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## **Prevention and Control of Gonorrhea and Chlamydia in Alaska**

### **A Call to Action**

#### **Epidemiology**

#### **Risk Factors**

#### **Recommendations**

- **Screening**
- **Treatment**
- **Partner Notification**
- **Reporting**

## Introduction

Sexually transmitted diseases (STDs), including gonorrhea and chlamydia, remain among the most critical public health challenges facing Alaska today. STDs are the most frequently reported communicable diseases in the country, and they cause largely preventable, severe, and costly complications in Alaska's most vulnerable populations. STDs cause severe consequences for women and infants, especially among ethnic and racial minority populations. High STD rates in adolescents and young adults create a heavy disease burden in this group, and STDs facilitate the sexual transmission of human immunodeficiency virus (HIV). The challenge in solving this immense problem centers on overcoming barriers to healthy sexual behaviors in society at large while also delivering comprehensive, effective, essential STD services in innovative ways to high risk individuals in our communities.

Adolescents and young adults are at greatest risk for acquiring STDs. Their risk is greater because they are more likely to have multiple sex partners and engage in risky behaviors associated with STDs. Women and children suffer the most severe consequences from STDs. In the U.S., chlamydia and gonorrhea are responsible for the majority of pelvic inflammatory disease (PID), the leading preventable cause of infertility. Between 10-40% of women improperly treated for chlamydia or gonorrhea will develop PID. Of these, 20% will develop scarring that leads to infertility, 18% will develop chronic pelvic pain, and 9% may experience potentially fatal ectopic pregnancies. Sexually transmitted human papillomavirus (HPV) is the single most important risk factor for cervical cancer.

The majority of American adults underestimate their risk for STDs. Many who are at increased risk do not seek screening for disease as recommended and may not follow prevention practices consistently.

Several factors contribute to the lack of knowledge of the U.S. population concerning STDs. First, many STDs are asymptomatic. Individuals are simply unaware that they are infected. Transmission occurs unwittingly and readily. Second, because many STDs are asymptomatic, awareness of infection may not occur until serious health consequences appear. Due to the lag time between infection and appreciable symptoms, individuals may not link previous sexually acquired infections to current serious outcomes. Third, STD awareness and prevention education campaigns targeted to adolescents, the population most at risk for STDs, are often controversial. Unwillingness to openly discuss STDs perpetuates the stigma associated with infection and prevents education about practical prevention strategies. Individuals infected with STDs may not seek treatment due to embarrassment and may not be willing to participate in partner notification. Moreover, individuals not infected may be too embarrassed to seek out health information to prevent them from acquiring STDs.

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(Reported by Section of Epidemiology staff: Megan Ryan, MPH, David Block, BA, Susan Jones, RN, MN, Wendy Craytor, MBA, MPH, and John Middaugh, MD; graphics by Michael Pannone, and preparation by Luann Younker.)

## **Gonorrhea in Alaska**

(Figures 1-5, Tables 1 and 2)

The number of cases and rate of gonorrhea in Alaska have declined dramatically since Alaska's peak in 1977. In 1998, 331 cases of gonorrhea were reported (53/100,000) compared to a peak of 5,406 cases in 1977 and a peak rate of 1,310/100,000 in 1978. (Figures 1 and 2) Of the 331 cases in 1998, 181 (55%) were women, and 45% were men.

Long recognized as a major national problem, the impact of gonorrhea and other STDs falls disproportionately on racial minority populations and on women and infants. Alaska is no exception. Overall, the rate of gonorrhea among Alaska Blacks (195/100,000) and Alaska Natives (165/100,000) is more than 10 times higher than the rate among Alaska Whites (15/100,000).

Although Alaska Natives comprise 17% of the state's population, they accounted for 52% of the reported cases of gonorrhea. Alaska Blacks comprise 4% of the state's population but accounted for 16% of the reported cases of gonorrhea. (Figure 3)

Encouraging is the dramatic decline in gonorrhea rates among Blacks and Natives. Since 1990, the rate of gonorrhea among Blacks has fallen from 1,441/100,000 to 195/100,000 and among Natives from 521/100,000 to 165/100,000. (Figure 4)

The highest rates of gonorrhea occurred among Black and Native men in the 20-24 year age group (1,260/100,000 and 451/100,000, respectively). The highest rates among women were in Alaska Native women in the 25-29 year age group with high rates in the 15-39 year age group; in Black women in the 15-19 year age group, and in Asian/Pacific Islanders in the 20-24 year age group. (Figure 5; Tables 1 and 2)

Past studies of gonorrhea in Alaska examined the impact of repeated infections in individuals. In 1998, 7 individuals were reported with a repeat infection within a 12-month period.

<b>Diagnostic Tests for Chlamydial and Gonococcal Infection</b>			
<b>Organism</b>	<b>Test</b>	<b>Technology</b>	<b>Specimen Source</b>
<i>Chlamydia trachomatis</i>	Culture	Culture	Urethral, cervical and rectal epithelial cells
	Direct Immunofluorescence (DFA)	Microscopy	Urethral, cervical, conjunctival and rectal smears
	Enzyme immunoassay (EIA)		Endocervical, urethral, or conjunctival
	<b>Gen-Probe PACE®*</b>	Nucleic acid hybridization	Cervical, urethral, and conjunctival
	PCR, TMA <sup>+</sup> , LCR*	Nucleic acid amplification	Cervical, urethral, conjunctival and urine
<i>Neisseria gonorrhoeae</i>	<b>Culture</b>	Culture	Urethra, cervix, rectum, and oropharynx
	<b>Gen-Probe PACE®*</b>	Nucleic acid hybridization	Cervical, urethral, and conjunctival
	PCR, LCR*	Nucleic acid amplification	Cervical, urethral, Conjunctival and urine

\* These technologies can test for *Chlamydia trachomatis* and *Neisseria gonorrhoeae* in a single specimen.

Bolded tests are available through the State Public Health Laboratory

<sup>+</sup> TMA is currently available only to select sites participating in special projects

## **Gonorrhea in Anchorage**

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(Figure 6-9, Tables 3 and 4)

Epidemiologic characteristics of individuals reported with gonorrhea in Anchorage were similar to those for the state as a whole. In 1998, the number of cases and case rate of gonorrhea in Anchorage were at an all-time low. Disproportionate impacts on adolescents, women, and racial minorities were similar to those occurring statewide. (Figures 6-9; Tables 3 and 4)

The gonorrhea rates among Anchorage Blacks and Natives were greater than 7 times those of Whites; the highest rates were among adolescents and young adults.

## **Chlamydia in Alaska**

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(Figures 1, 2, 10-11; Tables 5 and 6)

Chlamydia was made a reportable infection in Alaska in 1996. Since 1996, the number of cases reported and disease rate have steadily increased. In 1998, 1,906 cases of chlamydia were reported, a rate of 307/100,000. (Figures 1 and 2) Alaska ranked 10th nationally in chlamydia rates in 1996, 6th in 1997, and 7th in 1998.

As with gonorrhea, chlamydia occurred disproportionately among racial minorities (Figure 10), adolescents, and women. (Figure 11) Chlamydia rates were more than 7 times higher in Blacks (904/100,000) and Natives (797/100,000) than in Whites (122/100,000).

The highest rates occurred among Black (2,819/100,000) and Native (1,101/100,000) men in the 20-24 year age group, and Black women (6,066/100,000) in the 15-19 year age group, Native women (5,977/100,000) in the 20-24 year age group, and Asian/Pacific Islander women (2,968/100,000) in the 15-19 year age group.

Repeat infections were much more common among persons with chlamydia than gonorrhea, accounting for 284 (15%) cases in 1998. Within 12 months of the initial case report, 109 had 2 infections, 18 had 3 infections, and 3 persons had more than 3 infections.

## **Chlamydia in Anchorage**

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(Figures 12-13; Tables 7 and 8)

Of the 1,906 reported chlamydia cases in Alaska in 1998, 939 (49%) were reported in Anchorage, a rate of 363/100,000. As seen in State data, rates were highest among Black men (2,923/100,000) in the 20-24 year age group, Native men (1,883/100,000) in the 15-19 year age group, and Asian/Pacific Islander men (1,789/100,000) in the 20-24 year age group; and among Native women (10,334/100,000) and Black women (6,303/100,000) in the 15-19 year age groups.

## **PID in Anchorage**

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(See *Epidemiology Bulletin Recommendations and Reports* Vol. No. 3, No. 4 August 19, 1999)

Recently, the Section of Epidemiology published detailed findings of a study of pelvic inflammatory disease (PID) in Anchorage in 1994-1995. This study was conducted to evaluate the adequacy of efforts to control gonorrhea and chlamydia. Key findings were that 289 cases of confirmed or clinical PID were enumerated. The median age of cases was 23 years, and 15-19-year-old women accounted for 31% of cases. Of the 289 cases, 70 (24%) had laboratory proven gonorrhea or chlamydial infection. This study did not include data from the Alaska Native Medical Center, and as a result, race-specific population-based rates of PID are not available for Anchorage.

