EPI GRAM July, 2012

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: Zoonotic Disease: Diseases Transmitted from Animals to Humans.

Rabies: In 2012, three (3) bats collected in Stark County have been confirmed positive for rabies. Ohio has a total of 22 bats and 2 raccoons collected throughout the state with confirmed rabies. Rabies is a viral disease usually transmitted by an infected animal biting another animal or human. All occurrences of humans bitten by an animal are reportable to the Local Health Department (LHD). The LHD investigates animal bites to determine the potential exposure and confirm animal vaccination against rabies. If an animal is not vaccinated, the animal will be either quarantined or euthanized and submitted for testing to the Ohio Department of Health's Laboratory. More information on rabies can be obtained by accessing the *Compendium of Animal Rabies Prevention and Control, 2011* found at http://www.nasphv.org/Documents/RabiesCompendium.pdf.

Campylobacter: Most commonly associated with contaminated food, Campylobacter is also transmitted through contact with infected animals such as calves, puppies, kittens and chicken. Campylobacter is transmitted by the fecal oral route. In order for humans to become ill from an infected animal, the animal must be shedding the organism in the stool and the human would have to ingest the organism. This is most commonly associated with improper hand washing following contact with the animal. Several Stark County cases have been associated with direct contact to farm animals and symptomatic puppies. Always promote proper hand hygiene practices following any contact with live animals, particularly prior to eating or preparing food and performing caregiver duties.

Swine variants of Influenza: A nationwide outbreak of a variant strain of influenza (H3N2v) with the matrix (M) gene from the 2009 H1N1 pandemic virus is under investigation. As of 08/20/2012, no cases have been confirmed in Stark County, however Ohio has the second highest number of confirmed cases. Swine flu viruses including H3N2 commonly circulate in swine. When the viruses are transmitted to humans, they are referred to as "variant" and denoted by adding the letter "v". In the 2012 investigation, spread of H3N2v influenza to humans has only been associated with close contact to infected swine. At this time, there is no known sustained human-to-human transmission. The majority of 2012 cases are experiencing symptoms consistent with mild influenza which includes fever, sore throat and a cough. The Centers for Disease and Control and Prevention (CDC) suspect the primary means of transmission from swine to humans is through respiratory secretions. Primary prevention is through avoidance of ill animals and good hand hygiene. Additionally, the H3N2v strain of influenza is not a component of the 2012/2013 seasonal influenza vaccine, but receiving the vaccine will reduce the possibility of coinfection of multiple strains of influenza and a lowered risk of a strain reassortment. More information can be found at http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm.

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

	July 2012				August 2011			
	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	30	3	10	N/A	150	5	27.5	N/A
Mold Count	12,790	1,980	5,170	**9 Moderate**	12,990	3,680	6,405	**10 Moderate**
Air Quality Index	99	40	68	**15 Moderate**	71	26	42	**4 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

	July 2012	YTD 2012	2011
Live Births	396	2448	4075
Births to Teens	31	234	399
Deaths	316	2467	4110

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: 2011 Jurisdictional Summary of Reportable Diseases in Stark County, OH

	Alliance City		Canton City		Massillon City		Stark County		All Departments	
	July	YTD	July	YTD	July	YTD	July	YTD	July	YTD
Brucellosis								1		1
Campylobacteriosis		2	6	15	1	2	6	20	13	39
Chlamydia infection	8	77	49	402	7	71	62	306	126	856
Coccidioidomycosis								1		1
Cryptosporidiosis		2		3		1	5	12	5	18
Dengue								1		1
Giardiasis			1	4			3	16	4	20
Gonococcal infection	1	15	30	192	6	34	19	97	56	338
Haemophilus influenzae				1			1	3	1	4
Hepatitis A		1		1				1		3
Hepatitis B - Perinatal Infection				1			1	1	1	2
Hepatitis B - acute				1				1		2
Hepatitis B (including delta) - chronic		1		8		2	1	12	1	23
Hepatitis C - acute			1	2					1	2
Hepatitis C - chronic		20	2	41	3	17	8	55	16	133
Influenza-associated hospitalization		1		4		2	1	11	1	18
Legionellosis - Legionnaires' Disease			1	3			2	4	3	7
Lyme Disease		1				1		6		8
Meningitis - aseptic/viral		1		1			2	8	2	10
Meningitis - bacterial (Not N. meningitidis)				2				1		3
Mycobacterial disease - other than tuberculosis	1	2	1	3		1		7	2	13
Pertussis			1	1			2	5	3	6
Salmonellosis			1	2		1	4	20	5	23
Shigella						1	1	1	1	2
Streptococcal - Group A -invasive	1	1	1	4		2	1	9	3	16
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant		3	3	11		1	4	29	7	44
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate		2		2				5		9
Syphilis, Total		1		2		3				6
Syphilis, Primary and Secondary										0
Varicella		3		5	1	2		11	1	21
Yersiniosis								1		1

Source: Ohio Disease Reporting System, downloaded 08/15/2012.

