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Hamilton County Public Health
Epidemiology and Assessment

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Chlamydia and Gonorrhea Quarterly Report

Chlamydia Infections by Month in Hamilton County, Ohio (January 2021 - June 2022)

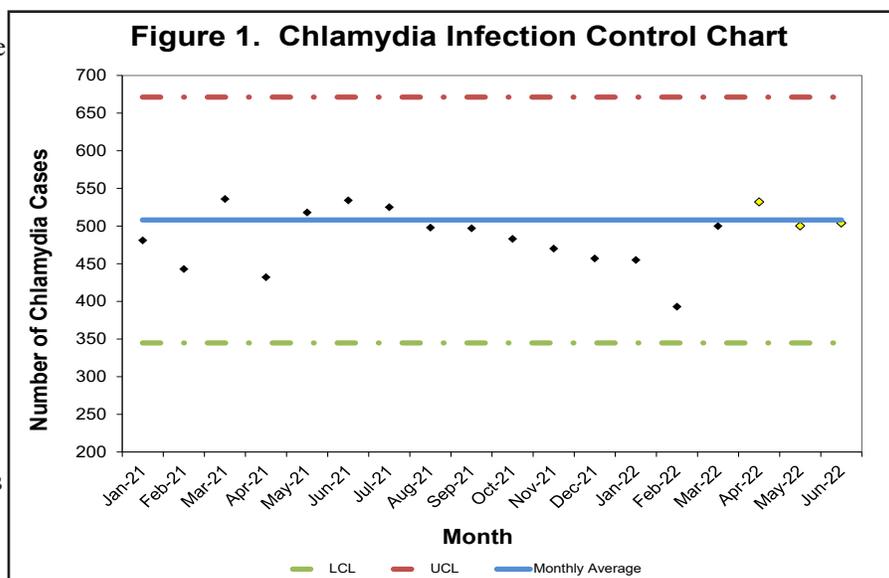
Month	Cases of Chlamydia 2021	Cases of Chlamydia 2022
January	481	455
February	443	393
March	536	500
April	432	532
May	518	500
June	534	504
July	525	0
August	498	0
September	497	0
October	483	0
November	470	0
December	457	0
Total	5,874	2,884

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 2021 and 2022 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2021, the highest number of chlamydia cases were reported in March (536 cases). In 2022, the highest number of chlamydia cases have occurred in April (532 cases). There was a monthly average of 489.5 chlamydia cases during 2021 and a monthly average of 449.3 in 2022. At the time of this report a total of 2,884 chlamydia cases were reported for 2022, indicating a decrease of 10 cases when compared to cases in 2021 during the same time period (January - June).

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 8/8/2022.

Surveillance of Chlamydia Cases in Hamilton County, Ohio (January 2021 - June 2022)

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 2021 through June 2022. All of the single month counts in this time-frame fell within the control limits for the number of monthly infections. The average number during this timeframe was 508.



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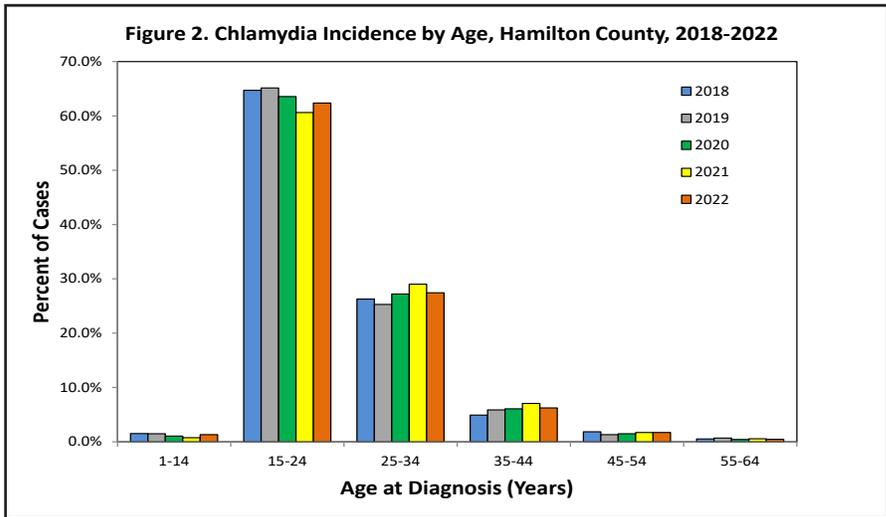
Demographics with High Risk for Chlamydia Infection

