

EPI GRAM April, 2018

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.**



Monthly Highlight: Legionella

Legionella (also known as Legionnaire’s Disease or Pontiac fever) is a bacterial infection caused by members of the genus *Legionella*. Legionella can present as two different illnesses: Legionnaire’s Disease or Pontiac Fever. Pontiac Fever is the milder form of the infection, presenting with influenza-like symptoms of fever, headache, and myalgia. Legionnaire’s Disease causes a severe type of pneumonia, which includes symptoms of cough, shortness of breath, fever, myalgia, and headache. 10% of patients who develop Legionnaire’s disease die, including 25% of those who were infected while staying at a healthcare facility. While patients with Legionnaire’s Disease almost universally require hospitalization and antibiotic treatment, patients who develop Pontiac fever normally do not require any treatment.

While Legionella bacteria are found naturally in freshwater environments, the primary source of transmission is through manmade water systems. In improperly maintained water systems Legionella grows and spreads, and can then be transmitted when aerosolized water droplets are breathed in. Less often, infection occurs when a person drinks or aspirates contaminated water. People at increased risk for developing Legionnaire’s Disease include those over 50, current and former smokers, those with a chronic lung disease, immunocompromised people, and those who use a CPAP machine. The best way to prevent Legionella infection is by developing and implementing effective water management programs. Healthcare facilities and longterm care facilities should be particularly thorough in their water management as each of these facility types houses vulnerable populations. Hot tub operators should also be wary of Legionella colonization, as the warm water and low disinfectant levels make hot tubs an ideal avenue for Legionella growth. Safe water management programs in all types of facilities can help prevent Legionella transmission in Stark County.



Source: CDC
Microscopic view of Legionella bacteria, via CDC

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

	April 2018				April 2017			
	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	116	0	9	N/A	1,085	40	320	N/A
Mold Count	1,492	0	230	17 (Low)	3,670	188	690	13 (Low)
Air Quality Index	77	34	45	15 (Good)	71	38	45	13 (Good)

**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

	Apr 2018	YTD 2018	2017
Live Births	352	1429	4014*
Births to Teens	29	109	271*
Deaths	323	1566	4475*

* Birth and death data is preliminary

Table 3 Stark County Crude Birth Rate and Death Rates

	2013	2014	2015	2016	2017*
Birth	11.3	11.3	11.2	11.3	10.7
Death	11.3	11.4	11.6	11.7	11.9

*Source: Ohio Department of Health Data Warehouse. Rates are per 1,000 population. 2017 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	
	Apr	YTD	Apr	YTD	Apr	YTD	Apr	YTD	Apr	YTD
Babesiosis	0	0	0	0	0	0	0	1	0	1
Campylobacteriosis	0	0	1	2	1	3	7	12	9	17
Chlamydia infection	8	42	57	242	14	51	55	236	134	571
Cryptosporidiosis	0	0	0	3	0	1	2	4	2	8
E. coli, Shiga Toxin-Producing	0	0	1	2	0	1	0	0	1	3
Giardiasis	0	0	0	4	0	0	0	2	0	6
Gonococcal infection	3	12	23	108	2	14	19	54	47	188
Haemophilus influenzae (invasive disease)	0	0	1	1	0	0	0	1	1	2
Hepatitis A	0	0	1	1	0	0	1	1	1	2
Hepatitis B (including delta) – acute	0	0	1	2	0	0	0	1	1	3
Hepatitis B (including delta) - chronic	0	2	2	4	1	2	4	17	7	25
Hepatitis C - acute	0	0	1	3	0	0	0	0	1	3
Hepatitis C - chronic	0	7	13	48	4	12	6	44	23	111
Influenza-associated hospitalization	2	23	12	148	5	44	31	356	50	571
Legionellosis - Legionnaires' Disease	0	0	0	1	1	1	1	1	2	3
Lyme Disease	0	0	0	0	1	1	3	5	4	6
Meningitis - aseptic/viral	0	3	0	1	0	1	2	8	2	13
Meningitis - bacterial (Not N. meningitidis)	0	0	0	0	0	1	0	0	0	1
Mumps	0	0	0	0	0	0	0	1	0	1
Pertussis	0	5	1	1	0	1	0	12	1	19
Salmonellosis	0	0	0	0	0	2	1	14	1	16
Shigellosis	0	0	1	6	0	4	1	10	2	20
Spotted Fever Rickettsiosis, including RMSF	0	0	0	0	0	0	1	1	1	1
Streptococcal - Group A -invasive	0	1	3	7	0	0	3	6	6	14
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	2	0	4	0	0	1	8	2	14
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	0	0	0	0	1	0	2	0	3
Syphilis, Total	0	0	0	2	1	1	1	6	2	9
Syphilis, Primary, Secondary and Early Latent	0	0	0	2	1	1	0	3	1	6
Varicella	0	0	1	2	0	0	1	4	2	6
Yersiniosis	0	1	0	0	0	0	0	0	0	1
Total	13	99	121	595	30	142	139	810	303	1646



