

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: Brucellosis

Stark County Health Department received a report of an individual with probable Brucellosis. As defined by the Centers for Disease Control and Prevention (CDC):

Brucellosis is an infectious disease caused by the bacteria of the genus *Brucella*. These bacteria are primarily passed among animals, and they cause disease in many different vertebrates. Various *Brucella* species affect sheep, goats, cattle, deer, elk, pigs, dogs and several other animals. Humans become infected by coming in contact with animals or animal products that are contaminated with these bacteria. In humans, brucellosis can cause a range of symptoms that are similar to the flu and may include fever, sweats, headaches, back pains and physical weakness. Severe infections of the central nervous systems or lining of the heart may occur. Brucellosis can also cause long-lasting or chronic symptoms that include recurrent fevers, joint pain and fatigue. (Reference: http://www.cdc.gov/ncidod/dbmd/diseaseinfo/brucellosis_g.htm)

In Ohio, Brucellosis is rarely reported with only 7 confirmed and 10 probable cases since 2003. Of the confirmed cases, 5 of 7 had documented travel to areas considered to be at high risk for travelers, 1 had occupational exposure and no information was available on a 2003 case. Areas currently listed by the CDC as high risk are the Mediterranean Basin (Portugal, Spain, Southern France, Italy, Greece, Turkey, and North Africa), South and Central America, Eastern Europe, Asia, Africa, the Caribbean and the Middle East. Unpasteurized cheeses, sometimes called "village cheeses," from these areas may represent a particular risk for tourists. Only 2 of the 10 probable cases had a history of travel outside of the United States. Some of those without a history of travel reported consumption of raw dairy products.

Brucellosis is diagnosed by culturing the gram-negative bacilli from blood or bone marrow. Highly controlled laboratory conditions must be used when culturing this organism as Brucellosis is the most commonly reported laboratory-associated bacterial infection according to the CDC. Additionally, serologic antibody tests are available which require 2 sample collections obtained 2 weeks apart. If serology is performed, the CDC currently recommends that specimens testing positive or equivocal for IgG or IgM by a screening EIA be confirmed by a *Brucella*-specific agglutination method. (Reference: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5722a3.htm>)

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

	February 2012				March 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	Seasonally Unavailable				Seasonally Unavailable			
Mold Count	Seasonally Unavailable				Seasonally Unavailable			
Air Quality Index	32	13	22.5	All Good	34	5	20	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

	Feb 2012	YTD 2012	2010
Live Births	323	703	4075
Births to Teens	28	62	399
Deaths	313	677	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	
	Feb	YTD	Feb	YTD	Feb	YTD	Feb	YTD	Feb	YTD
Brucellosis							1	1	1	1
Campylobacteriosis							2	3	2	3
Chlamydia infection	7	21	70	138	10	23	46	84	133	266
Coccidioidomycosis							1	1	1	1
Cryptosporidiosis									0	0
Dengue							1	1	1	1
Giardiasis							1	4	1	4
Gonococcal infection	1	7	25	66	5	9	21	30	52	112
Haemophilus influenzae (invasive disease)							1	1	1	1
Hepatitis A			1	1					1	1
Hepatitis B - Perinatal Infection			1	1					1	1
Hepatitis B (including delta) - chronic			2	2					2	2
Hepatitis C - chronic	5	7	5	11	2	5	10	20	22	43
Influenza-associated hospitalization					1	1	1	1	2	2
Legionellosis - Legionnaires' Disease			1	1					1	1
Lyme Disease								1	0	1
Meningitis - bacterial (Not N. meningitidis)				1				1	0	2
Salmonellosis							4	6	4	6
Streptococcal - Group A -invasive				2			1	2	1	4
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	1	1	2	3			4	10	7	14
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate			1	1				2	1	3
Syphilis, Total	1	1							1	1
Syphilis, Primary and Secondary									0	0
Varicella			1	2				5	1	7
Yersiniosis								1	0	1

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

	Feb 2012	YTD 2012	YTD 2011	All of 2011	5 Yr annual average	Rate
Anaplasmosis					0.2	0.05
Brucellosis	1	1			0	0
Campylobacteriosis	2	3	3	40	50	13.31
Chlamydia	133	266	219	1471	1269.6	338.03
Coccidioidomycosis	1	1			0	0
Creutzfeldt-Jakob Disease (CJD)				2	1.6	0.43
Cryptosporidiosis			5	16	21.2	5.64
Cytomegalovirus (CMV), Congenital					0.4	0.11
Dengue	1	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				2	1	0.27
Escherichia coli , Shiga Toxin-Producing, Unknown Serotype					1.4	0.37
Escherichia coli O157:H7				2	2	0.53
Ehrlichiosis-Ehrlichia chaffeensis				1	0.2	0.05
Giardiasis	1	4	11	62	52.2	13.9
Gonorrhea	52	112	82	624	540.4	143.88
Haemophilus influenzae , Invasive Disease	1	1	3	8	7	1.86
Hemolytic Uremic Syndrome (HUS)					0.6	0.16
Hepatitis A	1	1		1	2.4	0.64
Hepatitis B - Perinatal Infection	1	1		3	**	**
Hepatitis B, Acute				2	3.4	0.91
Hepatitis B, Chronic	2	2	6	23	36.4	9.69
Hepatitis C, Acute			1	6	4.2	1.12
Hepatitis C, Chronic	22	43	50	284	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	2	2	98	144	**	**
LaCrosse virus disease (other California serogroup virus disease)				1	0.6	0.16
Legionellosis	1	1		9	14.2	3.78
Listeriosis			1	2	2.4	0.64
Lyme Disease		1		12	4.2	1.12
Malaria				1	1.2	0.32
Meningitis, Aseptic			1	63	40.8	10.86
Meningitis, Bacterial, Not Neisseria meningitidis		2		3	2.6	0.69
Meningococcal Disease			1	1	1.2	0.32
Mumps					0.8	0.21
Mycobacterial disease - other than tuberculosis			4	23	24	6.39
Pertussis			7	11	34	9.05
Q Fever					0	0
Rheumatic Fever					0.2	0.05
Rocky Mountain Spotted Fever (RMSF)				2	0.6	0.16
Salmonellosis	4	6	3	32	36.4	9.69
Shigellosis				1	50	13.31
Streptococcal Disease, Group A, Invasive	1	4	9	22	10.6	2.82
Streptococcal Disease, Group B, in Newborn				3	3.6	0.96
Streptococcal Toxic Shock Syndrome (STSS)			1	2	1	0.27
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	7	14	10	37	30.8	8.2
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	1	3	4	17	20.2	5.38
Syphilis, Total	1	1	2	13	11.2	2.98
Syphilis, Primary and Secondary			1	10	4.2	1.12
Toxic Shock Syndrome (TSS)					0.6	0.16
Tuberculosis				2	2.6	0.69
Varicella	1	7	5	33	68.6	18.26
Vibriosis - other (not cholera)				1	0.2	0.05
Yersiniosis		1			1.2	0.32

This report includes confirmed, probable and suspect cases, as reported in the Ohio Disease Reporting System (ODRS).

*Annual Rate per 100,000 population is derived from a five year average of disease incidence and based on the 2010 census population of 375,586

** Information not currently available, this may or may not be due to a change in reporting requirements in the past 5 years.