

Monthly Communicable Disease Surveillance Report

May 2024

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NOTIFIABLE COMMUNICABLE DISEASES

Hamilton County Public Health (HCPH) Jurisdiction

Number of Communicable Diseases Reported: 74
 Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=17)
- Lyme Disease (n=8)
- Pertussis (n=7)
- Salmonellosis (n=5)
- Chronic Hepatitis B (n=4)

Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 400
 Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=110)
- Chronic Hepatitis B (n=38)
- Lyme Disease (n=35)
- Pertussis (n=33)
- Streptococcal, Group A (Invasive) (n=24)

Summary

In May, the overall rates of reported communicable diseases for HCPH decreased by 25%. SWOH and Ohio decreased by 13% and 17% respectively. The Ohio rate (23.6) was the highest of the three rates, followed by the SWOH rate (22.8) and the HCPH rate (15.5) (Table 1). These rates are pro-rated to 30 days so they can be compared accurately.

Chronic hepatitis C was the most commonly reported communicable disease across SWOH, with chronic hepatitis B and Lyme disease the 2nd- and 3rd-most reported, respectively (Table 2). Chronic hepatitis B and C cases accounted for 37% of the total communicable diseases reported during May. Southwest Ohio is currently on pace for a 3.6% decrease in chronic hepatitis over the previous year's average of 154 cases. The number of chronic hepatitis cases reported for SWOH in May (148) was lower than the number of cases reported in the previous month (161). The rate of chronic hepatitis within Hamilton County for May was 9.0 per 100,000 residents. This rate was higher than the SWOH rate of 8.5 per 100,000 residents.

Lyme disease was the second most frequently reported disease in SWOH, accounting for 8.8% of the total communicable diseases reported during May. The number of Lyme disease cases reported during May (35) was higher than the number of cases reported in the previous month (16). The rate of Lyme disease cases within Hamilton County for May was 1.6 per 100,000 residents. This rate was lower than the SWOH rate of 2.0 per 100,000 residents.

Table 1. Comparison of the Reported Cases of Notifiable Communicable Diseases by Location, May 2024

Location	Number of Reported Cases	Rate per 100,000	Rate Ratio†	Confidence Interval (99%)‡
HCPH	74	15.54	0.66	0.49 - 0.89
SW OHIO	400	22.80	0.96	0.84 - 1.11
OHIO	2,737	23.64	.	. - .

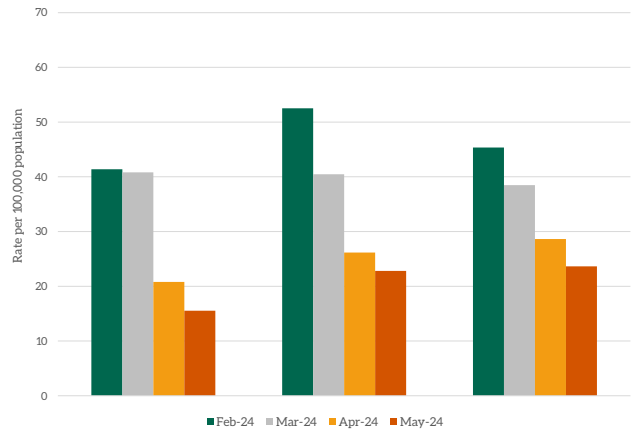
pertussis cases reported for SWOH in May (33) was higher than the number of cases reported in the previous month (8). The rate of pertussis cases within Hamilton County for May was 1.9 per 100,000 residents. This rate was the same as the SWOH rate.

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, gonorrhea, HIV, and syphilis 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 May 1-29 2024. Data was accessed from the Ohio Disease Reporting System on 5/30/2024

†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, February 2024 - May 2024



Pertussis was the fourth most frequently reported disease in SWOH (Table 2). Pertussis cases accounted for 8.3% of the total communicable diseases reported during May. The number of

