



2010 GONORRHEA FACT SHEET

A Profile of Mecklenburg County Reported Cases

Gonorrhea is a curable sexually transmitted disease (STD) caused by the bacterium *Neisseria gonorrhoea*. It is the second most commonly reported infectious disease in the United States, with 301,174 cases reported in 2009¹.

Gonorrhea infections can occur in the genital tract, the mouth and the rectum. Untreated gonorrhea can cause serious and permanent health problems including pelvic inflammatory disease and ectopic pregnancies in women and epididymitis (a painful condition of the testicles) in men. Without proper treatment, gonorrhea can lead to infertility in both men and women.

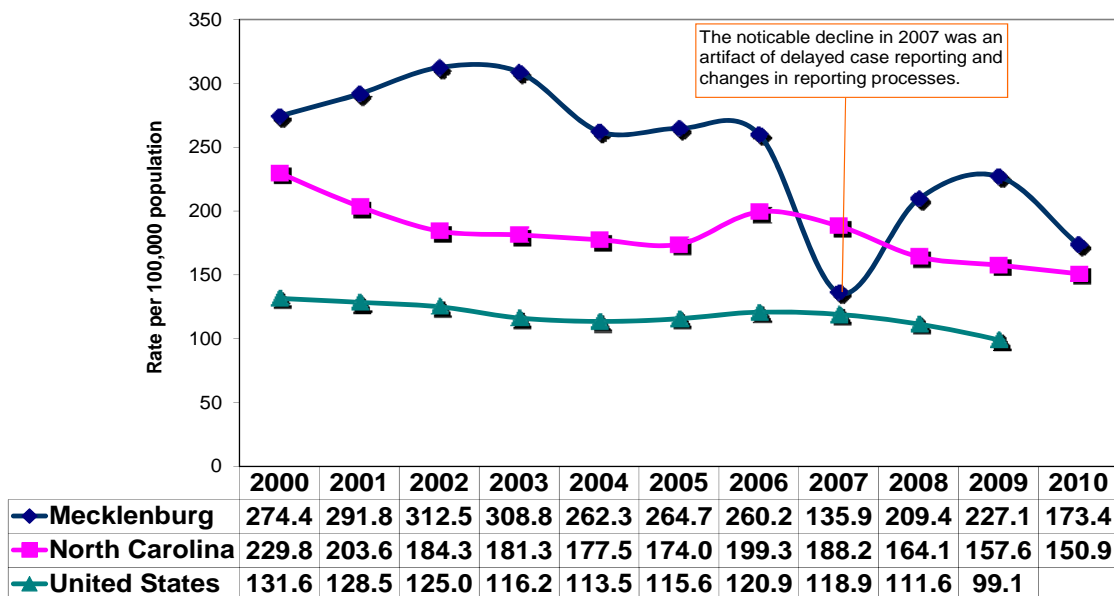
Like chlamydia, gonorrhea is under-diagnosed and under-reported, and approximately twice as many new infections occur each year as are reported².

Gonorrhea Case Reporting in Mecklenburg County^{3,4}

Between 2002 and 2006, gonorrhea case rates declined for the county. A substantial decline in reports was noted during 2007 due to delays in case reporting and changes in personnel. 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 STD case reporting resulting in higher case rates for years 2008 through 2010.

Mecklenburg reported 1,595 new cases of gonorrhea during 2010 for an annual case rate of 173.4 per 100,000⁴. This rate was lower than the 2010 case rate for the State (150.9) and the 2009 case rate for the Nation (99.1).

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



Source: 2010 NC EDSS Mecklenburg Gonorrhea 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 Gonorrhea is not yet available for calendar year 2010.)



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A Snapshot of the Epidemic

Mecklenburg County reported 1,595 new cases of gonorrhea during 2010, 22% lower than case reports from the previous year. While case reports increased between 2008 (1,865 cases) and 2009 (2,035 cases), the increase during this time may be a result of changes to the reporting process.

