









DELAWARE HEALTH AND SOCIAL SERVICES Division of Public Health Health Promotion and Disease Prevention HIV/AIDS Epidemiology Health Promotion & Disease Prevention

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Executive Summary

Description of the State of Delaware: The estimated population of Delaware for 2005 is 843,524 representing 0.3% of the United States population (296,410,404). 70% are Caucasian, 20% are African American, 6% are Hispanic and 4% are self-identified as 'other'. Delaware residents had higher incomes, a lower unemployment rate, and were more highly educated than United States residents as a whole.

Epidemiological Trends in HIV and AIDS in Delaware: By 2005, the cumulative number of AIDS cases (3,458) in Delaware represented 0.4% of all reported US cases. Delaware ranks 33rd among states in the total <u>cumulative</u> <u>number</u> of reported AIDS cases and, despite being the 2nd smallest state in the U.S., Delaware had the 7th *highest* <u>rate of new</u> AIDS cases per 100,000 population in 2005 (20.9). This is an improved standing from 5th in 2004.

<u>Gender.</u> While 49% of Delaware's population is male, 71% of those infected with HIV/AIDS and reported through 2006 are male. While most cases are still among males, the percentage of cases among females increased from 15% in 1989 to 41% in 2006. African American males and African American females represent the majority of cases reported through 2006. A particularly striking comparison can be made when looking at the national statistics. Nationally, 35% of all AIDS cases among males are African American, while in Delaware that percentage increases to 62%. African American females reflect similar disproportionate percentages. Nationally 60% of all females with AIDS are African American, while in Delaware that percentage increases to 80%.

Race/Ethnicity. The proportion of HIV/AIDS cases reported among African Americans in Delaware is disproportionately high, and the disparity is increasing. While African Americans represent only 20% of Delawareans, the percentage of new cases attributed to African Americans has increased from 44% in years 1985-1989 to 66% in years 2000-2006. Currently, over 66% of the cumulative HIV/AIDS cases in the state are among African Americans. The relative proportion of HIV cases reported since 2001 by ethnicity is very similar to the proportion of AIDS cases reported before 2001 during which 67% of the cumulative AIDS cases since 1983 and 64% of the cumulative HIV cases since 2001 were reported amongst African Americans. Hispanics represent a relatively small percentage (about 6%) of the Delaware population, and are not disproportionately represented in reported HIV/AIDS rates/cases. Within the same periods of time mentioned above, HIV/AIDS rates among Hispanics have declined from 7% to 6% of new infections. DPH contracts with local agencies to ensure complete availability of HIV counseling and testing and other services with the goal of making sure the reported rates of HIV and AIDS in this community are representative of the overall Hispanic population.

<u>Age.</u> Those aged 30-49 account for more than 70% of HIV/AIDS cases reported in Delaware through 2006, which is consistent with the US age distribution. Fewer than 3% of HIV/AIDS cases reported in Delaware and nationally are among those 60 and older. Only 1% of Delaware and U.S reported HIV/AIDS cases occur among those under age 13, defined as pediatric HIV/AIDS cases. Pediatric cases are relatively rare, but occur disproportionately among minorities. Seventy five-percent of all pediatric HIV/AIDS cases were among African Americans.

<u>Mortality.</u> AIDS cases have been monitored since 1981 and, until the mid-1990s, the number of those who died in a given year exceeded the number of those living with AIDS. By 2006, 1,821 Delaware residents had died with AIDS. However, with the advent of highly active anti-retroviral therapy (HAART), the number of Delaware residents living with AIDS has increased by 256%, from 550 cases in 1996 to 1,957 in 2006. Earlier diagnosis, better medical management of HIV, and the development of HAART led to this dramatic change. Similarly, people are living longer with HIV. In 2001, the first year HIV reporting began in Delaware, the state had 461 people living with the HIV. By 2006, 1,227 Delawareans were living with HIV and only 32 died with the disease. These numbers refer to those people with HIV or AIDS that are either presently residing in Delaware or were residing in Delaware at the time of death, and should not be confused with those people who were diagnosed in Delaware as is outlined on page 15 of this report.

<u>Geography.</u> Delaware's HIV/AIDS cases when distributed by county (excluding 198 series zip codes) closely match population distributions. Collectively, 198 series zip codes are disproportionately represented in the HIV/AIDS statistics, making up only 14% of the New Castle County population, but accounting for 67% of the County's HIV/AIDS cases. Within Delaware, the mode of transmission of HIV varies from one area of the state to another. In New Castle County, cases are largely among African American injection drug users (IDUs), while in Sussex County cases are for the most part among Caucasian men who have sex with men (MSM). It should be noted that 40% of all HIV/AIDS cases in the state occur among minorities in the 198 series zip codes.

Observations in Behavioral Risk Groups: The largest number of new Delaware HIV/AIDS cases for 2006 are attributed to men having sex with men (MSM) at 29% (n=66), then in descending order to heterosexual transmission (n=61) at 27%, and injection drug users (IDUs) 20% (n=46). An additional 3% are among those classified as both MSM and injection drug user (n=6). It should be noted that cases in the HIV/AIDS Reporting System (HARS) include cases that are classified as either HIV or AIDS. A client who had been initially reported as an HIV case and then progressed to AIDS will then be exclusively classified as an AIDS case.

HIV/AIDS in other populations: There are a number of populations on which adequate data to assess HIV risk are not available. These include smaller and hard-to-reach groups such as the homeless, trans-gendered, and mentally ill. There are also populations who are diagnosed through routine screening on whom we have little data (e.g., blood donors). Delaware pediatric data indicates that 19 HIV-infected women gave birth to infants in 2006. All the infants tested negative for HIV infection. While there have been less than five perinatally-infected infants in the last five years, trend data shows a decrease in perinatally-infected infants in Delaware.

Counseling and Testing Data: In 2006, less than one percent of people deciding to get tested at publicly funded counseling and testing sites in Delaware were HIV sero-positive. Of those who tested positive, 69% were males and 31% females. The racial-ethnic distribution of those with positive results are: African Americans 67%, Caucasians 20% and Hispanics 12%. Twenty six percent of positives are MSM while 21% self-reported having no risk other than a sex partner who was at risk for HIV. Heterosexual IDUs comprised 11% of the positive tests in 2006 followed closely by Heterosexual (no other risk) at 27%. An additional 15% were in smaller numbered categories.

Background and Introduction

Delaware has tracked AIDS cases since 1981 and reported AIDS Surveillance information since the mid-1980s. The Division of Public Health, Delaware Health and Social Services (DHSS) began collecting information on the HIV infected population July 10, 2001 by compiling information from health care professionals and laboratories throughout the state. The ongoing analysis of current and cumulative AIDS case reporting and of the more recent but developing HIV data is an important community and public health function of the Division of Public Health.

Data presented here are current through December 31, 2006. The Delaware HIV Planning Council, other community prevention planning groups, health educators, and health planners may use the data to help guide risk reduction and public health interventions aimed at reducing the numbers of HIV positive infected individuals in Delaware.

Methods

This Epidemiological Profile describes the distribution, trends, and impact of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) on the people of Delaware.

X HIV or Human Immunodeficiency Virus is the underlying agent that weakens the immune system in many and thus is the cause of AIDS. Except for initial viral response, HIV may not manifest itself with symptoms for some time after infection.

X AIDS or Acquired Immune Deficiency Syndrome is the stage where the symptoms of the virus have advanced to a state where a clinical diagnosis can be made by a physician. Symptoms include certain infections, cancers, and cellular changes in a person's immune system.

This profile provides information for prevention and care planning and education programs centered on HIV. It is one key but by no means the only component needed by the Delaware HIV Consortium and its Planning Council as which is used to form an ongoing comprehensive strategy to steer HIV prevention, HIV/AIDS health care planning and service efforts in Delaware. Additionally, the report is called for by the Health Resources and Services Administration (HRSA) and the Centers for Disease Control and Prevention (CDC). The compiled data will help monitor overall progress and trends, and is a factor for justifying and awarding future funding for prevention and medical/social services.

The three main focus points used to outline data in this profile are:

- 1. Socio-demographic characteristics of the State of Delaware.
- 2. Scope of the HIV/AIDS epidemic in Delaware.
- 3. Utilization of services in people with HIV in Delaware.

The data to address each point are presented in turn in the profile. Data from a variety of sources are combined, analyzed and presented in response to each of the main questions. Additional subtopics related to specific Delaware populations are also addressed. Sources for data presented include: Delaware AIDS surveillance activities, CDC national statistics on HIV/AIDS, HIV counseling and testing annual report, sexually transmitted disease (STD) data, vital statistics annual report, United States Census Bureau Quick Facts, the Youth Risk Behavior Survey (YRBS) in Delaware, and Ryan White Comprehensive AIDS Resource Emergency (CARE) Act Data Reports (CADR) from HRSA grantees. If the reader has specific questions, the State Surveillance Office can provide assistance locating appropriate data sources.

Data quality varies among the sources. An overview of the strengths and limitations of data sources is provided below. HIV/AIDS surveillance includes case reports of all known HIV sero-positive and AIDS-defined cases in Delaware. The data provided on the HIV/AIDS case reports are only as good as the information provided by the reporting source.

Data Sources - Their Strengths and Limitations

The data source for Delaware demographic information is the <u>United States</u> <u>Census Bureau</u>¹ located at <u>http://quickfacts.census.gov/qfd/</u> on the Internet. **Strengths:** Data set is complete and standardized nationwide through 2000. **Limitations:** The best data estimates are for the Census decades with estimates provided in the interim.

<u>Delaware Vital Statistics Annual Report 2004²</u> – produced by the Delaware Health Statistics Center, provides health statistical data on the morbidity and mortality of all residents of Delaware. Doctors, hospitals, and clinics in Delaware are required to report birth and death certificate data. It can be accessed at http://www.dhss.delaware.gov/dhss/dph/hp/2004.html

Strengths: Data set is complete, and it is a good source for mortality data.

Limitations: Data quality is limited to the information provided by physicians on the birth and death certificates and behavior risk data are unavailable. Many physicians do not note HIV/AIDS on death certificates. This may be due to family request, unawareness by physician of HIV status, or notation of primary cause of death only and not secondary causes or underlying disease status. Therefore, due to stigma, confidentiality concerns, failure to test for HIV infections and AIDS related diseases, death data may only reflect immediate cause of death and may not identify an underlying disease status such as HIV/AIDS. The Annual Report has also not been publicly updated since 2004. As mortality data has become

better reported in the HIV/AIDS Surveillance mechanisms described below, the Vital Statistics Report has become much less essential to HIV/AIDS reporting.

