



Public Health
Prevent. Promote. Protect.

2021 Annual Infectious Disease Report

Wayne County Health Department

Date Completed: 5/23/2022

12,795 communicable disease cases were reported to the Wayne County Health Department in 2021. The number of reported communicable disease cases in 2021 was the highest in the history of the Wayne County Health Department and approximately double the number that was reported in 2020. The record number of cases was largely attributed to the Covid-19 pandemic which began in March 2020.

This report displays and analyzes data for diseases that had cases reported in Wayne County in 2021. The cases included in this report were classified as “Confirmed” or “Probable” in ODRS and are required to be reported to us by Ohio Administrative Code 3701.23. The report includes tables graphs by month, sex, and age groups as well as tables and maps by zip codes for all communicable disease cases and highlights data summaries of the leading communicable diseases reported in 2021.

Figure 1. Number of Communicable Disease Cases Reported by Month

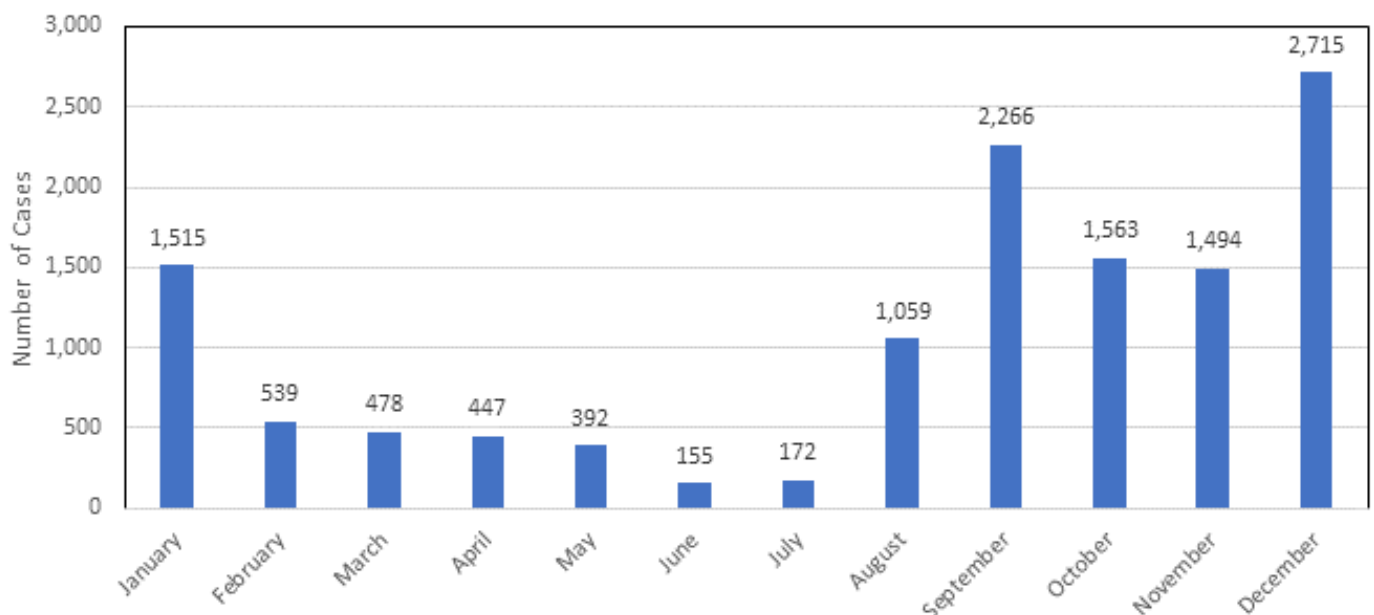


Figure 1 shows the number of communicable disease cases reported by month for 2021. The number of cases decreased from January to June then increased from June to September, decreased from September to November, and increased again in December. The distribution of cases by month was largely correlated with Covid-19 activity.

Table 1: Number of Communicable Disease Cases Reported by Disease

Reportable Condition	2021	Annual Average (2015-2019)	Difference
Campylobacteriosis	39	34	5
Chlamydia infection	276	267	9
COVID-19	12,257	0	12,257
CP-CRE	1	0	1
Cryptosporidiosis	6	5	1
E. coli	7	7	0
Giardiasis	1	4	-3
Gonococcal infection	49	51	-2
Haemophilus influenzae (invasive disease)	1	3	-2
Hepatitis A	2	5	-3
Hepatitis B (including delta) - acute	4	3	1
Hepatitis B (including delta) - chronic	11	15	-4
Hepatitis C - acute	3	4	-1
Hepatitis C - chronic	78	99	-21
Hepatitis C - Perinatal Infection	1	0	1
Influenza-associated hospitalization	3	106	-103
LaCrosse virus disease	2	1	1
Legionellosis	7	8	-1
Lyme Disease	5	3	2
MIS-C associated with COVID-19	1	0	1
Pertussis	11	15	-4
Salmonellosis	13	21	-8
Shigellosis	1	2	-1
Spotted Fever Rickettsiosis, including Rocky Mountain spotted fever (RMSF)	1	0	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	4	8	-4
Syphilis - unknown duration or late	3	1	2
Varicella	2	7	-5
Vibriosis (not cholera)	1		1
Yersiniosis	1	1	0
Total	12,795	688	12,107

Summary:

Table 1 displays the number of reported cases in 2021 compared to the 5-year historical average. The top 5 diseases, in order, were Covid-19 (12,257 cases), Chlamydia (276), Chronic Hepatitis C (78), Gonococcal Infections (49), and Campylobacteriosis (39). A detailed breakdown of each of these diseases can be found later in the report.

Among the 5 leading communicable diseases reported in 2021, the number of reported Covid-19 was above the historical average. The number of reported cases of Chronic Hepatitis C was below the historical average while the number of reported Chlamydia and Campylobacteriosis cases were similar to the historical average. Of note, the number of influenza associated hospitalizations was well below the historical average.

Notes:

Counts in **red** denote a noteworthy increase (based on 1 standard deviation) from the historical average.

Counts in **green** denote a noteworthy decrease (based on 1 standard deviation) from the historical average.

Counts include cases that were Probable or Confirmed. Data was extracted by the date reported to the Wayne County Health Department.

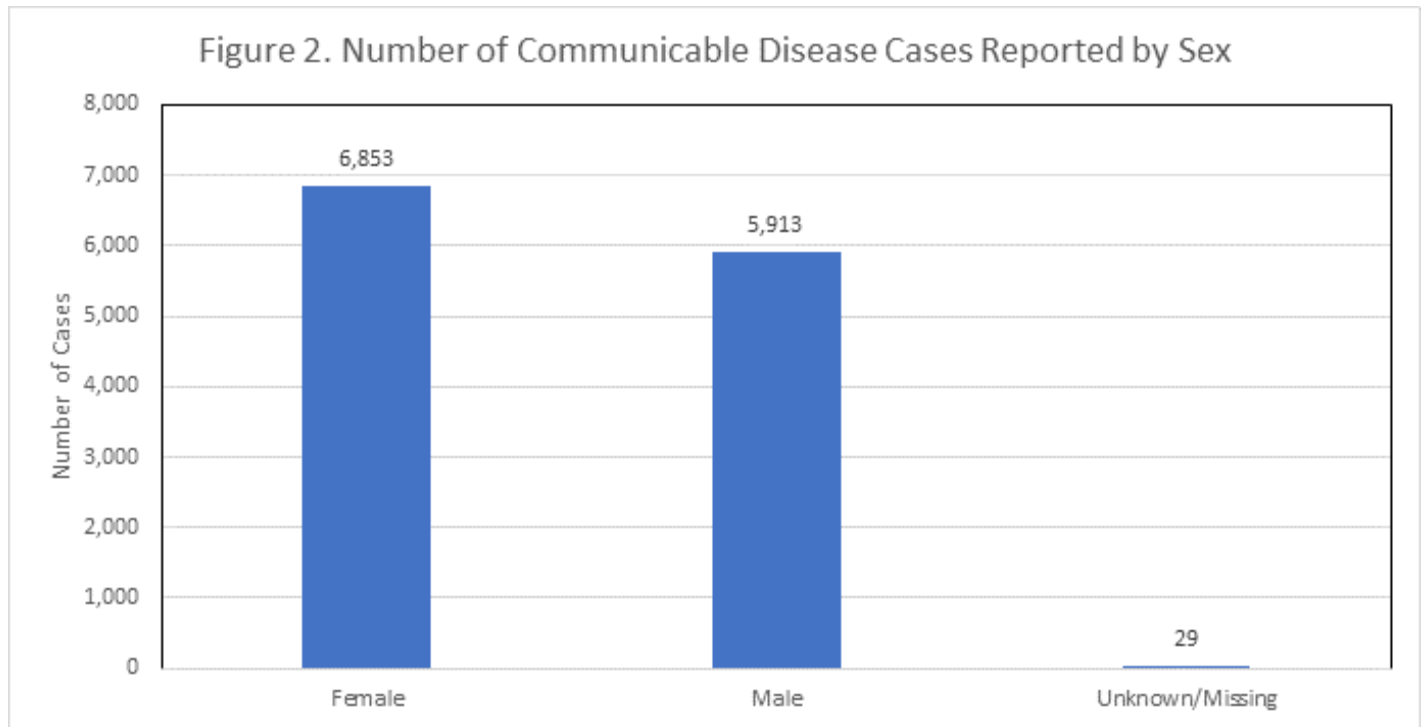


Figure 2 displays the number of communicable disease cases by sex. Females accounted for 54% of all cases (6,853) and males accounted for 46% of all cases (5,913). 29 cases had a missing or unknown sex.

