EPI GRAM October, 2019

A Monthly Publication of the Stark Public Health Infrastructure Coalition

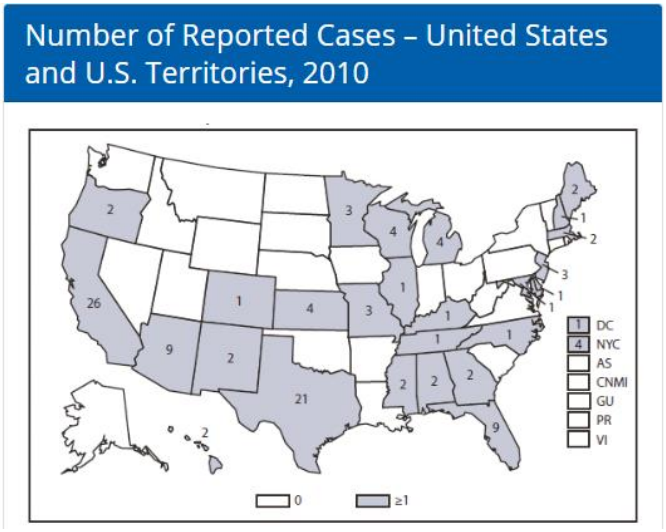
EPI Gram *is a monthly publication of the Stark County Public Health Infrastructure Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. Some reportable conditions may be under investigation and, 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.***

Monthly Highlight: Drug-Resistant Brucellosis Associated with Raw Milk

Brucellosis is a bacterial infection most commonly associated with exposure to farm animals or contaminated animal products. Animals most commonly linked to Brucella infection include dogs, sheep, cattle, goats, and pigs. The primary modes of transmission are consumption of undercooked meat or unpasteurized dairy products, inhalation of the bacteria, and a exposure via wound or mucus membrane. Symptoms of brucellosis are often nonspecific and include fever, sweats, malaise, headache, pain, and fatigue. Expecting mothers may be at risk for miscarriage or spontaneous abortion.

In February of 2019, CDC an nounced that they were investigating a case of drug-resistant brucellosis associated with consumption of raw (unpasteurized) milk from a farm in Pennsylvania. The strain identified in this outbreak, RB51, is particularly difficult to diagnose and treat due to its resistance to first line antibiotics and similarity to other respiratory illnesses such as influenza. The RB51 strain is a live, weakened strain used in a bovine vaccine to protect against spontaneous abortion; on rare occasions cows vaccinated with this strain shed the bacteria in their milk. Potential exposures from the farm were mapped out to consumers in 19 states, including Ohio. Rifampin, an antibiotic which is often used both for treatment and prophylactically for exposure to brucellosis, is ineffective against this strain.

The best way to avoid brucellosis is to refrain from consuming unpasteurized dairy products, particularly if you are pregnant. Pasteurization is when high heat is used to kill any remaining bacteria in raw milk; consumers should avoid dairy products that have not been pasteurized. Hunters, herdsmen, and others who handle animal tissue should protect themselves by using personal protective equipment such as rubber gloves, goggles, and aprons.



Brucellosis cases in 2010 by state, via CDC

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

	October 2019				October 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	10	0	1	N/A	9	0	0	N/A
Mold Count	15,300	1,040	2,940	**1 (High)**	9,000	0	0	**3 (Moderate)**
Air Quality Index	68	26	39	**6 (Moderate)**	58	21	32	**5 (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

	OCT 2019	YTD 2019	2018
Live Births	332	3449	4052*
Births to Teens	16	219	230*
Deaths	339	3521	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	
	OCT	YTD	OCT	YTD	OCT	YTD	OCT	YTD	OCT	YTD
Campylobacteriosis	2	2	2	16	1	5	4	58	9	81
Chlamydia infection	12	121	78	696	22	164	62	588	174	1569
CP-CRE	0	0	0	3	0	4	3	11	3	18
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	2	0	2
Cryptosporidiosis	1	4	1	4	0	0	1	34	3	42
E. coli, Shiga Toxin-Producing	0	0	0	3	0	3	1	7	1	13
Giardiasis	0	0	0	4	0	2	5	14	5	20
Gonococcal infection	4	27	23	267	0	44	20	135	47	473
Haemophilus influenzae (invasive disease)	0	0	0	1	0	0	1	4	1	5
Hepatitis A	0	2	1	3	0	3	1	9	2	17
Hepatitis B (including delta) - acute	0	2	0	3	0	2	1	1	1	8
Hepatitis B (including delta) - chronic	0	3	1	17	2	7	3	34	6	61
Hepatitis C - acute	0	0	0	1	0	1	0	0	0	2
Hepatitis C - chronic	2	30	6	96	7	41	6	119	21	286
Hepatitis E	0	0	0	0	0	0	0	0	0	0
Influenza-associated hospitalization	0	16	1	117	0	32	1	251	2	416
Legionellosis - Legionnaires' Disease	1	2	0	7	0	3	2	9	3	21
Listeriosis	0	0	0	0	0	0	0	2	0	2
Lyme Disease	0	1	0	2	0	1	3	40	3	44
Meningitis - aseptic/viral	0	2	3	6	0	3	1	5	4	16
Mumps	0	0	0	0	0	0	1	2	1	2
Pertussis	0	2	0	10	1	5	0	21	1	38
Salmonellosis	0	1	0	4	0	6	6	29	6	40
Shigellosis	0	0	0	3	0	0	1	20	1	23
Streptococcal - Group A -invasive	0	0	0	2	0	1	1	10	1	13
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	5	0	0	0	12	1	18
Streptococcus pneumoniae – inv antibiotic resistant/intermediate	1	3	1	2	0	2	0	3	2	10
Syphilis, Total	0	2	0	14	1	2	0	11	1	29
➢ Syphilis, Primary, Secondary & Early Latent	0	2	0	7	1	2	0	10	1	21
Tuberculosis	0	0	0	1	0	0	0	1	0	2
Varicella	0	0	1	8	0	2	0	10	1	20
Vibriosis (not cholera)	0	0	0	0	0	1	0	2	0	3
Yersiniosis	0	0	0	0	0	0	2	5	2	5
Total	23	222	120	1303	33	333	129	1470	305	3328

