



2010 CHLAMYDIA FACT SHEET

A Profile of Mecklenburg County Reported Cases

Chlamydia is a curable sexually transmitted diseases (STD) caused by the bacterium *Chlamydia trachomatis*. It is the most frequently reported bacterial STD in the United States, with 1,244,180 cases reported in 2009¹.

Chlamydia is known as a "silent" disease because about three quarters of infected women and about half of infected men have no symptoms. If symptoms do occur, they usually appear within 1 to 3 weeks after exposure. Even though symptoms of chlamydia are usually mild or absent, serious complications that cause irreversible damage, including infertility, can occur before a woman ever recognizes a problem.²

Chlamydia is widespread among sexually active Americans, regardless of race, age, or gender. Because many infections occur with mild or no symptoms, chlamydia reports are substantially under-diagnosed and under-reported³.

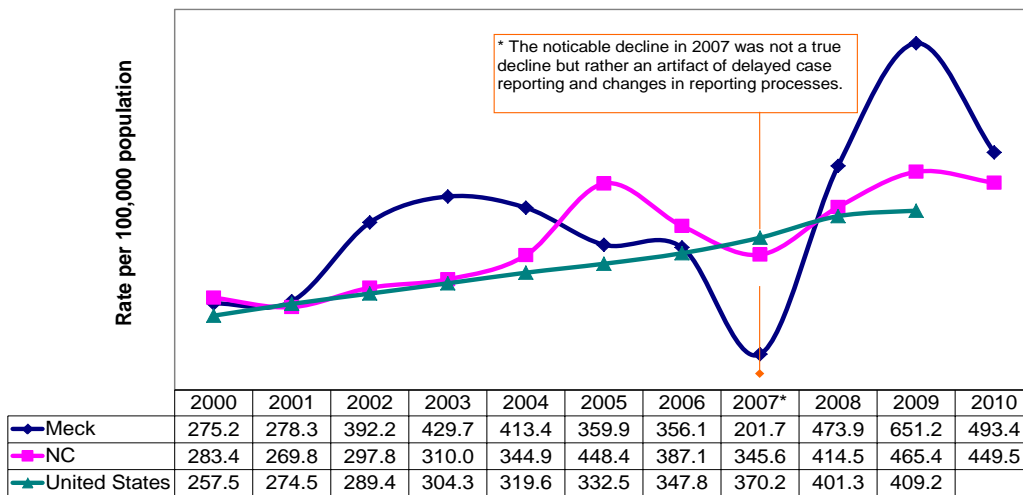
Chlamydia Case Reporting in Mecklenburg County^{4,5}

Chlamydia reports are largely influenced by levels of screening and testing. Reporting delays and changes in reporting systems can also substantially impact data.

Between 2002 and 2006, chlamydia case rates were relatively stable for the county. However, during 2007 there was a noticeable decline in new reports due to delays in case reporting. The North Carolina STD Surveillance data system underwent extensive changes in 2008 to implement NC EDSS (North Carolina Electronic Disease Surveillance System). The introduction of NC EDSS improved chlamydia case reporting resulting in higher case rates for years 2008 through 2010.

The increase in case reports during this time should be interpreted with caution as they are largely a result of changes to the reporting process.

Chlamydia Case Rates 2000 - 2010
United States, North Carolina and Mecklenburg



Source: 2010 NC EDSS Mecklenburg Chlamydia reports; NC DHHS, HIV/STD Prevention and Care Unit: 2010 STD Surveillance Data; US Centers for Disease Control 2009 STD Surveillance Report

(As of August 1, 2010 national data for Chlamydia is not yet available for calendar year 2010.)



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A Snapshot of the Epidemic

The following data is from the North Carolina Electronic Disease Surveillance System and is based on date of report.

Mecklenburg County reported 4,537 new cases of chlamydia during 2010, 22% lower than case reports from the previous year. The annual case rate was 493.4 per 100,000, a 24% decline from the previous year.

