

| 2021 | Sexually Transmitted Infections Data Brief |



Key Findings from Guilford County Sexually Transmitted Infection (STI) Data

A note on data in this report: The processing of STI data records may result in a delay in public data availability. Published STI data may change with further follow-up and investigation. At this point in time, it is unknown how the COVID-19 pandemic may have impacted STI rates.

- In 2020, the most commonly occurring sexually transmitted infection in Guilford County was chlamydia, followed by gonorrhea with 4,581 and 2,214 new cases respectively.
- Chlamydia incidence rates continued an upward trend from 2016 to 2019, reaching a high of 1,008 cases per 100,000 in 2019. In 2020, the rate decreased to 845.6 per 100,000.
- New HIV infection rates increased in 2019 after declining in 2017 and 2018. Guilford County still has higher rates than most peer counties and the state.
- Primary and secondary syphilis incidence rates declined from 2017 to 2019 but increased to 18.8 per 100,000 in 2020.
- Gonorrhea rates climbed to 434.7 per 100,000 in 2019 and dropped slightly to 408.7 in 2020.
- Increasing rates of chlamydia, gonorrhea and syphilis are consistent with state and national trends.

Inside this Data Brief

	<u>Page</u>
Key Findings	1
STI Cases and Rates, 2016-2020	2
Syphilis, Characteristics of Cases	3
Syphilis Trends	4
HIV Infection	4
HIV Infection, Trends	4
Chlamydia, Characteristics of Cases	6
Gonorrhea, Characteristics of Cases	7
Chlamydia and Gonorrhea Trends	8

Sexually Transmitted Infections, Cases and Rates per 100,000 Guilford County, 2016-2020

Reportable Disease	2016		2017		2018		2019		2020	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Chlamydia	4,102	786.8	4,731	897.8	5,162	967.3	5,415	1,008.0	4,581	845.6
Gonorrhea	1,776	340.7	1,713	325.1	1,965	368.2	2,335	434.7	2,214	408.7
HIV Infection (HIV & AIDS) ¹	136	26.7	126	28.3	109	24.3	123	22.9	93 ²	17.2
Syphilis (Primary & Secondary - P&S)	98	18.8	111	21.1	87	16.3	83	15.4	102	18.8
Syphilis (P&S and Early Latent)	176	33.8	178	33.8	141	28.3	184	34.2	181	33.4
Pelvic Inflammatory Disease (PID)	1	0.2	3	0.6	4	0.7	3	0.6	4	0.7
Non-Gonococcal Urethritis (NGU)	190	36.4	146	27.7	276	51.7	174	32.4	73	13.5
Hepatitis A	5	1.0	2	0.4	2	0.4	10	1.9	12	2.2
Hepatitis B (acute)	7	1.3	13	2.5	13	2.4	16	3.9	3	0.6
Hepatitis B (chronic carrier)	120	23.0	77	14.6	29	5.4	36	6.7	3	0.6
Hepatitis C (acute)	4	0.8	7	1.3	7	1.3	9	1.7	2	0.4
Population	521,330		526,953		533,670		537,174		541,741	

Source: NC Electronic Disease Surveillance System (NC EDSS).

¹Newly diagnosed HIV rates among adults and adolescents age 13 and above. Rates based on that population.

²Preliminary, from Quarterly Surveillance Report.

Sexually Transmitted Infections

Chlamydia is the most common sexually transmitted infection. Chlamydia can infect both men and women. It can cause serious, permanent damage to a woman's reproductive system, which can make future pregnancies impossible. Chlamydia can also cause a potentially fatal ectopic pregnancy, which occurs outside the womb.

Gonorrhea is a common infection transmitted by sexual contact, characterized by inflammation of the mucous membranes of the genital and urinary tracts, an acute discharge containing pus, and painful urination, especially in men. Women often have few or no symptoms, but pregnant women can transmit the infection to their baby during delivery, causing serious health problems for the baby.

Human Immunodeficiency Virus (HIV) is a virus that attacks the body's immune system, making the person more likely to get other infections or infection-related cancers. If untreated, HIV can lead to **Acquired Immunodeficiency Syndrome (AIDS)**, a potentially fatal condition.