Table 2. Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, May 2024

Reportable Condition	County										Total	
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren				
Amebiasis	1	.	.	.	.	.	.	.	.	.	.	1
C. auris	6	.	.	.	.	.	.	.	.	.	.	6
C. auris - Colonization Screening	3	.	.	1	6	.	.	.	1	.	1	11
CPO	5	1	.	3	2	.	.	.	2	.	2	13
CPO - Colonization Screening	.	.	.	2	.	.	.	.	1	.	1	3
Campylobacteriosis	3	1	3	3	.	1	.	.	.	.	.	11
Coccidioidomycosis	.	.	.	.	2	.	.	.	.	.	.	2
Cyclosporiasis	.	.	.	1	.	.	.	.	.	.	.	1
Dengue	1	.	.	.	.	.	.	.	.	.	.	1
E.Coli (shiga toxin producing)	4	.	1	.	.	.	.	.	.	.	.	5
Giardiasis	2	1	.	.	.	.	.	.	.	.	.	3
Haemophilus influenzae (invasive)	1	.	.	2	2	1	.	.	.	.	.	6
Hepatitis A	1	.	1	2	.	.	.	.	1	.	1	5
Hepatitis B (acute)	1	1	1	2	.	.	.	.	.	.	.	5
Hepatitis B (chronic)	17	1	.	9	5	.	1	5	5	.	2	38
Hepatitis C (acute)	.	.	.	.	2	.	.	.	.	.	.	2
Hepatitis C (chronic)	55	8	3	15	11	5	5	8	8	.	8	110
Influenza-associated hospitalization	.	.	.	6	1	.	.	.	1	.	1	8
Legionnaires' Disease	5	.	.	2	1	.	.	.	2	.	2	10
Lyme Disease	13	3	5	2	7	.	3	2	2	.	2	35
Malaria	1	.	.	1	.	.	.	.	.	.	.	2
Measles	.	.	.	1	.	.	.	.	.	.	.	1
Meningitis (aseptic/viral)	6	.	.	3	1	.	.	.	2	.	2	12
Meningitis (bacterial, not N. meningitidis)	4	.	.	1	.	.	.	.	.	.	.	5
Pertussis	15	.	1	1	4	.	1	11	11	.	11	33
Salmonellosis	10	1	.	2	1	.	.	.	2	.	2	16
Shigellosis	1	.	.	1	.	.	.	.	.	.	.	2
Spotted Fever Rickettsiosis (including Rocky Mountain spotted fever (RMSF))	.	.	.	.	2	.	.	1	.	.	.	3
Streptococcal pneumoniae (invasive)	4	.	.	3	.	.	.	.	2	.	2	9
Streptococcal, Group A (invasive)	8	2	.	4	4	.	1	5	5	.	5	24

Table 2. Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, May 2024, Continued

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Streptococcal, Group B (in newborn)	1	.	.	.	.	.	.	.	.	.	1
Tuberculosis	4	1	.	2	.	.	.	.	.	.	7
Tularemia	1	.	.	.	.	.	.	.	.	.	1
Varicella	5	.	.	.	.	.	.	2	.	.	7
Vibriosis	.	.	.	1	.	.	.	.	.	.	1
Total	178	20	15	70	51	7	12	47	400		

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, May 2024

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Amebiasis	3	.	.	1	.	.	.	1	.	.	5
Babesiosis	1	.	.	.	1	.	.	.	.	.	2
Brucellosis	1	.	.	.	.	.	.	.	.	.	1
C. auris	32	.	.	2	2	.	.	.	.	.	36
C. auris - Colonization Screening	31	.	1	7	10	.	.	.	2	.	51
CPO	36	4	3	17	9	5	7	14	.	.	95
CPO - Colonization Screening	2	.	.	9	.	.	3	1	.	.	15
Campylobacteriosis	18	1	3	12	5	1	3	6	.	.	49
Chikungunya virus	1	.	.	.	.	.	.	.	.	.	1
Coccidioidomycosis	3	.	1	2	2	.	.	1	.	.	9
Creutzfeldt-Jakob Disease	2	.	.	1	1	.	.	.	.	.	4
Cryptosporidiosis	3	.	.	4	1	.	.	.	1	.	9
Cyclosporiasis	.	.	.	1	.	.	.	.	.	.	1
Dengue	6	.	.	1	.	.	.	.	.	.	7
E.Coli (shiga toxin producing)	7	1	1	3	1	1	1	1	1	1	16
Ehrlichiosis/Anaplasmosis	3	.	.	.	3	.	.	.	1	.	7
Giardiasis	13	1	.	2	4	1	.	.	3	.	24
Haemophilus influenzae (invasive)	11	.	5	10	3	2	2	4	.	.	37
Hepatitis A	16	1	3	4	.	.	1	4	4	.	29
Hepatitis B (acute)	8	2	2	3	2	.	.	.	.	.	17
Hepatitis B (chronic)	100	7	1	48	11	5	6	34	.	.	212
Hepatitis C (acute)	1	.	.	.	2	.	.	.	.	.	3
Hepatitis C (chronic)	279	29	26	100	41	13	22	56	.	.	566
Hepatitis C - Perinatal Infection	5	.	.	1	1	1	1	.	.	.	9
Hepatitis E	.	.	1	.	.	.	.	.	.	.	1
Influenza-associated hospitalization	658	4	38	304	154	23	33	143	.	.	1357
LaCrosse Virus Disease (LCVD)	.	.	.	.	1	.	.	.	.	.	1
Legionnaires' Disease	10	.	.	2	2	.	.	2	.	.	16

