MEDINA COUNTY HEALTH DEPARTMENT
Prevent. Promote. Protect.

2017 Annual Infectious Disease Report

Medina County Health Department

Date Completed: 06/18/2018

In 2017, Medina County recorded 837 cases of notifiable infectious diseases, showing a continuing increase from the historical average of 670.8 cases per year (24.8% above the historic 5 year average). These case counts were extracted from the Ohio Disease Reporting System (ODRS), and compiled and analyzed using Microsoft Excel*.

This report displays and analyzes data for diseases that had cases reported in Medina County in 2017. Historic 5 year averages are based on ODRS data from the years 2012-2016. 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 and graphs by month, gender, race, age groups, and zip codes for all notifiable disease cases and highlights data summaries of the top 4 notifiable infectious diseases for 2017 (influenza-associated hospitalizations were excluded from the top 4 summaries).

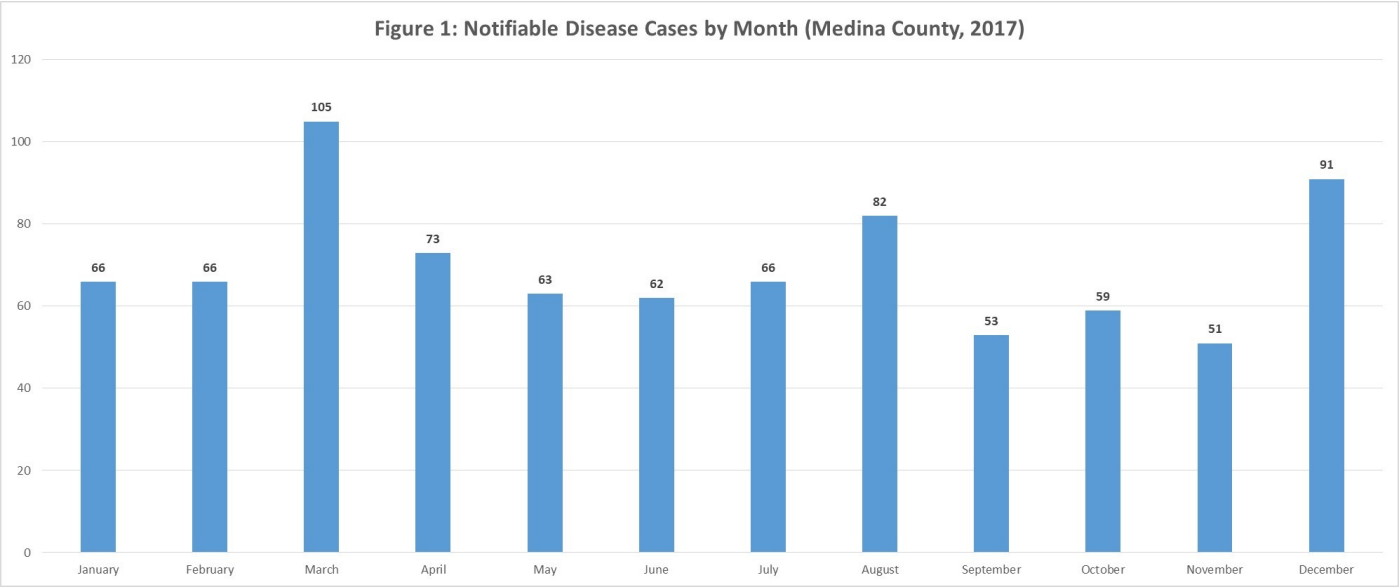


Figure 1 shows the number of notifiable disease cases by month for 2017. The month of March had the highest number of cases at 105 (12.5%) and November had the lowest number of cases at 51 (6.1%). The

**The sources of this data are individual case and laboratory reports submitted to the Medina County Health Department (MCHD) by infection preventionists, healthcare providers, and laboratories. The Data reflects disease incidence for Medina County residents only, buy may include diseases acquired while traveling outside of the county, state, or country. Data was extracted on 4/23/18.*

Table 1: Notifiable Disease Cases by Disease (Medina County, OH, 2017)

Diseases	Annual 2017 Case Counts *(Data Extracted on 4/23/18)*			
	2017 Totals			Percentage of 2017 Cases
	Actual	Historic	Difference	Actual
Campylobacteriosis	**29**	29	**0**	*3.5%*
Chlamydia	**383**	320	**63**	*45.6%*
Cryptosporidiosis	**4**	5	**-1**	*0.5%*
E. Coli, Shiga Toxin-Producing	**4**	2.4	**1.6**	*0.5%*
Giardia	**4**	8.6	**-4.6**	*0.5%*
Gonorrhea	**68**	46	**22**	*8.1%*
Haemophilius Influenzae	**4**	2	**2**	*0.5%*
Hepatitis B (Chronic)	**13**	8.4	**4.6**	*1.5%*
Hepatitis C (Chronic)	**124**	103.4	**20.6**	*14.8%*
Influenza-associated hospitalizations	**123**	66	**57**	*14.7%*
LaCrosse Virus	**1**	0.2	**0.8**	*0.1%*
Legionnaires' Disease	**11**	5.4	**5.6**	*1.3%*
Lyme Disease	**1**	2	**-1**	*0.1%*
Meningitis (Bacterial)	**3**	0.8	**2.2**	*0.4%*
Meningitis (Viral)	**5**	7	**-2**	*0.6%*
Pertussis	**3**	8.8	**-5.8**	*0.4%*
Salmonella	**19**	23.8	**-4.8**	*2.3%*
Shigella	**1**	5.6	**-4.6**	*0.1%*
Spotted Fever Rickettsiosis	**1**	0.2	**0.8**	*0.1%*
Streptococcal Disease (Group A)	**5**	3.4	**1.6**	*0.6%*
Streptococcus pneumoniae	**10**	9	**1**	*1.2%*
Syphilis	**5**	0.4	**4.6**	*0.6%*
Tuberculosis	**1**	1.8	**-0.8**	*0.1%*
Varicella	**11**	11	**0**	*1.3%*
Yersiniosis	**3**	0.6	**2.4**	*0.4%*
Zika	**1**	0	**1**	*0.1%*
Total	**837**	670.8	**166.2**	
Percent Change Compared to the Historical Average	***24.8%***			

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

**Counts in green denote a month with 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 Medina County Health Department

Table 1 displays the number of actual cases, historic cases, standard deviation and percentage of cases for 2017. The top 5 diseases, in order, were Chlamydia (383), Chronic Hepatitis C (124), Influenza-associated Hospitalizations (123), Gonorrhea (68) and Campylobacteriosis (29). A detailed breakdown of each of these diseases can be found later in the report (excluding influenza-associated hospitalizations). In total, 14 diseases were found to have a noteworthy increase and 8 diseases were found to have a noteworthy decrease based on 1 standard deviation from the historical 5 year average.

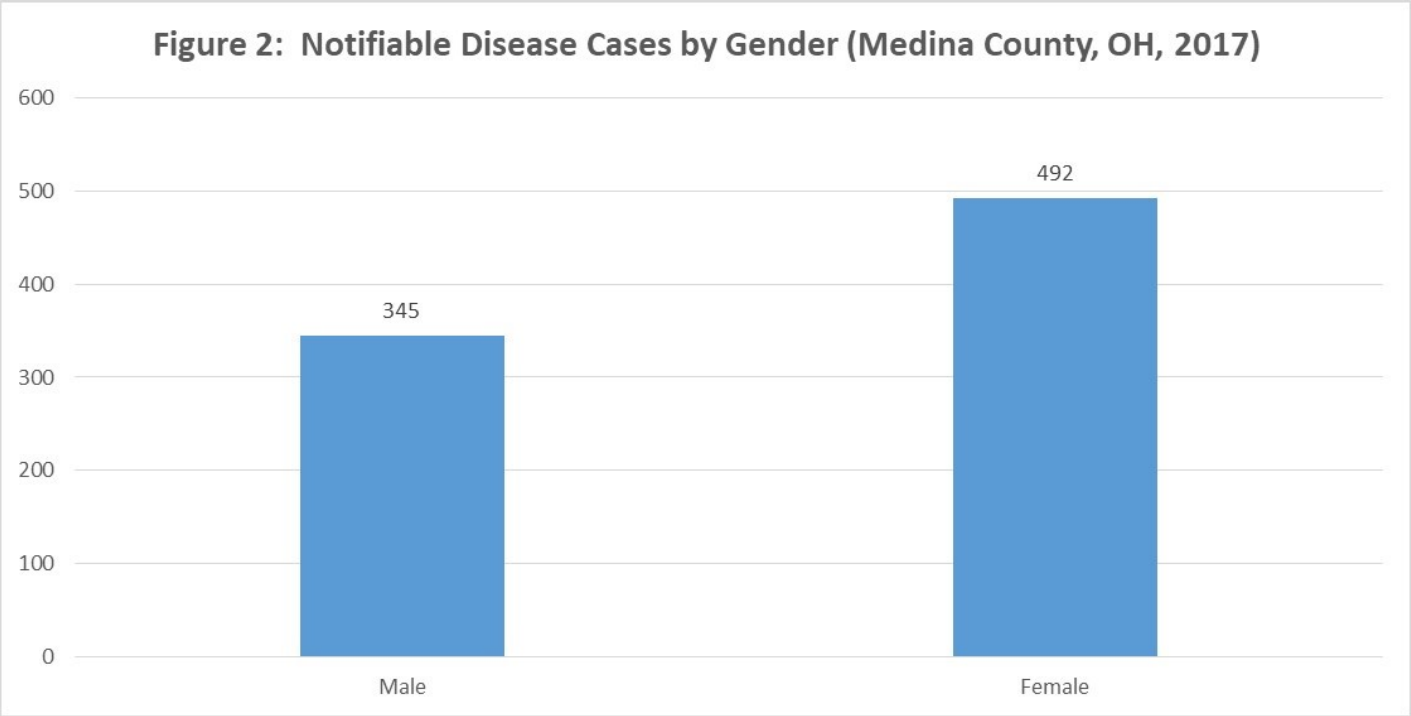


Figure 2 displays the number of notifiable disease cases by gender for 2017. Females accounted for 58.8% of all cases (492) and males accounted for 41.2% of all cases (345).

