

**HIV, STDs, and TB:
An Overview of Testing Results
(2000)**

prepared for

**Delaware Department of Health and Social Services
Division of Public Health**

by

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Executive Summary

- AIDS-related mortality rates continue to fall with 14.0 cases per 100,000 persons during the most recent five-year period. That represents a 13.9% decline from just three years ago. However, AIDS case rates have risen from 21.9 per 100,000 to 26.3 cases per 100,000 during the past three years.
- In 2000, 11,060 people received counseling services related to HIV and that represented a 9.9% increase from 1999.
- Forty eight percent of those counseled were African American. About half of those counseled were in the 18-34 age group and 49% were men.
- Of the 9,584 persons tested for HIV, 106 tested positive. Seventy-two of those testing positive had not previously tested positive for HIV.
- Seventy percent of those testing positive were men, 58% were African American, and 43% were in the 18-34 age group. Fifty percent of the cases were located in New Castle County with 58.5% located within nine of 68 Delaware zip codes. Counseling and testing sites replaced STD clinics as the principal facility for detecting positive cases.
- The total number of syphilis, gonorrhea, and chlamydia cases increased from 4,500 cases in 1999 to 4,636 cases in 2000. Only 45 of those cases were syphilis and that was a decrease from 72 cases in 1999 and 114 cases in 1998.
- Chlamydia accounted for another 2,856 STD cases in 2000. This was an increase of 3% from the 2,766 cases reported in 1999.
- A majority of all sexually transmitted disease was found among African Americans with 84% of gonorrhea cases and 64% of both syphilis and chlamydia cases.
- Women were diagnosed with 57% of the gonorrhea, 40% of the syphilis, and 80% of the chlamydia cases.
- The largest numbers of gonorrhea and chlamydia cases were found in the 18-24 years age group. Syphilis cases were most likely to be found in the 25-44 years age groups.
- A disproportionate number of syphilis cases was reported in Sussex County during 2000 (42.2%). The City of Wilmington, however, was where the concentration of STD cases was the highest with 46% of the gonorrhea, 29% of the chlamydia, and 29% of the syphilis cases while having roughly 10% of the state's population.
- During 2000, 28 cases of TB were identified which is a decrease of five cases from 1999. Of those cases, 36% were found in Sussex County.
- Caucasians accounted for 39% of the TB cases followed by African Americans with 32% of the cases and Asians with 29%. All in all, men were more likely (60%) to be diagnosed with TB in 2000. The majority of the cases were in the 20-44 age group.

INTRODUCTION

The purpose of this report is two-fold. It is first designed to assess, at least in part, unmet HIV programming and service needs. It is also designed to evaluate: (a) if at-risk populations have been accurately targeted for HIV-related programs and services, (b) if programming and services have effectively impacted targeted populations and (c) if demand for services accurately reflects *need* for services.

This report will be divided into several sections. Using national and state data, it is hoped that the first section of this report will provide the reader with a better understanding of not only how Delaware compares with the rest of the nation, but also any shifts in morbidity and mortality trends. The second section of this report will provide the reader with results of the 2000 Counseling and Testing Reporting System (C&T). Where possible, this section will examine service demand and service need throughout the state. STD and TB reporting results from 2000 will be reviewed in the third and fourth sections of this report.

AIDS-RELATED MORBIDITY AND MORTALITY TRENDS:

In Delaware, the number of HIV infection and AIDS-related deaths has begun to fall. There was roughly a 14% decrease in the AIDS mortality rates in 1994-1998, when compared to the 1992-1996 period. (*Bureau of Health Planning & Resource Management, Winter 2001*)¹

TABLE 1.1
**Delaware AIDS-Related Mortality Rates
1991-1998**

AREA	FIVE-YEAR AVERAGE (per 100,000 persons)			
	1991-1995	1992-1996	1993-1997	1994-1998
Delaware	14.4	16.2	15.7	14.0
New Castle	15.7	18.1	18.0	16.0
Kent	11.3	11.4	10.1	9.0
Sussex	12.3	13.0	11.7	10.8

Source: Delaware Division of Public Health's Vital Statistics Annual Report, 1999.

¹ Bureau of Health Planning & Resource Management. (2001). *Delaware Vital Statistics Annual Report 1999*. Delaware Division of Public Health, Dover.

In 1999, AIDS continues to be a top ten leading cause of death for African American males (#3) and females (#5). Among all 25-44 year-olds, AIDS-related death is the second leading cause of death. (*Bureau of Health Planning & Resource Management, Winter 2001*)

TABLE 1.2
U.S. & Mid-Atlantic AIDS Case Rates
1998-2000

State/Region	AIDS Case Rate (per 100,000 persons)		
	1998	1999	2000
U.S.	19.4	16.7	15.5
Delaware	21.9	23.7	26.3
Pennsylvania	15.7	15.0	13.7
Maryland	32.0	31.8	27.2
New Jersey	30.8	25.3	23.8

Source: US Centers for Disease Control, Mid-Year 1999 and 2000 Surveillance Reports

Although Delaware's AIDS case rate is 70% higher than the U.S. average, which is substantially higher than observed in 1999, it is comparable with most other states in the Mid-Atlantic region. After excluding Pennsylvania, approximately 26 people of every 100,000 persons was believed to have AIDS in 2000 (see Table 1.2, above). However, the rate is increasing in Delaware in contrast with the other states in the region.

TABLE 1.3
AIDS Case Rates for Wilmington & Other Mid-Atlantic Metro Areas

City	AIDS Cases Rate (per 100,000)		
	1998	1999	2000
Wilmington, DE	22.9	24.3	27.7
Philadelphia, PA	29.6	27.9	28.1
Baltimore, MD	44.3	47.2	35.9
U.S. Metro Areas (50,000-500,000 pop.)	11.6	10.2	9.6
U.S. Metro Areas (500,000+ population)	26.0	22.2	20.3

Source: US Centers for Disease Control, Mid-Year 1999 and 2000 Surveillance Reports

It should also be noted that when reviewing the AIDS case rates of U.S. metropolitan areas, the Wilmington metro area has a case rate, which is nearly three times that of the average metropolitan area with a population size of 50,000-500,000. In fact, according to Table 1.3, above, the Wilmington area AIDS case rate in 2000 is higher than the case rate of the average metropolitan area of 500,000 or more people.

HIV COUNSELING AND TESTING

As part of Delaware's HIV counseling and testing procedures, clients are asked to answer questions regarding their reasons for seeking counseling and, in some cases, testing. HIV counselors log responses to these questions, results of testing (if applicable), and other site and demographic data onto CDC scan-sheets. Anyone receiving state or federal funding to provide HIV counseling and testing is required to complete the C&T scan-sheet. One must also remember that these are individuals voluntarily requesting counseling and testing services and should not expect to be representative of any readily identified population.

In 2000, C & T data was collected from a number of sites. They are as follows:

- State HIV Counseling and Testing Sites
- STD Clinics
- Drug Treatment Facilities
- Family Planning
- Prenatal Clinics
- TB Clinics
- Community Health Clinics
- Prison Sites
- Private physicians and Hospitals
- Field Visits

SEEKING COUNSELING SERVICES

In 2000, 11,060 people received counseling services and that represented a 9.9% increase from 1999. Of those counseled, 48.4% were African-American, 37.7% were Caucasian, and 11.7% reported being Hispanic². It should be noted that while these results are *not* representative of the general population (only about 19.8% of the state's population is African American; 74.6% is Caucasian; and 4.7% is Hispanic), they do tend to reflect the racial demographics of groups at highest HIV infection risk.

With regard to age, it is interesting to note that 64.3% of those receiving pre-test counseling were ages 18-34 years. Another 17% were 35-44 years old. About 10.8% of those receiving HIV counseling were

² Hispanic is classified here as a separate RACE. Thus, it is not possible to differentiate between Caucasian Hispanics, African American Hispanics, Asian Hispanics and Native American Hispanics.

between the ages of 10 and 17. These results tend to reflect the widely held belief that HIV and AIDS primarily affect the young. Unfortunately, and possibly as a result of this belief, incidence rates among older Americans have been increasing in recent years.

Roughly 49% of those receiving pre-test counseling were men. While this is a slightly smaller proportion than observed last year (52.7%), it represents the stabilization of a proportion that was as low as 42% in 1992. Still, since AIDS case rates among men continue to be three times the rate for women (47.9 per 100,000 for men and 16.7 for women) one might expect a higher rate of voluntary testing.

TABLE 2.1
High HIV Pre-Test Counseling Demand Zip Codes (2000)

Zip Code	City	Number of Clients	Percent of 2000 Pre-Test Counseling
19805	Wilmington	1094	9.9
19901	Dover	976	8.8
19802	Wilmington	869	7.9
19801	Wilmington	811	7.3
19720	New Castle	806	7.3
19947	Georgetown	576	5.2
19973	Seaford	473	4.3
19809	Bellefonte	448	4.1
		6,053 of 11,060	54.7

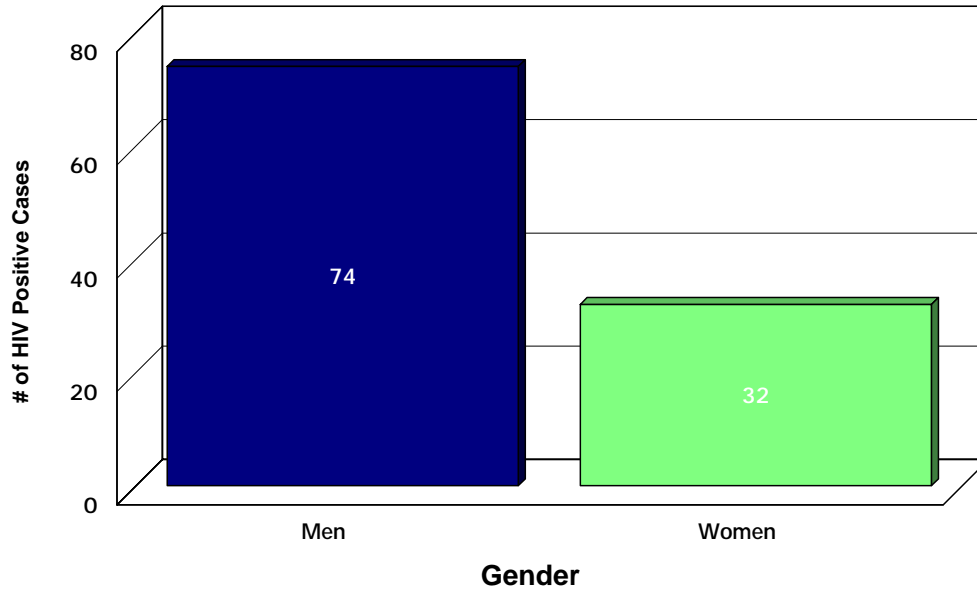
**Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health**

Lastly, it should be noted that 6,053 or 54.7% of all clients receiving counseling services came from just eight Delaware zip codes (see Table 2.1, above). Please refer to the map provided at the end of this section for a more complete picture.

PERSONS DIAGNOSED HIV POSITIVE (2000)

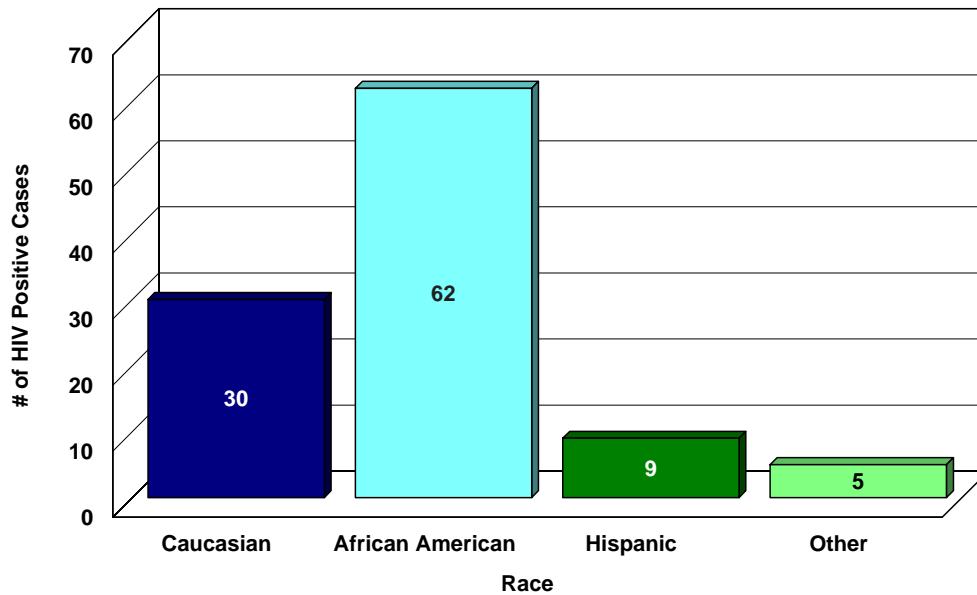
Of the 9,584 tested for HIV, 106 (1.1%) tested positive for the disease. Of them, 30% (n=32) were women (see Figure 2.1, below). Of the 106 positive tests, 34 of those individuals had tested positive at an earlier time. In other words, these are not all new cases. On average, 30% of positive tests are obtained from previously diagnosed individuals. However, they may not have been identified in Delaware.

