# Monthly Communicable Disease Surveillance Report

June 2022

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HAMILTON COUNTY PUBLIC HEALTH
PREVENT. PROMOTE. PROTECT.

# NOTIFIABLE COMMUNICABLE DISEASES

### Hamilton County Public Health (HCPH) Jurisdiction

Number of Communicable Diseases Reported: 106

Most frequently reported communicable diseases:

- Chronic hepatitis C (n=23)
- Lyme Disease (n=12)
- Campylobacteriosis (n=9)
- Chronic hepatitis B (n=9)
- Salmonellosis (n=7)

### Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 450

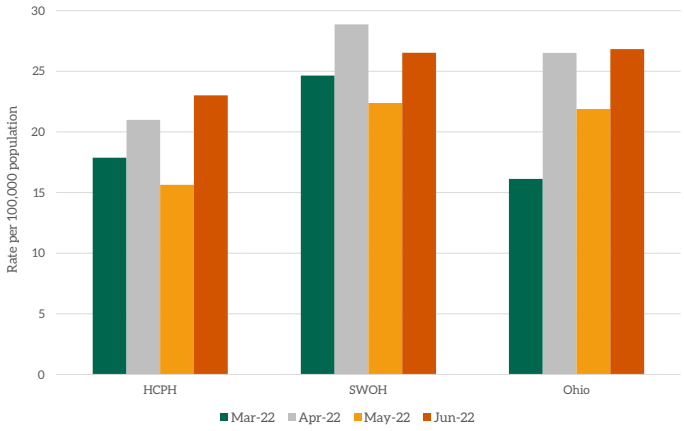
Most frequently reported communicable diseases:

- Chronic hepatitis C (n=145)
- Chronic hepatitis B (n=58)
- Lyme Disease (n=45)
- Campylobacteriosis (n=29)
- Salmonellosis (n=20)

### Summary

The overall rates of reported communicable diseases for HCPH, SWOH, and Ohio changed in June by 47%, 18%, and 23% respectively (Figure 1). These rates are pro-rated to 30 days so they can be compared accurately. The Ohio rate (26.8) was the highest of the three rates, followed by the SWOH rate (26.5) and the HCPH rate (23.0) (Table 1).

Figure 1. 30-Day Rates of Reported Communicable Diseases in Ohio, Southwest Ohio, and Hamilton County Public Health Jurisdiction, March 2022 - June 2022




Chronic hepatitis C was the most commonly reported communicable disease across SWOH, with chronic hepatitis B and Lyme Disease 2nd and 3rd respectively (Table 2). Chronic hepatitis (Hepatitis C and Hepatitis B combined) comprised 45.1% of the total communicable diseases reported during June. Southwest Ohio is currently on pace to have a 1.5% decrease in hepatitis cases over the previous year's average number of cases (213). The rate of chronic hepatitis within Hamilton County for June was 10.1 per 100,000 residents. This rate was 13% lower than the SWOH rate of 11.7 per 100,000 residents.

Lyme Disease was the third most frequently reported disease in SWOH (Table 2). Lyme Disease cases accounted for 10.0% of the total communicable diseases reported during June. The number of cases of Lyme Disease reported for SWOH in June (45) was higher than the number of cases in the previous month (6). The rate of Lyme Disease within Hamilton County for June was 1.9 per 100,000 residents. This rate was lower than the SWOH rate of 2.6 per 100,000 residents.

Table 1. Comparison of the Reported Cases of Notifiable Communicable Diseases by Location, June 2022

| Location | Number of Reported Cases | Rate per 100,000 | Rate Ratio† | Confidence Interval (99%)‡ |
|---|---|---|---|---|
| HCPH | 106 | 22.26 | 0.86 | 0.67 - 1.11 |
| SWOH | 450 | 25.65 | 0.99 | 0.87 - 1.13 |
| Ohio | 3,002 | 25.93 | . | . - . |

Campylobacteriosis was the fourth most frequently reported disease in SWOH (Table 2). Campylobacteriosis cases accounted for 6.4% of the total communicable diseases reported during June. The number of cases of Campylobacteriosis reported for SWOH in June (29) was higher than the number of cases reported in the previous month (18). The rate of Campylobacteriosis within Hamilton County for June was 1.6 per 100,000 residents. This rate was 3% lower than the SWOH rate of 1.7 per 100,000 residents.

