

# Trends in Sexually Transmitted Diseases

Erie County, PA

2000-2006

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## Chlamydia



**ERIE COUNTY  
DEPARTMENT OF HEALTH**

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*Trends in Sexually Transmitted Diseases  
Erie County, PA  
2000-2006*

*Chlamydia*

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*"Our mission is to preserve, promote, and protect  
the health, safety and well being of the people and the environment in Erie County"*

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## DATA SOURCES

- Erie County Department of Health at <http://www.ecdh.org>
- PA Department of Health, Bureau of Communicable Diseases, Sexually Transmitted Diseases at <http://www.health.state.pa.us>
- PA Department of Health, Bureau of Health Statistics and Research, EpiQMS at <http://www.dsf.health.state.pa.us>
- PA Department of Health, Bureau of Health Statistics and Research, Technical Assistance, “Tools of the Trade” at <http://www.dsf.health.state.pa.us>
- National Electronic Disease Surveillance System (NEDSS)
- Centers for Disease Control and Prevention, Sexually Transmitted Diseases at <http://www.cdc.gov/std/default.htm>
- United State Census Bureau, Population Division, Population Estimates at <http://www.census.gov>
- MedlinePlus – Medical Encyclopedia
- The above organizations provided data included in this report. These organizations specifically disclaim responsibility for any analyses, interpretations, or conclusions.
- Links to non-ECDH sites are provided as a service to our users. ECDH is not responsible for the web page content found at these links.

## TECHNICAL NOTES

- Crude incidence rates are the number of cases per 100,000 population for a specific area or group.
- Annual population numbers used to calculate crude rates for Erie County and the U.S. are from the U.S. Census Bureau, Population Division, Population Estimates.
- Erie County population profile for 2006: 49.1% male; 50.9% female; 91.1% white; 6.6% black or African-American; 2.5% Hispanic; 19.0% <15 yrs; 7.6% 15-19 yrs; 7.9% 20-24 yrs; 6.1% 25-29 yrs; 5.6% 30-34 yrs; 53.8% 35+ yrs.
- Annual population numbers used to calculate crude rates for PA are from EpiQMS.
- Rates for Erie County as reported by the PA DOH may differ from the Erie County rates in this report due to the use of different population estimates for Erie County.
- Previous year population estimates are used to calculate Erie County rates; Current year population estimates are used to calculate PA rates; From 2000-2005, current year population estimates are used to calculate U.S. rates; Previous year population estimates are used to calculate 2006 U.S. rates.
- Reported rates may differ depending on the population estimate used for calculation.
- Rates based on <10 events are not reported. Rates based on 10 to 19 events are reported but statistically unreliable.
- Three and five year crude incidence rates are the sum of the number of cases for the targeted years divided by the sum of the population estimates for the targeted years multiplied by 100,000.
- Age reporting for some cases was not complete before 2003.
- Hispanic origin may be of any race.
- 95% confidence limits for crude rates are:  $CL = \text{Rate } (r) \pm \text{Confidence Interval } (CI)$   
where  $CI = 1.96 \times r / \sqrt{n}$  and  $n = \text{the number of cases}$
- 95% significance tests used to compare independent annual rates within the same population group or between non-overlapping three and five year average annual rates within the same population groups are:
  - 10-99 events    Rate Difference Equation     $CI = (r_1 - r_2) \pm \sqrt{(CL_1 + CL_2)}$     where  $CL = 1.96 \times (r / \sqrt{n})$
  - $\geq 100$  events    Rate Ratio Equation     $CI = r_1 / r_2 \pm 1.96 \times r_1 / r_2 \sqrt{((1/n_1) + (1/n_2))}$
- 95% significance test used to compare overlapping, dependent three and five year rates within the same population groups are:
  - 10-99 events    Expected and Observed     $\mu = (o - e) / \sqrt{e}$     where  $o = \text{observed cases}$   
 $e = \text{expected cases}$
  - $\geq 100$  events    Rate Difference Equation     $\mu = (r_1 - r_2) \times \sqrt{(n / (r_2 - r_2^2))}$ .

## HIGHLIGHTS

- From 2000 to 2006, Erie County has seen a 99% increase in the total number of chlamydia, gonorrhea, and primary/secondary syphilis cases.
- From 2000 to 2006, the total number of chlamydia cases in Erie County increased from 583 to 986.
- From 2000 to 2006, the incidence rate of chlamydia in the total population increased significantly from 207.6 per 100,000 to 351.6 (↑69.4%).
- In 2000, the Erie County chlamydia rate of 207.6 was lower than the PA rate of 212.8 and the U.S. rate of 249.5. In 2006, the Erie County chlamydia rate of 351.6 was higher than both the PA rate of 317.4 and the U.S. rate of 348.4.
- The most significant increases in chlamydia rates for Erie County occurred from 2000 to 2001 and 2001 to 2002.
- Since 2000, male cases increased from 21.1% to 30.1% of total cases while female cases decreased from 78.9% to 69.9% of total cases.
- From 2000 to 2006, annual chlamydia rates among males increased significantly from 89.8 to 216.2 per 100,000 males (↑140.7%).
- From 2000 to 2006, annual chlamydia rates among females increased significantly from 319.7 to 481.5 per 100,000 females (↑50.6%).
- From 2000 to 2006, the ratio of female to male chlamydia rates decreased from 3:1 to 2:1 for Erie County.
- From 2000 to 2006, annual chlamydia rates among whites increased significantly from 111.2 to 156.5 per 100,000 (↑40.7%). There was a significant increase from 2001 to 2003 followed by a significant decrease from 2003 to 2006.
- From 2000 to 2006, annual chlamydia rates among African-Americans increased significantly from 1,284.7 to 1,879.1 per 100,000 (↑46.3%), with the greatest increase occurring between 2000 and 2001.
- In 2006, the chlamydia incidence rate of 1,879.1 among African-Americans in Erie County was twelve times higher than the rate for whites and five times higher than the rate for the total population. In 2006, the chlamydia rate of 1,879.1 among Erie County African-Americans was 57.4% higher than the PA rate of 1,193.9 per 100,000 African-American population.
- From 2001 to 2006, chlamydia rates increased by 29.4% among the Hispanic population. There was a significant increase from 2001 to 2003 followed by a significant decrease from 2003 to 2006.
- In 2006, the chlamydia rate of 549.1 for the Erie County Hispanic population was 22.6% times higher than the rate of 447.8 per 100,000 for the PA Hispanic population.
- In 2006, 73.7% of all chlamydia cases occurred among individuals aged 15-24 years.
- From 2000 to 2006, annual chlamydia rates increased significantly for ages 15-19 (↑64.2%), 20-24 (↑66.7%), 25-29 (↑111.7%), and 30-34 (↑95.6%).
- In 2006, chlamydia rates among age groups were: 1,776.7 for ages 15-19; 1,559.6 for ages 20-24; 905.0 for ages 25-29; and 291.0 for ages 30-34.

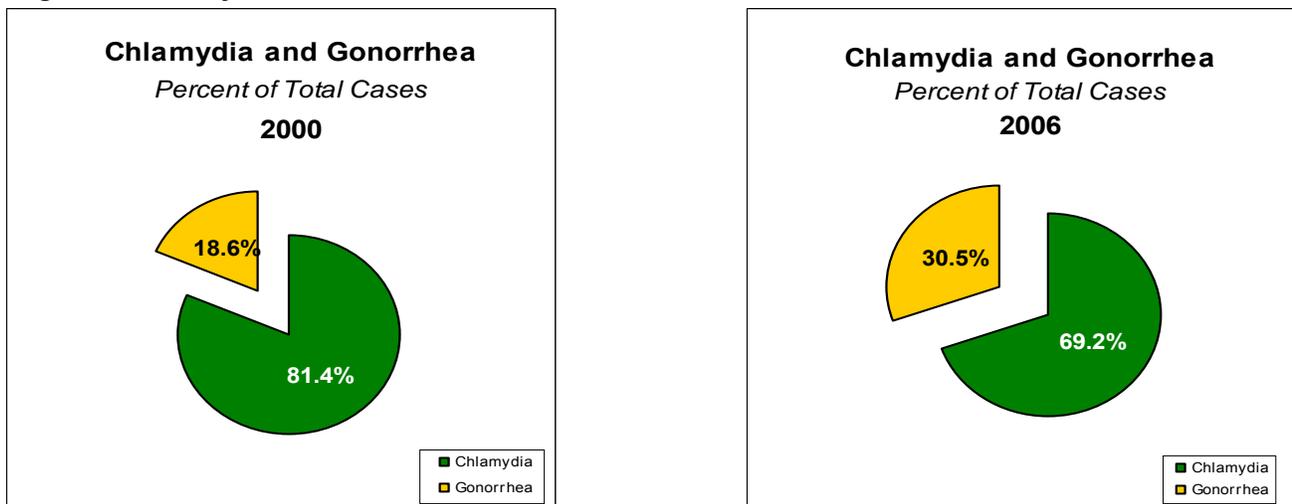
## OVERVIEW

Chlamydia, gonorrhea, and primary/secondary syphilis are the three most commonly reported sexually transmitted diseases (STDs) in Erie County. In 2006, 1,423 total cases of these three notifiable STDs were reported - a 99% increase over the 716 cases reported in 2000.

Even more alarming is that many infected individuals never experience symptoms, never seek health care, are not diagnosed, and are not treated. They become silent carriers who continue to spread diseases that are known to have serious health complications. If this population is considered, the true burden of chlamydia, gonorrhea, and syphilis within our community may be even higher.

From 2000 to 2006, chlamydia cases have increased 69% from 583 to 986 and gonorrhea cases have increased 227% from 133 to 435 while primary/secondary syphilis has increased from 0 to 3 cases. Since 2000 there has been a noticeable shift in the percent of total for each STD type. From 2000 to 2006, chlamydia has decreased from 81.4% to 69.2% of all reported STD cases while gonorrhea has increased from 18.6% to 30.5%. (Figure 1) Syphilis cases are close to 0%.

**Figure 1: Chlamydia and Gonorrhea: Percent of Total STD Cases**



The Erie County Department of Health operates clinics for STD diagnosis and has dedicated staff for follow-up of partners. However, the increasing STD burden has prompted exploration of programs aimed at identification of asymptomatic or silent carriers within the community.

This report provides an overview of STD trends in Erie County from 2000 to 2006.

# CHLAMYDIA

Chlamydia trachomatis, is the most common STD reported in Erie County. Symptoms in males include penile and/or rectal discharge or burning during evacuation. Symptoms in females include vaginal discharge, burning on urination, or abdominal pain. Chlamydia can be treated with antibiotics once an individual is diagnosed. Humans do not develop immunity to chlamydia. Reinfection can occur.

Not all individuals infected with chlamydia exhibit symptoms. In fact, it is estimated that 70% of women and 25% of men infected with chlamydia will have no symptoms and as a result may not be diagnosed or treated.

