

October 2023

The EpiGram is a monthly publication of the Stark County Reportable and Emerging Disease Network (REDNET). It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for each of the four local health department jurisdictions. Some reportable conditions may be under investigation, and, at any given time, data may fluctuate from month to month for a specific category. If you have any questions, please contact Julianna Smith at 330.451.1650 or smithj@starkhealth.org, Cassie Johnson at 330.451.1688 or johnsonc@starkhealth.org or Kaelyn Boyd at 234.458.5135 or kboyd@cantonhealth.org.



Public Health
Prevent. Promote. Protect.

Monthly Highlight: Shiga toxin-producing E. coli (STEC)

Escherichia coli (E. Coli) are versatile and important bacteria that aid in digestion efforts and are located in human and some mammal intestines. These bacteria can cause illness if they leave the intestines and spread via the fecal-oral route after consumption of contaminated liquids or foods or by person-to-person through fecal shedding. Several pathotypes of E. Coli are known to cause common clinical syndromes, such as enteric/diarrheal diseases, urinary tract infections or sepsis/meningitis. These pathotypes are characterized by their O and H antigens, which define their serotype. One of these pathotypes, known as enterohemorrhagic E. coli or Shiga toxin-producing E. Coli (STEC), can cause mild to severe diarrhea (often bloody) and/or abdominal cramping. O157:H7 is the most common STEC infection reported in the United States. Complications can occur with this disease, such as Hemolytic Urea Syndrome (HUS) and may require transfusion and dialysis. Although anyone infected with O157:H7 can develop HUS, those five and under, those with weakened immune systems and persons with a family history of HUS are most at risk. Other serotypes are known to exist, such as O26 and O103, and collectively, these three serogroups were known to cause 71.4% of all STEC infections in the United States in 2017.

As of October 31st 2023, we have had nineteen STEC cases reported in Stark County, an 111% increase from 2022 numbers. Some basic demographic information from these cases can be found below:

- Sex: Female (53%) and Male (47%)
- Age Range: 3-81 years old (Median: 49)
- 3 reported hospitalizations
- 2 cases with reported international travel
- No cases linked to national outbreaks

Of the nineteen cases we have had, six of them had been subtyped. Five had been identified as O103 and one was identified as O157. Antibiotics are not recommended for STEC infections, as there is some evidence to suggest that they increase the risk of HUS, and patients should be encouraged to drink plenty of fluids as diarrhea may cause dehydration.

For more information:

[CDC: Resources for Clinicians and Laboratories](#)

[ODH: E. coli, Shiga Toxin-Producing and Hemolytic Uremic Syndrome](#)

Table 1: Select Vital Statistics for Stark County

	Oct 2023	YTD 2023	2022
Live Births	335	3,246	3,851
Births to Teens	18	178	183
Deaths	409	3,752	4,807

* Birth and death data are preliminary.

Table 2: Stark County Crude Birth Rate and Death Rates

	2018	2019	2020	2021*	2022*
Birth	10.9	11.0	10.5	10.5	10.3
Death	11.8	12.0	14.1	14.5	12.8

*Source: Data Ohio. Rates are per 1,000 population. 2021 and 2022 data are preliminary.

Table 3: Summary of Air Quality Index, Pollen, and Mold Counts for Stark County, Ohio, including historical data.

	October 2023				November 2022			
	Monthly High	Monthly Low	Monthly Median	Counts in highest reported health risk category	Monthly High	Monthly Low	Monthly Median	Counts in highest reported health risk category
Pollen Count	5	0	2	N/A	Data collected seasonally and currently not available.			
Mold Count	5,900	900	3,700	N/A				
Air Quality Index	51	12	30	Moderate (1)				

**See the following websites for updated Air Quality Index and mold index terminology and color coding: <http://www.airnow.gov/index.cfm?action=aqibasics.aqi> <https://pollen.aaaai.org/#/pages/reading-the-levels>. Data source for this table is the Air Quality Division of the Canton City Health Department.

