



Hamilton County Public Health - Epidemiology and Assessment

Chlamydia and Gonorrhea Quarterly Report

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Chlamydia Infections by Month (2015-2016)

Table 1. Chlamydia Cases by Month for Hamilton County Residents

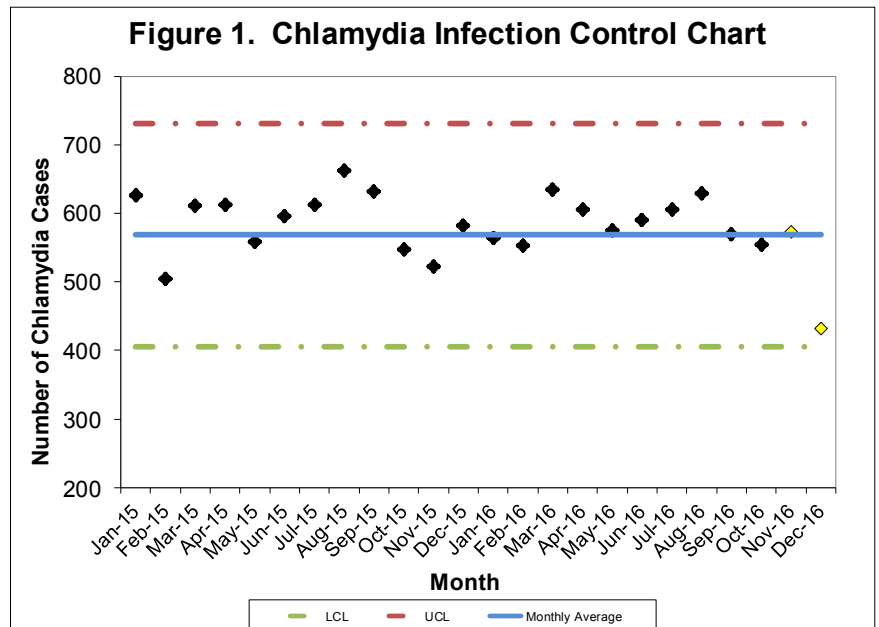
Month	Cases of Chlamydia 2015	Cases of Chlamydia 2016
January	627	564
February	504	553
March	611	635
April	612	606
May	559	575
June	596	591
July	613	606
August	663	629
September	632	569
October	548	555
November	522	573
December	582	432
Total	7,069	6,888

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 2015 and 2016 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2015, the highest number of chlamydia cases was reported in August (663 cases). In 2016, the highest number of chlamydia cases occurred in March (635 cases). There were 574 chlamydia cases per month during 2016, about three percent lower than the monthly average of 589.1 in 2015. At the time of this report, 6,888 cases of chlamydia were reported for 2016, a decrease of 181 cases from 2015.

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 2/14/2017.

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 January 2015 through December 2016. 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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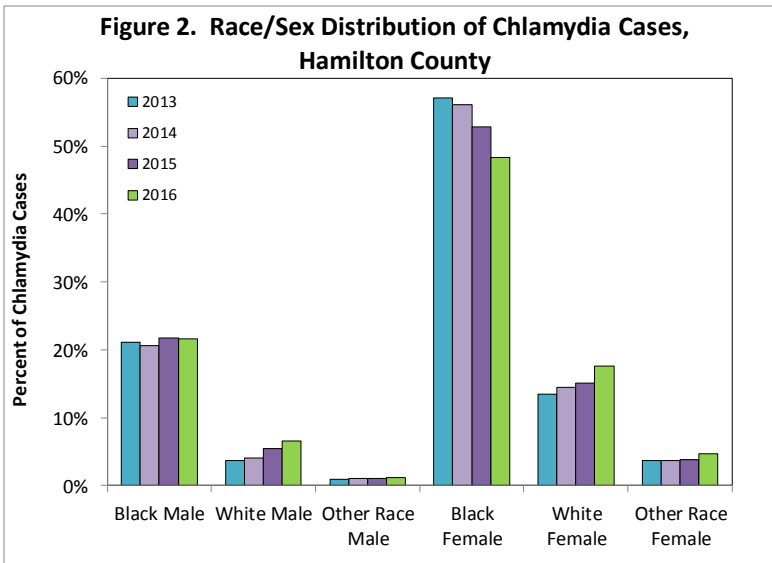


Demographics with High Risk for Chlamydia Infection

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 2015 and 2016 based on race, age and sex. Nearly 70 percent of the chlamydia cases from 2016 occurred among black Hamilton County residents, down substantially from 75% in 2015. About 67% of chlamydia cases were between the ages of 15-24, and the majority of diagnosed cases in 2015 and 2016 were among female Hamilton County residents. Figure 2 further classifies the differences among race/sex groups over 2013 through 2016. The demographics from 2013 to 2016 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 (48.3% during 2016, down from 57% in 2013).