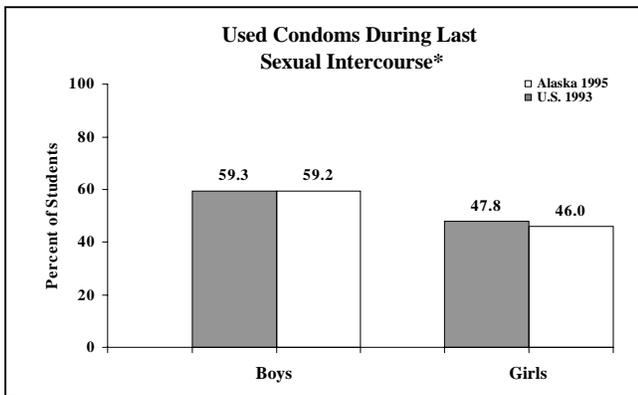
## Youth Risk Behavioral Survey – Alaska, 1995

Data from the 1995 Youth Risk Behavior Survey (YRBS) provide important information on sexual activity of adolescents in Alaska. Almost half of high school students reported that they had sexual intercourse at least once.

### Current Sexual Activity

Among high school students, over 30% have had sexual intercourse within the past 3 months. The U.S. rates are higher than the Alaska rates.

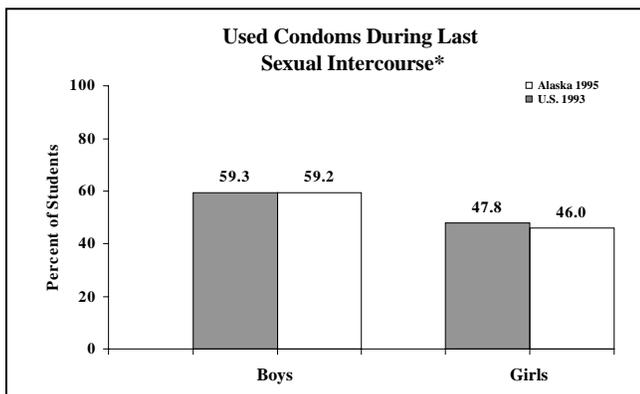
1995 Alaska & 1993 U.S. YRBS-High School Results



### Condom Use

Almost 60% of high school boys and over 45% of girls who have had sexual intercourse used a condom during last intercourse. Rates for Alaska and U.S. are similar.

1995 Alaska & 1993 U.S. YRBS-High School Results

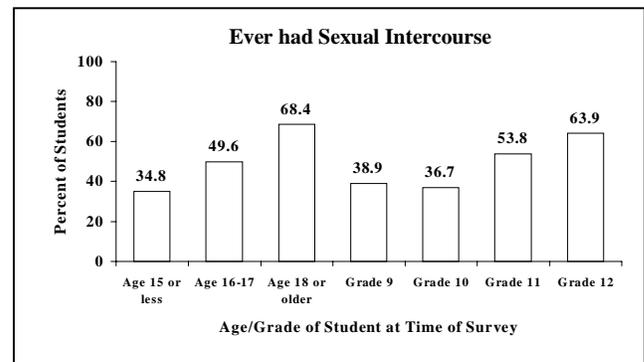


\*Among students who have ever had sexual intercourse.

### Sexual Activity

The percent of Alaska students who report ever having sexual intercourse increases from 34.8% among those aged 15 or less to 68.4% among those aged 18 and older. Similarly, the percent increases with grade; 63.9% of high school seniors have had sexual intercourse at least once.

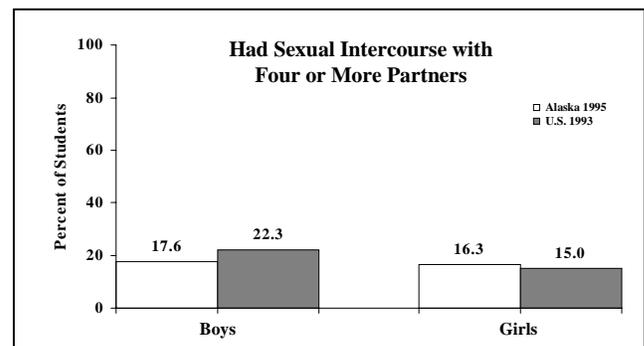
1995 Alaska YRBS-High School Results



### Number of Partners

Among Alaska high school boys, 17.6% have had sexual intercourse with four or more partners. Of Alaska girls, 16.3% report having had four or more partners. The data suggest that Alaska rates for boys are less than U.S. rates.

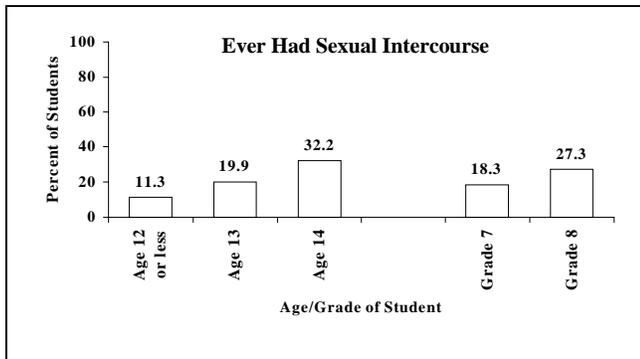
1995 Alaska & 1993 U.S. YRBS-High School Results



## Sexual Activity

The probability of having sexual intercourse increases with the age of the student. More than 10% of 12-year olds report having had sexual intercourse and over 30% of 14-year olds report having had sexual intercourse at least once. Eighth graders are more likely to report having sexual intercourse than seventh graders.

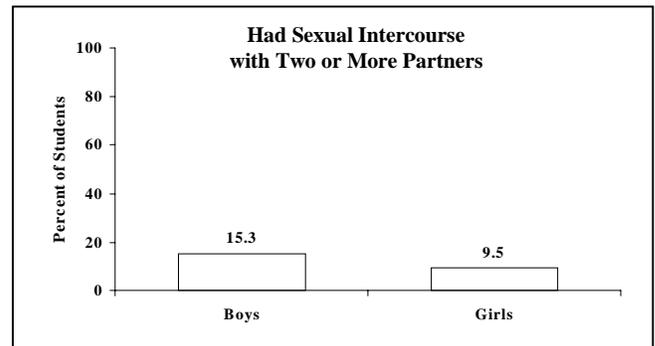
1995 Alaska YRBS-Middle School Results



## Number of Partners

About 10% of girls and 15% of boys report having had sexual intercourse with more than one partner.

1995 Alaska YRBS-Middle School Results



## Teen Birth Rate

In addition to information on sexual activity from self reported surveys, data on the teen birth rate are available. In 1993, 428 girls age 17 and younger gave birth in Alaska. In 1993, girls 15-17 years old had a birth rate of 37.3/1,000 and girls 18-19 year old had a birth rate of 113.7/1,000.

### **Guidelines for Partner Examination**

#### Examination:

- All individuals with either **confirmed** or **suspected** infection should receive the following services:
  - Sexual history to identify symptoms and exposure sites
  - Appropriate physical exam
  - Diagnostic tests for gonorrhea, chlamydia, syphilis, hepatitis B, and HIV
  - Appropriate therapy per CDC treatment guidelines (see below)
  - Disease specific and prevention counseling including sex partner elicitation and notification
- If physical examination and/or laboratory services are **not** available or **not** performed
  - Appropriate therapy per CDC treatment guidelines (see below)
  - Disease specific and prevention counseling including sex partner elicitation and notification

### **Guidelines for Routine Treatment of Partners and Patients with Uncomplicated Infections**

#### Treatment for uncomplicated infections in adolescents and adults

- Chlamydial infection:
  - Azithromycin 1 gram in a single dose; or
  - Doxycycline 100 mg orally twice a day for 7 days; or
  - Erythromycin base 500 mg orally four times a day for 7 days; or
  - Erythromycin ethylsuccinate 800 mg orally four times a day for 7 days; or
  - Ofloxacin 300 mg orally twice a day for 7 days.\*
- Gonococcal infection (cervix, urethra and rectum):<sup>+</sup>
  - Cefixime 400 mg orally in a single dose *plus* azithromycin 1 gram in a single dose or doxycycline 100 mg orally twice a day for 7 days; or
  - Ceftriaxone 125 mg IM in a single dose *plus* azithromycin 1 gram in a single dose or doxycycline 100 mg orally twice a day for 7 days; or
  - Ofloxacin 400 mg orally in a single dose *plus* azithromycin 1 gram in a single dose or doxycycline 100 mg orally twice a day for 7 days.\*

Note patients should be abstinent until therapy is completed. See CDC 1998 guidelines for treatment of sexually transmitted diseases for special considerations; i.e. pregnancy, infections in infants and children, or for other sites of infection.

<sup>+</sup> Patients infected with gonorrhea often are coinfecting with chlamydia. Routine dual therapy is recommended.

\* Centers for Disease Control and Prevention. 1998 Guidelines for treatment of sexually transmitted disease. MMWR 118;47(No. RR-1).

## Discussion

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Sexually transmitted diseases such as gonorrhea and chlamydia have a disproportionate impact on women, adolescents and young adults, and ethnic and racial minority populations. The spectrum of health consequences ranges from mild acute illness to serious long-term complications such as cancers and reproductive health problems. A variety of women's health problems including infertility, ectopic pregnancy, and chronic pelvic pain result from unrecognized or untreated infections. These severe and costly complications are largely preventable.

As experienced throughout the United States, Alaska's overall rate of infection from gonorrhea has dramatically declined since the mid-1970s. However, this overall decline has not been experienced by all segments of the population. Chlamydial infection has emerged as a major cause of sexually transmitted disease.

Data on gonorrhea and chlamydia, PID, self-reported sexual activity from the YRBS, and teen pregnancy rates provide powerful information to guide prevention activities. Highest rates of disease are consistently found in adolescents and young adults in minority populations. The highest disease rates are in women.