If untreated, chlamydia in females can lead to pelvic inflammatory disease (PID) which in turn can cause scarring of the fallopian tubes, ectopic pregnancy, and infertility. According to the CDC, approximately 40% of women with untreated, asymptomatic chlamydia develop PID. Infertility occurs in up to 20% of these women. Infection during pregnancy can result in premature birth as well as chlamydial eye infection and pneumonia in the infant. The CDC recommends annual chlamydia screening of sexually active women under the age of 26.

Complications in men are not as common. Asymptomatic, infected men may develop epididymitis or urethritis. Sterility is rare.

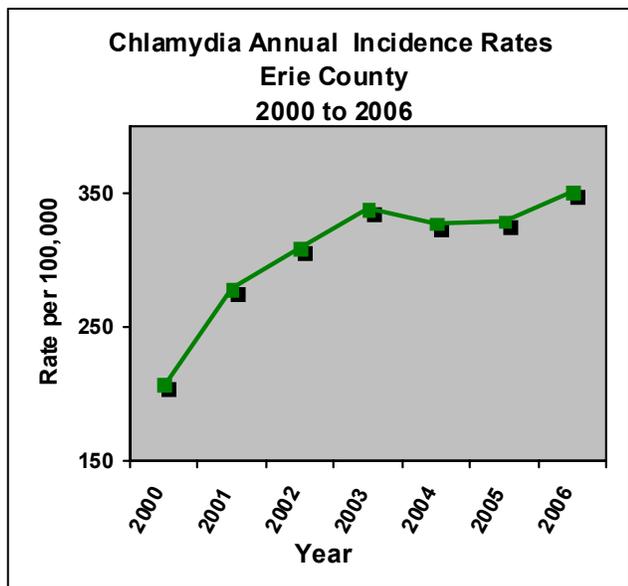
## Chlamydia in the Total Population

Annual Trends: In 2006 there were a total of 986 chlamydia cases reported in Erie County compared to 583 in 2000. From 2000 to 2006, annual chlamydia incidence rates for Erie County increased significantly from 207.6 cases per 100,000 to 351.6 (↑69.4%). The most noticeable increases occurred from 2000 to 2003 with rates significantly increasing from 207.6 to 339.2 (↑63.4%). (Tables 1,2,3,4; Figure 2)

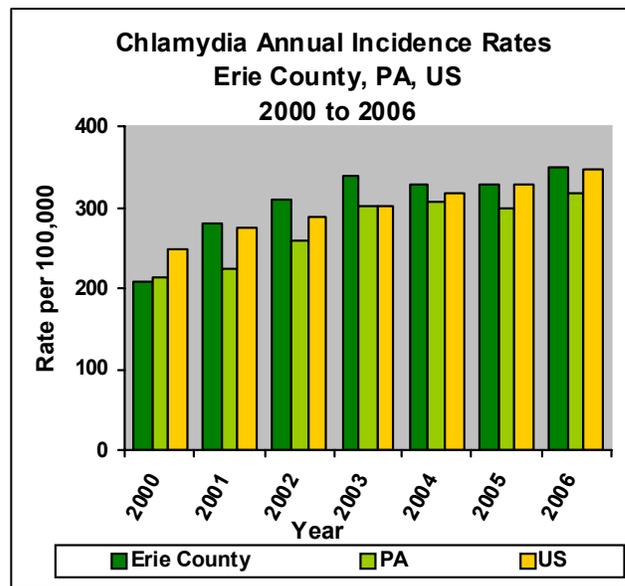
From 2000 to 2006, annual chlamydia rates for PA increased significantly from 212.8 to 317.4 cases per 100,000. During this same time period, rates for the U.S. also increased significantly from 249.5 to 348.4. (Tables 1,2,3,4)

In 2000, the chlamydia incidence rate for Erie County was lower than the rates for both PA and the U.S. In 2006, the chlamydia rate per 100,000 for Erie County was 351.6 compared to 317.4 for PA and 348.4 for the U.S. (Tables 3,4; Figure 3)

**Figure 2: Erie County Chlamydia Rates**



**Figure 3: Erie County, PA, US Chlamydia Rates**

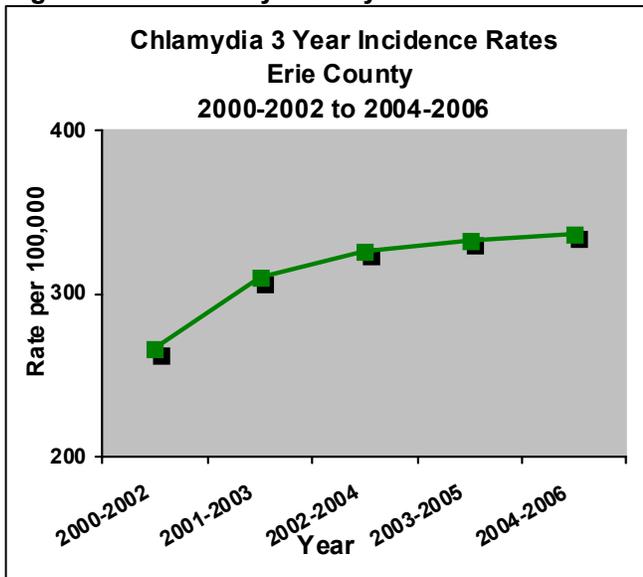


**Three Year Trends:** Similar trends were seen when three year average annual rates were compared. From 2000-2002 to 2004-2006, chlamydia rates for Erie County increased significantly from 265.7 to 336.4 cases per 100,000 (↑26.6%) with the most noticeable increases occurring from 2000-2002 to 2001-2003. (Table 6; Fig. 4)

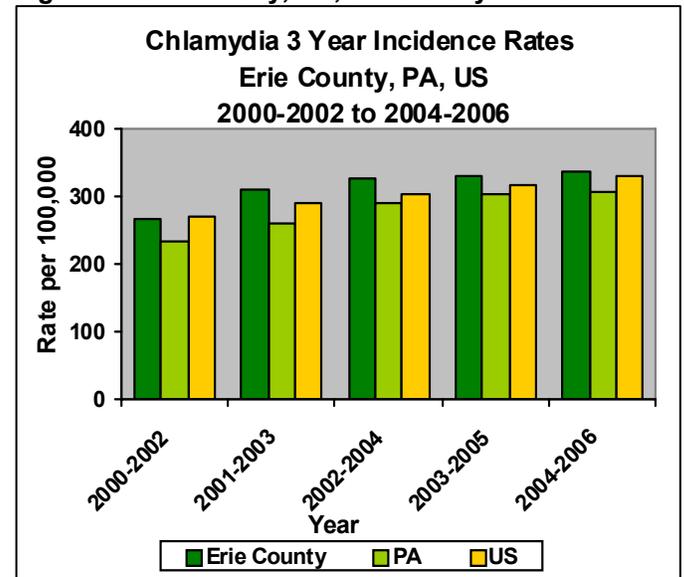
From 2000-2002 to 2004-2006, rates for PA increased significantly from 232.1 to 307.9 cases per 100,000 and rates for the U.S. increased significantly from 271.5 to 331.9. (Table 6; Figure 5)

In 2000-2002, the three year chlamydia incidence rate for Erie County was higher than the rate for both PA but lower than the rate for the U.S. In 2004-2006, the chlamydia rate for Erie County was higher than the corresponding rates for both PA and U.S. (Table 6)

**Figure 4: Erie County Chlamydia Rates**



**Figure 5: Erie County, PA, US Chlamydia Rates**



**Five Year Trends:** From 2000-2004 to 2002-2006, five year average annual chlamydia rates for Erie County increased significantly from 293.0 to 331.7 cases per 100,000 (↑13.2%). (Table 7)

From 2000-2004 to 2002-2006, rates for PA increased significantly from 261.0 to 296.9 cases per 100,000 and rates for the U.S. increased significantly from 287.0 to 317.1. (Table 7)

In 2000-2004, the five year chlamydia incidence rate for Erie County was higher than the rates for both PA and the U.S. In 2002-2006, the chlamydia rate per 100,000 for Erie County remained higher than the corresponding rates for PA and the U.S. (Table 7)

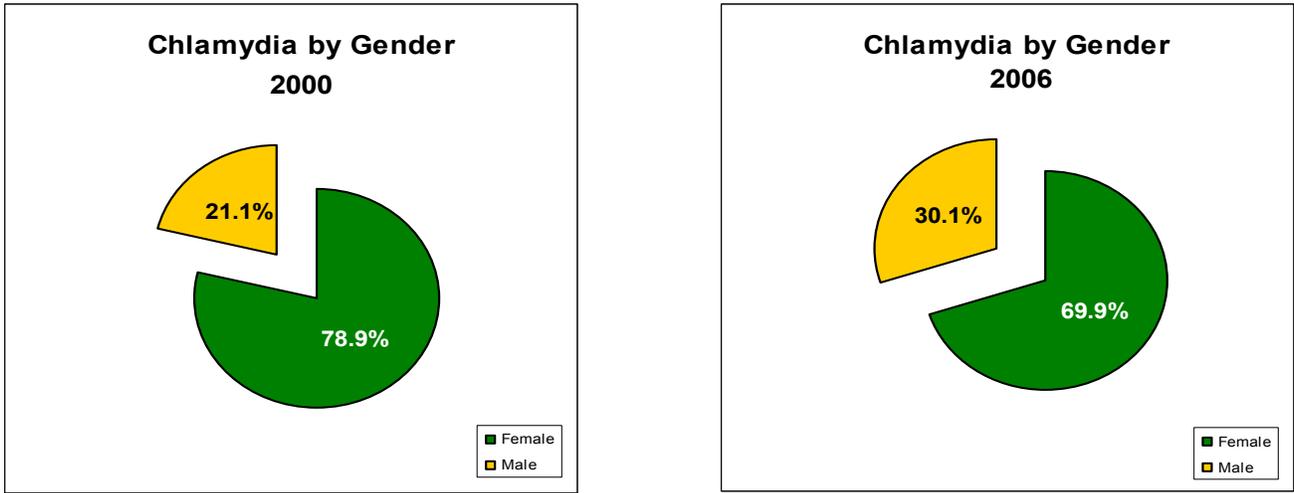
## Chlamydia by Gender

### Overview

**Annual Trends:** In 2000, 583 total chlamydia cases were reported for Erie County. Of these, 123 (21.1%) were male and 460 (78.9%) were female. In 2006, 986 total chlamydia cases were reported for Erie County. Of these, 297 (30.1%) were male and 689 (69.9%) were female. Despite the shift in percent cases, the number of female chlamydia cases still remains higher than that for males by a margin of 2:1. For comparison, Erie County population estimates for 2006 are 49.1% male and 50.9% females. (Figure 6)

