Epidemiologic Profile of HIV/AIDS in Delaware: 2002



HIV/AIDS Epidemiology Disease Prevention and Control Division of Public Health Delaware Health and Social Services

DELAWARE HEALTH AND SOCIAL SERVICES Division of Public Health



Delaware HIV/AIDS Epidemiologic Profile 2002

Dedicated to Kathryn J. Widdowson HIV/AIDS Surveillance and SHAS Coordinator May 1951 - November 2003

Table of Contents

		Page
Listing of Figures in	Profile	a-b
Listing of Tables in I	Profile	c-d
Executive Summary	,	1-2
Background and Intr	roduction	3
Methods		3
	 Data Sources - Their Strengths and Limitations 	4-6
	 Epidemiology 	6-7
	 Definitions of Terms 	8
	 Abbreviations and Cautions in Using Data 	9
Question 1:	What are the sociodemographic characteristics of the State of Delaware?	10-12
Question 2:	What is the scope of the HIV/AIDS epidemic in Delaware?	13-36
- ·	Overview	13
	By Gender and Race/Ethnicity	16
	By Age Group	19
	By Adult/Adolescent Mode of Exposure	20
	By Pediatric Mode of Exposure	35
	By Geographical Location	36
Question 3:	What are the indicators of risk for HIV/AIDS infection in Delaware?	38-53
	 From Supplement to HIV/AIDS Surveillance Data (SHAS) 	38
	In Injecting Drug Users (IDU)	40
	In Men Having Sex With Men (MSM)	43
	In Heterosexuals	44
	 From HIV Counseling and Testing Data (C/T) 	45-49
	 From Sexually Transmitted Disease Data (STD) 	50-51
	 From Youth Risk Behavior Survey (YRBS) 	52-53
Question 4:	What are the patterns of utilization of services in people with HIV	E4 69
	III Delaware?	54-00 54
	HRSA Graniee Provided Data HIV(AIDS Reporting System (HARS) Data	- 04 - 60
	HIV/AIDS Reporting System (HARS) Data	02 65
	- Supplement to Thv/AIDS Surveillance (SHAS) Data	05
	Conclusions	70
	Acknowledgements	70-71
	References	71
	Appendix A - Heterosexual SHAS Data	72-73
	Appendix B - Profile Feedback Form	74-75

For more information, please contact the Delaware Division of Public Health, HIV/AIDS Epidemiology office at (302) 744-4542. Our web site contains monthly statistical updates and provides links to local and national organizations.

Figure Number Figure Title Page Comparison of mortality status in Delaware AIDS cases by year of Figure 1. 14 diagnosis (yr dx'd), 1992 through 2002 Distribution of Delaware HIV/AIDS cases by gender and year of report Figure 2. 16 through 2002 Figure 3. Comparison of Delaware HIV/AIDS cases by gender and race, diagnosed 16 1992 through 2002 Figure 4. Distribution of Delaware HIV/AIDS cases by race and gender through 18 December 2002 Figure 5. Distribution of Delaware HIV/AIDS cases by age groups through 2002 19 Figure 6. Distribution of male adult/adolescent HIV/AIDS cases by mode of 23 transmission in Delaware through 2002 HIV/AIDS cases among men who have sex with men (MSM) by race and 25 Figure 7. ethnicity by year of report in Delaware 1983 through 2002 Distribution of men who have sex with men with HIV/AIDS by residence Figure 8. 25 at time of report in Delaware through 2002 Figure 9. HIV/AIDS cases among men who inject drugs (IDU) by year of report in 27 Delaware 1986 through 2002 Figure 10. Men who inject drugs by county of residence in Delaware through 27 December 2002 Distribution of men who have sex with men and inject drugs by county of Figure 11. 28 residence in Delaware through 2002 Figure 12. Distribution of female partner's risk in men reported as heterosexually 30 HIV-infected in Delaware through 2002 Figure 13. Men reported in Delaware as infected through heterosexual contact with 30 a female sexual partner at risk for HIV by county through 2002 HIV/AIDS cases among women who inject drugs (IDU) by year of report 31 Figure 14. in Delaware 1987 through 2002 Figure 15. Women with HIV/AIDS who inject drugs by county of residence in 32 Delaware through December 2002 Figure 16. Distribution of male partner's risk in women reported as heterosexually 33 HIV-infected in Delaware through 2002 Figure 17. Women reported in Delaware as infected through heterosexual contact 34 with a partner at risk for HIV by county of residence through 2002 Figure 18. Distribution of pediatric HIV/AIDS cases by mode of transmission in 35 Delaware through 2002 Figure 19. Percentage of clients SHAS interviewed July 2000 – June 2003 by mode 39 of transmission reported in HARS Figure 20. IDU SHAS participants who had sex in the 12 months prior to date of 40

interview by gender and number of partners

Male SHAS participants who are IDU and their sexual activity in the 12

months prior to the SHAS interview

Female SHAS participants who are IDU and their sexual activity in the 12

months prior to the SHAS interview

Listing of Figures in Profile

Figure 21.

Figure 22.

41

42

Figure Number	Figure Title	Page
Figure 23.	Percentage of positive HIV tests by county (as a percent of all positives tests per year) in Delaware 1998-2002	47
Figure 24.	Distribution of Delaware positive HIV tests in 2002 by modes of transmission	47
Figure 25.	Comparison of clients electing to be tested for HIV to the clients testing positive for HIV antibodies by race in Delaware in 2002	48
Figure 26.	Number of clients pre-test counseled in Delaware HIV counseling and testing sites compared to the number who elected to be antibody tested from 1998 through 2002	48
Figure 27.	Number of clients testing positive in Delaware HIV counseling and testing sites compared to the number who returned for results in 1998 through 2002	49
Figure 28.	Number of chlamydia and gonorrhea disease events in Delaware from 1998 to 2002	50
Figure 29.	Distribution of Delaware chlamydia events by gender from 1998 through 2002	51
Figure 30.	Number of primary or secondary syphilis disease events diagnosed in Delaware in 1998 to 2002	51
Figure 31.	Types of providers by percentage funded by Ryan White CARE Act Title II Program 2002 in Delaware	56
Figure 32.	Distribution of clients attending ID-Wellness Clinics by risk factor for transmission of HIV in 2002	60
Figure 33.	Percent of household income of HIV-infected recipients of Ryan White CARE Act funding at the end of 2002 in Delaware	61
Figure 34a.	Distribution by treatment location of all living HIV clients residing in Delaware at time of diagnosis through December 2002	62
Figure 34b	Distribution by treatment location of all living AIDS clients residing in Delaware at time of diagnosis through December 2002	63
Figure 35a.	County of residence and treatment location for all living HIV cases residing in Delaware and receiving care in 2002	64
Figure 35b	County of residence and treatment location for all living AIDS cases residing in Delaware and receiving care in 2002	64

Listing of Tables in Profile

Table		Daria
Number	I able Title	Page
Table 2.	U.S. Census Bureau estimates for the population of Delaware by race through the year 2001	12
Table 3.	Characteristics of persons reported with HIV/AIDS in Delaware 1983 through 2002	13
Table 4.	Comparison of the characteristics of Delaware residents who died of HIV/AIDS in five year time periods from 1983 - 2002	15
Table 5.	Distribution of Delaware HIV/AIDS cases by race/ethnicity and gender in adult/adolescent cases and pediatric cases reported through 2002	17
Table 6.	National distribution of AIDS cases by race/ethnicity and gender in adult/adolescent cases and pediatric cases reported through 2001	17
Table 7.	Comparison of all Delaware HIV/AIDS cases by mode of exposure diagnosed through 2001 to cases diagnosed through 2002	21
Table 8.	Comparison of the first 10 years of HIV/AIDS cases reported to the second ten years by mode through December 2002	22
Table 9.	Distribution of adult/adolescent HIV/AIDS cases by gender in 10 year periods 1983-1992 and 1993-2002 in Delaware cases reported through 2002	22
Table 10.	Demographic characteristics of race and age group in men who have sex with men by year of report in Delaware 1983 - 2002	24
Table 11.	Men who inject drugs: demographic characteristics of HIV/AIDS cases by race and age group by year of report in Delaware 1983 - 2002	26
Table 12.	Race and age demographic characteristics in male injecting drug users who also have sex with men by year of report in Delaware 1983 - 2002	28
Table 13.	Demographic characteristics of race and age group in heterosexual men by year of report in Delaware 1983 – 2002	29
Table 14.	Women who inject drugs: demographic characteristics of race and age group by year of report in Delaware 1983 – 2002	31
Table 15.	Heterosexual contact in women: demographic characteristics of race and age group by year of report in Delaware 1983 – 2002	33
Table 16	HIV/AIDS cases through December 2002 by county with the City of Wilmington and Beach populations illustrated separately	36
Table 17.	Demographics of SHAS interviews conducted July 1, 2000 through June 2003	38
Table 18.	Demographics of clients who seek counseling and testing services in HIV Counseling and Testing Sites in Delaware in 2002	45
Table 19.	Characteristics of students completing the YRBS Survey in 30 Delaware Public High Schools in 2001	52
Table 20.	Demographic characteristics of clients receiving services funded by Ryan White Care Act Title II Programs 2002 compared to Delaware HIV/AIDS cases through 2002	54
Table 21.	Utilization of Ryan White Title II service, by service type in 2002	55

Table 22.	County locations of the HRSA funded and CCHS\DPH sponsored ID- Wellness Clinics in Delaware	55
Table 23.	Demographic Characteristics of clients served through 2002 AIDS Drug Assistance Program (ADAP) compared to living Delaware HIV/AIDS reported cases through 2002	57
Table 24.	Characteristics of HIV-infected patients prescribed HAART (Highly Active Antiretroviral Therapy) in CCHS\DPH ID-Wellness Clinics throughout Delaware in 2002	58
Table 25.	Characteristics of HIV-infected patients prescribed prophylaxis for PCP (Pneumocystis carinii pneumonia) in CCHS\DPH ID-Wellness Clinics throughout Delaware in 2002	59

Executive Summary

Description of the State of Delaware: The Delaware estimated population for 2001 is 796,165. Delaware's population represents 0.2% of the total United States population of 284,796,887. Seventy percent of Delaware residents live within urban areas. Seventy-five percent of Delaware's residents are White, 19% are Black, 5% are Hispanic and 1% are self-identified as two or more races. Delaware residents had higher incomes, lower unemployment rate, and were more highly educated than United States residents as a whole. Other data shows high rates of teen pregnancy and substance abuse. There is a growing need for services for the homeless, treatment for mental illness and substance abuse services. This suggests that there are a number of populations at risk for contracting HIV.

Epidemiologic Trends in HIV and AIDS in Delaware: In the year 2002, 0.5% of the AIDS cases in the U.S. were reported among Delaware residents. Delaware ranks 18th among states in the total number of reported AIDS cases and 5th in the rate of AIDS cases per 100,000 population. Seventy percent of HIV/AIDS cases reported in Delaware in 2002 were among men. However, cases diagnosed among women continue to grow from 24% of cases reported in 1997 to 30% of cases reported in 2002. The percentage of HIV/AIDS cases reported among minority groups is disproportionately high. In 2002, sixty-five percent of cases reported were among blacks and 6% reported among Hispanics. More than 64% of cases reported in Delaware in 2002 were reported among those aged 30-49. Since the new anti-retroviral treatments became available in 1996, HIV infected persons have been living longer and healthier. As a result of the highly active anti-retroviral (HAART) therapy, the number of AIDS cases reported to the Division of Public Health has declined dramatically from 299 cases in 1996 to 152 in 2002. Similarly, people are living longer with HIV. Within Delaware the epidemiology of HIV varies from one area of the state to another. In New Castle County, cases are largely among African American IDUs, while Sussex County cases are for the most part white men who have sex with men. HIV/AIDS cases in the state are concentrated in the state's 4 largest cities, Wilmington, New Castle, Newark and Dover.

2002 Observations in Behavioral Risk Groups: The largest risk groups among HIV/AIDS cases reported in Delaware in 2002 are injection drug users (IDU) 30% (n=117), followed by heterosexual transmission 27% (n=107), and men having sex with men (MSM) at 24% (n=94). More than half, 58%, of injecting drug users and 46% of heterosexually infected women reported in 2002 are Wilmington residents. Nearly a third, 29% (n=27) of MSM cases reported in 2002 were living in the City of Wilmington at time of report.

HIV/AIDS in other populations: There are a number of populations on which adequate data to assess HIV risk is not available. These include smaller 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 i.e. blood donors and pregnant women. Anecdotal data indicates that less than ten HIV-infected women gave birth to infants in the last year. All the infants followed by Ryan White Title IV programs tested negative. While there may be one or two perinatally-infected infants in recent years, trend data shows an overall decrease in perinatal HIV infection in Delaware.