Syphilis is a sexually transmitted infection that can cause serious health problems if not treated. Syphilis is divided into stages—primary, secondary, and latent—with different signs and symptoms associated with each stage.

Non-Gonococcal Urethritis (NGU) is inflammation of the urethra not caused by gonorrhea. NGU can result from various infectious and non-infectious conditions.

Pelvic Inflammatory Disease (PID) is an infection of female reproductive organs. It is a complication often caused by some STIs such as chlamydia and gonorrhea. Other infections that are not sexually transmitted can also cause PID.

Hepatitis A, Hepatitis B and Hepatitis C are potentially serious liver infections caused by three different viruses. Hepatitis A is usually transmitted by ingestion of contaminated food or water, while Hepatitis B and C are typically transmitted through contact with infectious body fluids.

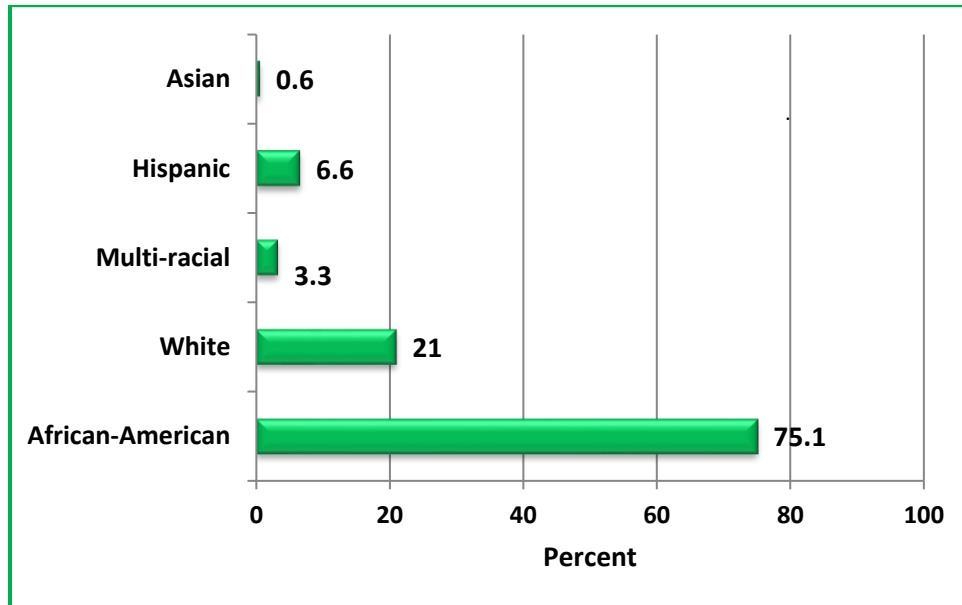
Sexually Transmitted Infections: Syphilis

Primary, Secondary and Early Latent Syphilis Rates per 100,000 By Selected Counties and NC, 2016-2020

Geographic Area	2016	2017	2018	2019	2020
Cumberland	27.6	24.0	35.2	33.4	35.7
Durham	36.3	38.8	55.6	53.8	53.5
Forsyth	19.9	20.7	26.4	26.2	16.7
Guilford	33.8	33.8	28.3	33.9	32.6
Mecklenburg	37.6	40.6	38.9	41.1	50.3
Wake	22.1	22.4	23.1	28.0	29.1
North Carolina	16.2	17.9	18.4	20.2	20.2

Source: NC HIV/STD Annual Surveillance Report; NCDHHS Communicable Disease Branch.

Characteristics of Guilford County Early* Syphilis Cases, 2020 Percentage of Cases by Race and Ethnicity Number of Cases = 181

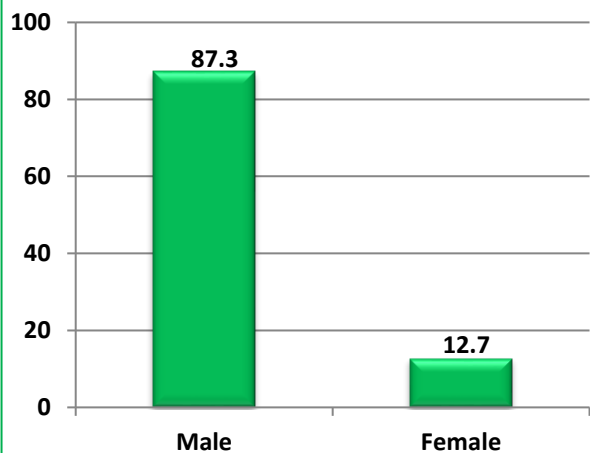


Source: NC Electronic Disease Surveillance System (NC EDSS).

