



Monthly Communicable Disease Surveillance Report

June 2024

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NOTIFIABLE COMMUNICABLE DISEASES

Hamilton County Public Health (HCPH) Jurisdiction

Number of Communicable Diseases Reported: 80
 Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=17)
- Chronic Hepatitis B (n=9)
- Lyme Disease (n=8)
- C. auris - Colonization Screening (n=5)
- Salmonellosis (n=4)

Southwest Ohio (SWOH)

Number of Communicable Diseases Reported: 367
 Most frequently reported communicable diseases:

- Chronic Hepatitis C (n=101)
- Lyme Disease (n=43)
- Chronic Hepatitis B (n=35)
- Pertussis (n=18)
- Salmonellosis (n=18)

Summary

In June, the overall rates of reported communicable diseases for HCPH, SWOH, and Ohio increased by 20%, 2%, and 26% respectively. The Ohio rate (29.7) was the highest of the three rates, followed by the SWOH rate (23.2) and the HCPH rate (18.7) (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 Lyme disease and Chronic Hepatitis B the 2nd- and 3rd-most reported, respectively (Table 2). Chronic hepatitis B and C cases accounted for 37.1% of the total communicable diseases reported during June. Southwest Ohio is currently on pace for a 1.6% decrease in chronic hepatitis over the previous year's average of 154 cases. The number of chronic hepatitis cases reported for SWOH in June (136) was lower than the number of cases reported in the previous month (148). The rate of chronic hepatitis within Hamilton County for June was 8.1 per 100,000 residents. This rate was higher than the SWOH rate of 7.8 per 100,000 residents.

Lyme disease was the second most frequently reported disease in SWOH, accounting for 11.7% of the total communicable diseases reported during June. The number of Lyme disease cases reported during June (43) was higher than the number of cases reported in the previous month (35). The rate of Lyme disease cases within Hamilton County for June was 1.4 per 100,000 residents. This rate was lower than the SWOH rate of 2.5 per 100,000 residents.

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

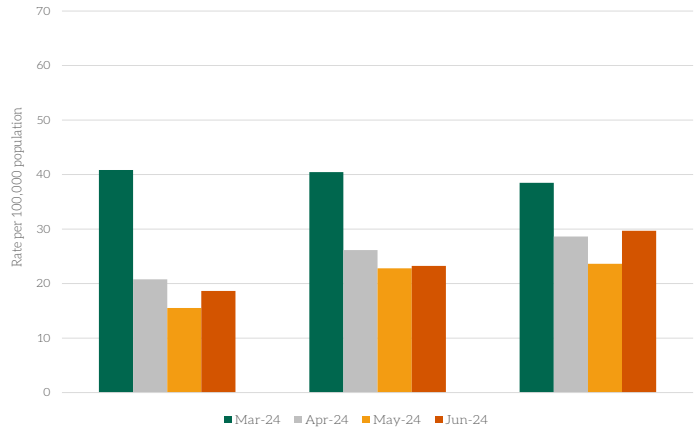


Table 1. Comparison of the Reported Cases of Notifiable Communicable Diseases by Location, June 2024

| Location | Number of Reported Cases | Rate per 100,000 | Rate Ratio† | Confidence Interval (99%)‡ |
|----------|--------------------------|------------------|-------------|----------------------------|
| HCPH | 80 | 16.80 | 0.63 | 0.47 - 0.84 |
| SW OHIO | 367 | 20.92 | 0.78 | 0.68 - 0.90 |
| OHIO | 3,092 | 26.71 | . | .-. |

previous month (33). The rate of pertussis cases within Hamilton County for June was 0.1 per 100,000 residents. This rate was lower than the SWOH rate of 1.0 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, 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 June 1-27 2024. Data was accessed from the Ohio Disease Reporting System on 6/27/2024

