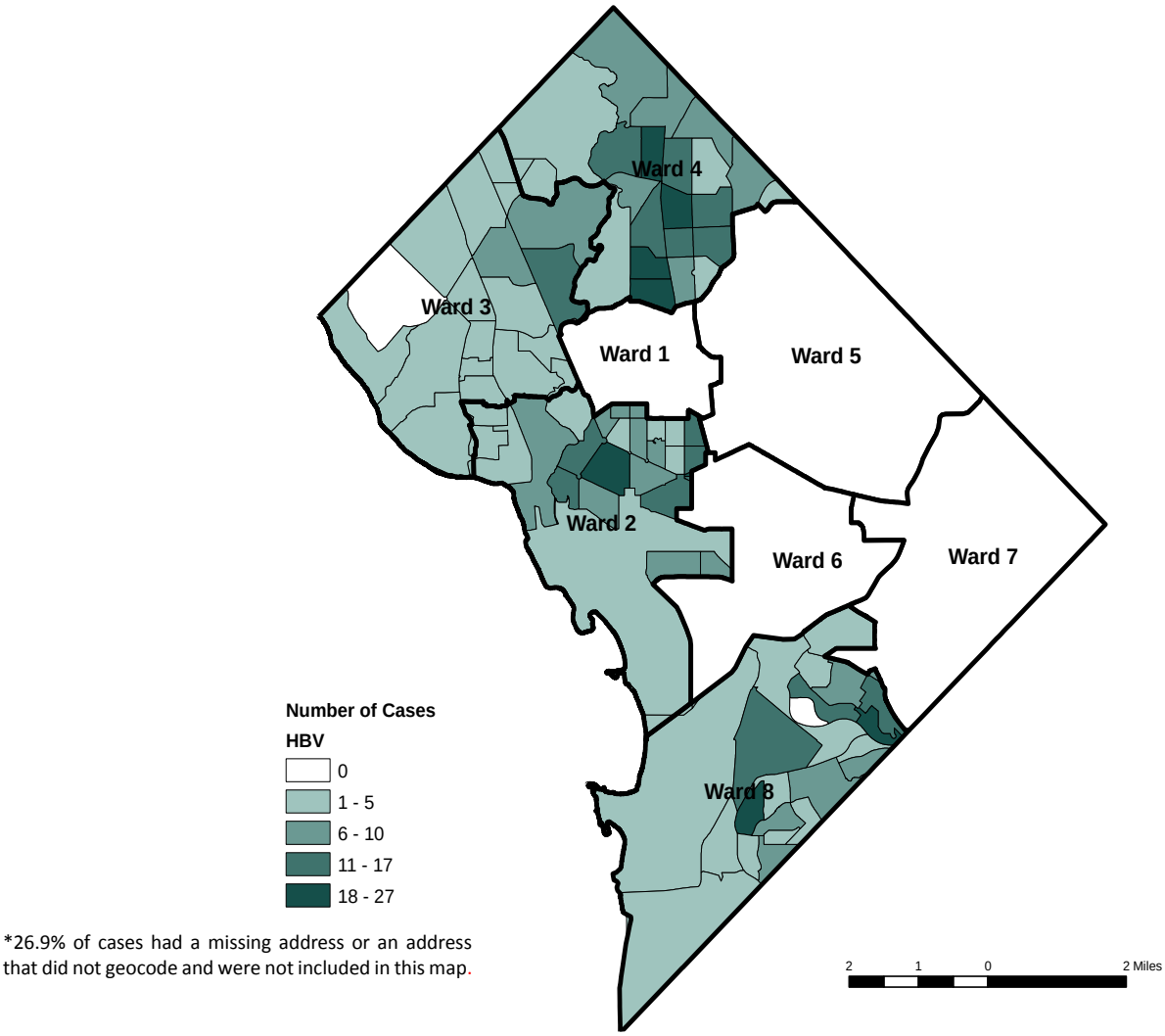
- Between 2012 and 2016, 1,893 individuals in the District were newly reported with chronic HBV infections.
- While some fluctuation is observed on a yearly basis, the number of newly reported chronic HBV cases remained relatively constant between 2012 and 2016.
- The high overall percentage of chronic hepatitis B cases with an unknown race/ethnicity prevents a valid assessment of the racial/ethnic differences in the occurrence of chronic hepatitis B infections within DC.

Figure 30. Newly Reported Chronic Hepatitis B Cases by Age at Diagnosis and Gender, District of Columbia 2012-2016



- Men accounted for approximately 62% of newly reported HBV cases from 2012 through 2016 overall; however, women comprise a slightly larger percentage (51% vs. 47%) of cases reported among those under 30 years of age.
- Individuals 30 to 39 years of age represent the largest age group among those newly reported with chronic hepatitis B from 2012 through 2016 (24%), followed closely by individuals 40 to 49 (22%) and 50 to 59 (21%) years of age.

Map 7. Number of Newly Reported Chronic Hepatitis B, by Census Tract,
District of Columbia, 2012-2016, N=1,893*



*26.9% of cases had a missing address or an address that did not geocode and were not included in this map.

- Census tract information was available for 73% of newly reported chronic HBV cases from 2012-2016.
- Though reported cases reside all throughout the city, census tracts with the highest number of newly reported chronic HBV cases are primarily located in wards 1, 2, 4 and 5.

Chronic Hepatitis C

Hepatitis C is primarily transmitted through the exchange of blood from an infected to a non-infected individual. While the lack of standard blood screening practices in the U.S. prior to 1992 contributed to the spread of HCV through blood transfusions and organ transplants, current data from the CDC document the sharing of contaminated needles and equipment used for injection drug use as the most common mode of transmission for new infections today. While less common, individuals can also become infected with HCV through sexual contact with an infected person; injuries from contaminated syringes in health care settings; and through maternal transmission. According to national surveillance and research conducted by the CDC, approximately 70% to 85% of individuals infected with HCV develop a chronic infection, with an estimated 50% unware of their infection status.

Table 20. All Positive Chronic Hepatitis C Cases by Gender, Race/Ethnicity, Age at Diagnosis, Case Classification, and Diagnosis Type, District of Columbia 2012-2016[1,2,3]

	N	%
Gender		
Female	5,829	34.6
Male	10,983	65.2
Transgender	2	<0.1
Unknown	28	0.2
Total	16,842	100.0
Race/Ethnicity		
Black	6,241	37.1
White	354	2.1
Hispanic/Latino	61	0.4
Asian/Pacific Islander	41	0.2
American Indian	1	<0.1
Unknown	10,144	60.2
Total	16,842	100.0
Current Age		
0 - 12	30	0.2
13 - 19	41	0.2
20 - 29	498	3.0
30 - 39	769	4.6
40 - 49	1,875	11.1
50 - 59	7,526	44.7
60 +	6,077	36.1
Unknown	26	0.2
Total	16,842	100.0
Diagnosis Type[2]		
Newly Reported	7,714	45.8
Previously Reported	9,128	54.2
Total	16,842	100.0
Case Classification[3]		
Confirmed	11,428	67.9
Probable	5,414	32.1
Total	16,842	100.0

[1]Cases with a reported residential address outside of the District of Columbia at the time of testing are excluded from analysis.
[2]"All chronic hepatitis C cases" is inclusive of newly reported cases testing positive for the first time between 2012 and 2016, as well as previously reported cases with both a positive result between 2012 and 2016 and ≥1 positive laboratory report for chronic hepatitis C prior to 2012.
[3]Case classification based on CDC guidance.

- As indicated in **Table 20**, 16,842 residents had a positive laboratory report for chronic hepatitis C in DC between 2012 and 2016; 68% of whom met the criteria outlined by the CDC for being a confirmed case. While this number provides some insight to the magnitude of chronic hepatitis C in the District and burden on the healthcare system, it should not be used as a prevalence estimate given the exclusion of previously diagnosed individuals without subsequent testing during the specified timeframe, as well as the exclusion of infected individuals who remain undiagnosed.

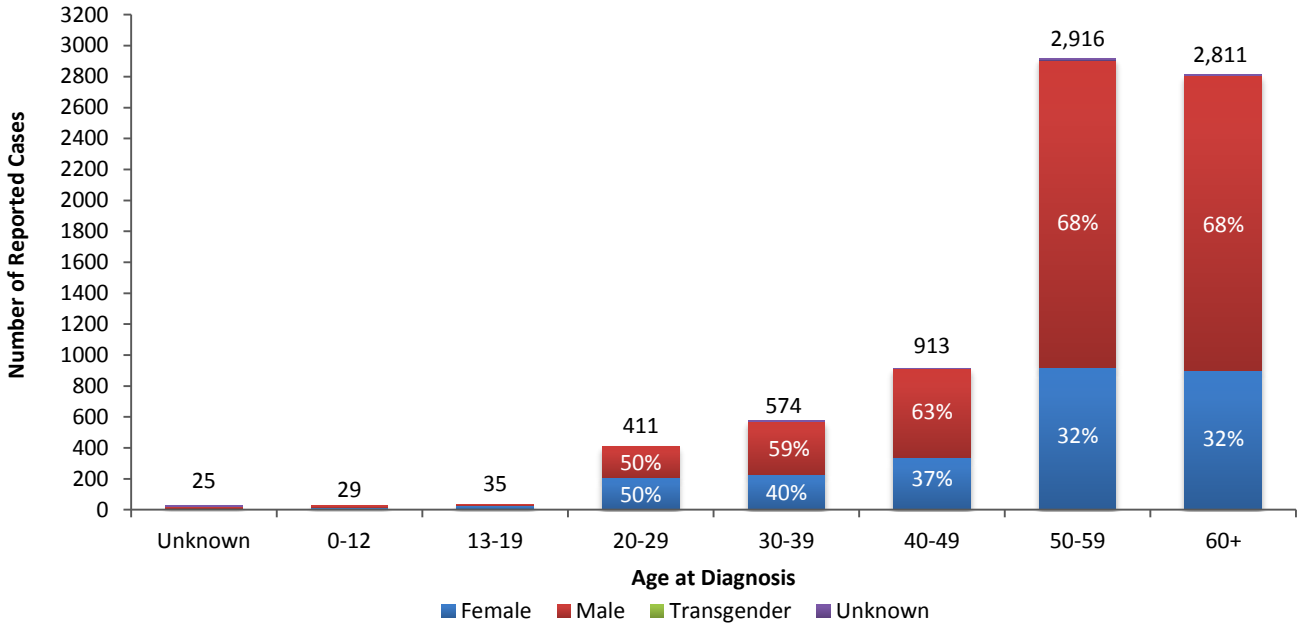
Table 21. Newly Reported Chronic Hepatitis C Cases by Gender, Race/Ethnicity, Age at Diagnosis, and Year of Diagnosis, District of Columbia 2012-2016[1,2,3]

	N	%
Gender		
Female	2,644	34.3
Male	5,048	65.4
Transgender	1	<.1
Unknown	21	0.3
Total	7,714	100.0
Race/Ethnicity		
Black	1,507	19.5
White	169	2.2
Hispanic/Latino	17	0.2
Asian/Pacific Islander	4	0.1
American Indian	0	0.0
Other/Unknown	6,017	78.0
Total	7,714	100.0
Age at Diagnosis		
0 - 12	29	0.4
13 - 19	35	0.5
20 - 29	411	5.3
30 - 39	574	7.4
40 - 49	913	11.8
50 - 59	2,916	37.8
60 +	2,811	36.4
Unknown	25	0.3
Total	7,714	100.0
Diagnosis Year[3]		
2012	1,539	20.0
2013	1,589	20.6
2014	1,561	20.2
2015	1,619	21.0
2016	1,406	18.2
Total	7,714	100.0

[1]Cases with a reported residential address outside of the District of Columbia at the time of diagnosis are excluded from analysis.
[2]Numbers may differ from previous publications due to additional record matching and/or data cleaning efforts.
[3]Diagnosis year based on date of first reported chronic hepatitis C positive laboratory report based on 2016 CDC case definition guidance.

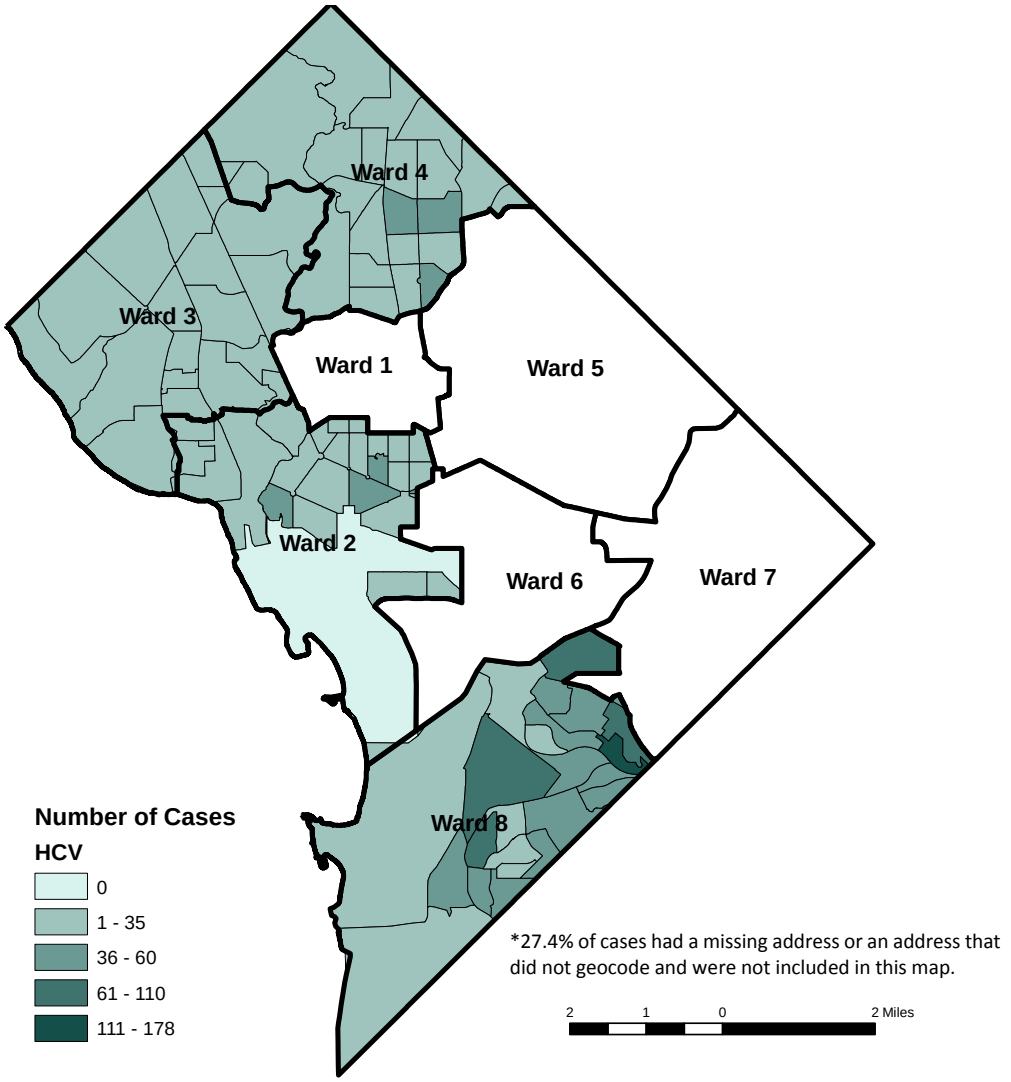
- There were 7,714 newly reported confirmed or probable cases of chronic HCV among DC residents between 2012 and 2016. While a slight decline was observed between 2015 and 2016, the number of newly reported cases remained relatively stable across other years included in the time period.
- The high overall percentage of chronic hepatitis C cases with an unknown race/ethnicity prevents a valid assessment of racial/ethnic differences in the occurrence of chronic hepatitis C infections within DC.

Figure 31. Newly Reported Chronic Hepatitis C Cases by Age at Diagnosis & Gender, District of Columbia 2012-2016



- Nearly all newly reported chronic hepatitis C cases were diagnosed among persons 40 years of age or older between 2012 and 2016 (86%). Consistent with current universal screening recommendations in the U.S. for individuals born between 1945 and 1965, the largest percentage of newly reported chronic HCV cases is observed among persons 50 to 59 years (38%) and 60 years of age and older (36%).
- Men accounted for the overall majority of newly reported chronic HCV cases between 2012 and 2016 (65%). While this trend remains consistent across older age categories, the proportion of male vs. female chronic HCV cases is relatively even within age groups under 30 years of age.

Map 8. Number of Newly Reported Chronic Hepatitis C Cases, by Census Tract, District of Columbia, 2012-2016, N=7,714*



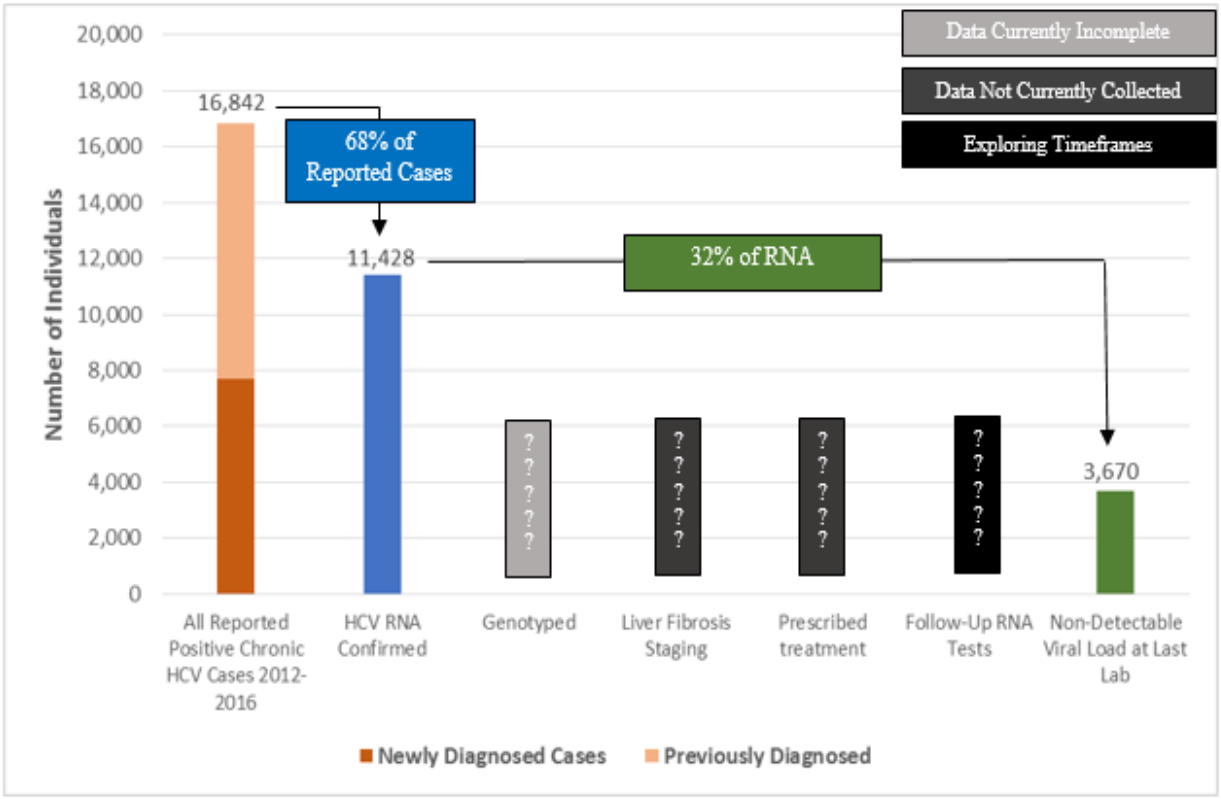
- Census tract information was available for 73% of newly reported chronic HCV cases from 2012-2016.
- Though reported cases reside all throughout the city, census tracts with the highest number of reported newly reported chronic HCV cases are primarily located in wards 5, 7 and 8.

Chronic Hepatitis C Cure Cascade

While hepatitis surveillance and case investigation activities are currently limited within the District, DOH has directed effort toward utilizing available data and resources to better understand care and treatment dynamics among individuals diagnosed with chronic HCV. Based on current surveillance data, 68% of individuals living in the jurisdiction reported to DOH as having chronic HCV between 2012 and 2016 have a documented HCV RNA confirmatory test. Of those having a HCV confirmatory test, 32% have evidence of an undetectable viral load based on their last reported HCV RNA laboratory result. Both percentage points provide preliminary evidence that there are opportunities to enhance care linkage and engagement activities within the District in relation to addressing the treatment needs of those infected with chronic HCV.

In addition to efforts to improve the completeness of core surveillance data (e.g., genotype test results), DOH is applying attention to the identification of strategies for expanded data collection activities to acquire additional information concerning individual infection prognosis (i.e., liver fibrosis staging) and treatment provision. Current provider treatment follow-up and patient monitoring practices are also being reviewed in order to better ascertain how surveillance data can be accurately utilized to track individual HCV treatment engagement and adherence. Data points within the HCV cure cascade will be expanded as these informational needs are addressed.

Figure 32. HCV Cure Cascade, District of Columbia 2012-2016



Section 11. Tuberculosis

Tuberculosis (TB) is caused by the bacteria *Mycobacterium tuberculosis*. TB is a disease that is spread from person to person through the air; infection can occur by sharing airspace for an extended period of time in an enclosed setting such as one's home or in a small office. TB usually affects the lungs. Bacteria are put into the air when a person with active TB of the lungs coughs, sneezes, laughs, or sings.

TB skin or blood tests help identify persons who have been infected. Most people who are infected with the TB bacteria have what is known as latent TB infection (LTBI). Some people with LTBI will progress to active TB disease but it may take several years after they were initially infected before they become sick. LTBI is a condition in which TB bacteria are alive but inactive in the body. People with LTBI may greatly reduce the chance of progressing to TB disease by taking treatment for their infection. Persons with weakened immune systems (e.g., those with HIV) are at greater risk for progressing from LTBI to active TB disease.

Active TB is defined as an illness in which TB bacteria are multiplying and attacking a part of the body, usually the lungs. Symptoms of TB of the lungs may include a cough that lasts for three weeks or more, coughing up blood or blood stained mucus, loss of appetite, unexplained weight loss, drenching night sweats, extreme fatigue, sore throat or hoarseness. A person with active TB disease may be infectious and spread TB bacteria to others. TB is a disease than can be cured if treated properly.

This section describes TB surveillance data reported in the District from 2012 to 2016. Cases reported in the figures represent cases of active TB disease and not LTBI; LTBI is not a reportable condition in the District.

Summary

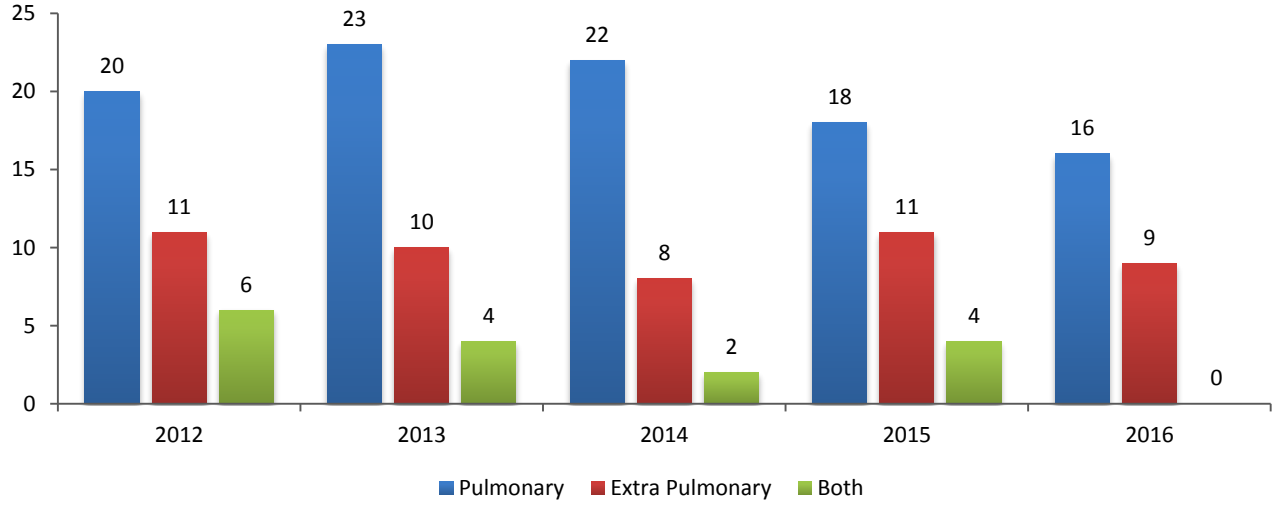
Between 2012 and 2016 there were a total of 164 active TB cases. There was a 32% decreases in cases from 37 in 2012 to 25 cases diagnosed in 2016 (**Table 22).** Please refer to appendix table **B15** for more information on TB cases reported between 2012 and 2016 in the District. The District had a TB case rate of 3.7 per 100,000 compared to the national average of 3.0 per 100,000. However, the District continues to make progress under the definition of TB elimination, which is a decrease in case rate of 0.2 per 100,000 annually.

All positive TB cultures are tested for susceptibility to the medications used in treatment. Multi-drug resistant TB (MDR-TB), or TB that is resistant to two of the first-line treatment agents (isoniazid and rifampin) has been infrequent in the District. There was one case of MDR-TB reported in 2013. HAHSTA attributes the reduction in TB cases and the low number of drug resistant cases to using Directly Observed Therapy (DOT) as the standard of care for all active TB cases, the provision of case management services for all active TB cases, and rapid contact investigation which include education and evaluation.

Table 22. Reported Tuberculosis Rate per 100,000 persons, District of Columbia 2012-2016

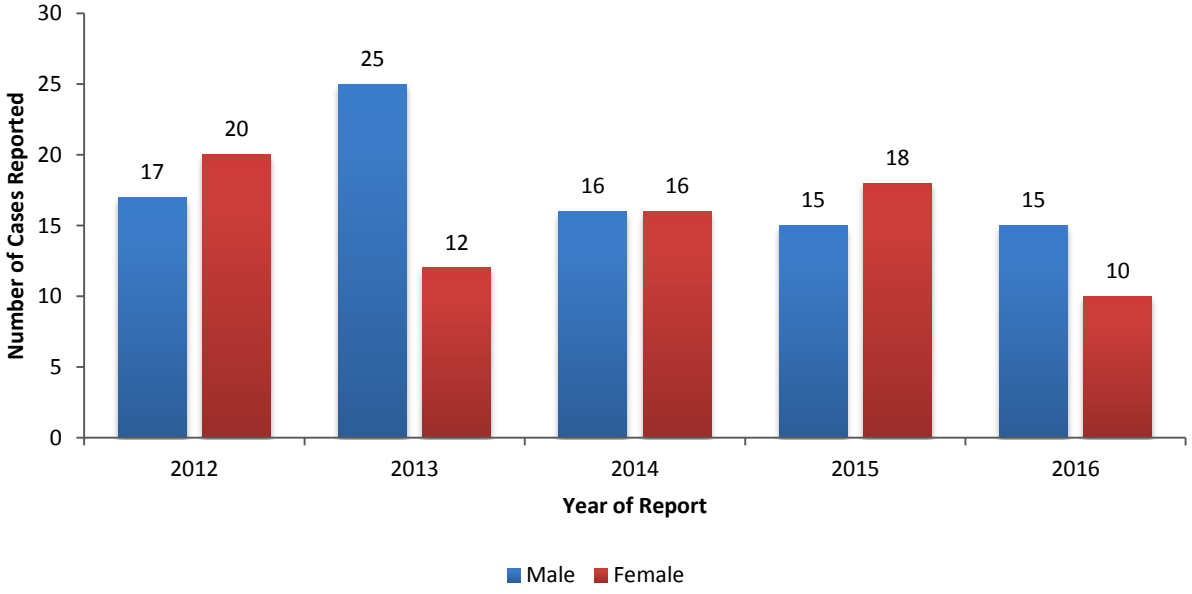
	2012		2013		2014		2015		2016	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
District Total	37	5.9	37	5.9	32	5.0	33	4.9	25	3.7

Figure 33. Reported Cases of Tuberculosis by Year of Report and Disease State,
District of Columbia, 2012-2016



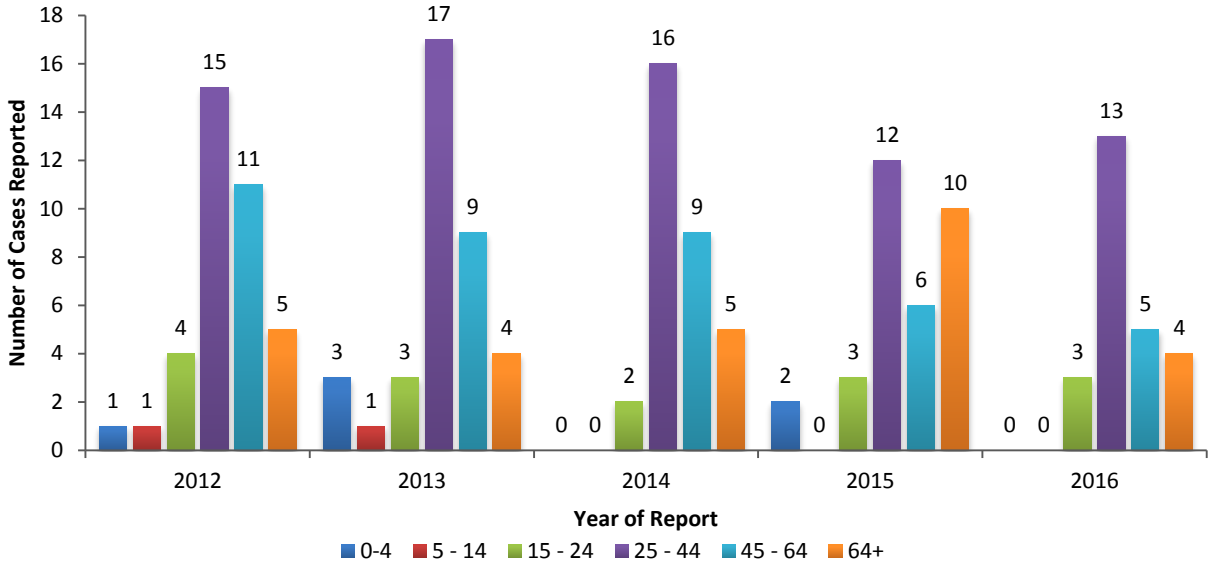
- While there was a decline in pulmonary TB cases from 2012 to 2016, the proportion of extra pulmonary cases increased from 29.7% in 2012 to 36.0% in 2016. In 2016, extra pulmonary TB cases accounted for 36% of all TB cases. Extra pulmonary TB, by definition, occurs in parts of the body other than the lungs or respiratory system and is not considered infectious.
- Persons may be infected with TB both in the lungs and other parts of the body. In 2016, there were 0 cases of persons with both.

