

Monthly Communicable Disease Surveillance Report

April 2021

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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: 102

Most frequently reported communicable diseases:

- Chronic hepatitis C (n=43)
- Chronic hepatitis B (n=20)
- Giardiasis (n=7)
- Syphilis (n=4)
- Tuberculosis (n=4)

Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 372

Most frequently reported communicable diseases:

- Chronic hepatitis C (n=190)
- Chronic hepatitis B (n=54)
- Giardiasis (n=14)
- Hepatitis A (n=13)
- Salmonellosis (n=11)

Summary

The overall rates of reported communicable diseases for HCPH, SWOH, and Ohio changed in April by 17%, 2%, and -7% respectively (Figure 1). These rates are pro-rated to 30 days so they can be compared accurately. The HCPH rate (21.4) was the highest of the three rates, and the Ohio rate (17.9) was the lowest. The HCPH rate and SWOH rate (21.2) were both higher than the Ohio rate. (Table 1).

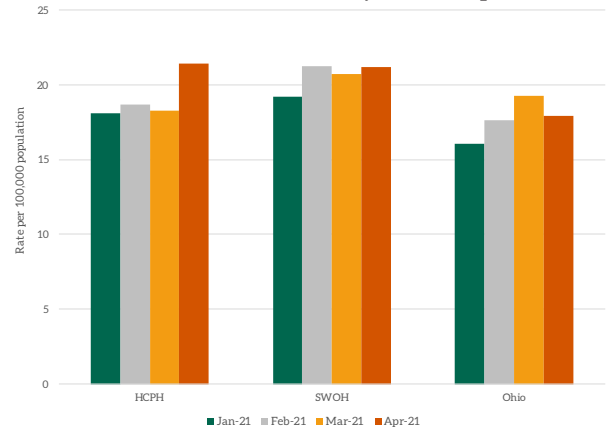
Chronic hepatitis C was the most commonly reported communicable disease across SWOH, with chronic hepatitis B and Hepatitis A 2nd and 4th respectively (Table 2). Chronic hepatitis (Hepatitis C and Hepatitis B combined) comprised 65.6% of the total communicable diseases reported during April. Southwest Ohio is currently on pace to have 8.1% more hepatitis cases than the previous year's average number of cases (226). The rate of chronic hepatitis within Hamilton County for April was 12.8 per 100,000 residents. This rate was 8% lower than the SWOH rate of 14.0 per 100,000 residents.

Giardiasis was the third most frequently reported disease in SWOH (Table 2). Giardiasis cases accounted for 3.8% of the total communicable diseases reported during April. The number of cases of Giardiasis reported for SWOH in April (14) was higher than the number of cases in the previous month (10). The rate of Giardiasis within Hamilton County for April was 1.4 per 100,000 residents. This rate was higher than the SWOH rate of 0.8 per 100,000 residents.

Table 1. Comparison of the Reported Cases of Notifiable Communicable Diseases by Location, April 2021

Location	Number of Reported Cases	Rate per 100,000	Rate Ratio†	Confidence Interval (99%)‡
HCPH	102	21.42	1.19	0.92 - 1.55
SWOH	372	21.20	1.18	1.02 - 1.37
Ohio	2,075	17.92	.	.-.

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



Hepatitis A was the fourth most frequently reported disease in SWOH (Table 2). Hepatitis A cases accounted for 3.5% of the total communicable diseases reported during April. The number of cases of Hepatitis A reported for SWOH in April (13) was lower than the number of cases reported in the previous month (18). The rate of Hepatitis A within Hamilton County for April was 0.6 per 100,000 residents. This rate was lower than the SWOH rate of 0.7 per 100,000 residents.

NOTES: Data are provisional and are subject to change as data becomes finalized. Suspected, probably and confirmed cases are included in counts except for arboviral encephalitis and Zika virus diseases, of which only probably 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 April 1-30, 2021. Data was access from the Ohio Disease Reporting System on 5/4/2021.

