



Highlights

- In 2016, 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 (4,102 and 1,642 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 sharply to 198 cases in 2015. 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, Hispanics, males and young adults.
- Mortality rates for HIV infection, gradually declining in both Guilford County and NC as a whole, reached a historically low level in 2015 (1.5 deaths per 100,000).

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Selected Communicable Disease Cases, Guilford County 2006-2016

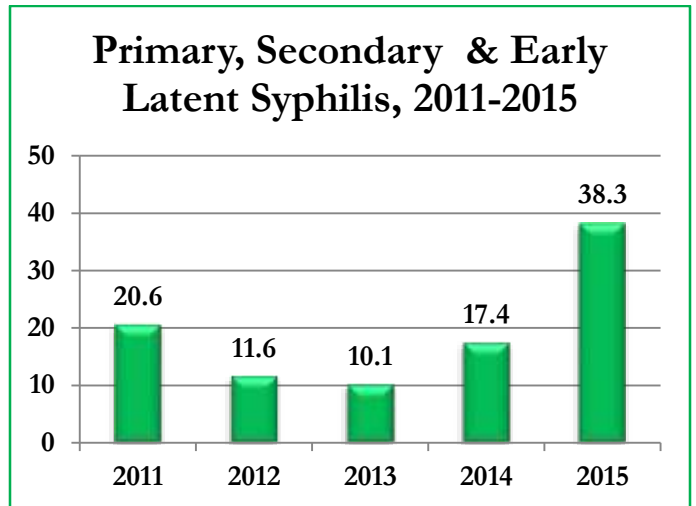
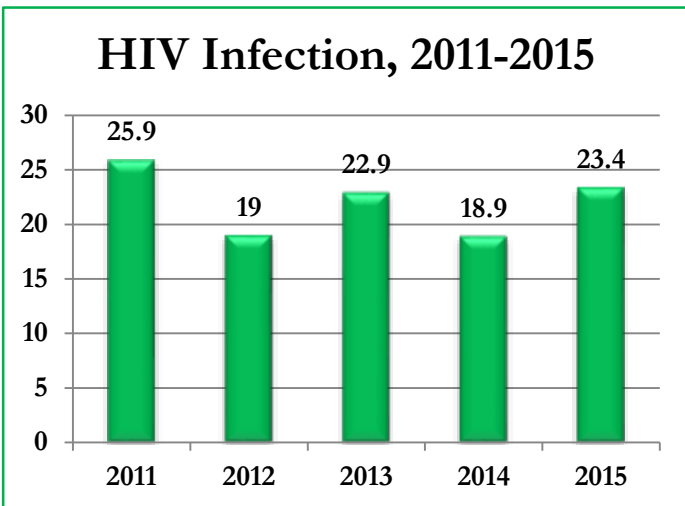
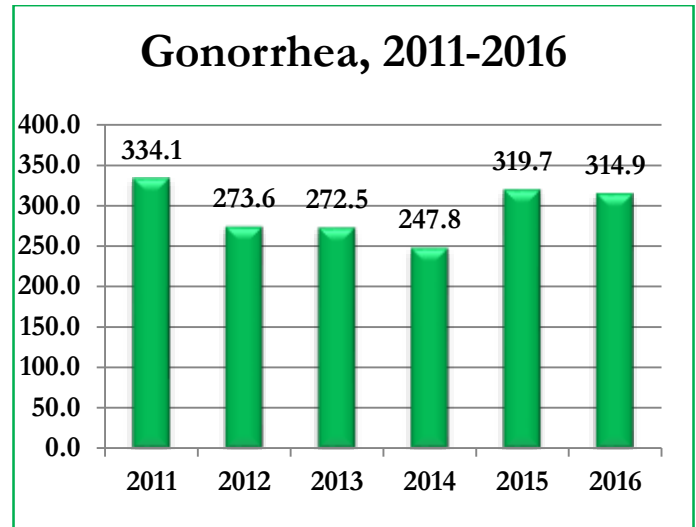
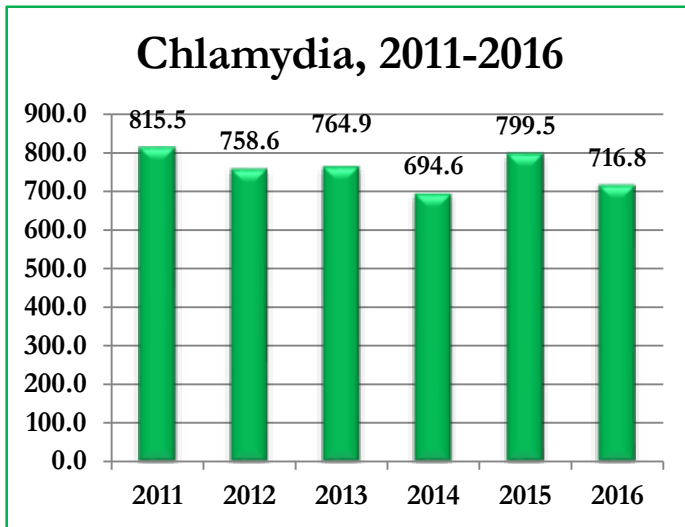
Diseases	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Campylobacter	62	23	20	28	25	28	27	32	17	29	36
Chlamydia	1,877	2,282	2,333	2,994	2,398	4,038	3,801	3,879	3,563	4,138	4,102
Gonorrhea	1,083	1,702	1,034	1,110	871	1,654	1,371	1,382	1,271	1,655	1,642
Hepatitis A	5	3	1	3	1	0	0	0	4	0	5
Hepatitis B (Acute)	16	16	6	0	12	7	6	8	8	2	7
HIV Infection (includes HIV & AIDS)	154	166	148	129	114	128	95	116	97	121	NA
Salmonella	53	45	52	46	88	71	66	57	60	64	42
Shigellosis	18	7	5	3	2	3	2	0	11	17	14
Syphilis (Primary & Secondary – P & S)	28	23	34	46	39	50	32	29	40	120	NA
Syphilis (P & S & Early Latent)	74	45	50	68	75	102	58	51	89	198	NA
Tuberculosis	38	27	21	21	31	22	17	19	20	21	19