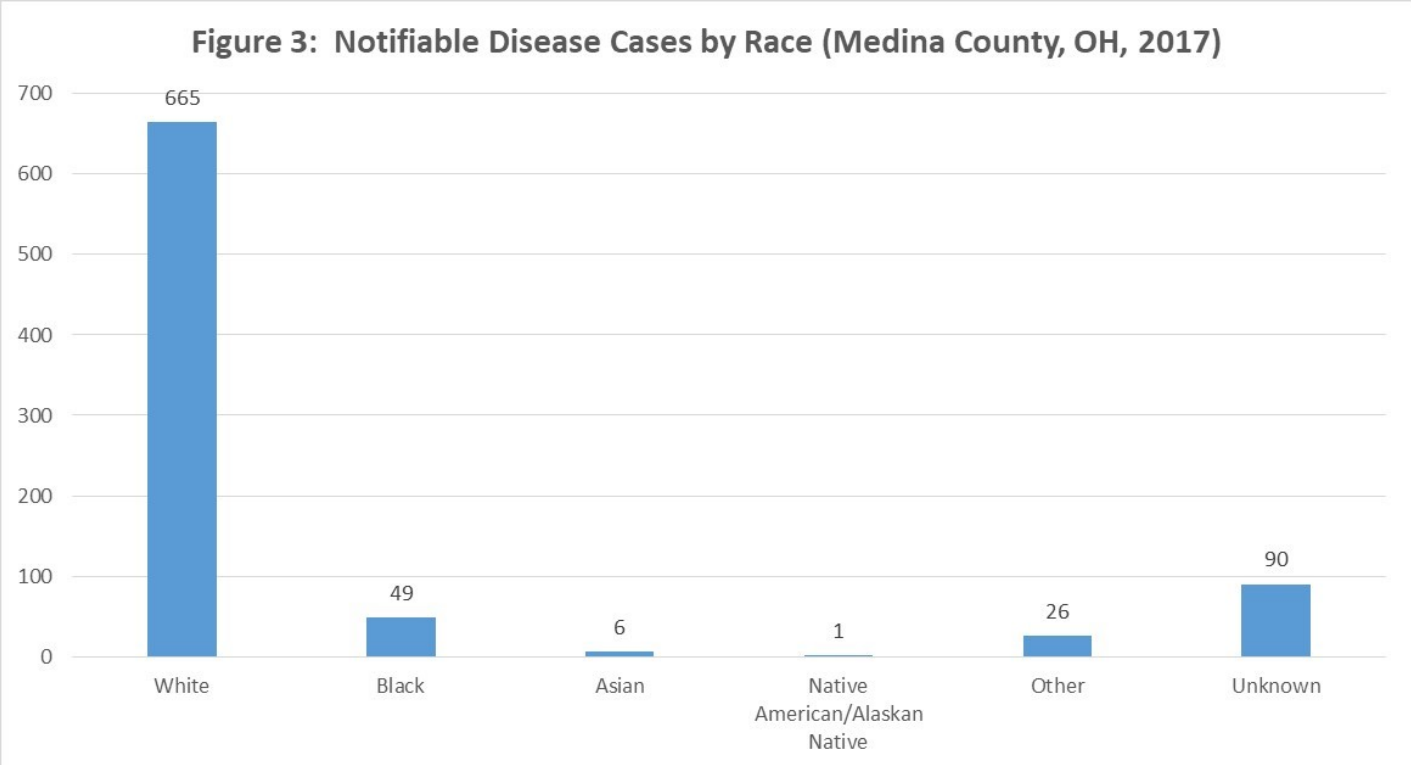


Figure 3 displays the number of notifiable disease cases by race for 2017. Whites had the highest number of cases at 665 (79.5%) and Native American/Alaskan Native had the lowest number of cases at 1 (0.1%).

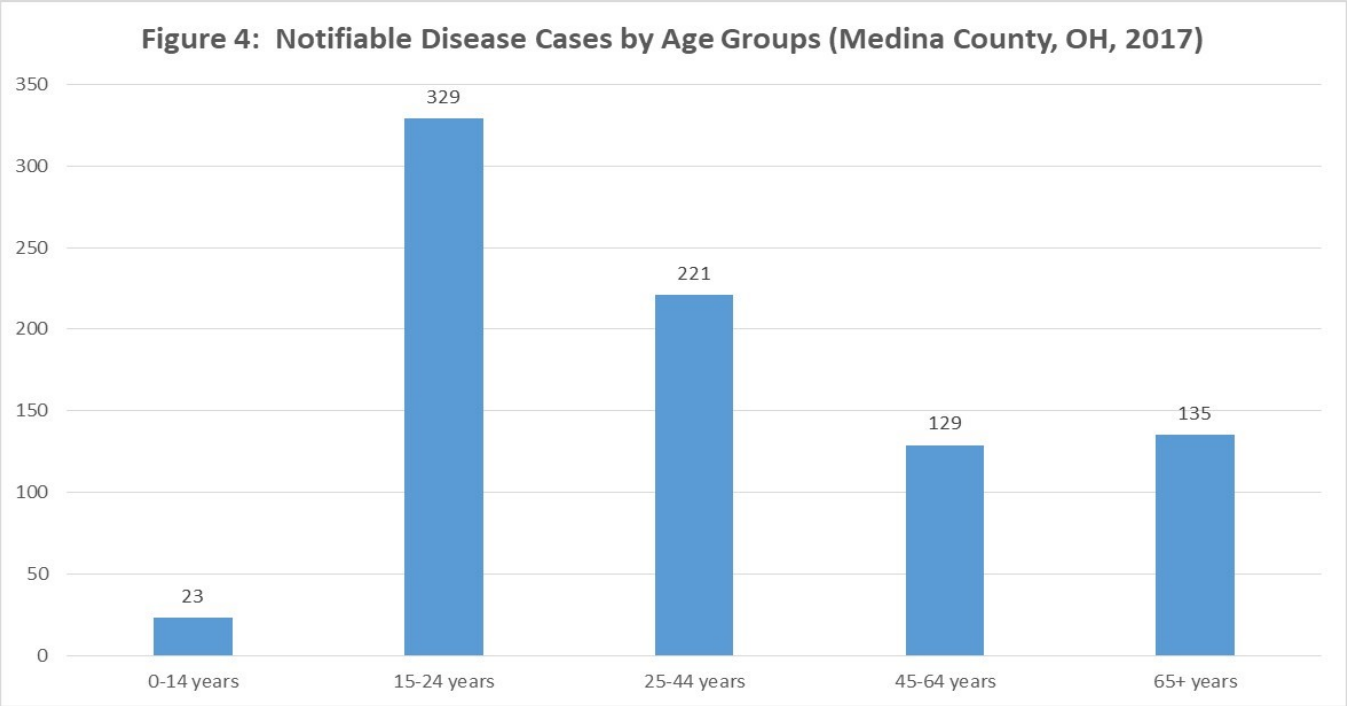


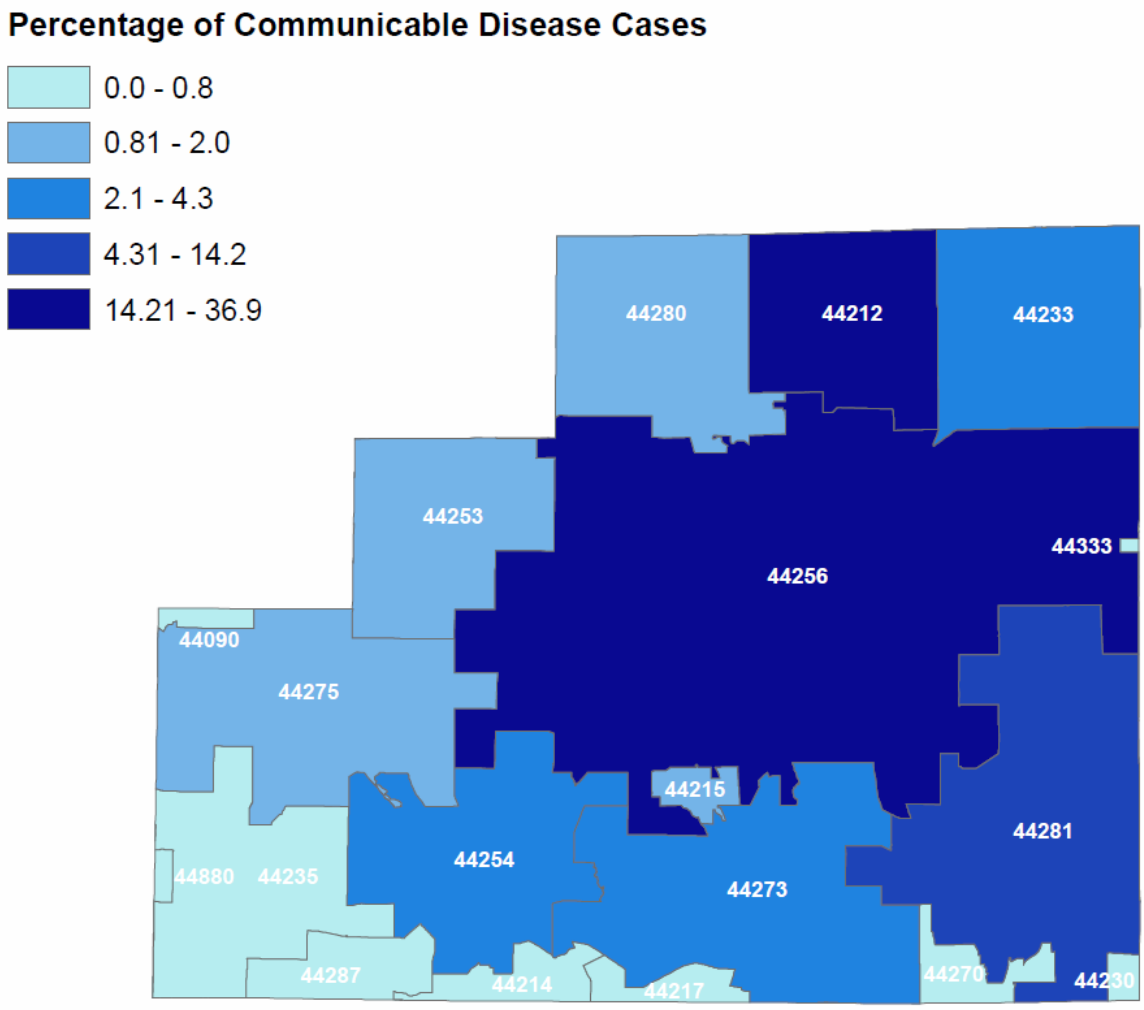
Figure 4 displays the number of notifiable disease cases by age groups. The 15-24 age group had the highest number of cases at 329 (39.3%) and 0-14 had the lowest number of cases at 23 (2.7%).