Figure 34. Reported Cases of Tuberculosis by Year of Report and Sex,
District of Columbia, 2012-2016



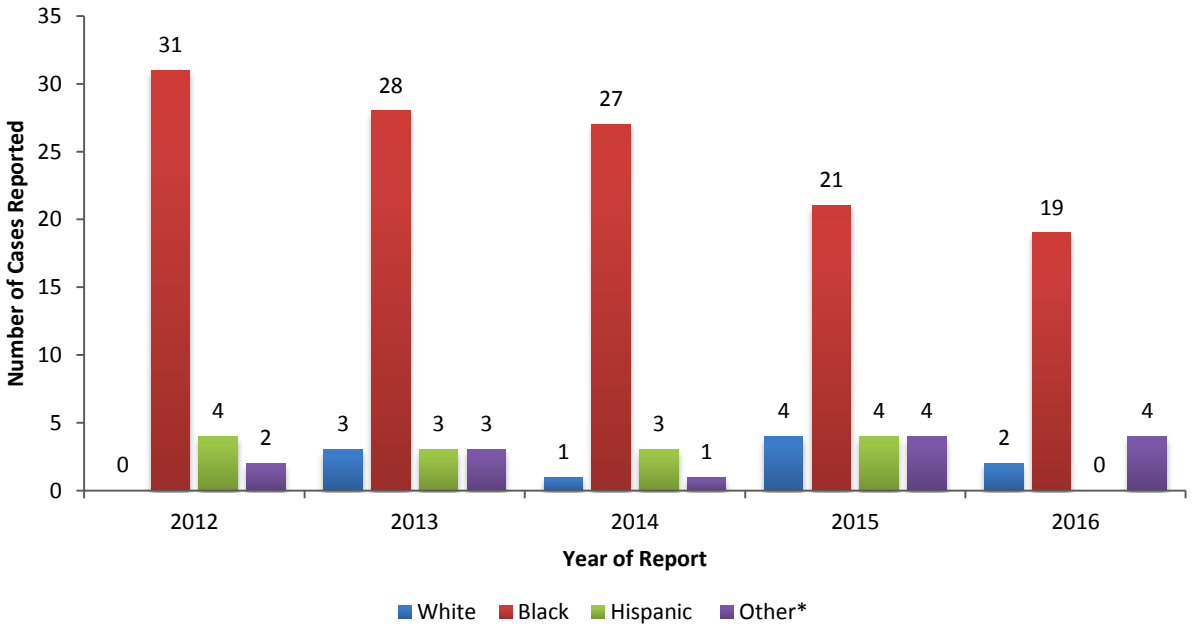
- From 2012 to 2016, 59.1% of reported TB cases were among men.

Figure 34. Reported Cases of Tuberculosis by Year of Report and Age at Diagnosis,
District of Columbia, 2012-2016



- Approximately 69% of cases reported between 2012 and 2016 were between the ages of 25 and 64.

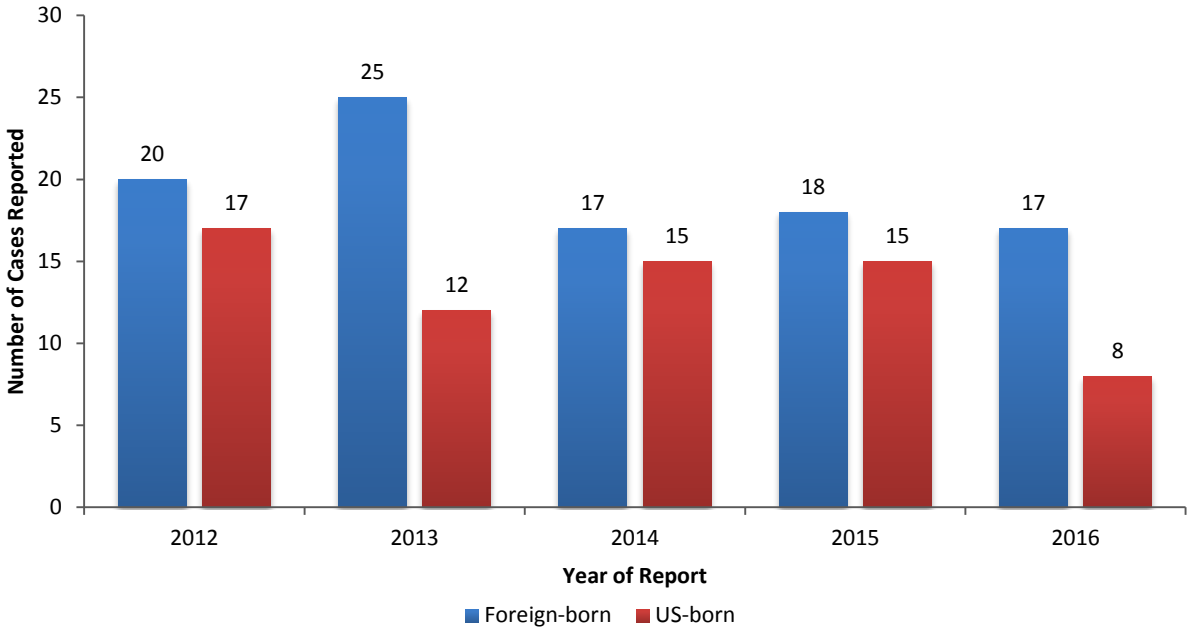
Figure 36. Reported Cases of Tuberculosis by Year of Report and Race/Ethnicity,
District of Columbia, 2012-2016



*Other race/ethnicity includes Hispanic ethnicity, mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, White, and unknown

- From 2012 to 2016, 76.8% of TB cases were black.

Figure 37. Reported Cases of Tuberculosis by Year of Report and Place of Birth, District of Columbia, 2012-2016



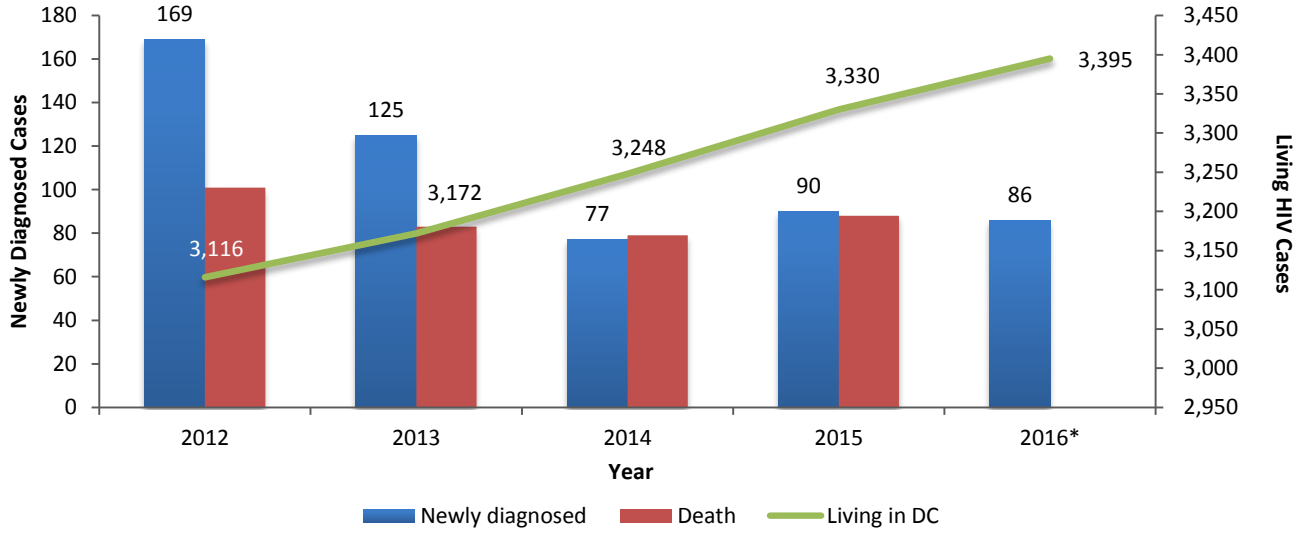
- From 2012 to 2016, foreign-born persons represented 59.1% of TB cases, which is similar to the national average of 67.9%.

Section 12. Special Populations

Women

There were 12,964 residents of the District of Columbia living with HIV as of December 31, 2016. Of these cases 3,395 (26.2%) were women.

Figure 38. Newly Diagnosed HIV Cases, Living HIV Cases and Death by Year among Women, District of Columbia, 2012-2015



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available.

- There was a 49.1% reduction in newly diagnosed women between 2012 and 2016.

Table 23. Women Diagnosed and Living in DC, by Race/Ethnicity, 2016

	White		Black		Hispanic/Latino		Other		Total	
	N	%	N	%	N	%	N	%	N	%
Mode of Transmission										
IDU	8	16.7	568	17.8	14	13.0	6	13.0	596	17.6
Heterosexual contact	28	58.3	2,056	64.4	76	70.4	26	56.5	2,186	64.4
Other**	-	-	80	2.5	-	-	-	-	83	2.4
RNI	11	22.9	489	15.3	17	15.7	13	28.3	530	15.6
Total	48	100.0	3,193	100.0	108	100.0	46	100.0	3,395	100.0
Current Age										
<13	-	-	11	0.3	-	0.9	-	-	13	0.4
13-19	-	-	28	0.9	-	0.9	-	-	30	0.9
20-24	-	-	81	2.5	3	2.8	-	-	85	2.5
25-29	4	8.3	164	5.1	5	4.6	4	8.7	177	5.2
30-39	9	18.8	530	16.6	26	24.1	5	10.9	570	16.8
40-49	13	27.1	824	25.8	26	24.1	12	26.1	875	25.8
50-59	12	25.0	1,016	31.8	26	24.1	15	32.6	1,069	31.5
60 and older	9	18.8	539	16.9	20	18.5	8	17.4	576	17.0
Total	48	100.0	3,193	100.0	108	100.0	46	100.0	3,395	100.0

- Heterosexual contact is the lead mode of transmission for all women at nearly two-thirds (64.4%). Heterosexual contact is also the leading mode of transmission for all racial groups of women.
- By age, at the end of 2016, the majority of women living with HIV in DC were aged 30 and older (91.0%).

Newly Diagnosed HIV Cases

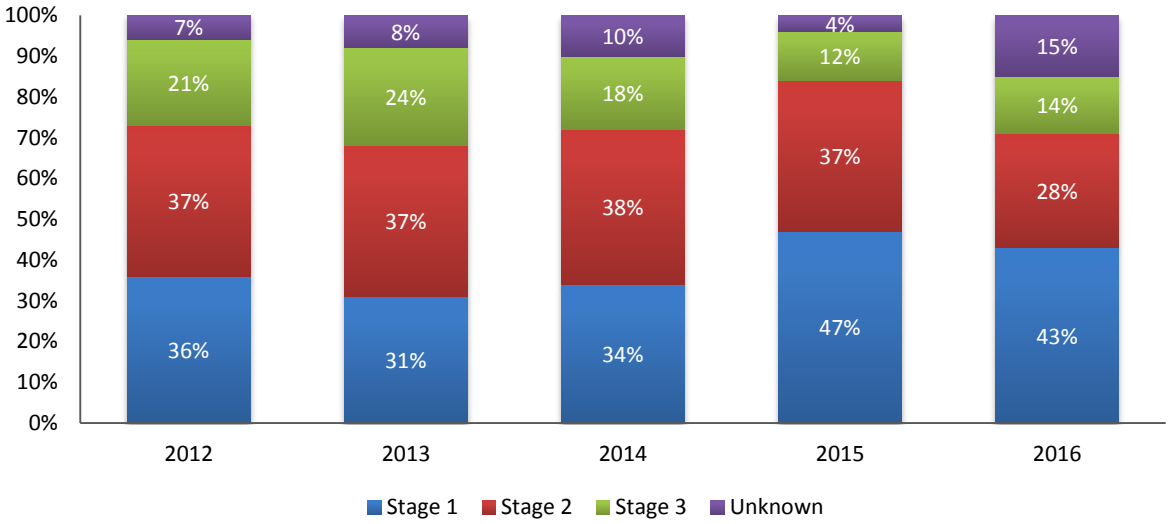
Table 24. Newly Diagnosed women by Selected Characteristics and Year, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Race/Ethnicity												
White	-	-	3	0.1	5	6.5	-	-	-	-	11	2.0
Black	159	94.1	118	3.7	70	90.9	88	97.8	81	94.2	516	94.3
Hispanic/Latino	5	3.0	3	0.1	-	-	-	-	3	3.5	12	2.2
Other*	4	2.4	-	-	-	-	-	-	-	-	8	1.5
Total	169	100.0	125	3.9	77	100.0	90	100.0	86	100.0	547	100.0
Mode of Transmission												
IDU	7	4.1	8	6.4	8	10.4	4	4.4	2	2.3	29	5.3
Heterosexual contact	135	79.9	91	72.8	37	48.1	60	66.7	55	64.0	38	69.1
Other**	3	1.8	-	-	-	-	-	-	-	-	5	0.9
RNI	24	14.2	25	20.0	32	41.6	26	28.9	28	32.6	135	24.7
Total	169	100.0	125	100.0	77	100.0	90	100.0	86	100.0	547	100.0
Age at Diagnosis												
<13	3	1.8	-	-	-	-	-	-	-	1.2	4	0.7
13-19	11	6.5	4	3.2	3	3.9	-	-	4	4.7	24	4.4
20-24	20	11.8	16	12.8	5	6.5	8	8.9	7	8.1	56	10.2
25-29	13	7.7	17	13.6	16	20.8	7	7.8	9	10.5	62	11.3
30-39	38	22.5	27	21.6	20	26.0	26	28.9	17	19.8	128	23.4
40-49	35	20.7	28	22.4	13	16.9	20	22.2	17	19.8	113	20.7
50-59	32	18.9	20	16.0	12	15.6	19	21.1	22	25.6	105	19.2
60 and older	17	10.1	13	10.4	8	10.4	8	8.9	9	10.5	55	10.1
Total	169	100.0	125	100.0	77	100.0	90	100.0	86	100.0	547	100.0

- Black women have the disproportionate number of new HIV cases (94.3%) to the general population of black women in the District (48.5%).
- Heterosexual contact (69.1%) was the leading mode of transmission.
- Nearly two-thirds of newly diagnosed women in DC were diagnosed between the ages of 30-59. Women diagnosed in this age group was nearly three-quarters in 2016 (72.2%).

Stage of HIV Disease

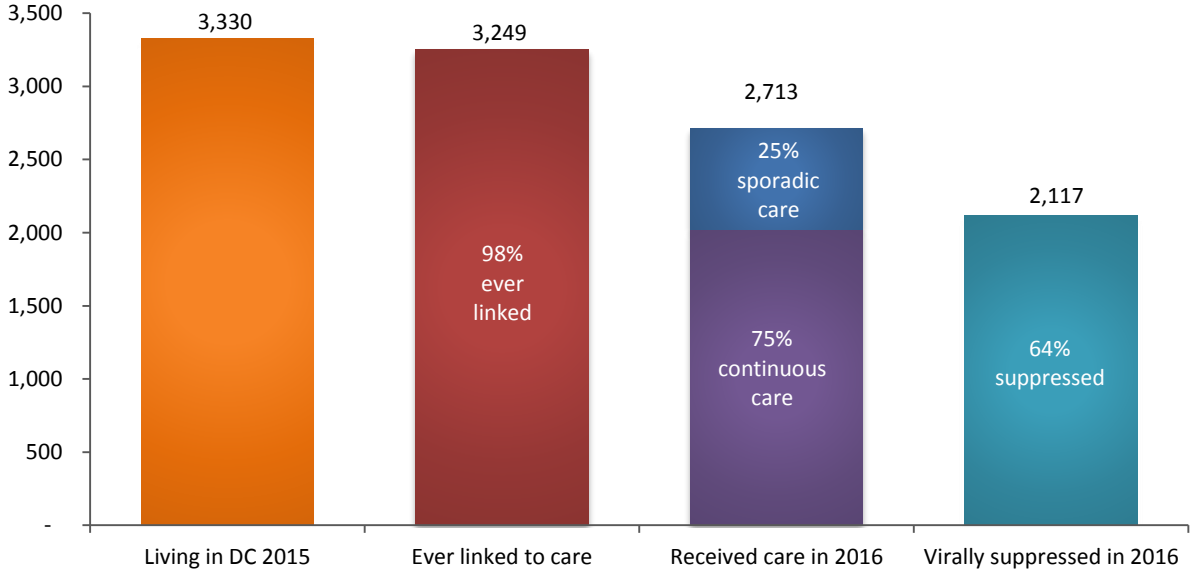
Figure 39. Stage of Disease within 3 months of Diagnosis among Newly Diagnosed Cases among Women, District of Columbia, 2012-2016



- There was a decrease in stage 3 diagnoses from 21.3% in 2012 to 14.0% in 2016.

HIV Care Dynamics

Figure 40. Care Dynamics among Women Diagnosed with HIV Living in DC, 2016



- Over three-quarters (81.5%) of women received any care in 2016 and 63.6% achieved viral suppression at last lab in 2016 compared to 76% and 63% for all persons with HIV in DC.

Table 25. 2016 Care Dynamics among Women Living in DC, by Selected Characteristics

	Living in DC	Ever Linked to Care		Retained in any care in 2016		Retained in Continuous Care in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2016	
	N	N	%	N	%	N	%	N	%	N	%
Race/Ethnicity											
White	49	47	95.9	42	85.7	34	69.4	44	89.8	39	79.6
Black	3,133	3,059	97.6	2,557	81.6	1,902	60.7	2,356	75.2	1,986	63.4
Hispanic/Latino	104	100	96.2	79	76.0	57	54.8	76	73.1	62	59.6
Other	44	43	97.7	35	79.5	29	65.9	34	77.3	30	68.2
Mode of Transmission											
Heterosexual contact	2,152	2,117	98.4	1,757	81.6	1,314	61.1	1,629	75.7	1,381	64.2
IDU	598	589	98.5	514	86.0	393	65.7	460	76.9	400	66.9
Other	83	83	100.0	73	88.0	57	68.7	45	54.2	40	48.2
RNI	497	460	92.6	369	74.2	258	51.9	376	75.7	296	59.6
Current Age											
0-19	46	44	95.7	38	82.6	29	63.0	27	58.7	21	45.7
20-24	102	97	95.1	81	79.4	52	51.0	59	57.8	46	45.1
25-29	171	161	94.2	123	71.9	80	46.8	104	60.8	81	47.4
30-39	615	593	96.4	467	75.9	344	55.9	420	68.3	336	54.6
40-49	909	893	98.2	751	82.6	548	60.3	688	75.7	581	63.9
50-59	983	968	98.5	834	84.8	646	65.7	783	79.7	675	68.7
60 and older	504	493	97.8	419	83.1	323	64.1	429	85.1	377	74.8
Grand Total	3,330	3,249	97.6	2,713	81.5	2,022	60.7	2,510	75.4	2,117	63.6

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

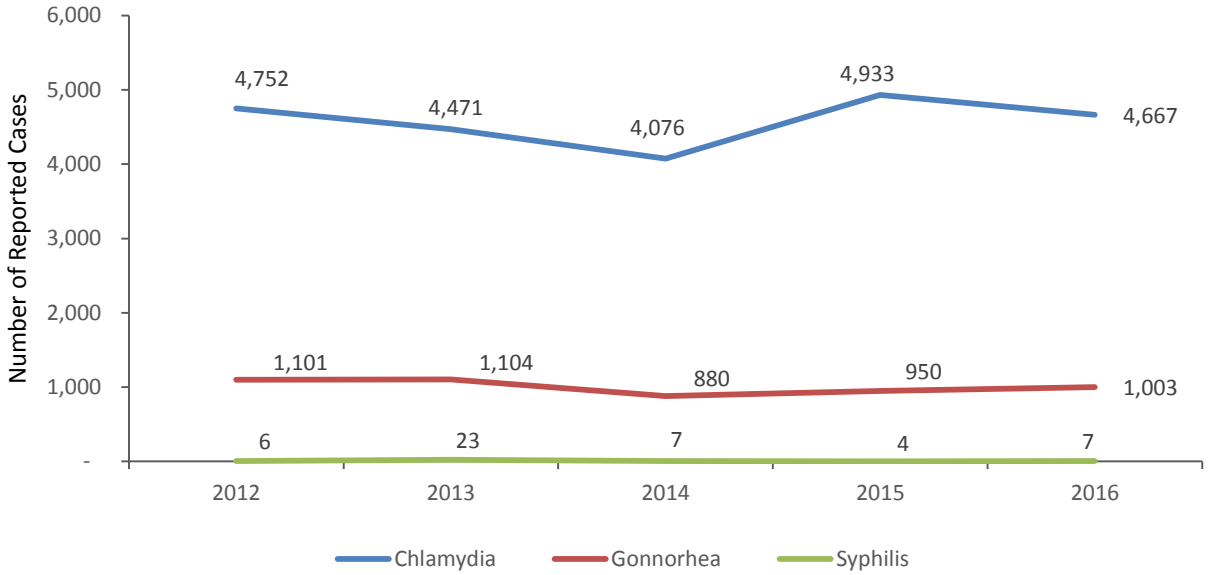
**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- There were relatively high rates of linkage to care among all race/ethnicities; those with a race/ethnicity of white had the highest rate of retention in any care in 2016 (85.7%) followed by black women (81.6%). White women also had the highest rate of continuous care (69.4%) and viral suppression in 2016 (79.6%).
- By mode of transmission, women who had a mode of transmission of other had the highest rates of ever being linked to care (100%), retained in any (88.0%) and continuous care (68.7%) in 2016. Women with a mode of transmission of IDU had the highest rate of viral suppression in 2016 (62.0%).
- By current age, linkage to care was high across all age groups. Women aged 25-29 had the lowest rates of any care in 2016 (71.9%) and continuous care (46.8%). Cases aged 20-24 has the lowest proportion of cases who were ever virally suppressed (57.8%) and were virally suppressed in 2016 (45.1%).

Sexually Transmitted Infections

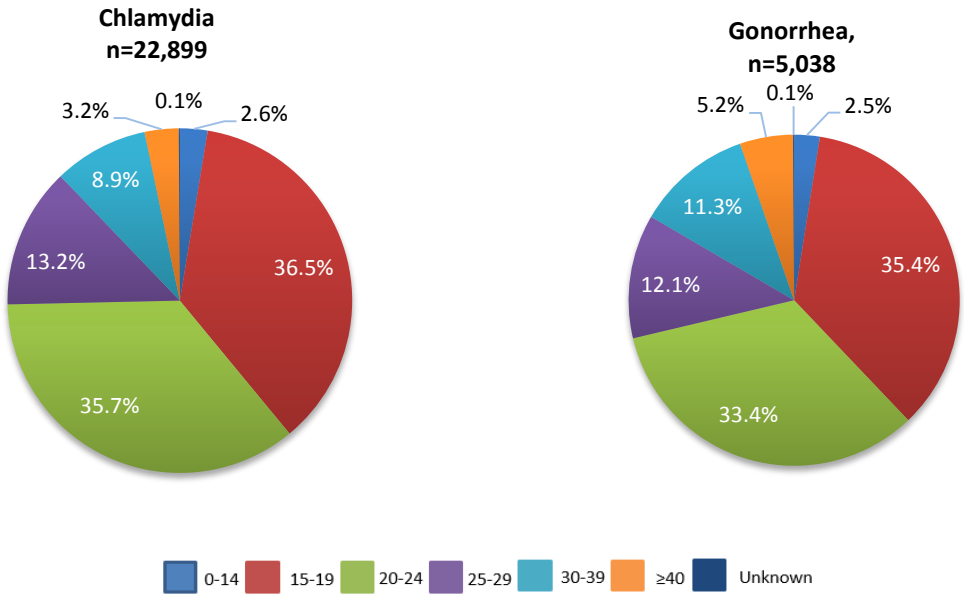
This section provides an overview of the incidence and trends of sexually transmitted infections – chlamydia, and gonorrhea– in the District of Columbia among women.

Figure 41. Reported Chlamydia and Gonorrhea Cases among Women by Year, District of Columbia, 2012-2016



- Between 2012 and 2016, there were a total of 27,984 diagnoses of chlamydia gonorrhea and syphilis among women.

Figure 42. Reported Chlamydia and Gonorrhea Cases among Women by Age at Diagnosis, District of Columbia, 2012-2016

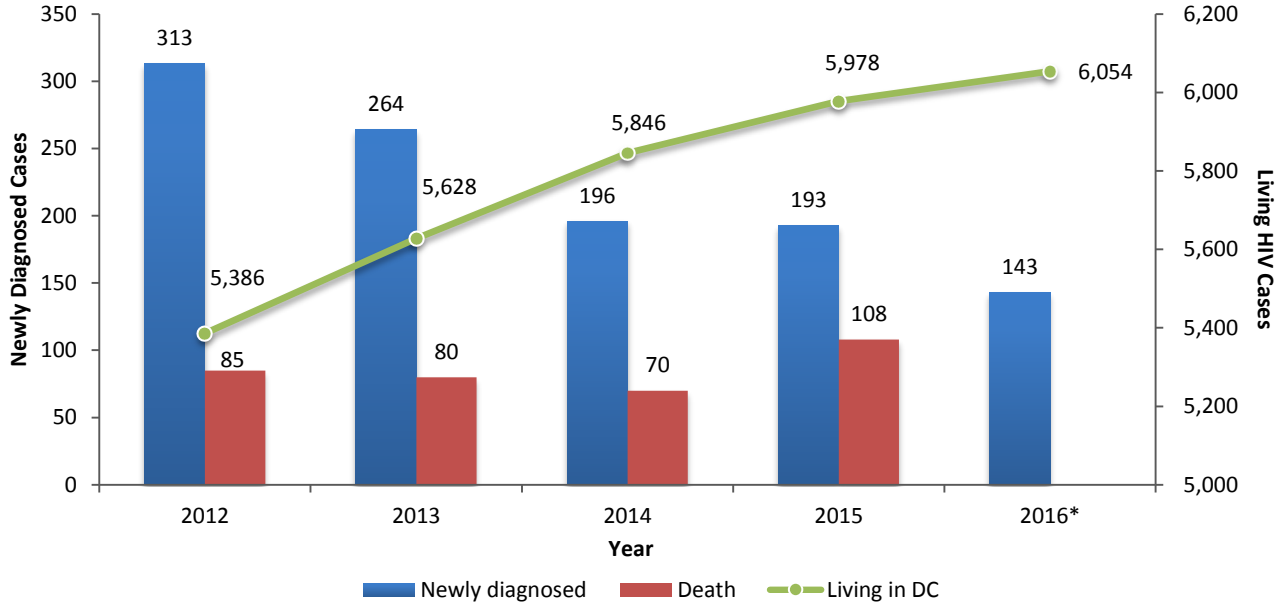


- For both chlamydia and gonorrhea, the majority of diagnoses were between the ages of 15-24.

Men who have sex with Men

There were 12,964 residents of the District of Columbia living with HIV as of December 31, 2016. Of these cases 6,158 (47.5%) were men who have sex with men.

Figure 43. Newly Diagnosed HIV Cases and Living HIV Cases by Year among MSM and MSM/IDU, District of Columbia, 2012-2016



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available.

- There was a 54.3% reduction in newly diagnosed men between 2012 and 2016.

