

# Monthly Communicable Disease Surveillance Report

January 2024

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# NOTIFIABLE COMMUNICABLE DISEASES

## Hamilton County Public Health (HCPH) Jurisdiction

Number of Communicable Diseases Reported: 220  
 Most frequently reported communicable diseases:

- Influenza-associated Hospitalization (n=120)
- Chronic Hepatitis C (n=32)
- Chronic Hepatitis B (n=18)
- Streptococcal pneumoniae (invasive) (n=10)
- CPO (n=6)

## Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 841  
 Most frequently reported communicable diseases:

- Influenza-associated hospitalization (n=440)
- Chronic Hepatitis C (n=115)
- Chronic Hepatitis B (n=49)
- Streptococcus pneumoniae (n=35)
- CPO (n=21)

## Summary

In January, the overall rates of reported communicable diseases for HCPH, SWOH, and Ohio increased by 137%, 71%, and 49% respectively. The SWOH rate (46.4) was the highest of the three rates, followed by the HCPH rate (44.7) and the Ohio rate (40.7) (Table 1). These rates are pro-rated to 30 days so they can be compared accurately.

Influenza-associated hospitalization was the most commonly reported communicable disease across SWOH, with Chronic Hepatitis C and Chronic Hepatitis B 2<sup>nd</sup> and 3<sup>rd</sup> respectively (Table 2). Influenza-associated hospitalization cases accounted for 52% of the total communicable diseases reported during January. The number of Influenza-associated hospitalizations reported for SWOH in January (440) was higher than the number of cases reported in the previous month (77). The rate of Influenza-associated hospitalizations within Hamilton County for January was 25.3 per 100,000 residents. This rate was the same as the SWOH rate.

Chronic Hepatitis (Hepatitis C and Hepatitis B combined) comprised 19.5% of the total communicable diseases reported during January. Southwest Ohio is currently on pace for a 1.5% decrease in hepatitis over the previous year's average number of cases (161). The rate of chronic hepatitis within Hamilton County for January was 11.2 per 100,000 residents. This rate was higher than the SWOH rate of 9.4 per 100,000 residents.

Figure 1. 30-Day Rates of Reported Communicable Diseases in Ohio, Southwest Ohio, and Hamilton County Public Health Jurisdiction, October 2023 - January 2024

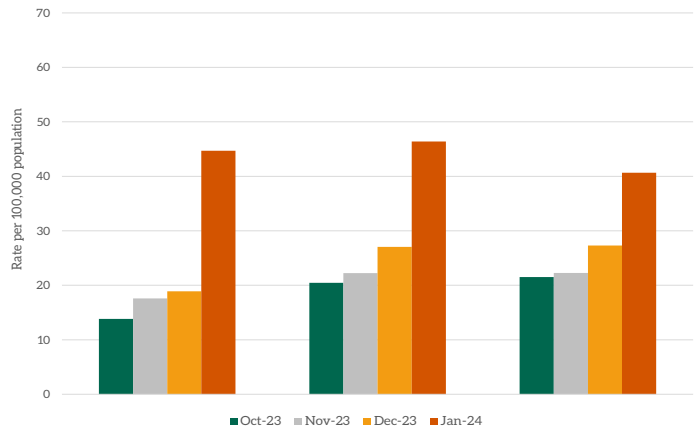


Table 1. Comparison of the Reported Cases of Notifiable Communicable Diseases by Location, January 2024

Location	Number of Reported Cases	Rate per 100,000	Rate Ratio†	Confidence Interval (99%)‡
HCPH	220	46.19	1.10	0.92 - 1.31
SW OHIO	841	47.93	1.14	1.04 - 1.26
OHIO	4,864	42.02	.	.-.

Streptococcus pneumoniae was the fourth most frequently reported disease in SWOH (Table 2). Streptococcus pneumoniae cases accounted for 4.2% of the total communicable diseases reported during January. The number of Streptococcus pneumoniae cases reported for SWOH in January (35) was lower than the number of cases reported in the previous month (41). The rate of Streptococcus pneumoniae within Hamilton County for January was 2.6 per 100,000 residents.