Figure 2.1
Persons Testing HIV Positive
By Gender (2000)



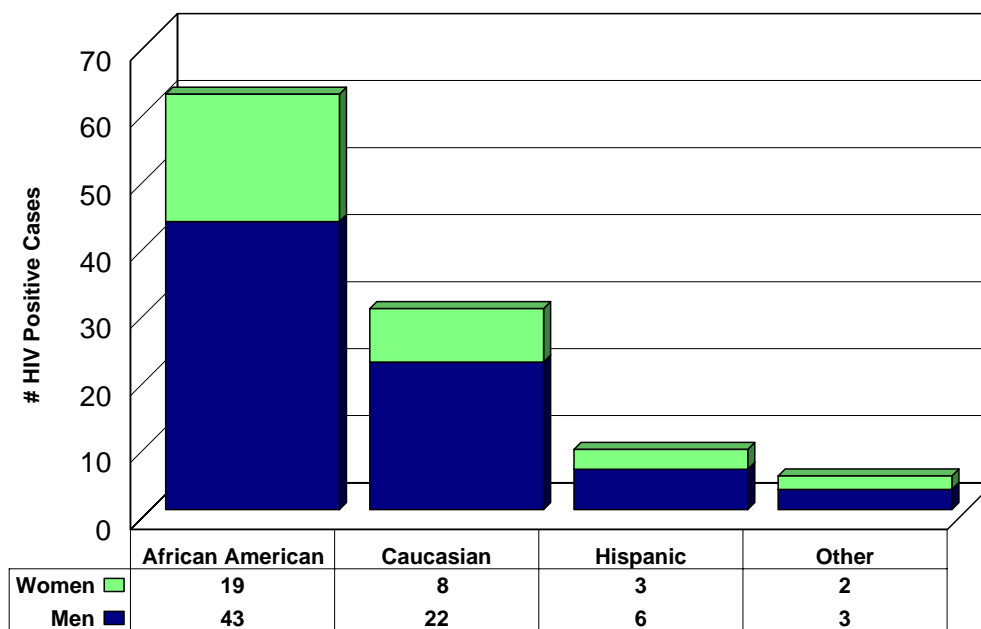
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

Figure 2.2
Persons Testing HIV Positive
by Race (2000)



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

**Figure 2.3
Persons Testing HIV Positive
by Race and Gender (2000)**



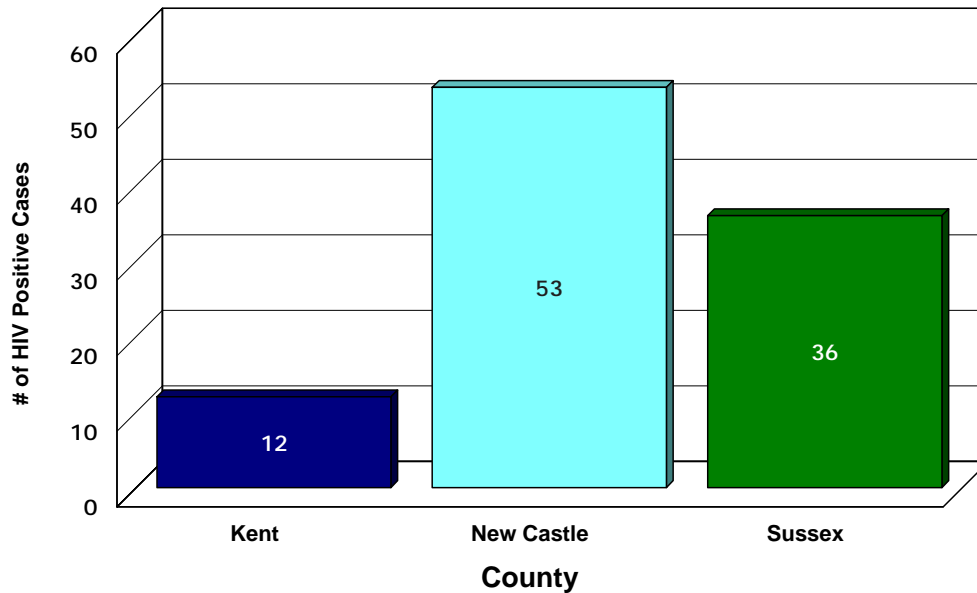
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

African Americans make up the majority of HIV positive cases. As highlighted in Figure 2.2 (above), 58.5% of persons diagnosed HIV positive were African American. It is also interesting to note, however, that the proportion of those testing positive was quite similar for Caucasian, African American, and Hispanic women alike.

About 50% of Delaware’s 2000 HIV positive cases were identified as living in New Castle County, with proportionally smaller numbers in Kent County (see Figure 2.4, below). The proportion in Sussex County is significantly higher than one might expect although with small numbers, it is difficult to reach any conclusion.

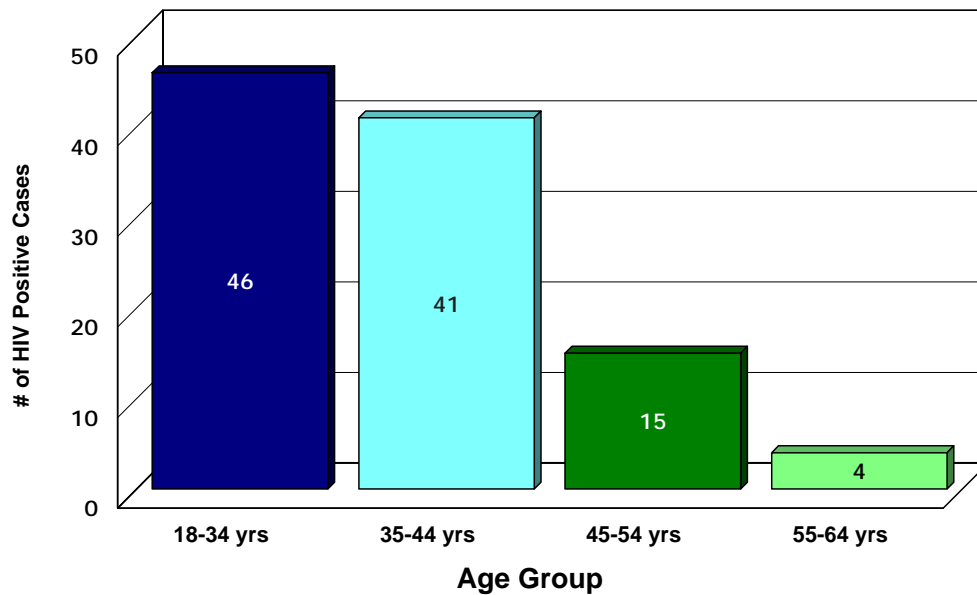
As expected, younger adults comprise the vast majority of those testing HIV+ in Delaware during the year 2000 (Figure 2.5 below). Almost 44% of those individuals testing positive were members of the 18-34 age group. Most of the rest (39%) were in the next older age group. No cases were found among those tested who were under the age of 18 or for those past the age of 64.

Figure 2.4
Persons Testing HIV Positive
by County (2000)



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Figure 2.5
Persons Testing HIV Positive
by Age Group (2000)



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Interestingly, communities that earlier showed high demand for HIV counseling and testing may or may not be the same community with high numbers of Delawareans who test positive. For example, 25.1% of the demand for counseling services came from three predominantly Wilmington zip codes (19801, 19802, and 19805), and 23.6% of Delaware's 2000 HIV positive cases were identified in these same zip codes. In contrast, while 11.7% of the HIV counseling demand comes from two Dover zip codes (19901 and 19904), they represent about 6.6% of those identified as being HIV positive. In both Georgetown (19947) and Seaford (19973), the share of the HIV positive cases was higher than the share of the tested population.

TABLE 2.2
Zip Codes with High Numbers of HIV Positive Cases (2000)

Zip Code	City	Number of Cases	Percent of 2000 HIV Positive Cases
19805	Wilmington	10	9.4
19801	Wilmington	9	8.5
19947	Georgetown	8	7.6
19973	Seaford	7	6.6
19809	Bellefonte	6	5.7
19971	Dewey Beach	6	5.7
19802	Wilmington	6	5.7
19901	Dover	5	4.7
19968	Milton	5	4.7
		62 of 106	58.5

**Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health**

It should be noted that almost 59% of the total number of HIV positive cases reported represent residents of just nine of 68 Delaware zip codes. Each, as illustrated in Table 2.2 (above), is the residence of five or more HIV positive individuals. Please refer to the map provided at the end of this section for a more complete picture.

TABLE 2.3
HIV Positive Cases by Site Where Tested (2000)

Site Tested	Pre-test Sessions	Percent of All Tests	HIV+ Cases	Percent of HIV+ Cases
HIV C&T Sites	1716	15.5	42	39.6
STD Clinics	4755	43.0	36	34.0
Drug Treatment Facility	255	2.3	6	5.7
Family Planning	1615	14.6	2	1.9
Prenatal/OBGYN	350	3.2	1	0.9
TB Clinic	261	2.4	4	3.8
Community Health Clinic	67	0.6	0	0.0
Prison Facility	1417	12.8	10	9.4
Field Visit	457	4.1	4	3.8
Other	167	1.5	1	0.9
TOTAL	11,060	100.0	106	100.0

Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

STD Clinics are currently the largest single source for testing people for HIV. However, HIV C&T sites identified the largest proportion of the HIV positive cases statewide (Table 2.3, above). HIV counseling and testing facilities conduct the second highest number of tests, but identify the highest number of HIV positive cases. Family planning clinics and prison facilities are the next largest testing venues, however, a much higher proportion of the prison population is found to be HIV positive. HIV C&T sites, drug treatment facilities, and TB clinics continue to find relatively more HIV positive cases among those that are tested by that type of site.

Although the number of HIV positive cases is small and varies from year to year, it is worth noting that there appear to be differences between the counties as to where cases are detected. Almost 34% of all HIV positive cases in the state were diagnosed at STD clinics. This proportion varies between 26.4% in New Castle County and 50% in Kent County. In Kent County, on the other hand, 25% were diagnosed at a drug treatment facility (Table 2.4, below). Few cases were found at drug treatment facilities in New Castle or Sussex counties. (Note: Five cases could not be assigned to a county).

TABLE 2.4
HIV Positive Cases By County & Testing Site (2000)

Site Tested	County					
	New Castle		Kent		Sussex	
	cases	%	Cases	%	cases	%
HIV C&T Sites	23	43.4	2	16.7	15	41.7
STD Clinics	14	26.4	6	50.0	15	41.7
Drug Treatment Facility	0	0.0	3	25.0	2	5.6
Family Planning	1	1.9	0	0.0	1	2.8
Prenatal/OBGYN	0	0.0	0	0.0	1	2.8
TB Clinic	4	7.5	0	0.0	0	0.0
Prison Facility	10	18.9	0	0.0	0	0.0
Field Visit	1	1.9	1	8.3	1	2.8
Other	0	0.0	0	0.0	1	2.8
TOTAL	53	100.0	12	100.0	36	100.0

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

TABLE 2.5
HIV Positive Cases by Risk Exposure (2000)

Risk Exposure	Number of HIV+ Cases	Percent of HIV+ Cases
Same-Sex Contact (men only)	34	32.1
Intravenous Drug Use	17	16.0
Sex partner at risk	25	23.6
Blood Recipient	9	8.5
STD Diagnosis	6	5.7
Other	15	14.1
TOTAL	106	100.0

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

While it can be said that the risk exposure of men having sex with men accounts for a significant number of those testing HIV positive in 2000, they are not the majority of cases. As illustrated in Table 2.5 (above), same-sex (male) contact accounts for 32.1% of the cases, which is a substantial increase from 16.9% in 1999. Intravenous drug use (IDU) also represents 16%, which is down from 24.7% in 1999. Other sources account for the balance of Delaware's HIV positive cases. About six percent of these cases represent those who were also diagnosed with another sexually transmitted disease. In 1999, 31% of HIV positive cases were diagnosed with another STD.