Table 26. Men who have Sex with Men Diagnosed and Living in DC, by Race/Ethnicity, 2016

	White		Black		Hispanic/Latino		Other		Total	
	N	%	N	%	N	%	N	%	N	%
Mode of Transmission										
MSM	1,708	95.8	3,200	91.3	561	97.2	181	94.8	5,650	93.3
MSM/IDU	74	4.2	304	8.7	16	2.8	10	5.2	404	6.7
Total	1,782	100.0	3,504	100.0	577	100.0	191	100.0	6,054	100.0
Current Age										
<13	-	-	-	-	-	-	-	-	-	-
13-19	-	-	6	0.2	-	-	-	-	8	0.1
20-24	16	0.9	125	3.6	17	2.9	6	3.1	164	2.7
25-29	65	3.6	396	11.3	64	11.1	21	11.0	546	9.0
30-39	317	17.8	834	23.8	193	33.4	47	24.6	1,391	23.0
40-49	467	26.2	706	20.1	155	26.9	51	26.7	1,379	22.8
50-59	583	32.7	977	27.9	107	18.5	48	25.1	1,715	28.3
60 and older	333	18.7	460	13.1	39	6.8	18	9.4	850	14.0
Missing	-	-	-	-	-	-	-	-	-	0.0
Total	1782	100.0	3,504	100.0	577	100.0	191	100.0	6,054	100.0

- A majority of men who have sex with men living with HIV in the District were aged 30 or older (86.5%)

Newly Diagnosed HIV Cases

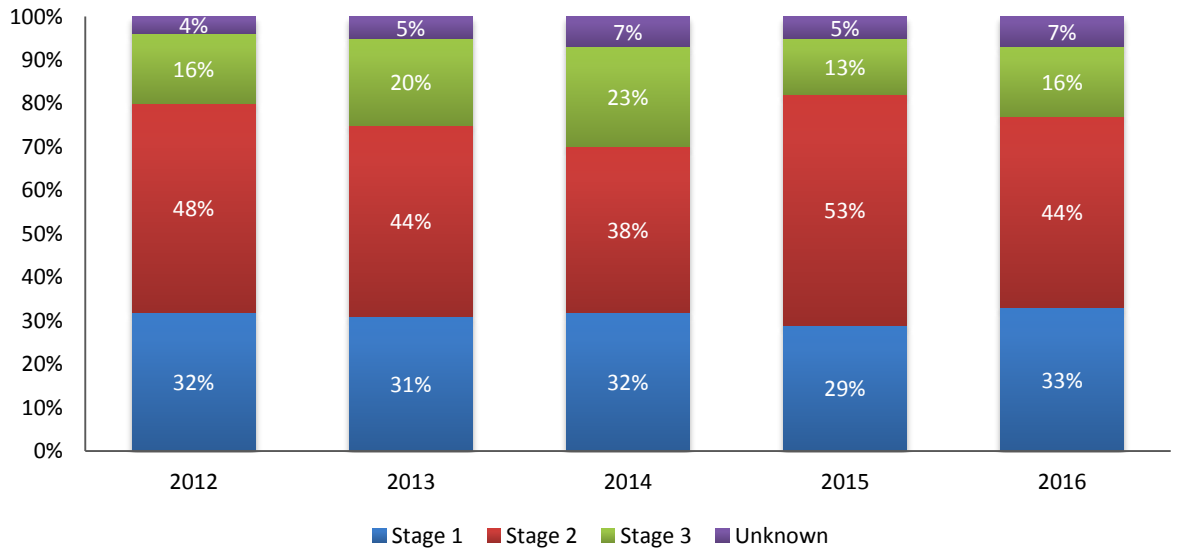
Table 27 Newly Diagnosed Men who have Sex with Men by Selected Characteristics and Year, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Race/Ethnicity												
White	75	24.0	76	28.8	56	28.6	41	21.2	35	24.5	283	25.5
Black	188	60.1	144	54.5	104	53.1	100	51.8	82	57.3	618	55.7
Hispanic/Latino	34	10.9	34	12.9	25	12.8	46	23.8	20	14.0	159	14.3
Other*	16	5.1	10	3.8	11	5.6	6	3.1	6	4.2	49	4.4
Total	313	100.0	264	100.0	196	100.0	193	100.0	143	100.0	1,109	100.0
Age at Diagnosis												
<13	-	-	-	-	-	-	-	-	-	-	-	-
13-19	16	5.1	12	4.5	5	2.6	9	4.7	-	-	42	3.8
20-24	75	24.0	47	17.8	36	18.4	39	20.2	34	23.8	231	20.8
25-29	59	18.8	65	24.6	44	22.4	56	29.0	37	25.9	261	23.5
30-39	82	26.2	75	28.4	58	29.6	56	29.0	42	29.4	313	28.2
40-49	49	15.7	41	15.5	37	18.9	21	10.9	17	11.9	165	14.9
50-59	21	6.7	19	7.2	14	7.1	8	4.1	9	6.3	71	6.4
60 and older	11	3.5	5	1.9	2	1.0	4	2.1	4	2.8	26	2.3
Total	313	100.0	264	100.0	196	100.0	193	100.0	143	100.0	1,109	100.0

- By race/ethnicity, majority of newly diagnosed cases among men who have sex with men were black.
- Just under half of newly diagnosed men who have sex with men in DC were diagnosed between the ages of 13-29. Men diagnosed in this age group were just of over half in 2016 (50.7%).

Stage of HIV Disease

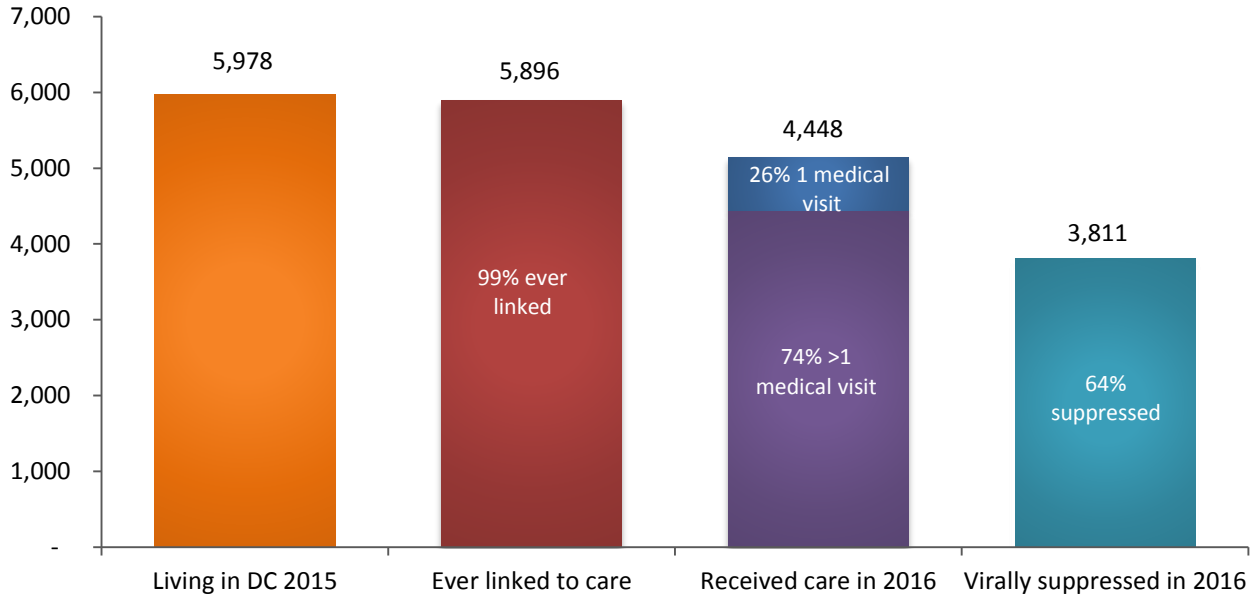
Figure 44. Stage of Disease within 3 months of Diagnosis among Newly Diagnosed Cases among Men who have Sex with Men, District of Columbia, 2012-2016



- There has been fluctuation in stage 3 diagnoses over the past 5 years, where there was the fewest (13%) stage 3 diagnosis in 2015 and the highest (23%) in 2014.

HIV Care Dynamics

Figure 45. Care Dynamics among Men who have Sex with Men Diagnosed with HIV Living in DC, 2016



- Figure 37 represents the 2016 care continuum for men who have sex with men who were alive as of December 31, 2016. Among the 5,978 men living in DC in 2015, 98.6% were ever linked to care. Around three-quarters (74.5%) received any care in 2016, of whom 74.4% had more than one medical visit in 2016. The rates are the same for all persons living with HIV in DC. Of all diagnosed men who have sex with men living in DC, 81.7% had ever achieved viral suppression and 63.8% achieved viral suppression at last lab in 2016. The viral suppression rate in 2016 was also the same compared for all persons in DC.

Table 28. 2016 Care Dynamics among Men who have Sex with Men Living in DC, by Selected Characteristics

	Living in DC	Ever Linked to Care		Retained in Care any care in 2016		More than 1 medical visit in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2016	
	N	N	%	N	%	N	%	N	%	N	%
Race/Ethnicity											
White	1,767	1,749	99.0	1,246	70.5	872	49.3	1,590	90.0	1,164	65.9
Black	3,461	3,413	98.6	2,659	76.8	1,985	57.4	2,736	79.1	2,163	62.5
Hispanic/Latino	560	551	98.4	419	74.8	321	57.3	482	86.1	373	66.6
Other	190	183	96.3	124	65.3	89	46.8	160	84.2	112	58.9
Current Age											
0-19	20	19	95.0	15	75.0	13	65.0	14	70.0	13	65.0
20-24	188	182	96.8	152	80.9	101	53.7	111	59.0	98	52.1
25-29	580	566	97.6	435	75.0	301	51.9	410	70.7	339	58.4
30-39	1,344	1,315	97.8	915	68.1	667	49.6	1,021	76.0	750	55.8
40-49	1,474	1,455	98.7	1,080	73.3	759	51.5	1,253	85.0	947	64.2
50-59	1,640	1,630	99.4	1,286	78.4	993	60.5	1,407	85.8	1,139	69.5
60 and older	731	729	99.7	565	77.3	433	59.2	670	91.7	525	71.8
Missing	1	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0
Grand Total	5,978	5,896	98.6	4,448	74.4	3,267	54.7	4,886	81.7	3,811	63.8

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

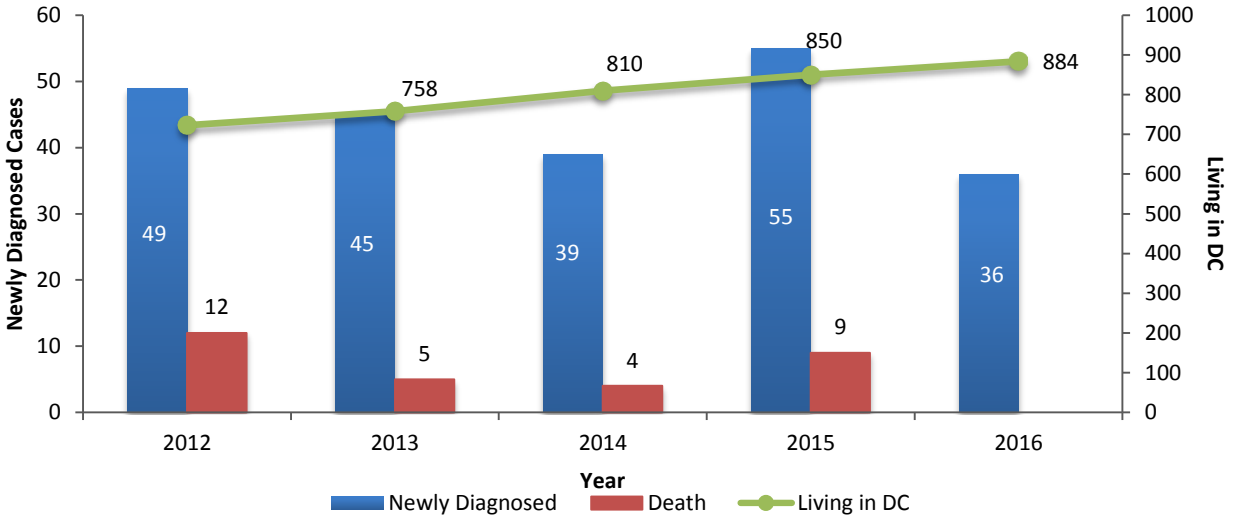
**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- There were relatively similar rates of linkage to care among all race/ethnicities; those with a race/ethnicity of black had the highest rate of retention in any care in 2016 (76.8%) followed by Hispanic/Latino men who have sex with men (74.8%). Black and Hispanic/Latino men had the highest rate of more than one medical visit (57.4% and 57.3%, respectively) and Hispanic/Latino men had the highest viral suppression in 2016 (66.7%).
- By current age, linkage to care was high across all age groups. Men who have sex with men aged 30-39 had the lowest rates of any care in 2016 (68.1%) and more than one medical visit (49.6%). Men aged 20-24 has the lowest proportion of cases who were ever virally suppressed (59.0%) and were virally suppressed in 2016 (52.1%).

Hispanics/Latinos

Of 12,964 residents of the District of Columbia living with HIV as of December 31, 2016, 884 (6.8%) were Hispanic/Latino.

Figure 46. Newly Diagnosed and Living HIV Cases by Year among Hispanics, District of Columbia, 2012-2016



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available.

- Newly diagnosed cases among Hispanics/Latinos had been relatively level during the last five-year period (2012-2016). There was an exception year in 2015 with an increase in new diagnoses reported. It is significant that the proportion of new HIV diagnoses among Hispanics/Latinos of all new HIV cases has increased 39% from 2012 to 2015. In 2016, Hispanics/Latinos represented 10.4% of all new HIV cases compared to 7.5% in 2012.

Table 29. Hispanics/Latinos Diagnosed and Living in DC, by Gender Identity, 2016

	Male		Female		Transgender		Total	
	N	%	N	%	N	%	N	%
Mode of Transmission								
Sexual contact	653	85.7	76	70.4	13	92.9	742	83.9
IDU	19	2.5	14	13.0	0	0.0	33	3.7
Sexual/IDU	16	2.1	-	-	-	7.1	17	1.9
Other**	-	-	-	-	-	-	3	0.3
RNI	72	9.4	17	15.7	-	-	89	10.1
Total	762	100.0	108	100.0	14	100.0	884	100.0
Current Age								
<13	-	-	-	-	-	-	-	-
13-19	3	0.4	-	-	-	-	4	0.5
20-24	21	2.8	3	2.8	-	-	24	2.7
25-29	73	9.6	5	4.6	-	14.3	80	9.0
30-39	225	29.5	26	24.1	7	50.0	258	29.2
40-49	198	26.0	26	24.1	4	28.6	228	25.8
50-59	166	21.8	26	24.1	-	-	193	21.8
60 and older	76	10.0	20	8.5	-	0.0	96	10.9
Total	762	100.0	108	100.0	14	100.0	884	100.0

**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- Majority of Hispanics/Latinos with HIV living in DC were men (86.2%).
- Sexual contact was the leading mode of HIV transmission across all genders.
- The largest proportion of Hispanics/Latinos with HIV living in DC were between the ages of 30 and 59 at the end of 2016.

Newly Diagnosed HIV Cases

Table 30. Newly Diagnosed Hispanics/Latinos Cases by Selected Characteristic and Year, District of Columbia, 2012-2016

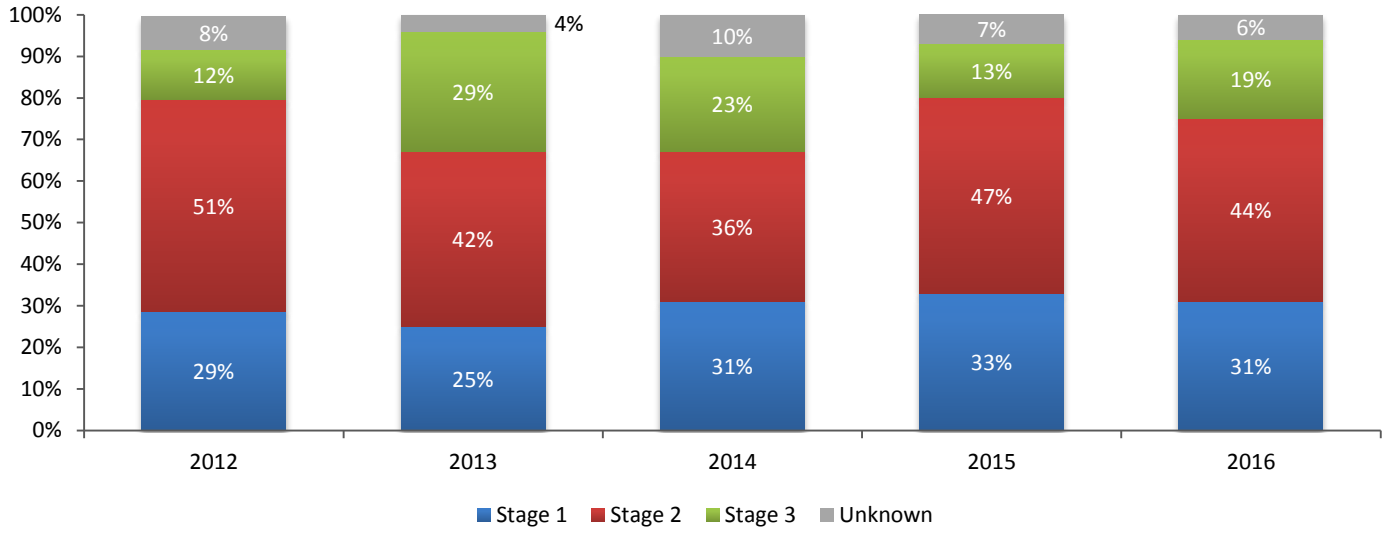
	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	42	85.7	40	88.9	37	94.9	54	98.2	33	91.7	206	92.0
Female	5	10.2	3	6.7	-	-	-	-	3	8.3	12	5.4
Transgender	-	-	-	-	-	-	-	-	-	-	6	2.7
Total	49	100.0	45	100.0	39	100.0	55	100.0	36	100.0	224	100.0
Mode of Transmission												
Sexual contact	45	91.8	38	84.4	29	74.4	48	87.3	27	75.0	187	83.5
IDU	-	-	-	0.0	-	-	-	-	-	-	-	-
Sexual contact/IDU	-	-	-	-	-	-	-	-	-	-	6	2.7
Other**	-	-	-	-	-	-	-	-	-	-	-	-
RNI	3	6.1	5	11.1	8	20.5	6	10.9	9	25.0	31	13.8
Total	49	100.0	45	100.0	39	100.0	55	100.0	36	100.0	224	100.0
Age at diagnosis												
<13	-	-	-	-	-	-	-	-	-	-	-	-
13-19	-	-	-	-	-	-	-	-	-	-	5	2.2
20-24	7	14.3	8	17.8	8	20.5	7	12.7	3	8.3	33	14.7
25-29	7	14.3	7	15.6	11	28.2	13	23.6	8	22.2	46	20.5
30-39	23	46.9	15	33.3	10	25.6	20	36.4	16	44.4	84	37.5
40-49	10	20.4	8	17.8	3	7.7	9	16.4	6	16.7	36	16.1
50-59	-	-	4	8.9	4	10.3	-	-	-	-	12	5.4
60 and older	-	-	-	-	-	-	-	-	-	-	8	3.6
Total	49	100.0	45	100.0	39	100.0	55	100.0	36	100.0	224	100.0

**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- The proportion of cases by gender identity has varied over the 5-year period. Though Hispanic/Latinos men continue to be diagnosed higher than women and transgender persons, it has differed from 85.8% of Hispanic/Latinos cases in 2012 to 98.2% in 2015.
- Sexual contact (83.5%) was the leading mode of transmission.
- Nearly three-quarters of newly diagnosed Hispanics/Latinos in DC were diagnosed between the ages of 25-49.

Stage of HIV Disease

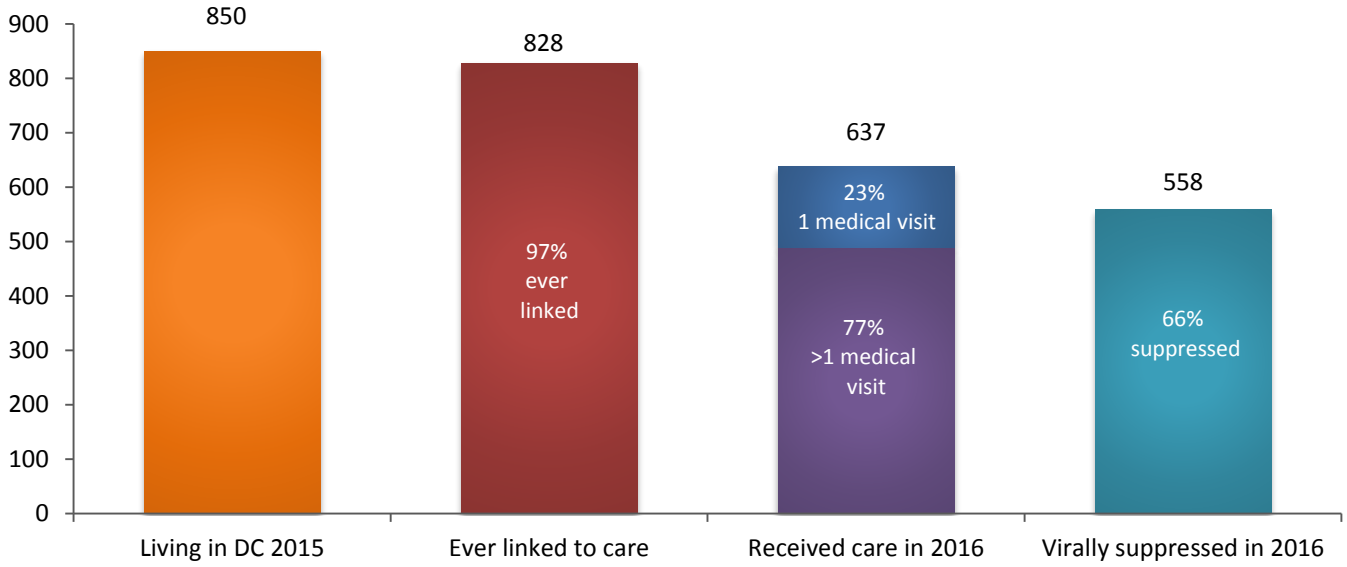
Figure 47. Stages of HIV Infection among Newly Diagnosed Hispanics/Latinos 2012-2016



- There was a significant variance in the proportion of stage 3 diagnoses over the five-year period.

HIV Care Dynamics

Figure 48. Care Dynamics among Hispanics/Latinos Diagnosed with HIV Living in DC, 2016



- Figure 40 represents the 2016 care continuum for Hispanics/Latinos living in DC. Among the 850 Hispanics/Latinos living in DC, 97.4% were ever linked to care. Nearly three-quarters (74.9%) received any care in 2016. Of all diagnosed Hispanics/Latinos living in DC, 65.6% achieved viral suppression at last lab in 2016. These percentages are similar to all persons living with HIV in DC.

Table 31. 2016 Care Dynamics among Diagnosed and Living Hispanic/Latinos HIV Cases by Selected Characteristics

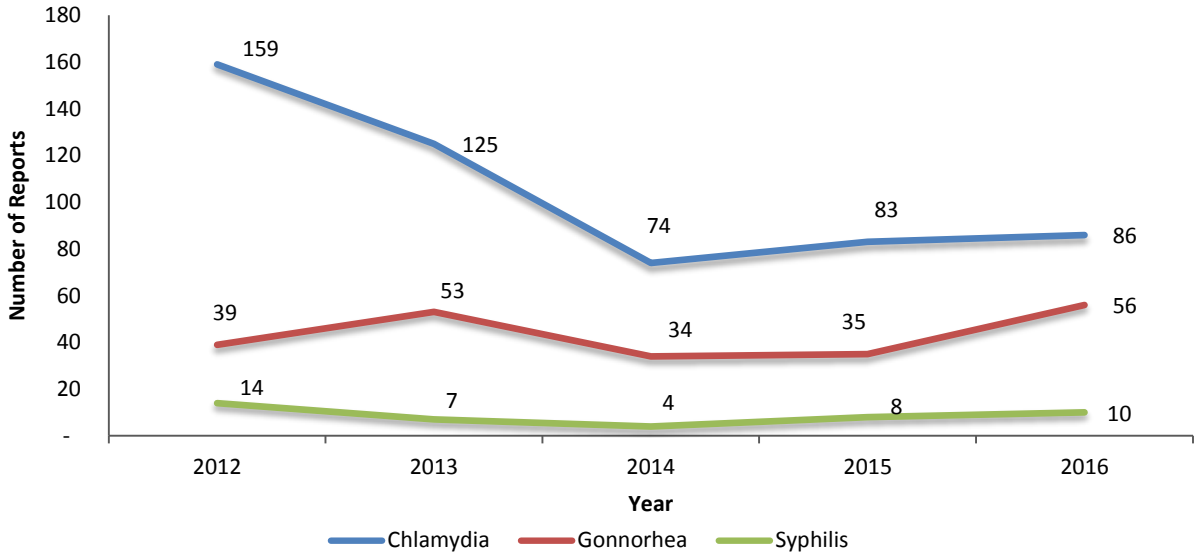
	Living in DC	Ever Linked to Care		Retained in Care any care in 2016		More than 1 medical visit in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2016	
	N	N	%	N	%	N	%	N	%	N	%
Gender identity											
Male	732	714	97.5	546	74.6	420	57.4	616	84.2	486	66.4
Female	104	100	96.2	79	76.0	57	54.8	76	73.1	62	59.6
Transgender	14	14	100.0	12	85.7	11	78.6	12	85.7	10	71.4
Mode of Transmission											
Sexual contact	716	705	98.5	540	75.4	417	58.2	599	83.7	477	66.6
IDU	36	35	97.2	27	75.0	23	63.9	23	63.9	19	52.8
Sexual/IDU	17	16	94.1	14	82.4	12	70.6	13	76.5	11	64.7
Other**	4	4	100.0	2	50.0	2	50.0	2	50.0	2	50.0
RNI	77	68	88.3	54	70.1	34	44.2	67	87.0	49	63.6
Current Age											
0-19	7	7	100.0	6	85.7	5	71.4	5	71.4	5	71.4
20-24	23	21	91.3	19	82.6	15	65.2	17	73.9	16	69.6
25-29	90	87	96.7	68	75.6	52	57.8	71	78.9	57	63.3
30-39	230	221	96.1	159	69.1	122	53.0	182	79.1	134	58.3
40-49	239	236	98.7	178	74.5	134	56.1	206	86.2	163	68.2
50-59	177	174	98.3	141	79.7	106	59.9	148	83.6	122	68.9
60 and older	84	82	97.6	66	78.6	54	64.3	75	89.3	61	72.6
Grand Total	850	828	97.4	637	74.9	488	57.4	704	82.8	558	65.6

**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- There were relatively high rates of linkage to care by gender identity among Hispanics/Latinos living in DC; transgender persons had the highest rate of retention in care in 2016 more than one medical visit and viral suppression.
- By current age, Hispanics/Latinos aged 30-39 at the end of 2016 had the lowest rates of any care in 2016 (69.1%), continuous care (53.0%) and viral suppression (58.3%) compared to other age groups.

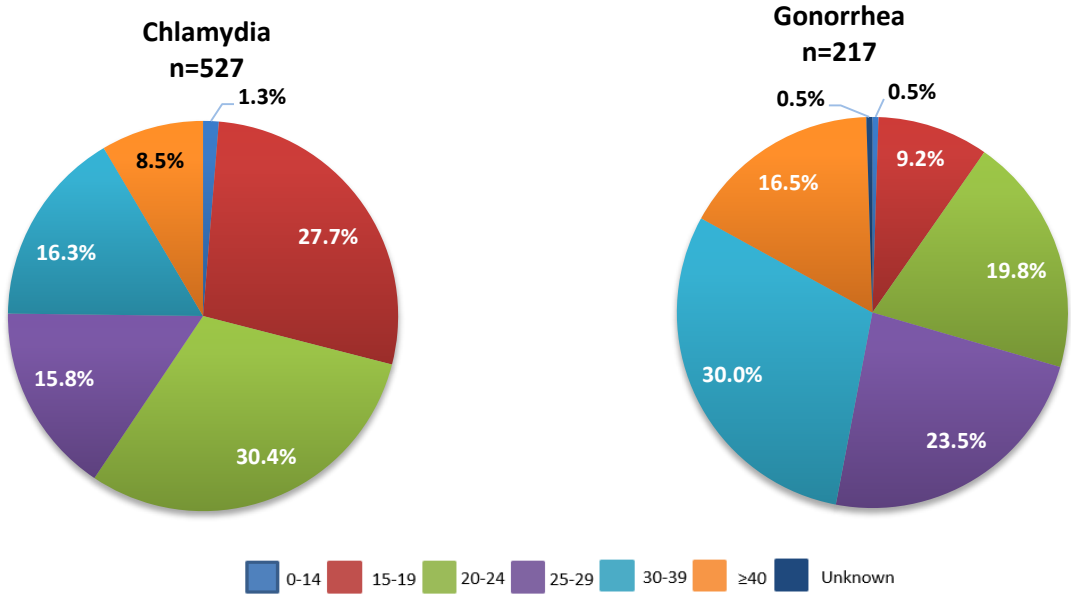
Sexually Transmitted Infections

Figure 49. Reported Chlamydia, Gonorrhea and Syphilis Cases among Hispanics/Latinos, District of Columbia, 2012-2016



- Between 2012 and 2016, there were a total of 790 diagnoses of chlamydia, gonorrhea and syphilis among Hispanics/Latinos, of which, the majority (59.6%) were among men.

