EPI GRAM October, 2013

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.*

Monthly Highlight: *Norovirus Season*

Noroviruses have a seasonal pattern that usually begins in November and stretches in to March. Emergency department (ED) visits for a combination of diarrhea and vomiting have historically coincided with an increase in norovirus cases and outbreaks. Outbreaks are commonly associated with with close living and communal settings, including hospitals and nursing homes.

Norviruses are a group of highly contagious viruses that cause acute gastroenteritis. Symptoms include acute onset of vomiting, watery non-blood diarrhea, nausea and in some individuals a low-grade fever, headaches and myalgias. In an average individual symptoms persist for 12 to 48 hours with few complications. Hosptializations for symptoms with norovirus are rare but may occur in the very young, elderly, immunocomprimesed and those relying on oral medication.

There are six known genotypes of norovirus, many of which circulate simulatenously in a community. Therefore it is possible to have disease, despite a previous recent diagnosis. Diagnosis is based on an RT-qPCR. This testing is available through most large send out laboratories.

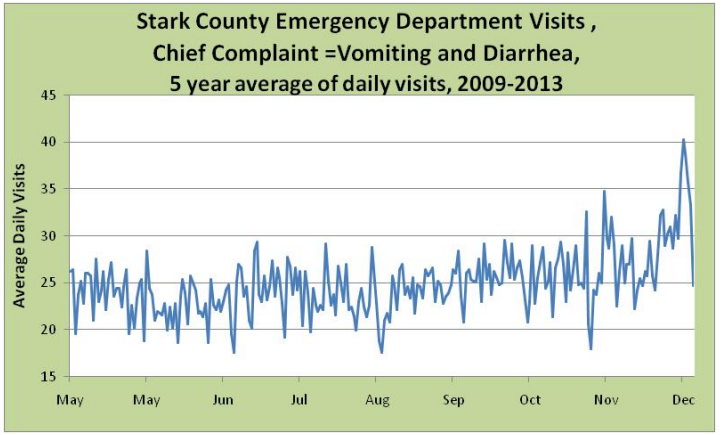

Figure 1: Seasonal pattern of emergency department visits with a chief complaint that included both vomiting and diarrhea.

Disease transmission presented by the Centers for Disease Control and Prevention states:

> A person with norovirus infection can shed **billions** of norovirus particles. But, it only takes as few as 18 viral particles to infect another person. Primarily, noroviruses are spread through—
>
> - close personal contact with an infected person, or
> - fecal-oral route when a person consumes contaminated food or water.
>
> The virus can also spread through touching contaminated surfaces, objects, or substances.
>
> It is possible for norovirus to spread through aerosolized vomit that lands on surfaces or enters a person's mouth then he or she swallows it. There is no evidence showing that people can get infected by breathing in the virus

The best prevention is through thorough handwashing, isolating ill and strongly discouraging ill employees from working.

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

	October 2013				November 2013			
	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	Data collected Seasonally, not currently available.				Data collected Seasonally, not currently available.			
Mold Count								
Air Quality Index	56	24	32.5	**4 Moderate**	43	30	33	**All Good**

**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

	Oct 2013	YTD 2013	2012
Live Births	367	3482	4058
Births to Teens	35	311	365
Deaths	Data Pending		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: October Jurisdictional Summary of Reportable Diseases in Stark County

(Provisional Data, as of (11/21/2013)	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	Oct	YTD	Oct	YTD	Oct	YTD	Oct	YTD	Oct	YTD
Anaplasmosis	0	0	0	0	0	0	0	1	0	1
Campylobacter	0	0	6	19	0	0	4	38	10	57
Chlamydia	6	79	42	585	8	92	22	404	78	1160
Creutzfeldt-Jakob Disease	0	0	0	0	0	1	0	0	0	1
Cryptosporidium	0	2	2	7	0	0	1	16	3	25
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	0	21	0	32
Gonorrhea	2	38	41	297	5	42	6	119	54	496
Haemophilus influenzae	0	1	0	4	0	0	0	2	0	7
Hepatitis A	0	0	0	0	0	0	1	5	1	5
Hepatitis B - Perinatal Infection	0	0	0	1	0	0	2	4	2	5
Hepatitis B - acute	0	2	0	3	0	0	0	3	0	8
Hepatitis B - chronic	0	1	1	5	0	1	1	14	2	21
Hepatitis C - acute	1	2	0	4	0	0	0	0	1	6
Hepatitis C - chronic	2	15	4	62	1	21	5	70	12	168
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	3	0	1	1	14	1	19
Listeria	0	0	0	1	0	0	0	1	0	2
Lyme Disease	0	1	0	1	0	0	1	12	1	14
Malaria	0	0	0	1	0	0	0	0	0	1
Meningitis - aseptic/viral	0	1	2	6	0	3	2	11	4	21
Meningitis - bacterial (Not N. meningitidis)	1	1	0	1	0	0	0	3	1	5
Mycobacterial disease – Not TB	0	5	2	5	0	2	0	8	2	20
Pertussis	0	2	2	2	0	0	0	9	2	13
Q fever, chronic	0	0	0	0	0	0	0	2	0	2
Salmonella	0	1	2	9	1	3	2	26	5	39
Shigella	0	0	9	19	0	2	3	9	12	30
Streptococcal - Group A	0	0	1	2	0	2	1	9	2	13
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	1	8	0	1	0	16	1	26
Streptococcus pneumo antibiotic resistant/intermediate	0	1	2	9	1	3	0	10	3	23
Syphilis, Total	0	2	0	5	0	1	0	4	0	12
Syphilis, Primary and Secondary	0	1	0	2	0	0	0	3	0	6
Toxic shock syndrome (TSS)	0	0	0	0	0	0	0	3	0	3
Varicella	1	3	0	1	0	0	4	15	5	19
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 11/21/2013.

