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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 2020 - September 2021)

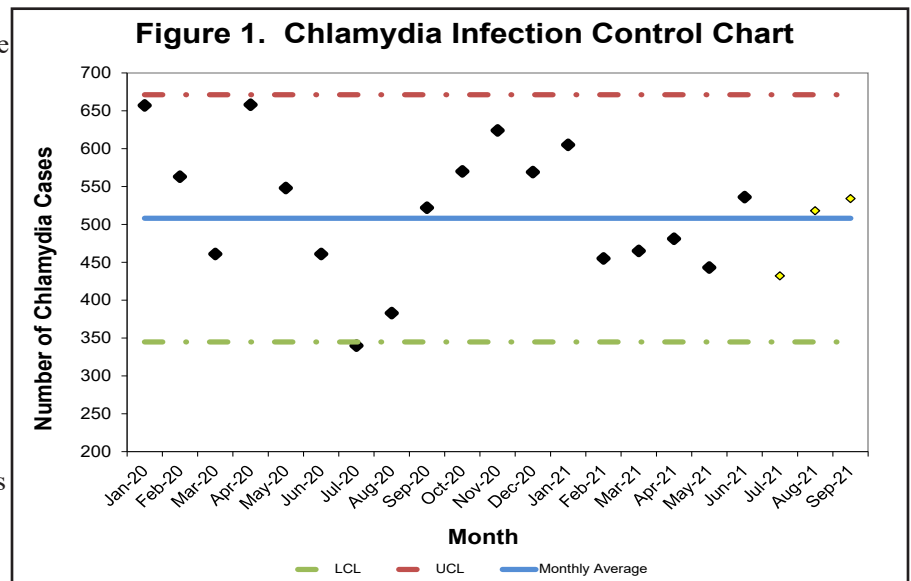
Month	Cases of Chlamydia 2020	Cases of Chlamydia 2021
January	658	481
February	548	443
March	461	536
April	340	432
May	383	518
June	522	534
July	570	525
August	624	498
September	569	497
October	605	
November	455	
December	465	
<b>Total</b>	<b>6,200</b>	<b>4,464</b>

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 (at diagnosis) over the period of 2020 and 2021 on a monthly basis. Only chlamydia cases that have been reported to the CDC were counted for analysis purposes in this report. In 2020, the highest number of chlamydia cases were reported in January (658 cases). In 2021, the highest number of chlamydia cases occurred in March (536 cases). There was a monthly average of 516.7 chlamydia cases during 2020 and a monthly average of 496 in 2021. At the time of this report a total of 4,464 chlamydia cases were reported for 2021, indicating a decrease of 211 cases when compared to cases in 2020 during the same time period.

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 10/26/2021.

### Surveillance of Chlamydia Cases in Hamilton County, Ohio (January 2020 - September 2021)

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 2020 through September 2021. 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 from January 2020 to September 2020 was 508.



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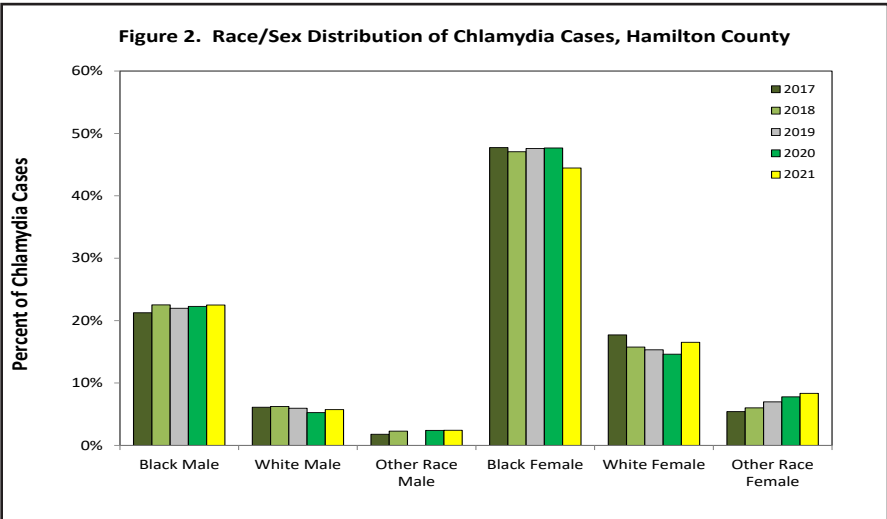
## Demographics with High Risk for Chlamydia Infection

