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Chlamydia and Gonorrhea Quarterly Report

Chlamydia Infections by Month in Hamilton County, Ohio (January 2017-September 2018)

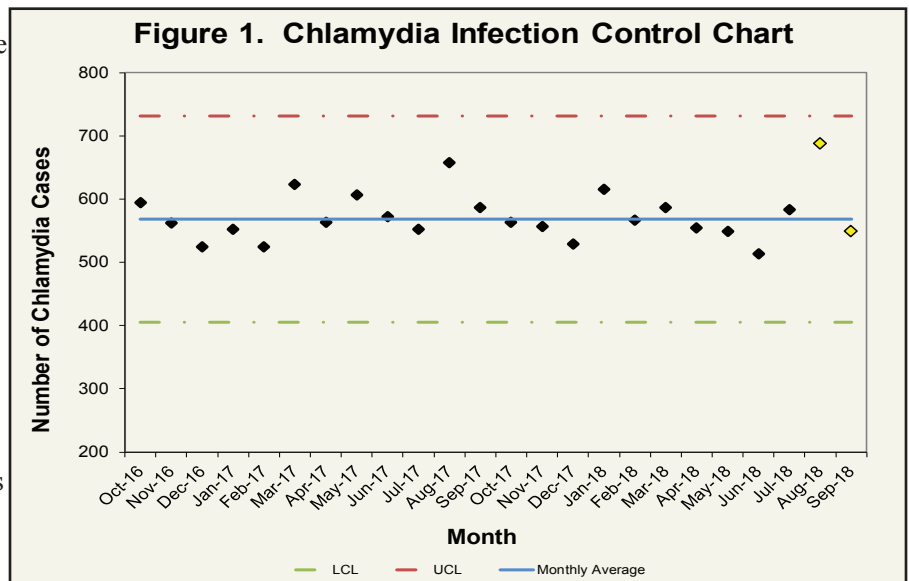
Month	Cases of Chlamydia 2017	Cases of Chlamydia 2018
January	552	616
February	525	567
March	623	587
April	563	551
May	607	549
June	572	513
July	552	583
August	658	688
September	587	549
October	563	
November	557	
December	529	
Total	6,888	5,206

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 2017 and 2018 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2017, the highest number of chlamydia cases was reported in August (658 cases). In 2018, the highest number of chlamydia cases occurred in August (688 cases). There were 574 chlamydia cases per month during 2017 and the monthly average of 578.4 in 2018. At the time of this report, 5,206 cases of chlamydia were reported for 2018, an decrease of 33 cases from 2017 during the same time period.

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 2/07/2019.

Surveillance of Chlamydia Cases in Hamilton County, Ohio (October 2016-September 2018)

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 October 2016 through September 2018. 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).



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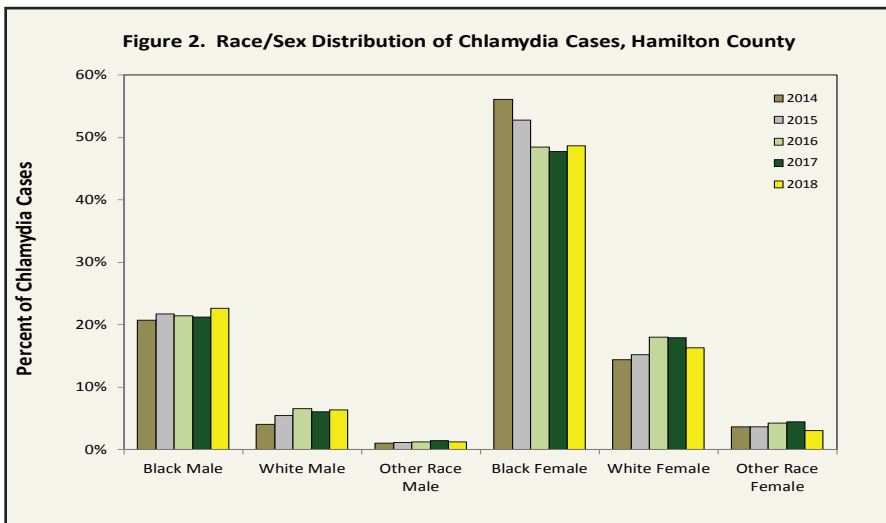


Demographics with High Risk for Chlamydia Infection

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 2017 and 2018 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 2017 and 2018 were among female Hamilton County residents. Figure 2 further classifies the differences among age groups over 2014 through 2018. The demographics from 2014 to 2018 shows a large disparity, as black females, continues to make up a large percentage of all chlamydia cases.

