

**HIV, STDs, and TB:
An Overview of Testing Results
(1999)**

prepared for

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

by

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TABLE OF CONTENTS

	Page
Acknowledgements	iii
List of Figures	v
List of Tables	vi
List of Maps	vii
Executive Summary	viii
Introduction.....	1
AIDS-Related Morbidity & Mortality Trends.....	1
1999 HIV Counseling & Testing Survey	4
Sexually Transmitted Diseases	15
Tuberculosis	39

LIST OF FIGURES

Figure	Page
2.1 Persons Testing HIV Positive by Gender (1999)	6
2.2 Persons Testing HIV Positive by Race (1999)	6
2.3 Persons Testing HIV Positive by Race and Gender (1999).....	7
2.4 Persons Testing HIV Positive by County (1999).....	8
2.5 Persons Testing HIV Positive by Age Group (1999).....	8
3.1 Reported 1999 STD Cases by County	15
3.2 Reported 1999 STD Cases by Race	17
3.3 Reported 1999 STD Cases by Race & Gender	17
3.4 Reported 1999 STD Cases by Age Group.....	18
3.5 Reported 1999 STD Cases by Area and Site Type	19
3.6 Reported 1999 STD Cases by Gender and Site Type.....	20
3.7 Reported 1999 STD Cases by Gender, Race, and Site Type	21
3.8 Reported 1999 STD Cases by Age Group and Site Type	22
3.9 Reported 1999 Gonorrhea Cases by Site Type.....	24
3.10 Reported 1999 Gonorrhea Cases by Race.....	25
3.11 Reported 1999 Gonorrhea Cases by Gender	25
3.12 Reported 1999 Gonorrhea Cases by Gender and Race	26
3.13 Reported 1999 Gonorrhea Cases by Age Group.....	27
3.14 Reported 1999 Syphilis Cases by Race.....	30
3.15 Reported 1999 Syphilis Cases by Gender	31
3.16 Reported 1999 Syphilis Cases by Age Group	32
3.17 Reported 1999 Chlamydia Cases by County	34
3.18 Reported 1999 Chlamydia Cases by Race	35
3.19 Reported 1999 Chlamydia Cases by Gender	36
3.20 Reported 1999 Chlamydia Cases by Age Group.....	36
4.1 Persons Diagnosed with TB by County (1999)	39
4.2 Persons Diagnosed with TB by Race (1999)	40
4.3 Persons Diagnosed with TB by Age Group (1999).....	41

LIST OF TABLES

Table	Page
1.1 Delaware AIDS-Related Mortality Rates 1991-1998	1
1.2 U.S. & Mid-Atlantic AIDS Case Rates 1997-1999	2
1.3 AIDS Case Rates for Wilmington & Other Mid-Atlantic Metro Areas	3
2.1 High HIV Pre-test Counseling Demand Zip Codes (1999)	5
2.2 Zip Codes with High Numbers of HIV Positive Cases (1999).....	9
2.3 HIV Positive Cases by Site Where Tested (1999)	10
2.4 HIV Positive Cases by County & Testing Site (1999)	11
2.5 HIV Positive Cases by Risk Exposure (1999)	11
2.6 HIV Positive Cases by Risk Exposure & County (1999).....	12
3.1 Zip Codes with High STD Incidence (1999)	16
3.2 Zip Codes with High STD Incidence (From Public Testing Facilities – 1999)...	19
3.3 Gonorrhea Diagnoses by Type & Location (1999).....	23
3.4 Zip Codes with High Gonorrhea Incidence (1999).....	23
3.5 Gonorrhea Incidence by Age Group (1999)	27
3.6 Syphilis Diagnoses by Type & Location (1999)	29
3.7 Zip Codes with High Syphilis Incidence (1999).....	30
3.8 Zip Codes with High Chlamydia Incidence (1999).....	35
4.1 TB Cases by Quarter (1999)	40
4.2 TB Cases by Identified Risk Factor (1999)	41

LIST OF MAPS

Map	Page
2.1 Delawareans Seeking HIV Counseling by Zip Code (1999)	13
2.2 Delawareans Diagnosed HIV+ by Zip Code (1999)	14
3.1 Delawareans Diagnosed with Gonorrhea by Zip Code (1999)	28
3.2 Delawareans Diagnosed with Syphilis by Zip Code (1999)	33
3.3 Delawareans Diagnosed with Chlamydia by Zip Code (1999).....	38

Executive Summary

- AIDS-related mortality rates continue to fall with 9.9 cases per 100,000 persons during the most recent five-year period. That represents a 15% decline from just three years ago. AIDS case rates have also fallen from 31.3 per 100,000 to 23.0 cases per 100,000 during the past three years.
- In 1999, 10,065 people received counseling services related to HIV and that represented a 9.9% decrease from 1998.
- Nearly half of those counseled were African American. About two-thirds were in the 18-34 age group and 53% were men.
- Of the 9,196 persons tested for HIV, 86 tested positive. Twenty-six of those had not previously tested positive for HIV.
- Sixty-four percent of those testing positive were men, 78% were African American, and about half were in the 18-34 age group. Just over 60% of the cases were located in New Castle County with almost 60% located within eight of 68 zip codes. STD clinics were the principal facility for detecting positive cases.
- The total number of syphilis and gonorrhea cases increased from 1,670 cases in 1998 to 1,734 cases in 1999. Only 72 of those cases were syphilis and that was a decrease from 114 cases in 1998.
- Chlamydia accounted for another 2,766 STD cases in 1999. This was an increase of 6% from the 2,608 cases reported in 1998.
- The majority of all sexually transmitted diseases were found among African Americans with 83% of gonorrhea cases and 64% of both syphilis and chlamydia cases.
- Women were diagnosed with 55% of the gonorrhea, 38% of the syphilis, and 82% 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 35-44 years age group.
- A disproportionate number of syphilis cases were reported in Sussex County during 1999 (44.4%). The City of Wilmington however was the place where the concentration of STD cases was the highest with 44% of the gonorrhea, 33% of the chlamydia, and 26% of the syphilis cases while having roughly 10% of the state's population.
- During 1999, 33 cases of TB were identified. Nearly 40% of these cases were found in Sussex County.
- Caucasians and African Americans were equally likely to be diagnosed with TB and accounted for about two-thirds of the cases. All in all men were only slightly less likely to be diagnosed with TB in 1999.

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 1999 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 1999 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 an 8 % decrease in the number of AIDS deaths in 1998 (55), when compared with the previous year (60). (*Bureau of Health Planning & Resource Management, Winter 2000*)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	11.0	12.0	11.4	9.9
New Castle	11.4	12.7	12.3	10.7
Kent	9.0	9.1	7.6	6.5
Sussex	11.5	12.0	10.8	9.7

Source: Delaware Division of Public Health's Vital Statistics Annual Report, 1995-1998.

¹ Bureau of Health Planning & Resource Management. (2000). *Delaware Vital Statistics Annual Report 1998*. Delaware Division of Public Health, Dover.

As of 1998, AIDS continued to be a top ten leading cause of death for African American males and females. Among all 25-44 year-olds, AIDS-related death is the second leading cause of death. (*Bureau of Health Planning & Resource Management, Summer 2000*)

TABLE 1.2
U.S. & Mid-Atlantic AIDS Case Rates
1997-1999

State/Region	AIDS Case Rate (per 100,000 persons)		
	1997	1998	1999
U.S.	21.7	16.5	17.0
Delaware	31.3	24.7	23.0
Pennsylvania	15.9	16.4	14.5
Maryland	36.3	29.5	31.8
New Jersey	40.1	25.1	26.1

Source: US Centers for Disease Control, 1998-2000.

Although Delaware's AIDS case rate is 35% higher than the U.S. average, it is comparable with most other states in the Mid-Atlantic region. With the exception of Pennsylvania, roughly 27 of every 100,000 persons was believed to have AIDS, in 1999. (See Table 1.2, above)

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 over twice that of the average metropolitan area with a population size of 50,000-500,000. In fact, according to Table 1.3, below, the Wilmington area AIDS case rate in 1999 is higher than the case rate of the average metropolitan area of 500,000 or more people.

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

City	AIDS Cases Rate (per 100,000)		
	1997	1998	1999
Wilmington, DE	34.7	22.1	27.1
Philadelphia, PA	30.3	26.5	33.5
Baltimore, MD	51.3	46.7	40.6
U.S. Metro Areas (50,000-500,000 pop.)	13.1	10.1	10.2
U.S. Metro Areas (500,000+ population)	29.1	22.9	21.7

Source: US Centers for Disease Control, 1998-2000.

1999 HIV COUNSELING AND TESTING SURVEY

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.

In 1999, C & T data was collected from a number of sites. They are as follows:

- Family Planning
- Prenatal Clinics
- TB Clinics
- STD Clinics
- State HIV Counseling and Testing Sites
- University of Delaware
- Drug Treatment Facilities
- Prison Sites
- Delaware State Hospital
- Field Visits

SEEKING COUNSELING SERVICES

In 1999, 10,065 people received counseling services and that represented a 9.9% decrease from 1998. Of those counseled, 49% were African-American, 40.4% were Caucasian, and 9% reported being Hispanic². It should be noted that while these results are **not** representative of the general population (only about 18% of the state's population is African American; 80% is Caucasian; and 3% 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% of those receiving pre-test counseling were ages 18-34 years. Another 18% were 35-44 years old. About 11% of those receiving HIV counseling were

² Hispanic is classified as a separate RACE. Thus, it is not possible to differentiate between white Hispanics, black 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 53% of those pre-test counseled were men. This represents a shift as infection rates among women have begun to decrease in the last several years after increasing for many prior years reaching a peak of 26.7 cases per 100,000 women in 1996 and falling to 13.9 cases per 100,000 women in 1999.

**TABLE 2.1
High HIV Pre-Test Counseling Demand Zip Codes (1999)**

Zip Code	City	Number of Clients	Percent of 1999 Pre-Test Counseling
19901	Dover	951	9.4
19802	Wilmington	688	6.8
19801	Wilmington	626	6.2
19720	New Castle	603	6.0
19805	Elsmere	1022	10.2
19809	Bellefonte	529	5.3
19973	Seaford	398	4.0
19947	Georgetown	627	6.2
		5,444 of 10,065	54.1

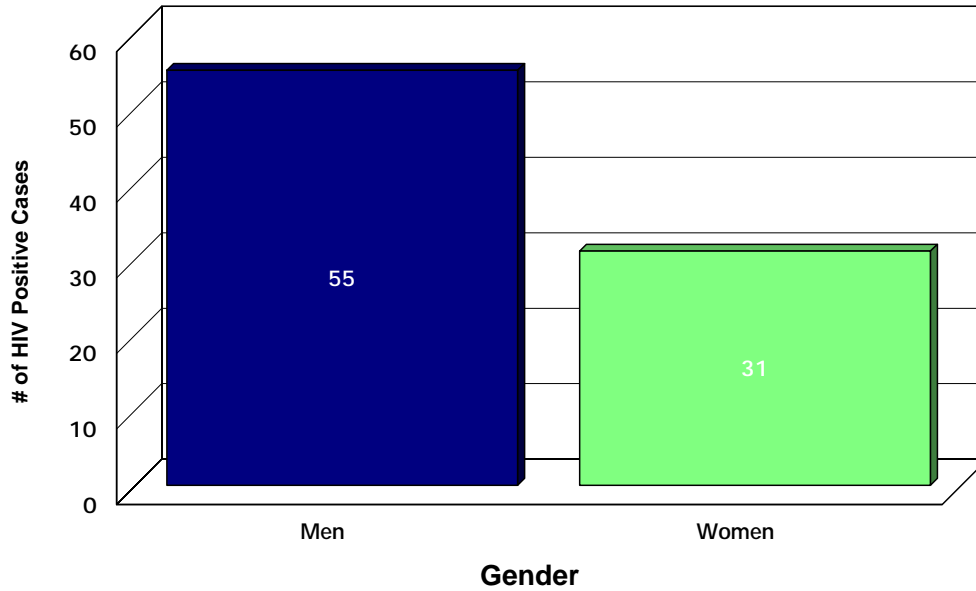
**Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health**

Lastly, it should be noted that 5,444 or 54.1% 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 (1999)

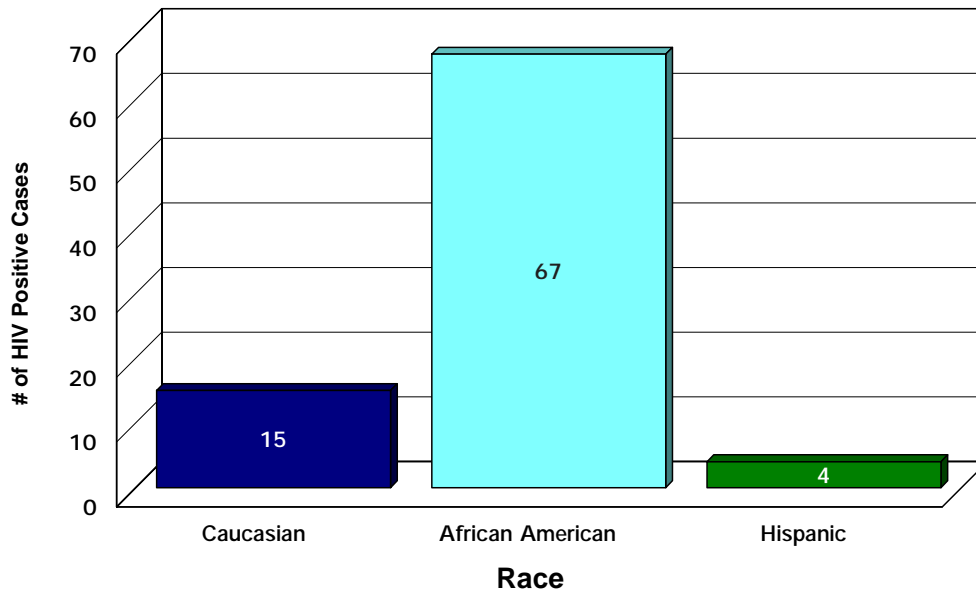
Of the 9,196 tested for HIV, 86 (0.9%) tested positive for the disease. Of them, 36% (n=31) were women (see Figure 2.1, below).