†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, April 2021

Reportable Condition	County										Total
	Adams	Brown	Butler	Clermont	Clinton	Hamilton	Highland	Warren			
Brucellosis	.	.	1	.	.	.	.	.	.	.	1
CP-CRE	.	.	.	1	.	.	.	.	.	.	1
Campylobacteriosis	.	1	2	2	1	4	.	.	.	.	10
Creutzfeldt-Jakob Disease	1	.	.	.	.	1
Cryptosporidiosis	.	.	1	.	.	.	.	.	.	.	1
E.Coli (shiga toxin producing)	.	.	1	.	.	3	.	.	.	.	4
Giardiasis	.	.	1	.	.	11	.	2	.	.	14
Haemophilus influenzae (invasive)	.	.	1	.	.	.	.	.	.	.	1
Hemolytic uremic syndrome	.	.	1	.	.	.	.	.	.	.	1
Hepatitis A	.	2	4	.	.	5	.	2	.	.	13
Hepatitis B (acute)	.	.	1	.	.	1	.	.	.	.	2
Hepatitis B (chronic)	1	2	13	2	.	30	1	5	.	.	54
Hepatitis C (acute)	1	.	.	.	.	1
Hepatitis C (chronic)	8	9	44	24	8	73	4	20	.	.	190
Hepatitis C - Perinatal Infection	.	.	1	.	1	.	.	.	.	.	2
Influenza-associated hospitalization	1	.	1	.	1	2
Legionellosis	.	.	1	1	.	2	.	.	.	.	4
Lyme Disease	1	.	1	2	.	2	.	1	.	.	7
MIS-C associated with COVID-19	.	.	2	1	.	1	.	1	.	.	5
Meningitis (aseptic/viral)	2	.	.	.	.	2
Meningitis (bacterial)	1	.	.	.	.	1
Q fever (acute)	1	.	.	.	.	.	.	.	.	.	1
Salmonellosis	1	.	.	4	.	4	1	1	.	.	11
Shigellosis	.	.	1	.	.	2	.	.	.	.	3
Streptococcal pneumoniae (invasive)	.	.	1	2	.	8	.	.	.	.	11
Streptococcal, Group A (invasive)	.	.	5	.	1	3	.	.	.	.	9
Streptococcal, Group B (in newborn)	1	.	.	.	.	1
Syphilis	7	.	.	.	.	7
Tuberculosis	.	1	1	.	.	5	.	.	.	.	7
Varicella	.	.	.	1	.	3	.	.	.	.	4
Vibriosis	1	.	.	.	.	1
Total	12	15	83	40	11	172	6	33	6	372	

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, January - April 2021

Reportable Condition	County										Total
	Adams	Brown	Butler	Clermont	Clinton	Hamilton	Highland	Warren			
Amebiasis	0	0	0	1	0	0	0	0	0	0	1
Babesiosis	0	0	1	0	0	1	0	0	0	0	2
Brucellosis	0	0	2	0	0	0	0	0	0	0	2
CP-CRE	1	0	6	2	0	7	0	0	2	2	18
Campylobacteriosis	1	1	4	10	2	11	3	7	7	39	
Coccidioidomycosis	1	1	0	1	0	1	0	3	3	7	
Creutzfeldt-Jakob Disease	0	0	1	0	0	2	0	0	0	3	
Cryptosporidiosis	0	0	1	2	0	1	0	0	0	4	
Dengue	0	0	1	0	0	0	0	0	0	1	
E.Coli (shiga toxin producing)	0	0	3	0	0	5	0	0	0	8	
Giardiasis	0	0	2	9	0	27	2	5	5	45	
Haemophilus influenzae (invasive)	0	0	1	0	0	3	0	0	0	4	
Hemolytic uremic syndrome	0	0	1	0	0	0	0	0	0	1	
Hepatitis A	1	3	8	0	0	22	2	8	8	44	
Hepatitis B (acute)	0	0	2	2	0	2	0	0	0	6	
Hepatitis B (chronic)	3	6	42	6	5	105	6	23	23	196	
Hepatitis C (acute)	0	0	1	0	0	4	0	0	0	5	
Hepatitis C (chronic)	23	36	153	79	28	302	25	62	62	708	
Hepatitis C - Perinatal Infection	0	0	1	1	1	3	0	0	0	6	
Influenza-associated hospitalization	1	0	3	1	0	6	0	2	2	13	
Legionellosis	2	0	1	3	1	4	0	1	1	12	
Lyme Disease	2	0	2	5	0	14	0	2	2	25	
MIS-C associated with COVID-19	0	1	6	6	0	18	0	10	10	41	
Malaria	0	0	0	0	0	5	0	0	0	5	
Meningitis (aseptic/viral)	0	0	2	3	0	12	0	3	3	20	
Meningitis (bacterial)	0	0	1	0	1	5	0	1	1	8	
Meningococcal disease	1	0	0	1	0	1	0	0	0	3	
Pertussis	0	0	1	1	0	1	0	0	0	3	
Psittacosis	0	0	0	0	0	1	0	0	0	1	

