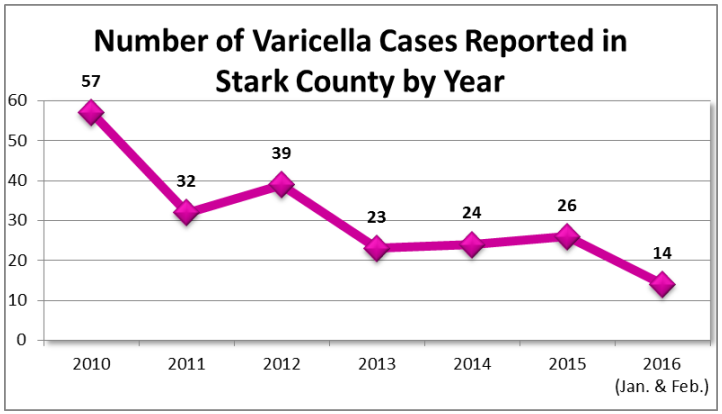
EPI GRAM February, 2016

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.*

Monthly Highlight: Varicella



In 1995, the vaccination for varicella was made available to the public in the United States. Prior to this, varicella was endemic in the United States and the number of cases correlated approximately to the birth cohort, approximately 4 million. Of those cases, 90% occurred among children under the age of fifteen. From 2000 until 2010 the rate of varicella infection declined by 82%. Though this is a great decrease cases of varicella still occur.For all of 2015 there were 26 cases of varicella reported in Stark County. Within the first two months of 2016 half of that (13 cases) have already been reported. Ages have ranged from three to sixteen years of age. Of these cases 57% had two doses of vaccine. Two of the cases only had one dose and four of the cases did not received any doses of vaccine at all.

Vaccine efficacy has shown to be 70-90% against any infection and 90-100% against moderate to severe infection. A dose should be administered at 12-15 months of age and a second dose should be administered between 4-6 years of age. Breakthrough infections may occur among those vaccinated, but the symptoms are milder than those of unvaccinated individuals.The varicella vaccine is usually administered simultaneously with the MMR and if not, than thirty days after. If the varicella vaccine is administered less than thirty days after the MMR vaccine is administered there is an increase risk for a breakthrough infection.

Typically varicella infection causes an itchy rash lasting five to ten days with a preceeding fever. Complications may occur causing pneumonia or infections or inflammation of the brain. Two to three hospitalizations occur in every one thousand infected. One in 60,000 cases will die. In addition, mother's who contract varicella five days before or two days after delivery may cause a severe infection in their baby resulting in a 30% fatality rate. Pregnancy should be avoided during the one month following receipt of the vaccine and the vaccine should not be administered to a woman during her pregnancy. In adition, those with acute illness should wait until their recovery before receiving the varicella vaccine. Severe allergic reactions to one of the vaccine components or immunosuppression are contraindications for receiving the varicella vaccine and a healthcare provider should be consulted.

- For more information please see: Centers for Disease Control and Prevention Epidemiology and Prevention of Vaccine-Preventable Diseases, 13th Edition

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

	February 2016				March 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	Data collected Seasonally, not currently available.				Data collected Seasonally, not currently available.			
Mold Count								
Air Quality Index	30	3	16	**0 (Good)**	33	19	24	**0 (Good)**

**See the following websites for updated Air Quality Index and mold inde In 2015, Stark County handled 3 cases within our community. ux 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

	February 2016	YTD 2016	2015
Live Births	349	716	4,314
Births to Teens	27	51	308
Deaths	355	791	4,362

Birth and death data is reported by the 4 health districts and 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.

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.