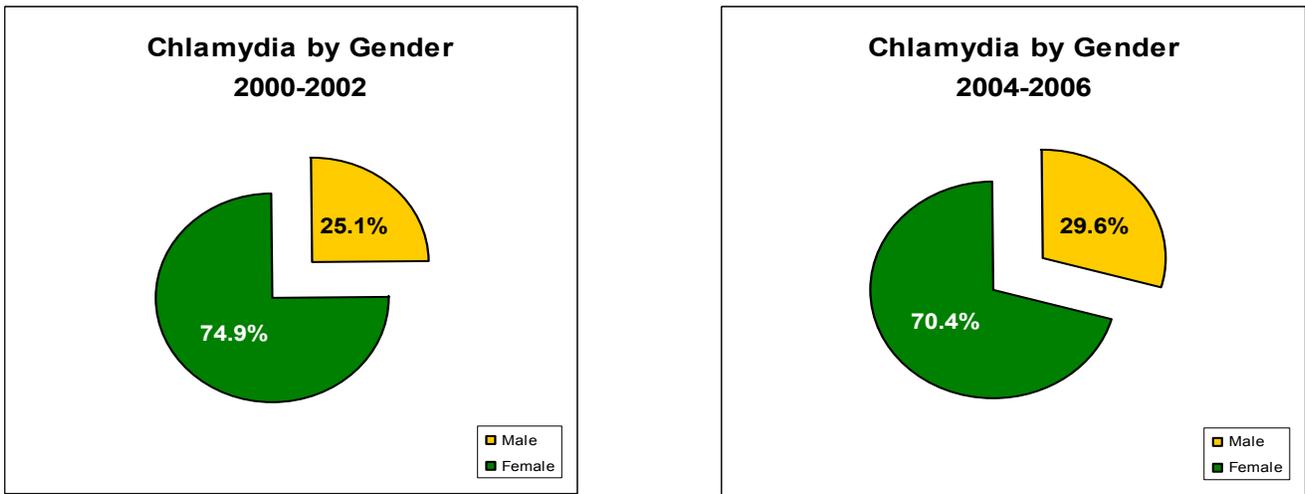
When incidence rates are compared, a similar trend is found. In 2000, rates per 100,000 were 319.7 for females compared to 89.8 for males (4:1) while in 2006 rates were 481.5 for females compared to 216.2 for males (2:1). Chlamydia incidence rates were significantly higher in females than in males for both 2000 and 2006. However, from 2000 to 2006, the increase in chlamydia rates among males was 140.7% compared to a 50.6% increase among females. Trends indicate that the burden of chlamydia is increasing more rapidly among males compared to females. (Table 3; Figure 8)

**Figure 6: Erie County Chlamydia Cases: Percent by Gender**



*Three Year Trends:* Similar trends were seen when three year counts were compared. From 2000-2002 to 2004-2006, the percent of male chlamydia cases compared to total cases has increased from 25.1% to 29.6% while the percent of female chlamydia cases compared to total cases has decreased from 74.9% to 70.4%. However, the number of female cases still remains higher than that for males by a margin of 2:1. (Figure 7)

**Figure 7: Erie County Chlamydia Cases: Percent by Gender**



*Five Year Trends:* From 2000-2004 to 2002-2006, the percent of male chlamydia cases compared to total cases has increased from 27.4% to 29.7% while the percent of female chlamydia cases compared to total cases has decreased from 72.6% to 70.3%. Despite this trend, the number of female cases still remains higher than that for males by a margin greater than 2:1.

**Males**

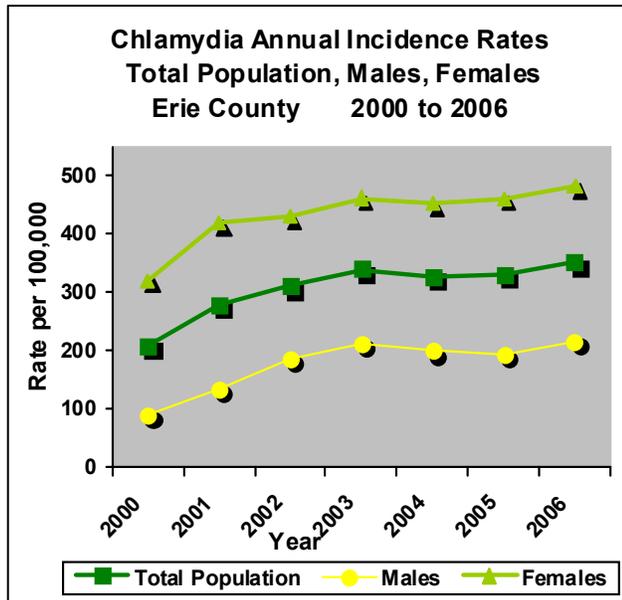
*Annual Trends:* From 2000 to 2006, annual chlamydia incidence rates for Erie County males increased significantly from 89.8 cases per 100,000 males to 216.2 (↑140.7%). The most noticeable increases occurred from 2000 to 2003 with rates increasing significantly from 89.8 to 211.6 (↑135.6%). (Tables 1,2,3,4; Figure 8)

Annual chlamydia rates for PA males have been available since 2003. From 2003 to 2006, rates for PA males increased significantly from 161.7 to 181.9 cases per 100,000 (↑12.5%). During the same time, chlamydia rates for Erie County increased from 211.6 to 216.2 (↑2.2%). The chlamydia rate per 100,000 males for Erie County in 2006 was higher than the rate for PA. From 2005 to 2006, chlamydia rates among Erie County males increased by 11.3%. (Tables 1,2,3,4)

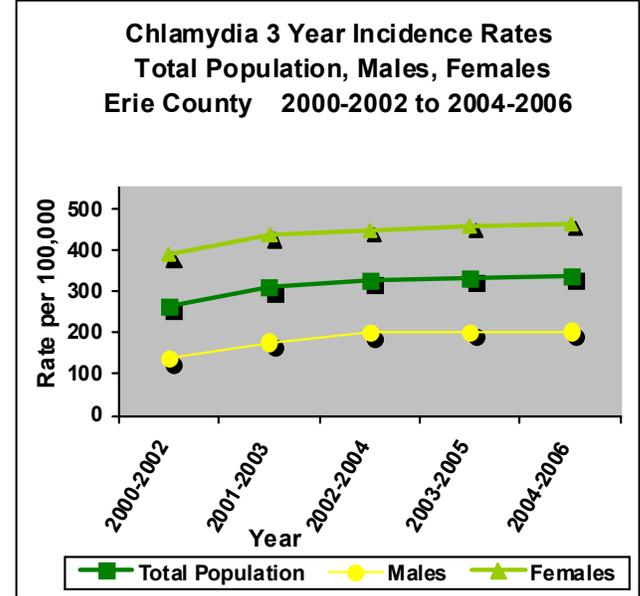
**Three Year Trends:** From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County males increased significantly from 136.6 cases per 100,000 males to 203.3 (↑48.8%). The most noticeable increases occurred from 2000-2002 to 2002-2004 with rates increasing significantly from 136.6 to 199.1 (↑45.7%). (Tables 5,6; Figure 9)

**Five Year Trends:** From 2000-2004 to 2002-2006, five year average chlamydia rates for Erie County males increased significantly from 164.3 to 201.5 cases per 100,000 (↑22.6%). (Table 7)

**Figure 8: Chlamydia Incidence Rates: Gender**



**Figure 9: Chlamydia Incidence Rates: Gender**



**Females**

**Annual Trends:** From 2000 to 2006, annual chlamydia incidence rates for Erie County females increased significantly from 319.7 cases per 100,000 females to 481.5 (↑50.6%). The most noticeable increases occurred from 2000 to 2003 with rates increasing significantly from 319.7 to 461.1 (↑44.2%). (Tables 1,2,3,4) (Figure 8)

Annual chlamydia rates for PA females have been available since 2003. From 2003 to 2006, rates for PA females increased from 432.2 to 445.0 cases per 100,000 (↑3.0%). During the same time, chlamydia rates for Erie County females increased from 461.1 to 481.5 (↑4.4%). The chlamydia rate of 481.5 per 100,000 for Erie County females in 2006 was higher than the PA rate of 445.0. From 2005 to 2006, chlamydia rates among Erie County females increased by 4.8%. (Tables 1,2,3,4)

**Three Year Trends:** From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County females increased significantly from 388.7 cases per 100,000 females to 464.0 (↑19.4%). The most noticeable increases occurred from 2000-2002 to 2001-2003 with rates increasing significantly from 388.7 to 435.8 (↑12.1%). (Tables 5,6; Figure 9)

**Five Year Trends:** From 2000-2004 to 2002-2006, five year average annual chlamydia rates for Erie County females increased significantly from 415.7 to 456.2 cases per 100,000 (↑9.7%). (Table 7)

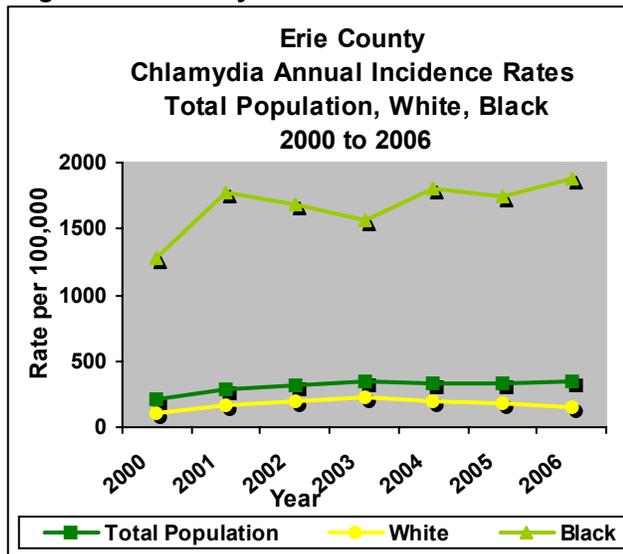
## Chlamydia by Race and Ethnicity

### Overview

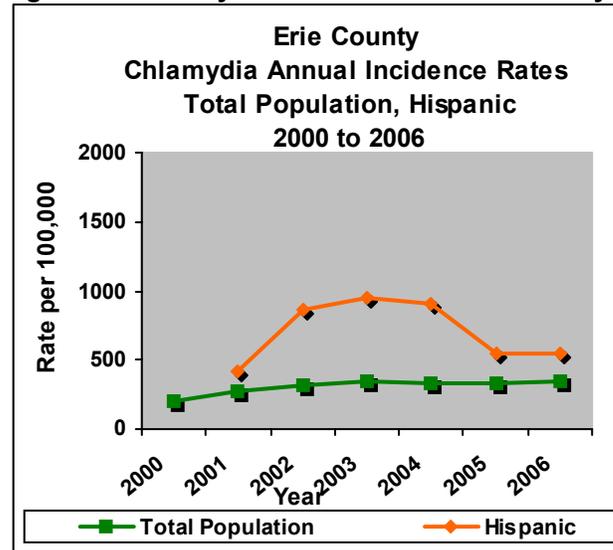
**Annual Trends:** In 2000, 48.7% of all chlamydia cases were white and 37.9% were African-American. Case reporting for the Hispanic population in Erie County did not begin until 2001. In 2006, these values were 40.7% for whites, 34.6% for the African-American population, and 3.8% for the Hispanic population. For comparison, Erie County population estimates for 2006 are 91.1% white, 6.6% black or African-American, and 2.5% Hispanic.