Table 5 – 2011 Summary Table of Diseases Reported in the Previous 5 years within Stark County, OH. (Provisional Data)

	July-12	YTD 2012	YTD 2011	All of 2011	5 Yr annual average	Rate
Anaplasmosis					0.2	0.05
Brucellosis		1			0	0
Campylobacteriosis	13	39	24	40	50	13.31
Chlamydia	126	856	821	1457	1269.6	338.03
Coccidioidomycosis		1			0	0
Creutzfeldt-Jakob Disease (CJD)			2	2	1.6	0.43
Cryptosporidiosis	5	18	9	16	21.2	5.64
Cytomegalovirus (CMV), Congenital					0.4	0.11
Dengue		1		2	0.6	0.16
Encephalitis, Post Other Infection					0.2	0.05
Encephalitis, Primary Viral					0.8	0.21
Escherichia coli , Shiga Toxin-Producing, Not O157:H7			1	2	1	0.27
Escherichia coli , Shiga Toxin-Producing, Unknown Serotype					1.4	0.37
Escherichia coli O157:H7			2	2	2	0.53
Ehrlichiosis-Ehrlichia chaffeensis			1	1	0.2	0.05
Giardiasis	4	20	42	62	52.2	13.9
Gonorrhea	56	338	352	613	540.4	143.88
Haemophilus influenzae , Invasive Disease	1	4	5	8	7	1.86
Hemolytic Uremic Syndrome (HUS)					0.6	0.16
Hepatitis A		3	1	1	2.4	0.64
Hepatitis B - Perinatal Infection	1	2		2	**	**
Hepatitis B, Acute		2	1	2	3.4	0.91
Hepatitis B, Chronic	1	23	17	24	36.4	9.69
Hepatitis C, Acute	1	2	4	6	4.2	1.12
Hepatitis C, Chronic	16	133	176	279	239.8	63.85
Hepatitis E				1	0.2	0.05
Herpes, Congenital					0.4	0.11
Influenza A - novel virus infection					0.4	0.11
Influenza-associated hospitalization	1	18	140	143	**	**
LaCrosse virus disease (other California serogroup virus disease)			1	1	0.6	0.16
Legionellosis	3	7	3	9	14.2	3.78
Listeriosis			1	2	2.4	0.64
Lyme Disease		8	8	12	4.2	1.12
Malaria			1	1	1.2	0.32
Meningitis, Aseptic	2	10	30	63	40.8	10.86
Meningitis, Bacterial, Not Neisseria meningitidis		3	2	3	2.6	0.69
Meningococcal Disease			1	1	1.2	0.32
Mumps					0.8	0.21
Mycobacterial disease - other than tuberculosis	2	13	14	23	24	6.39
Pertussis	3	6	9	11	34	9.05
Q Fever					0	0
Rheumatic Fever					0.2	0.05
Rocky Mountain Spotted Fever (RMSF)			2	2	0.6	0.16
Salmonellosis	5	23	17	32	36.4	9.69
Shigellosis	1	2		1	50	13.31
Streptococcal Disease, Group A, Invasive	3	16	15	22	10.6	2.82
Streptococcal Disease, Group B, in Newborn			1	3	3.6	0.96
Streptococcal Toxic Shock Syndrome (STSS)			2	2	1	0.27
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	7	44	25	37	30.8	8.2
Strep. pneumoniae - invasive antibiotic resistant/intermediate		9	13	17	20.2	5.38
Syphilis, Total		6	7	13	11.2	2.98
Syphilis, Primary and Secondary			4	10	4.2	1.12
Toxic Shock Syndrome (TSS)					0.6	0.16
Tuberculosis	2	3	1	2	2.6	0.69
Varicella	1	21	14	33	68.6	18.26
Vibriosis - other (not cholera)			1	1	0.2	0.05
Yersiniosis		1			1.2	0.32

Source: Ohio Disease Reporting System, downloaded 08/15/2012. Rates are per 100,000 population.