

EPI GRAM October, 2017

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.**



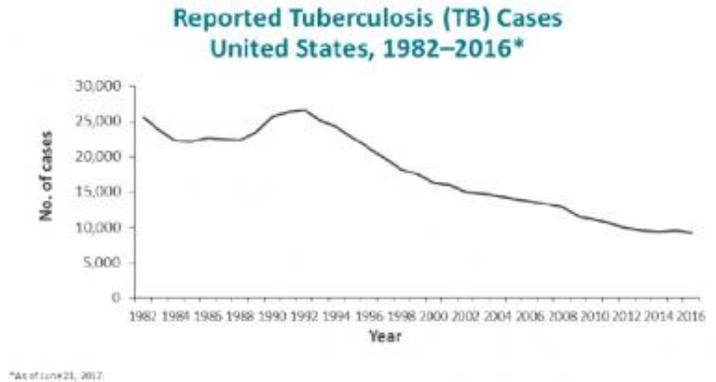
Public Health
Prevent. Promote. Protect.

Monthly Highlight: Tuberculosis

Tuberculosis (also known as TB) is a bacterial infection caused by the bacterium *Mycobacterium tuberculosis*. TB infections present in two different ways: latent TB infection (LTBI) or TB disease.

Latent TB infection occurs when a person is infected with the tuberculosis bacteria but is not contagious and does not display symptoms, though a persistent latent TB infection can turn into TB disease. A person with TB disease, however, can infect other people and does have symptoms, which may include:

- cough, initially non-productive
- fatigue
- weight loss
- fever
- night sweats



Tuberculosis cases in the United States from 1982-2016, via CDC

The tuberculin skin test (TST) tests both for LTBI and TB disease, so a chest x-ray is normally ordered when a skin test is positive. Confirmation via abnormal chest x-ray or sputum smear is necessary for someone to be diagnosed with TB disease. TB is transmitted when someone with TB disease exhales, coughs, or sneezes TB bacteria into the air. The aerosolized droplets are then breathed in by someone nearby, who can become infected. People with HIV or other immunocompromising conditions, kidney disease, diabetes, and other risk factors such as homelessness, drug use or incarceration are at a higher risk for TB infection.

Stark County is considered to be a low risk community for TB. In 2016 the rate of TB disease in the county was .54 cases per 100,000, which is significantly lower than the rate in Ohio (1.2 cases per 100,000) and the rest of the country (2.9 cases per 100,000). There have been two total cases in the county this year. There are a few public health interventions that can be implemented to reduce TB incidence. The most important preventive measure for TB is active surveillance and testing. Requiring schoolchildren, healthcare workers, and others who work or regularly interact with susceptible populations to have regular skin testing is a crucial measure for tracking and reducing TB incidence. Proper antibiotic treatment for those with LTBI is also important in reducing the spread of TB disease. TB incidence has reduced steadily in the past 20 years, and with proper surveillance and intervention it can continue to be reduced for the next 20.

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

	October 2017				November 2016			
	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	2	0	0	N/A	Data collected seasonally and currently not available.			
Mold Count	8,800	0	0	1 (Moderate)				
Air Quality Index	59	20	38	2 (Moderate)	79	30	48	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

	October 2017	YTD 2017	2016
Live Births	384	3,499	4,190
Births to Teens	28	254	263
Deaths	252	3,575	4,388

* Birth and death data may include non-county residents.

Table 3 Stark County Crude Birth Rate and Death Rates

	2011	2012	2013	2014	2015
Birth	10.8	10.9	11.2	12.0	12.3
Death	11.3	11.4	11.3	11.4	11.6