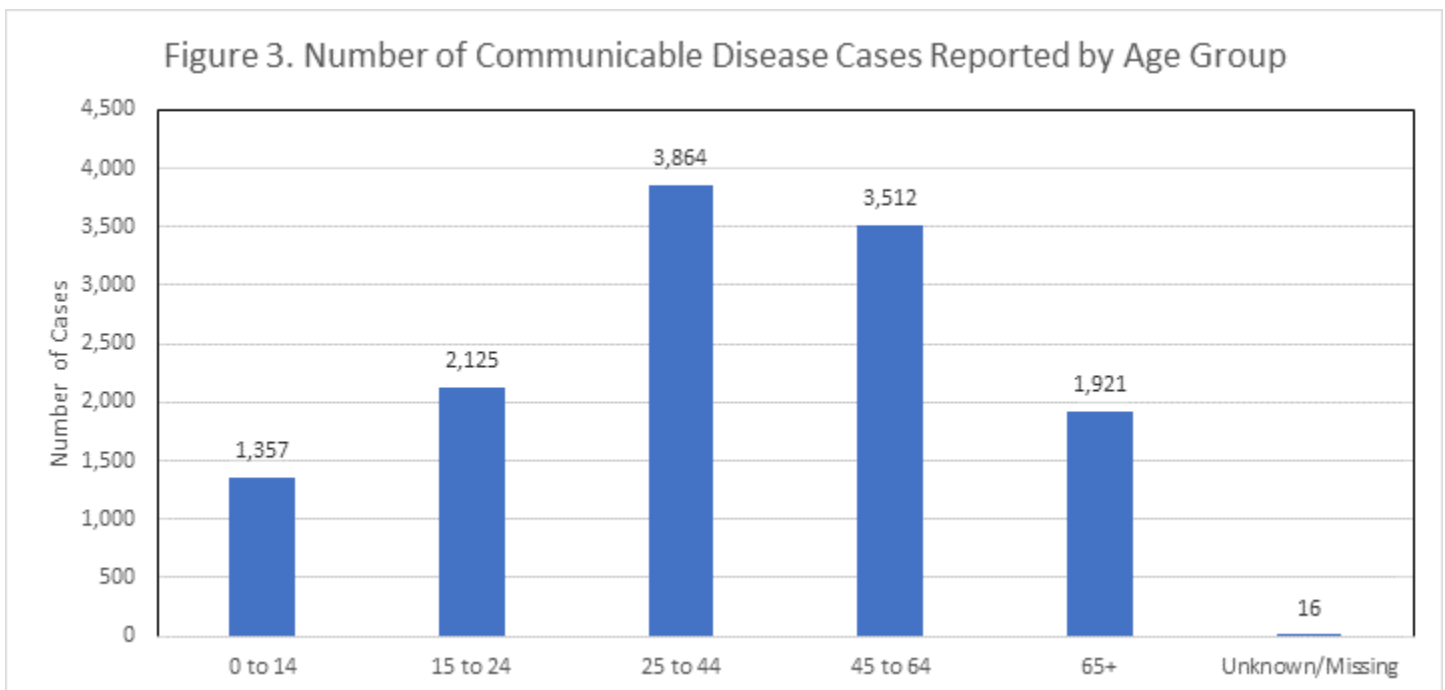


Figure 3 displays the number of communicable disease cases by age groups. The highest number of reported cases were among those 25 to 44 years old (3,864) followed by those 45 to 64 years old (3,512 cases). The highest rates of communicable diseases were found among those 25 to 44 (14,584 per 100,000) and 15 to 24 (13,095 per 100,000) (data not shown).

Covid-19 Data Summary

COVID-19 was identified in Wuhan, China in December 2019. COVID-19 is caused by the virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a new virus in humans causing respiratory illness which can be spread from person-to-person. The virus quickly spread across the globe causing a pandemic.

The first case of Covid-19 was reported in Wayne County on March 23, 2020. Two waves occurred during 2021. The wave associated with the Delta variant occurred during September (74 cases/day) and the wave associated with the Omicron variant occurred in December (86 cases/day). By the end of 2021, 12,395 cases were reported among Wayne County residents which is approximately 11% of the population.

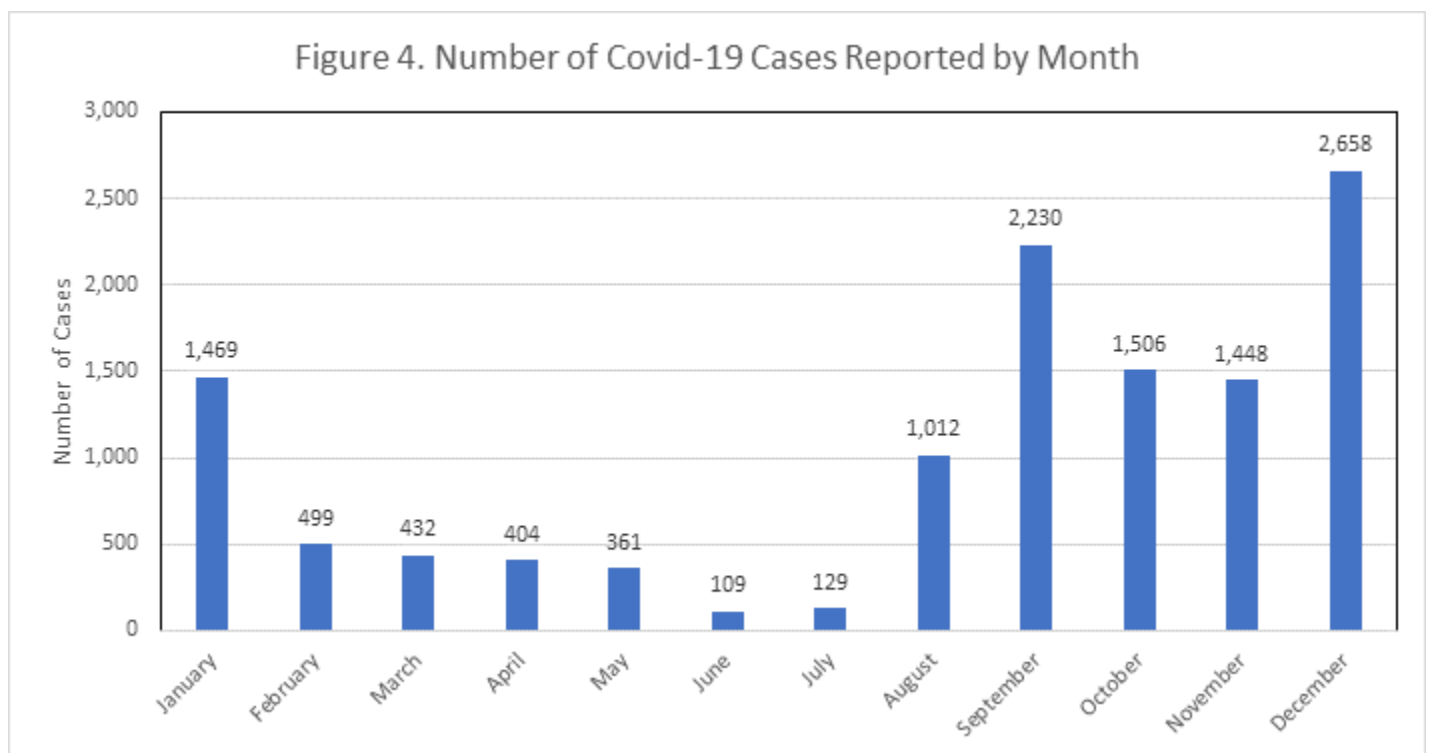


Figure 4 displays the number of Covid-19 cases reported by month. The number of cases decreased from January to June then increased from June to September. The number of cases decreased from September to November then increased again in December.

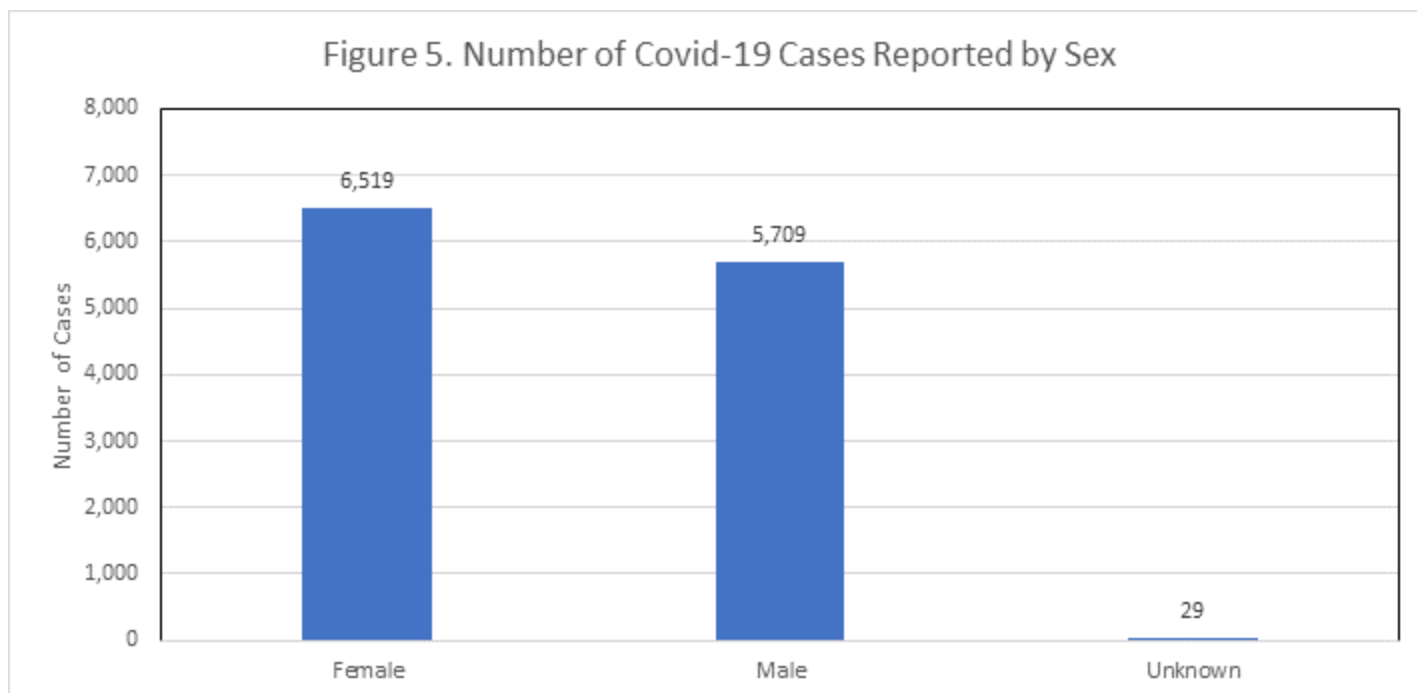


Figure 5 displays the number of Covid-19 cases by sex. Females accounted for 53% of cases reported and males accounted for 47% of cases.