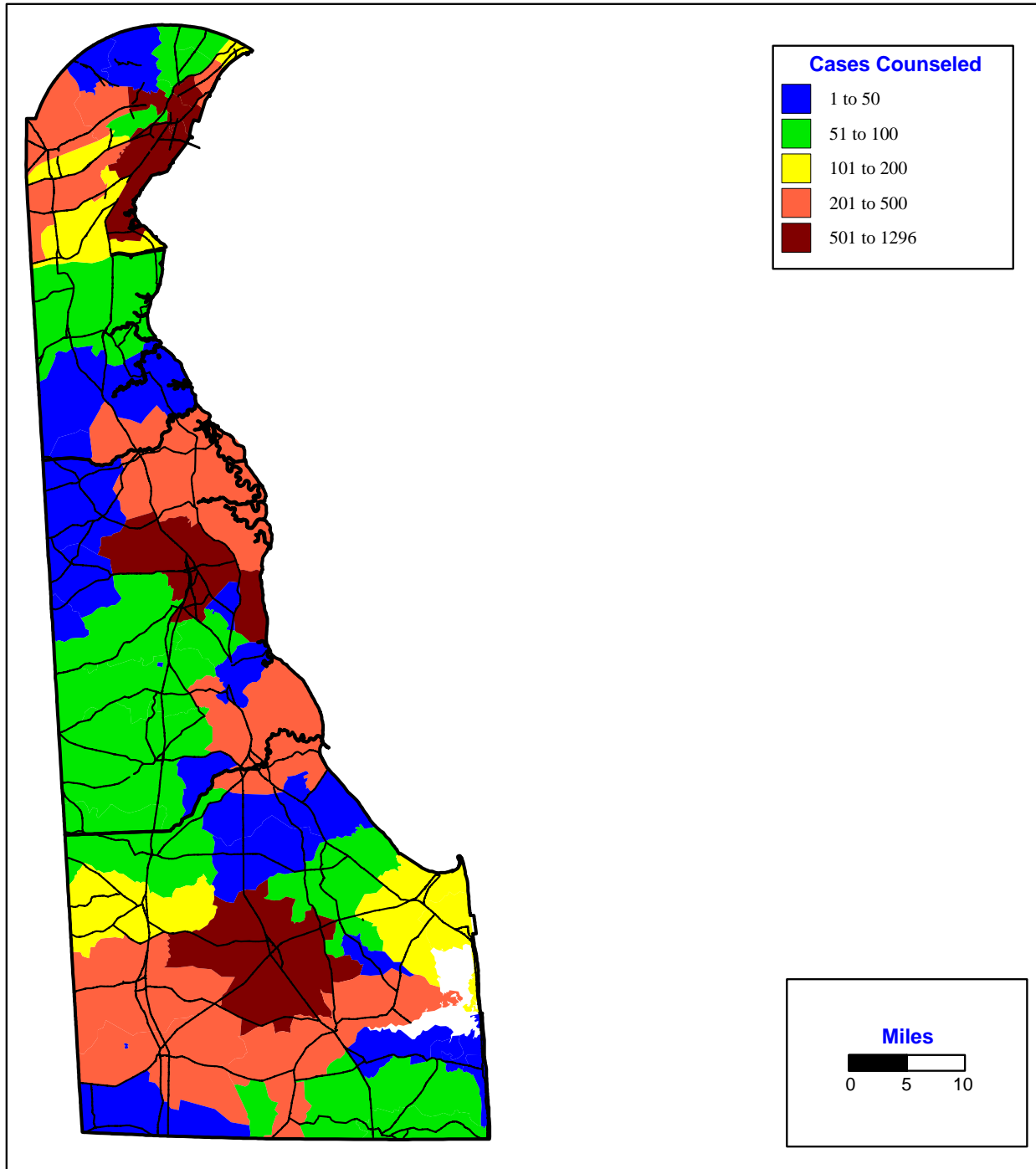
TABLE 2.6
HIV Positive Cases by Risk Exposure & County (2000)

Risk Exposure	County					
	New Castle		Kent		Sussex	
	cases	%	cases	%	cases	%
Same-Sex Contact (men only)	16	30.2	1	8.3	16	44.4
Intravenous Drug Use	7	13.2	3	25.0	5	13.9
Sex partner at risk	17	32.1	3	25.0	4	11.1
Blood Recipient	3	5.7	2	16.7	4	11.1
STD Diagnosis	4	7.5	0	0.0	2	5.6
Other	6	11.3	3	25.0	5	13.9
TOTAL	53	100.0	12	100.0	36	100.0

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

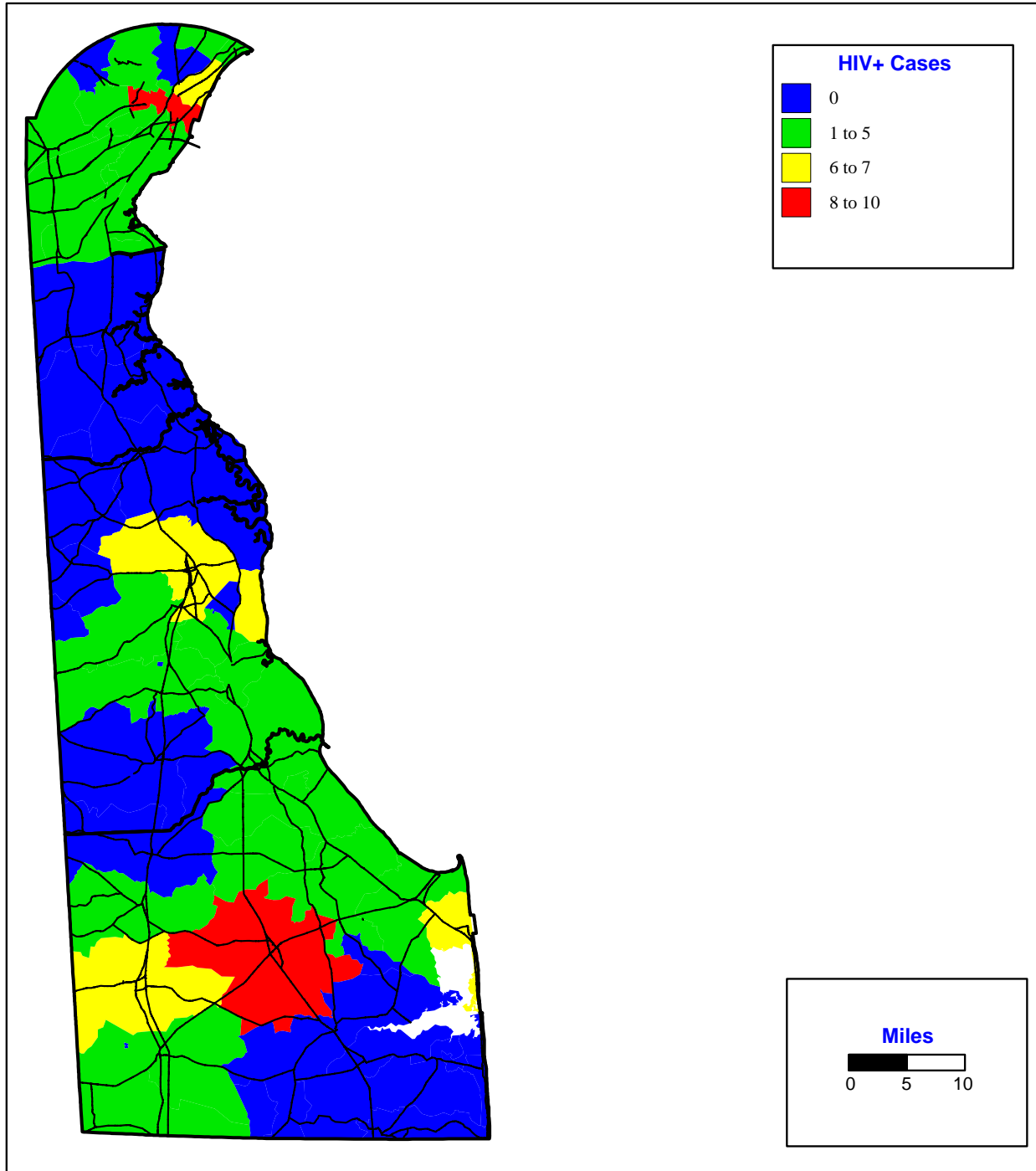
It should also be noted that risk exposure rates varied across Delaware's three counties. As highlighted in Table 2.6 (above), although sample sizes are small, New Castle and Sussex county residents are more likely to have the risk factor of *men having sex with men*.

Map 2.1
Delawareans Seeking HIV Counseling
By Zip Code (2000)



Source: Center for Applied Demography & Survey Research, University of Delaware

Map 2.2
Delawareans Diagnosed HIV+
By Zip Code (2000)

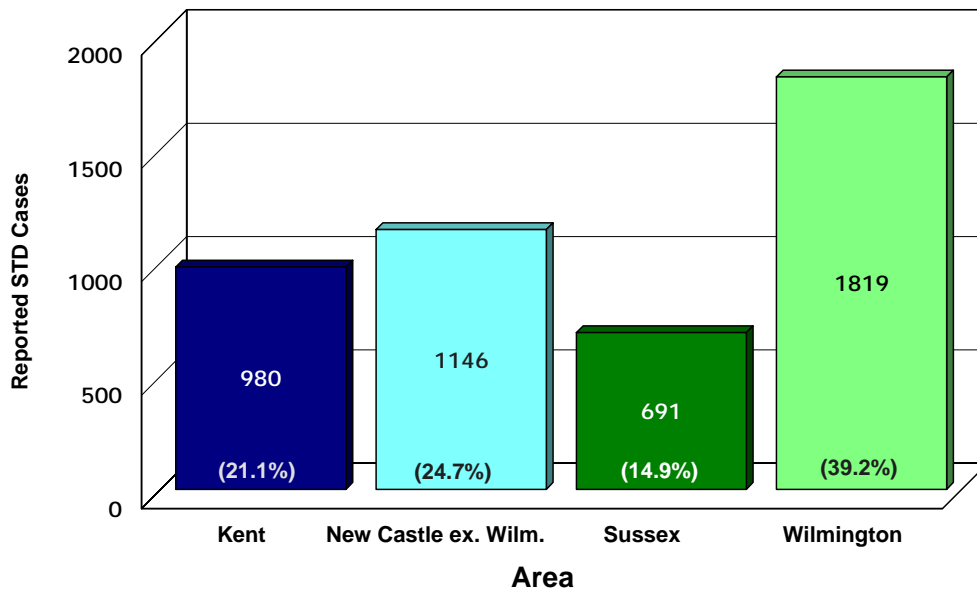


Source: Center for Applied Demography & Survey Research, University of Delaware

SEXUALLY TRANSMITTED DISEASES

According to a recent report released by CDC, gonorrhea, chlamydia, and syphilis (primary and secondary) are three of the top five most reported sexually transmitted diseases (STD). The study also indicated that young Americans were most at risk.³ (Note: Chlamydia cases are being included in the STD counts during 2000 for the first time.)

Figure 3.1
Reported 2000 STD Cases
by County and City of Wilmington



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

In 2000, a total of 4,636 cases of gonorrhea, chlamydia, and/or syphilis (STD) were reported in Delaware. This represents a 3.0% **increase** from 1999 (4,500). Thirty-nine percent of those cases were identified as living in the City of Wilmington. Another 14.9% involved Sussex County residents. Respectively, as indicated in Figure 3.1 (above), 21.1% of 2000 STD cases were diagnosed in Kent County and the balance of 24.7% were from New Castle County outside of Wilmington.

Interestingly, nearly two-thirds of STD cases reported in 2000 represent residents of just eight of Delaware's 68 residential (i.e.: non-special, non-P.O. Box) zip codes (see Table 3.1, below).

³Morbidity & Mortality Weekly. (2000). 46:28, pp 638-640.

TABLE 3.1
Zip Codes with High STD Incidence (2000)

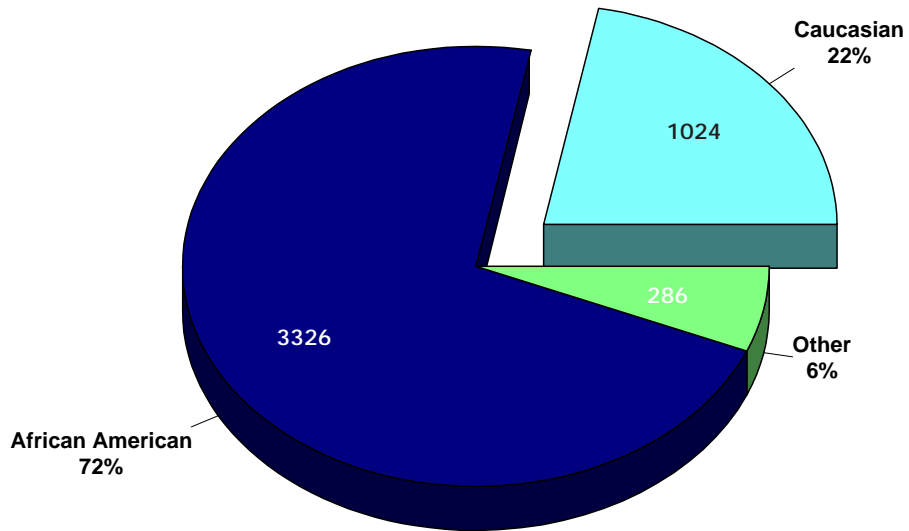
Zip Code	Community Affected	Number of Cases	Percent of 2000 STD Cases
19802	Wilmington	609	13.1%
19801	Wilmington	506	10.9%
19805	Wilmington	448	9.7%
19720	New Castle	399	8.6%
19901	Dover	371	8.0%
19702	Newark	238	5.1%
19904	Dover	230	5.0%
19973	Seaford	143	3.1%

**Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health**

African Americans are more likely to be diagnosed with an STD than their Caucasian or Hispanic counterparts. As highlighted in Figure 3.2 (below), although African Americans make up less than 20% of Delaware's total population, they account for 72% of the total number of STD cases reported in 2000. Caucasians accounted for 22% of the STD cases diagnosed.