This rate is higher than the SWOH rate of 2.0 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, 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 January 1-31 2024. Data was accessed from the Ohio Disease Reporting System on 2/01/2024

†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, January 2024

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Amebiasis	1	.	.	.	.	.	.	.	.	.	1
Brucellosis	1	.	.	.	.	.	.	.	.	.	1
C. auris	6	.	.	1	.	.	.	.	.	.	7
C. auris - Colonization Screening	6	.	.	1	.	.	.	.	.	.	7
CPO	9	1	2	2	.	1	2	4			21
CPO - Colonization Screening	.	.	.	1	.	.	.	.	.	.	1
Campylobacteriosis	3	.	.	.	1	.	1	1			6
Coccidioidomycosis	2	.	.	2	.	.	.	1			5
Creutzfeldt-Jakob Disease	.	.	.	1	1	.	.	.	.	.	2
Cryptosporidiosis	2	.	.	1	.	.	.	.	.	.	3
E.Coli (shiga toxin producing)	2	.	.	1	.	.	.	.	.	.	3
Ehrlichiosis/Anaplasmosis	1	.	.	.	.	.	.	.	.	.	1
Giardiasis	2	.	.	.	.	.	.	.	.	.	2
Haemophilus influenzae (invasive)	4	.	3	2	1	.	1	2			13
Hepatitis A	6	.	1	.	.	.	.	1			8
Hepatitis B (acute)	1	.	.	.	1	.	.	.	.	.	2
Hepatitis B (chronic)	34	.	.	9	1	.	2	3			49
Hepatitis C (chronic)	56	7	8	20	5	1	6	12			115
Hepatitis C - Perinatal Infection	1	.	.	.	.	.	.	.	.	.	1
Influenza-associated hospitalization	203	1	22	92	44	7	16	55			440
Legionnaires' Disease	3	.	.	.	.	.	.	.	.	.	3
Lyme Disease	2	.	.	2	1	.	1	.			6
Malaria	1	.	.	2	.	.	.	.			3
Measles	.	.	.	1	.	.	.	.			1
Meningitis (aseptic/viral)	1	.	.	2	1	1	.	1			6
Meningitis (bacterial)	3	.	.	2	1	.	1	1			8
Meningococcal disease	.	.	.	1	.	.	.	.			1
Mpox	2	.	.	.	.	.	.	.			2
Mumps	1	.	.	.	.	.	.	.			1
Pertussis	.	.	.	11	1	1	.	8			21

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

Reportable Condition	County										Total
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren			
Salmonella Typhi	0	0	0	3	0	0	0	0	0	0	3
Salmonellosis	3	0	0	1	1	0	0	0	3	0	8
Shigellosis	6	0	0	5	0	0	0	0	1	0	12
Streptococcal pneumoniae (invasive)	21	0	3	5	2	1	1	2	2	0	35
Streptococcal, Group A (invasive)	8	0	1	9	1	0	0	2	0	0	21
Streptococcal, Group B (in newborn)	1	0	0	0	0	0	0	0	0	0	1
Tuberculosis	3	0	0	2	0	0	0	0	1	0	6
Varicella	4	0	0	6	0	2	0	0	0	0	12
Yersiniosis	2	0	0	0	1	0	0	0	0	0	3
<b>Total</b>	<b>401</b>	<b>9</b>	<b>40</b>	<b>185</b>	<b>63</b>	<b>14</b>	<b>31</b>	<b>98</b>	<b>841</b>		

