



Hamilton County Public Health - Epidemiology and Assessment

# Chlamydia and Gonorrhea Quarterly Report

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## Chlamydia Infections by Month (2012-2013)

**Table 1. Chlamydia Cases by Month for Hamilton County Residents**

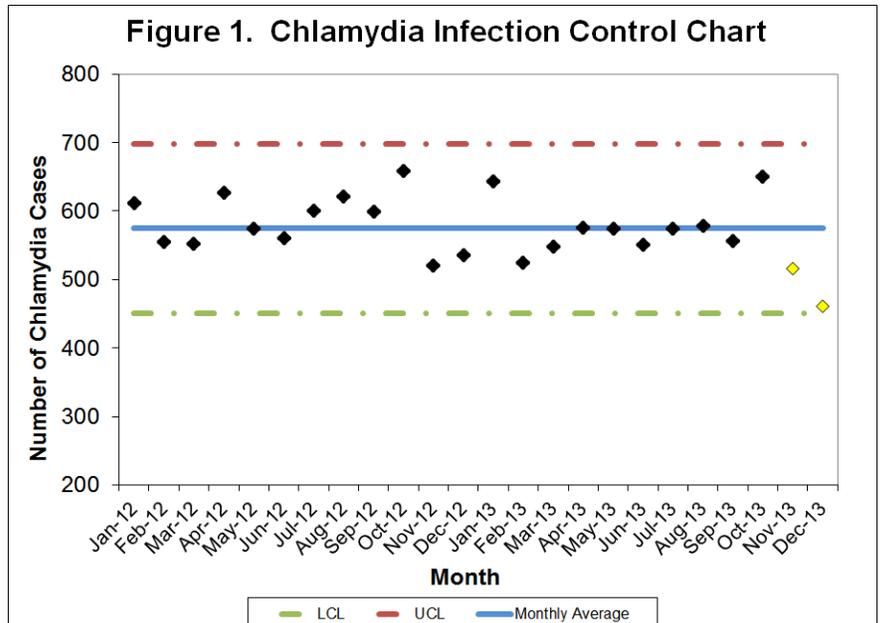
| Month        | Cases of Chlamydia 2012 | Cases of Chlamydia 2013 |
|--------------|-------------------------|-------------------------|
| January      | 612                     | 644                     |
| February     | 555                     | 524                     |
| March        | 552                     | 548                     |
| April        | 627                     | 576                     |
| May          | 575                     | 575                     |
| June         | 561                     | 551                     |
| July         | 600                     | 574                     |
| August       | 622                     | 579                     |
| September    | 599                     | 556                     |
| October      | 659                     | 651                     |
| November     | 520                     | 516                     |
| December     | 535                     | 461                     |
| <b>Total</b> | <b>7,017</b>            | <b>6,755</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 breakdown of chlamydia cases for Hamilton County residents from 2012 and 2013 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2012, the highest number of chlamydia cases was seen in October (659 cases). In 2013, the highest number of chlamydia cases occurred in October (651 cases). The average number of chlamydia cases per month were 584.8 and 562.9 for the years 2012 and 2013, respectively. 262 fewer cases of chlamydia were reported in 2013 compared to 2012. Subsequent reports will allow for a better comparison of 2012 and 2013 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 3/23/2014.

## 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 illustrates the control chart for chlamydia infections from January 2012 to December 2013. All of the months in this time frame fell below the upper control limit for number of chlamydia infections. Future control charts will give a better understanding of the case counts for 2012 and 2013. The monthly average number of cases (574.4) was calculated from January 2010-December 2012.



