

Monthly Communicable Disease Surveillance Report

January 2022

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PREVENT. PROMOTE. PROTECT.



NOTIFIABLE COMMUNICABLE DISEASES

Hamilton County Public Health (HCPH) Jurisdiction

Number of Communicable Diseases Reported: 76

Most frequently reported communicable diseases:

- Chronic hepatitis C (n=30)
- Influenza-associated hospitalization (n=8)
- Streptococcal pneumoniae (n=7)
- Chronic hepatitis B (n=5)
- Campylobacteriosis (n=4)

Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 357

Most frequently reported communicable diseases:

- Chronic hepatitis C (n=138)
- Chronic hepatitis B (n=36)
- Influenza-associated hospitalization (n=29)
- Streptococcal pneumoniae (n=24)
- Campylobacteriosis (n=15)

Summary

The overall rates of reported communicable diseases for HCPH, SWOH, and Ohio changed in January by -5%, -13%, and -5% respectively (Figure 1). These rates are pro-rated to 30 days so they can be compared accurately. The SWOH rate (19.7) was the highest of the three rates, followed by the Ohio rate (18.7) and the HCPH rate (15.4), which was the lowest (Table 1).

Chronic hepatitis C was the most commonly reported communicable disease across SWOH, with chronic hepatitis B and Influenza-associated hospitalization 2nd and 3rd respectively (Table 2). Chronic hepatitis (Hepatitis C and Hepatitis B combined) comprised 48.7% of the total communicable diseases reported during January. Southwest Ohio is currently on pace to have a 25.1% decrease in hepatitis cases over the previous year's average number of cases (225). The rate of chronic hepatitis within Hamilton County for January was 9.5 per 100,000 residents. This rate was 5% lower than the SWOH rate of 10.0 per 100,000 residents.

Influenza-associated hospitalization was the third most frequently reported disease in SWOH (Table 2). Influenza-associated hospitalization cases accounted for 8.0% of the total communicable diseases reported during January. The number of cases of Influenza-associated hospitalization reported for SWOH in January (29) was lower than the number of cases in the previous month (62). The rate of Influenza-associated hospitalization within Hamilton County for January was 1.5 per 100,000 residents. This rate was lower than the SWOH rate of 1.7 per 100,000 residents.

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

Location	Number of Reported Cases	Rate per 100,000	Rate Ratio [†]	Confidence Interval (99%) [‡]
HCPH	76	15.96	0.83	0.61 - 1.12
SWOH	357	20.35	1.05	0.91 - 1.22
Ohio	2,233	19.29	.	.-.

Streptococcal pneumoniae within Hamilton County for January was 1.1 per 100,000 residents. This rate was lower than the SWOH rate of 1.4 per 100,000 residents.

Streptococcal pneumoniae was the fourth most frequently reported disease in SWOH (Table 2). Streptococcal pneumoniae cases accounted for 6.7% of the total communicable diseases reported during January. The number of cases of Streptococcal pneumoniae reported for SWOH in January (24) was higher than the number of cases reported in the previous month (13). The rate of Streptococcal pneumoniae within Hamilton County for January was 1.1 per 100,000 residents. This rate was lower than the SWOH rate of 1.4 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 January 1-31, 2022. Data was accessed from the Ohio Disease Reporting System on 2/3/2022.

[†]Ratio of local rate to the Ohio rate.

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

Figure 1. 30-Day Rates of Reported Communicable Diseases in Ohio, Southwest Ohio, and Hamilton County Public Health Jurisdiction, October 2021 - January 2022

