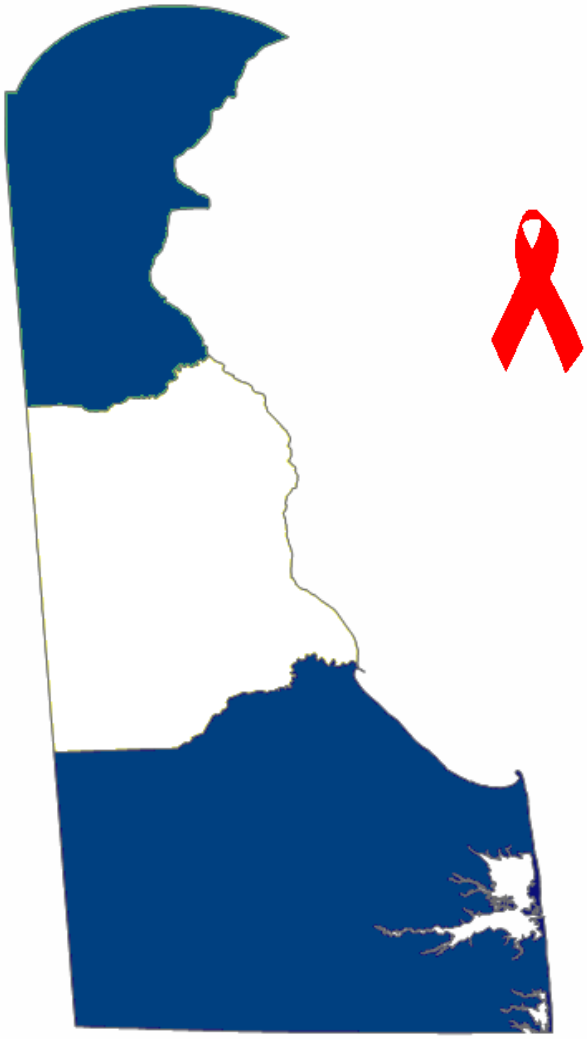
2016
Delaware HIV Surveillance Report



DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Health Promotion and Disease Prevention

HIV/AIDS Epidemiology
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For more information, please contact the Delaware Division of Public Health, HIV/AIDS Epidemiology office at (302) 744-1004 or http://dhss.delaware.gov/dhss/dph/dpc/hivaidsprogram.html. Our web site contains monthly statistical updates and provides links to local and national HIV/AIDS organizations.

Executive Summary

As of 2015, a total of 3,449 Delawareans were known to be living with Human Immunodeficiency Virus (HIV) of which 2,119 had progressed to Acquired Immune Deficiency Syndrome (AIDS), now known as stage 3 HIV. In that same year, the cumulative number of HIV/stage 3 (AIDS) cases ever diagnosed in Delaware reached 5,878. As noted in the CDC, HIV/AIDS Surveillance Report of 2014, Delaware's HIV incidence rate (14.9 per 100,000) was the 14th highest in the United States and the stage 3 (AIDS) incidence rate (8.9 per 100,000) ranked eighth highest in the nation. The five year average number of new infections diagnosed in Delaware currently stands at 116 cases per year (2011-2015).

The distribution of HIV cases in Delaware mirrors county-level population distribution. New Castle County – the most populous of Delaware's three counties – has the largest number of cases with most confined to the densely populated Wilmington metropolitan area. There exists a disparity. While Wilmington comprises 14% of the New Castle County population, it accounts for 40% of the county's individuals living with HIV/stage 3 (AIDS).

Males account for the majority (72%) of HIV/stage 3 (AIDS) cases diagnosed in Delaware.

African-Americans are disproportionately affected by the HIV/stage 3 (AIDS) burden. Twenty-one percent of Delaware's total population is African-American but this group account for 65% of all HIV/stage 3 (AIDS) cases ever diagnosed in the state. This racial disparity is more pronounced in Delaware compared to the general U.S population, and persists even when HIV and stage 3 (AIDS) are considered separately. African-Americans account for 36% of all male stage 3 (AIDS) cases living in the U.S., but 55% of those living in Delaware. Similarly, African-American women comprise 60% of all female stage 3 (AIDS) cases living in the U.S., but nearly 77% of those living in Delaware.

Consistent with U.S. trends, the majority (61%) of HIV/ stage 3 (AIDS) cases ever reported in Delaware were among adults aged 30-49. Fewer than 4% were reported among adults age 60 and older.

Pediatric HIV/ stage 3 (AIDS) (defined as disease in children under 13 years of age) account for 1% of cases ever reported in Delaware (consistent with general U.S figures). Legislation requiring testing of all expectant mothers for HIV and referral for treatment of any identified HIV infected mothers has been effective. Only two infected infants have been born in Delaware in the past 12 years.

Among new HIV infections diagnosed in Delaware in 2015, the largest proportion (47%; N=51) were attributable to men who have sex with men (MSM). Heterosexual transmission and injection drug use (IDU) accounted for 31% (N=34) and 4% (N=4),

respectively while 5% (N=5) were attributable to both MSM and injection drug use. 13% (N=14) fell into the “Other Risk” or “No Risk Identified” behavioral categories.

Top exposure rates for those living with HIV in Delaware are MSM (34%), Heterosexual (35%) and IDU (14%). In New Castle County the rates are heterosexual (35%), MSM (32%) and IDU (24%). In Kent County the rates are heterosexual (39%), MSM (33%) and IDU (14%). In Sussex County exposure is predominantly MSM (54%)

From 1981 through December 2015, 2,650 Delawareans with AIDS died. In the past two decades, the survival of those living with AIDS has increased significantly as has the slowing of progression from HIV to stage 3 (AIDS). Earlier diagnoses of HIV infection and advances in medical management have all contributed to the marked improvements in HIV/stage 3 (AIDS) quality of life and survival rates.

Background and Introduction

The Delaware Division of Public Health (DPH) initiated AIDS surveillance and reporting in 1981. In 2001, surveillance was expanded to include data on Delawareans infected with HIV. The surveillance relies on data compiled from healthcare professionals and laboratories throughout the state.

HIV is the underlying biological agent that weakens the immune system, leading to the development of stage 3 (AIDS). Except for an initial acute viral response, the infection may not manifest with symptoms for an extended period of time. Following the progression to stage 3 (AIDS), symptoms and signs (specific infections, cancers, or changes within the immune system) may appear leading to a diagnosis.

The gathering and analysis of HIV/stage 3 (AIDS) incidence and prevalence data is a crucial component to prevention activities. The Delaware HIV Planning Council relies on this data to guide HIV prevention efforts, HIV healthcare planning and HIV services administration. Surveillance data allows DPH to monitor the impact of risk reduction and disease prevention activities, and also influences the federal funds that Delaware receives to assist in the fight against HIV.

This report focuses on three main areas:

(1) Socio-demographic characteristics
(2) Scope of the HIV epidemic
(3) Pattern of service utilization among Delawareans living with HIV/stage 3 (AIDS).

HIV Surveillance in Delaware

Delaware's HIV surveillance efforts focus on three fundamental epidemiological concepts:

- **Person**: Aims to identify the mode by which an individual contracts HIV. The information guides future prevention efforts. Surveillance staffs characterize the mode of HIV transmission using case report forms, personal interviews, and medical record reviews.

- **Place**: Refers to the county of residence at time of HIV/stage 3 (AIDS) diagnosis. Delaware engages in data-sharing agreements with other states to identify Delawareans that may have been diagnosed or seek treatment outside of the state.

- **Time**: Two dates characterize HIV disease trends: (1) date of diagnosis and (2) date report is received by the DPH HIV Surveillance Office. DPH works with healthcare providers and laboratories to facilitate timely reporting.

Patient confidentiality is crucial and the DPH HIV Surveillance Office adheres to detailed data confidentiality protocols that mandate physical, operational, and personnel security standards when handling HIV data. Data confidentiality standards must be maintained as a condition of receiving federal funding for surveillance activities.

Methods

Data Source Descriptions, Limitations and Precautions

A brief description of each data sources is listed below.

- ***DPH:*** provides statewide HIV testing and counseling data via the Delaware HIV Counseling and Testing System database. Healthcare practitioners use standardized data collection forms to report from clinics across the state.

  Delaware-specific sexually transmitted infection reports, which pertain to diseases such as gonorrhea, chlamydia and syphilis. STI data are helpful for identifying populations at increased risk for contracting HIV.

  Mortality data originating directly from death documents. A diagnosis of HIV may not be noted on death certificates due to family request, lack of information regarding HIV status, or failure to record underlying causes of death. For these reasons, the number of HIV-related deaths may be artificially suppressed not only in Delaware, but across the nation.

- ***U.S. Census Bureau:*** provides Delaware-specific county-level population data. Data estimates are standardized nationwide through 2015.

- ***CDC:*** provides national-level HIV/stage 3 (AIDS) trend data via the Enhanced HIV/AIDS Reporting System (EHARS). While EHARS represents an advanced public health surveillance system, it is still possible that actual HIV/stage 3 (AIDS) prevalence and incidence counts are under reported due to delays in reporting and non-compliance. HIV data are reported to the CDC by all 50 states but the quality of data varies from state to state.
  The quality of Delaware's EHARS data is of high standard due to:
  - The efforts of staff to increase record reviews and education of healthcare professionals and laboratories regarding accurate reporting procedures.
  - Significant improvements in death ascertainment within EHARS.

- This report also utilizes data from the CDC-published *HIV Surveillance Report* which summarizes national and state-level HIV/stage 3 (AIDS) trends.

  The Medical Monitoring Project (MMP) provides 5 years of data on care patterns including barriers which can influence treatment outcomes. This data was collected through client interviews and medical records abstractions and helps to define levels of antiretroviral therapy, stigma related issues and behavioral related issues.

- The Youth Risk Behavior Survey (YRBS) is a CDC survey that tracks risk trends among youth (e.g., nutrition, substance use, accidents, sexual behaviors, and delinquency). This data is used to explore the relationship between risk behaviors and health. YRBS uses self-administered, anonymous questionnaires

to collect data from high school students in odd-numbered years. In Delaware, YRBS response rates are very high; 84% of students approached for participation complete a questionnaire.

- ***Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (DHHS):*** provides data related to HIV service utilization patterns via the Ryan White Data Reports (RDR). States use federal Ryan White dollars to provide medical and support services to persons living with stage 3 (AIDS) (PLWA). HRSA gathers and uses the data to monitor HIV service utilization patterns across the nation. While RDR data are limited to those individuals with HIV who seek healthcare, these data are nonetheless important for future healthcare planning.

Data Specifics

In 1993, the CDC expanded the AIDS case definition to include infected individuals who did not yet display several AIDS indicators (including severely compromised immune system with CD_4 counts <200 µ/L or <14%, invasive cervical cancer, recurrent pneumonia, and pulmonary mycobacterium tuberculosis infection). The revised case definition resulted in an apparent increase in the prevalence of AIDS cases, observable at the local, state, and national levels.

The HIV case definition was modified again in 2007; however, the impact of this change did not result in a significant change in the data presented in this report. The HIV case definition was modified again in early 2014. This change incorporated a sliding scale upon which HIV positive persons are assigned an HIV infection stage based on age specific CD4+T-lymphocyte count (see table below). This change also gave birth to the now widely used term “stage 3 (AIDS)” previously known as AIDS.

TABLE 1: infection stage* based on age-specific CD4+ T-lymphocyte count or CD4+ T-lymphocyte percentage of total lymphocytes

	Age on date of CD4+ T-lymphocyte test					
Stage	**<1 yr**		**1–5 yrs**		**≥6 yrs**	
	Cells/µL	**%**	**Cells/µL**	**%**	**Cells/µL**	**%**
1	≥1,500	≥34	≥1,000	≥30	≥500	≥26
2	750–1,499	26–33	500–999	22–29	200–499	14–25
3	<750	<26	<500	<22	<200	<14

* The stage is based primarily on the CD4+ T-lymphocyte count; the CD4+ T-lymphocyte count takes precedence over the CD4 T-lymphocyte percentage, and the percentage is considered only if the count is missing. There are three situations in which the stage is not based on this table: 1) if the criteria for stage 0 are met, the stage is 0 regardless of criteria for other stages (CD4 T-lymphocyte test results and opportunistic illness diagnoses); 2) if the criteria for stage 0 are not met and a stage-3-defining opportunistic illness has been diagnosed, then the stage is 3 regardless of CD4 T-lymphocyte test results; or 3) if the criteria for stage 0 are not met and information on the above criteria for other stages is missing, then the stage is classified as unknown.

Delaware initiated HIV surveillance in 2001, 20 years after the initiation of AIDS surveillance. In this report, 2001-2015 HIV data are combined with stage 3 (AIDS) data. For reporting years prior to 2001 (i.e., 1981-2000), data reflect AIDS data only. The inclusion of HIV cases beginning year 2001 created an apparent sharp increase in HIV case counts in Delaware. This increase was not driven by a large single year mass number of exposures resulting in positive HIV results. Instead, the numbers increased due to the large number HIV infected persons who were previously HIV positive but had not met the AIDS definition at the time and were thus reported as HIV positive in a single year (2001).

Per DPH data release policy, no Delaware-specific HIV data can be released in a format that may allow for individual identification. Data in this report may be combined or suppressed to ensure patient confidentiality. Any combined or suppressed data are identified in footnotes.

Definition of Terms

Adult/adolescent case:	Patient aged ≥13 years.
Epidemiology:	Study of the patterns, causes, and effects of health and disease in defined populations.
Heterosexual:	An enduring pattern of or disposition to experience sexual, affectionate, physical or romantic attractions to persons of the opposite sex.
Incidence Rate:	A measure of the rate of development of a disease in population over a period of time. This rate is calculated by dividing the number of new cases diagnosed in a population during a specific time period by the size of the population during the same time period.
Lost to Care (LTC)	A person who has not received HIV related care primarily discovered by the existence of at least one instance of a completed HIV viral load lab within a 12 month surveillance period.
Pediatric case:	Individual age 13 years or younger at the time of diagnosis.
Prevalence:	The percentage of a population that is affected with a particular disease at a specific point in time.
Rate:	Number of cases in a population divided by the total size of the population. Rates allow for the direct comparison of groups with different population sizes.

Quantile	One of the class of values of a variate which divides the members of a batch or sample into equal-sized subgroups of adjacent values or a probability distribution into distributions of equal probability.
Transfusion case:	Person who acquired the HIV virus as a result of receiving blood or blood products.
Year of diagnosis:	The year when the disease event was first confirmed by medical personnel.
Year of report:	The year when the case was reported to the Delaware HIV/AIDS Surveillance Office.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
A/PI	Asian/Pacific Islander
CARE	Comprehensive AIDS Resource Emergency
CDC	Centers for Disease Control and Prevention
C/T	Counseling and Testing Services
DHSS	Delaware Health and Social Services
DPH	Delaware Division of Public Health
EHARS	Enhanced HIV/AIDS Reporting System (CDC database)
HAART	Highly active anti-retroviral therapy
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration
IDU(s)	Injecting Drug User(s)
MMP	Medical Monitoring Project
MSM	Men who have Sex with Men
MSM/IDU	Men who have Sex with Men and Inject Drugs
NA/AN	Native American/Alaskan Native
NIR	No Identified Risk
NRR	No Risk Reported
RDR	CARE Act Data Report
STD (STI)	Sexually Transmitted Disease (Infection)
WSW	Women who have Sex with Women
YRBS	Youth Risk Behavior Survey

1. Socio-Demographic Characteristics of the State of Delaware

Delaware is the second smallest state in the U.S., measuring 100 miles from north to south and 30 miles from west to east. The state is comprised of three counties: New Castle County, located to the north, is the most densely populated and is home to 60% of the state population. Almost 12% of New Castle County residents live in the city of Wilmington. Centrally-located Kent County, home to 18% of Delawareans, includes a blend of urban, suburban, and agricultural zones. Dover Air Force Base and the state capital (Dover) are located in Kent County. Sussex County, the southernmost of the three counties where 22% of Delawareans live, is largely rural and home to a large number of poultry, dairy, and crop-growing operations. Eastern Sussex County includes the beach communities, which draws a large number of retirees and tourists.

In 2015, Delaware's population was estimated at 943,879, representing 0.3% of the total U.S. population. The majority of Delawareans (64.0%) are Caucasian; African-Americans and Hispanics comprise 21% and 9%, respectively. Approximately 6% of Delawareans are Asian, Pacific Islander, Native American or multi-race. Females account for 52% of the population, similar to the national gender distribution. See Table 2, below, for racial distributions at the county-level.

Table 2: Delaware racial distribution by county, 2015

County	Caucasian N (%)	African-American N (%)	Hispanic N (%)	Other N (%)	Total N (County %)
New Castle	327,625 (59%)	133,135 (24%)	53,636 (10%)	41,383 (7%)	555,779 (59%)
Sussex	160,112 (75%)	26,033 (12%)	20,296 (9%)	7,634 (4%)	214,075 (23%)
Kent	109,421 (63%)	41,938 (24%)	12,419 (6%)	10,247 (7%)	174,025 (18%)
Delaware	597,158 (64%)	201,105 (21%)	86,351 (9%)	59,264 (6%)	943,879 (100%)

Source: U.S. Census Bureau; Rows sum to 100%

The median age in Delaware is 40. Compared to the general U.S. population, Delaware has a slightly higher median annual household income ($60,231 vs. $52,250, respectively) and similar patterns of educational attainment. Approximately 88% have a high school diploma compared to 86% of the U.S. population. Twenty-nine percent have earned a bachelor's degree or higher which is equivalent to the U.S. population. Thirteen percent of Delaware residents report speaking a language other than English in the home.

2. Scope of the HIV/AIDS Epidemic in Delaware and the U.S.

Between 1981 and 2015, 5,878 Delawareans were diagnosed with HIV or stage 3 (AIDS). Males account for 72% of all cases ever diagnosed in the state. African-Americans account for 65% and represent a disproportionate share of the state's HIV/stage 3 (AIDS) burden. Caucasian and Hispanic Delawareans account for 28% and 6% of all cases, respectively. The largest percentage of HIV/stage 3 (AIDS) cases have been diagnosed among adults ages 30-39. New Castle County accounts for the majority of cases.

Table 3 shows a breakdown of Delaware's HIV and Stage 3 (AIDS) cases by gender, race, age, and county.

Table 3: Delaware reported HIV/Stage 3 (AIDS) cases, 1981-2015*

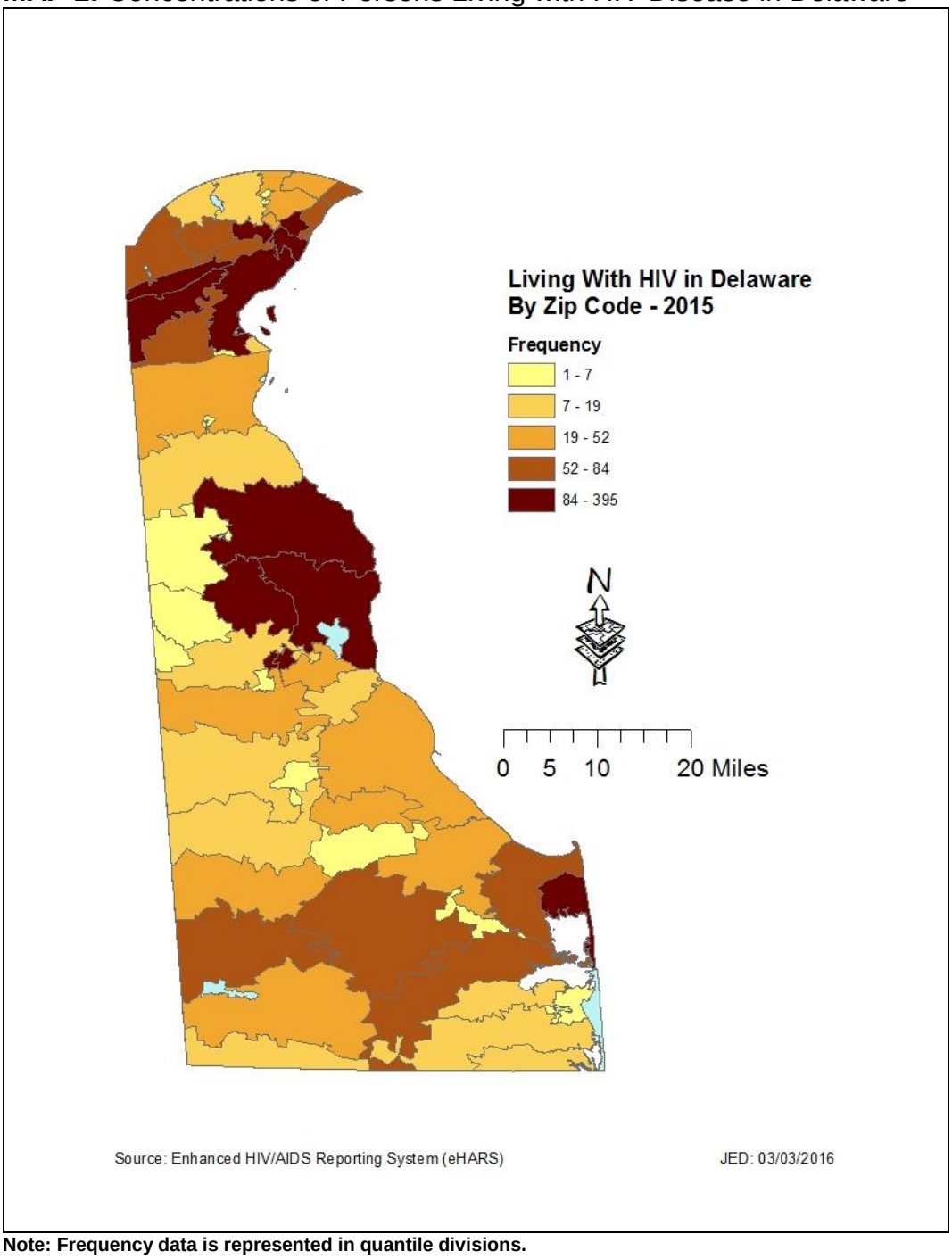
	HIV Cases N (%)	Stage 3 (AIDS) Cases N (%)	Total Cases N (%)
Total Cases	**1,441 (100%)**	**4,437 (100%)**	**5,878 (100%)**
Gender			
Males	997 (69%)	3,206 (72%)	4,203 (72%)
Females	444 (31%)	1,231 (28%)	1,675 (28%)
Race			
Caucasian	438 (30%)	1,200 (27%)	1,638 (28%)
African-American	882 (61%)	2,949 (67%)	3,831 (65%)
Hispanic	96 (7%)	245 (5%)	341 (6%)
Other / Unknown	25 (2%)	43 (< 1%)	68 (1%)
Age Group (Years at initial HIV Diagnosis)**			
< 13			56 (1%)
13-14			1 (<1%)
15-19			159 (3%)
20-24			532 (9%)
25-29			825 (14%)
30-34			1,059 (18%)
35-39			1,062 (18%)
40-44			856 (15%)
45-49			619 (11%)
50-54			330 (6%)
55-59			180 (3%)
60-64			107 (2%)
65+			92 (1%)
County			
New Castle (NCC)	1021 (71%)	3,319 (75%)	4340 (74%)
NCC,City of Wilmington	*604 (42%)*	*2,180 (49%)*	*2,784 (47%)*
NCC, non-Wilmington	*388 (29%)*	*1,139 (26%)*	*1,556 (27%)*
Kent County	163 (11%)	479 (11%)	642 (11%)
Sussex County	257 (18%)	639 (14%)	896 (15%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
Note: In Delaware, AIDS and HIV surveillance efforts began in 1981 and 2001, respectively.
***Chart represents cumulative Delaware diagnosed cases regardless of current vital status.**
****HIV and Stage 3 (AIDS) are two separate disease states thus the age at HIV diagnoses is represented as a total**

Delawareans Living with HIV/AIDS

In 2015, a total of 3,449 Delawareans were living with HIV of which 2,119 (61%) had ever progressed to stage 3 (AIDS). Approximately 15% of these arrived in the state after diagnosis. The map below gives indication of where the concentrations of these cases are.

MAP 1: Concentrations of Persons Living with HIV Disease in Delaware



Note: Frequency data is represented in quantile divisions.

Prevalence and Incidence

The 2014 U.S. HIV and stage 3 (AIDS) prevalence rates were 295.1 and 163.2 per 100,000, respectively. In comparison, Delaware's HIV and stage 3 (AIDS) prevalence rates were 141.8 and 225.9 per 100,000, respectively. Therefore, while Delaware's HIV prevalence rate is 52% less than that of the U.S., Delaware's AIDS prevalence rate is 28% greater than the U.S. rate.