Jurisdictional Summary of Select Reportable Conditions in Stark County, OH (Provisional Data)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	Oct	YTD	Oct	YTD	Oct	YTD	Oct	YTD	Oct	YTD
Campylobacteriosis	0	3	2	20	1	7	10	62	13	92
Chlamydia infection	8	108	78	673	22	128	51	477	159	1,386
COVID-19	47	468	92	1,154	54	512	402	3,947	595	6,081
CPO	0	1	0	5	0	6	3	21	3	33
CPO - Colonization Screening	0	0	0	0	0	0	1	3	1	3
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	1	0	1
Cryptosporidiosis	0	1	0	1	0	1	0	11	0	14
Cyclosporiasis	0	0	0	2	0	0	0	1	0	3
E. coli, Shiga Toxin-Producing (O157:H7, Not O157, Unknown Serotype)	0	0	0	1	0	2	1	16	1	19
Ehrlichiosis-Ehrlichia chaffeensis	0	0	0	0	0	0	0	1	0	1
Giardiasis	0	1	0	4	0	1	3	7	3	13
Gonococcal infection	3	29	31	306	7	46	13	136	54	517
Haemophilus influenzae (invasive disease)	0	0	0	0	0	1	0	7	0	8
Hepatitis B (including delta) - acute	0	0	0	1	0	0	0	1	0	2
Hepatitis B (including delta) - chronic	0	0	1	7	0	2	1	11	2	20
Hepatitis C - acute	0	0	0	1	0	0	0	3	0	4
Hepatitis C - chronic	1	15	9	64	3	24	5	43	18	146
Hepatitis C - Perinatal Infection	0	0	0	0	0	0	0	1	0	1
Hepatitis E	0	0	0	0	0	0	0	1	0	1
Influenza-associated hospitalization	0	4	0	28	0	9	1	61	1	102
LaCrosse virus disease (other California serogroup virus disease)	0	0	0	0	0	0	0	1	0	1
Legionellosis	0	0	0	2	0	1	1	10	1	13
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	0	1	0	3	0	5	2	57	2	66
Meningitis - aseptic/viral	0	0	0	5	1	1	1	7	2	13
Meningitis - bacterial (Not N. meningitidis)	0	0	0	2	0	0	0	0	0	2
Mumps	0	0	0	0	0	1	0	0	0	1
Pertussis	0	0	0	0	0	0	1	11	1	11
Salmonellosis	1	3	2	10	0	4	3	26	6	43
Shigellosis	0	0	2	4	0	0	1	6	3	10
Streptococcal - Group A -invasive	1	6	1	10	0	0	3	26	5	42
Streptococcal - Group B - in newborn	0	0	0	0	0	0	0	1	0	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	2	1	7	0	2	1	14	2	25
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	0	0	3	0	0	1	3	1	6
Syphilis, Total	0	3	5	60	5	16	2	29	12	108
Syphilis, Primary, Secondary and Early Latent	0	2	3	41	3	9	2	21	8	73
Syphilis, Congenital	0	0	0	2	0	0	0	0	0	2
Toxic shock syndrome (TSS)	0	0	0	0	0	0	0	1	0	1
Tuberculosis	0	0	0	0	0	1	0	1	0	2
Varicella	0	0	0	3	0	1	1	6	1	10
West Nile virus disease (also current infection)	0	0	0	0	0	0	0	2	0	2
Yersiniosis	0	0	0	2	0	2	0	6	0	10
Total	61	645	224	2,377	93	773	508	5,019	886	8,814

Source: Ohio Disease Reporting System, downloaded 11/2/2023.



Summary Table of Select Reportable Conditions Reported in the Previous 5 years within Stark County, OH (Provisional Data)	OCT 2023	OCT 2022	YTD 2023	YTD 2022	All of 2022	5 Year Annual Average	Rate
Campylobacteriosis	13	6	92	64	71	70.0	18.83
Chlamydia infection	159	173	1,386	1,419	1,672	1,692.8	455.46
COVID-19	595	1,345	6,081	29,426	32,266	19,153.0	5,153.29
CPO	3	1	33	18	22	15.2	4.09
CPO - Colonization Screening	1	0	3	0	0	N/A	N/A
Coccidioidomycosis	0	0	0	2	2	0.6	0.16
Creutzfeldt-Jakob Disease	0	0	1	0	0	0.6	0.16
Cryptosporidiosis	0	1	14	16	18	27.0	7.26
Cyclosporiasis	0	0	3	1	1	4.2	1.13
E. coli, Shiga Toxin-Producing (O157:H7, Not O157, Unknown Serotype)	1	0	19	9	10	11.8	3.17
Ehrlichiosis-Ehrlichia chaffeensis	0	0	1	1	1	0.2	0.05
Giardiasis	3	1	13	6	7	10.8	2.91
Gonococcal infection	54	70	517	667	767	715.0	192.38
Haemophilus influenzae (invasive disease)	0	1	8	10	12	6.8	1.83
Hepatitis A	0	0	0	1	1	6.8	1.83
Hepatitis B (including delta) - acute	0	0	2	2	2	5.2	1.40
Hepatitis B (including delta) - chronic	2	4	20	26	29	36.0	9.69
Hepatitis C - acute	0	0	4	6	7	7.0	1.88
Hepatitis C - chronic	18	14	146	159	185	235.6	63.39
Hepatitis C - Perinatal Infection	0	0	1	1	1	0.8	0.22
Hepatitis E	0	0	1	0	0	0.0	0.00
Influenza-associated hospitalization	1	3	102	116	327	334.6	90.03
LaCrosse virus disease (other California serogroup virus disease)	0	0	1	1	1	1.2	0.32
Legionellosis	1	0	13	27	28	27.8	7.48
Listeriosis	0	0	1	1	3	1.2	0.32
Lyme Disease	2	2	66	23	28	22.4	6.03
Meningitis - aseptic/viral	2	1	13	12	14	20.6	5.54
Mpox	0	0	0	4	8	1.6	0.43
MIS-C associated with COVID-19	0	0	0	5	5	3.2	0.86
Mumps	0	0	1	0	0	0.4	0.11
Pertussis	1	0	11	0	0	21.8	5.87
Salmonellosis	6	2	43	42	47	45.6	12.27
Shigellosis	3	1	10	10	13	13.2	3.55
Streptococcal - Group A -invasive	5	2	42	15	20	15.4	4.14
Streptococcal - Group B - in newborn	0	0	1	1	1	0.3	0.38
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	2	3	25	17	20	20.0	5.38
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	1	0	6	13	18	11.4	3.07
Syphilis, Total	12	8	107	96	113	57.6	15.50
Syphilis, Primary, Secondary and Early Latent	8	7	72	75	84	41.4	11.14
Syphilis, Congenital	0	0	2	2	2	0.6	0.16
Toxic shock syndrome (TSS)	0	0	1	0	0	0.0	0.00
Tuberculosis	0	0	2	0	0	1.6	0.43
Varicella	1	0	10	2	4	12.6	3.39
Vibriosis (not cholera)	0	1	2	1	1	1.8	0.48
West Nile virus disease (also current infection)	0	0	2	0	0	1.2	0.32
Yersiniosis	0	0	10	5	5	5.0	1.35

Source: Ohio Disease Reporting System, downloaded 11/2/2023. Rates are per 100K population and based on 5 yr. average incidence 2018-2022.