Volume 8, Issue 1

August 26, 2019

HAMILTON COUNTY PUBLIC HEALTH

PREVENT. PROMOTE. PROTECT.

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Epidemiology and Assessment

Chlamydia and Gonorrhea Quarterly Report

Chlamydia Infections by Month in Hamilton County, Ohio (January 2018-March 2019)

Table 3. Hamilton County Chlamydia Infections

Month	Cases of Chlamydia 2018	Cases of Chlamydia 2019
January	617	667
February	567	586
March	587	607
April	554	
May	549	
June	513	
July	582	
August	690	
September	549	
October	622	
November	582	
December	551	
Total	**6,963**	**1,860**

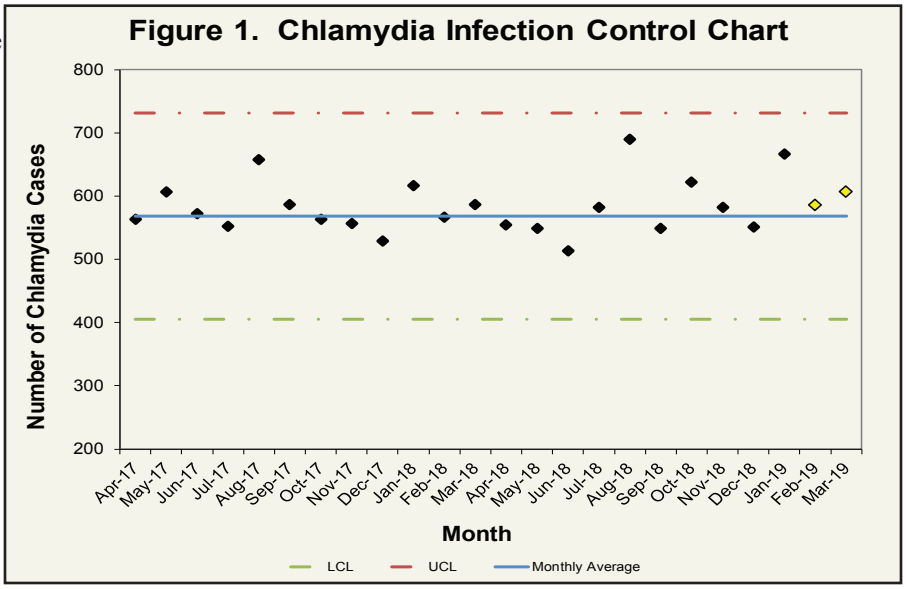
This report was created as a surveillance effort to help prevent new cases of chlamydia and gonorrhea within Hamilton County. Table 1 displays the total number of chlamydia cases for Hamilton County residents (at diagnosis) over the period of 2018 and 2019 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2018, the highest number of chlamydia cases was reported in August (690 cases). In 2019, the highest number of chlamydia cases occurred in January (667 cases). There were 580.3 chlamydia cases per month during 2018 and the monthly average of 620 in 2019.

Chlamydia cases are derived from data in the Ohio Disease Reporting System and represent only those cases reported to the CDC. These data are provisional and subject to change when additional data are reported. Cases are selected based on address at diagnosis. Source: Ohio Department of Health (ODH), STD Surveillance. Data reported as of 08/20/2019.

Surveillance of Chlamydia Cases in Hamilton County, Ohio (April 2017-March 2019)

One way to monitor chlamydia infections within Hamilton County is through the use of surveillance control charts. Factors that these control charts show are the number of chlamydia cases for each month (black diamonds), control limits (red or green dashed lines), and the average number of cases (solid blue line). Control charts are used to detect unexpected events, such as a single point outside of the control limit, consecutive points above or below the average line, or two or three consecutive points near a control limit. When anomalies such as these occur it may be beneficial to examine events surrounding the anomalies in order to devise a strategy to reduce the number of cases in subsequent months or see which strategies already in place are working. Figure 1 shows the control chart for chlamydia infections from April 2017 through March 2019. All of the single month counts in this time-frame fell within the control limits for the number of monthly infections. The average number of cases was calculated from August 2013 to July 2014 (568.6).

Figure 1. Chlamydia Infection Control Chart



Chlamydia cases are derived from data in the Ohio Disease Reporting System and represent only those cases reported to the CDC. These data are provisional and subject to change when additional information is reported. Cases are selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 08/20/2019.