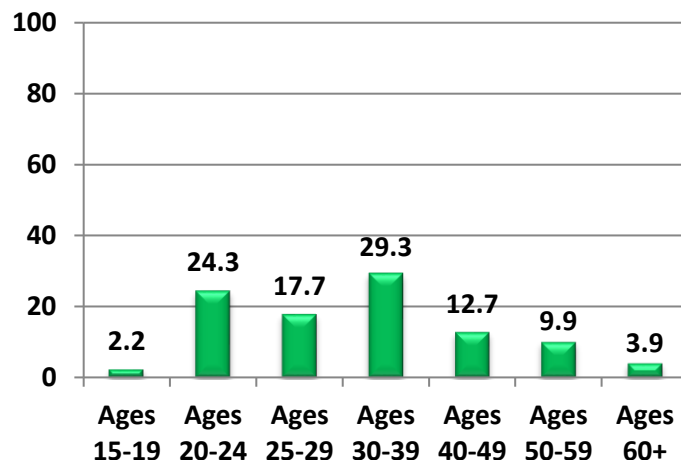
Notes: Hispanics can be of any race; percentages do not add to 100%.

*Early Syphilis includes Primary and Secondary and Early Latent Syphilis.

Percent of Syphilis* Cases, by Sex, Guilford County, 2020

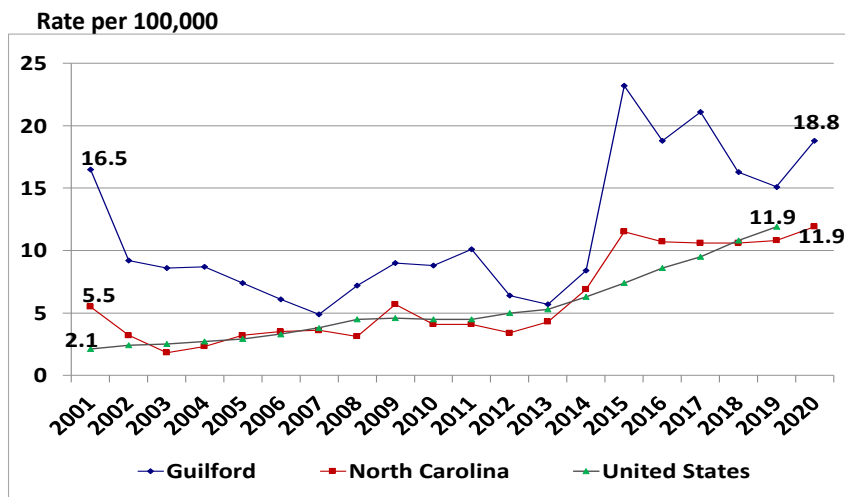


Percent of Syphilis* Cases by Age Group, Guilford County, 2020



Source: NC Electronic Disease Surveillance System (NCEDSS).
 *Includes Primary and Secondary and Early Latent Syphilis

