

EPI GRAM October, 2016

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 Julia Wagner at 330.493.9914 or Wagnerj@starkhealth.org, or Amanda Archer at 330.489.3327 or aarcher@cantonhealth.org.



Public Health
Prevent. Promote. Protect.

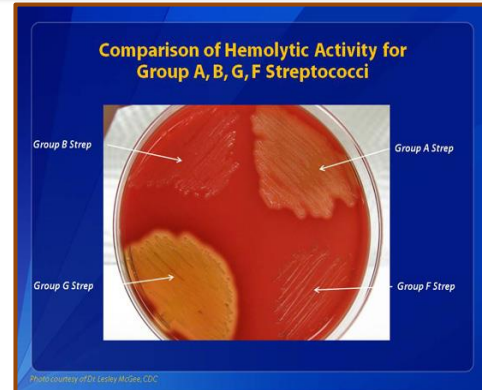
Monthly Highlight: Group B Streptococcus (GBS) in Newborns

One case of GBS occurred in a newborn in Stark County during the month of October. That increases the case count to be three cases of newborns with GBS so far this year in Stark County. There were no cases recorded in 2015. The five year annual average is 1.6 per every 100,000 population. Newborns may develop early-onset disease, within a week of birth, or late-onset disease, between a week and three months of birth. This infection may cause fever, difficulty breathing, difficulty feeding, and irritability or lethargy. Complications may occur causing meningitis, the inflammation around the spinal cord and brain, where long term issues such as deafness or developmental disabilities may occur. Among the babies infected with GBS 4-6% will die.

The main form of transmission to newborns is from the mother during labor. One in four women have this bacteria in the vagina and rectum and remain healthy. In fact, the bacteria may come and go unknown to the individual. This means a woman may not have the bacteria during one pregnancy and then may end up having it during another pregnancy. **According to the Centers for Disease Control and Prevention, all women should be tested for group B strep (GBS) during each pregnancy at 35-37 weeks.** The timing for when the test is completed is important since colonization status can change over the course of the pregnancy. The test consists of a simple swab from the vagina and rectum. If the test comes back positive the woman can receive IV antibiotics four hours before delivering the baby in order to prevent transmission of the infection to the baby.

Penicillin is the antibiotic of choice. There are alternatives if the individual is allergic to this antibiotic. Susceptibility testing should be done in order to determine an effective alternative. If the woman has GBS isolated in her urine at any time during pregnancy and has had invasive GBS during a previous pregnancy she does not need to be retested for GBS during her third trimester and should receive the intrapartum antibiotic prophylaxis four hours before delivery.

For women with planned cesarean deliveries testing should be done at the scheduled 35-37 weeks of pregnancy because early labor onset labor or ruptured membrane could occur. If the early onset labor or ruptured membranes do occur than the intrapartum antibiotic prophylaxis can be administered to prevent transmission of the infection to the baby. If the cesarean delivery occurs as planned, and the amniotic membranes are intact, than intrapartum antibiotic prophylaxis is not recommended.



This is a picture from the Centers for Disease Control and Prevention of a blood agar plate showing the differences between the four types of Streptococcus strains when cultured. Though differences may not be obvious to the untrained eye, group B has the hemolytic activity while group F has the smallest colony size.

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

	October 2016				November 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	5	0	2	NA	Data collected seasonally and currently not available.			
Mold Count	4,110	1,480	2,090	0 (Good)				
Air Quality Index	52	18	34	1 (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. 2016	YTD 2016	2015
Live Births	342	3,782	4,314
Births to Teens	23	223	308
Deaths	331	3,749	4362

* Birth and death data 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.

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
Anaplasmosis	0	0	0	0	0	0	0	1	0	1
Campylobacteriosis	0	1	3	21	2	7	2	46	7	75
Chlamydia infection	13	102	65	739	17	153	60	558	155	1,552
Coccidioidomycosis	0	0	0	0	0	0	0	1	0	1
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	1	0	1
Cryptosporidiosis	0	4	0	7	1	3	3	28	4	42
Cyclosporiasis	0	0	0	1	0	0	0	3	0	4
E. coli, Shiga Toxin-Producing	0	0	0	2	0	1	1	11	1	14
Giardiasis	0	2	0	5	0	0	1	15	1	22
Gonococcal infection	4	36	33	357	6	38	8	126	51	557
Haemophilus influenzae	0	0	0	2	0	0	0	2	0	4
Hepatitis A	0	0	0	2	0	0	1	1	1	3
Hepatitis B – acute	0	0	1	2	0	0	0	2	1	4
Hepatitis B - chronic	0	2	2	16	0	2	1	23	3	43
Hepatitis B - perinatal	0	0	0	0	0	0	1	5	1	5
Hepatitis C - acute	0	0	0	3	0	1	0	3	0	7
Hepatitis C - chronic	0	25	8	96	6	38	6	105	20	264
Hepatitis E	0	0	0	0	0	0	0	1	0	1
Influenza-associated hospitalization	0	7	0	47	0	24	0	81	0	159
Influenza-associated pediatric mortality	0	0	0	0	0	0	0	0	0	0
LaCrosse Virus Disease	0	0	0	0	0	0	0	1	0	1
Legionellosis	0	1	1	2	0	0	0	11	1	14
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	0	1	0	3	1	3	2	16	3	23
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	0	5	0	0	8	21	8	26
Meningitis-bacterial (not N. meningitides)	0	0	0	1	0	0	0	3	0	4
Mumps	0	0	0	1	0	0	0	1	0	2
Pertussis	2	5	0	3	0	5	4	16	6	29
Q fever, acute	0	0	0	0	0	0	0	1	0	0
Salmonellosis	0	1	0	10	0	3	2	33	2	47
Shigellosis	0	1	1	2	0	0	0	1	1	4
Staphylococcal aureus	0	0	0	1	0	0	0	0	0	1
Streptococcal-Group A, invasive	0	0	1	5	0	0	0	3	1	8
Streptococcal-Group B- in newborn	0	0	0	1	0	0	1	2	1	3
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	1	2	0	10	0	4	0	14	1	30
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	0	0	6	0	1	0	8	0	15
Streptococcal toxic shock syndrome	0	0	0	0	0	0	0	0	0	0
Syphilis, Total	0	3	1	9	0	1	0	1	1	15
➤ Primary, Secondary and Early Latent	0	2	0	6	0	0	0	0	0	8
Tuberculosis	0	0	0	1	0	0	0	1	0	2
Varicella	1	2	0	6	0	3	3	20	4	31
Vibriosis (not cholera)	0	0	0	1	0	0	0	2	0	3
Yersiniosis	0	1	0	3	0	0	1	5	1	9
Zika Virus Disease	0	0	0	1	0	0	2	6	2	7
Total	21	198	116	1,377	33	288	107	1,181	277	3,044