Figure 2.1
Persons Testing HIV Positive
By Gender (1999)



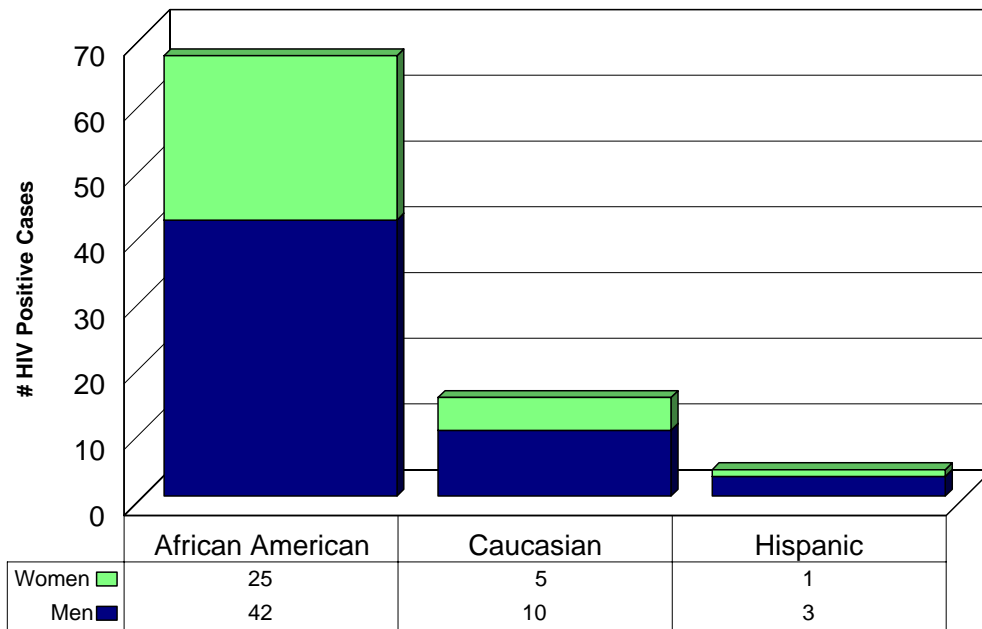
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

Figure 2.2
Persons Testing HIV Positive
by Race (1999)



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 (1999)**



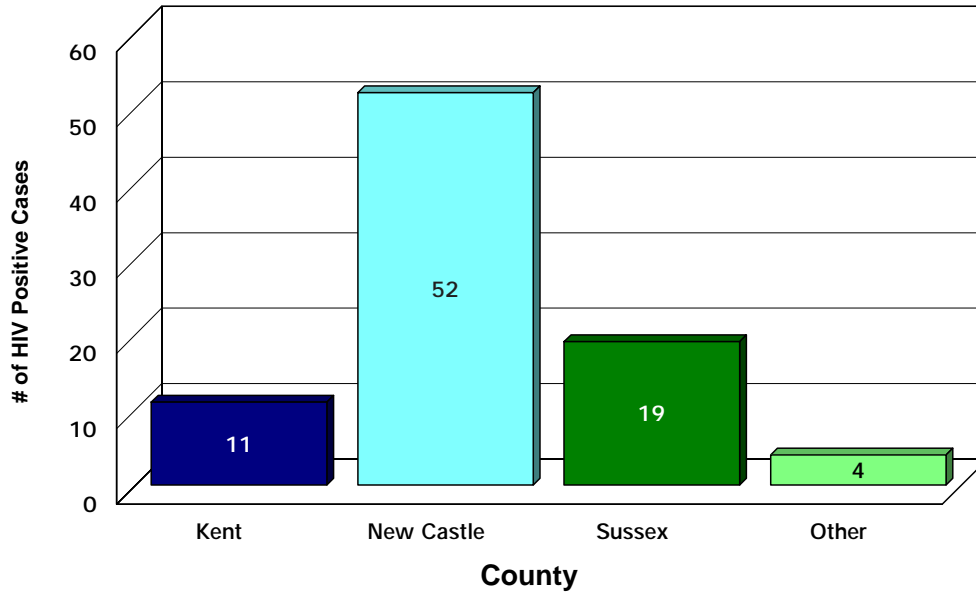
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

African Americans make up the vast majority of HIV positive cases. As highlighted in Figure 2.2 (above), 78% of persons diagnosed HIV positive were African American. It is also interesting to note that the proportion of women for both Caucasian and African American is similar with Hispanic women being less likely to test positive although the numbers are very small.

About 60% of Delaware's 1999 HIV positive cases were identified as living in New Castle County, with proportionally smaller numbers in Kent and Sussex counties (see Figure 2.4, below). The proportion in Sussex County is somewhat higher than one might expect although with small numbers, it is difficult to reach any conclusion.

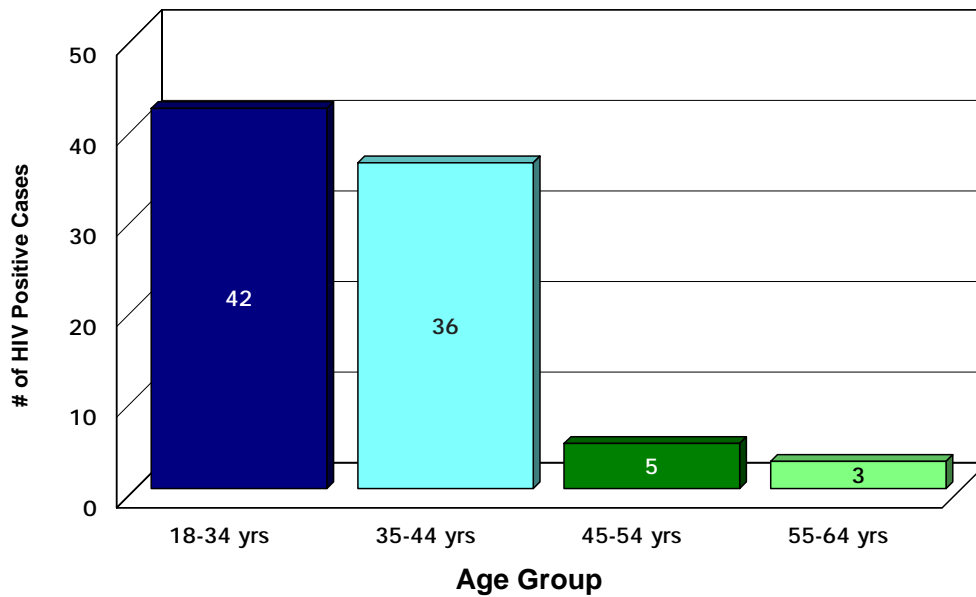
As expected, young adults comprise the vast majority of Delaware's reported 1999 HIV+ cases (Figure 2.5 below). Nearly half of those individuals testing positive were members of the 18-34 age group. Most of the rest (42%) were in the next older age group. No cases were reported for those under the age of 18 or for those past the age of 64.

Figure 2.4
Persons Testing HIV Positive
by County (1999)



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 (1999)



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

Interestingly, the communities that earlier showed high demand for HIV counseling and testing are not necessarily those with high numbers of Delawareans who tested positive. For instance, the City of Wilmington appears to have a higher need for services than it does demand. While only 16.2% of the demand for counseling services came from two predominantly Wilmington zip codes (19801 and 19802), 24.4% of Delaware's 1999 HIV positive cases were identified in these same zip codes. In contrast, while 12.3% of the HIV counseling demand comes from two Dover zip codes (19901 and 19904), they represent about 8% of those identified as being HIV positive. While about 0.9% of those tested in the state were HIV positive, the rates for Wilmington were more than double that rate.

TABLE 2.2
Zip Codes with High Numbers of HIV Positive Cases (1999)

Zip Code	City	Number of Cases	Percent of 1999 HIV Positive Cases
19801	Wilmington	8	9.3
19805	Elsmere	5	5.8
19720	New Castle	6	7.0
19802	Wilmington	13	15.1
19901	Dover	4	4.7
19809	Bellefonte	9	10.5
19904	Dover	3	3.5
19973	Seaford	3	3.5
		51 of 86	59.4

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

It should be noted that almost 60% of the total number of HIV positive cases reported represent residents of just eight Delaware zip codes. Each, as illustrated in Table 2.2 (above), is residence to three or more HIV positive cases (NOTE: Fewer than three HIV positive cases were identified in any of Delaware's other 58 zip codes; two others, namely 19958 and 19966 also had three cases). 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 (1999)

Site Tested	Pre-test Sessions	Percent of All Tests	HIV+ Cases	Percent of HIV+ Cases
HIV C&T Sites	1597	15.9	17	19.8
STD Clinics	4206	41.8	34	39.5
Drug Treatment Facility	235	2.3	6	7.0
Family Planning	1306	13.0	3	3.5
Prenatal/OBGYN	188	1.9	0	0.0
TB Clinic	81	0.8	1	1.2
Prison Facility	1677	16.7	21	24.4
Hospital/Private Physician	20	0.2	0	0.0
Field Visit	441	4.5	4	4.7
Other	282	2.8	0	0
TOTAL	10.060	100.0	86	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. Those clinics also identify the largest portion of the HIV positive cases statewide (Table 2.3, above). Prison facilities are second in both categories; however, a much higher proportion of their clients are found to be HIV positive. HIV Counseling and Testing facilities conduct the third highest number of tests and identify the third highest number of HIV positive cases.

Although the sample size is too small to be considered statistically significant, it is worth noting that there appear to be differences between the counties as to where cases are detected. More than a third are found at STD clinics in all three counties with nearly half of New Castle County HIV positive cases being identified at an STD Clinic. In Kent County, on the other hand, more than a third were identified by a drug treatment facility (Table 2.4, below). Few were found at drug treatment facilities in New Castle or Sussex counties. (Note: Four cases could not be assigned to a county).

TABLE 2.4
HIV Positive Cases By County & Testing Site (1999)

Site Tested	County					
	New Castle		Kent		Sussex	
	cases	%	cases	%	cases	%
HIV C&T Sites	10	19.2	1	9.1	4	21.1
STD Clinics	23	44.2	4	36.4	7	36.8
Drug Treatment Facility	0	0	4	36.4	1	5.3
Family Planning	1	1.9	0	0	1	5.3
Prenatal/OBGYN	0	0	0	0	0	0
TB Clinic	0	0	0	0	1	5.3
Prison Facility	16	30.8	2	18.2	3	15.8
Hospital/Private Physician	0	0	0	0	0	0
Field Visit	2	3.8	0	0	2	4.9
TOTAL	52	100.0	11	100.0	19	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 (1999)

Risk Exposure	# HIV+ Cases	Percent of HIV+ Cases
Same-Sex Contact (men only)	18	20.9
Intravenous Drug Use	18	20.9
STD Diagnosis	27	31.4
Other	23	26.7
TOTAL	86	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 HIV positive cases reported in 1999, they in no way represent the majority of cases. As illustrated in Table 2.5 (above), same-sex (male) contact accounts for only 21% of the cases. Intravenous drug use (IDU) also represents 21%, and other sources account for the balance of Delaware's HIV positive cases. Thirty one percent of these cases represent those who were also diagnosed with another sexually transmitted disease.