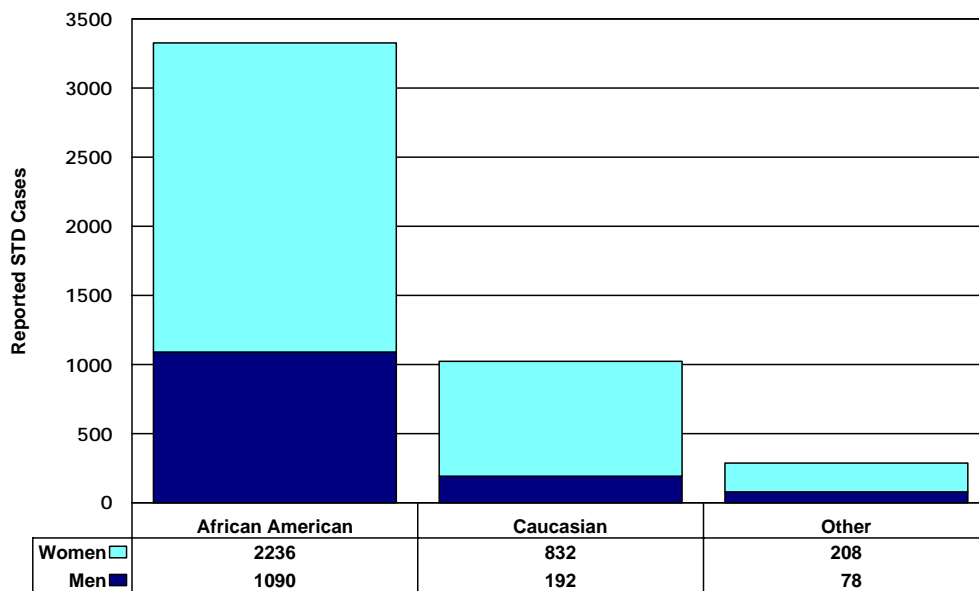
In 1999 women were nearly 2.5 times as likely as men to be diagnosed with an STD; again in 2000, women were about 2.4 times more likely to be reported having an STD. Seventy one percent of the STD cases reported involved women. It should be noted that Caucasian women are more than four times more likely than their male counterparts to be diagnosed with an STD. The number of African American women diagnosed with an STD was more than double the number of African American men diagnosed in 2000. As noted in Figure 3.3 (below), of the African Americans diagnosed with a STD, 67% were women and 33% were men. However, among the Caucasian Delawareans who were diagnosed, only 19% of the STD cases identified represent infected men; 71% represent STD infected women.

Figure 3.2
Reported 2000 STD Cases
by Race



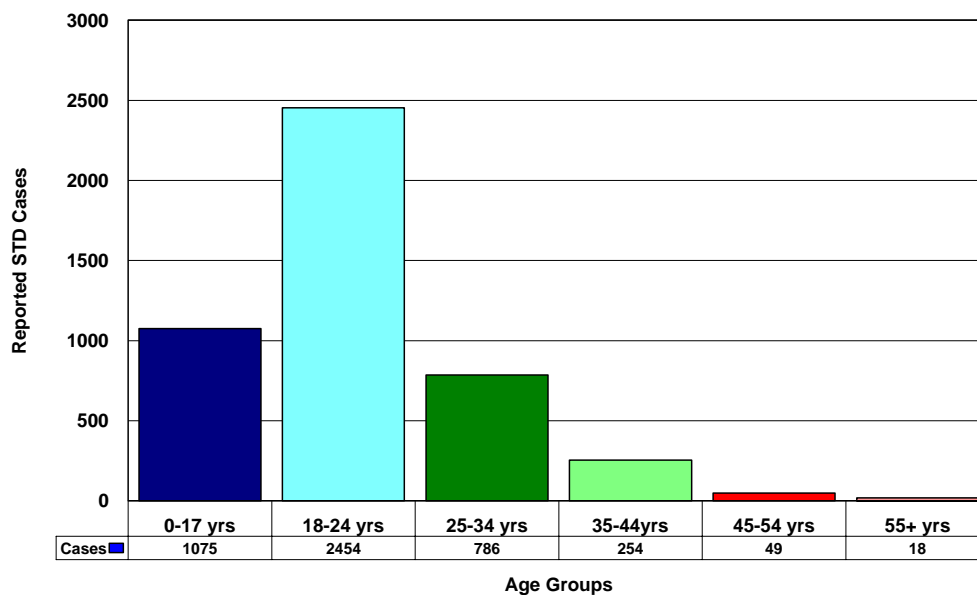
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Figure 3.3
Reported 2000 STD Cases
by Race and Gender



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Figure 3.4
Reported 2000 STD Cases
by Age Group



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

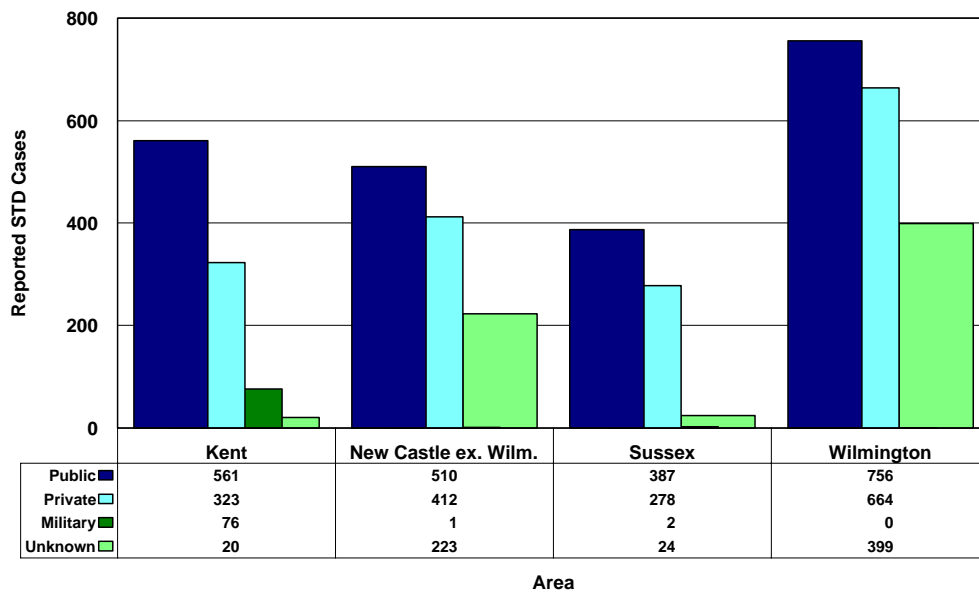
Older adolescents and young adults are significantly more likely to be diagnosed with an STD than any other age group. As illustrated in Figure 3.4 (above), more than two-thirds of all STD cases reported involved clients aged 18 to 34 years. In fact, 18-24 year-olds alone account for just over half of the STD cases reported in 2000.

Public v. Private STD Reporting Sites

Most of 2000 STD diagnoses came from one of three STD reporting site types: (1) a private facility (e.g.: physician’s office, HMO, etc.) or (2) a public non-military facility (e.g.: public health clinic, STD clinic, state hospital, family planning clinic, etc.), or (3) a military facility (e.g. Dover Air Force Base).

Residents of Kent and Sussex counties appear to be increasingly reliant on public facilities for STD testing. As indicated in Figure 3.5 (below), those living in Kent and Sussex counties appear to be more likely to use public STD testing sites than their northern Delaware counterparts. More than fifty percent of southern Delawareans were diagnosed at a public facility. In contrast, fewer than half of New Castle County (including City of Wilmington) residents were diagnosed with an STD at a public health facility.

Figure 3.5
Reported 2000 STD Cases
by Area and Site Type



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

TABLE 3.2
Zip Codes with High STD Incidence: Public Sites (2000)

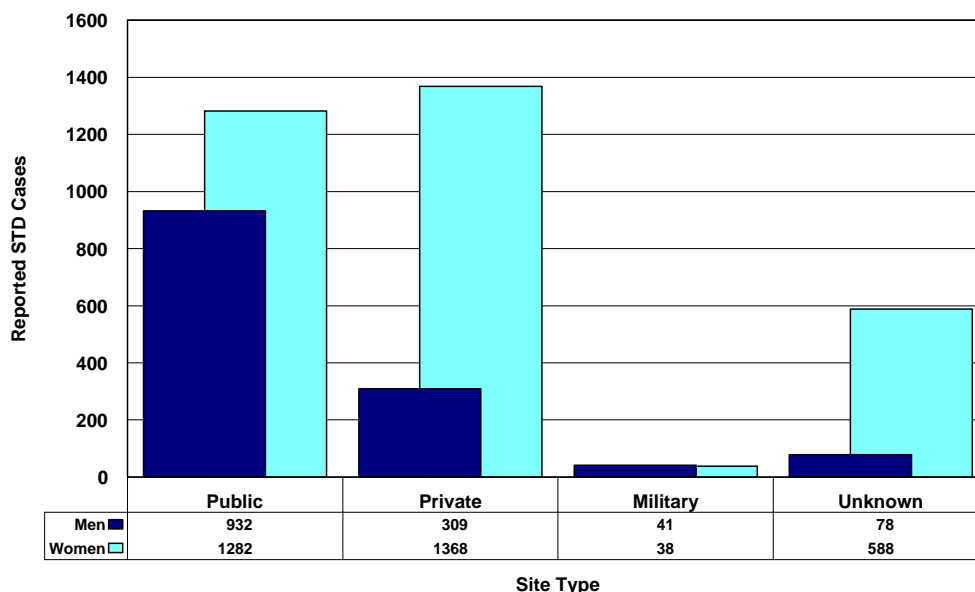
Zip Code	Community Affected	Public Site STD Cases	Percent of Public Site STD Cases	All Cases	Percent of All STD Cases
19802	Wilmington	240	10.8%	609	13.1%
19801	Wilmington	234	10.6%	506	10.9%
19901	Dover	222	10.0%	371	8.0%
19805	Elsmere	177	8.0%	448	9.7%
19720	New Castle	173	7.8%	399	8.6%
19904	Dover	150	6.8%	230	5.0%
19702	Newark	103	4.7%	238	5.1%
19973	Seaford	92	4.27%	143	3.1%
19711	Newark	55	2.5%	97	2.1%
19933	Bridgeville	52	2.3%	75	1.6%

Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Not surprisingly, residents of some Delaware zip codes were more likely to rely on public facilities than others. Eleven communities seemed particularly reliant on public facilities. In fact, they account for over half (57%) of the total number of STD cases reported by public facilities (see Table 3.2, above).

No more than 50 STD diagnoses were made by public reporting sites dealing with clients from any of the remaining 58 Delaware zip codes.

Figure 3.6
Reported 2000 STD Cases
by Gender and Site Type



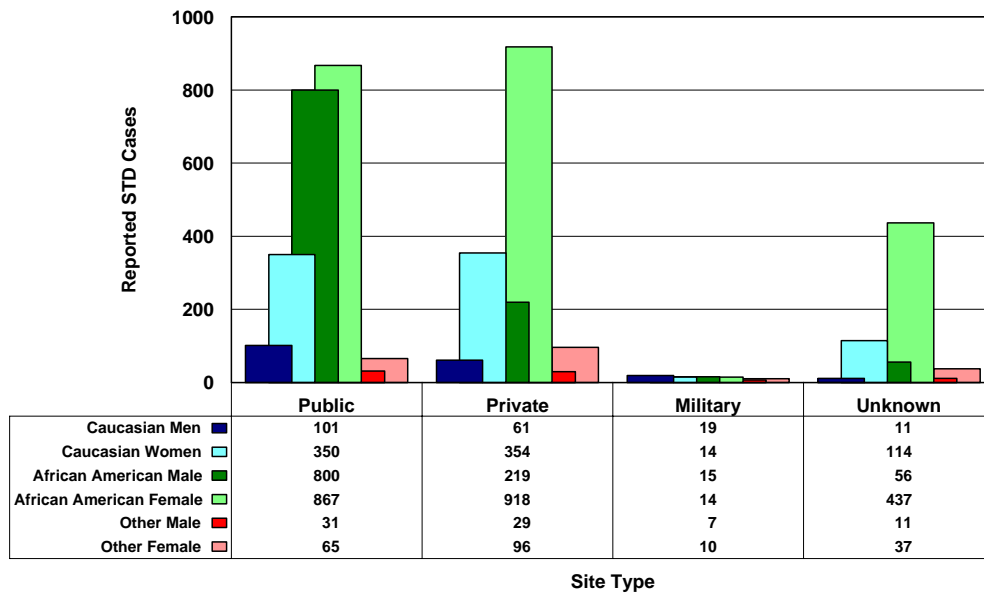
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Similar to 1999, men were far more likely be diagnosed at a public STD reporting site (see Figure 3.6, above). In contrast, women were somewhat more likely to be diagnosed with an STD at a private facility.

With regard to race, minorities are most likely to rely on public facilities for their STD testing. As indicated in Figure 3.7 (below), while fewer than half of Caucasian Delawareans who were diagnosed with an STD were identified by a public facility, more than half of African Americans appear to have been diagnosed at a public STD testing facility. It should be noted, however, that in 1996, roughly two-thirds of minorities were tested at a public site. One possible explanation for this shift may be attributed to the fact that fewer New Castle County and City of Wilmington residents relied on public facilities in 2000.

While Caucasian men appear to be as likely as Caucasian women to use public testing facilities, it is interesting to note that African American men are nearly twice as likely as their female counterparts to use a public testing facility. As highlighted in Figure 3.7, more than 80% of African American men were identified by a public reporting site, while only 48% of African American women were diagnosed there.