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

Reportable Condition	County										Total	
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren				
Amebiasis	1	.	.	.	.	.	.	.	.	.	.	1
Brucellosis	1	.	.	.	.	.	.	.	.	.	.	1
C. auris	6	.	.	1	.	.	.	.	.	.	.	7
C. auris - Colonization Screening	6	.	.	1	.	.	.	.	.	.	.	7
CPO	11	2	2	3	.	1	3	6				28
CPO - Colonization Screening	.	.	.	1	.	.	.	.	.	.	.	1
Campylobacteriosis	3	.	.	.	1	.	1	1				6
Chikungunya virus	1	.	.	.	.	.	.	.	.	.	.	1
Coccidioidomycosis	2	.	.	2	.	.	.	1				5
Creutzfeldt-Jakob Disease	.	.	.	1	1	.	.	.	.	.	.	2
Cryptosporidiosis	2	.	.	1	.	.	.	.	.	.	.	3
Dengue	1	.	.	.	.	.	.	.	.	.	.	1
E.Coli (shiga toxin producing)	2	.	.	1	.	.	.	.	.	.	.	3
Ehrlichiosis/Anaplasmosis	1	.	.	.	.	.	.	.	.	.	.	1
Giardiasis	2	.	.	.	.	.	.	.	.	.	.	2
Haemophilus influenzae (invasive)	4	.	3	2	1	.	1	2				13
Hepatitis A	6	.	1	.	.	.	.	1				8
Hepatitis B (acute)	1	.	.	.	1	.	.	.				2
Hepatitis B (chronic)	34	.	.	9	1	.	2	3				49
Hepatitis C (chronic)	56	7	8	20	5	1	6	12				115
Hepatitis C - Perinatal Infection	1	.	.	.	.	.	.	.				1
Influenza-associated hospitalization	203	1	22	92	44	7	16	55				440
Legionnaires' Disease	3	.	.	.	.	.	.	.				3
Lyme Disease	2	.	.	2	1	.	1	.				6
Malaria	1	.	.	2	.	.	.	.				3
Measles	.	.	.	1	.	.	.	.				1
Meningitis (aseptic/viral)	1	.	.	2	1	1	.	1				6
Meningitis (bacterial, not N. meningitidis)	3	.	.	2	1	.	1	1				8
Meningococcal disease	.	.	.	1	.	.	.	.				1

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

Reportable Condition	County										Total	
	Hamilton	Adams	Brown	Butler	Clermont	Clinton	Highland	Warren				
Mumps	1	.	.	.	.	.	.	.	.	.	.	1
Pertussis	.	.	.	11	1	1	.	.	8			21
Salmonella Typhi	.	.	.	3	.	.	.	.	.			3
Salmonellosis	3	.	.	1	1	.	.	.	3			8
Shigellosis	6	.	.	5	.	.	.	.	1			12
Streptococcal pneumoniae (invasive)	21	.	3	5	2	1	1	1	2			35
Streptococcal, Group A (invasive)	8	.	1	9	1	.	.	.	2			21
Streptococcal, Group B (in newborn)	1	.	.	.	.	.	.	.	.			1
Tuberculosis	3	.	.	2	.	.	.	.	1			6
Varicella	4	.	.	6	.	2	.	.	.			12
West Nile virus infection (WNV)	1	.	.	.	.	.	.	.	.			1
Yersiniosis	2	.	.	.	1	.	.	.	.			3

# SYNDROMIC SURVEILLANCE

## Emergency Department Visits

**Number of EpiCenter alerts received: 10**

Types of EpiCenter alerts:

- Infectious Disease Symptoms (n=9)
- Syndromic Symptoms (n=1)

The alerts received for Hamilton County from January 1 - January 31 are summarized in Table 5 below. Five of the anomalies received in EpiCenter were dispositioned as Indeterminate. One investigation was dispositioned as Seasonal Illness - ILI/ Respiratory. At time of this report four anomaly 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, January 2024

Anomaly Classifier	Event Date	Alert Category	Analysis Method	Aggregated By	Actual Value	Predicted Value	Threshold Value	Final Disposition
Diarrhea - Not Watery/Bloody	1/28/2024	Infectious Disease	Cusum EMA	Home Location	14	10.8	13.9	Active
Diarrhea - Not Watery/Bloody	1/26/2024	Infectious Disease	Cusum EMA	Facility Location	22	12.3	18.5	Active
Botulinic	1/26/2024	Syndromic	Recursive Least Squares	Home Location	20	8.5	17.9	Active
Vision	1/26/2024	Infectious Disease	Recursive Least Squares	Home Location	18	8.2	15.9	Active
Eyes	1/12/2024	Infectious Disease	Recursive Least Squares	Home Location	16	5.8	14.5	Indeterminate
Eyes	1/12/2024	Infectious Disease	Recursive Least Squares	Facility Location	17	6.0	14.6	Indeterminate
Diarrhea - Watery/Bloody	1/3/2024	Infectious Disease	Cusum EMA	Home Location	10	1.2	8.7	Indeterminate
Diarrhea - Watery/Bloody	1/3/2024	Infectious Disease	Recursive Least Squares	Home Location	10	2.0	8.4	Indeterminate
Diarrhea - Watery/Bloody	1/3/2024	Infectious Disease	Exponential Moving Average	Home Location	10	1.2	7.2	Indeterminate
Cough	1/3/2024	Infectious Disease	Cusum EMA	Facility Location	81	61.7	79.4	Seasonal Illness - ILI/Respiratory