NOTES: Data are provisional and are subject to change as data becomes finalized. Suspected, probable and confirmed cases are included in counts except for arboviral encephalitis and Zika virus diseases, of which only probable and confirmed cases are reported. Novel Influenza A cases are only confirmed cases. COVID-19, chlamydia and gonorrhea are not reported within this report. The completeness of reporting varies by region and can impact the incidences of reported diseases. This report reflects the time period of June 1-29, 2022. Data was accessed from the Ohio Disease Reporting System on 6/30/2022.

†Ratio of local rate to the Ohio rate.

‡Confidence intervals that do not contain the value of one are considered statistically significant.

Table 2. Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, June 2022

| Reportable Condition | County | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Adams | Brown | Butler | Clermont | Clinton | Hamilton | Highland | Warren | |
| Botulism (Infant) | . | . | . | . | . | 1 | . | . | **1** |
| Brucellosis | . | . | . | . | . | 1 | . | . | **1** |
| C. auris | . | . | . | 1 | . | . | . | . | **1** |
| C. auris - Investigation | . | . | . | . | . | 6 | . | . | **6** |
| CP-CRE | . | . | . | . | . | 1 | . | . | **1** |
| Campylobacteriosis | 1 | 2 | 5 | 2 | 1 | 13 | . | 5 | **29** |
| Coccidioidomycosis | . | 1 | . | 1 | . | . | . | . | **2** |
| Cryptosporidiosis | 1 | . | 1 | 1 | . | . | . | . | **3** |
| E.Coli (shiga toxin producing) | 1 | . | 2 | 1 | . | 3 | . | 3 | **10** |
| Giardiasis | . | . | 2 | . | . | 3 | . | . | **5** |
| Haemophilus influenzae (invasive) | . | . | . | . | . | 1 | . | 1 | **2** |
| Hepatitis A | . | . | 1 | . | 1 | . | . | 1 | **3** |
| Hepatitis B (acute) | . | . | 1 | . | . | 2 | . | . | **3** |
| Hepatitis B (chronic) | 2 | 1 | 11 | 3 | 2 | 23 | 5 | 11 | **58** |
| Hepatitis C (acute) | . | . | . | . | . | 1 | . | 1 | **2** |
| Hepatitis C (chronic) | 3 | 10 | 37 | 15 | 2 | 58 | 5 | 15 | **145** |
| Influenza-associated hospitalization | . | . | . | . | . | 5 | . | 4 | **9** |
| Legionellosis | . | 1 | 2 | 1 | 1 | 4 | . | 1 | **10** |
| Lyme Disease | 1 | 3 | 2 | 12 | . | 15 | 8 | 4 | **45** |
| MIS-C associated with COVID-19 | . | . | . | . | . | 1 | . | . | **1** |
| Malaria | . | . | 1 | . | . | . | . | . | **1** |
| Meningitis (aseptic/viral) | . | . | . | . | . | 5 | 1 | . | **6** |
| Meningitis (bacterial) | . | . | 1 | 1 | . | 1 | . | . | **3** |
| Mumps | . | . | . | . | . | . | . | 1 | **1** |
| Pertussis | . | . | 3 | . | . | 3 | . | . | **6** |
| Salmonellosis | . | . | 2 | 6 | . | 8 | . | 4 | **20** |
| Shigellosis | . | . | 1 | . | . | 2 | . | . | **3** |
| Spotted Fever Rickettsiosis | . | 1 | 1 | . | 2 | 3 | 1 | . | **8** |
| Streptococcal pneumoniae (invasive) | . | . | 2 | 1 | . | 7 | . | 2 | **12** |
| Streptococcal, Group A (invasive) | . | . | 3 | 2 | . | 13 | . | 1 | **19** |