<u>HIV/AIDS Reporting System³</u> (HARS) is the software system promulgated by the CDC and used nationwide for storing HIV/AIDS data. Medical professionals throughout the state submit HIV and AIDS case report forms to the State Surveillance Office. AIDS data is the only consistently reported data across the nation, resulting in population-wide statistics in all states. HIV data, on the other hand, is only reported to the CDC from some states with approved confidential reporting procedures. Delaware began transitioning its entire data collection system to name based reporting in April 2006, completing the process in December 2006 therefore joining the ranks of confidential reporting states.

Strengths: Data set for AIDS is quite complete and provides a historical perspective on trends.

Limitations: Case report forms from medical professionals vary in completeness and timeliness. AIDS data may not represent <u>all</u> AIDS-defined individuals due to delays in reporting and noncompliance with reporting policies. HIV data does not represent all people testing positive in Delaware, as confidential results are the only tests reported and the availability and option for anonymous testing remains at specific testing sites in Delaware. The quality of HARS data has improved substantially in recent years through the proactive efforts of the Surveillance Office and its field workers. This was achieved by increasing records review activities, minimizing patients without an identified risk, and further educating our Health care professionals and laboratories of the proper methods and responsibilities for reporting HIV/AIDS cases.

The <u>HIV/AIDS Surveillance Report</u>⁴ through 2005, published by the Centers for Disease Control and Prevention, is used frequently in this Profile for national data and data from other states. This is the national and state by state summary database established by the CDC and is the reporting source for most national statistics. It is released periodically in printed form and updated more often on the Internet <u>http://www.cdc.gov/hiv/dhap.htm</u>.

Strengths: National data. Great source for information and for updated slide presentations.

Limitations: Time delay in release of data. The report for the period ending 2006 will not be available until after this profile is completed.

<u>HIV Counseling and Testing Annual Report</u>⁵ is based on data collected on a standardized data collection form from people seeking counseling and possible testing for HIV.

Strengths: Standardized data collection.

Limitations: Not a good source of prevalence data. Report is only for those who are tested in public clinic settings or are seeking specific HIV counseling and testing. Clients who are counseled/tested more than once will appear multiple times in the data but cannot be identified as such. Clients often defer to "sexual partner at risk," rather than identifying specific risk behavior of sexual partner.

<u>Sexually Transmitted Infection and Disease Reports⁶</u> include the statistical data on sexually transmitted disease (STD) events of gonorrhea, chlamydia and syphilis in Delaware. STD case data are well reported in Delaware but are limited in that the collected data do not include information such as the sex of sexual partners or reports of drug use, important for HIV planning.

Strengths: Standard data collection. Patients at high risk for STDs are at high risk for HIV.

Limitations: Data may include duplicate cases (multiple events of infections in one person), and private providers may under-report.

<u>2005 Youth Risk Behavior Survey</u>⁷ (YRBS) is a self-administered, anonymous questionnaire for Delaware high school students administered in odd-numbered years. The privacy of the student is assured by allowing for anonymous and voluntary participation (participation rates are very high with an overall 84% student response rate). The YRBS is one component of the surveillance system developed by the Centers for Disease Control and Prevention in collaboration with state and local departments of education and health, federal agencies, and national education and health organizations. The YRBS was designed to focus the nation on behaviors among youth related to the leading causes of mortality and morbidity among both youth and adults. The Delaware Department of Education assumes responsibility for the YRBS. More information may be obtained through the Department of Education's Adolescent School Health section and on the web at <u>www.state.de.us/drugfree/data.htm</u>

Strengths: Risk assessment ongoing with emphasis on prevention. It is designed to be a reasonably representative survey of Delaware youth, and it provides information on the leading causes of morbidity and mortality for youth -- nutrition, substance use, accidents, sexual activity, sexual orientation, and delinquency.

Limitations: Data are limited to high school students who voluntarily participate in the survey, and the accuracy relies upon self-reported information.

<u>Ryan White CARE Act Data Reports⁸</u> (CADR) are used to report information about provider and program characteristics providing Ryan White CARE Act services. Data are collected and submitted by grantees of Title II through Title IV to Health Resource and Services Administration (HRSA). Utilization of medical and support services, prescription drugs and health insurance coverage are also collected as part of the CADR.

Strengths: Standardized data instrument containing grouped data making it easier to report frequency count data for grouped categories. At the provider level, the CADR offers unduplicated aggregate counts of all clients served.

Limitations: Currently unable to perform analysis on data that cannot be completely unduplicated as clients may access services from multiple providers. Data are limited to those who access care, treatment or services for HIV. At the Title II grantee level, the CADR data are duplicated.

Epidemiology

When investigating an epidemic, questions relating to person, place and time are important criteria to abstract pertinent information.

- <u>Person</u>: Identifying how a person contracts infections or disease is the first step in the process of prevention. Surveillance staff help characterize a person's mode of exposure to HIV from case report forms, personal interviews and medical record reviews. The exposure is often identified as a risk.
- Place: In this Epidemiological Profile, place generally refers to zip code of residence at time a person is reported as testing positive for HIV or an AIDS diagnosis is made. Every effort is made to collect unduplicated information, and in this process surveillance extends to other states. Whenever reporting sources indicate a patient may have been treated elsewhere or was diagnosed in another state or jurisdiction, surveillance staff will contact the other state for confidential data-sharing purposes.
- <u>Time</u>: Throughout the statistical presentation, date of report and date of diagnosis are used to define time periods. There may be a time lag between when a patient is reported to the Division of Public Health (DPH) Surveillance Office and the actual date they first developed an AIDS-defining condition or tested positive for HIV. Therefore, date of report is used, unless otherwise stated in a statistical table or figure.
- <u>Risk</u>: Individuals are identified by behaviors that put them at risk of HIV infection. CDC established a hierarchy to classify a person's most likely route of exposure or HIV risk. Data collected allow a person to be classified by the risk that most likely exposed the individual.

In the timeline of data collection, two noteworthy changes in data collection related to HIV/AIDS affect the data in this profile nationally and locally. Increases in reporting are noted in both timelines.

- In 1993, the Centers for Disease Control and Prevention (CDC) revised the AIDS case definition. An increase in cases, around 1993-1994 due to the expanded definition, is noted nationally and locally. The new definition included persons previously unreported until several AIDS indicators were added to the case definition. These indicators include: severe immune-compromised individuals with CD₄ counts <200 µ/L or <14%; invasive cervical cancer; recurrent pneumonia; and pulmonary mycobacterium tuberculosis.</p>
- Delaware implemented HIV reporting on July 10, 2001. <u>HIV data is</u> combined with AIDS data in 2001 through 2006, and the change in reporting is a contributing factor in the increased number of cases observed in most tables and figures in the profile. Unless otherwise stated, all tables and figures that have HIV/AIDS in the title, include HIV data

reported from July 10, 2001 through December 2006 combined with AIDS data from 1981 through 2006.

All AIDS patient data are strictly confidential and are collected for epidemiological purposes. Confidentiality of HIV/AIDS case reports is important to maintain an effective HIV/AIDS surveillance system. The Delaware Division of Public Health's HIV/AIDS Surveillance Office has extensive confidentiality and security protocols outlining physical, operational, and personnel security standards. These standards must be maintained to receive federal funding. Data release policies guide the presentation of data to ensure HIV/AIDS data do not allow for individual identification. Tables must not present data in a manner that would allow for individual identification. Reporting small numbers, in a table, may inadvertently cause an individual to be identified. In these cases data in small cells may be combined; when this is done the fact is identified in the footnote.

Definition of Terms

Adolescent:	An individual between the ages of 13 and 19.				
Adult/Adolescent case:	Patient is 13 years of age or greater at the time of diagnosis.				
Epidemiology:	A branch of medical science that deals with incidence, distribution and control of a disease in a population.				
Heterosexual:	Persons with a history of sexual contact with a person of the opposite sex, and may include heterosexual relations with: injecting drug user; bisexual male; person who had a transplant or transfusion; or person with AIDS or undocumented HIV infection.				
Incidence Rate:	Number of new cases divided by the population at that specific time.				
NIR case:	No identified risk – risk was unable to be ascertained through investigation to date. NIR cases may be reclassified as information is obtained through a complete epidemiologic investigation.				
Pediatric case:	Patient is less than 13 years of age at diagnosis.				
Prevalence:	The percentage of a population that is affected with a particular disease at a given time.				
Rate:	Number of cases divided by specific population of a given group. Rates allow for the direct comparison of				

	different groups by taking into account the varying population size.
Transfusion case:	Person who acquired the virus as a result of receiving blood or blood products.
Year of diagnosis:	Measure of year when the disease event was first detected by medical personnel.
Year of report:	Measure of year that the HIV/AIDS surveillance office received case report.

Abbreviations

AIDS A/PI CARE CADR CDC C/T DHSS DPH HAART HARS HIV HRSA IDU(s) MSM MSM/IDU NA/AN NIR NIR NRR PWH/A PLWHA SCBW	Acquired Immune Deficiency Syndrome Asian/Pacific Islander Comprehensive AIDS Resource Emergency CARE Act Data Report Centers for Disease Control and Prevention Counseling and Testing Services Delaware Health and Social Services Division of Public Health Highly active anti-retroviral therapy HIV/AIDS Reporting System (software) Human Immunodeficiency Virus Health Resources and Services Administration Injecting Drug User(s) Men who have Sex with Men Men who have Sex with Men and Inject Drugs Native American/Alaskan Native No Identified Risk No Risk Reported Person with HIV or AIDS People living with HIV or AIDS Study of Childbearing Women
STD (STI) YRBS	Sexually Transmitted Disease (Infection) Youth Risk Behavior Survey (both national and Delaware specific)

Cautions in Using Data

Readers should use caution when reviewing data. Listed below are guide points to help you understand the report. If you have further questions, please contact the Delaware HIV/AIDS surveillance office at (302)744-1143.

<u>*Case rate:*</u> A rate is a measure of the frequency of an event (disease) compared to the number of persons in the group in which it occurs. An example: if there are 700 Caucasian AIDS cases in Delaware and the Caucasian Delaware population was 700,000, the case rate would be 100 per 100,000. That means for every 100,000 people, there would be 100 AIDS cases.

<u>Dates:</u> Be careful interpreting trends over time. Though it may be enticing to jump to conclusions about changes over time – look carefully at the data. Are the changes over an extended period? Is it a small percentage change in one year? Did a change in data collection procedures influence the trend data?

<u>Graphs and tables</u>: Examine the title. Does it indicate a time period? Does the graph represent all cases or just one group (men, women, IDU or MSM)? Are data represented as the number of cases, a percentage, or as a case rate?

Socio-Demographic Characteristics of the State of Delaware

Description of the State of Delaware:

Geography

Delaware is the second smallest state in the U.S., measuring 100 miles from north to south and 30 miles from west to east. Land area accounts for 1,955 square miles and 535 miles of Delaware are covered by water. The geographic center of Delaware is located 11 miles southwest of Dover, the state capital, in Kent County. The Interstate 95 corridor, running from Maine to Florida, crosses through Delaware's northernmost county from Maryland to Pennsylvania, or alternately Interstate 295 to New Jersey and points north via the Delaware Memorial Bridge. The southeastern portion of Delaware's coastline with the Atlantic Ocean provides the beach resorts that are the destination of many tourists and split-residency owners of summer homes from the mid-Atlantic region.