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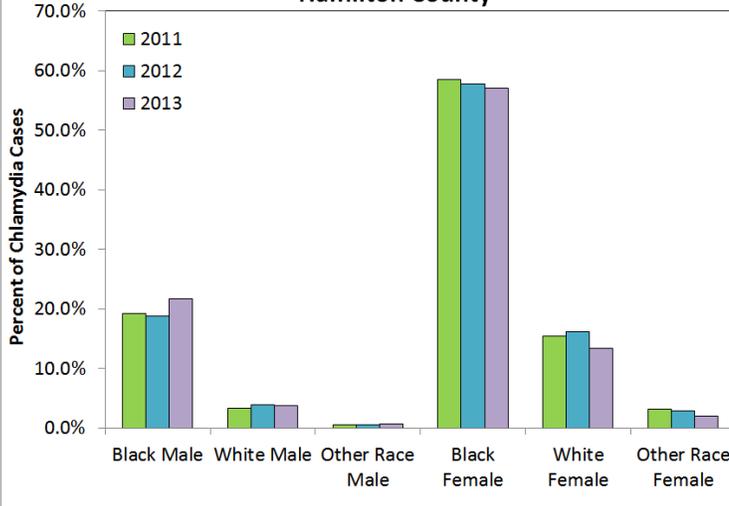
## Demographics with High Risk for Chlamydia Infection

Individuals with certain demographics are more likely to be infected with chlamydia. Table 2 shows the percentage of chlamydia cases from 2012 and 2013 based on race, age and sex. Over 75 percent of the chlamydia cases from 2012 and 2013 occurred among black Hamilton County residents. Nearly 7 of 10 chlamydia cases were between the ages of 15-24. The majority of diagnosed cases in 2012 and 2013 were among female Hamilton County residents. Identifying these aforementioned at-risk groups allows public health and health care the opportunity to create specific intervention methods for preventing the spread of chlamydia. Figure 2 further classifies the differences among race/sex groups from 2011 to 2013. The demographics from 2011 and 2012 are very similar to the demographics from 2013.

**Table 2. Demographics of Chlamydia Cases**

|             | 2012 |      | 2013 |      |
|-------------|------|------|------|------|
|             | #    | %    | #    | %    |
| <b>Race</b> |      |      |      |      |
| Black       | 3556 | 76.5 | 3314 | 78.6 |
| White       | 929  | 20.0 | 722  | 17.2 |
| Other       | 160  | 3.5  | 179  | 4.2  |
| <b>Age</b>  |      |      |      |      |
| <1          | 23   | 0.3  | 28   | 0.4  |
| 1-14        | 184  | 2.6  | 188  | 2.8  |
| 15-24       | 4984 | 71.0 | 4731 | 70.0 |
| 25-34       | 1485 | 21.2 | 1427 | 21.1 |
| 35-44       | 254  | 3.6  | 267  | 4.0  |
| 45-54       | 64   | 0.9  | 85   | 1.3  |
| 55-64       | 21   | 0.3  | 26   | 0.4  |
| >65         | 2    | <0.1 | 3    | <0.1 |
| <b>Sex</b>  |      |      |      |      |
| Male        | 1825 | 26.0 | 1886 | 27.9 |
| Female      | 5192 | 74.0 | 4869 | 72.1 |

**Figure 2. Race/Sex Distribution of Chlamydia Cases, Hamilton County**



These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2012 and December 2013 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 3/23/2014. 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 (2012-2013)

**Table 3. Gonorrhea Cases by Month for Hamilton County Residents**

| Month        | Cases of Gonorrhea 2012 | Cases of Gonorrhea 2013 |
|--------------|-------------------------|-------------------------|
| January      | 211                     | 253                     |
| February     | 201                     | 201                     |
| March        | 181                     | 189                     |
| April        | 217                     | 206                     |
| May          | 205                     | 195                     |
| June         | 186                     | 194                     |
| July         | 214                     | 221                     |
| August       | 263                     | 195                     |
| September    | 212                     | 221                     |
| October      | 222                     | 196                     |
| November     | 188                     | 176                     |
| December     | 222                     | 162                     |
| <b>Total</b> | <b>2,522</b>            | <b>2,409</b>            |