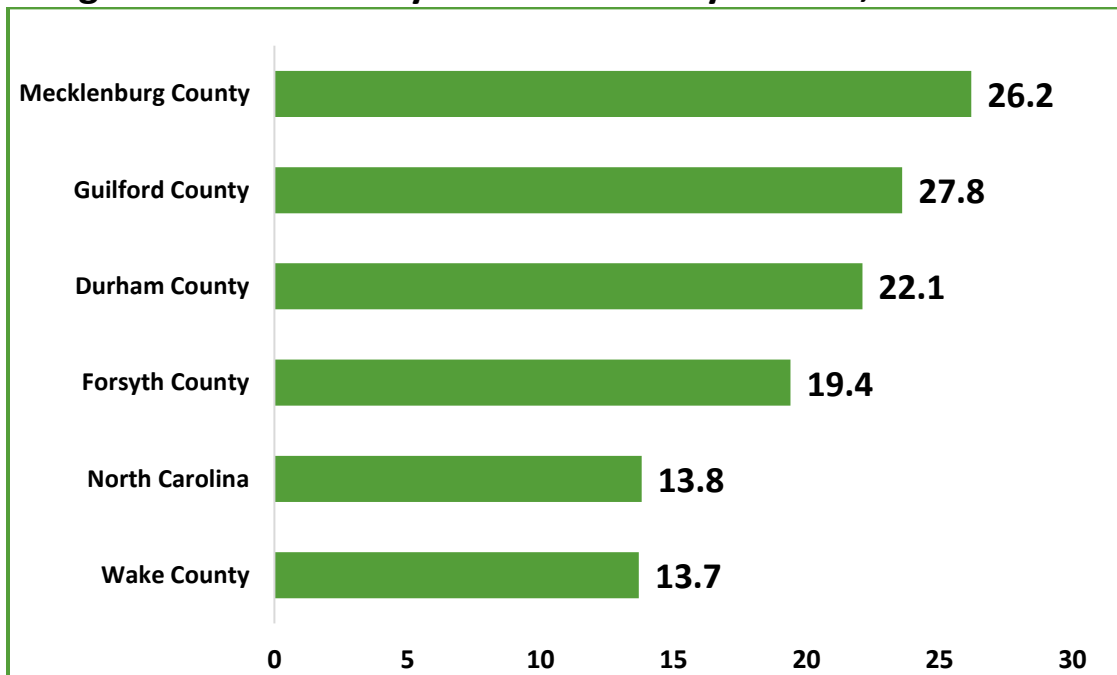
Trends in Primary and Secondary Syphilis Rates Guilford County, NC and US, 2001-2020



Source: NC DHHS Communicable Disease Control Branch; NC Electronic Disease Surveillance System (NCEDSS).
 Chart prepared by the GCDHHS, Division of Public Health.
 Note: NC 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. US 2020 data was not yet available.

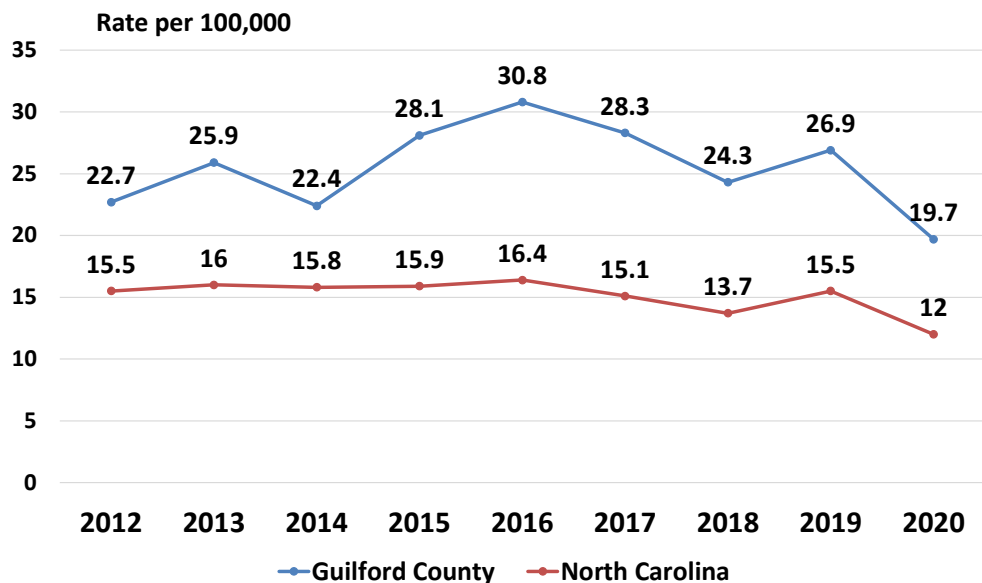
Sexually Transmitted Infections: HIV and AIDS

Newly Diagnosed HIV Rates among Adults and Adolescents Ages 13 and Older by Selected County and NC, 2018 - 2020



Source: 2020 North Carolina HIV Annual Surveillance Report; NC DHHS, Division of Public Health.

