

## Forsyth County, North Carolina 2011 HIV/STD Surveillance Report



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## Technical Notes\*

*\*as provided by the NC DHHS Communicable Disease Surveillance Unit with additional comments by the Forsyth County Department of Public Health Division of Epidemiology*

**Readers should note that fluctuations in the number of disease reports per year may be influenced by reporting issues. These issues may vary by disease. Please see the individual surveillance disease notes below for more information.**

### **About the Communicable Disease Surveillance Unit**

North Carolina law requires that diagnoses of certain communicable diseases, including sexually transmitted diseases (STDs), be reported to local health departments that in turn report the information to the state. The Communicable Disease Surveillance Unit (CDSU) is the designated recipient for STD morbidity reports at the state level and is responsible for aggregating these reports and providing statewide information about these diseases to others, including the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. The CDSU is part of the Communicable Disease Branch within the North Carolina Division of Public Health.

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). During 2010, a program-wide effort was initiated to reduce the number of duplicates in this new system, to target key reporting issues through trainings and internal quality control audits, and to utilize more accurate analysis tools to extract morbidity data from NC EDSS. This effort has resulted in more accurate reporting for 2010; therefore, comparison of 2010 data to the previous years should be done with caution.

### **About the content of this report**

The Forsyth County 2011 HIV/STD Surveillance Report includes summary tables of surveillance reports and other information for HIV disease, AIDS, chlamydia, gonorrhea, and syphilis for Forsyth County cases that were reported from January 1, 2010 through December 31, 2011. Information about all North Carolina counties for the time period can be found in the North Carolina 2011 STD Surveillance Report [http://epi.publichealth.nc.gov/cd/stds/figures/std\\_tables\\_2011.pdf](http://epi.publichealth.nc.gov/cd/stds/figures/std_tables_2011.pdf)

In some instances, total numbers of reports may not agree between separate cross-tabulations due to missing values for some variables.

This report is intended to be used as a reference document for program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. The information presented is meant to be brief and provided limited data. This report and other annual publications are available at <http://www.forsyth.cc/PublicHealth/publications.aspx>.

Rates are expressed as cases per 100,000 population. Rate denominators were calculated using the available bridged race population estimates from the National Center for Health Statistics. Because bridged race population estimates were unavailable for 2011, 2010 estimates were used as denominators in rate calculation for 2011. Thus, the 2011 rates should be considered preliminary rates. More information about bridged race categories is available at the website, <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>.

Rates that are based on small numbers of cases (generally fewer than 20) should be viewed with caution and are considered unreliable because these rates have large standard errors and confidence intervals that can be wider than the rates themselves. For a more complete discussion of rates based on small numbers, please see the North Carolina Center for Health Statistics' publication, Statistical Primer No.12 "Problems with Rates Based on Small Numbers" by Paul Buescher. This publication is available at the website, <http://www.schs.state.nc.us/SCHS/>.

### **AIDS and HIV disease surveillance data**

**HIV disease case reports** represent persons who have a confirmed diagnosis with human immunodeficiency virus (HIV). This category represents all new diagnoses with HIV regardless of the stage of the disease and is sometimes referred to as simply "HIV infection." Cases are counted by the date of diagnosis for the initial HIV diagnosis. **AIDS** (acquired immunodeficiency syndrome) **case reports**, by contrast, represent only persons with HIV infection who have progressed to this later, more life threatening, stage of disease. AIDS cases are counted by the date of AIDS diagnosis. Most AIDS case reports represent persons who were diagnosed with HIV infection in earlier years. However, in North Carolina, about one-fourth to one-third of the new HIV disease reports represent persons who are initially diagnosed with HIV infection and AIDS at or very near the same time (concurrent). HIV disease reports and AIDS case reports should be considered separately. The two categories should never be combined to estimate an infected population, as the broad category of HIV disease includes AIDS cases that are counted by the initial diagnosis of HIV infection.