When incidence rates are compared, a significant gap is seen between the two races. In 2000, chlamydia rates per 100,000 were 1,284.7 for African Americans compared to 111.2 for whites (12:1). In 2006, these rates were 1,879.1 for African-Americans compared to 156.5 for whites (12:1). Chlamydia incidence rates have remained significantly higher in the African-American population compared to the white population. In 2006, the chlamydia rate per 100,000 for the Hispanic population was 549.1. (Tables 1,2,3,4; Figure 10)

**Figure 10: Chlamydia Incidence Rates: Race**



**Figure 11: Chlamydia Incidence Rates: Ethnicity**



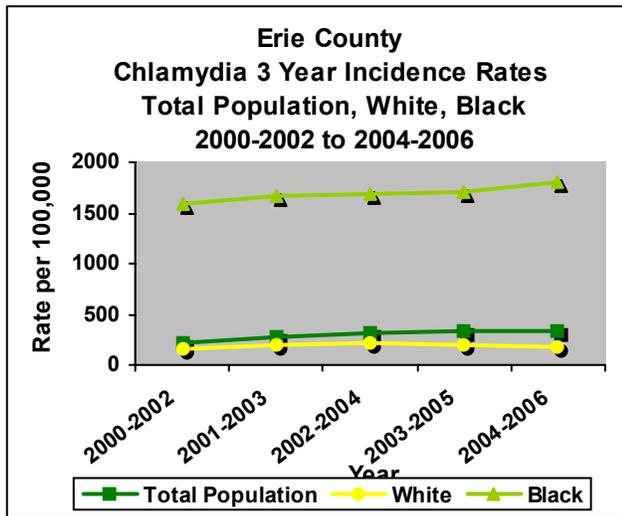
**Three Year Trends:** In 2000-2002, 55.5% of all chlamydia cases were white while 36.8% were African-American. In 2004-2006, these values were 49.3% for whites and 34.8% for the African-American population.

When incidence rates are compared, a significant gap is seen between the two races. In 2000-2002, three year average annual chlamydia rates per 100,000 were 1,581.8 for African-Americans compared to 161.6 for whites (9.8:1). In 2004-2006, these rates were 1,812.6 for African Americans compared to 181.4 for whites (10:1). Chlamydia incidence rates have remained significantly higher in the African-American population compared to the white population. In 2004-2006, the chlamydia rate per 100,000 for the Hispanic population was 666.1. (Tables 1,2,3,4; Figure 12)

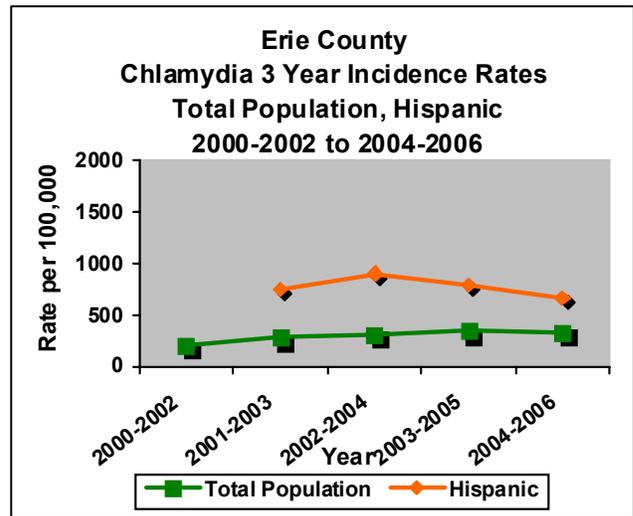
**Five Year Trends:** In 2000-2004, 57.0% of all chlamydia cases were white while 34.7% were African-American. In 2002-2006, these values were 53.7% for whites and 33.5% for the African-American population.

When incidence rates are compared, a significant gap is seen between the two races. In 2000-2004, five year average annual chlamydia rates per 100,000 were 1,625.4 for African-Americans compared to 182.7 for whites (9:1). In 2002-2006, these rates increased to 1,737.9 for African-Americans and 194.4 for whites with the ratio remaining at 9:1. (Table 7)

**Figure 12: Chlamydia Incidence Rates: Race**



**Figure 13: Chlamydia Incidence Rates: Ethnicity**



**White Population**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for the Erie County white population increased significantly from 111.2 cases per 100,000 to 156.5 (↑40.7%). However, the increase occurred from 2000 to 2003 with rates increasing significantly from 111.2 to 226.3 (↑103.5%). From 2003 to 2006, incidence rates decreased significantly from 226.3 to 156.5 per 100,000 white population (↓30.8%). (Tables 1,2,3,4; Figure 10)

Annual chlamydia rates for the PA white population have been available since 2001. From 2001 to 2006, rates for whites in PA increased significantly from 56.0 to 76.1 cases per 100,000 (↑35.9%). During the same time, chlamydia rates among whites in Erie County decreased significantly from 172.0 to 156.5 (↓9.9%). The 2006 chlamydia rate per 100,000 whites in Erie County was double the PA rate of 76.1. From 2005 to 2006, chlamydia rates among Erie County whites decreased significantly from 185.7 to 156.5 (↓15.7%). (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County whites increased significantly from 161.6 cases per 100,000 whites to 181.4 (↑12.2%). The most noticeable increase occurred from 2000-2002 to 2001-2003 with rates increasing significantly from 161.6 to 199.9 (↑23.7%). From 2002-2004 to 2004-2006, rates decreased significantly from 209.7 to 181.4 per 100,000 white population (↓13.5%). (Tables 5,6; Figure 12)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County whites increased from 182.7 cases per 100,000 whites to 194.4 (↑6.4%). (Table 7)

**African-American Population**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for the Erie County African-American population increased significantly from 1,284.7 cases per 100,000 to 1,879.1 (↑46.3%). The largest increase occurred from 2000 to 2001 with rates increasing significantly from 1,284.7 to 1,773.0 (↑38.0%). From 2001 to 2003, incidence rates decreased by 11.8% from 1,773.0 to 1,563.3 per 100,000 African American population but increased from 2003 to 2006 by 20.2%. (Tables 1,2,3,4; Figure 10)

Annual chlamydia rates for the PA African-American population have been available since 2001. From 2001 to 2006, rates for African Americans in PA increased significantly from 986.1 to 1,193.9 cases per 100,000 (↑21.1%). During the same time, chlamydia rates among African-Americans in Erie County increased from 1,773.0 to 1,879.1 (↑6.0%). The 2006 chlamydia rate of 1,879.1 per 100,000 African-Americans in Erie County was 57.4% higher than the PA rate of 1,193.9. From 2005 to 2006, chlamydia rates among Erie County African-Americans increased by 7.5%. (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County African-Americans increased significantly from 1,581.8 cases per 100,000 African-Americans to 1,812.6 (↑14.6%). The most noticeable increases occurred from 2000-2002 to 2001-2003 and 2003-2005 to 2004-2006. (Tables 5,6; Figure 12)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County African-Americans increased significantly from 1,625.4 cases per 100,000 African-Americans to 1,737.9 (↑6.9%). (Table 7)

## **Hispanic Population**

Annual Trends: Reported numbers of chlamydia cases for the Erie County Hispanic population have been available since 2001. From 2001 to 2006, annual chlamydia incidence rates for the Erie County Hispanic population increased from 424.4 cases per 100,000 to 549.1 (↑29.4%). From 2001 to 2003 rates increased significantly from 424.4 to 948.2 (↑123.4%). From 2003 to 2006, incidence rates decreased significantly from 948.2 to 549.1 per 100,000 Hispanic population (↓42.1%). (Tables 1,2,3,4; Figure 11)

Annual chlamydia rates for the PA Hispanic population have been available since 2001. From 2001 to 2006, rates for Hispanics in PA increased significantly from 329.1 to 447.8 cases per 100,000 (↑36.1%). During the same time, chlamydia rates among Hispanics in Erie County increased from 424.4 to 549.1 (↑29.4%). The 2006 chlamydia rate of 549.1 per 100,000 Hispanics in Erie County was higher than the PA rate of 447.8. From 2005 to 2006, chlamydia rates among Erie County Hispanics decreased by 1.0%. (Tables 1,2,3,4)

Three Year Trends: Reported numbers of chlamydia cases for the Erie County Hispanic population have been available since 2001. From 2001-2003 to 2004-2006, three year average annual chlamydia incidence rates for Erie County Hispanics decreased from 749.7 per 100,000 Hispanics to 666.1 (↓11.2%). Despite an observable increase from 2001-2003 to 2002-2004, rates steadily decreased from 2002-2004 to 2004-2006. (Tables 5,6; Figure 13)

Five Year Trends: Reported numbers of chlamydia cases for the Erie County Hispanic population have been available since 2001. From 2001-2005 to 2002-2006, five year average annual chlamydia incidence rates for Erie County Hispanics increased from 739.5 per 100,000 Hispanics to 757.9 (↑2.5%). Despite an observable increase from 2001-2003 to 2002-2004, rates steadily decreased from 2002-2004 to 2004-2006. (Table 7)

## **Chlamydia by Age Group**

### **Overview**

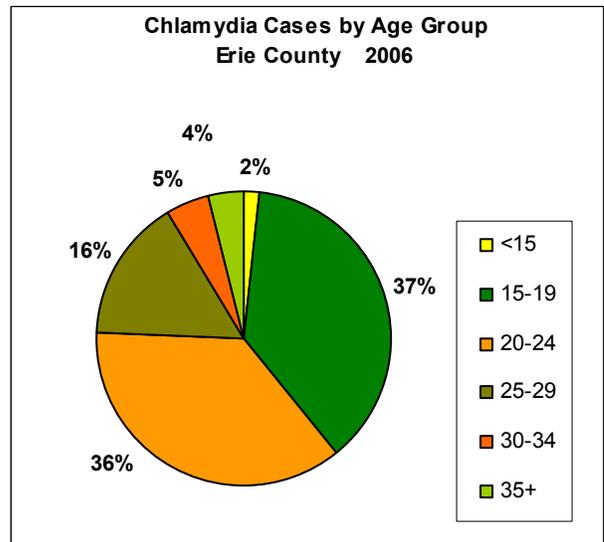
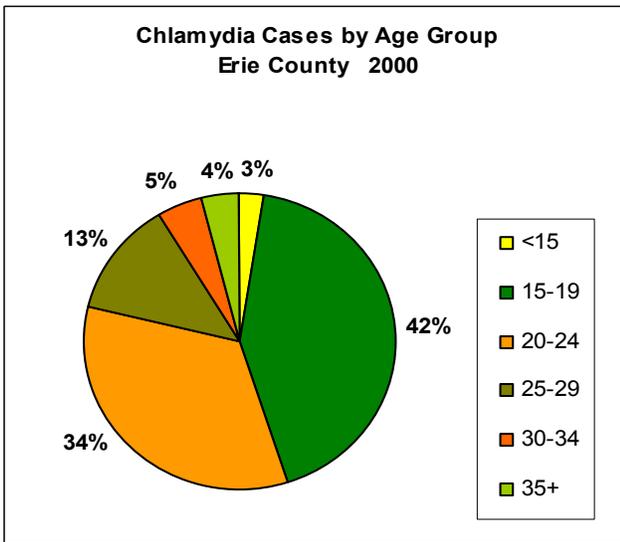
Annual Trends: In 2000, of the 569 chlamydia cases that included a reported age, 2.6% were under age 15, 42.4% were aged 15-19, 33.6% were aged 20-24, 12.8% were aged 25-29, 4.7% were aged 30-34, and 3.9% were age 35 and above. In 2006, 986 chlamydia cases included a reported age. The percent of chlamydia cases decreased to 1.7% for ages under 15, decreased to 37.3% for ages 15-19, increased to 36.4% for ages 20-24, increased to 16.0% for ages 25-29, increased to 4.7% for ages 30-34, and remained the same for ages 35 and above. (Figures 14,15)

In 2006, the two age groups of 15-19 and 20-24 accounted for 73.7% of all age-reported chlamydia cases in Erie County.