Because access to health care and diagnostic testing is not uniform, reported disease rates reflect a minimum estimate of the disease burden. Because only a few special programs and public clinics often routine screening for gonorrhea and chlamydia, disease ascertainment is far from complete. Case detection remains strongly associated with access to diagnostic testing.

Reported rates of chlamydia are more than 5 times higher than reported rates of gonorrhea. Yet, both diseases disproportionately occur among 15-24 year old minorities. Reinfection with chlamydia is a significant problem.

Because PID is a complication of undetected or untreated infection, PID reflects a failure of early detection and treatment efforts. PID is a leading cause of infertility, ectopic pregnancy, and other serious reproductive health problems. With early detection of infection and prompt, appropriate medical treatment, PID is largely preventable.

In an attempt to evaluate the adequacy of statewide efforts to control gonorrhea and chlamydia, we conducted a special study of pelvic inflammatory disease (PID) in the Anchorage area. Although the study was limited because the Alaska Native Medical Center did not participate, results raise serious concerns about the adequacy of existing STD control efforts. In spite of incomplete case ascertainment, 289 cases of PID were detected in a two-year period; 15-19 year olds accounted for 31% of these cases.

Data from the 1995 YRBS provide strong evidence of sexual activity of youth and adolescents. Data on diagnosed gonorrhea and chlamydia infections, PID, teen birth, and self-reported youth risk behavior are consistent and underscore the need to target STD screening and prevention activities at these high risk groups.

## Recommendations

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- Increased efforts are urgently needed to increase access to and provide routine screening for gonorrhea and chlamydia targeted to high risk subpopulations.
- All persons diagnosed with gonorrhea and/or chlamydia should be treated with an effective antibiotic regimen in accordance with 1998 CDC “Guidelines for Treatment of Sexually Transmitted Diseases” (Copies may be obtained free of charge from the Section of Epidemiology upon request.)
- All suspected and diagnosed cases of gonorrhea and chlamydia should be promptly reported to the Section of Epidemiology in accordance with disease reporting requirements (7AAC 27.005-27.900).
- All Black and Native women and men 15-24 years old should be routinely screened for gonorrhea and chlamydia.
- All persons diagnosed with gonorrhea and chlamydia should be offered counseling and assisted in identifying sex partners so partners can be notified, examined, and empirically treated. Failure to identify and treat sex partners will almost certainly result in reinfection or continued transmission. Health care providers need to assure that sex partners receive appropriate follow up. The Section of Epidemiology provides expertise in support of these activities.

### Reporting of Gonorrhea and Chlamydial Infection

1. Who must report:
  - **health care providers** who prescribe for or attend a person with gonorrhea or chlamydial infection; and
  - **public, private, military, hospital or other laboratories** performing serologic, immunologic, microscopic, biochemical or cultural tests.
2. What is reported:
  - All laboratory **confirmed** or **suspected** cases of infection;
  - Sexual partner(s) to an individual **with** or **without** laboratory confirmed infection;
  - Any individual with symptoms suggestive of infection for whom testing was not available or not performed;
  - Any individual who received treatment for either infection and no laboratory testing was performed;
  - All women with diagnosed or suspected PID even if laboratory tests are negative.
3. What must health care providers report:
  - name, address, age, sex, ethnicity and race of the person diagnosed
4. What must laboratories report:
  - date, result of test performed, name or identification code sufficient to identify patient to health care provider; and when available, the age, sex, race, and ethnicity.
5. When is it reported:
  - within **five** working days.

Figure 1. Gonorrhea (GC) and Chlamydia (CT) Cases – Alaska, 1972 - 1998

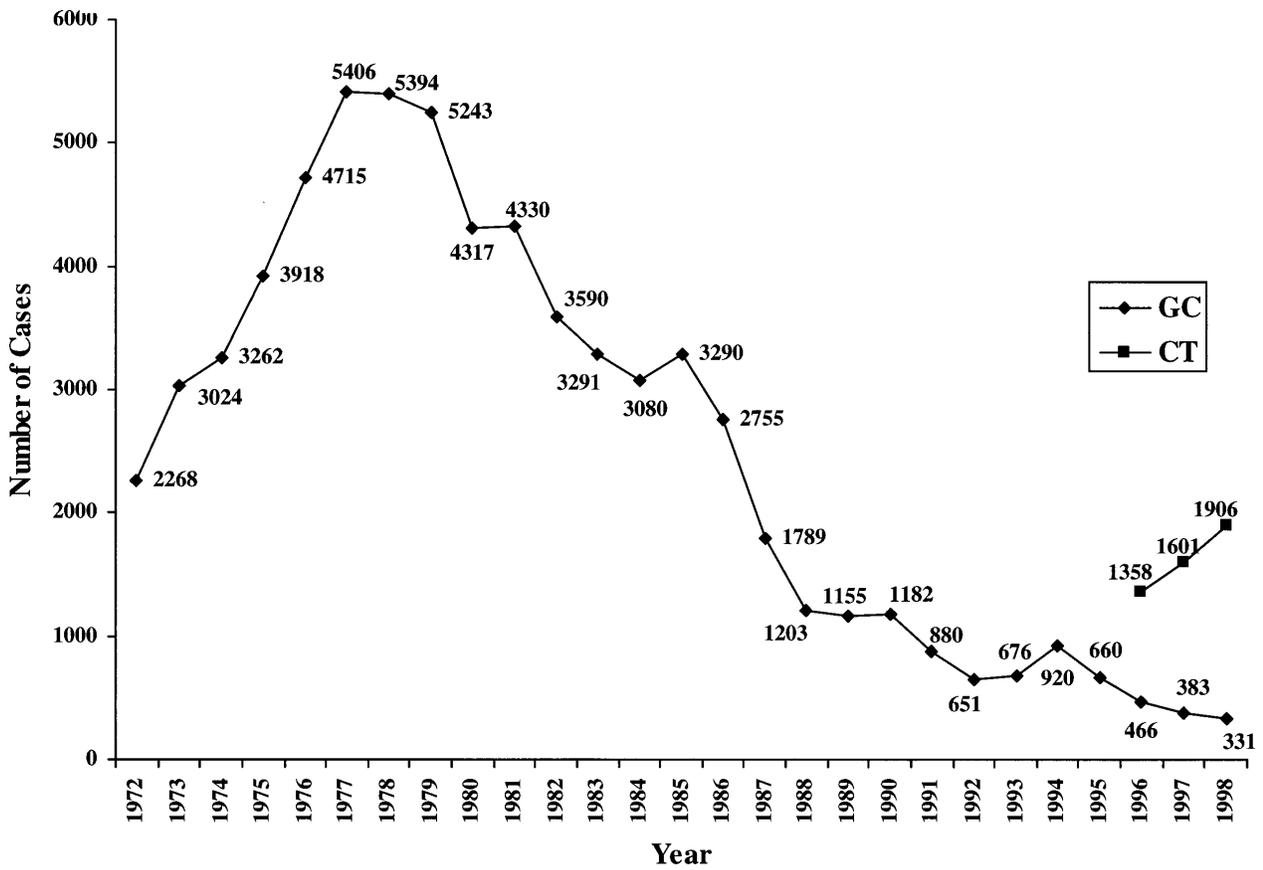
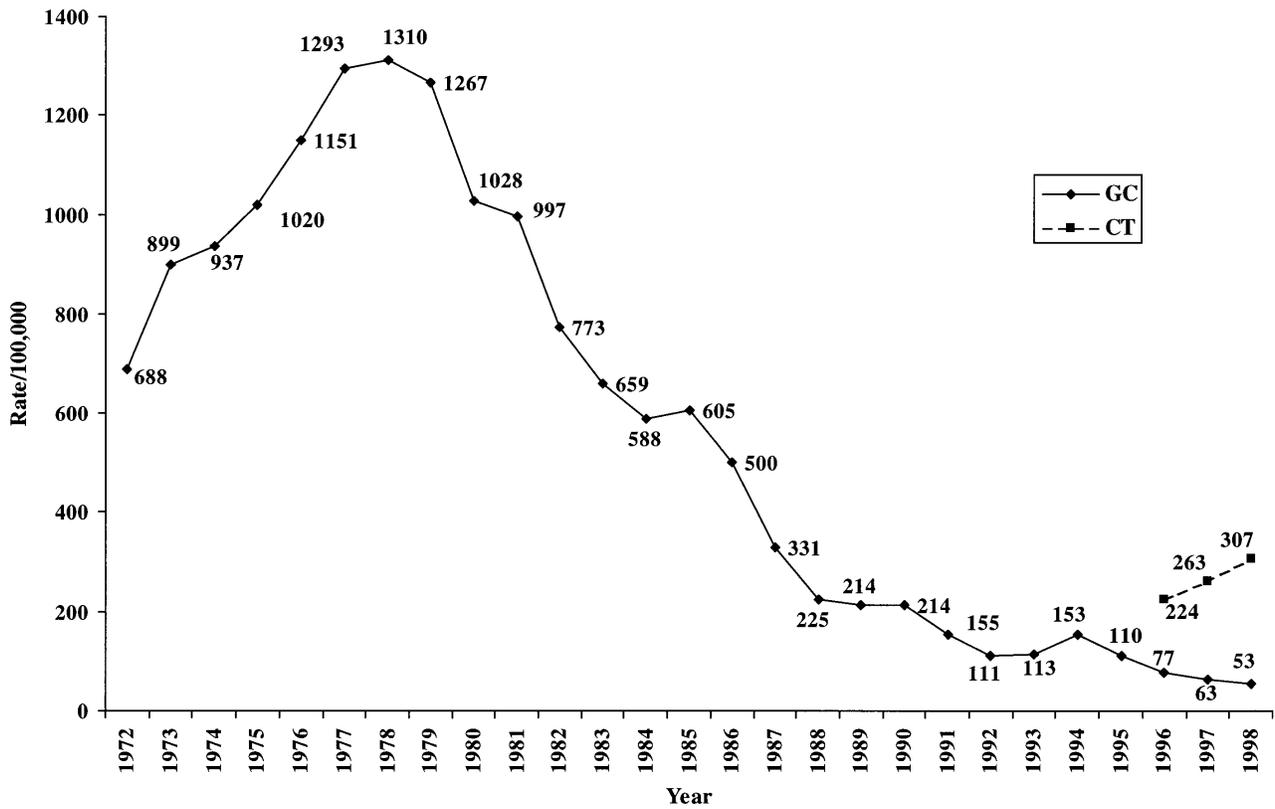
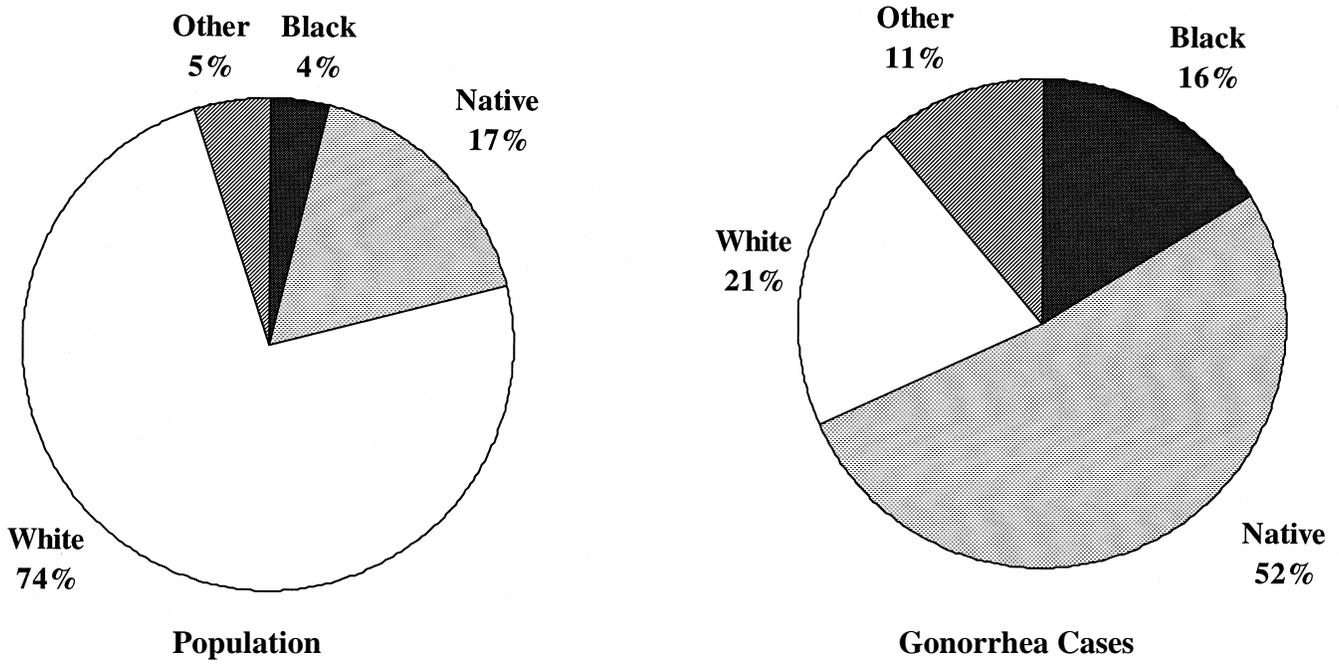