### **County of residence**

Geographically, cases are counted by the patient's county of residence at diagnosis. Patients who are residents of a long-term facility such as prisons or other institutions are counted by the address of the facility. This causes the case counts for counties with large institutions to be higher than otherwise expected. People with HIV disease in the prisons play different roles in the epidemic from other residents in the county. In this annual report, persons diagnosed in long-term prison setting are **excluded** from county and regional case totals and rates. These cases are, however, included in state totals.

### **Year of diagnosis**

HIV disease is unlike most communicable diseases in that it is chronic in nature. Failure of providers to initially report cases and change in residence after initial diagnosis can complicate case counting. Therefore enhanced surveillance activities may artificially result in fluctuations in the number of case reports counted by date of report. Tables in this report now display cases by date of diagnosis rather than date of report. Tabulating case totals by date of diagnosis does delay the reporting of disease information. It takes at least six months from diagnosis for most cases reports to be verified and fully recorded in surveillance databases. Therefore, HIV morbidity data for 2011 was not available until July 1, 2012. This six month delay in the presentation of HIV morbidity data for analysis will be an ongoing issue.

### **Chlamydia surveillance data**

Chlamydia case reports represent persons who have a laboratory-confirmed chlamydial infection. It is important to note that chlamydial infection is often asymptomatic in both males and females, and most cases are detected through screening. Changes in the number of reported cases may be due to changes in screening practices. The disease can cause serious complications in females, and a number of screening programs are in place to detect infection in young women. There are no comparable screening programs for young men. For this reason, Chlamydia case reports are always highly biased with respect to gender. The North Carolina STD Surveillance data system underwent extensive changes in 2008 as North Carolina implements North Carolina Electronic Disease Surveillance System (NC EDSS). During this transition, Chlamydia morbidity counts for some counties may have been affected. Report totals for 2011 should be considered with this in mind. Reports are summarized by the date received at the Communicable Disease Surveillance Unit rather than by date of diagnosis.

### **Gonorrhea surveillance data**

Gonorrhea case reports represent persons who have a laboratory-confirmed gonorrhea infection. Gonorrhea is often symptomatic in males and slightly less so in females. Many cases are detected when patients seek medical care. Others are detected through screening but to a far lesser degree than chlamydia cases. Gonorrhea can cause serious complications for females and a number of screening programs exist targeting this population. There is less screening of males because they are more likely to have symptoms that would bring them to the STD clinic; therefore, gender bias in gonorrhea reporting is not likely to be large. Public clinics and health departments may do a better job of conducting such screening programs and reporting cases, causing the reported cases to be biased toward those attending public clinics. During the transition to NC EDSS, gonorrhea morbidity counts for some counties may have been affected. Report totals for 2011 should be considered with this in mind. Reports are summarized by the date received at the Communicable Disease Surveillance Unit rather than by date of diagnosis.