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, January - April 2021, Continued

Reportable Condition	County										Total
	Adams	Brown	Butler	Clermont	Clinton	Hamilton	Highland	Warren	Warren	Warren	
Q fever (acute)	1	0	0	0	0	0	0	0	0	0	1
Salmonellosis	1	2	1	10	1	14	3	2	2	2	34
Shigellosis	0	0	1	1	0	6	0	1	1	1	9
Spotted Fever Rickettsiosis	0	0	0	0	0	4	0	0	0	0	4
Staphylococcal aureus (VISA)	0	0	0	0	0	1	0	0	0	0	1
Streptococcal pneumoniae (invasive)	0	1	8	4	3	16	0	5	5	5	37
Streptococcal, Group A (invasive)	0	0	13	2	1	20	0	4	4	4	40
Streptococcal, Group B (in newborn)	0	0	0	0	0	1	1	0	0	0	2
Syphilis	2	0	3	0	1	28	0	1	1	1	35
Tuberculosis	0	1	3	0	0	16	1	1	1	1	22
Varicella	0	2	1	1	0	9	0	2	2	2	15
Vibriosis	0	0	1	0	0	2	0	1	1	1	4
West Nile virus infection	0	0	0	0	0	1	0	0	0	0	1
Yersiniosis	0	0	0	0	0	0	0	2	2	2	2
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Total	40	54	277	151	44	681	43	148	148	148	1438

Table 4. YTD Cases of Notifiable Diseases in Hamilton County, January - April 2021

Reportable Disease	April 2020	YTD 2020	April 2021	YTD 2021	Reportable Disease	April 2020	YTD 2020	April 2021	YTD 2021
Babesiosis	0	0	0	1	MIS-C associated with COVID-19	0	0	1	18
Brucellosis	0	1	0	0	Malaria	0	1	0	5
CP-CRE	0	5	0	5	Meningitis (aseptic/viral)	4	15	2	12
Campylobacteriosis	5	26	4	11	Meningitis (bacterial)	3	8	1	5
Coccidioidomycosis	0	3	0	1	Meningococcal disease	0	0	0	1
Creutzfeldt-Jakob Disease	0	0	1	2	Pertussis	5	69	0	1
Cryptosporidiosis	0	6	0	1	Psittacosis	0	1	0	1
Dengue	0	1	0	0	Salmonellosis	3	14	4	14
E.Coli (shiga toxin producing)	1	8	3	5	Shigellosis	0	7	2	6
Giardiasis	2	10	11	27	Spotted Fever Rickettsiosis	0	0	0	4
Haemophilus influenzae (invasive)	2	16	0	3	Staphylococcal aureus (VISA)	0	0	0	1
Hepatitis A	1	34	5	22	Streptococcal pneumoniae (invasive)	5	47	8	16
Hepatitis B (acute)	2	6	1	2	Streptococcal, Group A (invasive)	12	35	3	20
Hepatitis B (chronic)	9	87	30	105	Streptococcal, Group B (in newborn)	0	0	1	1
Hepatitis C (acute)	0	10	1	4	Syphilis	5	58	7	28
Hepatitis C (chronic)	54	270	73	302	Tuberculosis	1	7	5	16
Hepatitis C - Perinatal Infection	0	1	0	3	Varicella	1	6	3	9
Influenza-associated hospitalization	0	699	1	6	Vibriosis	0	0	1	2
Legionellosis	0	8	2	4	Yersiniosis	0	1	0	0
Lyme Disease	1	8	2	14					

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. Cases remained steady through May and June, 2020 before experiencing a spike in July, 2020. After a slight decrease in cases through August and September, 2020, Ohio experienced an increase in confirmed and probable cases in October 2020 followed by a significant spike in November 2020 and December 2020. Cases began to decrease in January 2021 and declined significantly through February, March, and April 2021. The Southwest Ohio (SWOH) counties recognize the same pattern of confirmed and probable cases as Ohio. As of April 30, 2021, the SWOH counties account for 172,118 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 16.2 percent of Ohio cases. The Warren County rate is the highest of the 8 SWOH counties, followed by Butler County and Clermont County. Currently the Warren County, Butler County, Clermont County, and Hamilton County rates are greater than that of Ohio, while the other SWOH counties' rates are less than that of Ohio.