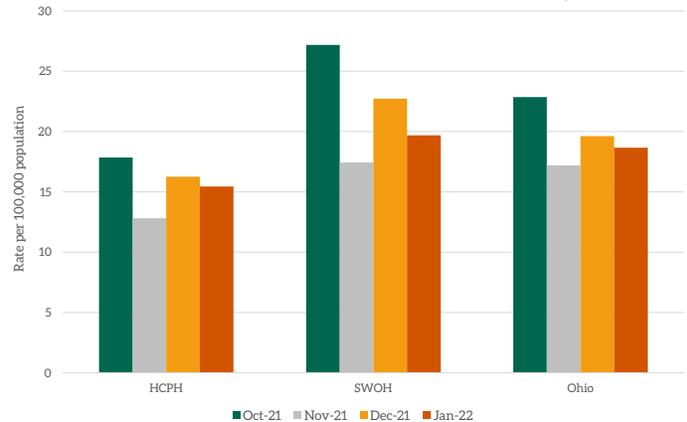


Table 2. Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, January 2022

Reportable Condition	County										Total
	Adams	Brown	Butler	Clermont	Clinton	Hamilton	Highland	Warren			
Botulism (Infant)	1	.	.	.	.	1
C. auris	11	.	.	.	.	11
C. auris - Investigation	7	.	.	.	.	7
CP-CRE	.	.	1	.	.	3	.	.	.	.	4
Campylobacteriosis	.	.	2	3	1	5	.	4	.	.	15
Coccidioidomycosis	.	.	1	.	.	.	1	.	.	.	2
Creutzfeldt-Jakob Disease	1	.	.	.	.	1
E.Coli (shiga toxin producing)	.	.	.	1	.	.	.	2	.	.	3
Giardiasis	1	.	.	.	.	1
Haemophilus influenzae (invasive)	.	.	.	1	.	2	.	.	.	.	3
Hemolytic uremic syndrome (HUS)	1	.	.	1
Hepatitis A	1	.	.	.	.	3	.	3	.	.	7
Hepatitis B (acute)	.	.	.	2	1	3	.	.	.	.	6
Hepatitis B (chronic)	2	1	11	1	2	12	2	5	.	.	36
Hepatitis C (acute)	1	1	.	.	.	2
Hepatitis C (chronic)	1	8	27	13	3	64	6	16	.	.	138
Hepatitis E	.	.	1	.	.	.	.	.	.	.	1
Influenza-associated hospitalization	.	2	5	6	.	12	1	3	.	.	29
Legionellosis	.	.	1	1	.	.	.	1	.	.	3
Lyme Disease	1	.	.	2	.	4	.	2	.	.	9
MIS-C associated with COVID-19	5	.	2	.	.	7
Meningitis (aseptic/viral)	.	.	.	2	.	.	.	.	.	.	2
Meningitis (bacterial)	.	.	1	.	.	.	.	.	.	.	1
Meningococcal disease	1	.	.	.	.	1
Pertussis	.	.	1	.	.	.	.	.	.	.	1
Salmonellosis	1	.	3	.	1	1	.	.	.	.	6
Shigellosis	.	.	1	.	.	2	.	.	.	.	3
Spotted Fever Rickettsiosis	.	1	.	.	.	.	1	1	.	.	3
St. Louis encephalitis virus disease	.	.	1	.	.	.	.	.	.	.	1

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

Reportable Condition	County										Total	
	Adams	Brown	Butler	Clermont	Clinton	Hamilton	Highland	Warren				
Botulism (Infant)	0	0	0	0	0	1	0	0	0	0	1	1
C. auris	0	0	0	0	0	11	0	0	0	0	11	11
C. auris - Investigation	0	0	0	0	0	7	0	0	0	0	7	7
CP-CRE	0	0	1	0	1	7	0	0	0	1	10	10
Campylobacteriosis	0	0	2	3	1	5	0	0	0	4	15	15
Chikungunya virus	0	0	1	0	0	0	0	0	0	0	1	1
Coccidioidomycosis	0	0	1	0	0	0	1	0	0	0	2	2
Creutzfeldt-Jakob Disease	0	0	0	0	0	1	0	0	0	0	1	1
E.Coli (shiga toxin producing)	0	0	0	1	0	0	0	0	0	2	3	3
Giardiasis	0	0	0	0	0	1	0	0	0	0	1	1
Haemophilus influenzae (invasive)	0	0	0	1	0	2	0	0	0	0	3	3
Hemolytic uremic syndrome (HUS)	0	0	0	0	0	0	0	0	0	1	1	1
Hepatitis A	1	0	0	0	0	3	0	0	0	3	7	7
Hepatitis B (acute)	0	0	0	2	1	3	0	0	0	0	6	6
Hepatitis B (chronic)	2	1	11	1	2	12	2	5	5	36	36	36
Hepatitis C (acute)	0	0	0	0	0	1	1	0	0	2	2	2
Hepatitis C (chronic)	1	8	27	13	3	64	6	16	16	138	138	138
Hepatitis E	0	0	1	0	0	0	0	0	0	1	1	1
Influenza-associated hospitalization	0	2	5	6	0	12	1	3	3	29	29	29
Legionellosis	0	0	1	1	0	0	0	1	0	3	3	3
Lyme Disease	1	0	0	2	0	4	0	2	2	9	9	9
MIS-C associated with COVID-19	0	0	0	0	0	5	0	2	2	7	7	7
Meningitis (aseptic/viral)	0	0	0	2	0	0	0	0	0	2	2	2
Meningitis (bacterial)	0	0	1	0	0	0	0	0	0	1	1	1
Meningococcal disease	0	0	0	0	0	1	0	0	0	1	1	1
Pertussis	0	0	1	0	0	0	0	0	0	1	1	1
Salmonellosis	1	0	3	0	1	1	0	0	0	6	6	6
Shigellosis	0	0	1	0	0	2	0	0	0	3	3	3
Spotted Fever Rickettsiosis	0	1	0	0	0	0	1	1	1	3	3	3