Other Data on HIV and AIDS: One percent of publicly funded counseling and testing clients in Delaware are HIV sero-positive. Of those who test positive 70% are men and 30% women. Groups showing the highest seroprevalence rates are Blacks 57%, Whites 29% and Hispanics 14%. Thirty-seven percent of positives are MSM while 20% identified as having no other risk than a sex partner who was at risk for HIV. Heterosexual IDUs comprised 15% of the positive tests in 2002.

Background and Introduction

Delaware has tracked AIDS cases since 1984 and commenced collecting information on the HIV infected population July 10, 2001 by compiling information from health care professionals, laboratories and physicians. An analysis of current AIDS case reporting and incoming HIV data show a continued increase in the number of injecting drug users occurring most significantly in both genders of the African American population. Heterosexual cases, in women of color, are increasing and although White men who have sex with men are still being reported the decrease continues.

Data presented here are current through December 31, 2002. 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- infected individuals in Delaware.

Regulations for the Control of Communicable and Other Disease Conditions were revised in July 2001. The revision includes the reporting of HIV cases, through a name to code system, to the HIV/AIDS Epidemiology office. Seventeen months of HIV data collected through December 31, 2002 are included so as to assist prevention and health planning groups with the full scope of the HIV characteristics and epidemic in Delaware.

<u>Methods</u>

The epidemiologic profile describes the distribution, trends, and impact of human immuno-deficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) on the people of Delaware. The profile provides information for prevention planning and education programs centered on HIV. The plan to integrate the profile by Health Resources and Services Administration (HRSA) and the Centers for Disease Control and Prevention (CDC) is to provide a comprehensive document to steer prevention planning and service efforts. The compiled data will justify and award future funding for prevention and medical-social services.

The four main questions used to outline data in this profile are:

- 1. What are the socio-demographic characteristics of the State of Delaware?
- 2. What is the scope of HIV/AIDS epidemic in Delaware?
- 3. What are the indicators of risk for HIV/AIDS infection in Delaware?
- 4. What are the patterns of utilization of services in people with HIV in Delaware?

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 addressed. Sources for data presented include: AIDS surveillance activities, CDC national statistics on HIV/AIDS, HIV counseling and testing annual report, STD data, vital statistics annual report, United States Census Bureau Quick Facts, and Ryan White Comprehensive AIDS Resource Emergency (CARE) Act Data Reports (CADR) from HRSA grantees. If the reader has specific questions, the 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 are provided below. HIV/AIDS surveillance includes case reports of all 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:** Data collection is in decades with estimates provided in the interim.

<u>Delaware Vital Statistics Annual Report 2001^2 – produced by the Delaware</u> Health Statistics Center, provides health statistical data on the morbidity and mortality of all residents of Delaware.

Strengths: Data set is complete.

Limitations: Data quality is limited to the information provided by physicians on the birth and death certificates and behavior risk data is unavailable. 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.

<u>HIV/AIDS Reporting System³ (HARS)</u> is the software used nationwide for storing of HIV/AIDS data. Medical professionals throughout the state submit HIV and AIDS case report forms that vary in completeness and timeliness. AIDS data are the only consistently reported data across the nation, resulting in population-wide statistics in all states.

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

Limitations: 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 <u>HIV/AIDS Surveillance Report</u>⁴ through 2001, published by the Centers for Disease Control and Prevention, is used frequently in the profile for national data. The report for the period ending 2002 will not be available until after this profile is completed. The report is the compilation of HIV/AIDS surveillance information provided by state reporting systems and aggregated for dissemination to the public through the Internet. The website: <u>http://www.cdc.gov/hiv/dhap.htm</u> will provide the reader with a very wide variety of HIV/AIDS information and slide presentations.

Strengths: National data

Limitations: Time delay in release of data.

<u>Supplement to HIV/AIDS Surveillance⁵ (SHAS) project is a federally funded grant</u> initiative through which adult HIV/AIDS patients are interviewed for additional information. Surveys address topics including: socio-demographic factors, sexual and medical history, drug and alcohol use, access to medical and social services, gynecological and reproductive histories (females), and preventive therapy. Questions regarding behavior and treatments allow investigators more detail on these topics than from other sources. Since the project involves interviewing patients, data are subjective and from the patient's perspective. Therefore, respondent bias is inherent in this data set. All data from SHAS interviews are confidential and linked to surveillance data through patient numbers and not identifying information. The SHAS survey instrument was revised in 2000 and the data in the 2002 profile reflects information collected in the latest version. **Strengths:** Confidential data set.

Limitations: Data are subjective and from the patient's perspective. Responses may be what the patient thinks the interviewer may want to hear versus the actual answer. Data may be skewed toward those healthy enough to participate and participation is voluntary.

<u>HIV Counseling and Testing Annual Report⁶</u> is based on data collected on a standardized data collection form from people seeking counseling and possible testing for HIV. Repeat tests cannot be distinguished in this data set.

Strengths: Standardized data collection.

Limitations: Only represents patients who seek counseling and testing (self-selection) and may include persons who tested multiple times. Clients often defer to "sexual partner at risk", rather than identifying specific risk behavior of sexual partner.

<u>Sexually Transmitted Infection and Disease Reports</u>⁷ include the statistical data on sexually transmitted disease (STD) events of gonorrhea, chlamydia and syphilis in Delaware. STD case data is well reported in Delaware but is limited in that the collected data does not include information, such as gender of sexual partners or 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>2001 Youth Risk Behavior Survey</u>⁸ (YRBS) is a self-administered, anonymous, 87-item questionnaire for Delaware high school students. The privacy of the student is assured by allowing for anonymous and voluntary participation. 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 and more information may be obtained through the Department of Education's Adolescent School Health section at 302-744-4906.

Strengths: Risk assessment ongoing with emphasis on prevention.

Limitations: Data limited to high school students who voluntarily participate in survey and relies upon self-reported information Survey emphasis is on abstinence and does not include questions about homosexual or bisexual behavior.

Ryan White CARE Act Data Reports⁹ (CADR) are used to report information about provider and program characteristics providing Ryan White CARE Act services. Data is collected and submitted by grantees of Title II through Title IV to Health Resource and Services Administration (HRSA). At the provider level, the CADR offers unduplicated aggregate counts of all clients served. At the Title I grantee level, the CADR data are duplicated. 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.

Limitations: Unable to perform analysis on data that can not be unduplicated as clients may access services from multiple providers. Data is limited to those who access care, treatment or services for HIV.

Epidemiology

When investigating an epidemic, questions relating to person, place and time are important to sort out 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.
- <u>Place</u>: In this epidemiologic profile, place 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, 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) 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 allows a person to be classified by the risk that most likely exposed the individual.

Two noteworthy timelines in the HIV/AIDS epidemic impact 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 combined with AIDS data in 2001 and 2002 and is a contributing factor in the increased number of cases observed in most tables and figures in the profile.</u> Unless otherwise stated, all tables and figures that have HIV/AIDS in the title, include HIV data reported from July 10, 2001 through December 2002 combined with AIDS data from 1983 through 2002.

All AIDS patient data is strictly confidential and is collected for epidemiologic 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 Epidemiology office has 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 but are generally identified in the footnote.**

Definition of Terms

Adult/Adolescent case:	Patient is 13 years of age or greater at the time of diagnosis.
Epidemiology:	Study of factors (age, race, and gender) that affect disease distribution in the human 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:	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 are reclassified as information is obtained through a complete epidemiologic investigation.
Pediatric case:	Patient is less than 13 years of age at diagnosis.
Prevalence:	Number of existing cases per standard population.
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 when disease event occurred.
Year of report:	Measure of when the HIV/AIDS surveillance office received case report.

Abbreviations

Acquired Immune Deficiency Syndrome Asian/Pacific Islander
Comprehensive AIDS Resource Emergency
CARE Act Data Report
Counseling and Testing Services
Division of Public Health
HIV/AIDS Reporting System (software)
Human Immunodeficiency Virus
Health Resources and Services Administration
Injecting Drug Users
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
Supplement to HIV/AIDS Surveillance
Sexually Transmitted Disease (Infection)

Cautions in Using Data

Readers should use caution when reviewing data. Listed below are "hints" to help you understand the report. If you have further questions, please contact the epidemiology office.

Case rate: 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 White AIDS cases in Delaware and the White 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.

Dates: 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?

Graphs and tables: 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 of cases or as a case rate?

Question 1. What are the sociodemographic characteristics of the State of Delaware?

Description of the State of Delaware

<u>Geography:</u> 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 south-eastern portion of Delaware's coast-line 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 the end of 2001 is 796,165 according to the U.S. Census Bureau. The proportion of the population, by county of residence, is 64% New Castle County, 16% Kent County and 20% Sussex as depicted in Table 1 on the next page. The race and ethnicity distribution in the state (see Table 2 on page 12) is 75% White, 19% Black or African American, 4% of Hispanic or Latino origin and the remaining 1% a compilation of Asian, Native Hawaiian and other Pacific Islanders. Seventy percent of the population is urban. Women comprise 51% of the state total population, equivalent to the national distribution by gender. The median age of the Delaware resident is 36 years. Ten percent of Delaware residents report a language other than English is spoken in their home. Median household income of \$47,381 and a per capita income of \$23,305 in Delaware exceed the U.S. incomes \$41,994 and \$21,587 respectively. Eighty-three percent of Delaware residents reported having a high school diploma and 25% a bachelor's degree or higher compared to 80% and 20% for the U.S. respectively.

County Demographics

New Castle County is the smallest county 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 2001 estimated population for New Castle County is 505,829 or 64% of Delaware's total population. Fifteen percent (n=76,664) of New Castle County's residents live within the City of Wilmington.

The racial distribution in New Castle County is 73% White, 20% Black or African American, 5% Hispanic or Latino and 2% are of multiple other origins. Genderwise, New Castle County residents are 51% women and 49% men.

Approximately 7% of the county's residents are under the age of 5, with 25% between 5 and 17, the age group 18-64 comprises 66% and 12% are 65 years and older.

Kent County is the second smallest in landmass with 590 square miles and an estimated population in 2001 of 129,066. This represents 16% of the state's entire population with 215 people per square mile. Kent County is the home of the Dover Air Force Base and of the State Capital, Dover.

The racial distribution in Kent county is 74% White, 21% Black or African American, 3% are Hispanic or Latino and the remaining 2% combines multiple other origins and persons of more than one race. The gender distribution in Kent is 52% women and 48% men.

Approximately 7% of the county's residents are under the age of 5, with 27% between 5 and 17, the age group 18-64 comprises 64% and 12% are 65 years and older.

Sussex County is the fastest growing and largest county in landmass, measuring 938 square miles, with 167 persons per square mile. Estimated population, based on Quick Facts of the U.S. Census Bureau, is 161,270 or 20% of the state population.

The racial distribution in Sussex is 80% White, 15% Black or African American. The remaining 5% combine multiple other origins and persons of more than one race/ethnicity. The gender distribution in Sussex is 52% women and 48% men.

Approximately 6% of the county's residents are under the age of 5, with 23% between 5 and 17, the age group 18-64 comprises 52% and 19% are 65 years and older.

The year around beach population and growth of retirement communities in Sussex are responsible for the 3% increase in population from 2000 – 2001.

Table 1. U.S. Census Bureau¹ estimates for the population of Delaware through the year 2001

	20	01
County	#	%
New Castle	505,829	64%
Sussex	161,270	20%
Kent	129,066	16%
Total	796,165	100%

Table 2. U.S. Census Bureau¹ estimates for the population of Delaware byrace through the year 2001

		African	Hispanic or	
	White	American	Latino	Other
County	%	%	%	%
New Castle	73%	20%	5%	2%
Sussex	80%	15%	4%	1%
Kent	74%	21%	3%	2%
Total	75%	19%	4%	2%

Question 2. What is the 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). <u>HIV data is combined with AIDS data in 2001</u> and 2002 and is a contributing factor in the increased number of cases observed in most tables and figures in the profile. Through December 2002, a total of 3,810 people were reported to DPH with a diagnosis of HIV or AIDS. A total of 1,566 persons have died, representing 41% of the cases. The racial disparity in cases reported continues as in previous profiles and will be described later in the profile. Table 3 provides a brief overview of demographic characteristics of all reported HIV/AIDS cases in Delaware.