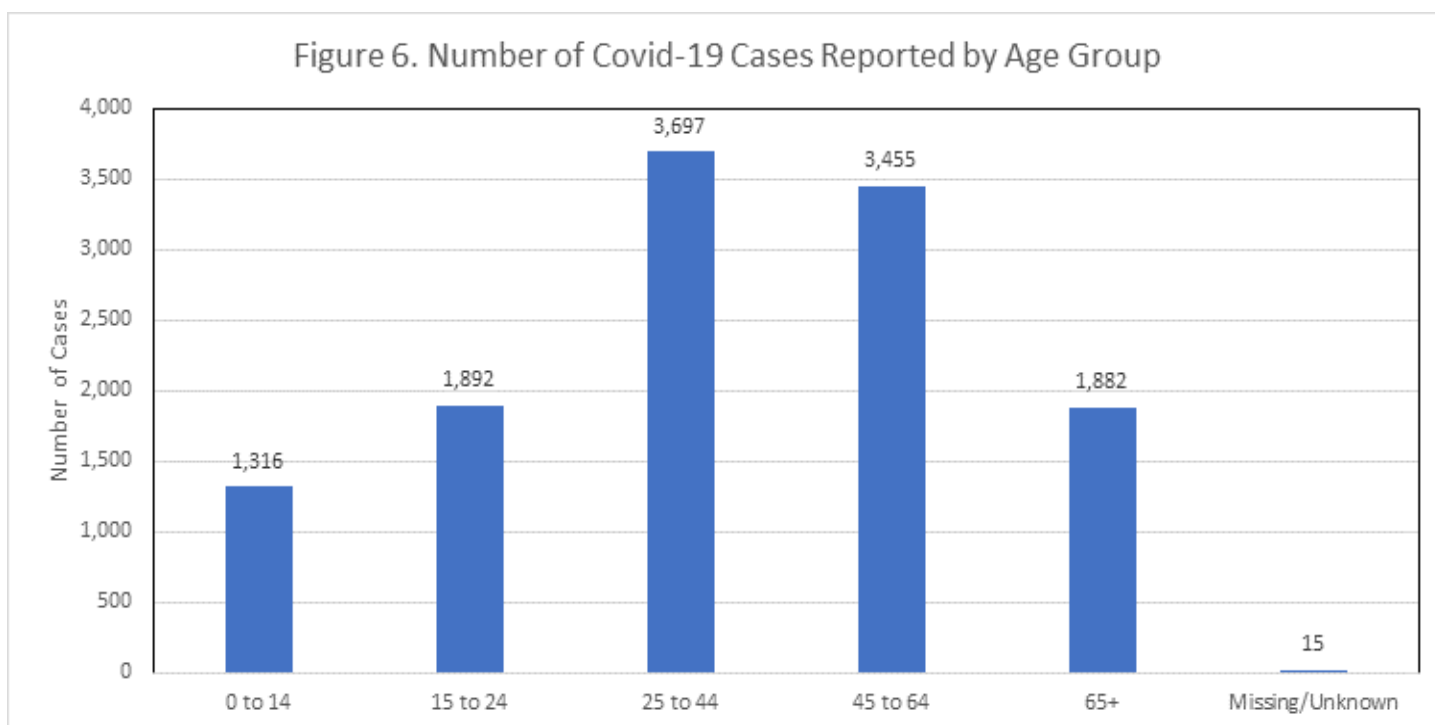


Figure 6 shows the age distribution of Covid-19 cases reported in 2021. The highest number of cases were found among the 25 to 44 and 45 to 64 age groups. The highest case rates were found among the 25 to 44 (13,954 per 100,000), 45 to 64 (11,760 per 100,000) and the 15 to 24 (11,659 per 100,000) age groups (data not shown).

Table 3: Number and Rates of Covid-19 Cases Reported by Zip Code

Zip Code	Village	Cases	Rate per 100,000
44214	Burbank	279	14,912
44217	Creston	503	13,137
44230	Doylestown	774	9,563
44270	Rittman	995	12,081
44273	Seville	7	9,333
44276	Sterling	236	12,382
44287	West Salem	590	12,990
44606	Apple Creek	401	5,129
44611	Big Prairie	3	3,261
44618	Dalton	513	8,094
44624	Dundee	15	2,524
44627	Fredericksburg	109	2,836
44636	Kidron	23	**
44638	Lakeville	8	10,811
44645	Marshallville	299	12,130
44659	Mt. Eaton	15	9,202
44662	Navarre	7	8,000
44666	North Lawrence	55	12,061
44667	Orrville	1,615	11,980
44676	Shreve	458	12,230
44677	Smithville	340	13,370
44691	Wooster	4,860	11,119
44840	Jeromesville	*	8,696

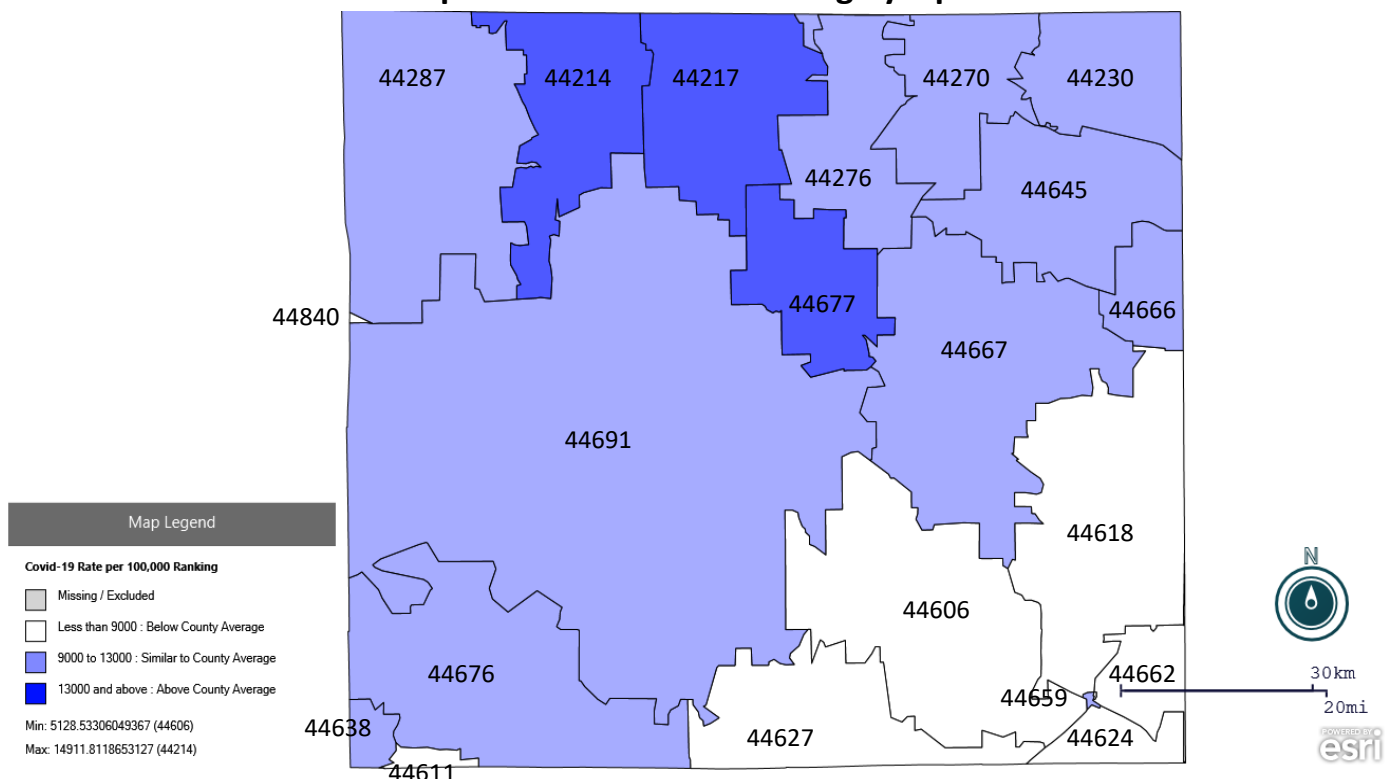
Table 3 displays the number and rate of Covid-19 cases by zip code. The 44691 (4,860 cases), 44667 (1,615 cases), 44230 (423 cases), and 44270 (995 cases) had the highest number of Covid-19 cases. These zip codes accounted for 60% of all cases reported.

The highest rate of Covid-19 cases was found in the 44214 zip code (14,912 per 100,000), 44677 (13,370 per 100,000), and the 44217 (13,137 per 100,000) zip codes (see Map 2). These zip codes accounted for 9% of all cases reported.

Notes:

Zip codes with less than 3 cases are marked with an *.

The population of the 44636 zip code is not available and is marked with an **.

Map 2: Covid-19 Rate Ranking by Zip Code

Chlamydia Data Summary

Chlamydia is a common sexually transmitted infection (STI) caused by infection with *Chlamydia trachomatis*. Chlamydia is the most frequently reported bacterial sexually transmitted infection in the United States. In 2016, 1,708,569 cases of chlamydia were reported to the Centers for Disease Control and Prevention (CDC) from 50 states and the District of Columbia. A large number of cases are not reported because most people with chlamydia are asymptomatic and do not seek testing. Chlamydia is most common among young people. Almost two-thirds of new chlamydia infections occur among youth aged 15-24 years. It is estimated that 1 in 20 sexually active young women aged 14-24 years has chlamydia (CDC, 2018).

In 2021, 276 Chlamydia cases were reported to the Wayne County Health Department. The 5-year historical average for Wayne County is 267 cases. The number of reported cases in 2021 is 4% higher than the pre-pandemic historical average. The Chlamydia case rate is 240 per 100,000 for Wayne County which is well below the state average of 559 per 100,000.

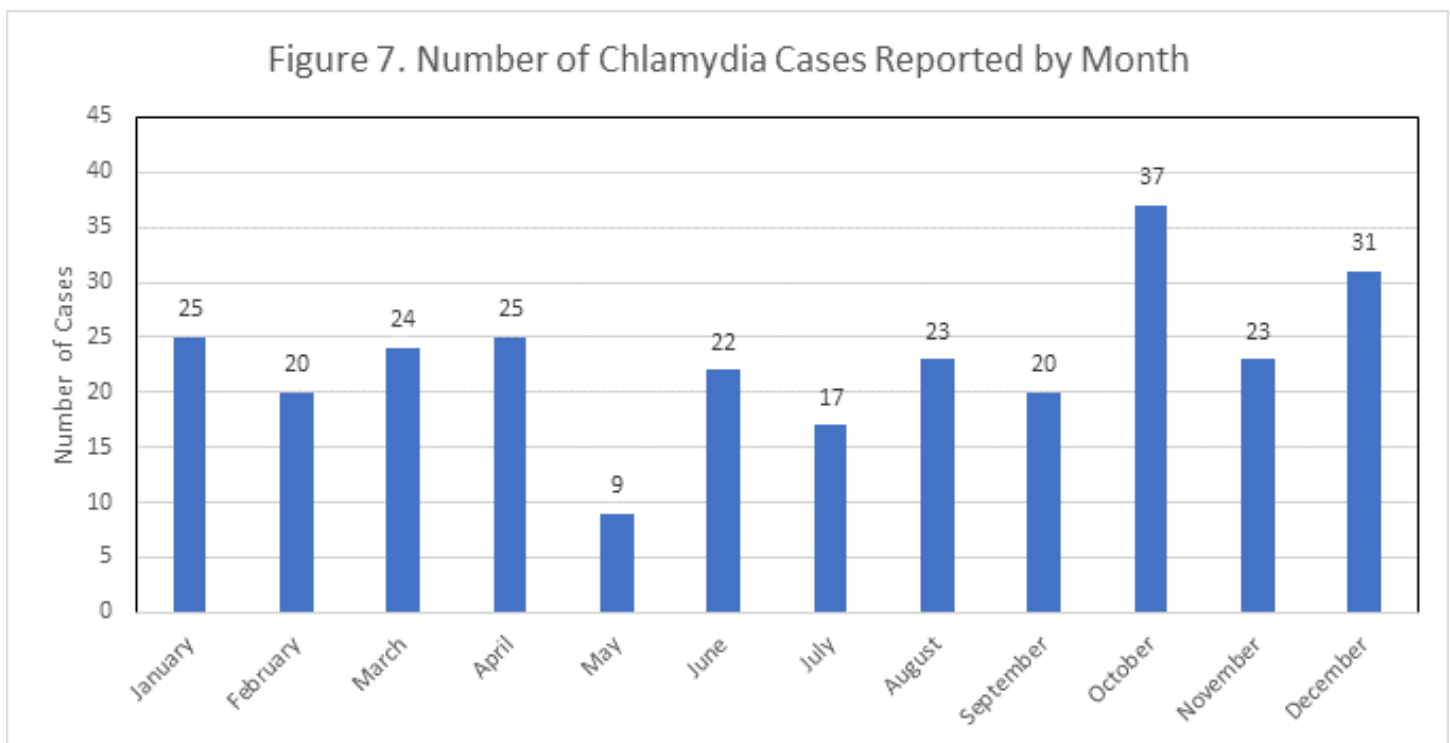


Figure 7 displays the number of Chlamydia cases by month. The highest number of cases were reported in October (37 cases) while the lowest number of cases were reported in May (9 cases).