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, May 2024, Continued

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Lyme Disease	26	4	8	11	16	1	5	5			76
Malaria	7	.	.	3	.	.	.	.			10
Measles	1	.	.	6	3	2	4	7			23
Meningitis (aseptic/viral)	14	.	1	10	2	1	.	7			35
Meningitis (bacterial, not N. meningitidis)	13	.	.	6	1	.	1	4			25
Meningococcal disease	1	.	.	3	.	.	.	.			4
Mpox	3	.	.	.	.	.	.	.			3
Mumps	11	.	.	2	1	1	.	1			16
Pertussis	18	1	2	20	6	1	1	26			75
Rubella (not congenital)	1	.	.	.	.	.	.	.			1
Salmonella Typhi	.	.	.	2	.	.	.	.			2
Salmonellosis	36	1	1	15	8	.	1	7			69
Shigellosis	16	.	.	7	.	.	.	3			26
Spotted Fever Rickettsiosis (including Rocky Mountain spotted fever (RMSF))	1	1	.	.	3	.	1	2			8
Streptococcal pneumoniae (invasive)	40	2	4	25	9	3	3	9			95
Streptococcal, Group A (invasive)	42	3	1	23	15	.	1	13			98
Streptococcal, Group B (in newborn)	4	.	.	.	2	.	.	1			7
Tetanus	.	.	.	1	.	.	.	.			1
Tuberculosis	11	1	.	8	.	.	.	3			23
Tularemia	1	.	.	.	.	.	.	2			3
Varicella	16	.	.	16	1	3	.	5			41
Vibriosis	3	.	.	1	.	.	.	.			4
West Nile virus infection (WNV)	1	.	.	.	.	.	.	.			1
Yersiniosis	6	.	.	.	2	.	.	2			10

SYNDROMIC SURVEILLANCE

Emergency Department Visits

Number of EpiCenter alerts received: 10

Types of EpiCenter alerts:

- Infectious Disease Symptoms (n=10)
- Syndromic Symptoms (n=0)

The alerts received for Hamilton County from May 1 - May 29 are summarized in Table 5 below. Three of the anomalies received in EpiCenter were dispositioned as Indeterminate. At the time of this report, seven anomaly investigations are still active. There were no syndromic anomalies in Hamilton County for the month of May. Constitutional, Respiratory, and Gastrointestinal syndrome charts are shown in Figures 6, 7, and 8, respectively.

Table 5. Emergency Department Visit Anomalies for Hamilton County, May 2024

Anomaly Classifier	Event Date	Alert Category	Analysis Method	Aggregated By	Actual Value	Predicted Value	Threshold Value	Final Disposition
Shock	5/23/2024	Infectious Disease	Cusum EMA	Home Location	11	5.35	10.06	Active
Shock	5/23/2024	Infectious Disease	Cusum EMA	Facility Location	13	7.38	12.58	Active
Edema	5/22/2024	Infectious Disease	Cusum EMA	Facility Location	46	34.57	45.54	Active
Edema	5/22/2024	Infectious Disease	Cusum EMA	Home Location	38	30.27	35.88	Active
Diarrhea - Watery/ Bloody	5/21/2024	Infectious Disease	Cusum EMA	Facility Location	11	4.74	9.25	Active
Diarrhea - Watery/ Bloody	5/21/2024	Infectious Disease	Cusum EMA	Home Location	10	3.29	8.66	Active
Diarrhea - Watery/ Bloody	5/21/2024	Infectious Disease	Exponential Moving Average	Home Location	10	2.96	9.50	Active
Hemorrhaging	5/14/2024	Infectious Disease	Recursive Least Squares	Facility Location	43	21.47	39.36	Indeterminate
Exacerbation	5/8/2024	Infectious Disease	Cusum EMA	Home Location	12	7.74	9.68	Indeterminate
Paralysis	5/7/2024	Infectious Disease	Recursive Least Squares	Facility Location	22	12.15	19.88	Indeterminate