Figure 50. Reported Chlamydia and Gonorrhea Cases among Hispanics/Latinos by Age at Diagnosis, District of Columbia, 2012-2016

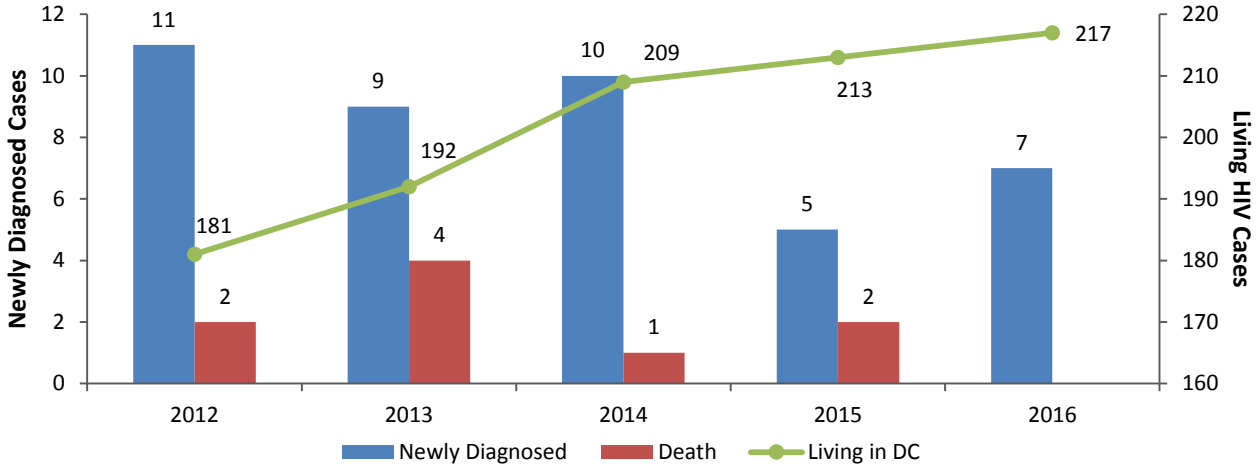


- For chlamydia, the majority of diagnoses among Hispanics/Latinos was between the ages of 15-24. For gonorrhea, the majority of cases were between the ages of 25 and 39.

Transgender Persons

There were 12,964 residents of the District of Columbia living with HIV as of December 31, 2016. Of these cases, 217 (1.7%) were transgender persons.

Figure 51. Newly Diagnosed HIV Cases and Living HIV Cases by Year among Transgender Persons, District of Columbia, 2012-2016



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available

- There was a 36.4% decrease in the number of newly diagnosed cases among transgender persons between 2012 and 2016.

Table 32. Transgender Persons Diagnosed and Living in DC, by Race/Ethnicity, 2016

	White		Black		Hispanic/Latino		Other		Total	
	N	%	N	%	N	%	N	%	N	%
Gender Identity										
Transgender Men	6	50.0	58	31.9	4	28.6	4	44.4	72	33.2
Transgender Women	6	50.0	124	68.1	10	71.4	5	55.6	145	66.8
Total	12	100.0	182	100.0	14	100.0	9	100.0	217	100.0
Mode of Transmission										
Sexual contact	9	75.0	113	62.1	13	92.9	6	66.7	141	65.0
IDU	-	8.3	7	3.8	-	-	-	-	8	3.7
Sexual/IDU	-	8.3	11	6.0	-	7.1	-	-	13	6.0
Other**	-	0.0	4	2.2	-	-	-	-	4	1.8
RNI	-	8.3	47	25.8	-	-	3	33.3	51	23.5
Total	12	100.0	182	100.0	14	100.0	9	100.0	217	100.0
Current Age										
<13	-	-	-	-	-	-	-	-	-	-
13-19	-	-	3	1.6	-	-	-	-	3	1.4
20-24	-	-	11	6.0	-	-	-	-	11	5.1
25-29	-	-	22	12.1	-	-	-	-	24	11.1
30-39	-	-	36	19.8	7	50.0	3	33.3	47	21.7
40-49	5	41.7	47	25.8	4	28.6	-	-	58	26.7
50-59	5	41.7	36	19.8	-	-	4	44.4	46	21.2
≥60	-	-	26	14.3	-	-	-	-	27	12.4
Missing	-	-	-	-	-	-	-	-	-	-
Total	12	100.0	182	100.0	14	100.0	9	100.0	217	100.0

- The majority of transgender HIV cases living in the District are among Transgender women.
- Nearly two-thirds of the transgender persons living with HIV in the District had sexual contact (65.0%) as the mode of transmission. Sexual contact is also the leading mode of transmission among all racial groups.
- Over two-thirds of transgender persons living with HIV were between the ages of 30-59 at the end of 2016.

Newly Diagnosed HIV Cases

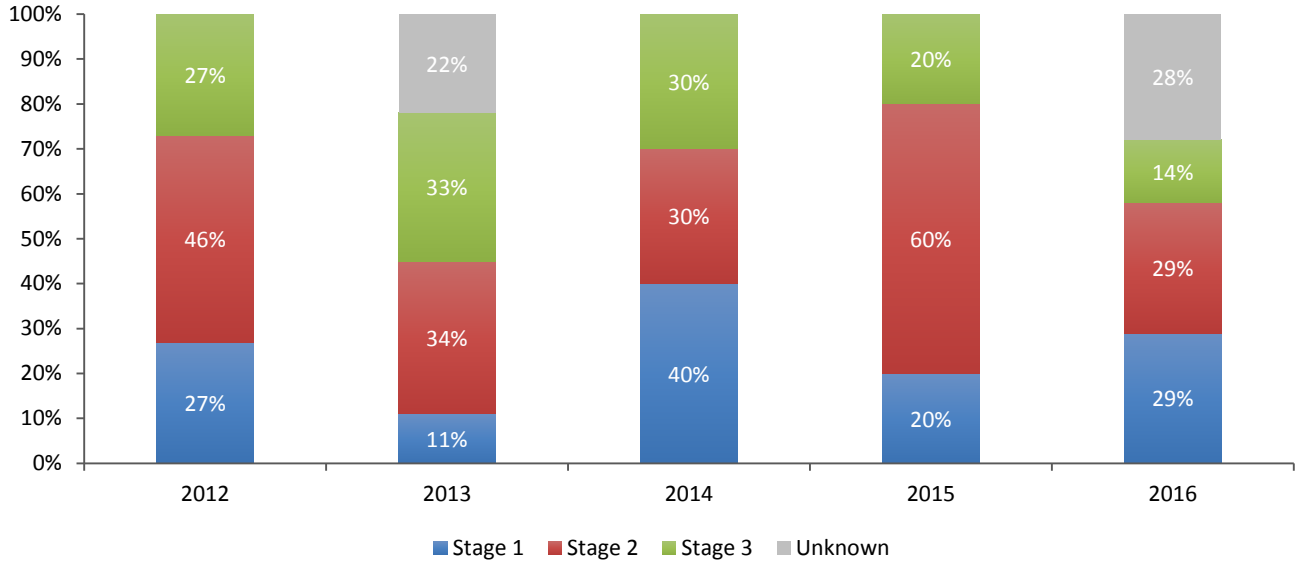
Table 33. Newly Diagnosed Transgender Persons by Race/Ethnicity, Mode of Transmission, Age at Diagnosis and year, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender Identity												
Transgender Men	3	27.3	1	11.1	4	40.0	1	20.0	2	28.6	11	26.2
Transgender Women	8	72.7	8	88.9	6	60.0	4	80.0	5	71.4	31	73.8
Total	11	100.0	9	100.0	10	100.0	5	100.0	7	100.0	42	100.0
Race/Ethnicity												
White	-	-	-	-	-	-	-	-	-	-	-	-
Black	8	72.7	7	77.8	7	70.0	4	80.0	6	85.7	32	76.2
Hispanic/Latino	-	18.2	-	-	-	-	-	-0	-	-	6	14.3
Other*	-	9.1	-	-	-	-	-	-	-	-	3	7.1
Total	11	100.0	9	100.0	10	100.0	5	100.0	7	100.0	42	100.0
Mode of Transmission												
Sexual contact	4	36.4	6	66.7	3	30.0	3	60.0	3	42.9	19	45.2
IDU	-	0.0	-	-	-	-	-	-	-	-	-	-
Sexual/IDU	-	9.1	-	-	-	-	-	-	-	-	-	-
Other**	-	0.0	-	-	-	-	-	-	-	-	-	-
RNI	6	54.5	3	33.3	7	70.0	-	-	4	57.1	22	52.4
Total	11	100	9	100	10	100.0	5	100.0	7	100.0	42	100.0
Age at Diagnosis												
<13	-	-	-	-	-	-	-	-	-	-	-	-
13-19	-	-	-	-	-	-	-	-	-	-	4	9.5
20-24	-	-	-	-	-	-	-	-	-	-	7	16.7
25-29	5	45.5	-	-	5	50.0	-	-	-	-	14	33.3
30-39	-	-	-	-	3	30.0	-	-	-	-	8	19.0
40-49	-	-	3	33.3	-	-	-	-	-	-	4	9.5
50-59	-	-	-	-	-	-	-	-	-	-	3	7.1
≥60	-	-	-	-	-	-	-	-	-	-	-	-
Total	11	100	9	100	10	100	5	100	7	100	42	100

- Although the number of newly diagnosed cases has declined from 2012 to 2016, transgender women had the highest proportion of cases each year.
- The highest proportion of cases among transgender persons were among blacks (76.2%), followed by Hispanics/Latino (14.3%) in the 5-year period. More than half of newly diagnosed transgender cases had an unidentified mode of HIV transmission (52.4%) followed by sexual contact (45.2%) and more than two-thirds (69.0%) were diagnosed between ages 20-39.

Stage of HIV Disease

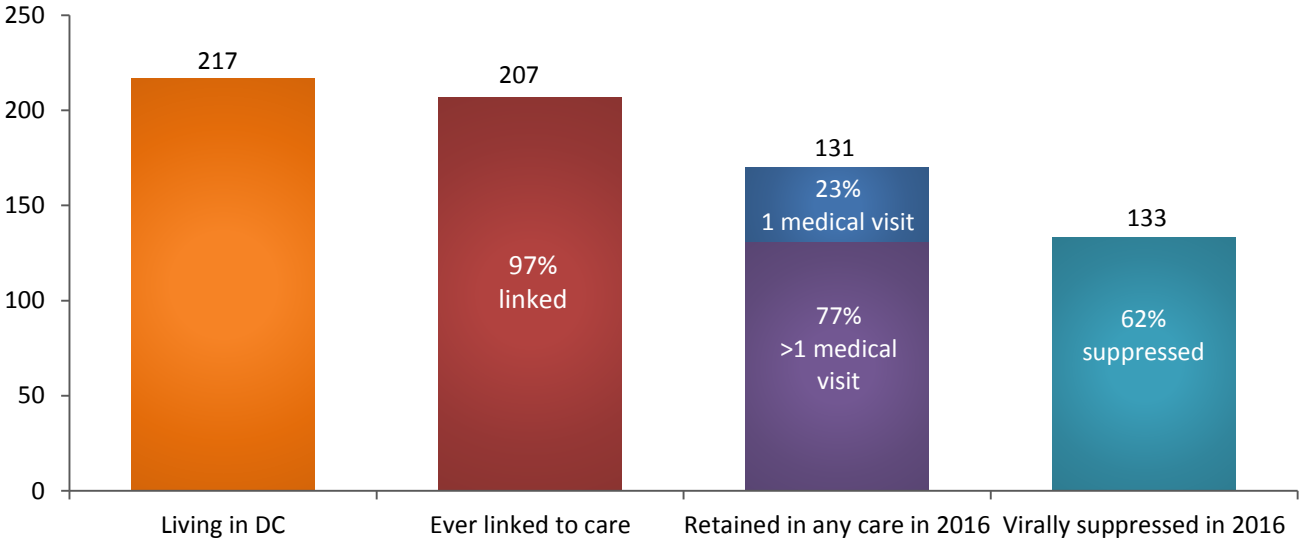
Figure 52. Stages of HIV Infection at Diagnosis among Newly Diagnosed Transgender Persons, District of Columbia, 2012-2016



- Stage 3 HIV disease varied in the five-year period among transgender persons.

HIV Care Dynamics

Figure 53. Care Dynamics among Transgender Persons Diagnosed with HIV Living in DC, 2016



- Figure 53 represents the 2016 care continuum for transgender persons who were living as of December 31, 2015. Among the 213 transgender persons living in DC, 97.2% were ever linked to care. Over three-quarters (79.8%) received any care in 2016, of whom 61.5% had more than one medical visit in 2016 (77.1% of those who received any care in 2016). Of all diagnosed transgender persons living in DC as of December 31, 2015,

75.0% had ever achieved viral suppression and 62.4% achieved viral suppression at last lab in 2016. These percentages are similar to all persons living with HIV in DC.

Table 34. 2016 Care Dynamics among Diagnosed and Living Transgender HIV Cases by Selected Characteristics

	Living HIV Cases Diagnosed	Ever Linked to Care		Retained in Care in 2016		More than one care visit in 2016		Suppressed at Last Known Viral Status in 2016	
Gender Identity									
Transgender Women	139	137	98.6	114	82.0	85	61.2	89	64.0
Transgender Men	74	70	94.6	56	75.7	46	62.2	44	59.5
Race/Ethnicity									
White	11	11	100.0	6	54.5	5	45.5	5	45.5
Black	179	173	96.6	144	80.4	110	61.5	110	61.5
Hispanic/Latino	14	14	100.0	12	85.7	11	78.6	10	71.4
Other*	9	9	100.0	8	88.9	5	55.6	8	88.9
Current Age									
13-19	6	6	100.0	6	100.0	6	100.0	-	-
20-24	8	7	87.5	5	62.5	4	50.0	-	-
25-29	21	21	100.0	17	81.0	15	71.4	16	76.2
30-39	50	50	100.0	41	82.0	33	66.0	33	66.0
40-49	60	59	98.3	49	81.7	37	61.7	36	60.0
50-59	46	44	95.7	35	76.1	24	52.2	28	60.9
60 and older	21	20	95.2	17	81.0	12	57.1	15	71.4
Missing	-	-	-	-	-.		-	-	-
Mode of Transmission									
IDU	8	8	100.0	6	75.0	5	62.5	4	50.0
Sexual contact	139	136	97.8	108	77.7	84	60.4	89	64.0
Sexual contact/IDU	13	13	100.0	11	84.6	6	46.2	7	53.8
RNI/Other**	53	50	94.3	45	84.9	36	67.9	33	62.3
Grand Total	213	207	97.2	170	79.8	131	61.5	133	62.4

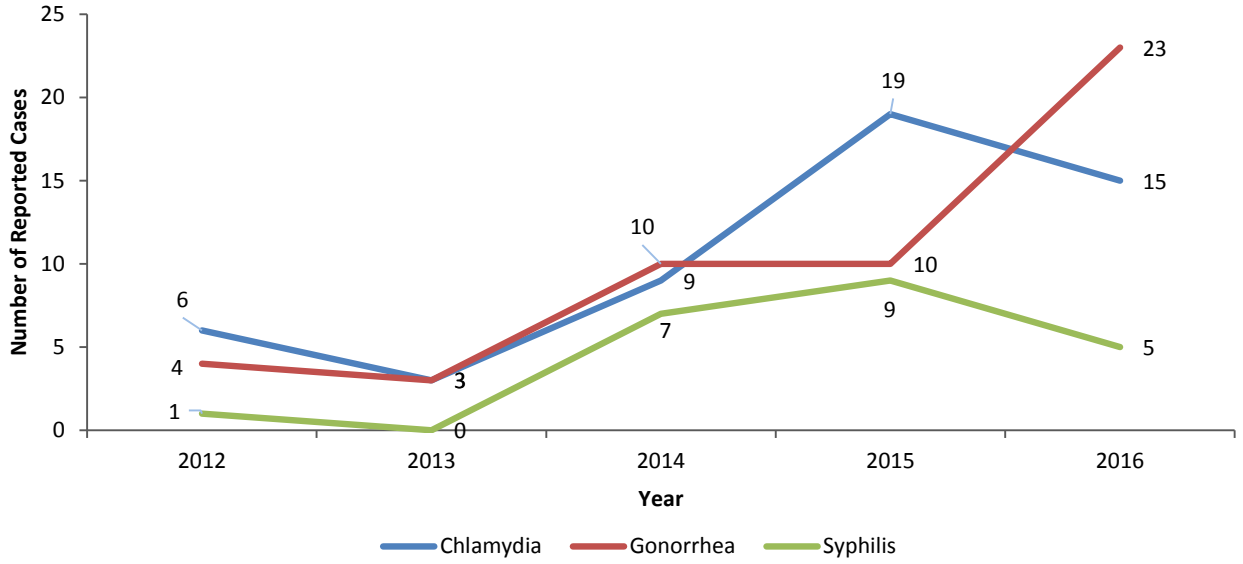
*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and unknown

**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- There were relatively high rates of linkage to care among both transgender men and women; transgender women had higher rates of retention in any care in 2016 (82.0%) as well as viral suppression in 2016.
- Linkage to care among race/ethnicity among transgender persons was also exceptionally high; white transgender persons had significantly lower rates of retention in any care in 2016 (54.5%), had more than one medical visit and virally suppression in 2016 (45.5%) compared to other racial/ethnic groups.
- By current age, linkage to care was high across all age groups. Transgender persons aged 20-24 had the lowest rates of any care in 2016 (62.5%), more than one medical visit in 2016 (50.0%) and viral suppression in 2016 (25.0%).
- By mode of transmission, linkage to care was high among all categories. Transgender persons with a mode of HIV transmission of IDU had the lowest rates of retention in any care in 2016 (75.0%); Cases with a mode of transmission of sexual contact/IDU had the lowest rate of more than one medical visit in 2016 (46.2%) and IDU had the lowest rate of viral suppression in 2016 (50.0%).

Sexually Transmitted Infections

Figure 54. Reported Chlamydia, Gonorrhea and Syphilis Cases among Transgender Persons, by Year, District of Columbia, 2012-2016

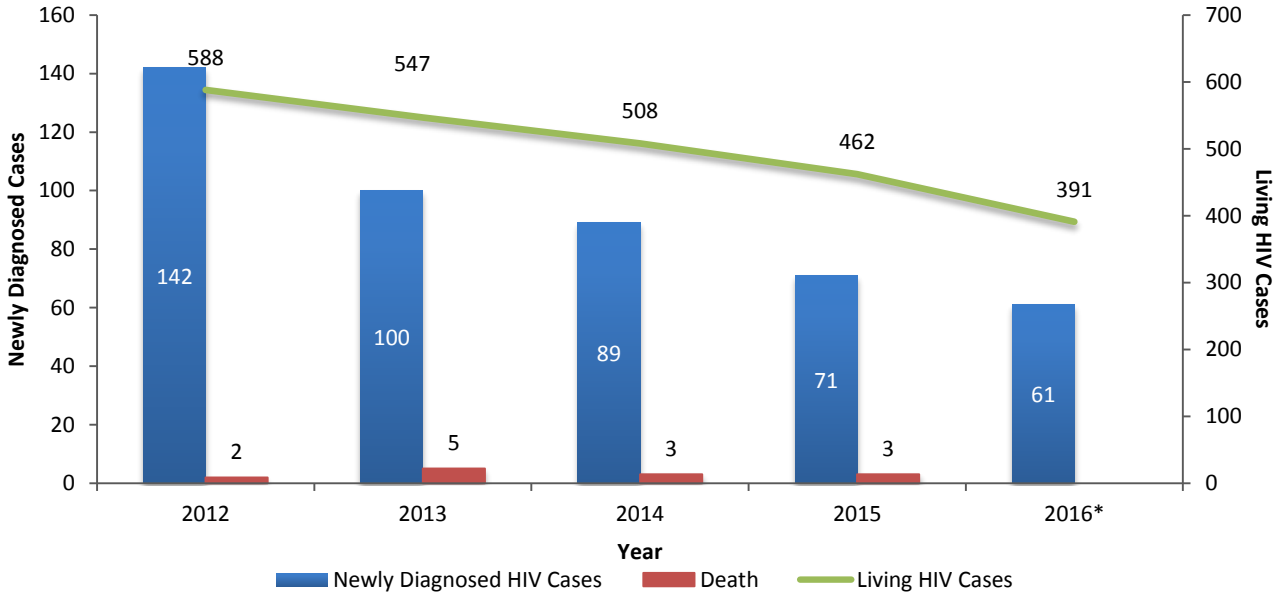


- From 2012 to 2016 there were a total of 124 reported STDs among transgender persons.
- Among chlamydia diagnoses, a majority of reports were among those ages 20-29 (61.6%); among gonorrhea reports, 42.0% of were among those aged 20-24 and nearly half (45.5%) of syphilis reports were among those aged 25-29.

Youth (ages 13-24)

As of December 31, 2016, there were 12,964 residents in the District of Columbia living HIV of which 391 cases were currently between the ages of 13 and 24. Youth account for 0.4% of all HIV cases living in Washington, DC and 19.7% of all newly diagnosed cases between 2012 and 2016.

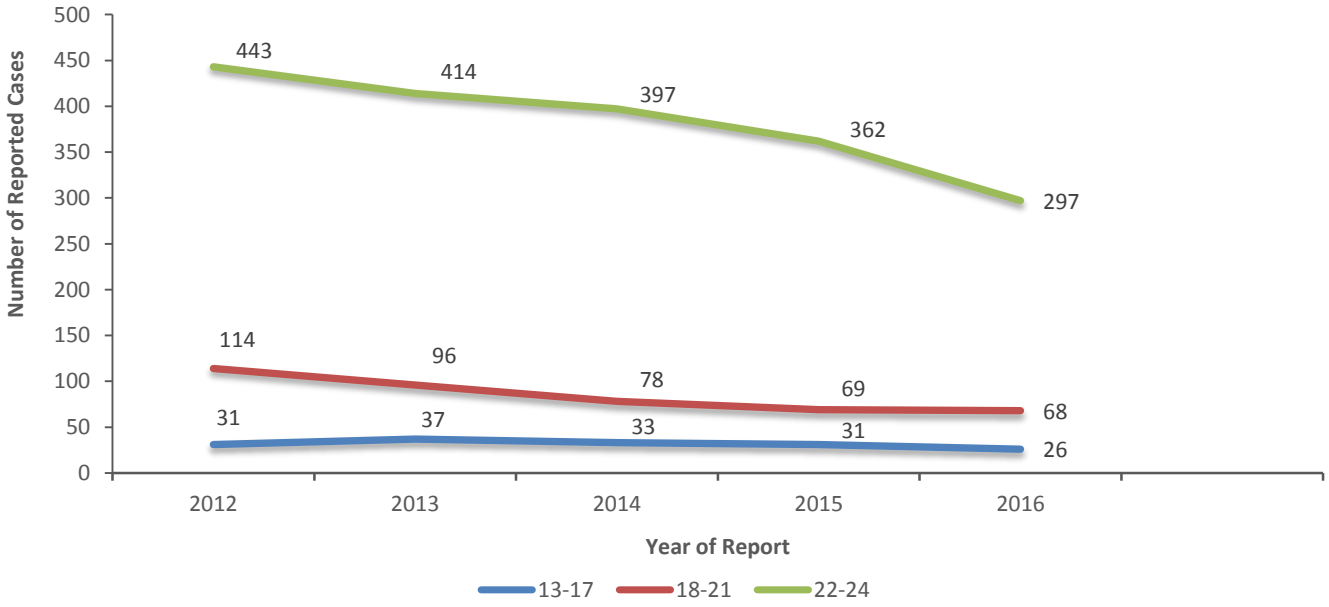
Figure 55. Newly Diagnosed HIV Cases and Living HIV Cases by Year among Youth, District of Columbia, 2012-2016



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available.

- There has been a 57.0% decrease in the number of newly diagnosed HIV cases and a 33.5% decrease among cases living in DC from 2012 to 2016.

Figure 56. Number of Youth Living with HIV in by Current Age, District of Columbia, 2012-2016



- From 2012 to 2016, the majority of youth living with HIV in DC were between the ages of 22-24, followed by youth ages 18-21.
- In all age groups, the number of youth living in DC has declined over the five-year period.

Table 35. Living HIV Cases among Youth by Current Age and Selected Characteristics, District of Columbia, 2016

	13-17		18-21		22-24		Total	
	N	%	N	%	N	%	N	%
Sex								
Male	8	30.8	38	55.9	216	72.7	262	67.0
Female	17	65.4	26	38.2	72	24.2	115	29.4
Transgender	-	-	4	5.9	9	3.0	14	3.6
Total	26	100.0	68	100.0	297	100.0	391	100.0
Race/Ethnicity								
White	-	-	-	-	17	5.7	17	4.3
Black	25	96.2	59	86.8	251	84.5	335	85.7
Hispanic/Latino	-	-	8	11.8	20	6.7	28	7.2
Other*	-	-	-	-	9	3.0	11	2.8
Total	26	100.0	68	100.0	297	100.0	391	100.0
Mode of Transmission								
Sexual contact	-	-	37	54.4	197	66.3	236	60.4
IDU	-	-	-	-	3	1.0	3	0.8
Sexual/IDU	-	-	-	-	-	-	-	-
Perinatal	22	84.6	14	20.6	40	13.5	76	19.4
RNI	-	-	17	25.0	55	18.5	74	18.9
Total	26	100.0	68	100.0	297	100.0	391	100.0

- Among young men, the largest proportion of cases had a mode of transmission of MSM (64.9%) and perinatal exposure (11.1%). By age group, men age 22-24 were most like to have to mode of transmission of MSM (68.1%), while those aged 13-17 had a much lower proportion at 12.5%.
- Among young women, the majority of cases had a mode of transmission of perinatal exposure (38.3%) followed by heterosexual contact (36.5%). By age, HIV cases aged 13-17 had the highest proportion of perinatal exposure (88.2%) compared to those ages 18-21 and 22-24 (34.6% and 27.8%, respectively).
- Among transgender cases living with HIV among youth, nearly a quarter (21.4%) acquired HIV through sexual contact or perinatal exposure. Half of transgender youth living with HIV had an unidentified mode of transmission.

Newly Diagnosed HIV Cases

There were 463 HIV cases diagnosed and reported among youth between 2012 and 2016. Over three-quarters of cases were young men (75.3%) and a majority were black (82.7%). The leading mode of transmission among newly diagnosed youth during this time period was MSM (56.7%) followed by heterosexual contact (21.1%). Mode of transmission was not identified for 19.0% of cases.

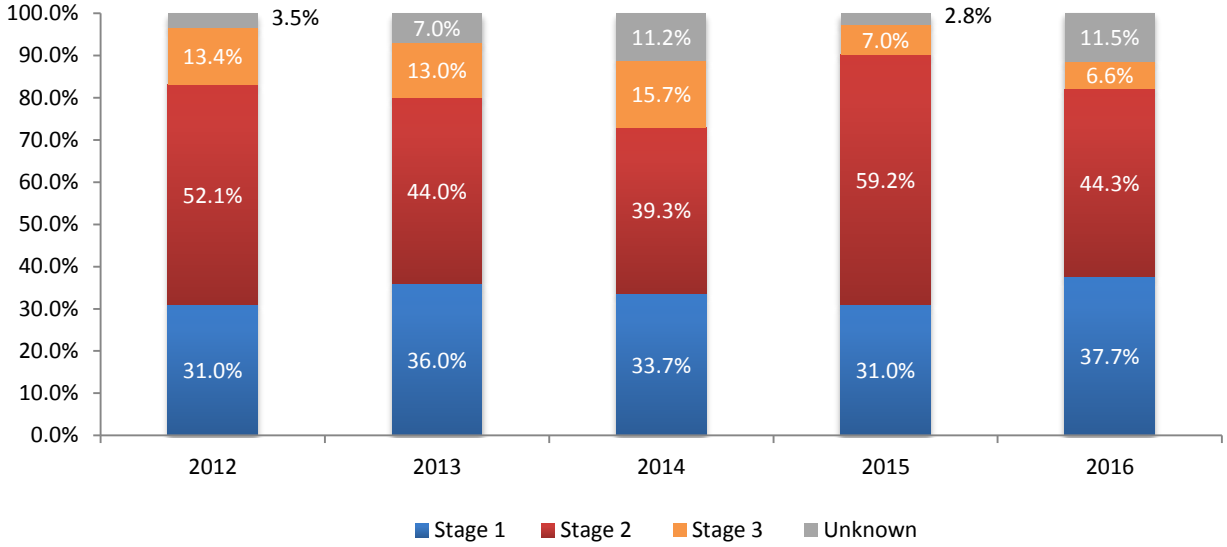
Table 36. Newly Diagnosed HIV Cases among Youth by Selected Characteristics, District of Columbia, 2016

	13-17		18-21		22-24		Total	
	N	%	N	%	N	%	N	%
Sex								
Male	17	60.7	153	79.7	202	83.1	372	80.3
Female	10	35.7	32	16.7	38	15.6	80	17.3
Transgender	-	-	7	3.6	3	1.2	11	2.4
Total	28	100.0	192	100.0	243	100.0	463	100.0
Race/Ethnicity								
White	-	-	8	4.2	23	9.5	31	6.7
Black	27	96.4	161	84.3	189	77.8	377	81.4
Hispanic/Latino	-	-	17	8.9	20	8.2	38	8.2
Other*	-	-	5	2.6	11	4.5	17	3.7
Total	28	100.0	191	100.0	243	100.0	463	19.0
Mode of Transmission								
Sexual contact	20	71.4	146	76.0	188	77.4	354	76.5
IDU	-	-	3	1.6	6	2.5	9	1.9
Sexual/IDU	-	-	-	-	5	2.1	6	1.3
Perinatal	-	3.6	-	-	-	-	-	-
RNI	7	25.0	42	21.9	44	18.1	93	20.1
Total	28	100.0	192	100.0	243	100.0	463	100.0
Male								
MSM	11	64.7	109	71.2	147	72.8	267	71.8
IDU	-	-	3	2.0	-	-	4	1.1
MSM/IDU	-	-	-	-	5	2.5	6	1.6
Heterosexual contact	-	-	13	8.5	13	6.4	28	7.5
Perinatal	-	-	-	-	-	-	-	-
RNI	4	23.5	27	17.6	36	17.8	67	18.0
Total	17	100.0	153	100.0	202	100.0	372	100.0
Female								
IDU	-	-	-	-	5	13.2	5	6.3
Heterosexual contact	6	60.0	22	68.8	27	71.1	55	68.8
Perinatal	-	-	-	-	-	-	-	-
RNI	3	30.0	10	31.3	6	15.8	19	23.8
Total	10	100.0	32	100.0	38	100.0	80	100.0
Transgender								
Sexual contact	-	-	-	-	-	-	4	36.4
IDU	0	0.0	-	-	-	-	-	-
Sexual/IDU	0	0.0	-	-	-	-	-	-
Perinatal	0	0.0	-	-	-	-	-	-
RNI	0	0.0	5	71.4	-	-	7	63.6
Total	-	-	7	100	3	100.0	11	100

- Over the five-year period, the majority of youth cases newly diagnosed with HIV were young men.
- The majority of youth cases newly diagnosed with HIV were young men (80.3%). Among young women, there were a larger proportion of cases diagnosed and reported among those aged 13-17 (35.7%) compared to cases diagnosed between 18-21 (16.7%) and 22-24 (15.6%)

- By race/ethnicity, nearly all cases diagnosed and reported between the ages of 13-17 were black, compared to 84.3% among cases aged 18-21 and 77.8% for those aged 22-24. Although overall white represented 6.7% of newly diagnosed cases, the percentage of cases diagnosed and reported increased by age group, in which white cases accounted for 0.0% of cases among youth 13-17 compared to 4.2% and 9.5% among those aged 18-21 and 22-24, respectively.
- Among young women, heterosexual contact (68.8%) was the leading mode of transmission across all age group.
- Among newly diagnosed transgender cases, over two-thirds had an unidentified risk.