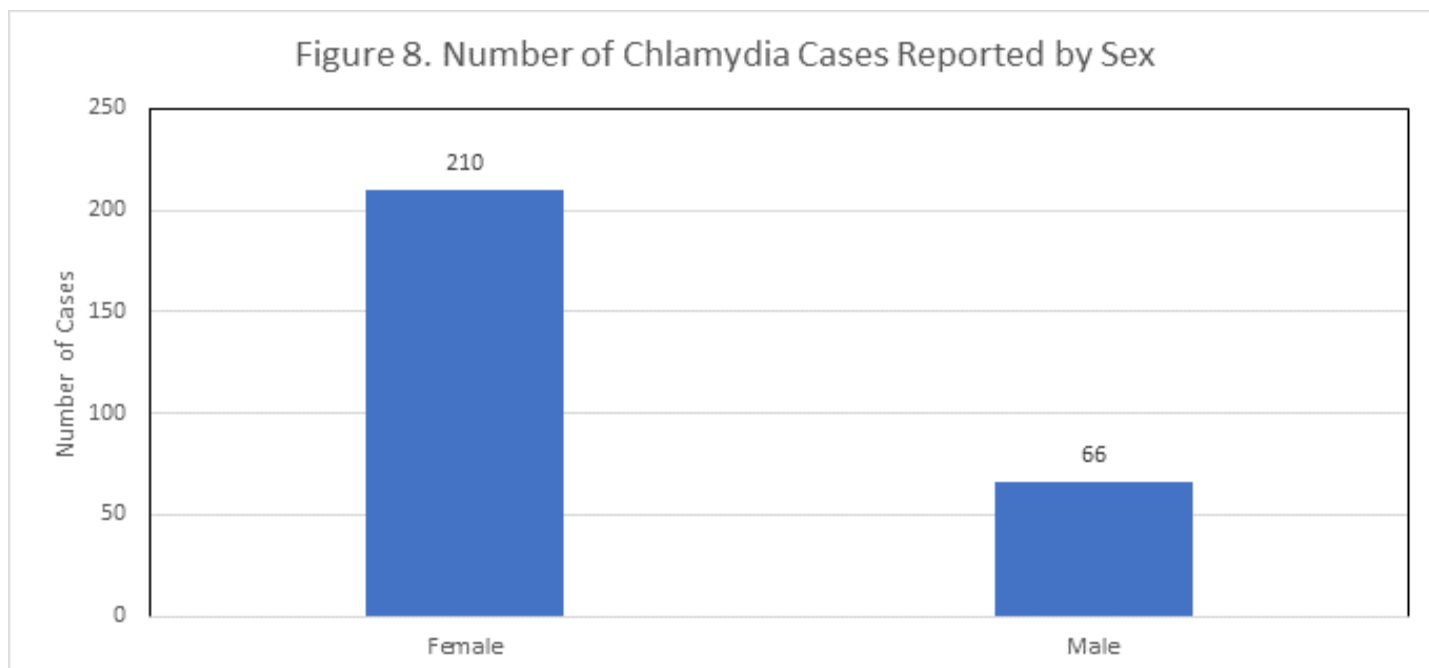


Figure 8 displays Chlamydia cases by sex. Females accounted for 76% of cases reported.

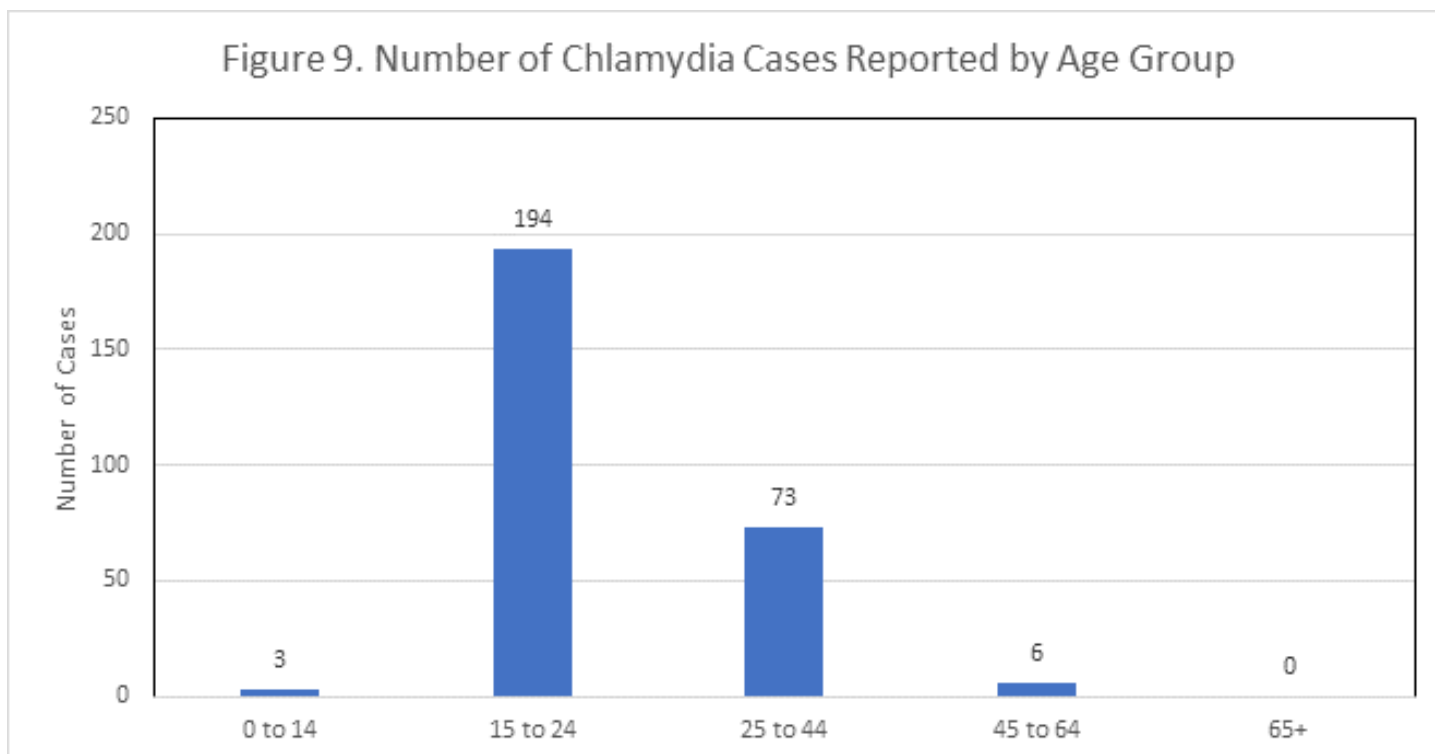


Figure 9 shows the age distribution of Chlamydia cases reported in 2021. Similar to national data, most of the cases were in the 15 to 24 age group. This age group accounted for 70% of cases reported. The second highest number of cases was reported among the 25 to 44 age group (26%).

Chlamydia Cases by Race and Ethnicity: Most cases occurred among White, non-Hispanics (76%). However, significant differences in chlamydia rates occurred by race and ethnic groups. Rates were higher among African Americans (1,083 per 100,000) compared to Hispanics (435 per 100,000), Asians (316 per 100,000) and White, non-Hispanics (183 per 100,000).

Table 4: Number and Rates of Chlamydia Cases Reported by Zip Code

Zip Code	Village	Cases	Rate per 100,000
44214	Burbank	3	160
44217	Creston	9	235
44230	Doylestown	15	185
44270	Rittman	28	340
44273	Seville	0	0
44276	Sterling	3	157
44287	West Salem	13	286
44606	Apple Creek	*	*
44611	Big Prairie	*	*
44618	Dalton	*	*
44624	Dundee	0	0
44627	Fredericksburg	3	78
44636	Kidron	0	**
44638	Lakeville	0	0
44645	Marshallville	10	406
44659	Mt. Eaton	0	0
44662	Navarre	0	0
44666	North Lawrence	0	0
44667	Orrville	49	363
44676	Shreve	8	214
44677	Smithville	6	236
44691	Wooster	107	245
44840	Jeromesville	0	0

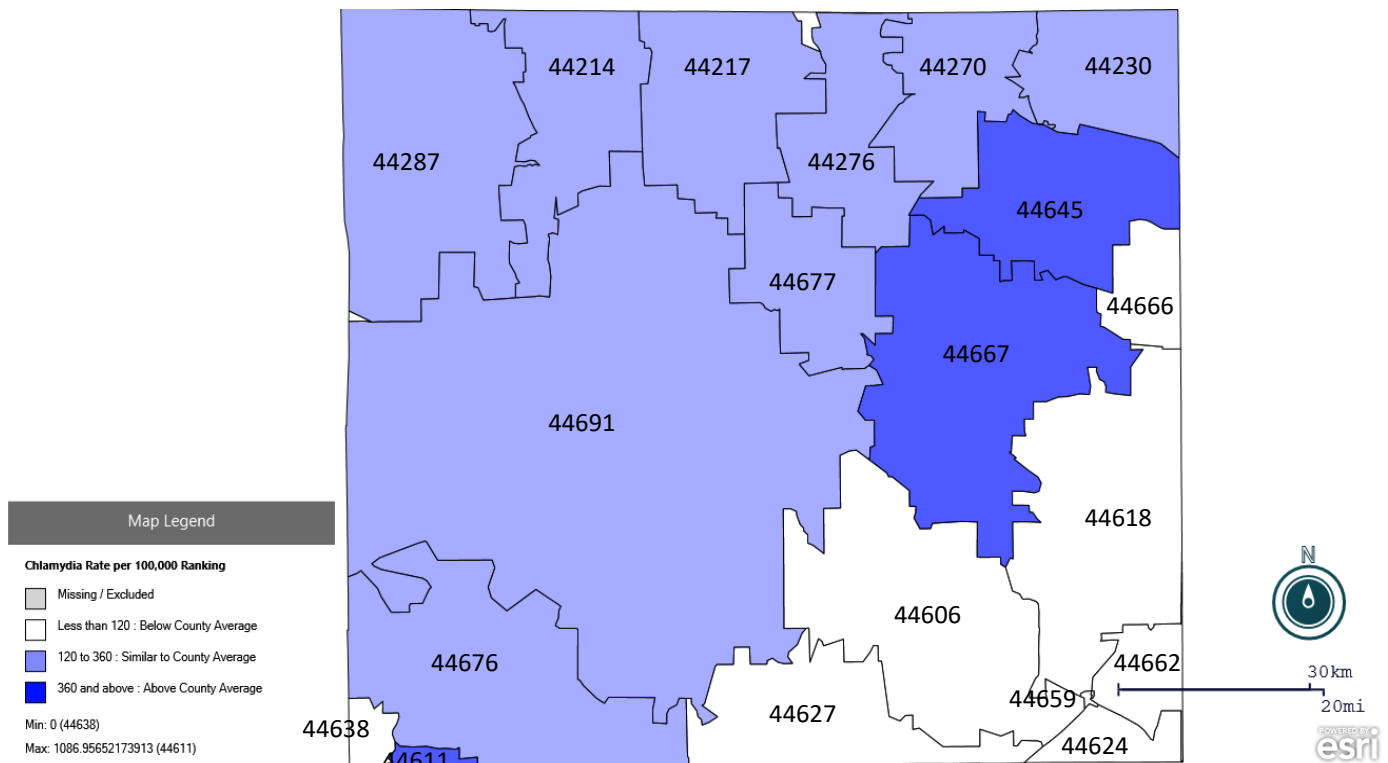
Table 3 displays the number and rate of Chlamydia cases by zip code. The zip codes with highest number of cases were 44691, 44667, and 44270. These zip codes accounted for 67% of all cases reported.