Table 2: Notifiable Disease Cases by Zip Codes (Medina County, OH, 2017)

Zip Codes	Number of Cases	Percentage of Cases
44133	1	*0.1%*
44149	2	*0.2%*
44212	220	*26.3%*
44215	17	*2.0%*
44217	2	*0.2%*
44233	27	*3.2%*
44235	7	*0.8%*
44251	6	*0.7%*
44253	13	*1.5%*
44254	33	*3.9%*
44256	310	*36.9%*
44270	7	*0.8%*
44273	36	*4.3%*
44274	1	*0.1%*
44275	17	*2.0%*
44280	14	*1.7%*
44281	118	*14.2%*
44287	2	*0.2%*
44321	1	*0.1%*
44333	2	*0.2%*
Unknown	1	*0.1%*
Totals	837	

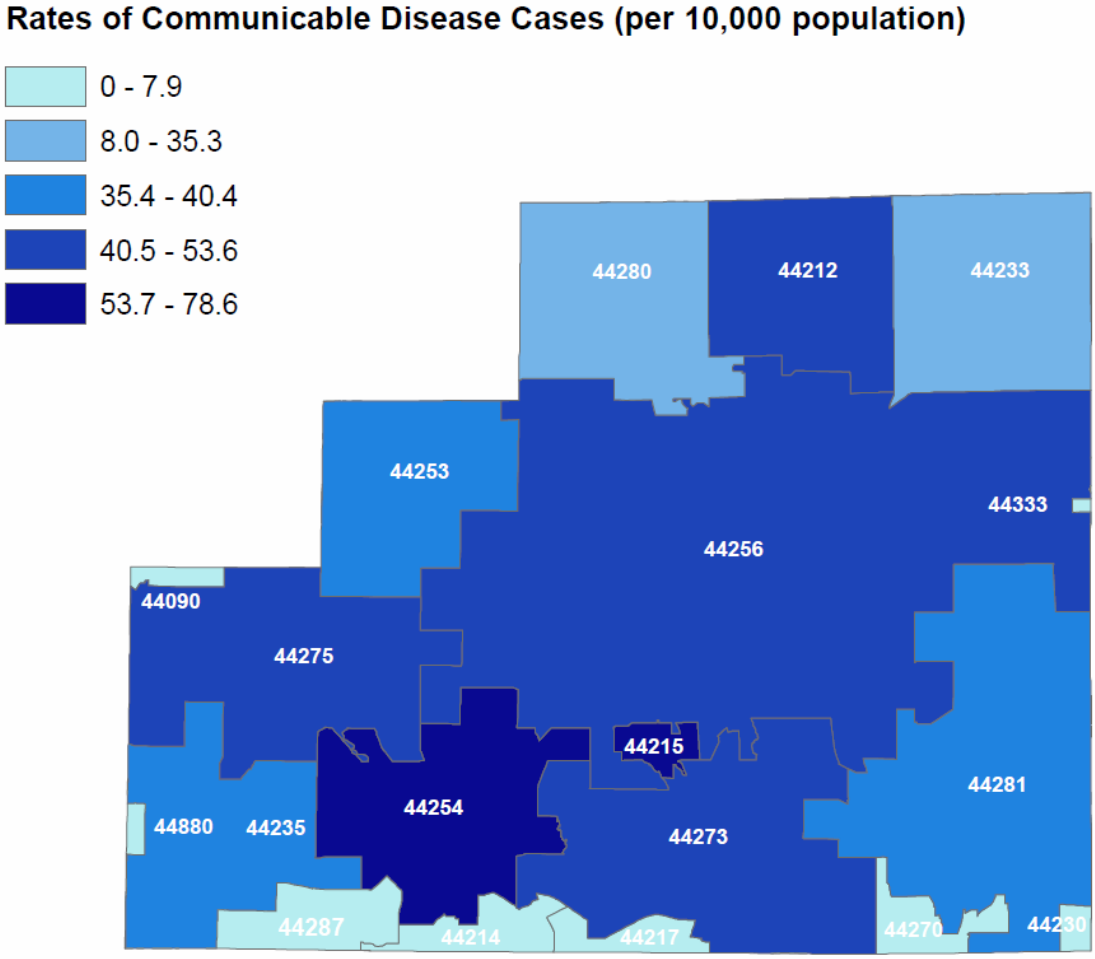
Table 2 displays notifiable disease cases by zip codes. Zip codes 44256 (310), 44212 (220), and 44281 (118) had the top 3 highest number of cases.

Map 1: Percentage of Communicable Disease Cases by Zip Codes (Medina County, 2017)



Map 1 displays the percentage of communicable disease cases by zip codes. The top 3 zip codes with the highest percentage of cases were 44256 (36.9%), 44212 (26.3%), and 44281 (14.2%).

Map 2: Rates of Communicable Disease Cases by Zip Codes (Medina County, 2017)



*Map 2 displays the rates of communicable disease cases by zip codes per 10,000 population. The top 3 zip codes, with the highest rates, were 44215 (78.6 per 10,000), 44254 (68.3 per 10,000), and 44273 (53.6 per 10,000). * Please note: Rates were suppressed for zip codes that had a case count less than 5 or a total zip code population of less than 1000. This is due to a low amount of statistical confidence in generalizing such rates to the general population.**

Chlamydia Data Summary

Chlamydia is a common sexually transmitted disease (STD) caused by infection with *Chlamydia trachomatis*. Chlamydia is the most frequently reported bacterial sexually transmitted infection in the United States. In 2016, 1,598,354 cases of chlamydia were reported to CDC from 50 states and the District of Columbia, but an estimated 2.86 million infections occur annually. 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 2017, Medina County had 383 cases of Chlamydia which was an increase of 19.7% compared to the historic 5 year average (320). The rate of Chlamydia infection was 222.5 cases per 100,000 population. Chlamydia accounted for the highest number of notifiable disease cases in 2017.

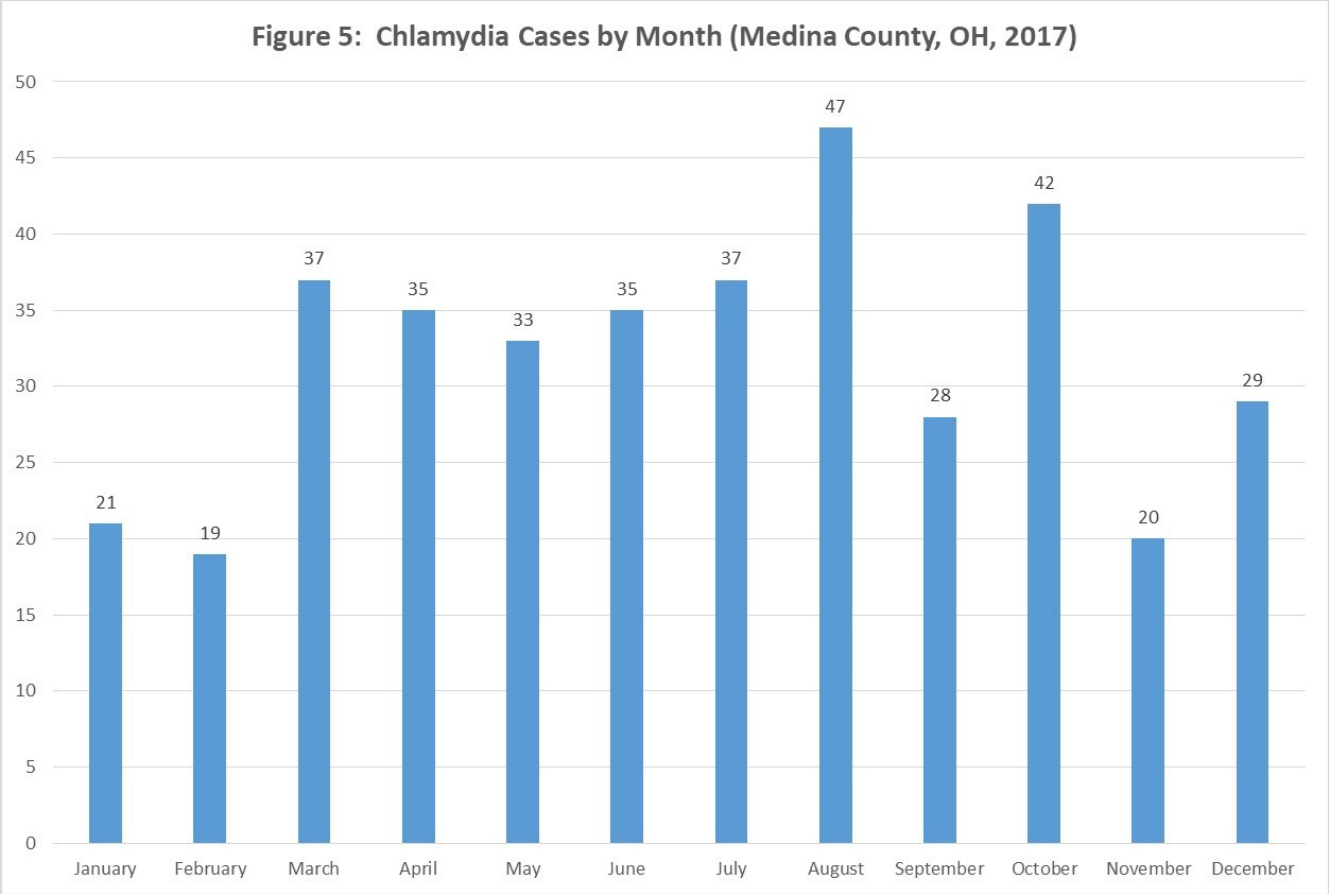


Figure 6 displays Chlamydia cases by month. August had the highest number of Chlamydia cases at 47 (12.3%) and February had the lowest number of Chlamydia cases at 19 (5.0%).