Trends in Rates of Newly Diagnosed HIV among Adults and Adolescents Ages 13 and Older, Guilford County and NC, 2012-2020



NC HIV Surveillance Report, HIV/STD/Hepatitis Surveillance Unit, Division of Public Health, NCDHHS.
Chart prepared by the GCDHHS, Division of Public Health.

Sexually Transmitted Infections: Chlamydia

Characteristics of Guilford County Chlamydia Cases and Rates by Race and Hispanic Status, 2018-2020

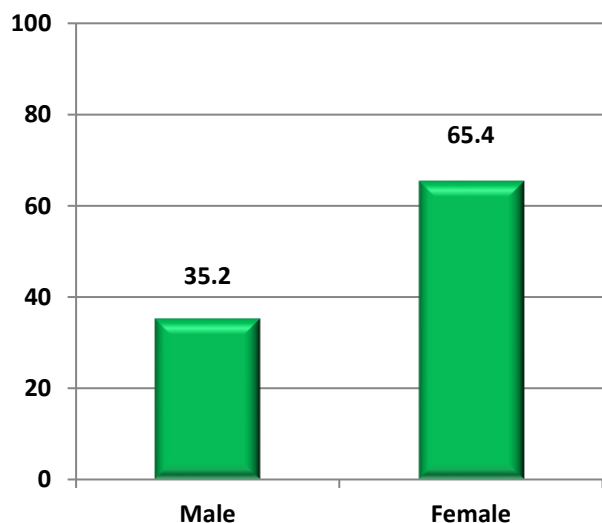
Race or Ethnicity Classification	2018		2019		2020	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	12	0.2%	3	0.1%	10	0.2
Asian	65	1.3%	51	0.9%	36	0.8
African-American	3,249	62.9.0%	3,364	62.1%	2,740	59.8
Hawaiian/Pacific	8	0.2%	2	0.04%	6	0.1%
White	696	13.5%	669	12.3%	548	12.0%
Other	155	3.0%	148	2.7%	124	2.7%
Unknown	946	18.3%	1,134	20.9%	1,068	23.3%
Multi-Racial	24	0.5%	30	0.6%	20	0.4%
Missing	7	0.1	14	0.3%	29	0.6%
Race Total	5,162	100%	5,415	100%	4,581	100%
Hispanic*	237	4.6%	249	4.6%	202	4.4%

*Hispanics can be of any race.

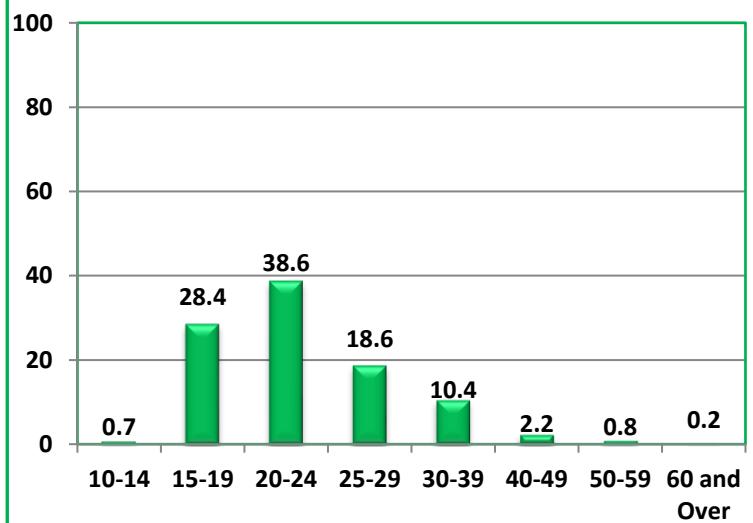
Source: NC Electronic Disease Surveillance System (NCEDSS).

- The highest chlamydia incidence rates are among African-American residents, with large disparities compared to Whites and other race/ethnic groups.
- The age groups with the highest rates of chlamydia are ages 20-24, followed by ages 15-19 and ages 25-29.
- Two-thirds of chlamydia cases are among females. Chlamydia cases are diagnosed largely as a result of screening, and women are more likely to have screening tests.