The highest rates of Chlamydia cases was found in the 44645 (406 per 100,000) and 44667 (363 per 100,000) zip codes (see Map 3). These zip codes accounted for 21% of reported cases.

Notes:

Zip codes with less than 3 cases are marked with an *.

The population of the 44636 zip code is not available and is marked with an **.

Map 3: Chlamydia Rate Ranking by Zip Code

Chronic Hepatitis C Data Summary

Hepatitis C is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness that attacks the liver. It results from infection with the Hepatitis C virus (HCV), which is spread primarily through contact with the blood of an infected person. Hepatitis C can be either “acute” or “chronic.” Chronic Hepatitis C virus infection is a long-term illness that occurs when the Hepatitis C virus remains in a person’s body. Hepatitis C virus infection can last a lifetime and lead to serious liver problems, including cirrhosis (scarring of the liver) or liver cancer (CDC, 2018).

In 2021, 78 cases of Chronic Hepatitis C were reported to the Wayne County Health Department. The number of reported cases in 2021 is 21% below the 5-year historical average of 99 cases. The Chronic Hepatitis C rate for Wayne County is 67 per 100,000 which is below the state average of 81 per 100,000.

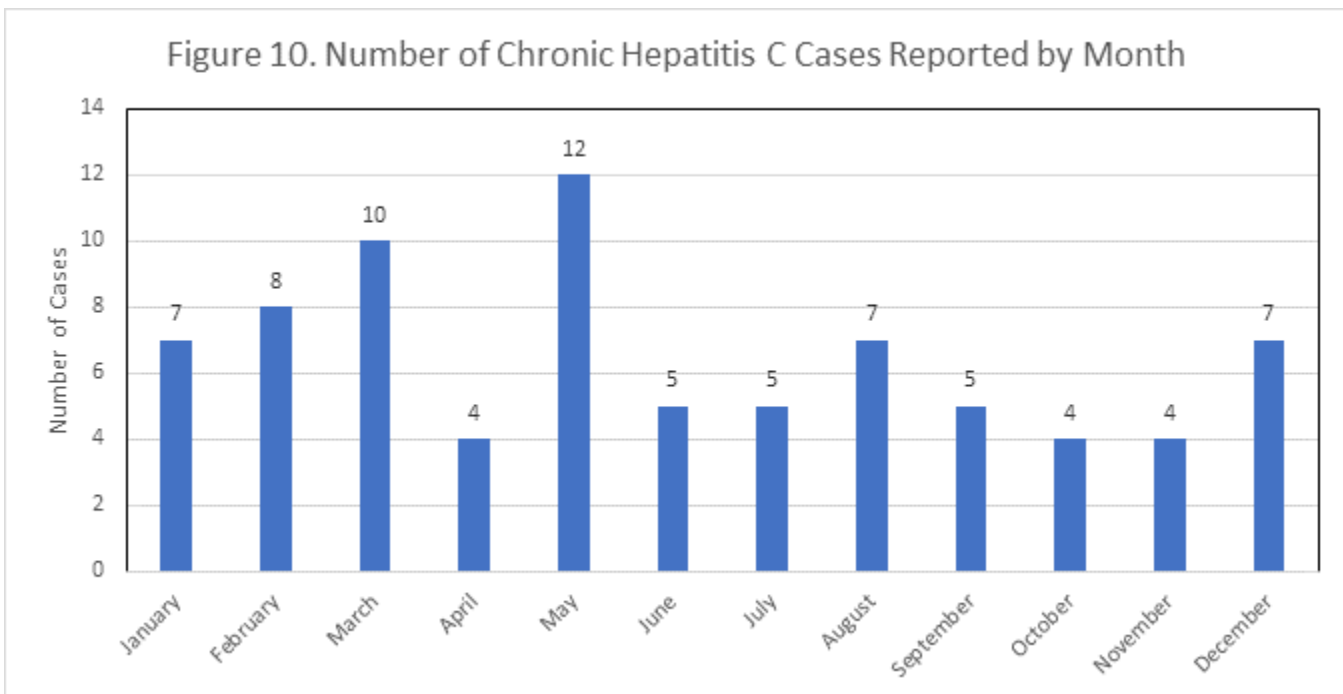


Figure 10 displays the number of Chronic Hepatitis C cases reported by month. May had the highest number of cases at 12. The lowest number of cases were reported in April, October, and November (4 each).

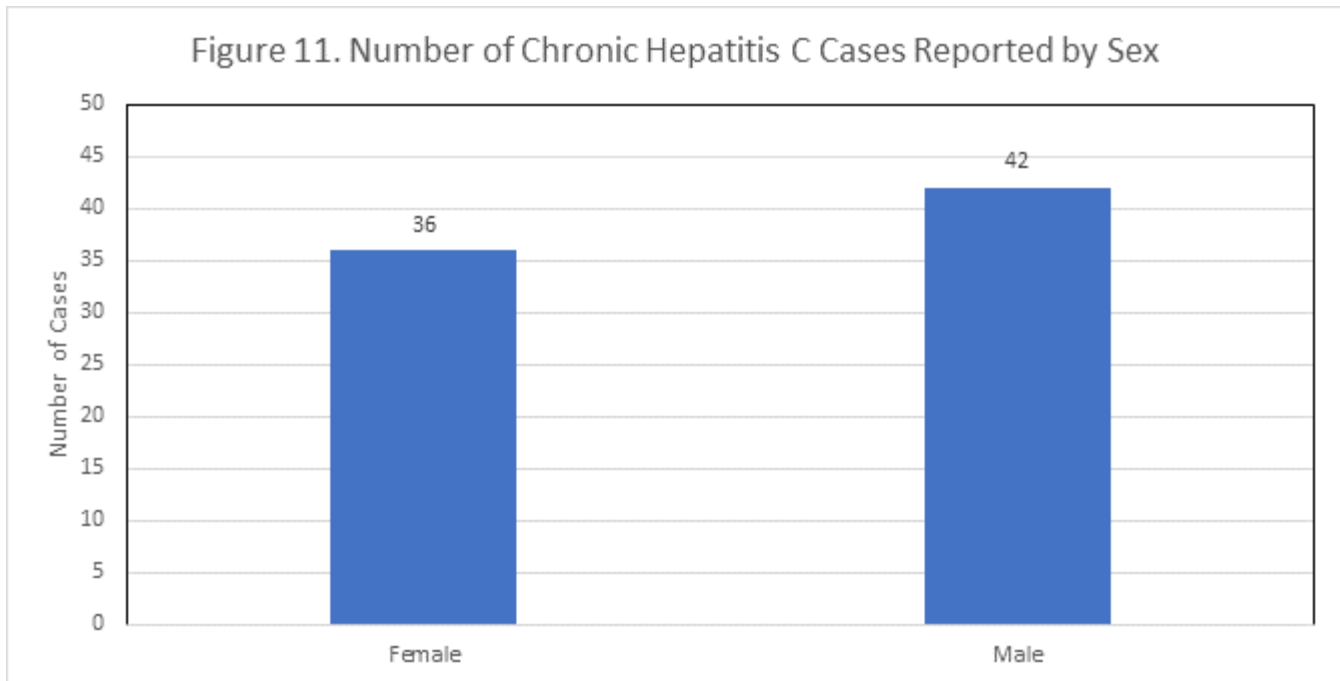


Figure 11 displays the number of Chronic Hepatitis C cases by sex. A higher number of cases was found among males compared to female.

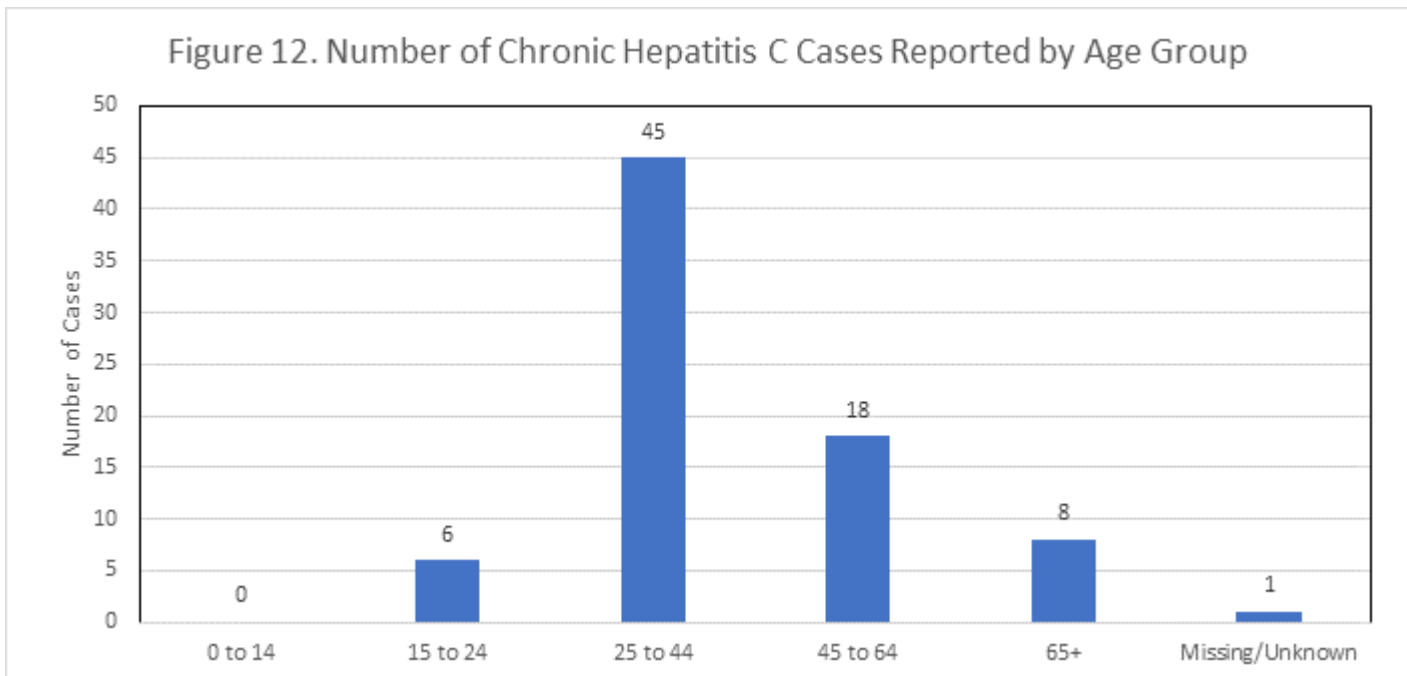


Figure 12 displays the number of Chronic Hepatitis C cases by age groups. The highest number of cases were found in the 25-44 and 45 to 64 age groups. These age groups accounted for 81% of all cases reported.