Figure 2. Number of Confirmed and Probable Cases of COVID-19 in Ohio and Southwest Ohio Counties, March 9, 2020 - April 30, 2021

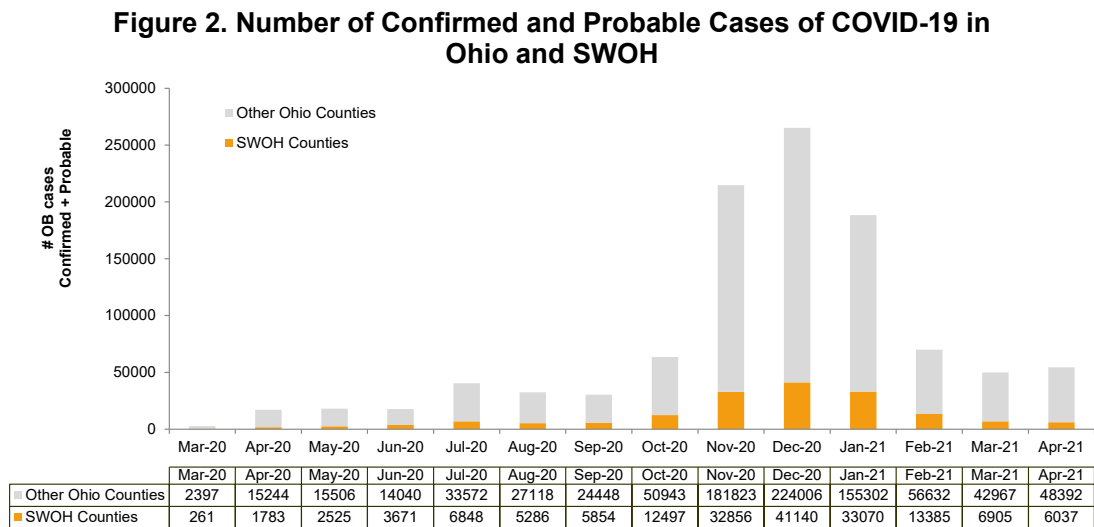
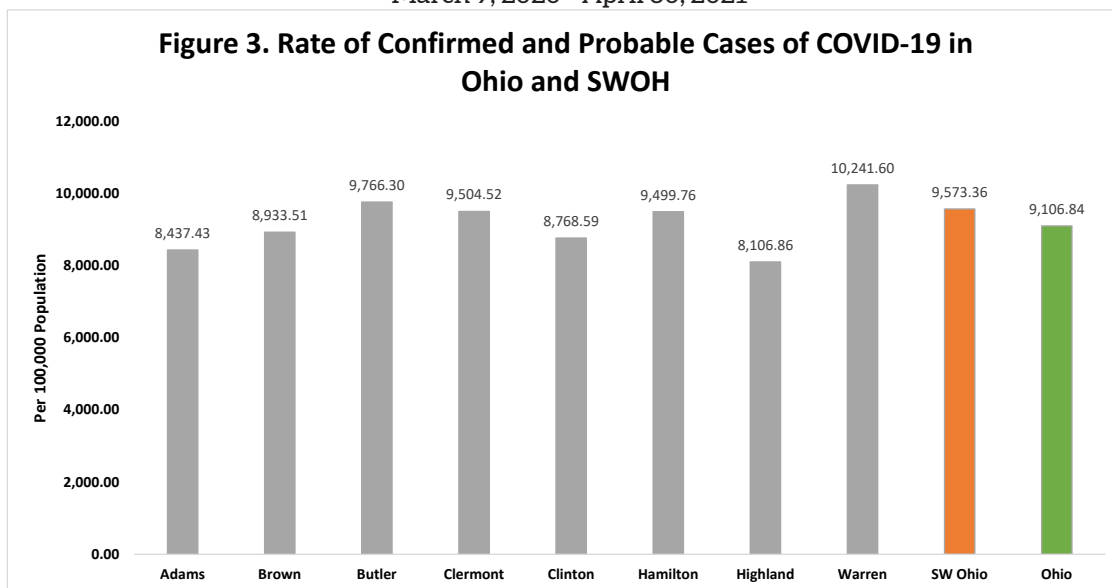


Figure 3. Rate of Confirmed and Probable Cases of COVID-19 in Ohio and Southwest Ohio Counties, March 9, 2020 - April 30, 2021