### **Syphilis surveillance data**

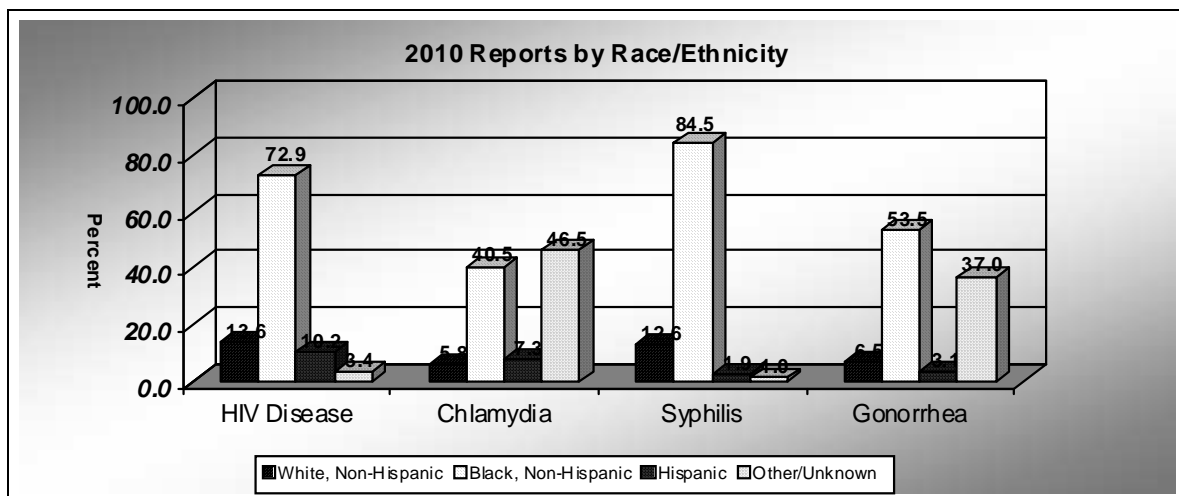
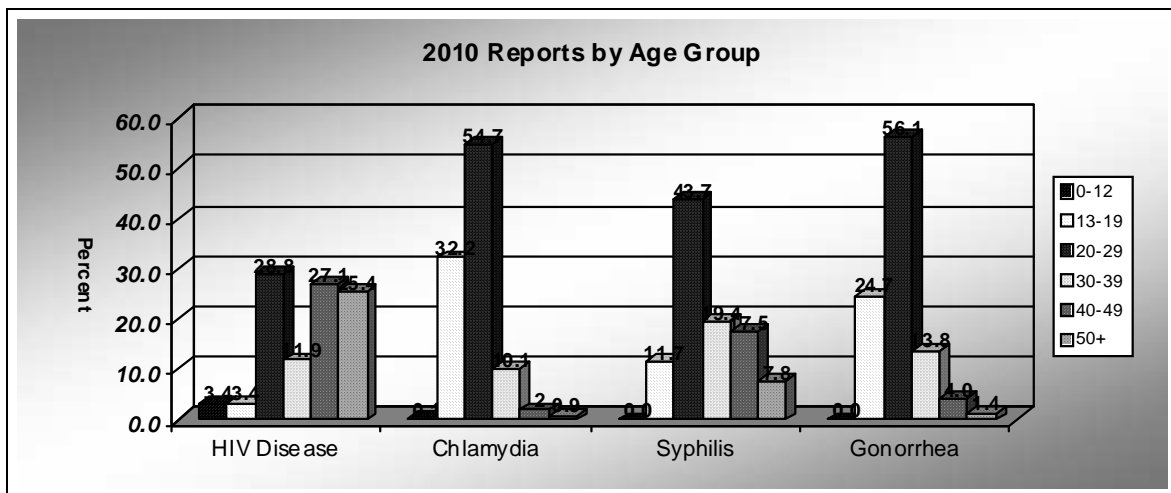
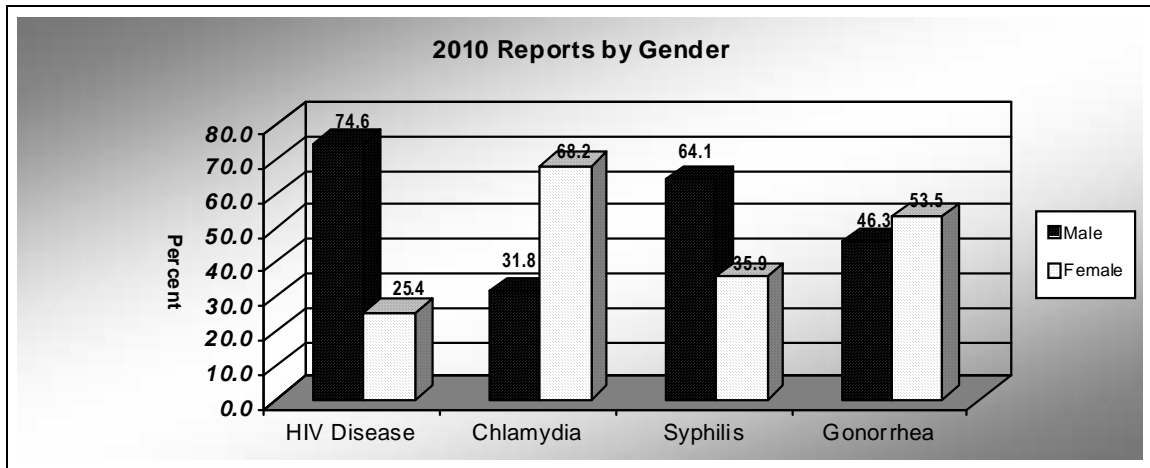
Syphilis cases are reported by stage of infection, which is determined through a combination of laboratory testing and patient interviews. Primary and secondary syphilis have very specific symptoms associated with them, so misclassification of these stages is highly unlikely. Early latent syphilis is asymptomatic but can be staged with confirmation that the infection is less than a year old. Together these three stages that occur within the first year of infection are called "early syphilis." This report includes only early syphilis cases, though other later stages are reported to the Communicable Disease Surveillance Unit. Because North Carolina performs patient interviews, partner notification, and contact tracing on all early syphilis cases, the quality of the early latent case data is also quite good. Screening programs are more likely to detect asymptomatic cases, which may introduce some bias in the early latent case reports toward screened populations (pregnant women, jail inmates, others). However, thorough contact tracing further aids in case detection and reduces these biases. Reports are summarized by the date received at the Communicable Disease Surveillance Unit rather than by date of diagnosis. Readers may note a continuing elevation of syphilis morbidity in North Carolina for 2009 to 2011 in comparison to reports prior to 2009. This is a true increase in morbidity.