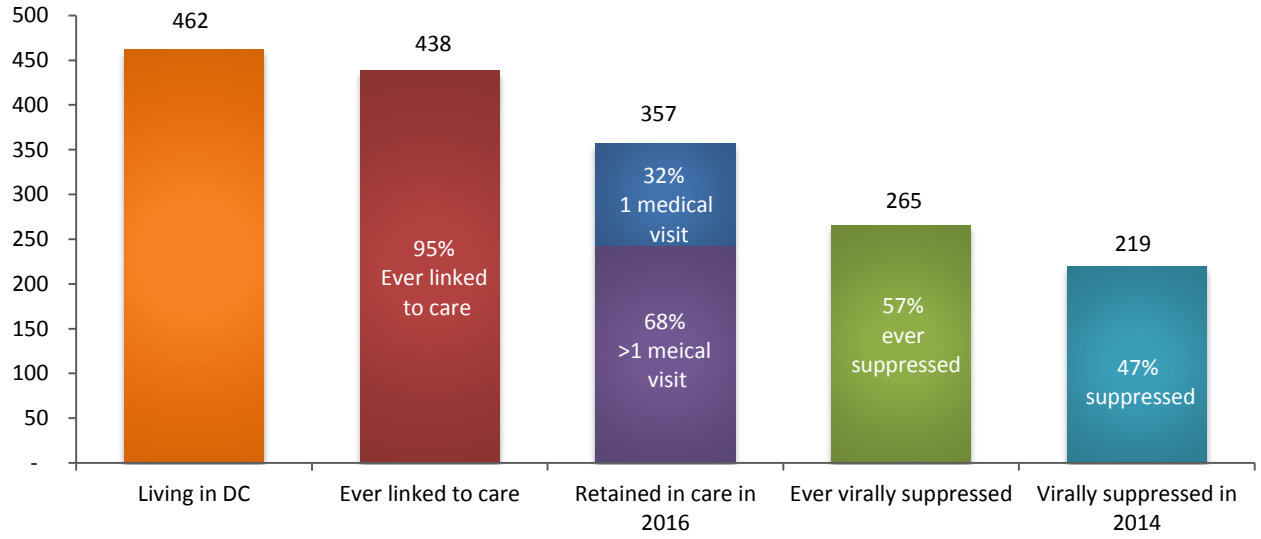
Figure 57. Stage of Disease within 3 months of Diagnosis among Newly Diagnosed Cases among Youth, District of Columbia, 2012-2016



- There was a 51% decrease in stage 3 diagnoses from 13.54 in 2012 to 6.6% in 2016.

HIV Care Dynamics

Figure 58. HIV Care Dynamic among Youth Living in the District of Columbia, 2016



- Of the 462 youth cases living at the end of 2016, 94.8% were ever linked to HIV primary care, 77.3% received any care in 2016, of which 68.0% had more than one medical visit and 32.0% had at least one visit.
- Of all living cases among youth aged 13-24, 57.4% ever achieved viral suppression and 47.4% were virally suppressed in 2016, which is significantly lower than the 63% of all persons living with HIV in DC.

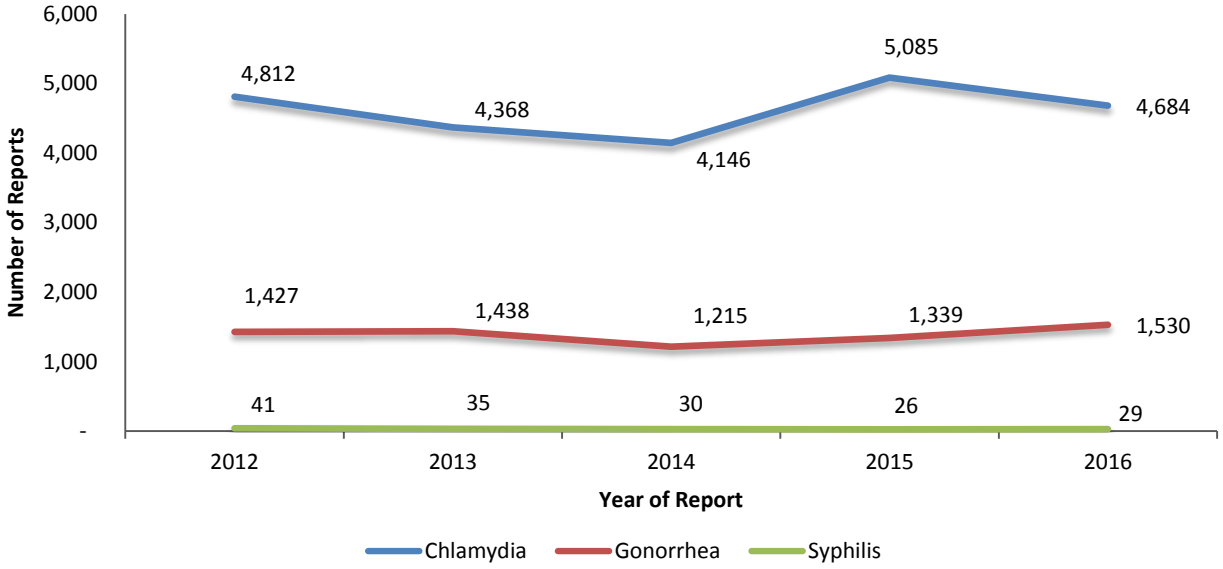
Table 37. Care Dynamic for HIV Cases among Youth by Selected Characteristics, District of Columbia, 2016

	Living in DC	Ever Linked to Care		Retained any in Care in 2016		More than one medical visit in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2016	
	N	N	%	N	%	N	%	N	%	N	%
Sex											
Male	314	297	94.6	239	76.1	161	51.3	184	58.6	156	49.7
Female	135	129	95.6	108	80.0	73	54.1	75	55.6	58	43.0
Transgender	13	12	92.3	10	76.9	9	69.2	6	46.2	3	23.1
Race/Ethnicity											
White	18	18	100.0	14	77.8	9	50.0	14	77.8	12	66.7
Black	400	381	95.3	311	77.8	210	52.5	224	56.0	182	45.5
Hispanic/Latino	29	27	93.1	24	82.8	19	65.5	21	72.4	20	69.0
Other*	15	12	80.0	8	53.3	5	33.3	6	40.0	5	33.3
Mode of Transmission											
Sexual contact	294	280	95.2	225	76.5	153	52.0	170	57.8	145	49.3
IDU	4	4	100.0	-	-	-	-	-	0.0	-	0.0
Sexual/IDU	3	3	100.0	3	100.0	-	-	-	-	-	-
Perinatal/RNI**	161	151	93.8	128	79.5	88	54.7	93	57.8	72	44.7
Current age											
13-17	31	30	96.8	27	87.1	25	80.6	14	45.2	13	41.9
18-21	69	65	94.2	54	78.3	34	49.3	41	59.4	34	49.3
22-24	362	343	94.8	276	76.2	184	50.8	210	58.0	172	47.5
Total	462	438	94.8	357	77.3	243	52.6	265	57.4	219	47.4

- There were disparities by sex among youth living with HIV. Young women had higher rates of linkage and retention in care, while transgender youth had the lowest rates of viral suppression.
- Youth cases with a race/ethnicity of "Other" had lower health outcomes on across the continuum compared to the other groups.
- There were no major disparities on the continuum by mode of transmission.
- Though youth aged 13-17 had the highest rates of linkage and retention in care, they had the lowest rates of viral suppression compared to the other groups.

Sexually Transmitted Infections

Figure 59. Reported Chlamydia Gonorrhea and Syphilis Cases among Youth Aged 13-24, by Year, District of Columbia, 2012-2016

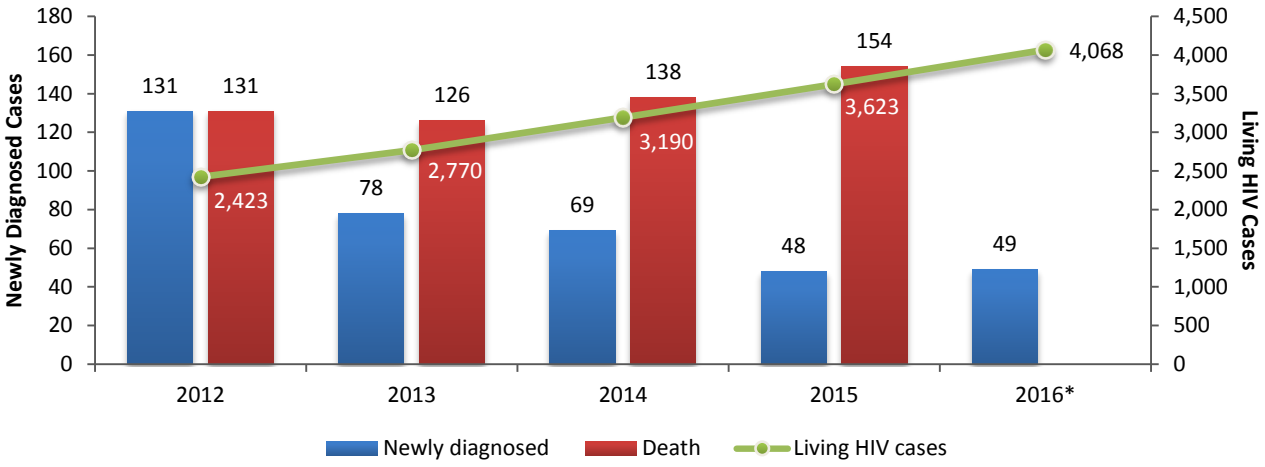


- Of the 53,322 STD diagnoses reported from 2012 to 2016, there were a total of 30,203 reported STDs among youth aged 13-24 (56.6%).

Older Adults (People aged 55 and older)

There were 12,964 residents in the District of Columbia living with HIV as of December 31, 2016. Of these cases, 4,068 cases were of the age 55 and older. The older population accounts for 31% of all cases living in the District and 14% of all newly diagnosed HIV cases in 2016.

Figure 60. Newly Diagnosed HIV Cases, Living with HIV Cases and Death by Year among Adults 55 and Older, District of Columbia, 2012-2016



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available.

- At the end of 2016, there were 4,068 adults 55 and older living with HIV in the District, accounting for 0.4% of all DC residents in this age group.
- There has been a 62.6% decrease in the number of newly diagnosed HIV cases among older adults living in DC from 2012 to 2016.
- There was a 17.6% percent increase in the death among HIV cases aged 55 and older from 2012-2015.

Table 38. Living HIV Cases by Current Age and Selected Characteristics, District of Columbia, 2016

	55-59		60-64		65+		Total	
	N	%	N	%	N	%	N	%
Gender Identity								
Male	1,301	72.3	905	73.5	760	73.3	2,966	72.9
Female	480	26.7	312	25.3	264	25.5	1,056	26.0
Transgender	19	1.1	14	1.1	13	1.3	46	1.1
Race/Ethnicity								
White	316	17.6	200	16.2	198	19.1	714	17.6
Black	1,371	76.2	960	78.0	766	73.9	3,097	76.1
Hispanic/Latino	68	3.8	45	3.7	51	4.9	164	4.0
Other*	45	2.5	26	2.1	22	2.1	93	2.3
Mode of Transmission								
Sexual contact	1,203	66.8	759	61.7	649	62.6	2,611	64.2
IDU	306	17.0	266	21.6	172	16.6	744	18.3
Sexual/IDU	63	3.5	47	3.8	43	4.1	153	3.8
Other**	-	-	-	-	-	-	3	0.1
RNI	227	12.6	158	12.8	172	16.6	557	13.7
Total	1,800	100.0	1,231	100.0	1,037	100.0	4,068	100.0

- Among older adults, the largest proportion of cases living in DC were among men (72.9%). This was the same across each age subgroup.
- By race/ethnicity, more than three-quarters of older adults living in DC were black.
- Nearly one-third of older adults living in DC with HIV had mode of transmission of sexual contact, followed by IDU (18.3%). Over 20% of adults aged 60-64 living with HIV had a mode of transmission of IDU.

Newly Diagnosed HIV Cases

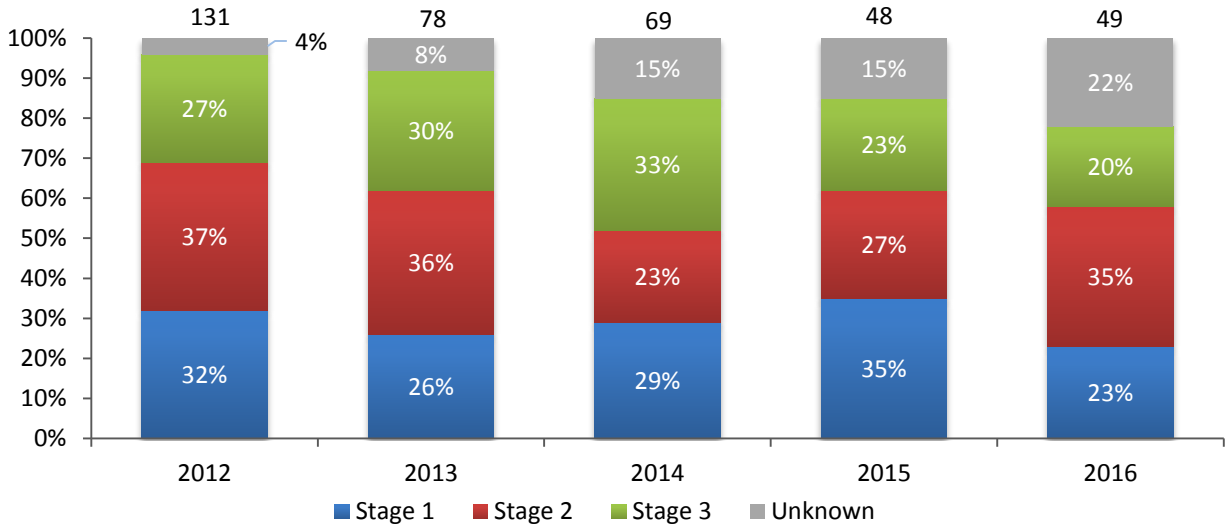
Table 39. Newly Diagnosed HIV Cases by Gender, Race/Ethnicity, Mode of Transmission and Year among Adults 55 and Older, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender Identity												
Male	82	62.6	48	61.5	54	78.3	29	60.4	29	59.2	242	64.5
Female	47	35.9	28	35.9	15	21.7	19	39.6	19	38.8	128	34.1
Transgender	-	-	-	-	-	-	-	-	-	-	5	1.3
Race/Ethnicity												
White	13	9.9	11	14.1	7	10.1	-	-	7	14.3	40	10.7
Black	104	79.4	62	79.5	56	81.2	43	89.6	39	79.6	304	81.1
Hispanic/Latino	-	-	4	5.1	5	7.2	3	6.3	-	-	16	4.3
Other*	12	9.2	-	-	-	-	-	-	-	-	15	4.0
Mode of Transmission												
Sexual contact	89	67.9	58	74.4	24	34.8	29	60.4	28	57.1	228	60.8
IDU	6	4.6	4	5.1	4	5.8	3	6.3	-	-	19	5.1
Sexual/IDU	-	-	-	-	-	-	-	-	-	-	5	1.3
Other**	-	-	-	-	-	-	-	-	-	-	-	-
RNI	35	26.7	14	17.9	40	58.0	16	33.3	18	36.7	123	32.8
Current Age												
55-59	53	40.5	39	50.0	28	40.6	22	45.8	23	46.9	165	44.0
60-64	34	26.0	18	23.1	22	31.9	13	27.1	16	32.7	103	27.5
65+	44	33.6	21	26.9	19	27.5	13	27.1	10	20.4	107	28.5
Total	131	100.0	78	100.0	69	100.0	48	100.0	49	100.0	375	100.0

- Over the five-year period, majority of older adult cases newly diagnosed with HIV were men (64.5%), ranging from 59.2% in 2016 to as high as 78.3% in 2014.
- The newly diagnosed HIV cases among adults 55 and older comprise 15.9% of total newly diagnosed HIV cases from 2012-2016.
- By race/ethnicity, the majority of cases were black, with this highest proportion diagnosed in 2015 at 89.6%.
- Sexual contact was the highest more of transmission among older adults newly diagnosed with HIV (60.8%).
- By age group, the majority of adults were diagnosed between the ages of 55-59 over the five-year period.

Stage of HIV Disease

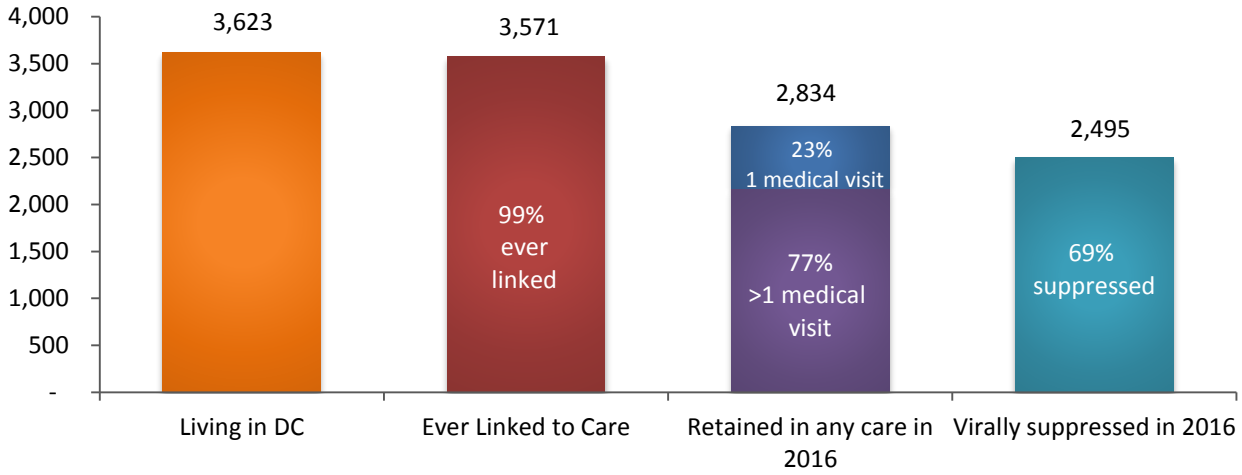
Figure 61. Stage of Disease among Adults 55 and Older among Newly Diagnosed HIV Cases, District of Columbia, 2012-2016



- Stage 3 disease at HIV diagnosis varied in the five-year period among older adults. In 2014, one-third of newly diagnosed older adults were diagnosed at Stage 3 HIV disease (AIDS), compared to 20% in 2016.
- Adults aged 65 and older had the highest proportion of stage 3 diagnosis in the five-year period compared to the other age groups: 31.8% vs 23.6% among 55-59 and 29.1% among 60-64, respectively.

HIV Care Dynamics

Figure 62. Overall Care Dynamics among Adults 55 and Older, District of Columbia, 2016



- Of the 3,623 older adults living at the end of 2016, 98.6% were ever linked to HIV primary care, 78.2% received any care in 2016, of which 77.0% had more than one medical visit and 23.0% had at least one visit.
- Of all living cases among older adults, 85.6% ever achieved viral suppression and 68.9% were virally suppressed in 2016, which is higher than among all persons with HIV (63.0%).

Table 40. 2016 Care Dynamics among Diagnosed and Living Adults 55 and Older HIV Cases by Selected Characteristics

	HIV Cases Diagnosed	Ever Linked to Care		Retained any in Care in 2016		More than 1 medical visit in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2016	
	N	N	%	N	%	N	%	N	%	N	%
Gender Identity											
Male	2,655	2,621	98.7	2,032	76.5	1,555	58.6	2,302	86.7	1,805	68.0
Female	926	910	98.3	770	83.2	594	64.1	766	82.7	664	71.7
Transgender	42	40	95.2	32	76.2	23	54.8	34	81.0	26	61.9
Race/Ethnicity											
White	645	643	99.7	475	73.6	346	53.6	605	93.8	455	70.5
Black	2,752	2,705	98.3	2,184	79.4	1,687	61.3	2,299	83.5	1,883	68.4
Hispanic/Latino	144	142	98.6	114	79.2	91	63.2	123	85.4	99	68.8
Other*	82	81	98.8	61	74.4	48	58.5	75	91.5	58	70.7
Mode of Transmission											
Sexual contact	2,311	2,288	99.0	1,805	78.1	1,386	60.0	2,012	87.1	1,618	70.0
IDU	687	683	99.4	553	80.5	432	62.9	564	82.1	463	67.4
Sexual/IDU	140	139	99.3	116	82.9	88	62.9	117	83.6	98	70.0
RNI/Other**	485	461	95.1	360	74.2	266	54.8	409	84.3	316	65.2
Current Age											
55-59	1,665	1,647	98.9	1,336	80.2	1,024	61.5	1,403	84.3	1,150	69.1
60-64	1,103	1,081	98.0	858	77.8	653	59.2	945	85.7	768	69.6
65+	855	843	98.6	640	74.9	495	57.9	754	88.2	577	67.5
Grand Total	3,623	3,571	98.6	2,834	78.2	2,172	60.0	3,102	85.6	2,495	68.9

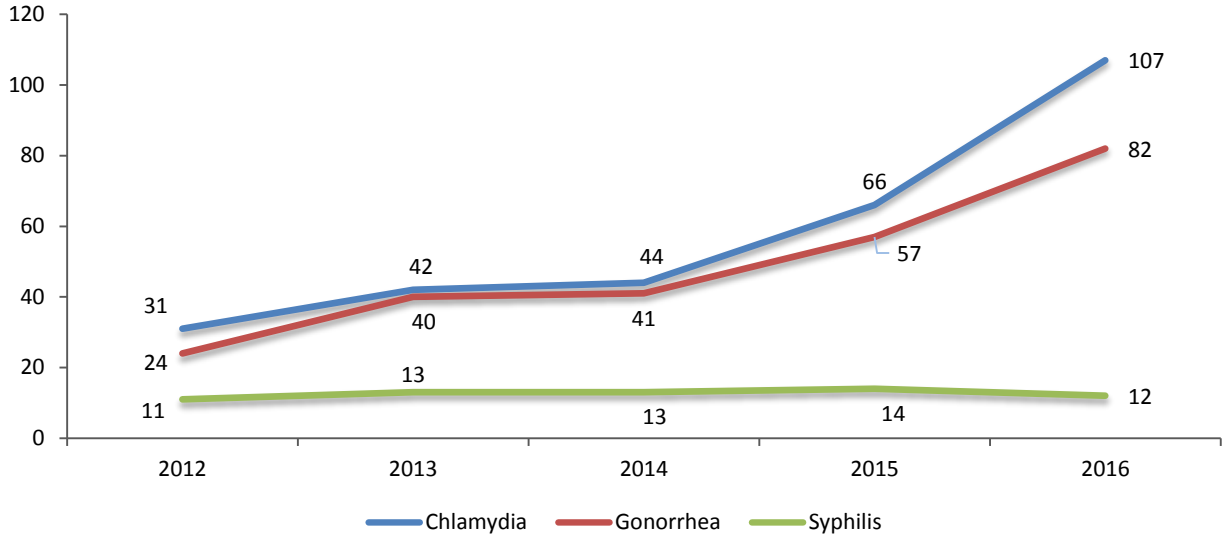
*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and unknown

**Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- By gender identity among older adults, although there were no large disparities in linkage to HIV care, women had higher proportions of retention in any care, more than one medical visit and viral suppression in 2016.
- White older adults had lower rates of retention in care but higher rates of viral suppression compared to other groups.
- By age group, disparities were low, though older adults aged 55-59 had the highest rates of retention in care in 2016 (80.2%), cases aged 65 and older had the highest rates of ever being virally suppressed (85.7%) and cases aged 60-64 had the highest rated of viral suppression in 2016 (69.6%).

Sexually Transmitted Infections

Figure 63. Reported Chlamydia Gonorrhea and Syphilis Cases among Adults 55 and Older, by Year, District of Columbia, 2012-2016

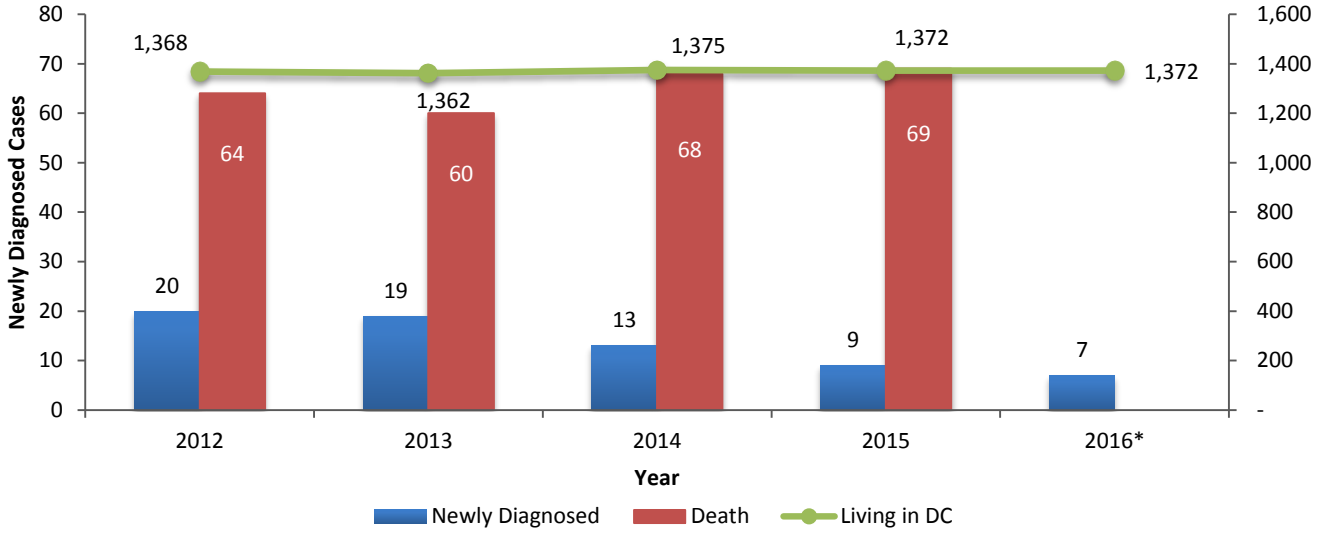


- Of the 53,322 STDs reported from 2012 to 2016, there were a total of 307 (0.6%) reported among adults aged 55 and older. Majority of diagnoses were chlamydia, followed by gonorrhea and syphilis.

People who Inject Drugs (PWID)

Of 12,964 residents of the District of Columbia living with HIV as of December 31, 2016, 1,372 (10.6%) were people who inject drugs (PWID).

Figure 64. Newly Diagnosed and Living HIV Cases by Year among PWID, District of Columbia, 2012-2016



*Information concerning deaths in 2016 is limited. The number of deaths may increase as information from other sources become available.

- There was a 76.7% decrease among newly diagnosed cases in the 5-year period.