Percent of Chlamydia Cases by Sex, Guilford County, 2020



Percent of Chlamydia by Age Group, Guilford County, 2020



Source: NC Electronic Disease Surveillance System (NCEDSS).

Sexually Transmitted Infections: Gonorrhea

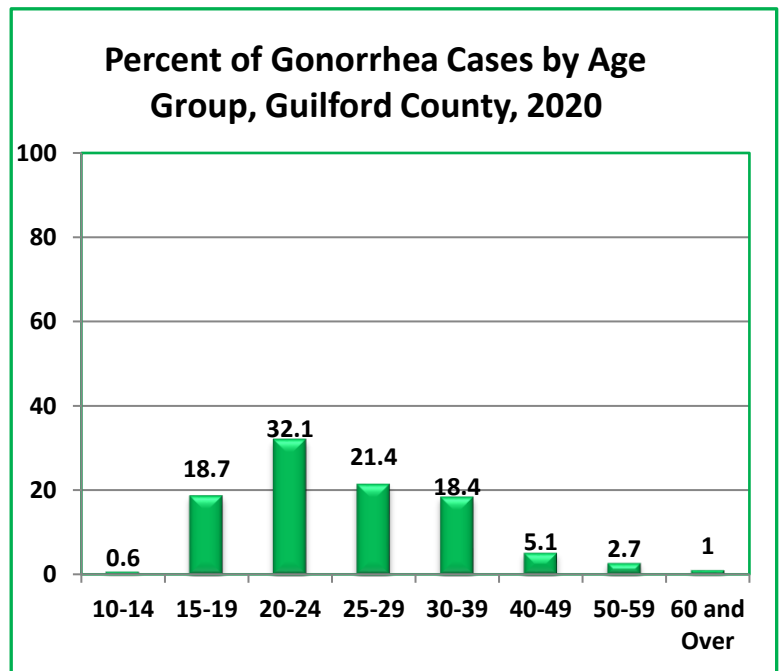
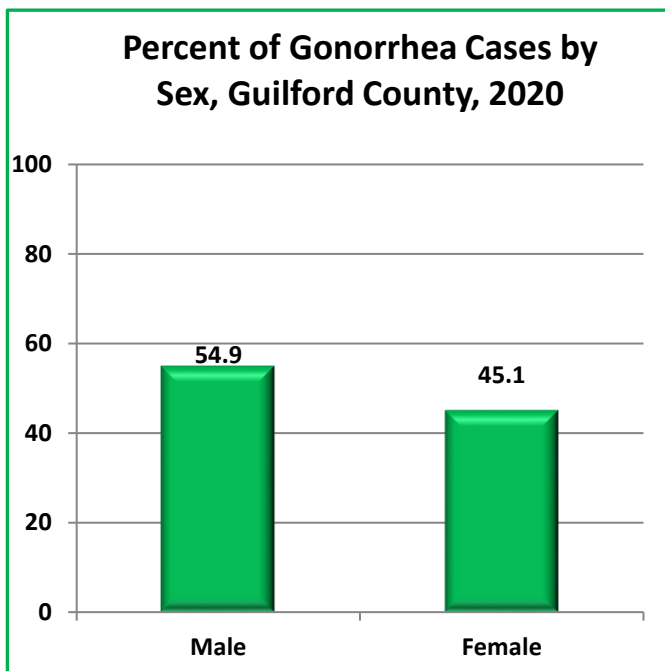
Characteristics of Guilford County Gonorrhea Cases and Percentages by Race and Hispanic Status, 2018-2020

Race or Ethnicity Classification	2018		2019		2020	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	6	0.3%	1	0.04%	7	0.325
Asian	9	0.5%	6	0.3	14	0.6
African-American	1,475	75.1%	1,677	71.8%	1,535	69.3
White	170	8.7%	211	9.0%	193	8.7%
Other	24	1.2%	33	1.4%	34	1.5%
Unknown	271	13.8%	390	16.7%	409	18.5%
Multi-Racial	7	0.4%	16	0.7%	10	0.5%
Race Total	1,965	100%	2,335	100%	2,214	100%
Hispanic*	33	1.7%	56	2.4	50	2.3%

*Hispanics can be of any race.