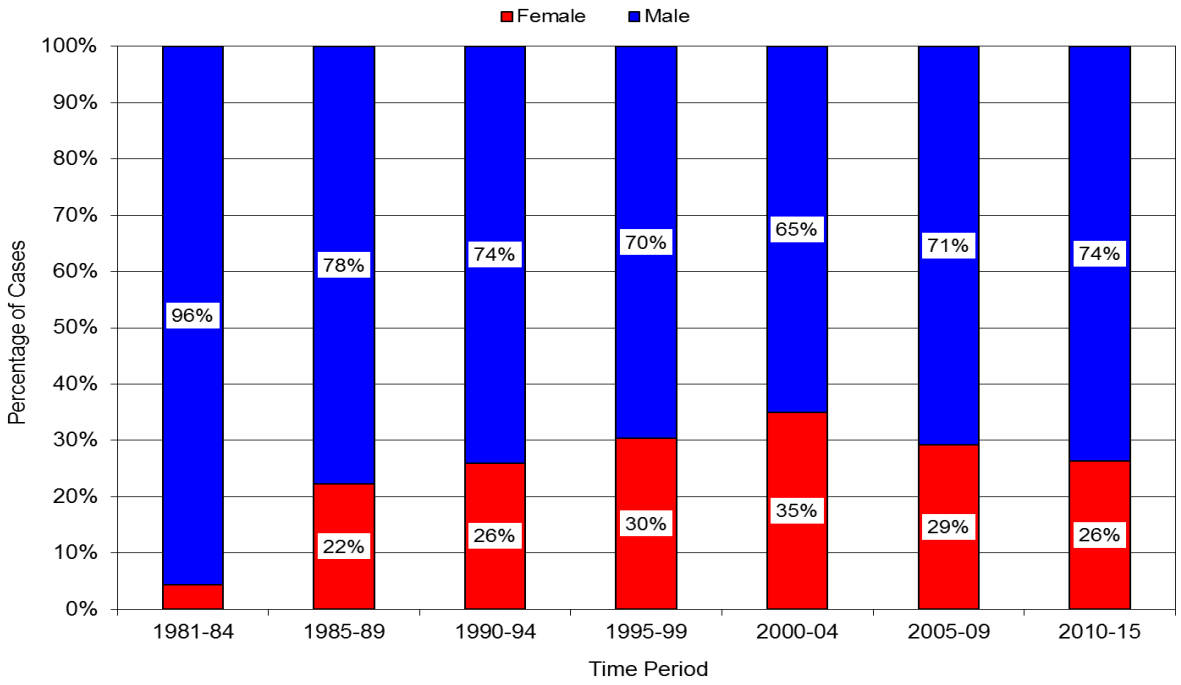
As reported in the CDC 2014 HIV Surveillance Report, Delaware's 2014 HIV incidence rate of 14.9 per 100,000 is higher than the overall 2014 U.S rate of 13.8 per 100,000. Delaware's stage 3 AIDS incidence rate of 8.9 per 100,000 is higher than the overall 2014 U.S. rate of 6.6 per 100,000. In 2014 Delaware HIV and stage 3 (AIDS) incidence rates ranked 14th and eighth, respectively, compared to other states.

HIV and stage 3 (AIDS) prevalence and incidence data are unavailable for smaller, hard-to-reach populations, such as the homeless, transgendered, and the mentally ill. Additionally, some HIV and stage 3 (AIDS) cases are diagnosed through routine screenings (e.g., blood donations) and little additional information is available regarding the risk category.

Gender

Since the initiation of AIDS surveillance in 1981 and HIV surveillance in 2001, males have accounted for the majority of cases diagnosed in Delaware. Females account for 26% (2010-2015). Only one female HIV or AIDS case was diagnosed in Delaware prior to 1984 (Figure 1).

Figure 1: Delaware HIV/Stage 3 (AIDS) cases, by gender, 1981-2015 (N=5,878)



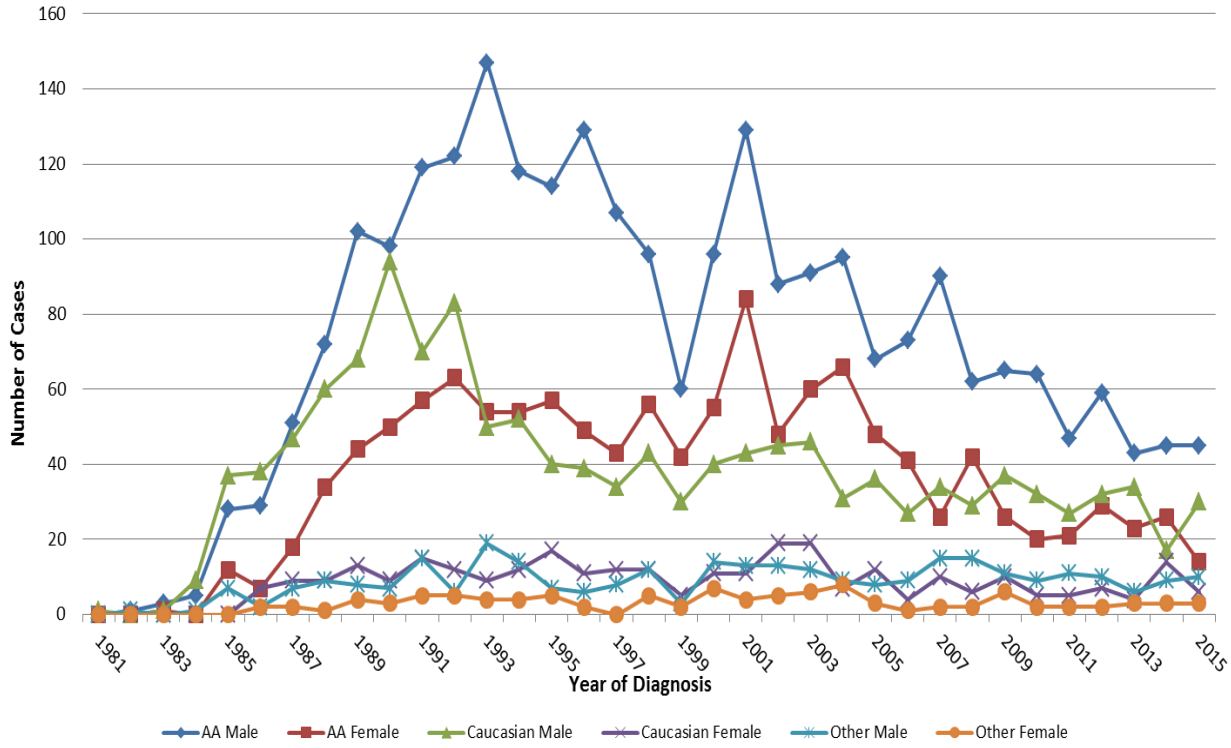
Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Race/Ethnicity

Delaware's HIV epidemic disproportionately affects the African- American population which comprises 21% of the Delaware population, but accounts for 61% and 67% of the State's HIV and stage 3 (AIDS) cases, respectively.

Males account for most cases within all catgories (i.e., Caucasian, African-American, Hispanic, and Other).

Figure 2: Delaware HIV/Stage 3 (AIDS) cases, by race and gender, 1981-2015 (N=5,878)

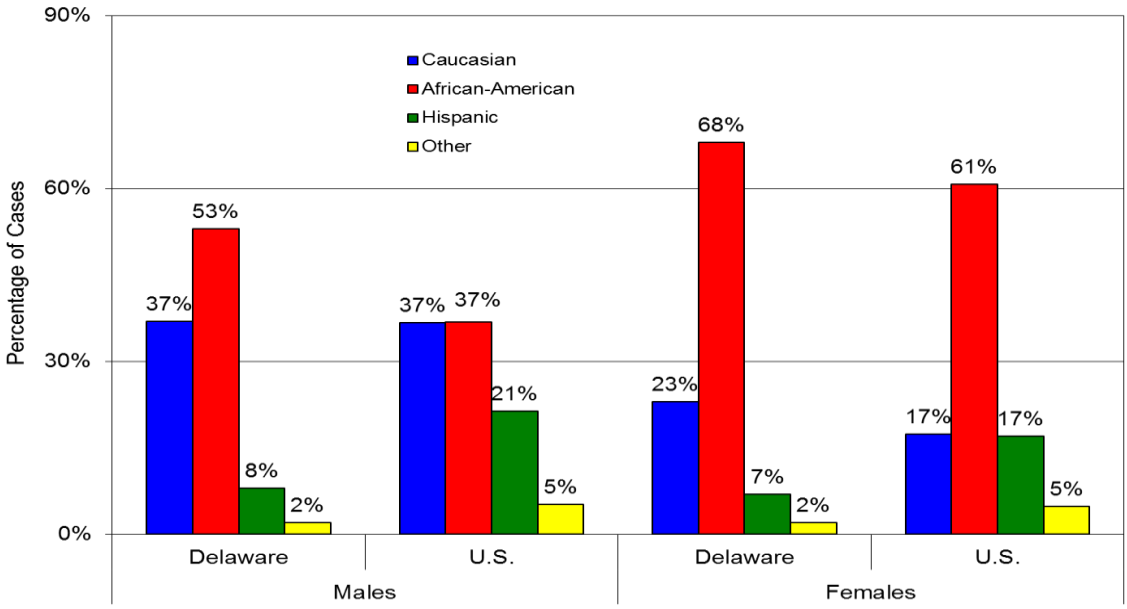


Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figures 3 and 4, with accompanying data tables, indicate that the magnitude of HIV and stage 3 (AIDS) racial disparity in Delaware is greater than that in the U.S. African-American male's account for 37% of all males living with HIV (non-stage 3 (AIDS)) in the U.S., and 53% in Delaware.

African-American females account for 61% of all females living with HIV (non AIDS) in the U.S., and 68% in Delaware. African-Americans account for 69% of Delaware's pediatric cases living with HIV. No racial breakdown data is available for U.S. pediatric cases.

Figure 3: Living HIV cases, by race and gender: Delaware vs. U.S., (DE=2015, US=2013)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS) & CDC, 2014 HIV Report

Table 4: Persons living with HIV in Delaware 2015 by race and gender (N=1,330)

Race	Male N (%)	Female N (%)	Total N (%)
Caucasian	350 (37%)	89 (23%)	439 (33%)
African American	491 (53%)	270 (68%)	761 (57%)
Hispanic	71 (8%)	28 (7%)	99 (8%)
Other	22 (2%)	9 (2%)	31 (2%)
Total	934 (100%)	396 (100%)	1330 (100%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

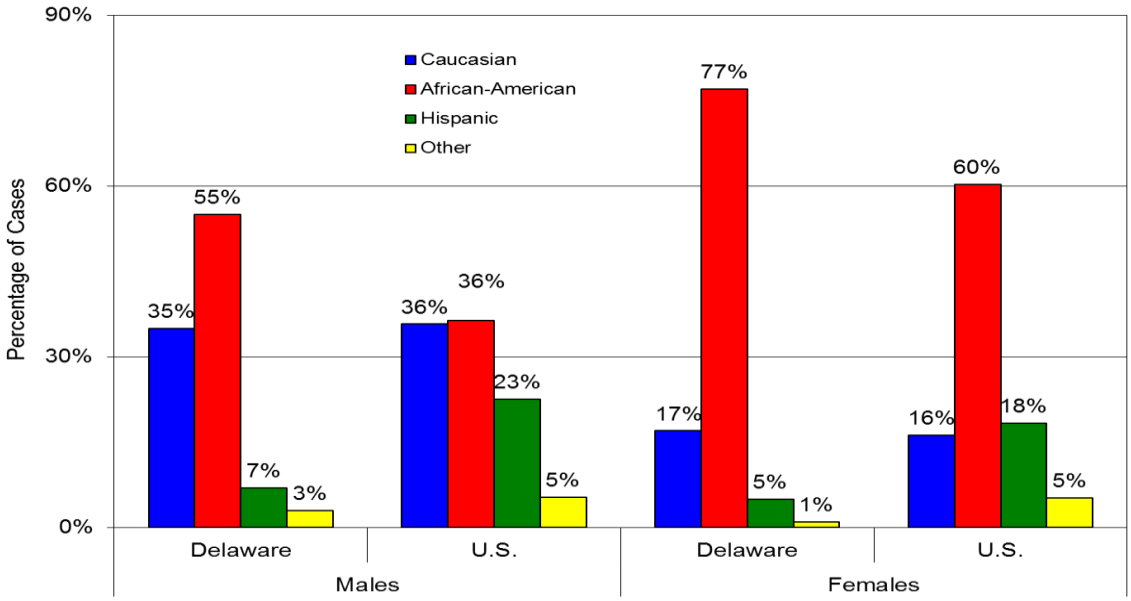
Table 5: Persons living in the U.S. with HIV by race and gender 2013 (N=927,732)

Race	Male N (%)	Female N (%)	Total N (%)
Caucasian	258,326 (37%)	39,181 (17%)	296,695 (32%)
African American	257,514 (37%)	136,979 (61%)	395,305 (43%)
Hispanic	150,018 (21%)	38,478 (17%)	188,496 (20%)
Other	36,262 (5%)	10,974 (5%)	47,236 (5%)
Total	702,120 (100%)	225,612 (100%)	927,732 (100%)

Source: CDC, 2014 HIV Surveillance Report

Delaware's racial disparity for stage 3 (AIDS) is more pronounced than that for HIV. African-American males account for 36% of males living with stage 3 (AIDS) in the U.S. In Delaware, this figure is 55%. African-American females account for 60% of females living with stage 3 (AIDS) in the U.S. In Delaware, this figure is 77%. African-Americans account for 80% of Delaware's pediatric cases living with stage 3 (AIDS).

Figure 4: Living Stage 3 (AIDS) cases, by race and gender: Delaware vs. U.S., (DE=2015, US=2013)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS) & CDC, 2014 HIV Report

Table 6: Persons living in Delaware with Stage 3 (AIDS) 2015 by race and gender (N=2,119)

Race	Male N (%)	Female N (%)	Total N (%)
Caucasian	507 (35%)	111 (17%)	618 (29%)
African American	801 (55%)	513 (77%)	1,314 (62%)
Hispanic	106 (7%)	36 (5%)	142 (7%)
Other	35 (3%)	10 (1%)	45 (2%)
Total	1,449 (100%)	670 (100%)	2,119 (100%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Table 7: Persons living in the U.S. with Stage 3 (AIDS) at year end 2013 by race and gender (N=514,843)

Race	Male N (%)	Female N (%)	Total N (%)
Caucasian	140,476 (36%)	19,671 (16%)	160,147 (31%)
African American	143,141 (36%)	73,275 (60%)	216,416 (42%)
Hispanic	88,502 (23%)	22,263 (18%)	110,765 (22%)
Other	21,152 (5%)	6,363 (5%)	27,515 (5%)
Total	393,271 (100%)	121,572 (100%)	514,843 (100%)

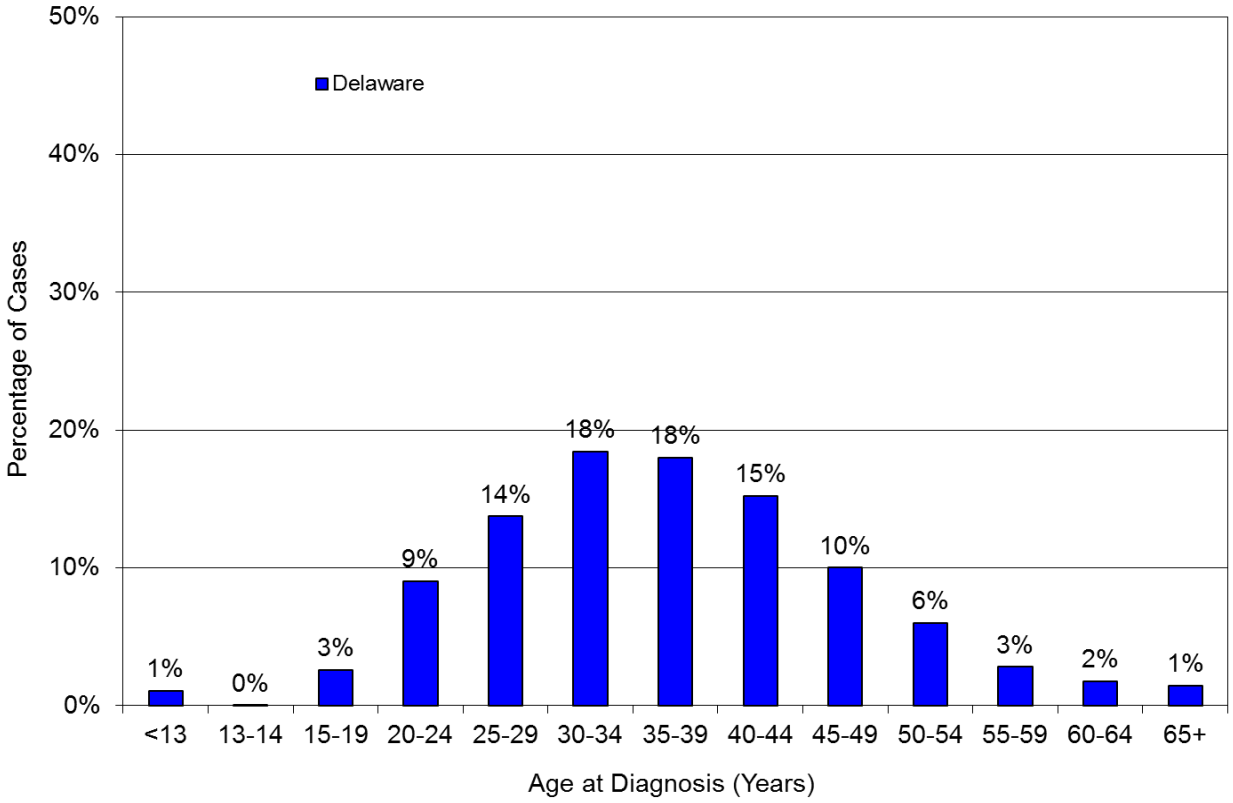
Source: CDC, 2014 HIV Report

Hispanics represent approximately 9% of the state's population and account for 7% of persons living with HIV/stage 3 (AIDS) in Delaware.

Age at Diagnosis

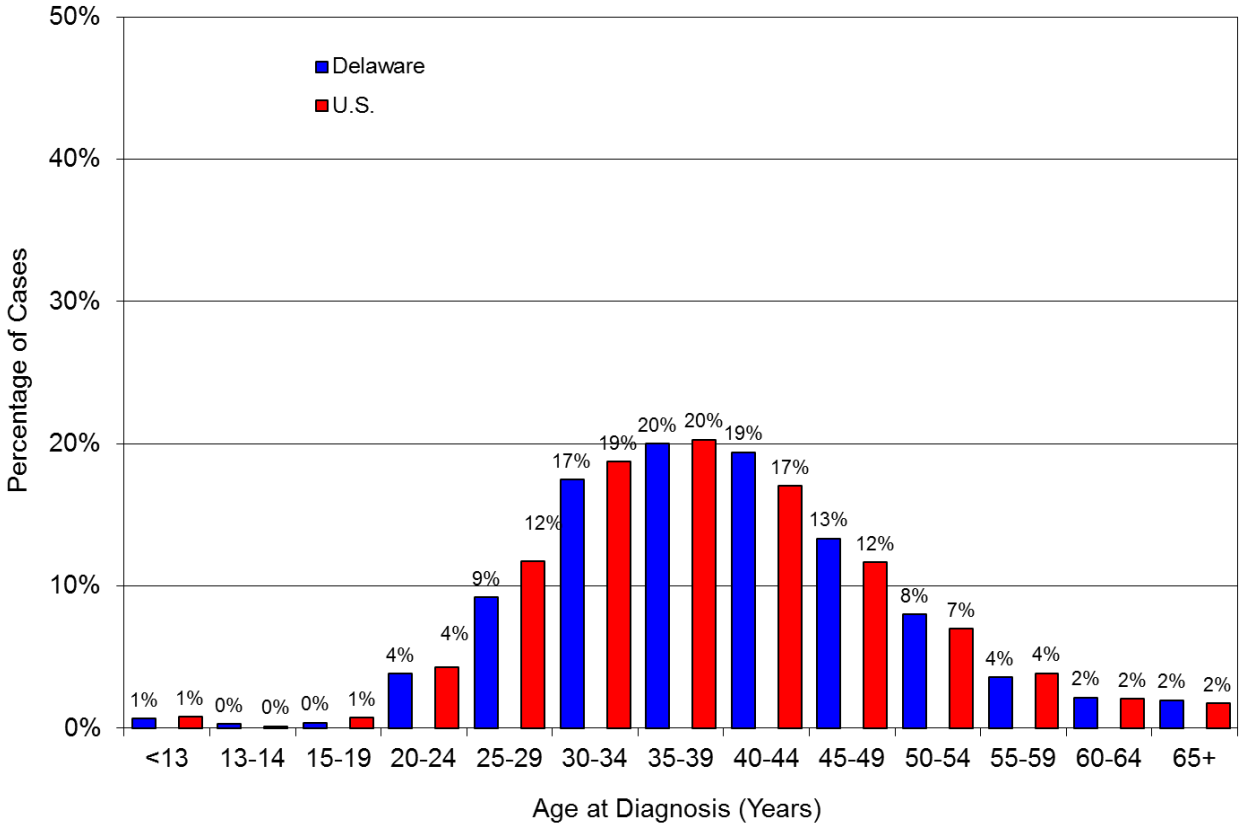
The majority of persons were diagnosed with HIV in Delaware between the ages of 30-39 (Figure 5). In Delaware and the U.S., only 1% of AIDS cases are diagnosed among those under the age of 13. Adults age 50 and older account for 16% and 15% of AIDS cases in Delaware and nationwide respectively (Figure 6).

Figure 5: Delaware HIV cases, by age at diagnosis, 1981-2015*



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***Cumulative HIV disease diagnosis date information not available for U.S. data**

Figure 6: Stage 3 (AIDS) Cases, by Age at diagnosis: Delaware and U.S., 1981-2015

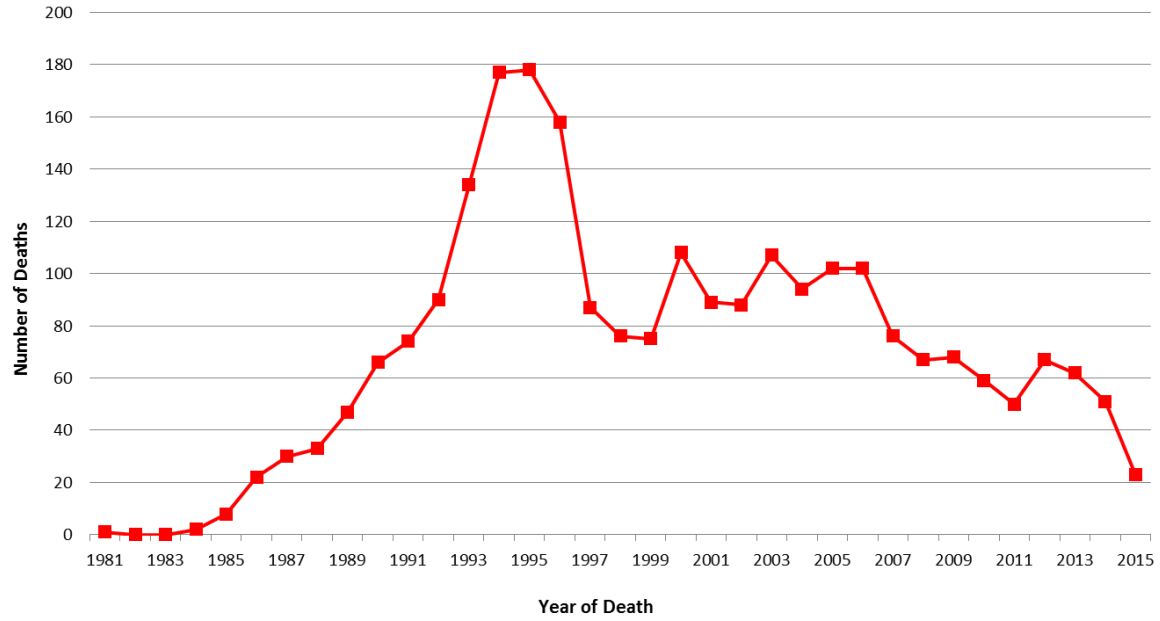


Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS) & CDC, 2014 HIV Report

Mortality

A total of 2,471 Delawareans with AIDS died between 1981 and 2015. The AIDS death rate in Delaware has declined in recent years (Figure 7).