Figure 2. Gonorrhea (GC) and Chlamydia (CT) Rates – Alaska, 1972 – 1998



**Figure 3. Population and Gonorrhea Distribution – Alaska 1998**



**Figure 4. Gonorrhea Rates by Year by Race – Alaska, 1990 - 1998**

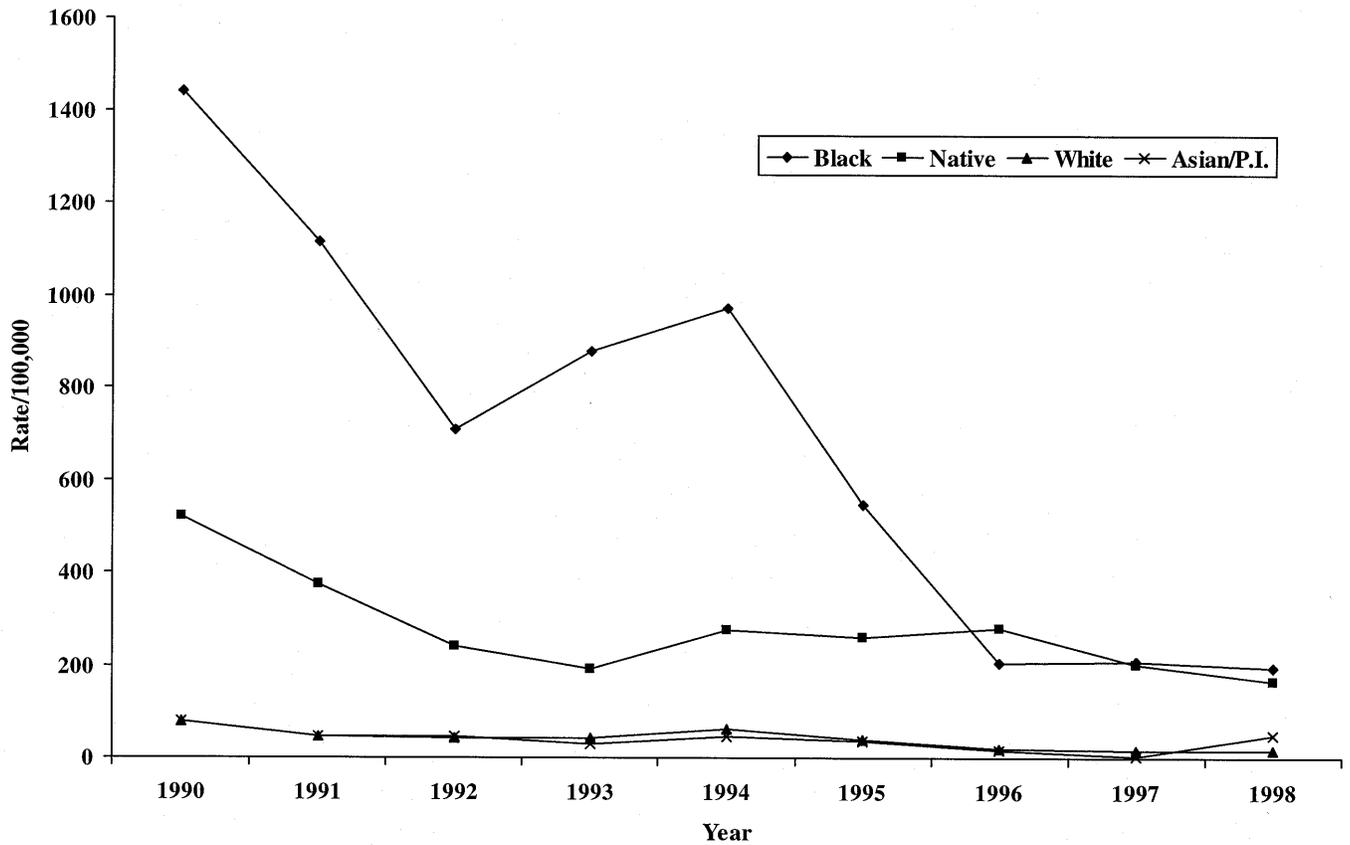


Figure 5. 1998 Gonorrhea Rates by Age Group, Race, and Gender – Alaska 1998

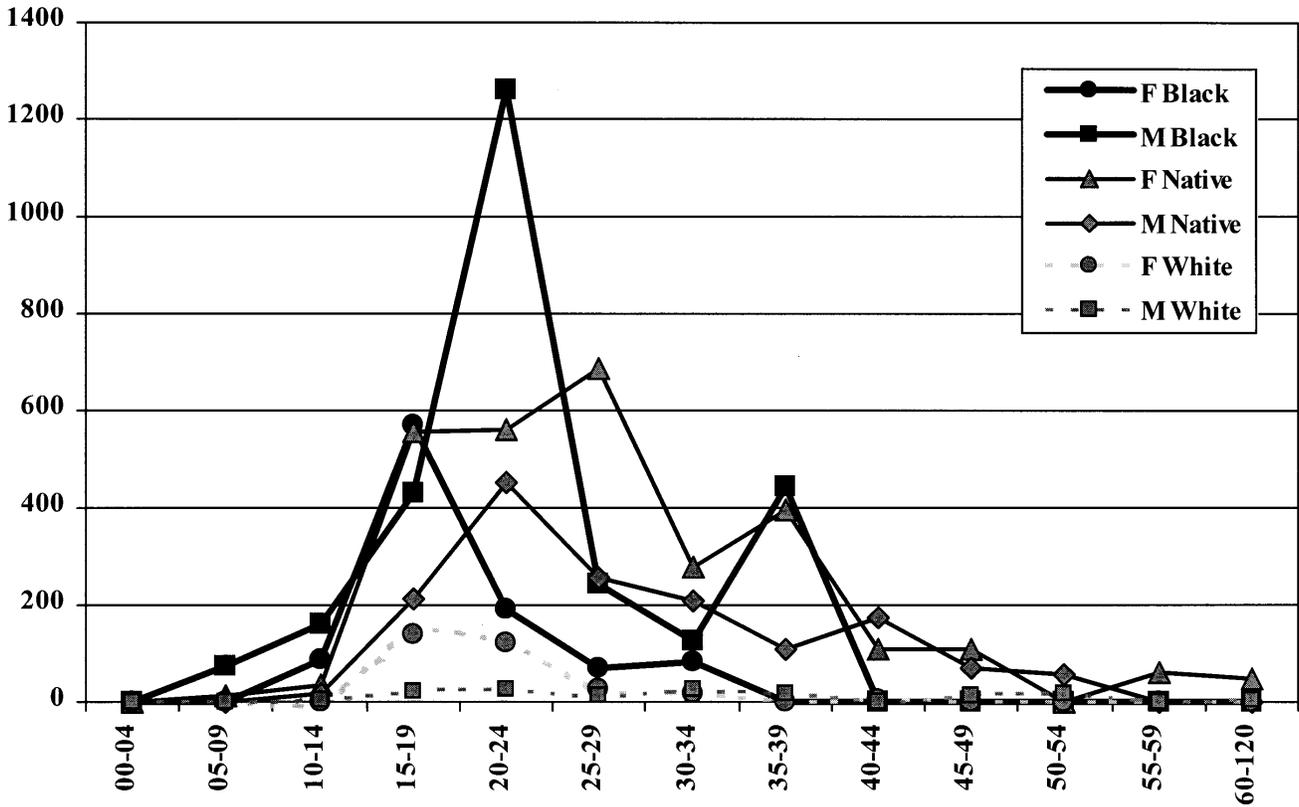