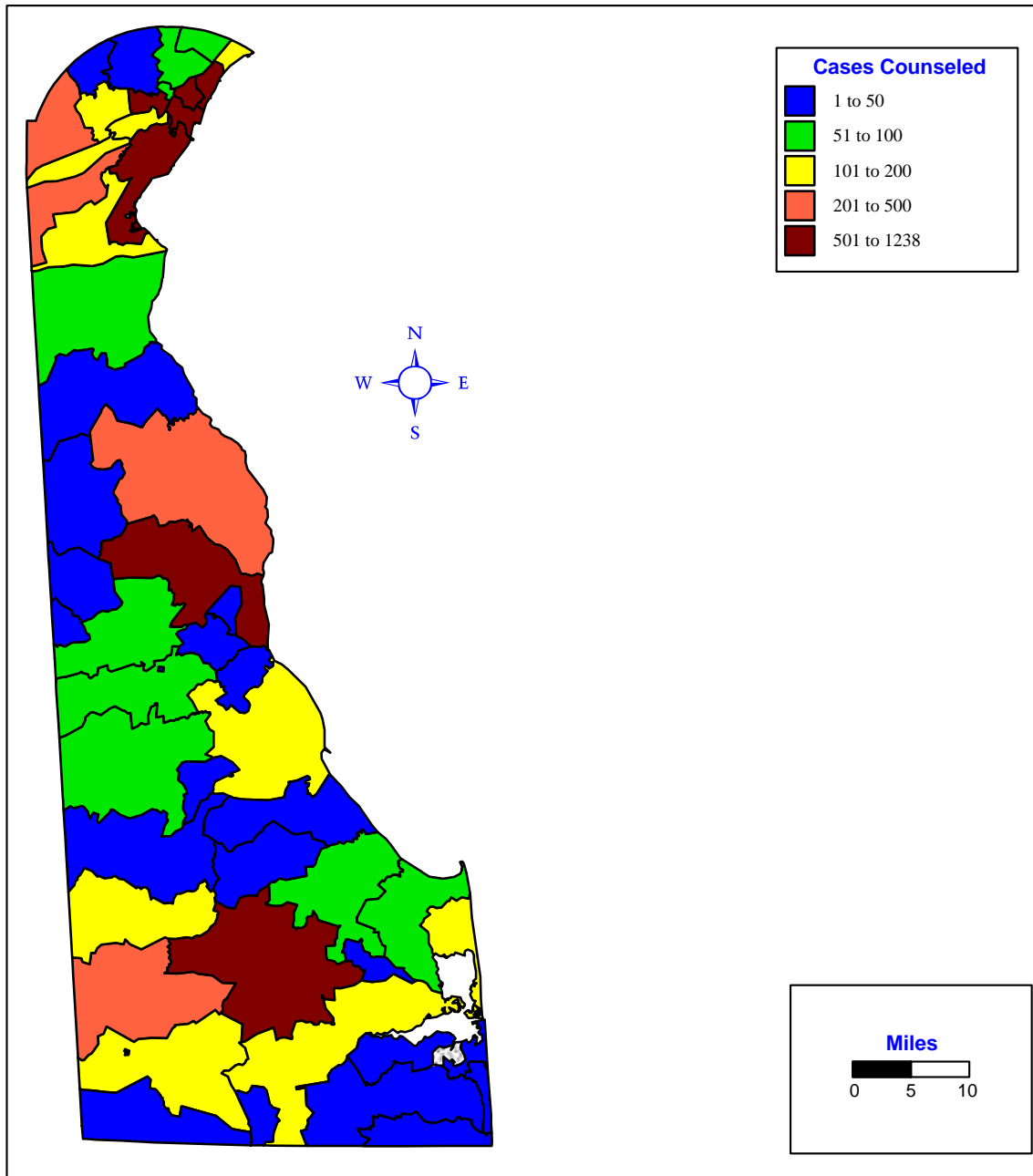
**TABLE 2.6
HIV Positive Cases by Risk Exposure & County (1999)**

Risk Exposure	County					
	New Castle		Kent		Sussex	
	cases	%	cases	%	cases	%
Same-Sex Contact (men only)	6	11.5	2	18.2	8	42.1
Intravenous Drug Use	14	26.9	1	9.1	2	10.5
STD Diagnosis	17	32.7	3	27.3	7	36.8
Other	15	28.8	5	45.5	2	10.5
TOTAL	52	100.0	11	100.0	19	100.0

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

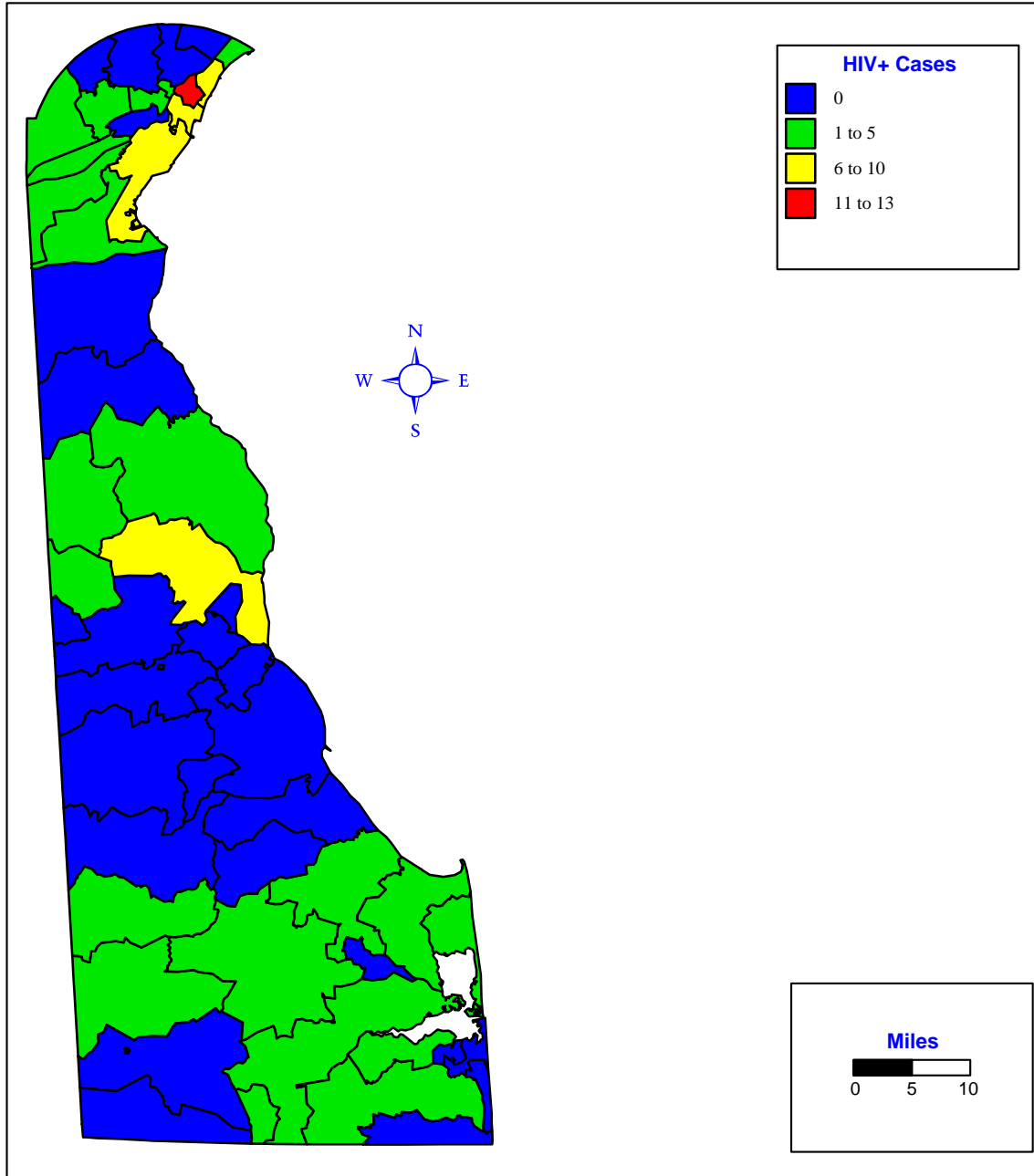
It should also be noted that risk exposure rates varied across Delaware's three counties. As highlighted in Table 2.6 (above), although sample sizes are small, Kent and Sussex county residents are more likely to have the risk factor of *men having sex with men*. Less than 10% had the risk factor of *intravenous drug use* in Kent County. *Intravenous drug use* was a less prevalent risk in Kent County than in either New Castle or Sussex counties. Since the numbers are small, these patterns are likely to be volatile over time and five-year averages are probably more appropriate.

**Map 2.1
Delawareans Seeking HIV Counseling
By Zip Code (1999)**



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

**Map 2.2
Delawareans Diagnosed HIV+
By Zip Code (1999)**

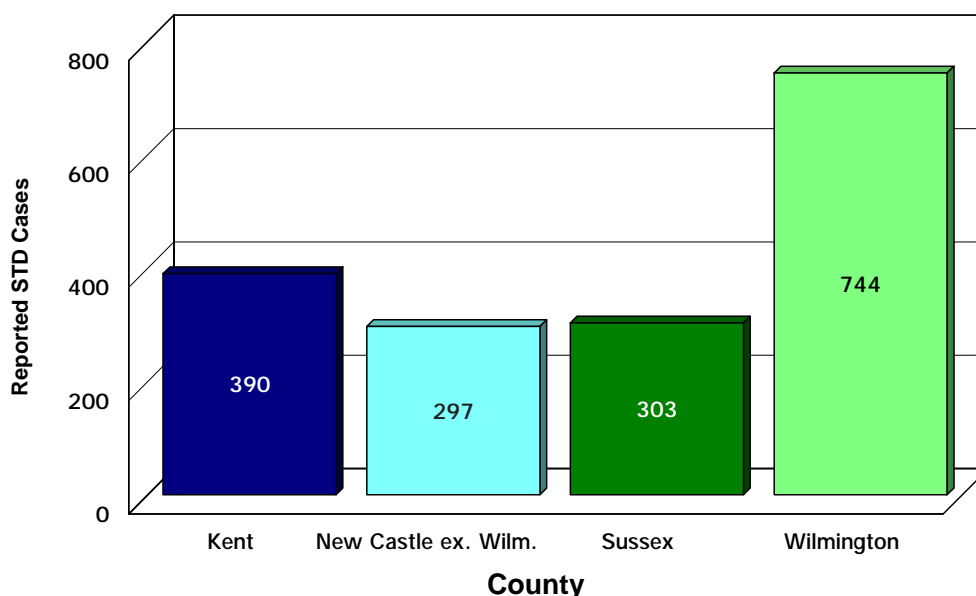


Source: Center for Applied Demography & Survey Research, University of Delaware

SEXUALLY TRANSMITTED DISEASES

According to a recent report released by CDC, gonorrhea and syphilis (primary and secondary) are two of the top five most reported sexually transmitted diseases (STD). The study also indicated that young Americans were most at risk.³ (Note: Chlamydia is also of increasing importance and is discussed later in this section. However chlamydia cases are not included in the STD counts here for comparability reasons.)

Figure 3.1
Reported 1999 STD Cases
by County



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

In 1999, a total of 1,734 cases of gonorrhea and/or syphilis were reported in Delaware. This represents a 3.8% **increase** from 1998 (1670). Forty-three percent of those cases were identified as living in the City of Wilmington. Another 17.5% involve Sussex County residents. Respectively, as indicated in Figure 3.1 (above), 22.5% of 1999 gonorrhea/syphilis cases were diagnosed in Kent and with the balance of 17.1% being from New Castle County.

Interestingly, more than two-thirds of STD cases reported in 1999 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. (1999). 46:28, pp 638-640.

