Monthly Communicable Disease Surveillance Report

October 2024

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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: 97

Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=23)
- Pertussis (n=13)
- CPO (n=9)
- Chronic Hepatitis B (n=8)
- Influenza-associated Hospitalization (n=7)

Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 445

Most frequently reported communicable diseases:

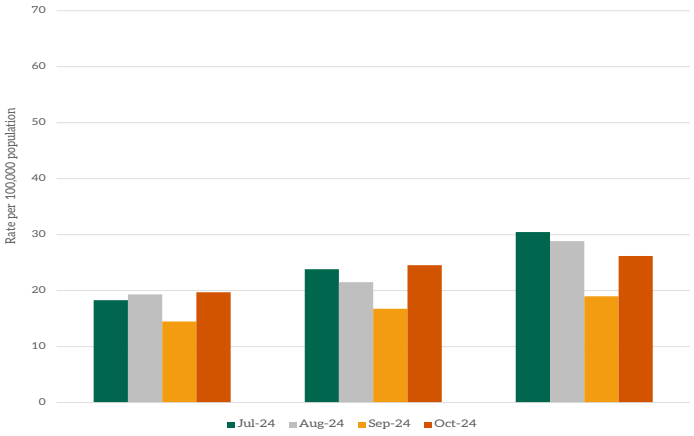
- Chronic Hepatitis C (n=130)
- Pertussis (n=72)
- Chronic Hepatitis B (n=39)
- C. auris - Colonization Screening (n=20)
- CPO (n=17)

Summary

In October, the overall rates of reported communicable diseases for HCPH, SWOH, and Ohio increased by 36%, 46%, and 38% respectively. The Ohio rate (27.1) was the highest of the three rates, followed by the SWOH rate (25.4) and the HCPH rate (20.4) (Table 1).

Chronic Hepatitis C was the most reported communicable disease across SWOH, with Pertussis and Chronic Hepatitis B the 2nd- and 3rd-most reported, respectively (Table 2). Chronic Hepatitis B and C cases accounted for 38% of the total communicable diseases reported during October. The number of chronic hepatitis cases seen in Southwest Ohio during October was 13.9% greater than the 12-month average of 148 cases seen between October 2023 and September 2024. The number of chronic hepatitis cases reported in SWOH in October (169) was higher than the number of cases reported in the previous month (120). The rate of chronic hepatitis within Hamilton County for October was 11.6 per 100,000 residents. This rate was higher than the SWOH rate of 9.7 per 100,000 residents.

Figure 1. 30-Day Rates of Reported Communicable Diseases in Ohio, Southwest Ohio, and Hamilton County Public Health Jurisdiction, July 2024 - October 2024



Pertussis was the second most frequently reported disease in SWOH, accounting for 16.2% of the total communicable diseases reported during October. The number of Pertussis cases reported during October (72) was higher than the number of cases reported in the previous month (14). The rate of Pertussis cases within Hamilton County for October was 2.6 per 100,000 residents. This rate was lower than the SWOH rate of 4.1 per 100,000 residents.

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

Location	Number of Reported Cases	Rate per 100,000	Rate Ratio†	Confidence Interval (99%)‡
HCPH	97	20.37	0.76	0.56 - 1.04
SW OHIO	445	25.36	0.88	0.75 - 1.03
OHIO	3,133	27.07	.	. - .

C. auris - Colonization was the fourth most frequently reported disease in SWOH (Table 2). C. auris - Colonization cases accounted for 4.5% of the total communicable diseases reported during October. The number of C. auris - Colonization cases reported in October (20) was equal to the number of cases reported in the previous month (20). The rate of C. auris Colonization cases within Hamilton County for October was 1.6 per 100,000 residents. This rate was higher than the SWOH rate of 1.1 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, 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 October 1-31, 2024. Data was accessed from the Ohio Disease Reporting System on 11/01/2024.