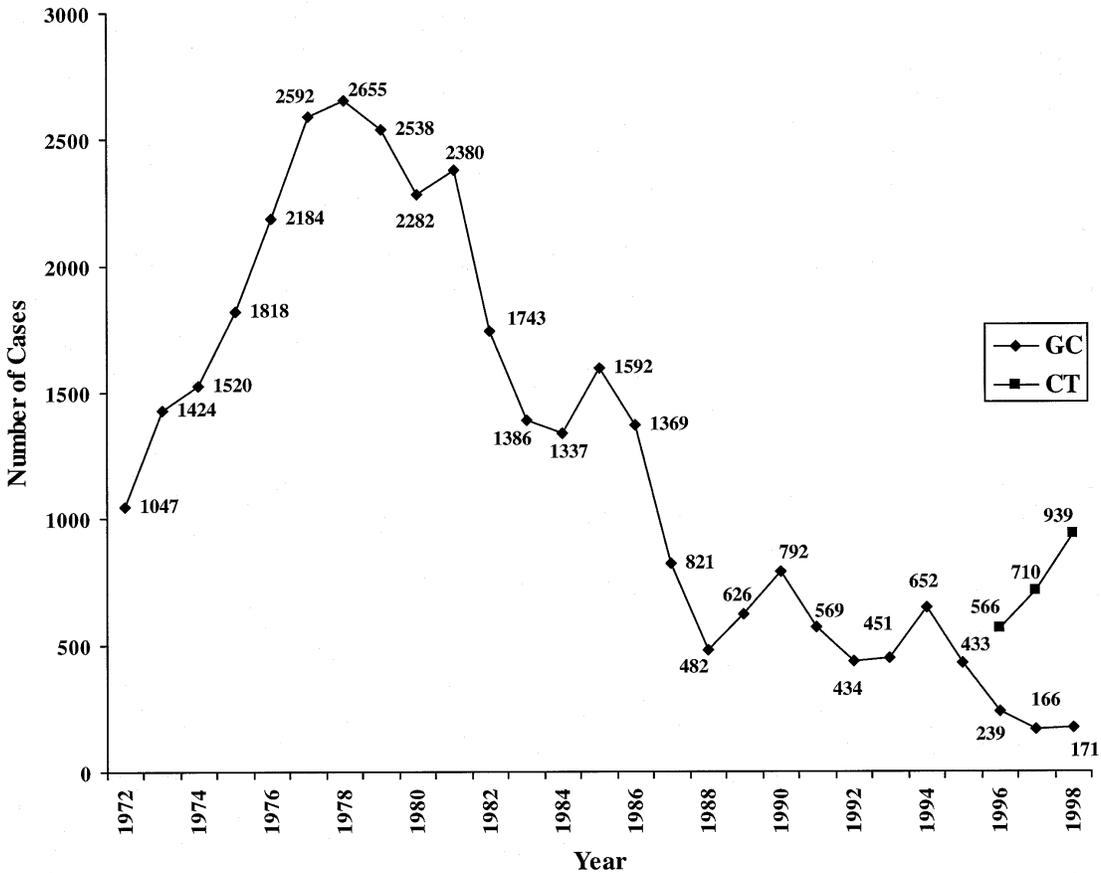
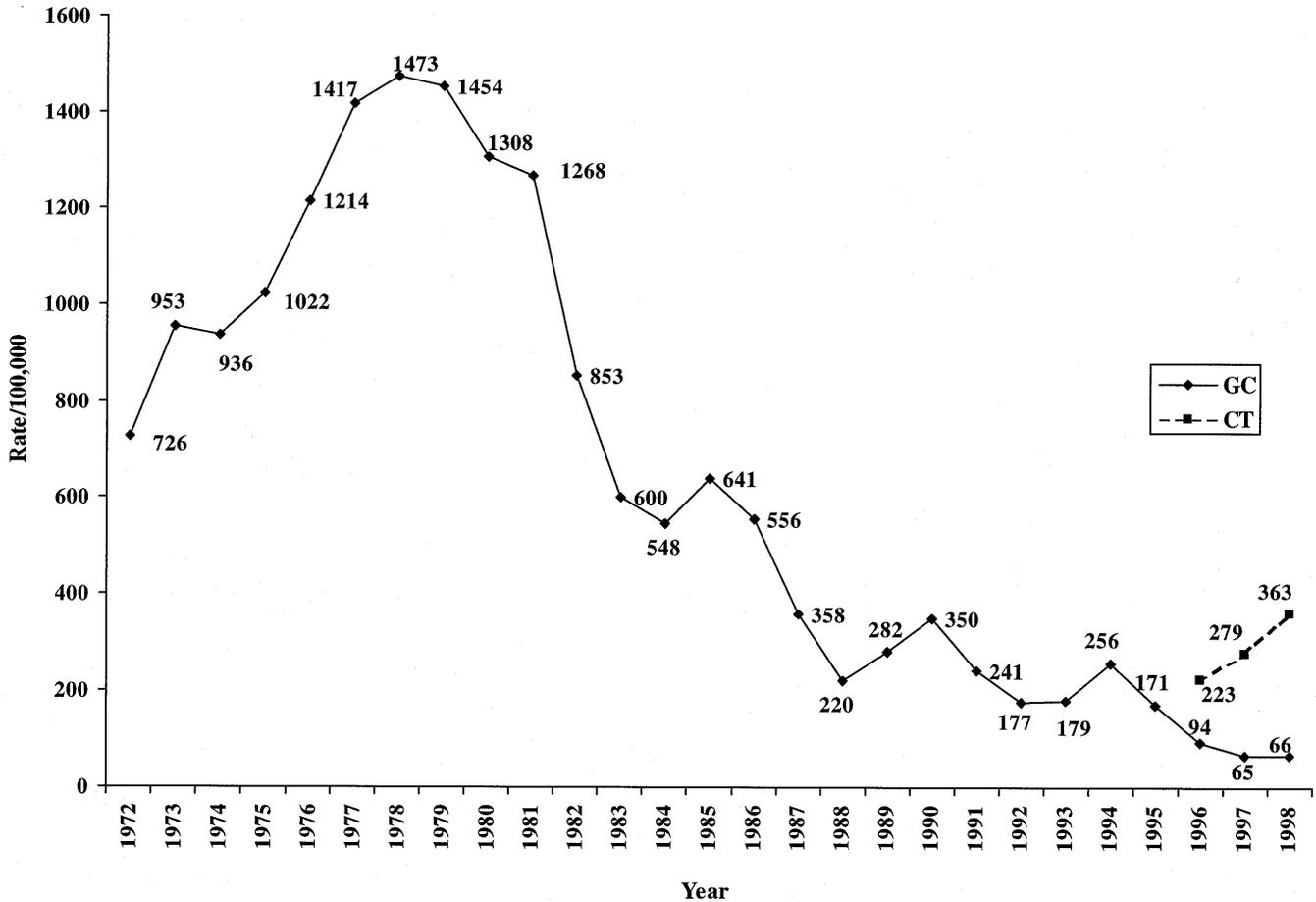


Figure 6. Gonorrhea (GC) and Chlamydia (CT) Cases – Anchorage, 1972 - 1998



**Figure 7. Gonorrhea (GC) and Chlamydia (CT) Rates – Anchorage, 1972 - 1998**



\* 1998 MOA Population age, sex, race distribution was extrapolated from the Dept. of Labor Statewide age, sex, race distribution.