†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, June 2024

| Reportable Condition | County | | | | | | | | | | Total |
|--------------------------------------|----------|-------|-------|--------|----------|---------|----------|--------|---|---|-------|
| | Hamilton | Adams | Brown | Butler | Clermont | Clinton | Highland | Warren | | | |
| Babesiosis | · | 1 | · | · | 1 | · | · | · | · | · | 2 |
| Brucellosis | · | 1 | · | · | · | · | · | · | · | · | 1 |
| C. auris | 6 | · | · | · | · | · | · | · | · | · | 6 |
| C. auris - Colonization Screening | 9 | · | · | 2 | 4 | · | · | · | 1 | · | 16 |
| CPO | 5 | · | · | 1 | 1 | · | · | · | · | · | 7 |
| Campylobacteriosis | 9 | · | · | 1 | · | · | · | · | 4 | · | 14 |
| Coccidioidomycosis | · | · | 1 | · | · | · | · | · | · | · | 1 |
| Cryptosporidiosis | 3 | · | · | · | 1 | · | · | · | 2 | · | 6 |
| Cyclosporiasis | 1 | · | · | · | · | · | · | · | · | · | 1 |
| E.Coli (shiga toxin producing) | 3 | · | · | 2 | · | · | · | · | · | · | 5 |
| Ehrlichiosis/Anaplasmosis | · | 1 | · | · | · | · | · | · | · | · | 1 |
| Giardiasis | 3 | · | · | · | 1 | · | · | · | 2 | · | 6 |
| Haemophilus influenzae (invasive) | 2 | · | · | · | · | · | · | · | 1 | · | 3 |
| Hepatitis A | 1 | · | 3 | · | · | · | · | · | · | · | 4 |
| Hepatitis B (acute) | 1 | · | · | · | · | · | · | · | 1 | · | 2 |
| Hepatitis B (chronic) | 20 | 1 | 1 | 8 | 1 | · | · | · | 4 | · | 35 |
| Hepatitis C (acute) | 2 | · | · | · | · | · | · | · | · | · | 2 |
| Hepatitis C (chronic) | 45 | · | 5 | 30 | 7 | · | 3 | 11 | · | · | 101 |
| Hepatitis C - Perinatal Infection | 1 | · | · | · | · | 1 | · | · | · | · | 2 |
| Influenza-associated hospitalization | 4 | · | · | 3 | 1 | · | · | · | 1 | · | 9 |
| Legionnaires' Disease | 1 | · | · | 2 | 1 | · | · | · | · | · | 4 |
| Listeriosis | 1 | · | · | · | · | · | · | · | · | · | 1 |
| Lyme Disease | 11 | 9 | 3 | 2 | 12 | · | 4 | 2 | · | · | 43 |
| Malaria | 1 | · | · | · | · | · | · | · | · | · | 1 |
| Meningitis (aseptic/viral) | 5 | · | 1 | 2 | 1 | · | 1 | · | · | · | 10 |
| Meningitis (bacterial) | 2 | · | · | · | · | · | · | · | · | · | 2 |
| Mumps | 2 | · | · | · | · | · | · | · | · | · | 2 |
| Pertussis | 1 | · | 2 | 5 | 4 | · | · | · | 6 | · | 18 |
| Salmonellosis | 9 | 1 | 1 | 2 | 2 | · | 1 | · | 2 | · | 18 |
| Shigellosis | 3 | · | 1 | 1 | · | · | · | · | · | · | 5 |

