EPI GRAM April, 2013

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: *Vibrio parahaemolyticus*

The CDC reports that *Vibrio parahaemolyticus* is a bacterium in the same family as those that cause cholera. It lives in brackish saltwater and causes gastrointestinal illness in humans. *V. parahaemolyticus* naturally inhabits coastal waters in the United States and Canada and is present in higher concentrations during summer.

Despite higher concentrations of the organism in the summer months, pathogenic forms of *V. parahaemolyticus* have been found in higher ratios during cooler months in the Gulf coastal region[1]. Although the mechanism for the inverse relationship between water temperature and pathogenic *V. parahaemolyticus* is unknown, it highlights the imporantace of year round vigilance and prevention efforts.

For humans the primary prevention for *V. parahaemolyticus* is avoidance of raw or undercooked oysters and other seafood products. This is particularly important for the elderly and for individuals with chronic medical conditions. Symptoms may include watery diarrhea often with abdominal cramping, nausea, vomiting, fever and chills. Symptoms typically occur within 24 hours of ingestion of a contaminated food. For most individuals the illness is self-limited and lasts for 3 days and is typically treated only with rehydration and rarely anitbiotics.

Additionally, while the estimated incidence of infection with Shiga toxin–producing *Escherichia coli* O157:H7 (STEC O157) and species of *Campylobacter,Cryptosporidium, Listeria, Salmonella,* and *Yersinia* significantly decreased from 1998 to 2010, the incidence of *Vibrio* infections during this period increased 115% (95% CI, 63%-187%).[2]

For more information about *Vibrio parahaemolyticus* please refer to: http://www.cdc.gov/nczved/divisions/dfbmd/diseases/vibriop/.

(1) Seasonal Abundance of Total and Pathogenic Vibrio parahaemolyticus in Alabama Oysters: http://aem.asm.org/content/69/3/1521.full.pdf.

(2) Vital Signs: Incidence and Trends of Infection with Pathogens Transmitted Commonly Through Food
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6022a5.htm?s_cid=mm6022a5_w.

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

	April 2013				May 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
Pollen Count	850	30	210	N/A	465	50	153	N/A
Mold Count	4740	370	1040	**All Low**	6130	800	3330	**All Low**
Air Quality Index	53	24	43	**1 Moderate**	104	36	48	**1 Unhealthy for Sensitive Groups**

**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

	April 2013	YTD 2013	2012
Live Births	299	1306	4058
Births to Teens	32	125	365
Deaths	326	1519	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 or Lauren Drinkard at 330.493.9928 or Drinkardl@starkhealth.org.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County, OH

(Provisional Data, as of 05/06/2013)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	Apr	YTD	Apr	YTD	Apr	YTD	Apr	YTD	Apr	YTD
Campylobacteriosis	0	0	2	6	0	0	1	7	3	13
Chlamydia infection	7	36	60	230	7	35	37	171	111	472
Creutzfeldt-Jakob Disease					1	1			1	1
Cryptosporidiosis	0	0	1	4	0	0	1	5	2	9
E. coli - enterohemorrhagic (shiga toxin producing) - Not O157:H7	0	0	1	1	0	0	0	1	1	2
Giardiasis	0	0	3	6	0	2	4	12	7	20
Gonococcal infection	0	14	30	112	5	21	10	43	45	190
Haemophilus influenzae	0	1	2	2	0	0	0	2	2	5
Hepatitis A	0	0	0	0	0	0	1	2	1	2
Hepatitis B - Perinatal Infection	0	0	0	0	0	0	0	1	0	1
Hepatitis B - acute	0	0	0	1	0	0	0	1	0	2
Hepatitis B - chronic	0	0	0	1	0	0	0	5	0	6
Hepatitis C - acute	0	1	0	3	1	1	0	0	1	5
Hepatitis C - chronic	1	8	11	26	3	12	15	36	30	82
Influenza-associated hospitalization	0	9	5	103	1	30	8	173	14	315
Legionellosis	0	0	0	0	0	1	2	5	2	6
Listeriosis	0	0	0	1	0	0	0	0	0	1
Lyme Disease	0	0	0	0	0	0	0	2	0	2
Meningitis - aseptic/viral	0	0	0	1	0	0	0	1	0	2
Meningitis - bacterial	0	0	0	0	0	0	0	1	0	1
Mycobacterial disease - other than tuberculosis	1	1	0	1	1	1	2	7	4	10
Pertussis	0	1	0	0	0	0	0	4	0	5
Q fever, chronic	0	0	0	0	0	0	0	1	0	1
Salmonellosis	0	0	1	3	0	1	1	8	2	12
Shigellosis	0	0	4	7	1	2	2	3	7	12
Streptococcal - Group A -invasive	0	0	0	1	1	2	3	7	4	10
Streptococcal - Group B - in newborn	0	0	0	1	0	0	0	0	0	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	1	2	3	6	0	1	1	9	5	18
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	1	1	7	1	2	3	7	5	17
Syphilis, Total	0	0	0	1	0	1	0	1	0	3
Syphilis, Primary and Secondary	0	0	0	0	0	0	0	1	0	1
Toxic shock syndrome (TSS)	0	0	0	0	0	0	0	2	0	2
Varicella	0	1	0	0	0	0	1	9	1	10
Vibrio parahaemolyticus infection	1	1	0	0	0	0	0	0	1	1
Yersiniosis	0	0	0	1	0	0	0	0	0	1

Source: Ohio Disease Reporting System, downloaded 5/06/2013.