Source: Ohio Disease Reporting System, downloaded 11/6/2016.

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

	Oct. 2016	Oct. 2015	YTD 2016	YTD 2015	All of 2015	5 Yr Annual Average	5 Yr. Annual Rate
Amebiasis	0	0	0	1	1	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	7	4	75	50	59	61.0	16.235
Chlamydia	155	177	1,552	1,344	1,702	1,539.0	409.596
Coccidioidomycosis	0	0	1	0	0	0.4	0.106
Creutzfeldt-Jakob Disease	0	0	1	0	0	0.6	0.160
Cryptosporidiosis	4	6	42	26	30	29.2	7.771
Cyclosporiasis	0	0	4	1	1	0.4	0.106
Dengue	0	0	0	0	0	0.6	0.160
Ehrlichiosis/ Anaplasmosis	0	0	1	0	0	0.4	0.106
Escherichia coli, Shiga Toxin-Producing	1	0	14	14	17	6.8	1.810
Giardiasis	1	2	22	23	29	36.2	9.634
Gonorrhea	51	40	557	411	530	586.8	156.173
Haemophilus influenzae , Invasive	0	0	4	7	8	7.4	1.969
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0.2	0.053
Hepatitis A	1	1	3	4	5	5.8	1.544
Hepatitis B, Perinatal	0	0	5	3	5	3.4	0.905
Hepatitis B, Acute	1	1	4	4	4	5.0	1.331
Hepatitis B, Chronic	3	0	43	34	45	33.6	8.942
Hepatitis C, Acute	1	0	7	13	13	7.8	2.076
Hepatitis C, Chronic	20	31	264	311	374	275.8	73.403
Hepatitis E	0	0	1	0	0	0.2	0.053
Influenza-associated hospitalization	0	0	159	281	284	263.6	70.156
Influenza-associated pediatric mortality	0	0	0	0	0	0.2	0.053
LaCrosse virus disease	0	0	1	0	0	0.4	0.106
Legionellosis	1	2	14	19	19	14.2	3.779
Listeriosis	0	0	1	0	1	1.4	0.373
Lyme Disease	3	1	23	16	18	13.6	3.620
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	8	5	26	26	31	35.2	9.368
Meningitis, Other Bacterial	0	0	4	3	3	3.4	0.905
Meningococcal Disease	0	0	0	3	3	1.2	0.319
Mumps	0	1	2	4	4	2.0	0.532
Pertussis	6	2	29	35	51	34.6	9.209
Q fever, acute	0	0	1	0	0	0.4	0.106
Salmonellosis	2	6	47	42	53	41.6	11.072
Shigellosis	1	1	4	6	6	34.4	9.155
Spotted Fever Rickettsiosis	0	0	0	0	0	0.4	0.106
Staphylococcal aureaus	0	0	1	0	0	0.0	0.000
Streptococcal Dis, Group A, Invasive	1	0	8	8	9	15.2	4.045
Streptococcal Dis, Group B, in Newborn	1	0	3	0	0	1.6	0.426
Streptococcal Toxic Shock Syndrome	0	0	1	1	1	1.2	0.319
Streptococcus pneumo. – inv. antibiotic resistance unknown or non-resistant	1	2	30	19	29	36.8	9.794
Streptococcus pneumo. – inv. antibiotic resistant/intermediate	0	1	15	14	15	17.8	4.737
Syphilis, Total	1	0	15	7	7	10.4	2.768
> Syphilis, Primary, Secondary and Early Latent	0	0	8	5	5	6.6	1.757
Toxic Shock Syndrome (TSS)	0	0	0	1	1	0.8	0.213
Tuberculosis	0	0	2	1	1	1.0	0.266
Thyphoid Fever	0	0	0	0	0	0.4	0.106
Varicella	4	5	31	22	26	29.2	7.771
Vibriosis - other (not cholera)	0	0	3	3	3	1.2	0.319
Vibriosis parahaemolyticus	0	0	0	0	0	0.2	0.053
West Nile Virus	0	1	0	1	1	0.6	0.160
Yersiniosis	1	1	9	6	8	2.8	0.745
Zika Virus Disease	2	0	7	0	0	0.2	0.052

Source: Ohio Disease Reporting System, downloaded 11/6/16. Rates are per 100K population and based on 5 yr average incidence '11-'15.



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