

North Carolina HIV/STD Quarterly Surveillance Report: Vol. 2018, No. 4

HIV/STD Surveillance Unit

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ANNOUNCEMENTS:

Readers should consider the data in this report to be preliminary. These data represent reports for short time periods and changes noted from quarter to quarter may not be meaningful. *Case review and confirmation is incomplete for this quarter. For the fourth quarter of 2018, chlamydia cases are approximately 7% underestimated; gonorrhea cases are approximately 5% underestimated.* Some cases listed in this report are considered presumptive; their status may change as case investigation continues.

If you have questions or comments, please contact us at the address or phone number above.

About the authors

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 HIV/STD Surveillance Unit (HSSU) is the designated recipient for STD morbidity reports at the state level and is responsible for aggregating reports and providing statewide information about these diseases to others, including the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. The HSSU is part of the Communicable Disease Branch within the North Carolina Division of Public Health.

About the contents of this report

The *North Carolina HIV/STD Surveillance Report: Vol. 2018, No. 4* presents statistics and trends of sexually transmitted diseases (including HIV and AIDS) in North Carolina from January 1 through September 30, 2018. All reports are presented by the **date of diagnosis**. This report is intended as a reference document for local health departments, program managers, health planners, researchers and others who are concerned with the public health implications of these diseases. **The information in this quarterly report is meant to be brief and provide limited data on these diseases throughout the year. More detailed and complete information will continue to be available in annual publications.** This report and our annual publications are available on our website (<http://epi.publichealth.nc.gov/cd/stds/figures.html>). The CDC maintains data about these diseases for the United States; national information is available from its website (<http://www.cdc.gov/hiv/library/reports/surveillance/>).



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HIV Infection Surveillance Data

Human immunodeficiency virus (HIV) infection case reports represents all new diagnoses with HIV in North Carolina regardless of the stage of the disease (including acquired immunodeficiency syndrome [AIDS]). Most persons are reported with only an HIV infection, but some persons are reported with a concurrent diagnosis of AIDS (an AIDS diagnosis within six months of the initial HIV infection diagnosis). In North Carolina, about one-quarter of the new HIV infection reports represent persons who are diagnosed with HIV infection and AIDS at the same time. **AIDS case reports**, by contrast, represent only persons with HIV infection who have progressed to this later, more life threatening, stage of disease. For these reasons, HIV infection reports and AIDS case reports should be considered separately. The two categories should never be combined to estimate an infected population, as the broad group of HIV disease includes AIDS cases, and combining the two categories would therefore double-count the AIDS cases. **HIV infection and AIDS cases are both presented by date of diagnosis in this publication.** This gives a preliminary look at HIV infection surveillance for 2018. Also, HIV and AIDS cases diagnosed from long-term care institutions, such as prisons, are not included in county totals, but are listed under "Unassigned" county.

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. The disease can cause serious complications in females (such as infertility), 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. Changes in the number of reported cases may be due to changes in screening practices. Increases in morbidity totals since 2008 are likely to be the result of enhancements in laboratory reporting. Chlamydia infections are presented by **date of diagnosis** in this publication.

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 (such as infertility),, and a number of screening programs exist targeting this population. There is less screening of males but since they are more likely to have symptoms that would bring them to the STD clinic, 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. Gonorrhea infections are presented by **date of diagnosis** in this publication.

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 person has been infected for less than a year. 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 HSSU. 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). But, thorough contact tracing further aids in case detection and reduces these biases. Syphilis infections are presented by **date of diagnosis** in this publication.

For more information

The data descriptions provided on this page are succinct. For a more detailed discussion of the content, strengths, and weaknesses of STD and HIV surveillance data, please see Appendix B in the *Epidemiologic Profile for HIV/STD Prevention & Care Planning, December 2013*. This report can be found on our website <http://epi.publichealth.nc.gov/cd/stds/figures.html>.

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Table 2. North Carolina Newly Diagnosed Chlamydia Infections by Gender and Race/Ethnicity, 2018