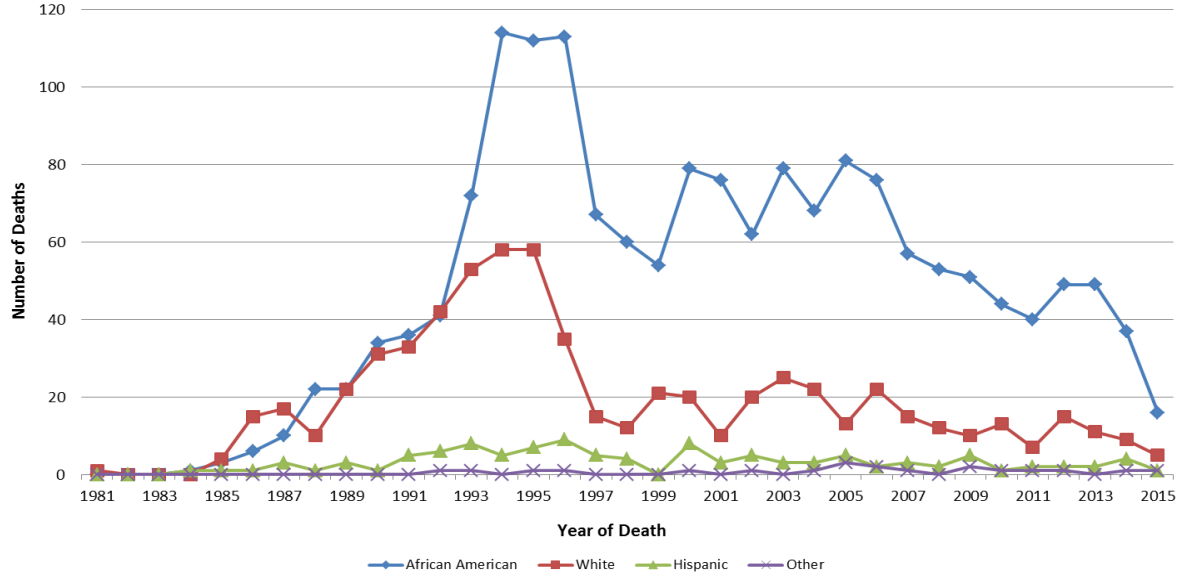
Figure 7: Delaware stage 3 (AIDS) deaths, 1981-2015 (N=2,471)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Following a peak in the mid 1990s, the number of stage 3 (AIDS) deaths in Delaware decreased among all races.

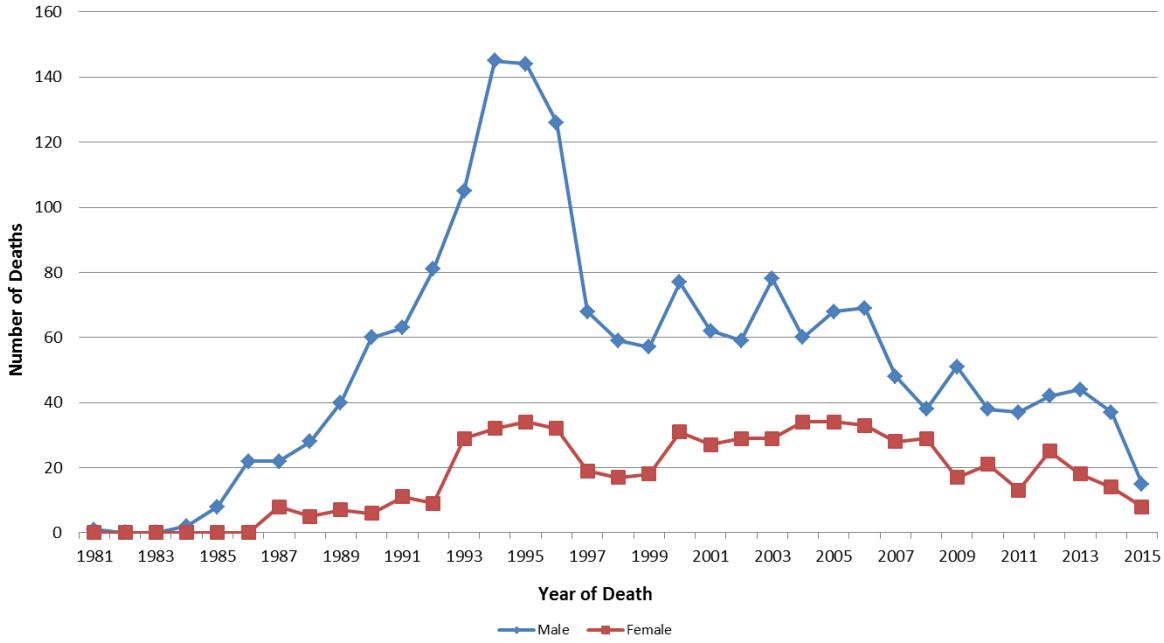
Figure 8: Delaware stage 3 (AIDS) deaths by race, 1981 to 2015 (N=2,471)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Deaths among both sexes in Delaware have declined. This is more marked among males (Figure 9).

Figure 9: Delaware Stage 3 (AIDS) deaths by gender, 1981 to 2015 (N=2,471)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Delaware's trends in AIDS deaths are similar to those observed nationally. The numbers of stage 3 (AIDS) related deaths declined across all geographic regions. Currently, the Northeast and South experience the highest number of stage 3 (AIDS) related deaths in the nation while the Midwest region has the lowest. This trend includes all risk categories including MSM and IDU.

Factors contributing to this decline include earlier diagnosis and progress in the medical management of HIV/AIDS. As survival rates increase, society will face increased costs associated with chronic disease management.

The stage 3 (AIDS) mortality figures noted in this profile reflects data from the Delaware eHARS system and may not be a true reflection of Delaware Vital Statistics information. At the time of this writing, Delaware is in the fifth year of National Death Index matching and data importation which allow for better expression of primary and secondary causes of death.

As of 2015, HIV was the underlying cause of death in 79% of all Delawareans who died with Stage 3 (AIDS). Twenty-Five percent of these persons died of other causes and the underlying cause was not determined in 5% of the cases (please note the NDI data was complete through 2013 as of this writing). The importation of NDI matched records into eHARS is the only method for assigning underlying cause of death. This means that some deaths occurring in 2014 and 2015 will appear as undetermined underlying cause of death.

3. Mode of Disease Transmission

Transmission Category Hierarchy

All diagnosed HIV/stage 3 (AIDS) cases are assigned to a CDC HIV transmission risk hierarchy, shown below. Case assignment indicates the risk factor most likely associated with HIV transmission. If a case reports more than one suspected mode of HIV transmission, it is assigned the higher of the identified categories in the hierarchy. The one exception to this rule involves males with a history of both sexual contact with other men and injecting drug use; these individuals comprise a separate exposure category (Risk Category 3).

1. Men who have sex with men
2. Injecting drug user
3. Men who have sex with men and inject drugs
4. Heterosexual contact "sex partner at risk"
    a. Sexual contact with an injecting drug user
    b. Sexual contact with a bisexual male
    c. Sexual contact with a person with hemophilia
    d. Sexual contact with a transfusion recipient with HIV
    e. Sexual contact with a transplant recipient with HIV
    f. Sexual contact with a person with HIV/AIDS; with a risk unspecified
5. Transfusion of blood/blood components
6. Transplant of tissue/organs or artificial insemination
7. Worked in a health care or laboratory setting

Some reported HIV cases are assigned a "no identified risk" (NIR) category. The NIR category generally includes cases for which the reporting source does not have the risk information available. For example, private laboratories and blood banks generally do not capture information on individuals' risk behaviors.

As per CDC-established standards, no more than 15% of HIV/stage 3 (AIDS) cases should be classified as NIR. In Delaware, only 2.7% of cases are classified as NIR.

Mode of HIV Transmission

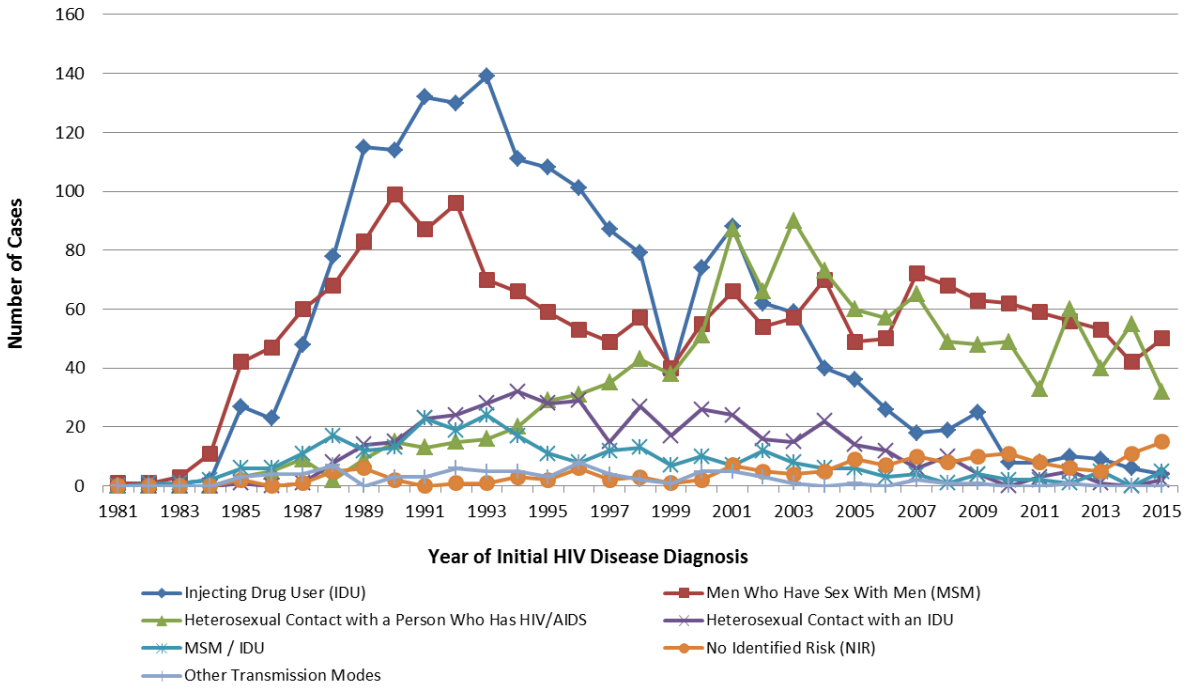
Patterns of HIV transmission may shift over time and the predominant mode of transmission in Delaware at the beginning of the HIV/AIDS epidemic (1981-1994) differs from current patterns of disease transmission (Figure 10). It is not unusual for cases that were attributable to one risk factor to be later re-assigned to a different risk category if it is determined that the sexual partner who has HIV is also an IDU and/or a bisexual.

In 1993, 49% of HIV/AIDS cases diagnosed among Delawareans were attributable to IDU. This percentage has fallen to 4% in 2015. The proportion of Delaware's HIV/AIDS

cases diagnosed among men who have sex with men (MSM) in 2015 is 46%. MSM as a risk factor has been resurgent since 1999 and is currently the highest ranking risk factor for HIV infection in Delaware at 33%.

In Delaware, the percentage of cases attributable to heterosexual contact increased from 1985 until 2004. Since 2004, with some points of fluctuation, HIV infections attributable to heterosexual contact has decreased significantly. Cases attributable to "other modes of transmission" include perinatal exposure, transfusion recipients, and those infected from working in a healthcare or laboratory setting. Cases representing "other modes of transmission" account for a very small percentage of all HIV/stage 3 (AIDS) cases in the state.

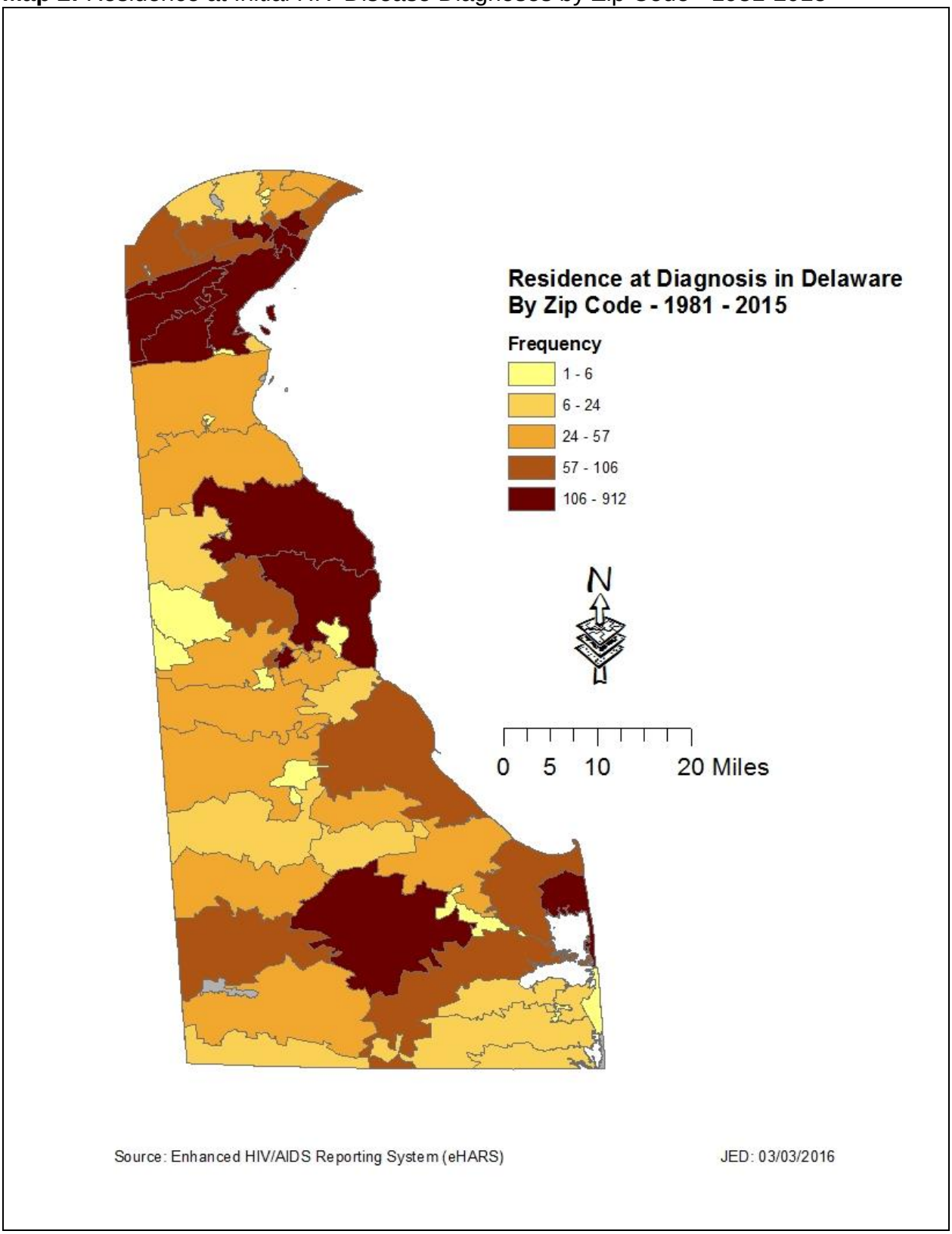
Figure 10: Delaware HIV/Stage 3 (AIDS) cases, by mode of transmission, 1981-2015 (N=5,878)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Map 2 on the following page gives visual representation of where persons resided at the time of initial HIV diagnosis throughout the history of HIV related data collection accounting for Delaware cases.

Map 2: Residence at Initial HIV Disease Diagnoses by Zip Code - 1981-2015



Note: Frequency data is represented in quantile divisions.

Table 8: Delaware HIV/Stage 3 (AIDS) cases, by mode of transmission, 2011-2015 and cumulative (N=5,878)

	2011 N (%)	2012 N (%)	2013 N (%)	2014 N (%)	2015 N (%)	Cumulative N (%)
Mode of Transmission						
Injection Drug Use (IDU)	8 (7%)	10 (7%)	9 (8%)	6 (5%)	4 (4%)	1,825 (31%)
Men Who have Sex with Men (MSM)	59 (52%)	56 (40%)	53 (47%)	42 (37%)	50 (46%)	1,918 (33%)
Heterosexual contact with PWH/A	33 (29%)	60 (43%)	40 (35%)	55 (48%)	32 (30%)	1,198 (20%)
Heterosexual contact with an IDU	3 (3%)	5 (4%)	1 (1%)	0 (0%)	2 (2%)	422 (7%)
IDU and are MSM	2 (2%)	1 (1%)	5 (4%)	0 (0%)	5// (5%)	279 (5%)
No Identified Risk (NIR)	8 (7%)	6 (4%)	5 (4%)	11 (10%)	15 (14%)	161 (3%)
Other Modes	0 (0%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	75 (1%)
Totals	113 (100%)	139 (100%)	113 (100%)	114 (100%)	108 (100%)	5,878 (100%)

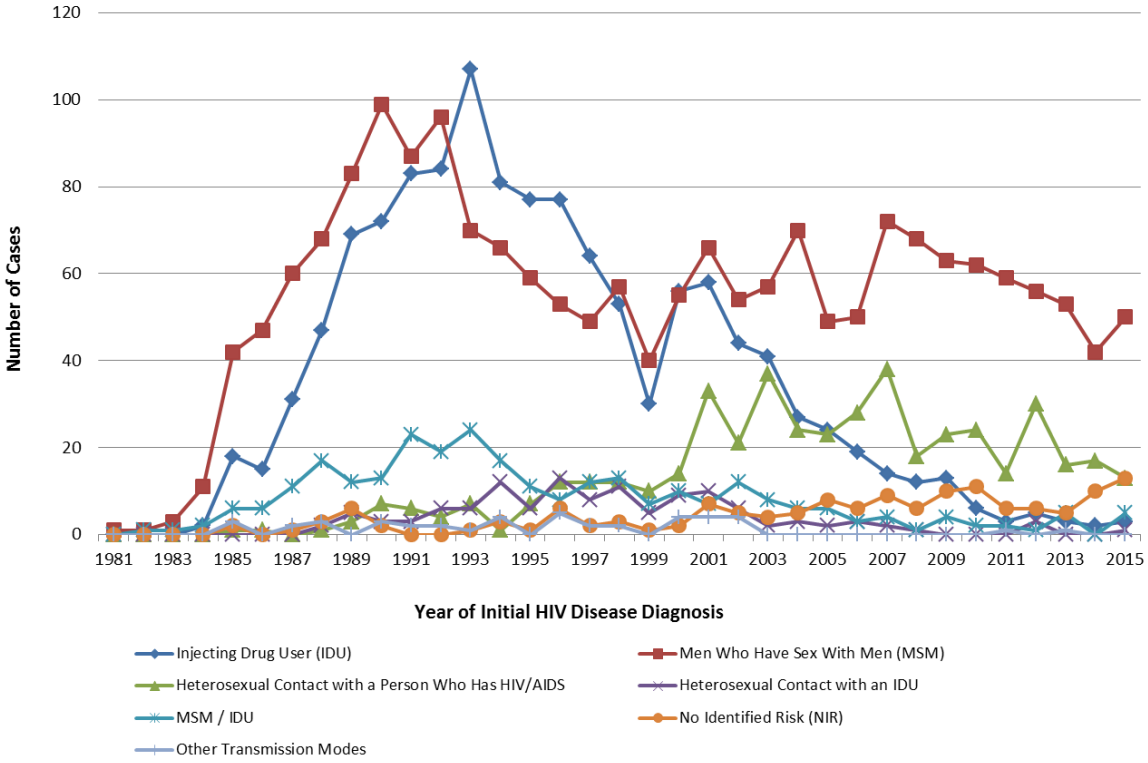
Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

The majority (69%) of all HIV/AIDS cases ever diagnosed in Delaware were related to risky sexual behavior while 31% were related to intravenous drug use. Five-percent of those classified as risky sexual behavior were MSM's who also engaged in intravenous drug use. Trends in the mode of HIV transmission among Delawareans differ by gender.

HIV Transmission among Delaware Males

Between 1990 and 2015, the percentage of male HIV/stage 3 (AIDS) cases attributable to IDU and MSM/IDU in Delaware declined. As shown in figure 11, IDU-attributable cases among males fell by 97% from 107 in 1993 to 3 in 2015. MSM cases as a percentage of total cases among males, has been resurgent since 2000 and has accounted for over 50% of all new cases among males since 2007. MSM has been the highest ranking exposure risk among males since 2000 and the highest overall exposure risk since 2006 with only two years (2011 and 2014) as exceptions. MSM/IDU-attributable cases fell from 24 in 1993 to 5 in 2015, a decrease of 79%. In Delaware, the percentage of male HIV/AIDS cases attributable to heterosexual contact has increased from one in 1994 to peak at 38 in 2007, ending 2015 at 13 total cases. The decline from 2007 to 2015 reflects a 66% decrease, but the current heterosexual exposure counts remain higher than the levels in the 1980s and 1990s.

Figure 11: Delaware HIV/Stage 3 (AIDS) cases among males, by mode of transmission, 1981-2015 (N=4,203)

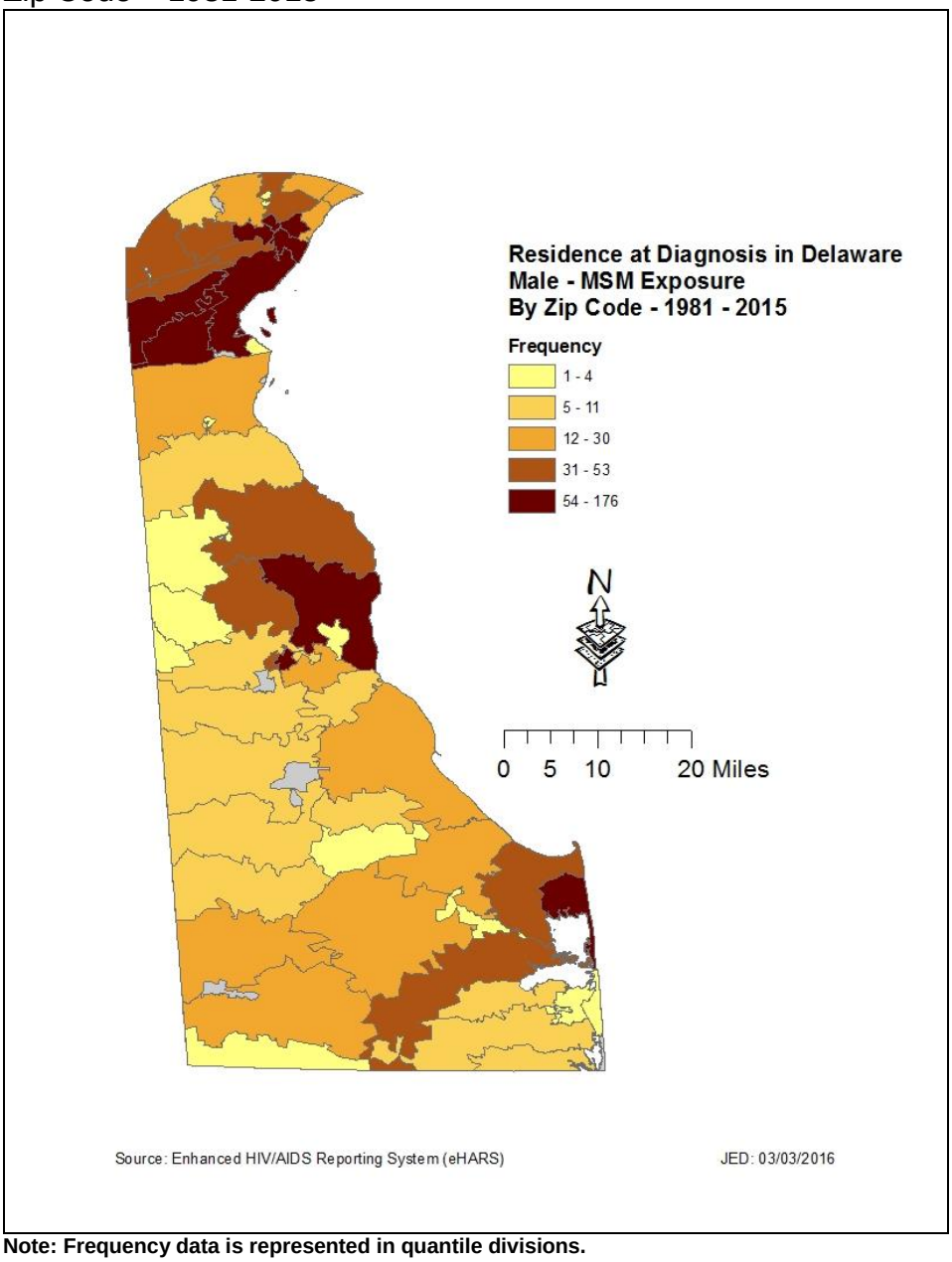


Source: Delaware Evaluation HIV/AIDS Reporting System (EHARS)

HIV/AIDS cases attributable to different modes of transmission (i.e., IDU, MSM, MSM/IDU, and heterosexual contact) often differ demographically. The sub-population of Delawarean men diagnosed with HIV/AIDS and the mode of infection transmission is explored in detail below.

Men Who Have Sex with Men (MSM). Since 1981, a total of 1,918 MSM-attributable cases have been diagnosed in Delaware and account for 46% of all HIV/stage 3 (AIDS) cases ever diagnosed among males. The majority (65%) were from New Castle County while Kent and Sussex Counties accounted for 12% and 23% of cases, respectively. These figures are displayed by zip code on Map 3 on the following page.