Select Communicable Diseases, Rates per 100,000 Population, Guilford County 2006-2016

Diseases	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Campylobacter	13.8	5.0	4.3	5.9	5.1	5.7	5.4	6.3	3.3	5.6	6.9
Chlamydia	412.1	490.8	492.1	623.3	499.2	815.5	758.6	764.9	694.6	799.5	786.8
Gonorrhea	237.8	366.1	218.1	229.0	181.3	334.1	273.6	272.5	247.8	319.7	314.9
Hepatitis A	1.1	0.7	0.2	.63	0.2	0.0	0.0	0.0	0.8	0.0	1.0
Hepatitis B (Acute)	3.6	3.5	1.3	0	2.5	1.4	1.2	1.6	1.6	0.4	1.3
HIV Infection (includes HIV & AIDS)	34.3	36.0	31.6	26.2	23.3	25.9	19.0	22.9	19.9	23.4	NA
Salmonella	11.8	9.8	11.1	9.7	18.0	14.3	13.2	11.3	11.7	12.4	8.1
Shigellosis	4.0	1.5	1.1	.63	.41	0.6	0.4	0.0	2.1	3.3	2.7
Syphilis (Primary & Secondary – P & S)	6.1	4.9	7.2	9.6	8.0	10.1	6.4	5.7	7.8	23.2	NA
Syphilis (P & S & Early Latent)	16.2	9.7	10.5	14.2	15.3	20.6	11.6	10.9	17.4	38.3	NA
Tuberculosis	8.5	5.9	4.5	4.4	6.3	4.4	3.4	3.8	3.9	4.1	3.6
Population	449,071	460,784	468,439	476,038	488,406	495,231	501,058	506,610	512,119	517,600	521,368*

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;
 *2016 Population estimate is from the NC Demographer's Office, NC Budget and Management.

Comparisons of Sexually Transmitted Infections Incidence Rates per 100,000, Guilford County

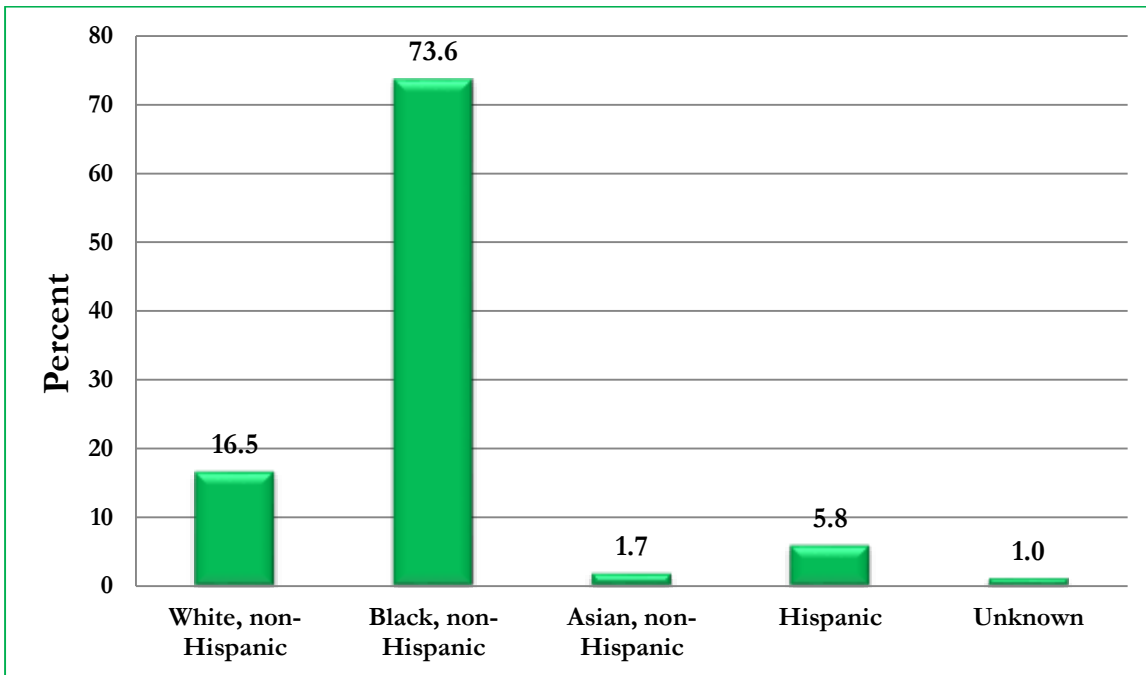


Source: 2015 North Carolina HIV/STD Surveillance Report, Communicable Disease Branch, NC DHHS, HIV/STD Surveillance Unit.