	2017		2018	
	#	%	#	%
Race				
Black	3,647	69.0	2,709	71.2
White	1,271	24.0	860	22.6
Other	373	7.1	235	6.2
Sex				
Male	2,126	30.9	1,690	32.5
Female	4,762	69.1	3,515	67.5
Age				
<1	4	0.1	3	0.1
1-14	130	1.9	80	1.5
15-24	4,639	67.3	3,375	64.8
25-34	1,639	23.8	1,367	26.3
35-44	330	4.8	257	4.9
45-54	95	1.4	92	1.8
55-64	44	0.6	27	0.5
>65	7	0.1	5	0.1

These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2017 and September 2018 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 02/07/2019. 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 2017-September 2018)

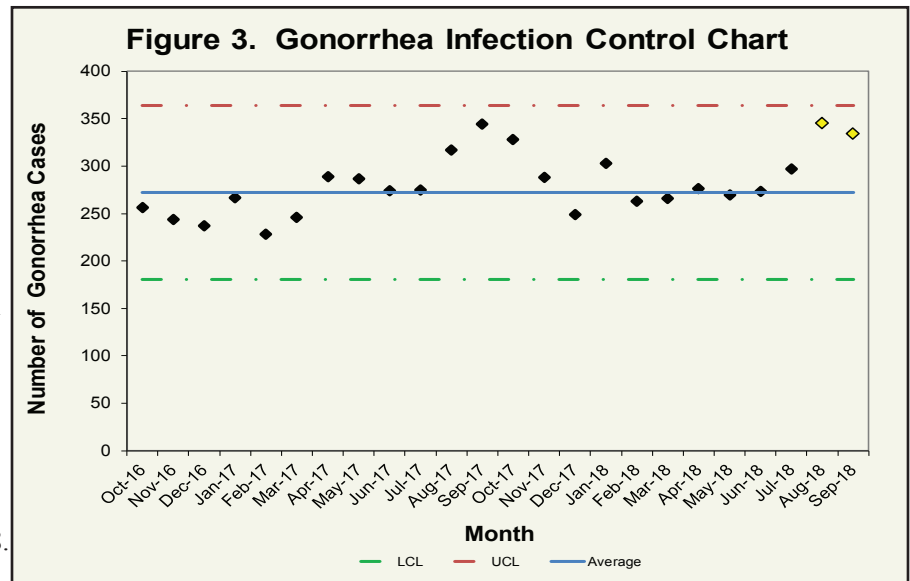
Month	Cases of Gonorrhea 2017	Cases of Gonorrhea 2018
January	267	303
February	228	263
March	246	266
April	289	276
May	287	270
June	274	273
July	275	297
August	317	345
September	344	334
October	328	
November	288	
December	249	
Total	3,392	2,627

Table 3 displays the total number of gonorrhea cases for Hamilton County residents (at diagnosis) over the period of 2017 and 2018 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2017, the highest number of gonorrhea cases was reported for September (344 cases). During 2017, the highest number of gonorrhea cases occurred in August (345 cases). The average number of gonorrhea cases per month was respectively 282.7 and 291.9 for 2017 and 2018. At the time of this report, 2,627 gonorrhea cases were reported for 2018, an increase of 100 cases from 2017 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 02/07/2019.

Surveillance of Gonorrhea Cases in Hamilton County (October 2016-September 2018)

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 October 2016 and September 2018. 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).

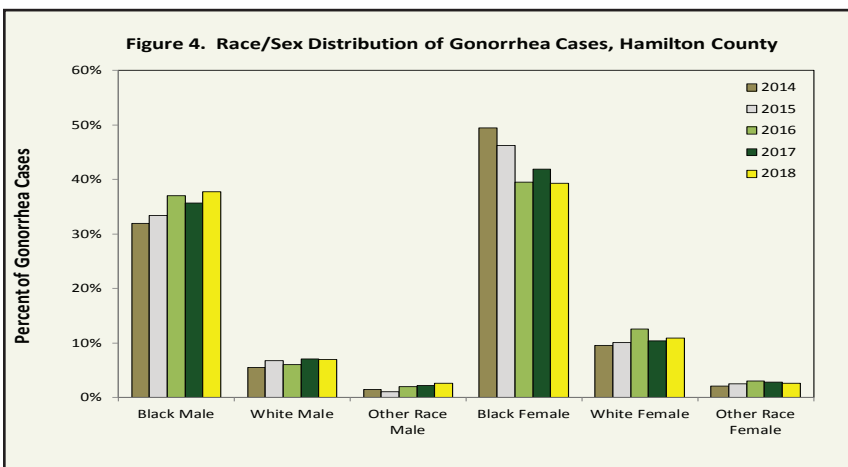


Gonorrhea cases are derived from data in the Ohio Disease Reporting System and represent only those cases reported to the CDC. These data are provisional and subject to change when additional information is reported. Cases are selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 02/07/2019.

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 2017 and 2018 based on race, age and sex. Over 75 percent of the gonorrhea cases from 2017 and 2018 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 2014 to 2018. The percentage of cases that are black males and white females have increased over this period.

	2017		2018	
	#	%	#	%
Race				
Black	2,179	77.4	1,619	77.0
White	491	17.5	376	17.9
Other	144	5.1	108	5.1
Sex				
Male	1,601	47.2	1,298	49.4
Female	1,791	52.8	1,329	50.6
Age				
<1	1	0.0	1	0.0
1-14	54	1.6	29	1.1
15-24	1,678	49.5	1,271	48.4
25-34	1,064	31.4	851	32.4
35-44	347	10.2	277	10.5
45-54	157	4.6	120	4.6
55-64	75	2.2	63	2.4
>65	16	0.5	15	0.6



These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2017 and September 2018 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 02/07/2019. 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.