Table 41. PWID Diagnosed and Living in DC, by Race/Ethnicity, 2016

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Gender Identity										
Male	21	70.0	711	55.3	19	57.6	17	73.9	768	56.0
Female	8	26.7	568	44.2	14	42.4	6	26.1	596	43.4
Transgender	-	-	7	0.5	-	-	-	-	8	0.6
Current Age										
<13	-	-	-	-	-	-	-	-	-	-
13-19	-	-	-	-	-	-	-	-	-	-
20-24	-	-	3	0.2	-	-	-	-	3	0.2
25-29	-	-	6	0.5	-	-	-	-	8	0.6
30-39	4	13.3	84	6.5	3	9.1	-	-	92	6.7
40-49	8	26.7	212	16.5	5	15.2	5	21.7	230	16.8
50-59	13	43.3	563	43.8	14	42.4	11	47.8	601	43.8
60 and older	4	13.3	418	32.5	11	33.3	5	21.7	438	31.9
Total	30	100.0	1.286	100.0	33	100.0	23	100.0	1,372	100.0

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

- Overall more than half of PWID living in DC at the end of 2016 were men. Among white cases, 70.0% were among men.
- The largest proportion of PWID living in DC were aged 40 and older at the end of 2016.

Newly Diagnosed HIV Cases

Table 42. Newly Diagnosed PWID Cases by Selected Characteristic and Year, District of Columbia, 2012-2016

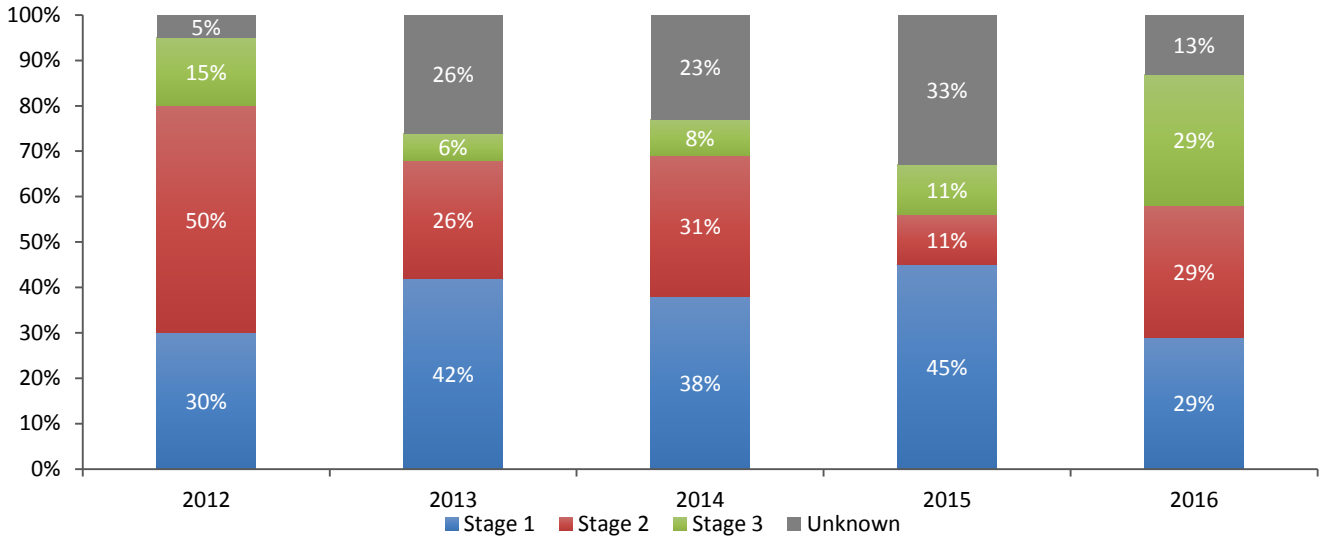
	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender Identity												
Male	13	65.0	11	57.9	5	38.5	5	55.6	5	71.4	39	57.4
Female	7	35.0	8	42.1	8	61.5	4	44.4	2	28.6	29	42.6
Transgender	-	-	-	-	-	-	-	-	-	-	-	-
Race/Ethnicity												
White	-	-	-	-	-	-	-	-	-	-	6	8.8
Black	18	90.0	17	89.5	12	92.3	8	88.9	5	71.4	60	88.2
Hispanic/Latino	-	-	-	-	-	-	-	-	-	-	-	-
Other*	-	-	-	-	-	-	-	-	-	-	-	-
Age at Diagnosis												
<13	-	-	-	-	-	-	-	-	-	-	0	-
13-19	-	-	-	-	-	-	-	-	-	-	-	-
20-24	3	15.0	4	21.1	-	-	-	0.0	-	-	8	11.8
25-29	-	5.0	-	-	-	-	-	22.2	-	-	5	7.4
30-39	-	-	3	15.8	6	46.2	-	44.4	-	-	16	23.5
40-49	8	40.0	4	21.1	-	-	-	-	-	-	14	20.6
50-59	6	30.0	6	31.6	-	-	3	33.3	4	57.1	21	30.9
≥60	-	-	-	-	-	-	-	0.0	-	14.3	3	4.4
Total	20	100.0	19	100.0	13	100.0	9	100.0	7	100.0	68	100.0

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

- Though numbers were low by year, the majority of newly diagnosed PWID was men.
- Over three-quarters of newly diagnosed PWID in DC were black (88.2%), followed by white (8.8%).
- Three-quarters of newly diagnosed PWID were diagnosed between the ages of 30 and 59.

Stage of HIV Disease

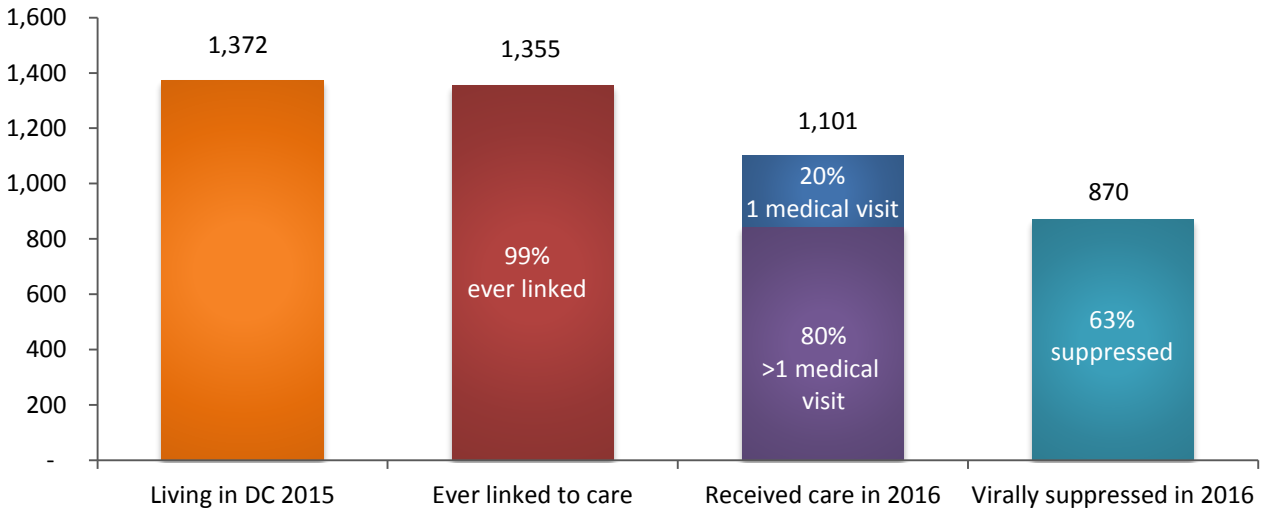
Figure 65. Stages of HIV Infection among Newly Diagnosed PWID, 2012-2016



- In 2016, there was a significantly higher proportion of stage 3 diagnoses than previous years in the five-year period.

HIV Care Dynamics

Figure 66. Care Dynamics among PWID Diagnosed with HIV Living in DC, 2016



- Figure 66 represents the 2016 care continuum for PWID living in DC. Among the 1,372 PWID living in DC, 98.8% were ever linked to care. Over three-quarters (80.2%) received any care in 2016. Of all diagnosed IDU living in DC, 77.3% had ever achieved viral suppression and 63.4% achieved viral suppression at last lab in 2016. These percentages are similar to all persons living with HIV in DC.

Table 43. 2016 Care Dynamics among Diagnosed and Living PWID HIV Cases by Selected Characteristics

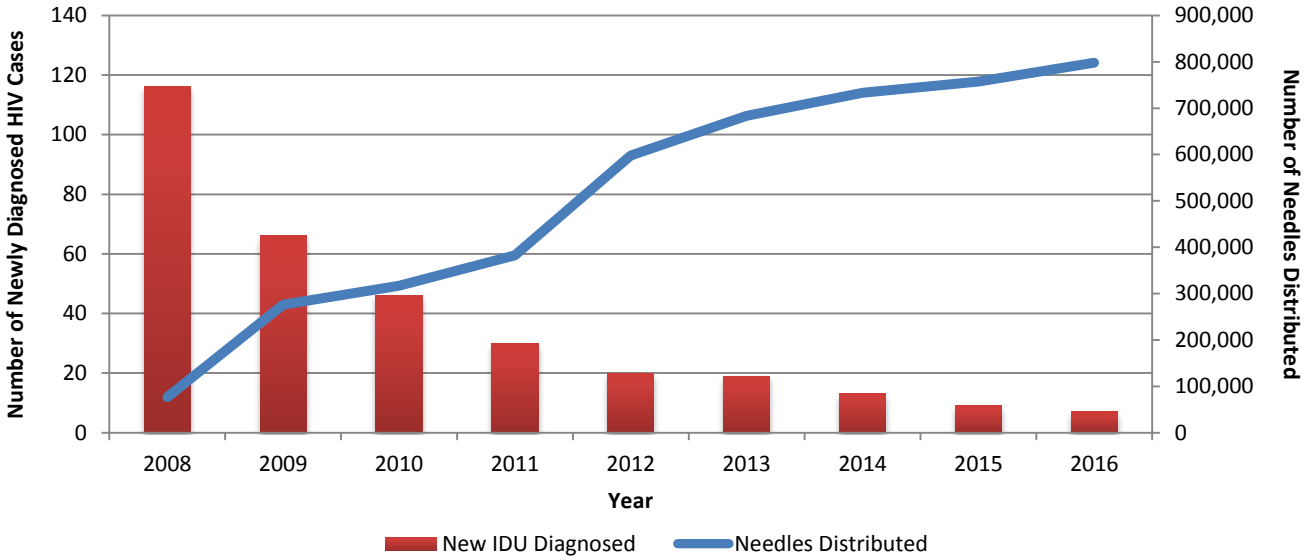
	Living in DC	Ever Linked to Care		Retained in Care any care in 2016		More than 1 medical visit in 2016		Ever Virally Suppressed		Suppressed at Last Known Viral Status in 2015	
	N	N	%	N	%	N	%	N	%	N	%
Gender Identity											
Male	766	758	99.0	581	75.8	446	58.2	596	77.8	466	60.8
Female	598	589	98.5	514	86.5	393	65.7	460	76.9	400	66.9
Transgender	8	8	100.0	6	75.0	5	62.5	4	50.0	4	50.0
Race/Ethnicity											
White	29	29	100.0	23	79.3	18	62.1	27	93.1	22	75.9
Black	1,284	1,268	98.8	1,032	80.4	791	61.6	989	77.0	813	63.3
Hispanic/Latino	36	35	97.2	27	75.0	23	63.9	23	63.9	19	52.8
Other	23	23	100.0	19	82.6	12	52.2	21	91.3	16	69.6
Current Age											
0-19	-	-	-	-	-	-	-	-	-	-	-
20-24	4	4	100.0	-	-	-	-	-	-	-	-
25-29	7	7	100.0	6	85.7	-	-	5	71.4	3	42.9
30-39	104	99	95.2	73	70.2	52	50.0	61	58.7	45	43.3
40-49	276	272	98.6	222	80.4	175	63.4	206	74.6	164	59.4
50-59	595	590	99.2	493	82.9	375	63.0	464	78.0	395	66.4
60 and older	386	383	99.2	306	79.3	241	62.4	324	83.9	263	68.1
Grand Total	1,372	1,355	98.8	1,101	80.2	884	64.4	1,060	77.3	870	63.4

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

- There were relatively high rates of linkage to care by gender identity among PWID living in DC; transgender persons had the relatively lowest proportion of retention in care in 2016, more than 1 medical visit and viral suppression.
- By race/ethnicity, Hispanic/Latino PWID had the lowest retention in care and viral suppression compared to other groups.
- By current age, PWID aged 20-24 had the lowest rates of any care in 2016 (25.0%), and PWID aged 25-29 had extremely low rates of continuous care (14.3%) and viral suppression (42.9%). PWID aged 30-39 also had low viral suppression in 2016 (43.3%).

Harm Reduction

Figure 67. Number of New Diagnosed IDU Cases and the Number of Needles Distributed, by Year, District of Columbia, 2008-2016



- After Congress lifted the ban on the District using its local funds on needle exchange services in 2007, HAHSTA began to provide funding to expand needle exchange and harm reduction services to reduce infection rates among people who inject drugs in 2008.
- From 2008 to 2016, there was over a 10-fold increase in the number needles distributed from 76,877 in 2008 to 803,596 in 2016.
- In this same time period, there was a 94.0% decrease in the number of newly diagnosed HIV cases with a mode of transmission of IDU from 116 cases in 2008 to 7 cases in 2016.

Section 13. National HIV Behavioral Surveillance Study (NHBS)

The National HIV Behavioral Surveillance (NHBS) is a U.S. Centers for Disease Control and Prevention (CDC)-funded initiative to learn more about what puts people at risk for HIV. The purpose of NHBS is to assess prevalence of and trends in sexual and drug-use behaviors among populations most at risk for HIV. The CDC project is based on the three primary modes of transmission: heterosexual sexual contact, men who have sex with men sexual contact (MSM) and injection drug use or IDU (also known as people who inject drugs or PWIDs). The District of Columbia is one of 25 cities participating in NHBS across the country and The DC Department of Health (DOH) contracted with the George Washington University Milken Institute School of Public Health and Health Services (GWU) under its Academic Partnership to conduct the project activities.

GWU followed the CDC protocol for each population study. GWU recruited PWIDs and heterosexuals using respondent-driven sampling, a method where people identified others in their social network to be surveyed, while men who have sex with men recruited through venue-based sampling, a community recruitment method to recruit men at open air venues, gyms, bars, restaurants, and clubs that men who have sex with men tend to frequent.

Previously, DOH released separate reports of the studies. This is the first inclusion of these study findings in the annual report. DOH will continue to share the important results of these studies in subsequent annual reports.

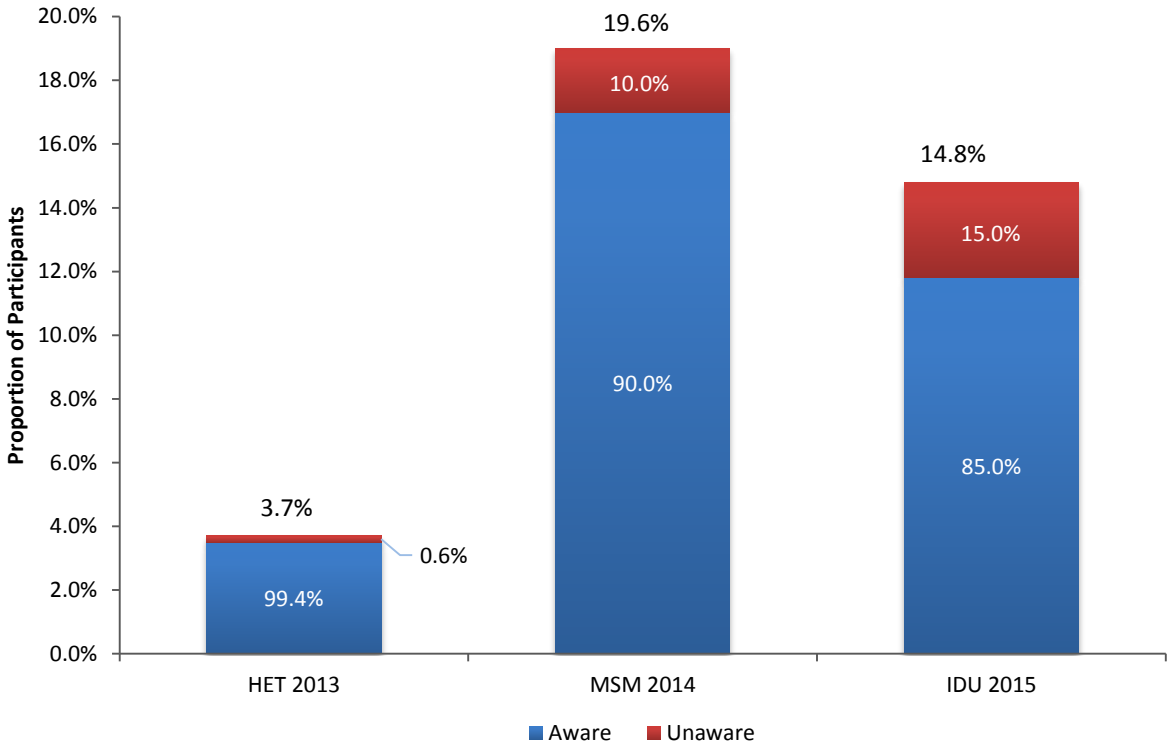
The table below provides the demographic characteristics of the study participants in the last 3 cycles.

Table 44. Demographic Characteristics of Participants, DC Behavioral Study, 2013-2015

	HET 2013 (N=459) %	MSM 2014 (N=510) %	IDU 2015 (N=517) %
Gender			
Male	59.3	100.0	61.2
Female	40.7	-	38.6
Transgender	-	-	0.2
Age Group			
<30 years old	44.8	48.0	2.2
≥30 years old	55.2	52.0	97.8
Race/Ethnicity			
White	0.0	37.7	5.6
Black	92.9	42.0	92.0
Other	7.1	20.3	2.4
Sexual Orientation			
Homosexual	5.5	85.8	11.8
Bisexual	15.9	13.8	11.4
Heterosexual	78.5	0.4	76.8
Educational Attainment			
High school graduate or less	88.3	10.6	71.9
Some college or bachelor's degree	11.7	57.7	28.1

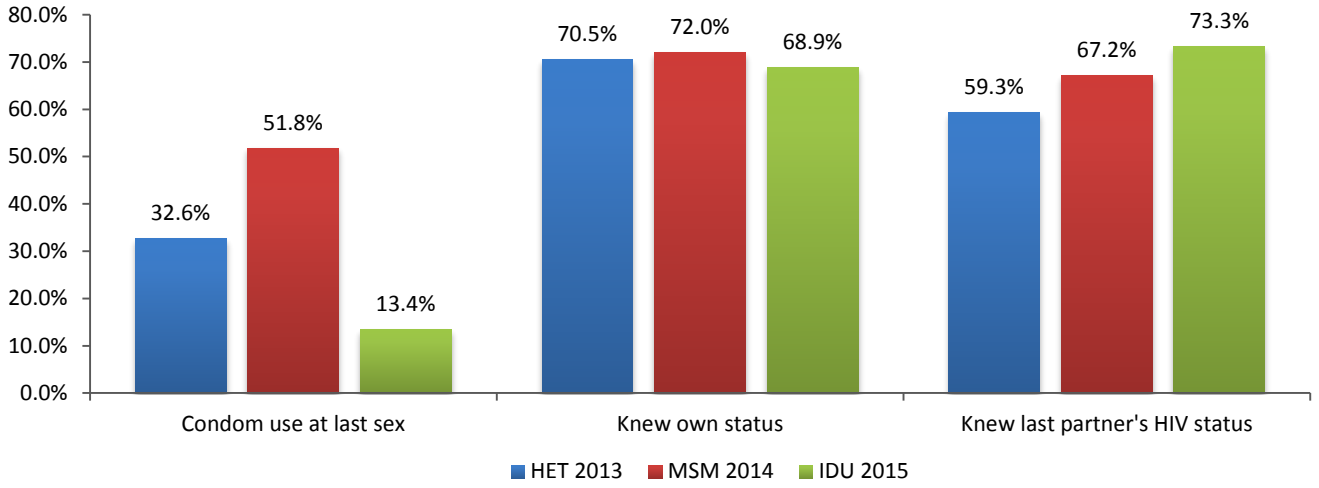
Post graduate studies	0.0	31.8	0.0
Employment Status			
Unemployed	48.2	5.7	32.0
Yearly Household Income			
< $10,000	54.2	6.3	62.6
Housing			
Ever been Homeless	24.2	3.6	34.1
Ever Incarcerated			
Lifetime: Ever been to jail, prison, or juvenile detention	56.7	11.6	77.2

Figure 68. HIV Prevalence among Study Participants, DC Behavior Study, 2013-2015



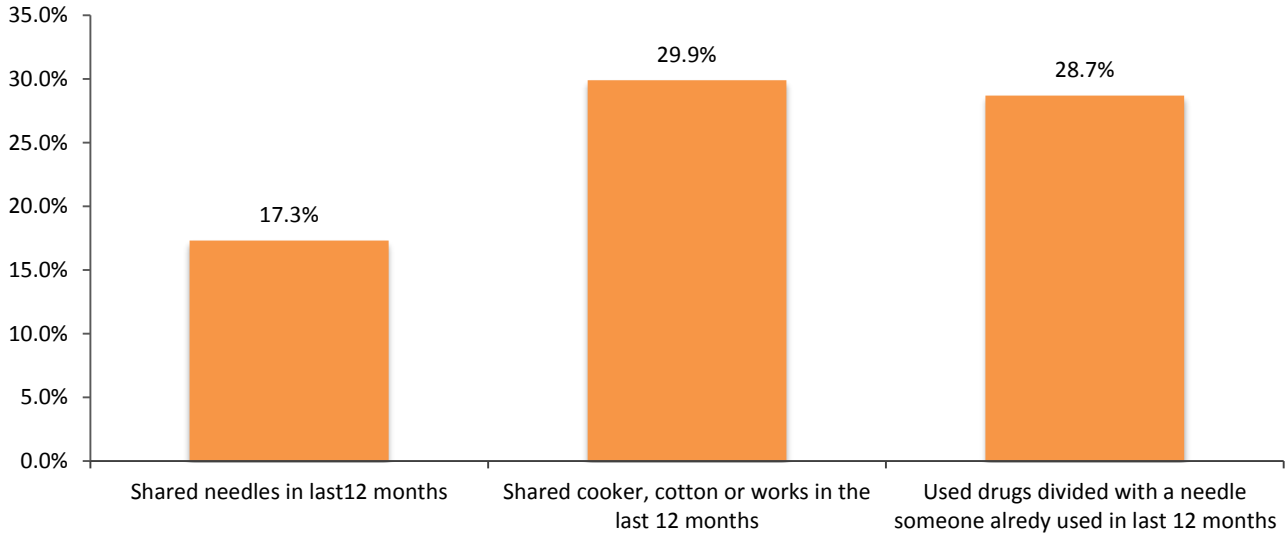
- As part of the study, all participants were offered HIV testing and nearly all agreed to be tested.
- Research has estimated that over 90% of new HIV infections were transmitted by persons who were HIV-infected but were unaware of their positive status (30.2%) and by persons diagnosed but not in care at 61.3% (Skarbinski et al., 2015). Among participants who test positive in each cycle, varying proportions were previously unaware of their HIV-positive status. The first goal of the Mayor's 90/90/90/50 Plan is to ensure that 90% of HIV-positive residents know their status. Baseline data by subpopulation indicates that residents are on their way to reaching planned goals.

Figure 69. HIV Risk Behaviors among Study Participants, DC Behavior Study, 2013-2015



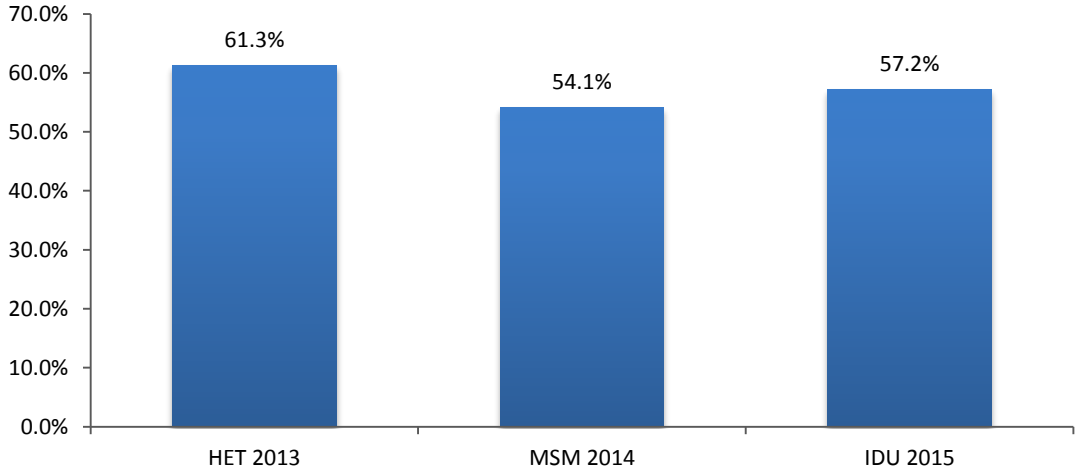
- HIV risk behaviors varied across cycles. Nearly a third of participants in the heterosexual cycle reported condom use at last sex, compared to 51.8% in the MSM and 13.4% in the IDU cycle.
- Under the 90/90/90/50 HIV Plan, 80% of DC residents are expected to have been tested for HIV in the past 12 months. Among study participants, nearly three-quarters of participants across each cycle of NHBS knew their current HIV status.
- Within the three-year period, participants in the IDU cycle were most likely to know the HIV status of their last sex partner.

Figure 70. Injecting Behaviors in the Last 12 Months, DC Behavior Study 2015, N=517



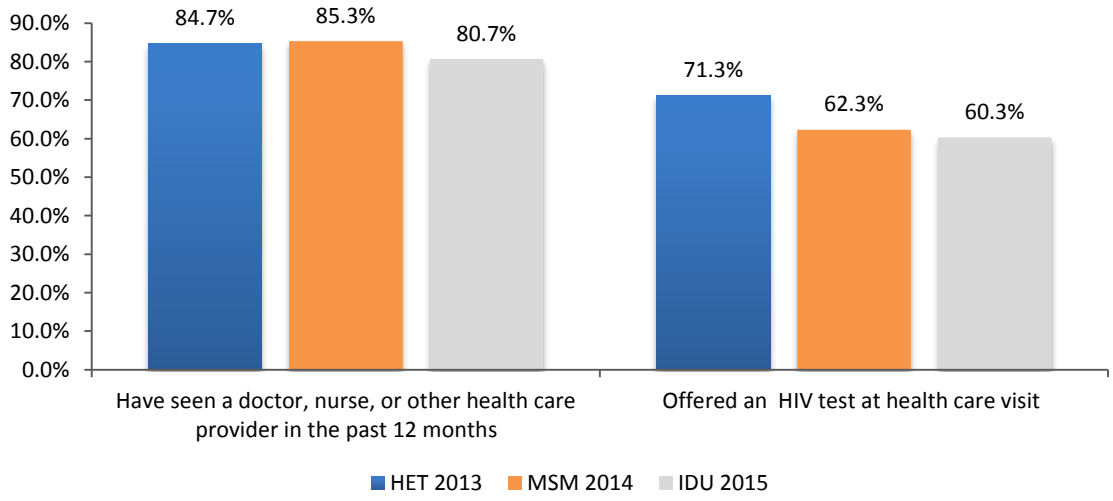
- In evaluating injection behaviors with their last injecting partner, nearly 20% of participants reported sharing needles in the past 12 months, 29.9% reported sharing cookers, cotton and works and 28.7% used drugs divided with a needle that was previously used for injection.

Figure 71. Non-injecting Drug Use among Study Participants in the past 12 Months, DC Behavior Study, 2013-2015



- There was a large proportion of at least one non-injecting drug use in the last 12 months among study populations. The most frequently used drugs were marijuana, heroin, crack and poppers.

Figure 72. Opportunities for HIV Testing in Healthcare Settings, DC Behavior Study, 2013-2015



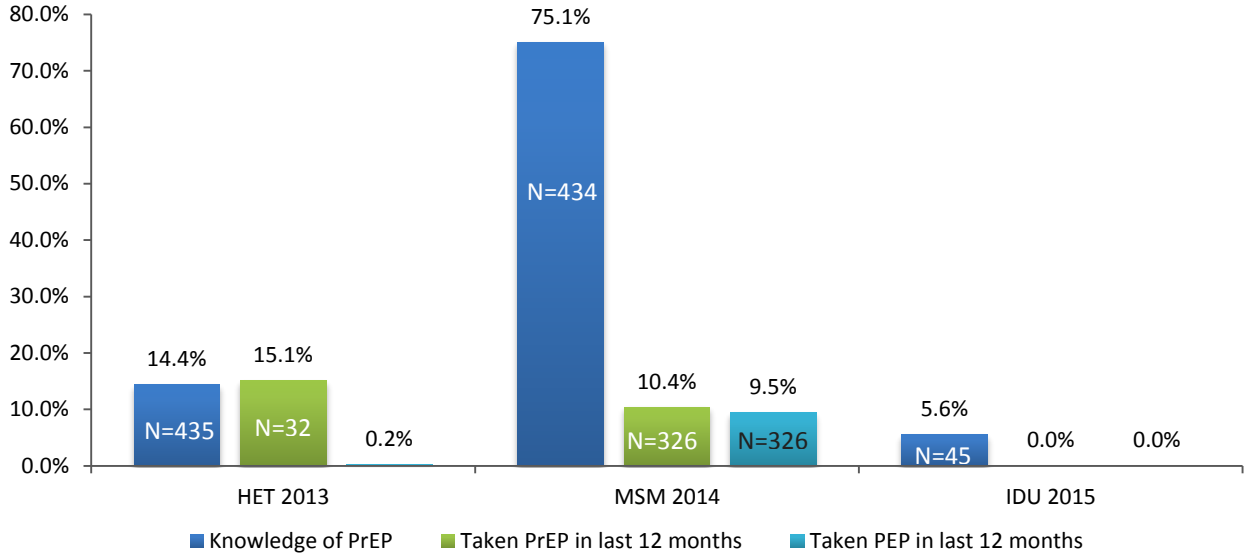
- A high percentage of study participants had seen a doctor, nurse, or healthcare provider in the past 12 months across all three cycles. HAHSTA is interested in understanding why participants in the MSM and IDU cycles were offered HIV tests at a lower proportion.