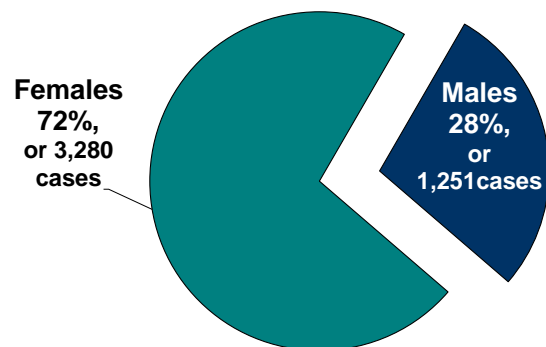
- The number of Mecklenburg females reported with chlamydia in 2010 (3,280 cases) was nearly three times higher than that of men (1,251 cases). This difference in diagnoses is attributed to enhanced screening programs that are available for women, but not for men (*See Special Notes section*).
- Compared to other age-groups, adolescents and young adults are at higher risk for acquiring STDs.
- In 2010, adolescents (13 – 19 year olds) accounted for 32% of total case reports or 1,472 cases. 54% of new chlamydia case reports were among young adults age 20 – 29 years (2,466 cases).

Racial and Ethnic Disparities

Although racial and ethnic minorities are disproportionately impacted by STDs, race and ethnicity are not risk factors for disease. Rather, race and ethnicity are risk markers that correlate with other more fundamental determinants of health status.

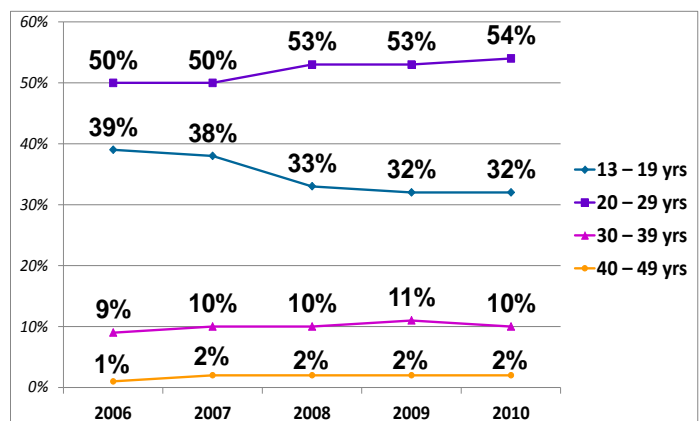
STD morbidity is concentrated in the same racial/ethnic populations that face competing problems such as increasing poverty, high levels of unemployment, teenage pregnancy, drug use/distribution, violence, and limited access to quality care⁶.

2010 Mecklenburg Chlamydia Case Reports BY GENDER



In 2010, there were 6 cases with missing or unknown gender.

2006 – 2010 Mecklenburg Chlamydia Cases BY AGE GROUPS



The following age-groups account for less than 1% of reported cases each year: 0 -12 years and 50 years or older.



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The percentage of reported STD cases for which race/ethnicity information is known varies by year and disease. Of the 4,537 chlamydia cases reported in Mecklenburg during 2010, race/ethnicity was unavailable for 1,016 cases or 22% of reports. Based upon the remaining chlamydia case reports:

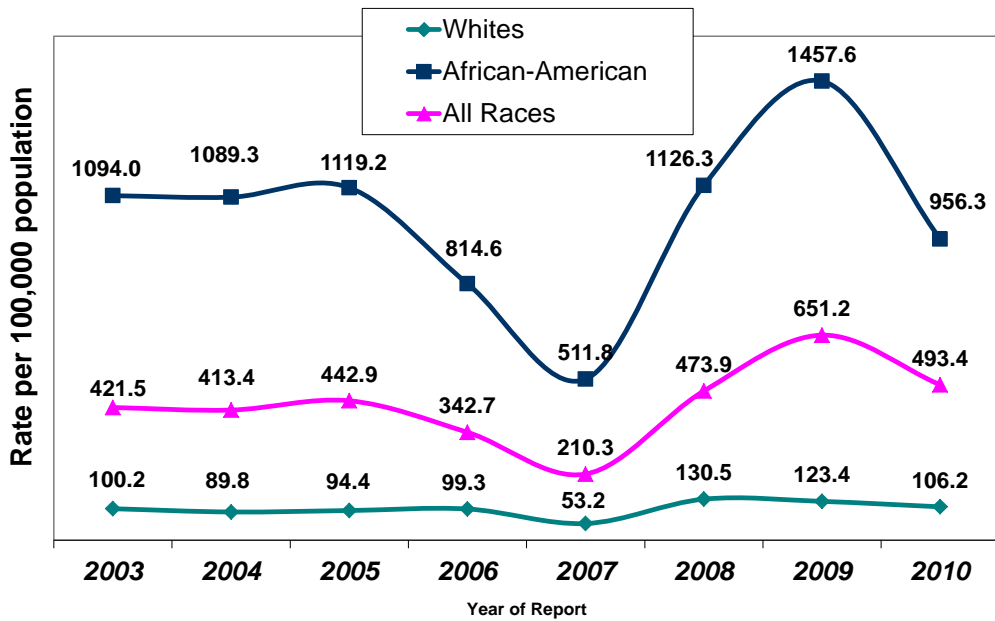
- 1% were Asian* (43)
- 6% were Hispanic (292)
- 11% were White* (494),
- 59% were African American* (2,659)
- Approximately 1% of cases were persons of other races* including American Indian, Alaskan Native or persons reporting two or more races.