Delaware Demographics

Delaware's total population estimate through July of 2005 is 843,524 according to the U.S. Census Bureau. The proportion of the population, by county of residence, is 62% New Castle County, 17% Kent County and 21% Sussex as depicted in Table 1 below.

	July 2005					
County	#	%				
New Castle	523,008	62%				
Sussex	176,548	21%				
Kent	143,968	17%				
Total	843,524	100%				

Table 1. Estimates for the population of Delaware through July of 2005

Source: U.S. Census Bureau

The race and ethnicity distribution in the state (see Table 2 on page 13) is 70% Caucasian, 20% African American, 6% of Hispanic origin and the remaining 4% a compilation of Asian, Native Hawaiian and other Pacific Islanders. Females comprise 51% of the state total population, equivalent to the national distribution by gender. The median age of the Delaware resident is 38 years. Twelve percent of Delaware residents report a language other than English is spoken in their home. Median household income of \$52,499 and a per capita income of \$27,650 in Delaware exceed the U.S. incomes \$43,318 and \$21,587 respectively. 83% of Delaware residents reported having a high school diploma and 25% a bachelor's degree or higher compared to 80% and 24% for the U.S. respectively.

County	Caucasian		AA *		Hisp		Other	
County	#	%	#	%	#	%	#	%
New Castle	350,415	67%	115,062	22%	31,380	6%	26,150	5%
Sussex	137,707	78%	24,716	14%	8,827	5%	5,296	3%
Kent	102,217	71%	31,673	22%	4321	3%	5,760	4%
Total	590,339	70%	171,451	20%	44,528	6%	37,206	4%

 Table 2. Estimates for the population of Delaware by race through July of
 2005

census Bureau

*African American

County Demographics

New Castle County is the smallest county in landmass in Delaware, registering 426 square miles according to Quick Facts of the U.S. Census Bureau, with 1,174 persons residing per square mile. The July 2005 estimated population for New Castle County is 523,008 or 62% of Delaware's total population. Fourteen percent (n=72,051) of New Castle County's residents live within the City of Wilmington.

The racial distribution in New Castle County is 67% Caucasian, 22% African American, 6% Hispanic and 5% are of multiple/other origins. Gender-wise, New Castle County residents are 51% female and 49% male.

Approximately 7% of the county's residents are under the age of 5, with 19% between 5 and 17, the age group 18-64 comprises 61% and 13% are 65 years and older.

Kent County is the second smallest in landmass with 590 square miles and an estimated population in July of 2005 of 143,968. This represents 17% of the state's entire population with 244 people per square mile. Kent County is the home of Dover Air Force Base and of the State Capital, Dover.

The racial distribution in Kent county is 71% Caucasian, 22% African American, 3% are Hispanic or Latino and the remaining 4% combines multiple other origins. The gender distribution in Kent is 52% female and 48% male.

Approximately 7% of the county's residents are under the age of 5, with 20% between 5 and 17, the age group 18-64 comprises 61% and 12% are 65 years and older.

Sussex County has the fastest growing population and is the largest county in landmass, measuring 938 square miles, with 167 persons per square mile. Estimated population as of July 2005, based on Quick Facts of the U.S. Census Bureau, is 176,548 or 21% of the state population.

The racial distribution in Sussex is 78% Caucasian, 14% African American, 5% Hispanic and the remaining 3% combines multiple/other origins. The gender distribution in Sussex is 51% female and 49% male.

Approximately 6% of the county's residents are under the age of 5, with 17% between 5 and 17, the age group 18-64 comprises 58% and 19% are 65 years and older.

Scope of the HIV/AIDS Epidemic in Delaware

Overview of HIV/AIDS Characteristics:

Unless otherwise specified, HIV/AIDS data is based on information from the Delaware HIV/AIDS Reporting System³ (HARS). It should be noted that HIV data is combined with AIDS data beginning in 2001, and this is a major contributing factor in the increased number of cases observed in most of the trend tables and figures in the profile. Through December 2006, a total of 4,722 people were reported to DPH with a diagnosis of HIV or AIDS. A total of 1,853 persons have died, representing 39% of the cases. The disproportionately large number of reported cases among Blacks continues to be observed, as reported in previous profiles. This disparity and those related to gender and age group will be considered in detail later in the profile. Table 3 below, provides a brief overview of demographic characteristics of all reported HIV/AIDS cases in Delaware through December 31, 2006.

Table	3.	Characteristics	of persons	reported	with	HIV/AIDS	in	Delaware	1981	through
2006,	(n=4	1,722)	-	-						_

	HIV C (n=1	ases** ,199)	HIV/AIDS Cases (n=4,722)		
Gender		· · · ·	· · · · ·		
Male	771	64%	3,339	71%	
Female	428	36%	1,383	29%	
Race/Ethnicity					
Caucasian	344	29%	1,312	28%	
African American	772	64%	3,129	66%	
Hispanic	74	6%	256	5%	
Other/Unknown	9	1%	25	<1%	
Age Group (yrs)					
<13	17	1%	43	1%	
13-19	57	5%	73	2%	
20-29	301	25%	745	16%	
30-39	415	35%	1,868	40%	
40-49	284	24%	1,416	30%	
50+	125	10%	577	12%	
Geographic Location					
Kent	114	10%*	446	9%*	
New Castle (Not Wilm.)	307	26%	1,192	25%	
City of Wilmington	588	49%	2,385	50%	
Sussex	190	16%	699	15%	
Unknown	0	0%	0	0%	

Source: Delaware HIV/AIDS Reporting System (HARS)

*Percentages may not equal 100 due to rounding

**HIV reporting in Delaware began 2001

National data sets are not yet available through 2006 so national comparisons with Delaware data are comparing the Nation in 2005 with Delaware in 2006. National surveillance reports⁴ estimate that at the end of 2005, 956,019 people have been diagnosed with AIDS since the beginning of the epidemic. An additional 249,950 people are reported to have HIV infection that has not progressed to AIDS. There are currently 476,749 persons living with HIV/AIDS in the 33 areas (not including Delaware) that practice confidential name based reporting of HIV infection. The national cumulative case rate per 100,000 population was 136.5 for HIV and 176.2 for AIDS at the end of 2005. Delaware's cumulative AIDS rate per 100,000 population was 238.2 for 2005. The National annual rate for reported AIDS cases in 2005 was 14.0 per 100,000, while Delaware's 2005 rate was 20.9. Delaware ranked 7th among states and the District of Columbia for annual case rates per 100,000 population in 2005.

Figure 1 on the next page compares the percentage of people surviving with AIDS who were diagnosed between 1992 and 2006 to the percentage of those who have died through 2006. The graphic clearly illustrates the decrease in fatalities and the increase in the percentage of people living with AIDS. Factors contributing to survival in people diagnosed later in the epidemic are timeliness in referral to care, progress in the medical management of HIV, and the introduction of highly active anti-retroviral therapy (HAART). As encouraging as these trends are, they point out that the nature of the AIDS epidemic is changing. For the first decade and a half, AIDS was often an apparent death sentence with significant medical consequences and use of medical services only in the late stages of the disease. With the development of effective anti-retroviral medicines, the prospect of living with and effectively managing HIV/AIDS has become the norm. The societal consequence over time will be the burden of disease and financial strain associated with long term and expensive management of chronic illness.

Data from the Delaware Health Statistics Center² indicates an overall decline in deaths due to HIV/AIDS. From 1999-2000, HIV was listed as the fourth leading cause of death for residents of Delaware in the 25-44 age group. From 1999-2004, HIV is the 5th leading cause of death in this age group.

At the end of 2006, there were 1,957 people living with AIDS in Delaware and an additional 1,227 people living with HIV infection that had not progressed to AIDS. People living with AIDS continues to increase across all demographic groups. In 2006, the prevalence rate (living AIDS cases in Delaware) was 232 per 100,000 population for AIDS and 145 per 100,000 for HIV infection. This represents a 34% increase in the survival rate from AIDS as compared to 2001 (when it had been 173 per 100,000) and a 8% increase from 2002 (186 per 100,000 population).





HIV/AIDS by Gender and Race/Ethnicity:

The prevalence rate for female cases in Delaware through 2006 was 123 per 100,000 population (1,035 HIV/AIDS living cases). The prevalence rate for male cases in Delaware through 2006 was 255 per 100,000 (2,149 living HIV/AIDS cases).

Figures 2 and 3 on the next page illustrate in five year increments how the percentage of deaths in males attributed to AIDS has decreased gradually since the beginning of the epidemic and increased slowly in females. By race, deaths have decreased significantly across the spectrum, however, the African American population continues to account for a majority of deaths as compared to the Hispanic and Caucasian populations. (Note: 2006 begins a new 5 year increment and was listed individually in the title blocks)



Source: Delaware HIV/AIDS Reporting System (HARS) *African American

Looking at National data through 2005,⁴ the number of deaths declined in the Midwest, South and Northeast while increasing in the West for year 2003 to 2005. The number of deaths related to AIDS declined among Caucasians, African Americans, and Hispanics, while increasing slightly among Asian/Pacific Islander and American Indians/Alaskan Natives. By sex and risk, deaths declined in MSM, and IDU's. Heterosexual cases of both sexes experienced a decline from 1996 to 1998, then increased from 1999 through 2001, decreased slightly in 2002, and then increased through 2005. In Delaware the trend is for declining percentages of male deaths and Caucasian deaths and an increased percentage for deaths among African Americans.

Figure 4 illustrates the distribution of Delaware HIV/AIDS cases by gender and year of report for the time periods pre-1984, 1985–1989, 1990-1994, 1995-1999, 2000-2004 and 2005-2006. The last two time periods include the collection of HIV case data implemented beginning in July 2001. A gradual percentage decrease in male HIV/AIDS cases reported from 85% in the 1985-1989 period to 59% in the 2005-2006 period is reflected. The pre-1984 period is shown as a baseline, at which time there were only 3 cases in the state. Most cases are still among males, though the percentage of cases among females rises from 15% in 1985-1989 to 41% in 2005-2006. Looking at both Figure 2 and Figure 4, the trend reflects a steady increase in the percentage of female cases reported with HIV/AIDS and an increase in the number of deaths among females reported in Delaware.





Source: Delaware HIV/AIDS Reporting System (HARS)

Male HIV/AIDS cases continue to dominate case reports. Males represent 49% of Delaware's population, yet 71% of the HIV/AIDS cases. Females represent 51% of Delaware's population, and 29% of the HIV/AIDS cases. Figure 5 below provides a graphical depiction of both the gender and racial trends in Delaware. African American men represent the majority of cases, followed by African American women. The increase in the year 2001, particularly for African Americans, is again attributed to the onset of HIV reporting.

