



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**

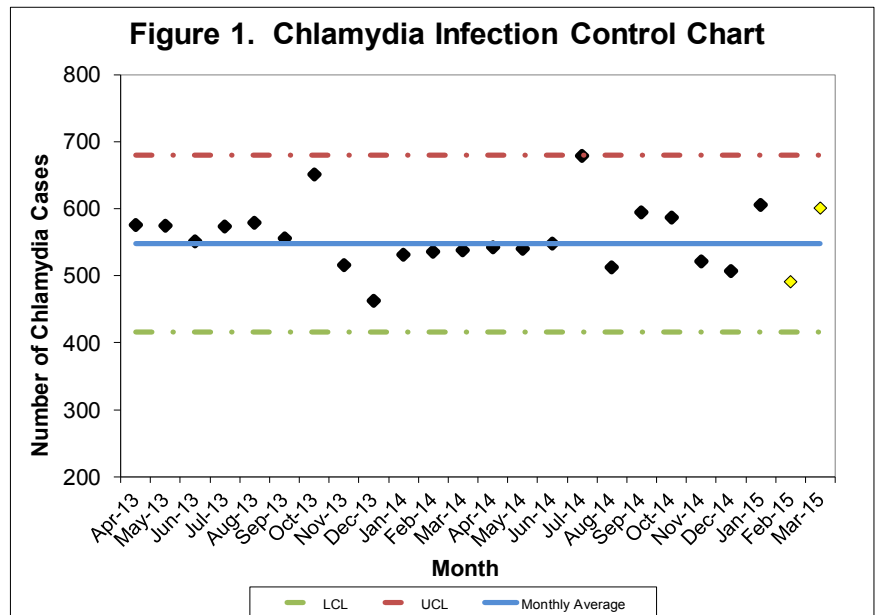
Month	Cases of Chlamydia 2014	Cases of Chlamydia 2015
January	531	606
February	536	491
March	538	601
April	542	
May	540	
June	548	
July	678	
August	512	
September	595	
October	587	
November	521	
December	507	
<b>Total</b>	<b>6,635</b>	<b>1,698</b>

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). Through Q1 of 2015, the highest number of chlamydia cases occurred in January (606 cases). The average number of chlamydia cases per month was 552.9 and 566.0 for 2014 and through Q1 2015, respectively. Assuming negligible variance in cases reported between months, 2015 is presently on pace to have 6,792 reported chlamydia cases, an estimated increase from 2014 of 157 cases.

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 7/28/2015.

## 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 April 2013 to March 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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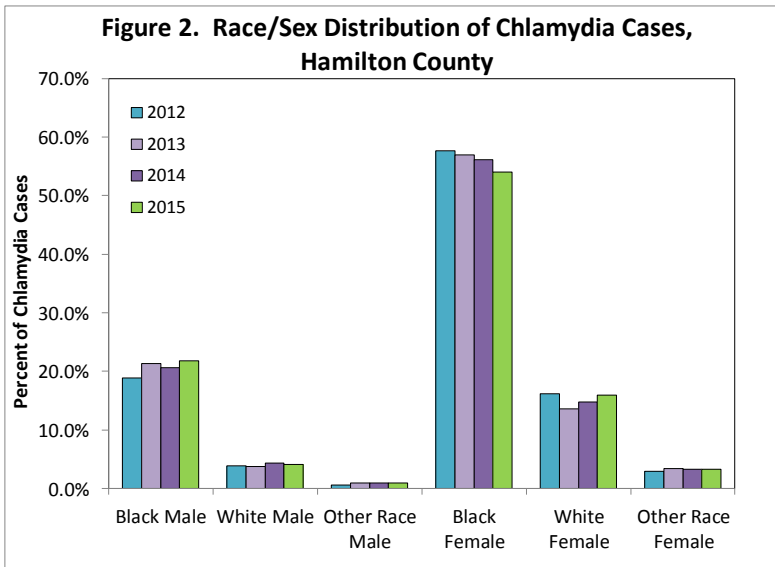


## Demographics with High Risk for Chlamydia Infection

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 create focused 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	
	#	%	#	%
<b>Race</b>				
Black	3,255	76.8	793	75.8
White	808	19.1	210	20.1
Other	178	0.4	43	0.4
<b>Age</b>				
<1	2	0.0	0	0.0
1-14	141	2.1	35	2.1
15-24	4,633	69.9	1,166	68.7
25-34	1,473	22.2	387	22.8
35-44	283	4.3	82	4.8
45-54	70	1.1	23	1.4
55-64	25	0.4	3	0.2
>65	5	0.1	1	0.1
<b>Sex</b>				
Male	1,824	27.5	475	28.0
Female	4,811	72.5	1,223	72.0