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

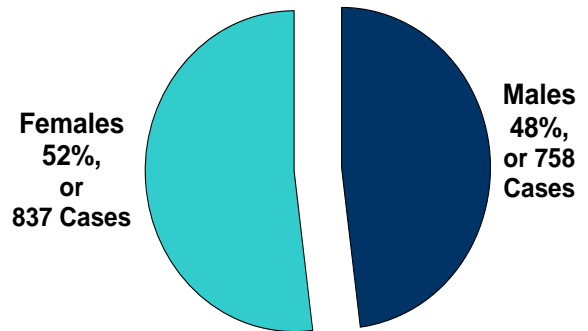
- Of the 1,595 cases reported in Mecklenburg, 48%, or 758 cases, were male and 52%, or 837 cases, were female.
- During 2010 the annual case rate for females (176.3) was only slightly higher than that of males (170.4).
- Compared to other age-groups, adolescents (13 – 19 yrs.) and young adults (20 – 29 yrs.) are at higher risk for acquiring STDs. In 2010, 80% of newly reported gonorrhea cases were among persons 13 – 29 years of age.

Racial and Ethnic Disparities

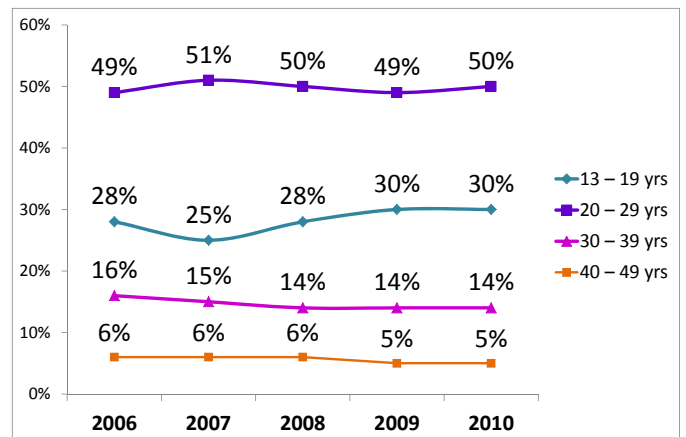
Despite declining case numbers and rates, racial and ethnic minorities remain disproportionately impacted by STDs. Race and ethnicity are not, however, risk factors for sexually transmitted diseases. Rather, race and ethnicity are risk markers that correlate with other more fundamental determinants of 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 care⁵.

2010 Mecklenburg Gonorrhea Case Reports BY GENDER



2006 – 2010 Mecklenburg Gonorrhea Cases By Age and Year of Report



The following age-groups account for approximately 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 1,595 gonorrhea cases reported in Mecklenburg during 2010, race/ethnicity was unavailable for 312 cases or 20% of reports. Based upon the remaining case reports:

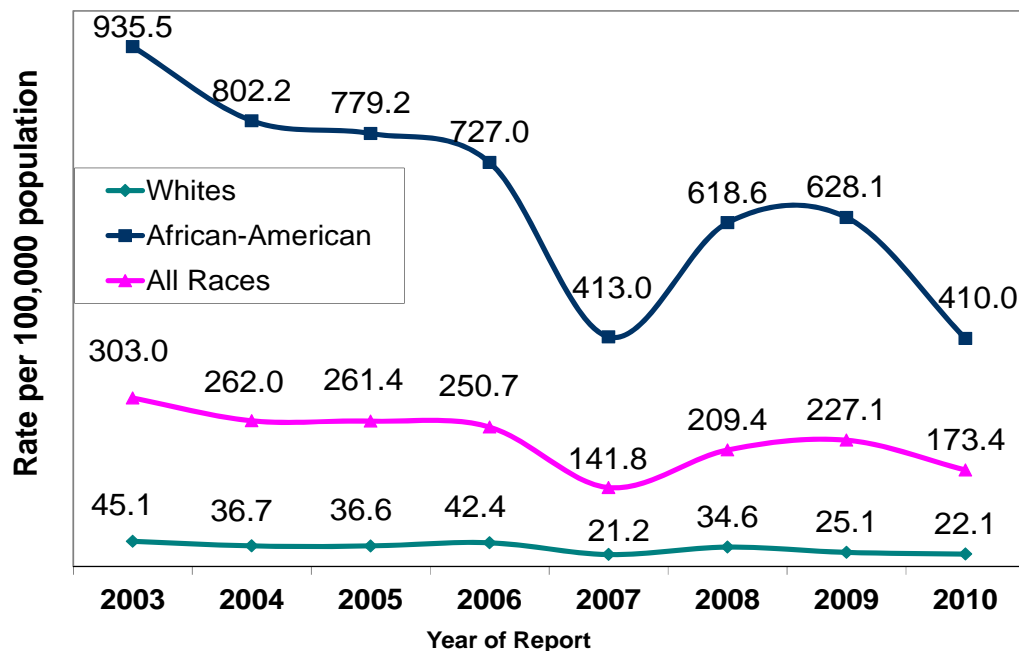
- 2% were Hispanic (29)
- 6% were White* (103),
- 71% were African American* (1,140)
- Approximately 1% of cases were persons of other races* including Asian, American Indian, Alaskan Native or persons reporting two or more races.