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

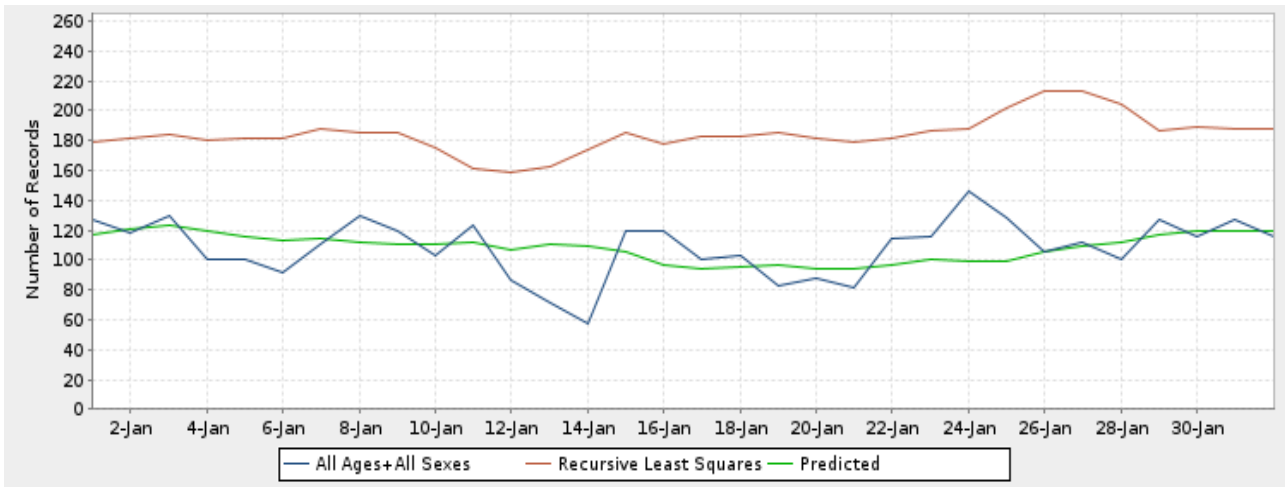


Figure 7. Respiratory-related ED Visits, Hamilton County, Ohio, January 2024

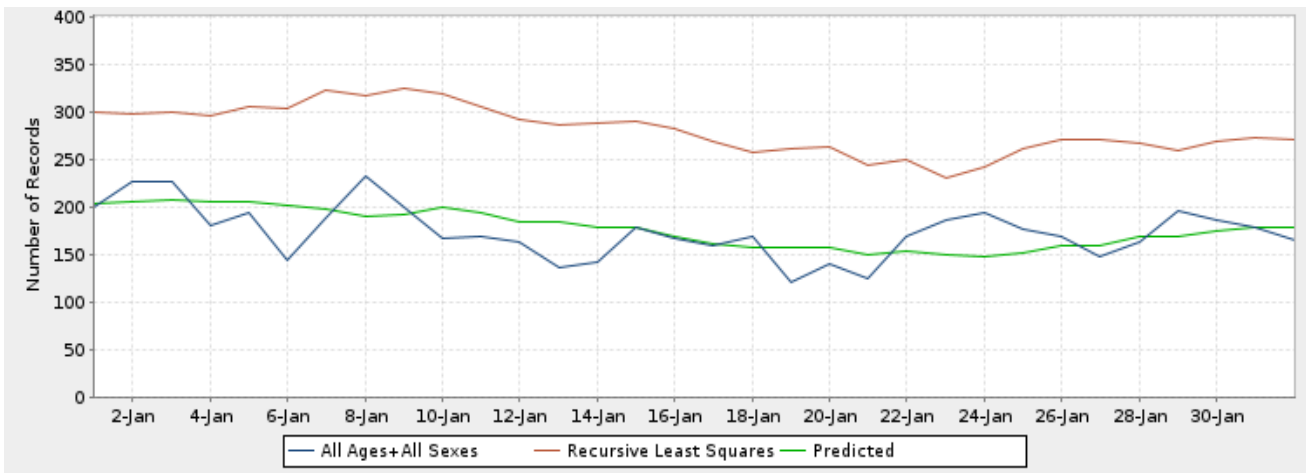


Figure 8. Botulinic-related ED Visits, Hamilton County, Ohio, January 2024