Table 3.	Characteristics	of	persons	reported	with	HIV/AIDS	in	Delaware	1983
through 2	2002, n=3,810			-					

HIV/AIDS Cases Report	ed in Delaware	through 2002	HIV Ca Repor	lses ted
	No.	%	No.	%
Total	3,810	100%	705	100%
Gender				
Male	2,755	72%	428	61%
Female	1,055	28%	277	39%
Race/Ethnicity				
White	1,093	29%	207	29%
Black	2,498	66%	455	65%
Hispanic	201	5%	38	5%
Other/Unknown	18	<1%	5	1%
Age Group (yrs)				
<13	42	1%	17	2%
13-19	44	1%	31	4%
20-29	575	15%	166	24%
30-39	1,670	44%	286	41%
40-49	1,077	28%	141	20%
50-59	295	8%	49	7%
60-69	88	2%	12	2%
70+	19	<1%	3	<1%
County				
Kent	361	9%	75	11%
New Castle (Not Wilm)	1,159	30%	215	30%
Wilmington	1,729	45%	309	44%
Sussex	561	15%	105	15%

National surveillance reports⁴ indicate there are 333,881 persons living with AIDS and 161,711 persons living with HIV through December 2001. The national annual case rate per 100,000 population was 14.9 for January 2001 – December 2001. Delaware's rate per 100,000 population was 25.0 for the same time period. Delaware continues to rank among the top ten states for case rates per 100,000 population.

Figure 1 compares the percentage of people surviving with AIDS who were diagnosed between 1992 and 2002 to the percentage of those who have died through 2002. The graphic clearly illustrates the decrease in fatalities and the increase in the percentage of people living with AIDS. Factors attributing to survival in people diagnosed later in the epidemic are timeliness in referral into care, progress in the medical management of HIV, and the introduction of highly active anti-retroviral therapy (HAART). The difficulty over time will be the burden of disease and financial strain secondary to chronic illness.





Data from the Delaware Health Statistics Center² indicates an overall decline in deaths due to HIV/AIDS. In 1999-2000, HIV was listed as the fourth leading cause of death for 79 residents of Delaware in the 25-44 year age group.

At the end of 2002, there were 1,483 living AIDS cases in Delaware. Living AIDS cases continue to increase across all demographic groups. In 2001, the prevalence rate (living AIDS cases in Delaware) was 173 per 100,000 population. There was a 7% increase in the survival rate in 2002, with a rate of 186 per 100,000 population.

The prevalence rate for female cases in Delaware through 2002 was 183 per 100,000 population (749 AIDS living cases). The prevalence rate for male cases in Delaware through 2002 prevalence rate was 391 per 100,000 (1,511 living AIDS cases).

AIDS defining events often include CD_4 immune deficiency and an opportunistic infection (OI). Of the 2,997 adult/adolescent AIDS cases reported through 2002, CD_4 immune deficiency was the single event to initiate case reporting for 1,759 (59%) cases. A single report may include more than one defining illness but the top four opportunistic infections were:

- wasting syndrome 630 cases
- pneumocystis carinii pneumoni 618 cases
- atypical mycobacterium avium 251 cases
- esophageal candidiasis 249 cases

Table 4. Comparison of the characteristics of Delaware residents who died of HIV/AIDS in five year time periods from 1983 through 2002, n=1,537

Year of Death	1983-1987		1988-1992		1993-1997		1998-2002			
Characteristic	No.	%	No.	%	No.	%	No.	%	Total	%
Gender										
Male	54	87%	276	88%	596	80%	307	74%	1233	80%
Female	8	13%	38	12%	149	20%	109	26%	304	20%
Race/Ethnicity										
White	36	58%	141	45%	226	30%	74	18%	477	31%
Black	20	32%	156	50%	482	65%	323	78%	981	64%
Hispanic	6	10%	17	5%	37	5%	19	4%	79	5%
Mode of Exposure										
MSM	43	69%	153	49%	247	33%	89	21%	532	35%
IDU	6	10%	95	30%	342	46%	216	52%	659	43%
MSM/IDU	6	10%	23	7%	55	7%	25	6%	109	7%
Heterosexual Contact	1	<1%	20	7%	85	11%	76	18%	182	12%
Other/NIR	6	10%	23	7%	16	2%	10	2%	55	4%
Total	62	100%	314	100%	745	100%	416	100%	1537	100%

*percentages may not equal 100 due to rounding

Table 4, above, illustrates how the percentage of deaths in men attributed to AIDS has decreased gradually since the beginning of the epidemic and increased slowly in women. By race, deaths have increased in the black population and decreased in the Hispanic and white populations. A sharp decline is noted in the deaths of MSM cases over time compared to the gradual increase in deaths among IDU and heterosexual cases.

Nationally⁴, the number of deaths declined in the Northeast, West, South; there was a decline and then leveling in the Midwest and decline and slight increase in U.S. territories. The number of deaths related to AIDS declined in all racial groups except American Indian/Alaska Natives. By sex and risk, deaths declined in MSM, male and

female IDUs, and MSM/IDUs. Heterosexual cases of both sexes experienced a decline from 1996 to 1998 and then leveled.

HIV/AIDS by Gender and Race/Ethnicity:

Figure 2 illustrates the distribution of Delaware HIV/AIDS cases by gender and year of report for the time periods 1982 – 1993, 1994 – 1998, and 1999 – 2002. The latest time period, 1999 – 2002 includes the collection of HIV case data implemented in July 2001. A gradual decrease from 82% to 66% is reflected in the percentage of male cases reported through the three time periods. Subsequently, a steady increase of cases in females with HIV/AIDS from 18% to 34% can be seen through the same reporting time periods.

Figure 2. Distribution of Delaware HIV/AIDS cases by gender and year of report through 2002, n=3810



Male HIV/AIDS cases continue to dominate case reports. Males represent 49% of Delaware's population, yet 72% of the HIV/AIDS cases. Females represent 51% of Delaware's population, and 28% of the HIV/AIDS cases. Figure 3 provides a graphical depiction of the racial trends in Delaware. Black men represent the majority of cases followed by Black women. The increase in 2001 is attributed to the onset of HIV reporting.

Figure 3. Comparison of Delaware HIV/AIDS cases by gender and race, diagnosed 1992 through 2002, n=3022



Delawa

Delaware's HIV/AIDS epidemic continues to disproportionately affect the Black population. Blacks comprise 19% of the state population and 66% of the HIV/AIDS cases. Seventy-six percent of female cases, 61% of male cases and 73% of pediatric cases are within the Black population. Table 5 provides an overview of the racial distribution of Delaware HIV/AIDS cases. The "other" category in the table includes Asian/Pacific Islanders and Native American/Alaskan Natives. The category is compressed, for the protection of any individual case, due to small cell size.

additadolescent cases and pediatric cases reported through 2002, 11- 3,010									
	Adult	Male	Adult Female		Pediatric Cases		Total		
	(n=2	,734)	(n=1,	031)	1) (n=45)		(n=3,810)		
Race	#	%*	#	%*	#	%*	#	%*	
White	893	33%	192	19%	8	18%	1,093	29%	
Black	1,679	61%	786	76%	33	73%	2,498	66%	
Hispanic	148	5%	49	5%	4	9%	201	5%	
Other	14	1%	4	<1%	0	0%	18	<1%	

Table 5.	Distribution of Dela	aware HIV/AIDS	cases by	race/ethnicity	and gender in
adult/ado	plescent cases and	pediatric cases	reported t	through 2002,	n= 3,810

* percentage may not equal 100 due to rounding

Nationally⁴, as shown below, 42% of all cases reported through December 2001 were White, 38% were Black and 18% were Hispanic and 1% were of another race or two or more races. However, when national gender and age group numbers are viewed, the proportion of cases by race/ethnicity depicts a growing epidemic in Black women and Black children. Through the end of 2001, female AIDS cases reported nationwide were 58% Black, 21% White, and 20% Hispanic. In pediatric cases of AIDS, 59% were Black, 17% White, and 23% Hispanic through 2001.

Table 6.	National	distribution	of AIDS	cases b	y race/ethnicity	and gende	r in
adult/adol	escent ca	ses and ped	iatric cas	es reporte	d through 2001	, n=816,148	

			-		1		, , , ,	
	Adult Male		Adult Female P		Pediatric Cases		Total Reported	
	13 year	s +	13 years +		< 13 years		Nationally	
	(n=666,0	026)	(n=141,048)		(n= 9,074)		(n=816,148)	
Race	#	%*	#	%*	#	%*	#	%*
White	312,153	47%	30,156	21%	1,579	17%	343,888	42%
Black	225,836	34%	82,007	58%	5,337	59%	313,180	38%
Hispanic	120,131	18%	27,561	20%	2,060	23%	149,752	18%
Other	7,366	1%	1,243	<1%	85	<1%	8,694	1%
Unknown	540	0%	81	0%	13	0%	634	0%

* percentages may not equal 100 due to rounding

National Statistics in Men by Race	Delaware Statistics in Men by Race					
The distribution of cumulative male AIDS cases by race nationally is 47% White, 34% Black, 18% Hispanic and 1% all other races.	Delaware's cumulative male HIV/AIDS cases through 2002 by race are 61% Black, 33% White and 6% in Hispanic and other races.					
National Statistics in Women by Race	Delaware Statistics in Women by Race					

Nationally, there are 141,048 cumulative AIDS cases in women through 2001. The distribution of the cases by race is 58% Black, 21% White, 20% Hispanic and 1% all other races.

Figure 4. Distribution of Delaware HIV/AIDS cases by race and gender through December 2002, n=3,810



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 2002 are similar to the national statistics for 2001. As portrayed in Figure 5, below, the percentages differ little.

Figure 5. Distribution of Delaware HIV/AIDS cases by a	ge groups through 2002,
n=3,810	



Delaware pediatric HIV/AIDS cases are addressed separately on page 35.

HIV/AIDS by Mode of Exposure:

For surveillance purposes, HIV/AIDS cases are counted only once in a hierarchy of exposure categories established by 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 AIDS/HIV; 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. Nationally⁴, 10% of the AIDS cases reported through December 2001 were "no identified risk" (NIR). Surveillance personnel place a high priority on determining risk and 4% of Delaware's cases at the end of 2002 were classified as NIR. This denotes an increase from 2% in 2001, when HIV case reporting regulations were first implemented. The NIR increase actually reflects cases where the reporting source does not have the risk information to report, i.e. private laboratories, blood banks and lab tests conducted during inpatient hospitalizations where results come after discharge. Surveillance staff attempts to resolve the "no risk reported" (NRR) cases when reviewing medical records.

Table 7 illustrates the mode of exposure for all Delaware HIV/AIDS cases and compares the data available last year (through 2001) to the information available through 2002. The mode of exposure or transmission of HIV describes the behavioral characteristics of a person at risk for acquiring HIV infection. Injecting drug use (IDU) remains the greatest percentage of cases for both years. Men who have sex with men (MSM) continue to rank second. The move of heterosexual contact with a person with HIV or AIDS to third (11%) surpassing heterosexual contact with an IDU should be viewed with caution. 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 less than 3% of Delaware's HIV/AIDS cases.

	through 2001		through	2002
Mode of exposure	No.	%	No.	%
Injection drug use (IDU)	1204	43%	1531	40%
Men who have sex with men (MSM)	884	31%	1101	29%
Heterosexual contact with PWA	174	6%	420	11%
Heterosexual contact with an IDU	251	9%	313	8%
Men who inject drugs & are MSM	169	6%	204	5%
No identified risk (NIR)	67	2%	137	4%
Other modes *	71	3%	104	3%
Total cases	2820	100%	3810	100%

Table 7. Comparison of all Delaware HIV/AIDS cases by mode of exposure diagnosed through 2001, n=2820 to cases diagnosed through 2002, n=3810

* Percentages may not equal 100 due to rounding.

National Statistics in Men by Mode	Delaware Statistics in Men by Mode
National statistics through 2001 for AIDS indicate the distribution of male cases by mode are 55% MSM, 22% IDU, 8% MSM/IDU and 5% heterosexual contact. The remaining 10% are related to other modes and cases with risk not identified.	Delaware had 2,734 men reported with HIV/AIDS through 2002. Forty percent (n=1,101) were MSM, 39% (n=1,062) were IDU, and 9% (n=245) were heterosexual contact only. Of the 245 heterosexual contacts, sex with a woman with HIV comprised 56% (n=137). Sex with a woman who was an IDU accounted for 42% (n=103) of the cases and 2% (n=5) were sex with a woman who received blood products or a transfusion. MSM/IDU were reported in 7% (n=204) cases and the remaining 5% (n=125) are related to other modes and cases with risk not identified or reported.
National Statistics in Women by Mode	Delaware Statistics in Women by Mode
Nationally, 26% (n=10,809) of the new AIDS cases reported in 2001 were female.	Delaware had 1,030 case of HIV/AIDS reported in women through 2002. Fifty percent (n=512) of the women with HIV/AIDS in Delaware, at the end of 2002,
Heterosexual contact accounts for 65% (n=7,066) of the new female cases. Injecting drug use is attributed to 3,410 of cases (32%). Risk not identified/reported, comprise the remaining 333 (3%) national cases.	were infected through heterosexual contact. Sex with a person with HIV comprises 55% (n=283) of the heterosexual cases with 45% (n=210) due to sex with an injecting drug user. The final 5% (n=19) of the heterosexual contacts were sex with a bisexual man and sex with men who had received blood
	products or transfusions. Injecting drug use accounts for the transmission of HIV in 45% (n=469) of the remaining women and 5% (n=49) risk not reported/identified or other.