Table 2. Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, June 2022, Continued

| Reportable Condition | County | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Adams | Brown | Butler | Clermont | Clinton | Hamilton | Highland | Warren | |
| Streptococcal, Group B (in newborn) | . | . | . | . | . | 2 | . | . | **2** |
| Syphilis | . | . | 2 | 1 | . | 13 | . | . | **16** |
| Tuberculosis | . | . | . | 1 | 2 | 7 | . | . | **10** |
| Varicella | 1 | . | . | . | . | 2 | . | 1 | **4** |
| Vibriosis | . | . | 1 | . | . | . | . | . | **1** |
| Yersiniosis | . | . | 1 | . | . | . | . | . | **1** |
| **Total** | **10** | **19** | **82** | **49** | **11** | **204** | **20** | **55** | **450** |

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, June 2022

| Reportable Condition | County | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Adams | Brown | Butler | Clermont | Clinton | Hamilton | Highland | Warren | |
| Amebiasis | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 2 | **5** |
| Babesiosis | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | **1** |
| Botulism (Infant) | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | **2** |
| Brucellosis | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | **1** |
| C. auris | 0 | 1 | 0 | 1 | 0 | 22 | 1 | 0 | **25** |
| C. auris - Investigation | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | **40** |
| CP-CRE | 0 | 3 | 6 | 2 | 1 | 19 | 4 | 5 | **40** |
| Campylobacteriosis | 2 | 6 | 22 | 12 | 5 | 51 | 1 | 15 | **114** |
| Chikungunya virus | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| Coccidioidomycosis | 0 | 2 | 2 | 1 | 0 | 3 | 0 | 1 | **9** |
| Creutzfeldt-Jakob Disease | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | **3** |
| Cryptosporidiosis | 1 | 0 | 3 | 1 | 1 | 2 | 0 | 1 | **9** |
| Dengue | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| E.Coli (shiga toxin producing) | 1 | 0 | 8 | 4 | 0 | 11 | 0 | 5 | **29** |
| Ehrlichiosis/Anaplasmosis | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **2** |
| Giardiasis | 0 | 0 | 6 | 2 | 0 | 16 | 1 | 5 | **30** |
| Haemophilus influenzae (invasive) | 0 | 0 | 5 | 1 | 0 | 12 | 0 | 2 | **20** |
| Hemolytic uremic syndrome (HUS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **1** |
| Hepatitis A | 2 | 2 | 3 | 1 | 3 | 12 | 2 | 11 | **36** |
| Hepatitis B (acute) | 0 | 1 | 1 | 3 | 6 | 7 | 0 | 1 | **19** |
| Hepatitis B (chronic) | 15 | 13 | 77 | 15 | 8 | 124 | 17 | 43 | **312** |
| Hepatitis C (acute) | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | **4** |
| Hepatitis C (chronic) | 18 | 43 | 227 | 85 | 21 | 372 | 31 | 128 | **925** |
| Hepatitis C - Perinatal Infection | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | **1** |
| Hepatitis E | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| Influenza-associated hospitalization | 1 | 10 | 53 | 36 | 5 | 98 | 17 | 33 | **253** |
| Legionellosis | 0 | 1 | 10 | 3 | 1 | 8 | 0 | 7 | **30** |
| Lyme Disease | 4 | 3 | 4 | 19 | 1 | 24 | 8 | 10 | **73** |
| MIS-C associated with COVID-19 | 0 | 0 | 4 | 0 | 0 | 8 | 0 | 2 | **14** |