Chronic Hepatitis C Cases by Race and Ethnicity: Most cases occurred among White, non-Hispanics (79%). However, significant differences in rates occurred by race and ethnic groups. Rates among African Americans (171 per 100,000) were 3 times higher compared to White, non-Hispanics (54 per 100,000).

Table 5: Number and Rate of Chronic Hepatitis C Cases Reported by Zip Codes

Zip Code	Village	Cases	Rate per 100,000
44214	Burbank	0	0
44217	Creston	3	78
44230	Doylestown	*	*
44270	Rittman	8	97
44273	Seville	0	0
44276	Sterling	4	210
44287	West Salem	3	66
44606	Apple Creek	0	0
44611	Big Prairie	0	0
44618	Dalton	*	*
44624	Dundee	0	0
44627	Fredericksburg	0	0
44636	Kidron	0	**
44638	Lakeville	0	0
44645	Marshallville	*	*
44659	Mt. Eaton	0	0
44662	Navarre	0	0
44666	North Lawrence	0	0
44667	Orrville	6	45
44676	Shreve	4	107
44677	Smithville	3	118
44691	Wooster	30	68
44840	Jeromesville	0	0

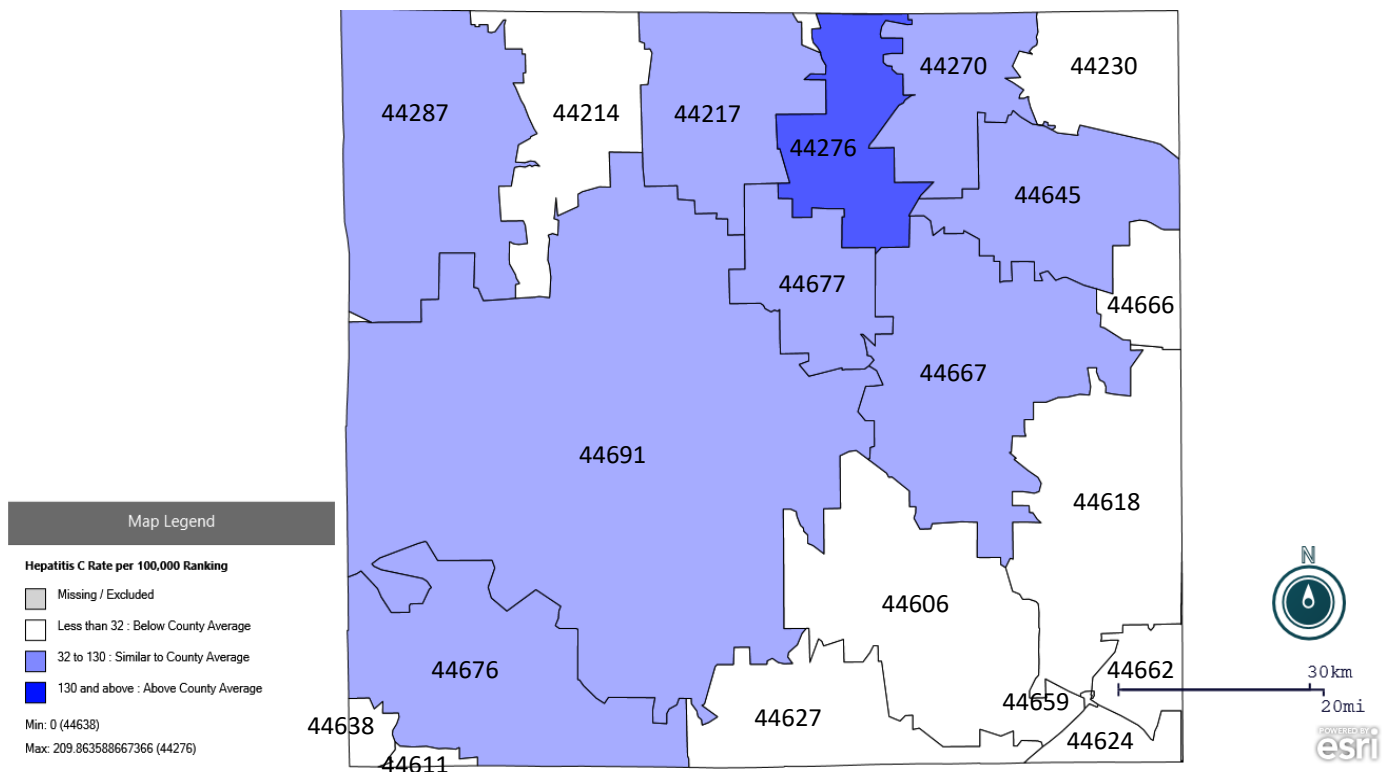
Table 5 displays the number of Chronic Hepatitis C cases by zip code. Zip code 44691 had the highest number of cases (30). Cases were also found in the 44217, 44230, 44270, 44276, 44287, 44618, 44645, 44667, 44676, and 44677 zip codes.

The highest rates was found in the 44276 (210 per 100,000), 44677 (118 per 100,000), and 44676 (107 per 100,000) zip codes. These zip codes accounted for 14% of cases reported.

Notes:

Zip codes with less than 3 cases are marked with an *.

The population of the 44636 zip code is not available and is marked with an **.

Map 5: Chronic Hepatitis C Rate Ranking by Zip Code

Gonorrhea Data Summary

Gonorrhea is a sexually transmitted infection (STI) that can infect both men and women. It can cause infections in the genitals, rectum, and throat. It is a very common infection, especially among young people ages 15-24 years (CDC, 2018).

Wayne County had 49 cases of Gonorrhea reported in 2021. The 5-year historical average for Wayne County is 51 cases. The number of cases reported in 2021 is 4% lower than the historical average. The Gonorrhea rate for Wayne County is 42 per 100,000 which is well below the state average of 223 per 100,000.

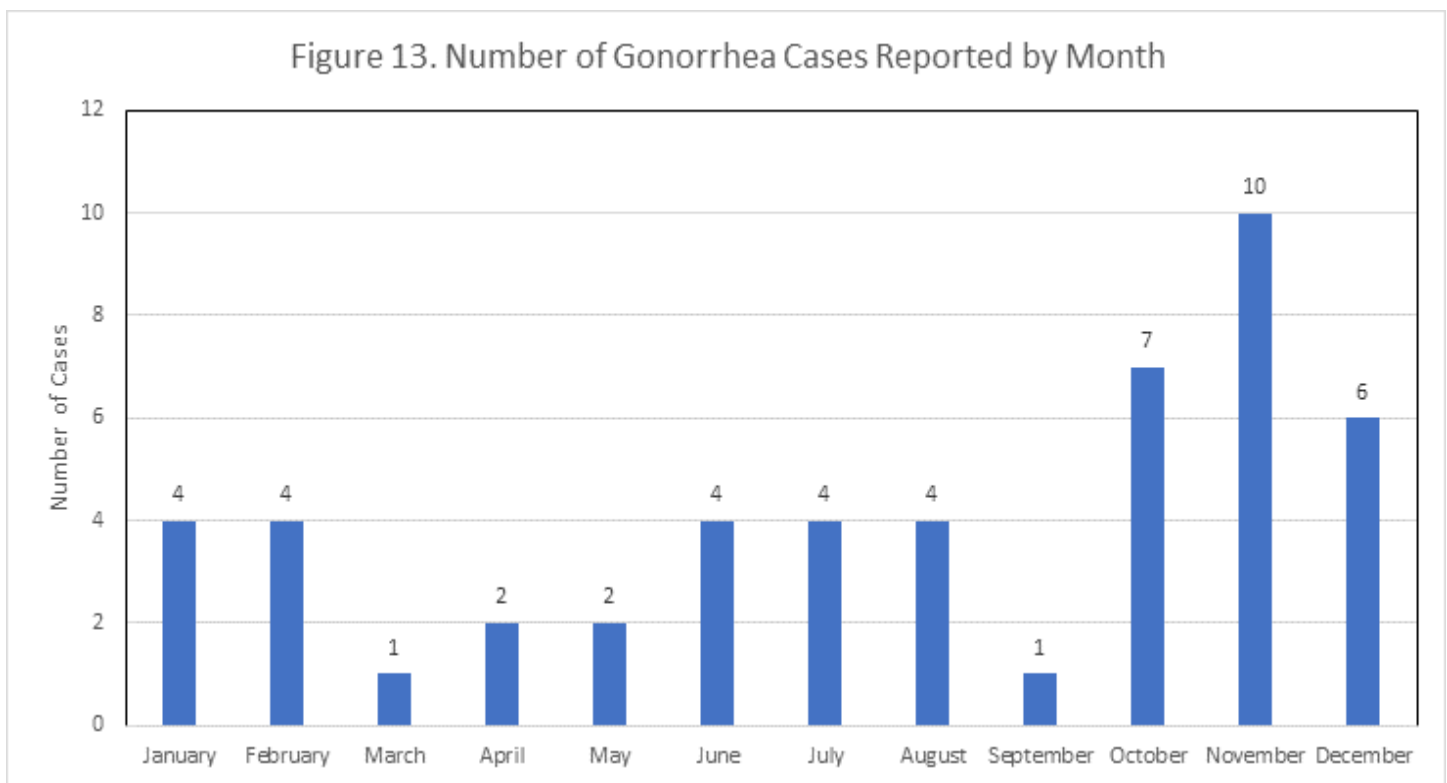


Figure 13 displays Gonorrhea cases by month. The highest number of Gonorrhea cases were reported in November (10 cases). The months of March and September had the lowest number of reported Gonorrhea cases (1 each month).