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

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County

	Alliance City		Canton City		Massillon City		Stark County		Total	
	Oct	YTD	Oct	YTD	Oct	YTD	Oct	YTD	Oct	YTD
Amebiasis	0	0	0	0	0	1	0	0	0	1
Babesiosis	0	0	0	0	0	0	0	1	0	1
Brucellosis	0	0	1	1	0	0	0	0	1	1
Campylobacteriosis	0	4	1	22	0	2	6	46	7	73
Chlamydia infection	13	104	71	692	13	172	58	585	155	1,553
Coccidioidomycosis	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob Disease	0	1	0	0	0	0	0	0	0	1
Cryptosporidiosis	0	3	1	2	0	3	4	18	5	26
Cyclosporiasis	0	0	0	0	0	0	0	2	0	2
E. coli, Shiga Toxin-Producing	0	0	0	1	0	1	1	8	1	10
Giardiasis	1	2	0	1	0	1	2	11	3	15
Gonococcal infection	4	17	22	275	4	36	12	124	42	452
Haemophilus influenzae	0	0	0	2	0	0	1	6	1	8
Hepatitis A	0	1	0	0	0	1	2	7	2	9
Hepatitis B – acute	1	2	0	2	0	1	0	1	1	6
Hepatitis B - chronic	0	2	2	18	0	5	6	32	8	57
Hepatitis B - perinatal	0	0	0	0	0	0	0	3	0	3
Hepatitis C - acute	0	0	0	1	0	0	0	0	0	1
Hepatitis C - chronic	2	27	6	90	1	27	13	105	22	249
Hepatitis E	0	0	0	0	0	0	0	0	0	0
Influenza-associated hospitalization	0	18	0	81	1	23	1	164	2	286
Influenza-associated pediatric mortality	0	0	0	0	0	0	0	0	0	0
LaCrosse Virus Disease	0	0	0	0	0	0	0	0	0	0
Legionellosis	0	1	1	5	0	0	0	8	1	14
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	1	2	0	5	0	1	1	17	2	25
Malaria	0	0	0	0	0	0	0	0	0	0
Measles - indigenous to Ohio	0	0	0	0	0	0	0	0	0	0
Meningitis - aseptic/viral	0	0	2	13	1	2	7	21	10	36
Meningitis-bacterial (not N. meningitides)	0	0	0	1	1	1	0	0	1	2
Mumps	0	0	0	1	0	1	0	1	0	3
Pertussis	0	2	1	5	0	0	1	9	2	16
Q fever, acute	0	0	0	0	0	0	0	1	0	1
Salmonellosis	0	4	0	3	0	0	3	27	3	34
Shigellosis	0	0	2	3	0	0	0	2	2	5
Spotted Fever Rickettsiosis	0	0	0	1	0	1	0	4	0	6
Staphylococcal aureus	0	0	0	0	0	0	0	0	0	0
Streptococcal-Group A, invasive	0	0	0	3	0	2	0	11	0	16
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	0	7	1	4	4	18	5	31
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	2	0	5	0	4	0	2	0	13
Streptococcal toxic shock syndrome	0	0	0	0	0	0	0	0	0	0
Syphilis, Total	0	2	1	11	1	2	0	9	2	24
➤ Primary, Secondary and Early Latent	0	1	1	7	1	2	0	3	2	13
Tuberculosis	0	0	0	1	0	0	0	1	0	2
Typhus fever	0	0	0	0	0	0	0	1	0	1
Varicella	1	1	1	3	1	3	1	7	4	14
Vibriosis (not cholera)	0	0	0	0	0	0	0	2	0	2
Yersiniosis	0	0	0	1	0	0	0	7	0	8
Zika Virus Disease	0	0	0	0	0	0	0	0	0	0
Total	23	198	113	1,263	25	296	123	1,266	284	3,022

Source: Ohio Disease Reporting System, downloaded 11/16/2017.