The first 10 years of the AIDS epidemic in Delaware (1983 - 1992) is quite a different picture than the most recent 10 years (1993 - 2002). Table 8 compares the top six behavioral groups reported in one ten year period to the other. 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.

Year of Report	1983-1992		1993-2002	
Total number of cases reported in the period	n=	586	n=3,224	
Behavioral Risk Group	#	%	#	%
men who have sex with men (MSM)	286	49%	815	25%
men who inject drugs (IDU)	123	21%	939	29%
women – with male sex partners at risk	25	4%	487	15%
women who inject drugs (IDU)	56	10%	413	13%
men – with female sex partner at risk	15	3%	230	7%
men who inject drugs & are MSM (MSM/IDU)	47	8%	157	5%
all other modes including NIR or NRR cases	34	6%	183	6%

Table 8.	Compariso	on of the first [•]	10 years of	HIV/AIDS	cases reporte	d to the
second te	en years by	y mode throug	gh Decemb	er 2002	-	

* Percentages may not equal 100 due to rounding.

As previously demonstrated, the table above illustrates again the decrease in cases of men who are MSM. By comparing the two decades of the epidemic, the percentages in MSM decreased by nearly half, from 49% in the first decade to 25% in the second. The other obvious change is the increase in women with male sex partners at risk. The percentage increased close to 300% where the heterosexual partners of the women were intravenous drug users, bisexual men and/or HIV infected. The percentage of men with female sex partners who are at risk through injecting drug use and/or female partner is HIV infected more than doubled from 3% to 7% from the first to the second decade respectively.

The next portion of the profile continues to address modes of transmission in <u>adult</u> and <u>adolescent</u> cases of HIV/AIDS. To illustrate any reporting changes, the data is separated into two ten-year periods. An increase of close to 50% (from 16% to 30%) is noted in the percentage of female cases reported.

Table 9.	Distribution of adult/adolescent HIV/AIDS cases by gender in 10 year
periods	1983-1992 and 1993-2002 in Delaware cases reported through 2002,
(n=3,765	5)

Year of Report		1983-1992		1993-2002		Total	
Total ca	ases reported in period	n=	579	n=3	n=3,186 3,765		65
Gender		#	%	#	%	#	%
Males		489	84%	2,245	70%	2,734	73%
Females	•	90	16%	941	30%	1,031	27%
Total		579	100%	3,186	100%	3,765	100%

Adult/Adolescent Transmission Modes in Males:

The modes of transmission for HIV/AIDS in Delaware adult/adolescent male cases have modified over time. At the end of 1992, 58% of the cases were MSM, 25% were IDU, and 10% MSM/IDU. Men infected through sex with a woman with HIV or sex with a woman who injected drugs comprised 3% of the AIDS cases reported. The figure below shows the distribution of modes of transmission through 2002 and illustrates how the percentages have shifted away from MSM and MSM/IDU to increases in IDU and heterosexually infected men in Delaware.





Men Who Have Sex with Men (MSM):

Men who have sex with men represented 58% (n=286) of the 489 male adult/adolescent cases reported in the first 10 years of the epidemic. From 1993 through 2002 the percentage of male cases attributed to MSM decreased to 36% (n=815) of the 2,245 cases reported in men in Delaware. The race and age groups for men who have sex with men are shown below in Table 10 and are split into ten-year periods to compare any changes in the epidemic among the MSM population from one decade to the other.

	1983 through 1992 (n=286)		1993 through 2002 (n= 815)	
Variable	#	%**	#	%**
Race/Ethnicity				
White	186	66%	446	55%
Black	90	31%	331	41%
Hispanic/Other	8	5%	38	4%
Age Groups				
13-19	0	0%	8	<1%
20-29	65	23%	162	20%
30-39	125	44%	385	47%
40-49	62	22%	181	22%
50-59	30	10%	52	6%
60-69	4	1%	23	3%
70-79	*	n/a	4	<1%

Table 10. Demographic characteristics of race and age group in men who have sex with men by year of report in Delaware 1983 – 2002, n=1,101

*cases in this age group are merged with previous age group due to small cell size ** percentages may not equal 100 due to rounding.

An increase in the number of MSM cases in men of color is noted in the second time period compared to a decrease in the White population. Additional cases in all age groups from 1993 through 2002 are likely due to the 1993 change in case definition. The presence of cases in the 13-19 age group and a tripling of cases in most all other age groups are likely representative of the influence HIV reporting lends to the portrait of the epidemic in Delaware.

As of December 31, 2002, a cumulative total of 933 MSM with AIDS had been reported and 168 with HIV for a total of 1,101 with HIV/AIDS. Men who have sex with men represent 29% of the cumulative HIV/AIDS cases reported in Delaware through 2002.

Illustrated in Figure 7, on the next page, the number of MSM cases reported by race and ethnicity has remained fairly level in men of Hispanic origin with minimal change over the twenty-year period. Though men who have sex with men appear to be most often in the White population on the chart, the number of MSM in the Black population is rising. The increase in all race/ethnic groups in '93-'94 and in '01-'02 are the result of the 1993 AIDS case definition change and implementation of HIV reporting respectively.

Figure 7. HIV/AIDS cases among men who have sex with men (MSM) by race and ethnicity by year of report in Delaware 1983 through 2002, n = 1,101



Figure 8 geographically depicts the distribution of MSM in Delaware cases. The figure shows 65% reside in New Castle County with 30% in zip codes 19801, 19802, 19805 and 19806 or the City of Wilmington and 35% in the rest of New Castle County. Twenty-five percent reside in Sussex County with 14% in the five "Beach" zip codes and the remaining 11% in the remainder of Sussex County. Ten percent of the MSM reside in Kent County.

Figure 8. Distribution of men who have sex with men with HIV/AIDS by residence at time of report in Delaware through 2002, n=1,101



Men Who Inject Drugs

Men who inject drugs represented 25% (n=123) of the 489 male adult/adolescent cases reported in the first 10 years of the epidemic. From 1993 through 2002 almost a 100% increase was noted when male IDU cases rose to 49% (n=939) of the 2,245 cases reported in Delaware. The race and age groups for men who inject drugs are shown below and are split into ten-year periods to compare any changes in the epidemic among the IDU population from one decade to the other. The disproportionate number of IDU in the Black male population is significant.

	1983 through 1992 (n=123)		1993 through 2002 (n=939)	
Variable	#	%**	#	%**
Race/Ethnicity				
White	17	14%	99	11%
Black	92	75%	777	83%
Hispanic/Other	14	11%	63	7%
Age Groups				
13-19	0	0%	0	0%
20-29	17	14%	58	6%
30-39	63	51%	379	40%
40-49	36	29%	395	42%
50-59	7	6%	97	10%
60-69	*	n/a	10	1%
70-79	*	n/a	0	0%

Table 11. Men who inject drugs: demographic characteristics of HIV/AIDS cas	es
by race and age group by year of report 1983 – 2002 in Delaware	

**cases in the 50-79 age groups are merged due to small cell size

** percentages may not equal 100 due to rounding.

The following chart 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>The increase is attributed to the change in the AIDS definition and implementation of HIV reporting occurring in the years respectively.</u>





Figure 10. Men who inject drugs by county of residence in Delaware through December 2002, n= 1,062



Men 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 204 MSM/IDU cases have been reported through December 2002 representing 5% of the total number of cases. The table below depicts an increase of greater than 160% in the percentage of MSM in the age group 40-49 in the second decade of reporting.

	in men by yea	оперен, ве		2002, 11 204	
	1983 through 1992		1993 through 2002		
	(n=47) (t		(n=	= 157)	
Variable	#	%**	#	%**	
Race/Ethnicity					
White	16	34%	43	27%	
Black	28	60%	104	66%	
Hispanic/Other	3	6%	10	7%	
Age Groups					
13-19	0	n/a	0	n/a	
20-29	10	21%	18	11%	
30-39	27	57%	82	52%	
40-49	5	11%	46	29%	
50-59	5	11%	7	4%	
60-69	0	n/a	4	3%	
70-79	0	n/a	0	n/a	

Table 12.	Race and age	e demographic	characteris	stics in male i	injecting drug ι	Jsers
who also	have sex with	men by year o	of report, De	elaware 1983-	-2002, n=204	

*percentages may not equal 100 due to rounding

Figure 11. Distribution of men who have sex with men and inject drugs by county of residence in Delaware through 2002, n=204



Men Reported with Heterosexual Mode of Transmission Only:

Nationally⁴, 9% (n=2,762) of the adult/adolescent males reported with AIDS in 2001 were exposed through heterosexual contact. Twenty percent were reported as infected through sex with an injecting drug user and 58% through sex with an HIV-infected woman, risk not specified.

The table below compares the demographics of race/ethnicity and age groups for the two decades of the Delaware epidemic in men who were heterosexually infected with HIV. Both decades indicate Black men and men in the 30-39 year age group are most frequently reported with a heterosexual transmission mode. In the first decade of the epidemic, more than two-thirds (66%) of the heterosexual men were Black and in the second decade three-quarters (77%) were Black. White men who were reported as heterosexually infected have decreased by more than half, from 33% to 15%. The absence of any heterosexual Hispanic men in the first decade is more than likely attributed to lack of HIV education, treatment and/or early intervention in the population.

	1983 through 1992		1993 through 2002	
	(n=15)		(n= 230)	
Variable	#	%**	#	%**
Race/Ethnicity				
White	5	33%	35	15%
Black	10	67%	178	77%
Hispanic/Other	0	0%	17	7%
Age Groups				
13-19	0	0%	*	n/a
20-29	*	n/a	29	13%
30-39	9	60%	98	43%
40-49	6	40%	59	27%
50-59	0	0%	26	11%
60-69	*	n/a	16	7%
70-79	0	0%	*	n/a

Table 13. Demographic characteristics of race and age group in heterosexual men by year of report in Delaware 1983 – 2002, n=245

*cases in these age groups are merged with the closest age group due to small cell size ** percentages may not equal 100 due to rounding.

Delaware men infected through heterosexual contact with a woman, represent 9% of the male population reported cumulatively. On the next page, Figure 12 illustrates that sex with an injecting drug user was indicated in 42% (n=103) of the cases and 56% (n=137) had sex with a woman with HIV, risk not specified.
Figure 12. Distribution of female partner's risk in men reported as heterosexually HIV-infected in Delaware through 2002, n=245



The distribution by county of residence in men reported as infected with HIV through heterosexual contact is shown in the figure that follows. More than two-thirds, 68%, of the heterosexually infected men are residents of New Castle County, 19% from Sussex and 13% in Kent County.

Figure 13. Men reported in Delaware as infected through heterosexual contact with a female sexual partner at risk for HIV by county through 2002, n=245



Adult/Adolescent Transmission Modes in Females

The table below splits the first two decades of the HIV/AIDS epidemic in the female injecting drug users by race and age at year of report. The Black IDU female population is the most affected by the HIV/AIDS epidemic in both decades and the percentage of IDUs in White females more than doubled. And though the 30-39 year age group is clearly the group most often affected in both decades, the nearly 200% increase in the 20-29 year age group is significant as well.

Table 14. Women who inject drugs: demographic chara	acteristics of race and age
group by year of report in Delaware 1983 – 2002, n=469)

	1983 through 1992 (n=56)		1993 through 2002 (n= 413)	
Variable	#	%**	#	%**
Race/Ethnicity				
White	4	7%	64	15%
Black	46	82%	335	81%
Hispanic/Other	6	8%	14	3%
Age Groups				
13-19	0	0%	9	2%
20-29	3	5%	53	13%
30-39	39	70%	213	56%
40-49	14	25%	121	29%
50-59	*	n/a	17	4%
60-69	0	0%	*	n/a
70-79	0	0%	0	0%

*cases in this age group are merged with the closest age group due to small cell size ** percentages may not equal 100 due to rounding.

