

# | 2018 | Sexually Transmitted Infections Data Brief |



## Key Findings

- In 2017, the most commonly-occurring communicable diseases in Guilford County were sexually transmitted infections (STIs), with chlamydia contributing the largest number of cases, followed by gonorrhea (4,731 and 1,713 cases respectively).
- After declining from a high of 102 cases in 2011 to 51 cases in 2013, cases of primary, secondary and early latent syphilis increased to 203 cases in 2017. Syphilis rate increases in Guilford are part of rate increases across the state of North Carolina.
- Guilford County's HIV infection rate remains higher than that of North Carolina as a whole. Rates are highest for African-Americans, males and young adults ages 20-39.
- Mortality rates for HIV infection are gradually declining in both Guilford County and NC, reaching a historically low level in 2015 (1.5 deaths per 100,000).

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## Sexually Transmitted Infections, Cases and Rates per 100,000 Guilford County, 2013-2017

Reportable Disease	2013		2014		2015		2016		2017	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Chlamydia	3,879	764.9	3,563	694.6	4,138	799.5	4,102	786.8	4,731	896.1
Gonorrhea	1,382	272.5	1,271	248.0	1,656	320.0	1,776	340.7	1,713	324.4
HIV Infection (HIV & AIDS)	110	21.7	96	18.7	122	23.6	139	26.6	--	--
Syphilis (Primary & Secondary - P&S)	29	5.7	40	7.8	120	23.2	91	17.5	127	24.1
Syphilis (P&S & Early Latent)	51	10.9	84	16.4	199	38.5	175	34.7	203	38.5
Pelvic Inflammatory Disease (PID)	9	1.8	2	0.4	3	0.6	1	0.2	3	0.6
Non-Gonococcal Urethritis (NGU)	120	23.7	133	26.0	247	47.7	190	36.4	146	27.7
Hepatitis A	0	0.0	4	0.8	0	0.0	5	1.0	2	0.4
Hepatitis B (acute)	8	1.6	8	1.6	2	0.4	7	1.3	12	2.3
Hepatitis B (chronic carrier)	52	10.3	41	8.0	21	4.1	29	5.6	30	5.7
Hepatitis C (acute)	1	0.2	8	1.6	4	0.8	4	0.8	5	0.9
Population	506,610		512,119		517,600		521,330		527,696*	

Source: NC Center for Health Informatics and Statistics; NC DHHS HIV/STD Prevention and Care Branch; NC DHHS Communicable Disease Branch; NC DHHS Tuberculosis Control Program.

\*2017 Population estimate provided by the NC Office of Budget and Management.

### 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.

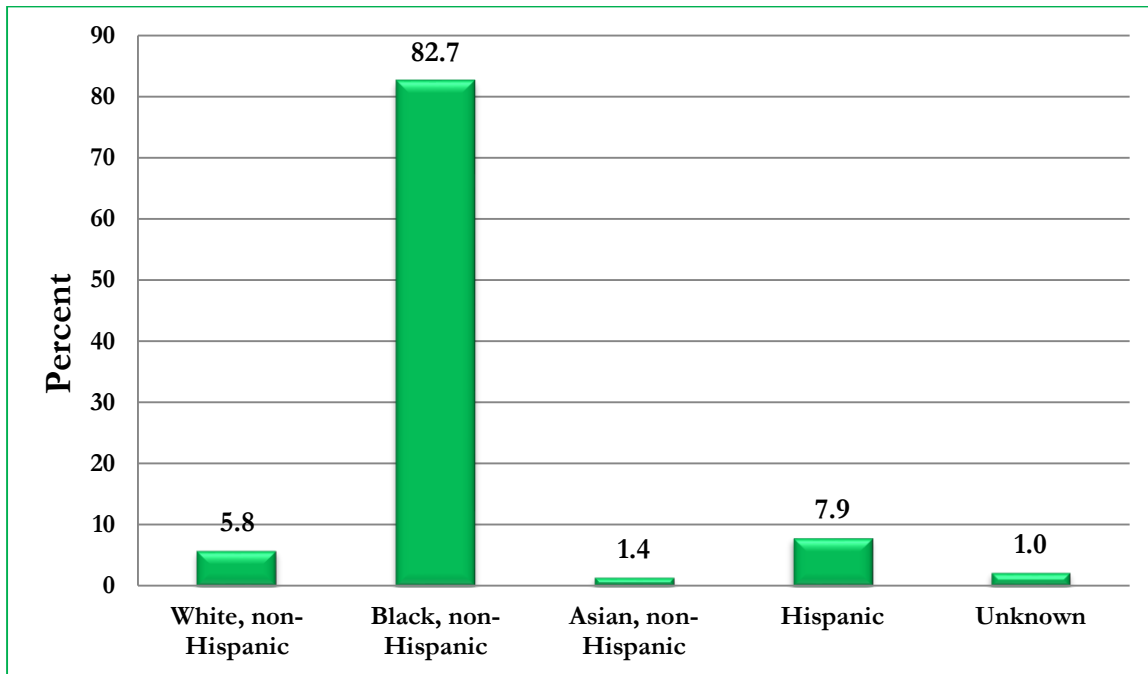
**Non-Gonococcal Urethritis (NGU)** is inflammation of the urethra not caused by gonorrhea. NGU can result from various infectious and non-infectious conditions.