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

(Provisional Data, as of 11/21/2013)	Oct 2013	Oct 2012	YTD 2013	YTD 2012	2012	5 Yr average	Rate
Anaplasmosis	0	0	1	0	0	**0**	**0**
Brucellosis	**0**	**0**	**0**	**1**	**1**	**0.2**	**0.053**
Campylobacteriosis	**10**	**6**	**57**	**55**	**65**	**52.8**	**14.058**
Chlamydia	**78**	**158**	**1160**	**1301**	**1530**	**1327.4**	**353.421**
Cholera	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Coccidioidomycosis	**0**	**0**	**0**	**1**	**1**	**0.2**	**0.053**
Creutzfeldt-Jakob Disease	**0**	**0**	**1**	**0**	**0**	**1.6**	**0.426**
Cryptosporidiosis	**3**	**2**	**25**	**35**	**45**	**25.2**	**6.71**
Cyclosporiasis	**0**	**0**	**1**	**0**	**0**	**0**	**0**
Cytomegalovirus, Congenital	**0**	**0**	**1**	**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	**0**	**1**	**2**	**1**	**1**	**1.2**	**0.32**
Escherichia coli O157:H7	**0**	**0**	**0**	**2**	**3**	**2.2**	**0.586**
Escherichia coli , STP, Unk Serotype	**0**	**0**	**0**	**1**	**1**	**1.4**	**0.373**
Giardiasis	**0**	**3**	**32**	**32**	**38**	**51.8**	**13.792**
Gonorrhea	**54**	**66**	**496**	**534**	**648**	**539.6**	**143.669**
Haemophilus influenzae , Invasive	**0**	**0**	**7**	**5**	**8**	**8.2**	**2.183**
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.107**
Hepatitis A	**1**	**0**	**5**	**4**	**6**	**2.6**	**0.692**
Hepatitis B, Acute	**0**	**1**	**8**	**3**	**4**	**3.6**	**0.959**
Hepatitis B, Chronic	**2**	**3**	**21**	**31**	**37**	**34**	**9.053**
Hepatitis C, Acute	**1**	**2**	**6**	**8**	**10**	**6**	**1.598**
Hepatitis C, Chronic	**12**	**16**	**168**	**183**	**216**	**227.4**	**60.545**
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	**0**	**2**	**290**	**20**	**150**	**123.5***	**32.882**
Influenza-associated pediatric mortality	**0**	**0**	**1**	**0**	**0**	**0**	**0**
LaCrosse virus disease	**0**	**0**	**0**	**1**	**1**	**0.8**	**0.213**
Legionellosis	**1**	**1**	**19**	**13**	**16**	**15.6**	**4.154**
Listeriosis	**0**	**0**	**2**	**0**	**1**	**2.2**	**0.586**
Lyme Disease	**1**	**2**	**14**	**12**	**14**	**7**	**1.864**
Malaria	**0**	**0**	**1**	**0**	**0**	**1.2**	**0.32**
Meningitis, Aseptic	**4**	**4**	**21**	**26**	**34**	**35.8**	**9.532**
Meningitis, Other Bacterial	**1**	**0**	**5**	**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	**2**	**2**	**20**	**22**	**26**	**24.8**	**6.603**
Pertussis	**2**	**2**	**13**	**13**	**14**	**36.4**	**9.692**
Q fever, acute	**0**	**0**	**2**	**0**	**0**	**0**	**0**
Rocky Mountain Spotted Fever	**0**	**0**	**0**	**0**	**0**	**0.6**	**0.16**
Salmonellosis	**5**	**5**	**39**	**34**	**39**	**37.2**	**9.905**
Shigellosis	**12**	**3**	**30**	**6**	**8**	**50.4**	**13.419**
Streptococcal Dis, Group A, Invasive	**2**	**0**	**13**	**17**	**21**	**13.4**	**3.568**
Streptococcal Dis, Group B, in Newborn	**0**	**0**	**2**	**0**	**2**	**3.2**	**0.852**
Streptococcal Toxic Shock Syndrome	**0**	**0**	**0**	**0**	**1**	**0.8**	**0.213**
Strep pneumoniae-antibiotic resistance unk or non-resistant	**1**	**2**	**26**	**47**	**57**	**36**	**9.585**
Streptococcus pneumo - inv antibiotic resistant/intermediate	**3**	**2**	**23**	**14**	**21**	**20**	**5.325**
Syphilis, Total	**0**	**0**	**12**	**8**	**12**	**11.6**	**3.089**
Syphilis, Primary and Secondary	**0**	**0**	**6**	**0**	**3**	**4.2**	**1.118**
Toxic Shock Syndrome (TSS)	**0**	**0**	**3**	**0**	**0**	**0.6**	**0.16**
Tuberculosis	**0**	**0**	**0**	**2**	**2**	**2.6**	**0.692**
Typhoid Fever	**0**	**0**	**0**	**1**	**1**	**0.2**	**0.053**
Varicella	**5**	**4**	**19**	**32**	**39**	**46.8**	**12.461**
Vibriosis - other (not cholera)	**0**	**0**	**1**	**0**	**0**	**0.25**	**0.067**
West Nile Virus	**0**	**0**	**0**	**1**	**1**	**0.2**	**0.053**

Source: Ohio Disease Reporting System, downloaded 11/21/2013. Rates are per 100,000 population and based on 5 year average. *Avg based on 4 years of data.