Figure 5. Comparison of Delaware HIV/AIDS cases by gender and race, diagnosed 1993 through 2006, (n=4,027)



Delaware's HIV/AIDS epidemic continues to disproportionately affect the African American population. African Americans comprise 20% of the state population but 67% of AIDS cases and 64% of HIV cases. Among females, 80% of AIDS cases and 70% of HIV cases are among African Americans, compared with 60% and 63% nationally. The US vs. Delaware comparison is equally striking among males where 62% of AIDS and 61% of HIV cases are in the African American population in Delaware, compared to the US percentages of 35% and 42% respectively. Among pediatric cases, 74% of AIDS and 82% of HIV cases in Delaware are within the African American population. US data on gender/race breakdowns were unavailable for pediatric cases. Tables 4 and 5 and the accompanying chart provide an overview of the racial distribution of Delaware and US AIDS cases respectively. The "other" category in the table includes Asian/Pacific Islanders and Native American/Alaskan Natives.

Race	Male (n=2,568)		Fe (n:	male =955)	Total **(n=3,523)		
	#	%*	# %*		#	%*	
Caucasian	825	32%	143	15%	968	27%	
African American	1,598	62%	759	79%	2,357	67%	
Hispanic	137	5%	45	5%	182	5%	
Other	8	<1%	8	<1%	19	<1%	

Table	4.	Distribution	of	Delaware	AIDS	cases	by	race/ethnicity	and	gender	in
adult/a	dole	scent cases a	nd j	pediatric ca	ises re	ported t	hrou	ıgh 2006, (n=3,5	523)		

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentage may not equal 100 due to rounding

** Includes 26 pediatric cases, data suppressed due to low numbers

Table 5. US distribution of AIDS cases by race/ethnicity and gender in adult/adolescent cases and pediatric cases reported through 2005. (n=956.019)**

Race	Male (n=764,808)		Fema (n=181)	ale ,769)	Total (n=956,019)**		
	#	%*	#	%*	#	%*	
Caucasian	340,295	44%	36,256	20%	376,551	39%	
African American	270,771	35%	108,451	60%	379,222	39%	
Hispanic	142,523	18%	34,614	19%	177,137	19%	
Other	8,778	1%	1,645	1%	10,423	1%	
Unknown	2441	<1%	803	<1%	1,687	<1%	

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentages may not equal 100 due to rounding **n includes US pediatric cases = 9,441 (no breakdown available) and 1 person of unknown sex.

Chart 1. US and Delaware AIDS statistics by gender and race

Distribution male AIDS cases through 2005 by race in US.	Distribution male AIDS cases through 2006 by race in DE.
44% Caucasian 35% African American 18% Hispanic 1% other races.	32% Caucasian 62% African American 5% Hispanic 1% other races.
Distribution female AIDS cases through 2005 by race in US.	Distribution female AIDS cases through 2006 by race in DE.
20% Caucasian 60% African American 19% Hispanic 1% other races.	15% Caucasian80% African American4% Hispanic1% other races.

Source: HIV/AIDS Surveillance Report⁴ and Delaware HIV/AIDS Reporting System (HARS)

Tables 6 and 7 on the next page provide data for Delaware and National HIV cases respectively. Again, it should be remembered that the US HIV data are based only on those areas that provide confidential name-based HIV infection reporting.

Table	6.	Distribution	of	Delaware	HIV	cases	by	race/ethnicity	and	gender	in
adult/a	doles	scent cases ar	nd p	ediatric ca	ses re	ported	thro	ugh 2006, (n=1, ⁻	199)		

Race	Male (n=771)		Fe (n:	male =428)	Total **(n=1,199)		
	#	%*	#	%*	#	%*	
Caucasian	240	31%	104	24%	344	29%	
African American	470	61%	302	71%	772	64%	
Hispanic	55	7%	19	4%	74	6%	
Other	6	1%	3	<1%	9	<1%	

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentage may not equal 100 due to rounding

** Includes 17 pediatric cases. Data suppressed due to low numbers.

Table 7. US Distribution of HIV cases by race/ethnicity and gender in adult/adolescent cases and pediatric cases reported through 2005, (n=249,950)**

Race	Male (n=171,169)		Fema (n=73,	ale 692)	Total (n=249,950)**		
	#	%*	#	%*	#	%*	
Caucasian	68,376	40%	14,875	20%	83,251	33%	
African American	71,856	42%	46,756	63%	118,612	47%	
Hispanic	27,458	16%	10,744	15%	38,202	15%	
Other	1,936	1%	699	1%	2,635	1%	
Unknown	1,543	1%	618	1%	2,161	<1%	

Source: Delaware HIV/AIDS Reporting System (HARS) *Percentage may not equal 100 due to rounding **Includes national pediatric cases = 5,082 (no breakdown available) and 7 people of unknown sex

Chart 2. US and Delaware HIV statistics by gender and race

Distribution male HIV cases through 2005 by race in US.	Distribution male HIV cases through 2006 by race in DE.
40% Caucasian 42% African American 16% Hispanic 2% other races or unknown.	31% Caucasian61% African American7% Hispanic1% other races.
Distribution female HIV cases through 2005 by race in US.	Distribution female HIV cases through 2006 by race in DE.

Source: HIV/AIDS Surveillance Report⁴ and Delaware HIV/AIDS Reporting System (HARS)

Figure 6. Distribution of Delaware HIV/AIDS cases by race and gender through December 2006, (n=4,722)



Source: Delaware HIV/AIDS Reporting System (HARS)

HIV/AIDS by Age Group:

Age group refers to the age a person first tests positive for HIV or age at diagnosis of AIDS. When compared by age group, Delaware's HIV/AIDS statistics through 2006 are similar to the national statistics for 2005. As portrayed in Figure 7, the percentages differing notably only slight in the ranges spanning 20-39.





Source: Delaware HIV/AIDS Reporting System (HARS)

Delaware's HIV/AIDS cases by age group are very similar to the national estimates. In both Delaware and nationally, over 60% of cases are for those 30 to 49 years of age. Fewer than 16% of HIV/AIDS cases in both Delaware and nationally are for those 50 and older. Only 1% of Delaware and national HIV/AIDS cases are for those under age 13, defined as pediatric HIV/AIDS cases. Pediatric cases, although relatively rare, occur disproportionately among minorities. Delaware pediatric HIV/AIDS cases are addressed separately in more detail beginning on page 40.

HIV/AIDS by Mode of Exposure:

For surveillance purposes, HIV/AIDS cases are counted only once in the hierarchy of exposure categories established by the CDC. Persons with more than one reported mode of exposure to HIV are classified in the category listed first in the hierarchy, except for men with both a history of sexual contact with other men and injecting drug use. They comprise a separate exposure category. This hierarchy of exposure categories in adult/adolescent cases is as follows:

- 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. sex with an injecting drug user
 - b. sex with a bisexual male
 - c. sex with a person with hemophilia
 - d. sex with a transfusion recipient with HIV
 - e. sex with a transplant recipient with HIV
 - f. sex 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

If a patient admits to certain sexual or drug use behaviors, the patient is ranked along this continuum of possible exposures to HIV. Nationally,⁴ 11% of the AIDS cases reported through December 2005 were "no identified risk" (NIR), while 28% of HIV cases had no identified risk. Surveillance personnel in Delaware place a high priority on determining risk, and 7.4% HIV and 2.1% of AIDS cases in Delaware at the end of 2006 were classified as NIR. These percentages are well within the standard of 15% set by CDC. The NIR largely reflects cases where the reporting source does not have the risk information to report (e.g., private laboratories, blood banks and lab tests conducted during inpatient hospitalizations where results came after discharge and cases were never linked). Surveillance staff attempt to resolve the "no risk reported" (NRR) cases when reviewing medical records. The difference in NIR percentages between HIV and AIDS, both nationally and in Delaware, is partly a function of time to investigate and collect data. Newer cases tend to be HIV reports, and, over time, the details are obtained by surveillance staff.

Table 8 below illustrates the mode of exposure for all Delaware HIV/AIDS cases and compares the data from the beginning of the epidemic through 1993 to the information available from 1994 through 2006. This period comparison was chosen to demonstrate changes from early in the epidemic to the epidemic in later years as it appears in an exact 13 year split. The mode of exposure or transmission of HIV describes the behavioral characteristics of a person at risk for acquiring HIV infection. Men who have sex with men (MSM) showed the greatest percentage of cases through 1993 followed by injecting drug use (IDU). The large increase in heterosexual contact with a person with HIV or AIDS (PWH/A) from 2% to 19% makes it the greatest increase in prevalence of all categories in the 1994-2006 era. This rapid change, though, should be viewed with caution since it has much to do with the reporting of HIV beginning in 2001. Also in general, risk information on initial case report forms is often revised after medical record reviews reveal the "person with HIV or AIDS" is an IDU or bisexual. Other modes of exposure (*) include pediatric cases infected through mothers, transfusion recipients, and additional transmission modes that resulted in approximately 2% of Delaware's HIV/AIDS cases in the 1994-2006 era. The increase in NIR cases in the 1994-2006 period is largely a result of inclusion of HIV reporting in this era.

Mode of Exposure	Through	n 1993	1994 - 2006		
	#	%*	#	%*	
Injecting drug use (IDU)	318	35%	1438	37%	
Men who have sex with men (MSM)	407	45%	965	25%	
Heterosexual contact with PWA	24	2%	707	19%	
Heterosexual contact with an IDU	57	6%	318	8%	
Men who inject drugs & are MSM	68	7%	177	5%	
No identified risk (NIR)	14	2%	144	4%	
Other modes	26	3%	59	2%	
Total cases	914	100%	3808	100%	

Table 8.	Comparison	of all Delaware	HIV/AIDS	cases b	by mode	of exposure	diagnosed
through 1	993 (n=914) te	o cases diagnos	ed 1994-20	006, (n=	3,808)	-	_

Source: Delaware HIV/AIDS Reporting System (HARS)

US statistics through 2005 for AIDS indicate the distribution of male cases by mode are 54% MSM, 21% IDU, 8% MSM/IDU and 6% heterosexual contact. The remaining 11% are related to other modes and cases with risk not identified. US statistics through 2005 for HIV indicate the distribution of male cases by mode are 49% MSM, 13% IDU, 5% MSM/IDU and 9% heterosexual contact. The remaining 24% are related to other modes and cases with risk not identified.

Delaware had 3,339 males reported with HIV/AIDS through 2006. Forty-one percent (n=1,372) were MSM, 36% (n=1,204) were IDU, and 11% (n=370) were heterosexual contact only. Of the 370 heterosexual contacts, sex with a female who was an IDU accounted for 31% (n=113). MSM/IDU were reported in 7% (n=245) cases and the remaining 4% (n=148) are related to other modes and cases with risk not identified or reported.