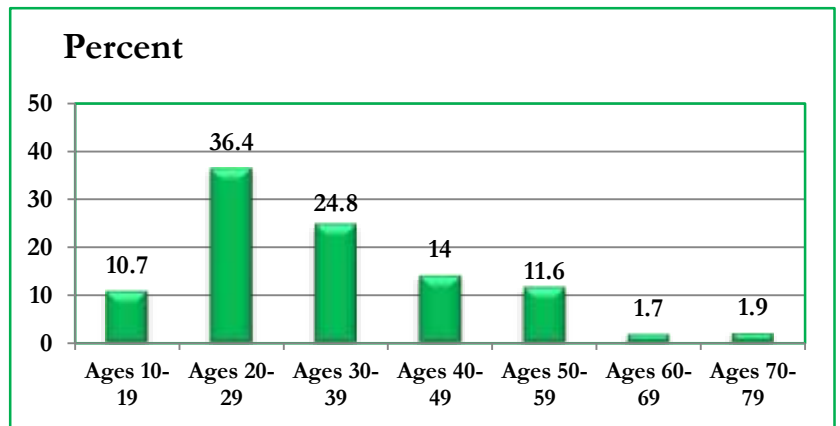
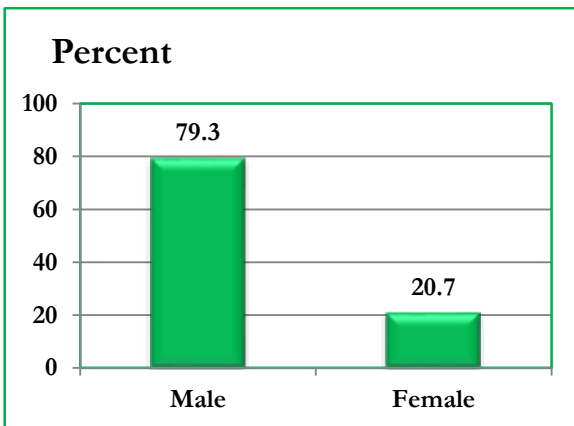
- New cases of chlamydia, the most common sexually transmitted infection, fluctuated from year to year between 2011 and 2015, but did not exhibit a clear trend.
- New cases of gonorrhea declined between 2012-2014 from rates seen in 2011, but increased substantially in 2015.
- Cases of HIV infection, which includes new cases of HIV and cases of AIDS, fluctuated from year to year between 2011 and 2015.
- Though cases of primary, secondary and early latent syphilis declined from 2011 to 2013, rates climbed steeply in 2014 and 2015.

Sexually Transmitted Infections: HIV Infection

Guilford County HIV Infection Cases, Percentage by Race and Ethnicity, 2015
N = 121



Demographic Characteristics of Guilford County HIV Infection Cases, 2015: Sex and Age
N = 121

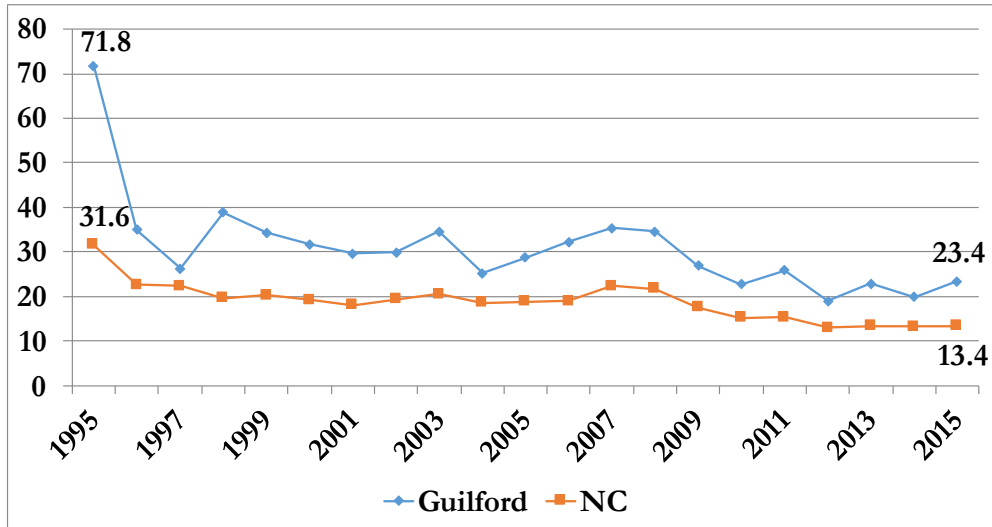


Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.

- Guilford County's HIV infection rate remains higher than that of North Carolina as a whole. 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.