Demographics with High Risk for Chlamydia Infection

Identifying high risk demographic groups allows public health and health care the opportunity to create focused intervention methods for preventing the spread of chlamydia. Table 2 shows the percentage of chlamydia cases from 2018 and 2019 based on race, age and sex. About 70 percent of the chlamydia cases from 2018 occurred among black Hamilton County residents. Over 60 percent of chlamydia cases were between the ages of 15-24, and the majority of diagnosed cases in 2018 and 2019 were among female Hamilton County residents. Figure 2 further classifies the differences among age groups over 2015 through 2019. The demographics from 2015 to 2019 shows a large disparity, as black females, continues to make up a large percentage of all chlamydia cases.

Figure 2. Race/Sex Distribution of Chlamydia Cases, Hamilton County

Table 4. Demographics of Chlamydia Cases

	2018		2019	
	#	%	#	%
Race				
Black	3,715	71.2%	1,042	72.5%
White	1,144	21.9%	298	20.7%
Other	359	6.9%	98	6.8%
Sex				
Male	2,277	32.7%	599	32.2%
Female	4,686	67.3%	1,261	67.8%
Age				
<1	3	0.0%	1	0.1%
1-14.	106	1.5%	32	1.7%
15-24	4,505	64.7%	1,208	64.9%
25-34	1,831	26.3%	477	25.6%
35-44	342	4.9%	100	5.4%
45-54	128	1.8%	25	1.3%
55-64	37	0.5%	16	0.9%
>65	11	0.2%	1	0.1%

These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2018 and March 2019 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 8/20/2019. Percentages may not total to 100 percent due to rounding. Percentages for demographics are based only on cases that had valid information within the required fields.

Gonorrhea Infections by Month in Hamilton County, Ohio (January 2018-March 2019)

Table 3. Hamilton County Gonorrhea Infections

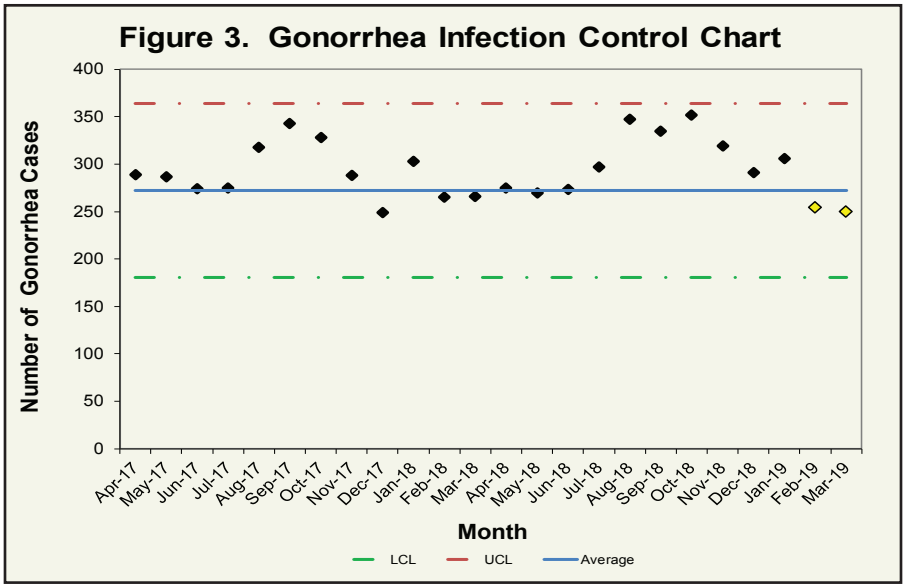
Month	Cases of Gonorrhea 2018	Cases of Gonorrhea 2019
January	303	306
February	265	254
March	266	250
April	275	
May	270	
June	273	
July	297	
August	347	
September	335	
October	352	
November	319	
December	291	
Total	**3,593**	**810**

Table 3 displays the total number of gonorrhea cases for Hamilton County residents (at diagnosis) over the period of 2018 and 2019 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2018, the highest number of gonorrhea cases was reported for October (352 cases). During 2019, the highest number of gonorrhea cases occurred in January (306 cases). The average number of gonorrhea cases per month was respectively 299.4 and 270 for 2018 and 2019. At the time of this report, 810 gonorrhea cases were reported for 2019, an decrease 24 cases from 2018 during the same time period.

