

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.

Monthly Highlight: Pertussis (Whooping Cough)

Pertussis, (“whooping cough”) is a highly contagious respiratory infection caused by the *Bordetella pertussis* bacterium and defined by any of the following symptoms: paroxysmal cough lasting two weeks or longer, post-cough inspiratory “whoop” or posttussive vomiting. Paroxysms may continue for up to ten weeks and result in complications such as subconjunctival hemorrhage, facial contusions, rib fractures and pneumonia. Infants under one year of age may present only with apnea, either with or without cyanosis. This age group requires immediate hospitalization to treat the disease, as complications arise quickly and often result in death.

Proper diagnosis of a pertussis infection can be difficult with examination alone due to the myriad of other diseases with similar symptoms. A positive lab culture obtained via nasopharyngeal swab is the most reliable method of diagnosis. Treatment requires administration of a macrolide antibiotic (azithromycin, clarithromycin, or erythromycin). If contraindicated, trimethoprim-sulfamethoxazole is recommended by Centers for Disease Control and Prevention.

Because pertussis is a reportable disease, the Ohio Department of Health requires notification of all suspect, probable and confirmed cases. Although it is a vaccine-preventable disease, pertussis remains endemic and cases are on the rise in many states, including Ohio. A state-wide HAN alert was issued recently regarding a 27% increase in *B. pertussis* cases compared to last year at this time. Stark County’s cases, however, have decreased by more than half in comparison to 2015. To sustain this trend, healthcare workers are strongly encouraged to receive vaccine boosters to maintain immunity, and to encourage their patients to receive all required dosages of the vaccine. Child immunizations are administered in a five-dose series: one dose each at 2, 4 and 6 months of age, the fourth dose at 15-18 months, and the fifth and final dose at 4-6 years. Adult boosters are recommended every ten years starting at age 19.

Because infants are particularly at risk of acquiring this infection and suffering severe consequences, all pregnant females should receive a vaccine in their third trimester so as to provide passive immunity to the unborn infant. For additional protection of the infant’s health, all family members, regardless of age, and all child care providers for the infant should also be vaccinated.



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

	July 2016				August 2015			
	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	20	2	10	N/A	115	3	15	N/A
Mold Count	5310	780	2830	Good	5130	650	2330	Good
Air Quality Index	99	35	54	Moderate 16	88	23	38	Moderate 2

**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 Summaries of Select Vital Statistics for Stark County

	July 2016	YTD 2016	2015
Live Births	326	2415	4,314
Births to Teens	20	172	308
Deaths	346	2678	4,362

Birth and Death Data is reported by the 4 health districts and may include non county residents.

Table 3 Stark County Crude Birth Rate and Death Rates

	2010	2011	2012	2013	2014
Birth	10.8	10.8	10.9	11.2	12.0
Death	10.9	11.3	11.4	11.3	11.4

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

If you have any questions, including how to receive copies of this report, please contact Julia Wagner at 330.493.9904 or Wagnerj@starkhealth.org or Amanda Archer at 330.489.3327 or aarcher@cantonhealth.org.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County, OH (Provisional Data)

	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	July	YTD	July	YTD	July	YTD	July	YTD	July	YTD
Campylobacteriosis	0	0	1	12	1	1	6	32	8	45
Chlamydia infection	12	68	66	524	13	104	60	388	151	1084
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	1	0	1
Cryptosporidiosis	0	1	0	3	0	2	5	11	5	17
Cyclosporiasis	0	0	1	1	0	0	1	2	2	3
E. coli, Shiga Toxin-Producing	0	0	0	1	1	1	0	6	1	8
Giardiasis	0	1	1	5	0	0	2	9	3	15
Gonococcal infection	3	25	30	237	4	23	15	88	52	373
Haemophilus influenzae	0	0	0	2	0	0	0	1	0	3
Hepatitis A	0	0	1	1	0	0	0	0	1	1
Hepatitis B - Perinatal Infection	0	0	0	0	0	0	1	4	1	4
Hepatitis B (including delta) - acute	0	0	0	1	0	0	0	2	0	3
Hepatitis B (including delta) - chronic	1	1	2	11	0	2	3	19	6	33
Hepatitis C - acute	0	0	1	3	0	1	0	2	1	6
Hepatitis C - chronic	2	19	11	66	4	23	12	80	29	188
Hepatitis E	0	0	0	0	0	0	0	1	0	1
Immigrant Investigation	0	0	0	0	0	0	0	2	0	2
Influenza-associated hospitalization	0	7	0	47	0	24	0	80	0	158
Legionellosis	0	1	0	0	0	0	2	5	2	6
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	0	1	0	2	0	1	2	8	2	12
Malaria	0	0	0	0	0	1	0	0	0	1
Measles - indigenous to Ohio	0	0	0	0	0	0	0	1	0	1
Meningitis - aseptic/viral	0	0	1	2	0	0	3	11	4	13
Meningitis - bacterial (Not N. meningitidis)	0	0	0	0	0	0	1	2	1	2
Mumps	0	0	0	1	0	0	0	1	0	2
Mycobacterial disease - other than tuberculosis	1	1	0	3	0	0	2	18	3	22
Pertussis	0	0	0	3	0	5	3	8	3	16
Salmonellosis	0	1	2	6	0	2	3	15	5	24
Shigellosis	0	1	0	1	0	0	0	1	0	3
Streptococcal - Group A -invasive	0	0	1	4	0	0	0	2	1	6
Streptococcal - Group B - in newborn	0	0	0	0	0	0	1	1	1	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	1	0	10	0	4	0	14	0	29
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	0	0	5	0	1	1	8	1	14
Syphilis, Total	0	3	1	7	0	0	0	1	1	11
Syphilis, Primary, Secondary and Early Latent	0	2	1	5	0	0	0	0	1	7
Tuberculosis	0	0	0	0	0	0	1	2	1	2
Varicella	0	1	0	6	0	3	1	12	1	22
Vibriosis (not cholera)	0	0	0	1	0	0	0	1	0	2
Yersiniosis	0	1	0	0	0	0	0	2	0	3
Total	19	135	120	970	23	198	125	842	285	2127

Source: Ohio Disease Reporting System, downloaded 08/23/2016.

