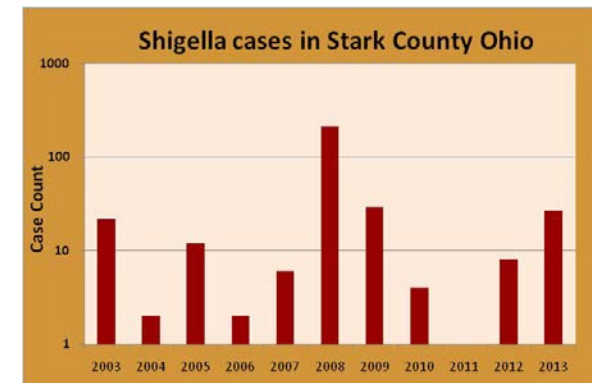


EPI Gram is a monthly publication of the Stark County Public Health Infrastructure Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. Some reportable conditions may be under investigation and,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

Monthly Highlight: Shigella

Shigella is a bacterial organism that may lead to an infectious disease in humans. The disease manifests with diarrhea and fever. The diarrhea is often bloody and in rare cases the fever may lead to febrile seizures. Some individuals may carry the organism without any symptoms.

Nationally and locally, “the dynamics of shigellosis transmission show strong annual and multiyear cycles, as well as seasonality”(1). Although the reason for the cyclical nature of the organism is not fully understood, the cyclical pattern coincides with the transition of daycare populations into schools. In general, years with an elevated number of cases will have a younger median age and a high incidence of daycare attendees/employees, often with known outbreaks in multiple daycare settings. The organism will quickly spread through a daycare, infecting children age 6 weeks-5 years. As this cohort leaves daycare and a new naïve population enters, the organism may once again spread. As daycare attendees interact with children from other facilities in the home and social settings, the disease quickly spreads to other daycares and a community wide increase may be observed. This form of spread has been seen approximately once every five years in Stark County. In other years, the cases are sporadic or may be associated with travel.



Currently Stark County has received 26 reports of Shigella in 2013, far exceeding the 10 year median number of 8 cases per year. Some of the 2013 cases have ties to daycares and early elementary schools in our community. Cases identified in the daycare population are restricted until follow-up stool testing is completed in order to prevent additional spread within the facilities. Aggressive educational campaigns in the facilities reminding parents and guardians to keep children home when they are ill and to increase hand washing and cleaning are key to reducing the burden of disease.

(1) <http://aje.oxfordjournals.org/content/early/2013/09/04/aje.kwt122.abstract>

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

	Aug 2013				Sep 2013				Oct 2012			
	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	Monthly High	Monthly Low	Monthly Median	Counts in highest reported health risk category
Pollen Count	165	5	35	N/A	190	2	15	N/A	Reported Seasonally, not currently available.			N/A
Mold Count	7,890	1,610	3,360	3 Moderate	11,800	1,270	2,960	4 Moderate				
Air Quality Index	66	30	43	5 Moderate	74	39	45	7 Moderate	51	19	29	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 Summaries of Select Vital Statistics for Stark County

	Aug 2013	Sep 2013	YTD 2013	2012
Live Births	357	295	3156	4058
Births to Teens	32	31	291	365
Deaths	330	315	3212	4110

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

Table 3 Stark County Crude Birth and Death Rates

	2006	2007	2008	2009	2010
Birth	1191*	1190*	1166*	1139	1085
Death	1000*	1035*	1055*	1072	1094

*Source: Ohio Department of Health Data Warehouse. Rates are per 100,000 population.

If you have any questions, including how to receive copies of this report, please contact Christina Henning at 330.489.3327 or Chenning@cantonhealth.org.