Gonorrhea cases are derived from data in the Ohio Disease Reporting System and represent only those cases reported to the CDC. These data are provisional and subject to change when additional data are reported. Cases are selected based on address at diagnosis. Source: Ohio Department of Health (ODH), STD Surveillance. Data reported as of 08/20/2019.

Surveillance of Gonorrhea Cases in Hamilton County (April 2017-March 2019)

One way to monitor gonorrhea infections within Hamilton County is through the use of surveillance control charts. Factors that these control charts show are the number of gonorrhea cases for each month (black diamonds), control limits (red or green dashed lines), and the average number of cases (solid blue line). Control charts are used to detect unexpected events, such as a single point outside of the control limit, consecutive points above or below the average line, or two or three consecutive points near a control limit. When anomalies such as these occur it may be beneficial to examine events surrounding the anomalies in order to devise a strategy to reduce the number of cases in subsequent months or see which strategies already in place are working. Figure 3 illustrates the control chart for gonorrhea infections over the course of April 2017 and March 2019. All of the months within this time frame fell below the upper control limit for number of gonorrhea infections. The average number of cases was calculated from October 2016 to September 2017 (271.8).



Gonorrhea cases are derived from data in the Ohio Disease Reporting System and represent only those cases reported to the CDC. These data are provisional and subject to change when additional information is reported. Cases are selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 08/20/2019.

Demographics with High Risk Gonorrhea Infection

Certain demographic groups are more likely to be infected with gonorrhea. Table 4 shows the percentage of gonorrhea cases from 2018 and 2019 based on race, age and sex. Over 75 percent of the gonorrhea cases from 2018 and 2019 occurred among black Hamilton County residents. About half of gonorrhea cases were between the ages of 15 and 24. Identifying these aforementioned at-risk groups allows public health and health care the opportunity to create focused intervention methods for preventing the spread of gonorrhea. Figure 4 further classifies the differences among race/sex groups from 2015 to 2018. The percentage of cases that are black males and white females have increased over this period.

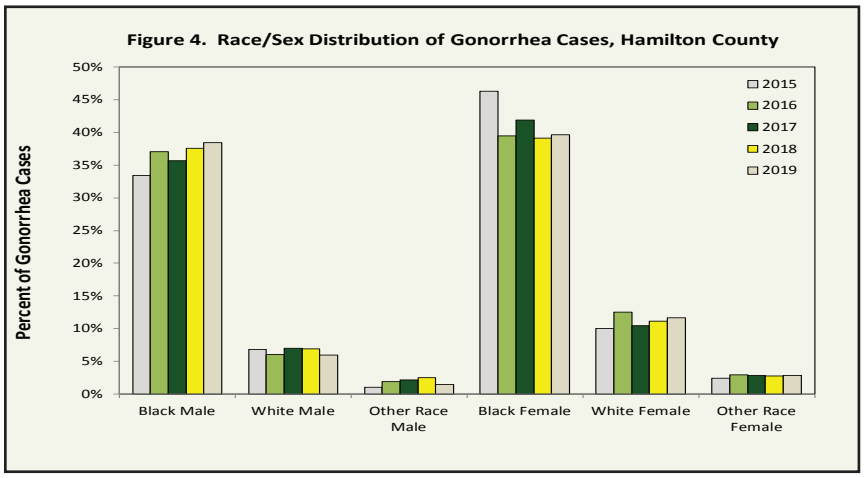


Table 4. Demographics of Gonorrhea Cases

	2018		2019	
	#	%	#	%
Race				
Black	2,233	76.7%	522	78.0%
White	527	18.1%	118	17.6%
Other	153	5.3%	29	4.3%
Sex				
Male	1,755	48.8%	394	48.6%
Female	1,838	51.2%	416	51.4%
Age				
<1	1	0.0%	0	0.0%
1-14.	38	1.1%	10	1.2%
15-24	1,707	47.5%	368	45.4%
25-34	1,207	33.6%	307	37.9%
35-44	386	10.7%	75	9.3%
45-54	151	4.2%	32	4.0%
55-64	82	2.3%	17	2.1%
>65	21	0.6%	1	0.1%

These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2018 and March 2019 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 08/20/2019. Percentages may not total to 100 percent due to rounding. Percentages for demographics are based only on cases that had valid information within the required fields.