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, cases increased again from November 2021 through January 2022. The Southwest Ohio (SWOH) counties recognize the same pattern of confirmed and probable cases as Ohio through January 2021 with the exception of April 2021, when SWOH continued to experience a decline in cases. As of January 31, 2022 the SWOH counties account for 406,163 confirmed and probable cases (Figure 2).

Overall, the rate of confirmed and probable outbreak cases in SWOH is higher than the Ohio rate (Figure 3). The SWOH region accounts for 15.8 percent of Ohio cases. The Brown County rate is the highest of the 8 SWOH counties, followed by Clermont County and Highland County. Currently the Hamilton County rate is less than that of Ohio, while all other 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 - January 31, 2022

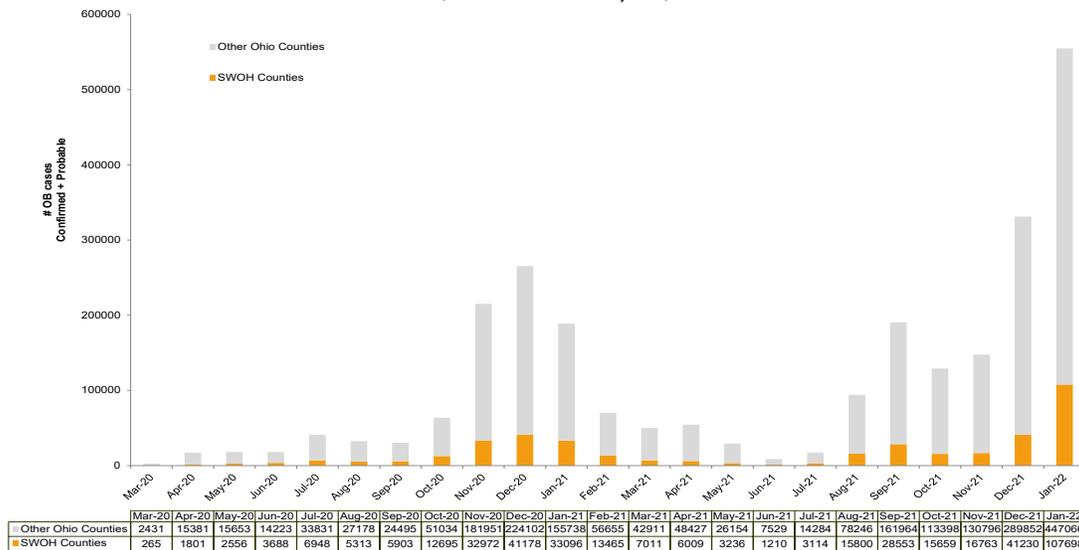
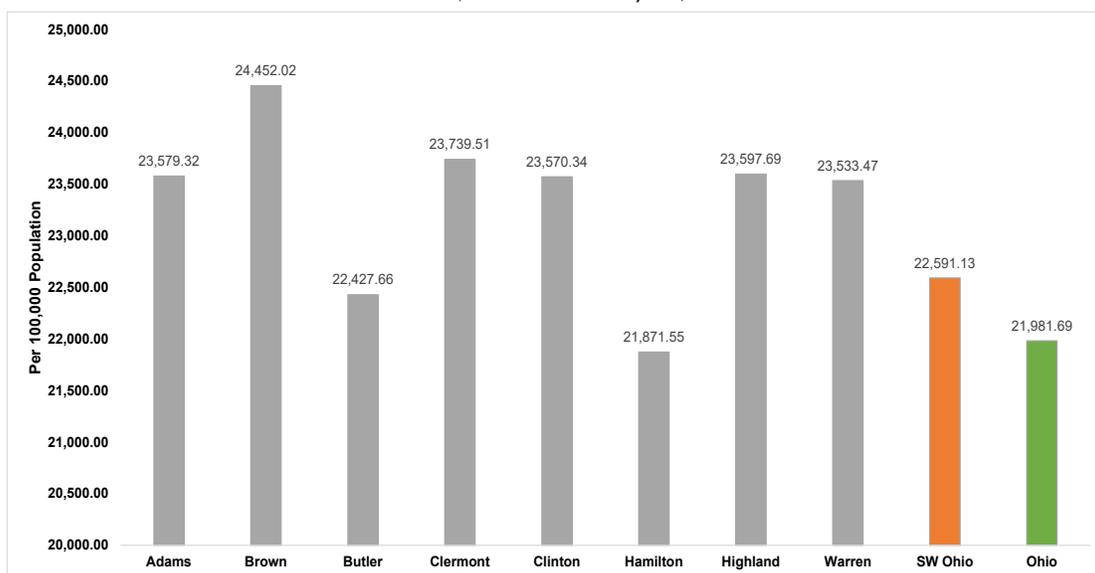