### **For more information:**

For a more detailed discussion of the content, strengths, and weaknesses of STD and HIV surveillance data, please see Appendix B of the most recent *HIV/STD Prevention & Community Planning Epidemiologic Profile for North Carolina*. Recent trend information can also be found on the fact sheets available at the web site, [http://epi.publichealth.nc.gov/cd/stds/figures/Epi\\_Profile\\_2011.pdf](http://epi.publichealth.nc.gov/cd/stds/figures/Epi_Profile_2011.pdf)

## Summary of 2009 Reports for Forsyth County

Below are graphs of 2010 Sexually-transmitted diseases (STD) Reports by sex, age group, and race/ethnicity. These graphs can be used as a reference when viewing the current year data. Please note that HIV Disease includes HIV and AIDS Reports.



## Chlamydia

Chlamydia is the most commonly reported bacterial STD. Approximately 50% of men and 75% of women who have Chlamydia experience no symptoms. Untreated infections can lead to serious consequences for reproductive and overall health. In women these infections often result in pelvic inflammatory disease (PID), which can cause infertility, ectopic pregnancy, and chronic pelvic pain. In addition, pregnant women infected with Chlamydia can infect their babies during delivery. Recent research data have shown that women infected with Chlamydia have a 3- to 5-fold increased risk of acquiring HIV if exposed.

In 2011, a total of 53,854 cases of Chlamydia were reported in North Carolina. **Forsyth County reported 2,688 cases of Chlamydia. The rate of infection was 766.5 cases per 100,000 population, which ranked third among the state's five urban counties. This was a 7.4% increase from 713.8 cases per 100,000 population in 2010.** Guilford, Mecklenburg, Durham and Wake counties ranked first, second, fourth, and fifth, respectively, in highest rate of infection among the urban counties. Mecklenburg County reported the highest number of cases, totaling 7,456. Durham County reported the fewest cases, totaling 1,923.

