



Hamilton County Public Health - Epidemiology and Assessment

Chlamydia and Gonorrhea Quarterly Report

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Chlamydia Infections by Month (2014-2015)

Table 1. Chlamydia Cases by Month for Hamilton County Residents

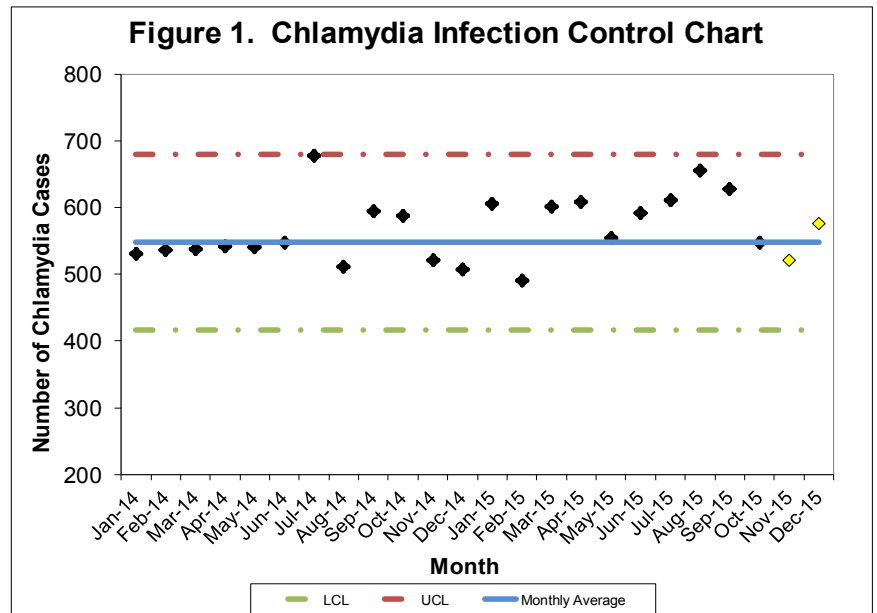
Month	Cases of Chlamydia 2014	Cases of Chlamydia 2015
January	531	606
February	536	491
March	538	602
April	542	609
May	540	555
June	548	592
July	678	611
August	512	655
September	595	628
October	587	547
November	521	521
December	507	576
Total	6,635	6,993

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 from 2014 and 2015 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2014, the highest number of chlamydia cases was reported in July (678 cases). In 2015, the highest number of chlamydia cases occurred in August (655 cases). The average number of chlamydia cases per month was 552.9 and 582.8 for 2014 and 2015, respectively. Hamilton County experienced a 5% increase in chlamydia cases from 2014 to 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 5/3/2016.

Surveillance of Chlamydia Cases in Hamilton County

Chlamydia infections within Hamilton County are monitored 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 2014 to December 2015. All of the months in this time frame fell below the upper control limit for number of infections. The average number of cases was calculated from July 2013 to June 2014 (547.7).



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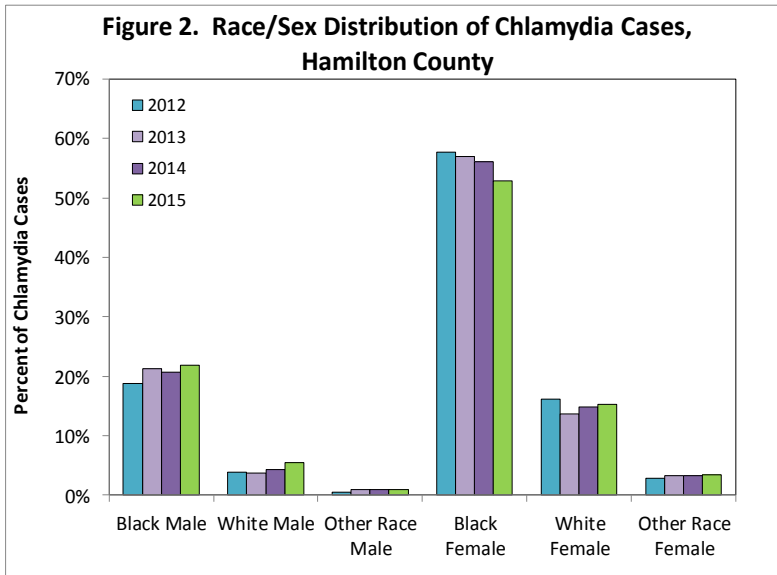


