



Monthly Communicable Disease Surveillance Report

November 2023

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NOTIFIABLE COMMUNICABLE DISEASES

Hamilton County Public Health (HCPH) Jurisdiction

Number of Communicable Diseases Reported: 81

Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=15)
- Chronic Hepatitis B (n=13)
- CPO (n=9)
- Streptococcal Pneumonia (n=6)
- C. auris (n=5)

Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 377

Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=103)
- Chronic Hepatitis B (n=41)
- Pertussis (n=41)
- Streptococcal Pneumonia (n=21)
- Influenza-associated Hospitalization (n=18)

Summary

In November, the overall rates of reported communicable diseases for HCPH, SWOH, and Ohio increased by 27%, 9%, and 4% respectively. The Ohio rate (22.3) was the highest of the three rates, followed by the SWOH rate (22.2) and the HCPH rate (17.6) (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 Pertussis 2nd and 3rd respectively (Table 2). Chronic Hepatitis (Hepatitis C and Hepatitis combined) comprised 38.2% of the total communicable diseases reported during November. Southwest Ohio is currently on pace to have a 7.5% decrease in hepatitis cases over the previous year's average number cases (161). The rate of chronic hepatitis within Hamilton County for November was 7.6 per 100,000 residents. This rate was lower than the SWOH rate of 8.3 per 100,000 residents.

Pertussis was the third most frequently reported disease in SWOH (Table 2). Pertussis cases accounted for 10.9% of the total communicable diseases reported during November. The number of cases of Pertussis reported for SWOH in November (21) was lower than the number of cases reported in the previous month (4). The rate of Pertussis within Hamilton County for November was 0.1 per 100,000 residents. This rate was 95% lower than the SWOH rate of 2.4 per 100,000 residents.

Table 1. Comparison of the Reported Cases of Notifiable Communicable Diseases by Location, November 2023

Location	Number of Reported Cases	Rate per 100,000	Rate Ratio†	Confidence Interval (99%)‡
HCPH	81	17.59	0.79	0.59 - 1.06
SW OHIO	377	22.23	1.00	0.87 - 1.15
OHIO	2,492	22.27	.	. - .

the previous month (14). The rate of Streptococcal Pneumoniae within Hamilton County for November was 1.0 per 100,000 residents. This rate was 17% lower than the SWOH rate of 1.2 per 100,000 residents.

Streptococcal Pneumoniae was the fourth most frequently reported disease in SWOH (Table 2). Streptococcal Pneumoniae cases accounted for 5.6% of the total communicable diseases reported during November. The number of Streptococcal Pneumoniae cases reported for SWOH in November (21) was higher than the number of cases reported in

†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, August 2023 - November 2023