Trends in HIV Infection Incidence Rates Guilford County and North Carolina 1995-2015

Rate per 100,000



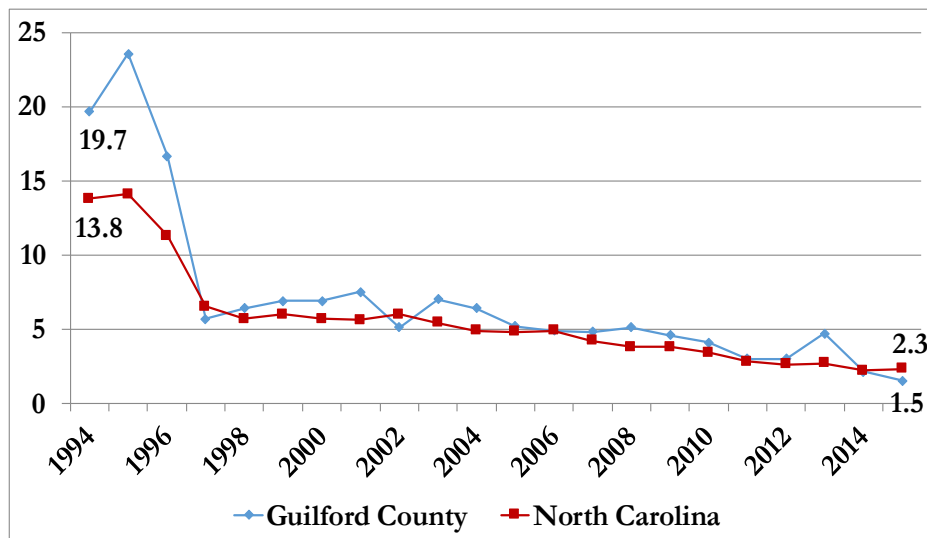
Source: HIV/STD Prevention & Care Branch, Division of Public Health, NC DHHS.

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

Chart prepared by the GCDHHS, Division of Public Health.

Trends in HIV Infection Mortality Rates Guilford County and NC 1994-2015

Rate per 100,000



Source: NC Center for Health Statistics.

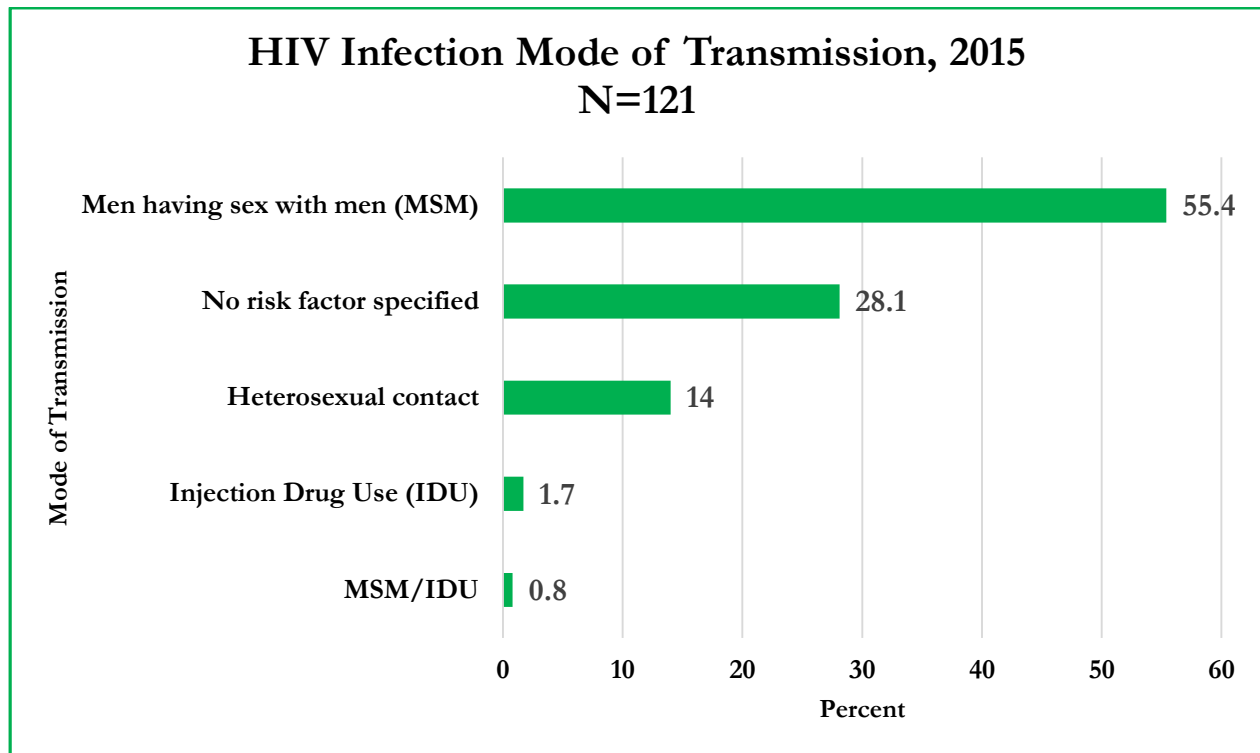
Chart prepared by GCDHHS, Division of Public Health.