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

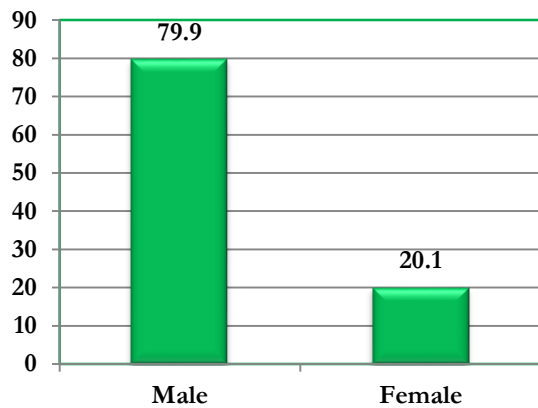
**Hepatitis A, Hepatitis B** and **Hepatitis C** are potentially serious liver infections caused by three different viruses. Each of these types of hepatitis can be transmitted through sexual contact.

## Sexually Transmitted Infections: HIV Infection

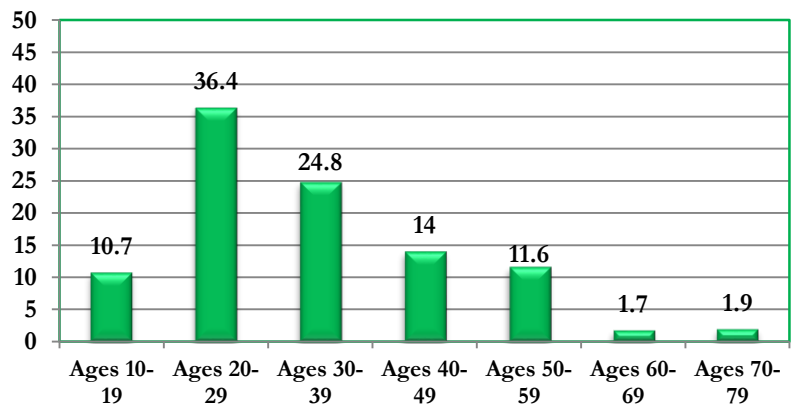
Characteristics of Guilford County HIV Infection Cases  
Percentage of Cases by Race and Ethnicity, 2016  
Number = 139