Figure 3. Rate of Confirmed and Probable Cases of COVID-19 in Ohio and Southwest Ohio Counties, March 9, 2020 - January 31, 2022



NOTES: This data is provisional and subject to change when additional information is gained. Outbreak confirmed positive cases between March 9, 2020 and January 31, 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 February 4, 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, January 2021 - January 2022*

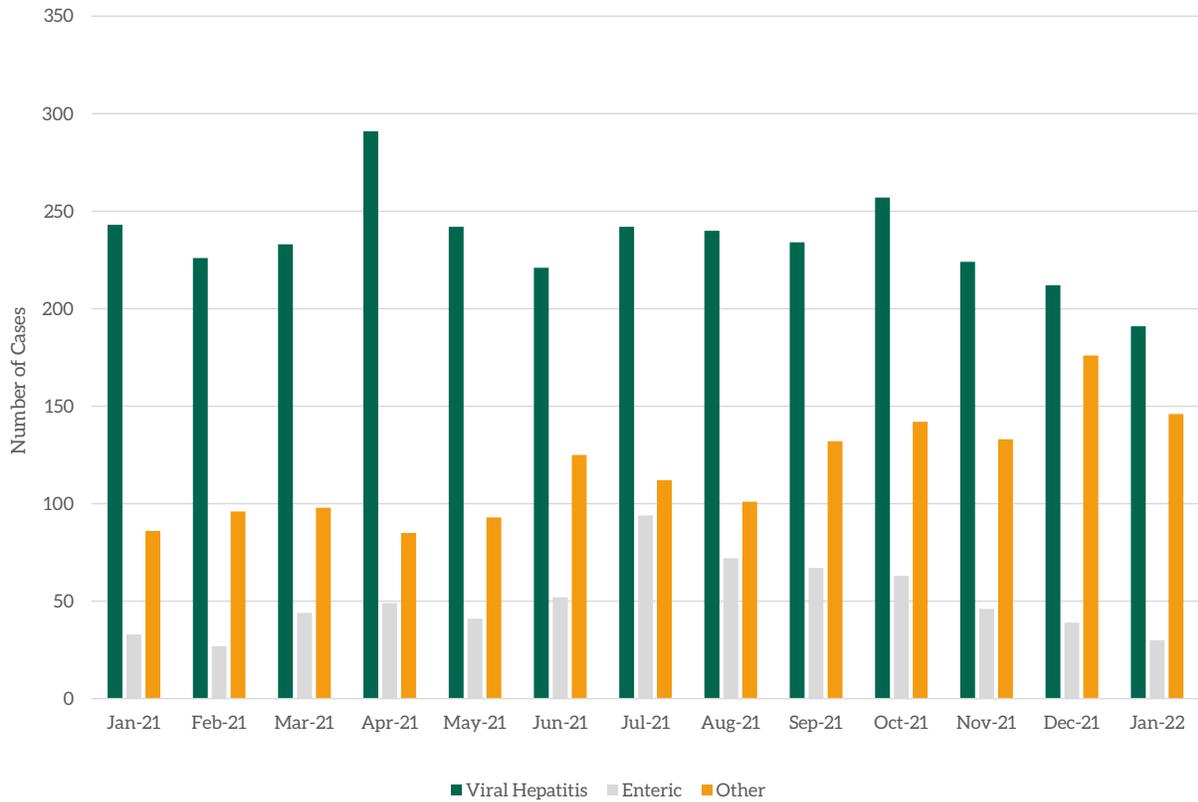
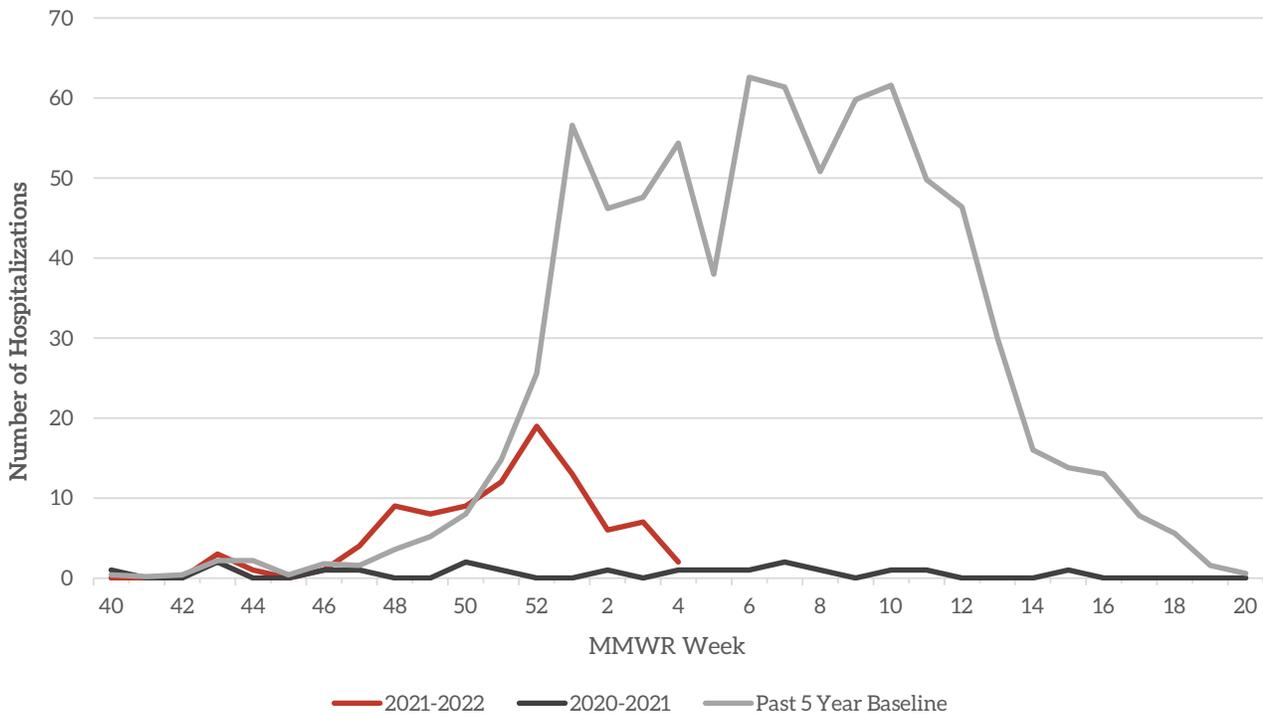


Figure 5. Confirmed Influenza-associated Hospitalizations, 2020-2021 Season - 2021-2022 Season†



*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.