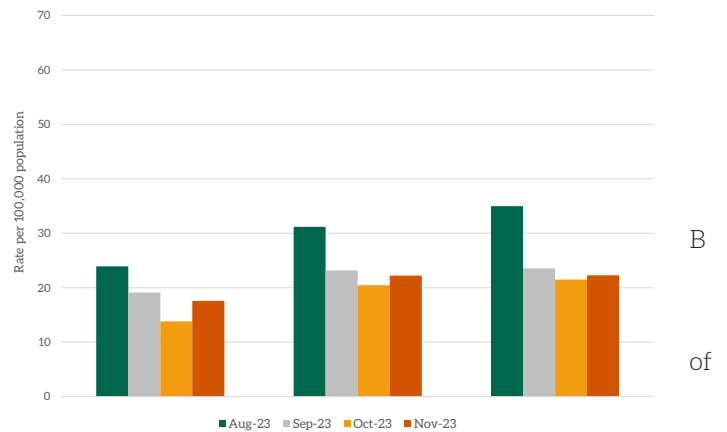


Table 2. Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, November 2023

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
C. auris	7	.	.	.	.	.	.	.	.	.	7
C. auris - Colonization Screening	13	.	.	2	.	.	.	.	.	.	15
CPO	9	.	.	3	3	.	2	.	.	.	17
CPO - Colonization Screening	.	.	.	.	1	.	.	.	.	.	1
Campylobacteriosis	5	.	.	3	1	.	.	1	.	.	10
Coccidioidomycosis	.	.	.	1	.	.	.	.	.	.	1
Creutzfeldt-Jakob Disease	.	.	.	.	1	.	1	.	.	.	2
Cryptosporidiosis	1	.	.	.	.	.	.	.	.	.	1
Dengue	1	.	.	.	.	.	.	.	.	.	1
E.Coli (shiga toxin producing)	3	.	.	1	.	.	.	.	.	.	4
Giardiasis	3	.	.	1	.	.	.	.	.	.	4
Haemophilus influenzae (invasive)	2	1	.	3	1	.	.	1	.	.	8
Hepatitis A	1	1	.	1	.	.	.	.	.	.	3
Hepatitis B (acute)	1	.	1	.	.	.	.	.	.	.	2
Hepatitis B (chronic)	18	.	1	8	3	1	2	8	.	.	41
Hepatitis C (chronic)	43	3	2	20	8	6	3	18	.	.	103
Hepatitis C - Perinatal Infection	.	.	.	.	.	.	.	1	.	.	1
Influenza-associated hospitalization	9	.	.	5	2	.	.	2	.	.	18
Legionellosis	.	.	.	1	.	.	.	.	.	.	1
Lyme Disease	4	2	.	1	5	.	.	.	.	.	12
Malaria	1	.	.	.	.	.	.	.	.	.	1
Meningitis (viral)	2	.	1	1	1	.	.	.	.	.	5
Meningitis (bacterial)	.	.	.	2	.	.	.	.	.	.	2
Meningococcal disease - N. meningitidis	.	.	.	.	.	.	.	1	.	.	1
Mpox	3	.	.	.	.	.	.	.	.	.	3
Pertussis	1	.	.	4	.	1	.	35	.	.	41
Salmonellosis	4	.	.	3	.	.	1	4	.	.	12
Shigellosis	1	.	.	.	.	.	.	.	.	.	1
Spotted Fever Rickettsiosis (RMSF)	1	.	.	.	1	1	.	.	.	.	3
Streptococcal pneumoniae (invasive)	8	.	.	4	4	3	.	2	.	.	21

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, November 2023

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Amebiasis	3	.	1	1	1	.	.	.	1	7	
Babesiosis	1	1	.	.	2	
Botulism (Infant)	1	1	
Brucellosis	1	.	.	2	.	.	.	1	4		
C. auris	69	.	.	8	1	.	.	2	80		
C. auris - Colonization Screening	106	.	2	22	6	.	.	3	139		
C. auris - Investigation	3	.	.	.	.	.	.	.	3
CPO	100	10	4	41	16	8	14	18	211		
CPO - Colonization Screening	.	.	.	53	2	1	23	11	90		
Campylobacteriosis	81	9	12	43	34	4	17	33	233		
Chikungunya virus	1	.	.	.	.	.	.	.	1
Coccidioidomycosis	14	1	.	4	3	.	.	.	22		
Creutzfeldt-Jakob Disease	.	.	.	.	2	.	1	.	3
Cryptosporidiosis	38	.	.	6	2	.	1	12	59		
Cyclosporiasis	3	.	.	3	1	.	.	3	10		
Dengue	2	.	.	.	1	.	.	.	3		
E.Coli (shiga toxin producing)	28	3	4	16	7	1	.	8	67		
Ehrlichiosis/Anaplasmosis	5	1	.	.	1	1	.	5	13		
Giardiasis	34	1	1	13	4	.	2	9	64		
Haemophilus influenzae (invasive)	65	1	7	18	8	.	3	4	106		
Hemolytic uremic syndrome (HUS)	.	.	.	1	.	.	.	.	1
Hepatitis A	28	5	.	22	1	1	7	3	67		
Hepatitis B (acute)	9	.	1	4	1	.	.	1	16		
Hepatitis B (chronic)	221	12	16	118	24	11	12	46	460		
Hepatitis C (acute)	.	.	.	2	2	.	.	.	4		
Hepatitis C (chronic)	608	47	67	261	111	33	41	138	1306		
Hepatitis C - Perinatal Infection	2	.	2	1	1	1	.	2	9		
Hepatitis E	2	.	1	.	.	1	.	.	4		
Influenza-associated hospitalization	74	3	12	42	28	2	13	15	189		

Table 3. YTD Cases of Notifiable Diseases in Southwest Ohio as Reported in ODRS by County, November 2023, Continued