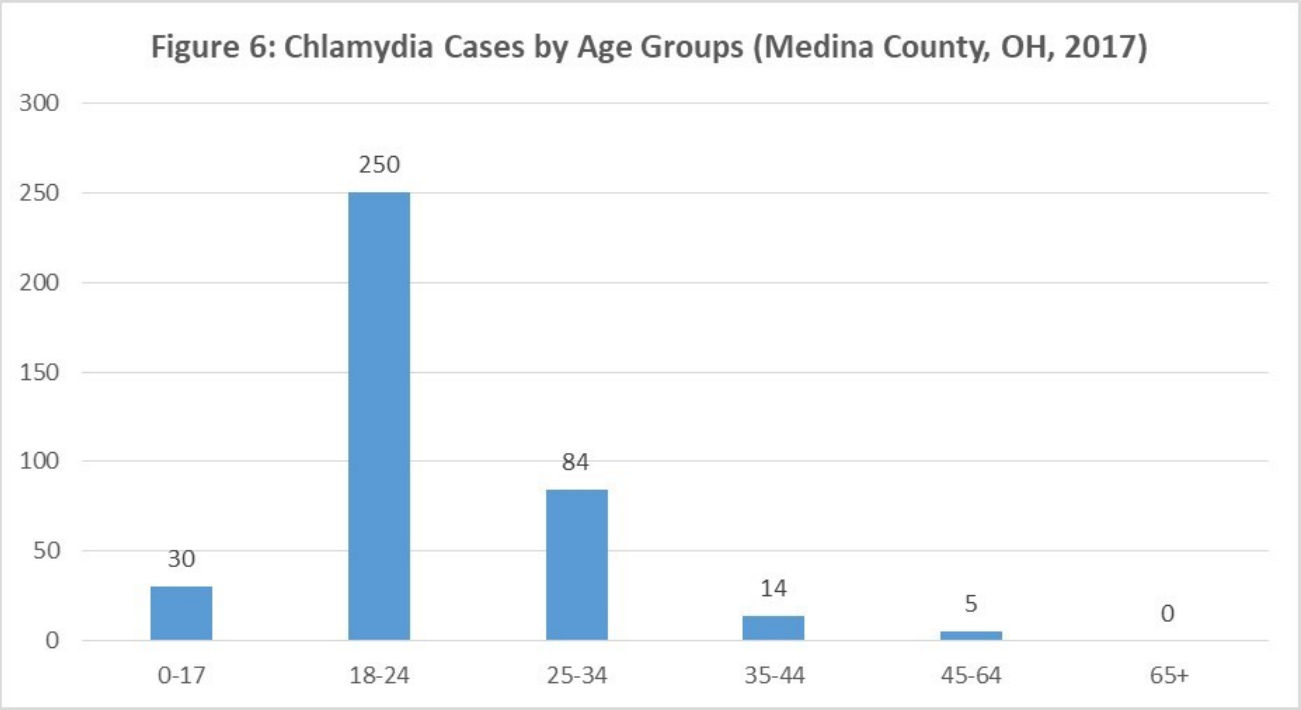


Figure 6 displays Chlamydia cases by age groups. The 18-24 age group accounted for 65.3% of all Chlamydia cases (250).

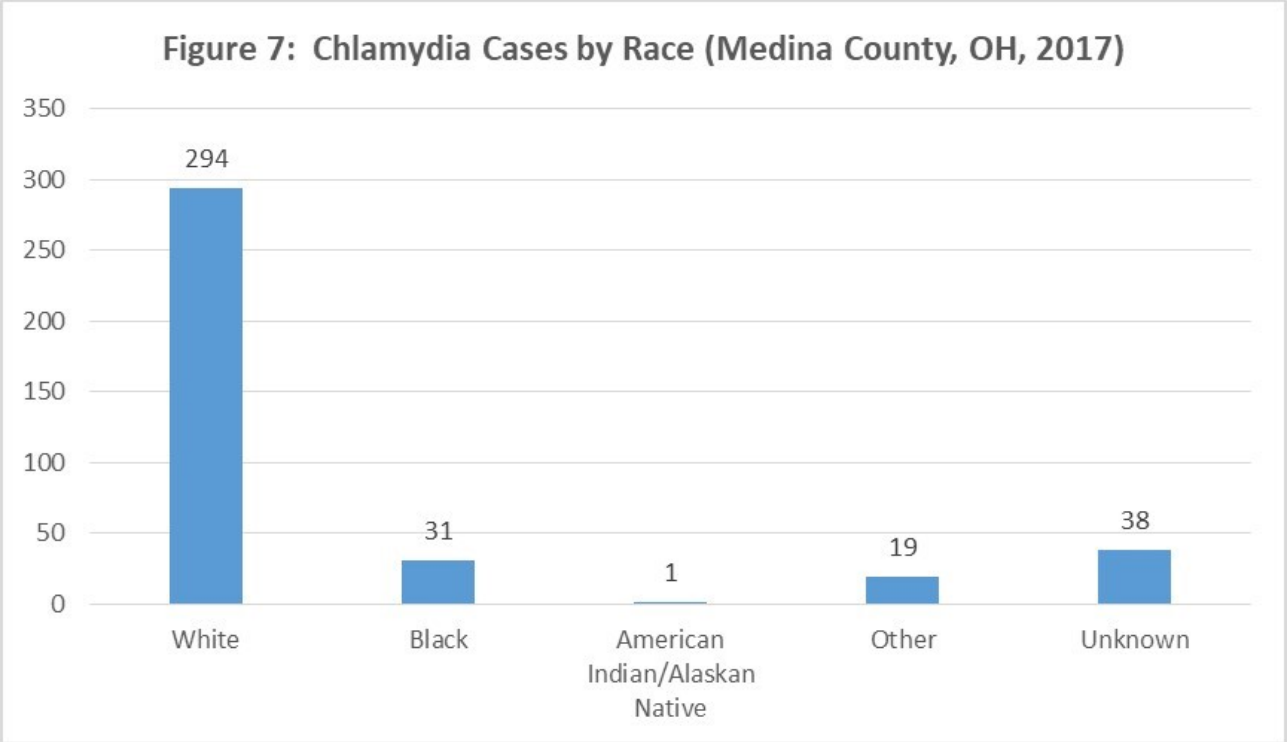


Figure 7 displays Chlamydia cases by race. Whites accounted for 76.8% of all Chlamydia cases (294).

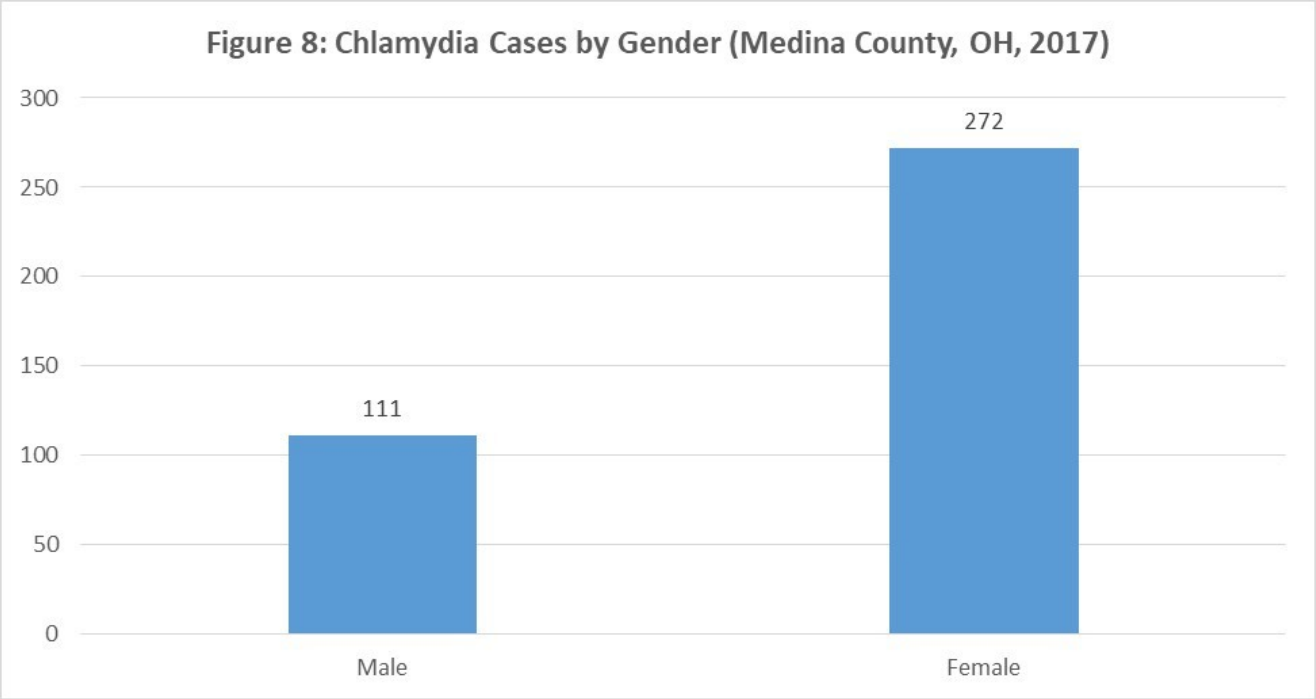


Figure 8 displays Chlamydia cases by gender. Females accounted for 71% (272) of all Chlamydia cases (383) while males accounted for 29.0% (111).

Table 3: Chlamydia Cases by Zip Codes (Medina County, OH, 2017)

Zip Codes	Number of Cases	Percentage of Cases
44133	*	*
44149	*	*
44212	105	*27.4%*
44215	4	*1.0%*
44233	13	*3.4%*
44235	3	*0.8%*
44251	*	*
44253	8	*2.1%*
44254	13	*3.4%*
44256	155	*40.5%*
44270	*	*
44273	11	*2.9%*
44275	5	*1.3%*
44280	9	*2.3%*
44281	49	*12.8%*
44321	*	*
44333	*	*
Unknown	*	*
Totals	**383**	

*Table 3 displays Chlamydia cases by zip codes. Zip code 44256 accounted for 40.5% of all Chlamydia cases (155). *Case count excluded, less than 3 cases.**

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 2017, Medina County had 124 cases of Chronic Hepatitis C which was an increase of 19.9% compared to the historic 5 year average (103.4). The rate of Chronic Hepatitis C infection was 71.9 cases per 100,000 population. Chronic Hepatitis C accounted for the second highest number of notifiable disease cases in 2017.

