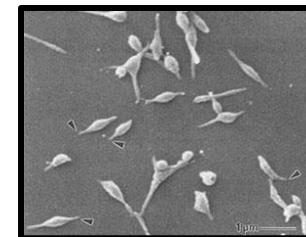


EPI Gram is a bimonthly publication of the Stark County Public Health Infrastructure Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. Some reportable conditions may be under investigation and, at any given time, data may fluctuate from month to month for a specific category.

Monthly Highlight: *Mycoplasma pneumoniae*

M. pneumoniae was first isolated in 1944. It was first suspected to be a virus or fungus since it was not susceptible to the traditional antibiotic, penicillin. Most antimicrobials target cell walls, but this bacteria does not have a cell wall which is one of the reasons this organism is referred to as 'atypical'. Historically, mycoplasmas have been susceptible to macrolides such as azithromycin. In 2000, mycoplasmas began to show a resistance to macrolides as well. According to the Centers for Disease Control and Prevention this may be due to the increase use of macrolides for treatments in general.



Due to the lack of cell wall this organism can not be seen through light microscopy and will not show turbidity in liquid growth media. Specialized media have to be used to grow the bacteria until it is visible for diagnostic purposes. The following three methods are available for testing:

- **Culture:** provides clinical isolates for genotyping and susceptibility testing, but is not used for routine diagnostics; time consuming; high number of false negatives, but provides 100% specificity for positive results.
- **Serology:** lacks specificity; duration to obtain test results are not optimal for treatment; time sensitive sampling; not approved by the Food and Drug Administration (FDA)
- **Molecular:** high sensitivity and specificity; rapid detection; requires specialized expertise and equipments; not standardized; expensive; two molecular testing kits are approved by the FDA

Mycoplasma is transmitted through respiratory droplets, but due to its lack of a cell wall it has an increased risk for desiccation. In general, people who are exposed for a short period of time do not become ill. Outbreaks often occur in crowded settings such as schools/dormitories, nursing homes, hospitals, and military barracks. The disease can be characterized by a respiratory infection or extrapulmonary manifestations without an indication of respiratory disease. Most frequently those who become infected recover on their own. However complications have occurred causing infected individuals to be hospitalized from issues such as severe pneumonia, encephalitis, or renal dysfunction. *Mycoplasma pneumoniae* has also been recorded to have resulted in death.

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

	August 2015				September 2014			
	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	115	3	15	NA	95	5	15	NA
Mold Count	5,130	650	2,315	0	12,240	1,680	4,210	5
Air Quality Index	88	37	23	2	59	30	39	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

	August 2015	YTD 2015	2014
Live Births	312	3,068	4,512
Births to Teens	38	225	380
Deaths	335	3,044	4,288

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

Table 3 Stark County Crude Birth Rate and Death Rates

	2009	2010	2011	2012	2013
Birth	11.4	10.8	10.8	10.9	11.2
Death	10.9	10.9	11.3	11.4	11.3

*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 330.493.9914 or Wagnerj@starkhealth.org.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County

	Alliance City		Canton City		Massillon City		Stark County		Total	
	Aug.	YTD	Aug.	YTD	Aug.	YTD	Aug.	YTD	Aug.	YTD
Amebiasis	0	0	0	0	0	0	0	1	0	1
Babesiosis	0	0	0	0	0	0	0	1	0	1
Campylobacteriosis	0	4	2	12	0	0	4	22	6	38
Chlamydia infection	5	45	48	466	12	117	49	373	114	1,001
Cholera	0	0	0	0	0	0	1	1	1	1
Coccidioidomycosis	0	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	0	3	0	1	1	1	1	9	2	14
Cyclosporiasis	0	0	0	0	0	0	0	1	0	1
E. coli-O157:H7 and Shiga toxin producing	0	0	3	3	1	1	5	8	9	12
Giardiasis	0	1	3	6	0	1	0	9	3	17
Gonococcal infection	2	18	28	203	4	31	8	56	42	308
Haemophilus Influenzae	0	2	0	3	0	0	0	2	0	7
Hemolytic Uremic Syndrome	0	0	0	0	0	0	0	0	0	0
Hepatitis A	0	0	0	2	0	0	1	1	1	3
Hepatitis B - acute	0	1	0	1	0	0	0	0	0	2
Hepatitis B - chronic	0	3	1	7	0	1	2	19	3	30
Hepatitis B - perinatal	0	0	1	2	0	0	1	4	1	6
Hepatitis C - acute	0	3	1	2	0	2	1	4	2	12
Hepatitis C - chronic	2	31	14	79	6	34	17	97	39	241
Influenza-associated hospitalization	0	7	0	75	0	24	0	175	0	281
Legionellosis	0	0	0	4	0	2	0	9	0	15
Lyme Disease	0	2	1	2	0	2	2	7	3	13
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	0	2	0	3	4	10	4	15
Meningitis - bacterial (Not N. meningitidis)	0	0	0	0	0	0	0	2	0	2
Meningococcal disease	0	0	0	1	0	1	0	1	0	3
Mumps	0	0	0	1	0	0	0	2	0	3
Mycobacterial disease - other than tuberculosis	0	0	0	2	0	2	2	9	2	13
Pertussis	0	6	0	8	0	3	2	15	2	32
Salmonellosis	0	1	0	6	0	4	1	19	1	30
Shigellosis	0	0	1	5	0	0	0	0	1	5
Streptococcal - Group A -invasive	0	0	0	1	1	2	2	5	3	8
Streptococcal - Group B -newborn	0	0	0	0	0	0	0	0	0	0
Streptococcal toxic shock syndrome (STSS)	0	0	0	1	0	0	0	0	0	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown/non-resistant	0	1	1	6	0	1	0	7	1	15
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	2	0	3	0	0	0	7	0	12
Syphilis, Total	0	0	0	0	0	2	0	3	0	5
Syphilis, Primary and Secondary	0	0	0	0	0	2	0	2	0	4
Tuberculosis	0	0	0	2	0	0	0	0	0	2
Typhoid Fever	0	0	0	0	0	0	0	0	0	0
Varicella	0	0	0	1	1	1	1	14	2	16
Vibriosis-Other (not cholera)	0	0	0	0	0	0	1	3	1	3
West Nile	0	0	0	0	0	0	0	0	0	0
Yersiniosis	0	0	0	0	0	0	1	4	1	4
Total	9	130	104	908	26	234	106	900	245	2,172