Table 4: AUGUST Jurisdictional Summary of Reportable Diseases in Stark County

(Provisional Data, as of 10/27/2013)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	Aug	YTD	Aug	YTD	Aug	YTD	Aug	YTD	Aug	YTD
Anaplasmosis	0	0	0	0	0	0	0	1	0	1
Campylobacter	0	0	4	13	0	0	3	30	7	43
Chlamydia	12	70	59	478	5	71	23	340	99	959
Creutzfeldt-Jakob Disease	0	0	0	0	0	1	0	0	0	1
Cryptosporidium	1	2	0	5	0	0	4	12	5	19
Cyclospora	0	0	0	0	0	0	1	1	1	1
E. coli - enterohemorrhagic STP-Not O157:H7	0	0	0	1	0	0	0	1	0	2
Giardia	0	0	0	7	0	4	3	20	3	31
Gonorrhea	5	34	24	221	3	33	9	101	41	389
Haemophilus influenzae	0	1	0	2	0	0	0	2	0	5
Hepatitis A	0	0	0	0	0	0	0	2	0	2
Hepatitis B - Perinatal Infection	0	0	0	0	0	0	0	2	0	2
Hepatitis B - acute	0	2	0	3	0	0	0	2	0	7
Hepatitis B - chronic	1	1	1	3	0	0	2	11	4	15
Hepatitis C - acute	0	1	0	4	0	0	0	0	0	5
Hepatitis C - chronic	3	13	3	56	2	17	8	55	16	141
Influenza-associated hospitalization	0	7	0	92	0	29	0	162	0	290
Influenza-associated pediatric mortality	0	0	0	0	0	0	0	1	0	1
Legionella	0	1	0	2	0	1	2	13	2	17
Listeria	0	0	0	1	0	0	0	0	0	1
Lyme Disease	1	1	1	1	0	0	4	10	6	12
Malaria	0	0	0	1	0	0	0	0	0	1
Meningitis - aseptic/viral	1	1	1	3	2	2	4	7	8	13
Meningitis - bacterial (Not N. meningitidis)	0	0	1	1	0	0	0	3	1	4
Mycobacterial disease - other than TB	0	4	0	2	0	1	2	15	2	22
Pertussis	1	2	0	0	0	0	1	8	2	10
Q fever, chronic	0	0	0	0	0	0	0	2	0	2
Salmonella	1	1	0	6	0	2	2	23	3	32
Shigella	0	0	0	10	0	2	2	5	2	17
Streptococcal - Group A	0	0	0	1	0	2	0	7	0	10
Streptococcal - Group B - in newborn	0	0	0	1	0	0	0	1	0	2
Streptococcus pneumo antibiotic resistance unk or non-resistant	0	1	0	7	0	1	0	13	0	22
Streptococcus pneumo antibiotic resistant/intermediate	0	1	0	7	0	2	1	10	1	20
Syphilis, Total	0	1	1	5	0	1	0	4	1	11
Syphilis, Primary and Secondary	0	0	0	2	0	0	0	3	0	5
Toxic shock syndrome (TSS)	0	0	0	0	0	0	0	3	0	3
Varicella	1	2	0	1	0	0	0	10	1	13
Vibrio parahaemolyticus infection	0	1	0	0	0	0	0	0	0	1
Yersiniosis	0	0	0	1	0	0	0	0	0	1

Source: Ohio Disease Reporting System, downloaded 10/27/2013.

Table 4: September Jurisdictional Summary of Reportable Diseases in Stark County

(Provisional Data, as of 10/27/2013)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	Sep	YTD	Sep	YTD	Sep	YTD	Sep	YTD	Sep	YTD
Anaplasmosis	0	0	0	0	0	0	0	1	0	1
Campylobacter	0	0	0	13	0	0	4	34	4	47
Chlamydia	3	73	61	539	11	82	15	355	90	1049
Creutzfeldt-Jakob Disease	0	0	0	0	0	1	0	0	0	1
Cryptosporidium	0	2	0	5	0	0	3	15	3	22
Cyclospora	0	0	0	0	0	0	0	1	0	1
E. coli - enterohemorrhagic STP-Not O157:H7	0	0	0	1	0	0	0	1	0	2
Giardia	0	0	0	7	0	4	1	21	1	32
Gonorrhea	2	36	35	256	3	36	6	107	46	435
Haemophilus influenzae	0	1	2	4	0	0	0	2	2	7
Hepatitis A	0	0	0	0	0	0	2	4	2	4
Hepatitis B - Perinatal Infection	0	0	1	1	0	0	0	2	1	3
Hepatitis B - acute	0	2	0	3	0	0	1	3	1	8
Hepatitis B - chronic	0	1	1	4	1	1	2	13	4	19
Hepatitis C - acute	0	1	0	4	0	0	0	0	0	5
Hepatitis C - chronic	0	13	5	61	2	19	11	66	18	159
Influenza-associated hospitalization	0	7	0	92	0	29	0	162	0	290
Influenza-associated pediatric mortality	0	0	0	0	0	0	0	1	0	1
Legionella	0	1	1	3	0	1	0	13	1	18
Listeria	0	0	0	1	0	0	1	1	1	2
Lyme Disease	0	1	0	1	0	0	1	11	1	13
Malaria	0	0	0	1	0	0	0	0	0	1
Meningitis - aseptic/viral	0	1	1	4	1	3	2	9	4	17
Meningitis - bacterial (Not N. meningitidis)	0	0	0	1	0	0	0	3	0	4
Mycobacterial disease - other than TB	1	5	0	2	1	2	1	16	3	25
Pertussis	0	2	0	0	0	0	1	9	1	11
Q fever, chronic	0	0	0	0	0	0	0	2	0	2
Salmonella	0	1	1	7	0	2	1	24	2	34
Shigella	0	0	0	10	0	2	1	6	1	18
Streptococcal - Group A	0	0	0	1	0	2	1	8	1	11
Streptococcal - Group B - in newborn	0	0	0	1	0	0	0	1	0	2
Streptococcus pneumo antibiotic resistance unk or non-resistant	0	1	0	7	0	1	3	16	3	25
Streptococcus pneumo antibiotic resistant/intermediate	0	1	0	7	0	2	0	10	0	20
Syphilis, Total	1	2		5	0	1		4	1	12
Syphilis, Primary and Secondary	1	1		2	0	0		3	0	6
Toxic shock syndrome (TSS)	0	0	0	0	0	0	0	3	0	3
Varicella	0	2	0	1	0	0	1	11	1	14
Vibrio parahaemolyticus infection	0	1	0	0	0	0	0	0	0	1
Yersiniosis	0	0	0	1	0	0	0	0	0	1