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Legionellosis	22	.	.	13	3	2	4	7			51
Listeriosis	.	1	.	1	.	.	.	.			2
Lyme Disease	75	32	15	20	49	2	19	16			228
MIS-C associated with COVID-19	.	.	.	1	.	.	.	.			1
Malaria	8	.	.	3	.	.	.	1			12
Measles	.	.	.	.	.	.	.	1			1
Meningitis (viral)	34	1	2	10	15	2	3	3			70
Meningitis (bacterial)	13	1	.	10	5	2	2	4			37
Meningococcal disease - N. meningitidis	3	.	.	.	.	.	.	2			5
Mpox	5	.	.	.	.	.	.	.			5
Mumps	3	.	.	1	3	.	.	1			8
Pertussis	5	1	1	10	4	1	4	37			63
Q fever (acute)	1	1	.	2	.	.	.	.			4
Rubella (not congenital)	1	.	.	.	.	.	.	.			1
Salmonella Paratyphi Infection	.	.	.	1	.	.	.	1			2
Salmonella Typhi	2	.	.	1	.	.	.	2			5
Salmonellosis	71	4	4	53	27	5	7	26			197
Shigellosis	29	.	.	7	6	1	1	3			47
Spotted Fever Rickettsiosis (RMSF)	6	6	2	1	3	1	4	4			27
Staphylococcal aureus (VISA)	.	.	.	.	1	.	.	.			1
Streptococcal pneumoniae (invasive)	109	.	12	37	25	11	3	19			216
Streptococcal toxic shock syndrome (STSS)	2	.	.	.	.	.	.	1			3
Streptococcal, Group A (invasive)	91	1	6	38	27	1	9	24			197
Streptococcal, Group B (in newborn)	7	.	.	1	.	.	.	.			8
Toxic shock syndrome (TSS)	.	.	.	.	1	.	.	.			1
Tuberculosis	17	.	.	8	.	.	1	3			29
Tularemia	2	.	.	.	.	.	.	1			3
Varicella	27	.	1	20	4	1	5	6			64
Vibriosis	4	.	.	3	1	.	.	3			11
West Nile virus infection (WNV)	2	.	.	1	.	.	1	.			4
Yersiniosis	17	1	.	4	5	.	.	2			29

SYNDROMIC SURVEILLANCE

Emergency Department Visits

Number of EpiCenter alerts received: 16

Types of EpiCenter alerts:

- Infectious Disease Symptoms (n=16)
- Syndromic Symptoms (n=0)

The alerts received for Hamilton County from November 1 - November 29 are summarized in Table 5 below. Two of the anomalies received in EpiCenter were dispositioned as Not a health event, four anomalies were dispositioned as Seasonal GI, and one dispositioned as indeterminate. Nine investigations are still active. The syndromic anomalies are presented for the entire month for Hamilton County in Figures 6, 7, and 8 respectively.

Table 5. Emergency Department Visit Anomalies for Hamilton County, November 2023

Anomaly Classifier	Event Date	Alert Category	Analysis Method	Aggregated By	Actual Value	Predicted Value	Threshold Value	Final Disposition
Cough	11/29/2023	Infectious Disease	Cusum EMA	Facility Location	99	81.6	89.5	Active
Cough	11/28/2023	Infectious Disease	Recursive Least Squares	Facility Location	128	74.6	114.8	Active
Cough	11/28/2023	Infectious Disease	Cusum EMA	Facility Location	118	71.3	114.5	Active
Cough	11/27/2023	Infectious Disease	Cusum EMA	Home Location	106	66.1	96.5	Active
Eyes	11/26/2023	Infectious Disease	Cusum EMA	Facility Location	15	10.0	14.7	Active
Eyes	11/26/2023	Infectious Disease	Recursive Least Squares	Facility Location	18	8.6	17.2	Active
Eyes	11/26/2023	Infectious Disease	Exponential Moving Average	Facility Location	21	8.3	17.8	Active
Fever	11/20/2023	Infectious Disease	Exponential Moving Average	Facility Location	96	55.5	94.5	Active
Fever	11/20/2023	Infectious Disease	Recursive Least Squares	Facility Location	92	56.1	89.7	Active
Headache	11/14/2023	Infectious Disease	Recursive Least Squares	Home Location	59	38.4	55.1	Indeterminate
Vomiting	11/14/2023	Infectious Disease	Recursive Least Squares	Facility Location	89	56.4	86.8	Seasonal Illness - GI
Vomiting	11/14/2023	Infectious Disease	Cusum EMA	Home Location	72	47.4	69.6	Seasonal Illness - GI
Lymphadenitis	11/14/2023	Infectious Disease	Recursive Least Squares	Facility Location	10	2.5	8.0	Not a health event
Lymphadenitis	11/14/2023	Infectious Disease	Exponential Moving Average	Facility Location	10	2.4	9.0	Not a health event
Vomiting	11/13/2023	Infectious Disease	Exponential Moving Average	Home Location	78	44.0	73.6	Seasonal Illness - GI
Vomiting	11/13/2023	Infectious Disease	Recursive Least Squares	Home Location	74	44.5	69.3	Seasonal Illness - GI