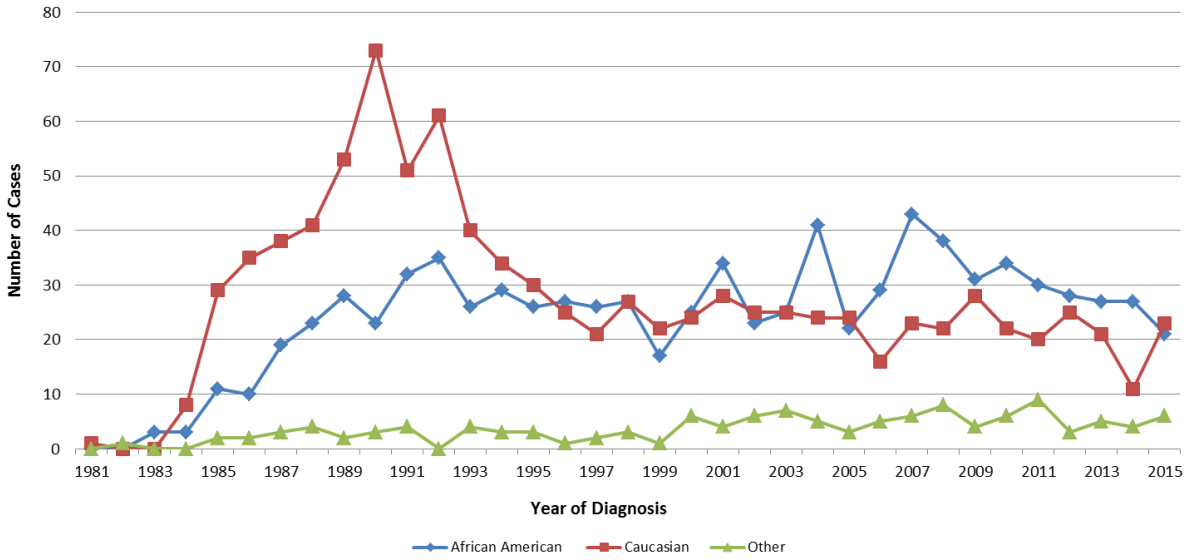
Map 3: Residence at Initial HIV Disease Diagnoses among MSM Exposure Group by Zip Code – 1981-2015



Note: Frequency data is represented in quantile divisions.

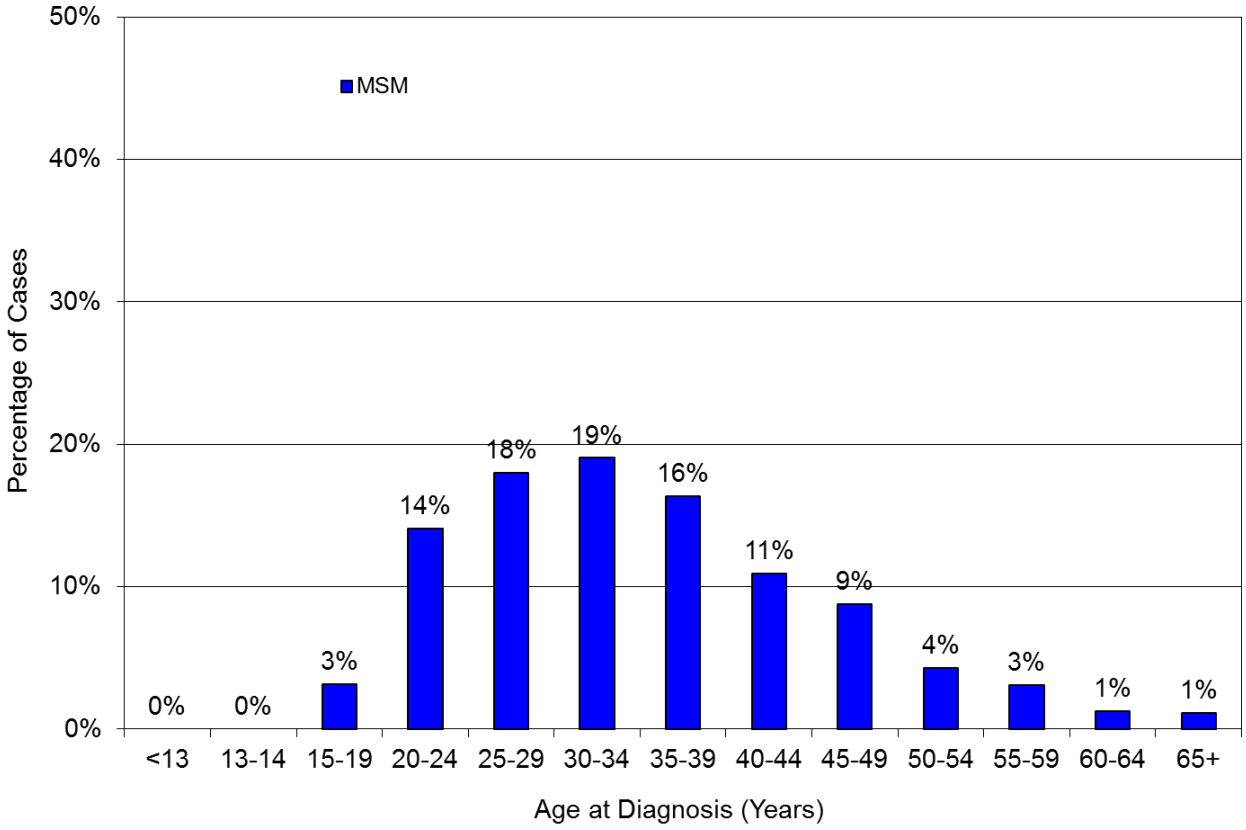
As shown in Figure 12 and Table 9, the demographic composition of HIV/stage 3 (AIDS) cases attributable to MSM has shifted with time. In the early 1990's, African Americans accounted for 171 (37%) of MSM cases. From 2010-2015 that number decreased to 167, however, this was a total 53% of all MSM during this timeframe. Over the same period, the average of MSM cases for Caucasians fell from 289 (59%) in the early 1990s to 122 (38%) from 2010 to 2015. The proportion of MSM-related cases among Hispanic Delawareans has remained fairly stable since 1981. The majority of MSM-related cases were diagnosed among men ages 25-39 as shown in Figure 13.

Figure 12: Delaware HIV/Stage 3 (AIDS) cases attributable to MSM, by race, 1981-2015 (N=1,918)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figure 13: Delaware HIV/Stage 3 (AIDS) cases attributable to MSM, by age, 1981-2015 (N=1,918)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

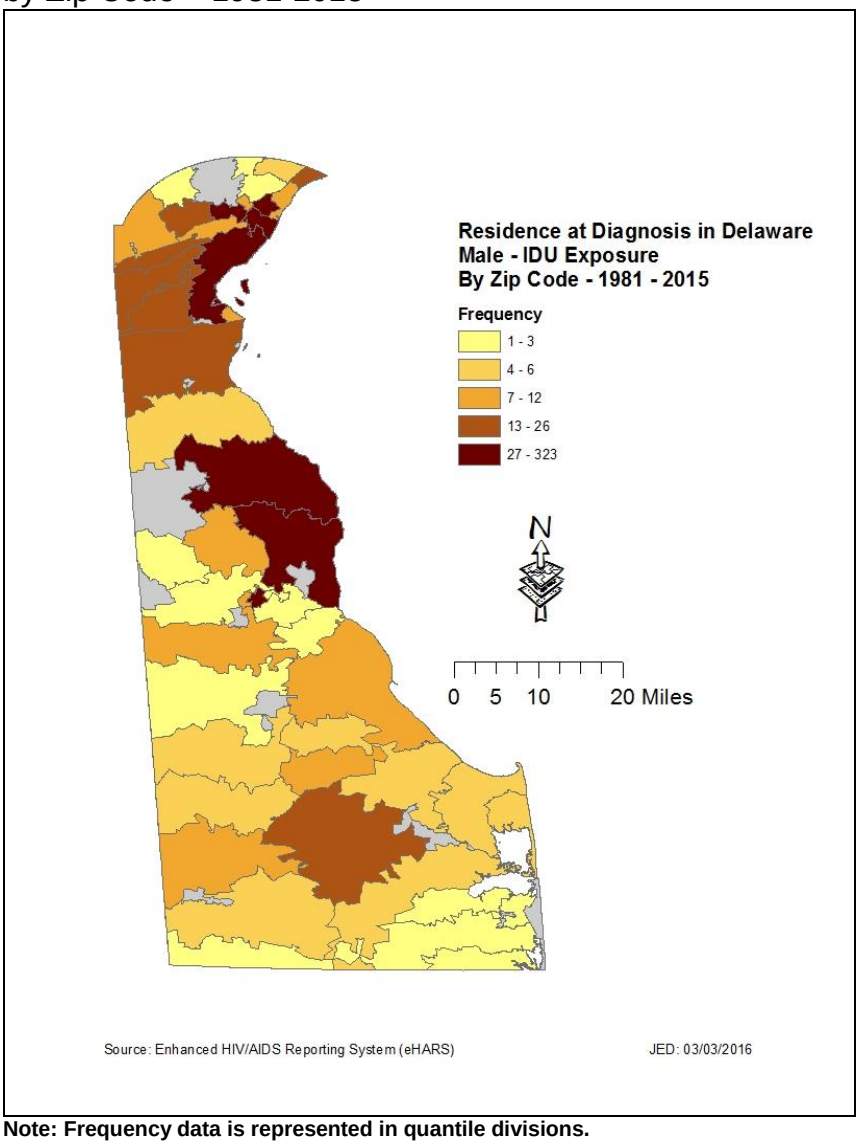
Table 9: Delaware HIV/Stage 3 (AIDS) cases attributable to MSM, by race and age, 2011-2015 and cumulative (N=1,918)

	2011 N (%)	2012 N (%)	2013 N (%)	2014 N (%)	2015 N (%)	Cumulative* N (%)
Total Cases	59	56	53	42	50	1,918
Race						
Caucasian	20 (34%)	25 (45%)	21 (40%)	11 (26%)	23 (46%)	950 (50%)
African-American	30 (51%)	28 (50%)	27 (51%)	27 (64%)	21 (42%)	43 (44%)
Other	9 (15%)	3 (5%)	5 (9%)	4 (10%)	6 (12%)	125 (7%)
Age Group (Years at Diagnosis)						
<13	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
13-14	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
15-19	5 (8%)	1 (2%)	2 (4%)	3 (7%)	2 (4%)	60 (3%)
20-24	13 (22%)	18 (32%)	13 (25%)	7 (17%)	10 (20%)	270 (14%)
25-29	16 (27%)	13 (23%)	13 (25%)	7 (17%)	11 (22%)	345 (18%)
30-34	9 (15%)	8 (14%)	5 (9%)	11 (26%)	9 (18%)	365 (19%)
35-39	3 (5%)	4 (7%)	4 (8%)	5 (12%)	4 (8%)	314 (16%)
40-44	3 (5%)	4 (7%)	2 (4%)	2 (5%)	1 (2%)	209 (11%)
45-49	3 (5%)	3 (5%)	5 (9%)	1 (2%)	5 (10%)	168 (9%)
50-54	3 (5%)	2 (4%)	5 (9%)	3 (7%)	2 (4%)	82 (4%)
55-59	2 (3%)	2 (4%)	1 (2%)	1 (2%)	5 (10%)	59 (3%)
60-64	0 (0%)	0 (0%)	2 (4%)	1 (2%)	0 (0%)	24 (1%)
65+	2 (3%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)	22 (1%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***The cumulative total represents all persons in the category 1981 - 2015**

Male Injecting Drug Users (IDU). From 1981-2015, 1,240 IDU-attributable cases of HIV/stage 3 (AIDS) were diagnosed among Delaware males and accounted for 30% of all cases ever diagnosed among Delaware men. Eighty-five percent were in New Castle County while Kent and Sussex Counties accounted for 7% and 8%, respectively.

Map 4: Residence at Initial HIV Disease Diagnoses among Male IDU Exposure Group by Zip Code – 1981-2015

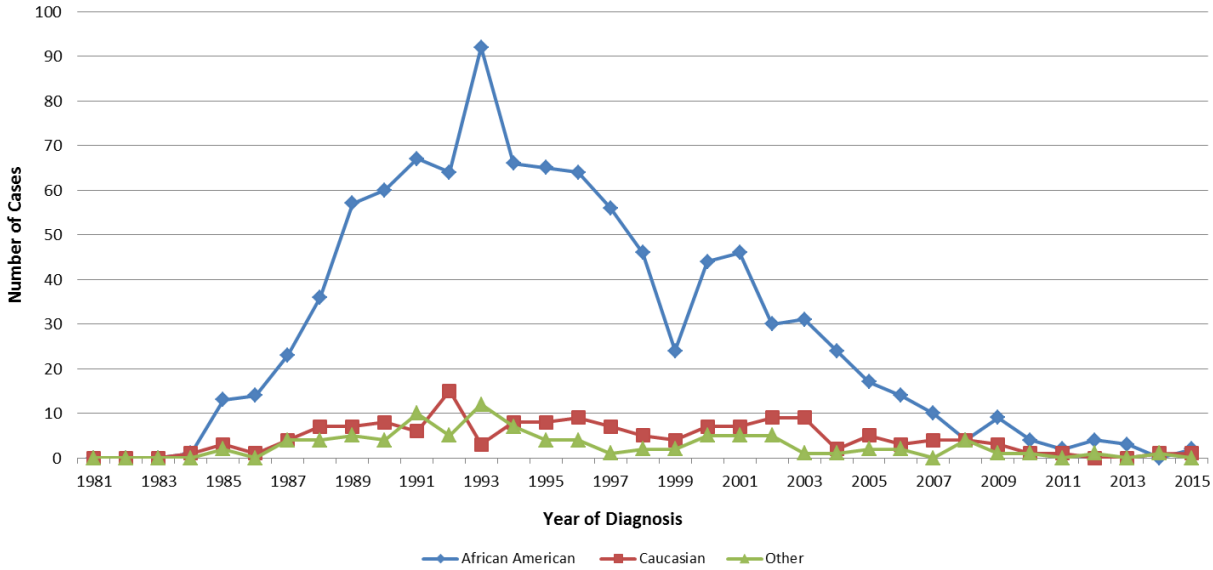


Note: Frequency data is represented in quantile divisions.

The majority (80%) of all IDU-attributable cases among Delaware men were within the African-American population. In 1993, 92 (86%) IDU related HIV cases were diagnosed among African-American men. In 2015, this number had declined to 2 (80%) cases. As shown in Figure 14, among males, the percentage of African American men in Delaware having an HIV diagnoses attributable to IDU remains high; however, the total number of cases dropped significantly. The number of IDU cases among Caucasian males and those listed in the "other" category (including Hispanics) have remained stable since 1987 (Figure 14). The majority of IDU-related cases were diagnosed among men ages 35-44 as shown in Figure 15.

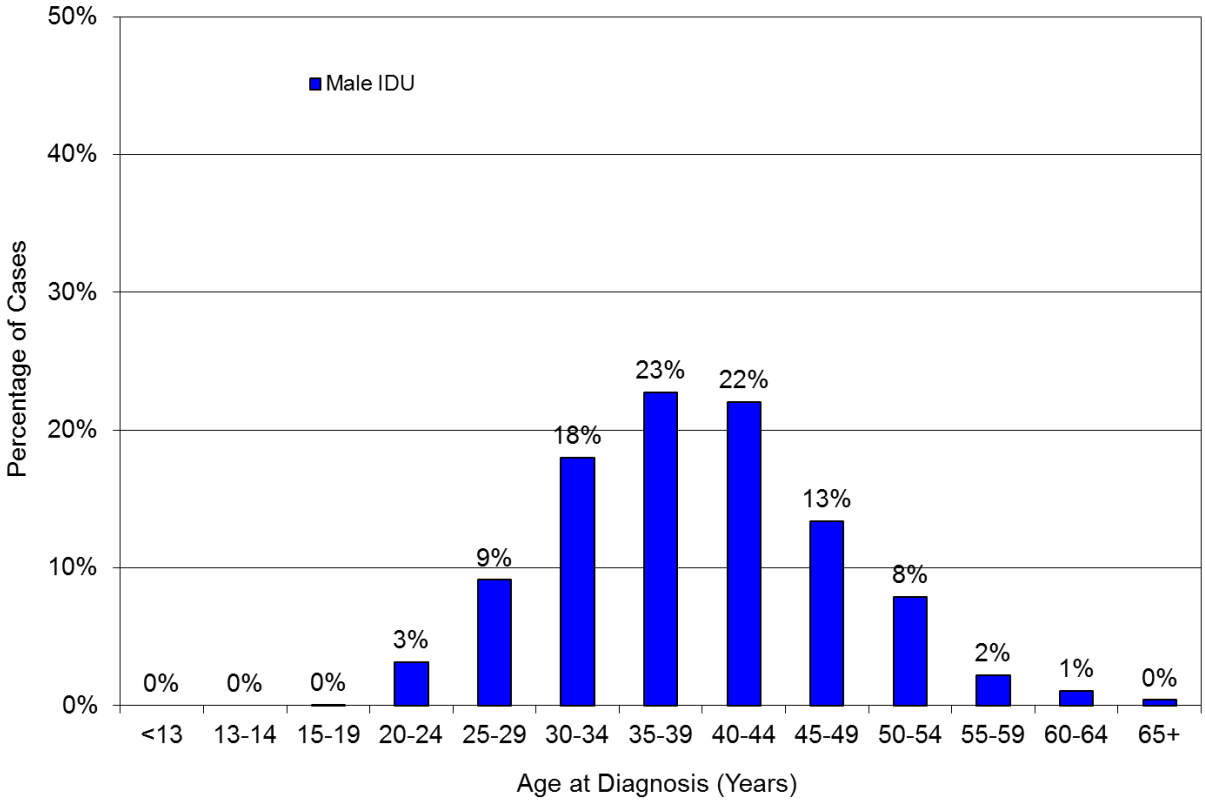
Figure 14 shows that the annual number of IDU-attributable cases diagnosed among Delaware men declined steadily from the mid-1990s. The apparent peak in male IDU cases in 1993 is a reflection of the expanded AIDS definition that year.

Figure 14: Delaware HIV/Stage 3 (AIDS) cases among males attributable to IDU, by race, 1981-2015 (N=1,240)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figure 15: Delaware HIV/Stage 3 (AIDS) cases among males, attributable to IDU, by age at diagnoses, 1981-2015 (N=1,240)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Table 10: Delaware HIV/Stage 3 (AIDS) cases among males, attributable to IDU, by race and age, 1981-2015 (N=1,240)

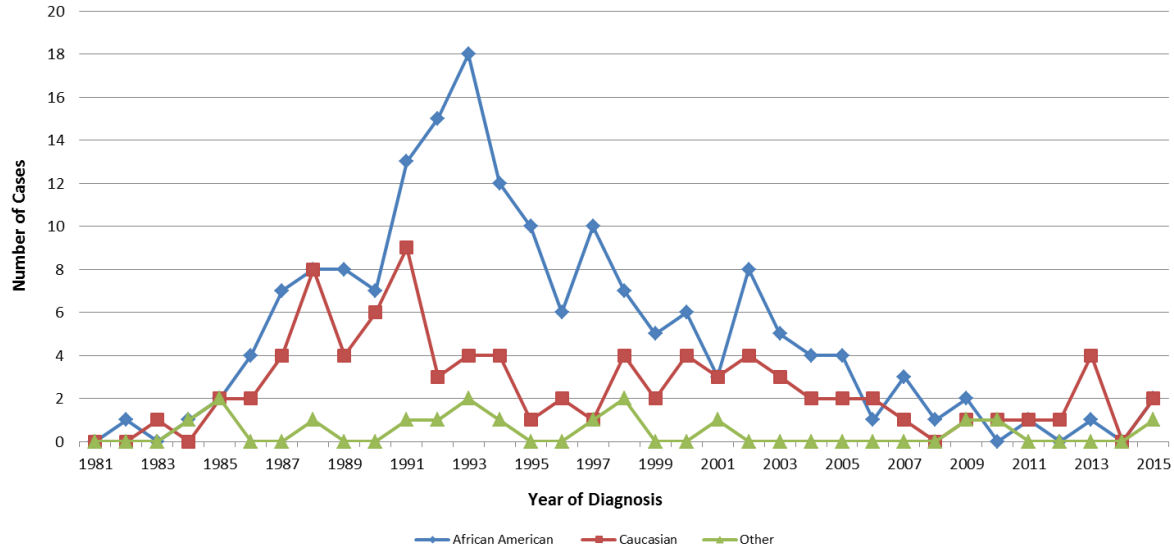
	1981-2015 N (%)
Total Cases	1,240
Race	
Caucasian	153 (12%)
African-American	992 (80%)
Hispanic/Other	95 (8%)
Age Group (Years)	
<13	0 (0%)
13-14	0 (0%)
15-19	1 (<1%)
20-24	39 (3%)
25-29	113 (9%)
30-34	223 (18%)
35-39	282 (23%)
40-44	273 (22%)
45-49	166 (13%)
50-54	98 (8%)
55-59	27 (2%)
60-64	13 (1%)
65+	5 (<1%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***Due to low annual numbers this table is limited to cumulative figures for this category**

Men Who Have Sex with Men and Who Also Inject Drugs (MSM/IDU).
Since 1981, 279 MSM/IDU-attributable cases of HIV/stage 3 (AIDS) were diagnosed among Delaware men and account for 7% of all male HIV/AIDS cases ever diagnosed in the state. The majority of MSM/IDU cases (79%) were diagnosed among males in New Castle County with Kent and Sussex Counties accounting for 9% and 12% of cases, respectively.

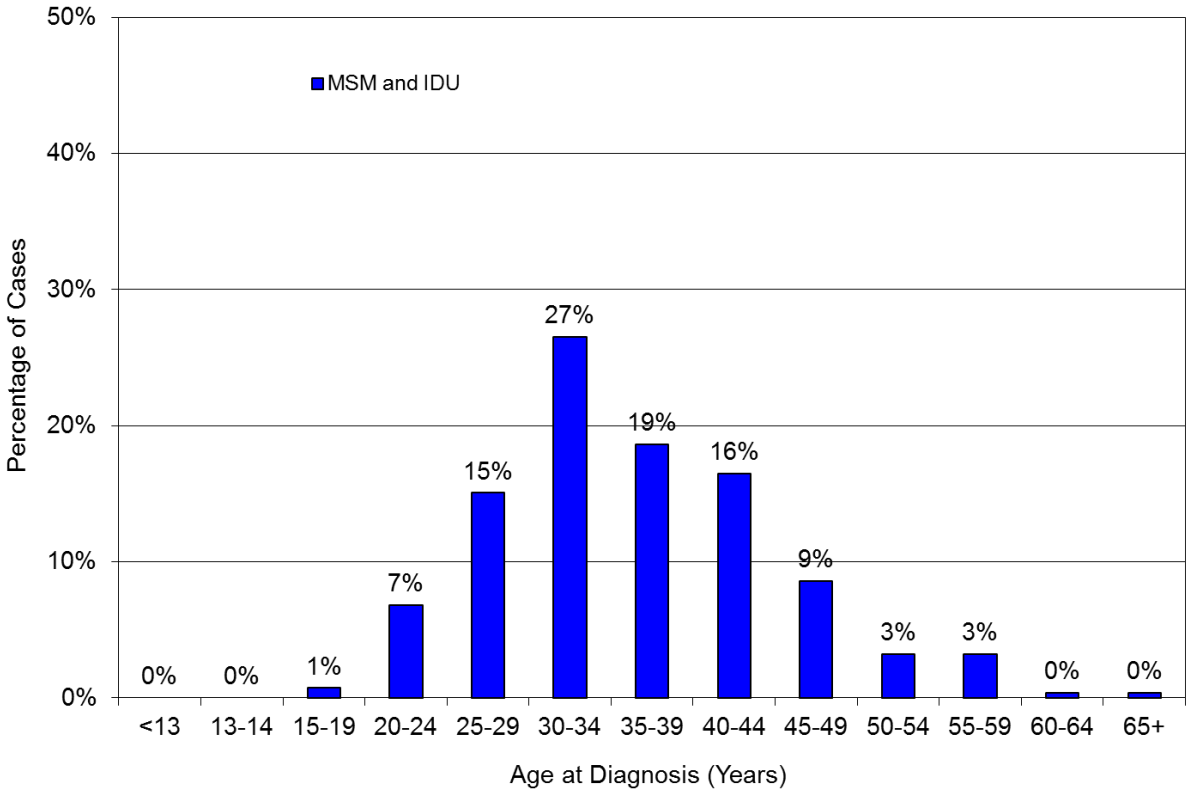
As shown in Table 11, approximately 63% of all MSM/IDU cases ever diagnosed in the state were among African-Americans while Caucasians account for 32%. MSM/IDU has declined from a high of 24 cases in 1993 to 5 in 2015 (Figure 16). Men between the ages of 30-39 at diagnosis are most likely to be affected through MSM/IDU exposure (Figure 17).