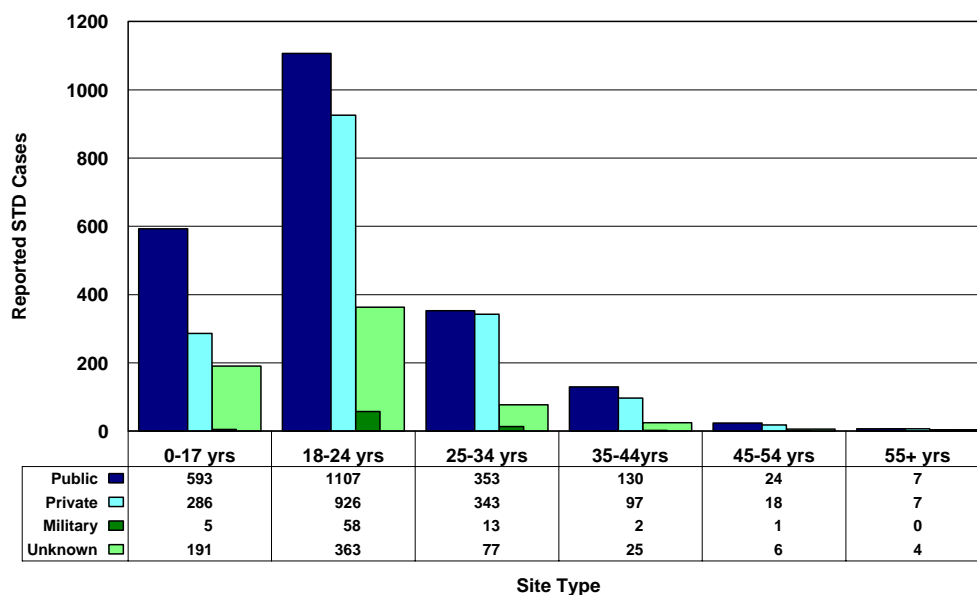
Figure 3.7
Reported 2000 STD Cases
by Gender, Race, and Site Type



**Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health**

It is interesting to note that 0-17 year-olds are significantly more likely to be diagnosed at a public testing site (see Figure 3.8, below). As age increases, there is a tendency for the testing and diagnosis to be more evenly split between public and private facilities.

Figure 3.8
Reported 2000 STD Cases
by Age Group and Site Type



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Gonorrhea

Gonorrhea is the second most often reported STD (among the three STDs examined here) in Delaware and the US. During the period 1997-1999 in the US, gonorrhea increased in males from 124.9 (cases per 100,000) to 136.0 cases. At the same time, the rate among women in the US increased from 119.0 to 129.9. Delaware’s overall rate in 1999 was 223.5 compared with a US average of 131.4 cases per 100,000.

The young are especially at risk. In 1999, the nationally reported gonorrhea incidence rate among girls of age 15-19 was 738.1 (per 100,000). Among boys of age 15-19, the rate was 341.1.

According to Delaware’s Notifiable Disease Surveillance System, 1,735 gonorrhea cases were reported in 2000. This represents a 4.4% increase from 1999. Of the gonorrhea cases reported in 2000 there were:

- 1720 = Uncomplicated Gonorrhea
- 15 = Gonorrhea PID

During 2000, almost 46% of all 2000 gonorrhea cases reported involved City of Wilmington residents. Ten percent were reported in Sussex County. Respectively, about 23% and 21% of the cases reported in 2000 were in the balance of New Castle County and Kent County.

TABLE 3.3
Gonorrhea Diagnoses by Type & Location (2000)

Gonorrhea Diagnosis					Percent of Cases
	Wilmington	Balance of NCC	Kent Cnty	Sussex Cnty	
Uncomplicated Gonorrhea	787	393	364	176	99.1%
Gonorrhea PID	7	1	6	1	0.9%
Total Number of 2000 Gonorrhea Cases	794	394	370	177	---
% of Total Number of 2000 Gonorrhea Cases	45.8%	22.7%	21.3%	10.2%	100.0%

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

It is also worth noting that the number of gonorrhea incidences reported represent residents of a relatively small number of Delaware communities. In fact, when reviewing 2000 gonorrhea incidence by zip code, it was noted that 1,246 gonorrhea cases (72%) represent Delawareans from just eight of 68 zip codes. (See Table 3.4, below)

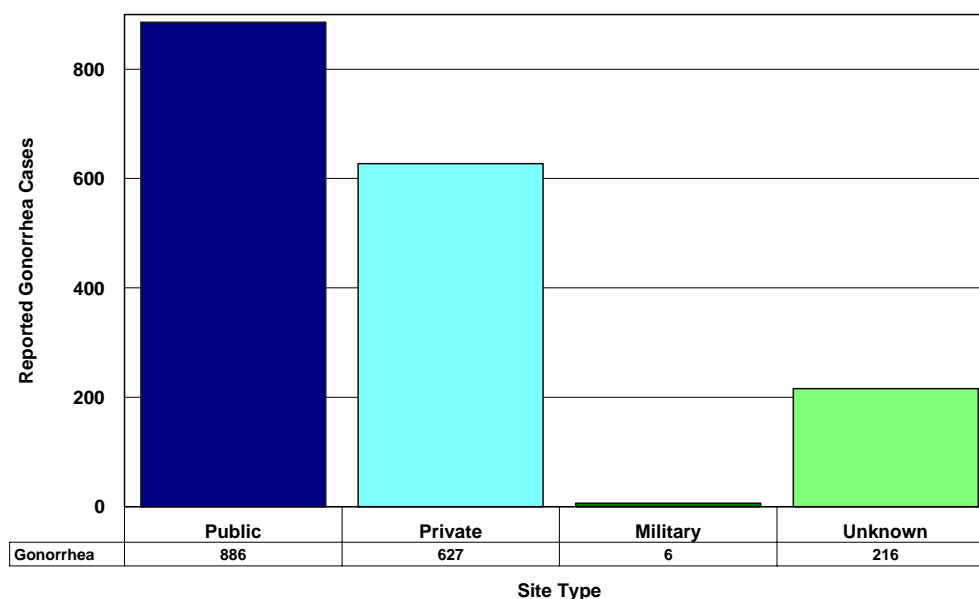
TABLE 3.4
Zip Codes with High Gonorrhea Incidence (2000)

Zip Code	Community Affected	Number of Cases	Percent of 2000 Gonorrhea Cases
19802	Wilmington	286	16.5%
19801	Wilmington	235	13.5%
19805	Wilmington	196	11.3%
19901	Dover	162	9.3%
19720	New Castle	151	8.7%
19904	Dover	98	5.6%
19702	Newark	74	4.3%
19713	Newark	44	2.5%

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

Fewer than 42 gonorrhea cases were reported in any of the other 62 Delaware zip codes. In fact, fewer than 15 gonorrhea cases were identified in the majority of Delaware communities. For a complete view, refer to the maps at the end of this section.

Figure 3.9
Reported 2000 Gonorrhea Cases
by Site Type



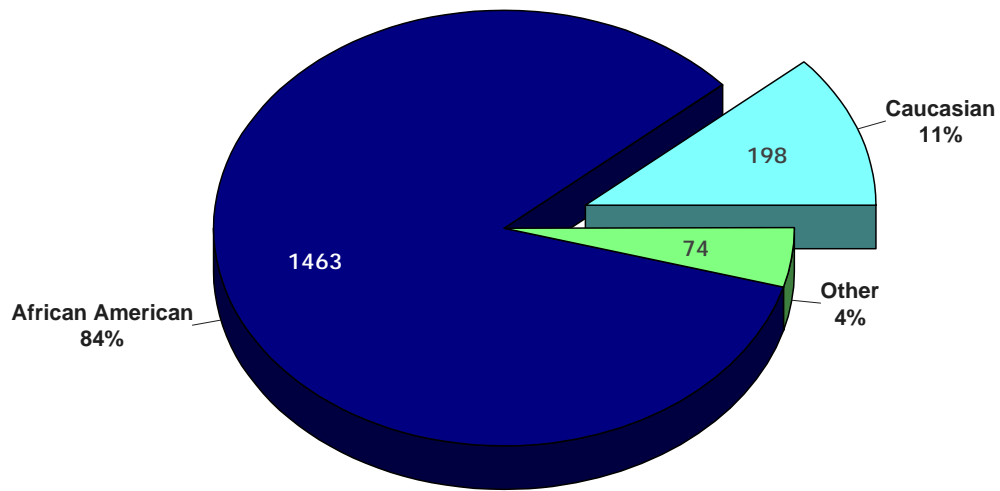
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

It is interesting to note that all but three of the 15 (80%) gonorrhea PID cases were identified by public reporting sites. In contrast uncomplicated gonorrhea was only slightly more likely to be diagnosed by a public reporting site. Public sites found 51% of Delaware's uncomplicated gonorrhea cases (see Figure 3.9, above).

African Americans accounted for the vast majority of gonorrhea cases identified in 2000. According to Figure 3.10 (below), more than eight of every ten Delawareans diagnosed with gonorrhea were African American. In contrast, only 11% of those diagnosed with gonorrhea were Caucasian.

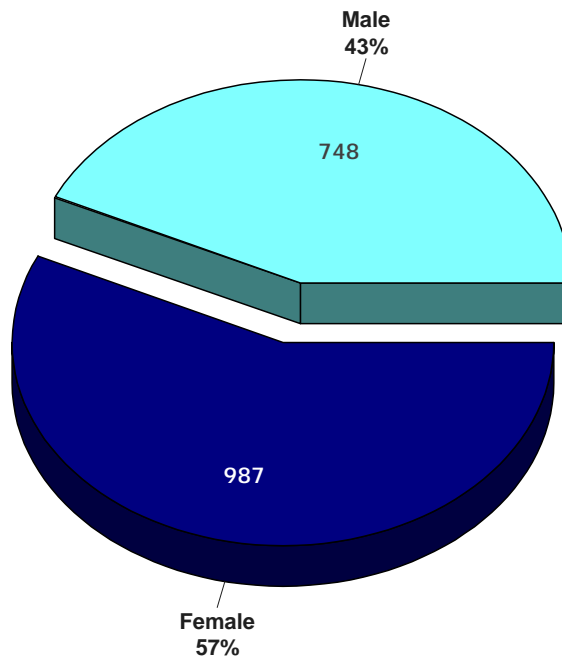
Female Delawareans are, again, more likely to have gonorrhea than their male counterparts. As illustrated in Figure 3.11 (below), 57% of gonorrhea cases reported in 2000 involved women.

Figure 3.10
Reported 2000 Gonorrhea Cases
by Race



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

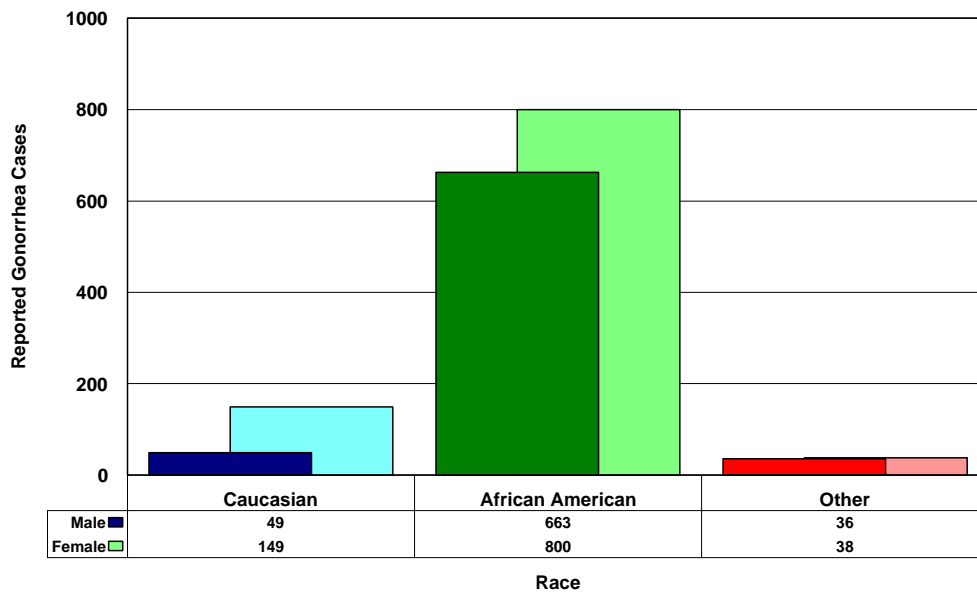
Figure 3.11
Reported 2000 Gonorrhea Cases
by Gender



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

As was the case in 1999, it should be noted that, in 2000, Caucasian women continue to be more than three times more likely than their male counterparts to be diagnosed with gonorrhea, African American women are more likely than their male counterparts to be diagnosed (see Figures 3.12, below) although the difference is less than that observed for Caucasians.

Figure 3.12
Reported 2000 Gonorrhea Cases
by Gender and Race



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

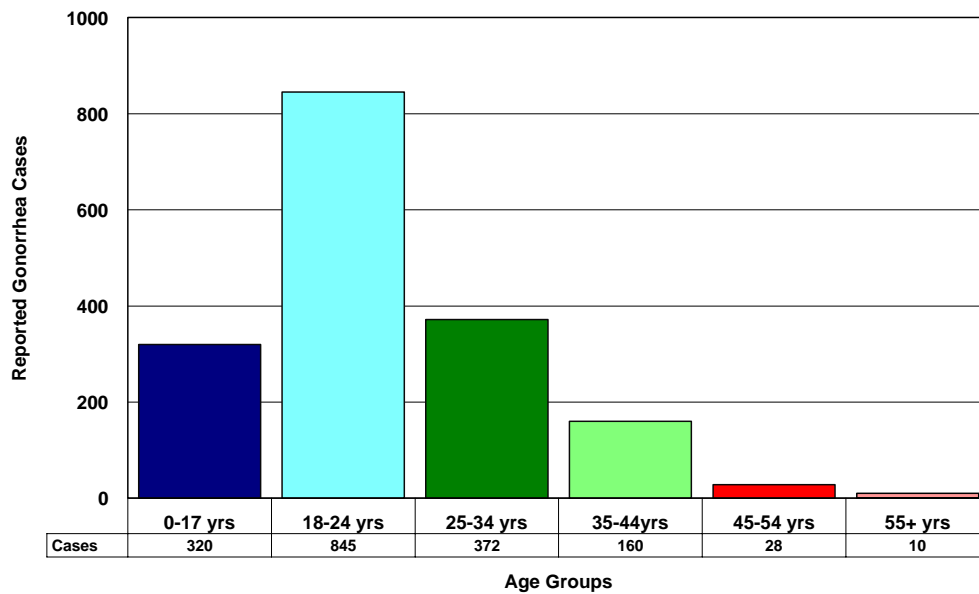
Young Delawareans are, by far, most likely to have been diagnosed with gonorrhea in 2000. As is highlighted in Table 3.5 and Figure 3.13 (below), those under 34 account for almost 90% of the gonorrhea cases diagnosed. In fact, 18-24 year-olds, alone, account for almost half of Delaware’s identified gonorrhea cases.