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

HIV Infection New Case Rates per 100,000 by Selected County and NC, 2012 - 2015

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

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

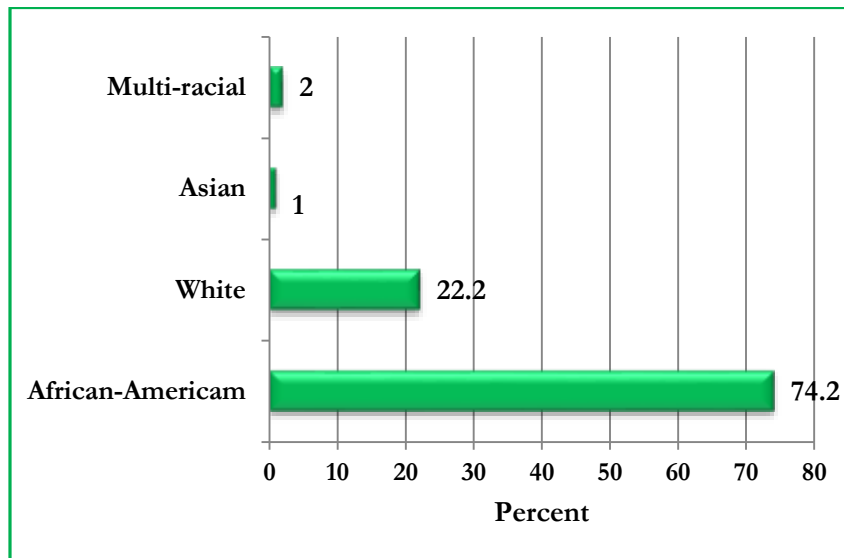


Source: North Carolina HIV/STD Quarterly Surveillance Report, Annual Surveillance Report, HIV/STD Surveillance Unit.

- Across the state as a whole, HIV rates remained relatively stable between 2012 and 2015. Guilford County's rate of 23.4 per 100,000 was higher than the state rate of 13.4 and peer counties Wake (13.2) and Forsyth (14.9) but lower than rates in Mecklenburg County (27.9) and Cumberland County (25.6).

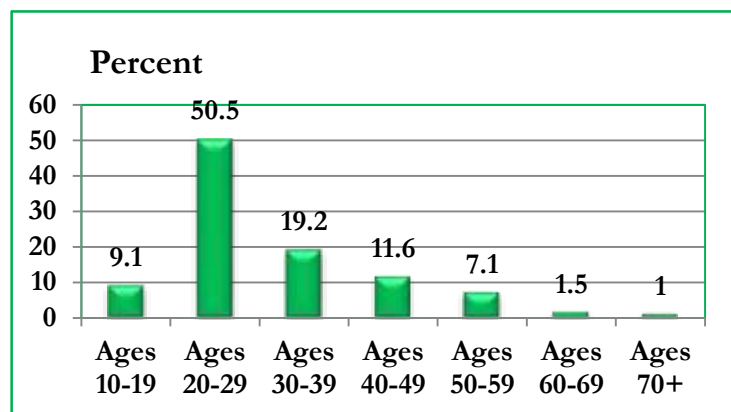
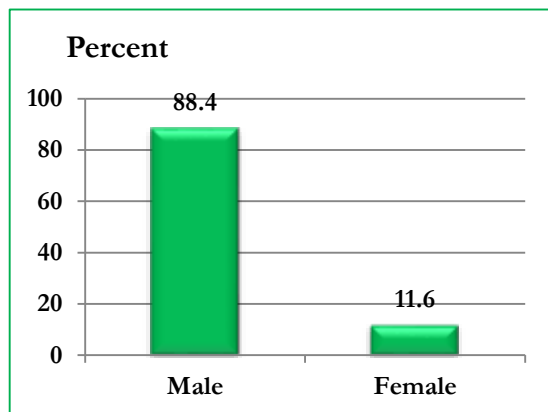
Sexually Transmitted Infections: Syphilis

Guilford County Syphilis Percentage of Cases by Race, 2015 Primary, Secondary and Early Latent Syphilis Cases N = 198



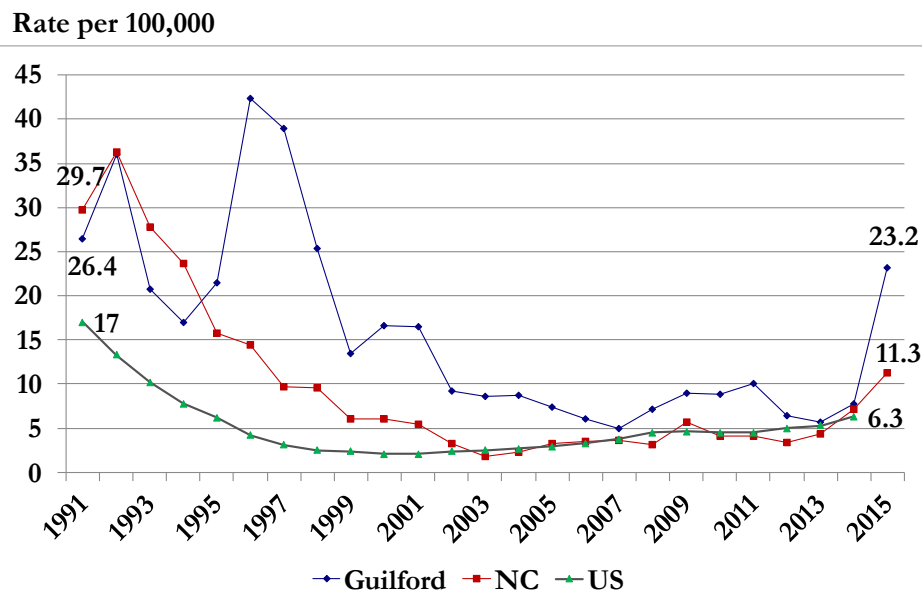
Source: Communicable Disease Branch, NC Division of Public Health, NCDHHS.