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 2020 and 2021 based on race, sex, and age. Over 65 percent of the chlamydia cases from 2020 and 2021 occurred among black Hamilton County residents. Over 55 percent of chlamydia cases were between the ages of 15-24, and the majority of diagnosed cases in 2020 and 2021 were among female Hamilton County residents. Figure 2 further classifies the differences among age groups over 2017 through 2021. The demographics from 2017 to 2021 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 2020		Jan- Sept 2021	
	#	%	#	%
<b>Race</b>				
Black	3,284	69.9%	2,151	67.0%
White	933	19.9%	715	22.3%
Other	478	10.2%	346	10.8%
<b>Sex</b>				
Male	2,037	32.9%	1,457	32.6%
Female	4,163	67.1%	3,007	67.4%
<b>Age</b>				
<1	3	0.0%	0	0.0%
1-14.	65	1.0%	32	0.7%
15-24	3,940	63.5%	2,674	59.9%
25-34	1,686	27.2%	1,306	29.3%
35-44	377	6.1%	334	7.5%
45-54	93	1.5%	83	1.9%
55-64	27	0.4%	26	0.6%
>65	9	0.1%	9	0.2%

These data are provisional and subject to change when additional data are reported. Chlamydia cases between January 2020 and September 2021 were used for analysis. Cases were selected based on address at diagnosis. Source: Ohio Department of Health, STD Surveillance. Data reported as of 10/26/2021. 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 2020-September 2021)

Table 3. Hamilton County Gonorrhea Infections		
Month	Cases of Gonorrhea 2020	Cases of Gonorrhea 2021
January	249	327
February	256	289
March	227	323
April	213	289
May	267	258
June	334	309
July	360	303
August	423	285
September	425	234
October	411	
November	300	
December	304	
<b>Total</b>	<b>3,769</b>	<b>2,617</b>

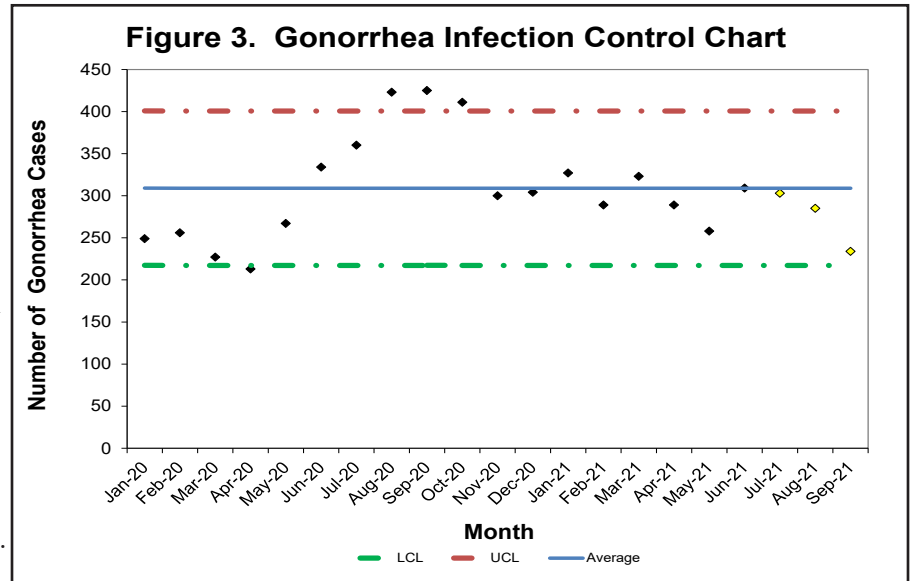
Table 3 displays the total number of gonorrhea cases for Hamilton County residents (at diagnosis) over the period of 2020 and 2021 on a monthly basis. Only gonorrhea cases that have been reported to the CDC were counted for analysis purposes in this report. In 2020, the highest number of gonorrhea cases were reported in September (425 cases). During 2021, the highest number of gonorrhea cases occurred in January (327 cases). The average number of gonorrhea cases per month was respectively 314 and 291 for 2020 and 2021. At the time of this report a total of 2,617 gonorrhea cases were reported for 2021, indicating a decrease of 137 cases when compared to cases in 2020 during the same time period.