(*Non-Hispanic)

Because rates based upon smaller populations may be unreliable, annual case rates are presented for the two largest racial groups: Whites and African Americans.

- African Americans are greatly impacted by STDs. The majority of new chlamydia cases in 2010 and the highest case rate (956.3 per 100,000) were among African Americans.
- While the annual case rate among African-Americans decreased by 34% between 2009 and 2010, rates of disease for African-Americans were 9 times higher than that of Whites.
- Annual case rates for Whites declined from 130.5 cases per 100,000 in 2008 to 106.2 during 2010.

**Chlamydia Annual Case Rates for Mecklenburg County
By Racial Category* and Year of Report**



*Whites and African American races are non-Hispanic. All races category includes all racial groups and persons of Hispanic origin.



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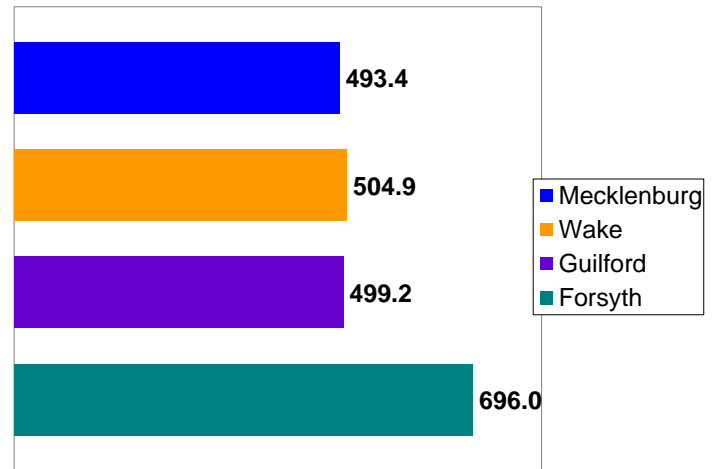
Peer Comparisons

Peer comparisons provide a useful step for quantifying a typical level of disease burden in a community. Guilford, Forsyth and Wake counties are peers of Mecklenburg⁷. While they do not border the county, they are more similar to the demographic makeup of Mecklenburg based upon the following criteria, which indicate different health needs or risk factors:

- Percent of population less than 18 years
- Percent of population over 64 years
- Percent of non-white population
- Percent of families with children (<18) living below the poverty level
- Total county population size

In 2010, the annual rate of disease in Mecklenburg was similar to its peer counties with the exception of Forsyth. The rate of disease in Forsyth County (696.0 per 100,000) was 29% higher than that of Mecklenburg County (493.4).