†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, October 2024

Reportable Condition	County								Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren	
Amebiasis	1	.	.	.	.	.	.	.	**1**
Babesiosis	1	.	.	.	.	.	.	.	**1**
C. auris	3	.	.	3	.	1	.	.	**7**
C. auris - Colonization Screening	13	.	.	2	4	.	.	1	**20**
CPO	12	.	.	2	3	.	.	.	**17**
CPO - Colonization Screening	.	.	.	2	3	.	.	.	**5**
Campylobacteriosis	7	.	1	2	2	.	2	1	**15**
Chikungunya virus	1	.	.	.	.	.	.	.	**1**
Coccidioidomycosis	2	.	.	.	.	.	.	.	**2**
Creutzfeldt-Jakob Disease	1	.	.	.	.	.	.	.	**1**
Cryptosporidiosis	7	.	.	1	.	1	.	.	**9**
Cyclosporiasis	1	.	.	.	.	.	.	.	**1**
E.Coli (shiga toxin producing)	.	.	.	.	1	.	.	.	**1**
Ehrlichiosis/Anaplasmosis	3	.	.	.	.	.	.	.	**3**
Giardiasis	3	.	1	3	.	.	.	.	**7**
Haemophilus influenzae (invasive)	2	.	.	.	1	.	.	.	**3**
Hepatitis A	3	.	.	.	.	.	1	.	**4**
Hepatitis B (acute)	3	.	1	.	.	1	.	.	**5**
Hepatitis B (chronic)	22	.	1	11	.	.	3	2	**39**
Hepatitis C (acute)	.	1	.	.	.	1	.	.	**2**
Hepatitis C (chronic)	71	4	5	23	5	4	1	17	**130**
Hepatitis C - Perinatal Infection	.	.	.	1	.	.	.	.	**1**
Influenza-associated hospitalization	9	.	.	3	.	.	.	.	**12**
Legionnaires' Disease	4	.	.	3	2	1	.	2	**12**
Lyme Disease	.	1	.	.	3	.	1	.	**5**
Malaria	1	.	.	.	.	.	.	.	**1**
Measles	.	.	.	.	.	.	.	1	**1**
Meningitis (aseptic/viral)	1	.	.	1	2	.	.	1	**5**

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

Reportable Condition	County								Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren	
Meningitis (bacterial, not N. meningitidis)	2	.	1	1	1	.	.	.	**5**
Mumps	.	1	.	.	1	.	.	.	**2**
Pertussis	21	1	1	14	10	1	.	24	**72**
Salmonella Typhi	1	.	.	.	.	.	.	.	**1**
Salmonellosis	6	1	.	1	.	1	2	.	**11**
Shigellosis	5	.	.	.	.	.	.	1	**6**
Spotted Fever Rickettsiosis (including Rocky Mountain spotted fever (RMSF))	1	1	.	.	.	.	1	.	**3**
Streptococcal pneumoniae (invasive)	5	.	1	2	.	.	.	1	**9**
Streptococcal, Group A (invasive)	5	.	.	2	.	1	.	1	**9**
Streptococcal, Group B (in newborn)	.	.	.	.	.	1	.	.	**1**
Tuberculosis	5	.	.	1	.	.	.	.	**6**
Varicella	1	1	1	1	.	.	1	2	**7**
Vibriosis	1	.	.	.	.	.	.	.	**1**
Yersiniosis	1	.	.	.	.	.	.	.	**1**
Total	**225**	**11**	**13**	**79**	**38**	**13**	**12**	**54**	445

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

Reportable Condition	County								Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren	
Amebiasis	6	.	.	1	.	.	1	.	**8**
Babesiosis	3	1	.	.	3	.	.	.	**7**
Botulism (Infant)	.	.	.	.	.	1	.	.	**1**
Brucellosis	2	.	.	.	.	.	.	.	**2**
C. auris	66	.	.	8	4	1	.	3	**82**
C. auris - Colonization Screening	73	.	1	30	21	1	.	17	**143**
CPO	94	4	5	41	25	6	10	23	**208**
CPO - Colonization Screening	8	.	.	12	5	.	3	1	**29**
Campylobacteriosis	58	4	6	39	13	1	7	24	**152**
Chikungunya virus	3	.	.	.	.	.	.	2	**5**
Coccidioidomycosis	8	.	2	2	1	.	.	2	**15**
Creutzfeldt-Jakob Disease	4	.	.	1	1	.	.	.	**6**
Cryptosporidiosis	33	1	.	9	6	3	.	6	**58**
Cyclosporiasis	6	.	.	1	.	.	.	2	**9**
Dengue	7	.	.	1	.	.	.	.	**8**
E.Coli (shiga toxin producing)	17	1	1	8	6	1	1	3	**38**
Ehrlichiosis/Anaplasmosis	9	2	1	.	4	.	1	3	**20**
Giardiasis	29	2	1	7	6	2	.	7	**54**
Haemophilus influenzae (invasive)	23	.	6	11	7	2	2	8	**59**
Hepatitis A	24	1	9	5	3	2	2	5	**51**
Hepatitis B (acute)	18	3	3	4	2	2	.	3	**35**
Hepatitis B (chronic)	195	10	6	98	13	6	10	54	**392**
Hepatitis C (acute)	2	1	.	.	2	1	.	.	**6**
Hepatitis C (chronic)	557	41	48	201	71	20	32	121	**1091**
Hepatitis C - Perinatal Infection	6	2	.	2	1	2	1	.	**14**
Hepatitis E	1	.	1	.	.	.	.	.	**2**
Influenza-associated hospitalization	678	4	38	315	156	23	33	147	**1394**
LaCrosse Virus Disease (LCVD)	.	.	.	.	1	.	.	.	**1**
Legionnaires' Disease	22	.	.	10	5	1	.	7	**45**
Listeriosis	1	.	.	.	.	.	.	.	**1**

