EPI GRAM June, 2019

A Monthly Publication of the Stark Public Health Infrastructure Coalition

EPI Gram *is a monthly publication of the Stark County Public Health Infrastructure Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. 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 Avinash Joseph at 330.493.9914 or josepha@starkhealth.org, or Amanda Archer at 330.489.3327 or aarcher@cantonhealth.org.***

Public Health
Prevent. Promote. Protect.

Monthly Highlight: Lyme Disease

Lyme disease is a tick-borne illness caused by the bacterium *Borrelia burgdorferi*. Lyme disease is transmitted through the bite of an infected black-legged tick; both humans and animals are at risk for infection. Person-to-person transmission does not typically occur in Lyme disease cases. . Symptoms of Lyme disease may include the characteristic "bullseye rash", fever, chills, headache, fatigue, muscle or joint pain, and lymph node swelling. If left untreated, Lyme disease can have more severe clinical effects such as severe headaches and neck stiffness, additional rashes, arthritis with severe joint swelling and pain, facial palsy, heart palpitations, dizziness, brain/spinal cord inflammation, and short-term memory loss.

Stark County has seen an alarming number of Lyme disease cases recently. There were 10 cases reported in the month of June, comprising over half of the 16 cases reported in the county this year. The best way to prevent Lyme disease is by taking steps to prevent tick bites while outdoors. These steps include:

- Limit skin exposure by wearing long sleeves, long pants, closed toe shoes, and tucking pants into socks
- Wear light colored clothing so ticks can be easily identified
- Use 0.5% permethrin products on outerwear and gear
- Avoid areas that may contain high tick populations (wooded areas, tall grass, and leaf litter)
- Stay in center of trails
- Maintaining your yard by keeping the grass short and free of leaf litter and piles of wood
- Perform regular full body checks focusing on under the arms, in and around ears, inside belly button, behind the knees, between the legs, in and around hair, and around the waist
- Examine children, pets, and gear
- Shower as soon as possible after coming in from outdoors
- Remove ticks as soon as you can
- Use fine-tipped tweezers to grab the tick as close as you can get to the skin and pull away with even pressure
- Wash the bite area and hands with soap and water

Ohio Lyme Disease Annual Case Statistics					
Year	Human Cases	Deaths	Median Age (Years)	Age Range of Cases (Years)	Counties with Reported Lyme Cases
2009	58	0	36.5	2-77	27
2010	44	0	34.5	3-62	24
2011	53	0	34	5-84	25
2012	67	0	33	3 - 86	30
2013	93	0	43	2 - 84	34
2014	119	0	35	1 - 78	32
2015	154	0	41	1 - 85	45
2016	160	0	37	3 - 85	40
2017	270	0	40	3-86	44
2018	293	0	33	1-90	50
AVG	131	0	37	n/a	35
TOTAL	1,063	0	n/a	n/a	n/a

Annual Ohio Lyme Disease Case Burden (via Ohio Department of Health)

Table 1 Summary of Air Quality Index, Pollen, and Mold Counts for Stark County, Ohio, including historical data.

	June 2019				June 2018			
	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	95	1	17	N/A	116	0	16	N/A
Mold Count	5,980	730	3,000	**21 (Low)**	5,200	0	3,510	**21 (Low)**
Air Quality Index	74	33	48	**9 (Moderate)**	84	28	46	**7 (Moderate)**

**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/nab/index.cfm?p=reading_charts. Data source for this table is the Air Quality Division of the Canton City Health Department.