For comparison, Erie County population estimates for 2006 are: 19.0% ages <15; 7.6% ages 15-19; 7.9% ages 20-24; 6.1% ages 25-29; 5.6% ages 30-34; and 53.8% ages 35 and above.

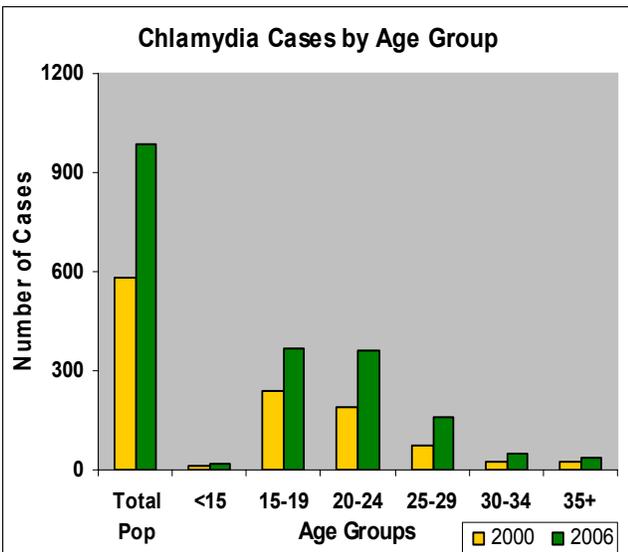
Comparing incidence rates presents a different picture. From 2000 to 2006, annual chlamydia rates per 100,000 increased from 26.0 to 31.6 (↑21.5%) for ages under 15, increased significantly for ages 15-19 from 1,075.7 to 1,766.7 (↑64.2%), increased significantly for ages 20-24 from 935.4 to 1,559.6 (↑66.7%), increased significantly for ages 25-29 from 427.5 to 905.0 (↑111.7%), increased significantly for ages 30-34 from 148.8 to 291.0 (↑95.6%), and increased from 15.2 to 25.4 for ages 35 and above (↑67.1%). (Tables 1,2,3,4; Figure 16)

**Figure 14: Chlamydia Cases: Percent Reported by Age Group**

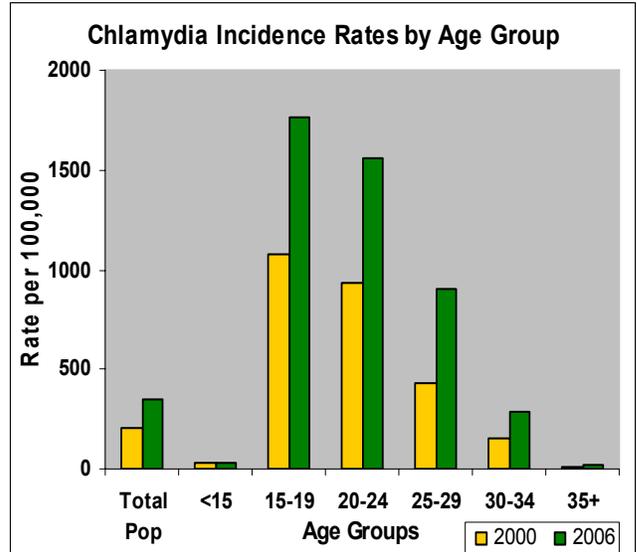


Note: Totals may not equal 100% due to rounding.

**Figure 15: Chlamydia Cases by Age Group (Erie County)**



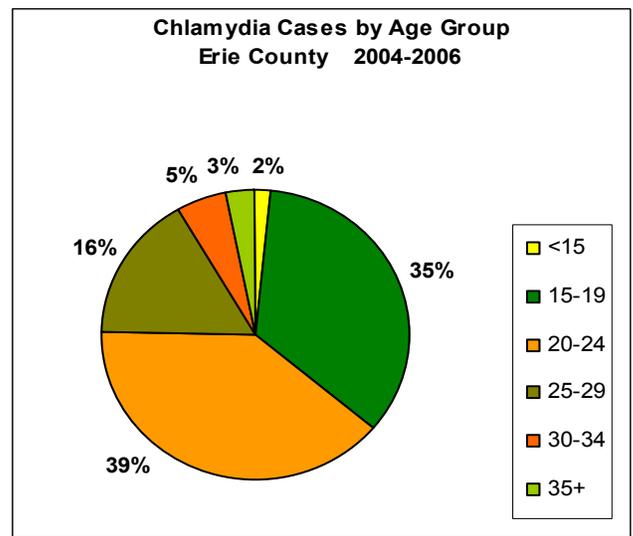
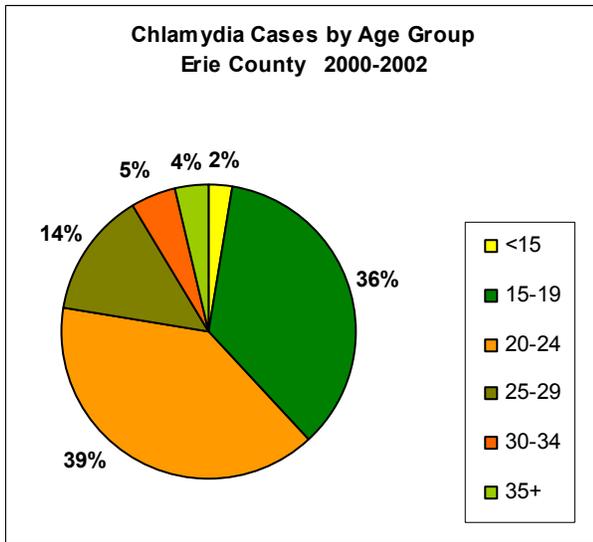
**Figure 16: Chlamydia Rates by Age Group (Erie County)**



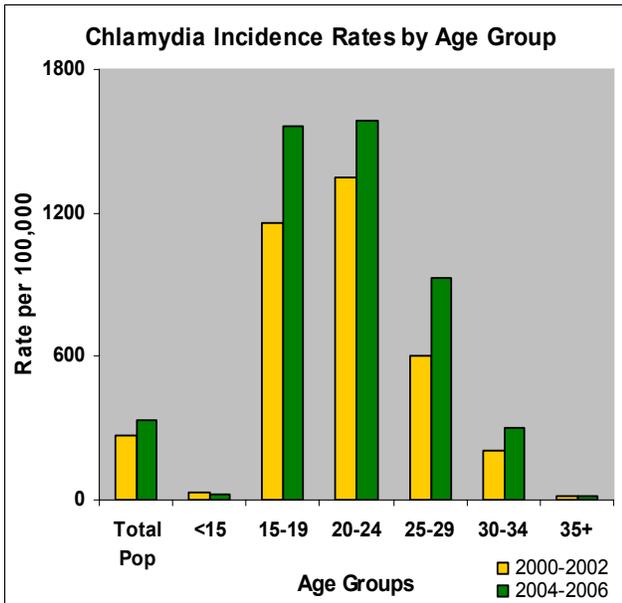
**Three Year Trends:** In 2000-2002, of the 2,172 chlamydia cases that included a reported age, 2.4% were under age 15, 35.7% were aged 15-19, 39.2% were aged 20-24, 13.9% were aged 25-29, 5.1% were aged 30-34, and 3.6% were aged 35 and above. In 2004-2006, 2,840 chlamydia cases included a reported age. Of these, the percent of chlamydia cases decreased to 1.5% for ages under 15, decreased to 34.6% for ages 15-19, remained at 39.2% for ages 20-24, increased to 16.3% for ages 25-29, remained at 5.2% for ages 30-34, and decreased to 3.1% for ages 35 and above. In 2004-2006, the two age groups of 15-19 and 20-24 accounted for 73.8% of all age-reported chlamydia cases in Erie County. (Figures 17,18)

Comparing incidence rates presents a different picture. From 2000-2002 to 2004-2006, three year average annual chlamydia rates per 100,000 decreased from 30.8 to 26.8 for ages under 15 (↓13.0%), increased significantly for age group 15-19 from 1,158.5 to 1,560.1 (↑34.7%), increased for age group 20-24 from 1,350.2 to 1,589 (↑17.7%), increased significantly for age group 25-29 from 599.4 to 926.3 (↑54.5%), increased significantly for age group 30-34 from 204.4 to 297.8 (↑by 45.7%), and increased from 18.1 to 19.7 for ages 35 and above (↑8.8%). (Tables 5,6; Figure 19)

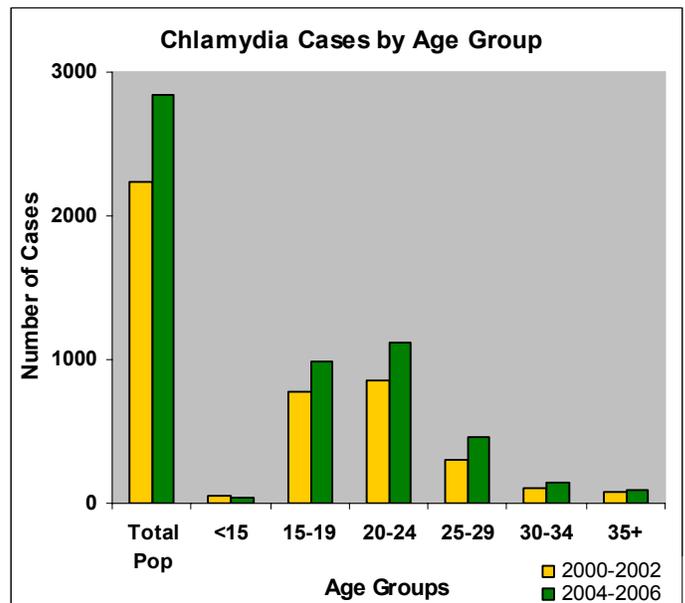
**Figure 17: Age Groups: Percent Chlamydia Cases Reported by Age**



**Figure 18: Chlamydia Cases by Age Group (Erie County)**



**Figure 19: Chlamydia Rates by Age Group (Erie County)**



**Five Year Trends:** In 2000-2004, 4,052 chlamydia cases included a reported age. Of these, 2.3% were under age 15, 34.7% were aged 15-19, 40.2% were aged 20-24, 14.3% were aged 25-29, 5.3% were aged 30-34, and 3.2% were aged 35 and above. In 2002-2006, there were 4,642 chlamydia cases that included a reported age. The percent of chlamydia cases decreased to 1.9% for ages under 15, decreased to 34.3% for ages 15-19, decreased to 39.8% for ages 20-24, increased to 15.4% for ages 25-29, remained at 5.3% for ages 30-34, and remained at 3.2% for ages 35 and above. In 2002-2006, the two age groups of 15-19 and 20-24 accounted for 74.2% of all age-reported chlamydia cases in Erie County.