US statistics through 2005 for AIDS indicate the distribution of female cases by mode are 44% heterosexual contact, 36% IDU and 2% blood transfusion recipient. The remaining 18% are related to other modes and cases with risk not identified. US statistics through 2005 for HIV indicate the distribution of female cases by mode is 46% heterosexual contact, 17% IDU and 1% blood transfusion recipient. The remaining 36% are related to other modes and cases with risk not identified.

Delaware had 1,383 cases of HIV/AIDS reported in females through 2006. Fifty-three percent (n=736) of the women with HIV/AIDS in Delaware at the end of 2006 were infected through heterosexual contact. Sex with a person with HIV comprises 61% (n=452) of the heterosexual cases and 36% (n=262) are due to sex with an injecting drug user. Injecting drug use accounts for the transmission of HIV in 40% (n=552) of the remaining females while 7% (n=95) have risk not reported/identified or other.

The early years of the AIDS epidemic in Delaware (1981 - 1993) project a different picture than the more recent years (1994 - 2006). Table 9 on the next page compares the top six behavioral groups reported in the first ten-year period to the latter. The number of cases reported in each time period is noted under the year of report. The columns indicate the number of cases in each behavioral group, and the percentage is representative of the whole number reported.

Total number of cases reported in the period	Thro 19	ugh 93	1994-2006		
	(n=9	914)	<u>(n=3,808)</u>		
Behavioral Risk Group	#	%*	#	%*	
Men who have sex with men (MSM)	407	45%	965	25%	
Men who inject drugs (IDU)	225	25%	979	26%	
Women – with male sex partners at risk	53	6%	683	18%	
Women who inject drugs (IDU)	93	10%	459	12%	
Men – with female sex partner at risk	28	3%	342	9%	
Men who inject drugs & are MSM (MSM/IDU)	68	7%	177	5%	
All other modes including NIR or NRR cases	40	4%	203	5%	

Table 9. Comparison of early (through 1993) HIV/AIDS cases reported to later years (1994-2006) by Behavioral Risk Group in Delaware, (n=4,722)

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentages may not equal 100 due to rounding

As previously demonstrated, the data in Table 9 above illustrate again the decrease in cases of MSM. By comparing the two eras of the epidemic, the percentages in MSM decreased from 45% in the early era to 25% in the second. The other obvious change is the increase in women with male sex partners at risk, where the heterosexual partners of the women were intravenous drug users, bisexual men and/or HIV infected. The percentage increased three times, from 6% to 18%. The percentage of men with female sex partners who are at risk through injecting drug

use and/or whose female partner is HIV infected tripled from 3% to 9% from the first period to the second period respectively.

The next portion of the profile continues to address modes of transmission in cases of HIV/AIDS. To illustrate changes in the two "AIDS periods," the data are again separated into two periods in Table 10 below. An increase of close to 80% (from 18% to 32%) is noted in the percentage of female cases reported.

Table 10.	Distribution of HIV/AIDS cases by gender in the early period (through ⁻	1993) a	and
1994-2006	6 period in Delaware, (n=4,722)	-	

Total number of cases reported in the period	Through 1993 (n=918)		1994-2006 (n=3,810)		Total (n=4,722)	
Gender	#	%*	#	%	#	%*
Males	752	82%	2,587	68%	3,339	71%
Females	160	18%	1,223	32%	1,383	29%
Total	912	100%	3,810	100%	4,722	100%

Source: Delaware HIV/AIDS Reporting System (HARS)

HIV/AIDS Transmission Modes in Males:

The modes of transmission for HIV/AIDS in Delaware male cases have changed over time. At the end of 1993, 54% of the male cases were MSM, 30% were IDU, and 9% MSM/IDU. Males infected through sex with a female with HIV or sex with a female who injected drugs comprised only 3% of the AIDS cases reported. When gauged against these numbers, Figure 8 below shows the distribution of modes of transmission through 2006 and illustrates how the percentages have shifted away from MSM and MSM/IDU to increases in IDU and heterosexually infected men in Delaware. Pediatric cases are broken out individually on page 40.





Source: Delaware HIV/AIDS Reporting System (HARS)

Men Who Have Sex with Men (MSM)

Men who have sex with men represented 54% (n=407) of the 752 male cases reported in the early period of the epidemic (through 1993). From 1994 through 2006 the percentage of male cases attributed to MSM decreased to 37% (n=965) of the 2,587 cases reported in males in Delaware. Those whose mode of transmission is men who have sex with men are shown on the next page in Table 11 and are split into periods to compare any changes in the epidemic among the MSM population from the earlier to the later period.
Table 11. Demographic characteristics of race and age group in HIV/AIDS cases of menwho have sex with men by year of report in Delaware1981–2006, (n=1,372)

Characteristic	Throug (n=4	ıh 1993 407)	1994 Through 2006 (n= 965)		
	#	%*	#	%*	
Race/Ethnicity					
Caucasian	268	66%	476	49%	
African American	126	31%	434	45%	
Hispanic/Other	13	3%	55	5%	
Age Groups					
13-19	0	0%	18	2%	
20-29	85	21%	209	22%	
30-39	191	47%	392	41%	
40-49	89	22%	234	24%	
50+	42	10%	112	11%	

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentages may not equal 100 due to rounding

An increase in the number of MSM cases in non-Caucasian people is noted in the second time period compared to a decrease in the Caucasian population. Additional cases in all age groups from 1994 through 2006 are likely due to the 1993 change in case definition and the 2001 inclusion of HIV reporting data in the surveillance report. The presence of cases in the 13-19 age group and an increase of cases in most other age groups reflects the influence HIV reporting has on the portrait of the epidemic in Delaware.

As of December 31, 2006, a cumulative total of 1,051 MSM with AIDS, and 321 with HIV had been reported to Delaware for a total of 1,372. Men who have sex with men represent 29% of the cumulative HIV/AIDS cases reported in Delaware through 2006.

As illustrated in Figure 9 on the next page, the number of MSM cases reported by race and ethnicity has remained consistent in men of Hispanic origin with minimal change over the twenty two year period. Though historically men who have sex with men appear to be most often in the Caucasian population on the chart, the number of cases attributable to MSM in the African American population surpassed Whites from 2005 - 2006. The increase in all race/ethnic groups in '93-'94 and in '01-'02 are again the result of the 1993 AIDS case definition change and implementation of HIV reporting respectively.





Source: Delaware HIV/AIDS Reporting System (HARS) *African American

Figure 10 below depicts the geographical distribution of MSM cases in Delaware. The figure shows 65% reside in New Castle. Twenty-four percent of the MSM cases reside in Sussex County, and 11% percent of the MSM reside in Kent County.

Figure 10. Distribution of men who have sex with men with HIV/AIDS by residence at time of report in Delaware through 2006, (n=1,372)



Source: Delaware HIV/AIDS Reporting System (HARS)

Men Who Inject Drugs

Males who inject drugs represented 30% (n=225) of the 748 male cases reported in the early period of the epidemic. From 1994 through 2006 the proportion of male IDU cases increased to 38% (n=979) of the 2,569 cases reported in Delaware. The race and age groups for cases attributed to men who inject drugs are shown below and are split into two periods to compare any changes in the epidemic among the IDU population from one decade to the other. The disproportionate number of IDUs in the African American male population is significant.

Demographics	Throug (n=	gh 1993 225)	1994 Through 2006 (n=979)		
	#	%*	#	%*	
Race/Ethnicity					
Caucasian	31	14%	109	11%	
African American	173	77%	804	82%	
Hispanic/Other	21	9%	66	7%	
Age Groups					
13-19	0	0%	2	0%	
20-29	28	12%	66	7%	
30-39	115	51%	329	34%	
40-49	70	31%	443	45%	
50+	12	5%	139	14%	

Table 12.	Males who	inject drugs:	demographic	characteristics	of HIV/AIDS	cases	by
race and ag	ge group by	year of report	1981 – 2006 ir	n Delaware, (n=1	,204)		

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentages may not equal 100 due to rounding

Figure 11 on the next page depicts the number of male IDU cases in adult/adolescent HIV/AIDS cases by year of report. Two periods, 1992 to 1993 and 2000 to 2001 reflect nearly a 300% increase in the number of cases reported. <u>Again, the increase is attributed to the change in the AIDS definition and implementation of HIV reporting occurring in the years respectively</u>. Figure 12 on page 32 represents the incidence of men who inject drugs by county.





Source: HIV/AIDS Surveillance Report⁴

Males Who Inject Drugs and Who Also Have Sex with Men (MSM/IDU)

Male injection drug users who also have sex with men (MSM/IDU) are the fourth highest behavioral risk in Delaware's HIV/AIDS population. A cumulative total of 245 MSM/IDU cases have been reported through December 2006 representing 7% of the total number of male cases (n=3,339). Table 13 below reports the race and age breakdown of the MSM/IDU cases, and Figure 12, on the next page, reports the distribution by county.

Table 13.	Race and age demographic characteristics in male injecting dra	users who
also have	sex with men by year of report, 1981-2006, (n=245)	

Demographics	Through (n=6	n 1993 18)	1994 Through 2006 (n=177)		
	#	%*	#	%*	
Race/Ethnicity					
Caucasian	21	31%	54	30%	
African American	42	62%	116	66%	
Hispanic/Other	5	7%	7	4%	
Age Groups					
13-19	0	0	1	<1%	
20-29	11	16%	22	12%	
30-39	43	63%	82	46%	
40-49	9	13%	57	32%	
50+	5	7%	15	8%	

* Percentages may not equal 100 due to rounding



Source: Delaware HIV/AIDS Reporting System (HARS)



Men Reported with Heterosexual Mode of Transmission Only

Nationally,⁴ 13% of AIDS and 20% of HIV cases cumulatively through 2005 were exposed through heterosexual contact. Of the males reported with AIDS through 2005 through heterosexual contact, 24% were reported as infected through sex with a female injecting drug user. Among HIV cases, 16% of the heterosexual cases were from sex with a female injection drug user.

Table 14, on the next page, compares the demographics of race/ethnicity and age groups for two time periods of the Delaware epidemic in men who were heterosexually infected with HIV. Both eras indicate African American males and males in the 30-39 year age group are most frequently reported with a heterosexual transmission mode. In the early years of the epidemic prior to 1993, more than two-thirds (67%) of the heterosexual men were African American, and after 1993, fully three-quarters (75%) were African American. Caucasian males who were reported as heterosexually infected have decreased by nearly half, from 29% to 17%. The absence of any heterosexual Hispanic men in the first decade is more than likely attributed to lack of HIV outreach, testing, treatment and/or early intervention in the population that would have aided in detection in the community.