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, June 2022, Continued

| Reportable Condition | County | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Adams | Brown | Butler | Clermont | Clinton | Hamilton | Highland | Warren | |
| Malaria | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| Meningitis (aseptic/viral) | 0 | 0 | 3 | 4 | 0 | 13 | 2 | 5 | **27** |
| Meningitis (bacterial) | 0 | 1 | 6 | 1 | 2 | 4 | 0 | 4 | **18** |
| Meningococcal disease | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | **1** |
| Mumps | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **2** |
| Pertussis | 0 | 1 | 5 | 2 | 0 | 8 | 0 | 1 | **17** |
| Q fever (acute) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **1** |
| Q fever (chronic) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | **1** |
| Salmonella Typhi | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | **1** |
| Salmonellosis | 4 | 1 | 14 | 12 | 3 | 26 | 4 | 10 | **74** |
| Shigellosis | 0 | 0 | 4 | 0 | 0 | 14 | 0 | 0 | **18** |
| Spotted Fever Rickettsiosis | 2 | 3 | 1 | 4 | 2 | 4 | 3 | 1 | **20** |
| St. Louis encephalitis virus disease | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| Streptococcal pneumoniae (invasive) | 0 | 1 | 24 | 8 | 4 | 43 | 5 | 10 | **95** |
| Streptococcal, Group A (invasive) | 0 | 1 | 20 | 11 | 1 | 33 | 2 | 6 | **74** |
| Streptococcal, Group B (in newborn) | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | **4** |
| Syphilis | 0 | 1 | 12 | 4 | 2 | 81 | 1 | 3 | **104** |
| Tuberculosis | 0 | 1 | 3 | 3 | 2 | 16 | 0 | 4 | **29** |
| Varicella | 1 | 0 | 5 | 0 | 0 | 18 | 1 | 7 | **32** |
| Vibriosis | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| West Nile virus infection (WNV) | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| Yersiniosis | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | **4** |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| **Total** | **52** | **95** | **537** | **237** | **68** | **1109** | **100** | **329** | **2527** |

Table 4. YTD Cases of Notifiable Diseases in Hamilton County, June 2022

| Reportable Disease | June 2021 | YTD 2021 | June 2022 | YTD 2022 |
|---|---|---|---|---|
| Amebiasis | 0 | 0 | 0 | 2 |
| Babesiosis | 0 | 0 | 0 | 1 |
| Botulism (Infant) | 0 | 0 | 1 | 2 |
| Brucellosis | 0 | 0 | 1 | 1 |
| C. auris | 0 | 0 | 0 | 22 |
| C. auris - Investigation | 0 | 0 | 6 | 40 |
| CP-CRE | 2 | 11 | 1 | 9 |
| Campylobacteriosis | 7 | 21 | 13 | 51 |
| Coccidioidomycosis | 3 | 4 | 0 | 3 |
| Creutzfeldt-Jakob Disease | 0 | 3 | 0 | 3 |
| Cryptosporidiosis | 1 | 2 | 0 | 2 |
| Cyclosporiasis | 1 | 1 | 0 | 0 |
| E.Coli (shiga toxin producing) | 3 | 10 | 3 | 11 |
| Ehrlichiosis/Anaplasmosis | 0 | 1 | 0 | 0 |
| Giardiasis | 2 | 33 | 3 | 16 |
| Haemophilus influenzae (invasive) | 3 | 6 | 1 | 12 |
| Hepatitis A | 1 | 25 | 0 | 12 |
| Hepatitis B (acute) | 0 | 2 | 2 | 7 |
| Hepatitis B (chronic) | 20 | 149 | 23 | 124 |
| Hepatitis C (acute) | 0 | 6 | 1 | 3 |
| Hepatitis C (chronic) | 86 | 487 | 58 | 372 |
| Hepatitis C - Perinatal Infection | 1 | 4 | 0 | 0 |
| Influenza-associated hospitalization | 0 | 6 | 5 | 98 |
| Legionellosis | 6 | 11 | 4 | 8 |