Figure 6. Constitutional-related ED Visits, Hamilton County, Ohio, November 2023

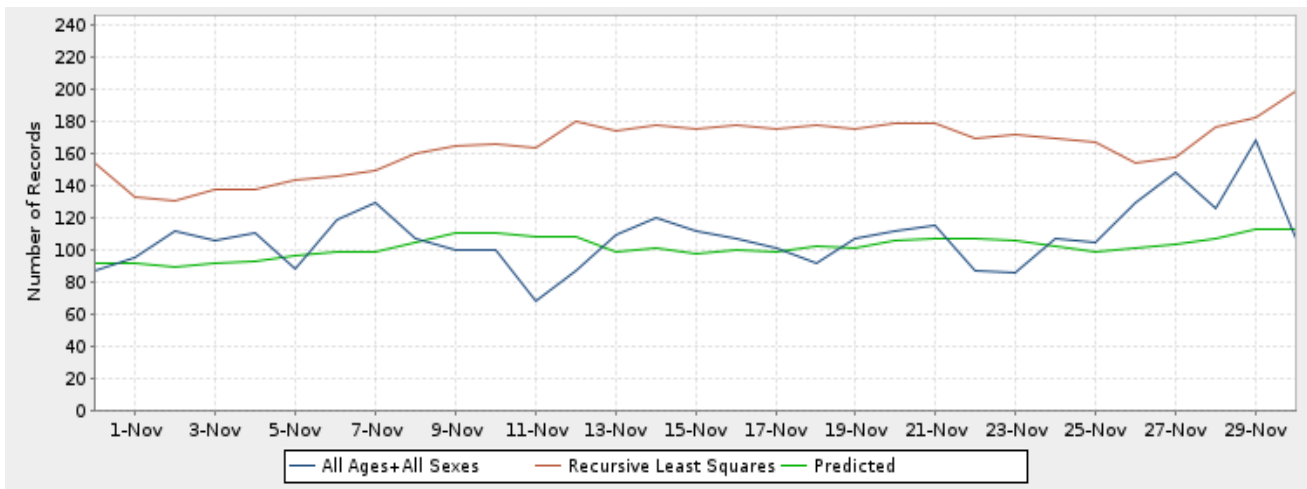


Figure 7. Respiratory-related ED Visits, Hamilton County, Ohio, November 2023

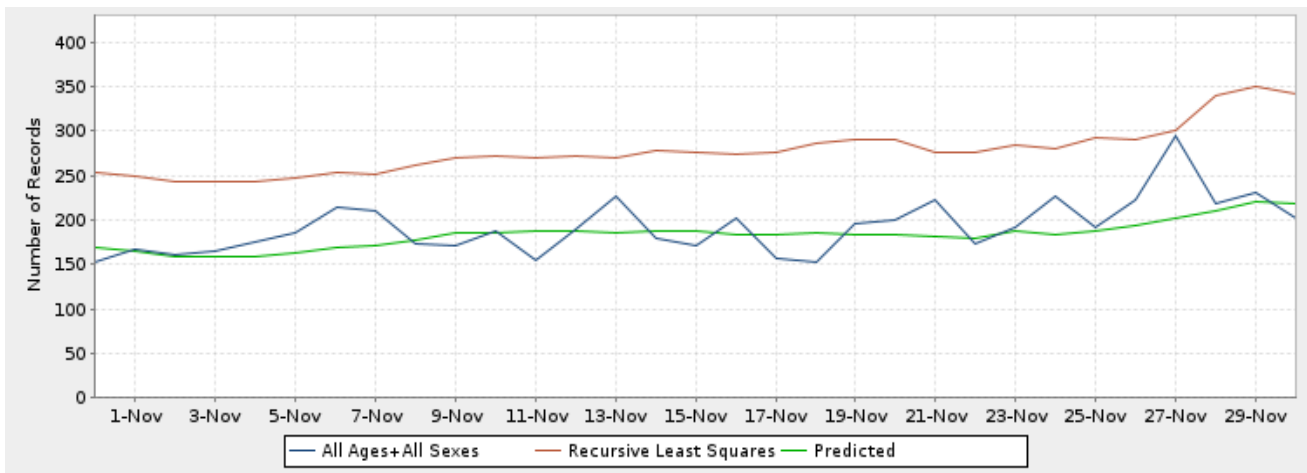


Figure 8. Gastrointestinal-related ED Visits, Hamilton County, Ohio, November 2023