Gender	Race/Ethnicity	1st Qtr (Jan - Mar)		2nd Qtr (Apr - Jun)		3rd Qtr (July - Sept)		4th Qtr (Oct - Dec)		2018 Total	
		Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male	American Indian/Alaska Native ^a	47	0.3	56	0.3	63	0.4	56	0.4	222	0.3
	Asian/Pacific Islander ^a	27	0.2	22	0.1	29	0.2	22	0.1	100	0.2
	Black/African American ^a	1,870	11.4	1,832	11.1	1,938	11.6	1,787	11.3	7,427	11.4
	Hispanic/Latino	296	1.8	299	1.8	286	1.7	312	2.0	1,193	1.8
	White/Caucasian ^a	723	4.4	658	4.0	748	4.5	692	4.4	2,821	4.3
	Multiple Race	10	0.1	6	0.0	13	0.1	11	0.1	40	0.1
	Unknown	2,168	13.2	2,294	13.9	2,248	13.5	2,143	13.5	8,853	13.5
	Total	5,141	31.4	5,167	31.3	5,325	32.0	5,023	31.8	20,656	31.6
Female	American Indian/Alaska Native ^a	155	0.9	149	0.9	167	1.0	136	0.9	607	0.9
	Asian/Pacific Islander ^a	81	0.5	65	0.4	65	0.4	53	0.3	264	0.4
	Black/African American ^a	3,769	23.0	3,906	23.7	4,002	24.0	3,529	22.3	15,206	23.3
	Hispanic/Latino	845	5.2	882	5.3	806	4.8	738	4.7	3,271	5.0
	White/Caucasian ^a	2,210	13.5	2,078	12.6	2,153	12.9	1,987	12.6	8,428	12.9
	Multiple Race	30	0.2	25	0.2	17	0.1	25	0.2	97	0.1
	Unknown	4,141	25.3	4,243	25.7	4,126	24.8	4,325	27.3	16,835	25.8
	Total	11,231	68.6	11,348	68.7	11,336	68.0	10,793	68.2	44,708	68.4
Total ^c	American Indian/Alaska Native ^a	202	1.2	205	1.2	230	1.4	192	1.2	829	1.3
	Asian/Pacific Islander ^a	108	0.7	87	0.5	94	0.6	75	0.5	364	0.6
	Black/African American ^a	5,639	34.4	5,738	34.7	5,940	35.7	5,316	33.6	22,633	34.6
	Hispanic/Latino	1,141	7.0	1,181	7.2	1,092	6.6	1,050	6.6	4,464	6.8
	White/Caucasian ^a	2,933	17.9	2,736	16.6	2,901	17.4	2,679	16.9	11,249	17.2
	Multiple Race	40	0.2	31	0.2	30	0.2	36	0.2	137	0.2
	Unknown	6,309	38.5	6,537	39.6	6,374	38.3	6,468	40.9	25,688	39.3
	Total	16,372	100.0	16,515	100.0	16,661	100.0	15,816	100.0	65,364	100.0

^aNon-Hispanic/Latino.

Data Source: North Carolina Electronic Disease Surveillance System (data as of February 4, 2019).

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Table 4. North Carolina Newly Diagnosed Gonorrhea Infections by Gender and Race/Ethnicity, 2018

Gender	Race/Ethnicity	1st Qtr (Jan - Mar)		2nd Qtr (Apr - Jun)		3rd Qtr (July - Sept)		4th Qtr (Oct - Dec)		2018 Total	
		Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Male	American Indian/Alaska Native ^a	31	0.6	24	0.4	42	0.7	23	0.4	120	0.5
	Asian/Pacific Islander ^a	9	0.2	6	0.1	10	0.2	14	0.2	39	0.2
	Black/African American ^a	1,370	25.2	1,489	25.9	1,568	25.3	1,452	25.3	5,879	25.4
	Hispanic/Latino	100	1.8	105	1.8	102	1.6	92	1.6	399	1.7
	White/Caucasian ^a	332	6.1	355	6.2	415	6.7	357	6.2	1,459	6.3
	Multiple Race	6	0.1	4	0.1	10	0.2	10	0.2	30	0.1
	Unknown	872	16.0	958	16.7	1,046	16.9	1,036	18.1	3,912	16.9
	Total	2,720	50.0	2,941	51.2	3,193	51.6	2,984	52.1	11,838	51.2
Female	American Indian/Alaska Native ^a	44	0.8	39	0.7	55	0.9	46	0.8	184	0.8
	Asian/Pacific Islander ^a	10	0.2	6	0.1	15	0.2	8	0.1	39	0.2
	Black/African American ^a	1,216	22.4	1,322	23.0	1,381	22.3	1,177	20.5	5,096	22.1
	Hispanic/Latino	79	1.5	81	1.4	83	1.3	76	1.3	319	1.4
	White/Caucasian ^a	497	9.1	493	8.6	552	8.9	499	8.7	2,041	8.8
	Multiple Race	10	0.2	8	0.1	12	0.2	14	0.2	44	0.2
	Unknown	862	15.9	858	14.9	897	14.5	927	16.2	3,544	15.3
	Total	2,718	50.0	2,807	48.8	2,995	48.4	2,747	47.9	11,267	48.8
Total	American Indian/Alaska Native ^a	75	1.4	63	1.1	97	1.6	69	1.2	304	1.3
	Asian/Pacific Islander ^a	19	0.3	12	0.2	25	0.4	22	0.4	78	0.3
	Black/African American ^a	2,586	47.6	2,811	48.9	2,949	47.7	2,629	45.9	10,975	47.5
	Hispanic/Latino	179	3.3	186	3.2	185	3.0	168	2.9	718	3.1
	White/Caucasian ^a	829	15.2	848	14.8	967	15.6	856	14.9	3,500	15.1
	Multiple Race	16	0.3	12	0.2	22	0.4	24	0.4	74	0.3
	Unknown	1,734	31.9	1,816	31.6	1,943	31.4	1,963	34.3	7,456	32.3
	Total	5,438	100.0	5,748	100.0	6,188	100.0	5,731	100.0	23,105	100.0