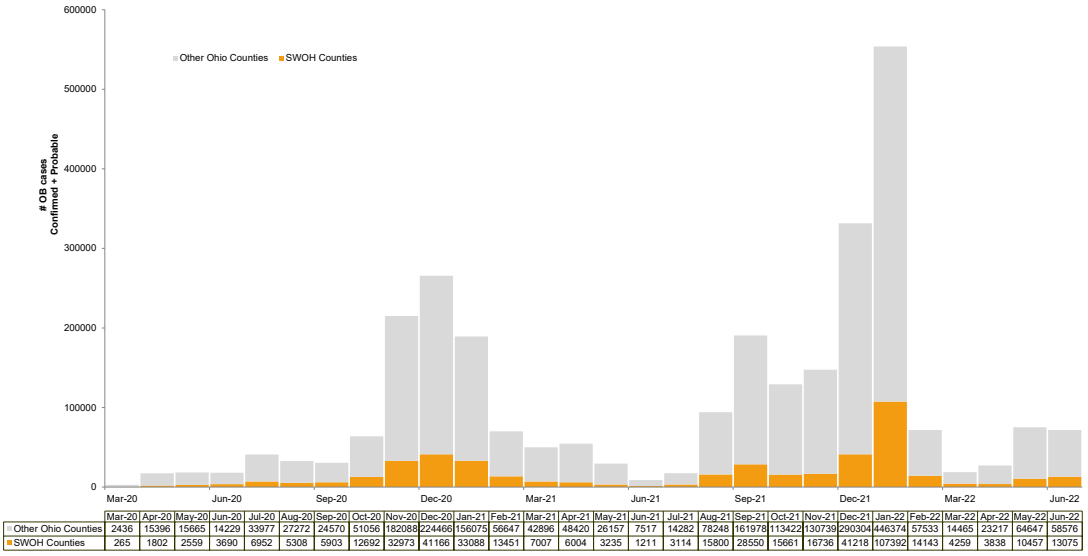
| Reportable Disease | June 2021 | YTD 2021 | June 2022 | YTD 2022 |
|---|---|---|---|---|
| Listeriosis | 2 | 3 | 0 | 0 |
| Lyme Disease | 4 | 22 | 15 | 24 |
| MIS-C associated with COVID-19 | 1 | 21 | 1 | 8 |
| Malaria | 0 | 5 | 0 | 0 |
| Meningitis (aseptic/viral) | 3 | 20 | 5 | 13 |
| Meningitis (bacterial) | 3 | 9 | 1 | 4 |
| Meningococcal disease | 0 | 1 | 0 | 1 |
| Mumps | 0 | 1 | 0 | 0 |
| Pertussis | 0 | 1 | 3 | 8 |
| Psittacosis | 0 | 1 | 0 | 0 |
| Q fever (acute) | 1 | 1 | 0 | 0 |
| Q fever (chronic) | 0 | 0 | 0 | 1 |
| Salmonellosis | 5 | 23 | 8 | 26 |
| Shigellosis | 1 | 7 | 2 | 14 |
| Spotted Fever Rickettsiosis | 1 | 7 | 3 | 4 |
| Staphylococcal aureus (VISA) | 0 | 1 | 0 | 0 |
| Streptococcal pneumoniae (invasive) | 1 | 25 | 7 | 43 |
| Streptococcal, Group A (invasive) | 2 | 24 | 13 | 33 |
| Streptococcal, Group B (in newborn) | 0 | 1 | 2 | 4 |
| Syphilis | 34 | 140 | 13 | 81 |
| Tuberculosis | 8 | 24 | 7 | 16 |
| Varicella | 2 | 13 | 2 | 18 |
| Vibriosis | 1 | 3 | 0 | 0 |
| Yersiniosis | 1 | 1 | 0 | 2 |

## SARS-CoV-2 (COVID-19) Outbreak

Chinese Health Officials identified the novel coronavirus, now known as SARS-CoV-2 or COVID-19, in December, 2019. Due to rapid global spread of disease, the World Health Organization declared COVID-19 a pandemic March 11, 2020. The United States identified its first case of COVID-19 January 21, 2020 and declared COVID-19 a national emergency March 13, 2020. Outbreak confirmed and probable cases increased rapidly between March and April, 2020. After remaining steady through May and June, 2020, Ohio experienced a spike in confirmed and probable cases in July, 2020. After a decrease in cases through August and September, 2020, Ohio experienced a significant spike in November and December, 2020. Cases began to decrease in January, 2021 and continued to decline through June, 2021, with the exception of a slight increase in cases in April, 2021. From July through September 2021 Ohio experienced an increase in confirmed and probable cases. After a decline in October 2021, Ohio experienced a rapid increase from November, 2021 through January, 2022. In April and May, 2022 Ohio experienced increasing cases. The Southwest Ohio (SWOH) counties recognize the same pattern of confirmed and probable cases as Ohio through May 2022 with the exception of April 2021, when SWOH continued to experience a decline in cases. In June 2022, Ohio cases decreased while SWOH cases increased. As of June 29, 2022 the SWOH counties account for 451,549 confirmed and probable cases (Figure 2).

