



Hamilton County Public Health - Epidemiology and Assessment

Chlamydia and Gonorrhea Quarterly Report

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Chlamydia Infections by Month (January 2016 - December 2017)

Table 1. Chlamydia Cases by Month for Hamilton County Residents

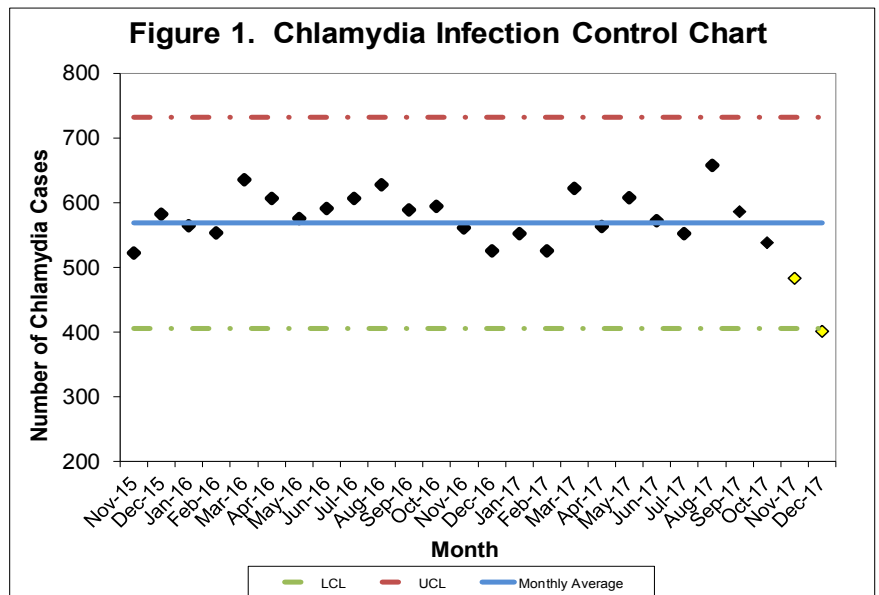
Month	Cases of Chlamydia 2016	Cases of Chlamydia 2017
January	564	552
February	553	525
March	635	622
April	606	563
May	575	607
June	591	572
July	606	552
August	628	657
September	589	586
October	594	538
November	561	483
December	525	401
Total	7,027	6,658

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 2016 and 2017 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2016, the highest number of chlamydia cases was reported in March (635 cases). In 2017, the highest number of chlamydia cases occurred in August (657 cases). There were 554.8 chlamydia cases per month during 2017, about 5.25 percent lower than the monthly average of 585.6 in 2016. At the time of this report, 6,658 cases of chlamydia were reported for 2017, a decrease of 369 cases from 2016.

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 03/01/2018.

Surveillance of Chlamydia Cases in Hamilton County

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 November 2015 through December 2017. While December fell below the threshold it'll likely increase in future reports. All of the other 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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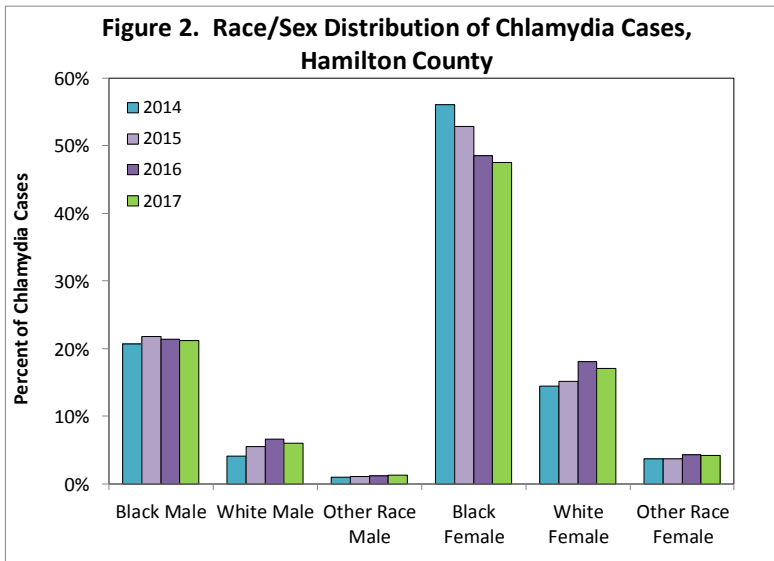


Demographics with High Risk for Chlamydia Infection

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 2016 and 2017 based on race, age and sex. About 68 percent of the chlamydia cases from 2017 occurred among black Hamilton County residents. Nearly 67 percent of chlamydia cases were between the ages of 15-24, and the majority of diagnosed cases in 2016 and 2017 were among female Hamilton County residents. Figure 2 further classifies the differences among race/sex groups over 2014 through 2017. The demographics from 2014 to 2017 are similar, with a more equitable distribution of cases emerging as the largest group, black females, continues to make up a lower percentage of all chlamydia cases (47.6 during 2017, down from 56.1 in 2014).