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 2021 and 2022 based on race, sex, and age. Approximately 65 percent of the chlamydia cases from 2021 and 2022 occurred among black Hamilton County residents. Over 60 percent of chlamydia cases were between the ages of 15-24, and the majority of diagnosed cases in 2021 and 2022 were among female Hamilton County residents. Figure 2 further classifies the differences among age groups over 2018 through 2022. The demographics from 2018 to 2022 show a large disparity among black females as they continue to make up over 40% of all chlamydia cases.

Table 2. Demographics of Chlamydia Cases

	Jan- Dec 2021		Jan- Jun 2022	
	#	%	#	%
Race				
Black	2,818	66.7%	1,511	66.9%
White	937	22.2%	486	21.5%
Other	472	11.2%	263	11.6%
Sex				
Male	1,913	32.6%	876	30.4%
Female	3,961	67.4%	2,008	69.6%
Age				
<1	0	0.0%	2	0.1%
1-14	45	0.8%	38	1.3%
15-24	3,560	60.6%	1,799	62.4%
25-34	1,705	29.0%	791	27.4%
35-44	415	7.1%	180	6.2%
45-54	101	1.7%	50	1.7%
55-64	34	0.6%	13	0.5%
>65	14	0.2%	11	0.4%

These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2021 and March 2022 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 8/8/2022. 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 in Hamilton County, Ohio (January 2021-June 2022)

Table 3. Hamilton County Gonorrhea Infections		
Month	Cases of Gonorrhea 2021	Cases of Gonorrhea 2022
January	327	248
February	289	169
March	323	202
April	289	223
May	258	253
June	309	238
July	303	0
August	285	0
September	234	0
October	271	0
November	245	0
December	219	0
Total	3,352	1,333

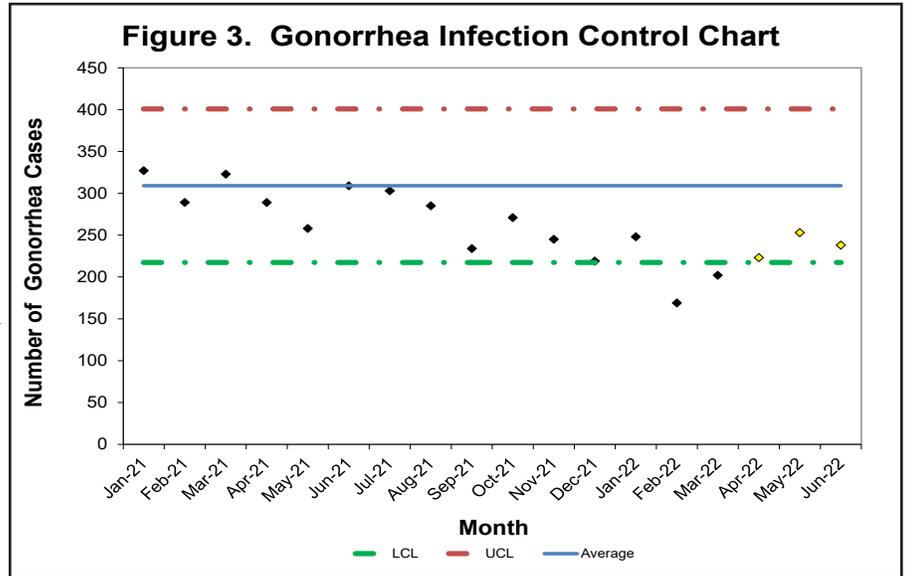
Table 3 displays the total number of gonorrhea cases for Hamilton County residents (at diagnosis) over the period of 2021 and 2022 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2021, the highest number of gonorrhea cases were reported in January (327 cases). During 2022, the highest number of gonorrhea cases have occurred in May (253 cases). The average number of gonorrhea cases per month was respectively 279.3 and 222.2. for 2021 and 2022. At the time of this report a total of 1,333 gonorrhea cases were reported for 2022, indicating a decrease of 462 cases when compared to cases in 2021 during the same time period (January - June).