<b>2011 Chlamydia Reports in Forsyth County</b>										
	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total	
<b>Sex</b>	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male	200	33.4	190	34.1	255	30.9	201	28.5	846	31.5
Female	398	66.4	367	65.8	570	69.1	501	71.0	1,836	68.3
Unknown	1	0.2	1	0.1	0	0	4	0.5	6	0.2
<b>Total</b>	<b>599</b>	<b>100.0</b>	<b>558</b>	<b>100.0</b>	<b>825</b>	<b>100.0</b>	<b>706</b>	<b>100.0</b>	<b>2,668</b>	<b>100.0</b>
<b>Age Group</b>	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
0-12 yr	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
13-19 yr	205	34.2	200	35.8	297	36	262	37.1	964	35.9
20-29 yr	335	55.9	286	51.3	417	50.5	362	51.3	1,400	52.1
30-39 yr	47	7.8	50	9.0	76	9.2	51	7.2	224	8.3
40-49 yr	9	1.5	17	3.0	26	3.2	24	3.4	76	2.8
50+ yr	3	0.6	5	0.9	8	1.0	6	0.8	22	0.8
Unknown	0	0.0	0	0.0	1	0.1	0	0.0	1	0.1
<b>Total</b>	<b>599</b>	<b>100.0</b>	<b>558</b>	<b>100.0</b>	<b>825</b>	<b>100.0</b>	<b>706</b>	<b>100.0</b>	<b>2,668</b>	<b>100.0</b>
<b>Race/Ethnicity</b>	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
White*	42	7.0	27	4.8	45	5.5	42	5.9	156	5.8
Black*	252	42.1	196	35.1	297	36.0	229	32.4	974	36.2
Hispanic	56	9.3	55	9.9	63	7.6	46	6.5	220	8.2
Other/Unknown	249	41.6	280	50.2	420	50.9	389	55.1	1,338	49.8
<b>Total</b>	<b>599</b>	<b>100.0</b>	<b>558</b>	<b>100.0</b>	<b>825</b>	<b>100.0</b>	<b>706</b>	<b>100.0</b>	<b>2,668</b>	<b>100.0</b>

\* Non-Hispanic

## Gonorrhea

Gonorrhea is a STD caused by *Neisseria gonorrhoeae*. It is the second most common bacterial STD in the US, after Chlamydia. About 30% to 60% of people who have gonorrhea do not experience symptoms. If left untreated, gonorrhea can cause pelvic inflammatory disease, tubal infertility, ectopic pregnancy, and chronic pelvic pain. Studies also indicate that gonococcal infections facilitate HIV transmission. The reporting of gonorrhea cases is likely biased towards reporting of infections in racial and ethnic minorities that attend public STD clinics.

In 2011, 17,158 cases of gonorrhea were reported in North Carolina. **Forsyth County reported 854 cases of gonorrhea. The rate of infection was 243.5 cases per 100,000 population, which ranked fourth among the five urban counties in North Carolina. This was a 10.3% increase from its rate of 220.7 cases per 100,000 population in 2010.** Guilford, Durham, Mecklenburg and Wake counties ranked first, second, third, and fifth, respectively, in highest rate of infection among the urban counties. Mecklenburg County reported the most cases, totaling 2,269 cases, and Durham County reported the least cases, totaling 747 cases.

2011 Gonorrhea Reports in Forsyth County										
	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total	
Sex	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male	133	57.8	77	40.1	106	46.7	101	49.3	417	48.8
Female	97	42.2	115	59.9	121	53.3	103	50.2	436	51.1
Unknown	0	0.0	0	0.0	0	0.0	1	0.5	1	0.1
<b>Total</b>	<b>230</b>	<b>100.0</b>	<b>192</b>	<b>100.0</b>	<b>227</b>	<b>100.0</b>	<b>205</b>	<b>100.0</b>	<b>854</b>	<b>100.0</b>
Age Group	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
0-12yr	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-19 yr	55	23.9	58	30.2	51	22.5	54	26.3	218	25.5
20-29 yr	132	57.4	102	53.1	133	58.6	115	56.1	482	56.4
30-39 yr	27	11.7	23	12.0	30	13.2	17	8.3	97	11.4
40-49 yr	10	4.3	6	3.1	11	4.8	13	6.3	40	4.7
50+ yr	6	2.6	3	1.6	2	0.9	6	2.9	17	2.0
<b>Total</b>	<b>230</b>	<b>100.0</b>	<b>192</b>	<b>100.0</b>	<b>227</b>	<b>100.0</b>	<b>205</b>	<b>100.0</b>	<b>854</b>	<b>100.0</b>
Race/Ethnicity	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
White*	14	6.1	20	10.4	15	6.6	9	4.4	58	6.8
Black*	137	59.6	92	47.9	116	51.1	94	45.9	439	51.4
Hispanic	5	2.2	10	5.2	11	4.8	6	2.9	32	3.7
Other/Unknown	74	32.2	70	36.5	85	37.4	96	46.8	325	38.1
<b>Total</b>	<b>230</b>	<b>100.0</b>	<b>192</b>	<b>100.0</b>	<b>227</b>	<b>100.0</b>	<b>205</b>	<b>100.0</b>	<b>854</b>	<b>100.0</b>