Source: Ohio Disease Reporting System, downloaded 9/16/2015.

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

	Aug. 2015	Aug. 2014	YTD 2015	YTD 2014	All of 2014	5 Yr. Annual Average	5 Yr. Annual Rate
Amebiasis	0	0	1	0	0	0.0	0.000
Babesiosis	0	0	1	0	0	0.0	0.000
Brucellosis	0	0	0	0	0	0.2	0.053
Campylobacteriosis	6	9	38	46	74	59.2	15.762
Chlamydia	114	142	1,001	1,009	1,531	1,459.0	388.619
Cholera	1	0	1	0	0	0.0	0.000
Coccidioidomycosis	0	0	0	0	1	0.4	0.107
Creutzfeldt-Jakob Disease	0	0	0	0	0	0.6	0.160
Cryptosporidiosis	1	6	14	24	29	27.8	7.402
Cyclosporiasis	0	0	1	0	0	0.2	0.053
Dengue	0	0	0	0	0	0.8	0.213
Escherichia coli, Shiga Toxin-Producing	9	5	12	6	8	4.8	1.279
Ehrlichiosis/ Anaplasmosis	0	0	0	0	0	0.4	0.107
Giardiasis	3	1	17	7	15	44.2	11.773
Gonorrhea	42	36	308	369	527	561.6	149.588
Haemophilus influenzae , Invasive	0	2	7	5	6	7.4	1.971
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	1	0.2	0.053
Hepatitis A	1	1	3	6	9	4.8	1.278
Hepatitis B, Acute	0	3	2	5	6	5.0	1.331
Hepatitis B, Chronic	3	3	30	34	41	32.6	8.683
Hepatitis B, Perinatal	1	0	6	1	1	0.8	0.21
Hepatitis C, Acute	2	0	12	2	4	4.8	1.279
Hepatitis C, Chronic	39	31	241	183	263	244.0	64.992
Hepatitis E	0	0	0	0	0	0.2	0.053
Influenza-associated hospitalization	0	0	281	137	409	207.8	55.350
Influenza-associated pediatric mortality	0	0	0	0	0	0.2	0.053
LaCrosse virus disease	0	0	0	0	0	0.8	0.213
Legionellosis	0	2	15	3	6	13.6	3.622
Listeriosis	0	0	0	0	1	1.4	0.373
Lyme Disease	3	3	13	7	9	10.8	2.876
Malaria	0	1	0	1	1	1.0	0.266
Measles (indigenous to Ohio)	0	2	0	9	9	1.8	0.479
Meningitis, Aseptic/Viral	4	1	15	13	24	35.6	9.482
Meningitis, Other Bacterial	0	0	2	2	2	3.2	0.852
Meningococcal Disease	0	0	3	1	2	1.0	0.266
Mumps	0	0	3	4	5	1.4	0.373
Mycobacterial disease - Not TB	0	1	13	22	34	29.6	7.884
Other arthropod-borne disease	0	1	0	0	1	0.2	0.053
Pertussis	2	11	32	53	81	45.6	12.146
Q fever, acute	0	0	0	0	0	0.4	0.107
Salmonellosis	1	3	30	24	38	37.8	10.068
Shigellosis	1	2	5	63	69	33.8	9.003
Spotted Fever Rickettsiosis	0	0	0	0	0	0.6	0.160
Streptococcal Dis, Group A, Invasive	3	0	8	7	10	15.8	4.208
Streptococcal Dis, Group B, in Newborn	0	1	0	1	1	2.4	0.639
Streptococcal Toxic Shock Syndrome	0	0	1	2	2	1.0	0.266
Strep. pneumo. - invasive antibiotic resistance unknown / non-resistant	1	1	15	18	27	35.6	9.482
Strep. pneumo. - invasive antibiotic resistant /intermediate	0	1	12	5	9	18.8	5.008
Syphilis, Total	0	0	5	4	7	10.4*	2.770*
Syphilis, Primary and Secondary	0	0	4	4	7	3.0*	0.799*
Toxic Shock Syndrome (TSS)	0	0	0	0	0	0.8	0.213
Tuberculosis	0	0	2	1	1	2.0	0.533
Typhoid Fever	0	1	0	1	1	0.4	0.107
Typhus Fever	0	0	0	0	0	0.2	0.053
Varicella	2	1	16	16	24	35.0	9.323
Vibriosis	1	0	3	1	1	0.6	0.160
West Nile Virus	0	0	0	0	1	0.0	0.000
Yersiniosis	1	1	4	2	3	0.6	0.160

Source: OH Disease Reporting System, downloaded 9/16/2015. Rates are per 100K population and based on 5 yr. average incidence 10-14.* 10-14 from ODH Stats pg.