TABLE 3.1
Zip Codes with High STD Incidence (1999)

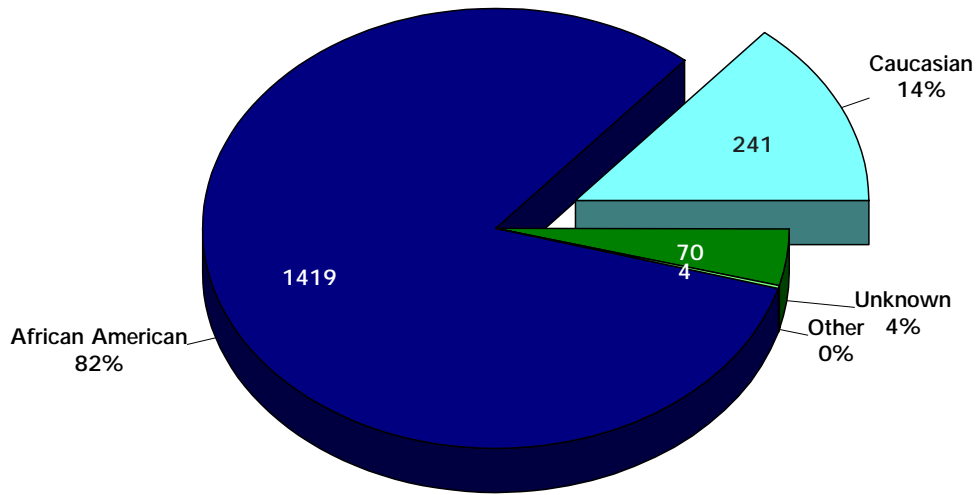
Zip Code	Community Affected	Number of Cases	Percent of 1999 STD Cases
19802	Wilmington	251	14.5%
19801	Wilmington	201	11.6%
19805	Wilmington	213	12.3%
19901	Dover	178	10.3%
19720	New Castle	117	6.7%
19973	Seaford	91	5.2%
19702	Newark	60	3.5%
19904	Dover	80	4.6%

**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 82% of the total number of gonorrhea and/or syphilis cases reported in 1999. Caucasians account for 14% of the STD cases diagnosed.

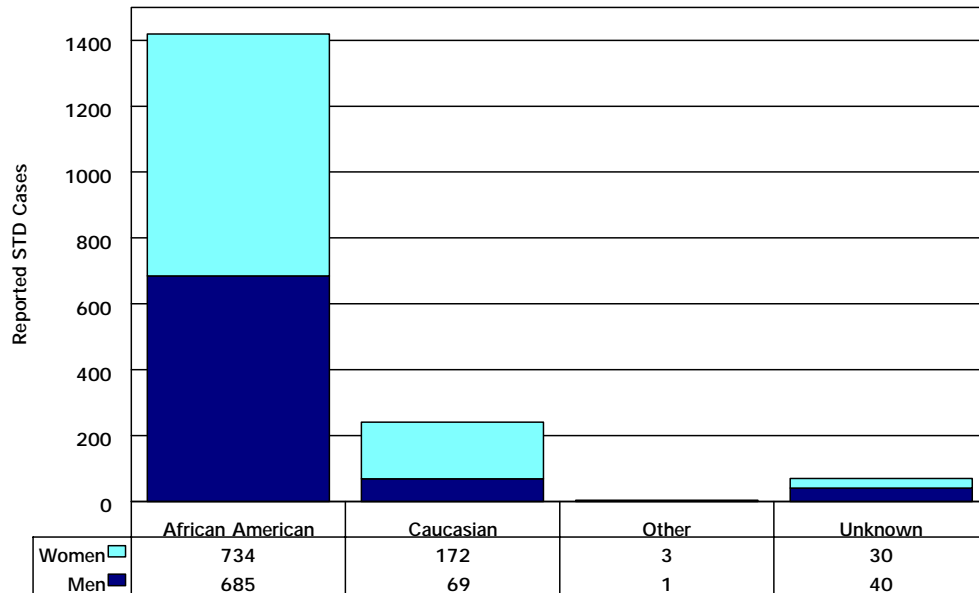
In 1998 women were 10% more likely than men to be diagnosed with an STD; again in 1999, women were about 10% more likely to have reported having an STD. Fifty-five percent of the STD cases reported involved women. It should be noted that Caucasian women are considerably more likely than their male counterparts to be diagnosed with an STD. The number of African American women diagnosed with an STD was nearly equal to the number of African American men diagnosed in 1999. As noted in Figure 3.3 (below), of the African Americans diagnosed with a STD, 52% were women and 48% were men. However, among the Caucasian Delawareans who were diagnosed, only 28% of the STD cases identified represent infected men; 72% represent STD infected women.

Figure 3.2
Reported 1999 STD Cases
by Race



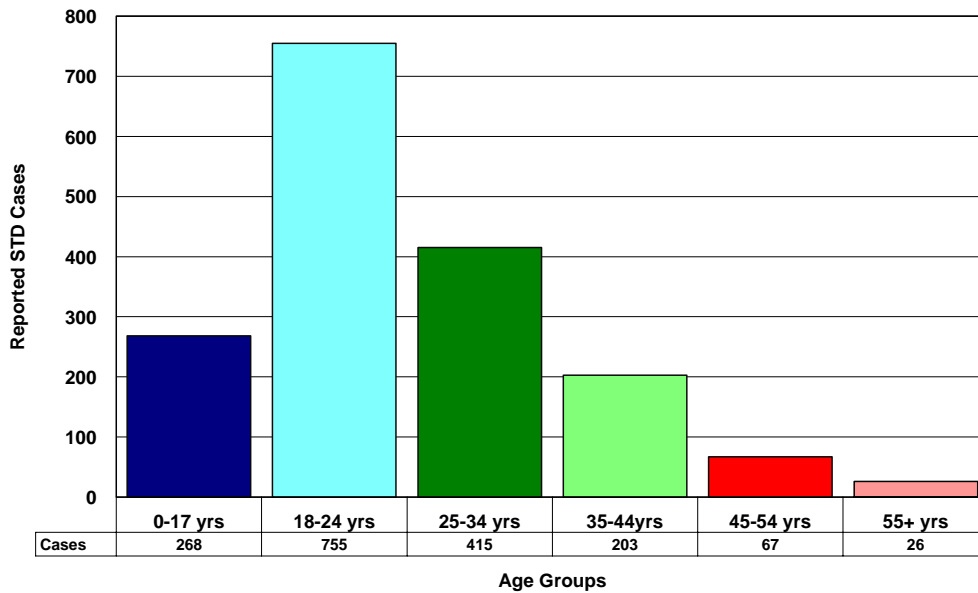
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Figure 3.3
Reported 1999 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 1999 STD Cases
by Age Group**



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

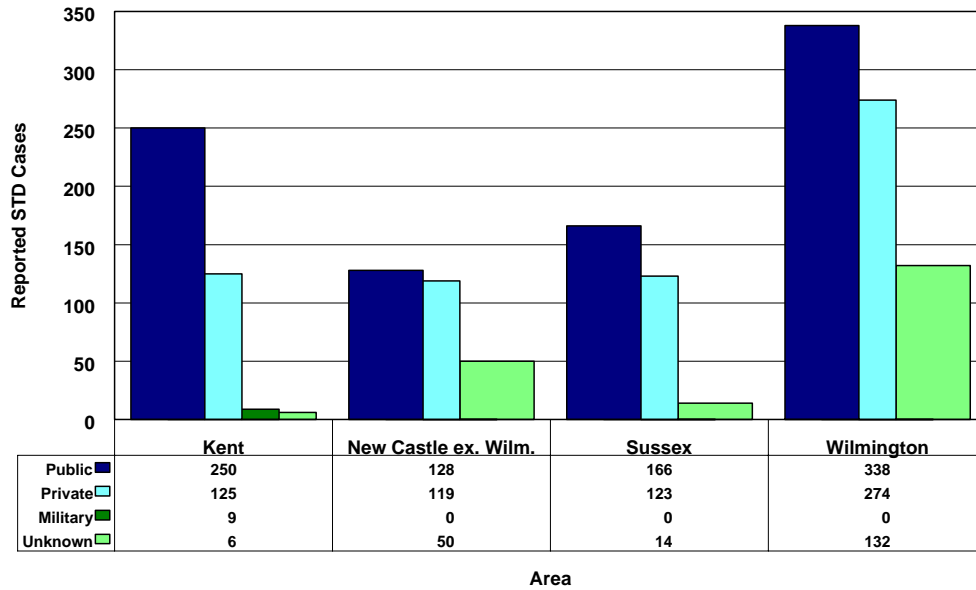
Older adolescents and young adults appear to be significantly more likely to be diagnosed with an STD than any other age group. As illustrated in Figure 3.4 (above), two-thirds of all gonorrhea and syphilis cases reported involved clients ages 18 to 34 years. In fact, 18-24 year-olds alone account for more than one-third of the STD cases reported in 1999.

Public v. Private STD Reporting Sites

All of 1999 STD data 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, 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. Roughly two-thirds 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 1999 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 (From Public Testing Facilities - 1999)

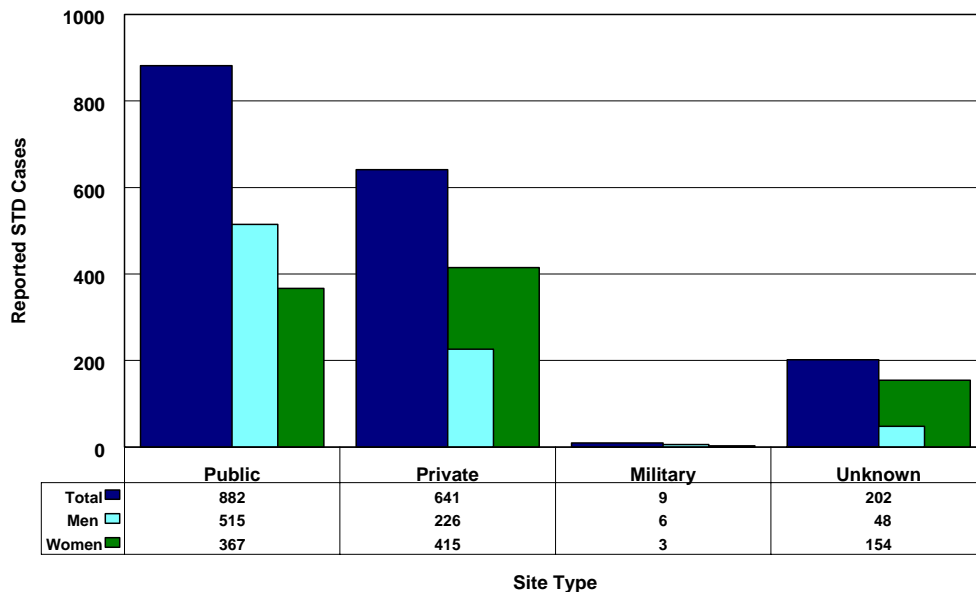
Zip Code	Community Affected	Number of Cases	Percent of 1999 STD Cases Public Sites Only
19901	Dover	118	13.4%
19801	Wilmington	109	12.4%
19802	Wilmington	109	12.4%
19805	Elsmere	82	9.3%
19973	Seaford	59	6.7%
19904	Dover	57	6.5%
19720	New Castle	49	5.6%
19702	Newark	23	2.6%
19956	Laurel	23	2.6%
19963	Milford	21	2.4%

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 about three-quarters of the total number of STD cases reported by public facilities (see Table 3.2, above).

It is worth noting that no more than 16 STD diagnoses were identified by public reporting sites in any of the remaining 58 Delaware zip codes.

Figure 3.6
Reported 1999 STD Cases
by Gender and Site Type



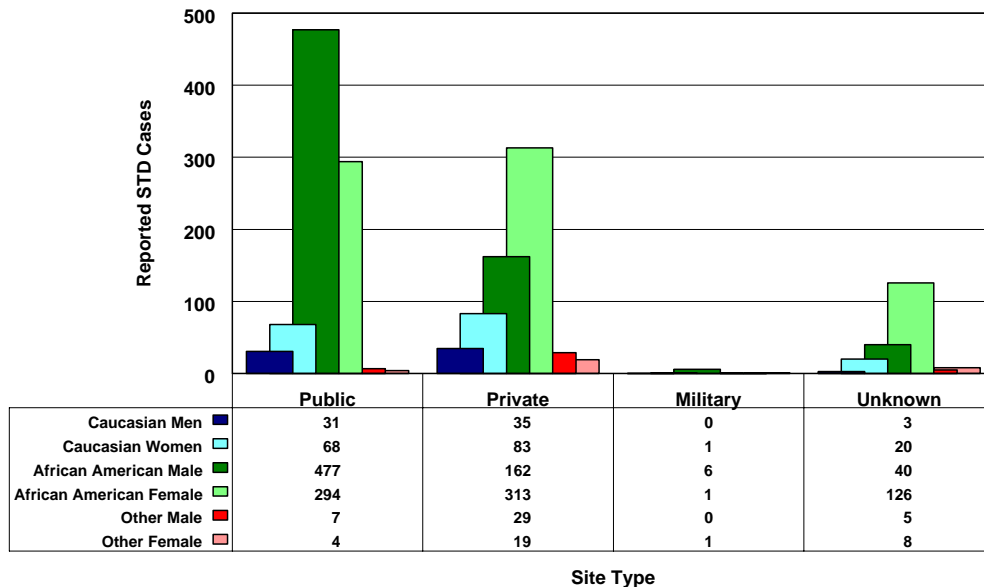
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Similar to 1998, men are more likely than women to be diagnosed at a public STD reporting site (see Figure 3.6, above). Whereas 65% of the men diagnosed with either gonorrhea or syphilis were identified by a public facility, only 40% of women were diagnosed by such a site.