- Non-Hispanic

Source: Fox KK, Whittington W, Levine WC, Moran JS, Zaidi AA, Nakashima AN. *Gonorrhea in the United States, 1981- 1996: demographic and geographic trends, Sex Transm Dis 1998; 25(7): 386-393*

## Syphilis

Syphilis is a bacterial STD caused by *Treponema pallidum*. It has often been called the great imitator because many symptoms are indistinguishable from those of other diseases. Depending on the stage of the infection, many people experience no symptoms at all. Untreated syphilis that progresses to later stages can lead to organ damage and death. In addition, sores caused by make contracting and passing HIV infection easier. There is a 2- to 5-fold greater risk of HIV infection when a person is already infected with syphilis.

In 2011, 768 cases of early syphilis (primary, secondary & early latent syphilis) were reported in North Carolina. **Forsyth County reported 47 cases of early syphilis. The rate of infection was 13.4 cases per 100.0,000 population, which ranked third among the five urban counties in North Carolina. This was a 54.4% decrease from the rate in 2010 of 29.4 cases per 100.0,000 populations.** Guilford, Mecklenburg, Durham and Wake counties ranked first, second, fourth, and fifth, respectively, in highest rate of infection among the urban counties. Mecklenburg County reported the highest number of cases totaling 190. Durham County reported the fewest cases, totaling 24.

2011 Primary, Secondary, & Early Latent Syphilis Reports in Forsyth County										
	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total	
Sex	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male	15	88.2	5	62.5	9	69.2	8	88.9	37	78.7
Female	2	11.8	3	37.5	4	30.8	1	11.1	10	21.3
Total	17	100.0	8	100.0	13	100.0	9	100.0	47	100.0
Age Group	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
0-12yr	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-19 yr	0	0.0	0	0.0	1	7.7	1	11.1	2	4.3
20-29 yr	8	47.1	6	75.0	7	53.8	3	33.3	24	51.1
30-39 yr	4	23.5	1	12.5	0	0.0	3	33.3	8	17.0
40-49 yr	3	17.6	0	0.0	4	30.8	1	11.1	8	17.0
50+ yr	2	11.8	1	12.5	1	7.7	1	11.1	5	10.6
Total	17	100.0	8	100.0	13	100.0	9	100.0	47	100.0
Race/Ethnicity	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
White*	4	23.5	2	25.0	2	15.4	2	22.2	10	21.3
Black*	13	76.5	6	75.0	11	84.6	7	77.8	37	78.7
Hispanic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	17	100.0	8	100.0	13	100.0	9	100.0	47	100.0

\* Non-Hispanic



## HIV Disease

Infection with human immunodeficiency virus (HIV) generally causes progressive damage to the immune and organ systems, including the central nervous system, and leads to a more severe life-threatening clinical condition called AIDS (acquired immunodeficiency syndrome). For more information about how HIV cases are counted and reported, see Technical Notes (pages 3-4).

In 2011, a total of 1,563 diagnoses of HIV disease were reported in North Carolina. **Forsyth County reported 84 cases of HIV disease. The rate of infection was 24.0 per 100,000 population, which ranked fourth among the state's urban counties. This is a 46.3% increase from 16.4 cases per 100,000 population in 2010.** Mecklenburg, Durham, Guilford and Wake counties ranked first, second, third, and fifth, respectively, in highest rate of infection among the urban counties. Mecklenburg County reported the highest number of cases, totaling 339. Durham County reported the fewest cases, totaling 73.