Figure 16: Delaware HIV/Stage 3 (AIDS) cases among males attributable to MSM/IDU, by race, 1981-2015 (N=279)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figure 17: Delaware HIV/Stage 3 (AIDS) cases among males, attributable to MSM/IDU, by age at diagnoses, 1981-2015 (N=279)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Table 11: Delaware HIV/Stage 3 (AIDS) cases attributable to MSM who are also IDU, by race and age, 1981-2015 (N=279)*

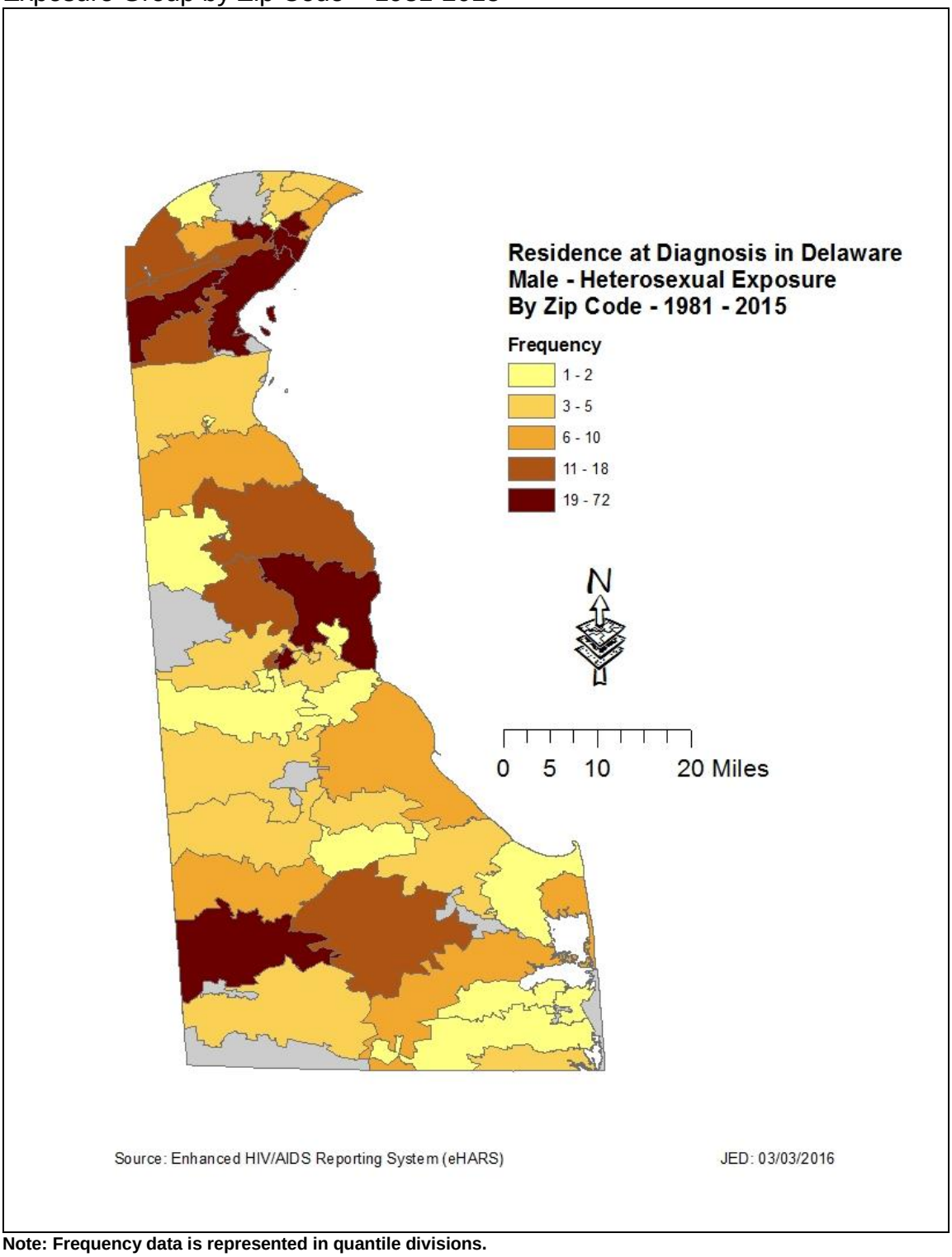
	1981 – 2015 N (%)
Total Cases	279
Race	
Caucasian	88 (32%)
African-American	175 (63%)
Hispanic/Other	16 (6%)
Age Group (Years at Diagnosis)	
<13	0 (0%)
13-14	0 (0%)
15-19	2 (1%)
20-24	19 (7%)
25-29	42 (14%)
30-34	74 (27%)
35-39	52 (19%)
40-44	46 (16%)
45-49	24 (9%)
50-54	9 (3%)
55-59	9 (3%)
60-64	1 (<1%)
65+	1 (<1%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***Due to low annual numbers this table is limited to cumulative figures for this category**

Male Heterosexual Transmission. Heterosexual transmission accounted for 585 HIV/stage 3 (AIDS) cases diagnosed among Delaware males since 1981, representing 14% of all HIV/stage 3 (AIDS) cases ever diagnosed in this group. Twenty-one percent of male heterosexual cases had sexual contact with a female IDU partner. Seventy percent of all male heterosexual HIV/AIDS cases were diagnosed in New Castle County, 17% were in Sussex County and 13% were in Kent County.

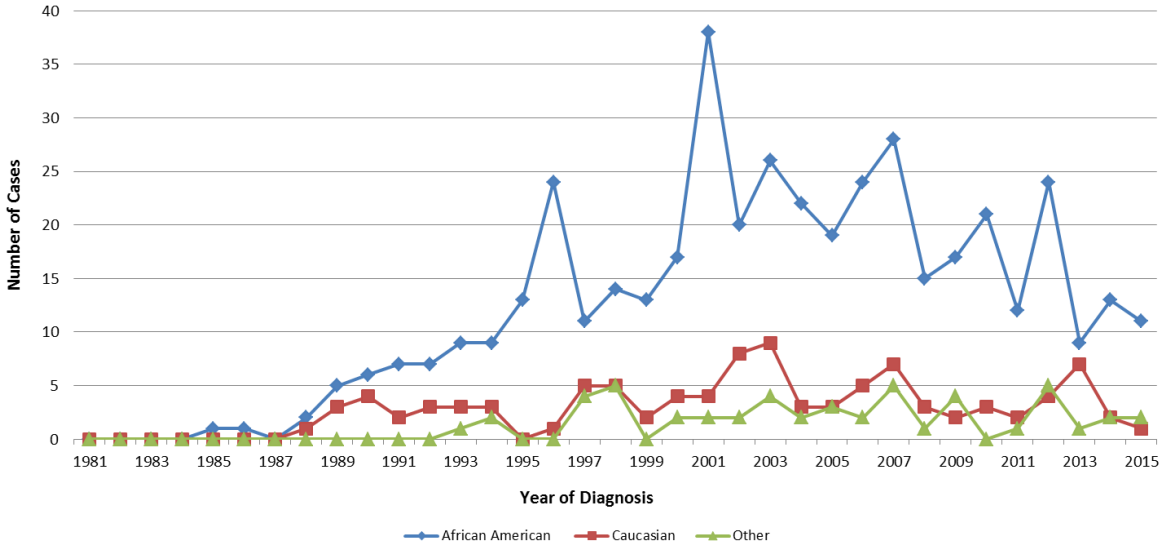
In 2001, there were 44 cases of HIV/AIDS attributable to male heterosexual contact (the highest number in a single year). In 2015, this number fell to 14. This is a significant drop (from 23% to 16%). As shown in Table 12, African-American males account for 75% of heterosexually transmitted cases. Caucasians and Hispanics/Others accounted for 17% and 8%, respectively. Males between the ages of 35-44 at diagnosis are primarily affected.

Map 5: Residence at Initial HIV Disease Diagnoses among Male Heterosexual Exposure Group by Zip Code – 1981-2015



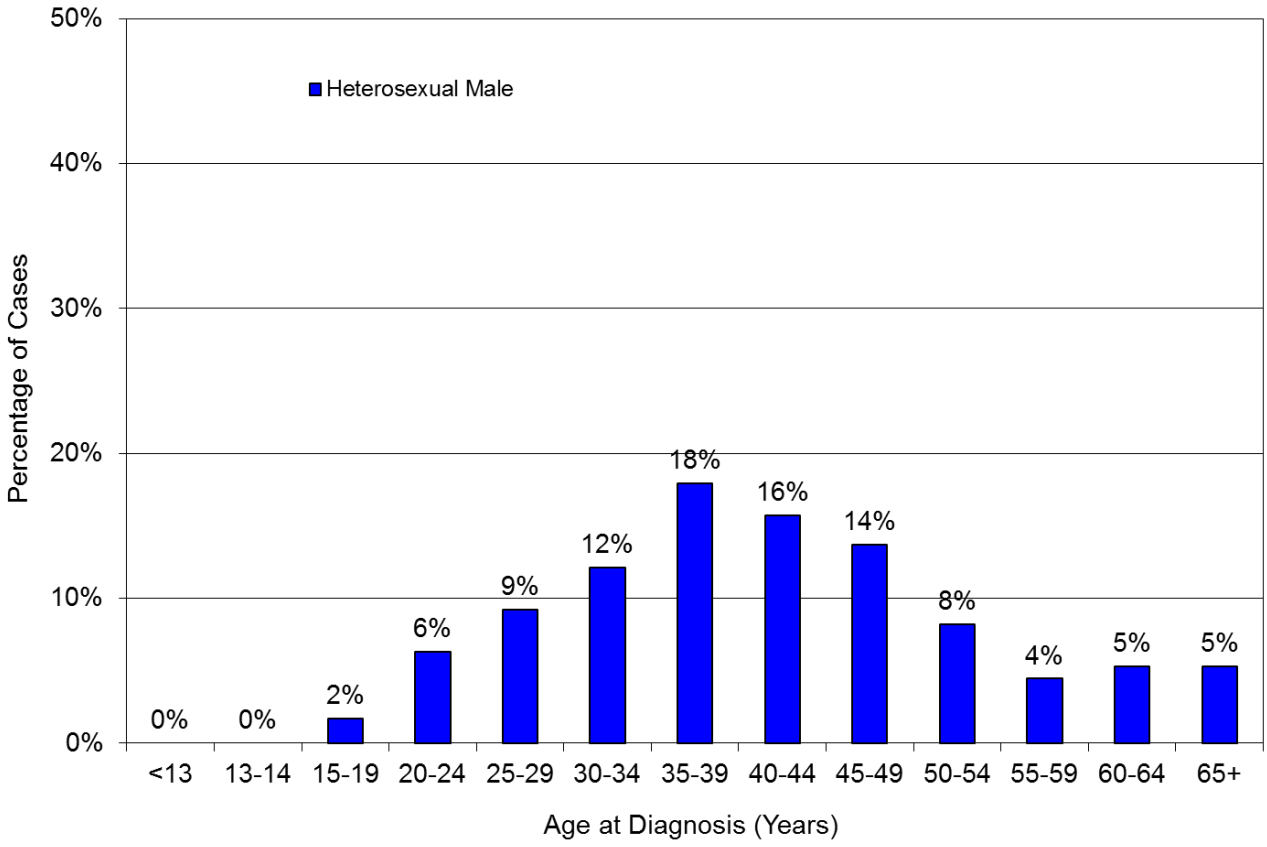
Note: Frequency data is represented in quantile divisions.

Figure 18: Delaware male HIV/Stage 3 (AIDS) attributable heterosexual contact, by race, 1981-2015 (N=585)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figure 19: Delaware male HIV/Stage 3 (AIDS) attributable heterosexual contact, by age at diagnosis, 1981-2015 (N=585)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Table 12: Delaware male HIV/Stage 3 (AIDS) attributable heterosexual contact, by race and age, 1981-2015 (N=585)*

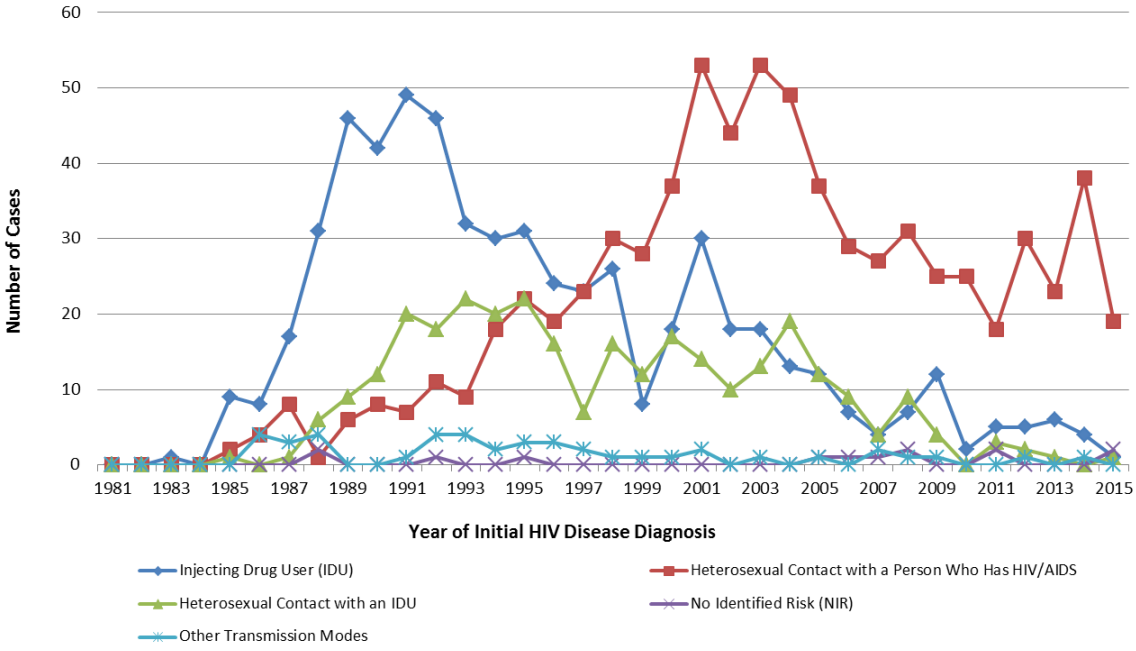
	1981 - 2015 N (%)
Total Cases	585 (100%)
Race	
Caucasian	97 (17%)
African-American	438 (75%)
Hispanic/Other	50 (8%)
Age Group (Years at Diagnosis)	
<13	0 (0%)
13-14	0 (0%)
15-19	10 (2%)
20-24	37 (6%)
25-29	54 (9%)
30-34	71 (12%)
35-39	105 (18%)
40-44	92 (16%)
45-49	80 (14%)
50-54	48 (8%)
55-59	26 (4%)
60-64	31 (5%)
65+	31 (5%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***Due to low annual numbers this table is limited to cumulative figures for this category**

HIV Transmission among Delaware Females

Between 1991 and 2007, the number of Delaware female HIV/stage 3 (AIDS) cases attributable to IDU declined. An increase from 2007-2009 is likely a reflection of increased testing through the Delaware Needle Exchange Program. The success of this program is also reflected in the drop in the number of cases from 2010 through 2015 after the initial case discoveries were made in 2008 and 2009. In 1986, heterosexual contact with an HIV-positive male accounted for 4 (25%) of all female HIV/stage 3 (AIDS) cases. In 2010, this number was 25 (93%), and in 2015 the number was 19 (83%).

Figure 20: Delaware female HIV/AIDS by mode of transmission, 1981-2015 (N=1,675).



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Female Injecting Drug Users (IDUs). Since 1981, 585 IDU-attributable cases of HIV/AIDS were diagnosed among Delaware females, accounting for 35% of all cases in this group. New Castle County accounted for 88%, Kent County 6% and Sussex County 6%.

As shown in Figure 21, the highest number of cases in Delaware occurred in 1991 with 49 cases recorded (64% of the total for that year). By 2007 these numbers had decreased to 4 (11%). Overall, the number of IDU-attributable cases among Delaware females decreased 99% from 1991-2015 with only one IDU attributable case in 2015. Table 13 shows that African-American females account for 79% of cases while Caucasians and Hispanics/Others account for 16% and 5%, respectively. Females between the ages of 30-39 at diagnosis are primarily affected within this category (Figure 22).

Map 6: Residence at Initial HIV Disease Diagnoses among Female IDU Exposure Group by Zip Code – 1981-2015

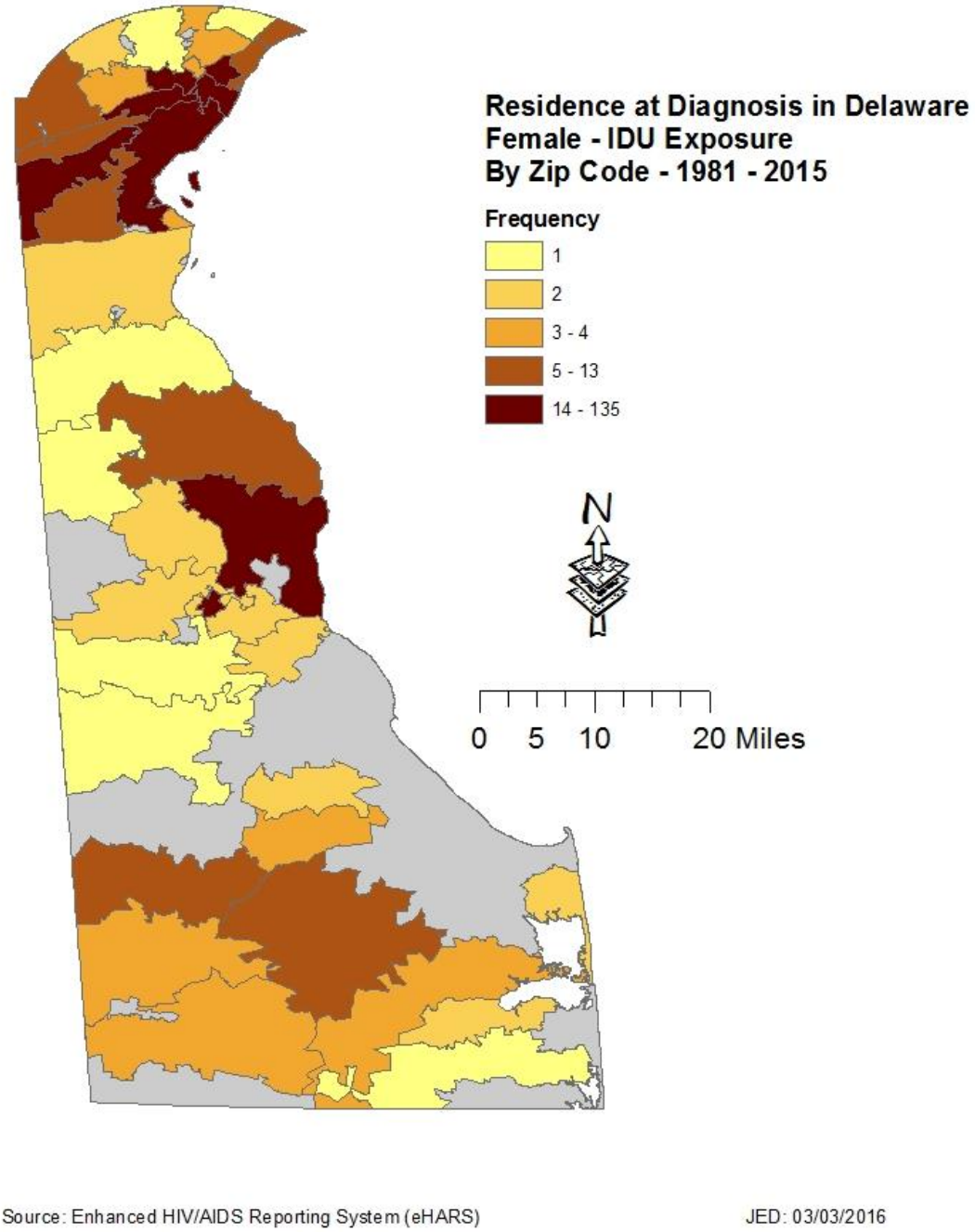
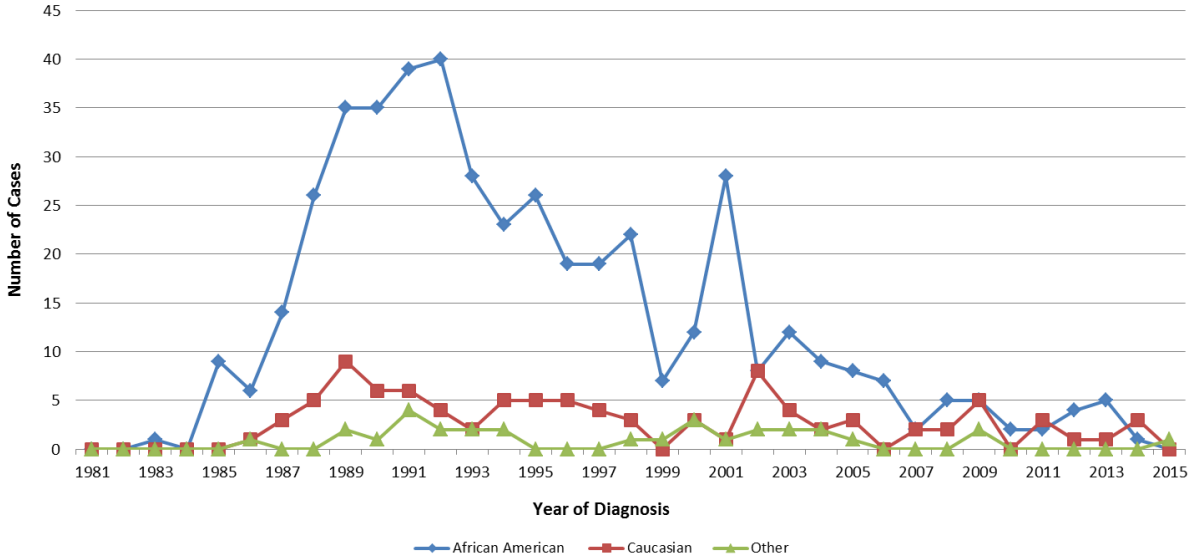
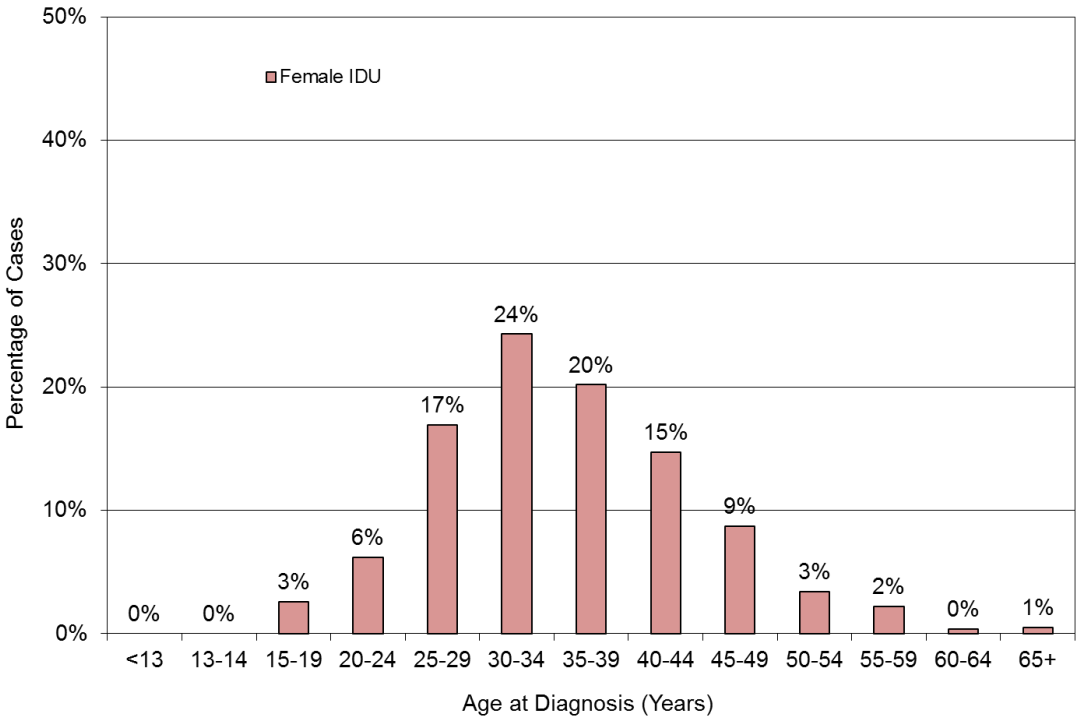


Figure 21: Delaware female HIV/Stage 3 (AIDS) attributable to IDU, by race, 1981-2015 (N=585)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figure 22: Delaware female HIV/Stage 3 (AIDS) attributable to IDU, by age at diagnosis, 1981-2015 (N=585)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Table 13: Delaware female HIV/Stage 3 (AIDS) attributable to IDU, by race and age, 1981-2015 (N=585)*

	1981 - 2015 N (%)
Total Cases	585
Race	
Caucasian	96 (16%)
African-American	459 (79%)
Hispanic/Other	30 (5%)
Age Group (Years at Diagnosis)	
<13	0 (0%)
13-14	0 (0%)
15-19	15 (3%)
20-24	36 (6%)
25-29	99 (17%)
30-34	142 (24%)
35-39	118 (20%)
40-44	86 (15%)
45-49	51 (9%)
50-54	20 (3%)
55-59	13 (2%)
60-64	2 (<1%)
65+	3 (1%)

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***Due to low annual numbers this table is limited to cumulative figures for this category**

Female Heterosexual Transmission - accounted for 1,035 HIV/stage 3 (AIDS) cases diagnosed among Delawarean females since 1981, representing 62% of all HIV/stage 3 (AIDS) cases ever diagnosed among this group. Twenty-nine percent of female heterosexual cases had sexual contact with a male IDU partner. Seventy-two percent of all female heterosexual HIV/stage 3 (AIDS) cases were in New Castle County, 15% in Sussex County and 13% in Kent County.