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 1999.

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, three-quarters of African American men were identified by a public reporting site, while only 40% of African American women were. Seventy-six percent of the men were identified by such a site.

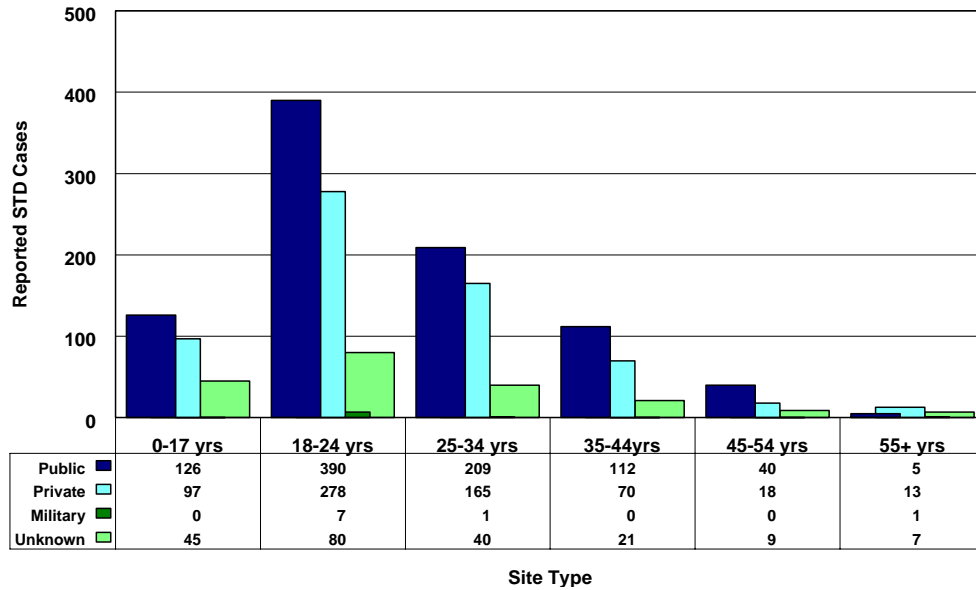
Figure 3.7
Reported 1999 STD Cases
by Gender, Race, and Site Type



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

It is interesting to note that 18-24 year-olds appear to be somewhat less likely to rely on public testing sites. Whereas in 1998 more than 60% were tested at a public facility, only about half were in 1999. Conversely, it should also be pointed out that 25-54 year-olds are somewhat more likely to rely on public facilities. In 1986, roughly 55% of 25-54 year-olds were tested at a public facility. In 1999, over 60% were tested at a public site.

Figure 3.8
Reported 1999 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 most often reported STD. It, unlike most other STDs, is more prevalent among women than men. In fact, incidence rates among African American women are three times higher than those found among African American men.

The young are especially at risk. In 1994, the nationally reported gonorrhea incidence rate among teen girls was 79.3 (per 100,000). Among teen boys, it was 19.4.

According to Delaware’s Notifiable Disease Surveillance System, 1,662 gonorrhea cases were reported in 1999. This represents a 7% increase from 1998. Of the cases reported in 1999:

- 1645 = Uncomplicated Gonorrhea
- 17 = Gonorrhea PID

As in 1999, more than 40% of all 1999 gonorrhea cases reported involved City of Wilmington residents. Sixteen percent were reported in Sussex County. Respectively, about 17% and 23% of the cases reported in 1999 were in the balance of New Castle County and Kent County.

TABLE 3.3
Gonorrhea Diagnoses by Type & Location (1999)

Gonorrhea Diagnosis					Percent of Cases
	Wilmington	Balance of NCC	Kent Cnty	Sussex Cnty	
Uncomplicated Gonorrhea	715	286	374	270	99.0%
Gonorrhea PID	10	1	5	1	1.0%
Total Number of 1999 Gonorrhea Cases	725	287	379	271	---
% of Total Number of 1999 Gonorrhea Cases	43.6%	17.3%	22.8%	16.3%	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 low number of Delaware communities. In fact, when reviewing 1999 gonorrhea incidence by zip code, it was noted that 1,138 gonorrhea cases (68%) represent Delawareans from just eight of 68 zip codes. (See Table 3.4, below)

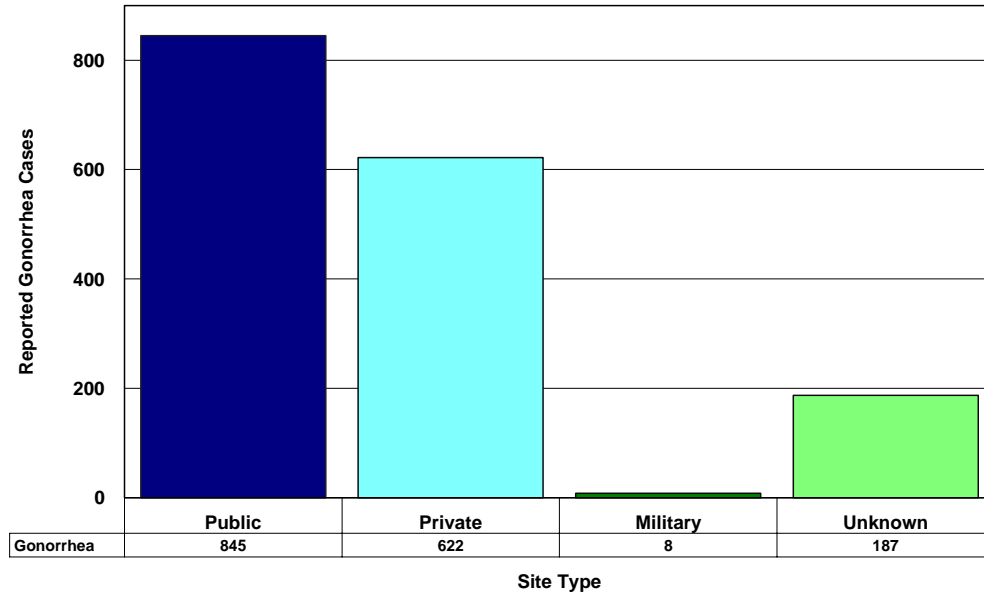
TABLE 3.4
Zip Codes with High Gonorrhea Incidence (1999)

Zip Code	Community Affected	Number of Cases	Percent of 1999 Gonorrhea Cases
19802	Wilmington	241	14.5%
19805	Wilmington	203	12.2%
19801	Wilmington	194	11.7%
19901	Dover	172	10.3%
19720	New Castle	113	6.8%
19973	Seaford	80	4.8%
19904	Dover	78	4.7%
19702	Newark	57	3.4%

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

Fewer than 32 gonorrhea cases were reported in any of the other 62 Delaware zip codes. In fact, fewer than 15 gonorrhea cases were identified in most Delaware communities. For a complete view, refer to the maps at the end of this section.

**Figure 3.9
Reported 1999 Gonorrhea Cases
by Site Type**



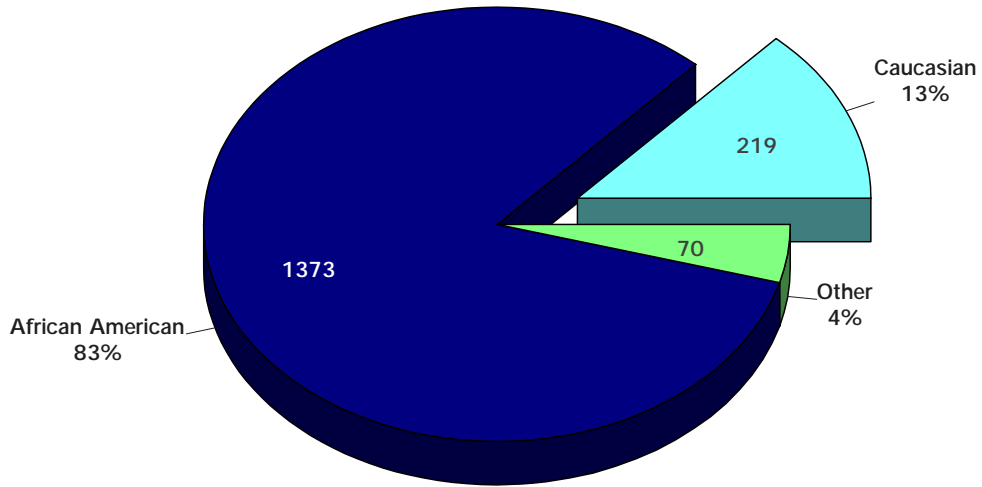
**Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health**

It is interesting to note that while all but two of the 17 (88%) gonorrhea PID cases were identified by private reporting sites, uncomplicated were more likely to be identified by a public reporting site. In contrast, public sites diagnosed 51% of Delaware’s uncomplicated gonorrhea.

African Americans accounted for the vast majority of gonorrhea cases identified in 1999. According to Figure 3.10 (below), more than eight of every ten Delawareans diagnosed with gonorrhea were African American. In contrast, only 13% of those diagnosed with gonorrhea were Caucasian.

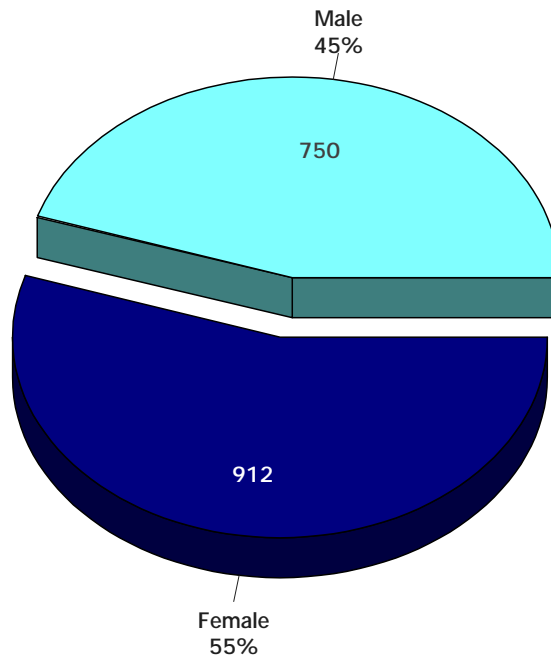
Female Delawareans are, again, about 10% more likely to have gonorrhea than their male counterparts. As illustrated in Figure 3.11 (below), 55% of gonorrhea cases reported in 1999 involved women.

Figure 3.10
Reported 1999 Gonorrhea Cases
by Race



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

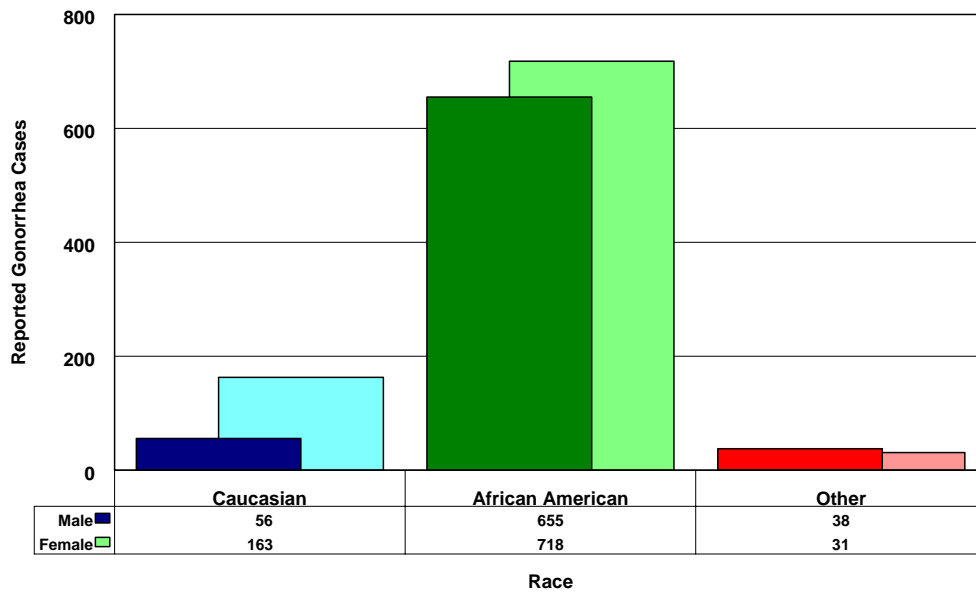
Figure 3.11
Reported 1999 Gonorrhea Cases
by Gender



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

As was the case in 1998, it should be noted that, in 1999, Caucasian women continue to be nearly three times more likely than their male counterparts to be diagnosed with gonorrhea, African American women still appear to be only slightly more likely than their male counterparts to be diagnosed (see Figures 3.12, below).