Table 2. Demographics of Chlamydia Cases

	2015		2016	
	#	%	#	%
Race				
Black	3,398	74.5	3,495	70.0
White	940	20.6	1,208	24.2
Other	222	4.9	292	5.8
Age				
<1	1	0.0	4	0.1
1-14	116	1.6	98	1.4
15-24	4,841	68.6	4,639	67.4
25-34	1,637	23.2	1,660	24.1
35-44	339	4.8	366	5.3
45-54	95	1.3	82	1.2
55-64	27	0.4	31	0.5
>65	5	0.1	5	0.1
Sex				
Male	2,073	29.3	2,130	30.9
Female	4,996	70.7	4,757	69.1



These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2015 and December 2016 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 2/14/2017. 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 (2015-2016)

Table 3. Gonorrhea Cases by Month for Hamilton County Residents

Month	Cases of Gonorrhea 2015	Cases of Gonorrhea 2016
January	265	240
February	179	216
March	233	248
April	229	228
May	212	222
June	237	251
July	231	239
August	239	238
September	244	249
October	257	243
November	223	245
December	247	206
Total	2,796	2,825

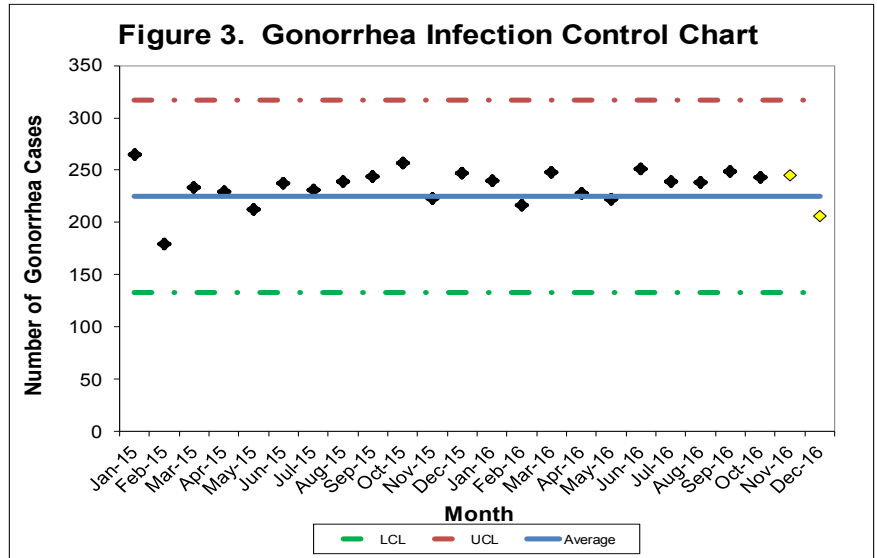
Table 3 displays the total number of gonorrhea cases for Hamilton County residents (at diagnosis) over the period of 2015 and 2016 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2015, the highest number of gonorrhea cases was reported for January (265 cases). During 2016, the highest number of gonorrhea cases occurred in June (251 cases). The average number of gonorrhea cases per month was very close - respectively 233 and 235.4 - for 2015 and 2016. At the time of this report, 2,825 gonorrhea cases were reported for 2016, an increase of 29 cases from 2015.

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 2/14/2017.



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 2015 and 2016. 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 2014 to September 2015 (224.7).



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 2/14/2017.

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 2015 and 2016 based on race, age and sex. About 80 percent of the gonorrhea cases from 2015 and 2016 occurred among black Hamilton County residents. Over 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 2013 to 2016. There has been a large reduction in the percentage of cases that are in the majority group, black females, from 51% in 2013 to 40% in 2016. The percentage of cases that are black males and white females have increased over this period.

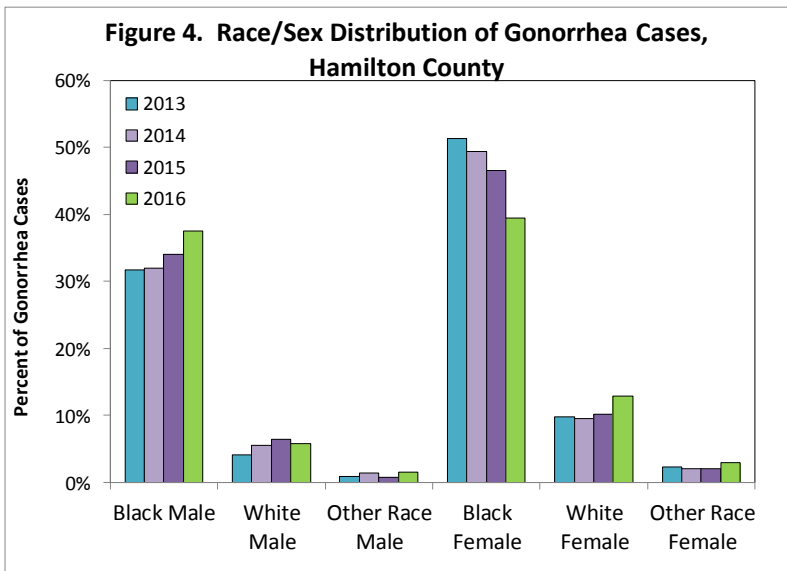


Table 4. Demographics of Gonorrhea Cases

	2015		2016	
	#	%	#	%
Race				
Black	1,641	80.5	1,707	77.8
White	337	16.5	379	17.3
Other	60	2.9	107	4.9
Age				
<1	0	0	1	0
1-14	23	0.8	27	1.0
15-24	1,567	56.1	1,472	52.1
25-34	814	29.1	870	30.8
35-44	233	8.3	271	9.6
45-54	101	3.6	120	4.3
55-64	45	1.6	52	1.8
>65	11	0.4	10	0.4
Sex				
Male	1,266	45.3	1,340	47.5
Female	1,530	54.7	1,484	52.6

These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2015 and December 2016 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 2/14/2017. 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.