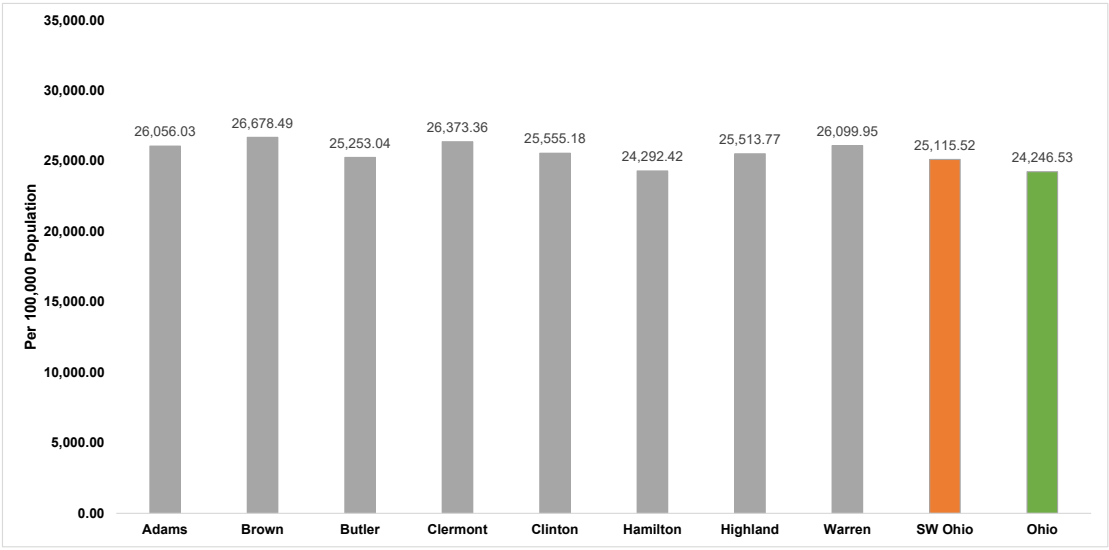
Overall, the SWOH rate is higher than the Ohio rate (Figure 3). The SWOH region accounts for 15.9 percent of Ohio cases. Brown County has the highest rate of the 8 SWOH counties, followed by Clermont County and Warren County. Currently all eight counties in the SWOH region have rates that are higher than the Ohio rate.

Figure 2. Number of Confirmed and Probable Cases of COVID-19 in Ohio and Southwest Ohio Counties, March 9, 2020 - June 29, 2022




| | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 | Jan-21 | Feb-21 | Mar-21 | Apr-21 | May-21 | Jun-21 | Jul-21 | Aug-21 | Sep-21 | Oct-21 | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Apr-22 | May-22 | Jun-22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Ohio Counties | 2436 | 15396 | 15665 | 14229 | 33977 | 27272 | 24570 | 51056 | 182088 | 224466 | 156075 | 56647 | 42896 | 48420 | 26157 | 7517 | 14282 | 78248 | 161978 | 113422 | 130739 | 290304 | 446374 | 57533 | 14465 | 23217 | 64647 | 58576 |
| SWOH Counties | 265 | 1802 | 2559 | 3690 | 6952 | 5308 | 5903 | 12692 | 32973 | 41166 | 33088 | 13451 | 7007 | 6004 | 3235 | 1211 | 3114 | 15800 | 28550 | 15661 | 16736 | 41218 | 107392 | 14143 | 4259 | 3838 | 10457 | 13075 |