These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2014 and March 2015 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 7/28/2015. 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	223
April	169	
May	151	
June	176	
July	242	
August	223	
September	247	
October	217	
November	194	
December	203	
<b>Total</b>	<b>2,327</b>	<b>647</b>

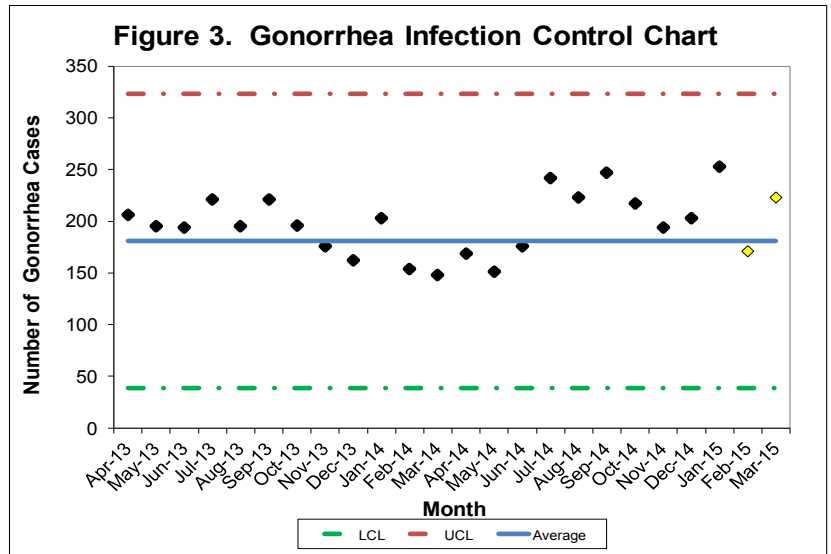
Table 3 displays the breakdown of gonorrhea cases for Hamilton County residents from 2014 and 2015 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2014, the highest number of gonorrhea cases was reported for September (247 cases). Through Q1 of 2015, the highest number of gonorrhea cases occurred in January (253 cases). The average number of gonorrhea cases per month was 193.9 and 215.7 for 2014 and through Q1 2015, respectively. Assuming negligible variance in cases reported between months, 2015 is presently on pace to have 2,588 reported gonorrhea cases, an estimated increase from 2014 of 261 cases.

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 7/28/2015.



## Surveillance of Gonorrhea Cases in Hamilton County

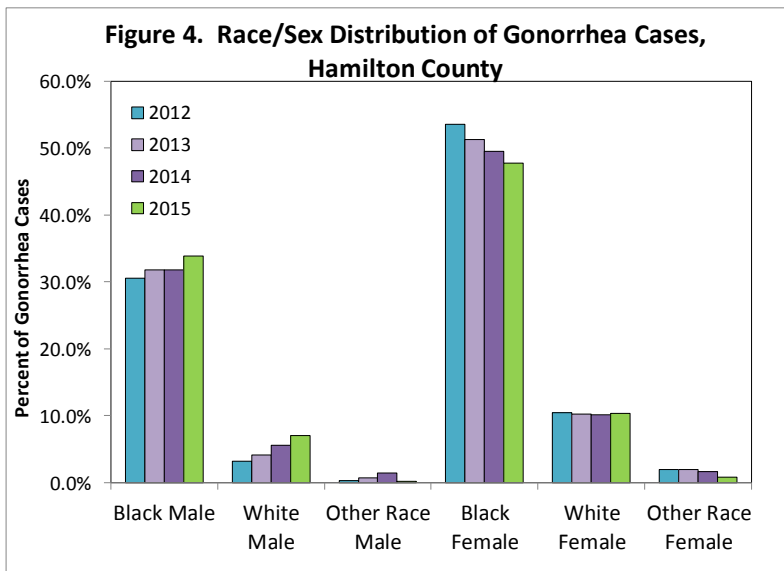
One way to monitor gonorrhea infections within Hamilton County is through the use of surveillance control charts. Factors that these control charts show are the number of gonorrhea cases for each month (black diamonds), control limits (red or green dashed lines), and the average number of cases (solid 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 from April 2013 to March 2015. 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 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 7/28/2015.

## 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. 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 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	
	#	%	#	%
<b>Race</b>				
Black	1,354	81.3	393	81.5
White	260	15.6	84	17.4
Other	51	3.1	5	1.0
<b>Age</b>				
<1	0	0.0	0	0.0
1-14	40	1.7	6	0.9
15-24	1,378	59.3	387	59.8
25-34	594	25.5	177	27.4
35-44	186	8.0	50	7.7
45-54	77	3.3	18	2.8
55-64	42	1.8	8	1.2
>65	8	0.3	1	0.2
<b>Sex</b>				
Male	1,001	43.0	364	56.3
Female	1,326	57.0	283	43.7

These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2014 and March 2015 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 7/28/2015. 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.