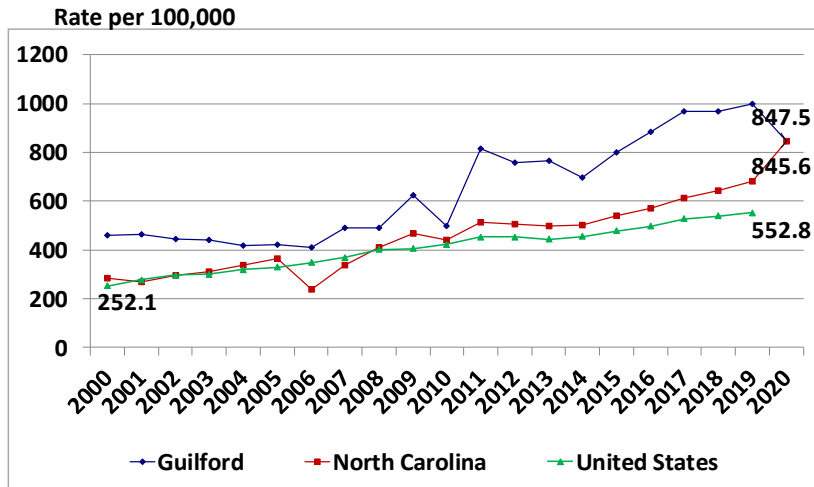
Source: NC Electronic Disease Surveillance System (NCEDSS).

- The highest gonorrhea incidence rates are among African-American residents, with large disparities compared to Whites and other race/ethnic groups.
- The age groups with the highest rates of gonorrhea are ages 20-24, followed by ages 25-29 and ages 15-19.



Source: NC Electronic Disease Surveillance System (NCEDSS).

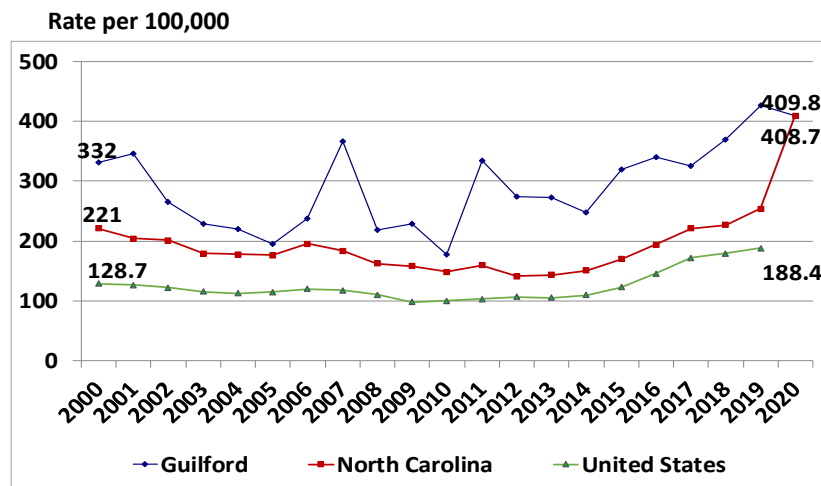
Trends in Chlamydia Incidence Rates Guilford County, NC and US, 2000-2020



Source: NC DHHS Communicable Disease Control Branch; NC Electronic Disease Surveillance System (NCEDSS).
Chart prepared by the GCDHHS, Division of Public Health.

Note: NC 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. US 2020 data was not yet available.

Trends in Gonorrhea Incidence Rates Guilford County, NC and US, 2000-2020



Sources: North Carolina Electronic Disease Surveillance System (NCEDSS); NC DHHS, Communicable Disease Control Branch; CDC.

Chart prepared by the GCDHHS, Division of Public Health.

Note: NC 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. US 2020 data was not yet available.

This report was prepared by Health Surveillance and Analysis Unit of the Division of Public Health:
Mark H. Smith, Ph.D., Epidemiologist Laura Mroska, MPH, MSW, Community Health Educator

For more information about Guilford County health statistics, visit
<https://www.guilfordcountync.gov/our-county/human-services/health-department/health-statistics>