Table 4: Jurisdictional Summary of Reportable Diseases in Stark County

	Alliance City		Canton City		Massillon City		Stark County		Total	
	Feb.	YTD	Feb.	YTD	Feb.	YTD	Feb.	YTD	Feb.	YTD
Campylobacteriosis	0	0	1	1	0	0	5	9	6	10
Chlamydia infection	5	15	69	157	25	39	58	112	157	323
Cryptosporidiosis	0	0	1	1	0	1	1	2	2	4
E. coli, Shiga Toxin-Producing	0	0	0	0	0	0	0	1	0	1
Giardiasis	0	0	0	1	0	0	1	1	1	2
Gonococcal infection	5	7	38	68	3	8	14	28	60	111
Haemophilus influenzae	0	0	0	0	0	0	0	1	0	1
Hepatitis B – acute	0	0	0	0	0	0	0	1	0	1
Hepatitis B - chronic	0	0	0	2	1	1	2	6	3	9
Hepatitis C - acute	0	0	1	1	0	0	0	1	1	2
Hepatitis C - chronic	4	7	7	15	3	7	10	23	24	52
Influenza-associated hospitalization	3	4	8	8	3	4	11	13	25	29
Influenza-associated pediatric mortality	0	0	0	0	0	0	0	0	0	0
Legionellosis	1	1	0	0	0	0	1	1	2	2
Lyme Disease	0	0	0	0	0	0	1	2	1	2
Malaria	0	0	0	0	1	1	0	0	1	1
Measles - indigenous to Ohio	0	0	0	0	0	0	0	1	0	1
Meningitis - aseptic/viral	0	0	0	0	0	0	1	4	1	4
Meningitis-bacterials (not N. meningitides)	0	0	0	0	0	0	1	1	1	1
Mumps	0	0	0	0	0	0	0	1	0	1
Mycobacterial Disease- other than tuberculosis	0	0	0	0	0	0	4	5	4	5
Other Arthropod-borne Disease	0	0	1	1	0	0	1	1	2	2
Pertussis	0	0	0	0	0	0	1	2	1	2
Q fever, acute	0	0	0	0	0	0	1	1	1	1
Salmonellosis	0	0	0	3	0	1	1	3	1	7
Streptococcal-Group A, invasive	0	0	0	0	0	0	1	1	1	1
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	0	1	6	0	1	3	5	4	12
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	0	0	3	0	0	1	3	1	6
Syphilis, Total	1	1	3	4	0	0	0	0	4	5
➢ Syphilis, Primary, Secondary and Early Latent	1	1	0	1	0	0	0	0	1	2
Varicella	0	0	4	5	4	3	2	5	8	13
Yersiniosis	0	1	0	0	0	0	0	0	0	1
Total	19	36	134	276	38	66	121	234	312	612

Source: Ohio Disease Reporting System, downloaded 03/07/2016.