In 2001, there were 67 cases of HIV/stage 3 (AIDS) attributable to female heterosexual contact (the highest number in a single year). In 2015 the number was 20, a 70% decrease. As a percentage of total HIV/stage 3 (AIDS) cases among Delawarean females from 2001 to 2015, heterosexual exposure increased from 68% to 87%. This was the result of a fall in IDU attributable infections as well as the fact that females may now be presumed heterosexually exposed if no other risk factor is determined. As shown in Table 14, African-American females account for approximately 75%s of cases. Caucasians and Hispanics/Others accounted for 18% and 7%, respectively. As shown in Figure 24, females between the ages of 30-39 at diagnosis are primarily affected.

Map 7: Residence at Initial HIV Disease Diagnoses among Female Heterosexual Exposure Group by Zip Code – 1981-2015

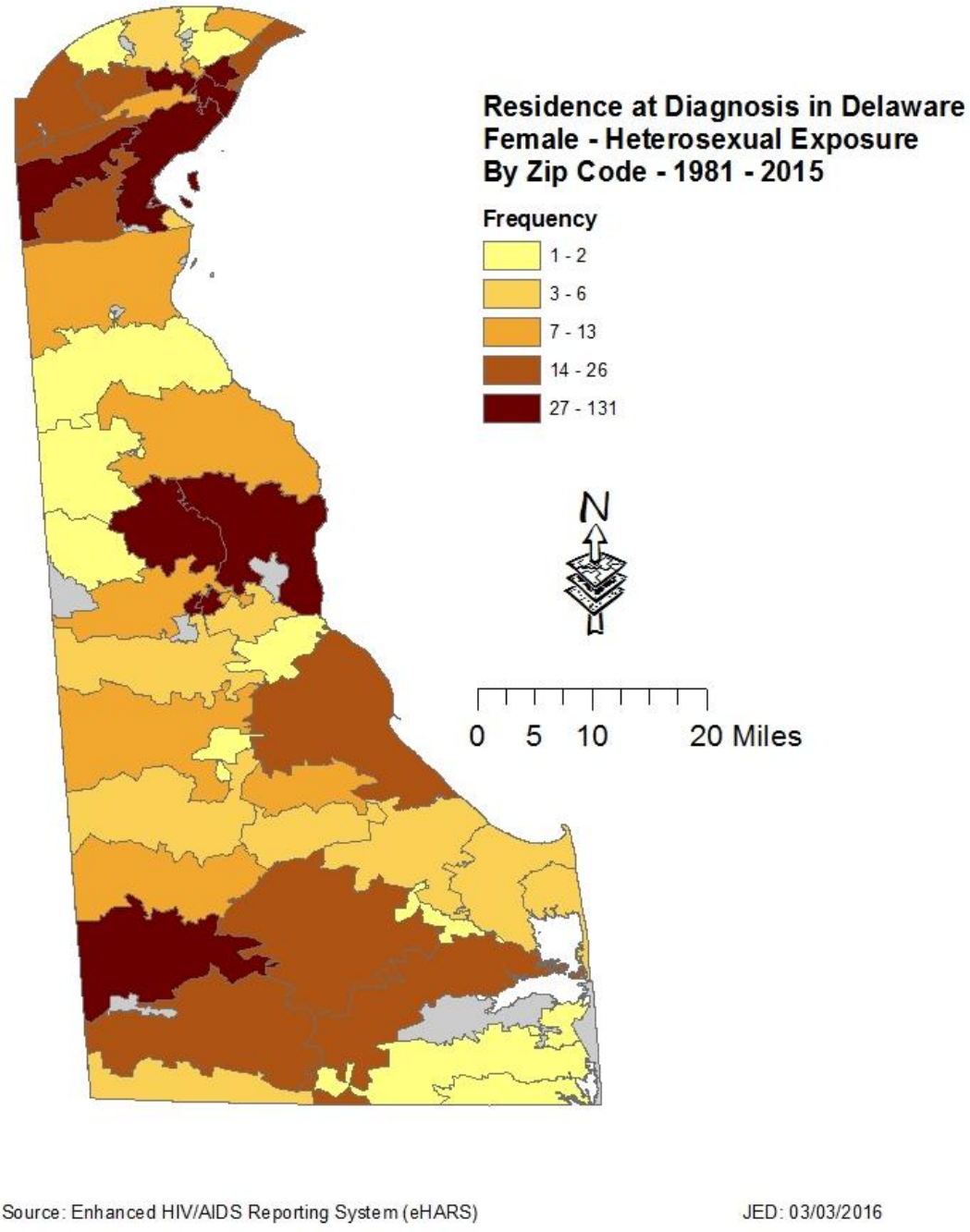
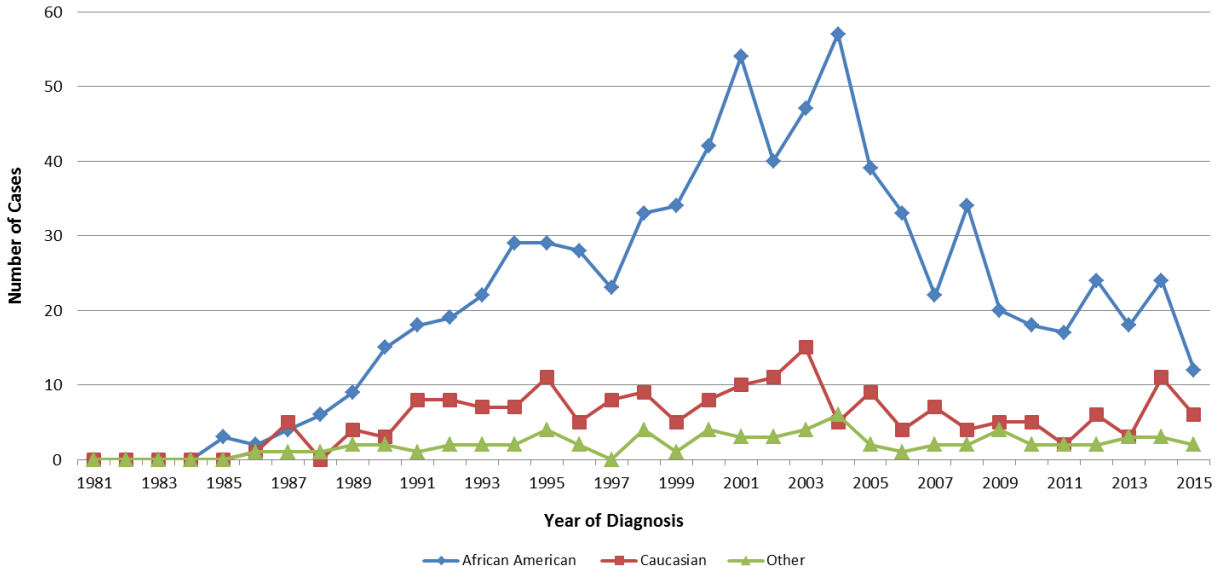
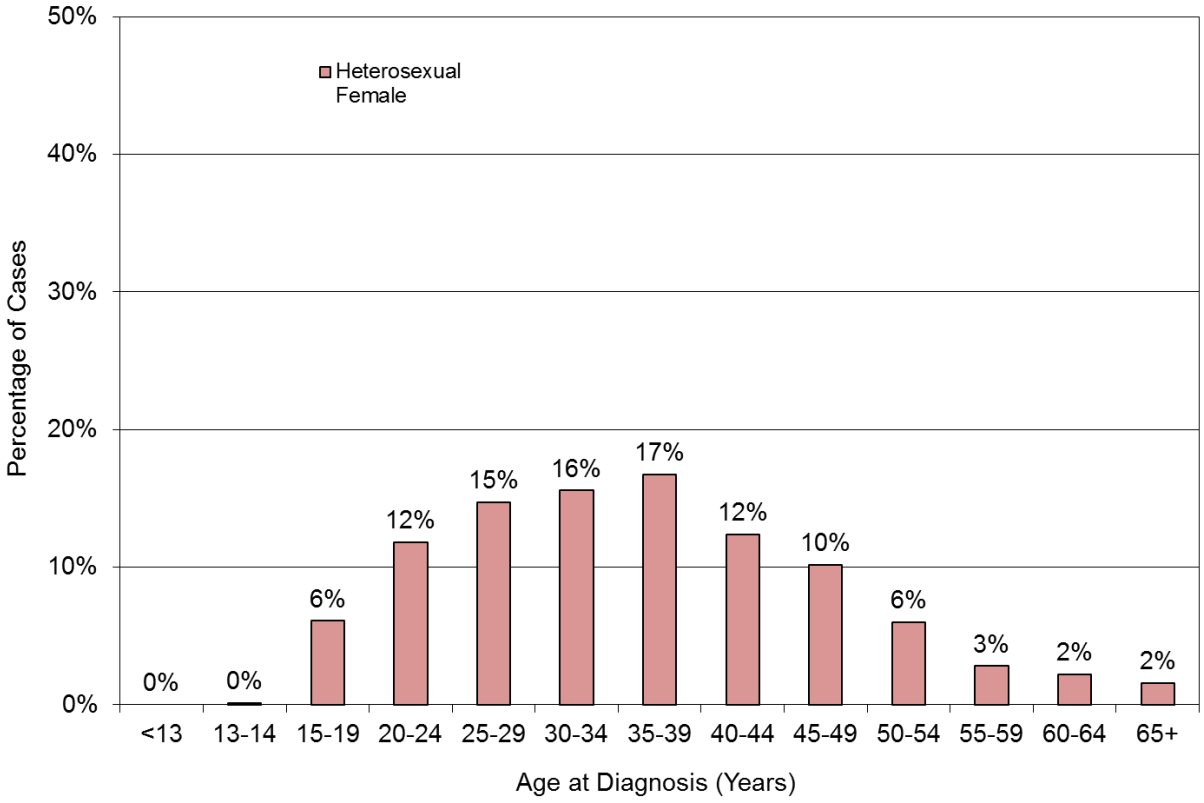


Figure 23: Delaware female HIV/Stage 3 (AIDS) attributable to heterosexual contact, by race, 1981-2015 (N=1,035)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Figure 24: Delaware female HIV/Stage 3 (AIDS) attributable to heterosexual contact, by age at diagnosis, 1981-2015 (N=1,035)



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

Table 14: Delaware female HIV/Stage 3 (AIDS) attributable to heterosexual contact, by race and age, 1981-2015 (N=1,035)*

	1981 - 2015 N (%)
Total Cases	1,035
Race	
Caucasian	192 (19%)
African-American	773 (75%)
Hispanic/Other	70 (7%)
Age Group (Years at Diagnosis)	
<13	0 (0%)
13-14	1 (<1%)
15-19	63 (6%)
20-24	122 (12%)
25-29	152 (15%)
30-34	161 (16%)
35-39	173 (17%)
40-44	128 (12%)
45-49	105 (10%)
50-54	62 (6%)
55-59	29 (3%)
60-64	23 (2%)
65+	16 (2%)

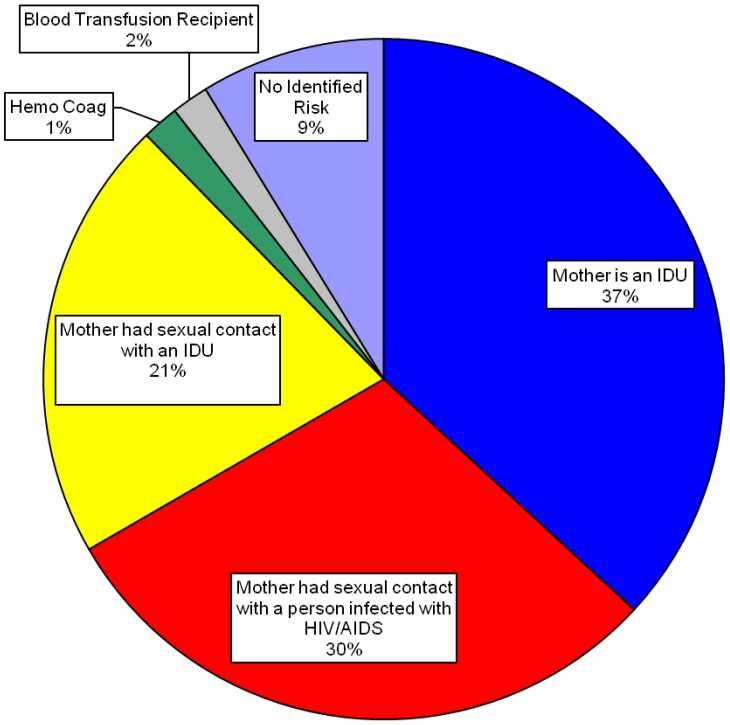
Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)
***Due to low annual numbers this table is limited to cumulative figures for this category**

4. Pediatric HIV/AIDS Cases in Delaware

Perinatal exposure accounts for nearly 90% of pediatric HIV/stage 3 (AIDS) cases ever diagnosed in the state. Thirty-seven percent of the mothers were IDUs; 30% had sexual contact with a person infected with HIV/stage 3 (AIDS); and 21% had sexual contact with an IDU. Three percent of pediatric cases contracted the disease through transfusions of blood or blood products while 9% percent had no identifiable risk.

From 1981-2015, 56 children under the age of 13 were diagnosed with HIV/stage 3 (AIDS) in Delaware of whom 13 died. African Americans accounted for 77% of the cases while Caucasians and Hispanics accounted for 16% and 7% respectively. Seventy-five percent were from New Castle County while Kent and Sussex County accounted for 15% and 10% respectively.

Figure 25: Delaware pediatric HIV/Stage 3 (AIDS) cases, by mode of transmission, 1981-2015 (N=56)

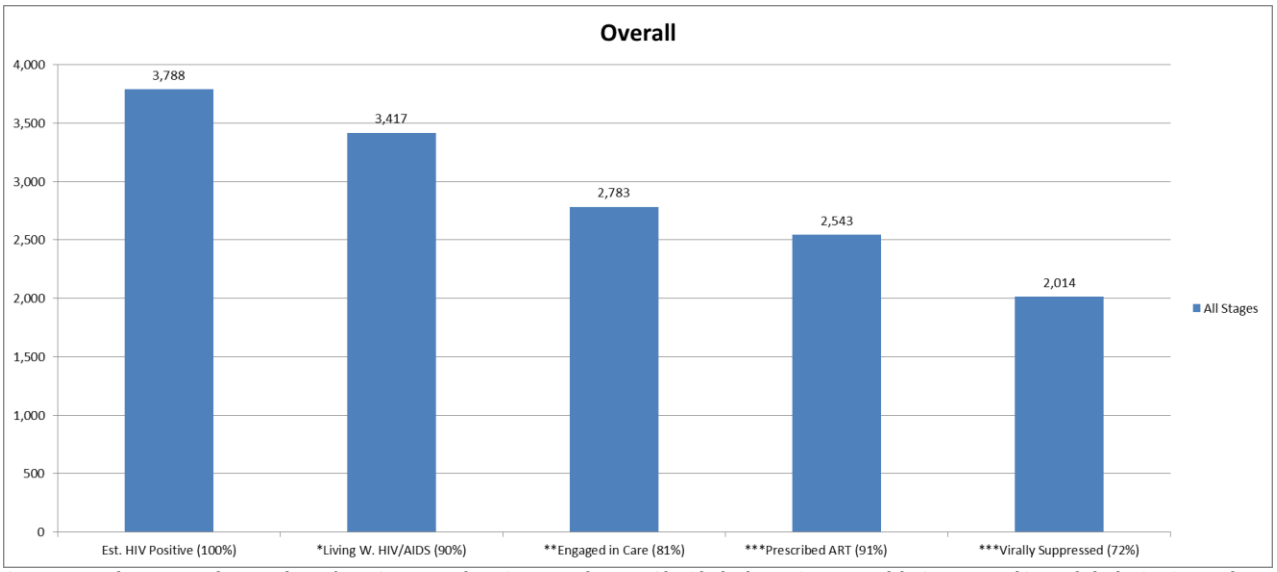


Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS)

5. Delaware HIV Care Continuum

- The Delaware HIV Care Continuum is developed from a broad spectrum of data sources. An initial "Lost to Care" assessment was completed which assembled in-care pattern data from all the major HIV care clinics in the State, from EHARS and from other minor sources such as Ryan White data and MMP data. This assessment determined that 2,783 (81%) persons were engaged in HIV related care out of 3,417 known persons living with HIV in Delaware.
- CDC provided a suite of back calculation programs that were used to estimate that 371 additional persons are living in Delaware with HIV but are not aware of their status, bringing the total estimated number of persons living in Delaware with HIV to 3,788 persons. It should be noted that only the overall display of the care continuum will show this estimate as the breakout categories contain values too low to be eligible for back calculation.
- MMP medical record abstraction data estimates that 91% (N=2,543) of those persons in care have been prescribed ARV's.
- Analysis of EHARS data and data provided by HIV care provider systems state-wide helped to determine that 72% (N=2,014) of those persons engaged in HIV care were virally suppressed (VL count <200 within the assessment period).

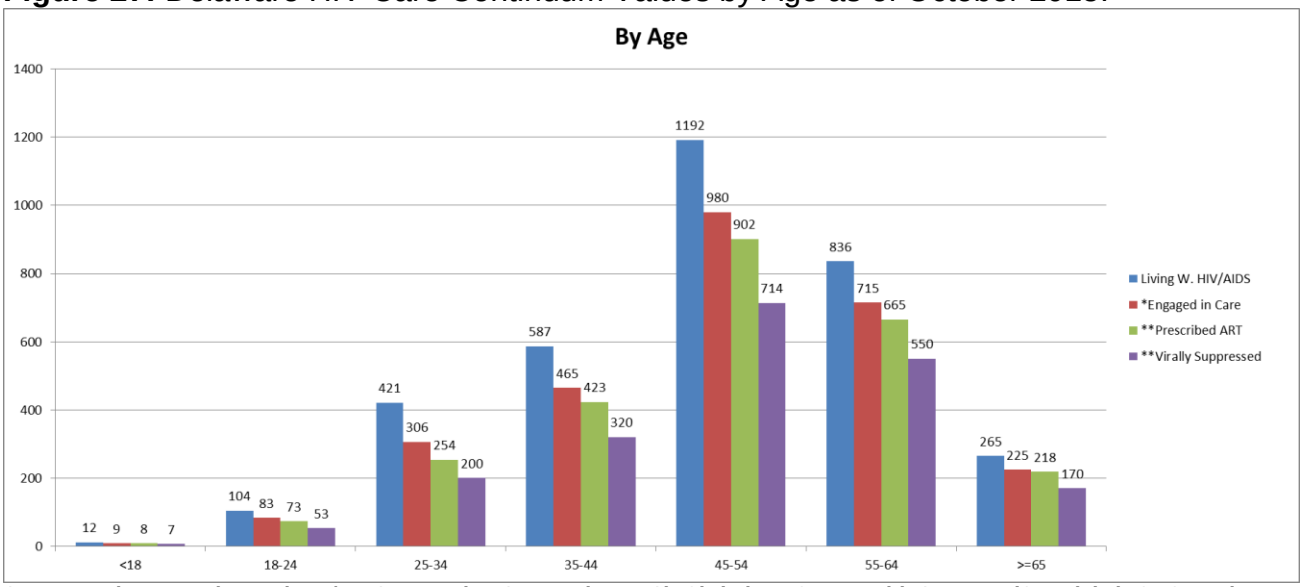
Figure 26: Overall Display of Delaware HIV Care Continuum Values as of October 2015.



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey, MMP 2009-2013 interview and medical records abstraction data.
***Percentage calculated from Est. HIV Positive **Percentage calculated from Living W. HIV/AIDS *** Percentage calculated from Engaged in Care.**

As shown in Figure 27 and Table 15, the age group 25-34 are receiving care at the lowest level at 73%. Persons 55-64 years of age are receiving the highest level of care at 86%. Persons 25-34 years of age are at the lowest level of those prescribed antiretroviral medications (ARV's) at 83% while persons 65 and older are at the highest level at 97%. Persons 18-24 years of age are at the lowest level for viral suppression at 64%, while persons 44-64 years of age are at the highest level of viral suppression at 77%.

Figure 27: Delaware HIV Care Continuum Values by Age as of October 2015.



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey, MMP 2009-2013 interview and medical records abstraction data.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care (see Table 15).**

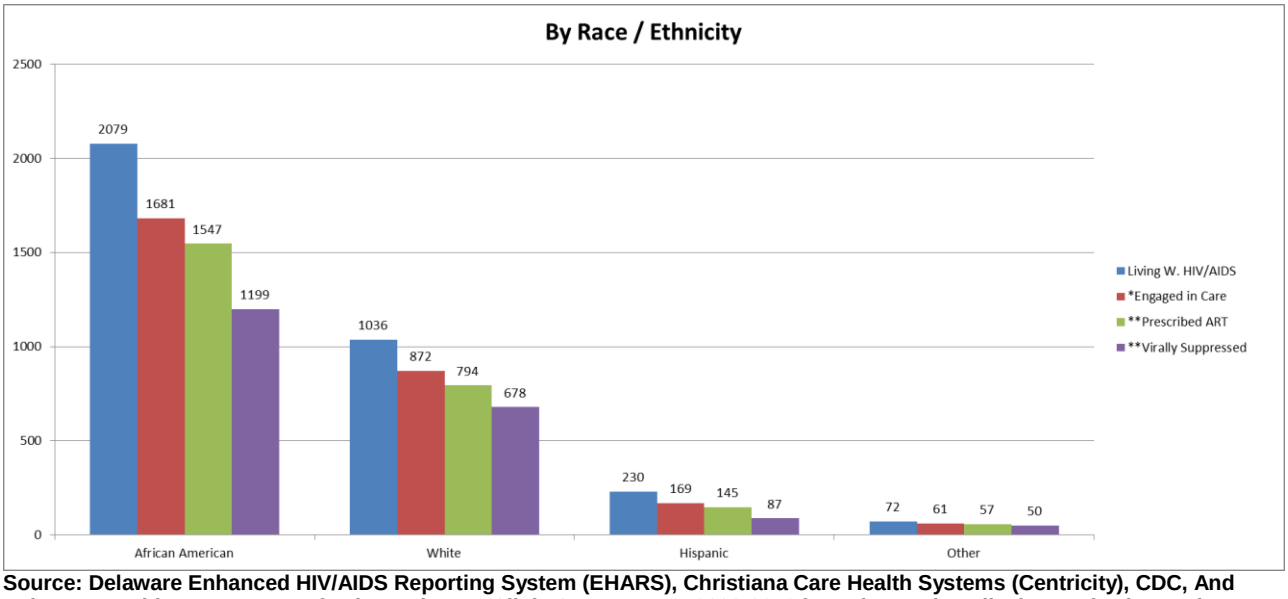
Table 15: Delaware HIV Care Continuum Values by Age as of October 2015.

Current Age	Living With HIV/AIDS	% Living With HIV/AIDS	Engaged in Care	% in Care *	Prescribed ART	% Prescribed ART **	Virally Suppressed	% Virally Supressed **
<18	12	100%	9	75%	8	91%	7	78%
18-24	104	100%	83	80%	73	88%	53	64%
25-34	421	100%	306	73%	254	83%	200	65%
35-44	587	100%	465	79%	423	91%	320	69%
45-54	1192	100%	980	82%	902	92%	714	73%
55-64	836	100%	715	86%	665	93%	550	77%
>=65	265	100%	225	85%	218	97%	170	76%
Total	3417	100%	2783	81%	2543	91%	2014	72%

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey, MMP 2009-2013 interview and medical records abstraction data.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care.**

As shown in Figure 28 and Table 16, Hispanics are receiving the lowest level of care at 73% while African American and Whites are at 81% and 84% respectively. Hispanics are at the lowest level of those precribed antiretroviral medications at 86% while African Americans represent the high level of identified persons prescribed ARV's at 92%. Hispanics are also at the lowest level for viral suppression at 51% while African Americans and Whites are at 71% and 78%, repesctively.