Figure 6. Constitutional-related ED Visits, Hamilton County, Ohio, May 2024

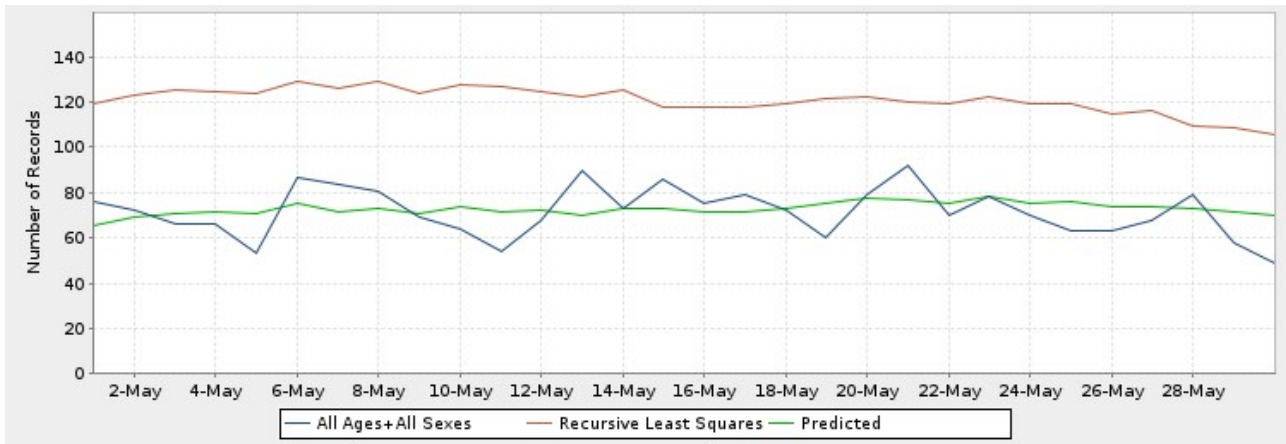


Figure 7. Respiratory-related ED Visits, Hamilton County, Ohio, May 2024

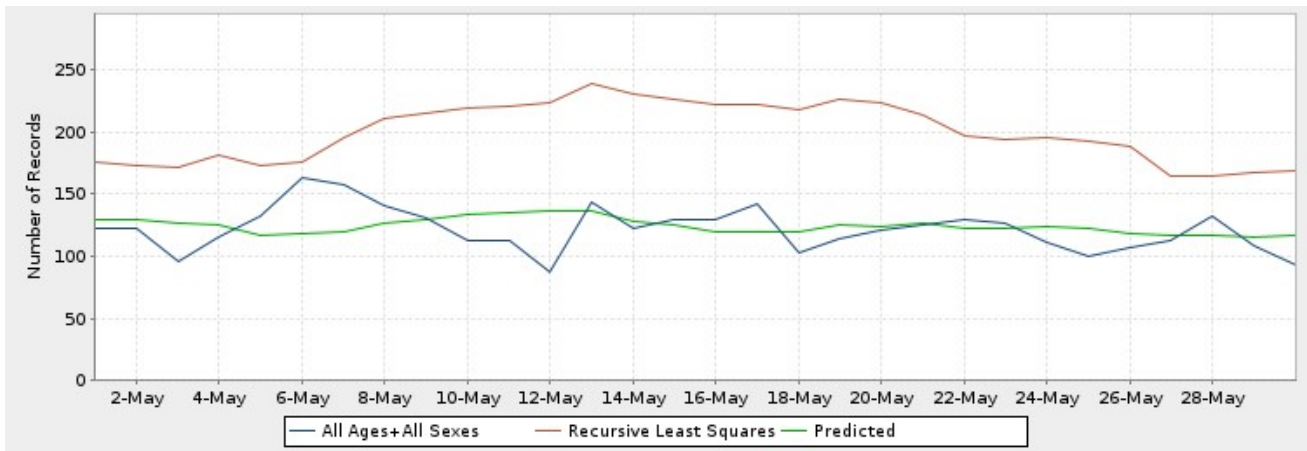


Figure 8. Gastrointestinal-related ED Visits, Hamilton County, Ohio, May 2024