**Figure 8. Population and Gonorrhea Distribution – Anchorage 1998**

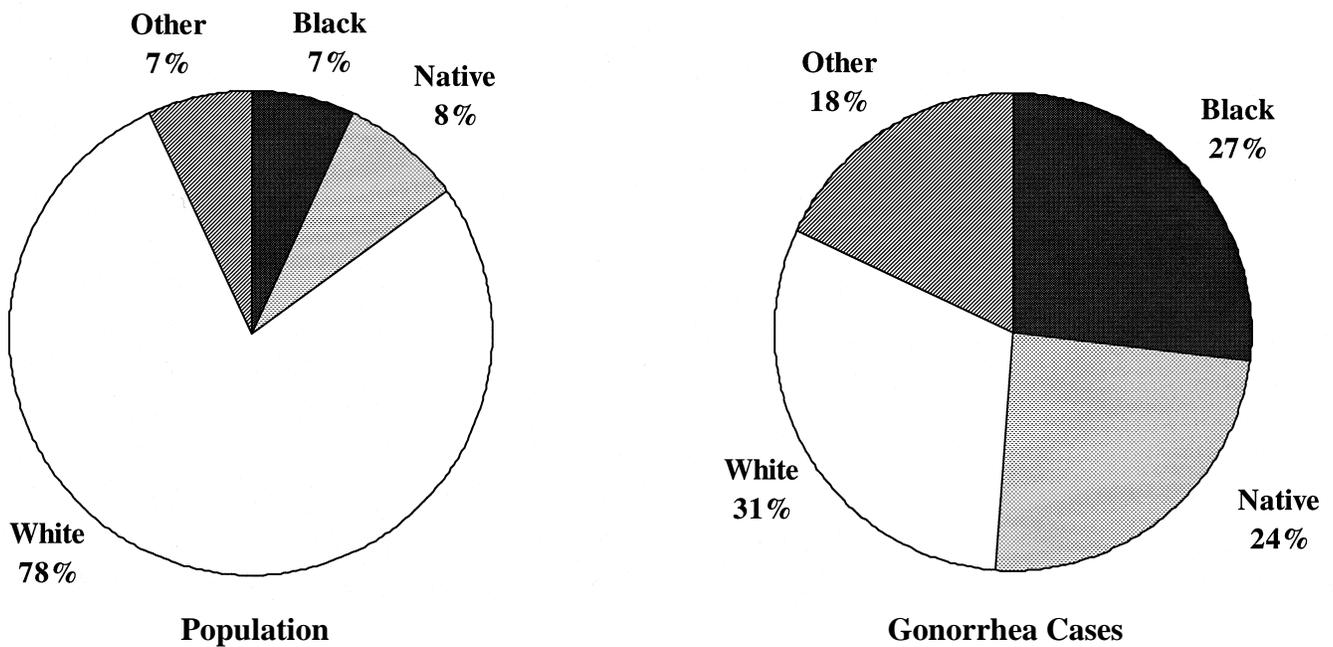


Figure 9. 1998 Gonorrhea Rates by Age Group, Race, and Gender – Anchorage 1998

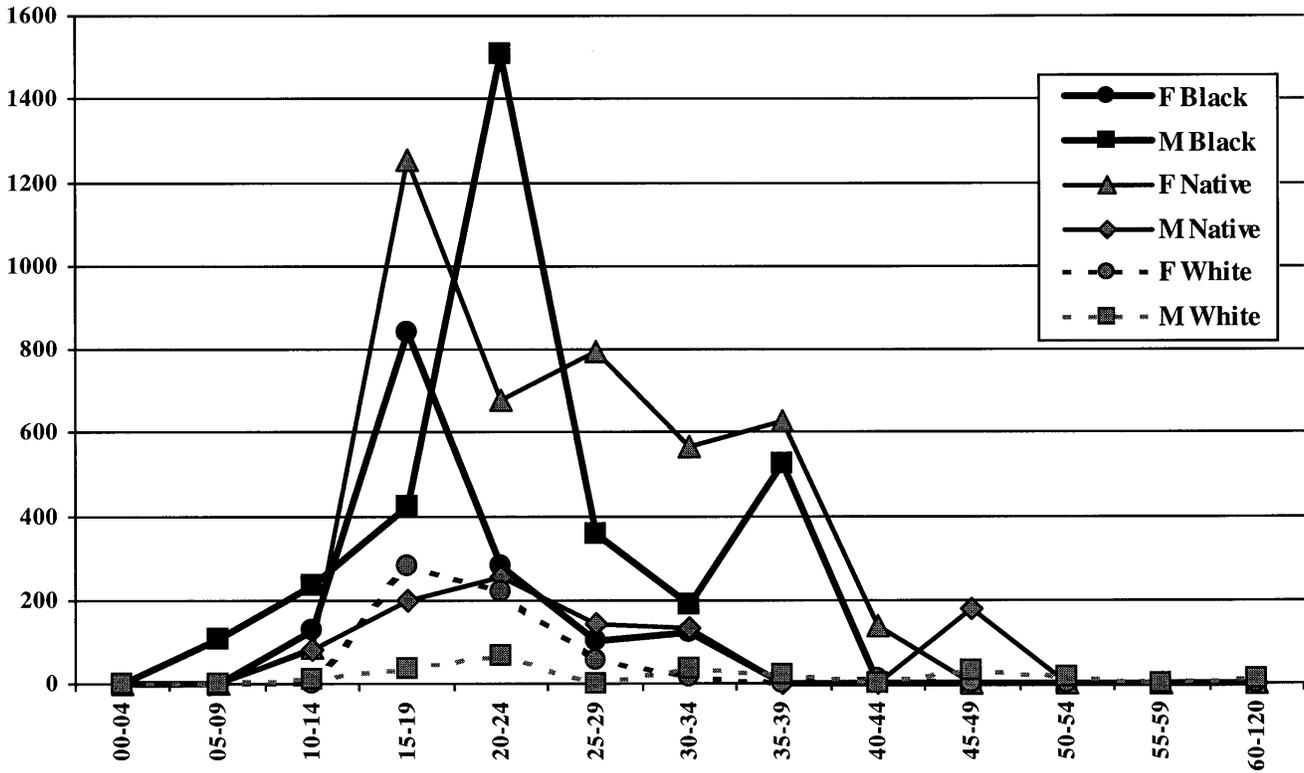
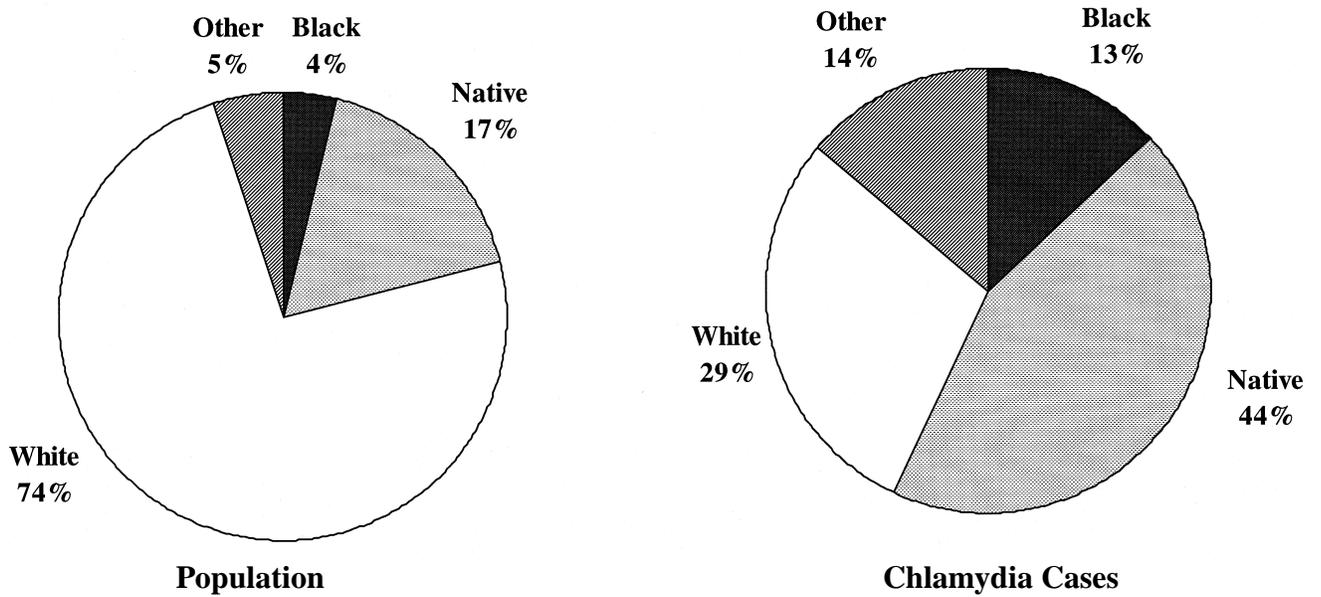
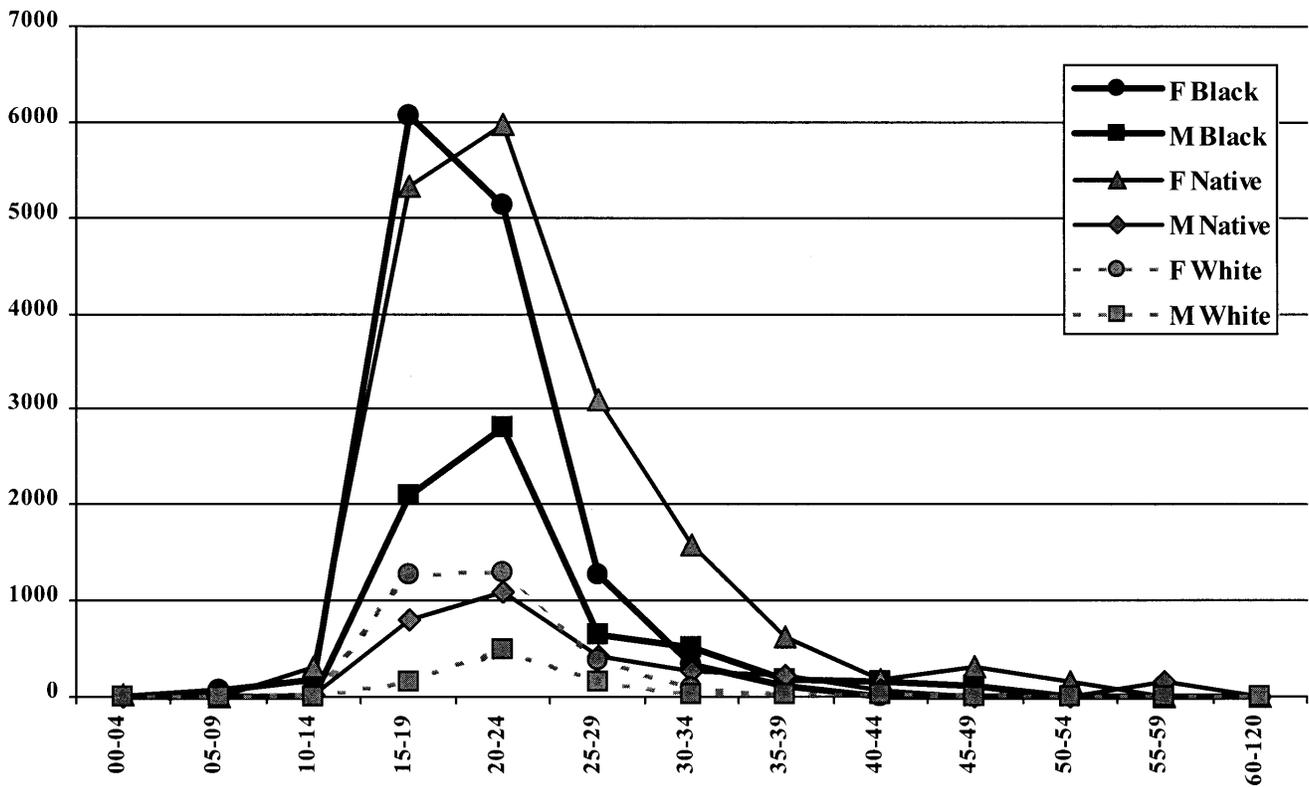