Figure 28: Delaware HIV Care Continuum Values by Race/Ethnicity as of October 2015.



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey, MMP 2009-2013 interview and medical records abstraction data.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care (see Table 16).**

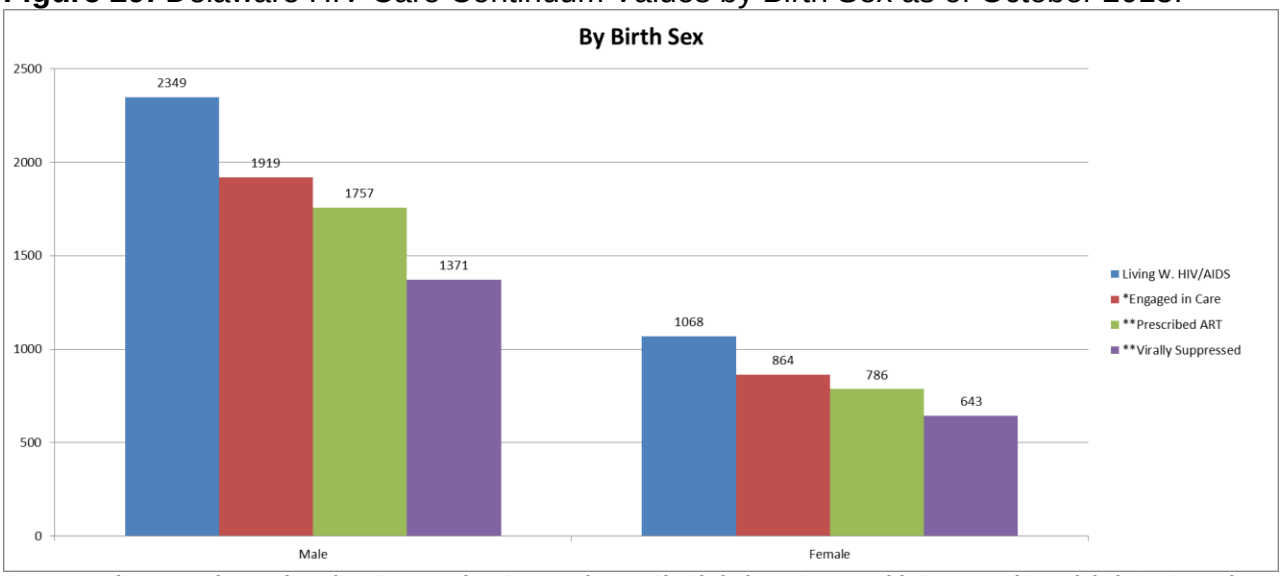
Table 16: Delaware HIV Care Continuum Values by Race/Ethnicity as of October 2015.

Race/Ethnicity	Living With HIV/AIDS	% Living With HIV/AIDS	Engaged in Care	% in Care *	Prescribed ART	% Prescribed ART **	Virally Suppressed	% Virally Supressed **
African American	2079	100%	1681	81%	1547	92%	1199	71%
White	1036	100%	872	84%	794	91%	678	78%
Hispanic	230	100%	169	73%	145	86%	87	51%
Other	72	100%	61	85%	57	94%	50	82%
Total	3417	100%	2783	81%	2543	91%	2014	72%

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care.**

As Shown in Figure 29 and Table 17, males and females are receiving care and are prescribed ARV's at a nearly identical rate. Males are virally suppressed at a slightly lower percentage than females, 71% and 74%, respectively.

Figure 29: Delaware HIV Care Continuum Values by Birth Sex as of October 2015.



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey, MMP 2009-2013 interview and medical records abstraction data.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care (see Table 17).**

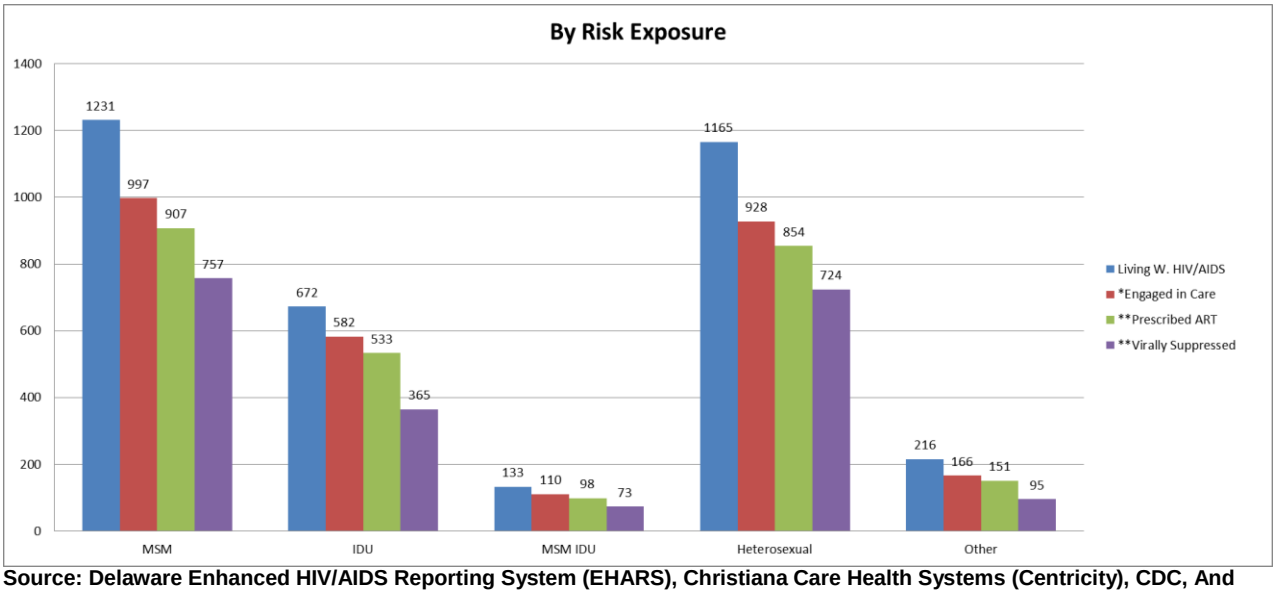
Table 17: Delaware HIV Care Continuum Values by Birth Sex as of October 2015.

Birth Sex	Living With HIV/AIDS	% Living With HIV/AIDS	Engaged in Care	% in Care *	Prescribed ART	% Prescribed ART **	Virally Suppressed	% Virally Supressed **
Male	2349	100%	1919	82%	1757	92%	1371	71%
Female	1068	100%	864	81%	786	91%	643	74%
Total	3417	100%	2783	81%	2543	91%	2014	72%

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care.**

As shown in Figure 30 and Table 18, MSM's and Heterosexual risk groups are receiving care at a nearly identical rate, 81% and 80% respectively. IDU's are receiving care at a slightly increased level at 87%. ARV's are being prescribed among all the risk groups at a comparable rate with only MSM-IDU being slightly lower at 89%. IDU's are experiencing the lowest level of viral suppression at 63% while MSM's and Heterosexuals are at 76% and 78% respectively.

Figure 30: Delaware HIV Care Continuum Values by Risk Exposure as of October 2015.



Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care (see Table 18).**

Table 18: Delaware HIV Care Continuum Values by Risk Exposure as of October 2015.

Risk Group	Living With HIV/AIDS	% Living With HIV/AIDS	Engaged in Care	% in Care *	Prescribed ART	% Prescribed ART **	Virally Suppressed	% Virally Supressed **
MSM	1231	100%	997	81%	907	91%	757	76%
IDU	672	100%	582	87%	533	92%	365	63%
MSM IDU	133	100%	110	83%	98	89%	73	66%
Heterosexual	1165	100%	928	80%	854	92%	724	78%
Other	216	100%	166	77%	151	91%	95	57%
Total	3417	100%	2783	81%	2543	91%	2014	72%

Source: Delaware Enhanced HIV/AIDS Reporting System (EHARS), Christiana Care Health Systems (Centricity), CDC, And Delaware Health Department Infectious Disease Clinic Survey.
***Percentage calculated from Living W. HIV/AIDS ** Percentage calculated from Engaged in Care.**

6. HIV Counseling and Testing in Delaware

There were 19,919 Delawareans who received HIV testing services through the state's 83 testing and counseling sites from 2014 through 2015. Of those, 55 (0.35%) were tested HIV positive. Females accounted for 48% of testing services performed and 12 (22%) new positive tests during this period.

Fifty-one percent of those receiving HIV testing services were African American, while Caucasians accounted for 36%. The proportions of HIV positive were 58% and 31% respectively.

Those 20-29 years of age were most likely to seek testing services. This age group accounted for 42% of all those receiving these services and 29% of all new positive tests.

Those at risk of infection through heterosexual contact comprised the largest group seeking testing services though less than 1% tested positive. Heterosexual contact accounted for 51% of all new HIV cases diagnosed through Delaware Public Health funded sites from 2014-2015.

Thirteen percent of all those receiving HIV testing services did not specify a transmission risk factor.

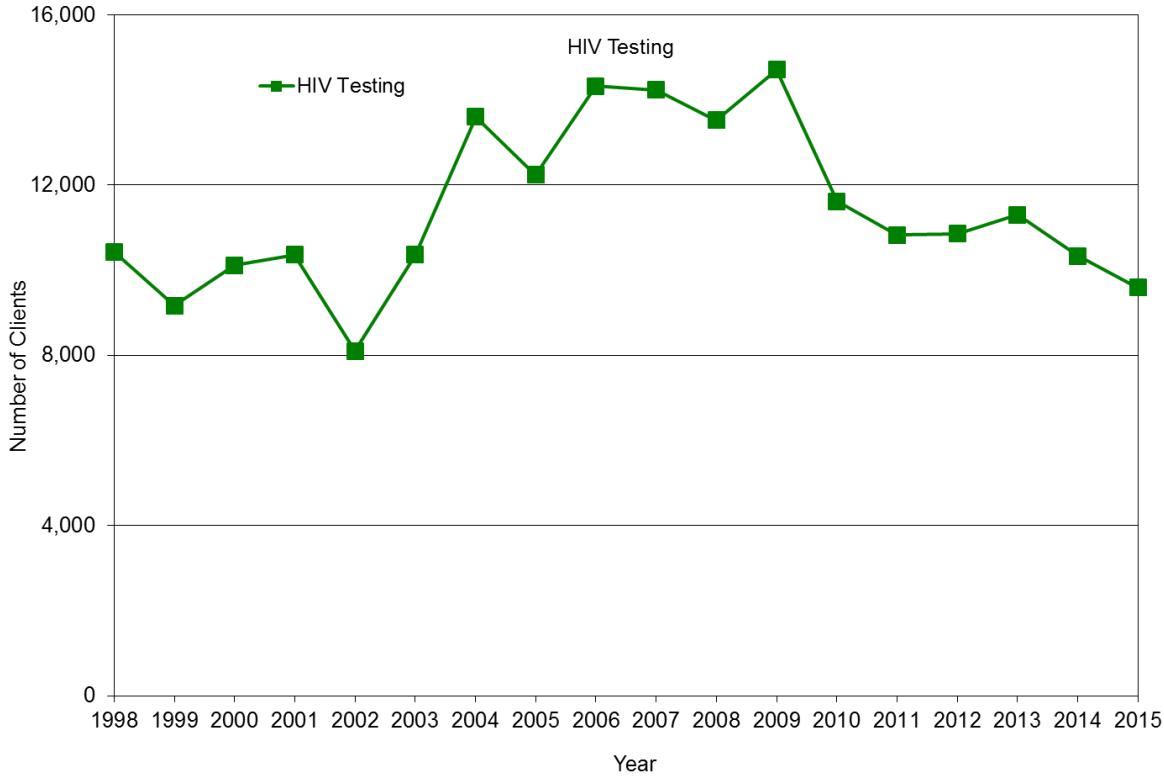
Table 19: Utilization of State HIV testing services in Delaware, 2014 - 2015

	HIV Tests Performed in Delaware (N)	HIV Test Performed (%)	Positive HIV Tests (N)	Positive HIV Tests (%)
Total	**19,919**	**100%**	**55**	***0.28%**
Gender				
Male	10,381	52%	43	78.18%
Female	9,531	48%	12	21.82%
Not specified	7	0%	0	0.00%
Race/Ethnicity				
Caucasian	7,231	36%	17	30.91%
African-American	10,096	51%	32	58.18%
Hispanic	2,014	10%	5	9.09%
Asian/Native Hawiian Pacific Islander	228	1%	0	0.00%
Am Indian/AK Native	42	0%	0	0.00%
Other / Not Specified	308	2%	1	1.82%
Age Groups (Years)				
<13	3	0%	0	0.00%
13 – 19	2,316	12%	3	5.45%
20 – 29	8,374	42%	16	29.09%
30 – 39	4,401	22%	15	27.27%
40 – 49	2,360	12%	8	14.55%
50+	2,465	12%	5	9.09%
Transmission Risk Category				
Heterosexual Transmission	15,494	78%	28	50.91%
MSM	2,336	12%	24	43.64%
IDU	1,479	7%	5	9.09%
MSM/IDU	29	0%	0	0.00%
Other	581	3%	7	12.73%

Source: Delaware HIV Counseling and Testing System

In 1998, 10,428 individuals were tested. By 2009, this figure had increased 38% (N=14,407). Testing in the past six years has decreased moderately due to significant federal budget reductions for HIV prevention.

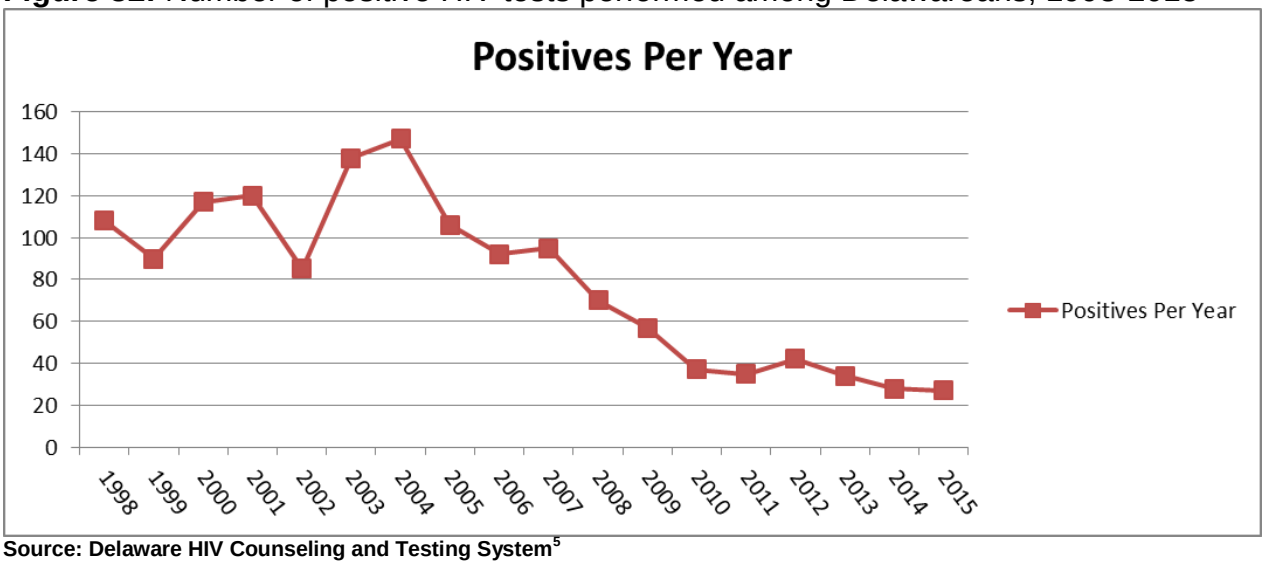
Figure 31: Utilization of State HIV testing services in Delaware, 1998-2015



Source: Delaware HIV Counseling and Testing System[5]

Figure 32 shows the number of positive HIV tests among Delawareans since 1998. The number of positive tests peaked from 2003 - 2004 and has trended downward since. All relevant data suggest successful outcomes for Delaware's prevention efforts across nearly all risk groups.

Figure 32: Number of positive HIV tests performed among Delawareans, 1998-2015



Source: Delaware HIV Counseling and Testing System[5]

7. Utilization Patterns of HIV Services among Delawareans

The Division of Public Health relies on data compiled by the Health Resources and Service Administration (HRSA) to determine utilization patterns of HIV Services across the state.

Delaware grantees receiving federal funds submit data to HRSA for national-level HIV/AIDS surveillance. The Ryan White (RW) HIV/AIDS Program is one such program. The program serves to improve the quality, availability, access and coordination of healthcare and support services for individuals and families affected by HIV/stage 3 (AIDS). RW funding also facilitates access to recommended pharmaceuticals via the AIDS Drug Assistance Program (ADAP).

Between 2014 and 2015, 1,574 clients received services funded through the Ryan White program. Table 20 compares the demographic characteristics of HIV clients receiving services through RW from 2014 – 2015, to that of living HIV/stage 3 (AIDS) cases in Delaware.

Table 20: Demographic characteristics of clients receiving services through RW from 2014 - 2015 compared to Delaware living HIV/stage 3 (AIDS) cases.

Demographics	Ryan White 2014-2015 N (%)	Living HIV/Stage 3 (AIDS) Through 2015 N (%)
Total	**1,574 (100%)**	**3,449 (100%)**
Ethnicity		
Hispanic or Latino Origin	86 (5%)	241 (7%)
Non-Hispanic	1,488 (95%)	3,208 (93%)
Unknown/Unreported Ethnicity	0 (0%)	0 (0%)
Race – (Non Hispanic)		
Caucasian (Non-Hispanic)	462 (29%)	1,057 (33%)
African American (Non-Hispanic)	1,004 (64%)	2,075 (65%)
Other*	21 (1%)	76 (2%)
Unknown/Unreported Race	1 (<1%)	0 (0%)
Gender		
Male	1,017 (65%)	2,383 (69%)
Female	550 (35%)	1,066 (31%)
Unknown/Transgender	7 (<1%)	0 (0%)
Current Age (Years)		
Less than 13 years	1 (<1%)	4 (<1%)
13 - 19	1 (<1%)	17 (<1%)
20 - 29	104 (6%)	293 (9%)
30 - 39	190 (12%)	484 (14%)
40 - 49	384 (24%)	808 (23%)
50+	894 (57%)	1,839 (53%)
Unknown/Unreported	0 (0%)	0 (0%)

Source: Ryan White Data Reports/EHARS
***Other includes Asian, American Indian, and Multi-racial**

Table 21: Demographic characteristics of clients served by the AIDS Drug Assistance Program (ADAP) in 2014-2015 compared to living Delaware HIV/stage 3 (AIDS) reported cases.

Client Characteristics	ADAP 2014-2015 N (%)	Living with HIV/Stage 3 (AIDS) Through 2015 N (%)
Total	**1,552 (100%)**	**3,449 (100%)**
Gender		
Male	994 (64%)	2,383 (69%)
Female	557 (36%)	1,066 (31%)
Unknown/Trans	6 (<1%)	0 (0%)
Ethnicity		
Hispanic/Latino	108 (7%)	241 (7%)
Non-Hispanic or Latino	1,444 (93%)	3,208 (93%)
Race		
Caucasian	448 (29%)	1,057 (33%)
African American	984 (63%)	2,075 (65%)
Other	12 (<1%)	76 (2%)
Current Age (Years)		
0-19	1 (<1%)	21 (1%)
20-29	124 (8%)	293 (9%)
30-39	221 (14%)	484 (14%)
40-49	387 (25%)	808 (23%)
50+	819 (53%)	1,839 (53%)

Source: Ryan White Data Reports, Delaware Evaluation HIV/AIDS Reporting System (EHARS)

Ryan White funding is awarded to the following three provider types in Delaware:

1. **Hospital-Based Clinics**
    a. A.I. DuPont Hospital for Children
    b. Infectious Disease Wellness Clinics (IDWC) jointly sponsored by Christiana Care Health Services and DPH
        i. Wilmington Hospital Annex
        ii. Porter State Service Center
        iii. Kent Wellness
        iv. Sussex Wellness
        v. HIV Program at Lancaster
2. **Community-Based Organizations (CBOs)**
    a. AIDS Delaware
    b. Beautiful Gate Outreach Center
    c. Case Management Services
    d. Central Delaware Committee on Drug and Alcohol Abuse Inc
    e. Delaware HIV Consortium
    f. Ministry of Caring
    g. Generations Home Care

3. Delaware Division of Public Health (DPH)

Below is a list of services covered by Ryan White funding (in parentheses is the number of Delawareans who accessed the particular service from 2014-2015.

- Health education and case management services (1,071)
- Dental services (1,024)
- Direct State Services including eye exams, and eye glasses (602)
- Emergency financial assistance (323)
- Transportation services (124)
- Housing assistance services (142)
- Health insurance services (79)
- Mental health and nutritional counseling (1)

The Christiana Care Health Services HIV Program Infectious Disease Wellness Clinics (IDWCs) serve as the main treatment locations for most Delawareans living with HIV and Stage 3 (AIDS) (50% in 2015).

In 2015, 1,667 Delawareans with HIV/AIDS accessed services with the Christiana Care HIV Program and 94% of them received ART. Eighty-two percent have undetectable HIV viral RNA levels. IDWCs also perform other important wellness services including screenings and treatment for Tuberculosis, sexually transmitted infection, and Hepatitis C as well as providing gynecological/obstetric care. The “lost to follow-up” rate for the IDWC’s is 2%, (well below national average) and the mortality rate was 0.8% in 2015.

In 2015, 552 women with HIV/AIDS accessed services at the IDWCs. Of these, 14 were pregnant. All pregnant women received anti-retroviral medication. As of December 31, 2015, none of the 11 infants born were HIV-positive.

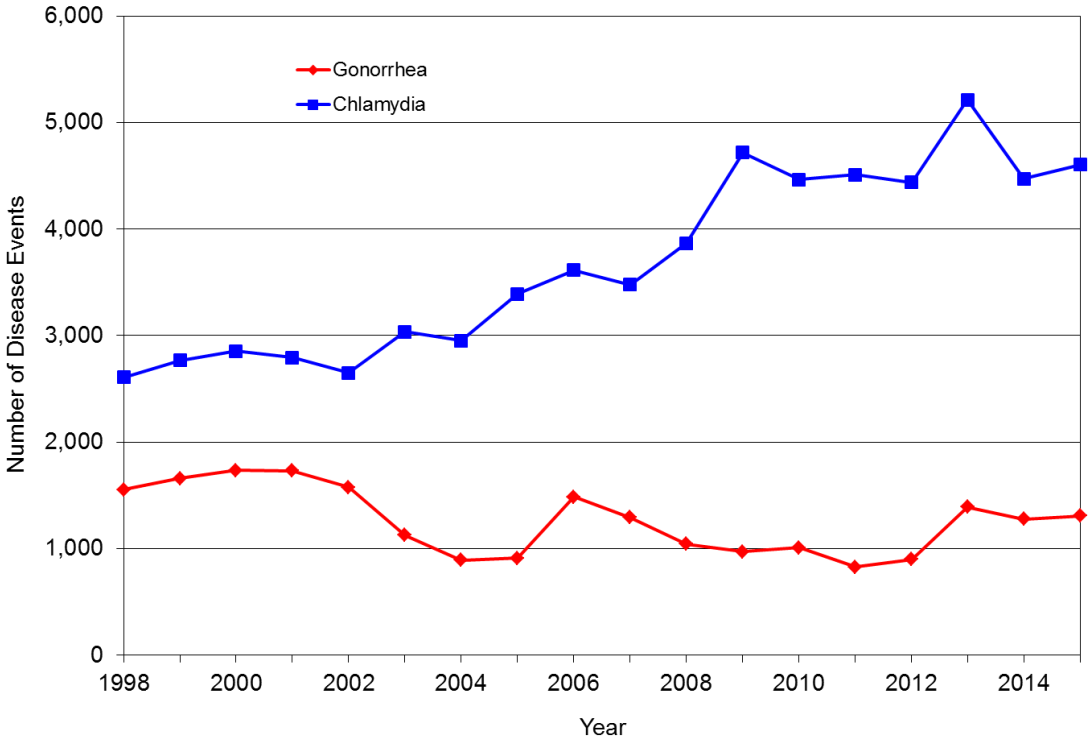
8. Sexually Transmitted Diseases (STDs) among Delawareans

Concurrent sexually transmitted disease (STD) data are helpful for identifying populations at increased risk for transmission of the HIV virus since the virus can also be transmitted through unprotected sexual contact. Furthermore, the presence of an STD can facilitate HIV transmission.