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

| Reportable Condition | County | | | | | | | | | | Total |
|--------------------------------------|----------|-------|-------|--------|----------|---------|----------|--------|---|-----|-------|
| | Hamilton | Adams | Brown | Butler | Clermont | Clinton | Highland | Warren | | | |
| Amebiasis | 3 | . | . | 1 | . | . | 1 | . | . | . | 5 |
| Babesiosis | 1 | 1 | . | . | 2 | . | . | . | . | . | 4 |
| Brucellosis | 1 | 1 | . | . | . | . | . | . | . | . | 2 |
| C. auris | 41 | . | . | 1 | 2 | . | . | . | 2 | . | 46 |
| C. auris - Colonization Screening | 40 | . | 1 | 15 | 13 | 1 | . | 3 | 1 | 3 | 73 |
| CPO | 44 | 4 | 3 | 20 | 12 | 5 | 9 | 15 | 1 | 15 | 112 |
| CPO - Colonization Screening | 2 | . | . | 9 | . | . | 3 | 1 | . | . | 15 |
| Campylobacteriosis | 29 | 1 | 4 | 14 | 5 | 1 | 3 | 10 | . | . | 67 |
| Chikungunya virus | 1 | . | . | . | . | . | . | . | . | . | 1 |
| Coccidioidomycosis | 3 | . | 2 | 2 | 1 | . | . | 1 | . | . | 9 |
| Creutzfeldt-Jakob Disease | 2 | . | . | 1 | 1 | . | . | . | . | . | 4 |
| Cryptosporidiosis | 6 | . | . | 5 | 2 | . | . | 3 | . | . | 16 |
| Cyclosporiasis | 1 | . | . | 1 | . | . | . | . | . | . | 2 |
| Dengue | 6 | . | . | 1 | . | . | . | . | . | . | 7 |
| E.Coli (shiga toxin producing) | 10 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 21 |
| Ehrlichiosis/Anaplasmosis | 3 | 1 | . | . | 3 | . | . | 1 | . | 1 | 8 |
| Giardiasis | 17 | 1 | . | 2 | 5 | 1 | . | 5 | . | 5 | 31 |
| Haemophilus influenzae (invasive) | 14 | . | 5 | 10 | 3 | 2 | 2 | 5 | 5 | 5 | 41 |
| Hepatitis A | 17 | 1 | 6 | 4 | . | . | 1 | 4 | . | 4 | 33 |
| Hepatitis B (acute) | 9 | 2 | 1 | 3 | 2 | . | . | 1 | . | 1 | 18 |
| Hepatitis B (chronic) | 118 | 7 | 3 | 58 | 12 | 5 | 6 | 39 | . | 39 | 248 |
| Hepatitis C (acute) | 3 | . | . | . | 2 | . | . | . | . | . | 5 |
| Hepatitis C (chronic) | 315 | 29 | 31 | 129 | 48 | 13 | 25 | 68 | . | 68 | 658 |
| Hepatitis C - Perinatal Infection | 5 | . | . | 1 | 1 | 2 | 1 | . | . | . | 10 |
| Hepatitis E | . | . | 1 | . | . | . | . | . | . | . | 1 |
| Influenza-associated hospitalization | 663 | 4 | 38 | 307 | 155 | 23 | 33 | 144 | . | 144 | 1367 |
| LaCrosse Virus Disease (LCVD) | . | . | . | . | 1 | . | . | . | . | . | 1 |
| Legionnaires' Disease | 11 | . | . | 4 | 3 | . | . | 2 | . | 2 | 20 |

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

| Reportable Condition | County | | | | | | | | | | Total | |
|-------------------------------------|----------|-------|-------|--------|----------|---------|----------|--------|---|---|-------|-----|
| | Hamilton | Adams | Brown | Butler | Clermont | Clinton | Highland | Warren | | | | |
| Listeriosis | 1 | . | . | . | . | . | . | . | . | . | . | 1 |
| Lyme Disease | 36 | 15 | 11 | 13 | 29 | 1 | 9 | 7 | | | | 121 |
| Malaria | 9 | . | . | 3 | . | . | . | . | . | . | . | 12 |
| Measles | 1 | . | . | 5 | 3 | 2 | 4 | 7 | | | | 22 |
| Meningitis (aseptic/viral) | 19 | . | 2 | 12 | 3 | 1 | 1 | 7 | | | | 45 |
| Meningitis (bacterial) | 15 | . | . | 6 | 1 | . | 1 | 4 | | | | 27 |
| Meningococcal disease | 1 | . | . | 3 | . | . | . | . | | | | 4 |
| Mpox | 3 | . | . | . | . | . | . | . | | | | 3 |
| Mumps | 13 | . | . | 2 | 1 | 1 | . | 1 | | | | 18 |
| Pertussis | 20 | 1 | 4 | 26 | 10 | 1 | . | 32 | | | | 94 |
| Rubella (not congenital) | 1 | . | . | . | . | . | . | . | | | | 1 |
| Salmonella Typhi | . | . | . | 2 | . | . | . | . | | | | 2 |
| Salmonellosis | 47 | 2 | 2 | 17 | 10 | . | 2 | 9 | | | | 89 |
| Shigellosis | 19 | . | 1 | 8 | . | . | . | 3 | | | | 31 |
| Spotted Fever Rickettsiosis (RMSF) | 1 | 2 | . | . | 3 | 1 | 1 | 2 | | | | 10 |
| Streptococcal pneumoniae (invasive) | 47 | 2 | 4 | 28 | 10 | 3 | 3 | 9 | | | | 106 |
| Streptococcal, Group A (invasive) | 46 | 3 | 1 | 25 | 15 | . | 1 | 13 | | | | 104 |
| Streptococcal, Group B (in newborn) | 4 | . | . | . | 2 | . | . | 2 | | | | 8 |
| Tetanus | . | . | . | 1 | . | . | . | . | | | | 1 |
| Tuberculosis | 19 | 1 | . | 12 | . | . | . | 3 | | | | 35 |
| Tularemia | 1 | . | . | . | . | . | . | 2 | | | | 3 |
| Varicella | 20 | . | . | 17 | 1 | 3 | 1 | 6 | | | | 48 |
| Vibriosis | 3 | . | . | 1 | . | . | . | . | | | | 4 |
| West Nile virus infection (WNV) | 1 | . | . | . | . | . | . | . | | | | 1 |
| Yersiniosis | 9 | . | . | . | 3 | . | . | 2 | | | | 14 |