Figure 14. HIV/AIDS cases among women who inject drugs (IDU) by year of report in Delaware 1987 through 2002, n=469



Figure 14, on the preceding page, reflects the number of cases reported in two-year periods for women reported with HIV/AIDS who inject drugs. 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 15 depicts the distribution of women 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 89% of the women who inject drugs.

Figure 15. Women with HIV/AIDS who inject drugs by county of residence in Delaware through December 2002, n= 469



Women with Male Sex Partners at Risk (Heterosexual Contact)

Table 15 compares women HIV-infected by a male partner in the periods 1983 –1992 and 1993 –2002. In Black and White women the percentages dropped from 76% to 73% and 24% to 21% respectively. Though there were no Hispanic women reported as infected by a male partner in the first decade, women of Hispanic origin were 6% in the second decade.

Table 15 also denotes a 50% decrease in the percentage of women in the 20-29 year age group who were HIV-infected by a male partner. There was an increase in the number of female cases attributed to heterosexual transmission in both the 30-39 and 40-49 age groups.

	1983 through 1992		1993 through 2002	
	(n=	25)	(n=4	487)
Variable	#	%**	#	%**
Race/Ethnicity				
White	6	24%	103	21%
Black	19	76%	354	73%
Hispanic/Other	*	n/a	30	6%
Age Groups				
13-19	*	n/a	20	4%
20-29	12	48%	118	24%
30-39	9	36%	191	39%
40-49	4	17%	110	23%
50-59	0	0%	36	7%
60-69	*	n/a	12	3%
70-79	0	0%	*	n/a

 Table 15. Heterosexual contact in women: demographic characteristics of race

 and age group by year of report in Delaware 1983 – 2002, n=512

*White and Other races merged due to small cell sizes. Age group with * merged with next closest age group with cases due to small cell sizes. ** percentages may not equal 100 due to rounding.

In Figure 16 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 41% (n=210) of the cases and 55% (n=283) had sex partners who were HIV positive.

Figure 16. Distribution of male partner's risk in women reported as heterosexually HIV-infected in Delaware through 2002, n=512



Figure 17 shows the county of residence where the women 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.





Pediatric HIV/AIDS Cases

Delaware has 45 pediatric cases of HIV/AIDS. Eighteen have HIV infection and 27 are AIDS defined. Thirty-five (78%) of the children are living and 10 (22%) have died. Race/Ethnicity distribution for pediatric cases is 73% Black, 18% White and 9% Hispanic. Geographically, 76% (n=34) were living in New Castle County at diagnosis of HIV/AIDS, 16% (n=7) in Kent County and 8% (n=4) in Sussex County.





As depicted in Figure 18, forty-seven percent of the pediatric cases were born to mothers who were injecting drug users and 22% to mothers who had sex with injecting drug users. Sixteen percent of the pediatric cases were born to mothers who had sex with someone with HIV/AIDS and 11% were born to mothers who had HIV/AIDS. The perinatal exposures comprise 96% of the risk for pediatric cases in Delaware with hemophilia, transplant or transfusion risks associated to the remaining 4%.

Nationally⁴, through December 2001, a total of 9,074 children (<13 years of age) had been reported as having AIDS; of these pediatric cases, 5,257 (58%) had died. During 2001, 175 new cases of AIDS in children were reported. Of these, 150 (86%) were attributed to perinatal exposure.

The number of pediatric HIV (not AIDS) cases reported nationally, increased dramatically from 224 cases in children younger than age 13 reported during 2000 to 543 cases during 2001. The cumulative total nearly doubled from 2,134 HIV (not AIDS) cases reported through 2000 to 3,923 HIV (not AIDS) cases reported through the end of 2001. Note that not all HIV cases reported in 2001 reflected new diagnoses; rather, the HIV cases reported include cases diagnosed during earlier years.

HIV/AIDS by Geographical Location:

Table 16.	HIV/AIDS case	s through Decem	1ber 2002 by	county with	the City of
Wilmingto	on and Beach p	opulations illustr	ated separat	ely, n=3,810	

County of Residence	Kent	=361	New C	astle C	ounty	=2,887	Su	ssex Co	ounty=	552
					Ν	ot			N	ot
			Wilmi	ngton	Wilmi	ington	Be	ach	Bea	ach
Characteristic	No.	%	No.	%	No.	%	No.	%	Total	%
Gender										
Male	257	71%	1197	69%	842	72%	188	94%	269	74%
Female	104	29%	527	31%	321	28%	12	6%	93	26%
Total	361	100%	1724	100%	1163	100%	200	100%	352	100%
Race/Ethnicity										
White	114	32%	206	12%	490	42%	162	81%	122	34%
Black	215	60%	1410	82%	617	53%	34	17%	220	61%
Hispanic	32	9%	101	6%	56	5%	4	2%	20	5%
Other	٠	0%	7	<1%	٠	0%	٠	0%	٠	0%
Total	361	100%	1724	100%	1163	100%	200	100%	352	100%
Mode of Exposure			JJ					JJ		
MSM	114	32%	324	19%	381	33%	159	80%	122	34%
IDU	99	27%	919	53%	400	34%	12	6%	100	28%
MSM/IDU	19	5%	96	6%	63	5%	11	6%	15	4%
Heterosexual Contact	101	30%	308	18%	236	20%	12	6%	102	28%
Pediatric Exposure	7	2%	21	1%	13	1%	0	n/a	5	1%
Other/NIR	21	6%	56	3%	70	6%	6	3%	18	5%
Total	361	100%	1724	100%	1163	100%	200	100%	352	100%

*percentage may not equal 100 due to rounding • merged with Hispanic due to small size

Delaware HIV/AIDS Surveillance has historically distributed morbidity statistics on New Castle County separate from the City of Wilmington. A similarity in the demographic characteristics of people living in zip codes 19801, 19802, 19805 and 19806 and diagnosed with HIV/AIDS illustrated a different epidemic emerging from the downtown area. As depicted in Table 16, more than two thirds (69%) of the City of Wilmington HIV/AIDS cases are male. In excess of three-quarters (82%) of the HIV/AIDS cases in the City are Black and more than half (53%) are injecting drug users. In the remainder of New Castle County the percentage of men with HIV/AIDS is greater than the City of Wilmington at 72%. Modes for transmission of the virus are slightly higher in the City of Wilmington in IDUs at 53% compared to the rest of New Castle County with 34%. The reverse is seen in the MSM population where the City of Wilmington is 19% and the rest of New Castle County higher with 33%. Other modes of transmission are more equally dispersed in both areas.

Although Kent County appears to have the largest percentage of heterosexual cases compared to the other four areas throughout the state, it is because New Castle and Sussex were broken down by zip codes to depict epicenters of HIV disease.

In Sussex County, the beach area HIV/AIDS statistics show cases are 94% male, 81% white and 80% men who have sex with men. The statistics represented in the table above <u>do not incorporate</u> the men who have sex with men who have retired and established permanent residency on the shore, or those with dual residencies in

Philadelphia, Baltimore and the District of Columbia. The beach area is a much different population than the cases residing throughout the remaining zip codes in Sussex County where nearly three-quarters (74%) are male, 61% are Black and modes of transmission are for the most part evenly distributed over MSM, IDU and heterosexual contact.

Question 3. What are the indicators of risk for HIV/AIDS infection in Delaware?

To assist community planning groups address populations at risk for HIV infection, this portion of the profile looks at data collected in other databases. Limitations of the data sets were addressed on page 6.

- As an extension of HIV/AIDS surveillance, the Supplement to HIV/AIDS Surveillance⁵ (SHAS) project collects risk behavioral information on adults living with HIV/AIDS.
- HIV Counseling and Testing data is collected at all DPH publicly funded test sites. Counselors assess risk behaviors for HIV infection in pre-test and post-test counseling sessions.
- People seeking treatment for sexually transmitted infection (STI) or disease (STD) share one or more risk factors with persons diagnosed with HIV infection. The existence of an STD indicates the individual has had unprotected sex. Sex with someone who has HIV could increase the possibility of transmission of HIV through the sore and into bloodstream.

Supplement to HIV/AIDS Surveillance ⁵ (SHAS) Project	ect Data:
---	-----------

2000, 11 201	2000, 11 207								
	HIV/AI	DS Intervi	ie١	ws Completed in Delaware	Ð				
	July 1, 2000 through June 30, 2003 (n=287)								
	No.	%	T	3	No.	%			
Gender			1	Race/Ethnicity					
Male	192	67%		White	64	22%			
Female	95	33%		Black	211	74%			
				Hispanic all races/Other	12	4%			
Interview Location				Mode of Transmission					
Home	148	52%		MSM	63	22%			
ID/Wellness Clinics	82	29%		IDU	120	41%			
Hospital	9	3%		MSM/IDU	23	8%			
DPH	16	6%		Hetsex w/IDU	34	12%			
Other	32	11%		Hetsex with PWH/A	42	15%			
				NIR/NRR/Other	5	2%			
				Total	287	100%			

Table 17. Demographics of SHAS interviews conducted July 1, 2000 through June 2003, n=287

Delaware began involvement in the SHAS project as a pilot state in 1991 through supplemental funding from the Centers for Disease Control and Prevention. Through December 31, 2002, SHAS interviews were only conducted with clients diagnosed with AIDS. Upon implementation of HIV reporting in July 2001, subsequent application was made to the Human Subjects Review Board (HSRB) to include people diagnosed with HIV. Approval was granted in the fall of 2002 and inclusion of HIV positive clients into the SHAS project was initiated in January 2003. Application to interview incarcerated people with HIV and AIDS was made in the winter of 2002. The Delaware HSRB accepted the application and approval was granted at the federal level from the Office of Human Research Protection (OHRP) in March 2003. Delaware is the first surveillance office in the nation to interview subjects in correctional facilities. Though little information collected on prison interviews is included in this profile, the information collected through June 30, 2004 may prove valuable to prevention and treatment program planning for the Department of Correction.

Figure 19. Percentage of clients SHAS interviewed July 2000 – June 2003 by mode of transmission reported in HARS, n=287



Most questions relating to behavioral risk in SHAS ask the patient to answer the question in relationship to a time period. One of the following three time periods is used in the data that follows:

- 12 months prior to interview, an anchor date is assigned at onset of interview to simplify the time frame for the participant. An interview conducted June 2003 would cover a calendar year of 12 months back to May 2002.
- Before you tested positive for HIV,
- The last time you engaged in a specific activity.

Questions asked of the participants in SHAS that may be used to assess the risk behaviors for the transmission of HIV include:

- Number of sex partners,
- Frequency of condom use or unprotected sex,
- Exchange of money or drugs for sex,
- Injecting drug or other substance use,
- Needle sharing or preventive measures with needle use.

SHAS in Injecting Drug Users (IDU)

Forty-one percent (n=120) of the SHAS participants interviewed in the period July 2000 through June 2003 were identified by the reporting source as IDU. Of the IDU interviewed, 86% (n=103) were black, 11% (n=13) were white and 3% (n=4) were Hispanic/Other. By gender the IDU were 65% (n=78) male and 35% (n=42) were female.

In male injecting drug users, 64% (n=50) had sex in the 12 months prior to the interview. In female injecting drug users, 60% (n=25) had sex in the 12 months prior to the interview.

Figure 20. IDU SHAS participants who had sex in the 12 months prior to date of interview by gender and number of partners, n=75



■1 partner ■2 partners ■3-5 partners ■>5 partners

Male IDU SHAS Participants

Seventy-eight of the male SHAS participants were identified by the reporting source as IDU. Twenty-nine (37%) did not have sex in the 12 months prior to the interview. Fourteen (18%) had sex but no steady sex partner. Of the 36 who had a steady partner, 8 (10%) knew their steady partner was positive, 27 (35%) knew their steady partner was negative and 1 (3%) did not know their partner's HIV status and is not illustrated in Figure 21.

Figure 21. Male SHAS participants who are IDU and their sexual activity in the 12 months prior to the SHAS interview, n=78



Eighty-one percent (n=22) of the 27 men with HIV negative partners use condoms during vaginal intercourse.

Female IDU SHAS Participants

Forty-two (44%) of 95 female SHAS participants were identified by reporting sources as IDU. Seventeen (40%) did not have sex in the 12 months prior to the interview. Twenty-five (60%) of the 42 female IDU SHAS participants had sex in the 12 months prior to the interview. Of the 25 women, who had sex in the time frame, 4 (16%) did not have a "steady partner" and 21 (84%) had a "steady partner".

- 7 women knew their "steady partner" was positive and
- 14 women knew their "steady partner" was negative or did not know status

Sixty-seven percent of the 21 women with "steady partners" used condoms regardless of the "steady partner's" HIV status.