Figure 3.12
Reported 1999 Gonorrhea Cases
by Gender and Race



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

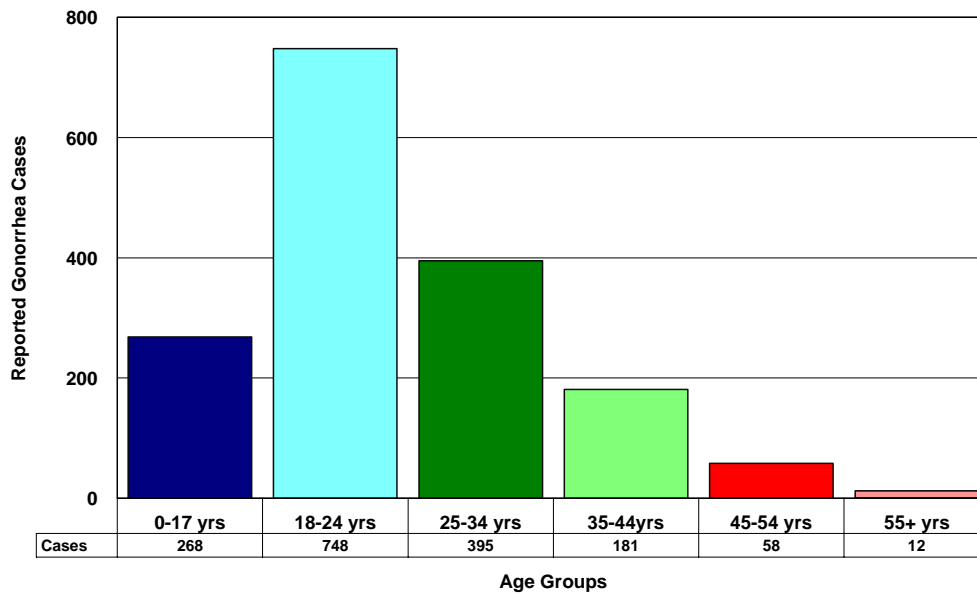
Young Delawareans are, by far, most likely to have been diagnosed with gonorrhea in 1999. As is highlighted in Table 3.5 and Figure 3.13 (below), those under 34 account for almost 85% of the gonorrhea cases diagnosed. In fact, 18-24 year-olds, alone, account for almost half of Delaware's identified gonorrhea cases.

**TABLE 3.5
Gonorrhea Incidence by Age Group (1999)**

Age Group	Number of Gonorrhea Cases	Percent of 1999 Gonorrhea Cases
0-17	268	16.1%
18-24	748	45.0%
25-34	395	23.8%
35-44	181	10.9%
45-54	58	3.5%
55-64	12	0.7%
65+	0	0%
TOTAL	1662	100.0%

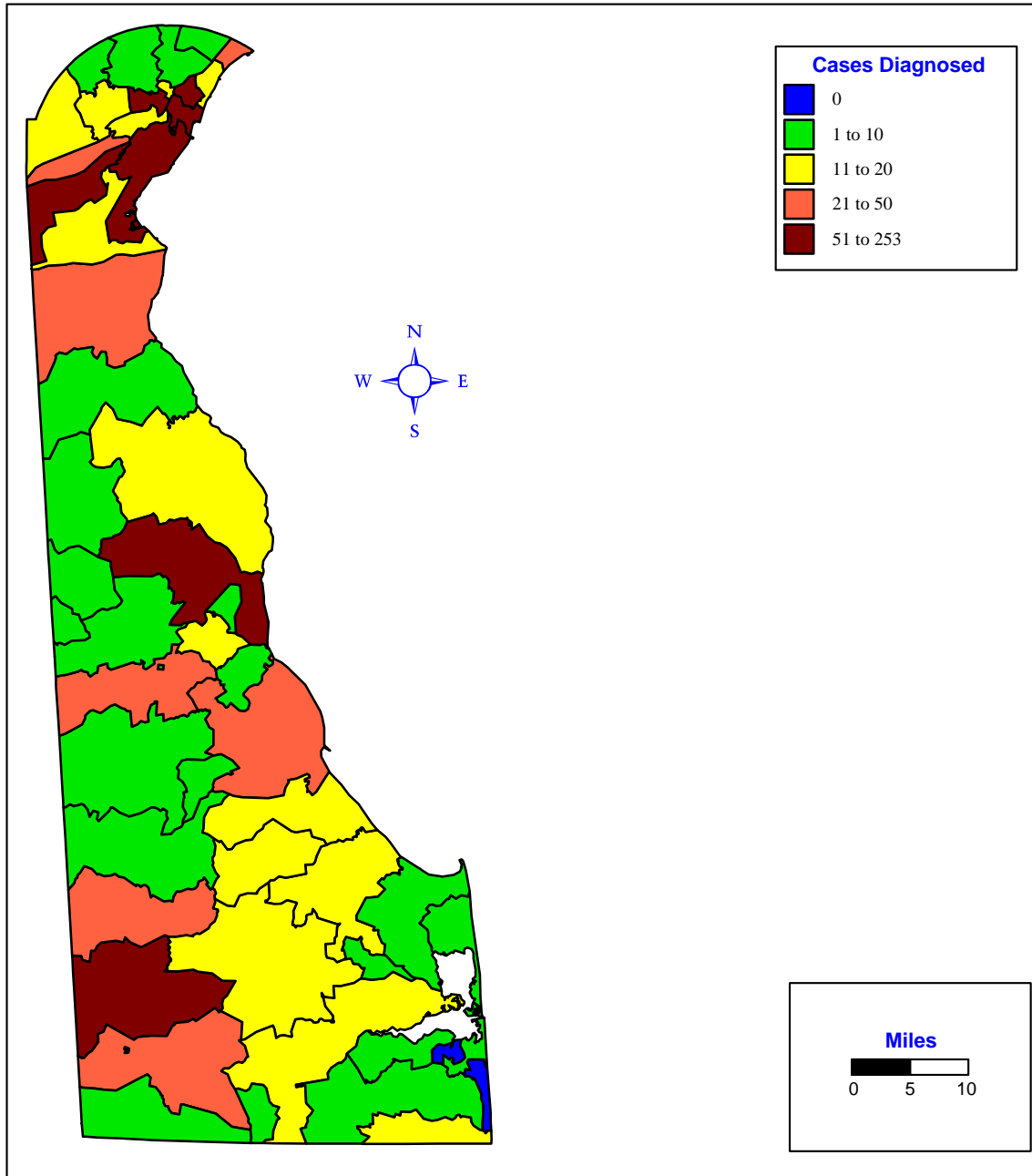
Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

**Figure 3.13
Reported 1999 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 (1999)



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

Syphilis

In 1999, 72 cases of syphilis were reported in Delaware. This is a roughly 37% **decrease** when compared to the 114 cases reported in 1998. Of those reported in 1999, 44% were identified in Sussex County. Another 26% were reported in the City of Wilmington. Of the remainder, 14% were identified as living in New Castle County (excluding Wilmington); 15% live in Kent County.

Interestingly, although numbers are too small to be considered statistically significant, the City of Wilmington experienced a 21% *decrease* in the number of syphilis cases reported, when compared with cases reported in 1998. It should also be noted that Sussex County experienced a sharp decline in the number of syphilis cases reported of 50%. In 1998, 64 syphilis cases were reported, while in 1999, 32 cases were reported in Sussex County.

TABLE 3.6
Syphilis Diagnoses by Type & Location (1999)

Syphilis Diagnosis	Location				Percent of Cases
	Wilmington	Balance of NCC	Kent	Sussex	
Primary Syphilis	0	1	1	1	4.2%
Secondary Syphilis	0	2	2	3	9.7%
Early Latent Syphilis	1	2	2	11	22.2%
Late Latent Syphilis	15	5	5	5	41.7%
Other Syphilis	3	0	1	12	22.2%
Total Number of 1999 Syphilis Cases	19	10	11	32	---
% of Total Number of 1999 Syphilis Cases	26.4%	13.9%	15.3%	44.4%	100.0%

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

It should be noted that about 45% of Delaware’s 72 reported syphilis cases can be found in just five zip codes. (See Table 3.7, below)

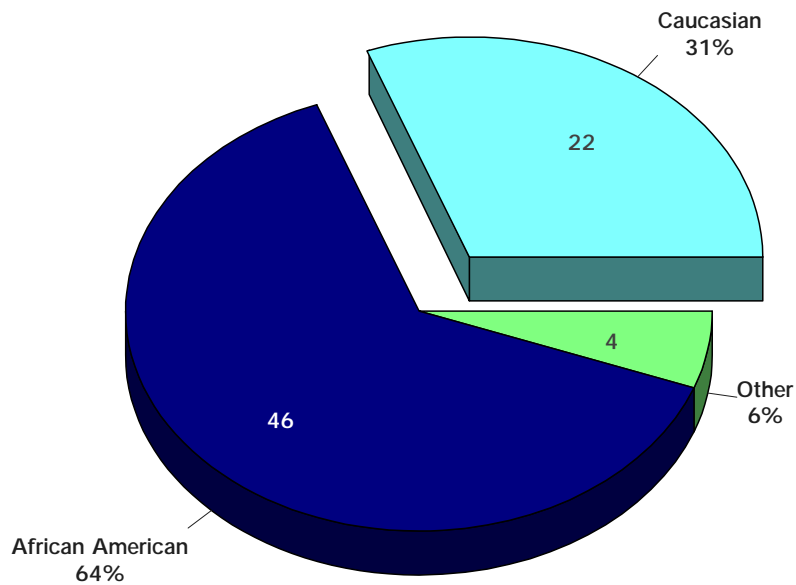
**TABLE 3.7
Zip Codes with High Syphilis Incidence (1999)**

Zip Code	Community Affected	Number of Cases	Percent of 1999 Syphilis Cases
19973	Seaford	10	13.9%
19802	Wilmington	7	9.7%
19805	Wilmington	6	8.3%
19947	Georgetown	5	6.9%
19801	Wilmington	5	6.9%

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

Fewer than five syphilis cases were reported in each of the remaining 66 Delaware zip codes. Most reported having fewer than two cases. For a complete view refer to the maps at the end of this section.

**Figure 3.14
Reported 1999 Syphilis Cases
by Race**

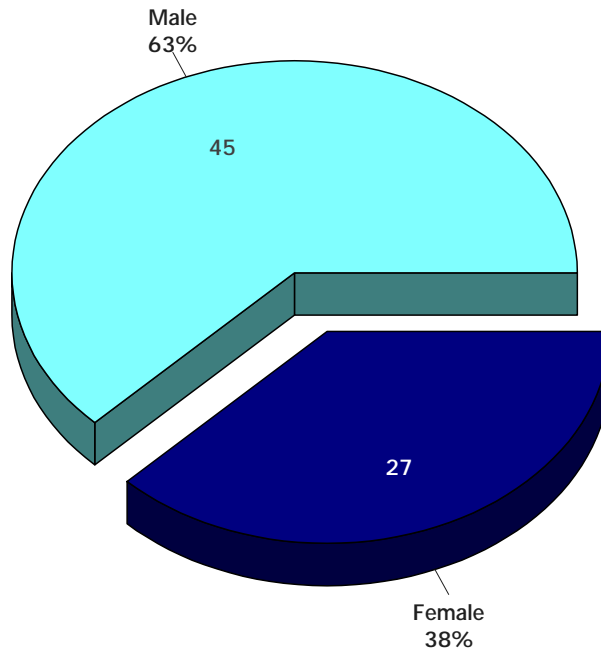


Source: Center for Applied Demography & Survey Research, University of Delaware
Delaware Division of Public Health

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 similar to those found in 1998 although the proportion that were Caucasian was lower (25%).