HIV Prevention Strategies

Pre-Exposure Prophylaxis (PrEP) is the use of HIV medications by HIV negative persons to prevent becoming infected with HIV. Post-Exposure Prophylaxis (PEP) is the use of HIV medications for a short period of time following potential exposure to HIV from unprotected sex or other exposure. This study asked participants their knowledge PrEP and the use of PrEP and PEP in the last 12 months. The Mayor's 90/90/90/50 Plan has made expansion of these evidence-

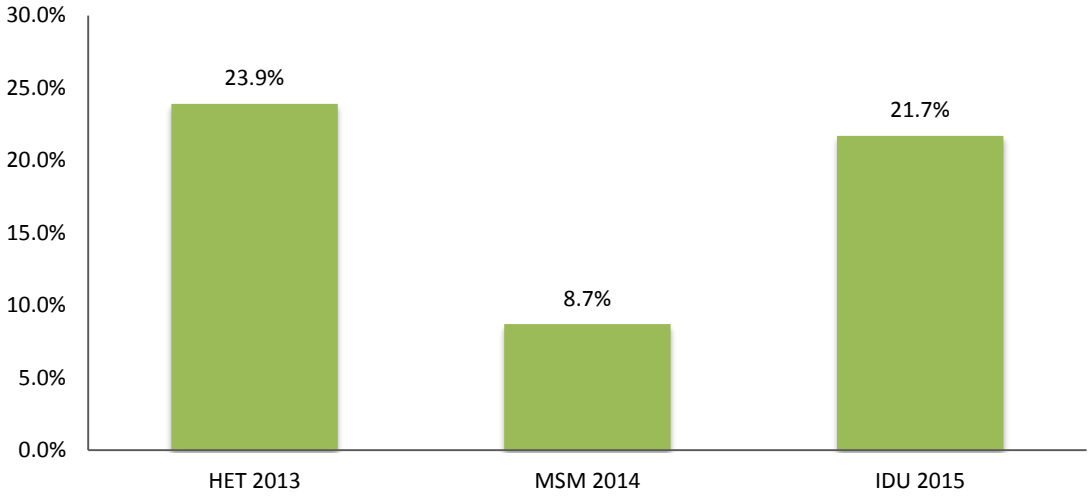
based HIV prevention strategies key to its goal of reducing new HIV diagnoses in the District. The NHBS studies have been instrumental in assessing initial baseline awareness and uptake of these prevention options.

Figure 73. Knowledge and Use of HIV Prevention Drugs among Participants, DC Behavior Study, 2013-2015



- It is helpful to understand the methodology of the questions to see the significance of these findings.
- The first question on knowledge of PrEP was asked of study participants who were HIV negative. In the heterosexual study, there were 435 participants who were HIV negative. Of those persons, 14.4% were knowledgeable of PrEP (The question of PrEP use was asked of only those persons who were knowledgeable. In the heterosexual study, 15.1% had taken PrEP in the last 12 months (5 persons). Of all the study participants (459), effectively only 1% had taken PrEP, which is a very low uptake of this HIV prevention strategy. It is important to note that HAHSTA/GWU conducted the study in 2013, which was one year before the CDC issued its official PrEP guidance. HAHSTA is increasing its outreach and access for heterosexuals, including its recent PrEP for Women demonstration project and social media campaign.
- In the MSM study, three-quarters of the 434 HIV negative participants had knowledge of PrEP. Of the 326 participants knowledgeable of PrEP, 10.4% had taken PrEP in the last 12 months. While this is encouraging given the relative newness of the HIV prevention option, HAHSTA has more work to increase awareness and uptake of PrEP. The Mayor's 90/90/90/50 Plan has a goal of 25% of men who have sex with men to be using PrEP by the year 2020.
- While PrEP is mostly known as preventing HIV in sexual contact, it is also effective to prevent HIV in needle sharing among people who inject drugs. The IDU cycle findings are low on knowledge and no participants had taken PrEP. HAHSTA will use these findings to increase outreach and access of PrEP to people who inject drugs.
- PEP use was negligible or none among heterosexual cycle and IDU cycle study participants. There was an encouraging finding of some PEP use among study participants in the MSM cycle. HAHSTA will be increasing its awareness and outreach of this HIV prevention option.

Figure 74. The Likelihood of Condomless Sex with the Use of Anti-HIV medication, DC Behavior Study, 2013-2015



- In each cycle of the behavior study, participants were asked how their sexual risk behaviors may change if they used any anti-HIV drugs (e.g. for PrEP or PEP).
- Study participants in the MSM cycle reported the lowest proportion behavior change if they were taking medication to prevent an infection compared to participants in the heterosexual and IDU cycles

Appendix A. Understanding Surveillance Data

In order to understand surveillance data it is important to be familiar with some key terms. Newly diagnosed, or new diagnoses, are persons diagnosed with a disease in a given time period; a diagnosis could be a positive test result, or could be determined by a clinician. A diagnosis does not always occur at exactly the same time as someone is infected or gets sick; sometimes it is months or years before someone is diagnosed. Incidence is the number of ***new infections*** of a disease in a defined population during a specific period of time. It is important to understand the difference between incidence and 'newly diagnosed'. Incident cases, or new infections, are not always diagnosed right away. Thus, the number of new diagnoses does not necessarily reflect trends in incidence (that is, new infections). At the time of diagnosis, some individuals will have been infected recently while others will have been infected sometime in the past.

Prevalence is the total number of people in a population with a particular disease or condition at a given time point. Prevalence can be thought of as a snapshot of all existing cases of a disease or condition at a specified time - for instance the percentage of persons living with HIV among all persons living in the District as of December 31, 2016.

Understanding HIV Surveillance

The District of Columbia Municipal Code (22 DCMR 206) mandates reporting of all HIV and stage 3 (AIDS) diagnoses to the DC DOH. An HIV diagnosis or case refers to a person who has tested positive for HIV infection. A stage 3 (AIDS) case refers to a person who had a diagnosis of HIV infection and later had a diagnosis of stage 3 HIV disease (AIDS), or a person diagnosed with HIV and stage 3 disease (AIDS) at the same time. Stage 3 disease (AIDS) is defined by a CD4+ T-cell count less than 200 cells/μL or a stage 3 defining opportunistic infection; both of these are signs of immune system failure. Only confirmed reports of HIV and stage 3 disease cases are accepted; anonymous test results are not reported. Reports are received from a variety of sources including hospitals, private physicians' offices, community-based organizations, clinics, and laboratories. Data on HIV and stage 3 disease cases are entered into the federally issued enhanced HIV/AIDS Reporting System (eHARS) and de-identified case information is shared with CDC monthly. CDC uses these data to prepare national surveillance reports.

Please note that the term 'HIV' encompasses all persons living with HIV infection regardless of their stage of disease (including persons diagnosed with HIV infection who have not progressed to stage 3 disease (AIDS); person who were diagnosed with HIV infection and stage 3 disease at the same time; and persons who were diagnosed with HIV infection and later received a stage 3 diagnosis). This is consistent with the Centers for Disease Control and Prevention HIV surveillance categorization and reports.

Understanding the District of Columbia HIV Prevalence Estimate

There were 2,356 newly diagnosed HIV cases reported between 2012 and 2016. However, the total number of persons diagnosed with HIV who were residents of the District and alive decreased by 659 cases in 2015 compared to last year's report. Reasons for this change in these data include the following:

1. Completeness of vital status data continues to improve. HAHSTA matched HIV cases with Social Security Death files, as well as the National Death Index and Vital Records to determine the vital status of persons diagnosed with HIV in the District. While HAHSTA routinely receives information regarding District of Columbia residents who have died, national death matches provide information about persons diagnosed in the District who moved outside the District. Executing matches reduces case counts, resulting in a more accurate prevalence estimate of persons living with HIV in the District.

2. CDC routinely notifies HAHSTA if an HIV case reported in DC appears to be the same person reported in another state or jurisdiction. CDC makes this determination based on the soundex (a phonetic algorithm for indexing names) of a person's name, date of birth, and sex at birth; CDC does not have access to names, so matches must be determined through this process. Each case is investigated to determine if both states/jurisdictions are reporting on the same individual. If such a determination is made, the state with the earliest report date counts the case as diagnosed with HIV in their jurisdiction. The summary table on the previous page shows the number of times newly diagnosed cases were identified as a possible duplicate report and the number and proportion of possible duplicates that were assigned to another state or jurisdiction.

Year of HIV Diagnosis	Potential Duplicate Cases Identified	Cases Assigned to Another State/Jurisdiction	
		N	%
2012	1,651	1,003	60.8
2013	1,274	838	65.8
2014	821	480	58.5
2015	735	389	52.9
2016	392	191	48.7

3. In previous reports, the prevalence of HIV in the District was calculated by dividing the number of cases who were DC residents at diagnosis and alive by the total population of the District in the calendar year. HIV cases who were not DC residents at diagnosis but were currently living in DC were not included in the prevalence calculation. Starting in this report, HAHSTA has included all HIV cases who are living in DC, regardless of where they were diagnosed in the prevalence calculation to fully reflect the current HIV epidemic in Washington, DC.

$$\text{Prevalence Calculation: } \frac{\text{12,964 persons living with HIV in DC as of December, 2016}}{\text{672,228 persons living in the District, 2016}} = 1.9\%$$

Persons diagnosed at 13 years of age or younger are living longer lives due to advances in HIV care and treatment; the median age among pediatric cases living as of December 31, 2016 was 19 years. Addition of this age group decreases the calculated prevalence of HIV because the denominator, or total population of the District, increased by including those between 0 and 12 years of age and the prevalence of disease in this age group is low.

4. The District of Columbia's population is changing as evidenced by the 2010 US Census and 2015 US Census data estimates. The table depicts the percent change between the 2010 Census and 2015 Census estimates. There was 8.9% increase in the total number of persons living in the District.

	DC Population† 2010	Estimated DC Population, 2016	Percent Change
	N	N	%
Sex			
Male	285,786	318,601	11.5
Female	319,126	353,627	10.8
Total	604,912	672,228	11.2
Race/Ethnicity			
White	211,121	242,981	15.1
Black	303,731	313,925	3.4
Hispanic	55,266	71,128	28.7
Other*	34,794	44,194	27.0
Total	604,912	672,228	11.2
Current Age			
<13	73,919	92,375	25.0
13-19	50,090	47,386	-5.4
20-29	134,520	138,202	2.7
30-39	98,546	128,369	30.3
40-49	76,478	80,198	4.9
50-59	72,098	75,794	5.1
≥60	99,261	109,904	10.7
Total	604,912	672,228	11.2

†Source: 2010 US Census

††Source: 2015 US Census Estimates

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

The composition of District residents also changed by race/ethnicity, and age. The number of Hispanics living in the District increased by 28.7% and the number of those classified as other race increased by 27.0%. The percent change among blacks was negligible at 3.4%. In addition, the population between 0 and 12 years of age increased by 25.0%, while the population between 13 and 19 years of age decreased by 5.4%. It is also important to note that the population between 30 and 39 years of age increased by 30.3%.

Understanding the HIV Incidence Estimate

The 2016 HIV incidence estimate provides an estimated number of new infections of HIV occurring each year among DC residents during the five year span from 2011-2015. The estimate takes into consideration the probability of being newly infected within the entire population at risk, thus including cases that are not yet diagnosed. For this reason, the incidence estimate should not be compared with the annual new diagnoses reported in the Annual Epidemiology and Surveillance Report. The objective of reducing new infections tackles the leading edge of the epidemic by reducing transmissions as well as determining where and among whom new infections are occurring. This insight can inform prevention strategies and allow for more effective resource allocation to best address the HIV epidemic in DC.

Understanding Sexually Transmitted Infections (STI) Surveillance

Currently, chlamydia, gonorrhea, and syphilis are the only STIs for which surveillance data are routinely collected and analyzed in the District. Local reporting laws require all clinicians and laboratories to report findings relevant to STIs – including positive test results, patients receiving STI treatment, and suspicious STI related symptoms – to the department of health. At the end of 2013, data management systems collecting STI information were upgraded. Numbers for 2014, 2015, and 2016 remain preliminary as we actively work to improve the completeness and accuracy of these data.

STI morbidity reports should include the patient's name, address, and requested demographic information (sex, age, race, ethnicity, etc.); however, demographic information is often missing from these reports. The percentage of cases missing pertinent data varies depending on the disease and the variable of interest. For example, in 2015, only 403 (1.0%) cases of reported chlamydia had "unknown" gender identity but 22,866 (59.4%) cases had "unknown" race.

Data on race and ethnicity are reported separately and are not mutually exclusive variables. Therefore, an individual of Hispanic/Latino and black origins could be counted as black non-Hispanic, black Hispanic, black of unknown ethnicity, Hispanic of unknown race, or possibly non-Hispanic of unknown race, depending on the completeness of information reported. For these reasons, reported totals by demographic factors such as race and ethnicity represent estimates and should be interpreted with caution.

In addition, unlike HIV surveillance, STI surveillance is based on incident (new) infections. Some individuals may be diagnosed multiple times with the same STD, or with different types of STIs at the same time. Additionally, primary and secondary syphilis cases are used as a measure of disease incidence while early latent and late latent syphilis cases are a better indicator of disease prevalence.

Understanding Viral Hepatitis Surveillance for the District of Columbia

Viral hepatitis is a nationally and locally reportable disease. The District of Columbia municipal code (22 DCMR Chapter 2 201.5) mandates reporting of "hepatitis, infections and serum" by healthcare providers, and medical institutions such as hospitals, and laboratories. Hepatitis cases are primarily reported to the DOH by laboratory reports, however, they are also identified through reports from health care providers, hospitals, clinics and reports from other health departments. In some instances, the DOH requires additional information to classify a case, therefore hepatitis program investigators contact providers and patients to obtain more complete information. Of note, no federal funding is currently available to support or strengthen case surveillance for viral hepatitis.

The District's hepatitis surveillance program uses a confidential name-based Viral Hepatitis Registry (VHR) which includes basic demographic data, diagnosis

and event/illness onset dates, when available. Supplemental information collected through the case investigation process is documented and often includes clinical features, serologic test results, and risk factors for infection. This information is compiled and used to classify cases according to the CDC/Council of State and Territorial Epidemiologists (CSTE) and DC-specific case definitions. Locally, confirmed chronic hepatitis B or C cases include a complete series of labs. A probable case of chronic hepatitis B or C is a combination of reported lab results that are an incomplete series and don't include all results necessary to confirm a diagnosis. A suspect case of chronic hepatitis C includes a single positive lab result indicative of possible chronic hepatitis C.

Understanding Tuberculosis Surveillance

In the District of Columbia, active tuberculosis (TB) is a reportable condition by both medical providers and laboratories. Medical providers must report anyone diagnosed with, or who has symptoms suspicious of, TB. Laboratories are required to report preliminary tests indicative of active TB, as well as confirmed tests. In any given year approximately 25 to 30% of initial reports of persons with suspicious clinical or laboratory findings will be verified as TB by laboratory confirmation or clinical case definition. Receiving initial reports allows HAHSTA to begin immediate medical and epidemiological follow-up on suspect cases; this is done to interrupt potential disease transmission while the person waits for final results, which could take as long as eight weeks.

Understanding Clinical Outcomes

Primary care visits are not reportable to the DC DOH. However, HIV-related laboratory measures, such as CD4+ T-cell counts and HIV RNA viral loads, are required by DC Municipal Code to be reported to HAHSTA by healthcare providers and clinical laboratories. Laboratory measures are used in surveillance to provide approximate measures of access to medical care and HIV-related clinical health status. With improved reporting of laboratory data through the comprehensive electronic laboratory reporting system instituted in 2007, HAHSTA is able to obtain a picture of HIV care among persons living with HIV in the District.

The Health Resources and Services Administration (HRSA), Centers for Disease Control and Prevention (CDC) and the Department of Health and Human Services (DHHS) released measures to monitor the stages of HIV care, including diagnosis, linkage to care, retention in care and measurement of viral suppression. The measures reported reflect local variations of federal standards revised to reflect the realities of available HIV surveillance data.

Appendix B. Supplementary Tables and Figures

Table B1. People Living with HIV in the District of Columbia as of December 31, 2016, by Gender Identity, Current Age, Race/Ethnicity and Mode of Transmission

	Total HIV Cases who were DC Residents at Diagnosis		DC Residents at HIV Diagnosis, still in DC		In-migrants: Diagnosed out of jurisdiction, now in DC		People living in DC diagnosed with HIV (total)		Out-migrants diagnosed in DC but now living out of jurisdiction	
			N	%	N	%	N	%	N	%
Gender Identity										
Male	12,321	72.7%	7,492	70.0%	1,868	82.6%	9,352	72.1%	4,830	77.3%
Female	4,398	25.9%	3,037	28.4%	361	16.0%	3,395	26.2%	1,360	21.8%
Transgender	230	1.4%	173	1.6%	33	1.5%	217	1.7%	57	0.9%
Total	**16,949**	**100%**	**10,702**	**100%**	**2,262**	**100%**	**12,964**	**100%**	**6,247**	**100%**
Current Age										
<13	24	0.1%	12	0.1%	10	0.4%	22	0.2%	11	0.2%
13-19	62	0.4%	49	0.5%	11	0.5%	60	0.5%	13	0.2%
20-24	316	1.9%	256	2.4%	75	3.3%	331	2.6%	60	1.0%
25-29	911	5.4%	665	6.2%	243	10.7%	908	7.0%	246	3.9%
30-39	2,873	17.0%	1,868	17.5%	584	25.8%	2,452	18.9%	1,005	16.1%
40-49	3,987	23.5%	2,438	22.8%	525	23.2%	2,963	22.9%	1,549	24.8%
50-59	5,491	32.4%	3,397	31.7%	560	24.8%	3,957	30.5%	2,094	33.5%
60+	3,285	19.4%	2,017	18.8%	251	11.1%	2,268	17.5%	1,269	20.3%
Missing	-	0.0%	-	0.0%	3	0.1%	3	0.0%	-	0.0%
Total	**16,949**	**100%**	**10,702**	**100%**	**2,262**	**100%**	**12,964**	**100%**	**6,247**	**100%**
Race/Ethnicity										
White	2,854	16.8%	1,560	14.6%	517	22.9%	2,076	16.0%	1,294	20.7%
Black	12,519	73.9%	8,200	76.6%	1,471	65.0%	9,670	74.6%	4,316	69.1%
Hispanic/Latino	1,155	6.8%	689	6.4%	195	8.6%	884	6.8%	466	7.5%
Other*	421	2.5%	253	2.4%	79	3.5%	334	2.6%	168	2.7%
Total	**16,949**	**100%**	**10,702**	**100%**	**2,262**	**100%**	**12,964**	**100%**	**6,247**	**100%**
Mode of Transmission										
Sexual contact	12,074	71.2%	7,597	71.0%	1,711	75.6%	9,326	71.9%	4,477	71.7%
IDU	2,018	11.9%	1,254	11.7%	117	5.2%	1,372	10.6%	765	12.2%
Sexual contact/IDU	558	3.3%	316	3.0%	100	4.4%	417	3.2%	242	3.9%
Other**	197	1.2%	123	1.1%	24	1.1%	146	1.1%	73	1.2%
RNI	2,102	12.4%	1,412	13.2%	310	13.7%	1,703	13.1%	690	11.0%
Total	**16,949**	**100%**	**10,702**	**100%**	**2,262**	**100%**	**12,964**	**100%**	**6,247**	**100%**

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

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B2. People Living with HIV in the District of Columbia as of December 31, 2016, by Gender Identity and Mode of Transmission

	Total HIV Cases who were DC Residents at Diagnosis		DC Residents at HIV Diagnosis, still in DC		In-migrants: Diagnosed out of jurisdiction, now in DC		People living in DC diagnosed with HIV (total)		Out-migrants diagnosed in DC but now living out of jurisdiction	
			N	%	N	%	N	%	N	%
Male										
MSM	7,288	59.2%	4,352	58.1%	1,294	69.3%	5,650	60.4%	2,936	60.8%
IDU	1,171	9.5%	671	9.0%	77	4.1%	768	8.2%	481	10.0%
MSM/IDU	546	4.4%	306	4.1%	99	5.3%	404	4.3%	240	5.0%
Heterosexual contact	1,815	14.7%	1,166	15.6%	179	9.6%	1,349	14.4%	649	13.4%
Other**	85	0.7%	49	0.7%	10	0.5%	59	0.6%	36	0.7%
RNI	1,416	11.5%	928	12.4%	209	11.2%	1,122	12.0%	488	10.1%
Total	**12,321**	**100%**	**7,854**	**100%**	**1,763**	**100%**	**9,617**	**100%**	**4,473**	**100%**
Female										
IDU	839	19.1%	557	18.3%	39	10.8%	596	17.6%	282	20.7%
Heterosexual contact	2,823	64.2%	1,970	64.9%	214	59.3%	2,186	64.4%	853	62.7%
Other**	107	2.4%	70	2.3%	14	3.9%	83	2.4%	36	2.6%
RNI	629	14.3%	440	14.5%	94	26.0%	530	15.6%	189	13.9%
Total	**4,398**	**26.1%**	**3,183**	**28.2%**	**331**	**15.6%**	**3,514**	**26.2%**	**1,267**	**21.9%**
Transgender										
Sexual contact	148	64.3%	109	63.0%	24	72.7%	141	65.0%	39	68.4%
IDU	8	3.5%	6	3.5%	1	3.0%	8	3.7%	2	3.5%
Sexual contact/IDU	12	5.2%	10	5.8%	1	3.0%	13	6.0%	2	3.5%
Other**	5	2.2%	4	2.3%	7	21.2%	4	1.8%	1	1.8%
RNI	57	24.8%	44	25.4%	-	0.0%	51	23.5%	13	22.8%
Total	**230**	**1.6%**	**232**	**2.1%**	**28**	**1.3%**	**260**	**1.9%**	**47**	**0.8%**

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B3. HIV Cases Living in the District of Columbia by Race/Ethnicity, Sex, and Mode of Transmission, District of Columbia, 2016

	White		Black		Hispanic/Latino		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Gender Identity										
Male	2,016	97.1	6,295	65.1	762	86.2	279	83.5	9,352	72.1
Female	48	2.3	3,193	33	108	12.2	46	13.8	3,395	26.2
Transgender	12	0.6	182	1.9	14	1.6	9	2.7	217	1.7
Total	2,076	100	9,670	100	884	100	334	100	12,964	100
Mode of Transmission										
Sexual contact	1,784	85.9	6,565	67.9	742	83.9	235	70.4	9,326	71.9
IDU	30	1.4	1,286	13.3	33	3.7	23	6.9	1,372	10.6
Sexual contact/IDU	75	3.6	315	3.3	17	1.9	10	3	417	3.2
Risk not identified	185	8.9	1,364	14.1	89	10.1	65	19.5	1,703	13.1
Other**	2	0.1	140	1.4	3	0.3	1	0.3	146	1.1
Total	2,076	100	9,670	100	884	100	334	100	12,964	100
Male										
MSM	1,708	84.7	3,200	50.8	561	73.6	181	64.9	5,650	60.4
IDU	21	1.04	711	11.3	19	2.5	17	6.1	768	8.2
MSM/IDU	74	3.7	304	4.8	16	2.1	10	3.6	404	4.3
Heterosexual contact	39	1.9	1,196	19	92	12.1	22	7.9	1,349	14.4
Risk not identified	173	8.6	828	13.1	72	9.4	49	17.6	1,122	12
Other**	1	0.04	56	0.8	2	0.3	0	0	59	0.6
Subtotal	2,016	100	6,295	100	762	100	279	100	9,352	100
Female										
IDU	8	16.7	568	17.8	14	13	6	13	596	17.6
Heterosexual contact	28	58.3	2,056	64.4	76	70.3	26	56.5	2,186	64.4
Risk not identified	11	22.9	489	15.3	17	15.7	13	28.3	530	15.6
Other**	1	2.1	80	2.51	1	0.1	1	2.2	83	2.4
Subtotal	48	100	3,193	100	108	100	46	100	3,395	100
Transgender										
Sexual contact	9	75	113	62.1	13	92.9	6	66.7	141	65
IDU	1	8.3	7	3.8	0	0	0	0	8	3.7
Sexual contact/IDU	1	8.3	11	6.1	1	7.1	0	0	13	6
Risk not identified	1	8.3	47	25.8	0	0	3	33.3	51	23.5
Other**	0	0	4	2.2	0	0	0	0	4	1.8
Subtotal	12	100	182	100	14	100	9	100	217	100

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B4. HIV Cases Living in the District of Columbia by Race/Ethnicity, Gender Identity and Current Age, District of Columbia, 2016

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
Current Age										
<13	1	0	20	0.2	1	0.1	0	0	22	0.2
13-19	0	0	55	0.6	4	0.5	1	0.3	60	0.5
20-24	17	0.8	280	2.9	24	2.7	10	3	331	2.6
25-29	73	3.5	724	7.5	80	9	31	9.3	908	7
30-39	355	17.1	1778	18.4	258	29.2	61	18.3	2452	18.9
40-49	537	25.9	2110	21.8	228	25.8	88	26.3	2963	22.9
50-59	694	33.4	2975	30.8	193	21.8	95	28.4	3957	30.5
≥60	398	19.2	1726	17.8	96	10.9	48	14.4	2268	17.5
Missing	1	0	2	0	0	0	0	0	3	0
Total	2,076	100	9670	100	884	100	334	100	12,964	100
Male										
<13	0	0	8	0.1	0	0	0	0	8	0.09
13-19	0	0	24	0.4	3	0.4	0	0	27	0.3
20-24	17	0.8	188	3	21	2.8	9	3.2	235	2.5
25-29	69	3.4	539	8.6	73	9.6	27	9.7	708	7.6
30-39	345	17.1	1212	19.3	225	29.5	53	19	1835	19.6
40-49	519	25.7	1239	19.7	198	26	74	26.5	2030	21.7
50-59	677	33.6	1923	30.5	166	21.8	76	27.2	2842	30.4
≥60	388	19.2	1161	18.4	76	10	40	14.3	1665	17.8
Missing	1	0.05	1	0.02	0	0	0	0	2	0.02
Subtotal	2,016	100	6,295	100	762	100	279	100	9,352	100
Female										
<13	1	2.1	11	0.3	1	0.9	0	0	13	0.4
13-19	0	0	28	0.9	1	0.9	1	2.2	30	0.9
20-24	0	0	81	2.5	3	2.8	1	2.2	85	2.5
25-29	4	8.3	164	5.1	5	4.6	4	8.7	177	5.2
30-39	9	18.8	530	16.6	26	24.1	5	10.9	570	16.8
40-49	13	27.1	824	25.8	26	24.1	12	26.1	875	25.8
50-59	12	25	1016	31.8	26	24.1	15	32.6	1069	31.5
≥60	9	18.8	539	16.9	20	18.5	8	17.4	576	17
Subtotal	48	100	3,193	100	108	100	46	100	3,395	100
Transgender										
<13	0	0	1	0.5	0	0	0	0	1	0.5
13-19	0	0	3	1.6	0	0	0	0	3	1.4
20-24	0	0	11	6	0	0	0	0	11	5.1
25-29	0	0	21	11.5	2	14.3	0	0	23	10.6
30-39	1	8.3	36	19.8	7	50.0	3	33.3	47	21.7
40-49	5	41.7	47	25.8	4	28.6	2	22.2	58	26.7
50-59	5	41.7	36	19.8	1	7.1	4	44.4	46	21.2
≥60	1	8.3	26	14.3	0	0	0	0	27	12.4
Missing	0	0	1	0.5	0	0	0	0	1	0.5
Subtotal	12	100	182	100	14	100	9	100	217	100