Percent of HIV Infection by Sex, 2016



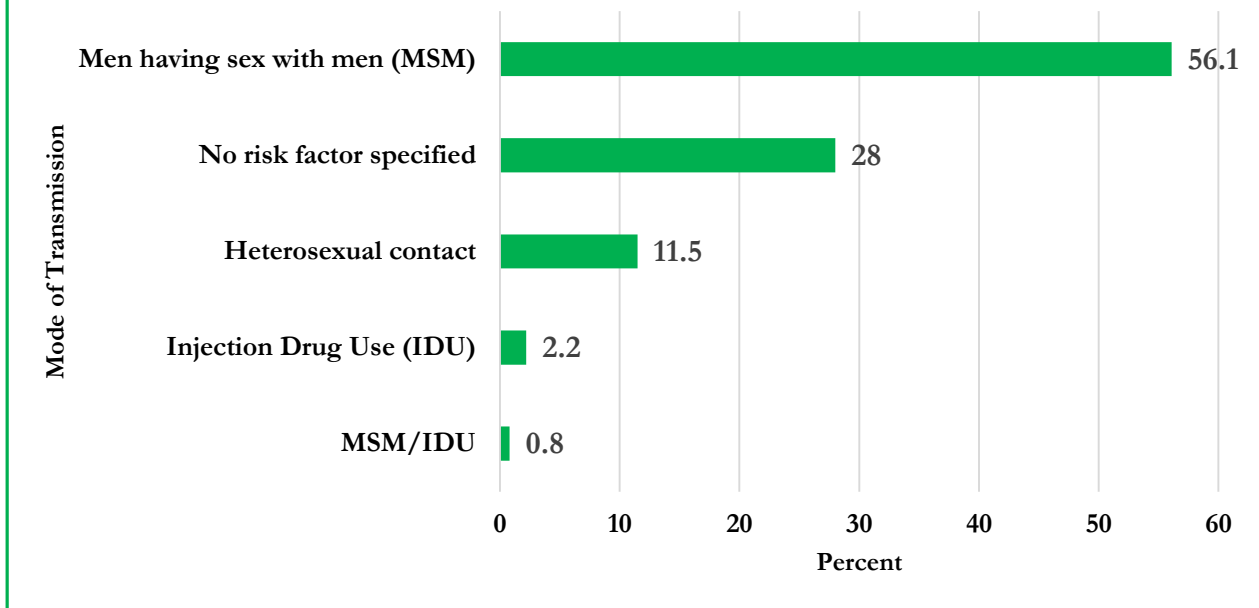
Percent of HIV Infection by Age Group, 2016



Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.

- Guilford County's HIV infection rate remains higher than that of North Carolina overall. Rates are highest for Black non-Hispanics, males and young adults between the ages of 20 to 29.
- HIV mortality rates declined dramatically between 1995 and 1997 and have remained low since that time. The difference between the new case rate and the mortality rate means that the number of residents living with HIV infection continues to grow.

## HIV Infection Mode of Transmission, 2016 Number = 139



Source: North Carolina HIV/STD Quarterly Surveillance Report, Annual Surveillance Report, HIV/STD Surveillance Unit.

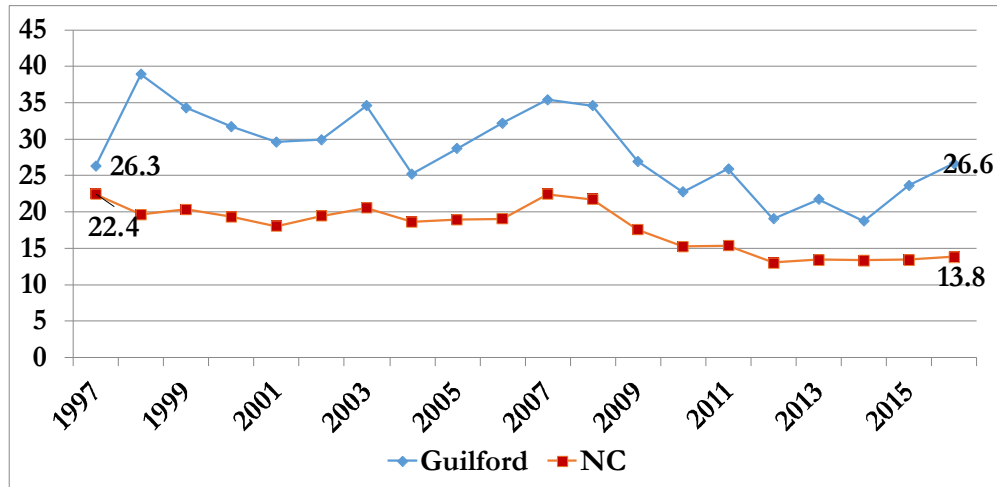
## HIV Infection New Case Rates per 100,000 by Selected County and NC, 2012-2016

Geographic Area	2012	2013	2014	2015	2016
Cumberland	19.5	22.7	23.6	25.6	23.7
Durham	23.7	24.3	22.9	20.3	31.9
Forsyth	14.8	18.0	13.8	14.9	26.5
Guilford	19.0	23.1	20.1	23.4	26.7
Mecklenburg	26.3	26.3	34.3	27.9	30.4
Wake	14.4	17.9	16.1	13.2	20.0
North Carolina	13.0	13.6	13.6	13.4	16.4

Source: North Carolina HIV/STD Quarterly Surveillance Report, Annual Surveillance Report, HIV/STD Surveillance Unit.