Comparing incidence rates presents a different picture. From 2000-2004 to 2002-2006, five year average annual chlamydia rates per 100,000 decreased from 32.8 to 31.4 (↓4.3%) for ages under 15, increased significantly from 1,276.4 to 1,489.1 (↑16.7%) for age group 15-19, increased significantly from 1,480.6 to 1,600.9 (↑8.1%) for age group 20-24, increased significantly from 703.6 to 869.8 (↑23.6%) for age group 25-29, increased from 237.9 to 290.0 (↑21.9%) for age group 30-34, and increased from 17.7 to 20.2 (↑14.1%) for ages 35 and above. (Table 7)

## **Ages Under 15**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for Erie County residents age 15 and below increased from 26.0 cases per 100,000 to 31.6 (↑21.5%). An analysis of incidence rates for this age group is affected by the relatively small number (<20) of annual cases reported. Both positive and negative fluctuations in annual rates are seen. (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County residents below age 15 decreased from 30.8 cases per 100,000 to 26.8 (↓13.0%). This group saw a rate increase from 2000-2002 to 2001-2003 followed by rate decreases in each subsequent three year time period. (Tables 5,6)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County residents below age 15 decreased from 32.8 cases per 100,000 to 31.4 (↓4.3%). (Table 7)

## **Ages 15-19**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for Erie County residents age 15-19 increased significantly from 1,075.7 cases per 100,000 to 1,766.7 (↑64.2%). The most notable increases occurred from 2002 to 2003 when rates increased significantly from 1,249.1 in 2002 to 1,582.0 in 2003 (↑22.3%) and from 2005 to 2006 when rates increased significantly from 1,530.0 in 2005 to 1,766.7 in 2006. 100,000 population (↑15.5%). (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County residents aged 15-19 increased significantly from 1,158.5 cases per 100,000 to 1,560.1 (↑34.7%). The most noticeable increase occurred from 2000-2002 to 2001-2003 when rates increased significantly from 1,158.5 to 1,307.8 (↑12.9%). (Tables 5,6)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County residents age 15-19 increased significantly from 1,276.4 cases per 100,000 to 1,489.1 (↑16.7%). (Table 7)

## **Ages 20-24**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for Erie County residents age 20-24 increased significantly from 935.4 cases per 100,000 to 1,559.6 (↑66.7%). The most notable increase occurred from 2000 to 2001 when rates increased significantly from 935.4 in 2000 to 1,532.9 in 2001 (↑63.9%). This age group has seen decreases in annual rates since 2003. (Table 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County residents aged 20-24 increased significantly from 1,350.2 cases per 100,000 to 1,589.3 (↑17.7%). The most noticeable increase occurred from 2000-2002 to 2001-2003 when rates increased significantly from 1,350.2 to 1,592.1 (↑17.9%). This age group has seen a 2.3% rate decrease from 2003-2005 to 2004-2006. (Tables 5,6)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County residents age 20-24 increased from 1,480.6 cases per 100,000 to 1,600.9 (↑8.1%). The most notable increase occurred from 2000-2004 to 2001-2005 when rates increased significantly from 1,480.6 to 1,597.0 (↑7.9%). (Table 7)

## **Ages 25-29**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for Erie County residents age 25-29 increased significantly from 427.5 cases per 100,000 to 905.0 (↑111.7%). The most notable increases occurred from 2001 to 2002 when rates increased significantly from 573.8 in 2001 to 809.3 in 2002 (↑41.0%) and from 2003 to 2004 when rates increased significantly from 753.2 in 2003 to 981.4 in 2004 (↑30.3%). This age group also saw slight decreases in annual rates from 2002 to 2003 and from 2004 to 2005. (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County residents aged 25-29 increased significantly from 599.4 cases per 100,000 to 926.3 (↑54.5%). The most noticeable increases occurred from 2000-2002 to 2001-2003 when rates increased significantly from 599.4 to 709.1 (↑18.3%) and from 2001-2003 to 2002-2004 when rates increased significantly from 709.1 to 848.0 (↑19.6%). (Tables 5,6)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County residents age 25-29 increased significantly from 703.6 cases per 100,000 to 869.8 (↑23.6%). The most notable increase occurred from 2000-2004 to 2001-2005 when rates increased significantly from 703.6 to 800.4 (↑13.8%). (Table 7)

#### **Ages 30-34**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for Erie County residents age 30-34 increased significantly from 148.8 cases per 100,000 to 291.0 (↑95.6%). The most notable increases occurred from 2000 to 2001 when rates increased from 148.8 to 198.4 (↑33.3%) and from 2001 to 2002 when rates increased from 198.4 to 266.3 (↑34.2%). This age group also saw a 7.9% decrease in annual rates from 2005 to 2006. (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County residents aged 30-34 increased significantly from 204.4 cases per 100,000 to 297.8 (↑45.7%). The most notable increase occurred from 2000-2002 to 2001-2003 when rates increased significantly from 204.4 to 252.0 (↑23.3%). (Tables 5,6)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County residents age 30-34 increased from 237.9 cases per 100,000 to 290.0 (↑21.9%). The most notable increase occurred from 2000-2004 to 2001-2005 when rates increased from 237.9 to 270.9 (↑13.9%). (Table 7)

#### **Ages 35 and Above**

Annual Trends: From 2000 to 2006, annual chlamydia incidence rates for Erie County residents age 35 and above increased from 15.2 cases per 100,000 to 25.4 (↑67.1%). The most notable increase occurred from 13.5 in 2004 to 20.1 in 2005 (↑48.9%). This increase follows a 35.7% decrease in rates from 21.0 in 2003 to 13.5 in 2004. (Tables 1,2,3,4)

Three Year Trends: From 2000-2002 to 2004-2006, three year average annual chlamydia incidence rates for Erie County residents aged 35 and above increased from 18.1 cases per 100,000 to 19.7 (↑8.8%) despite rate decreases from 2001-2003 to 2002-2004 and from 2002-2004 to 2003-2005. (Tables 5,6)

Five Year Trends: From 2000-2004 to 2002-2006, five year average annual chlamydia incidence rates for Erie County residents age 35 and above increased from 17.7 cases per 100,000 to 20.2 (↑14.1%). (Table 7)

Table 1: Chlamydia Annual Crude Incidence Rates: 2000 to 2003

Chlamydia		2000				2001			
		Cases	Rate	Lower CL	Upper CL	Cases	Rate	Lower CL	Upper CL
Erie County	Total	583	207.6	190.7	224.5	785	279.5	259.9	299.1
	Male	123	89.8	73.9	105.7	183	133.6	114.2	153.0
	Female	460	319.7	290.5	348.9	602	418.4	385.0	451.8
	White	284	111.2	98.3	124.1	439	172.0	155.9	188.1
	Black	221	1,284.7	1,115.3	1,454.1	305	1,773.0	1,574.0	1,972.0
	Hispanic	N/A				26	424.4	261.3	587.5
	<15 yrs	15*	26.0	12.8	39.2	22	38.1	22.2	54.0
	15-19 yrs	241	1,075.7	939.9	1,211.5	258	1,151.6	1,011.1	1,292.1
	20-24 yrs	191	935.4	802.7	1,068.1	313	1,532.9	1,363.1	1,702.7
	25-29 yrs	73	427.5	329.4	525.6	98	573.8	460.2	687.4
	30-34 yrs	27	148.8	92.7	204.9	36	198.4	133.6	263.2
35+ yrs	22	15.2	8.8	21.6	26	17.9	11.0	24.8	
Pennsylvania	Total	26,129	212.8	210.2	215.3	27,581	224.5	221.8	227.1
	Male	N/A				N/A			
	Female	N/A				N/A			
	White	N/A				5,868	56.0	54.6	57.5
	Black	N/A				12,102	986.1	968.5	1,003.7
	Hispanic	N/A				1,350	329.1	311.5	346.6
United States	Total	702,093	249.5	248.9	250.1	783,242	274.7	274.1	275.3

Chlamydia		2002				2003			
		Cases	Rate	Lower CL	Upper CL	Cases	Rate	Lower CL	Upper CL
Erie County	Total	873	309.9	289.3	330.5	958	339.2	317.7	360.7
	Male	256	186.2	163.4	209.0	292	211.6	187.3	235.9
	Female	617	427.9	394.1	461.7	666	461.1	426.1	496.1
	White	520	201.1	183.8	218.4	586	226.3	208.0	244.6
	Black	298	1,684.9	1,493.6	1,876.2	281	1,563.3	1,380.5	1,746.1
	Hispanic	54	864.1	633.6	1,094.6	61	948.2	710.2	1,186.2
	<15 yrs	16*	28.2	14.4	42.0	27	48.2	30.0	66.4
	15-19 yrs	277	1,249.1	1,102.0	1,396.2	333	1,528.0	1,363.9	1,692.1
	20-24 yrs	348	1,563.1	1,398.9	1,727.3	389	1,671.9	1,505.8	1,838.0
	25-29 yrs	130	809.3	670.2	948.4	120	753.2	618.4	888.0
	30-34 yrs	48	266.3	191.0	341.6	52	292.2	212.8	371.6
35+ yrs	31	21.2	13.7	28.7	31	21.0	13.6	28.4	
Pennsylvania	Total	31,952	259.0	256.2	261.9	37,291	301.6	298.5	304.7
	Male	N/A				9,682	161.7	158.5	164.9
	Female	N/A				27,557	432.2	427.1	437.3
	White	6,833	63.9	62.4	65.5	7,610	71.3	69.7	72.9
	Black	13,606	1,068.8	1,050.9	1,086.8	15,741	1,224.1	1,205.0	1,243.2
	Hispanic	1,531	368.3	349.8	386.7	1,946	459.5	439.1	479.9
United States	Total	834,555	289.9	289.3	290.5	877,478	302.1	301.5	302.7

\*Numbers less than 20 are statistically unreliable; ND=Not displayed if count <10

Crude rate equals number of cases per 100,000 population; 95% Confidence Interval; CL=Confidence Limit