Men appear to be slightly more likely than women to be diagnosed with syphilis. According to Figure 3.15 (below), 63% of all identified cases involved men. In 1998, nearly 58% of the syphilis cases reported were male.

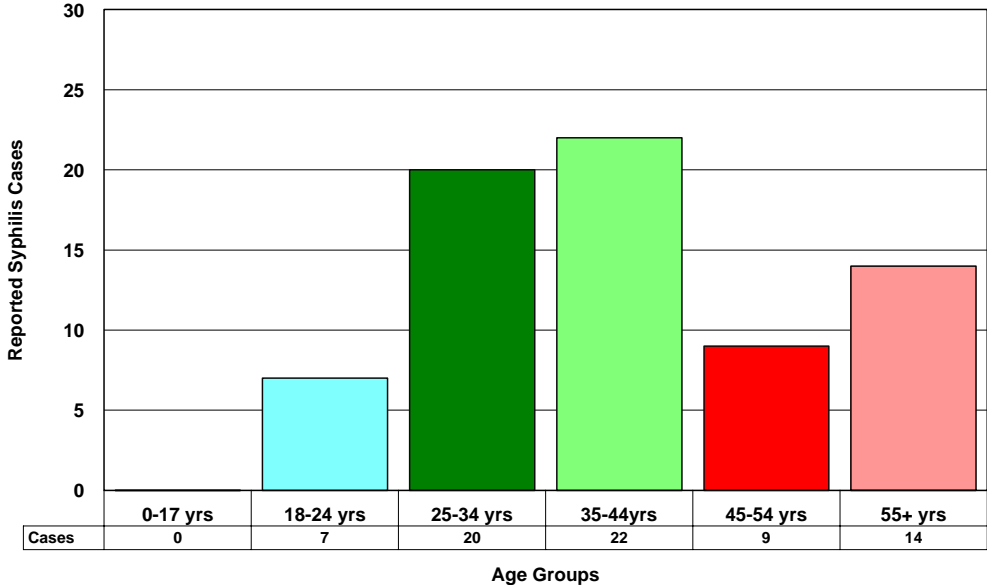
**Figure 3.15
Reported 1999 Syphilis Cases
by Gender**



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

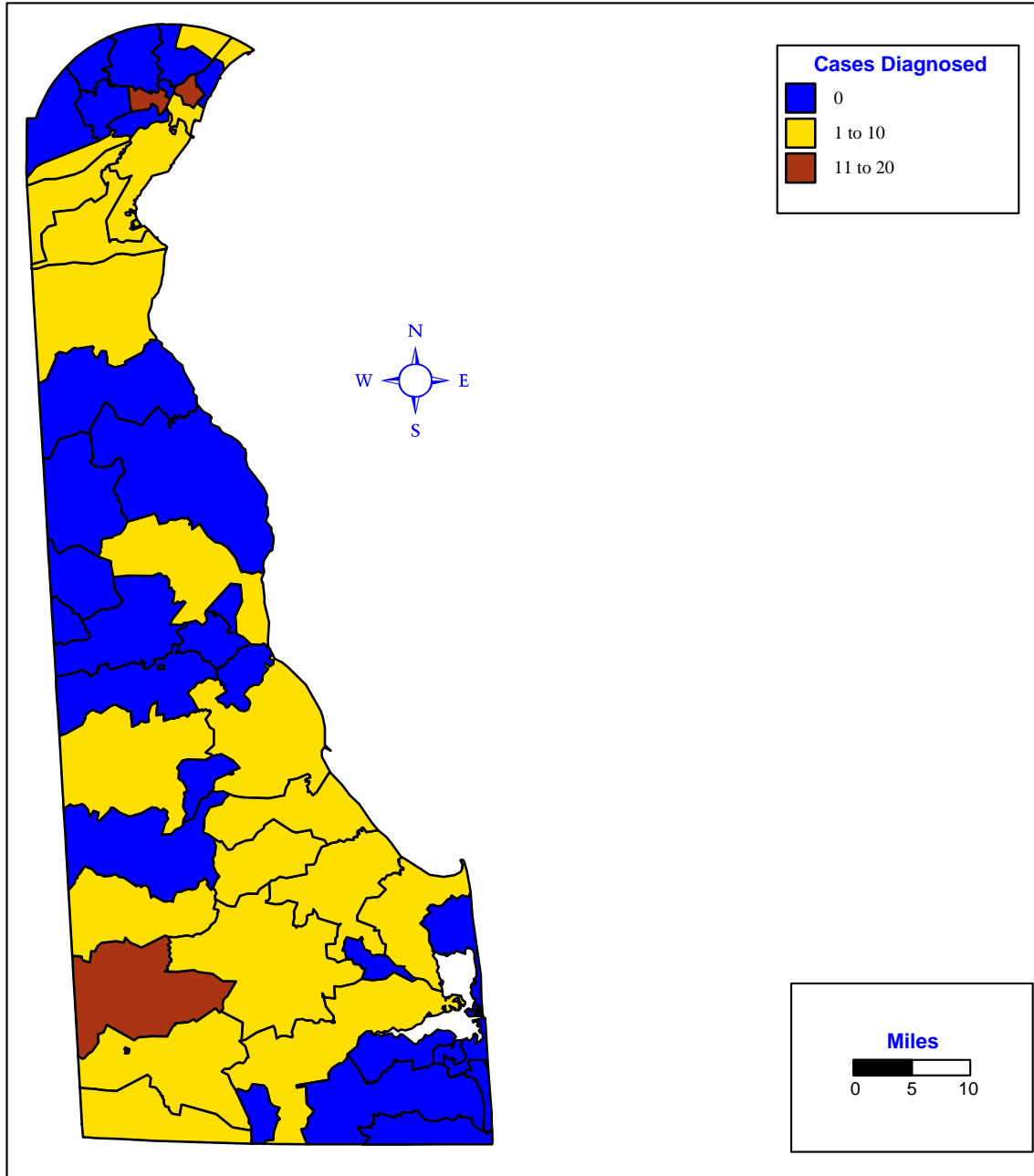
While gonorrhea is more likely to affect adolescents and young adults, syphilis appears to be more likely to affect middle-aged adults. As illustrated in Figure 3.16 (below), 84% of those diagnosed with syphilis were between the ages of 25 and 54. Over 70% were 25-44 years of age. Fewer than 10% of the cases reported involved an individual under age 25.

Figure 3.16
Reported 1999 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 (1999)**

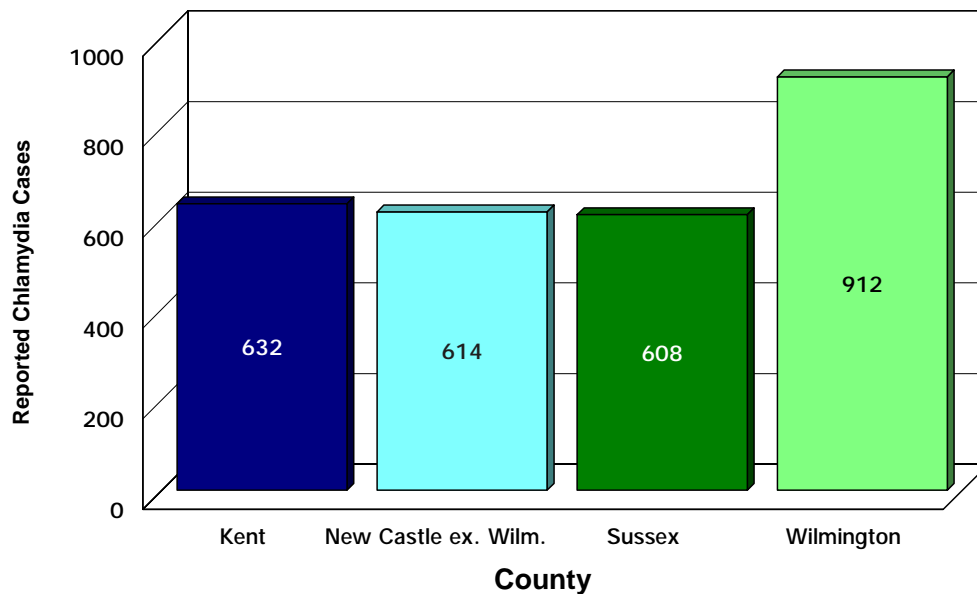


Source: Center for Applied Demography & Survey Research, University of Delaware

Chlamydia

In prior years, this report has focused on gonorrhea and syphilis. However, the incidence of chlamydia is significant with 2,766 cases in 1999 and 2,608 cases in 1998. It is even more frequently occurring than gonorrhea (1,662 cases in 1999).

Figure 3.17
Reported 1999 Chlamydia Cases
by County



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 (67% versus 56%). A slightly higher proportion of these cases are 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. Nearly 45% of all cases in the state are found in five 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.

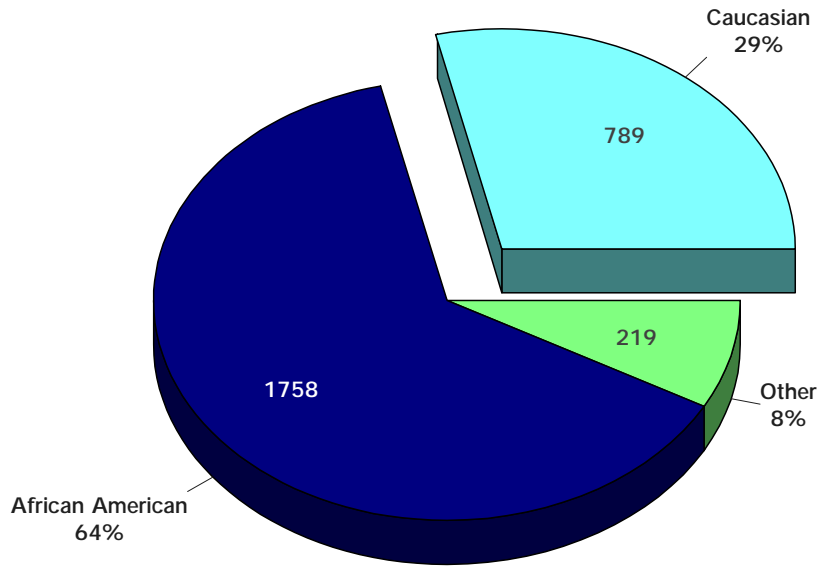
In Figure 3.18, the racial distribution of chlamydia cases is provided. Almost two-thirds of the cases are found in the African American community. However, the proportion of cases found in the Caucasian population is more than twice as high as that observed for gonorrhea.

TABLE 3.8
Zip Codes with High Chlamydia Incidence (1999)

Zip Code	Community Affected	Number of Cases	Percent of 1999 Chlamydia Cases
19802	Wilmington	288	10.4%
19901	Dover	285	10.3%
19805	Wilmington	257	9.3%
19801	Wilmington	218	7.9%
19720	New Castle	188	6.8%

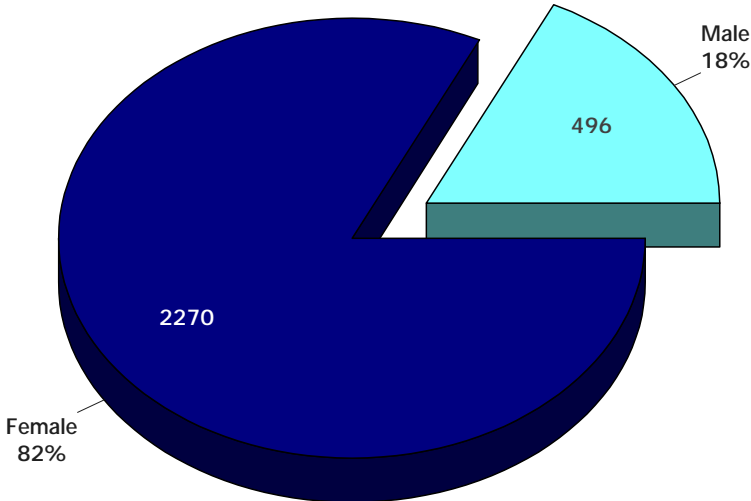
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Figure 3.18
Reported 1999 Chlamydia Cases
by Race