Table 5 – Summary Table of Diseases Reported in the Previous 5 years within Stark County **(Provisional Data)**	**Feb. 2016**	**Feb. 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**	**0**	**1**	**0.2**	**0.053**
Brucellosis	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.053**
Campylobacteriosis	**6**	**2**	**10**	**3**	**59**	**61.0**	**16.235**
Chlamydia	**157**	**116**	**323**	**238**	**1702**	**1539.0**	**409.596**
Coccidioidomycosis	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.106**
Creutzfeldt-Jakob Disease	**0**	**0**	**0**	**0**	**0**	**0.6**	**0.160**
Cryptosporidiosis	**2**	**0**	**4**	**2**	**30**	**29.2**	**7.771**
Cyclosporiasis	**0**	**0**	**0**	**0**	**1**	**0.4**	**0.106**
Dengue	**0**	**0**	**0**	**0**	**0**	**0.6**	**0.160**
Ehrlichiosis/ Anaplasmosis	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.106**
Escherichia coli, Shiga Toxin-Producing	**0**	**1**	**1**	**1**	**17**	**6.8**	**1.810**
Giardiasis	**1**	**0**	**2**	**5**	**29**	**36.2**	**9.634**
Gonorrhea	**60**	**28**	**111**	**56**	**530**	**586.8**	**156.173**
Haemophilus influenzae , Invasive	**0**	**1**	**1**	**2**	**8**	**7.4**	**1.969**
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.053**
Hepatitis A	**0**	**0**	**0**	**1**	**5**	**5.8**	**1.544**
Hepatitis B, Perinatal	**0**	**0**	**0**	**1**	**5**	**3.4**	**0.905**
Hepatitis B, Acute	**0**	**0**	**1**	**0**	**4**	**5.0**	**1.331**
Hepatitis B, Chronic	**3**	**1**	**9**	**7**	**45**	**33.6**	**8.942**
Hepatitis C, Acute	**1**	**2**	**2**	**4**	**13**	**7.8**	**2.076**
Hepatitis C, Chronic	**24**	**23**	**52**	**48**	**374**	**275.8**	**73.403**
Hepatitis E	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.053**
Influenza-associated hospitalization	**25**	**37**	**29**	**200**	**284**	**263.6**	**70.156**
Influenza-associated pediatric mortality	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.053**
LaCrosse virus disease	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.106**
Legionellosis	**2**	**0**	**2**	**0**	**19**	**14.2**	**3.779**
Listeriosis	**0**	**0**	**0**	**0**	**1**	**1.4**	**0.373**
Lyme Disease	**1**	**2**	**2**	**2**	**18**	**13.6**	**3.620**
Malaria	**1**	**0**	**1**	**0**	**0**	**0.6**	**0.160**
Measles (indigenous to Ohio)	**0**	**0**	**1**	**0**	**0**	**1.8**	**0.479**
Meningitis, Aseptic	**1**	**3**	**4**	**3**	**31**	**35.2**	**9.368**
Meningitis, Other Bacterial	**1**	**0**	**1**	**0**	**3**	**3.4**	**0.905**
Meningococcal Disease	**0**	**0**	**0**	**1**	**3**	**1.2**	**0.319**
Mumps	**0**	**1**	**1**	**2**	**4**	**2.0**	**0.532**
Mycobacterial disease - Not TB	**4**	**1**	**5**	**3**	**36**	**31.0**	**8.250**
Other arthropod-borne disease	**2**	**0**	**2**	**0**	**0**	**0.2**	**0.052**
Pertussis	**1**	**12**	**2**	**19**	**51**	**34.6**	**9.209**
Q fever, acute	**1**	**0**	**1**	**0**	**0**	**0.4**	**0.106**
Salmonellosis	**1**	**2**	**7**	**3**	**53**	**41.6**	**11.072**
Shigellosis	**0**	**0**	**0**	**0**	**6**	**34.4**	**9.155**
Spotted Fever Rickettsiosis	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.106**
Streptococcal Dis, Group A, Invasive	**1**	**0**	**1**	**3**	**9**	**15.2**	**4.045**
Streptococcal Dis, Group B, in Newborn	**0**	**0**	**0**	**0**	**0**	**1.6**	**0.426**
Streptococcal Toxic Shock Syndrome	**0**	**0**	**0**	**1**	**1**	**1.2**	**0.319**
Streptococcus pneumo. – inv. antibiotic resistance unknown or non-resistant	**4**	**0**	**12**	**3**	**29**	**36.8**	**9.794**
Streptococcus pneumo. – inv. antibiotic resistant/intermediate	**1**	**3**	**6**	**4**	**15**	**17.8**	**4.737**
Syphilis, Total	**4**	**2**	**5**	**2**	**7**	**10.4**	**2.768**
➢ Syphilis, Primary, Secondary and Early Latent	**1**	**1**	**2**	**1**	**5**	**6.6**	**1.757**
Toxic Shock Syndrome (TSS)	**0**	**0**	**0**	**0**	**1**	**0.8**	**0.213**
Tuberculosis	**0**	**0**	**0**	**0**	**1**	**1.0**	**0.266**
Thyphoid Fever	**0**	**0**	**0**	**0**	**0**	**0.4**	**0.106**
Typhus Fever	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.053**
Varicella	**8**	**1**	**13**	**2**	**26**	**29.2**	**7.771**
Vibriosis - other (not cholera)	**0**	**0**	**0**	**0**	**3**	**1.2**	**0.319**
Vibriosis parahaemolyticus	**0**	**0**	**0**	**0**	**0**	**0.2**	**0.053**
West Nile Virus	**0**	**0**	**0**	**0**	**1**	**0.6**	**0.160**
Yersiniosis	**0**	**0**	**1**	**1**	**8**	**2.8**	**0.745**

Source: Ohio Disease Reporting System, downloaded 03/07/16. Rates are per 100K population and based on 5 yr average incidence ‘11-‘15.