Figure 22. Female SHAS participants who are IDU and their sexual activity in the 12 months prior to the SHAS interview, n=42



Twenty-nine (24%) of the 120 SHAS participants identified by reporting sources as an IDU at time of report denied ever injecting drugs. Eleven (38%) of those who denied ever injecting a drug also denied ever using any non-injecting drugs as well.

Ninety-one (76%) of the 120 SHAS participants identified by reporting sources as an IDU at time of report responded they had injected a drug. Fifty-one (56%) said the drug they injected most often was cocaine followed by 24 (26%) who chose heroin as their most often used drug. In addition, more than half (52%) of the injecting drug users had used crack in a crack house and 34% (n=16) had sex in a crack house.

Seventy-five (82%) of those 91 SHAS participants who claimed to have injected drugs had shared needles and 45% (n=34) cleaned their syringes "every time" while 11% (n=8) "never" cleaned their syringes. Of the 75 who have shared needles, seven (9%) have used in the in the 12 months prior to the interview and the needle was obtained "off the street" by 4 participants and 3 other participants got their needle "from a friend", "from a drug dealer" or "refused to answer."

Sixty (80%) of the participants, who used a needle in the 12 months prior to the interview, have been in drug treatment. Twenty-one (28%) had been enrolled in a drug treatment program in the 12 months prior to the interview.

SHAS in Men Who Have Sex with Men (MSM)

Twenty-two percent (n=63) of the SHAS participants interviewed in the period July 2000 through June 2003 were identified by the reporting source as MSM. Of the MSM interviewed, 52% were white, 44% were black and 4% were Hispanic or other.

Of the 63 MSM SHAS participants, 10% (n=6) had been treated for an STD in the 12 months prior to the interview date.

Twelve (19%) of the MSM said they had been given drugs or money for sex, while 13 (21%) responded they had given someone money or drugs for sex in the 12 months prior to the interview date.

The 63 men reported in HARS as MSM self-identified their sexual orientation as:

- 43 (68%) Homosexual/Gay
- 13 (22%) Heterosexual/Straight
- 7 (10%) selected Bisexual/Other

Of the 63 MSM participants 47 (75%) said they had sex in the 12 months prior to the interview date and 16 (25%) had not had sex during the time frame.

Data from the SHAS database, not mutually exclusive, on the 47 MSM who had sex in the time frame:

- Forty (85%) identified their sex partners as male only;
- One (2%) had both a male and female sex partner;
- Six (13%) identified their sex partners as female only;
- Twenty-five (53%) were in a "steady and monogamous relationship";
- Fifteen (32%) had fewer than 5 sex partners in the time frame; and
- Seven (15%) had more than 5 partners in the 12 months prior to the interview.

Twenty (49%) of the 41 MSM who had sex in the time frame engaged in sex where they were an anal receptor of their partner the last time they had sex. Fifteen (75%) of these 20 men used condoms the last time they received anal sex. Fourteen (34%) of the 41 MSM who had sex in the time frame engaged in sex where they penetrated their partners anally the last time they had sex. Of the 14 men who anally penetrated their partners, the last time they had sex, 12 (86%) used a condom.

Twenty (32%) of the 63 MSM participants identified their sexual orientation as heterosexual or bisexual. Six (30%) of the 20 men responded they had sex with a woman in the 12 months prior to the interview. Fifty percent (n=3) of these 6 said the woman was a "new partner" or someone they had sex with for the first time in the 12 months prior to the SHAS interview. All six of the men who had sex with a woman in the past 12 months claimed their partner was either negative or they did not know the female partner's HIV status. When vaginal and oral intercourse took place, condoms were used less than 10% of the time. The six MSM participants who had sex with a female denied anal intercourse with their female partners.

Of the 16 (25%) participants who claimed not to have had sex in the twelve months prior to the interview date the main reason for not having sex was identified as "sexual drive had decreased" in 9 (56%). Seven (44%) responded they "were afraid of infecting someone else with HIV or other STD."

Heterosexual SHAS Participants

From July 2000 through June 2003, heterosexual SHAS participants comprised 26% (n=76) of those interviewed. Heterosexuals in this portion of the profile include: sex with an IDU, sex with a bisexual man, sex with a person who received a blood transfusion and sex with a person with HIV/AIDS. Due to the small number of those who had sex with bisexual men and those who had sex with a person who received a blood transfusion they are combined with the participants who had sex with someone who is HIV positive or AIDS defined. Their risk is not associated with injecting drug use and their partners are HIV positive or AIDS defined. With the merger, 55% (n=42) are heterosexuals who had sex with a person with HIV/AIDS and 45% (n=34) are heterosexuals who had sex with an IDU.

More detailed information regarding sexual activity and condom usage in heterosexual SHAS participants may be found in Appendix A of profile.

HIV Counseling and Testing Data⁶

Table 18.	Demograph	hics of clien	ts who see	k counseling	and testing	services in
HIV Couns	seling and T	Festing Sites	in Delawar	e in 2002, n= ⁻	10,304	

	Number of				
Demographic	Clients	Number of	Number of	Percent HIV	
	Counseled	HIV Tests	Positive Tests	Positive*	
Gender					
Male	5,064	4,008	59	1%	
Female	5,230	4,084	25	1%	
Not Specified	10	6	0	0%	
Race/Ethnicity					
White	3,751	3,087	24	1%	
Black	4,963	3,758	48	1%	
Hispanic	1,330	1,076	12	1%	
Asian/Pacific Islander	117	65	0	0%	
Am Indian/AK Native	23	18	0	0%	
Other	97	82	0	0%	
Undetermined	11	6	0	0%	
Not Specified	12	6	0	0%	
Age Groups					
<13	39	31	1	3%	
13 - 19	2,057	1,612	6	0%	
20 - 29	4,327	3,350	15	0%	
30 - 39	2,215	1,734	33	2%	
40 - 49	1,208	986	22	2%	
>= 50	425	361	7	2%	
Age Not Specified	33	24	0	0%	
Risk					
MSM IDU	19	19	1	5%	
MSM	599	528	31	6%	
Heterosexual IDU	414	367	13	4%	
Sex Partner At Risk	1,354	1,221	17	1%	
STD Diagnosis	2,475	1,770	9	1%	
Sex For Drugs/Money	68	62	1	2%	
Sex While Using Drugs	1,086	933	1	0%	
Hem/Blood Recipient	32	31	0	0%	
Victim Sexual Assault	52	49	0	0%	
Health Care Exposure	86	82	1	1%	
No Acknowledged Risk	440	325	0	0%	
Heterosexual/No Other Risk	3,382	2,552	7	0%	
Other	64	53	1	2%	
Not Specified	233	106	2	2%	
Total	10,304	8,098	84	1%	

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

The demographic information in Table 18, on the previous page, indicates in 2002, the clients <u>seeking HIV counseling and testing services</u> (n=10,304) are:

- 51% women;
- 48% Black, 36% White, and 16% Hispanic or other race/ethnicities;
- 42% in the age group 20-29, 21% are 30-39 and 20% are 13-19 years of age.

The demographics for clients deciding to be tested (n=8,098) are:

- 50% women;
- 46% Black, 38% White, and 16% Hispanic or other race/ethnicities;
- 41% in the age group 20-29, 21% are 30-39 and 20% are 13-19 years of age.

The demographics for clients testing positive for HIV (n=84) are:

- 70% are men;
- 51% are Black, 29% are White, and 14% Hispanic or other race/ethnicities;
- 39% in the age group 30-39, 26% are 40-49 and 18% are 20-29 years of age;
- 37% of the positives self-identified as MSM.

The data show the majority of the people coming in for counseling and deciding to test are women but the majority testing positive are men. The distribution by race is basically the same for those seeking counseling, those testing and those who are positive; predominantly Black, followed by White and then Hispanic and other races. The age group most often seeking counseling, and deciding to be tested, was 20-29 years of age. The age group testing positive most frequently was 30-39 years of age. Risk behaviors for clients seeking counseling and testing are not always readily given or accurately reported by the client. In addition, a risk of "sexual partner at risk" is vague and not easily analyzed. Figure 23. Percentage of positive HIV tests by county (as a percent of all positives tests per year) in Delaware 1998-2002



Figure 24. Distribution of Delaware positive HIV tests in 2002 by modes of transmission, n=84



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 commercial sex work.

Figure 25. Comparison of clients electing to be tested for HIV to the clients testing positive for HIV antibodies by race in Delaware in 2002



Figure 26. Number of clients pre-test counseled in Delaware HIV counseling and testing sites compared to the number who elected to be antibody tested from 1998 through 2002



Figure 27. Number of clients testing positive in a Delaware HIV counseling and testing sites compared to the number who returned for results in 1998 through 2002



Sexually Transmitted Infection and Disease Data⁷

In Delaware information on individuals diagnosed with gonorrhea, chlamydia, primary and secondary syphilis is collected at the local level in 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 sexually transmitted disease (STD) are at increased risk of contracting or spreading HIV.



Figure 28. Number of chlamydia and gonorrhea disease events in Delaware from 1998 to 2002

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 2002. Figure 28 above, illustrates the minimal rise and fall in chlamydia and gonorrhea events over a five 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 29. Distribution of Delaware chlamydia events by gender from 1998 through 2002



Figure 30 illustrates the number of primary and secondary syphilis cases decreased by 50% from 1998 to 1999. Syphilis events since 1999 have remained fairly stable through 2002.

Figure 30. Number of primary or secondary syphilis disease events diagnosed in Delaware in 1998 to 2002



2001 Youth Risk Behavior Survey⁸ (YRBS) Data:

During the spring of 2001 2,915 students, in 30 Delaware public high schools, participated in the Youth Risk Behavior Survey⁸ (YRBS). The school response rate was 97%, the student response rate was 77%, and the overall response rate was 75%. The results are representative of all students in grades 9-12. The weighted demographic characteristics of the sample are as follows:

Gender	%	Grade	%	Race/Ethnicity	%	
Female	51%	9 th grade	30%	African American	24%	
Male	49%	10 th grade	26%	Hispanic/Latino	6%	
		11 th grade	22%	White	62%	
		12 th grade	22%	All other races	5%	
				Multiple races	3%	

Table 19. Characteristics of students completing the YRBS Survey in 30 Delaware Public High Schools in 2001, n=2,195

Students completed a self-administered, anonymous, 87-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.

For this profile, highlights from questions three and four will be addressed.

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 302-739-4681. Of the students surveyed:

- 77.6% had at least one drink of alcohol on one or more days during their life;
- 28.8% had their first drink of alcohol other than a few sips before age 13;
- 46.4% had at least one drink of alcohol on one or more of the past 30 days;
- 27.3% 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;
- 46.9% used marijuana one or more times during their life;
- 12.2% tried marijuana for the first time before age 13;
- 26.3% used marijuana one or more times during the past 30 days;
- 6.3% used any form of cocaine, including powder, crack, or freebase one or more times during their life;
- 2.4% used any form of cocaine, including powder, crack, or freebase one or more times during the past 30 days;
- 10.5% 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;
- 3.2% 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;
- 2.7% used heroin one or more times during their life;
- 6.8% used methamphetamines one or more times during their life;
- 1.7% used a needle to inject any illegal drug into their body one or more times during their life;
- 26.9% were offered, sold, or given an illegal drug on school property by someone during the past 12 months;
- 52.7% had sexual intercourse;
- 16.7% 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;
- 25.5% 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, 22.1% drank alcohol or used drugs during last sexual intercourse;
- Of students who had sexual intercourse during the past three months, 62.2% used a condom during last sexual intercourse;
- Of students who had sexual intercourse during the past three months, 20.1% used birth control pills during last sexual intercourse;
- 6.4% had been pregnant or gotten someone pregnant one or more times.

Question 4. What are the 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 2002, a total of 2,196 clients received services funded through the Ryan White Title II funding and 704 of them were new clients. Of the 2,196 clients 85% (n=1,863) were HIV-infected and 333 were HIV-affected. HIV-affected counts the children, spouses and significant other people in the lives of an HIV-infected person that are not themselves infected with HIV. Table 20 compares the demographic characteristics of the unduplicated HIV-infected clients receiving services that are funded by Ryan White Care Act Title II Programs in 2002 to the distribution of living HIV/AIDS cases in Delaware through 2002. Demographic characteristics of clients receiving Title II funds in 2002 are closely representative of cases reported to surveillance staff through 2002.