Demographic Characteristics of Guilford County Syphilis Cases, 2015: Sex and Age Primary, Secondary and Early Latent Syphilis N = 198



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

Trends in Primary and Secondary Syphilis Rates Guilford County, NC and United States 1991-2015



Source: General Communicable Disease Control Branch; Division of Public Health, NC DHHS.
 Chart prepared by the GCDHHS, Division of Public Health.
 Note: US data not yet available for 2014.

Primary, Secondary and Early Latent Syphilis Rates per 100,000 By Selected Counties and NC, 2012-2015

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

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

Sexually Transmitted Infections: Chlamydia

Chlamydia Cases and Rates by Race and Hispanic Status, 2015-2016

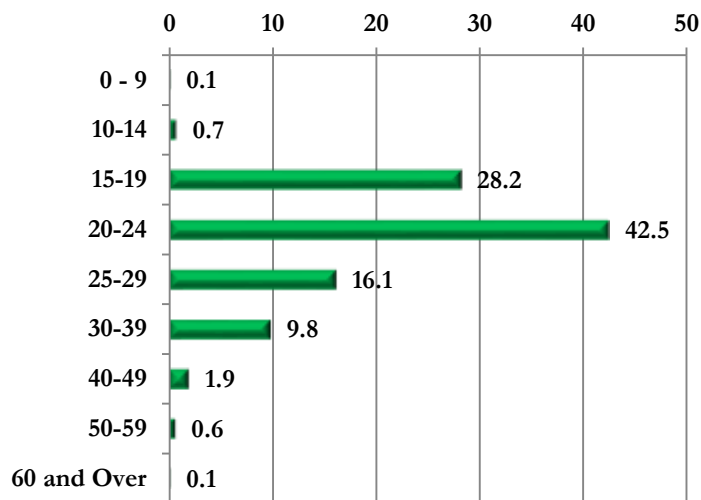
Race or Ethnicity Classification	2015		2016	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
American Indian	7	0.16%	8	0.2%
Asian	42	0.96%	56	1.4%
African-American	2,835	64.44%	2,534	61.8%
Hawaiian/Pacific	6	0.14%	4	0.1%
White	535	12.16%	467	11.4%
Other	155	3.52	105	2.6
Unknown	805	18.30	914	22.3
Multi-Racial	12	0.28%	10	0.24
Missing	2	0.27	4	0.10%
Race Total	4,399	100.0%	4,102	100.0%
Hispanic*	165	3.75	153	3.7

*Hispanics can be of any race.

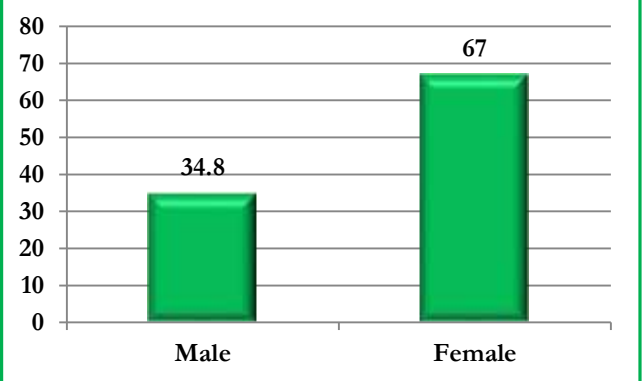
Source: NC Electronic Disease Surveillance System (NCEDSS).

- The highest chlamydia incidence rates are among African-American residents, with very 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 to 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, 2016