Before 2003 some reported cases did not include age

Total includes unknown gender, race, and age; Hispanic origin can be of any race; There may be multiple diseases in one person; Some individuals may become infected more than once

U.S Census Bureau, Intercensal Population Estimates used for Erie County and U.S.; PA DOH Intercensal Population Estimates used for PA

Previous year pop. used for Erie County calculations; Current year pop. used for PA calculations; Current year pop. used for 2000-2006 U.S. calculations; Previous year pop. used for 2006 to present U.S. calculations

Source of Data: CDC STD Surveillance and Statistics; PA DOH EpiQMS; PA DOH STD Statistics; NEDSS; Erie County Dept of Health

Table 2: Chlamydia Annual Crude Incidence Rates: 2004 to 2006

Chlamydia		2004				2005			
		Cases	Rate	Lower CL	Upper CL	Cases	Rate	Lower CL	Upper CL
<b>Erie County</b>	Total	928	327.9	306.8	349.0	926	329.7	308.5	350.9
	Male	276	199.4	175.9	222.9	267	194.2	170.9	217.5
	Female	652	451.0	416.4	485.6	659	459.6	424.5	494.7
	White	523	201.8	184.5	219.1	477	185.7	169.0	202.4
	Black	329	1,811.6	1,615.8	2,007.4	318	1,747.4	1,555.3	1,939.5
	Hispanic	61	901.3	675.1	1,127.5	38	552.4	376.8	728.0
	<15 yrs	13*	23.3	10.6	36.0	14*	25.5	12.1	38.9
	15-19 yrs	298	1,388.8	1,231.1	1,546.5	318	1,530.0	1,361.8	1,698.2
	20-24 yrs	390	1,639.2	1,476.5	1,801.9	363	1,567.4	1,406.2	1,728.6
	25-29 yrs	157	981.4	827.9	1,134.9	149	895.8	752.0	1,039.6
	30-34 yrs	50	286.9	207.4	366.4	52	315.9	230.0	401.8
	35+ yrs	20	13.5	7.6	19.4	30	20.1	12.9	27.3
<b>Pennsylvania</b>	Total	38,025	306.5	303.4	309.6	37,261	299.8	296.8	302.8
	Male	10,282	170.9	167.6	174.2	10,128	168.3	165.0	171.6
	Female	27,740	434.1	429.0	439.2	27,131	423.2	418.2	428.2
	White	7,760	72.3	70.7	73.9	8,230	76.6	74.9	78.3
	Black	15,749	1,210.1	1,191.2	1,229.0	14,937	1,141.1	1,122.8	1,159.4
	Hispanic	2,187	459.9	440.6	479.2	2,172	429.2	411.1	447.3
<b>United States</b>	Total	929,462	317.0	316.4	317.7	976,445	330.0	329.4	330.6

Chlamydia		2006			
		Cases	Rate	Lower CL	Upper CL
<b>Erie County</b>	Total	986	351.6	329.7	373.5
	Male	297	216.2	191.6	240.8
	Female	689	481.5	445.5	517.5
	White	401	156.5	141.2	171.8
	Black	341	1,879.1	1,679.7	2,078.5
	Hispanic	38	549.1	374.5	723.7
	<15 yrs	17*	31.6	16.6	46.6
	15-19 yrs	368	1,766.7	1,586.2	1,947.2
	20-24 yrs	359	1,559.6	1,398.3	1,720.9
	25-29 yrs	158	905.0	763.9	1,046.1
	30-34 yrs	46	291.0	206.9	375.1
	35+ yrs	38	25.4	17.3	33.5
<b>Pennsylvania</b>	Total	39,487	317.4	314.3	320.5
	Male	10,981	181.9	178.5	185.3
	Female	28,503	445.0	439.8	450.2
	White	8,125	76.1	74.4	77.8
	Black	15,798	1,193.9	1,175.3	1,212.5
	Hispanic	2,360	447.8	429.7	465.9
<b>United States</b>	Total	1,030,911	348.4	347.7	349.1

\*Numbers less than 20 are statistically unreliable; ND=Not displayed if count <10

Crude rate equals number of cases per 100,000 population; 95% Confidence Interval; CL=Confidence Limit

Before 2003 some reported cases did not include age

Total includes unknown gender, race, and age; Hispanic origin can be of any race; There may be multiple diseases in one person; Some individuals may become infected more than once

U.S Census Bureau, Intercensal Population Estimates used for Erie County and U.S.; PA DOH Intercensal Population Estimates used for PA

Previous year pop. used for Erie County calculations; Current year pop. used for PA calculations; Current year pop. used for 2000-2006 U.S. calculations; Previous year pop. used for 2006 to present U.S. calculations

Source of Data: CDC STD Surveillance and Statistics; PA DOH EpiQMS; PA DOH STD Statistics; NEDSS; Erie County Dept of Health

Table 3: Chlamydia Annual Crude Incidence Rate Comparisons: 2000 to 2004

Chlamydia		Rate	Rate	% Change	Rate	Rate	% Change
		2000	2001		2001	2002	
Erie County	Total	207.6	<b>279.5</b>	34.6	279.5	<b>309.9</b>	10.9
	Male	89.8	<b>133.6</b>	48.8	133.6	<b>186.2</b>	39.4
	Female	319.7	<b>418.4</b>	30.9	418.4	427.9	2.3
	White	111.2	<b>172.0</b>	54.7	172.0	<b>201.1</b>	16.9
	Black	1,284.7	<b>1,773.0</b>	38.0	1,773.0	1,684.9	-5.0
	Hispanic	N/A	424.4		424.4	<b>864.1</b>	103.6
	<15 yrs	26.0	38.1	46.5	38.1	28.2	-26.0
	15-19 yrs	1,075.7	1,151.6	7.1	1,151.6	1,249.1	8.5
	20-24 yrs	935.4	<b>1,532.9</b>	63.9	1,532.9	1,563.1	2.0
	25-29 yrs	427.5	573.8	34.2	573.8	<b>809.3</b>	41.0
	30-34 yrs	148.8	198.4	33.3	198.4	266.3	34.2
	35+ yrs	15.2	17.9	17.8	17.9	21.2	18.4
	Pennsylvania	Total	212.8	<b>224.5</b>	5.5	224.5	<b>259.0</b>
Male		N/A	N/A		n/a	N/A	
Female		N/A	N/A		n/a	N/A	
White		N/A	56.0		56.0	<b>63.9</b>	14.2
Black		N/A	986.1		986.1	<b>1,068.8</b>	8.4
Hispanic		N/A	329.1		329.1	<b>368.3</b>	11.9
United States	Total	249.5	<b>274.7</b>	10.1	274.7	<b>289.9</b>	5.5

Chlamydia		Rate	Rate	% Change	Rate	Rate	% Change
		2002	2003		2003	2004	
Erie County	Total	309.9	339.2	9.5	339.2	327.9	-3.3
	Male	186.2	211.6	13.6	211.6	199.4	-5.8
	Female	427.9	461.1	7.8	461.1	451.0	-2.2
	White	201.1	226.3	12.5	226.3	<b>201.8</b>	-10.8
	Black	1,684.9	1,563.3	-7.2	1,563.3	1,811.6	15.9
	Hispanic	864.1	948.2	9.7	948.2	901.3	-4.9
	<15 yrs	28.2	48.2	70.9	48.2	<b>23.3</b>	-51.7
	15-19 yrs	1,249.1	<b>1,528.0</b>	22.3	1,528.0	1,388.8	-9.1
	20-24 yrs	1,563.1	1,671.9	7.0	1,671.9	1,639.2	-2.0
	25-29 yrs	809.3	753.2	-6.9	753.2	<b>981.4</b>	30.3
	30-34 yrs	266.3	292.2	9.7	292.2	286.9	-1.8
	35+ yrs	21.2	21.0	-0.9	21.0	13.5	-35.7
	Pennsylvania	Total	259.0	<b>301.6</b>	16.4	301.6	306.5
Male		N/A	161.7		161.7	<b>170.9</b>	5.7
Female		N/A	432.2		432.2	434.1	0.4
White		63.9	<b>71.3</b>	11.6	71.3	72.3	1.4
Black		1,068.8	<b>1,224.1</b>	14.5	1,224.1	1,210.1	-1.1
Hispanic		368.3	<b>459.5</b>	24.8	459.5	459.9	0.1
United States	Total	289.9	<b>302.1</b>	4.2	302.1	<b>317.0</b>	4.9

Red indicates significant difference

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Crude rate equals number of cases per 100,000 population; 95% Confidence Interval

Before 2003 some reported cases did not include age

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Source of Data: CDC STD Surveillance and Statistics; PA DOH EpiQMS; PA DOH STD Statistics; NEDSS; Erie County Dept of Health

Table 4: Chlamydia Annual Crude Incidence Rate Comparisons: 2004 to 2006

Chlamydia		Rate	Rate	% Change	Rate	Rate	% Change
		2004	2005		2005	2006	
<b>Erie County</b>	<i>Total</i>	327.9	329.7	0.5	329.7	351.6	6.6
	<i>Male</i>	199.4	194.2	-2.6	194.2	216.2	11.3
	<i>Female</i>	451.0	459.6	1.9	459.6	481.5	4.8
	<i>White</i>	201.8	185.7	-8.0	185.7	<b>156.5</b>	-15.7
	<i>Black</i>	1,811.6	1,747.4	-3.5	1,747.4	1,879.1	7.5
	<i>Hispanic</i>	901.3	<b>552.4</b>	-38.7	552.4	549.1	-0.6
	<i>&lt;15 yrs</i>	23.3	25.5	9.4	25.5	31.6	23.9
	<i>15-19 yrs</i>	1,388.8	1,530.0	10.2	1,530.0	<b>1,766.7</b>	15.5
	<i>20-24 yrs</i>	1,639.2	1,567.4	-4.4	1,567.4	1,559.6	-0.5
	<i>25-29 yrs</i>	981.4	895.8	-8.7	895.8	905.0	1.0
	<i>30-34 yrs</i>	286.9	315.9	10.1	315.9	291.0	-7.9
	<i>35+ yrs</i>	13.5	20.1	48.9	20.1	25.4	26.4
	<b>Pennsylvania</b>	<i>Total</i>	306.5	<b>299.8</b>	-2.2	299.8	<b>317.4</b>
<i>Male</i>		170.9	168.3	-1.5	168.3	181.9	8.1
<i>Female</i>		434.1	<b>423.2</b>	-2.5	423.2	<b>445.0</b>	5.2
<i>White</i>		72.3	<b>76.6</b>	5.9	76.6	<b>76.1</b>	-0.7
<i>Black</i>		1,210.1	1,141.1	-5.7	1,141.1	<b>1,193.9</b>	4.6
<i>Hispanic</i>		459.9	429.2	-6.7	429.2	447.8	4.3
<b>United States</b>	<i>Total</i>	317.0	<b>330.0</b>	4.1	330.0	<b>348.4</b>	5.6

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Source of Data: CDC STD Surveillance and Statistics; PA DOH EpiQMS; PA DOH STD Statistics; NEDSS; Erie County Dept of Health