Data on STIs are reported to DPH by STD clinics, private physician offices, correctional facilities, and laboratories. Recurrent STIs in one individual may reflect re-infection or treatment failure. Therefore, the total STI count may be greater than the total number of individuals diagnosed.

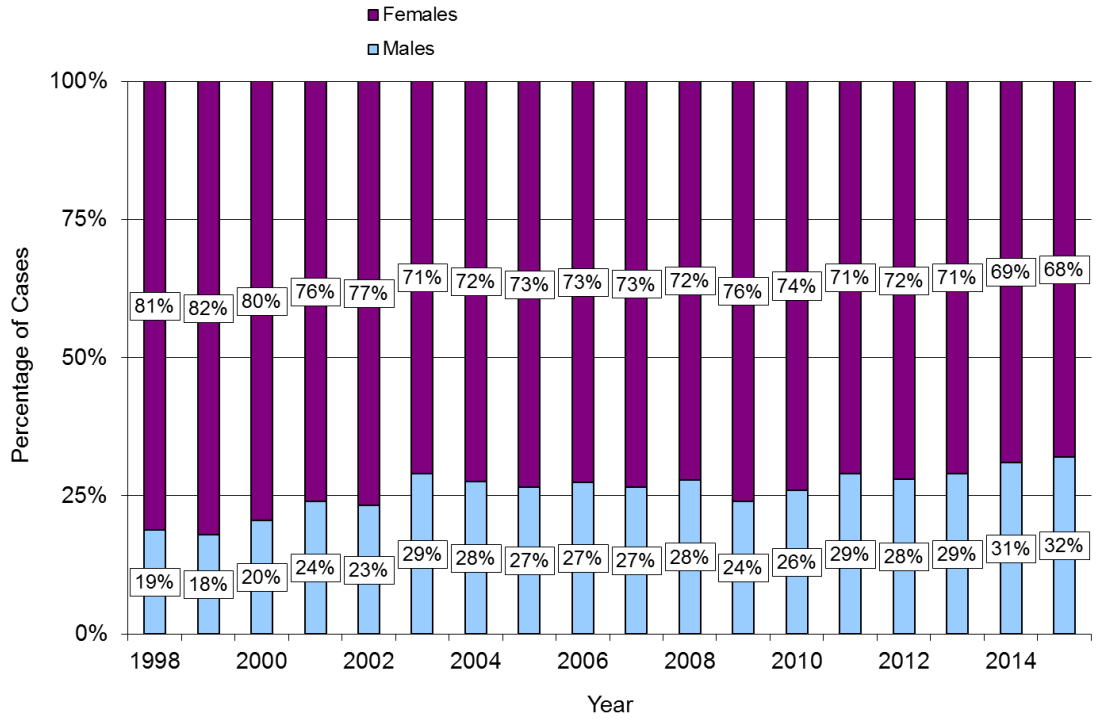
While incidence of gonorrhea in Delaware has declined in recent years, chlamydia has increased (Figure 33). In 1998, 2,608 cases of chlamydia were diagnosed. In 2015, this number had increased to 4,604 and had peaked in 2013 at 5,213. As shown in Figure 34, females accounted for the majority of chlamydia cases. Figure 35 shows the (upward) trend of syphilis infections from 1998-2015.

Figure 33: Annual cases of Chlamydia and Gonorrhea among Delawareans, 1998-2015



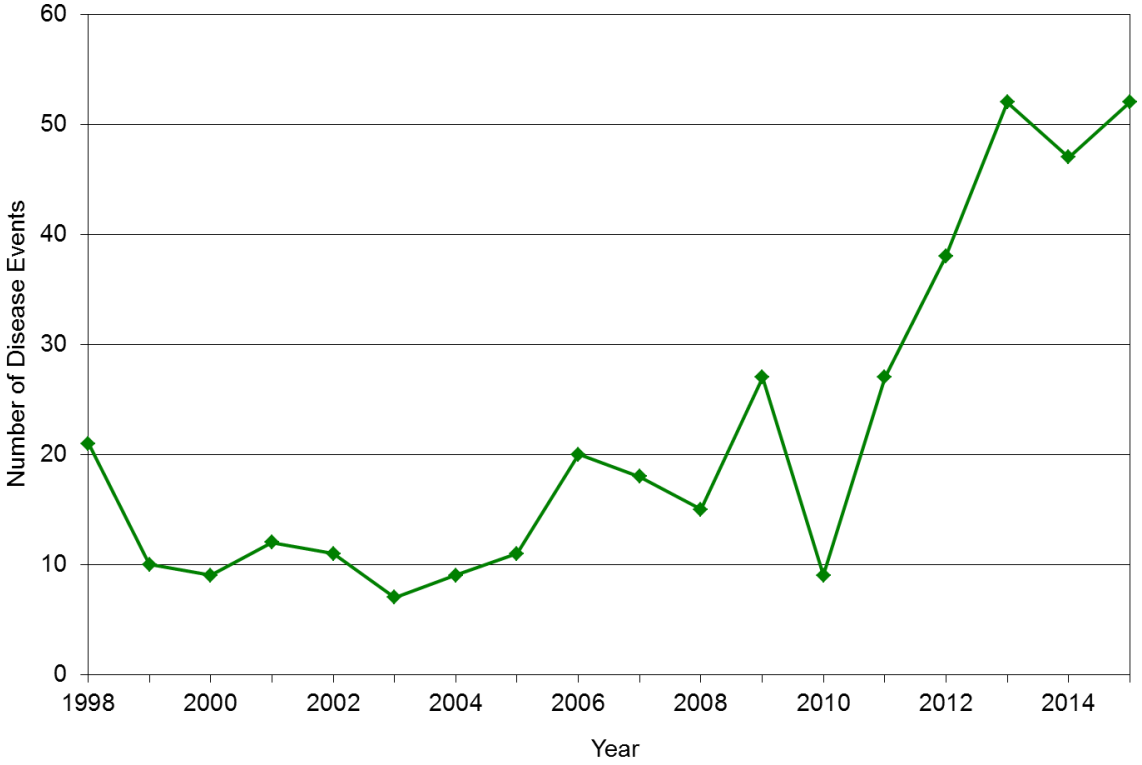
Source: Delaware Sexually Transmitted Infection and Disease Reports

Figure 34: Chlamydia cases among Delawareans, by gender, 1998-2015



Source: Delaware Sexually Transmitted Infection and Disease Reports

Figure 35: Primary and Secondary Syphilis among Delawareans, 1998-2015



Source: Delaware Sexually Transmitted Infection and Disease Reports

9. Risk Factors among Delaware Youth

The Youth Risk Behavior Survey (YRBS) is a CDC-sponsored survey used to identify behavioral trends among high school students (*e.g.*, nutrition, substance use, accidents, sex, and delinquency).

YRBS uses self-administered, anonymous questionnaires to collect data from high school students. The Delaware Division of Public Health, in cooperation with the University of Delaware Center for Drug and Health Studies, administers the Delaware YRBS which is representative of Delaware public school students in grades 9-12.

Alcohol Use

- 58.8% had at least one drink of alcohol in their lifetime
- 15.3% had their first drink of alcohol before age 13
- 31.4% had at least one drink of alcohol on one or more of the past 30 days
- 14.8% had five or more drinks of alcohol in a row at least once in the past 30 days

Other Drug Use

- 41.5% used marijuana at least once in their lifetime
- 7.8% tried marijuana for the first time before age 13
- 23.3% used marijuana one or more times during the past 30 days
- 4.4% used one or more forms of cocaine at least once in their lifetime
- 3.2% sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high at least once in their lifetime
- 2.6% used heroin at least once in their lifetime
- 2.7% used methamphetamines at least once in their lifetime
- 4.7% used ecstasy at least once in their lifetime
- 2.4% used a needle to inject any illegal drug into their body at least once in their lifetime
- 15.6% were offered, sold, or given an illegal drug on school property by someone during the past 12 months

Sexual Behaviors

- 46.8% had sexual intercourse at least once in their lifetime
- 12.9% had sexual intercourse with four or more people during their lifetime
- 33.5% had sexual intercourse with one or more people during the past three months
- 68.6% said they would know where to have an HIV test if they wanted one

Of students who had sexual intercourse during the past three months:

- 22.8% drank alcohol or used drugs during last sexual intercourse
- 57% used a condom during last sexual intercourse
- 18% used birth control pills during last sexual intercourse

10. Delaware MMP Data, 2009-2013 Patient Interviews

The Medical Monitoring Project (MMP)

- MMP is an ongoing population-based surveillance system to assess clinical outcomes and behaviors of HIV-infected adults receiving care in the U.S.
- MMP is conducted in 17 states and 6 cities by local and state public health departments in collaboration with the Centers for Disease Control and Prevention (CDC).
- Delaware currently has 15 participating infectious disease clinics statewide.
- There were 1,082 clients who were interviewed between 2009 and 2013.

Type of Patient Demographic Information collected

Table 22: Delaware MMP: clients by race and gender (N=1,082)

	Male (N=691) N (%)	Female (N=391) N (%)	Total (N=1,082) N (%)
White, non-Hispanic	194 (28%)	61 (16%)	255 (24%)
Black, non-Hispanic	436 (64%)	306 (77%)	742 (68%)
Hispanic	30 (4%)	14 (4%)	44 (4%)
Other	31 (4%)	10 (3%)	41 (4%)

"Other" racial group includes: American-Indian, Multiracial, etc...
Source: Delaware 2009-20013 MMP Program Stacked Dataset

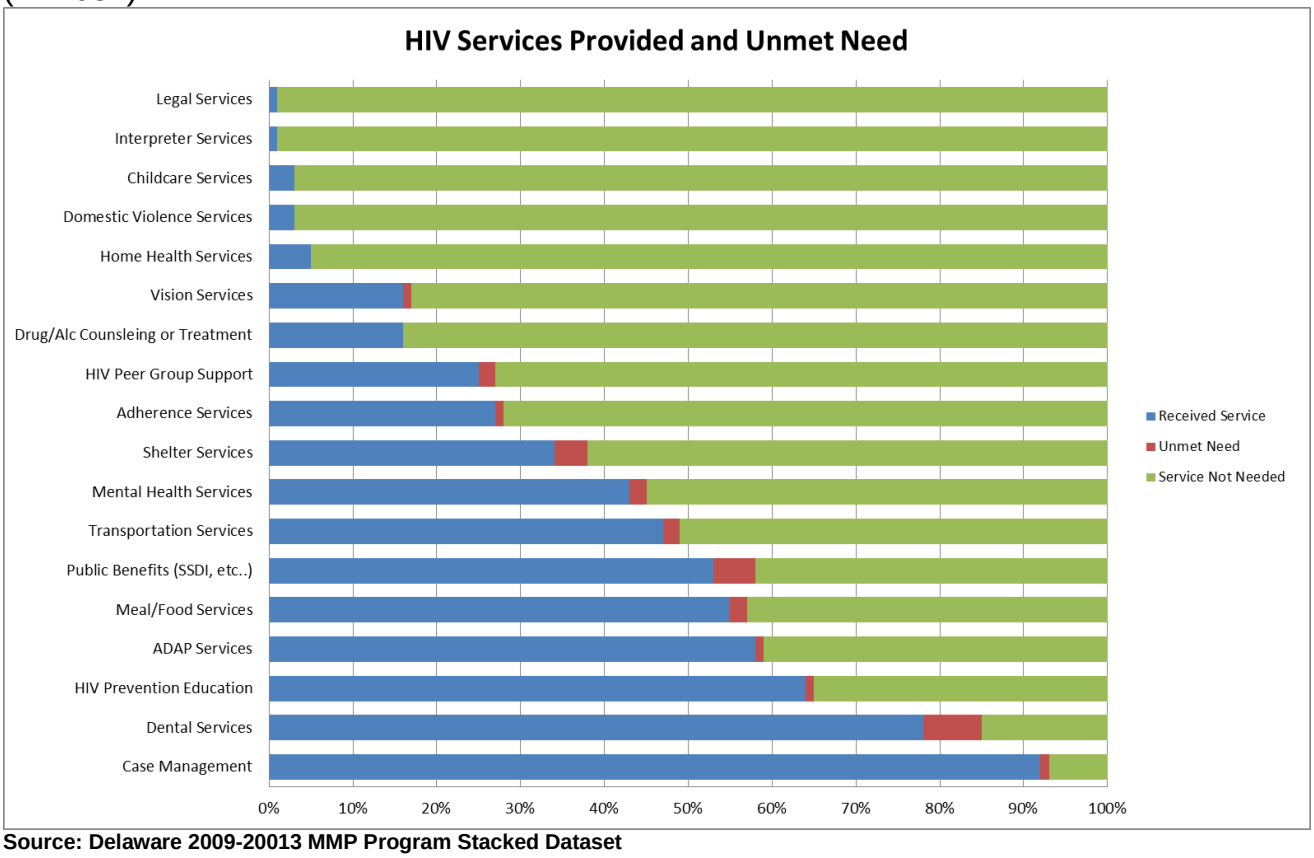
Table 23: Delaware MMP: clients age at time of interview by gender (N=1,082)

	Male (N=691) N (%)	Female (N=391) N (%)	Total (N=1,082) N (%)
18-24	11 (2%)	9 (2%)	20 (2%)
25-34	62 (9%)	44 (11%)	106 (10%)
35-44	133 (19%)	89 (23%)	222 (21%)
45-54	330 (48%)	159 (41%)	489 (45%)
55+	155 (22%)	90 (23%)	245 (23%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Met and Unmet Service Needs, Delaware, 2009-2013

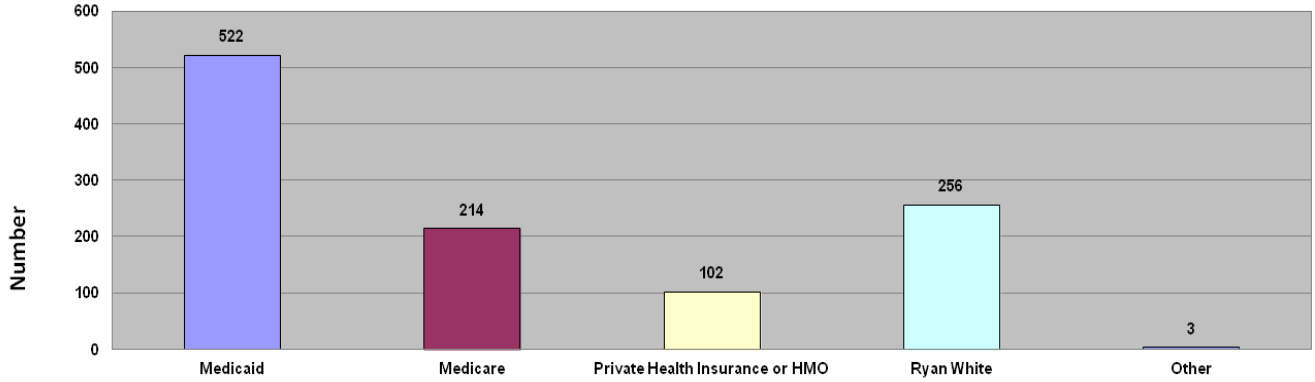
Figure 36: Delaware MMP: Client services provided and unmet need of services. (N=1082)



Source: Delaware 2009-20013 MMP Program Stacked Dataset

Medical Coverage in the Last 12 Months

Figure 37: Delaware MMP: clients with health insurance within 12 months of the interview. (N=1082)



Source: Delaware 2009-20013 MMP Program Stacked Dataset
***Categories are not mutually exclusive**

Clinical Outcomes

Table 24: Delaware MMP: interval from HIV diagnosis to entry into care (N=187)

	Male (N=127) No. (%)	Female (N=60) No. (%)	Total (N=187) No. (%)
Less than or equal to 3 months	115 (89%)	59 (98%)	174 (88%)
Between 3 and 12 months	9 (7%)	0 (5%)	9 (3%)
Greater than 12 months	3 (2%)	1 (2%)	4 (9%)

Note: This question only applied to those persons diagnosed <= 5 years from interview date
Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 25: Delaware MMP: Prescribed antiretroviral therapy in the last 12 months (N=805)

	Male (N=559) No. (%)	Female (N=317) No. (%)	Total (N=876) No. (%)
No	43 (8%)	28 (9%)	71 (9%)
Yes	516 (92%)	289 (91%)	805 (91%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Sexual Behavior

Table 26: Delaware MMP: Number of sexual partners* in the last 12 months

	MSM (N=212) No. (%)	MSW (N=256) No. (%)	WSM (N=237) No. (%)
One	131 (62%)	204 (80%)	209 (88%)
Two or more	81 (38%)	50 (20%)	28 (12%)

***MSM, MSW, WSW; these categories may not be mutually exclusive categories**
Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 27: Delaware MMP: Reported oral, vaginal or anal sex with at least one partner in the last 12 months

	MSM (N=681) No. (%)	MSW (N=683) No. (%)	WSM (N=389) No. (%)
No	468 (69%)	422 (62%)	150 (39%)
Yes	213 (31%)	261 (38%)	239 (61%)

***MSM, MSW, WSW; these categories may not be mutually exclusive categories**
Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 28: Sexual Risk Behaviors, All Categories (N=1082)

	Male (N=691) No (%)	Female (N=391) No (%)
No oral, vaginal or anal sex	215 (31%)	142 (36%)
Oral sex only	45 (7%)	16 (4%)
Sexually active, *WSW sex only	0 (0%)	8 (2%)
Sexually active, risk behavior unknown	16 (2%)	4 (1%)
Protected vaginal or anal sex only	264 (38%)	139 (36%)
Unprotected vaginal or anal sex, partner status unknown	1 (<1%)	0 (0%)
Unprotected vaginal or anal sex only with HIV-infected partners	59 (9%)	31 (8%)
Unprotected vaginal or anal sex with at least one HIV negative or unknown status partner	87 (13%)	49 (13%)
Unknown	4 (1%)	2 (1%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset * Women having Sex With Women

Substance Use

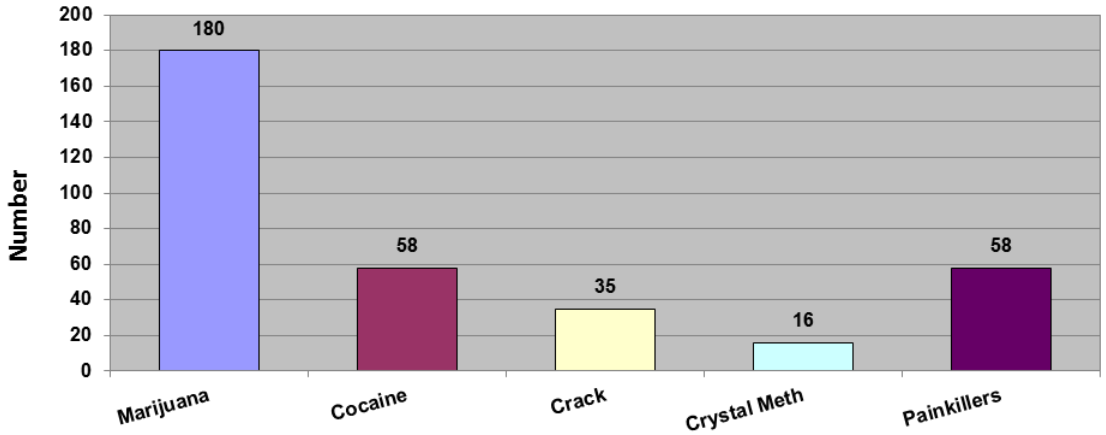
Only seven respondents reported using injectable drugs in the last 12 months.

Table 29: Delaware MMP: Non-injection drug use in the last 12 months, (N=1081).

	Male (N=690) N (%)	Female (N=391) No (%)	Total (N=218) No. (%)
No	531 (77%)	306 (78%)	837 (77%)
Yes	159 (23%)	85 (22%)	244 (23%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Figure 38: Delaware MMP: Top five non-injection drugs, excluding alcohol. (N=347)



Source: Delaware 2009-20013 MMP Program Stacked Dataset

Stigma – 2012 and 2013 Only (Tables 30 a- f)

These questions were posed to interviewees to determine the degree to which people living with HIV experience these negative feelings.

Table 30(a): It is difficult to tell people about my HIV infection (N=399)

	Male (N=254) No. (%)	Female (N=145) No. (%)	Total (N=399) No. (%)
Yes	144 (57%)	94 (65%)	238 (60%)
No	110 (43%)	51 (35%)	161 (40%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 30(b): Being HIV positive makes me feel dirty (N=399)

	Male (N=254) No. (%)	Female (N=145) No. (%)	Total (N=399) No. (%)
Yes	39 (15%)	37 (26%)	76 (19%)
No	215 (85%)	108 (74%)	323 (81%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 30(c): I feel guilty that I am HIV positive (N=399)

	Male (N=254) No. (%)	Female (N=145) No. (%)	Total (N=399) No. (%)
Yes	77 (30%)	53 (37%)	130 (33%)
No	177 (70%)	92 (63%)	269 (67%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 30(d): I am ashamed that I am HIV positive (N=399)

	Male (N=254) No. (%)	Female (N=145) No. (%)	Total (N=399) No. (%)
Yes	64 (25%)	58 (40%)	122 (31%)
No	190 (75%)	87 (60%)	269 (69%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 30(e): I sometimes feel worthless because I am HIV positive (N=399)

	Male (N=254) No. (%)	Female (N=145) No. (%)	Total (N=399) No. (%)
Yes	26 (10%)	19 (13%)	45 (11%)
No	228 (90%)	126 (87%)	354 (89%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

Table 30(f): I hide my HIV status from others (N=399)

	Male (N=254) No. (%)	Female (N=145) No. (%)	Total (N=399) No. (%)
Yes	140 (55%)	87 (60%)	227 (57%)
No	114 (45%)	58 (40%)	172 (43%)

Source: Delaware 2009-20013 MMP Program Stacked Dataset

References

1. United States Census Bureau from website: http://quickfacts.census.gov/qfd/
2. HIV/AIDS Enhanced Reporting System (EHARS), HIV/AIDS Surveillance, DPH
3. Centers for Disease Control and Prevention. HIV Surveillance Report, 2014; vol. 26. http://www.cdc.gov/hiv/library/reports/surveillance/. Published November 2015.
4. Delaware Division of Public Health, Disease Prevention and Control, Counseling and Testing System Report 2015, internal document.
5. Delaware Division of Public Health, Disease Prevention and Control, HIV/STD/Hepatitis C Section, *Sexually Transmitted Disease Annual Report 2015*, internal document.
6. Delaware Department of Education, Division of Adolescent and School Health (DASH), Youth Risk Behavior Survey (YRBS), 2015 from website: http://www.udel.edu/delawaredata/Pages/level03/yrbs.htm
7. Ryan White Data Reports (RDR). Health Resource and Services Administration (HRSA), 2014 and 2015.
8. Delaware Division of Public Health. Medical Monitoring Project (MMP), 2009-2013 stacked dataset.
9. Centricity Electronic Medical Records Queries (Custom Report)

APPENDIX A
Delaware HIV/AIDS Report Feedback

The purpose of this form is to provide the HIV/AIDS Surveillance office with feedback regarding the ease of use and applicability of this report to prevention care planning activities.

Please complete this feedback form and send it to the HIV/AIDS Surveillance Office, Delaware Division of Public Health, Thomas Collins Bldg, Suite 12, Rm 203L, 540 S Dupont Hwy, Dover, DE 19901 FAX# (302)739-2550

1. Of which planning group are you a member?

☐ Delaware HIV Planning Council ☐ Formulary Committee ☐ Policy Committee

2. Was the HIV/AIDS Report easy to read?

☐ Yes ☐ No ☐ Somewhat

3. How were the findings of the HIV/AIDS Report communicated to you?

☐ Print Copy Only
☐ Profile Writers presented epidemiologic profile to planning group
☐ Other _____

4. Were the findings of the HIV/AIDS Report clear to you?

☐ Yes ☐ No ☐ Somewhat

If not, explain why.

_____

_____

5. Was the HIV/AIDS Report useful to your planning process?

☐ Yes ☐ No ☐ Somewhat

If not, explain why.

_____

_____

6. Describe how you used the HIV/AIDS Report in your planning activities.

_____

_____

7. How can the next HIV/AIDS Report be improved?

_____

_____

7a: What specific questions could be included in the next HIV/AIDS Report?

_____

_____

8. Do you want to receive the Monthly HIV/AIDS statistical report?

☐ No

☐ Yes, please send the report to me by:
Include your contact information, as appropriate

☐ Email _____
☐ Fax _____
☐ Mail _____

9. Data from this HIV/AIDS Report is helpful to me as I conduct my job.

☐ Yes ☐ No

If yes, how do you use the data?

☐ Grant writing

☐ Proposal development

☐ Resource for presentations

☐ Other, _____