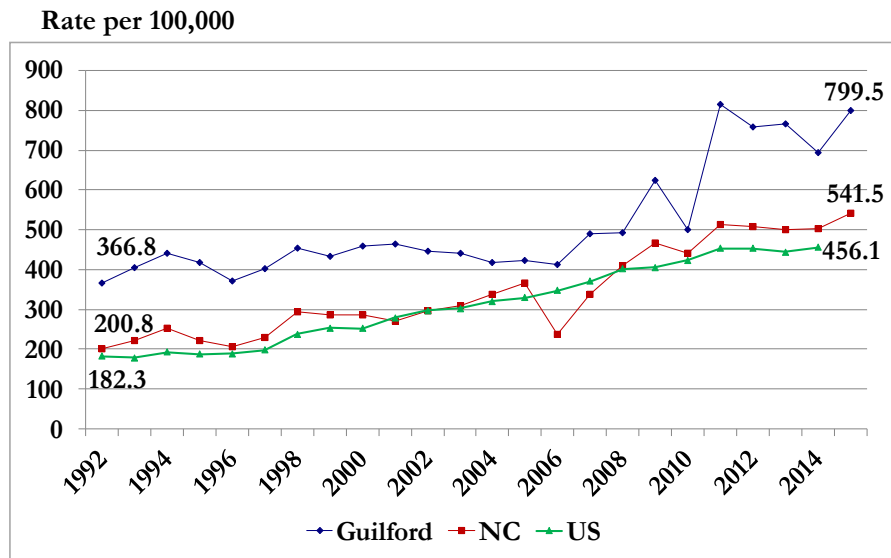


Percent of Chlamydia Cases by Sex, 2016



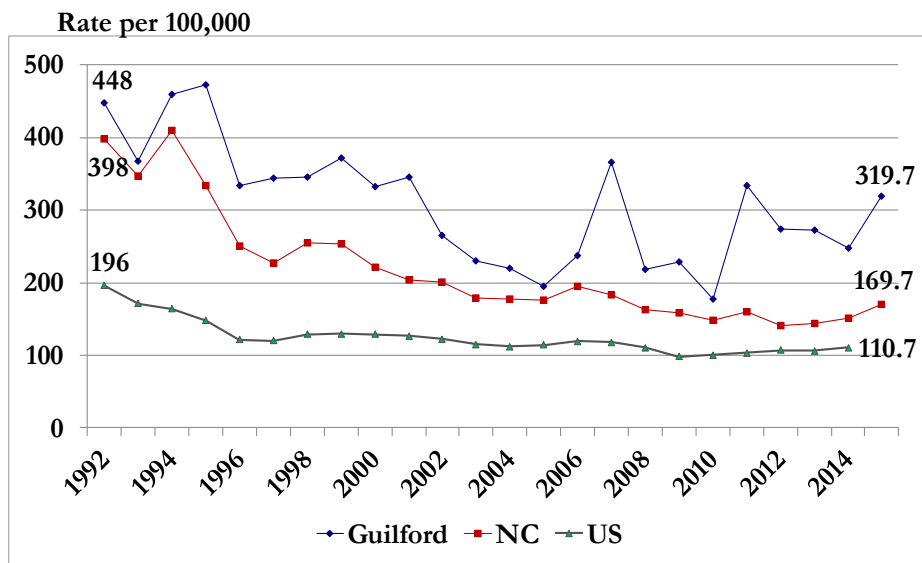
Source: NC Electronic Disease Surveillance System (NCEDSS).

Trends in Chlamydia Incidence Rates Guilford County, NC and United States 1992-2015



Source: General Communicable Disease Control Branch; Division of Public Health, NC DHHS.
Chart prepared by the GCDHHS, Division of Public Health.
Note: 2015 data for US not yet available.

Trends in Gonorrhea Incidence Rates Guilford County, NC and United States 1992-2015



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.
Note: 2015 data for US not yet available.

Sexually Transmitted Infections: Gonorrhea

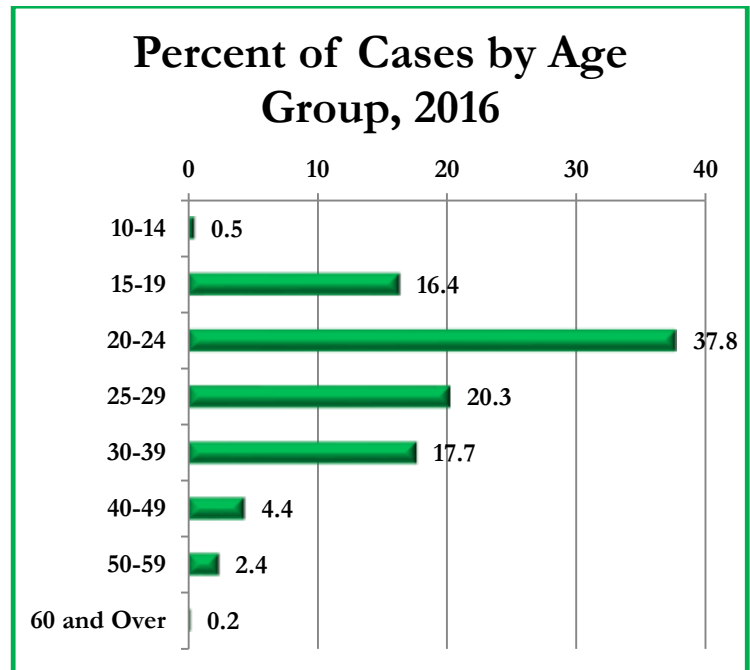
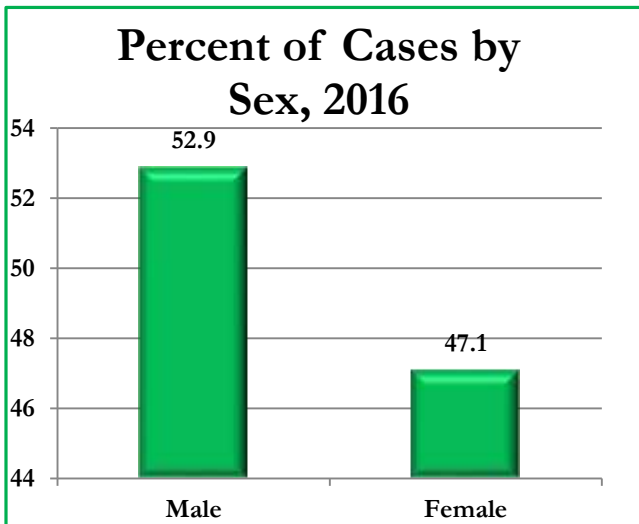
Gonorrhea Cases and Percentages by Race and Hispanic Status, 2015-2016

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

*Hispanics can be of any race.

Source: NC Electronic Disease Surveillance System (NCEDSS).

- The highest gonorrhea incidence rates are among African-American residents, with very 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).