Demographics with High Risk for Chlamydia Infection

Individuals with certain demographics are more likely to be infected with chlamydia. Table 2 shows the percentage of chlamydia cases from 2014 and 2015 based on race, age and sex. Over 75 percent of the chlamydia cases from 2014 and 2015 occurred among black Hamilton County residents. Nearly 70% of chlamydia cases were between the ages of 15-24. The majority of diagnosed cases in 2014 and 2015 were among female Hamilton County residents. Identifying these aforementioned at-risk groups allows public health and health care the opportunity to focus intervention methods for preventing the spread of chlamydia. Figure 2 further classifies the differences among race/sex groups from 2012 to 2015. The demographics from 2012 to 2015 are similar, with a notable reduction in the percentage of cases that are in the majority group, black females.

Table 2. Demographics of Chlamydia Cases

	2014		2015	
	#	%	#	%
Race				
Black	3,255	76.8	3,355	74.8
White	808	19.1	937	20.8
Other	178	0.4	195	4.3
Age				
<1	2	0.0	1	0.0
1-14	141	2.1	116	1.7
15-24	4,634	69.9	4,808	68.8
25-34	1,473	22.2	1,605	23.0
35-44	283	4.3	334	4.8
45-54	70	1.1	90	1.3
55-64	25	0.4	27	0.4
>65	5	0.1	4	0.1
Sex				
Male	1,824	27.5	2,028	29.0
Female	4,811	72.5	4,965	71.0



These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2014 and December 2015 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 5/3/2016. 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 (2014-2015)

Table 3. Gonorrhea Cases by Month for Hamilton County Residents

Month	Cases of Gonorrhea 2014	Cases of Gonorrhea 2015
January	203	253
February	154	171
March	148	224
April	169	225
May	151	211
June	176	237
July	242	227
August	223	239
September	247	243
October	217	256
November	194	222
December	203	242
Total	2,327	2,750

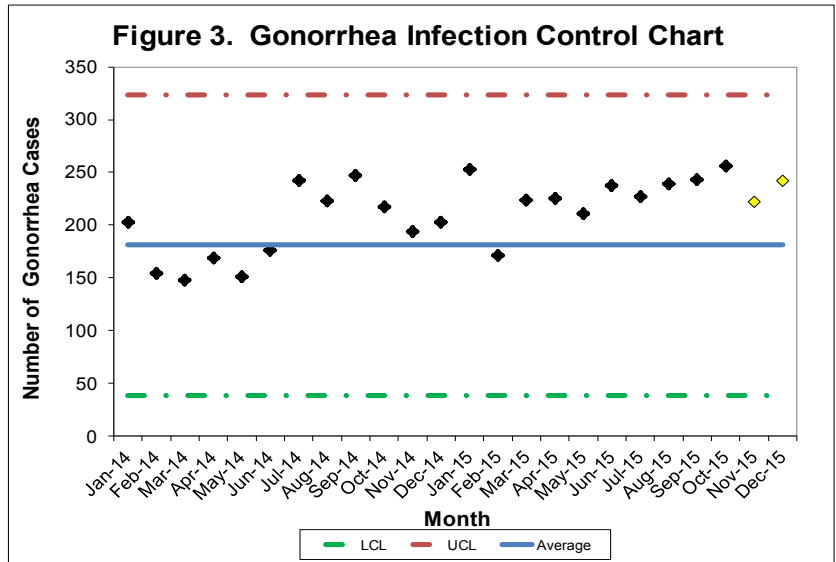
Table 3 displays the breakdown of gonorrhea cases for Hamilton County residents from 2014 and 2015 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2014, the highest number of gonorrhea cases was reported for September (247 cases). In 2015, the highest number of gonorrhea cases occurred in October (256 cases). The average number of gonorrhea cases per month was 193.9 and 229.2 for 2014 and 2015, respectively. The number of gonorrhea cases among Hamilton County residents increased by approximately 18% from 2014 to 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 5/3/2016.