Table 2 Select Vital Statistics for Stark County

	JUN 2019	YTD 2019	2018
Live Births	387	2087	4052*
Births to Teens	22	141	230*
Deaths	246	2103	4230*

* Birth and death data is preliminary

Table 3 Stark County Crude Birth Rate and Death Rates

	2014	2015	2016	2017	2018*
Birth	11.3	11.2	11.3	10.7	10.9
Death	11.4	11.6	11.7	11.9	11.4

*Source: Ohio Department of Health Data Warehouse. Rates are per 1,000 population. 2018 data is preliminary.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County, OH (Provisional Data)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	JUN	YTD	JUN	YTD	JUN	YTD	JUN	YTD	JUN	YTD
Campylobacteriosis	0	0	0	5	1	3	6	29	7	37
Chlamydia infection	12	76	53	399	13	82	48	323	126	880
CP-CRE	0	0	0	3	2	4	2	6	4	13
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	2	0	2
Cryptosporidiosis	2	3	0	1	0	0	4	12	6	16
E. coli, Shiga Toxin-Producing	0	0	0	1	0	2	0	3	0	6
Giardiasis	0	0	0	2	0	1	1	7	1	10
Gonococcal infection	6	17	24	169	3	33	4	65	37	284
Haemophilus influenzae (invasive disease)	0	0	0	1	0	0	1	2	1	3
Hepatitis A	0	1	0	1	0	3	1	5	1	10
Hepatitis B (including delta) - acute	0	0	1	1	2	0	0	0	3	1
Hepatitis B (including delta) - chronic	0	0	0	10	0	2	3	15	3	27
Hepatitis C - acute	0	0	0	1	0	0	0	0	0	1
Hepatitis C - chronic	0	8	9	48	3	12	13	55	25	123
Hepatitis E	0	0	0	0	0	0	0	0	0	0
Influenza-associated hospitalization	0	15	0	113	0	32	0	247	0	407
Legionellosis - Legionnaires' Disease	1	1	2	3	0	2	2	5	5	11
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	0	0	0	0	0	0	10	16	10	16
Meningitis - aseptic/viral	1	1	0	1	1	3	0	0	2	5
Mumps	0	0	0	0	0	0	0	1	0	1
Pertussis	0	2	0	7	0	2	4	14	4	25
Salmonellosis	0	0	1	3	2	3	3	9	6	15
Shigellosis	0	0	0	3	0	0	0	18	0	21
Streptococcal - Group A -invasive	0	0	0	2	0	1	0	7	0	10
Streptococcal - Group B - in newborn	0	0	0	0	0	0	0	1	0	1
Streptococcus pneumoniae - inv antibiotic resistance unknown or non-resistant	0	1	1	3	0	0	3	10	4	14
Streptococcus pneumoniae – inv antibiotic resistant/intermediate	0	2	0	1	1	2	0	3	1	8
Syphilis, Total	0	2	0	6	0	0	1	7	1	15
➢ Syphilis, Primary, Secondary & Early Latent	0	2	0	4	0	0	1	6	1	12
Tuberculosis	0	0	0	1	0	0	1	1	1	2
Varicella	0	0	6	6	1	1	1	8	8	15
Vibriosis (not cholera)	0	0	0	0	0	1	0	0	0	1
Yersiniosis	0	0	0	0	0	0	0	2	0	2
Total	22	134	92	812	29	198	110	915	253	2059