## Trends in HIV Infection Incidence Rates Guilford County and North Carolina 1997-2016

Rate per 100,000



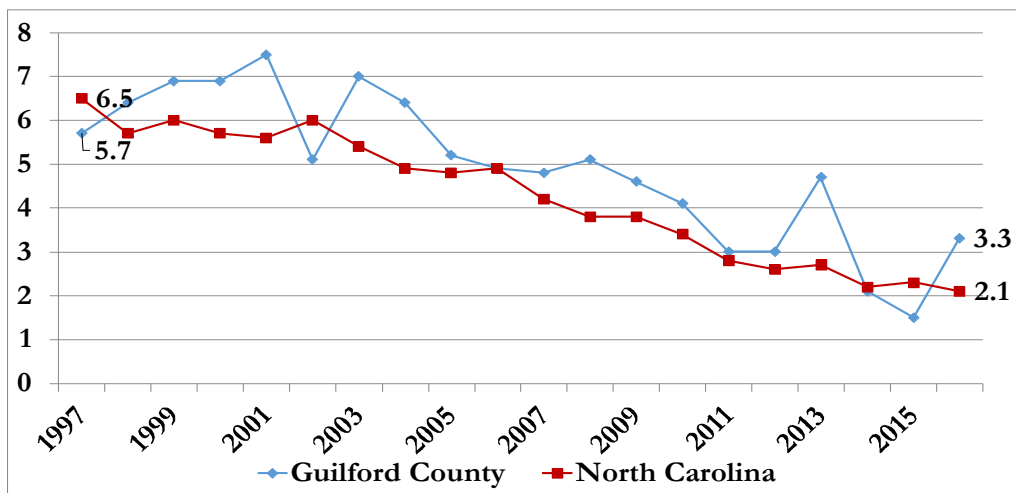
Source: HIV/STD Prevention & Care Branch, Division of Public Health, NC DHHS.

Chart prepared by the GCDHHS, Division of Public Health.

Note: HIV Infection includes both new cases of HIV or AIDS.

## Trends in HIV Infection Mortality Rates Guilford County and NC 1997-2016

Rate per 100,000



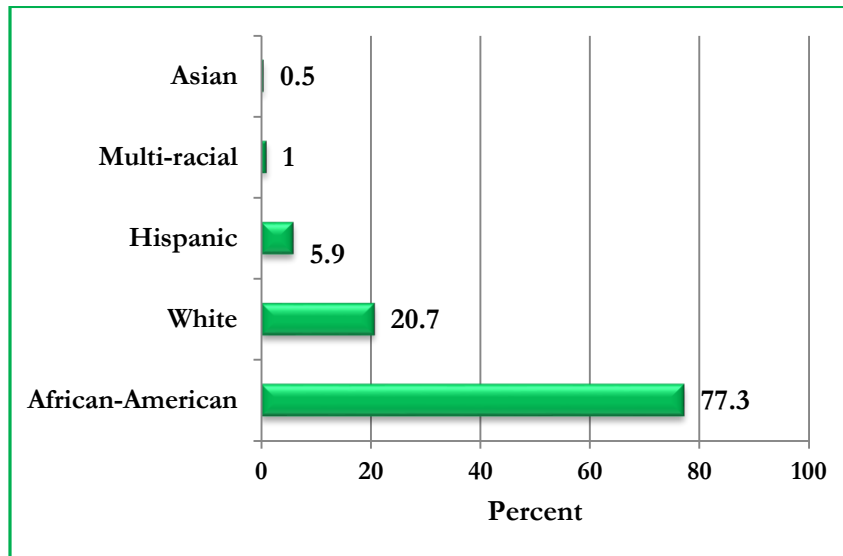
Source: NC Center for Health Statistics.