Table 2. Demographics of Chlamydia Cases

	2016		2017	
	#	%	#	%
Race				
Black	3,651	69.9	1,647	68.8
White	1,287	24.6	583	23.1
Other	286	5.5	197	8.1
Age				
<1	10	0.1	3	0.0
1-14	108	1.6	121	1.8
15-24	4699	67.6	4451	66.9
25-34	1661	23.9	1616	24.3
35-44	369	5.3	325	4.9
45-54	72	1.0	94	1.4
55-64	30	0.4	41	0.6
>65	5	0.1	7	0.1
Sex				
Male	2,137	30.8	2,056	30.9
Female	4,794	69.2	4,602	69.1



These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2016 and December 2017 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 03/01/2018. 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 (January 2016 - December 2017)

Table 3. Gonorrhea Cases by Month for Hamilton County Residents

Month	Cases of Gonorrhea 2016	Cases of Gonorrhea 2017
January	240	267
February	216	228
March	244	246
April	226	289
May	221	287
June	249	274
July	239	275
August	238	315
September	265	344
October	256	315
November	244	259
December	237	193
Total	2,875	3,292

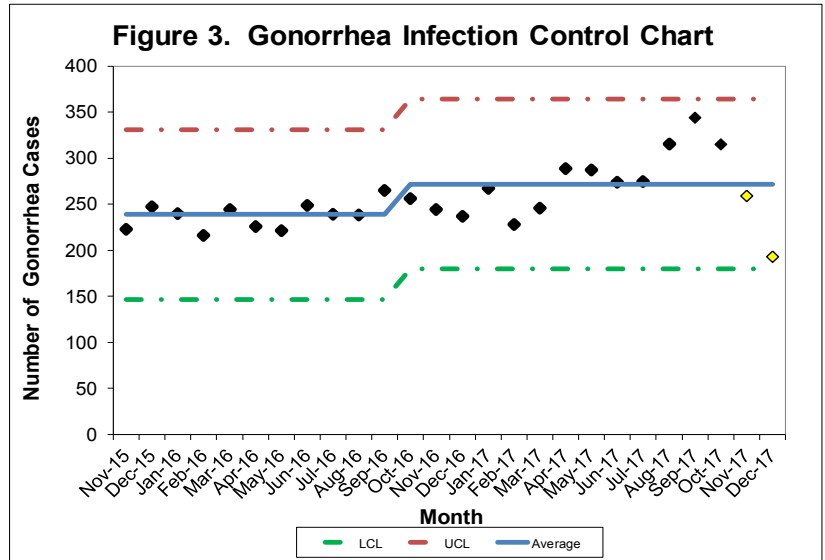
Table 3 displays the total number of gonorrhea cases for Hamilton County residents (at diagnosis) over the period of 2016 and 2017 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2016, the highest number of gonorrhea cases was reported for September (265 cases). During 2017, the highest number of gonorrhea cases occurred in September (344 cases). The average number of gonorrhea cases increased per month from 239.6 and 274.3 for 2016 and 2017. At the time of this report, 3,292 gonorrhea cases were reported for 2017, an increase of 417 cases from 2016.

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 03/01/2018.



Surveillance of Gonorrhea Cases in Hamilton County

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 November 2015 and December 2017. 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 2015 to September 2016 (238.8). There was a recalculation of the average from October 2016 to September 2017 (271.8), in result of 8 consecutive cases above the average line.



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Demographics with High Risk for Gonorrhea Infection

Certain demographic groups are more likely to be infected with gonorrhea. Table 4 shows the percentage of gonorrhea cases from 2016 and 2017 based on race, age and sex. About 78 percent of the gonorrhea cases from 2016 and 2017 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 2017. There has been a large reduction in the percentage of cases that are in the majority group, black females, from 49.4 in 2014 to 42.2 in 2017. The percentage of cases that are black males and white females have increased over this period.

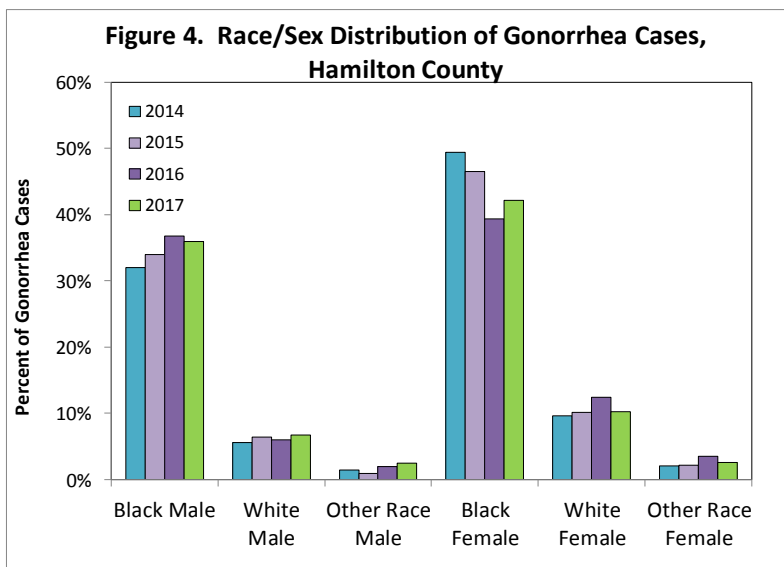


Table 4. Demographics of Gonorrhea Cases

	2016		2017	
	#	%	#	%
Race				
Black	1,773	76.1	2,116	78.1
White	428	18.4	458	16.9
Other	129	5.5	136	5.0
Age				
<1	3	0.1	0	0.0
1-14	30	1.0	53	1.6
15-24	1507	52.5	1624	49.3
25-34	871	30.3	1038	31.5
35-44	275	9.6	337	10.2
45-54	121	4.2	155	4.7
55-64	53	1.8	71	2.2
>65	11	0.4	14	0.4
Sex				
Male	1,357	47.3	1,558	47.3
Female	1,514	52.7	1,734	52.7

These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2016 and December 2017 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 03/01/2018. 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.