Table 5: Chlamydia Three Year Crude Incidence Rates: 2000-2002 to 2004-2006

Chlamydia		2000-2002				2001-2003			
		Cases	Rate	Lower CL	Upper CL	Cases	Rate	Lower CL	Upper CL
Erie County	Total	2,241	265.7	254.7	276.7	2,616	309.6	297.7	321.5
	Male	562	136.6	125.3	147.9	731	177.2	164.4	190.1
	Female	1,679	388.7	370.1	407.3	1,885	435.8	416.2	455.5
	White	1,243	161.6	152.6	170.6	1,545	199.9	190.0	209.9
	Black	824	1,581.8	1,473.8	1,689.9	884	1,672.2	1,562.0	1,782.5
	Hispanic	N/A	N/A			141	749.7	625.9	873.4
	<15 yrs	53	30.8	22.5	39.1	65	38.1	28.9	47.4
	15-19 yrs	776	1,158.5	1,077.0	1,240.0	868	1,307.8	1,220.8	1,394.8
	20-24 yrs	852	1,350.2	1,259.6	1,440.9	1,050	1,592.1	1,495.8	1,688.4
	25-29 yrs	301	599.4	531.7	667.1	348	709.1	634.6	783.6
	30-34 yrs	111	204.4	166.3	242.4	136	252.0	209.7	294.4
35+ yrs	79	18.1	14.1	22.1	88	20.0	15.9	24.2	
Pennsylvania	Total	85,662	232.1	230.5	233.7	96,824	261.8	260.2	263.4
United States	Total	2,319,890	271.5	271.2	271.8	2,495,275	289.0	288.6	289.4

Chlamydia		2002-2004				2003-2005			
		Cases	Rate	Lower CL	Upper CL	Cases	Rate	Lower CL	Upper CL
Erie County	Total	2,759	325.7	313.6	337.9	2,812	332.3	320.0	344.6
	Male	824	199.1	185.5	212.7	835	201.8	188.1	215.4
	Female	1,935	446.7	426.8	466.6	1,977	457.2	437.1	477.4
	White	1,629	209.7	199.6	219.9	1,586	204.7	194.6	214.7
	Black	908	1,687.0	1,577.3	1,796.7	928	1,708.0	1,598.1	1,817.8
	Hispanic	176	904.9	771.2	1,038.6	160	796.8	673.3	920.3
	<15 yrs	56	33.2	24.5	41.9	54	32.4	23.8	41.1
	15-19 yrs	908	1,387.8	1,297.5	1,478.1	949	1,482.0	1,387.7	1,576.3
	20-24 yrs	1,127	1,625.7	1,530.8	1,720.7	1,142	1,626.3	1,532.0	1,720.7
	25-29 yrs	407	848.0	765.6	930.4	426	877.2	793.9	960.5
	30-34 yrs	150	281.7	236.6	326.8	154	298.0	250.9	345.0
35+ yrs	82	18.5	14.5	22.5	81	18.2	14.2	22.2	
Pennsylvania	Total	107,268	289.1	287.4	290.8	112,569	302.6	300.8	304.4
United States	Total	2,641,495	303.1	302.7	303.5	2,783,385	316.5	316.1	316.9

Chlamydia		2004-2006			
		Cases	Rate	Lower CL	Upper CL
Erie County	Total	2,840	336.4	324.0	348.8
	Male	840	203.3	189.5	217.0
	Female	2,000	464.0	443.7	484.3
	White	1,401	181.4	171.9	190.9
	Black	988	1,812.6	1,699.6	1,925.7
	Hispanic	137	666.1	554.6	777.7
	<15 yrs	44	26.8	18.8	34.7
	15-19 yrs	984	1,560.1	1,462.6	1,657.6
	20-24 yrs	1,112	1,589.3	1,495.8	1,682.7
	25-29 yrs	464	926.3	842.0	1,010.6
	30-34 yrs	148	297.8	249.8	345.8
35+ yrs	88	19.7	15.6	23.8	
Pennsylvania	Total	114,765	307.9	306.1	309.7
United States	Total	2,936,818	331.9	331.5	332.3

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Table 6: Chlamydia Three Year Crude Incidence Rate Comparisons: 2000-2002 to 2004-006

Chlamydia		3 Year Rate	3 Year Rate	% Change	3 Year Rate	3 Year Rate	% Change
		2000-2002	2001-2003		2001-2003	2002-2004	
Erie County	Total	265.7	309.6	16.5	309.6	325.7	5.2
	Male	136.6	177.2	29.7	177.2	199.1	12.4
	Female	388.7	435.8	12.1	435.8	446.7	2.5
	White	161.6	199.9	23.7	199.9	209.7	4.9
	Black	1,581.8	1,672.2	5.7	1,672.2	1,687.0	0.9
	Hispanic	N/A	749.7		749.7	904.9	20.7
	<15 yrs	30.8	38.1	23.7	38.1	33.2	-12.9
	15-19 yrs	1,158.5	1,307.8	12.9	1,307.8	1,387.8	6.1
	20-24 yrs	1,350.2	1,592.1	17.9	1,592.1	1,625.7	2.1
	25-29 yrs	599.4	709.1	18.3	709.1	848.0	19.6
	30-34 yrs	204.4	252.0	23.3	252.0	281.7	11.8
	35+ yrs	18.1	20.0	10.5	20.0	18.5	-7.5
Pennsylvania	Total	232.1	261.8	12.8	261.8	289.1	10.4
United States	Total	271.5	289.0	6.4	289.0	303.1	4.9

Chlamydia		3 Year Rate	3 Year Rate	% Change	3 Year Rate	3 Year Rate	% Change
		2002-2004	2003-2005		2003-2005	2004-2006	
Erie County	Total	325.7	332.3	2.0	332.3	336.4	1.2
	Male	199.1	201.8	1.4	201.8	203.3	0.7
	Female	446.7	457.2	2.4	457.2	464.0	1.5
	White	209.7	204.7	-2.4	204.7	181.4	-11.4
	Black	1,687.0	1,708.0	1.2	1,708.0	1,812.6	6.1
	Hispanic	904.9	796.8	-11.9	796.8	666.1	-16.4
	<15 yrs	33.2	32.4	-2.4	32.4	26.8	-17.3
	15-19 yrs	1,387.8	1,482.0	6.8	1,482.0	1,560.1	5.3
	20-24 yrs	1,625.7	1,626.3	0.0	1,626.3	1,589.3	-2.3
	25-29 yrs	848.0	877.2	3.4	877.2	926.3	5.6
	30-34 yrs	281.7	298.0	5.8	298.0	297.8	-0.1
	35+ yrs	18.5	18.2	-1.6	18.2	19.7	8.2
Pennsylvania	Total	289.1	302.6	4.7	302.6	307.9	1.8
United States	Total	303.1	316.5	4.4	316.5	330.8	4.5

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Table 7: Chlamydia Five Year Crude Incidence Rate and Comparisons: 2000-2004 to 2002-2006

Chlamydia		2000-2004				2001-2005			
		Cases	Rate	Lower CL	Upper CL	Cases	Rate	Lower CL	Upper CL
Erie County	Total	4,127	293.0	284.1	301.9	4,470	317.3	308.0	326.6
	Male	1,130	164.3	154.7	173.9	1,274	185.1	174.9	195.3
	Female	2,997	415.7	400.8	430.6	3,196	443.6	428.2	459.0
	White	2,352	182.7	175.3	190.1	2,545	197.5	189.8	205.2
	Black	1,434	1,625.4	1,541.3	1,709.5	1,531	1,715.9	1,629.9	1,801.9
	Hispanic	N/A				240	739.5	645.9	833.1
	<15 yrs	93	32.8	26.1	39.5	92	32.7	26.0	39.4
	15-19 yrs	1,407	1,276.4	1,209.7	1,343.1	1,484	1,366.3	1,296.8	1,435.8
	20-24 yrs	1,631	1,480.6	1,408.7	1,552.5	1,803	1,597.0	1,523.3	1,670.7
	25-29 yrs	578	703.6	646.2	761.0	654	800.4	739.1	861.7
	30-34 yrs	213	237.9	206.0	269.8	238	270.9	236.5	305.3
	35+ yrs	130	17.7	14.7	20.7	138	18.7	15.6	21.8
Pennsylvania	Total	160,978	261.0	259.7	262.3	172,102	278.4	277.1	279.7
United States	Total	4,126,830	287.0	286.7	287.3	4,401,182	303.0	302.7	303.3

Chlamydia		2002-2006			
		Cases	Rate	Lower CL	Upper CL
Erie County	Total	4,671	331.7	322.2	341.2
	Male	1,388	201.5	190.9	212.1
	Female	3,283	456.2	440.6	471.8
	White	2,507	194.4	186.8	202.0
	Black	1,567	1,737.9	1,651.9	1,823.9
	Hispanic	252	757.9	664.3	851.5
	<15 yrs	87	31.4	24.8	38.0
	15-19 yrs	1,594	1,489.1	1,416.0	1,562.2
	20-24 yrs	1,849	1,600.9	1,527.9	1,673.9
	25-29 yrs	714	869.8	806.0	933.6
	30-34 yrs	248	290.0	253.9	326.1
	35+ yrs	150	20.2	17.0	23.4
Pennsylvania	Total	184,008	296.9	295.5	298.3
United States	Total	4,648,851	317.7	317.4	318.0

Chlamydia		5 Year Rate	5 Year Rate	% Change		5 Year Rate	5 Year Rate	% Change
		2000-2004	2001-2005			2001-2005	2002-2006	
Erie County	Total	293.0	<b>317.3</b>	8.3		317.3	<b>331.7</b>	4.5
	Male	164.3	<b>185.1</b>	12.7		185.1	<b>201.5</b>	8.9
	Female	415.7	<b>443.6</b>	6.7		443.6	456.2	2.8
	White	182.7	<b>197.5</b>	8.1		197.5	194.4	-1.6
	Black	1,625.4	<b>1,715.9</b>	5.6		1,715.9	1,737.9	1.3
	Hispanic	n/a	739.5			739.5	757.9	2.5
	<15 yrs	32.8	32.7	-0.3		32.7	31.4	-4.0
	15-19 yrs	1,276.4	<b>1,366.3</b>	7.0		1,366.3	<b>1,489.1</b>	9.0
	20-24 yrs	1,480.6	<b>1,597.0</b>	7.9		1,597.0	1,600.9	0.2
	25-29 yrs	703.6	<b>800.4</b>	13.8		800.4	<b>869.8</b>	8.7
	30-34 yrs	237.9	<b>270.9</b>	13.9		270.9	290.0	7.1
	35+ yrs	17.7	18.7	5.6		18.7	20.2	8.0
Pennsylvania	Total	261.0	<b>278.4</b>	6.7		278.4	<b>296.9</b>	6.6
United States	Total	287.0	<b>303.0</b>	5.6		303.0	<b>317.1</b>	4.7

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