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

Reportable Condition	County								Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren	
Lyme Disease	58	24	17	22	61	3	19	16	**220**
Malaria	15	.	.	3	.	.	.	.	**18**
Measles	1	.	.	6	3	2	4	9	**25**
Meningitis (aseptic/viral)	35	.	6	22	11	1	1	14	**90**
Meningitis (bacterial, not N. meningitidis)	33	.	1	12	6	.	1	6	**59**
Meningococcal disease	1	.	.	3	.	.	.	.	**4**
Mpox	4	.	.	.	.	.	.	.	**4**
Mumps	13	1	.	2	2	1	.	1	**20**
Pertussis	53	2	12	51	31	2	3	73	**227**
Q fever (acute)	.	.	1	.	1	.	.	.	**2**
Rubella (not congenital)	1	.	.	.	.	.	1	.	**2**
Salmonella Paratyphi Infection	1	.	.	1	.	.	.	.	**2**
Salmonella Typhi	3	.	.	3	.	.	.	1	**7**
Salmonellosis	73	6	5	29	15	1	5	22	**156**
Shigellosis	39	.	1	12	2	.	.	5	**59**
Spotted Fever Rickettsiosis (including Rocky Mountain spotted fever (RMSF))	4	5	2	.	5	1	5	2	**24**
Staphylococcal aureus - resistant to vancomycin (VRSA)	1	.	.	.	.	.	.	.	**1**
Streptococcal pneumoniae (invasive)	62	2	5	35	11	3	4	15	**137**
Streptococcal, Group A (invasive)	63	3	1	35	19	1	2	20	**144**
Streptococcal, Group B (in newborn)	5	.	.	.	2	1	.	2	**10**
Tetanus	.	.	.	1	.	.	.	.	**1**
Tuberculosis	39	.	.	15	.	.	1	3	**58**
Tularemia	1	.	.	.	.	.	.	2	**3**
Varicella	30	2	1	20	3	3	2	13	**74**
Vibriosis	6	.	.	1	1	.	.	.	**8**
West Nile virus infection (WNV)	4	.	.	.	.	.	.	.	**4**
Yersiniosis	17	.	.	1	4	.	.	4	**26**
Total	**2515**	**122**	**180**	**1080**	**533**	**94**	**151**	**646**	**5321**

SYNDROMIC SURVEILLANCE

Emergency Department Visits

Number of EpiCenter alerts received: 15

Types of EpiCenter alerts:

- Infectious Disease Symptoms (n=15)
- Syndromic Symptoms (n=0)

The alerts received for Hamilton County from October 1 - October 31 are summarized in Table 5 below. Nine of the anomalies received in EpiCenter were dispositioned as Not a Health Event, and two were dispositioned as seasonal influenza-like or respiratory illnesses. At the time of this report, four anomaly investigations are still active. There were no syndromic alerts in October. The syndromic surveillance charts for Constitutional, Gastrointestinal, and Respiratory ED visits are shown in Figures 6, 7, and 8, respectively.

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

Anomaly Classifier	Event Date	Alert Category	Analysis Method	Aggregated By	Actual Value	Predicted Value	Threshold Value	Final Dispsition
Vomiting	10/24/2024	Infectious Disease	Recursive Least Squares	Home Location	68	40.44	61.19	Active
Vomiting	10/24/2024	Infectious Disease	Exponential Moving Average	Home Location	68	40.58	65.46	Active
Vomiting	10/24/2024	Infectious Disease	Recursive Least Squares	Facility Location	81	47.46	73.73	Active
Vomiting	10/24/2024	Infectious Disease	Exponential Moving Average	Facility Location	81	48.72	76.43	Active
Fever	10/14/2024	Infectious Disease	Recursive Least Squares	Home Location	46	22.35	44.25	Seasonal Illness - ILI/Respiratory
Exacerbation	10/14/2024	Infectious Disease	Cusum EMA	Facility Location	18	6.63	14.50	Not a health event
Exacerbation	10/14/2024	Infectious Disease	Exponential Moving Average	Facility Location	18	6.63	14.69	Not a health event
Exacerbation	10/14/2024	Infectious Disease	Recursive Least Squares	Facility Location	18	7.29	15.82	Not a health event
Exacerbation	10/14/2024	Infectious Disease	Exponential Moving Average	Home Location	16	6.77	14.19	Not a health event
Exacerbation	10/14/2024	Infectious Disease	Cusum EMA	Home Location	16	6.77	15.63	Not a health event
Exacerbation	10/14/2024	Infectious Disease	Recursive Least Squares	Home Location	13	6.81	11.97	Not a health event
Congestion	10/7/2024	Infectious Disease	Recursive Least Squares	Home Location	11	3.80	10.36	Seasonal Illness - ILI/Respiratory
Exacerbation	10/6/2024	Infectious Disease	Recursive Least Squares	Facility Location	12	4.40	11.82	Not a health event
Shock	10/3/2024	Infectious Disease	Recursive Least Squares	Home Location	11	3.63	10.27	Not a health event
Shock	10/3/2024	Infectious Disease	Exponential Moving Average	Home Location	11	3.41	10.49	Not a health event