Table 14. Demographic characteristics of race and age group in heterosexual men by year of report in Delaware 1981–2006, (n=370)

Demographics	Throug n=	jh 1993 28)	1994 Through 2006 (n= 342)		
	#	%*	#	%*	
Race/Ethnicity					
Caucasian	8	29%	58	17%	
African American	19	68%	256	75%	
Hispanic/Other	1 3%		28	8%	
Age Groups					
13-19	0	0%	5	1%	
20-29	4	14%	43	13%	
30-39	13	47%	121	35%	
40-49	6	21%	95	28%	
50+	5	17%	78	23%	

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentages may not equal 100 due to rounding

Delaware males infected through heterosexual contact with a woman, represent 11% of the male population reported cumulatively (n=3339). Figure 14 below illustrates that sex with an injecting drug user was indicated in 31% (n=113) of the cases, and 68% (n=252) had sex with a woman with HIV. The remaining 1% (n=5) had sex with someone who had received a blood transfusion.

Figure 14. Distribution of female partners risk in men reported as heterosexually HIV-infected in Delaware through 2006, (n=370)



Source: Delaware HIV/AIDS Reporting System (HARS)

The distribution by county of residence in males reported as infected with HIV through heterosexual contact is shown in Figure 15. The vast majority, 72%, of the heterosexually infected males are residents of New Castle County, 18% are from Sussex County and 10% from Kent County.

Figure 15. Males reported as infected through heterosexual contact with a female sexual partner at risk for HIV by county of residence in Delaware through 2006, (n=370)



Source: Delaware HIV/AIDS Reporting System (HARS)

HIV/AIDS Transmission Modes in Females:

Females Who Inject Drugs

Table 15 below again divides the epidemic into two periods, and shows female injecting drug users by race and age at year of report. The African American IDU female population is the most affected by the HIV/AIDS epidemic in both time periods, and the percentage of IDUs in Caucasian females nearly tripled. Though the 30-39 year age group is clearly the group most often affected in both time periods, the 100% increase in the 40-49 age group is also very significant.

Table 15.	Females	who inject	drugs: dem	nographic	characteristic	s of race	and age gro	oup
by year of	report in	Delaware 1	981–2006, ((n=552)				

Demographics	Throug (n=9	h 1993 93)	1994 Through 2006 (n=459)		
	#	%*	#	%*	
Race/Ethnicity					
Caucasian	6	6%	78	17%	
African American	79	85%	363	79%	
Hispanic/Other	8	9%	18	4%	
Age Groups					
13-19	0	0%	11	2%	
20-29	10	11%	51	11%	
30-39	63	68%	206	45%	
40+	22	17%	191	42%	

Source: Delaware HIV/AIDS Reporting System (HARS)

*Percentages may not equal 100 due to rounding

Figure 16. HIV/AIDS cases among females who inject drugs (IDU) by year of report in Delaware 1987 through 2006, (n=552)



Figure 16, on the preceding page, reflects the number of cases reported in two-year periods for females reported with HIV/AIDS who inject drugs. Again, the increase in the number of cases reported in the '93-'94 period is attributed to the change in the AIDS case definition. The rise in 2001 is due to the implementation of HIV reporting.

Figure 17 below depicts the distribution of females reported with HIV/AIDS who are injecting drug users by county of residence at time of report. New Castle County is illustrated as home to 88% of the women who inject drugs who have HIV infection.

Figure 17. Females with HIV/AIDS who inject drugs by county of residence in Delaware through 2006, (n=552)



Source: Delaware HIV/AIDS Reporting System (HARS)

Women with Male Sex Partners at Risk (Heterosexual Contact)

Table 16 on the next page compares women HIV-infected by a male partner in the periods 1981 –1993 and 1994–2006. Between the two periods there was a slight increase (2%) in African American female case and a slight decrease (3%) in Caucasian female cases.

Table 16 also shows a decrease in the percentage of females in the 13-29 and the 30-39 year age groups who were HIV-infected by a male partner. There was a corresponding increase in the number of female cases attributed to heterosexual transmission in the 40+ age group.

Table 16. Heterosexual contact in females: demographic characteristics of race and age group by year of report in Delaware 1981–2006, (n=736)

Demographics	Thro	ough 1993 (n=53)	1994 Through 2006 (n=683)					
	#	%*	#	%*				
Race/Ethnicity								
Caucasian	11	21%	128	19%				
African American / Hispanic / Other	42 79%		555	81%				
Age Groups								
13-29	20	38%	188	28%				
30-39	22	41%	233	34%				
40+	11	21%	262	38%				

Source: Delaware HIV/AIDS Reporting System (HARS)

* Percentages may not equal 100 due to rounding

In Figure 18 below, the women reported with heterosexually acquired HIV are broken down by the risk of the partner thought to have exposed them. Sex with an injecting drug user was reported as the partner's risk in 36% (n=262) of the cases, and 61% (n=452) had sex partners who were HIV positive.

Figure 18. Distribution of male partner's risk in females reported as heterosexually HIV-infected in Delaware through 2006, (n=736)



Source: Delaware HIV/AIDS Reporting System (HARS)

Figure 19 below shows the county of residence where the females were residing at the time they were diagnosed with HIV/AIDS. Nearly three-quarters (74%) reside in New Castle County with the remaining 26% distributed evenly between Kent and Sussex Counties.

Figure 19. Females reported in Delaware as infected through heterosexual contact with a partner at risk for HIV by county of residence in Delaware through 2006, (n=736)



Source: Delaware HIV/AIDS Reporting System (HARS)

Pediatric HIV/AIDS Cases:

Through 2006, Delaware had 43 pediatric cases of HIV/AIDS, a small number for statistical reporting. Seventeen have HIV infection and 26 are AIDS defined. Thirty-three (77%) of the children are living and 10 (23%) have died. Race/Ethnicity distribution for pediatric cases is 77% Black, 14% White and 9% Hispanic. Geographically, 77% (n=33) were living in New Castle County at time of diagnosis of HIV/AIDS, 14% (n=6) in Kent County and 9% (n=4) in Sussex County.

Figure 20. Distribution of pediatric HIV/AIDS cases by mothers' mode of transmission in Delaware through 2006, (n=43)



Source: Delaware HIV/AIDS Reporting System (HARS)

As depicted in Figure 20 above, 42% percent of the pediatric cases were born to mothers with HIV disease who were injecting drug users and 23% to mothers who had sex with injecting drug users. Twenty-one percent of the pediatric cases were born to mothers who had sex with someone with HIV/AIDS, and 12% were born to mothers with no identified risk. The perinatal exposures comprise 98% of the risk for pediatric cases in Delaware with hemophilia, transplant or transfusion risks associated with the remaining 2%.

In the US through December 2005, a total of 9,441 children (<13 years of age) had been reported as having AIDS; of these pediatric cases, 4,865 (52%) had died. During 2005, 523 new cases of HIV/AIDS in children were reported. Of the 2005 cases, 76% (400) were transmitted from an HIV positive mother. Among those transmitted from a mother, 43% (169) resulted from mother's sex with an HIV positive male, 21% (84) from mother's injection drug use, while 37% (146) resulted from a maternal transmission where the mother's cause of infection was unidentified. Of note is the comparison with national data in mother's IDU as a cause, which is 16% of US pediatric infections and 42% of Delaware infections.

Figure 21 below shows the national trend in AIDS (not HIV) cases diagnosed in children under the age of 13 from 1992 through 2005. As shown below, there has been a substantial decline in new AIDS cases among pediatric patients.



Figure 21. US trend in pediatric AIDS cases 1992 through 2005.

Compared to US, there were 24 pediatric AIDS cases diagnosed in Delaware 1992 through 2006. According to 2005 national statistics, Delaware ranks sixth in the Nation in rate per 100,000 persons in terms of pediatric AIDS cases with a rate of 5.09 per 100,000. The US rate in 2005 was 2.7 per 100,000.

Source: HIV/AIDS Surveillance Report⁴

HIV Counseling and Testing Data⁶

Table 17. Demographics of clients who seek counseling and testing services in HIV counseling and testing sites in Delaware 2005 (n=13,450) and 2006 (n=15,245)

Demographics	Num	iber seled	Number of HIV Tests		Number of Positive Tests		Percent HIV Positive*	
	2005	2006	2005	2006	2005	2006	2005	2006
Gender								
Male	6508	6971	5912	6407	66	64	1%	1%
Female	6941	8274	6327	7854	40	28	<1%	<1%
Not specified	<5	0	<5	0	0	0	0%	0%
Race/Ethnicity								
Caucasian	4454	4964	4196	4791	21	18	<1%	<1%
African American	7084	8062	6280	7390	75	62	1%	1%
Hispanic	1555	1825	1468	1735	7	11	<1%	1%
Asian/Pacific Islander	177	177	132	136	0	0	0%	0%
Am Indian/AK Native	17	28	17	28	0	0	0%	0%
Other	152	181	138	173	0	<5	0%	1%
Undetermined	7	8	5	8	0	0	0%	0%
Not Specified	<5	0	<5	0	0	0	0%	0%
Age Groups								
<13	19	27	19	23	0	0	0%	0%
13 – 19	2403	2579	2210	2447	<5	7	<1%	<1%
20 – 29	5881	6707	5312	6267	19	23	<1%	<1%
30 – 39	2643	2980	2384	2762	35	31	1%	1%
40 - 49	1751	2031	1609	1901	35	24	2%	1%
>= 50	747	921	700	861	13	7	2%	1%
Age Not Specified	6	0	6	0	<5	0	16%	0%
Risk								
MSM/IDU	21	38	21	38	<5	<5	10%	5%
MSM	738	910	710	890	35	24	5%	3%
Heterosexual/IDU	607	866	593	845	13	10	2%	1%
Sex Partner At Risk	2214	2209	2171	2139	20	19	1%	1%
STD Diagnosis	2449	22874	2059	2532	12	3	1%	<1%
Sex For Drugs/Money	75	122	72	121	<5	<5	1%	2%
Sex While Using Drugs	1485	1857	1407	1788	<5	5	<1%	<1%
Hem/Blood Recipient	62	51	60	50	<5	0	3%	0%
Victim Sexual Assault	115	153	105	1153	0	<5	0%	<1%
Health Care Exposure	60	64	58	63	0	0	0%	0%
No Acknowledged Risk	793	1026	721	968	<5	<5	<1%	<1%
Heterosexual/No Other	4741	4953	4175	4555	17	25	<1%	1%
	00	100	01	110			00/	00/
Net Creating	<u>გ</u>	122	δI	119			0%	0%
Not Specified	6	U	6	U	U	U	0%	0%

Source: HIV Counseling and Testing Annual Report⁵

* % HIV positive calculated: # positive tests ÷ # of HIV tests performed.

The demographic information in Table 17, on the previous page, indicates in 2005 the clients <u>seeking HIV counseling and testing services</u> (n=13,450) are:

- 52% Female;
- 53% African American, 33% Caucasian, and 14% Hispanic, other, or unknown races.
- 44% in the age group 20-29, 20% are 30-39 and 18% are 13-19 years of age.