TABLE 3.5
Gonorrhea Incidence by Age Group (2000)

Age Group	Number of Gonorrhea Cases	Percent of 2000 Gonorrhea Cases	Cases per 100,000
0-17	320	18.4%	175.6
18-24	845	48.7%	1,238.7
25-34	372	21.4%	830.6
35-44	160	9.2%	118.8
45-54	28	1.6%	27.6
55+	10	0.6%	6.2
TOTAL	1735	100.0%	228.1

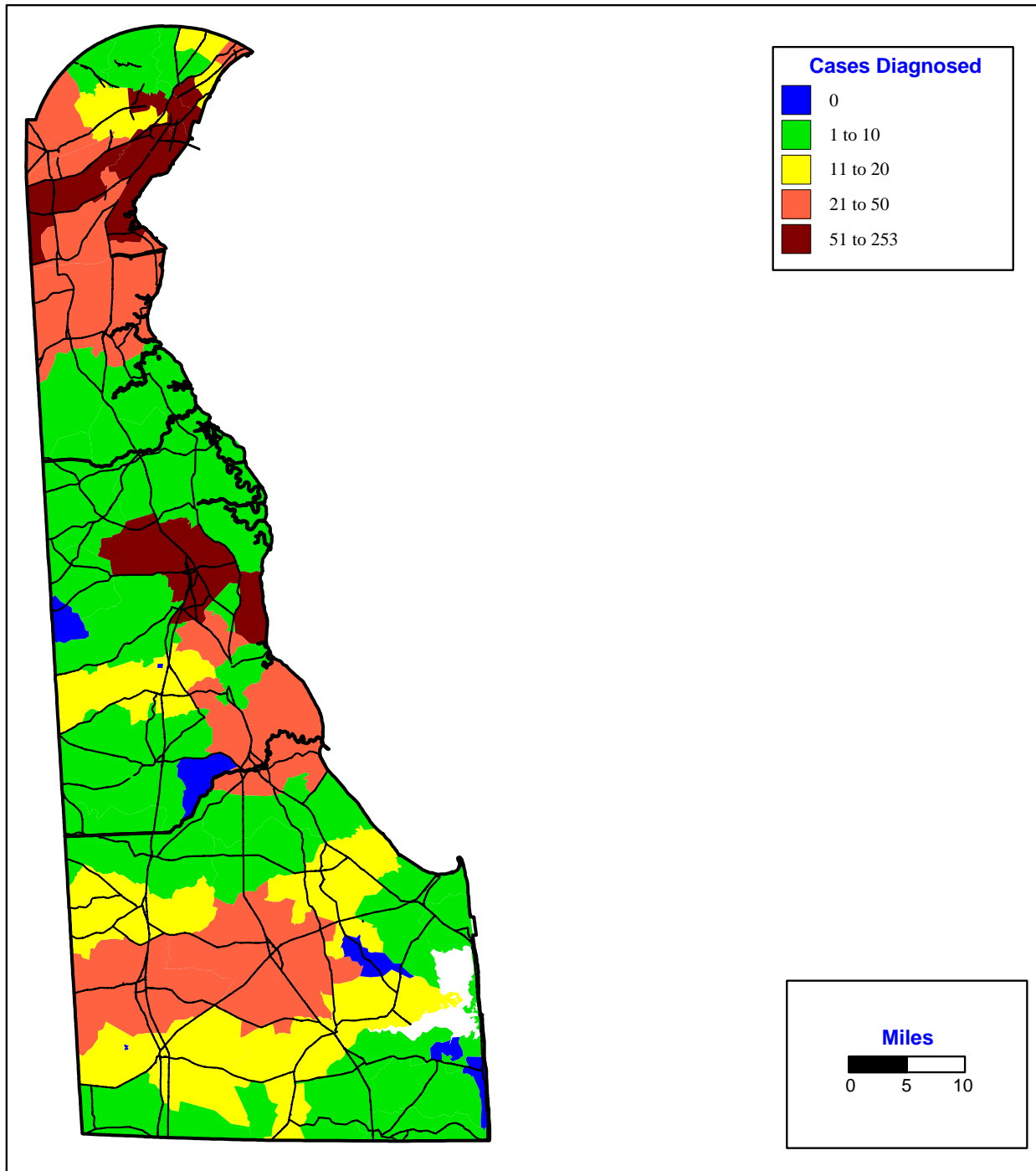
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

Figure 3.13
Reported 2000 Gonorrhea Cases
by Age Group



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

Map 3.1
Delawareans Diagnosed with Gonorrhea
by Zip Code (2000)



Source: Center for Applied Demography & Survey Research, University of Delaware

Syphilis

In 2000, 45 cases of syphilis were reported in Delaware. This is a roughly 38% **decrease** when compared to the 72 cases reported in 1999. Of those reported in 2000, 42% were identified in Sussex County. Another 29% were reported in the City of Wilmington. Of the remainder, 13% were identified as living in New Castle County (excluding Wilmington); 16% lived in Kent County (see Table 3.6, below).

Interestingly, although numbers are too small to be considered statistically significant, the City of Wilmington experienced a 32% **decrease** in the number of syphilis cases reported, when compared with cases reported in 1999. It should also be noted that Sussex County experienced a sharp decline in the number of syphilis cases reported of 41%. In 1999, 32 syphilis cases were reported, while in 2000, only 19 cases were reported in Sussex County.

TABLE 3.6
Syphilis Diagnoses by Type & Location (2000)

Syphilis Diagnosis	Location				Total Cases	Percent of Cases
	Wilmington	Balance of NCC	Kent	Sussex		
Primary Syphilis	2	0	0	2	4	10.5%
Secondary Syphilis	0	0	1	4	5	21.1%
Early Latent Syphilis	2	0	3	5	10	26.3%
Late Latent Syphilis	2	1	2	2	7	10.5%
Latency Unknown	6	5	1	6	18	31.6%
Neurosyphilis	1	0	0	0	1	
Total Number of 2000 Syphilis Cases	13	6	7	19	45	
% of Total Number of 2000 Syphilis Cases	28.9%	13.3%	15.6%	42.2%		100.0%

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

It should be noted that about 60% of Delaware's reported syphilis cases are found in just seven zip codes. (See Table 3.7, below. Zip Codes with fewer than 5 cases are suppressed.)

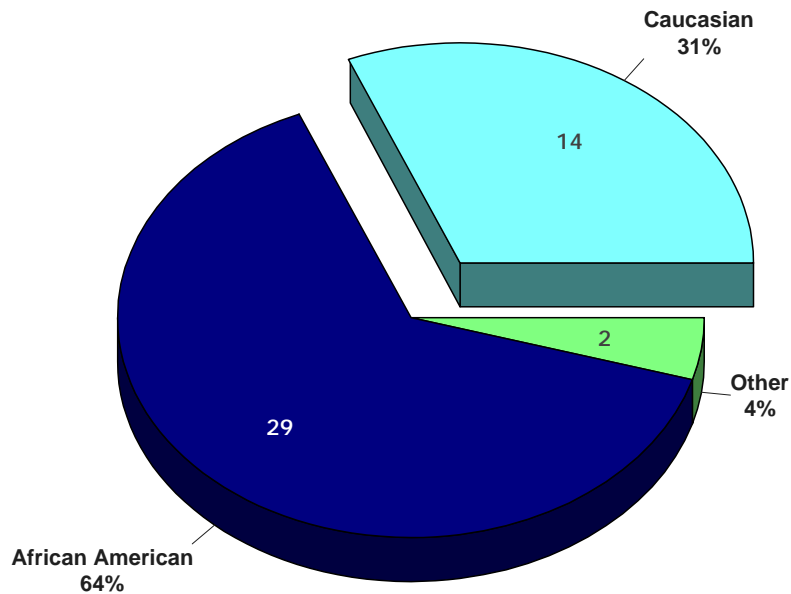
**TABLE 3.7
Zip Codes with High Syphilis Incidence (2000)**

Zip Code	Community Affected	Number of Cases	Percent of 2000 Syphilis Cases
19973	Seaford	5	11.1%
19805	Wilmington	5	11.1%

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

Fewer than three syphilis cases were reported in each of the remaining 61 Delaware zip codes. Most had no reported cases. For a complete view refer to the maps at the end of this section.

**Figure 3.14
Reported 2000 Syphilis Cases
by Race**

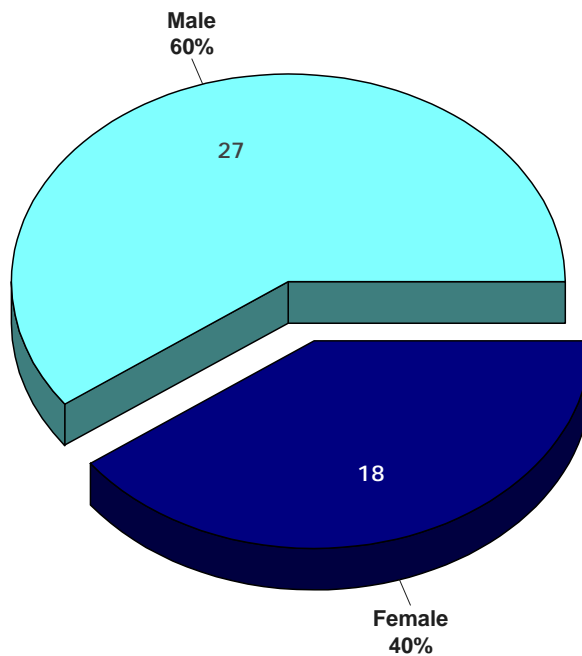


Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

About 31% of those diagnosed were Caucasian. Sixty four percent of all syphilis cases involve African Americans (see Figure 3.14, above). These results are identical to those found in 1999.

Men appear to be slightly more likely than women to be diagnosed with syphilis. According to Figure 3.15 (below), 60% of all identified cases involved men. In 1999, 63% of the syphilis cases reported were male.

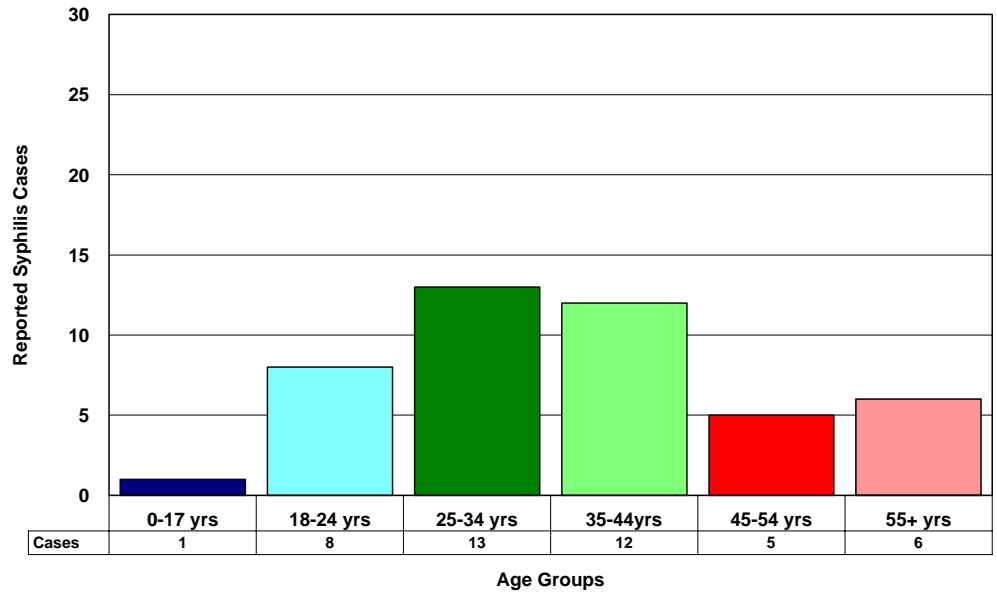
Figure 3.15
Reported 2000 Syphilis Cases
by Gender