Chart prepared by GCDHHS, Division of Public Health.

Note: HIV Infection includes all cases of HIV and AIDS.

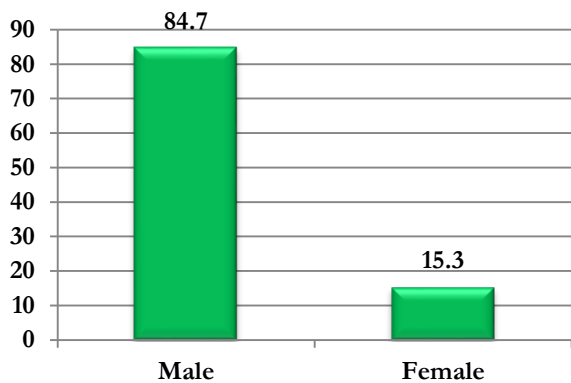
## Sexually Transmitted Infections: Syphilis

### Characteristics of Guilford County Syphilis Cases, 2017 Percentage of Cases by Race and Ethnicity (Primary, Secondary and Early Latent Syphilis) Number = 203

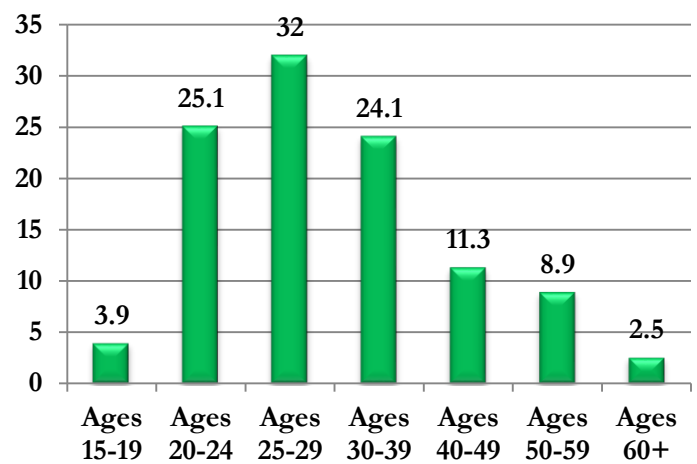


Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.  
Notes: Hispanics can be of any race; percentages do not add to 100%.

### Percent of Syphilis Cases by Sex, 2017

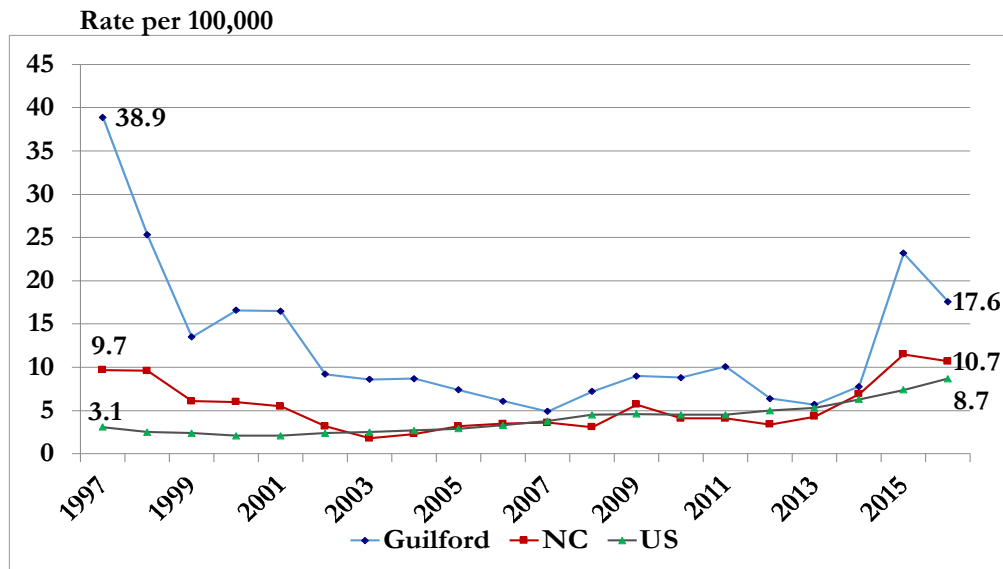


### Percent of Syphilis Cases by Age Group, 2017



Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.