The demographics for clients deciding to be tested (n=12,240) are:

- 52% Female;
- 51% African American, 34% Caucasian, and 15% Hispanic or other race/ethnicities;
- 43% in the age group 20-29, 19% are 30-39 and 18% are 13-19 years of age.

The demographics for clients testing positive for HIV (n=106) are:

- 62% are male;
- 71% are African American, 23% are Caucasian, and 6% Hispanic or other race/ethnicities;
- 33% in the age group 30-39, 33% are 40-49 and 18% are 20-29 years of age;
- 33% of the positives self-identified as MSM.

For 2006, the clients seeking HIV counseling and testing services (n=15,245) are:

- 54% Female;
- 53% African American, 33% Caucasian, and 14% Hispanic, other, or unknown races.
- 44% in the age group 20-29, 20% are 30-39 and 17% are 13-19 years of age.

The demographics for clients deciding to be tested (n=14,261) are:

- 55% Female;
- 52% African American, 34% Caucasian, and 14% Hispanic, other, or unknown races.
- 44% in the age group 20-29, 19% are 30-39 and 17% are 13-19 years of age.

The demographics for clients testing positive for HIV (n=92) are:

- 70% are male;
- 67% are African American, 20% are Caucasian, and 13% Hispanic or other race/ethnicities;
- 34% in the age group 30-39, 26% are 40-49 and 25% are 20-29 years of age;
- 26% of the positives self-identified as MSM.

The data shown above illustrates that in 2005 and 2006, males and females sought HIV counseling and testing services at nearly the same rate. Although African Americans represent 20% of Delaware's population, roughly 50% of clients counseled/tested were African American. Positive tests coming out of our state funded sites have been consistent over the past two years; two out of three positive tests were attributed to males. In 2005, 71% of the positive HIV tests were among Blacks; in 2006, the percentage dropped slightly to 67%. Roughly 40% of those tested in Delaware were between the ages of 20-29 followed by the 30-39 age group with 20%. Finally, in 2005, men having sex with men were self-identified as the leading mode of HIV transmission among those testing positive. In 2006 Heterosexual transmission took over as the leading mode.





Source: HIV Counseling and Testing Annual Report⁵





Source: HIV Counseling and Testing Annual Report⁵

Figure 24a. Distribution of Delaware positive HIV tests in 2005 (n=106) by modes of transmission



Source: HIV Counseling and Testing Annual Report⁵

*Combined small risk cells include people who reported they were infected through a sexual assault, through sex while using alcohol or non-injecting drugs, and through no acknowledged risk.

Figure 24b. Distribution of Delaware positive HIV tests in 2006 (n=92) by modes of transmission



Source: HIV Counseling and Testing Annual Report⁵

*Combined small risk cells include people who reported they were infected through a sexual assault, through sex while using alcohol or non-injecting drugs, and through no acknowledged risk.

Figure 25a. Comparison of clients electing to be tested for HIV to the clients testing positive for HIV antibodies by race in Delaware in 2005





Source: HIV Counseling and Testing Annual Report⁵ *African American



Figure 25b. Comparison of clients electing to be tested for HIV to the clients testing positive for HIV antibodies by race in Delaware in 2006



Source: HIV Counseling and Testing Annual Report⁵ *African American



Source: HIV Counseling and Testing Annual Report⁵ *African American

Figure 26. Number of clients pre-test counseled in Delaware HIV counseling and testing sites compared to the number/percentage who elected to be antibody tested from 1998 through 2006, (n=90,141)



Source: HIV Counseling and Testing Annual Report⁵

Sexually Transmitted Infection (STI) and Disease Data⁷

In Delaware information on individuals diagnosed with gonorrhea, chlamydia, primary and secondary syphilis is collected at the local level in sexually transmitted disease (STD) clinics, private physician offices, correctional facilities, outpatient facilities and reported to a centralized office within the Division of Public Health. HIV can be spread through the same unprotected sexual contact that spreads STDs. The presence of an STD can facilitate HIV transmission both by increasing viral load and by providing ulcerations through which HIV can pass. People diagnosed with a STD are at increased risk of contracting or spreading HIV.





Source: Delaware Sexually Transmitted Infection and Disease Reports⁶

Due to continued unprotected sexual practices an individual may contract or be diagnosed more than one time in a reporting year. The recurrence of infection or disease, referred to as disease events, may therefore include duplicate diagnoses. According to the Delaware Annual Sexually Transmitted Disease Report⁷, more than 2,600 chlamydia disease events, have occurred every reporting year from 1996 through 2006. Figure 27 above, illustrates the minimal rise and fall in chlamydia and gonorrhea events over a nine year period. Each of the events represents behavior that potentially exposes the client to HIV infection.

The figure below shows chlamydia diagnoses by gender. For every male diagnosis, close to four times as many females were diagnosed with chlamydia each year.

Figure 28. Distribution chlamydia events In Delaware by gender through 2006, (n=31,547)



Year of Diagnosis

Source: Delaware Sexually Transmitted Infection and Disease Reports⁶

Figure 29 below illustrates the number of primary and secondary syphilis cases decreased by 110% from 1998 to 1999. Syphilis events then remained fairly stable before increasing by 91% from 2005 to 2006.

Figure 29. Number of primary or secondary syphilis disease events diagnosed in Delaware from 1998 to 2006, (n=110)



Source: Delaware Sexually Transmitted Infection and Disease Reports⁶

Delaware HIV/AIDS Epidemiologic Profile 2006

2005 Youth Risk Behavior Survey⁸ (YRBS) Data

During the spring of 2005 2,717 students, in 33 Delaware public high schools, participated in the Youth Risk Behavior Survey⁸ (YRBS). The school response rate was 100%, the student response rate was 84%, and the overall response rate was 84%. The results are representative of all students in grades 9-12. The weighted demographic characteristics of the sample are as follows:

Table 18. Characteristics of students completing the YRBS survey in 33 Delaware public high schools in 2005, (n= 2,717)

Gender	%	Grade	%	Race/Ethnicity	%
Female	49%	9 th grade	32%	African American	30%
Male	51%	10 th grade	26%	Hispanic/Latino	7%
		11 th grade	22%	Caucasian	61%
		12 th grade	21%	All other races	1%
				Multiple races	1%

2005 Youth Risk Behavior Survey⁸

* Percentages may not equal 100 due to rounding

Students completed a self-administered, anonymous, 103-item questionnaire. Survey procedures were designed to protect the privacy of students by allowing for anonymous and voluntary participation. Local parental permission procedures were followed before survey administration.

The YRBS is one component of the Youth Risk Behavior Surveillance System developed by the Centers for Disease Control and Prevention in collaboration with representatives from 71 state and local departments of education and health, 19 other federal agencies, and national education and health organizations. The Youth Risk Behavior Surveillance System was designed to focus the nation on behaviors among youth related to the leading causes of mortality and morbidity among both youth and adults and to assess how these risk behaviors change over time. The Youth Risk Behavior Surveillance System measures behaviors that fall into six categories:

- 1. Behaviors that result in unintentional injuries and violence;
- 2. Tobacco use;
- 3. Alcohol and other drug use;
- 4. Sexual behaviors that result in HIV infection, other sexually transmitted diseases, and unintended pregnancies;
- 5. Dietary behaviors; and
- 6. Physical activity.

If you are interested in more information about the Youth Risk Behavior Surveillance System you may contact Janet Ray; Health Education Associate at the Department of Education at 302-857-3320.

Of the students surveyed:

- 75.8% had at least one drink of alcohol on one or more days during their life;
- 27.2% had their first drink of alcohol other than a few sips before age 13;
- 43.1% had at least one drink of alcohol on one or more of the past 30 days;
- 24.4% had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days;
- 42.2% used marijuana one or more times during their life;
- 11.3% tried marijuana for the first time before age 13;
- 22.8% used marijuana one or more times during the past 30 days;
- 6.4% used any form of cocaine, including powder, crack, or freebase one or more times during their life;
- 3.3% used any form of cocaine, including powder, crack, or freebase one or more times during the past 30 days;
- 14.0% sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life;
- 5.1% sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during the past 30 days;
- 2.6% used heroin one or more times during their life;
- 5.5% used methamphetamines one or more times during their life;
- 2.2% used a needle to inject any illegal drug into their body one or more times during their life;
- 26.1% were offered, sold, or given an illegal drug on school property by someone during the past 12 months;
- 55.1% had sexual intercourse;
- 19.1% had sexual intercourse with four or more people during their life;
- 39.2% had sexual intercourse with one or more people during the past three months;
- 15.5% had sexual intercourse but have not had sexual intercourse during the past three months;
- Of students who had sexual intercourse during the past three months, 27.9% drank alcohol or used drugs during last sexual intercourse;
- Of students who had sexual intercourse during the past three months, 93.8% used a condom during last sexual intercourse;
- Of students who had sexual intercourse during the past three months, 18.8% used birth control pills during last sexual intercourse;
- 8.1% had been pregnant or gotten someone pregnant one or more times.

Patterns of Utilization of Services in People With HIV in Delaware

The reference data for service utilization are for the most part based upon data provided to Health Resources and Service Administration (HRSA), by grantees in Delaware receiving funding through multiple title programs.

Title II funding is awarded to improve the quality, availability, and coordination of health care and support services for people and families with or affected by HIV disease. The funding also assists with access to recommended pharmaceuticals through the AIDS Drug Assistance Program (ADAP).

In 2005 and 2006 combined, a total of 1,436 clients received services funded through Ryan White Title II funding. Table 19, compares the demographic characteristics of the unduplicated HIV-infected clients receiving services that are funded by Ryan White Care Act Title II Programs in 2005 through 2006 to the distribution of living HIV/AIDS cases in Delaware through 2006.

Table 19. Demographic character programs in 2003 and 2006 compa	ristics of ared to D	f clien elawa	ts fund re livin	led by Ryan White Car Ig HIV/AIDS cases	e Act Title II

Demographics	Percent of CARE Act Clients	Percent of DE Living HIV/AIDS Cases	
	2005-2006 (n=1,436)	Through 2006 (n=3,184)	
Ethnicity			
Hispanic or Latino Origin	4%	7%	
Non-Hispanic	96%	93%	
Unknown/Unreported Ethnicity	0%	0%	
Race			
Caucasian (Non-Hispanic)	28%	29%	
African American (Non-Hispanic)	69%	63%	
Other*	3%	8%	
Unknown/Unreported Race	<1%	0%	
Gender			
Male	65%	68%	
Female	35%	32%	
Unknown/Transgender	<1%	0%	
Age			
Less than 13 years	<1%	1%	
13 - 19	1%	1%	
20 - 29	4%	6%	
30 - 39	18%	18%	
40 - 49	44%	43%	
50+	33%	31%	
Unknown/Unreported	0%	0%	

Ryan White CARE Act Data Reports⁸

*Other includes Asian, American Indian, and Multi-racial

The following list gives a picture of the most frequently accessed Ryan White Title II services funded in Delaware. The unduplicated number of clients accessing the services for 2005-2006 is 1,436. Medical services do not include medications dispensed; medications are found exclusively under the ADAP category.