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## Surveillance of Gonorrhea Cases in Hamilton County (January 2020-September 2021)

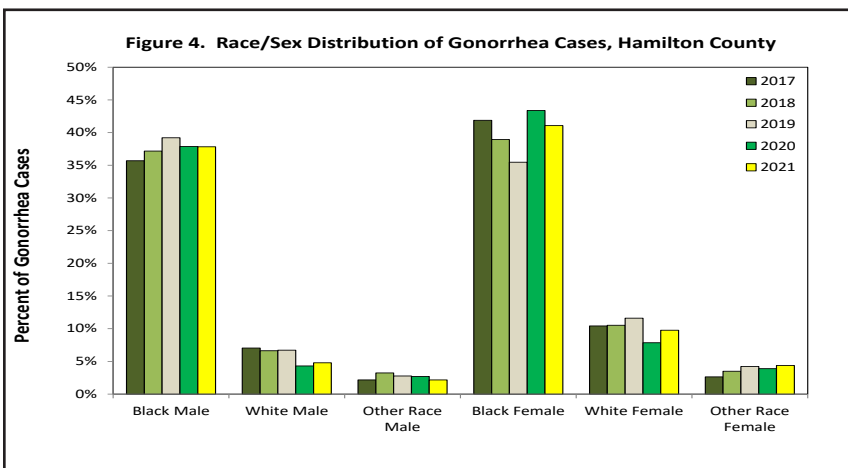
One way to monitor gonorrhea infections within Hamilton County is through the use of surveillance control charts. Factors that these control charts show are the number of gonorrhea cases for each month (black diamonds), control limits (red or green dashed lines), and the average number of cases (solid 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 2020 and September 2021. All of the months within this time frame fell below the upper control limit for number of gonorrhea infections, except the months of August 2020 to October 2020 which fell above the upper control limits. The average number of cases from January 2020 to September 2021 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 2020 and 2021 based on race, sex, and age. Over 75 percent of the gonorrhea cases from 2020 and 2021 occurred among black Hamilton County residents. Approximately 50 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 2017 to 2021. The demographics from 2017 to 2021 show are large disparity of gonorrhea cases among the black population in Hamilton County.



**Table 4. Demographics of Gonorrhea Cases**

	Jan-Dec 2020		Jan-Sept 2021	
	#	%	#	%
<b>Race</b>				
Black	2,527	81.3%	1,679	78.9%
White	378	12.2%	310	14.6%
Other	205	6.6%	139	6.5%
<b>Sex</b>				
Male	1,770	47.0%	1,225	46.8%
Female	1,999	53.0%	1,392	53.2%
<b>Age</b>				
<1	0	0.0%	0	0.0%
1-14.	31	0.8%	15	0.6%
15-24	1,915	50.8%	1,279	48.9%
25-34	1,208	32.1%	900	34.4%
35-44	426	11.3%	310	11.8%
45-54	109	2.9%	77	2.9%
55-64	62	1.6%	28	1.1%
>65	18	0.5%	8	0.3%

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