## Trends in Primary and Secondary Syphilis Rates Guilford County, NC and US 1997-2016



Source: General Communicable Disease Control Branch; Division of Public Health, NC DHHS.  
Chart prepared by the GCDHHS, Division of Public Health.

## Primary, Secondary and Early Latent Syphilis Rates per 100,000 By Selected Counties and NC, 2012-2016

Geographic Area	2012	2013	2014	2015	2016
Cumberland	9.3	14.4	23.0	35.8	27.6
Durham	8.5	16.0	24.8	44.5	36.3
Forsyth	11.7	14.1	13.7	22.0	19.9
Guilford	11.6	10.0	17.0	38.3	29.1
Mecklenburg	13.1	15.0	26.6	39.2	37.6
Wake	8.6	11.3	17.7	24.2	22.1
North Carolina	5.8	7.0	11.2	18.6	16.2

Source: North Carolina HIV/STD Quarterly Surveillance Report, Annual Surveillance Report, HIV/STD Surveillance Unit.

## Sexually Transmitted Infections: Chlamydia

### Characteristics of Guilford County Chlamydia Cases and Rates by Race and Hispanic Status, 2015-2017

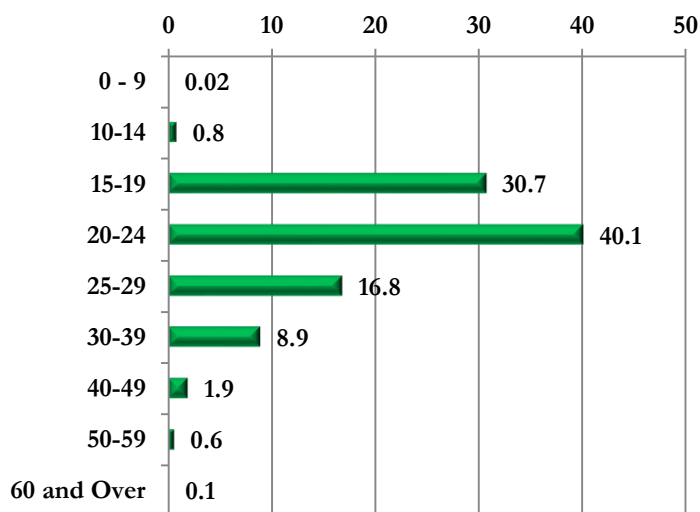
Race or Ethnicity Classification	2015		2016		2017	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	7	0.16%	8	0.2%	3	0.01%
Asian	42	0.96%	56	1.4%	48	1.0%
African-American	2,835	64.44%	2,534	61.8%	2,952	62.4%
Hawaiian/Pacific	6	0.14%	4	0.1%	3	0.1%
White	535	12.16%	467	11.4%	579	12.2%
Other	155	3.52%	105	2.6%	129	2.7%
Unknown	805	18.30%	914	22.3%	929	19.6%
Multi-Racial	12	0.28%	10	0.24%	11	0.2%
Missing	2	0.27%	4	0.10%	77	1.6%
Race Total	4,399	100.0%	4,102	100.0%	4,731	100%
Hispanic*	165	3.75%	153	3.7%	181	3.8%

\*Hispanics can be of any race.

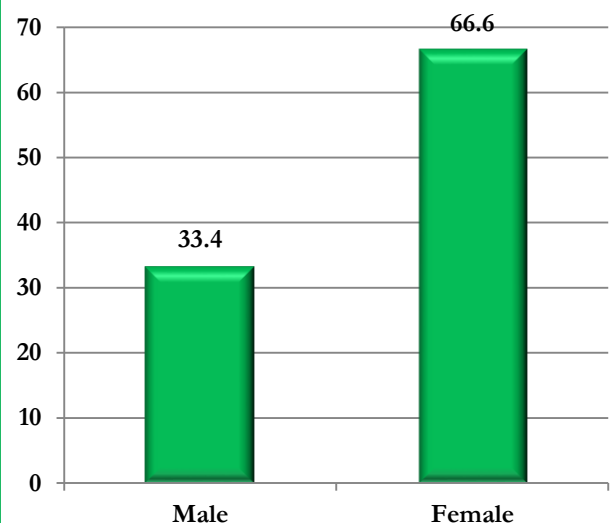
Source: NC Electronic Disease Surveillance System (NCEDSS).