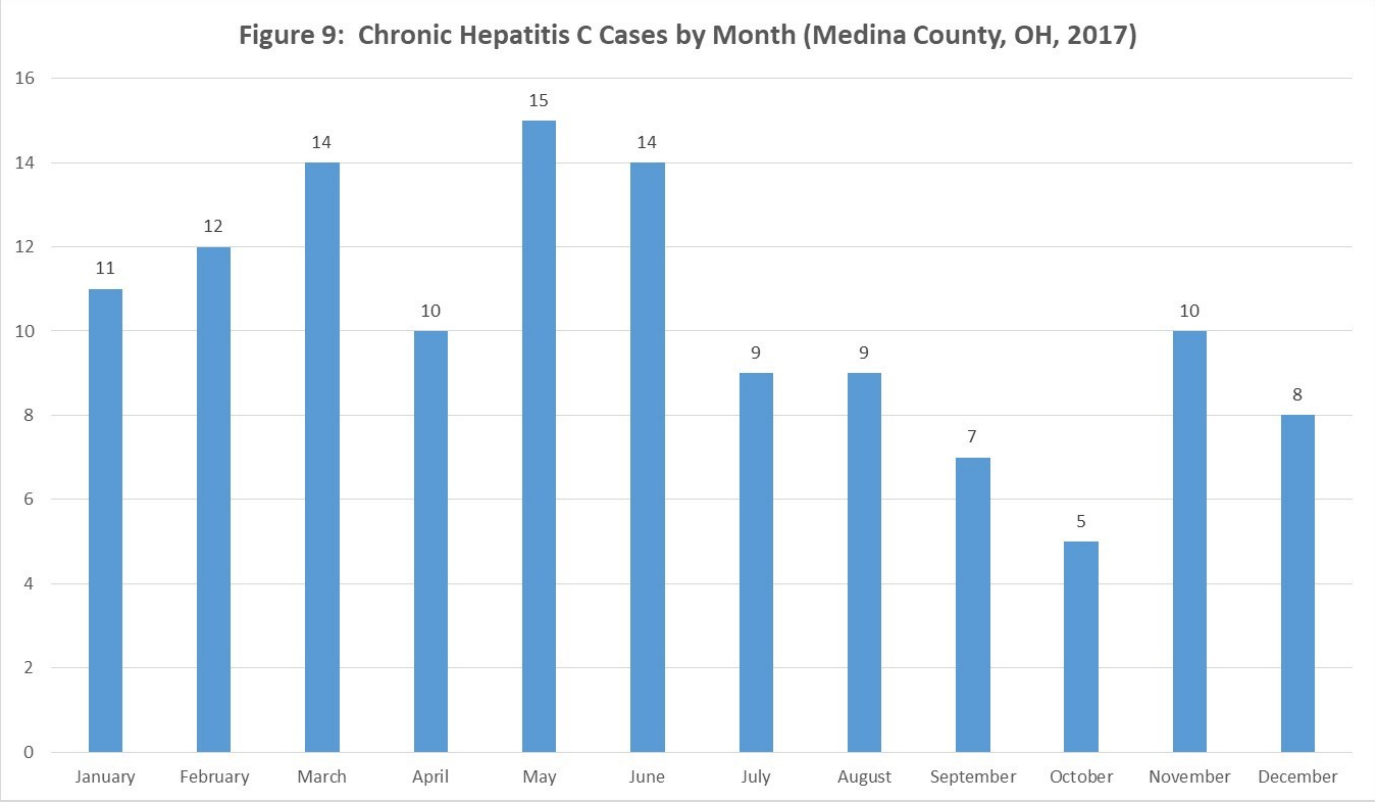


Figure 9 displays Chronic Hepatitis C cases by month. May had the highest number of Chronic Hepatitis C cases at 15 (12.7%) and October had the lowest number of Chronic Hepatitis C cases at 5 (4.0%).

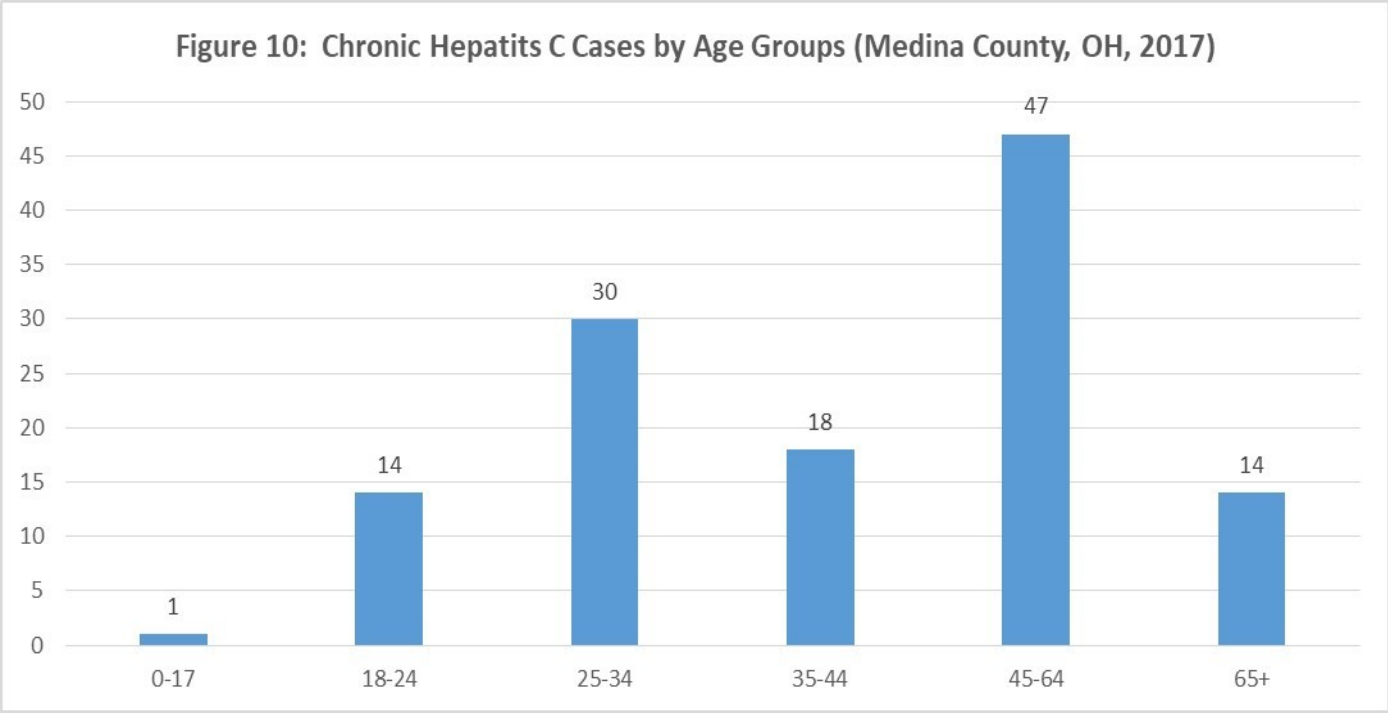


Figure 10 displays Chronic Hepatitis C cases by age groups. The 45-64 age group accounted for 37.9% of all Chronic Hepatitis C cases (47).

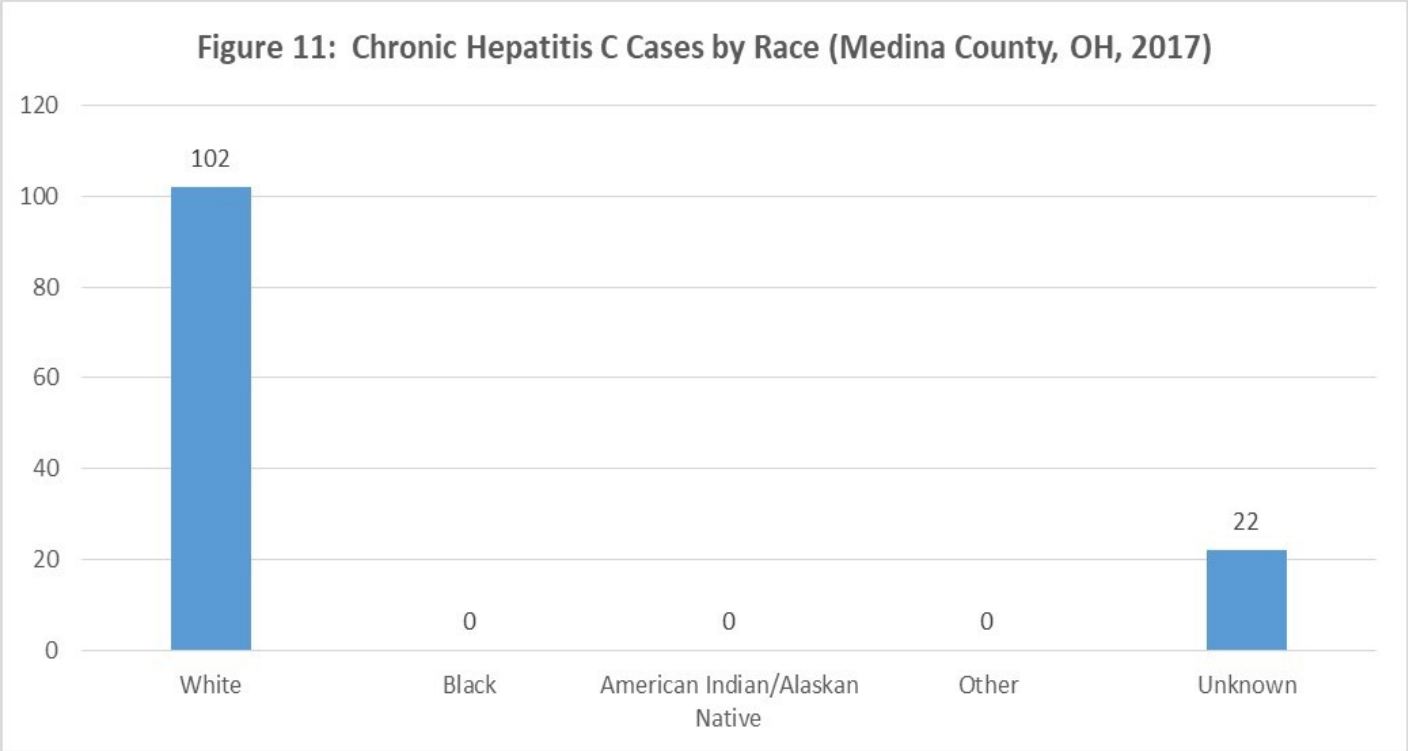


Figure 11 displays Chronic Hepatitis C cases by race. Whites accounted for 82.3% of all Chronic Hepatitis C cases (103).

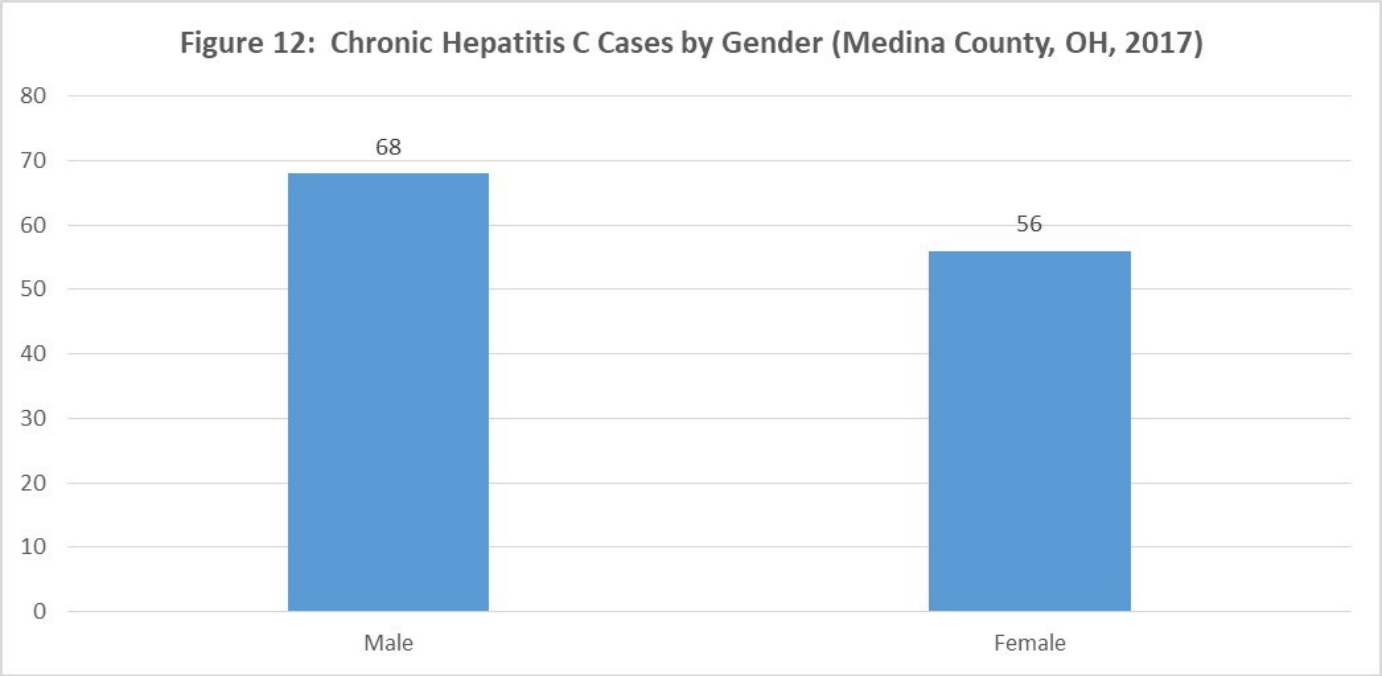


Figure 12 displays Chronic Hepatitis C cases by gender. Males accounted for 54.8% of all Chronic Hepatitis C cases (68) while females accounted for 45.2% (56).