NOTES: This data is provisional and subject to change when additional information is gained. Outbreak confirmed positive cases between March 9, 2020 and April 30, 2021 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 April 30, 2021. 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, April 2020 - April 2021*

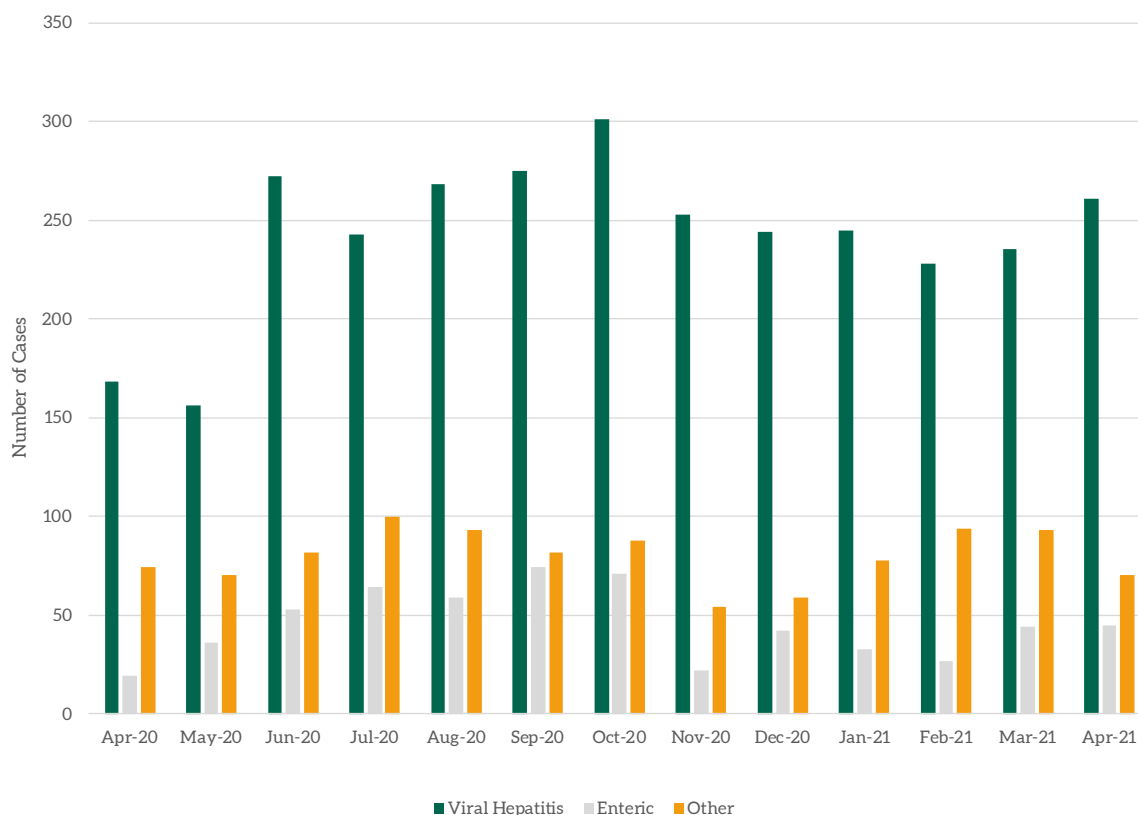


Table 5. Tuberculosis Clinical Services, Hamilton County Public Health, April 2021†

TB Clinical Services	April 2020	YTD 2020	April 2021	YTD 2021
# New Confirmed TB Cases	2	10	3	10
# New TB Suspected Cases	1	24	2	8
# New Patients	3	108	11	36
# TB Skin Tests Done	28	587	41	153
# TB Readings	36	543	33	132
# Positive Skin Tests	4	31	1	3
% Positive Skin Tests	11.1%	5.7%	3.0%	2.3%
# MD Clinic Visits	17	328	23	83
# LTBI Nurse Visits	27	261	17	56
# Nurse Clinic Visits	35	402	32	70
# Chest X-Rays Done	18	228	20	75
# Prescriptions Filled	86	820	67	254
# Direct Observed Therapies ♦	388	3770	262	630

*Suspected, Probably 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.

†Figure reflects service statistics as of 4/28/2021

^This data was not available for the month at the time of this report.

♦This is a new metric that started on June 2018, therefore historical data is not available