- 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 Age Group, 2017**



**Percent of Chlamydia  
Cases by Sex, 2017**



Source: NC Electronic Disease Surveillance System (NCEDSS).



# Sexually Transmitted Infections: Gonorrhea

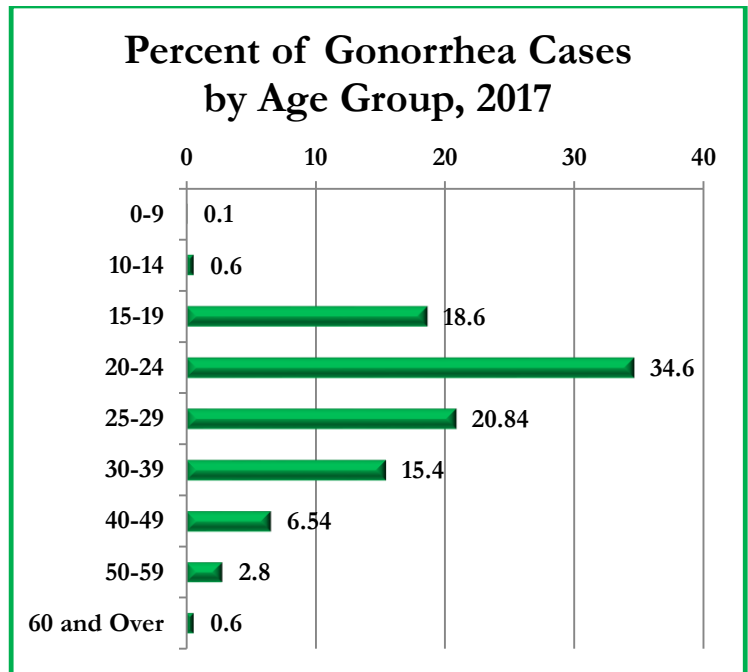
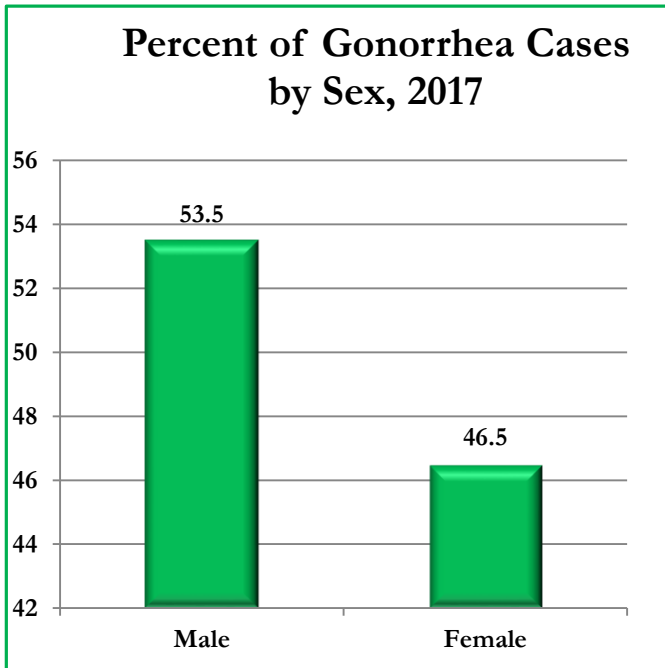
## Characteristics of Guilford County Gonorrhea Cases and Percentages by Race and Hispanic Status, 2015-2017

Race or Ethnicity	2015		2016		2017	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	1	0.06%	4	0.2%	1	0.1%
Asian	11	0.7%	4	0.2%	12	0.7%
African-American	1,111	72.5%	1,207	73.5%	1,258	73.4%
White	167	10.9%	156	9.5%	2	0.1%
Other	30	1.96%	16	1.0	164	9.6%
Unknown	212	13.8%	243	14.8%	222	13.0%
Multi-Racial	1	0.06%	6	0.4%	4	0.2%
Race Total	1,533	100.0%	1,642	100.0%	1,713	100.0%
Hispanic*	31	2.0%	31	1.9%	44	2.6%

\*Hispanics can be of any race.