Table 4: Chronic Hepatitis C Cases by Zip Codes (Medina County, OH, 2017)

Zip Codes	Number of Cases	Percentage of Cases
44212	30	*24.2%*
44215	5	*4.0%*
44217	*	*
44233	*	*
44251	*	*
44253	*	*
44254	8	*6.5%*
44256	40	*32.3%*
44273	5	*4.0%*
44275	*	*
44280	*	*
44281	29	*23.4%*
Totals	**124**	

*Table 4 displays Chronic Hepatitis C cases by zip codes. Zip code 44256 accounted for 32.3% of all Chronic Hepatitis C cases (40). *Case count excluded, less than 3 cases.**

Gonorrhea Data Summary

Gonorrhea is a sexually transmitted disease (STD) 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).

In 2017, Medina County had 68 cases of Gonorrhea which was an increase of 47.8% compared to the historic 5 year average (46). The rate of Gonorrhea infection was 39.5 cases per 100,000 population. Gonorrhea accounted for the fourth highest number of notifiable disease cases in 2017.

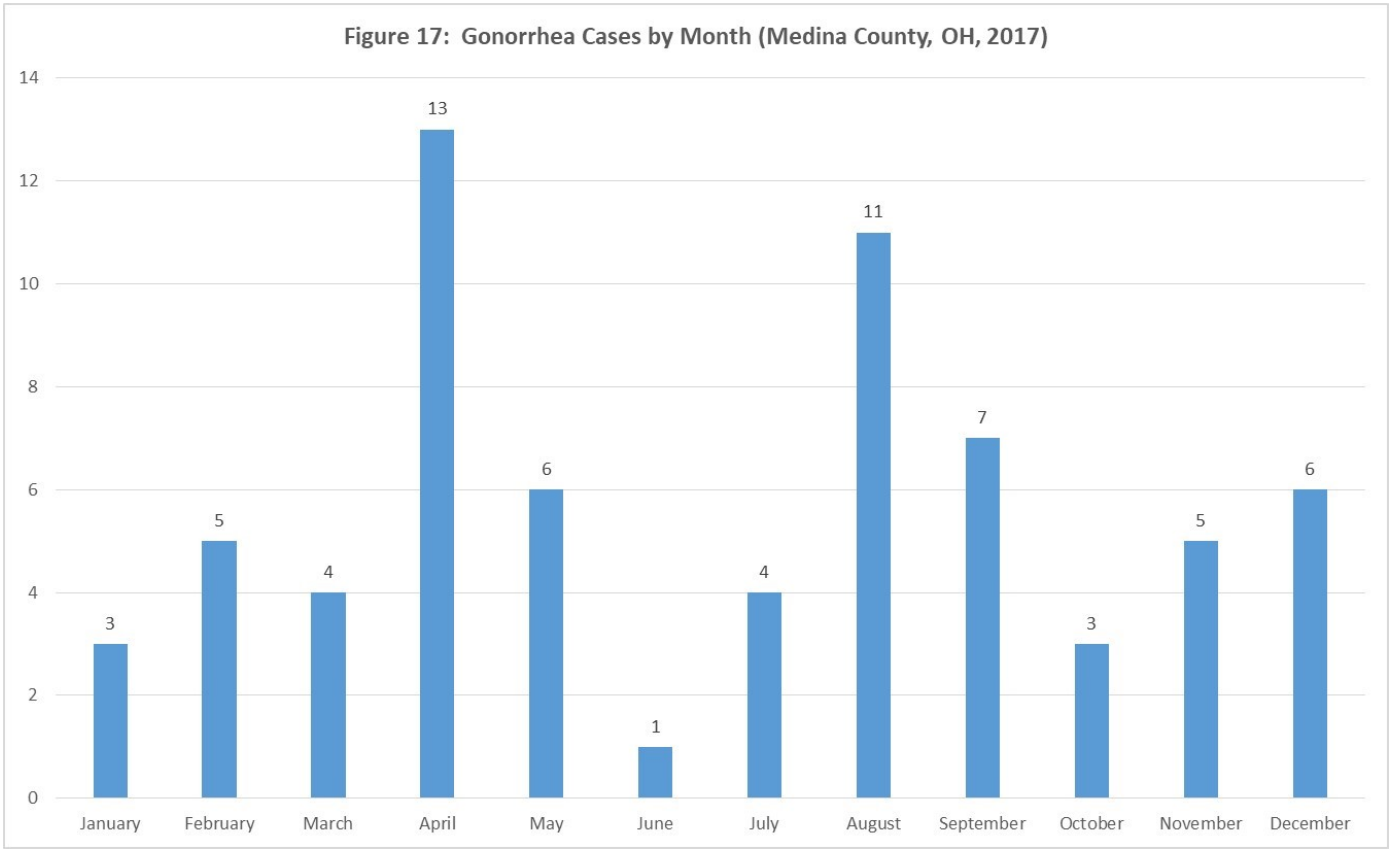


Figure 17 displays the number of Gonorrhea cases by month. April had the highest number of Gonorrhea cases at 13 (19.1%) and June had the lowest number of Gonorrhea cases at 1 (1.5%).

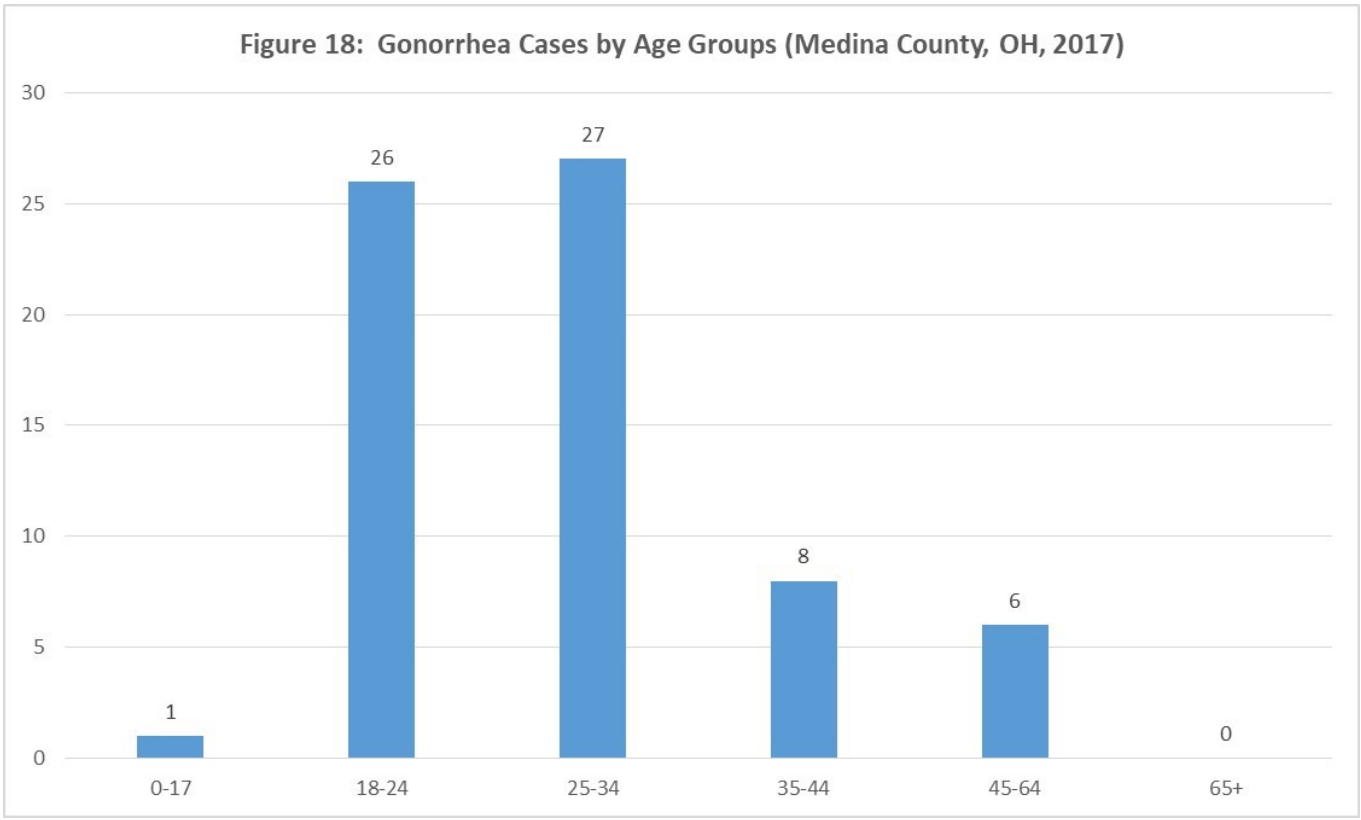


Figure 18 displays the number of Gonorrhea cases by age groups. The 25-34 age group accounted for 39.7% of all Gonorrhea cases (27).