Table B5. Newly Diagnosed HIV Cases by Year of Diagnosis, Gender Identity, Race/Ethnicity, Mode of Transmission, and Age at Diagnosis, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender Identity												
Male	474	72.5	392	74.5	350	80.1	297	75.8	254	73.2	1,767	75.0
Female	169	25.8	125	23.8	77	17.6	90	23.0	86	24.8	547	23.2
Transgender	11	1.7	9	1.7	10	2.3	5	1.3	7	2.0	42	1.8
Total	654	100	526	100	437	100.0	392	100.0	347	100.0	2,356	100.0
Race/Ethnicity												
White	94	14.4	86	16.3	71	16.2	45	11.5	48	13.8	344	14.6
Black	478	73.1	380	72.2	309	70.7	281	71.7	255	73.5	1,703	72.3
Hispanic/Latino	49	7.5	45	8.6	39	8.9	55	14.0	36	10.4	224	9.5
Other*	33	5.0	15	2.9	18	4.1	11	2.8	8	2.3	85	3.6
Total	654	100.0	526	100	437	100.0	392	100.0	347	100.0	2,356	100.0
Mode of Transmission												
Sexual contact	517	79.1	410	77.9	272	62.2	297	75.8	239	68.9	1,735	73.6
IDU	20	3.1	19	3.6	13	3.0	9	2.3	7	2.0	68	2.9
Sexual contact/IDU	11	1.7	13	2.5	7	1.6	3	0.8	2	0.6	36	1.5
Risk not identified	100	15.3	83	15.8	145	33.2	83	21.2	98	28.2	509	21.6
Other**	6	0.9	1	0.2	0	0.0	0	0.0	1	0.3	8	0.3
Total	654	100.0	526	100	437	100.0	392	100.0	347	100.0	2,356	100.0
Age at Diagnosis												
<13	6	0.9	0	0.0	0	0.0	0	0.0	1	0.3	7	0.3
13-19	33	5.0	21	4.0	19	4.3	14	3.6	9	2.6	96	4.1
20-24	109	16.7	79	15.0	70	16.0	57	14.5	52	15.0	367	15.6
25-29	94	14.4	97	18.4	79	18.1	82	20.9	63	18.2	415	17.6
30-39	153	23.4	133	25.3	110	25.2	115	29.3	91	26.2	602	25.6
40-49	123	18.8	105	20.0	75	17.2	56	14.3	54	15.6	413	17.5
50-59	90	13.8	62	11.8	56	12.8	45	11.5	53	15.3	306	13.0
≥60	46	7.0	29	5.5	28	6.4	23	5.9	24	6.9	150	6.4
Total	654	100.0	526	100	437	100.0	392	100.0	347	100.0	2,356	100.0

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

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B6. Newly Diagnosed HIV Cases by Year of Diagnosis, Gender Identity, and Mode of Transmission, District of Columbia, 2012-2012

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Male												
MSM	303	63.9	251	64.0	189	54.0	190	64.0	141	55.5	1,074	60.8
IDU	13	2.7	11	2.8	5	1.4	5	1.7	5	2.0	39	2.2
MSM/IDU	10	2.1	13	3.3	7	2.0	3	1.0	2	0.8	35	2.0
Heterosexual contact	75	15.8	62	15.8	43	12.3	44	14.8	40	15.7	264	14.9
Risk not identified	70	14.8	55	14.0	106	30.3	55	18.5	66	26.0	352	19.9
Other**	3	0.6	0	0.0	0	0.0	0	0.0	0	0.0	3	0.2
Subtotal	474	100	392	100	350	100	297	100	254	100	1,767	100
Female												
IDU	7	4.1	8	6.4	8	10.4	4	4.4	2	2.3	29	5.3
Heterosexual contact	135	79.9	91	72.8	37	48.1	60	66.7	55	64.0	378	69.1
Risk not identified	24	14.2	25	20.0	32	41.6	26	28.9	28	32.6	135	24.7
Other**	3	1.8	1	0.8	0	0.0	0	0.0	1	1.2	5	0.9
Subtotal	169	100	125	100	77	100	90	100	86	100	547	23.2
Transgender												
Sexual contact	4	36.4	6	66.7	3	30.0	3	60.0	3	42.9	19	45.2
IDU	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sexual contact/IDU	1	9.1	0	0.0	0	0.0	0	0.0	0	0.0	1	2.4
Risk not identified	6	54.5	3	33.3	7	70.0	2	40.0	4	57.1	22	52.4
Other**	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Subtotal	11	100	9	100.0	10	100.0	5	100.0	7	100.0	42	100.0

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B7. Newly Diagnosed HIV Cases by Year of Diagnosis, Gender Identity, and Age at Diagnosis, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Male												
<13	3	0.6	0	0.0	0	0.0	0	0.0	0	0.0	3	0.2
13-19	21	4.4	16	4.1	15	4.3	11	3.7	5	2.0	68	3.8
20-24	88	18.6	61	15.6	64	18.3	48	16.2	43	16.9	304	17.2
25-29	76	16.0	80	20.4	58	16.6	73	24.6	52	20.5	339	19.2
30-39	113	23.8	105	26.8	87	24.9	88	29.6	73	28.7	466	26.4
40-49	88	18.6	74	18.9	62	17.7	36	12.1	36	14.2	296	16.8
50-59	57	12.0	40	10.2	44	12.6	26	8.8	31	12.2	198	11.2
≥60	28	5.9	16	4.1	20	5.7	15	5.1	14	5.5	93	5.3
Subtotal	474	100	392	100	350	100	297	100	254	100	1,767	100
Female												
<13	3	1.8	0	0.0	0	0.0	0	0.0	1	1.2	4	0.7
13-19	11	6.5	4	3.2	3	3.9	2	2.2	4	4.7	24	4.4
20-24	20	11.8	16	12.8	5	6.5	8	8.9	7	8.1	56	10.2
25-29	13	7.7	17	13.6	16	20.8	7	7.8	9	10.5	62	11.3
30-39	38	22.5	27	21.6	20	26.0	26	28.9	17	19.8	128	23.4
40-49	35	20.7	28	22.4	13	16.9	20	22.2	17	19.8	113	20.7
50-59	32	18.9	20	16.0	12	15.6	19	21.1	22	25.6	105	19.2
≥60	17	10.1	13	10.4	8	10.4	8	8.9	9	10.5	55	10.1
Subtotal	169	100	125	100	77	100	90	100	86	100	547	100
Transgender												
<13	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-19	1	9.1	1	11.1	1	10.0	1	20.0	0	0.0	4	9.5
20-24	1	9.1	2	22.2	1	10.0	1	20.0	2	28.6	7	16.7
25-29	5	45.5	0	0.0	5	50.0	2	40.0	2	28.6	14	33.3
30-39	2	18.2	1	11.1	3	30.0	1	20.0	1	14.3	8	19.0
40-49	0	0.0	3	33.3	0	0.0	0	0.0	1	14.3	4	9.5
50-59	1	9.1	2	22.2	0	0.0	0	0.0	0	0.0	3	7.1
≥60	1	9.1	26	288.9	0	0.0	0	0.0	1	14.3	2	4.8
Subtotal	11	100	9	100	10	100	5	100	7	100	42	100

Table B8. Newly Diagnosed Stage 3 (AIDS) Cases by Year of Diagnosis, Gender Identity, Race/Ethnicity, Age at Diagnosis, and Mode of Transmission, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender Identity												
Male	267	65.3	199	66.3	160	70.8	131	67.2	150	71.1	907	67.6
Female	133	32.5	94	31.3	60	26.6	57	29.2	56	26.5	400	29.8
Transgender	9	2.2	7	2.3	6	2.7	7	3.6	5	2.4	34	2.5
Total	409	100.0	300	100.0	226	100.0	195	100.0	211	100.0	1,341	100.0
Race/Ethnicity												
White	28	6.9	33	11.0	28	12.4	14	7.2	22	10.4	125	9.3
Black	335	81.9	244	81.3	175	77.4	160	82.1	173	82.0	1,087	81.1
Hispanic/Latino	27	6.6	18	6.0	14	6.2	17	8.7	15	7.1	91	6.8
Other*	19	4.7	5	1.7	9	4.0	4	10.5	1	2.6	38	2.8
Total	409	100.0	300	100.0	226	100.0	195	100.0	211	100.0	1,341	100.0
Mode of Transmission												
Sexual contact	285	69.7	220	73.3	149	65.9	142	72.8	152	72.0	948	70.7
IDU	36	8.8	24	8.0	19	8.4	8	4.1	12	5.7	99	7.4
Sexual contact/IDU	14	3.4	7	2.3	1	0.4	6	3.1	1	0.5	29	2.2
Risk not identified	70	17.1	40	13.3	52	23.0	35	18.0	43	20.4	240	17.9
Other**	4	1.0	9	3.0	5	2.2	4	2.1	3	1.4	25	1.9
Total	409	100.0	300	100.0	226	100.0	195	100.0	211	100.0	1,341	100.0
Age at Diagnosis												
<13	1	0.2	1	0.3	3	1.3	0	0.0	0	0.0	5	0.4
13-19	6	1.5	7	2.3	3	1.3	3	1.5	3	1.4	22	1.6
20-24	24	5.9	27	9.0	8	3.5	11	5.6	10	4.7	80	6.0
25-29	43	10.5	45	15.0	27	12.0	28	14.4	33	15.6	176	13.1
30-39	107	26.2	64	21.3	52	23.0	68	34.9	64	30.3	355	26.5
40-49	97	23.7	66	22.0	56	24.8	33	16.9	49	23.2	301	22.5
50-59	91	22.3	57	19.0	52	23.0	31	15.9	38	18.0	269	20.1
≥60	40	9.8	33	11.0	25	11.1	21	10.8	14	6.6	133	9.9
Total	409	100	300	100	226	100	195	100	211	100	1,341	100

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

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B9. Newly Diagnosed Stage 3 (AIDS) Cases by Year of Diagnosis, Gender Identity, and Mode of Transmission
District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Male												
MSM	127	47.6	110	55.3	89	55.6	70	53.4	77	51.3	473	52.2
IDU	23	8.6	13	6.5	9	5.6	6	4.6	6	4.0	57	6.3
MSM/IDU	12	4.5	7	3.5	1	0.6	6	4.6	1	0.7	27	3.0
Heterosexual contact	59	22.1	47	23.6	26	16.3	23	17.6	34	22.7	189	20.8
Risk not identified	45	16.9	22	11.1	34	21.3	24	18.3	31	20.7	156	17.2
Other**	1	0.4	0	0.0	1	0.6	2	1.5	1	0.7	5	0.6
Subtotal	267	100.0	199	100.0	160	100.0	131	100.0	150	100.0	907	100.0
Female												
IDU	13	9.8	10	10.6	10	16.7	2	3.5	0	0.0	35	10.1
Heterosexual contact	95	71.4	60	63.8	31	51.7	45	79.0	1	50.0	232	67.1
Risk not identified	22	16.5	15	16.0	16	26.7	8	14.0	1	50.0	62	17.9
Other**	3	2.3	9	9.6	3	5.0	2	3.5	0	0.0	17	4.9
Subtotal	133	100.0	94	100.0	60	100.0	57	100.0	2	100.0	346	100.0
Transgender												
Sexual contact	4	44.4	3	42.9	3	50.0	4	57.1	4	80.0	18	52.9
IDU	0	0.0	1	14.3	0	0.0	0	0.0	0	0.0	1	2.9
Sexual contact/IDU	2	22.2	0	0.0	0	0.0	0	0.0	0	0.0	2	5.9
Risk not identified	3	33.3	3	42.9	2	33.3	3	42.9	1	20.0	12	35.3
Other**	0	0.0	0	0.0	1	16.7	0	0.0	0	0.0	1	2.9
Subtotal	9	100.0	7	100.0	6	100.0	7	100.0	5	100.0	34	100.0

** Other: perinatal transmission, hemophilia, blood transfusion, and occupational exposure (healthcare workers)

Table B10. Estimated Number of New HIV Infections by Sex, Race/Ethnicity, and Age at Diagnosis, District of Columbia, 2012-2016†

	2012 Estimate (%) (95% CI)	2013 Estimate (%) (95% CI)	2014 Estimate (%) (95% CI)	2015 Estimate (%) (95% CI)	2016 Estimate (%) (95% CI)
Sex					
Male	345 (77.2%) (193-497)	422 (74.9%) (253-590)	392 (84.7%) (264-520)	274 (87.7%) (185-363)	274 (76.2%) (145-403)
Female	97 (21.7%) (23-171)	135 (24.0%) (41-230)	-- --	-- --	75 (20.8%) (8-142)
Transgender	-- --	-- --	-- --	-- --	-- --
Total	446 (260-633)	563 (359-766)	462 (319-605)	312 (211-413)	359 (199-519)
Race/Ethnicity					
Black	329 (73.6%) (172-486)	424 (75.3%) (252-596)	328 (71.0%) (207-449)	204 (65.3%) (128-280)	260 (72.5%) (133-388)
Other*	117 (26.3%) (43-192)	138 (24.6%) (49-228)	134 (28.9%) (58-210)	-- --	-- --
Total	446 (260-633)	563 (359-766)	462 (319-605)	312 (211-413)	359 (199-519)
Age					
13-29	171 (38.2%) (74-267)	153 (27.1%) (55-250)	-- --	-- --	-- --
30-49	145 (32.4%) (54-235)	228 (40.4%) (112-343)	170 (36.7%) (90-250)	108 (34.6%) (58-158)	123 (34.2%) (43-204)
>=50	63 (14.1%) (1-126)	-- --	51 (10.9%) (3-98)	-- --	-- --
Total	446 (260-633)	563 (359-766)	462 (319-605)	312 (211-413)	359 (199-519)

†strata with insufficient quantities will not have values reported

*Other race/ethnicity includes Hispanic ethnicity, mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, White, and unknown

Table B11. Deaths among Persons with HIV by Year of Death, Gender Identity, Race/Ethnicity, Mode of Transmission and Age at Death, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016*		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Sex												
Male	182	63.9	168	65.9	174	68.5	200	69.0	13	68.4	737	66.8
Female	101	35.4	83	32.5	79	31.1	88	30.3	6	31.6	357	32.4
Transgender	2	0.7	4	1.6	1	0.4	2	0.7	0	0.0	9	0.8
Total	285	100	255	100	254	100	290	100	19	100	1,103	100
Race/Ethnicity												
White	16	5.6	23	9.0	21	8.3	29	10.0	3	15.8	92	8.3
Black	251	88.1	223	87.5	221	87.0	243	83.8	16	84.2	954	86.5
Hispanic/Latino	12	4.2	5	2.0	4	1.6	9	3.1	0	0.0	30	2.7
Other*	6	2.1	4	1.6	8	3.1	9	3.1	0	0.0	27	2.4
Total	285	100	255	100	254	100	290	100	19	100	1,103	100
Mode of Transmission				0.0		0.0		0.0		0.0		0.0
Sexual contact	159	55.8	150	58.8	134	52.8	172	59.3	10	52.6	625	56.7
IDU	64	22.5	60	23.5	68	26.8	69	23.8	7	36.8	268	24.3
Sexual contact/IDU	10	3.5	10	3.9	7	2.8	17	5.9	0	0.0	44	4.0
Risk not identified	48	16.8	34	13.3	45	17.7	30	10.3	2	10.5	159	14.4
Other**	4	1.4	1	0.4	0	0.0	2	0.7	0	0.0	7	0.6
Total	285	100	255	100	254	100	290	100	19	100	1,103	100
Age at Death				0.0								
<13	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	-	0.0
13-19	1	0.4	0	0.0	2	0.8	1	0.3	0	0.0	4	0.4
20-24	1	0.4	5	2.0	1	0.4	2	0.7	1	5.3	10	0.9
25-29	7	2.5	11	4.3	2	0.8	5	1.7	1	5.3	26	2.4
30-39	26	9.1	18	7.1	23	9.1	18	6.2	0	0.0	86	7.8
40-49	75	26.3	50	19.6	46	18.1	61	21.0	3	15.8	235	21.3
50-59	92	32.3	96	37.6	86	33.9	96	33.1	6	31.6	376	34.1
≥60	83	29.1	75	29.4	94	37.0	106	36.6	8	42.1	366	33.2
Total	285	100	255	100	254	100	290	100	19	100	1,103	100

*Information concerning deaths in 2016 is limited to preliminary data form the District of Columbia vital records only. The number of deaths may increase as information from other sources become available

Table B12. Number, Percent, and Rate per 100,000 persons of Chlamydia Cases by Year of Diagnosis, Sex, Race/Ethnicity, Age, and Ward, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	5 Years Total	5 Years Average Rate per 100,000
Gender Identity												
Female	4,752	1,423.9	4,471	1,314.2	4,076	1,177.0	4,933	1,395.0	4,667	1,319.8	22,899	1,326.0
Male	2663	888.6	2,641	862.4	2,144	685.9	3,404	1,068.4	3,714	1,165.7	14,566	934.2
Unknown	36	N/A	32	N/A	77	N/A	85	N/A	173	N/A	403	N/A
Transgender	6	N/A	3	N/A	8	N/A	13	N/A	13	N/A	52	N/A
Total	7,457	1,177.2	7,147	1,105.6	6,305	956.9	8,435	1,254.8	8,567	1,300.2	37,920	1,158.9
Race/Ethnicity												
Black	4,388	1,430.4	3,523	1,136.9	1,942	621.3	1,792	570.8	1,732	551.7	13,377	862.2
White	227	100.5	248	107.2	113	47.8	121	49.8	163	67.1	872	74.5
Hispanic/Latino	159	253.4	125	190.7	74	108.3	83	116.7	86	120.9	527	158.0
Other	76	200.0	84	221.0	38	90.9	44	99.6	36	81.5	278	138.6
Unknown	2,607	N/A	3,167	N/A	4,139	N/A	6,401	N/A	6,552	N/A	22,866	N/A
Total	7,457	1,177.2	7,147	1,105.6	6,306	957.1	8,441	1,255.7	8,569	1,300.5	37,920	1,159.2
Age Group												
0-14	155	168.5	142	147.5	138	138.3	139	135.4	115	112.0	689	140.4
15-19	2597	6,696.2	2,208	5,822.9	1,726	4,591.8	2,119	5,707.9	1,853	4,991.4	10,503	5,562.0
20-24	2541	4,258.4	2,454	4,156.2	2,297	3,924.4	2,849	4,748.6	2,736	4,560.2	12,877	4,329.6
25-29	1,027	1,337.0	1,097	1,407.0	1,076	1,381.5	1,654	2,115.0	1,832	2,342.6	6,686	1,716.6
30-39	751	676.3	842	716.6	710	578.0	1,121	873.3	1,378	1,073.5	4,802	783.5
>=40	379	147.6	391	150.1	320	122.0	502	188.8	585	220.0	2,177	165.7
Unknown	7	N/A	13	N/A	39	N/A	57	N/A	70	N/A	186	N/A
Total	7,457	1,177.2	7,147	1,105.6	6,306	957.1	8,441	1,255.7	8,569	1,300.5	37,920	1,159.2
Ward												
Ward 1	537	708.3	447	564.8	430	526.7	711	858.1	845	1,019.8	2,970	735.5
Ward 2	230	305.9	266	353.8	241	318.0	417	537.1	529	681.3	1,683	439.2
Ward 3	93	115.5	145	180.0	127	153.4	157	188.8	171	205.6	693	168.7
Ward 4	512	666.2	470	594.1	407	494.1	517	622.4	565	680.2	2,471	611.4
Ward 5	1,005	1,331.7	811	1,022.2	683	850.5	817	995.7	931	1,134.7	4,247	1,066.9
Ward 6	664	839.2	565	674.1	510	621.3	642	761.7	745	883.9	3,126	756.0
Ward 7	1,364	2,004.9	1,251	1,901.9	969	1,383.0	1,186	1,618.2	1,215	1,657.8	5,985	1,713.2
Ward 8	1,812	2,415.7	1,536	2,009.3	1,181	1,500.9	1,478	1,821.7	1,452	1,789.7	7,459	1,907.4
Unknown	9	N/A	1,650	N/A	1,741	N/A	2,498	N/A	2,103	N/A	63	N/A
Detention Center	1,231	N/A	6	N/A	17	N/A	18	N/A	13	N/A	9,223	N/A
Total	7,457	1,232.3	7,147	1,105.6	6,306	957.1	8,441	1,255.7	8,569	1,300.5	37,920	1,159.2

Table B13. Number, Percent, and Rate per 100,000 persons of Gonorrhea Cases by Year of Diagnosis, Sex, Race/Ethnicity, Age, and Ward, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	5 Years Total	5 Years Average Rate per 100,000
Gender Identity												
Female	1,101	329.9	1,104	324.5	880	254.1	950	268.6	1,003	283.6	5,038	292.2
Male	1,565	522.2	1,727	563.9	1,371	438.6	1,961	615.5	2,706	849.3	9,330	597.9
Unknown	4	NA	3	N/A	10	N/A	23	N/A	65	N/A	134	N/A
Transgender	12	NA	8	N/A	26	N/A	7	N/A	7	N/A	27	N/A
Total	2,682	423.4	2,842	439.6	2,287	347.1	2,944	437.9	3,797	564.8	14,552	448.0
												RACE
Black	1,609	524.5	1,452	468.6	673	215.3	640	203.9	897	285.7	5,271	339.6
White	143	63.3	164	70.9	114	48.3	70	28.8	188	77.4	679	57.7
Hispanic/Latino	39	62.2	53	80.8	34	49.7	35	49.2	56	78.7	217	64.1
Other	34	89.5	39	98.1	18	43.1	12	27.2	20	45.3	123	60.6
Unknown	857	N/A	1,134	N/A	1,448	N/A	2,187	N/A	2,636	N/A	8,262	N/A
Total	2,682	423.4	2,842	439.6	2,287	347.1	2,944	464.8	3,797	564.8	14,552	448.0
Age Group												
0-14	52	56.54	41	42.60	39	39.10	43	41.90	29	28.25	204	41.7
15-19	719	1,853.91	625	1,648.25	486	1,292.93	504	1,357.61	511	1,376.47	2,845	1505.8
20-24	833	1,396.01	912	1,544.61	693	1,183.99	798	1,330.07	996	1,660.08	4,232	1423.0
25-29	443	576.74	500	641.31	439	563.64	670	856.72	913	1,167.44	2,965	761.2
30-39	387	348.52	449	382.11	385	313.44	577	449.49	844	657.48	2,642	430.2
>=40	246	95.81	311	119.42	234	89.21	336	126.37	480	180.52	1,607	122.3
Unknown	2	N/A	4	N/A	11	N/A	16	N/A	24	N/A	57	N/A
Total	2,682	423.4	2,842	439.6	2,287	347.1	2,944	464.8	3,797	564.8	14,552	448.0
Female												
Ward 1	223	294.1	217	274.2	187	229.1	297	358.4	447	539.5	1,371	339.1
Ward 2	130	172.9	186	247.4	150	197.9	215	276.9	338	435.3	1,019	266.1
Ward 3	23	28.6	28	34.8	39	47.1	38	45.7	69	83.0	197	47.8
Ward 4	153	199.1	153	193.4	108	131.1	115	138.4	184	221.5	713	176.7
Ward 5	360	477.0	296	373.1	237	295.1	304	370.5	377	459.5	1,574	395.0
Ward 6	261	329.9	241	287.5	196	238.8	255	302.5	399	473.4	1,352	326.4
Ward 7	439	645.3	458	696.3	345	492.4	408	556.7	444	605.8	2,094	599.3
Ward 8	605	806.6	596	779.6	434	551.6	480	591.6	629	775.3	2,744	700.9
Detention Center	7	N/A	6	N/A	5	N/A	15	N/A	14	N/A	47	N/A
Unknown	481	N/A	661	N/A	586	N/A	817	N/A	896	N/A	3,441	N/A
Total	2,682	423.4	2,842	458.7	2,287	347.1	2,944	464.8	3,797	564.8	14,552	448.0

Table B14. Number and Rate per 100,000 persons of Primary and Secondary Syphilis Cases by Year of Diagnosis, Gender Identity, Race/Ethnicity, Age, and Ward, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	5 Years Total	5 years Rate per 100,000
Type												
Primary	43	6.8	52	8.0	43	6.5	27	4.0	51	7.6	228	33.0
Secondary	157	24.8	141	21.8	102	15.5	95	14.1	127	18.9	622	95.1
Total	200	31.6	193	29.9	145	22.0	131	19.5	181	26.9	850	26.0
Gender Identity												
Female	6	1.8	23	6.8	7	2.0	4	1.1	7	2.0	47	13.7
Male	193	64.4	170	55.5	133	42.5	121	38.0	169	53.0	786	253.5
Unknown	0	N/A	0	N/A	0	N/A	0	N/A	1	N/A	1	N/A
Transgender	1	N/A	0	N/A	5	N/A	6	N/A	4	N/A	16	N/A
Total	200	31.6	193	29.9	145	22.0	131	19.5	181	26.9	850	26.0
Race/Ethnicity												
Black	110	35.9	125	40.3	71	22.7	39	12.4	62	19.7	407	131.1
White	65	28.8	40	17.3	30	12.7	25	10.3	51	21.0	211	90.0
Hispanic/Latino	14	22.3	7	10.7	4	5.9	8	11.2	10	14.1	46	64.1
Other	7	18.4	6	15.1	2	4.8	3	6.8	2	4.5	20	49.6
Unknown	4	NA	15	NA	38	NA	56	NA	56	NA	112	NA
Total	200	31.6	193	29.9	145	22.0	131	19.5	181	26.9	850	26.0
Age at Diagnosis												
0-14	0	0.00	1	1.04	0	0.0	0	0.0	0	0.0	1	1.0
15-19	7	18.05	4	10.55	7	18.6	5	13.5	4	10.8	27	71.5
20-24	39	65.36	31	52.50	23	39.3	21	35.0	25	41.7	139	233.8
25-29	37	48.17	28	35.91	23	29.5	34	43.5	35	44.8	157	201.8
30-39	64	57.64	55	46.81	35	28.5	31	24.1	61	47.5	246	204.6
>=40	53	20.64	74	28.41	57	21.7	40	15.0	56	21.1	280	106.9
Total	200	31.6	193	29.9	145	22.0	131	19.5	181	26.9	850	26.0
Ward												
Ward 1	27	35.6	16	20.2	17	20.8	19	22.9	32	38.6	111	138.2
Ward 2	31	41.2	21	27.9	16	21.1	15	19.3	24	30.9	107	140.5
Ward 3	5	6.2	2	2.5	4	4.8	6	7.2	7	8.4	24	29.2
Ward 4	13	16.9	18	22.8	13	15.8	6	7.2	15	18.1	65	80.7
Ward 5	24	31.8	34	42.9	24	29.9	23	28.0	21	25.6	126	158.2
Ward 6	33	41.7	15	17.9	14	17.1	15	17.8	31	36.8	108	131.2
Ward 7	15	22.0	27	41.0	18	25.7	12	16.4	16	21.8	88	127.0
Ward 8	20	26.7	29	37.9	11	14.0	13	16.0	9	11.1	82	105.7
Ward DC	0	N/A	0	N/A	0	N/A	1	N/A	1	N/A	2	N/A
Ward Unknown	32	N/A	31	N/A	28	N/A	21	N/A	25	N/A	137	N/A
Total	200	31.6	193	29.9	145	22.0	131	19.5	181	26.9	850	26.0

Table B15. Reported Tuberculosis Cases by Selected Characteristics, District of Columbia, 2012-2016

	2012		2013		2014		2015		2016		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
District Total	37	5.9	37	5.7	32	5.0	33	4.9	25	3.7	164	100.0
	N	%	N	%	N	%	N	%	N	%	N	%
Country of Birth												
Foreign Born	20	54.1	25	67.6	17	53.1	18	54.5	17	68.0	97	59.1
US Born-Black	17	40.5	12	27	15	46.9	15	36.4	8	32.0	67	40.9
Total	37	100.0	37	100.0	32	100.0	33	100.0	25	100.0	164	100.0
Disease Site												
Pulmonary	20	54.1	23	62.2	22	68.8	18	54.5	16	64.0	99	60.4
Extra Pulmonary	11	29.7	10	37	8	25.0	11	33.3	9	36.0	49	29.9
Both	6	16.2	4	10.8	2	6.3	4	12.1	0	0.0	16	9.8
Total	37	100.0	37	100.0	32	100.0	33	100.0	25	100.0	164	100.0
Sex												
Males	17	45.9	25	67.6	16	50.0	15	45.5	15	60.0	88	53.7
Female	20	54.1	12	32.4	16	50.0	18	54.5	10	40.0	76	46.3
Total	37	100.0	37	100.0	32	100.0	33	100.0	25	100.0	164	100.0
Age at Diagnosis												
<5	1	2.7	3	8.1	0	0.0	2	6.1	0	0.0	6	3.7
5 - 14	1	2.7	1	2.7	0	0.0	0	0.0	0	0.0	2	1.2
15 - 24	4	10.8	3	8.1	2	6.3	3	9.1	3	12.0	15	9.1
25 - 44	15	40.6	17	46.0	16	50.00	12	36.4	13	52.0	73	44.5
45 - 64	11	29.7	9	24.3	9	28.1	6	18.2	5	20.0	40	24.4
≥65	5	13.5	4	10.8	5	15.6	10	30.3	4	16.0	28	17.1
Total	37	100.0	37	100.0	32	100.0	33	100.0	25	100.0	164	100.0
Race/Ethnicity												
White	0	0.0	3	8.1	1	3.1	4	12.1	2	8.0	10	6.1
Black	31	83.8	28	75.7	27	84.4	21	63.6	19	76.0	126	76.8
Hispanic/Latino	4	10.8	3	8.1	3	9.4	4	12.1	0	0.0	14	8.5
Other	2	5.4	3	8.1	1	3.1	4	12.1	4	16.0	14	8.5
Total	37	100.0	37	100.0	32	100.0	33	100.0	25	100.0	164	100.0
Homeless w/in past year												
Total	2	5.4	1	2.7	1	3.1	0	0	3	12.0	7	4.3
Alcohol/Substance Use												
Total	5	13.5	1	2.7	3	9.3	7	21.2	3	12.0	19	11.6
HIV Co-infection												
Total	8	21.6	6	16.2	3	9.3	4	12.1	7	28.0	25	15.2

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