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

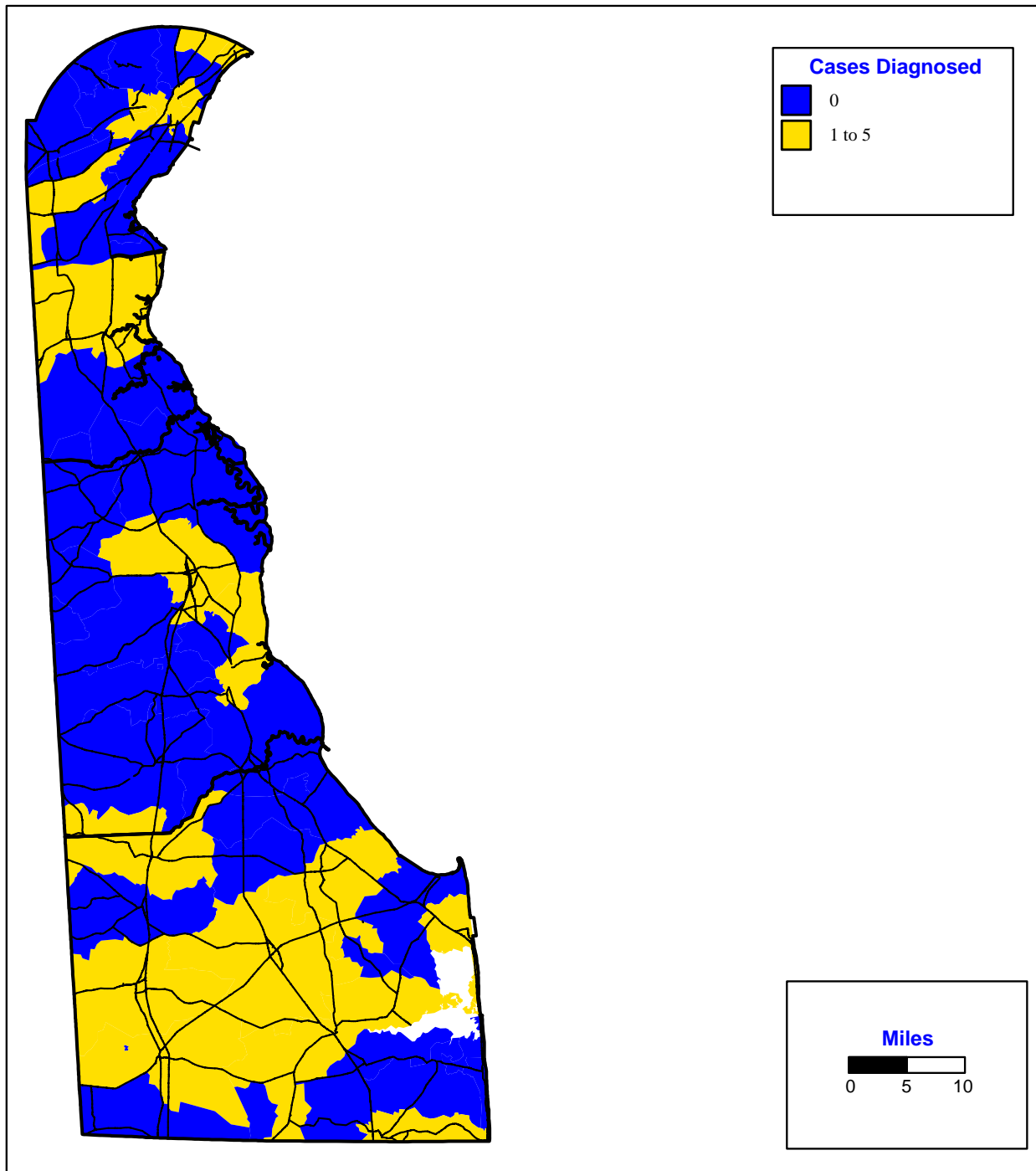
While gonorrhea is more likely to affect adolescents and young adults, syphilis appears to be more likely to affect middle-aged adults. As illustrated in Figure 3.16 (below), 67% of those diagnosed with syphilis were between the ages of 25 and 54. Over 56% were 25-44 years of age. Fewer than 20% of the cases reported involved an individual under age 25.

Figure 3.16
Reported 2000 Syphilis Cases
by Age Group



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Map 3.2
Delawareans Diagnosed with Syphilis
by Zip Code (2000)

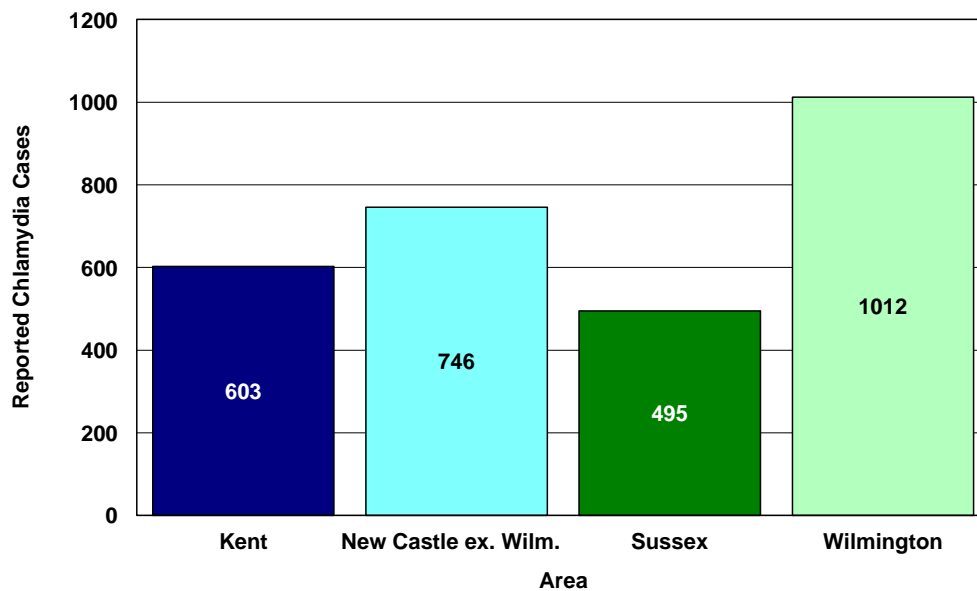


Source: Center for Applied Demography & Survey Research, University of Delaware

Chlamydia

In prior years, this report had limited its focus to gonorrhea and syphilis. However, the incidence of chlamydia is significant with 2,856 cases in 2000 and 2,766 cases in 1999. It is even more frequently occurring than gonorrhea (1,735 cases in 2000). In the latest published data from CDC for 1999, Delaware has a chlamydia rate of 371.3 cases per 100,000 compared with the US rate of 254.1 cases per 100,000.

Figure 3.17
Reported 2000 Chlamydia Cases
by County and City of Wilmington



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

The distribution of chlamydia cases by county is similar to gonorrhea (see Figures 3.17 above). However, chlamydia is more frequently found outside the City of Wilmington than gonorrhea (65% versus 54%). A slightly higher proportion of these cases is found in Kent and Sussex counties.

The location of chlamydia cases by zip code is similar to the pattern shown previously for other STD's. About 55% of all cases in the state are found in seven zip codes. The three City of Wilmington zip codes along with the zip codes that include the City of Dover and the City of New Castle appear prominently in Table 3-8, as they have in earlier tables.

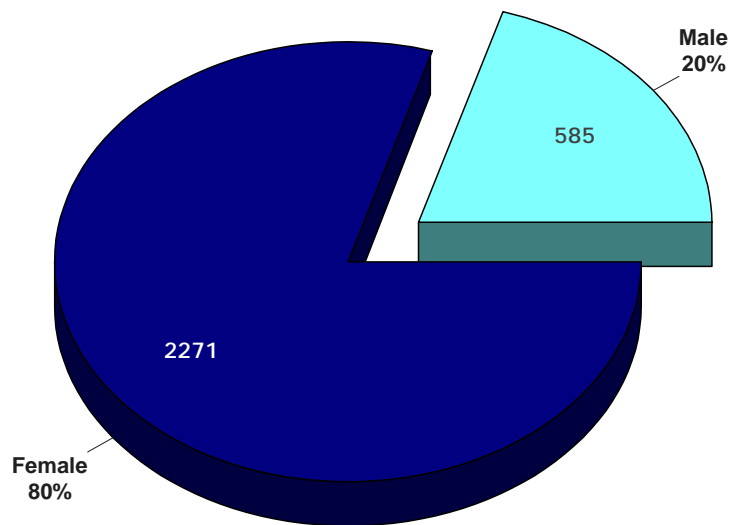
TABLE 3.8
Zip Codes with High Chlamydia Incidence (2000)

Zip Code	Community Affected	Number of Cases	Percent of 2000 Chlamydia Cases
19802	Wilmington	319	11.2%
19805	Wilmington	247	8.6%
19801	Wilmington	268	9.4%
19720	New Castle	248	8.7%
19901	Dover	208	7.3%
19702	Newark	161	5.3%
19904	Dover	129	4.5%

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

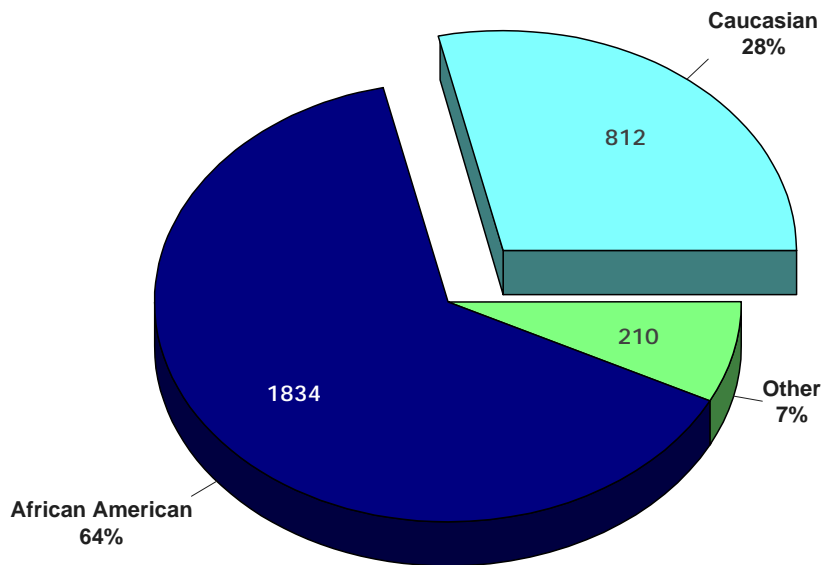
The distribution of cases by gender is found in Figure 3.18, below. The disease is heavily concentrated in the female population (80%). This is significantly different than the gender distribution of gonorrhea where the distribution was only slightly biased toward females (57%).

Figure 3.18
Reported 2000 Chlamydia Cases by Gender



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

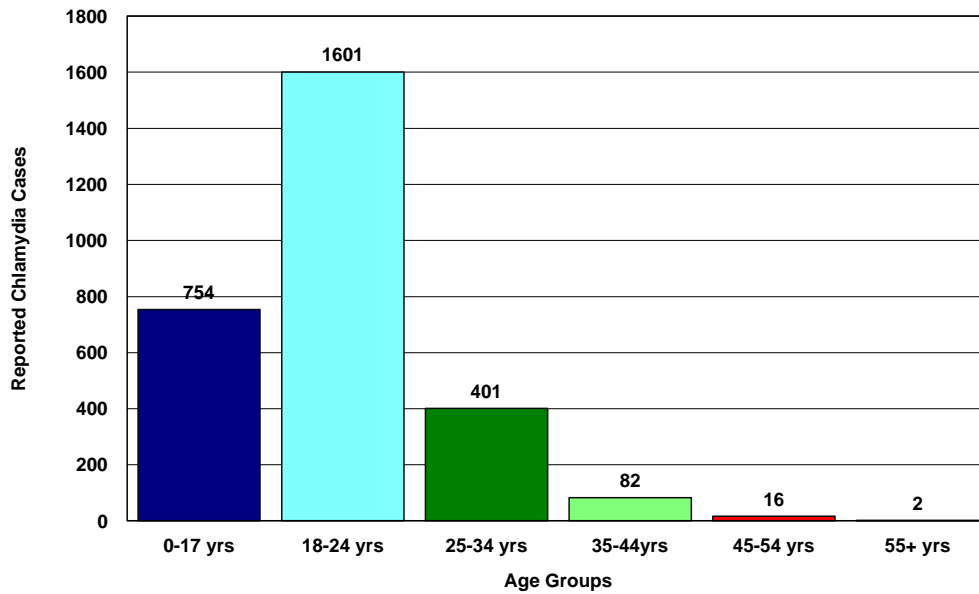
Figure 3.19
Reported 2000 Chlamydia Cases
by Race



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

In Figure 3.19, that racial distribution of chlamydia cases is provided. Almost two-thirds of the cases are found in the African American community. The proportion of cases found in the Caucasian population is similar to that observed for gonorrhea, which is in contrast with the 1999 results.

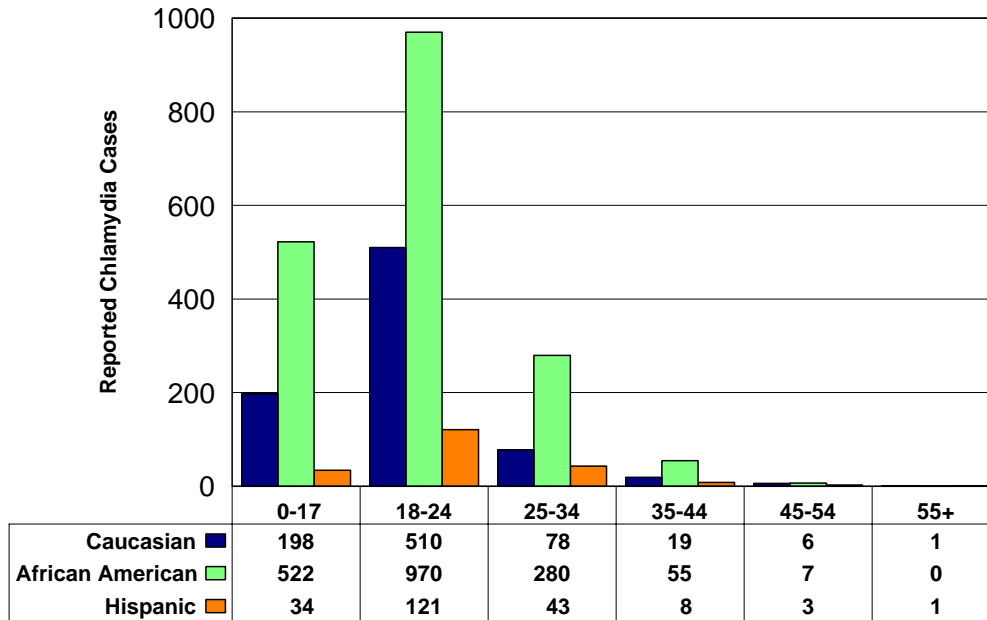
Figure 3.20
Reported 2000 Chlamydia Cases
by Age Group



Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Like gonorrhea, chlamydia is found predominantly in the younger part of the age distribution (see Figure 3.20 above). In fact, it is even more concentrated in the age groups under age 25 years of age.