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

(Provisional Data, as of 05/06/2013)	Apr-2013	Apr-2012	YTD 2013	YTD 2012	2012	5 Yr annual average	Rate
Brucellosis	0	0	0	1	1	0.2	0.053
Campylobacteriosis	3	0	13	7	65	52.8	14.06
Chlamydia	111	121	472	508	1529	1327.4	353.4
Coccidioidomycosis	0	0	0	1	1	0.2	0.053
Creutzfeldt-Jakob Disease	1	0	1	0	0	1.6	0.426
Cryptosporidiosis	2	1	9	8	45	25.2	6.71
Cytomegalovirus, Congenital	0	0	0	0	0	0.4	0.107
Dengue	0	0	0	1	1	0.8	0.213
Ehrlichiosis	0	0	0	0	0	0.2	0.053
Escherichia coli , STP, Not O157:H7	1	0	2	0	1	1.2	0.32
Escherichia coli O157:H7	0	0	0	0	3	2.2	0.586
Escherichia coli , STP, Unk Serotype	0	0	0	0	1	1.4	0.373
Giardiasis	7	2	20	11	38	51.8	13.79
Gonorrhea	45	32	190	199	647	539.6	143.7
Haemophilus influenzae , Invasive	2	1	5	2	8	8.2	2.183
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	0	0.4	0.107
Hepatitis A	1	0	2	2	6	2.6	0.692
Hepatitis B, Acute	0	0	2	1	4	3.6	0.959
Hepatitis B, Chronic	0	0	6	10	37	34	9.053
Hepatitis C, Acute	1	0	5	0	10	6	1.598
Hepatitis C, Chronic	30	24	82	83	222	227.4	60.55
Hepatitis E	0	0	0	0	0	0.2	0.053
Herpes, Congenital	0	0	0	0	0	0.4	0.107
Influenza A - novel virus infection	0	0	0	0	0	0.4	0.107
Influenza-associated hospitalization	14	4	315	14	150	123.5*	32.88
LaCrosse virus disease	0	0	0	0	1	0.8	0.213
Legionellosis	2	0	6	2	16	15.6	4.154
Listeriosis	0	0	1	0	1	2.2	0.586
Lyme Disease	0	2	2	5	14	7	1.864
Malaria	0	0	0	0	0	1.2	0.32
Meningitis, Aseptic	0	1	2	5	34	35.8	9.532
Meningitis, Other Bacterial	0	1	1	3	4	3.2	0.852
Meningococcal Disease	0	0	0	0	0	1	0.266
Mumps	0	0	0	0	1	1	0.266
Mycobacterial disease - Not TB	4	3	10	6	26	24.8	6.603
Pertussis	0	2	5	3	14	36.4	9.692
Q fever, acute	0	0	1	0	0	0	0
Rocky Mountain Spotted Fever	0	0	0	0	0	0.6	0.16
Salmonellosis	2	3	12	9	39	37.2	9.905
Shigellosis	7	0	12	0	8	50.4	13.42
Streptococcal Dis, Group A, Invasive	4	5	10	10	21	13.4	3.568
Streptococcal Dis, Group B, in Newborn	0	0	1	0	2	3.2	0.852
Streptococcal Toxic Shock Syndrome	0	0	0	0	1	0.8	0.213
Strep pneumo - inv antibiotic resistance unk or non-resistant	5	3	18	29	58	36	9.585
Streptococcus pneumo - inv antibiotic resistant/intermediate	5	2	17	8	21	20	5.325
Syphilis, Total	0	3	3	5	12	11.6	3.089
Syphilis, Primary and Secondary	0	0	1	0	3	4.2	1.118
Toxic Shock Syndrome (TSS)	0	0	2	0	0	0.6	0.16
Tuberculosis	0	0	0	1	2	2.6	0.692
Typhoid Fever	0	0	0	0	1	0.2	0.053
Varicella	1	7	10	19	39	46.8	12.46
Vibriosis - other (not cholera)	1	0	1	0	0	0.25	0.067
West Nile Virus	0	0	0	0	1	0.2	0.053
Yersiniosis	0	0	1	1	2	0.8	0.213

Source: Ohio Disease Reporting System, downloaded 05/06//2013. Rates are per 100,000 population and based on 5 year average. *Average based on 4 years of data.