Alliance City Health Department
cityofalliance.com/health

Canton City Public Health
cantonhealth.org

Massillon City Health Department
massillonohio.com/health

Stark County Health Department
starkhealth.org

Table 5 – Summary Table of Diseases Reported in the Previous 5 years within Stark County (Provisional Data)	JUN-19	JUN-18	YTD 2019	YTD 2018	All of 2018	5 Yr Annual Average	Rate
Amebiasis	0	0	0	0	0	0.4	0.107
Anaplasmosis	0	1	0	1	2	0.6	0.161
Babesiosis	0	0	0	2	2	0.8	0.214
Brucellosis	0	0	0	0	0	0.2	0.054
Campylobacteriosis	7	8	37	28	85	77.6	20.761
Chlamydia	126	106	880	849	1713	1720.0	460.169
CP-CRE	4	1	13	4	27	24.0	6.421
Coccidioidomycosis	0	0	0	0	0	0.4	0.107
Creutzfeldt-Jakob Disease	0	0	2	0	1	1.2	0.321
Cryptosporidiosis	6	3	16	11	33	33.8	9.043
Cyclosporiasis	0	1	1	1	8	3.0	0.803
E. coli, Shiga Toxin-Producing (O157:H7, Not O157, Unknown Serotype)	0	3	6	7	17	14.0	3.746
Giardiasis	1	2	10	9	23	21.8	5.832
Gonorrhea	37	44	284	271	643	580.2	155.227
Haemophilus influenzae , Invasive	1	0	3	2	4	6.4	1.712
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0.2	0.054
Hepatitis A	2	1	10	3	11	7.6	2.033
Hepatitis B, Perinatal	0	0	1	0	1	1.8	0.482
Hepatitis B, Acute	3	1	4	5	11	6.4	1.712
Hepatitis B, Chronic	3	13	36	42	85	57.6	15.410
Hepatitis C, Acute	0	0	0	3	5	6.2	1.659
Hepatitis C, Chronic	25	28	175	157	313	313.0	83.740
Hepatitis C-Perinatal Infection	1	0	1	0	4	4.0	1.070
Hepatitis E	0	0	0	0	0	0.2	0.054
Influenza-associated hospitalization	0	0	409	578	595	379.0	101.398
LaCrosse virus disease	0	1	0	1	4	1.0	0.268
Legionellosis	5	4	11	10	34	18.0	4.816
Listeriosis	0	0	1	0	1	1.0	0.268
Lyme Disease	10	4	16	10	38	24.0	6.421
Malaria	0	0	0	0	0	0.4	0.107
Measles (indigenous to Ohio)	0	0	0	0	0	2.0	0.535
Meningitis, Aseptic	2	3	5	18	46	34.6	9.257
Meningitis, Other Bacterial	0	1	0	2	4	3.4	0.910
Meningococcal Disease	0	0	0	0	0	1.0	0.268
Mumps	0	0	1	2	2	3.2	0.856
Pertussis	4	5	25	26	54	50.4	13.484
Q fever, chronic	0	0	0	0	0	0.2	0.054
Salmonellosis	6	5	15	23	61	47.8	12.788
Shigellosis	0	1	21	20	25	26.2	7.010
Spotted Fever Rickettsiosis	0	1	0	2	5	2.2	0.589
Staphylococcal aureus - intermediate resistance to vancomycin (VISA)	0	0	0	0	0	0.2	0.054
Streptococcal Dis, Group A, Invasive	0	5	10	22	25	15.2	4.067
Streptococcal Dis, Group B, in Newborn	0	0	1	0	2	1.6	0.428
Streptococcal Toxic Shock Syndrome	0	0	0	0	0	0.8	0.214
Streptococcus pneumoniae – inv. antibiotic resistance unknown or non-resistant	4	0	14	18	29	30.6	8.187
Streptococcus pneumo – inv. antibiotic resistant/intermediate	1	0	8	4	10	13.4	3.585
Syphilis, Total	1	2	15	18	33	19.4	5.190
Syphilis, Primary, Secondary and Early Latent	1	0	12	10	19	11.8	3.157
Toxic Shock Syndrome (TSS)	0	0	0	0	0	0.2	0.054
Tuberculosis	1	1	2	1	5	2.4	0.642
Varicella	0	1	15	7	16	24.2	6.474
Vibriosis - other (not cholera)	0	0	1	0	1	2.2	0.589
Vibrio parahaemolyticus infection	0	0	0	0	0	0.0	0.000
West Nile Virus	0	0	0	0	8	2.2	0.589
Yersiniosis	0	0	2	1	3	6.4	1.712
Zika virus infection	0	0	0	0	0	1.0	0.268

Source: Ohio Disease Reporting System, downloaded 3/2019. Rates are per 100K population and based on 5 yr average incidence ’14 – ‘18.