<b>2011 Diagnosed HIV Disease in Forsyth County</b>		
	Total	
Sex	Cases	%
Male	66	78.6
Female	18	21.4
Total	84	100.0
	Total	
Age Group	Cases	%
0-12yr	1	1.2
13-19 yr	7	8.3
20-29 yr	20	23.8
30-39 yr	13	15.5
40-49 yr	23	27.4
50+yr	20	23.8
Total	84	100.0
	Total	
Race/Ethnicity	Cases	%
White*	14	16.7
Black*	61	72.6
Hispanic	3	3.6
Other/Unknown	6	7.1
Total	84	100.0
	Total	
Mode of Exposure	Cases	%
Men who had sex with men (MSM)	41	48.8
Intravenous Drug Use (IDU)	2	2.4
Heterosexual (all)	23	27.4
NIR	17	20.2
Pediatric	1	1.2
Total	84	100.0

\* Non-Hispanic

## AIDS

Acquired immunodeficiency syndrome (AIDS) is a life-threatening clinical condition caused by the progression of HIV disease. In recent years, the number of AIDS cases has decreased. This is most likely because of the availability of new highly effective antiretroviral treatments for persons with HIV disease. For more information about how AIDS cases are counted and reported, see Technical Notes (pages 3-4).

In 2011, a total of 830 diagnoses of AIDS were reported in North Carolina. **Forsyth County reported 41 cases. The rate of infection was 11.7 per 100.0,000 population, which ranked second among the state’s urban counties. This is a 74.6% increase from 6.7 cases per 100.0,000 population in 2010.** Mecklenburg, Guilford, Durham, and Wake counties ranked first, third, fourth and fifth respectively, in highest rate of infection among the urban counties. Mecklenburg County reported the highest number of cases, totaling 140. Durham County reported the fewest cases, totaling 24.

<b>2011 AIDS Diagnoses in Forsyth County</b>		
	Total	
Sex	Cases	%
Male	33	80.5
Female	8	19.5
Total	41	100.0
Age Group	Cases	%
0-12yr	0	0.0
13-19 yr	1	2.4
20-29 yr	3	7.3
30-39 yr	10	24.4
40-49 yr	13	31.7
50+yr	14	34.1
Total	41	100.0
Race/Ethnicity	Cases	%
White*	6	14.6
Black*	27	65.9
Hispanic	3	7.3
Other/Unknown	5	12.2
Total	41	100.0
Mode of Exposure	Cases	%
Men who had sex with men (MSM)	17	41.5
Intravenous Drug Use (IDU)	2	4.9
Heterosexual (all)	11	26.8
NIR	11	26.8
Total	41	100.0

\* Non-Hispanic

## Trend for Chlamydia, Gonorrhea & Syphilis\*\* Incidences for the Five Urban Counties & North Carolina, 2007-2011

Chlamydia Cases & Rates for the Five Urban Counties & NC at Year of Report						
County of Residence	Year of Report					
		2007	2008	2009	2010	2011
Durham	Cases	1,218	1,460	1,471	1,642	1,923
	Rate*	476.2	555.0	545.4	613.6	718.6
Forsyth	Cases	2,193	2,332	3,048	2,503	2,668
	Rate*	630.2	656.6	847.5	713.8	766.5
Guilford	Cases	2,282	2,333	2,994	2,398	5,010
	Rate*	490.8	492.1	623.3	491.0	1025.8
Mecklenburg	Cases	1,740	4,018	5,840	4,627	7,456
	Rate*	201.0	450.2	639.2	503.1	810.8
Wake	Cases	2,777	3,121	3,590	4,530	4,748
	Rate*	333.9	359.5	400.1	502.8	527.0
North Carolina (all counties)	Cases	30,612	37,885	43,734	42,167	53,854
	Rate*	337.7	409.7	466.2	442.2	564.8

\* Per 100,000 population.