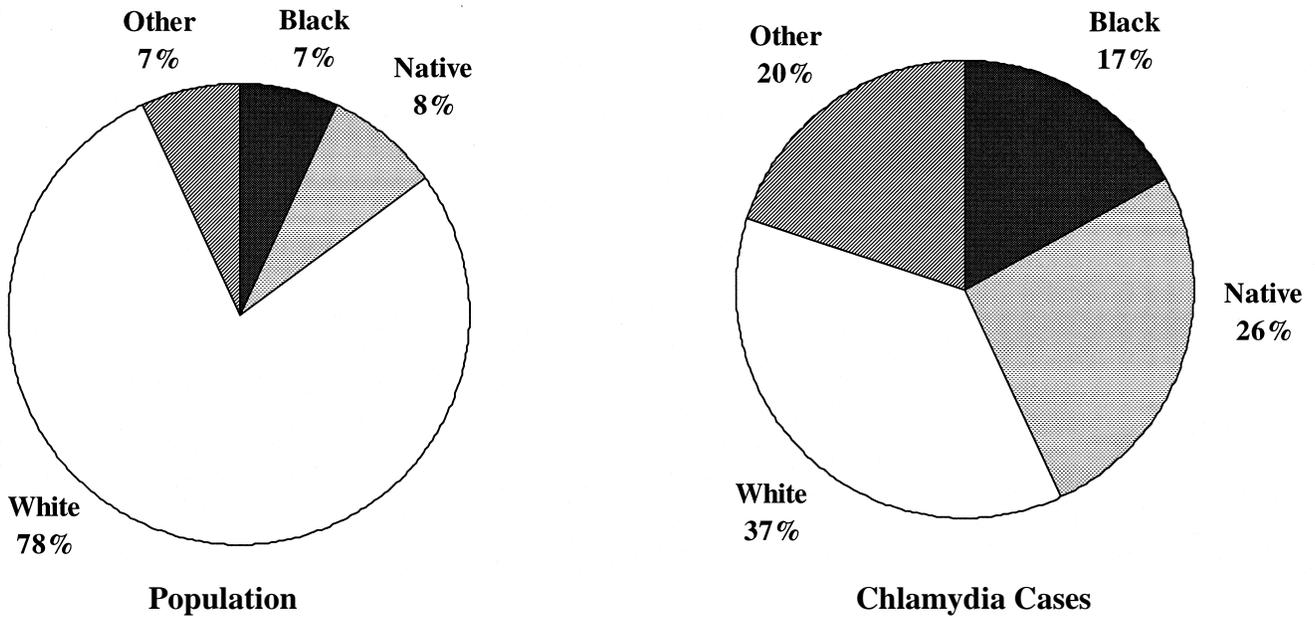
Figure 10. Population and Chlamydia Distribution – Alaska 1998



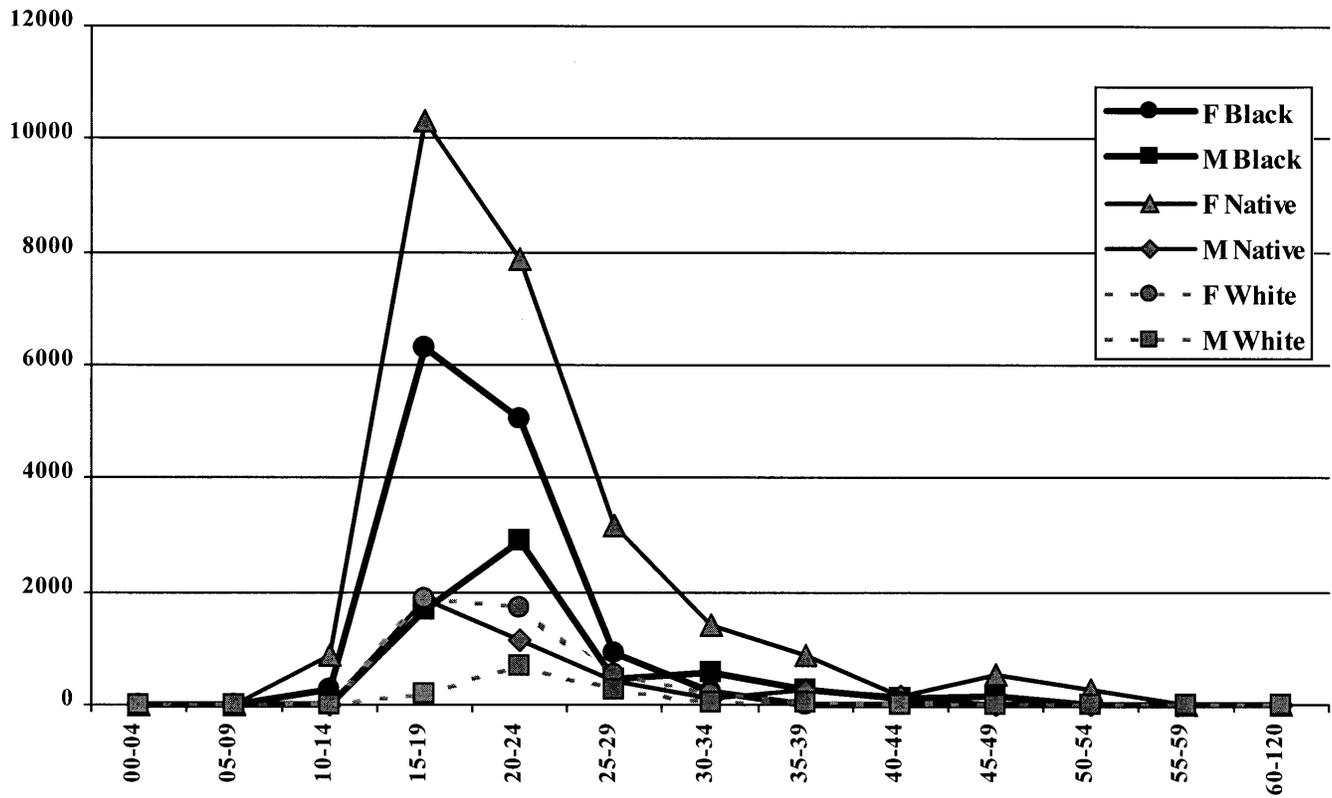
**Figure 11. Chlamydia Rates by Age Group, Race, and Gender – Alaska 1998**