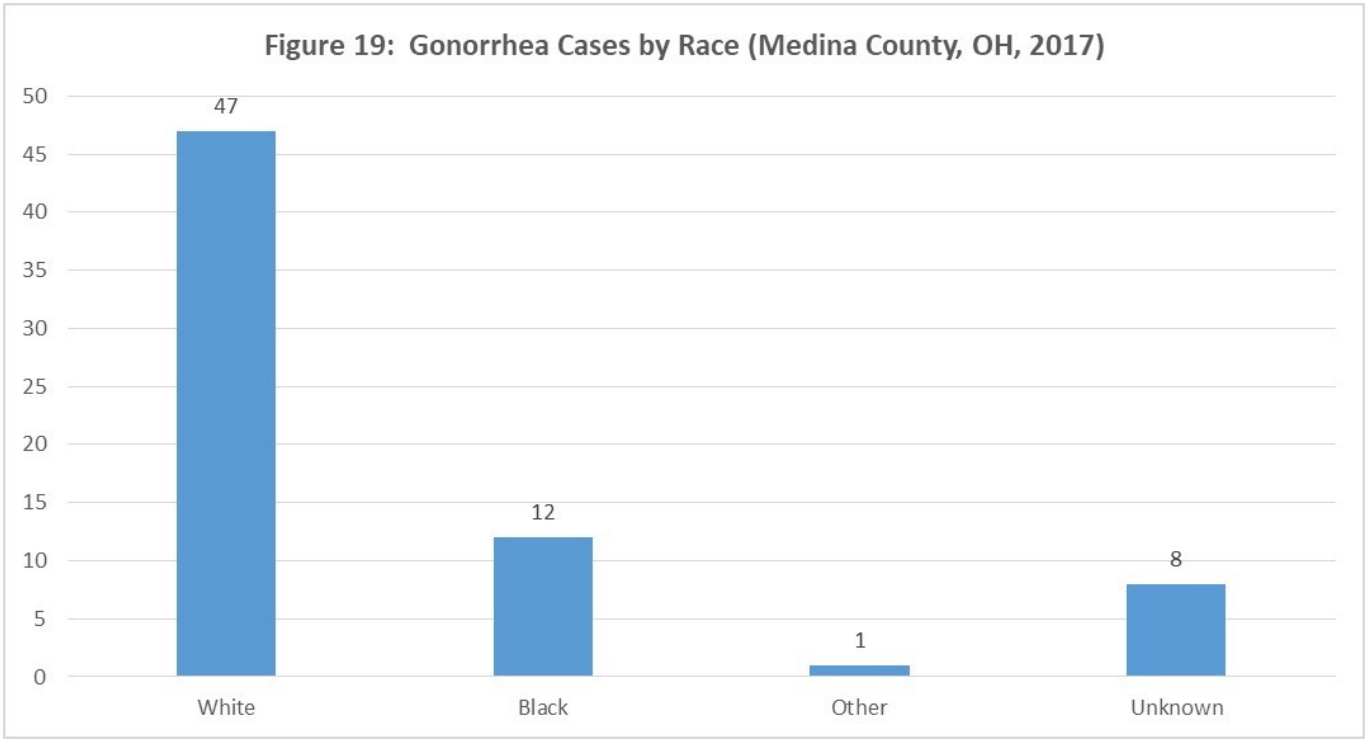


Figure 19 displays the number of Gonorrhea cases by race. Whites accounted for 69.1% of all Gonorrhea cases (47).

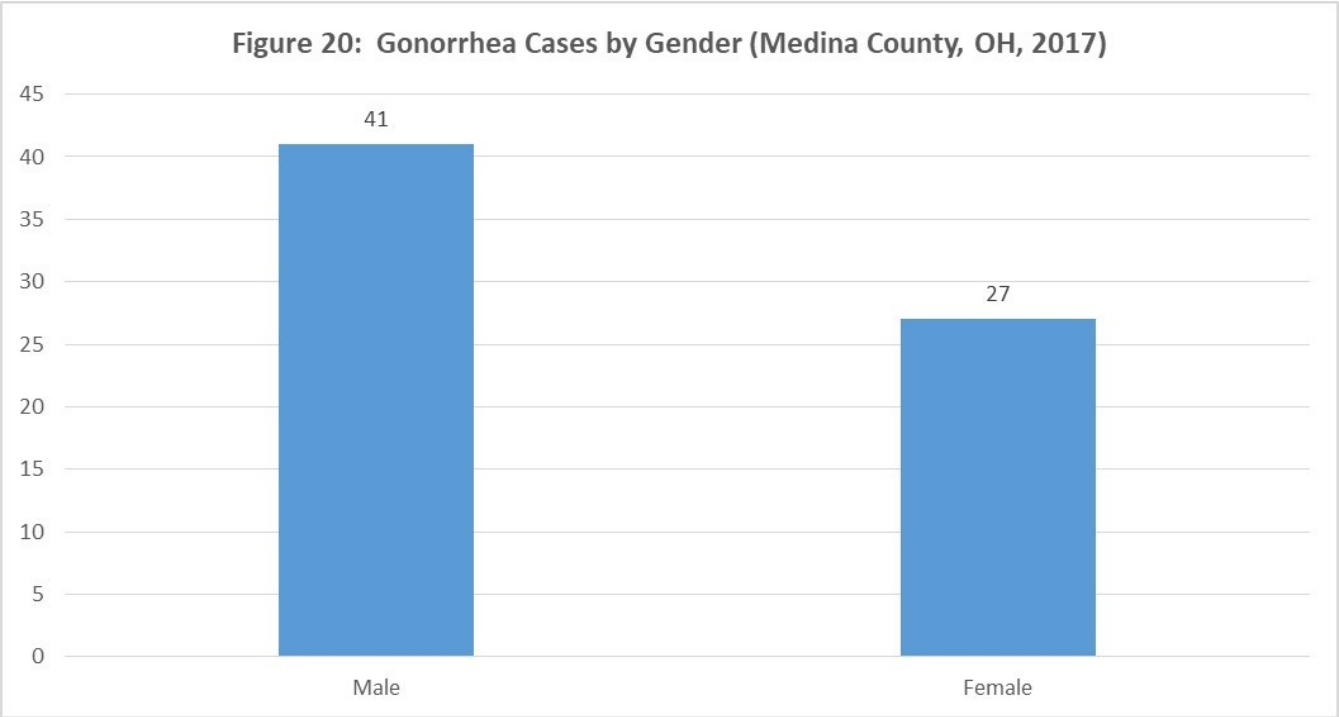


Figure 20 displays the number of Gonorrhea cases by gender. Males accounted for 60.3% of all Gonorrhea cases (41) while females accounted for 39.7% all cases (27).

Table 6: Gonorrhea Cases by Zip Codes (Medina County, OH, 2017)

Zip Codes	Number of Cases	Percentage of Cases
44212	20	*29.4%*
44215	4	*5.9%*
44233	*	*
44235	*	*
44254	*	*
44256	21	*30.9%*
44270	*	*
44273	3	*4.4%*
44274	*	*
44275	4	*5.9%*
44281	10	*14.7%*
Totals	**68**	

*Table 6 displays the number of Gonorrhea cases by zip codes. Zip code 44256 accounted for 30.9% of all Gonorrhea cases (21). *Case count excluded, less than 3 cases.**

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 2017, Medina County had 29 cases of Campylobacteriosis which was the exact same as the historic 5 year average (29). The rate of Campylobacteriosis infection was 16.8 cases per 100,000 population. Campylobacteriosis accounted for the fifth highest number of notifiable cases in 2017.

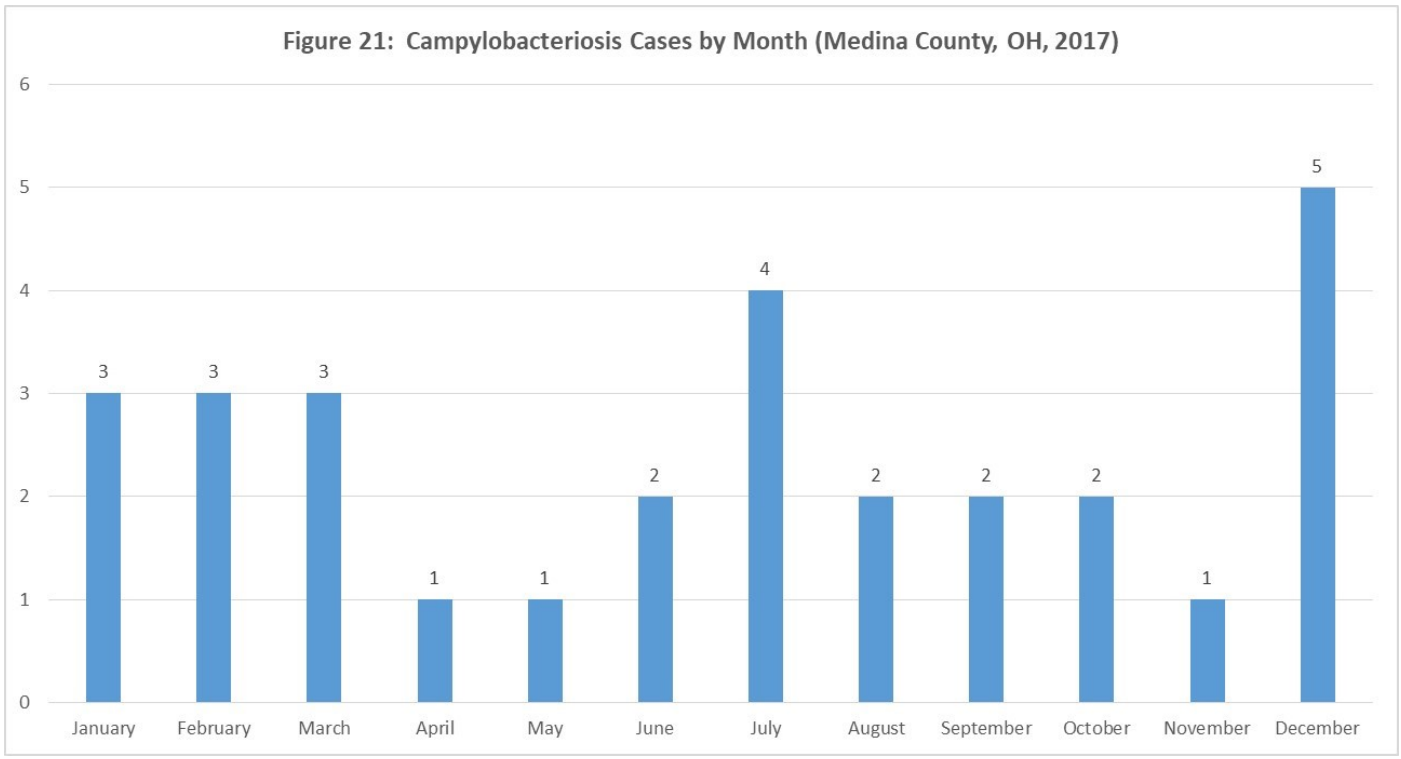


Figure 21 displays the number of Campylobacteriosis cases by month. December had the highest number of Campylobacteriosis cases at 5 (17.2%) and April and May had the lowest number of Campylobacteriosis cases at 1 each (3.4%).