Source: NC Electronic Disease Surveillance System (NCEDSS).

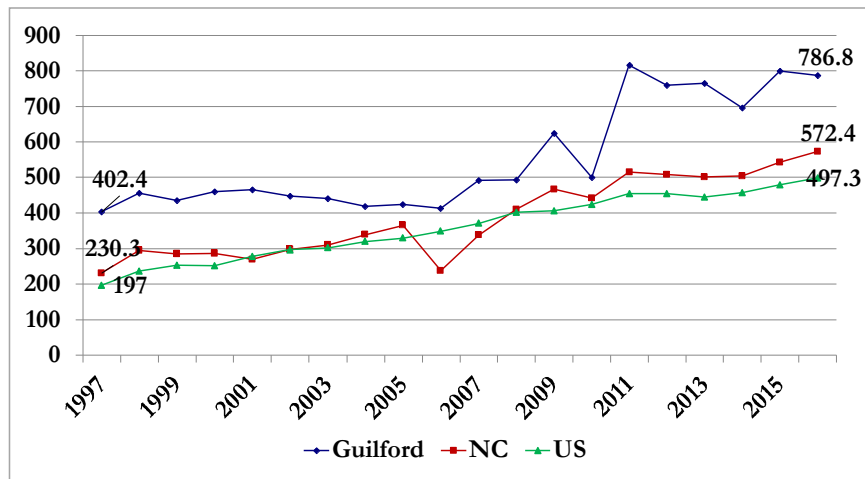
- The highest gonorrhea incidence rates are among African-American residents, with large disparities compared to Whites and other race/ethnic groups.
- The age groups with the highest rates of gonorrhea are ages 20-24, followed by ages 25-29 and ages 15-19.



Source: NC Electronic Disease Surveillance System (NCEDSS).

## Trends in Chlamydia Incidence Rates Guilford County, NC and US 1997-2016

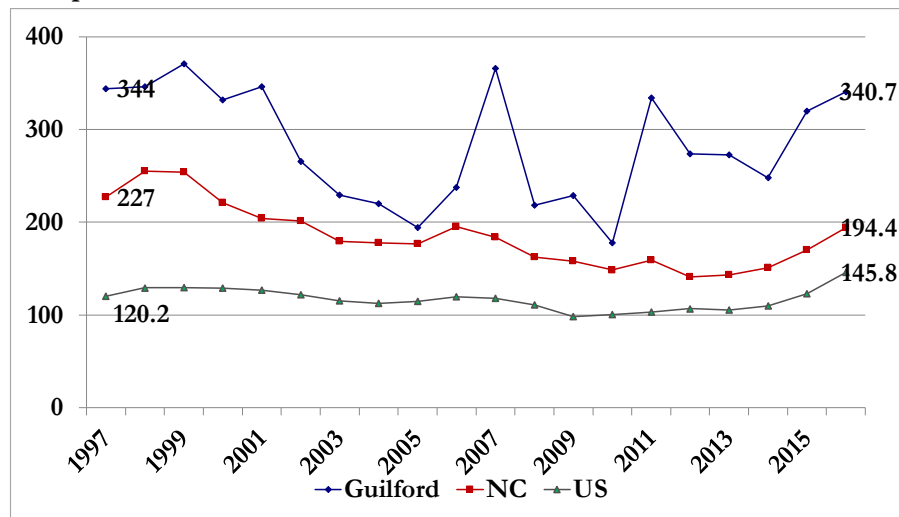
Rate per 100,000



Source: General Communicable Disease Control Branch; Division of Public Health, NC DHHS.  
Chart prepared by the GCDHHS, Division of Public Health.

## Trends in Gonorrhea Incidence Rates Guilford County, NC and US 1997-2016

Rate per 100,000



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

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For more information about Guilford County health statistics, visit [www.mv Guilford.com/humanservices/health/health-statistics](http://www.mv Guilford.com/humanservices/health/health-statistics)