Table 5 – Summary Table of Diseases Reported in Stark County, with 5 yr history

(Provisional Data, as of 08/12/2013)	Aug 2013	Sep 2013	Sep- 2012	YTD 2013	YTD 2012	2012	5 Yr average	Rate
Anaplasmosis	0	0	0	1	0	0	0	0
Brucellosis	7	0	0	0	1	1	0.2	0.053
Campylobacteriosis	99	4	1	47	49	65	52.8	14.058
Chlamydia		90	129	1049	1143	1530	1327.4	353.421
Cholera	0	0	0	0	0	0	0	0
Coccidioidomycosis	0	0	0	0	1	1	0.2	0.053
Creutzfeldt-Jakob Disease	0	0	0	1	0	0	1.6	0.426
Cryptosporidiosis	5	3	6	22	33	45	25.2	6.71
Cyclosporiasis	1	0	0	1	0	0	0	0
Cytomegalovirus, Congenital	1	0	0	1	0	0	0.4	0.107
Dengue	0	0	0	0	1	1	0.8	0.213
Ehrlichiosis	0	0	0	0	0	0	0.2	0.053
Escherichia coli , STP, Not O157:H7	0	0	0	2	0	1	1.2	0.32
Escherichia coli O157:H7	0	0	1	0	2	3	2.2	0.586
Escherichia coli , STP, Unk Serotype	0	0	1	0	1	1	1.4	0.373
Giardiasis	3	1	4	32	29	38	51.8	13.792
Gonorrhea	41	46	69	435	467	647	539.6	143.669
Haemophilus influenzae , Invasive	0	2	0	7	5	8	8.2	2.183
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0	0.4	0.107
Hepatitis A	0	2	0	4	4	6	2.6	0.692
Hepatitis B, Acute	0	1	0	8	2	4	3.6	0.959
Hepatitis B, Chronic	4	4	3	19	28	37	34	9.053
Hepatitis C, Acute	0	0	2	5	6	10	6	1.598
Hepatitis C, Chronic	16	18	16	159	168	217	227.4	60.545
Hepatitis E	0	0	0	0	0	0	0.2	0.053
Herpes, Congenital	0	0	0	0	0	0	0.4	0.107
Influenza A - novel virus infection	0	0	0	0	0	0	0.4	0.107
Influenza-associated hospitalization	0	0	0	290	18	150	123.5*	32.882
Influenza-associated pediatric mortality	0	0	0	1	0	0	0	0
LaCrosse virus disease	0	0	0	0	1	1	0.8	0.213
Legionellosis	2	1	1	18	12	16	15.6	4.154
Listeriosis	0	1	0	2	0	1	2.2	0.586
Lyme Disease	6	1	0	13	10	14	7	1.864
Malaria	0	0	0	1	0	0	1.2	0.32
Meningitis, Aseptic	8	4	6	17	22	34	35.8	9.532
Meningitis, Other Bacterial	1	0	0	4	3	4	3.2	0.852
Meningococcal Disease	0	0	0	0	0	0	1	0.266
Mumps	0	0	0	0	0	1	1	0.266
Mycobacterial disease - Not TB	2	3	2	25	20	26	24.8	6.603
Pertussis	2	1	2	11	11	14	36.4	9.692
Q fever, acute	0	0	0	2	0	0	0	0
Rocky Mountain Spotted Fever	0	0	0	0	0	0	0.6	0.16
Salmonellosis	3	2	1	34	29	39	37.2	9.905
Shigellosis	2	1	1	18	3	8	50.4	13.419
Streptococcal Dis, Group A, Invasive	0	1	0	11	17	21	13.4	3.568
Streptococcal Dis, Group B, in Newborn	0	0	0	2	0	2	3.2	0.852
Streptococcal Toxic Shock Syndrome	0	0	0	0	0	1	0.8	0.213
Strep pneumoniae-antibiotic resistance unk or non-resistant	0	3	1	25	45	57	36	9.585
Streptococcus pneumo - inv antibiotic resistant/intermediate	1	0	2	20	12	21	20	5.325
Syphilis, Total	1	1	0	12	7	12	11.6	3.089
Syphilis, Primary and Secondary	0	1	0	6	0	3	4.2	1.118
Toxic Shock Syndrome (TSS)	0	0	0	3	0	0	0.6	0.16
Tuberculosis	0	0	0	0	2	2	2.6	0.692
Typhoid Fever	0	0	0	0	1	1	0.2	0.053
Varicella	1	1	5	14	28	39	46.8	12.461
Vibriosis - other (not cholera)	0	0	0	1	0	0	0.25	0.067
West Nile Virus	0	0	0	0	1	1	0.2	0.053

Source: Ohio Disease Reporting System, downloaded 10/27//2013. Rates are per 100,000 population and based on 5 year average. *Avg based on 4 years of data.