Figure 14. Number of Gonorrhea Cases Reported by Sex

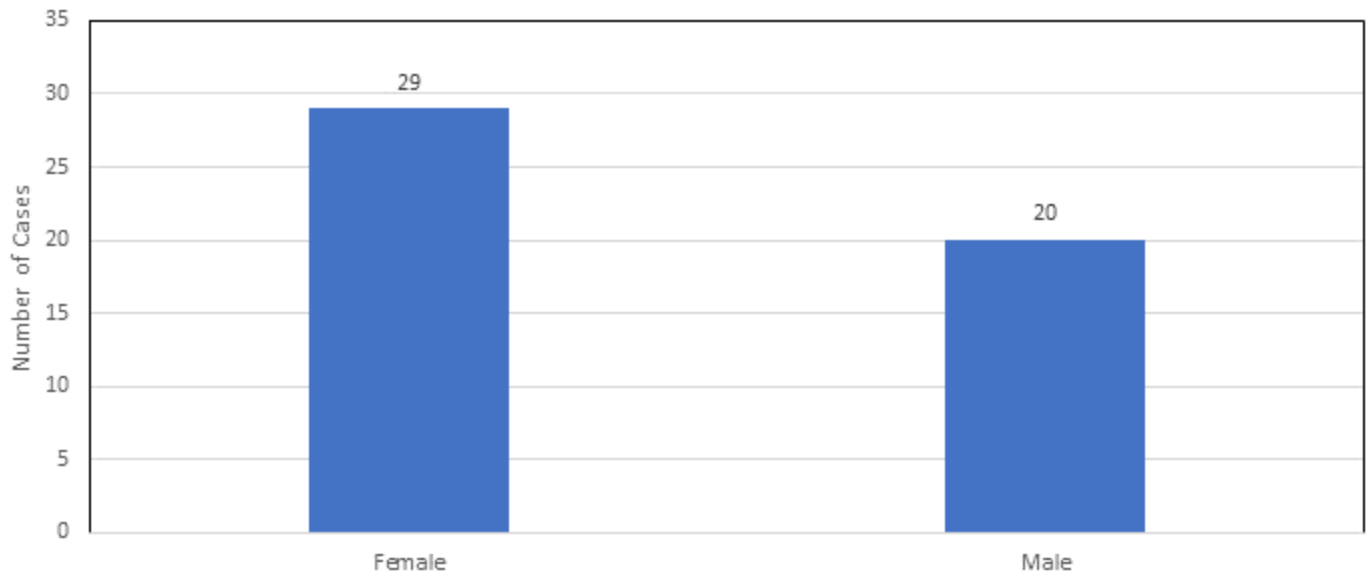


Figure 14 displays Gonorrhea cases by sex. 29 cases were reported among females (59%) compared to 20 cases among males (41%).

Figure 15. Number of Gonorrhea Cases Reported by Age Group

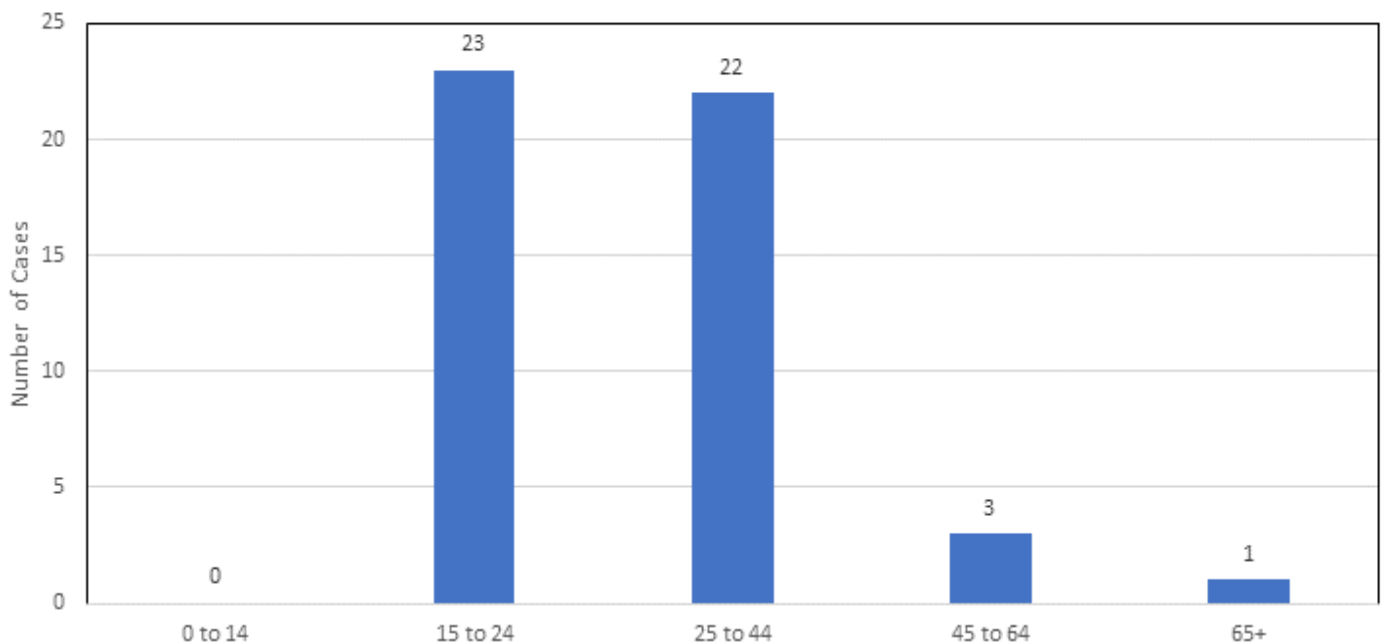


Figure 15 displays the number of reported Gonorrhea cases by age group. The majority of cases were found among the 15 to 24 and the 25 to 44 age group which accounted for 92% of cases reported.

Gonorrhea by Race and Ethnicity: Most cases occurred among White, non-Hispanics (63%). However, significant differences in rates occurred by race and ethnic groups. Rates among African Americans (513 per 100,000) were nearly 20 times higher compared to White, non-Hispanics (27 per 100,000).

Table 6: Number and Rate of Gonorrhea Cases Reported by Zip Codes

Zip Code	Village	Cases	Rate per 100,000
44214	Burbank	0	0
44217	Creston	0	0
44230	Doylestown	5	62
44270	Rittman	4	49
44273	Seville	0	0
44276	Sterling	0	0
44287	West Salem	3	66
44606	Apple Creek	0	0
44611	Big Prairie	0	0
44618	Dalton	*	*
44624	Dundee	0	0
44627	Fredericksburg	0	0
44636	Kidron	0	**
44638	Lakeville	0	0
44645	Marshallville	*	*
44659	Mt. Eaton	0	0
44662	Navarre	0	0
44666	North Lawrence	0	0
44667	Orrville	9	67
44676	Shreve	*	*
44677	Smithville	*	*
44691	Wooster	20	46
44840	Jeromesville	0	0

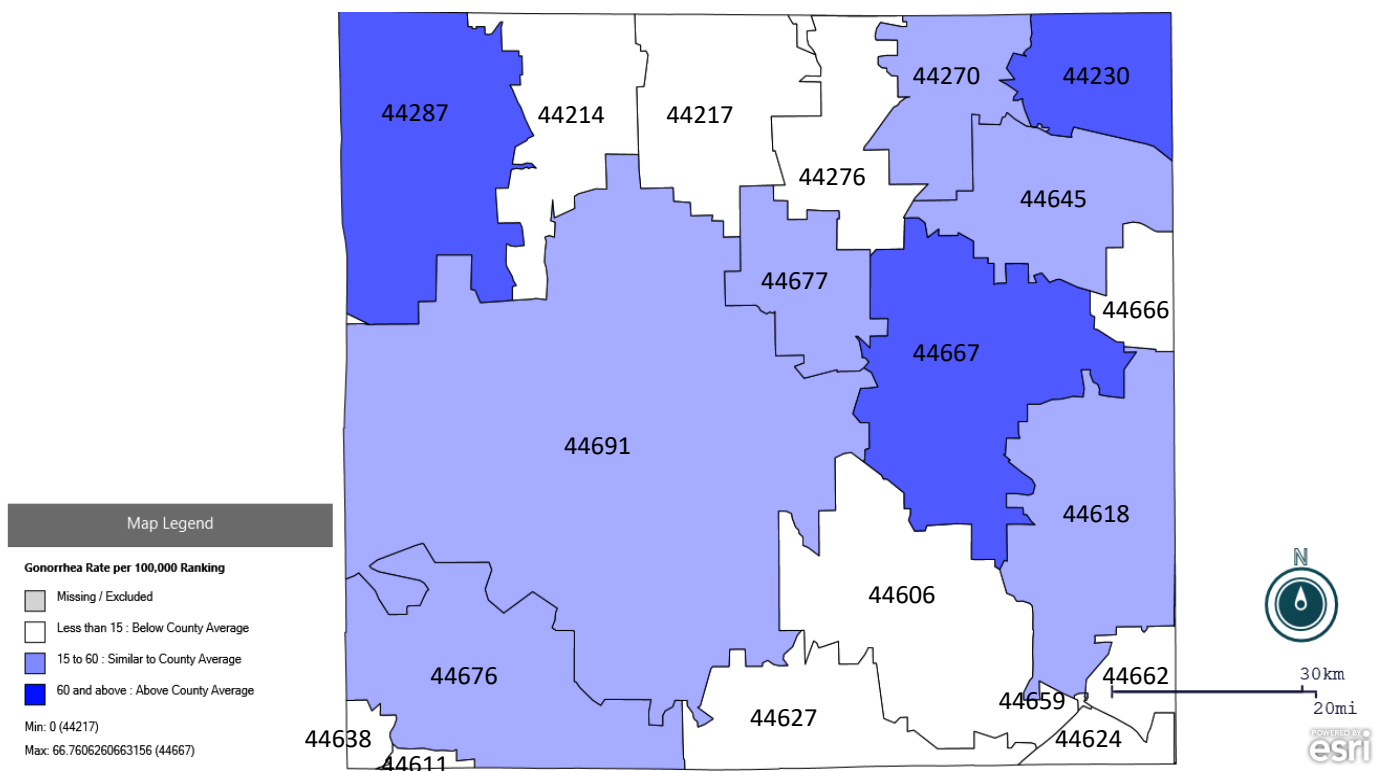
Table 6 displays the number and rate of Gonorrhea cases by zip code. The highest number of cases were found in the 44691 (20 cases) and 44667 (9 cases) zip codes. These zip codes accounted for 59% of cases reported.

The highest rates of Gonorrhea cases were found in the 44667 (67 per 100,000) and 44287 (66 per 100,000) zip codes. These zip codes accounted for 27% of cases reported.

Notes:

Zip codes with less than 3 cases are marked with an *.

The population of the 44636 zip code is not available and is marked with an **.

Map 6: Gonorrhea Rate Ranking by Zip Code

Campylobacteriosis Data Summary

Campylobacter infection, or Campylobacteriosis, is an infectious disease caused by Campylobacter bacteria. It is one of the most common causes of diarrheal illness in the United States. The Foodborne Diseases Active Surveillance Network (FoodNet) indicates that about 14 cases are diagnosed each year for every 100,000 people. Many more cases go undiagnosed or unreported. CDC estimates Campylobacter infection affects more than 1.3 million people every year. Most cases are not part of recognized outbreaks, and more cases occur in summer than in winter (CDC, 2018).

In 2021, Wayne County had 39 cases of Campylobacteriosis which was an increase of 15% compared to the historic 5 year average (34 cases). The rate of Campylobacteriosis infection was 33.6 per 100,000 population. Campylobacteriosis accounted for the fifth highest number of notifiable cases in 2021.