Figure 3.21
Reported 2000 Chlamydia Cases
by Race and Age Group

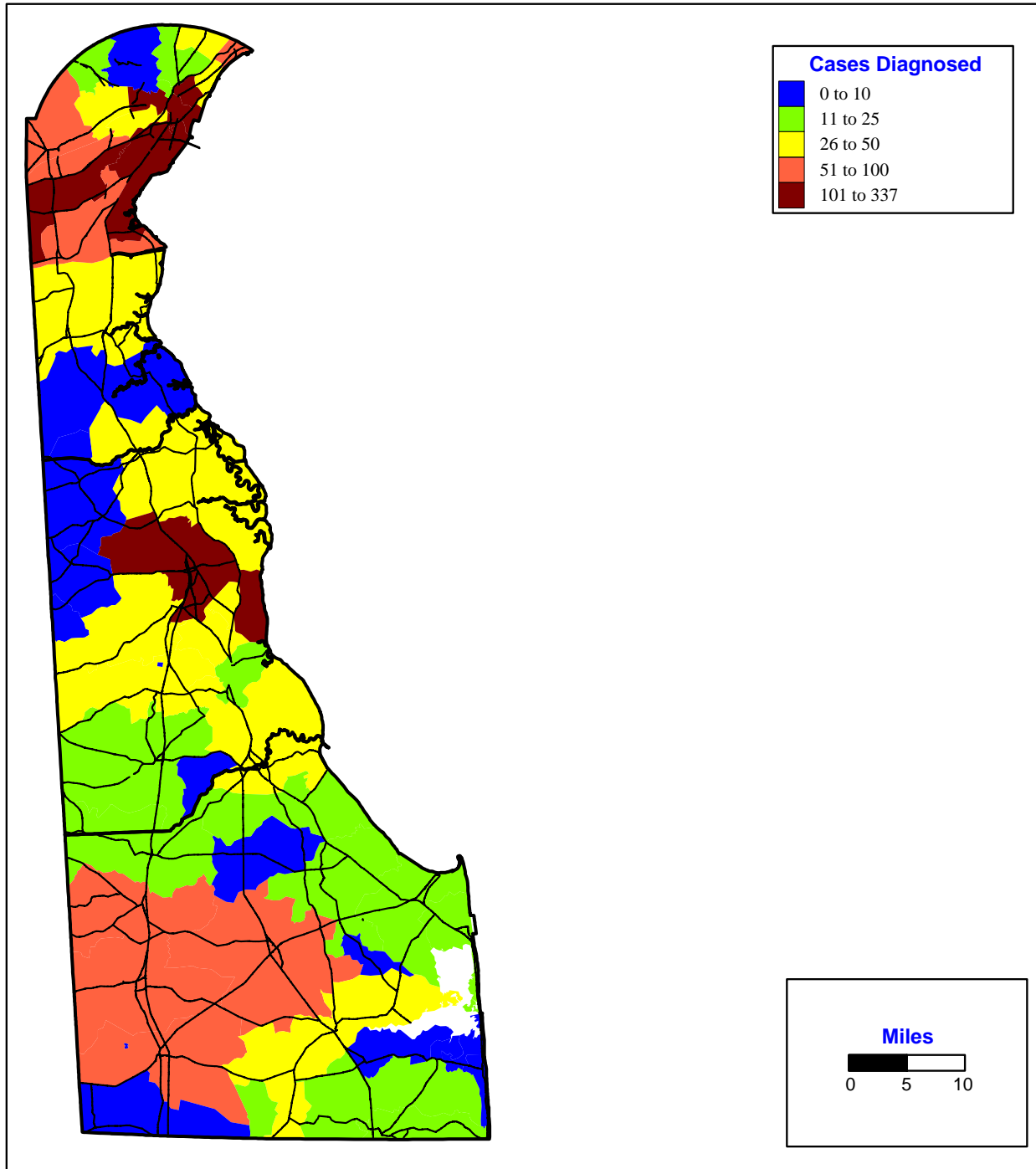


Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

The distribution of chlamydia cases by both age and race is found in Figure 3.21, above. The racial distribution is similar within most age groups. If there is a difference, it is that a smaller proportion of Hispanics are in the 0-17 age group.

Finally, Map 3.3 below shows the distribution of chlamydia cases by zip code. The concentrations are quite similar to those observed for gonorrhea but those patterns are even clearer.

Map 3.3
Delawareans Diagnosed with Chlamydia
by Zip Code (2000)



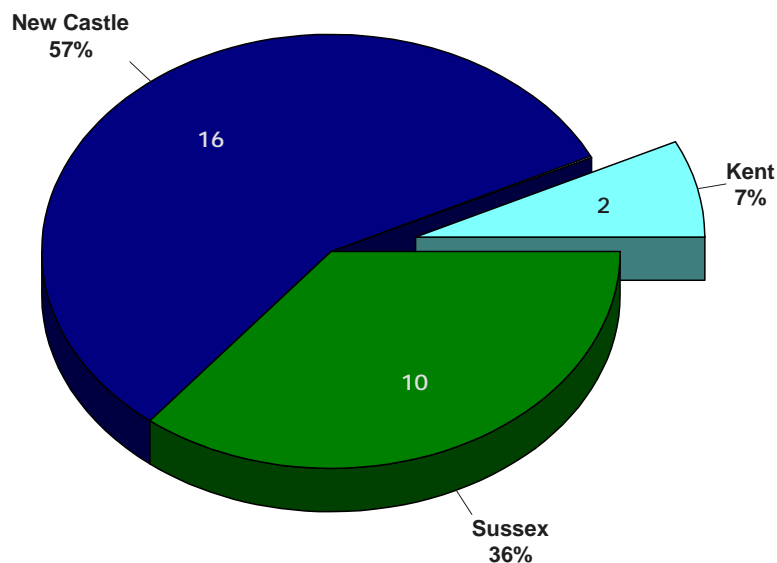
Source: Center for Applied Demography & Survey Research, University of Delaware

TUBERCULOSIS

Because it is believed that persons with tuberculosis (TB) are at increased risk of being HIV-positive, it is important to gain some understanding about those who have been diagnosed with TB.

In 2000, 28 TB cases were identified and that is a decline of five cases from 1999. Of them, 57.1% were identified in New Castle County. Another 35.7% were diagnosed in Sussex County and 7.1% of Delaware's TB cases were found in Kent County.

Figure 4.1
Persons Diagnosed with TB
by County (2000)



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

As highlighted in Table 4.1 (below), numbers of TB cases diagnosed vary throughout the year and the pattern between years is variable as well. For example, a much smaller proportion (7.1%) was reported during the first quarter (January-March) in 2000 while 40% were reported in the first quarter of 1999. These numbers are small and thus are subject to a significant amount of random variation.

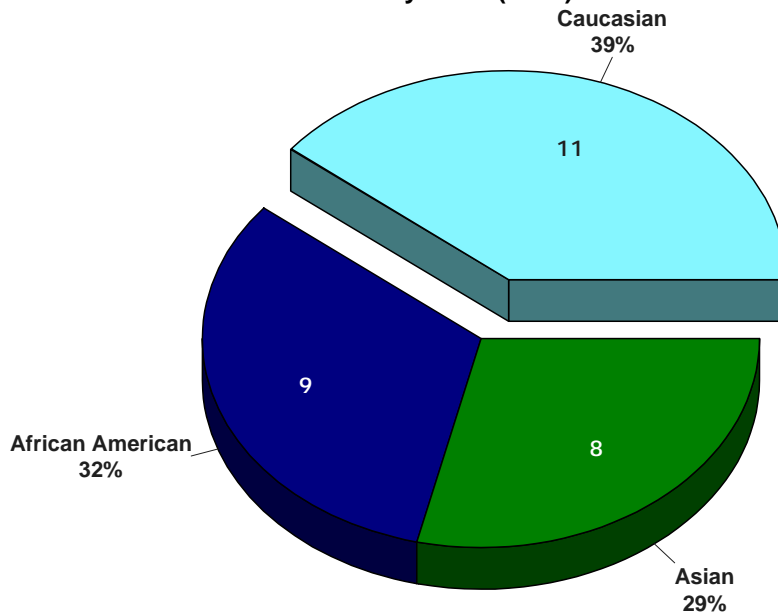
**TABLE 4.1
TB Cases by Quarter (2000)**

Quarter	Number of Cases	Percent of 2000 TB Cases
First (Jan-Mar)	2	7.1
Second (Apr-June)	11	39.3
Third (Jul-Sept)	7	25.0
Fourth (Oct-Dec)	8	28.6
TOTAL 2000 CASES	28	100.0

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

With regard to race, it should be pointed out that nearly 60% of the people diagnosed with TB are minorities. Almost a third are African American and a slightly smaller percentage are Asian (Figure 4.2, below).

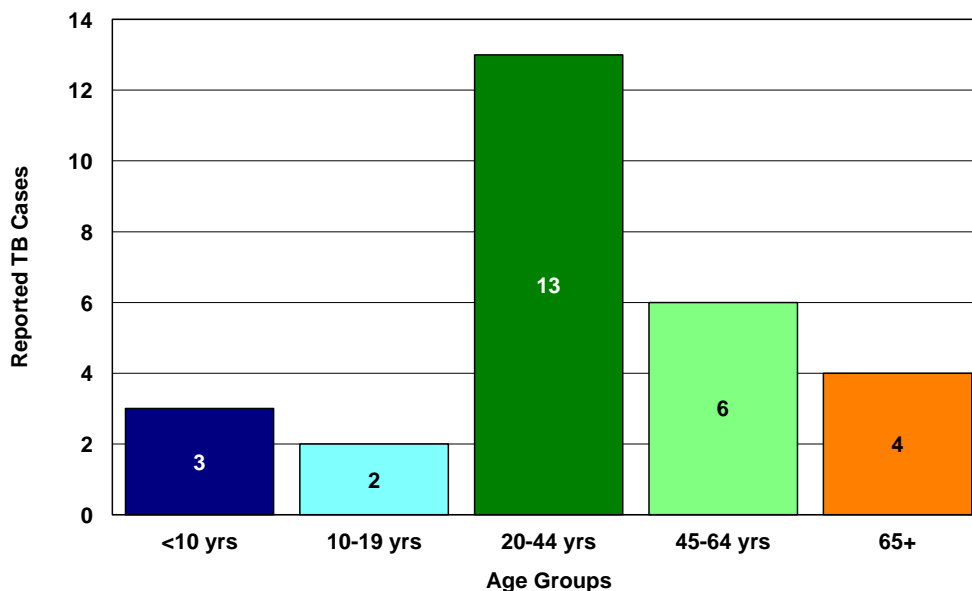
**Figure 4.2
Persons Diagnosed with TB
by Race (2000)**



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

More than 60% (n=17) of the tuberculosis cases reported in 2000 involved men. This is somewhat higher than the proportion observed in 1999.

**Figure 4.3
Persons Diagnosed with TB
by Age Group (2000)**



Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

As illustrated in Figure 4.3 above, the TB cases reported in 2000 are distributed differentially across the age spectrum. Of the 28 cases reported 46.4% involved individuals of ages 20-44. Another 21% of the cases involved persons 45-64 years of age. This year almost 18% of TB cases involved children and adolescents.

**TABLE 4.2
TB Cases by Identified Risk Factor (2000)**

Identified Risk Factor	Number of Cases	Percent of 2000 TB Cases
HIV-positive ⁴	2	7.1
Homeless	0	0.0
Resident of Correctional Facility	0	0.0
Reside in Long-Term Care Facility	0	0.0
IDU	0	0.0
Drugs (Non-IDU)	1	3.6
Excessive Alcohol Intake	3	9.1

Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

⁴ It should be noted that only 42.9% (n=12) of those identified with TB appear to have ALSO been screened for HIV. Thus the number of people with TB who are also HIV-positive could be higher than reported since results were not available for three individuals.

Because certain lifestyle behaviors are believed to increase one's risk of contracting tuberculosis, those identified as having the disease appear to have been asked a series of questions designed to determine what risks they may have taken which increased their infection risks. They appear to have been asked, for instance, if they were homeless at any point during the previous year. Additional questions looked at such factors as: (a) correctional facility residency, (b) long-term care facility residency, (c) injected drug use (IDU), (d) other drug use (non-IDU), and (e) "excessive alcohol" intake patterns. Several clients also appear to have been tested for the AIDS-virus. Results are highlighted in Table 4.2, above.