Characteristics	% of CARE Act Clients N=1,863	% of DE Living HIV/AIDS Cases N=2,258
Ethnicity		
Hispanic or Latino Origin	5%	5%
Non-Hispanic	89%	95%
Unknown/Unreported Ethnicity	6%	0%
Race		
White (Non-Hispanic)	27%	29%
Black (Non-Hispanic)	68%	66%
Other**	2%	5%
Unknown/Unreported Race	3%	0%
Gender		
Male	62%	72%
Female	37%	28%
Unknown/Transgender	1%	0%
Age		
Less than 13 years	2%	<1%
14 - 24 years	3%	3%
25 - 44 years	59%	59%
45 - 64 years	34%	35%
65 + years of age	2%	2%
Unknown/Unreported	<1%	0%

Table 20. Demographic characteristics of clients receiving services funded by Ryan White Care Act Title II Programs 2002 compared to Delaware HIV/AIDS cases through 2002

*Percentages may not total to 100% due to rounding error.

**Other includes people of other ethnicities and people of two or more races.

The following table illustrates the five most frequently accessed Ryan White Title II services funded in Delaware. The unduplicated number of clients accessing the services is 1,863.

Table 21.	Utilization of Ryan	White Title	Il service,	by service	type in 2002
		(n=1,863			

	Case Managemen t	Dental	Medical	Mental Health	Substanc e Abuse
Clients receiving service (number)	611	417	1,308	118	108
Visits per client (average number)	6	3	5	5	4

Additional services provided with CARE Act funds are shown below. More often than not a client may have received multiple services so the numbers are not mutually exclusive.

- 1,464 people were provided Health Education and Risk Reduction
- 894 people were referred for psychosocial\supportive services
- 602 food-bank or home delivery connections were made
- 389 treatment adherence counseling session were held
- 357 people were provided with transportation
- 307 people received emergency financial assistance
- 110 referrals to clinical research were arranged
- 61 client advocacy incidents were reported
- 53 assisted housing connections were arranged

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 22. County locations of the HRSA funded and CCHS\DPH sponsored ID-Wellness Clinics in Delaware

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

- 2. Community Based Organizations that include:
 - AIDS Delaware
 - American Red Cross
 - Beautiful Gate Outreach
 - Brandywine Counseling Center
 - Case Management Services
 - Catholic Charities
 - Delaware Center for Justice
 - Kent County Counseling
 - Ministry of Caring
 - Sussex County AIDS Committee
- 3. Division of Public Health, Department of Health and Social Services

Figure 31. Types of providers by percentage funded by Ryan White CARE Act Title II Program in 2002 in Delaware



Table 23 below, illustrates the demographic characteristics of clients in the ADAP program in 2002 compared to the demographics of living HIV/AIDS cases in the HARS database for the same period. The percentages appear similar in most characteristics with the exception of race. In this category, Blacks represent 71% of the living cases in HARS compared to 59% enrolled in ADAP. The difference may be due to the number of clients in the ADAP program designated to the "Unknown\More than one race" category.

Table 23. Demographic Characteristics of clients served through 2002 AIDS Drug Assistance Program (ADAP) compared to living Delaware HIV/AIDS reported cases through 2002

Client Characteristics	ADAP Numbers N=454	ADAP Percent*	Living HIV/AIDS Numbers N=2,258	Living HIV/AIDS Percent
Gender				
Male	329	72%	1,507	67%
Female	115	29%	751	33%
Unknown\Transgender	10	1%		0%
Tota	al 454	· 100%	2,258	100%
Ethnicity				
Hispanic or Latino	20	4%	127	5%
Non-Hispanic or Latino	434	96%	2,131	95%
Tota	al 454	· 100%	2,258	100%
Race				
White	136	30%	613	29%
African American\Black	267	59%	1,506	71%
Unknown\More than one race	51	11%	12	<1%
Tota	al 434	100%	2,131	100%
Age				
Less than 2 years	3	<1%	2	<1%
2-12 years	1	<1%	25	1%
13-24 years	6	1%	61	3%
25-44 years	275	61%	1,340	59%
45-64 years	155	34%	793	35%
65 years or older	13	3%	37	2%
Unknown\Unreported	1	<1%	0	0%
Tota	al 454	100%	2258	100%
*Percentages may not total to 100%	6 due to roun	ding error.	•	

Table 24 below, illustrates the demographic characteristics of 681 clients attending an ID-Wellness clinic that were on HAART therapy at the end of 2002. Of the 1,122 clients, 681 (61%) were on HAART therapy. When the demographics are compared to the number of living HIV/AIDS cases in the HARS database the similarities are significant. Anecdotally, it appears HIV-infected people in Delaware are being equally served regardless of race, age or gender.

Table 24. Characteristics of HIV-infected patients prescribed HAART (Highly Active Antiretroviral Therapy) in CCHS\DPH ID-Wellness Clinics throughout Delaware in 2002, (n=681)

Client Characteristics	Highly Active Antiretroviral Therapy (HAART)%	Living HIV/AIDS Numbers N=2,258	Living HIV/AIDS Percent	
Gender				
Male	64%	1,507	67%	
Female	36%	751	33%	
Unknown\Transgender	0%	0	0%	
	100%	2,258	100%	
Ethnicity				
Hispanic or Latino	5%	127	5%	
Non-Hispanic or Latino	95%	2,131	95%	
· · · · · · · · · · · · · · · · · · ·	100%	2,258	100%	
Race				
White	22%	613	29%	
African American\Black	74%	1,506	71%	
Unknown\More than one race	4%	12	<1%	
	100%	2,131	100%	
Age				
Less than 2 years	0%	2	<1%	
2-12 years	0%	25	1%	
13-24 years	<1%	61	3%	
25-44 years	55%	1,340	59%	
45-64 years	43%	793	35%	
65 years or older	2%	37	2%	
Unknown\Unreported	0%	0	0%	
·	100%	2,258	100%	
* Percentages may not total to	o 100% due to rounding	error.		

Table 25 illustrates the demographic characteristics on the 33% (n=379) of the 1,122 clients attending an ID-Wellness clinic on PCP prophylaxis at the end of 2002. When the characteristics of the clinic clients on PCP prophylaxis are compared to the living HIV/AIDS cases, in the HARS database, there are a greater percentage of Blacks and people of Hispanic origin (84% and 3%) respectively on PCP prophylaxis than in the HARS database (71% and <1%) respectively. The greater percentage in people of color on PCP prophylaxis may be due in part to the level of wellness determined on intake into the clinic.

Table 25. Characteristics of HIV-infected patients prescribed prophylaxis
for PCP (<i>Pneumocystis carinii</i> pneumonia) in CCHS\DPH ID-Wellness
Clinics throughout Delaware in 2002, (n=379)

	%	Numbers N=2,258	Living HIV/AIDS Percent	
Gender				
Male	64%	1,507	67%	
Female	36%	751	33%	
Unknown\Transgender	0%	0	0%	
	100%	2,258	100%	
Ethnicity				
Hispanic or Latino	4%	127	5%	
Non-Hispanic or Latino	96%	2,131	95%	
	100%	2,258	100%	
Race				
White	12%	613	29%	
African American\Black	84%	1,506	71%	
Unknown\More than one race	3%	12	<1%	
	100%	2,131	100%	
Age				
Less than 2 years	0%	2	<1%	
2-12 years	0%	25	1%	
13-24 years	<1%	61	3%	
25-44 years	54%	1,340	59%	
45-64 years	44%	793	35%	
65 years or older	2%	37	2%	
Unknown\Unreported	0%	0	0%	
	100%	2,258	100%	

In addition to HAART and PCP prophylaxis the 1,122 HIV-infected clients attending ID-Wellness clinics also received the following preventive therapies in 2002:

- 1,086 (97%) had a TB skin test (PPD Mantoux), 7 who were treated secondary to positive TB skin test.
- 795 (71%) had screening/testing for syphilis and 3 were positive and treated.

- 44 (4%) had screening/testing for any treatable sexually transmitted infection (STI) other than syphilis and HIV and 27 were treated for an STI other than syphilis and HIV.
- 135 (12%) had screening/testing for hepatitis C and 7 received treatment for hepatitis C.

The 429 HIV-infected females attending ID-Wellness clinics also received the following gynecological\obstetric interventions in 2002. Twelve children were delivered to 14 pregnant HIV-positive women. One of the 12 children was HIV positive. Other health data on the women is shown below.

- 407 (95%) received a pelvic examination and Pap smear during 2002.
- 16 (2%) of the women were pregnant in 2002.
 - 4 entered care in the first trimester
 - 7 entered care in the second trimester
 - 5 entered care in the third trimester
- 14 (88%) of the pregnant women received antiretroviral medication to prevent transmission of HIV to their children.

Figure 32 illustrates 38% (n=428) of the clients attending an ID-Wellness Clinic in Delaware in 2002 are clients infected with HIV through heterosexual contact, 36% (n=402) are injecting drug users and 21% (n=236) are MSM.

Figure 32. Distribution of clients attending ID-Wellness Clinics by risk factor for transmission of HIV in 2002, n=1,122



Of the 1,863 HIV-infected Delawareans, receiving services through Ryan White CARE Act funding, 36% (n=667) have income levels equal to or less than the Federal Poverty Level. Forty-three percent (n=808) have income levels between 101% and 200% of the Federal Poverty Level.

Figure 33. Percent of household income of HIV-infected recipients of Ryan White CARE Act funding at the end of 2002 in Delaware, n=1,863



HIV/AIDS Reporting 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. Treatment locations are fixed as of December 31, 2002.









Figures 34a and b indicates just over half of all HIV and AIDS patients are receiving care through an wellness clinic, with another 25% being treated by private doctors.

Figures 35 and b illustrate the county where the living cases were residing as of December 31, 2002. This figure includes 279 non-residents (cases that were diagnosed in a state other than Delaware but are now residing in Delaware) who received care in 2002. There are also 20 clients residing in Delaware who go outside our state to receive their medical care and they are included in with the Veteran's (VA) or other clinics category. As is illustrated, the majority, 51% of HIV-infected clients living in Delaware is attending a HRSA funded hospital-based clinic.



Figure 35a. County of residence and treatment location for all living HIV cases residing in Delaware and receiving care in 2002, n=504

Figure 35b. County of residence and treatment location for all living AIDS cases residing in Delaware and receiving care in 2002, n=1,448



Supplemental HIV/AIDS Surveillance (SHAS) Data

The SHAS interview process collects data through 13 questions regarding HIV Testing and Medical Therapy, 32 questions on Preventive Therapy and 29 questions on Health and Social Services. Information regarding availability and utilization of services in the state is collected through the survey. The results of 287 participants interviewed through the SHAS process from July 2000 through June 30, 2003 are found below.

The answers to the following SHAS questions are shown in percentages.

HIV Testing and Medical Therapy All participants were asked:

Where were you tested when you had your first positive HIV test?

- 31% Hospital inpatient, outpatient and emergency room;
- 20% in Public Health clinics or "AIDS" clinics;
- ♦ 15% in private physician's office;
- 11% in HIV counseling and testing site or mobile access;
- ♦ 8% in a community clinic;
- 8% in a correctional facility,
- ♦ 3% in a drug clinic;
- 2% at a blood bank;
- 2% in other types of clinic.

When you first tested positive for HIV, what was the main reason you were tested?

- ♦ 48% due to illness;
- 27% identified a risk behavior for HIV;
- ♦ 7% would not identify reason
- 6% just wanted to know;
- 4% offered at the clinic;
- 3% insurance pre-requisite, entrance to military, started new relationship
- ♦ 3% surgical pre-requisite;
- 2% pregnancy.

When you first tested positive for HIV, what type of test did you have?

- ♦ 14% anonymous
- 67% confidential
- 19% do not know
Has anyone (for example, from the health department or a health care provider) ever offered to tell your sex (or drug using) partners that they may have been exposed to HIV so they can be tested?

- 68% responded "no" no one ever offered help with notifying partners
- 31% responded "yes" someone had offered to help notify partners
- 1% responded "don't remember"

The 31% (n=90) who answered "yes" to the preceding question were asked:

What was your response when they offered to tell your partners?

- 70% client chose to notify partners;
- 13% asked the health department or other person to help with notifying partners;
- 8% did not want partners told or refused to respond to questions;
- 6% asked for help with some partners and said they would tell the others;
- 3% answered with an "other" response.

The 8% (n=7) who did not want their partners told were asked:

What was the main reason you chose not to tell your partners?

- 29% responded they were "afraid of what the partner(s) would do me";
- 14% responded they "didn't trust the health department/person who offered to tell my partners";
- 14% responded they were "afraid my partner(s) would find out it was me who may have infected them";
- 43% responded with an "other" answer that did not fit any of the offered responses in the survey.

All participants were asked:

When did you first get medical care after learning you had HIV/AIDS? This includes examinations and viral load or CD₄ testing, even if you are not currently taking any anti-HIV medications?