**Figure 12. Population and Chlamydia Distribution – Anchorage 1998**



**Figure 13. Chlamydia Rates by Age Group, Race, and Gender – Anchorage 1998**



**Table 1. 1998 Gonorrhea Age Group, Sex, Race Specific Rates per 100,000 – Alaska**

Age	Male				Female			
	Black	Native	White	Other	Black	Native	White	Other
00-04	0	0	0	0	0	0	0	0
05-09	72	0	0	0	0	15	0	0
10-14	159	16	5	0	85	34	0	0
15-19	432	215	22	0	569	556	141	0
20-24	1260	451	28	97	190	563	122	553
25-29	242	257	14	158	70	688	24	102
30-34	128	207	25	154	83	278	18	153
35-39	444	109	16	0	0	397	0	63
40-44	0	174	0	0	0	108	4	0
45-49	0	70	13	103	0	107	0	0
50-54	0	56	17	0	0	0	0	0
55-59	0	0	0	0	0	61	0	0
60-120	0	0	5	0	0	46	0	0

**Table 2. 1998 Gonorrhea Reported Cases by Sex by Race by Age Group – Alaska**

Age	Male						Female					
	Black	Native	White	Asian/PI	Other	Total	Black	Native	White	Asian/PI	Other	Total
00-04	0	0	0	0	0	0	0	0	0	0	0	0
05-09	1	0	0	0	0	1	0	1	0	0	0	1
10-14	2	1	1	0	0	4	1	2	0	0	0	3
15-19	6	11	4	0	1	22	6	27	23	0	3	59
20-24	21	18	3	1	3	46	2	21	14	5	4	46
25-29	6	9	2	2	3	22	1	22	3	1	1	28
30-34	2	8	5	2	2	19	1	10	3	2	0	16
35-39	5	4	4	0	1	14	0	16	0	1	0	17
40-44	0	6	0	0	0	6	0	4	1	0	0	5
45-49	0	2	3	1	0	6	0	3	0	0	0	3
50-54	0	1	3	0	1	5	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	1	0	0	0	1
60-120	0	0	1	0	0	1	0	2	0	0	0	2
Unknown	0	3	0	0	1	4	0	0	0	0	0	0
<b>Total</b>	<b>43</b>	<b>63</b>	<b>26</b>	<b>6</b>	<b>12</b>	<b>150</b>	<b>11</b>	<b>109</b>	<b>44</b>	<b>9</b>	<b>8</b>	<b>181</b>

**Table 3. 1998 Gonorrhea Age Group, Sex, Race Specific Rates per 100,000 – Anchorage**

Age	Male				Female			
	Black	Native	White	Other	Black	Native	White	Other
00-04	0	0	0	0	0	0	0	0
05-09	106	0	0	0	0	0	0	0
10-14	235	83	11	0	126	87	0	0
15-19	425	198	38	0	840	1253	280	0
20-24	1506	254	64	163	281	679	219	929
25-29	358	145	0	266	104	792	54	172
30-34	189	131	35	130	122	564	13	257
35-39	525	0	18	0	0	628	0	106
40-44	0	0	0	0	0	137	10	0
45-49	0	178	30	173	0	0	0	0
50-54	0	0	13	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-120	0	0	12	0	0	0	0	0

\*1998 MOA Population age, sex, race distribution was extrapolated from the Dept. of Labor Statewide age, sex, race distribution.

**Table 4. 1998 Gonorrhea Reported Cases by Sex by Race by Age Group - Anchorage**

Age	Male						Female					
	Black	Native	White	Asian/PI	Other	Total	Black	Native	White	Asian/PI	Other	Total
00-04	0	0	0	0	0	0	0	0	0	0	0	0
05-09	1	0	0	0	0	1	0	0	0	0	0	0
10-14	2	1	1	0	0	4	1	1	0	0	0	2
15-19	4	2	3	0	1	10	6	12	20	0	3	41
20-24	17	2	3	1	2	25	2	5	11	5	2	25
25-29	6	1	0	2	2	11	1	5	3	1	1	11
30-34	2	1	3	1	2	9	1	4	1	2	0	8
35-39	4	0	2	0	1	7	0	5	0	1	0	6
40-44	0	0	0	0	0	0	0	1	1	0	0	2
45-49	0	1	3	1	0	5	0	0	0	0	0	0
50-54	0	0	1	0	1	2	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0	0	0
60-120	0	0	1	0	0	1	0	0	0	0	0	0
Unknown	0	0	0	0	1	1	0	0	0	0	0	0
<b>Total</b>	<b>36</b>	<b>8</b>	<b>17</b>	<b>5</b>	<b>10</b>	<b>76</b>	<b>11</b>	<b>33</b>	<b>36</b>	<b>9</b>	<b>6</b>	<b>95</b>

\*1998 MOA Population age, sex, race distribution was extrapolated from the Dept. of Labor Statewide age, sex, race distribution.

**Table 5. 1998 Chlamydia Age Group, Sex, Race Specific Rates per 100,000 – Alaska**

Age	Male				Female			
	Black	Native	White	Asian/PI	Black	Native	White	Asian/PI
00-04	0	0	6	0	0	18	0	0
05-09	0	0	0	0	70	0	0	0
10-14	0	33	5	0	171	309	21	159
15-19	2086	802	151	574	6066	5337	1279	2968
20-24	2819	1101	487	1258	5138	5977	1295	1991
25-29	645	429	165	474	1264	3097	388	819
30-34	513	258	30	0	330	1586	100	306
35-39	178	217	24	0	113	620	18	63
40-44	162	58	12	87	0	189	17	0
45-49	102	0	9	103	0	322	15	0
50-54	0	0	0	0	0	147	7	0
55-59	0	145	0	0	0	0	0	198
60-120	0	0	5	0	0	0	5	0

**Table 6. 1998 Chlamydia Reported Cases by Sex by Race by Age Group - Alaska**

Age	Male						Female					
	Black	Native	White	Asian/PI	Other	Total	Black	Native	White	Asian/PI	Other	Total
00-04	0	0	1	0	0	1	0	1	0	0	1	2
05-09	0	0	0	0	0	0	1	0	0	0	0	1
10-14	0	2	1	0	0	3	2	18	4	2	0	26
15-19	29	41	27	6	15	118	64	259	208	29	53	613
20-24	47	44	52	13	16	172	54	223	148	18	50	493
25-29	16	15	23	6	8	68	18	99	49	8	9	183
30-34	8	10	6	0	5	29	4	57	17	4	5	87
35-39	2	8	6	0	2	18	1	25	4	1	3	34
40-44	2	2	3	1	0	8	0	7	4	0	1	12
45-49	1	0	2	1	0	4	0	9	3	0	0	12
50-54	0	0	0	0	0	0	0	3	1	0	0	4
55-59	0	2	0	0	0	2	0	0	0	1	1	2
60-120	0	0	1	0	1	2	0	0	1	0	0	1
Unknown	0	2	0	0	1	3	1	3	0	1	3	8
<b>Total</b>	<b>105</b>	<b>126</b>	<b>122</b>	<b>27</b>	<b>48</b>	<b>428</b>	<b>145</b>	<b>704</b>	<b>439</b>	<b>64</b>	<b>126</b>	<b>1478</b>

**Table 7. 1998 Chlamydia Age Group, Sex, Race Specific Rates per 100,000 – Anchorage**

Age	Male				Female			
	Black	Native	White	Asian/PI	Black	Native	White	Asian/PI
00-04	0	0	13	0	0	0	0	0
05-09	0	0	0	0	0	0	0	0
10-14	0	0	11	0	252	870	24	267
15-19	1700	1883	203	963	6303	10334	1879	3780
20-24	2923	1142	705	1789	5056	7880	1715	2416
25-29	477	435	262	797	934	3170	542	1375
30-34	568	131	46	0	244	1410	175	513
35-39	262	275	37	0	0	879	21	0
40-44	119	147	18	146	0	137	39	0
45-49	151	0	0	0	0	544	12	0
50-54	0	0	0	0	0	249	16	0
55-59	0	0	0	0	0	0	0	0
60-120	0	0	0	0	0	0	0	0

\*1998 MOA Population age, sex, race distribution was extrapolated from the Dept. of Labor Statewide age, sex, race distribution.

**Table 8. 1998 Chlamydia Reported Cases by Sex by Race by Age Group - Anchorage**

Age	Male						Female					
	Black	Native	White	Asian/PI	Other	Total	Black	Native	White	Asian/PI	Other	Total
00-04	0	0	1	0	0	1	0	0	0	0	1	1
05-09	0	0	0	0	0	0	0	0	0	0	0	0
10-14	0	0	1	0	0	1	2	10	2	2	0	16
15-19	16	19	16	6	6	63	45	99	134	22	32	332
20-24	33	9	33	11	10	96	36	58	86	13	38	231
25-29	8	3	16	6	4	37	9	20	30	8	6	73
30-34	6	1	4	0	5	16	2	10	13	4	2	31
35-39	2	2	4	0	1	9	0	7	2	0	2	11
40-44	1	1	2	1	0	5	0	1	4	0	0	5
45-49	1	0	0	0	0	1	0	3	1	0	0	4
50-54	0	0	0	0	0	0	0	1	1	0	0	2
55-59	0	0	0	0	0	0	0	0	0	0	1	1
60-120	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	1	1	0	0	0	1	1	2
<b>Total</b>	<b>67</b>	<b>35</b>	<b>77</b>	<b>24</b>	<b>27</b>	<b>230</b>	<b>94</b>	<b>209</b>	<b>273</b>	<b>50</b>	<b>83</b>	<b>709</b>

\*1998 MOA Population age, sex, race distribution was extrapolated from the Dept. of Labor Statewide age, sex, race distribution.