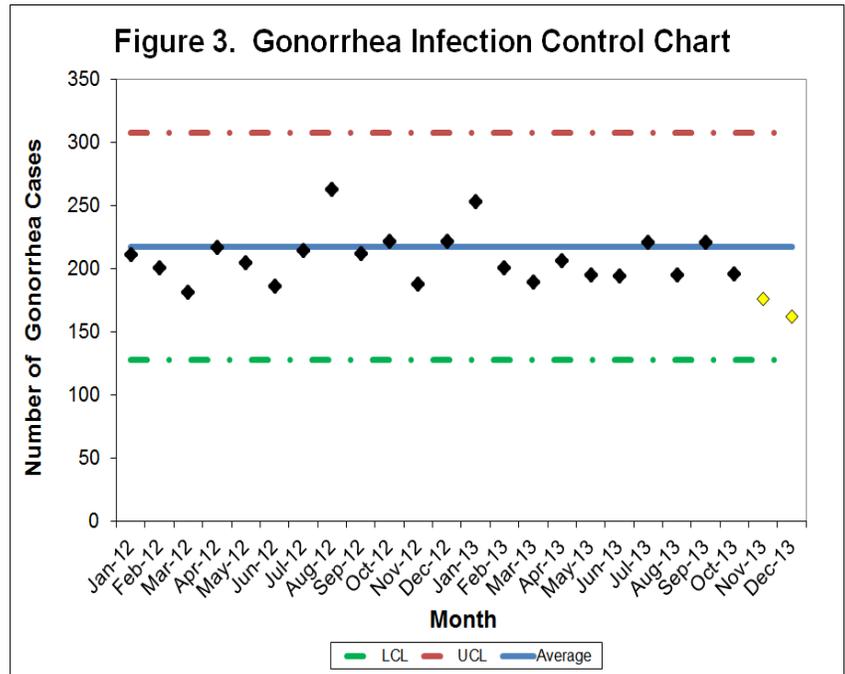
Table 3 displays the breakdown of gonorrhea cases for Hamilton County residents from 2012 and 2013 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2012, the highest number of gonorrhea cases was seen in August (263 cases). In 2013, the highest number of gonorrhea cases occurred in January (253 cases). The average number of gonorrhea cases per month were 210.2 and 200.8 for the years 2012 and 2013, respectively. An additional 113 cases of gonorrhea were reported in 2012 compared to 2013. Subsequent reports will allow for a better comparison of 2012 and 2013 cases as data are subject to change as more information is gained.

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 3/23/2014.



## 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 January 2012 to December 2013. All of the months within this time frame fell below the upper control limit for number of gonorrhea infections. All but two months in 2013 were below the monthly average. The monthly average number of cases (217.4) was calculated from January 2011-December 2013.



## 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 2012 and 2013 based on race, age and sex. Over 80 percent of the gonorrhea cases from 2012 and 2013 occurred among black Hamilton County residents. Nearly 6 of 10 gonorrhea cases were between the ages of 15-24. Of those cases diagnosed in 2013, approximately 60% were among female Hamilton County residents. Identifying these aforementioned at-risk groups allows public health and health care the opportunity to create specific intervention methods for preventing the spread of syphilis. Figure 4 further classifies the differences among race/sex groups from 2011 to 2013. The demographics of cases from 2011 and 2012 are very similar to those from 2013 cases.

**Table 4. Demographics of Gonorrhea Cases**

|             | 2012 |      | 2013 |      |
|-------------|------|------|------|------|
|             | #    | %    | #    | %    |
| <b>Race</b> |      |      |      |      |
| Black       | 1456 | 84.2 | 1395 | 83.6 |
| White       | 235  | 13.6 | 228  | 13.7 |
| Other       | 39   | 2.2  | 46   | 2.7  |
| <b>Age</b>  |      |      |      |      |
| <1          | 21   | 0.8  | 18   | 0.7  |
| 1-14        | 40   | 1.6  | 38   | 1.6  |
| 15-24       | 1579 | 62.6 | 1408 | 58.4 |
| 25-34       | 597  | 23.7 | 652  | 27.1 |
| 35-44       | 174  | 6.9  | 176  | 7.3  |
| 45-54       | 78   | 3.1  | 76   | 3.2  |
| 55-64       | 29   | 1.1  | 37   | 1.5  |
| >65         | 4    | 0.2  | 4    | 0.2  |
| <b>Sex</b>  |      |      |      |      |
| Male        | 980  | 38.9 | 990  | 41.1 |
| Female      | 1542 | 61.1 | 1419 | 58.9 |

These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2012 and December 2013 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 3/23/2014. 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.

**Figure 4. Race/Sex Distribution of Gonorrhea Cases, Hamilton County**