- 52% received care within 1 month of learning their HIV status;
- 13% received care within 3 months;
- 3% received care within 12 months;
- 2% received care within 36 months;
- 6% waited more than 36 months;
- 24% were unable to provide both a month and year of first care that is required to calculate the variable.

During the past 12 months where did you go most often to get medical care for your HIV infection?

- 82% receive their HIV medical care through a HRSA funded clinic,
- 13% through private physician,
- 1% through Veteran's Administration Medical Center,
- 3% through another facility type not specified,
- 1 % received no care in the last year.

Not counting payment for HIV medicines, about how much did you pay out-ofpocket for health care for your HIV infection in the past 12 months? This includes insurance premiums, deductibles, co-payments, and any other money you may have paid for your HIV care. (out-of-pocket meaning money you pay out that doesn't get reimbursed).

- 81% paid no out-of-pocket money in the last 12 months;
- 5% paid between \$1 and \$100;
- 2% paid between \$101 and \$200;
- 3% paid between \$201 and \$300;
- 3% paid between \$301 and \$999;
- 6% paid more than \$999.

Has a doctor or health care provider ever told you that your HIV infection had progressed to AIDS?

In the 222 surveys completed with AIDS diagnosed clients the responses were:

- ◆ 48% responded "no", they had not been told they had progressed to AIDS;
- ◆ 49% responded "yes", they had been told they had progressed to AIDS;
- 3% responded they "did not know or were not sure".

In the 65 surveys completed with clients whose medical/diagnostic status was HIV positive at the time of interview the responses were:

- 97% responded "no", they had not been told they had progressed to AIDS;
- 3% responded "yes", they had been told they had progressed to AIDS.

Has your doctor or health care provider ever told you that you had hepatitis?

- 63% responded "no" they had not been told they had hepatitis;
- 37% responded "yes" that they had been told they had hepatitis.

The 37% (n=105) who responded "yes" to having been told they had hepatitis were asked:

What type of hepatitis was it? (multiple types were recorded where indicated)

10% of the participants said they had hepatitis A;
36% of the participants said they had hepatitis B'
59% of the participants said they had hepatitis C;
10% of the participants said they did not know the type of hepatitis they had.

Have you ever had the vaccination to protect against Hepatitis B?

51% participants said they had not received the Hepatitis B vaccine; 35% participants said they had received the vaccine preventative for hepatitis B;

15% participants did not know if they had received the hepatitis B vaccine.

Preventive Therapy

Have you ever taken antiretroviral medicines (an extensive list of antiretrovirals along with generic names is provided the SHAS participant) to treat your HIV infection?

- 85% responded "yes" they had taken an antiretroviral medication;
- 14% responded "no" they had not taken an antiretroviral medication;
- 1% responded "they did not know or were unsure".

The 14% (n=42) who responded "no" to the preceding question were asked:

What is the main reason you haven't taken antiretroviral medications?

- 17% responded "I recently got into care and haven't had time to start taking any medications yet";
- 36% responded "My doctor said I should wait until later to take medications";
- 12% responded "I feel good, I don't think I need them";
- 19% responded "My CD₄ count is still high (or viral load is low) so I decided not to take them";
- 10% responded "I'm worried about medication side effects";
- 5% responded "I never got around to getting into care/never took the time" or "other" answer.

The 85% (n=243) who responded "yes" to having taken an antiretroviral were asked:

In the past 12 months, have you taken a "drug holiday" from your antiretroviral medications? That is, did you not take any doses of one or more of your antiretroviral medications for at least two whole days in a row?

22% (n=53) said "yes" they had taken a "drug holiday" in the past 12 months.

When the 53 were asked:

What was the main reason you took a drug holiday from your antiretroviral medications?

The top four responses were:

- 19% said "I just got tired of taking them and needed a break";
- 15% said "Medication has side effects and makes me feel bad";
- 15% said "I was someplace where I couldn't get my medications (on vacation or out of town)";
- 13% said "I felt good and I didn't think it would hurt not to take them"

Have you ever been told you have Pneumocystis carinii pneumonia (PCP)?

- 2% responded that they "did not know" if they had been told they had PCP;
- 16% responded "yes" that they had been told they had PCP;
- 82% responded "no" that they had not been told they had PCP.

Conclusions

A total of 3,810 cases had been reported to the Division of Public Health through December 31, 2002. Fifty nine percent (n=2,258) of the cases were living at the end of 2002.

Anecdotally, with 2,258 cases living in Delaware and the Ryan White CARE Act Data Reports indicating 1,863 unduplicated people in care, we might reasonably estimate that 83% of the HIV-infected people in Delaware are in care and receiving some type of service funded by Ryan White monies.

The majority, 44% (n=990), of the living cases resides in the City of Wilmington's zip codes 19801, 19802, 19805, and 19806. Thirty-one percent (n=694) reside in other zip codes in New Castle County, 15% in Sussex County and 10% in Kent County.

The impact of the HIV/AIDS epidemic on the Black population continues to present prevention programming with an alarming need for an increase in early intervention through education, outreach and preventive therapies. The majority of the living cases of HIV/AIDS in New Castle County are Black. In the City of Wilmington, 83% of the living are Black and 57% of the living outside the city are Black. Sixty four percent (n=1,001) of the people who have died of HV/AIDS are Black and 75% (n=753) of the Black cases that have died were men. Sixty-nine percent (n=823) of the deaths in Black cases were residents of New Castle County with 74% (n=609) residents of the City of Wilmington.

Nearly two thirds (63%) of the cumulative male cases in Delaware are Black and more than three quarters (76%) of the cumulative female cases are Black. In Kent County 65% of the living cases is Black whereas in Sussex County 49% of living cases are White.

<u>Support</u>

Grant funding through Cooperative Agreement 00005 from the Centers for Disease Control and Prevention (CDC) supported this publication. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

Acknowledgements

(Written by Kate Widdowson prior to her death in November 2003)

First and foremost are my many thanks to the HIV/AIDS surveillance staff. To Carolyn Blessing, Kent/Sussex Surveillance Officer and SHAS Interviewer (retired) and John Miller, Statistician and SHAS Interviewer in New Castle County. Carolyn and John were essential in the first 18 months of HIV reporting and the data from the period that is referenced in the profile. They were the primary investigators of case reports that were incomplete and were diligent in completing reports and resolving NIRS. Thanks Carolyn and John you are both priceless.

My many thanks to SHAS interviewers Bruce LeVan, in Kent and Sussex Counties and Angela Miller in New Castle County for your determination in collecting the sound epidemiologic data that is so important to the profile. Read this, Bruce and Angela, you will see how important your work is.

To Christina Melvin, Surveillance Officer and newest member of the surveillance team, your turn is just beginning. I hope you enjoy the picky parts of data entry as much as I did and don't let them tell you it doesn't matter. It does!!

Thanks to Ryan White CARE Act grantees and Delaware Ryan White Program Administrator, Lucy Luta and her more than capable staff, Jeannette Killen, Marge Brittingham, and Tonya Williams for provision of CARE Act Data Reports.

Thanks to Health Program Coordinator, Carylon Comegys, then a Statistician, for her many hours of unduplicating data and provision of the HIV Counseling and Testing Report.

Thanks to STD Program Administrator, Cathy Mosley and Medical Records Technician, Sheri Swackhammer for all the patience and assistance with STD data.

Thanks to Administrative Specialist, Amy Edwards for her assistance with data charts, tables and coordinating the printing of the profile.

Thanks to Jim Dickinson and Carylon Comegys for the great fun we had attending the CDC sponsored Developing Integrated Epidemiologic Profiles Grantee Training Meeting in January 2003.

Special thanks to Judith Gendler Epstein and James C. Welch for their support, guidance, patience and mentoring. You are the best!

<u>References</u>

- 1. United States Census Bureau from website: <u>http://quickfacts.census.gov/qfd/</u>
- 2. Delaware Division of Public Health, Health Statistics Center, <u>Delaware Vital</u> <u>Statistics Annual Report 2001</u>
- 3. HIV/AIDS Reporting System (HARS)
- Center for Disease Control and Prevention, <u>HIV/AIDS Surveillance Report</u> <u>2001</u>, Year-end edition Volume 13, No. 2, U.S. HIV and AIDS cases reported through December 2001, <u>http://www.cdc.gov/hivdhap.htm</u>
- 5. Supplemental HIV/AIDS Surveillance (SHAS)
- Division of Public Health, Disease Prevention and Control, HIV/STD/Hepatitis C Section, HIV Counseling and Testing Annual Report 2002, internal document
- Division of Public Health, Disease Prevention and Control, HIV/STD/Hepatitis C Section, <u>Sexually Transmitted Disease Annual Report 2002</u>, internal document.
- Department of Education, Division of Adolescent and School Health (DASH), Youth Risk Behavior Survey (YRBS), 2001 from website: <u>http://www.cdc.gov/nccdphp/dash/yrbs/results.htm</u>
- 9. Health Resource and Services Administration (HRSA), Ryan White CARE Act Data Reports (CADR) 2002.

Heterosexual SHAS Participant Sexual Activity and Condom Use

Of the 14 heterosexual men who were infected with HIV through sex with an IDU, 3 abstained from sex and eleven (79%) had sex with a woman in the 12 months prior to the interview. Eight (73%) of the men, who had sex with a woman, had a single partner only. Two men had between 4 and 6 female partners and one male stated he had sex with 30 women in the 12 months prior to the interview.

Seven (67%) of the 11 men who had sex with a woman, in the time frame, identified themselves as having a "steady sex partner". Of the seven, 86% (n=6) used a condom when engaging in vaginal intercourse with their partner.

Of the four men who did not have a steady sex partner, 3 (75%) used a condom when engaging in vaginal intercourse. None of the four men had anal sex with their female partner or had given the women oral sex. Three (75%) of the four men had received oral sex from a female partner and 2 (67%) used a condom. Of the 20 female heterosexuals who were infected through sex with an IDU and interviewed with SHAS, 8 had abstained from sex in the 12 months prior to the interview date.

Of the 44 heterosexuals who had sex with a person with HIV/AIDS, 73% (n=32) are female and 27% (n=12) are male.

Within the female participants, 81% (n=26) had sex with a man in the 12 months prior to the interview date and 77% (n=20) of the 26 had a single partner in the time frame. Five participants had sex with 2-3 male partners and one with 50 or more. Eight (25%) of the 32 women interviewed had a sexually transmitted disease in the 12 months prior to the interview date.

Four (13%) of the 32 participants who had sex with a person with HIV/AIDS had received drugs or money for sex but only one in the 12 months prior to the interview. Only one of the females had ever paid for sex and not within the 12 months prior to the interview.

Thirteen (68%) of the 19 women, who had a steady sex partner in the 12 months prior to the interview date, had vaginal intercourse with their steady sex partner and used a condom. Five (26%) of the 19 females were recipients of oral sex and one (5%) used a barrier or dental dam. Seven (37%) of the 19 women had given their partners oral sex and 3 (16%) of the 7 had used a condom. None of the 19 females engaged in anal intercourse.

Of the seven women who did not have a steady sex partner in the 12 months prior to the interview date, the number of sex partners ranged from 1 to 3. Of the seven women, 4 (57%) had vaginal intercourse and used a condom, 3 (43%) were recipients of oral sex and only one use a barrier or dental dam. Two (29%) of the 7 women without steady sex partners had given oral sex to a man and did not use a condom. None of the seven women had engaged in anal intercourse in the 12 months prior to the interview date.

Within the 12 heterosexual males who participated in a SHAS interview and had sex with a person with HIV/AIDS, 10 (83%) had sex with a woman in the 12 months prior to the interview date. Eight (80%) of the 10 had a steady female sex partner in the time frame. When having vaginal intercourse with their steady female partner, 70% (n=7) used a condom.

Of the 12 male heterosexual SHAS participants, two (17%) had been treated for a sexually transmitted disease in the 12 months prior to the interview period.

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, Jesse Cooper Building, 417 Federal Street, Dover, DE 19901.

1. Of which planning group are you a member?

Policy Prevention Community Planning Group Treatment Services

2. Was the epidemiologic profile easy to read?

□ Yes □ No □ Somewhat

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
		lf not, ex	plain why.	
		<u> </u>		
		<u> </u>		
5.	Wa	s the epic	lemiologic pi	rofile useful to your planning process?
		☐ Yes	□ No	☐ Somewhat
		If not, ex	plain why.	

6. Describe how you used the epidemiologic profile in your planning activities?

•	How can next year's profile be improved?				
a:	What specific questions could be included in the next profile?				
	Do you want to receive the quarterly HIV/AIDS statistical report?				
	No				
	Yes, I already receive the report				
	Yes, please send the report to me by: Include your contact information, as appropriate				
	☐ Email ☐ Fax ☐ Mail				
	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,				