SYNDROMIC SURVEILLANCE

Emergency Department Visits

Number of EpiCenter alerts received: 17

Types of EpiCenter alerts:

- Infectious Disease Symptoms (n=15)
- Syndromic Symptoms (n=2)

The alerts received for Hamilton County from June 1 - June 27 are summarized in Table 5 below. Nine of the anomalies received in EpiCenter were dispositioned as not a health event. At the time of this report, six anomaly investigations are still active. There were two syndromic anomalies in Hamilton County for the month of June. Both were Botulinic alerts. Constitutional, Botulinic, and Gastrointestinal syndrome charts are shown in Figures 6, 7, and 8, respectively.

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

| Anomaly Classifier | Event Date | Alert Category | Analysis Method | Aggregated By | Actual Value | Predicted Value | Threshold Value | Final Disposition |
|--------------------|------------|--------------------|----------------------------|-------------------|--------------|-----------------|-----------------|--------------------|
| Paralysis | 6/24/2024 | Infectious Disease | Recursive Least Squares | Home Location | 26 | 10.64 | 25.25 | Active |
| Exacerbation | 6/23/2024 | Infectious Disease | Recursive Least Squares | Home Location | 10 | 2.64 | 8.93 | Active |
| Eyes | 6/21/2024 | Infectious Disease | Recursive Least Squares | Facility Location | 19 | 9.28 | 18.72 | Active |
| Nausea | 6/17/2024 | Infectious Disease | Recursive Least Squares | Facility Location | 50 | 26.34 | 48.55 | Active |
| Nausea | 6/17/2024 | Infectious Disease | Cusum EMA | Facility Location | 48 | 26.56 | 47.72 | Active |
| Nausea | 6/17/2024 | Infectious Disease | Cusum EMA | Home Location | 38 | 22.92 | 37.97 | Active |
| Stiff Neck | 6/12/2024 | Infectious Disease | Recursive Least Squares | Facility Location | 18 | 9.37 | 16.27 | Not a health event |
| Paralysis | 6/4/2024 | Infectious Disease | Recursive Least Squares | Facility Location | 23 | 13.68 | 20.11 | Not a health event |
| Headache | 6/2/2024 | Infectious Disease | Recursive Least Squares | Home Location | 53 | 33.37 | 51.97 | Not a health event |
| Botulinic | 6/1/2024 | Syndromic | Recursive Least Squares | Facility Location | 25 | 12.66 | 23.46 | Not a health event |
| Vision | 6/1/2024 | Infectious Disease | Exponential Moving Average | Facility Location | 24 | 11.47 | 22.95 | Not a health event |
| Vision | 6/1/2024 | Infectious Disease | Exponential Moving Average | Home Location | 21 | 8.41 | 21.00 | Not a health event |
| Vision | 6/1/2024 | Infectious Disease | Recursive Least Squares | Home Location | 20 | 8.07 | 19.92 | Not a health event |
| Vision | 6/1/2024 | Infectious Disease | Recursive Least Squares | Facility Location | 23 | 11.29 | 22.83 | Not a health event |
| Botulinic | 6/1/2024 | Syndromic | Cusum EMA | Home Location | 19 | 9.38 | 17.70 | Not a health event |
| Vision | 6/1/2024 | Infectious Disease | Cusum EMA | Facility Location | 22 | 11.44 | 21.54 | Not a health event |