Table 5 – Summary Table of Diseases Reported in the Previous 5 years within Stark County (Provisional Data)

	October 2017	October 2016	YTD 2017	YTD 2016	All of 2016	5 Yr Annual Average	5 Yr. Annual Rate
Amebiasis	0	0	1	0	0	0.2	0.053
Babesiosis	0	0	1	0	0	0.2	0.053
Brucellosis	1	0	1	0	0	0.2	0.053
Campylobacteriosis	7	7	73	75	83	69.4	18.499
Chlamydia	155	160	1,553	1,557	1,899	1,611.4	429.518
Coccidioidomycosis	0	0	0	1	1	0.6	0.160
Creutzfeldt-Jakob Disease	0	0	1	1	2	0.6	0.160
Cryptosporidiosis	5	4	26	42	47	35.4	9.436
Cyclosporiasis	0	0	2	4	4	1.2	0.320
Dengue	0	0	0	0	0	0.2	0.053
Ehrlichiosis/ Anaplasmosis	0	0	0	0	1	0.4	0.107
Escherichia coli, Shiga Toxin-Producing	1	1	10	14	16	9.6	2.559
Giardiasis	3	1	15	22	25	28.6	7.623
Gonorrhea	42	59	452	565	678	594.8	158.544
Haemophilus influenzae , Invasive	1	0	8	4	5	6.8	1.813
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0.2	0.053
Hepatitis A	2	1	9	3	3	6.2	1.653
Hepatitis B, Perinatal	0	1	3	1	2	1.6	0.426
Hepatitis B, Acute	1	0	6	3	4	4.8	1.279
Hepatitis B, Chronic	8	4	57	44	67	39.2	10.449
Hepatitis C, Acute	0	0	1	7	7	7.0	1.866
Hepatitis C, Chronic	22	22	249	264	328	279.0	74.367
Hepatitis E	0	0	0	1	1	0.2	0.053
Influenza-associated hospitalization	2	0	286	159	196	273.8	72.981
Influenza-associated pediatric mortality	0	0	0	0	0	0.2	0.053
LaCrosse virus disease	0	0	0	1	1	0.4	0.107
Legionellosis	1	1	14	14	16	15.6	4.158
Listeriosis	0	0	1	1	1	1.2	0.320
Lyme Disease	2	3	25	22	26	16.4	4.371
Malaria	0	0	0	1	1	0.6	0.160
Measles (indigenous to Ohio)	0	0	0	1	1	2.0	0.533
Meningitis, Aseptic	10	8	36	26	30	28.4	7.570
Meningitis, Other Bacterial	1	0	2	4	5	3.8	1.013
Meningococcal Disease	0	0	0	0	0	1.0	0.267
Mumps	0	0	3	2	2	2.4	0.640
Pertussis	2	6	16	29	31	37.4	9.969
Q fever, acute	0	0	1	0	0	0.4	0.107
Salmonellosis	3	2	34	47	51	44.8	11.941
Shigellosis	2	1	5	4	8	35.6	9.489
Spotted Fever Rickettsiosis	0	0	6	0	0	0.00	0.00
Staphylococcal aureaus	0	0	0	1	1	0.2	0.053
Streptococcal Dis, Group A, Invasive	0	1	16	8	10	12.8	3.412
Streptococcal Dis, Group B, in Newborn	0	1	1	3	4	1.8	0.480
Streptococcal Toxic Shock Syndrome	0	0	0	1	1	1.0	0.267
Streptococcus pneumo. – inv. antibiotic resistance unknown or non-resistant	5	1	31	30	37	36.0	9.596
Streptococcus pneumo. – inv. antibiotic resistant/intermediate	0	0	13	15	16	17.8	4.745
Syphilis, Total	2	3	24	15	21	12.0	3.195
> Syphilis, Primary, Secondary and Early Latent	2	0	13	8	15	7.6	2.024
Toxic Shock Syndrome (TSS)	0	0	0	0	0	0.8	0.213
Tuberculosis	0	1	2	2	2	1.2	0.320
Typhus fever	0	0	1	0	0	0.4	0.107
Varicella	4	3	7	30	35	29.4	7.837
Vibriosis - other (not cholera)	0	0	2	3	4	1.8	0.480
Vibriosis parahaemolyticus	0	0	0	0	0	0.2	0.053
West Nile Virus	0	0	0	0	0	0.6	0.160
Yersiniosis	0	1	8	9	9	4.6	1.226
Zika Virus Disease	0	0	0	4	5	1.0	0.267

Source: Ohio Disease Reporting System, downloaded 11/16/17. Rates are per 100K population and based on 5 yr average incidence '12-'16.



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