^aNon-Hispanic/Latino.

Data Source: North Carolina Electronic Disease Surveillance System (data as of February 4, 2019).

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Table 9. North Carolina Newly Diagnosed AIDS (HIV Infection Stage 3) Cases by County of Residence at Time of Diagnosis, 2016-2018

COUNTY	2016 Jan-Dec	2017 Jan-Dec	2018 Jan-Dec
ALAMANCE	11	11	7
ALEXANDER	3	1	0
ALLEGHANY	0	0	0
ANSON	1	1	2
ASHE	0	0	0
AVERY	0	0	1
BEAUFORT	3	2	1
BERTIE	3	2	4
BLADEN	2	4	2
BRUNSWICK	5	4	1
BUNCOMBE	7	14	7
BURKE	5	1	1
CABARRUS	11	4	2
CALDWELL	5	1	2
CAMDEN	1	0	1
CARTERET	0	1	1
CASWELL	0	2	2
CATAWBA	2	2	6
CHATHAM	2	3	0
CHEROKEE	1	1	0
CHOWAN	1	0	0
CLAY	0	1	0
CLEVELAND	9	5	4
COLUMBUS	1	3	2
CRAVEN	4	2	4
CUMBERLAND	33	24	38
CURRITUCK	0	0	0
DARE	0	1	0
DAVIDSON	9	7	14
DAVIE	1	0	0
DUPLIN	1	5	3
DURHAM	32	33	30
EDGECOMBE	8	9	4
FORSYTH	30	43	46
FRANKLIN	1	2	3
GASTON	12	16	13
GATES	0	0	1
GRAHAM	0	0	0
GRANVILLE	5	5	7
GREENE	0	2	2
GUILFORD	30	30	23
HALIFAX	2	4	0
HARNETT	2	9	5
HAYWOOD	0	2	1
HENDERSON	2	5	3
HERTFORD	1	1	1
HOKE	3	3	2
HYDE	0	0	0
IREDELL	3	8	3
JACKSON	0	1	0
JOHNSTON	8	5	9
JONES	0	1	1
LEE	6	4	0

COUNTY	2016 Jan-Dec	2017 Jan-Dec	2018 Jan-Dec
LENOIR	7	5	6
LINCOLN	1	1	2
MACON	1	0	0
MADISON	0	0	1
MARTIN	2	2	2
MCDOWELL	1	1	0
MECKLENBURG	123	93	55
MITCHELL	1	0	0
MONTGOMERY	1	1	0
MOORE	3	1	1
NASH	10	8	7
NEW HANOVER	7	8	5
NORTHAMPTON	3	3	3
ONSLOW	6	7	6
ORANGE	4	2	3
PAMILICO	0	0	0
PASQUOTANK	1	5	4
PENDER	1	0	0
PERQUIMANS	2	0	1
PERSON	1	1	3
PITT	15	21	22
POLK	1	0	1
RANDOLPH	2	3	5
RICHMOND	2	6	4
ROBESON	14	9	11
ROCKINGHAM	1	3	7
ROWAN	7	10	3
RUTHERFORD	3	3	4
SAMPSON	2	5	4
SCOTLAND	5	1	6
STANLY	3	0	3
STOKES	0	1	1
SURRY	0	0	2
SWAIN	0	0	0
TRANSYLVANIA	0	1	0
TYRELL	1	0	0
UNION	7	9	2
VANCE	2	3	4
WAKE	66	66	57
WARREN	0	3	0
WASHINGTON	0	0	1
WATAUGA	0	1	0
WAYNE	11	8	10
WILKES	1	2	2
WILSON	8	6	4
YADKIN	1	1	0
YANCEY	1	0	0
UNASSIGNED*	4	7	3
TOTAL	598	592	514

* Unassigned includes cases with unknown county of residence at diagnosis or cases that were diagnosed at a long-term care facility such as prison.

Data Source: enhanced HIV/AIDS Reporting System (eHARS) (data as of February 4, 2019).