Figure 3. Rate of Confirmed and Probable Cases of COVID-19 in Ohio and Southwest Ohio Counties, March 9, 2020 - June 29, 2022




NOTES: This data is provisional and subject to change when additional information is gained. Outbreak confirmed positive cases between March 9, 2020 and June 29, 2022 were used for analysis. Cases were selected based on address at diagnosis. Confirmed and probable cases determined by date reported to local health department.
Source: Ohio Department of Health, Ohio Disease Reporting System. Data reported as of June 30, 2022. Outbreak confirmed and probable cases have to meet the criteria set by ODH. Detailed information regarding the statewide COVID-19 outbreak is available at: https://coronavirus.ohio.gov/wps/portal/gov/covid-19/home

Figure 4. Notifiable Communicable Diseases in Southwest Ohio by Disease Category as Reported in ODRS, June 2021 - June 2022*

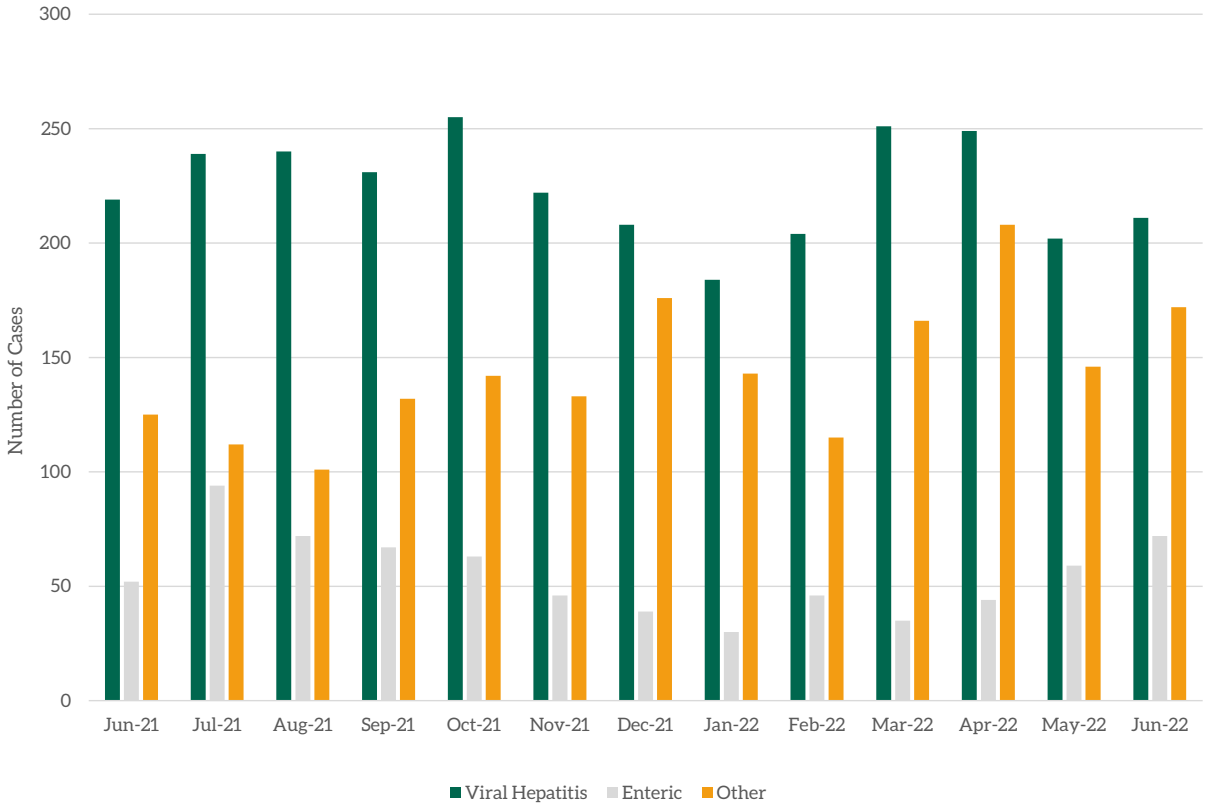
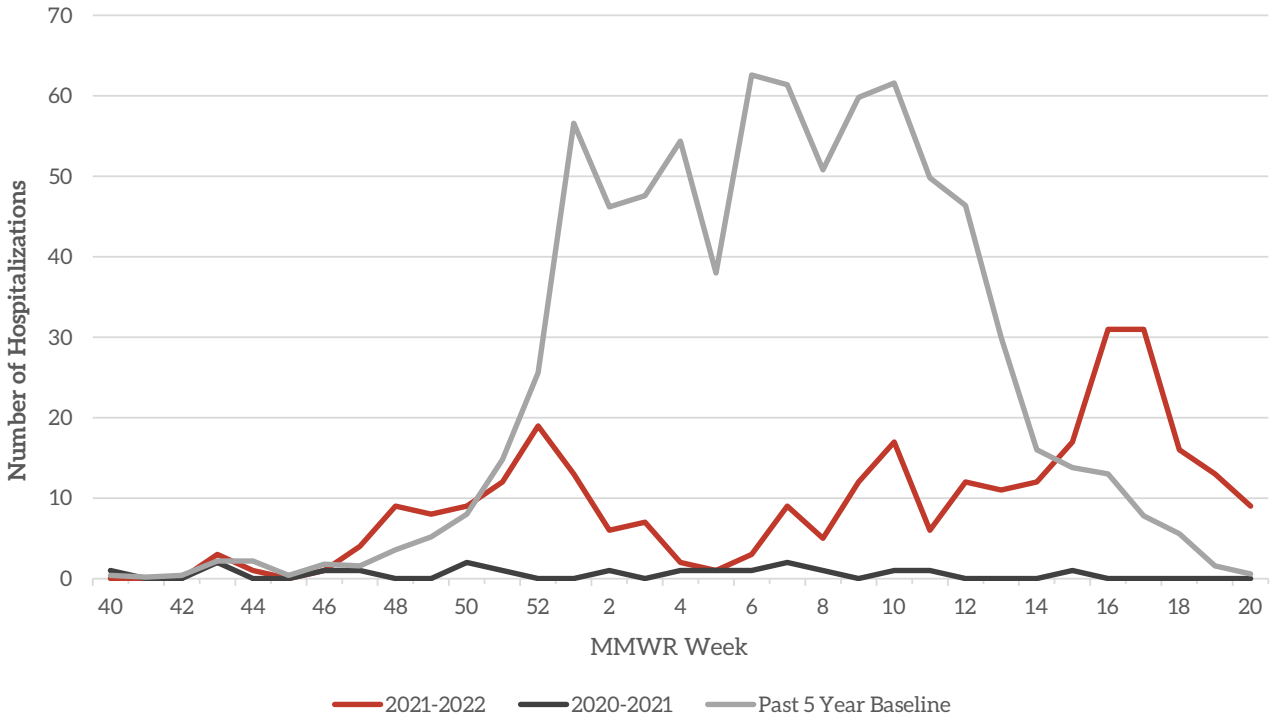



Figure 5. Confirmed Influenza-associated Hospitalizations, 2020-2021 Season - 2021-2022 Season†




*Suspected, Probable and Confirmed cases included in the counts. Cases counted by month reported to the local health department. STIs (i.e., Chlamydia, Gonorrhea, and Syphilis) are excluded from the analysis. Diseases are assigned to mutually exclusive categories, this means that disease cases are NOT included in more than one category shown in Figure 4. All cases are assigned to one of the categories.

†Influenza-associated hospitalizations are reported to ODH from local health departments and hospitals by direct entry into the Ohio Disease Reporting System (ODRS). Hospitalizations can be used as an indicator of the severity of illness during a particular influenza season. This condition became reportable in 2009. The 2020-2021 influenza season has been omitted from the five-year baseline average due to abnormal counts reported during the COVID-19 pandemic. A 5-year average including data from the 2015-2016 season through the 2019-2020 season is shown. The 2020-2021 season is plotted for reference.