Surveillance of Gonorrhea Cases in Hamilton County

Gonorrhea infections within Hamilton County are monitored 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 from January 2014 to December 2015. The last 10 months in 2015 were above the average number of cases, indicating that there may be an increase in disease transmission in Hamilton County from past years. The average number of cases was calculated from July 2013 to June 2014 (181.0).



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 5/3/2016.

Demographics with High Risk for Gonorrhea Infection

Individuals with certain demographics are more likely to be infected with gonorrhea. Table 4 shows the percentage of gonorrhea cases from 2014 and 2015 based on race, age and sex. Over 80 percent of the gonorrhea cases from 2014 and 2015 occurred among black Hamilton County residents. Nearly 60% of gonorrhea cases were between the ages of 15-24. The burden of disease is shifting from the female to the male population. Identifying these aforementioned at-risk groups allows public health and health care the opportunity to focus intervention methods for preventing the spread of gonorrhea. Figure 4 further classifies the differences among race/sex groups from 2012 to 2015. There is a notable reduction in the percentage of cases that are in the majority group, black females, while the percentage of cases that are black or white males has steadily increased.

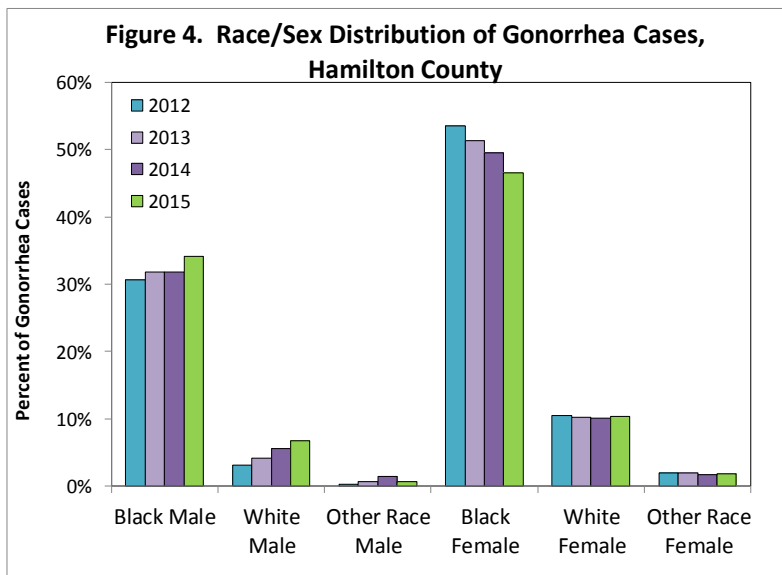


Table 4. Demographics of Gonorrhea Cases

	2014		2015	
	#	%	#	%
Race				
Black	1,354	81.3	1,618	80.6
White	260	15.6	341	17.0
Other	51	3.1	48	2.3
Age				
<1	0	0.0	0	0.0
1-14	40	1.7	23	0.8
15-24	1,378	59.3	1,548	56.3
25-34	594	25.5	804	29.3
35-44	186	8.0	225	8.2
45-54	77	3.3	98	3.6
55-64	42	1.8	40	1.5
>65	8	0.3	10	0.4
Sex				
Male	1,001	43.0	1,238	45.0
Female	1,326	57.0	1,512	55.0

These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2014 and December 2015 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 5/3/2016. 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.