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

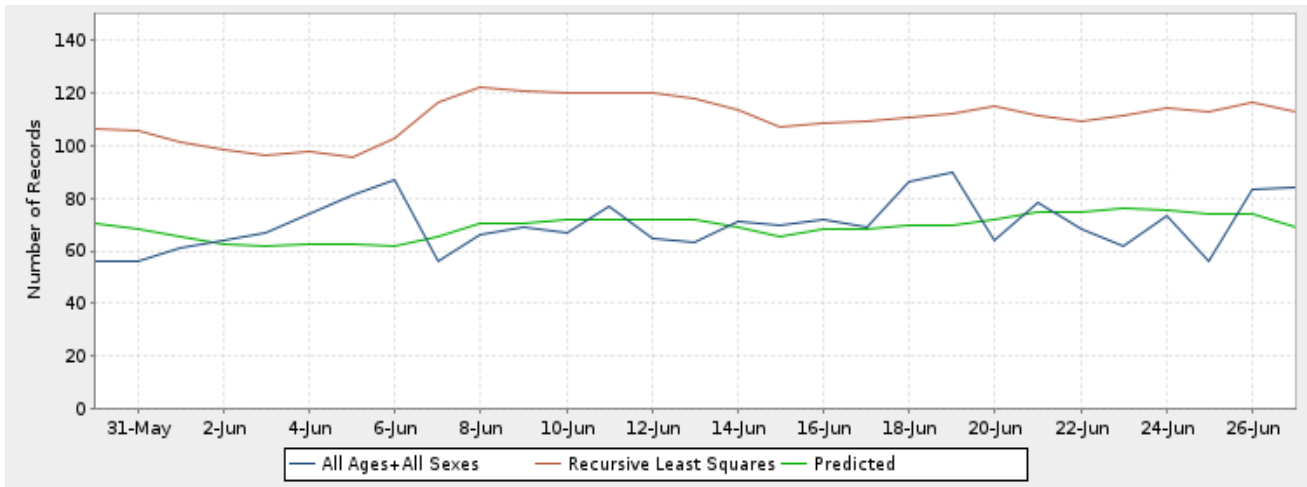


Figure 7. Botulinic-related ED Visits, Hamilton County, Ohio, June 2024

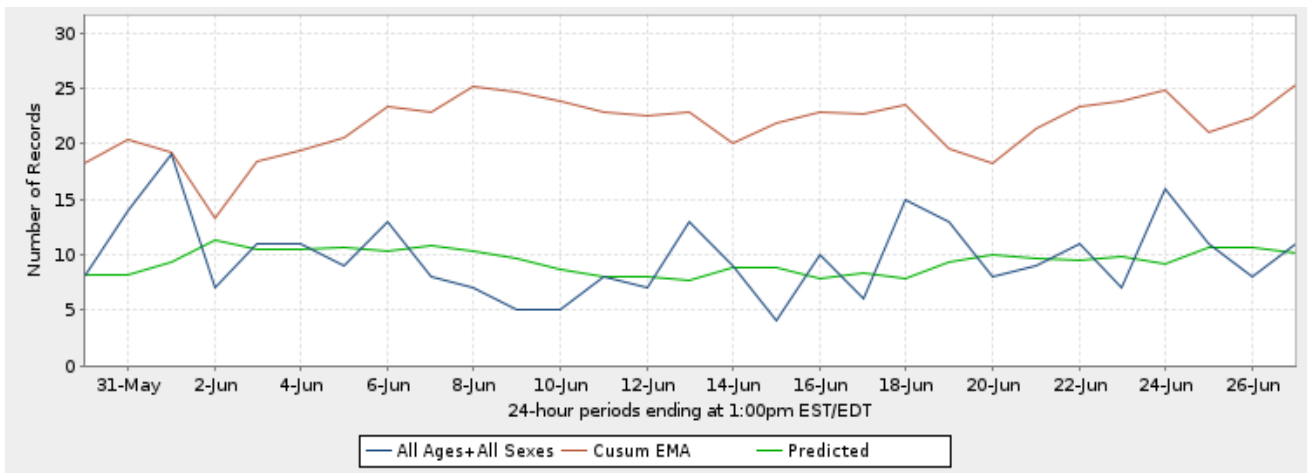


Figure 8. Gastrointestinal-related ED Visits, Hamilton County, Ohio, June 2024