Reportable Diseases

Reportable Diseases for Guilford County 2012-2016

Disease	2012	2013	2014	2015	2016
Campylobacter	27	32	17	29	36
Chikungunya	--	--	--	1	0
Chlamydia	3,919	3,767	3,090	4,399	4,102
Cryptosporidiosis	4	1	13	10	11
E Coli H7:157	0	4	4	6	17
Dengue Fever	0	0	0	0	2
Encephalitis-West Nile Virus	0	0	0	0	0
Erlichia, Human Monocytic Ehrlichiosis (HME)	--	--	--	1	0
Gonorrhea	1,433	1,346	1,154	1,533	1,642
Haemophilus Influenza	5	12	13	7	7
Hemolytic Uremic Syndrome	0	1	0	0	0
Hepatitis A	0	0	0	0	5
Hepatitis B Acute	6	8	8	2	7
Hepatitis B Chronic carrier	69	52	41	21	29
Hepatitis C Acute	1	0	8	3	1
HIV Infection	95	116	97	121	NA
Legionellosis	3	10	8	1	36
Listeriosis	0	1	1	1	3
Lyme Disease	4	6	5	4	1
Malaria	4	1	6	2	13
Measles	0	0	0	0	0
Meningococcal Disease	1	0	0	0	0
Mumps	1	0	0	0	0
Non-Gonococcal Urethritis	146	120	5	0	0
Pertussis (Whooping Cough)	18	29	6	12	10
Pelvic Inflammatory Disease (PID)	26	9	2	0	0
Rocky Mountain Spotted Fever (RMSF)	1	0	0	1	1
Shigellosis	2	0	11	17	14
Syphilis (Primary &Secondary)	35	29	39	110	NA
Syphilis (Primary &Secondary &Early Latent)	66	51	87	183	NA
Invasive Group A Streptococcal Disease	10	11	14	11	18
Salmonella	66	57	60	64	42
Tuberculosis	17	19	20	21	19
Typhoid, acute	--	--	--	1	0
Vibro Infection, Other	--	--	--	--	2
Zika	--	--	--	--	3

Source: NC Electronic Disease Surveillance System (NCEDSS).

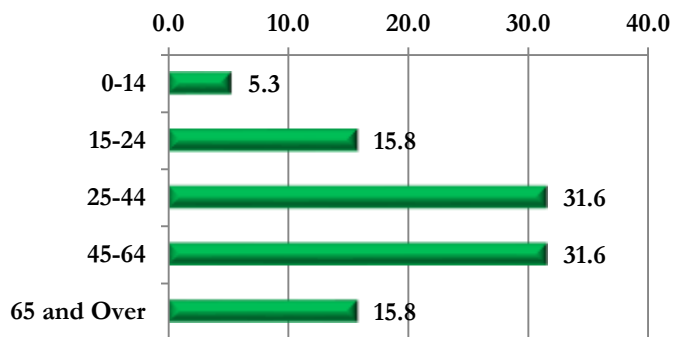
Tuberculosis

Tuberculosis Cases and Rates by Race and Hispanic Status, 2016

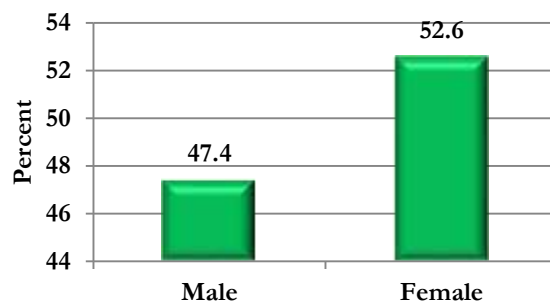
Race and Ethnicity	Number of Cases	Percent of Cases
Asian	4	21.1%
African-American	9	47.4%
White	6	31.6%
Race Total	19	100%
Hispanic*	4	21.1%

*Hispanics can be of any race.

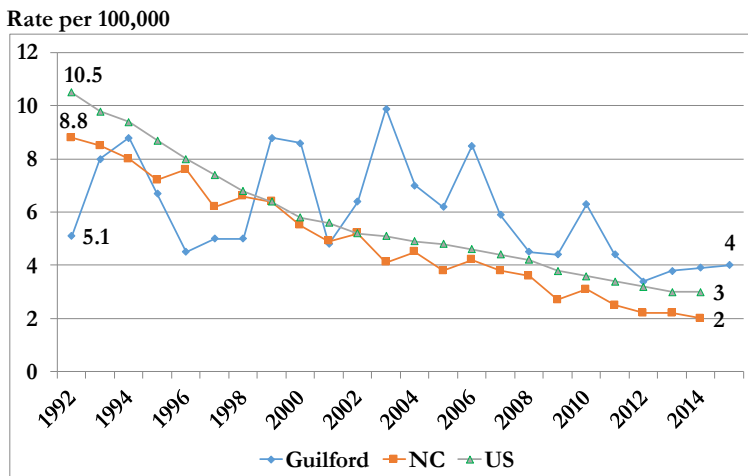
Percent of Tuberculosis Cases by Age Group, 2016



Percent of Tuberculosis Cases by Sex, 2016



Trends in Tuberculosis Incidence Rates Guilford County, NC and the United States 1992-2015



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

Chart prepared by the GCDHHS, Division of Public Health.

Note: NC and US Tuberculosis data not yet available for 2015.

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 For more information about Guilford County health statistics, visit www.myguilford.com/humanservices/health/health-statistics