Alliance City Health
Department
cityofalliance.com/health



Canton City Health
Department
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)	Apr-18	Apr-17	YTD 2018	YTD 2017	All of 2017	5 Yr Annual Average	Rate
Amebiasis	0	0	0	1	1	0.4	0.107
Anaplasmosis	0	0	0	0	0	0.4	0.107
Babesiosis	0	0	1	0	1	0.4	0.107
Bruceellosis	0	0	0	0	1	0.2	0.054
Campylobacteriosis	9	9	17	22	88	74.0	19.807
Chlamydia	134	146	571	615	1804	1666.6	446.078
Coccidioidomycosis	0	0	0	0	0	0.4	0.107
Creutzfeldt-Jakob Disease	0	0	0	0	3	1.2	0.321
Cryptosporidiosis	2	4	8	9	30	32.4	8.672
Cyclosporiasis	0	0	0	0	2	1.6	0.428
E. coli, Shiga Toxin-Producing (O157:H7, Not O157, Unknown Serotype)	1	1	3	3	12	11.0	2.944
Giardiasis	0	2	6	3	18	24.6	6.584
Gonorrhea	47	47	188	189	542	574.0	153.635
Haemophilus influenzae , Invasive	1	1	2	4	9	7.0	1.874
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0.2	0.054
Hepatitis A	1	1	2	5	10	7.0	1.874
Hepatitis B, Perinatal	0	0	0	0	1	1.8	0.482
Hepatitis B, Acute	1	0	3	1	8	5.6	1.499
Hepatitis B, Chronic	7	3	25	22	66	45.0	12.045
Hepatitis C, Acute	1	0	3	1	2	6.6	1.767
Hepatitis C, Chronic	23	20	111	122	300	295.4	87.363
Hepatitis E	0	0	0	0	0	0.2	0.054
Influenza-associated hospitalization	50	17	571	281	413	326.4	87.363
Influenza-associated pediatric mortality	0	0	0	0	0	0.2	0.054
LaCrosse virus disease	0	0	0	0	0	0.2	0.054
Legionellosis	2	0	3	2	15	15.4	4.122
Listeriosis	0	0	0	0	1	1.2	0.321
Lyme Disease	4	0	6	5	29	19.4	5.193
Malaria	0	0	0	0	0	0.6	0.161
Measles (indigenous to Ohio)	0	0	0	0	0	2.0	0.535
Meningitis, Aseptic	2	1	13	9	43	30.2	8.083
Meningitis, Other Bacterial	0	0	1	0	3	3.6	0.964
Meningococcal Disease	0	0	0	0	0	1.0	0.268
Mumps	0	1	1	2	3	2.8	0.749
Pertussis	1	0	19	4	41	42.8	11.456
Q fever, acute	0	0	0	0	0	0.4	0.107
Q fever, chronic	0	0	0	0	1	0.2	0.054
Salmonellosis	1	3	16	8	39	44.8	11.991
Shigellosis	2	0	20	2	23	38.6	10.332
Spotted Fever Rickettsiosis	1	1	1	1	6	1.2	0.321
Staphylococcal aureus - intermediate resistance to vancomycin (VISA)	0	0	0	0	0	0.2	0.054
Streptococcal Dis, Group A, Invasive	6	1	14	11	22	13.0	3.480
Streptococcal Dis, Group B, in Newborn	0	0	0	1	1	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	2	3	14	17	33	31.2	8.351
Streptococcus pneumo – inv. antibiotic resistant/intermediate	0	2	3	9	16	16.8	4.497
Syphilis, Total	2	6	9	15	29	15.4	4.122
Syphilis, Primary, Secondary and Early Latent	1	1	6	5	13	9.6	2.570
Toxic Shock Syndrome (TSS)	0	0	0	0	0	0.8	0.214
Tuberculosis	0	0	0	0	3	1.4	0.375
Typhus Fever	0	0	0	0	0	0.2	0.054
Varicella	0	0	6	3	20	25.6	6.852
Vibriosis - other (not cholera)	0	0	0	2	2	2.2	0.589
Vibrio parahaemolyticus infection	0	0	0	0	0	0.2	0.054
West Nile Virus	0	0	0	0	1	0.6	0.161
Yersiniosis	1	0	1	6	9	6.0	1.606
Zika virus infection	0	0	0	0	0	1.0	0.268

Source: Ohio Disease Reporting System, downloaded 05/16/2018. Rates are per 100K population and based on 5 yr average incidence '13 – '17.