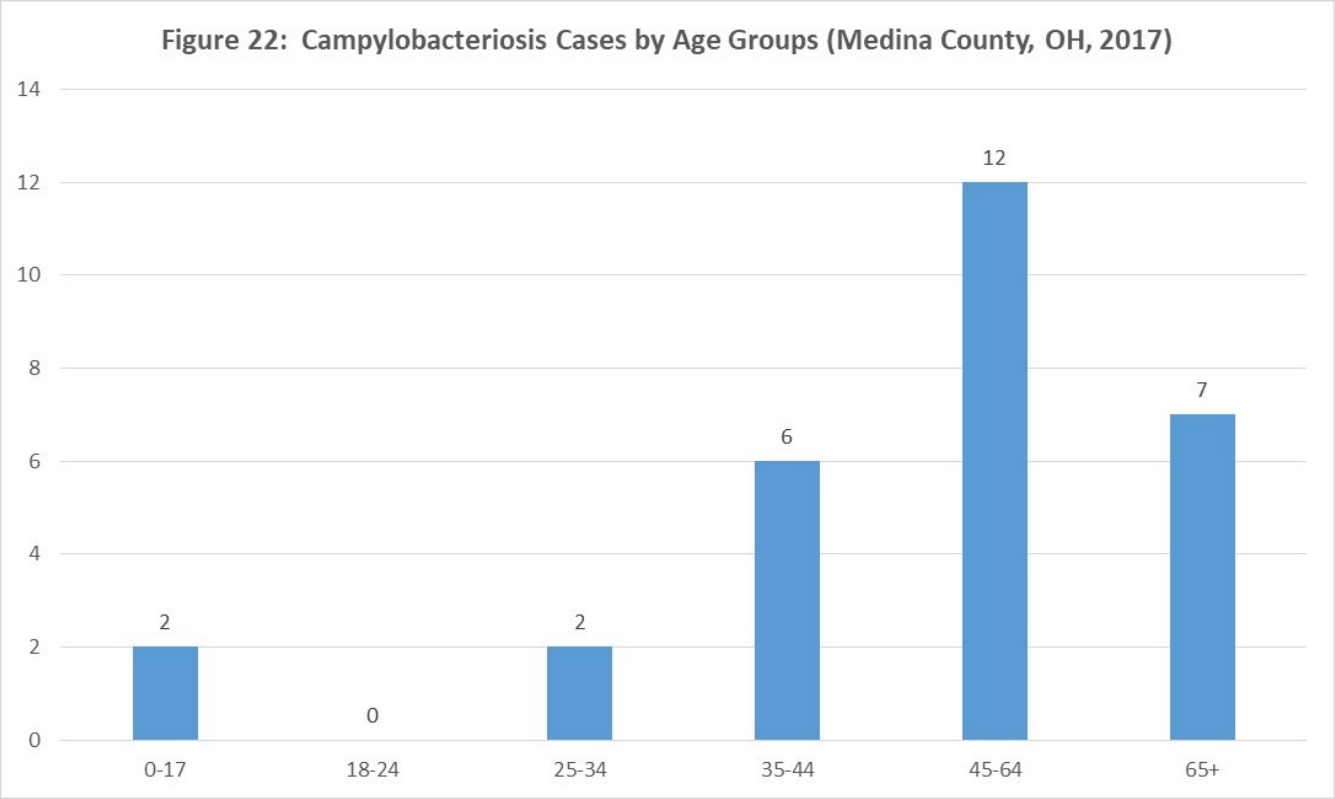


Figure 22 displays the number of Campylobacteriosis cases by age groups. The 45-64 age group accounted for 41.4% of all Campylobacteriosis patients (12).

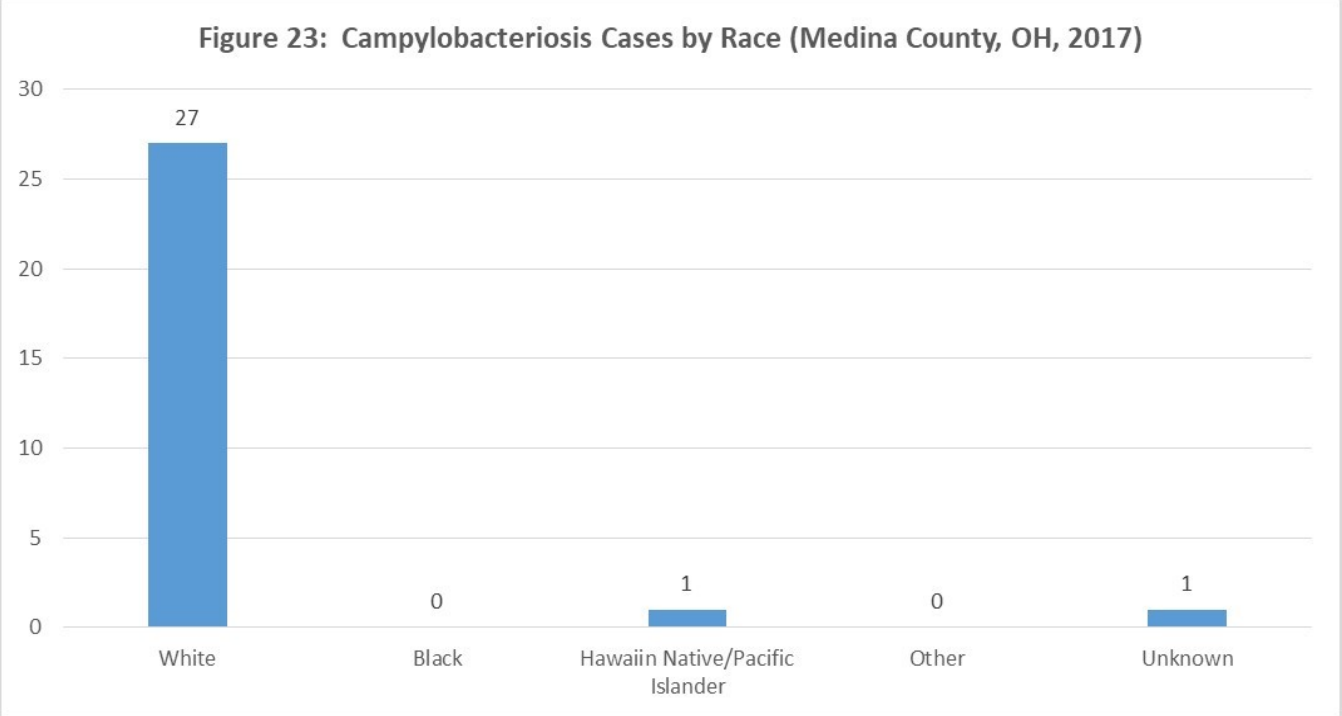


Figure 23 displays the number of Campylobacteriosis patients by race. Whites accounted for 93.1% of all Campylobacteriosis patients (27).

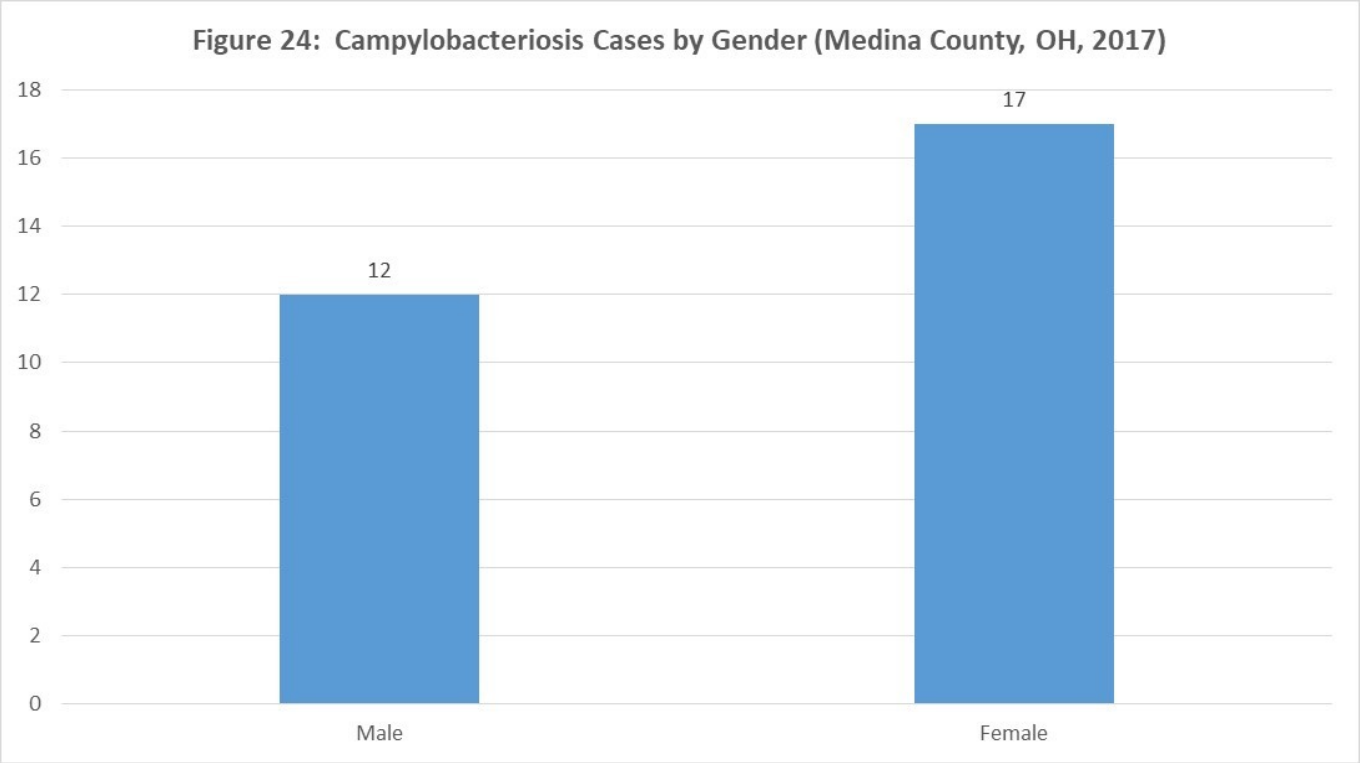


Figure 24 displays the number of Campylobacteriosis patients by gender. Females accounted for 58.6% of all Campylobacteriosis cases (17) while males accounted for 41.4% (12).

Table 7: Campylobacteriosis Cases by Zip Codes (Medina County, OH, 2017)

Zip Codes	Number of Cases	Percentage of Cases
44212	7	*24.1%*
44233	*	*
44251	*	*
44253	*	*
44256	10	*34.5%*
44270	*	*
44273	*	*
44275	*	*
44281	4	*13.8%*
44287	*	*
Totals	**29**	

*Table 7 displays the number of Campylobacteriosis cases by zip codes. Zip code 44256 accounted for 34.5% of all Campylobacteriosis cases (10). *Case count excluded, less than 3 cases.**