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 8/8/2022.



Surveillance of Gonorrhea Cases in Hamilton County (January 2021-June 2022)

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 January 2021 and June 2022. All of the months within this time frame fell below the upper control limit for number of gonorrhea infections. The average number of cases from January 2021 to June 2022 was 309.1.



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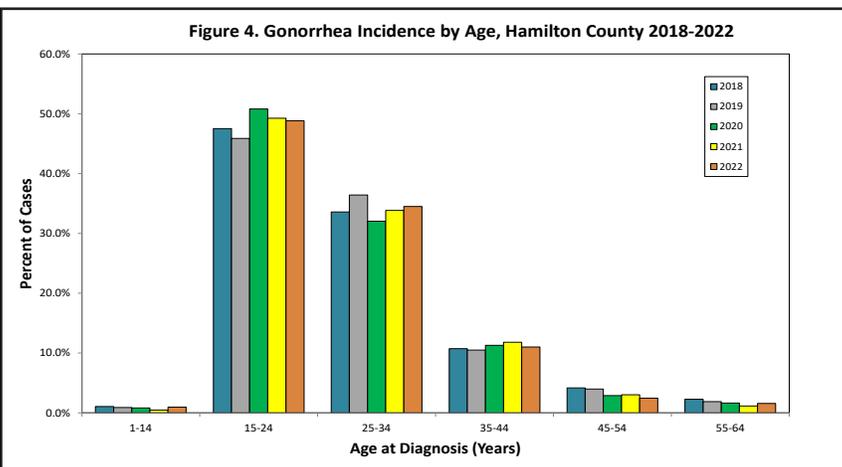
Demographics with High Risk Gonorrhea Infection

Certain demographic groups are more likely to be infected with gonorrhea. Table 4 shows the percentage of gonorrhea cases from 2021 and 2022 based on race, sex, and age. Over 75 percent of the gonorrhea cases from 2021 and 2022 occurred among black Hamilton County residents. Over 45% percent of gonorrhea cases were between the ages of 15 and 24. Identifying these 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 2018 to 2022. The demographics from 2018 to 2022 show a large disparity of gonorrhea cases among the black population in Hamilton County.

Table 4. Demographics of Gonorrhea Cases

	Jan-Dec 2021		Jan-Jun 2022	
	#	%	#	%
Race				
Black	2,146	78.8%	862	75.7%
White	401	14.7%	164	14.4%
Other	178	6.5%	112	9.8%
Sex				
Male	1,607	47.9%	670	50.3%
Female	1,745	52.1%	663	49.7%
Age				
<1	0	0.0%	1	0.1%
1-14.	16	0.5%	13	1.0%
15-24	1,651	49.3%	651	48.8%
25-34	1,135	33.9%	460	34.5%
35-44	396	11.8%	147	11.0%
45-54	102	3.0%	33	2.5%
55-64	39	1.2%	21	1.6%
>65	13	0.4%	7	0.5%

Figure 4. Gonorrhea Incidence by Age, Hamilton County 2018-2022



These data are provisional and subject to change when additional data are reported. Gonorrhea cases between January 2021 and June 2022 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 8/8/2022. 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.