Gonorrhea Cases & Rates for the Five Urban Counties & NC at Year of Report						
County of Residence	Year of Report					
		2007	2008	2009	2010	2011
Durham	Cases	810	728	561	680	747
	Rate*	316.7	276.8	208.0	254.1	279.2
Forsyth	Cases	882	662	847	774	854
	Rate*	253.5	186.4	235.5	220.7	243.5
Guilford	Cases	1,702	1,034	1,100	871	1,981
	Rate*	366.1	218.1	229.0	178.3	405.6
Mecklenburg	Cases	1,181	1,872	2,035	1,516	2,269
	Rate*	136.4	209.8	222.7	164.8	246.7
Wake	Cases	1,192	1,030	1,010	1,249	1,355
	Rate*	143.3	118.7	112.6	138.6	150.4
North Carolina (all counties)	Cases	16,666	15,012	14,811	14,153	17,158
	Rate*	183.9	162.3	157.9	148.4	179.9

\* Per 100,000 population.

Early Syphilis** Cases & Rates for the Five Urban Counties & NC at Year of Report						
County of Residence	Year of Report					
		2007	2008	2009	2010	2011
Durham	Cases	47	39	40	23	24
	Rate*	18.4	14.8	14.8	8.6	9.0
Forsyth	Cases	31	46	195	103	47
	Rate*	8.9	13.0	54.2	29.4	13.4
Guilford	Cases	45	50	68	75	115
	Rate*	9.7	10.5	14.2	15.4	23.5
Mecklenburg	Cases	141	91	174	167	190
	Rate*	16.3	10.2	19.0	18.2	20.7
Wake	Cases	40	45	116	83	76
	Rate*	4.8	5.2	12.9	9.2	8.4
North Carolina (all counties)	Cases	569	516	938	724	768
	Rate*	6.3	5.6	10.0	7.6	8.1

\* Per 100,000 population.

\*\*Includes Primary, Secondary, and Early Latent Syphilis

## Trend for HIV Disease and AIDS Incidences for the Five Urban Counties and North Carolina, 2007-2011

HIV Disease Cases & Rates by County of First Diagnosis, 2007-2011						
County of Residence	Year of Report					
		2007	2008	2009	2010	2011
Durham	Cases	68	96	81	93	73
	Rate*	26.6	36.5	30.0	34.5	27.3
Forsyth	Cases	77	70	86	59	84
	Rate*	22.1	19.7	23.9	16.4	24.0
Guilford	Cases	157	148	128	118	128
	Rate*	33.8	31.2	26.6	24.6	26.2
Mecklenburg	Cases	390	389	333	312	339
	Rate*	45.1	43.6	36.4	34.1	36.9
Wake	Cases	205	203	184	172	153
	Rate*	24.6	23.4	20.5	19.2	17.0
North Carolina (all counties)	Cases	1,798	1,812	1,628	1,487	1,563
	Rate*	19.8	19.6	17.4	15.9	16.4

\* Per 100,000 population.

AIDS Cases & Rates by County of AIDS Diagnosis, 2007-2011						
County of Residence	Year of Report					
		2007	2008	2009	2010	2011
Durham	Cases	31	42	33	38	24
	Rate*	12.1	16.0	12.2	14.1	9.0
Forsyth	Cases	30	30	48	24	41
	Rate*	8.6	8.4	13.3	6.7	11.7
Guilford	Cases	52	68	60	47	50
	Rate*	11.2	14.3	12.5	9.8	10.2
Mecklenburg	Cases	152	154	164	124	140
	Rate*	17.6	17.3	18.0	13.6	15.2
Wake	Cases	117	119	108	85	76
	Rate*	14.1	13.7	12.0	9.5	8.4
North Carolina (all counties)	Cases	851	934	938	796	830
	Rate*	9.4	10.1	10.0	8.5	8.7

• Per 100,000 population.