2010 Chlamydia Annual Case Rates
Mecklenburg and Peer Counties
Rates per 100,000 population





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Mecklenburg County Reported CHLAMYDIA Cases By Year of Report

By Age, Race and Gender

YEAR (Total cases)	2006 (n=2,836)		2007 (n=1,740)		2008 (n= 4,221)		2009 (n= 5,840)		2010 (n= 4,537)	
Characteristics	cases	%	cases	%	cases	%	cases	%	cases	%
Age										
0 - 12 yrs	7	<1%	0	0%	42	1%	***	<1%	7	<1%
13 – 19 yrs	1093	39%	656	38%	1393	33%	1892	32%	1,472	32%
20 – 29 yrs	1426	50%	873	50%	2239	53%	3122	53%	2,466	54%
30 – 39 yrs	260	9%	168	10%	412	10%	635	11%	468	10%
40 – 49 yrs	40	1%	35	2%	93	2%	129	2%	101	2%
50 and over	10	<1%	8	0%	25	<1%	32	1%	21	<1%
Missing/Unknown	0	0%	0	0%	17	<1%	29	1%	2	<1%
Race										
White*	459	16%	246	14%	633	15%	606	10%	494	11%
Black*	2010	71%	1263	73%	2873	68%	3,771	65%	2,659	59%
Am Indian/Alaskan*	***	<1%	0	0%	4	1%	19	0%	9	<1%
Asian/Pacific Island*	46	2%	24	1%	42	1%	54	1%	43	1%
Hispanic	275	10%	175	10%	313	7%	391	7%	292	6%
Other	44	2%	32	2%	210	5%	402	7%	24	<1%
Missing/Unknown (*Non-Hispanic)	0	0%	0	0%	146	3%	597	10%	1016	22%
Gender										
Male	658	23%	423	24%	1182	28%	1,663	28%	1,251	28%
Female	2178	77%	1317	76%	3039	72%	4,177	72%	3,280	72%
Missing/Unknown	0	0%	0	0%	0	0%	0	0%	6	<1%



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Special Notes:

Chlamydia case reports are influenced by multiple factors in addition to the occurrence of the infection within the population. For example changes in screening practices, use of diagnostic tests with differing test performance, and/or changes in reporting practices may mask true increases or decreases in disease reporting. Therefore caution should be exercised in interpreting short-term trends in chlamydia case reporting.

Women, especially young women, are hit hardest by chlamydia. Studies have found that chlamydia is more common among adolescent females than adolescent males, and the long-term consequences of untreated disease are much more severe for females. Up to 40 percent of females with untreated chlamydia infections develop PID, and 20 percent of those may become infertile⁸. The Centers for Disease Control and Prevention (CDC) recommends annual chlamydia screening for all sexually active women under age 26, as well as older women with risk factors such as new or multiple sex partners.

The recent advent of highly sensitive nucleic acid amplification tests that can be performed on urine will most likely lead to better diagnosis and increased case reporting for men. Nationally, chlamydia case reporting for men has increased by 36.4% between 2002 and 2006 in comparison to a 16% increase for women during the same time period¹.

Racial and ethnic minorities are over-represented among persons of lower socioeconomic status in the United States and may utilize public clinics more than whites. Since STD reporting from public clinics may provide more complete reporting than private providers, the difference in

rates between whites and racial/ethnic minorities may be overestimated^{1,4}. However, this reporting bias does not fully explain the disparity between racial/ethnic groups. Limited access to quality health care, poverty and higher disease prevalence also contribute to disparate rates for racial/ethnic minorities.

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¹ Centers for Disease Control and Prevention, National Center for HIV,STD and TB Prevention: 2006 STD Surveillance Report.

² Centers for Disease Control and Prevention. National Center for HIV,STD and TB Prevention: Chlamydia Fact Sheet.

³ Weinstock H, et al. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspectives on Sexual and Reproductive Health* 2004;36(1):6-10.

⁴ North Carolina DHHS, HIV/STD Prevention and Care Unit. 2007 HIV/STD Surveillance and Regional Reports.

⁵ North Carolina Electronic Disease Surveillance System. 2010 Mecklenburg County Chlamydia Case Reports (based upon date of report).

⁶ American Social Health Association. STD Prevention and Partnership and Position Statement: STDS and Minorities. Located on : http://www.ashastd.org/involve/involve_adv_min_pos.cfm. Accessed: 10.12.2008

⁷ North Carolina CATCH (Comprehensive Assessment for Tracking Community Health). Peer Counties for Mecklenburg County. <http://www.schs.state.nc.us/SCHS/catch/>

⁸ Hillis SD and Wasserheit JN. Screening for Chlamydia — A Key to the prevention of pelvic inflammatory disease. *New England Journal of Medicine* 1996;334(21):1399-1401.