(*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 gonorrhea cases in 2010 and the highest case rate (410.0 per 100,000) were among African Americans.
- While the annual case rate among African-Americans decreased by 35% between 2009 and 2010, rates of disease were approximately 19 times higher than that of Whites. This disparity has changed little in recent years.
- Annual case rates for Whites declined from 34.6 cases per 100,000 in 2008 to 22.1 during 2010.

Gonorrhea 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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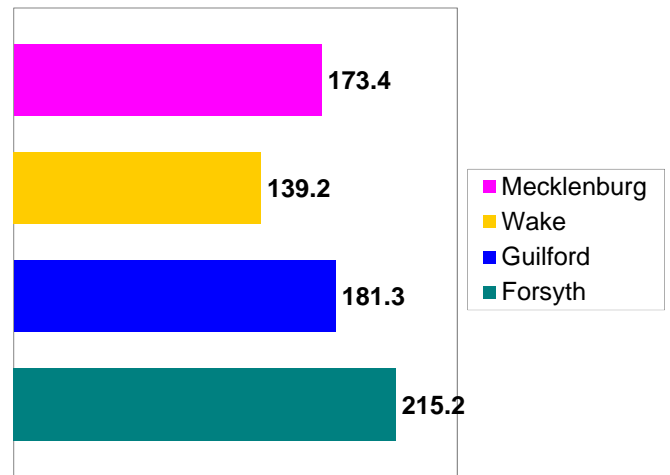
Peer Comparisons

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 Mecklenburg^{3, 6}. 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:

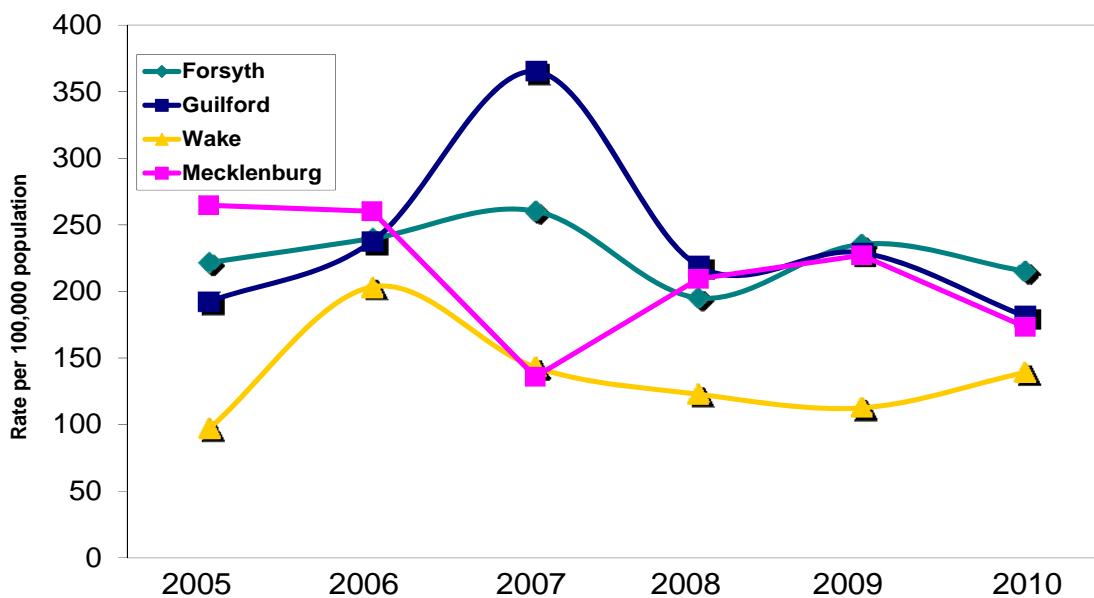
- Percent of population less than 18 years
- Percent of population over 64 years
- Percent of non-white population
- Percent of families with children (<18) living below the poverty level
- Total county population size

The 2010 rate of disease in Mecklenburg (173.4) was lower than its peer counties, with the exception of Wake County (139.2).