Figure 6. Botulinic-related ED Visits, Hamilton County, Ohio, October 2024

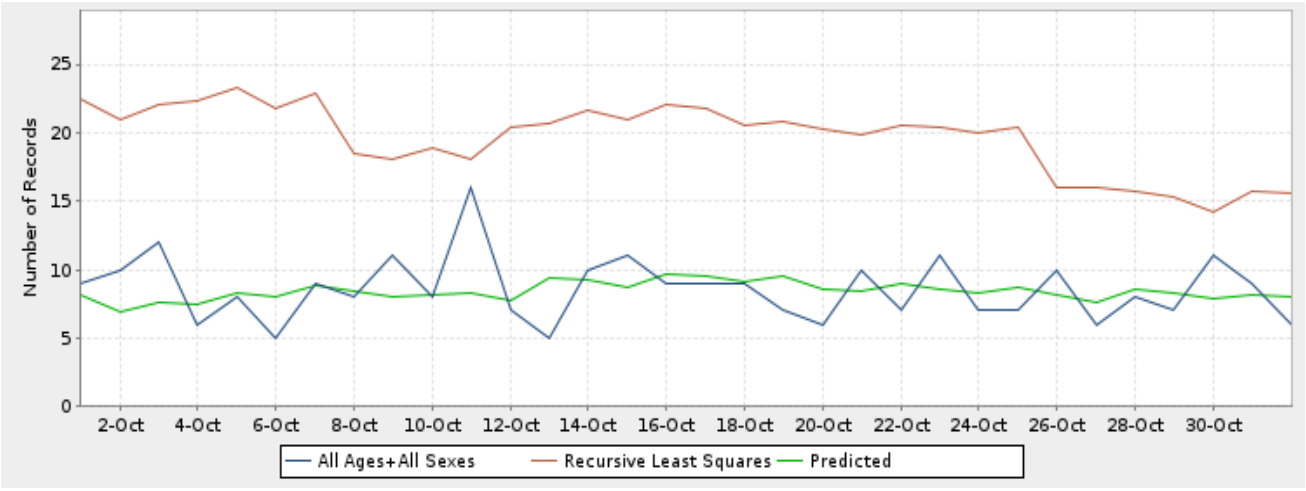


Figure 7. Constitutional-related ED Visits, Hamilton County, Ohio, October 2024

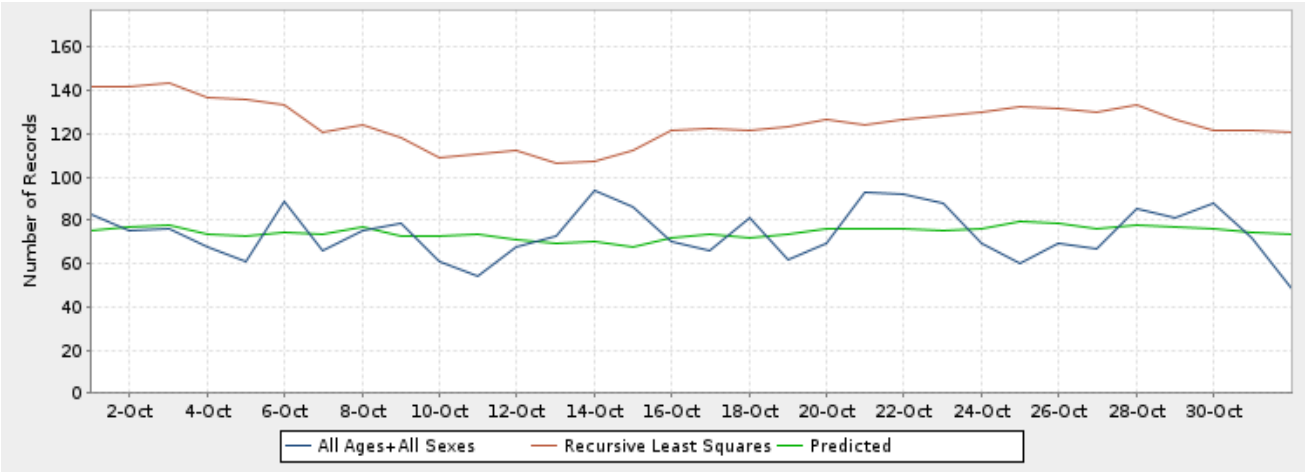


Figure 8. Respiratory-related ED Visits, Hamilton County, Ohio, October 2024