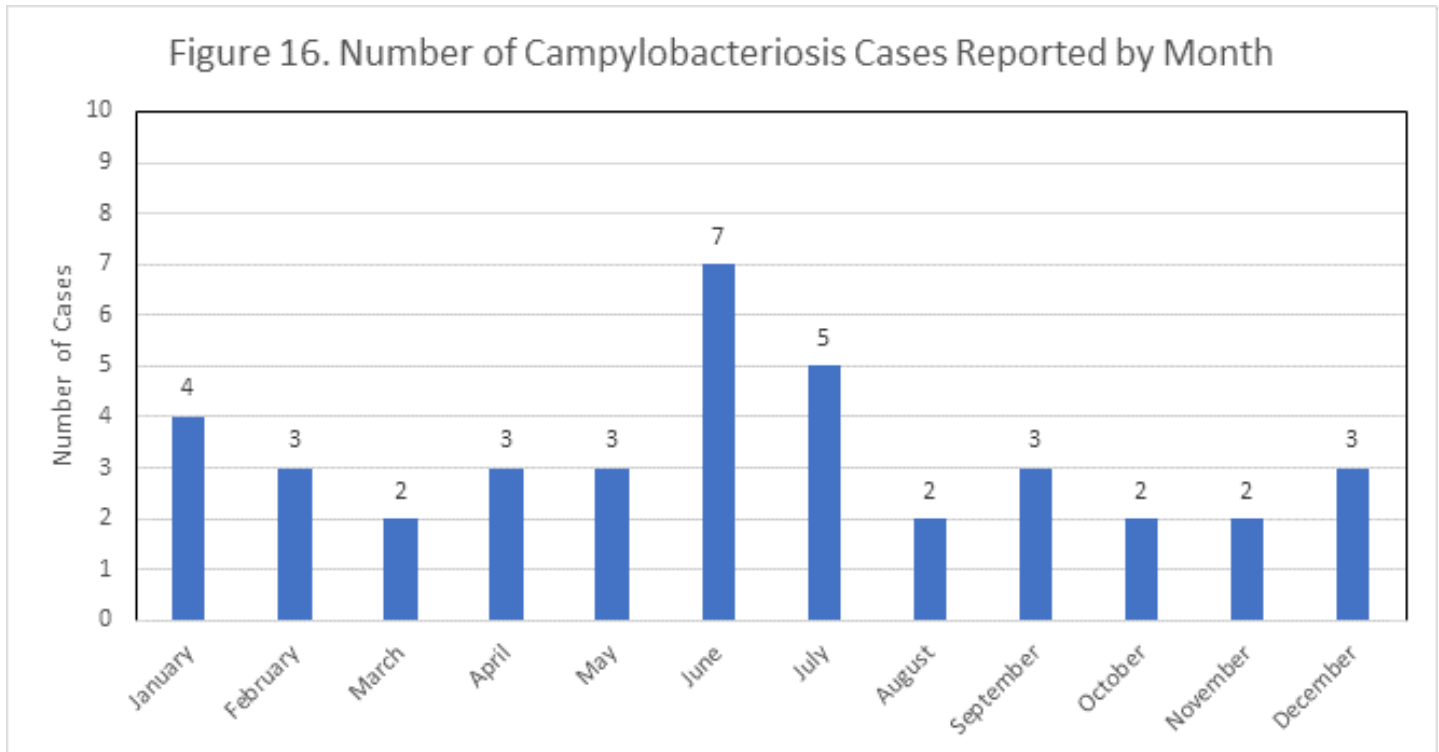


Figure 16 shows the number of Campylobacteriosis Cases reported by month. The highest number of cases were reported in June and July while the lowest number of cases were reported in March, August, October, and November.

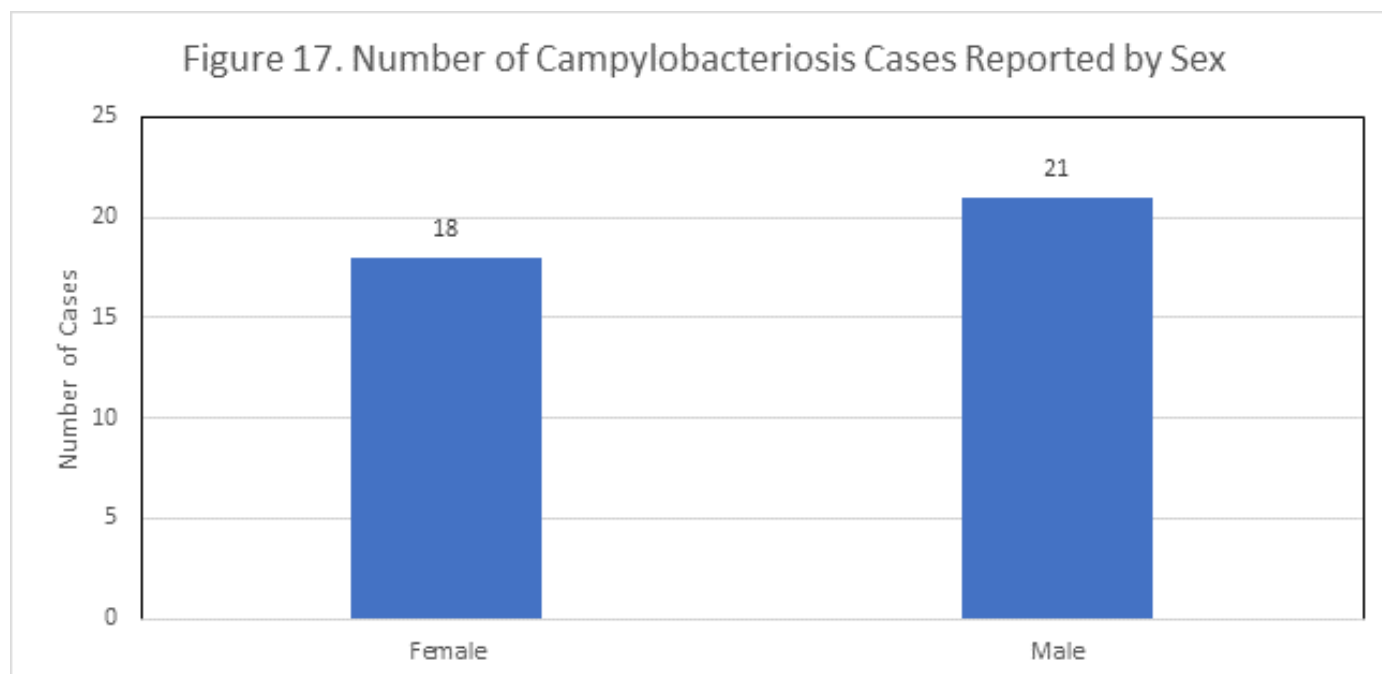


Figure 17 displays the number of Campylobacteriosis cases by sex. 21 cases were reported among males (54%) compared to 18 cases among females (46%).

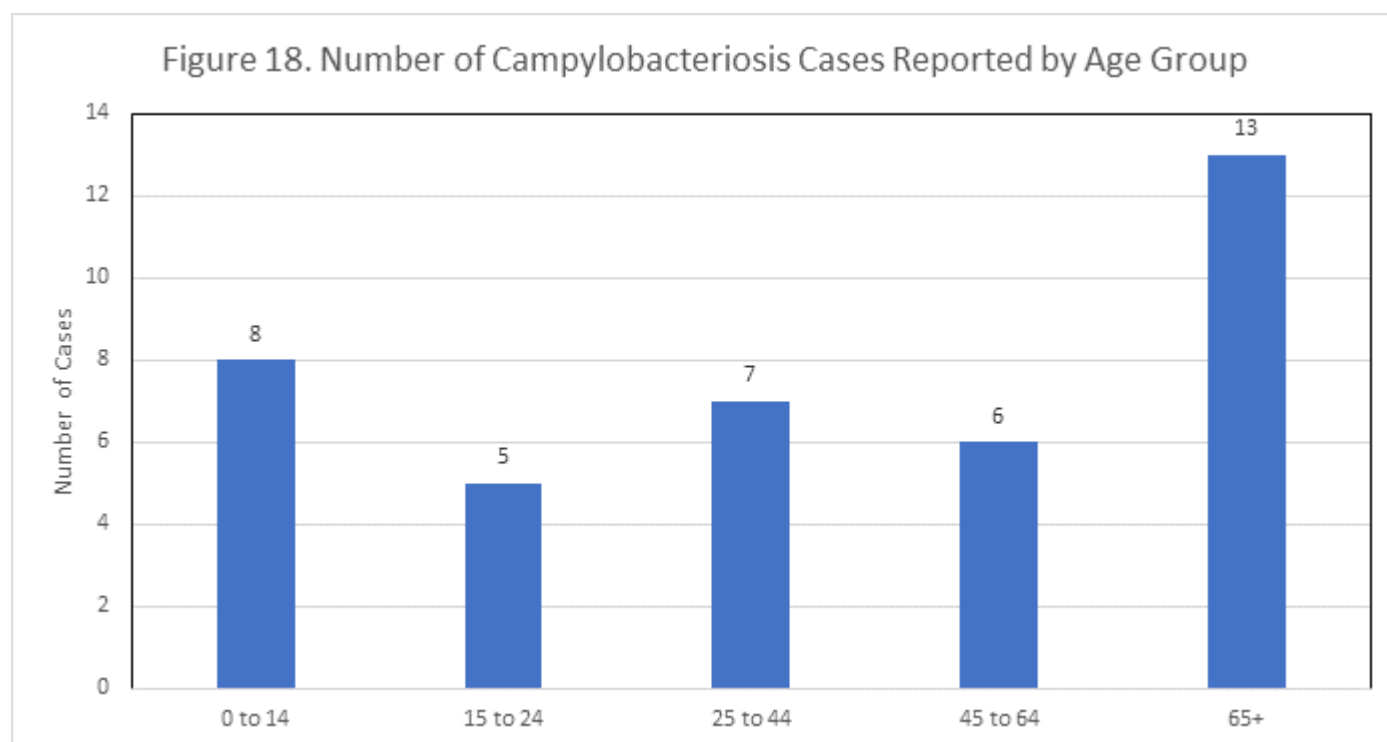


Figure 18 displays the number of cases by age group. The highest number of cases were found among the 65+ age group which accounted for 33% of cases reported.

Campylobacteriosis by Race and Ethnicity: All cases occurred among those who identified as White. There 0 cases who identified as African American, Asian, American Indian/Alaska Native, or Hispanic.

Table 7: Number and Rate of Campylobacteriosis Cases Reported by Zip Codes

Zip Code	Village	Cases	Rate per 100,000
44214	Burbank	*	*
44217	Creston	4	104.5
44230	Doylestown	*	*
44270	Rittman	*	*
44273	Seville	0	0.0
44276	Sterling	0	0.0
44287	West Salem	3	66.1
44606	Apple Creek	8	102.3
44611	Big Prairie	*	*
44618	Dalton	*	*
44624	Dundee	0	0.0
44627	Fredericksburg	0	0.0
44636	Kidron	0	
44638	Lakeville	0	0.0
44645	Marshallville	0	0.0
44659	Mt. Eaton	0	0.0
44662	Navarre	*	*
44666	North Lawrence	0	0.0
44667	Orrville	*	*
44676	Shreve	*	*
44677	Smithville	*	*
44691	Wooster	14	32.0
44840	Jeromesville	0	0.0

Table 7 displays the number and rate of Campylobacteriosis cases by zip code. The highest number of cases were found in the 44691 (14 cases) and 44606 (8 cases) zip codes. These zip codes accounted for 56% of cases reported.

The highest rates of Campylobacteriosis cases were found in the 44217 (105 per 100,000) and 44606 (102 per 100,000) zip codes. These zip codes accounted for 31% of cases reported.

Notes:

Zip codes with less than 3 cases are marked with an *.

The population of the 44636 zip code is not available and is marked with an **.

Map 7: Campylobacteriosis Rate Ranking by Zip Code