2005-2006 Services Provided

- 1009 people were provided Health Education and Case Management
- 762 people received dental services
- 720 food-bank or home delivery connections were made
- 471 people received additional Direct State Services including:
 - Nutritional supplements
 - Disposable medical supplies
 - \circ Eye exams
 - Eyeglasses
 - Other minor services
- 369 people received emergency financial assistance
- 345 people were provided with transportation
- 185 assisted housing connections were arranged
- 34 people received insurance assistance
- 25 people were referred for Mental Health and Nutritional Counseling
- 7 people received durable medical supplies

Note: Services are not exclusive to patient numbers, meaning it is possible that any patient may have received more than one service.

In Delaware, Ryan White CARE Act Title II funding was awarded to three provider types. The provider types are:

- 1. Hospital-Based clinics that include:
 - DuPont Hospital for Children north of Wilmington,
 - Christiana Care Health Services and Division of Public Health jointly sponsored clinics in the following locations:

Table 20. County locations of the HRSA funded and CCHS\DPH sponsored infectious disease-wellness clinics in Delaware

New Castle County	Kent County	Sussex County
Wilmington Hospital Annex, Riverfront, and Porter State Service Center	Kent Wellness in Smyrna	Sussex Wellness in Georgetown

- 2. Community Based Organizations (CBO) that include:
 - AIDS Delaware
 - Beautiful Gate Outreach Center
 - Brandywine Counseling Incorporated
 - Case Management Services
 - Catholic Charities
 - Delaware Center for Justice
 - Delaware HIV Consortium
 - Kent/Sussex County Counseling
 - Ministry of Caring
 - Sussex County AIDS Council
- 3. Public Health entities that include:
 - Division of Public Health, Delaware Department of Health and Social Services
 - Cecil County Health Department, Maryland

Table 21 below illustrates the demographic characteristics of clients in the ADAP program in 2005-2006 compared to the demographics of living HIV/AIDS cases in the HARS database for the same period. The percentages appear similar in all characteristics.

Table 21.	Demographic	characteristics o	of clients serve	d in 2006 /	AIDS Drug	Assistance
Program (ADAP) compar	ed to living Delaw	vare HIV/AIDS r	eported ca	ses throug	<u>h 2</u> 006

Client ADAP		ADAP (Percent)	Living with HIV/AIDS	Living with HIV/AIDS (Percent)	
onaraotoriotico	2005-2006 (n=633)	2005-2006 (%)*	Through 2006 (n=3184)	Through 2006 (%)**	
Gender					
Male	447	71%	2,149	67%	
Female	186	29%	1035	33%	
Unknown/Trans	0	0%	0	0%	
Total	633	100%	3,184	100%	
Ethnicity					
Hispanic/Latino	41	6%	206	7%	
Non-Hispanic or Latino	592	94%	2,978	93%	
Total	633	100%	3,184	100%	
Race					
Caucasian	202	32%	916	31%	
African American	402	64%	2,043	69%	
Unknown\More than one race	29	4%	225	7%	
Total	633	100%	3,184	100%	
Age (Years)	Age (Years)				
0-19	6	1%	100	3%	
20-29	30	5%	570	6%	
30-39	133	21%	1,223	18%	
40-49	282	45%	950	43%	
50+	182	29%	341	31%	
Total	633	100%	3,184	100%	

Ryan White CARE Act Data Reports⁸ * Percentages may not equal 100 due to rounding

Of 1,269 HIV infected clients who attended an Infectious Disease-Wellness clinic in 2005, 86% (n=1091) received Highly Active Antiretroviral Therapy (HAART). Of 1349 clients who attended an ID-Wellness clinic in 2006 90% (n=1,214) received HAART therapy.

In 2005, 1302 HIV-infected clients attending ID-Wellness clinics also received the following preventive therapies:

- 835 (64%) had a TB skin test (PPD Mantoux), 9 who were treated secondary to positive TB skin test.
- 957 (74%) had screening/testing for syphilis and 8 were positive and treated.
- 124 (9%) had screening/testing for any treatable sexually transmitted infection (STI) other than syphilis and HIV and 34 were treated for an STI other than syphilis and HIV.
- 159 (12%) had screening/testing for hepatitis C and 7 received treatment for hepatitis C.

The 504 HIV-infected females attending ID-Wellness clinics also received the following gynecological/obstetric interventions in 2005:

- 214(42%) received a pelvic examination and Pap smear during 2005.
- ◆ 22 (4%) of the women were pregnant in 2005.
 - 16 entered care in the first trimester
 - 3 entered care in the second trimester
 - 3 entered care in the third trimester
 - 0 entered care at the time of delivery
- ◆ 21 (95%) of the pregnant women received antiretroviral medication to prevent transmission of HIV to their children.

16 children were delivered to 22 pregnant HIV-positive females. None of the 16 children were HIV positive.

In 2006, 1,349 HIV-infected clients attended ID-Wellness clinics and received the following preventive therapies:

- 844 (63%) had a TB skin test (PPD Mantoux), 14 who were treated secondary to positive TB skin test.
- 1037 (77%) had screening/testing for syphilis and 6 were positive and treated.
- 137 (10%) had screening/testing for any treatable sexually transmitted infection (STI) other than syphilis and HIV and 52 were treated for an STI other than syphilis and HIV.
- 117 (8%) had screening/testing for hepatitis C and 8 received treatment for hepatitis C.

The 525 HIV-infected females attending ID-Wellness clinics also received the following gynecological/obstetric interventions in 2006:

- 241(50%) received a pelvic examination and Pap smear during 2006.
- 29 (5%) of the women were pregnant in 2006.
 - 22 entered care in the first trimester
 - 5 entered care in the second trimester
 - 2 entered care in the third trimester

◆ 29 (100%) of the pregnant females received antiretroviral medication to prevent transmission of HIV to their children.

12 children were delivered to 29 pregnant HIV-positive females. None of the 12 children was HIV positive.

Of the 1,603 HIV-infected Delawareans in 2006 receiving drugs or services through the Ryan White CARE Act funding, 63% (n=1,007) have income levels equal to or less than the Federal Poverty Level. Twenty-six percent (n=413) have income levels between 101% and 200% of the Federal Poverty Level.

Figure 30. Percent of household income of HIV-infected recipients of Ryan White CARE Act funding at the end of 2006 in Delaware, (n=1,603)



Ryan White CARE Act Data Reports⁸

HIV/AIDS Reporting System (HARS) Data

The HIV/AIDS Reporting System provides the states with the capability of collecting user specified data at the local level. Delaware has for several years collected information on where HIV-infected people are getting their health care. The data is generally collected from laboratory results that indicate the requesting providers name or treatment facility, through line reviews with private physicians, ID and Wellness clinic coordinators, case managers, correctional facilities and through case report forms. The information has become more frequently available since the implementation of HIV reporting in July 2001. Laboratory data is updated as the information becomes available and is generally received no less than twice a year. Due to enhanced laboratory reporting the information on treatment location is considered current for at the least the past 12 months. Anecdotally, to receive no data on a client in a 12-18 month time frame may indicate the client has moved to another state, moved to a treatment facility that is out of state, is receiving care through a health care provider who is not requesting CD₄ or viral load testing or the provider is using a laboratory that is not reporting results to DPH. The final determination that may be made is that the client has dropped out of care.

The following graphs show the utilization of treatment services in Delaware as collected in HARS and extracted for the current profile.





Source: Delaware HIV/AIDS Reporting System (HARS)

Figure 32. Distribution by treatment location of all living AIDS clients residing in Delaware through December 2006, (n=1,957)



Source: Delaware HIV/AIDS Reporting System (HARS)

Figures 32 and 33 above indicates about half of all HIV and AIDS patients are receiving care through a wellness clinic, with approximately one-quarter being treated by private doctors.

Figures 34 and 35 illustrate the county of residence and treatment location of living cases as of December 31, 2006. There are also 55 clients residing in Delaware who go outside our state to receive their medical care. As is illustrated in figures 35 and 36, 567 (46%) HIV-infected clients and 1,106 (56%) AIDS-infected clients living in Delaware attended an ID/Wellness clinic in each of the three counties through 2006.





Source: Delaware HIV/AIDS Reporting System (HARS)





Source: Delaware HIV/AIDS Reporting System (HARS)

Conclusion

It is our hope that the data contained in this epidemiological report will help to prevent further cases of HIV/AIDS in the State of Delaware by better focusing resources and programs to those most at risk. Despite medical advances and focused HIV prevention and care programs, HIV disease continues to have a devastating impact on the health and well-being of Delawareans. Although Delaware is the second smallest state and has a population well under one million, we consistently rank in the top 10 among states in new AIDS cases reported per year (per 100,000 population). Today, more Delawareans are living with HIV disease than ever before—especially in New Castle County where 71% of those infected reside. African Americans carry the majority of the burden of this dreaded disease, where 1 out of 49 adult African American men and 1 out of 89 adult African American women are currently infected. HIV among Delaware women is on the rise, comprising 41% of new cases over the last two years.

Recent data from Christiana Care Health Systems shows roughly 50% of people presenting for care in 2006, seek care only <u>after</u> experiencing symptoms of HIV illness and/or receiving a diagnosis of AIDS before or at intake for clinic care. The need to reach people earlier in HIV illness has never been more urgent. Interventions must address at-risk populations, as communities and as individuals, and must be tailored, as much as is practical and fundable, to each population's unique cultural, racial, ethnic, economic, religious and sexual mores and practices. HIV testing, partner services, active referral to care, and the responsibility to not pass the virus must be emphasized appropriately and effectively – in tune with the unique needs of each population.

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APPENDIX A

Delaware Epidemiologic Profile Feedback

The purpose of this form is to provide the writers of HIV/AIDS epidemiologic profiles feedback from their end-users regarding the ease of use and applicability of the profile 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

1.	Of which	planning	group are	you a	member?
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2. Was the epidemiologic profile easy to read?

🗌 Yes	🗌 No	Somewhat
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3. How were the findings of the epidemiological profile communicated to you?

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

4. Were the findings of the epidemiologic profile clear to you?

Yes No Somewhat
If not, explain why.
Was the epidemiologic profile useful to your planning process?
Yes No Somewhat
If not, explain why.

5.

6.	Describe how you used the epidemiologic profile in your planning activities?
7.	How can next year's profile be improved?
7a	What specific questions could be included in the next profile?
8.	Do you want to receive the quarterly HIV/AIDS statistical report?
	Yes, I already receive the report
	Yes, please send the report to me by: Include your contact information, as appropriate
	 Email Fax Mail
9.	Data from this epidemiological profile 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,	
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