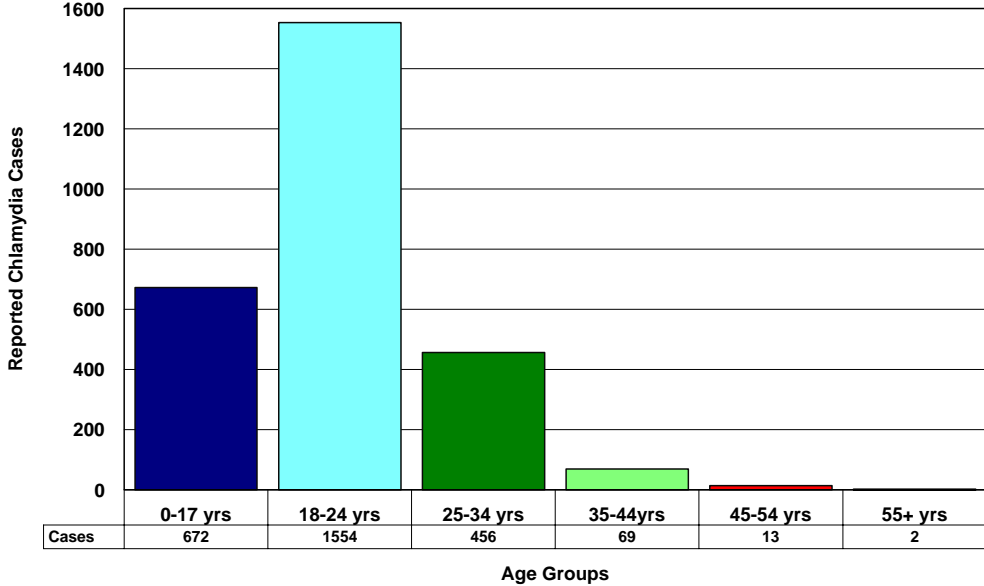
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

Figure 3.19
Reported 1999 Chlamydia Cases
by Gender



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

Figure 3.20
Reported 1999 Chlamydia Cases
by Age Group



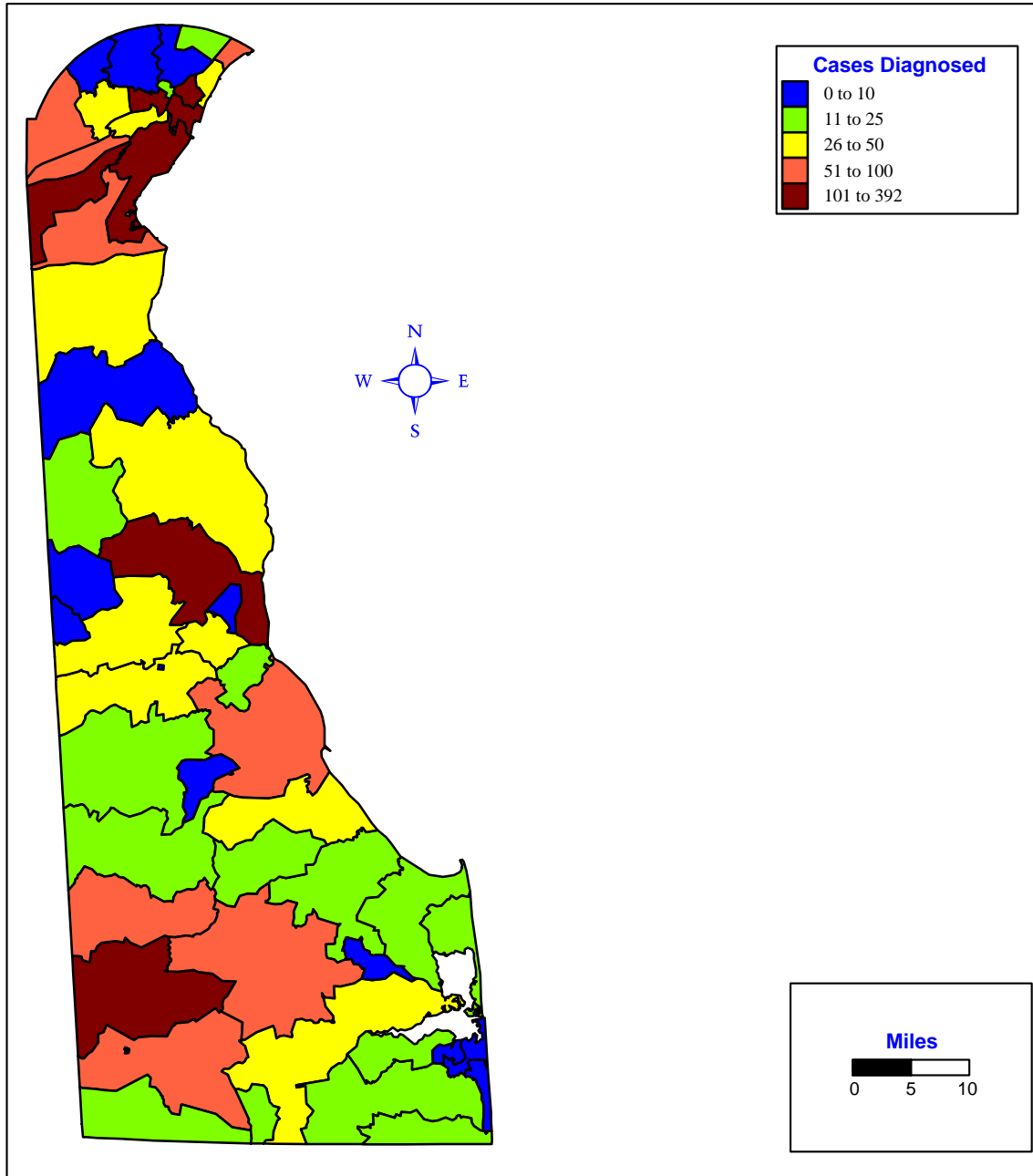
Source: Center for Applied Demography & Survey Research, University of Delaware
 Delaware Division of Public Health

The distribution of cases by gender is found in Figure 3.19 above. The disease is heavily concentrated in the female population. This is significantly different from the gender distribution of gonorrhea where the distribution was only slightly biased toward females (55%).

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.

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 (1999)



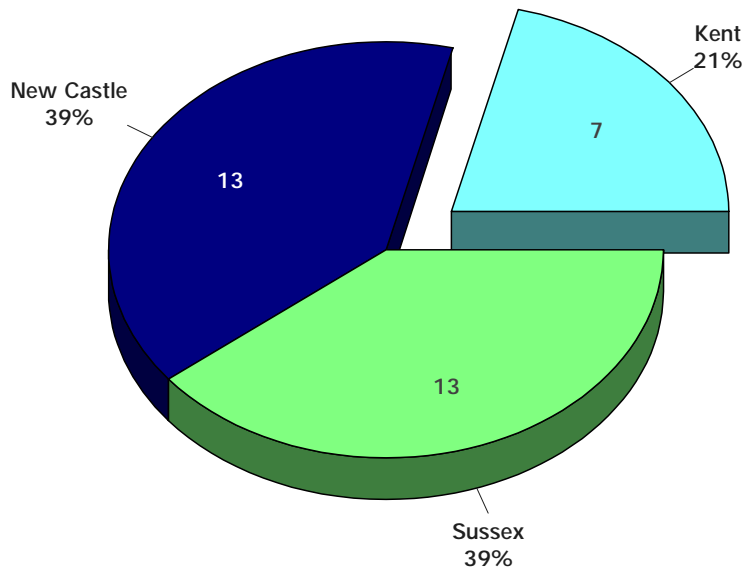
Source: Center for Applied Demography & Survey Research, University of Delaware

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 1999, 33 TB cases were identified. Of them, 39.4% were identified in New Castle County. Another 39.4% were diagnosed in Sussex County; 21.2% of Delaware's TB cases were found in Kent County.

Figure 4.1
Persons Diagnosed with TB
by County (1999)



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

Interestingly, as highlighted in Table 4.1 (below), similar numbers of TB cases are reported in the first two-quarters. A much smaller proportion (18.2%) is reported during the third and fourth quarter (July-December). These numbers, however, are small and thus are subject to a significant amount of random variation.

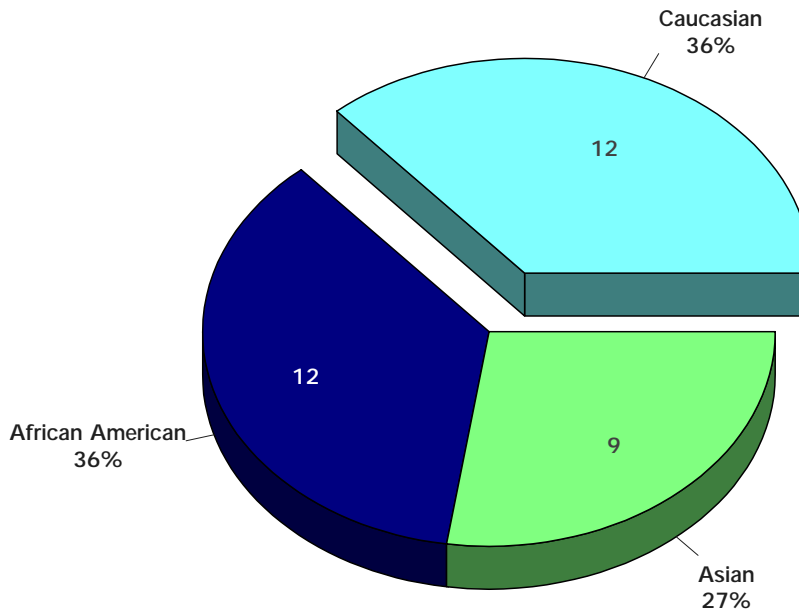
**TABLE 4.1
TB Cases by Quarter (1999)**

Quarter	Number of Cases	Percent of 1999 TB Cases
First (Jan-Mar)	13	39.4
Second (Apr-June)	14	42.4
Third (Jul-Sept)	4	12.1
Fourth (Oct-Dec)	2	6.1
TOTAL 1999 CASES	33	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 more than half of the people diagnosed with TB are minorities. More than a third are African American (Figure 4.2, below).

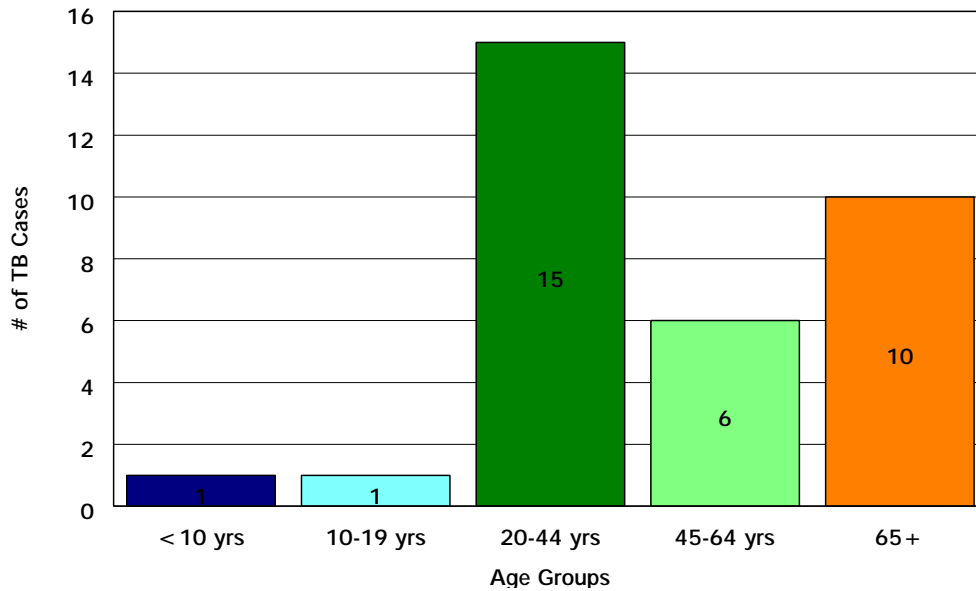
**Figure 4.2
Persons Diagnosed with TB
by Race (1999)**



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

Just under half (n=15) of the tuberculosis cases reported in 1999 involved men. This is slightly lower than the proportion observed in 1998.

**Figure 4.3
Persons Diagnosed with TB
by Age Group (1999)**



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 1999 are distributed differentially across the age spectrum. Of the 33 cases identified 45.5% involved individuals ages 20-44. Another 30% of the cases involved persons 65+ years and only 6% of TB cases involved children and adolescents.

**TABLE 4.2
TB Cases by Identified Risk Factor (1999)**

Identified Risk Factor	Number of Cases	Percent of 1999 TB Cases
HIV-positive ⁴	2	6.1
Homeless	1	3.0
Resident of Correctional Facility	0	0.0
Reside in Long-Term Care Facility	1	3.0
IDU	0	0.0
Drugs (Non-IDU)	0	0.0
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 51.5% (n=17) 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.

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.