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)	OCT-19	OCT-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	0	0	2	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	9	11	81	74	85	77.6	20.761
Chlamydia	174	174	1569	1440	1713	1720.0	460.169
CP-CRE	3	1	18	15	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	3	4	42	31	33	33.8	9.043
Cyclosporiasis	0	0	4	8	8	3.0	0.803
E. coli, Shiga Toxin-Producing (O157:H7, Not O157, Unknown Serotype)	1	1	13	14	17	14.0	3.746
Giardiasis	5	2	20	18	23	21.8	5.832
Gonorrhea	47	69	473	523	643	580.2	155.227
Haemophilus influenzae , Invasive	1	0	5	3	4	6.4	1.712
Hemolytic Uremic Syndrome (HUS)	0	0	1	0	0	0.2	0.054
Hepatitis A	2	2	17	11	11	7.6	2.033
Hepatitis B, Perinatal	0	1	1	0	1	1.8	0.482
Hepatitis B, Acute	1	0	8	9	11	6.4	1.712
Hepatitis B, Chronic	6	7	61	71	85	57.6	15.410
Hepatitis C, Acute	0	0	2	5	5	6.2	1.659
Hepatitis C, Chronic	21	23	286	260	313	313.0	83.740
Hepatitis C-Perinatal Infection	0	0	2	3	4	4.0	1.070
Hepatitis E	0	0	0	0	0	0.2	0.054
Influenza-associated hospitalization	2	2	416	582	595	379.0	101.398
LaCrosse virus disease	0	0	0	4	4	1.0	0.268
Legionellosis	3	5	21	27	34	18.0	4.816
Listeriosis	0	0	2	1	1	1.0	0.268
Lyme Disease	3	3	44	35	38	24.0	6.421
Malaria	0	0	0	0	0	0.4	0.107
Measles (indigenous to Ohio)	0	0	1	0	0	2.0	0.535
Meningitis, Aseptic	4	2	16	36	46	34.6	9.257
Meningitis, Other Bacterial	0	0	1	4	4	3.4	0.910
Meningococcal Disease	0	0	0	0	0	1.0	0.268
Mumps	1	0	2	2	2	3.2	0.856
Pertussis	1	3	38	41	54	50.4	13.484
Q fever, chronic	0	0	0	0	0	0.2	0.054
Salmonellosis	6	10	40	54	61	47.8	12.788
Shigellosis	1	1	23	24	25	26.2	7.010
Spotted Fever Rickettsiosis	1	0	1	5	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	1	0	13	24	25	15.2	4.067
Streptococcal Dis, Group B, in Newborn	0	1	1	2	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	1	0	18	21	29	30.6	8.187
Streptococcus pneumo – inv. antibiotic resistant/intermediate	2	2	10	7	10	13.4	3.585
Syphilis, Total	1	7	29	35	33	19.4	5.190
Syphilis, Primary, Secondary and Early Latent	1	4	21	21	19	11.8	3.157
Toxic Shock Syndrome (TSS)	0	0	0	0	0	0.2	0.054
Tuberculosis	0	1	2	2	5	2.4	0.642
Varicella	1	1	20	13	16	24.2	6.474
Vibriosis - other (not cholera)	0	1	3	1	1	2.2	0.589
Vibrio parahaemolyticus infection	0	0	0	0	0	0.0	0.000
West Nile Virus	0	0	0	1	8	2.2	0.589
Yersiniosis	2	1	5	3	3	6.4	1.712
Zika virus infection	0	0	0	0	0	1.0	0.268

Source: Ohio Disease Reporting System, downloaded 9/2019. Rates are per 100K population and based on 5 yr average incidence ’14 – ‘18.