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



Gonorrhea Case Rates: Mecklenburg and Peer Counties
2005 - 2010 Case Rates per 100,000 population





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Mecklenburg County Reported GONORRHEA Cases By Year of Report By Age, Race and Gender

YEAR (Total cases)	2006 (n=2,072)		2007 (n=1,173)		2008 (n=1,865)		2009 (n=2,035)		2010 (n=1,595)	
Characteristics	cases	%	cases	%	cases	%	cases	%	cases	%
Age										
0 - 12 yrs	***	<1%	***	<1%	19	1%	***	***	***	<1%
13 – 19 yrs	584	28%	299	25%	522	28%	602	30%	480	30%
20 – 29 yrs	1,009	49%	604	51%	937	50%	1,004	49%	790	50%
30 – 39 yrs	326	16%	179	15%	259	14%	285	14%	228	14%
40 – 49 yrs	115	6%	72	6%	102	6%	103	5%	84	5%
50 and over	37	2%	17	1%	25	1%	33	2%	12	<1%
Missing/Unknown	***	0%	***	<1%	***	<1%	***	***	****	<1%
Race										
White*	196	10%	98	8%	168	9%	123	6%	103	6%
Black*	1,792	87%	1,019	87%	1,578	85%	1,625	80%	1,140	71%
Am Indian/Alaskan*	0	0%	0	0%	0	0%	***	***	6	0%
Asian/Pacific Island*	13	1%	12	1%	10	<1%	7	0%	5	0%
Hispanic	49	2%	28	2%	38	2%	33	2%	29	2%
Other/Unknown	22	1%	16	2%	71	4%	243	12%	312	20%
Gender										
Male	1,178	57%	659	56%	945	51%	949	47%	758	48%
Female	894	43%	514	44%	920	49%	1,086	53%	837	52%

* Non-Hispanic



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Technical Notes

Gonorrhea Screening and Testing

It is important to note that the number of gonorrhea cases reported each year is 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 gonorrhea case reporting.

Racial and Ethnic Disparities

Research indicates that 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^{1,5}.

However, this reporting bias does not fully explain the disparity between racial groups. Limited access to quality health care, poverty and higher disease prevalence also contribute to disparate rates for racial/ethnic minorities.

North Carolina Surveillance of STDs

The North Carolina STD Surveillance data system underwent extensive changes in 2008 as North Carolina implemented NC EDSS (the North Carolina Electronic Disease Surveillance System). NC EDSS is a component of the Centers for Disease Control and Prevention (CDC) initiative to move states to web-based surveillance and reporting systems. Reporting delays and changes in reporting processes for chlamydia and gonorrhea may have substantially affected data.

In 2007 local changes in personnel as well as delayed reporting accounted for a lower than anticipated number of reported Gonorrhea cases. Data for this year should be interpreted

with caution as the sharp decline was most likely due to this reporting artifact.

Gonorrhea Annual Case Rates

Crude incidence rates (new cases/population) were calculated on an annual basis per 100,000 population. Rates were calculated by dividing the number of cases reported from each year by the most current county-specific population estimates available at time of publication.

Due to use of updated population data, rates presented in the current fact sheet may be different from prior fact sheets or charts.

REFERENCES

¹ Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention: 2009 STD Surveillance Report.

² 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.

³ North Carolina DHHS, HIV/STD Prevention and Care Unit. 2010 STD Surveillance and Regional Reports.

⁴ North Carolina Electronic Disease Surveillance System (NC EDSS). 2010 Mecklenburg County Gonorrhea Cases (date of report)

⁵ American Social Health Association. STD Prevention and Partnership and Position Statement: STDS and Minorities. Located on : http://www.ashastd.org/involve/involve_adv_minpos.cfm. Accessed: 10.12.2008

⁶ United States Census Bureau. State and County QuickFacts. Located on: <http://quickfacts.census.gov/qfd/states/> Accessed: 8.01.2010