Table 5 – Summary Table of Diseases Reported in the Previous 5 years within Stark County

(Provisional Data)

	Jul-16	Jul-15	YTD 2016	YTD 2015	All of 2015	5 Yr annual average	Rate
Amebiasis	0	0	0	1	1	0.2	0.053
Anaplasmosis	0	0	0	0	0	0.2	0.053
Babesiosis	0	0	0	1	1	0.2	0.053
Brucellosis	0	0	0	0	0	0.2	0.053
Campylobacteriosis	8	6	45	32	58	61.0	16.241
Chlamydia	151	125	1084	889	1651	1539.0	409.760
Coccidioidomycosis	0	0	0	0	0	0.4	0.107
Creutzfeldt-Jakob Disease	0	0	1	0	0	0.6	0.160
Cryptosporidiosis	5	5	17	12	30	29.2	7.775
Cyclosporiasis	2	0	3	1	1	0.4	0.107
Dengue	0	0	0	0	0	0.6	0.160
Escherichia coli , STP, Not O157:H7	1	0	8	3	17	4.4	1.172
Escherichia coli O157:H7	0	0	0	0	0	2.2	0.586
Escherichia coli , STP, Unk Serotype	0	0	0	0	0	0.2	0.053
Ehrlichiosis/Anaplasmosis	0	0	0	0	0	0.2	0.053
Giardiasis	3	4	15	14	28	36.2	9.638
Gonorrhea	52	54	373	266	511	586.8	156.236
Haemophilus influenzae , Invasive	0	0	3	7	8	7.4	1.970
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0.2	0.053
Hepatitis A	1	0	1	2	5	5.8	1.544
Hepatitis B, Perinatal	1	0	4	2	3	3.4	0.905
Hepatitis B, Acute	0	1	3	2	4	5.0	1.331
Hepatitis B, Chronic	6	5	33	27	43	33.6	8.946
Hepatitis C, Acute	1	3	6	10	13	7.8	2.077
Hepatitis C, Chronic	29	28	188	206	369	275.8	73.432
Hepatitis E	0	0	1	0	0	0.2	0.053
Influenza-associated hospitalization	0	0	158	281	284	263.6	70.184
Influenza-associated pediatric mortality	0	0	0	0	0	0.2	0.053
LaCrosse virus disease	0	0	0	0	0	0.4	0.107
Legionellosis	2	8	6	15	19	14.2	3.781
Listeriosis	0	0	1	0	1	1.4	0.373
Lyme Disease	2	3	12	10	18	13.6	3.621
Malaria	0	0	1	0	0	0.6	0.160
Measles (indigenous to Ohio)	0	0	1	0	0	1.8	0.479
Meningitis, Aseptic	4	2	13	11	30	35.2	9.372
Meningitis, Other Bacterial	1	0	2	2	3	3.4	0.905
Meningococcal Disease	0	0	0	3	3	1.2	0.320
Mumps	0	0	2	3	4	2.0	0.533
Mycobacterial disease - Not TB	3	1	22	11	23	31.0	8.254
Other arthropod-borne disease	0	0	0	0	0	0.2	0.053
Pertussis	3	0	16	30	45	34.6	9.212
Q fever, acute	0	0	0	0	0	0.4	0.106
Salmonellosis	5	6	24	29	50	41.6	11.076
Shigellosis	0	2	3	4	6	34.4	9.159
Spotted Fever Rickettsiosis	0	0	0	0	0	0.6	0.160
Streptococcal Dis, Group A, Invasive	1	0	6	5	9	15.2	4.047
Streptococcal Dis, Group B, in Newborn	1	0	1	0	0	1.6	0.426
Streptococcal Toxic Shock Syndrome	0	0	0	1	1	1.2	0.320
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	2	29	14	27	36.8	9.800
Streptococcus pneumo - invasive antibiotic resistant/intermediate	1	0	14	12	16	17.8	4.739
Syphilis, Total	1	0	11	5	7	10.4	2.769
Syphilis, Primary, Secondary and Early Latent	1	0	7	4	5	6.6	1.757
Toxic Shock Syndrome (TSS)	0	0	0	0	1	0.8*	0.213*
Tuberculosis	1	1	2	1	1	1.0	0.266
Thyphoid Fever	0	0	0	0	0	0.4	0.107
Typhus Fever	0	0	0	0	0	0.2	0.053
Varicella	1	1	22	14	26	29.2	7.775
Vibriosis - other (not cholera)	0	0	2	2	3	1.2	0.320
Vibriosis parahaemolyticus	0	0	0	0	0	0.2	0.053
West Nile Virus	0	0	0	0	1	0.6	0.160
Yersiniosis	0	0	3	3	8	2.8	0.746

Source: Ohio Disease Reporting System, downloaded 08/23/14. Rates are per 100K population and based on 5 yr average incidence 09-13.*08-12 from ODH Stats pg.