

EPI Gram is a monthly publication of the Stark County Public Health 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.

IN THE NEWS:

Communicable Disease activity was dominated by rapid implementation of local pandemic plans in the latter part of April and early May. This was due to the identification of a novel influenza strain first identified first in southern California. Within two weeks of the initial identification Ohio, Texas, and Kansas all had confirmed cases. This virus was identified as Novel Influenza A (H1N1) and has the following components: the North American lineage of Classic swine influenza, the Eurasian Swine lineage, the North American lineage of Avian Influenza, as well as Seasonal H3N2. It is important to note that triple reassortment viruses (those with avian, swine and human components) have been identified in the United States since 1998, with confirmed human cases since 2005.

A study of the earliest cases by the New England Journal of Medicine yielded valuable disease information. Those primarily affected are younger than 18 (60%), the age range is 3 months to 81 years. Symptoms included Fever 94%, Cough 92%, Sore Throat 66%, and a significant portion (25%) also reported Diarrhea and Vomiting. The most severe form of disease, leading to hospitalization and death, was found primarily in the very young, the immune compromised and pregnant women. Treatment for novel H1N1 differed significantly from the circulating strain of H1N1. The NEJM reported an “analyses indicate that S-OIV is susceptible to oseltamivir and zanamivir but resistant to the adamantanes.” This is opposite of the antiviral susceptibility patterns of seasonal influenza. The full NEJM report can be found at <http://content.nejm.org/cgi/content/full/NEJMoa0903810>.

As of the printing of this document, Ohio has confirmed 13 cases of novel influenza H1N1, none in Stark County. The cases range in age from 9 years to 47 years and are equally divided male to female. At least 5 of the cases reported travel to a Mexico or having close contact to an ill traveler. One of the 13 cases reporting no travel is likely a case of third generation transmission. The dates of onset range from April 22 to May 6, 2009. For more information on Ohio Novel Influenza (H1N1), refer to the following website: http://www.odh.ohio.gov/landing/phs_emergency/swineflu.aspx.

At this time there are more questions than answers regarding this strain of Novel Influenza: will a vaccine be available for next season, will it increase or decrease in virulence, will it continue to circulate throughout Ohio, the Nation and the world to name just a few. At this time, local public health would like to recommend that everyone continue with his or her preparedness efforts and above all stay educated on the rapidly changing status of this virus. The gold standard of information is the CDC at <http://www.cdc.gov/h1n1flu/>.

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

	April 2009				May 2008			
	Monthly High	Monthly Low	Monthly Mean	Counts in highest reported health risk category	Monthly High	Monthly Low	Monthly Mean	Counts in highest reported health risk category
Pollen Count	10	138			2320	5	407	N/A
Mold Count	70	529	All Good	All Good	8190	630	4115	2 Moderate
Air Quality Index	70	26	44	4 Moderate	67	25	42	2 Moderate

See the following website for source information: http://www.cantonhealth.org/air_quality.htm.

Table 2 Summary of Select Vital Statistics for Stark County, Ohio

	Apr-09	YTD 2009	2008 Total
Live Births	329	1478	5169
Births to Teens	38	161	580
Deaths	257	931	4027

Due to the current method of reporting, all data is provisional.

Table 3 Stark County Crude Birth and Death Rates per 100,000 Population

Rates are based on the US Census 2000 Stark County population of 377,438.

	2004	2005	2006	2007	2008
Birth	1240	1211	1282	1340	1369
Death	1040	1140	1076	1076	1067

Table 4 – Summary of Select Reportable Diseases by Jurisdiction for Apr 2009 in Stark County, Ohio (provisional data only)

Refer to “Case Definitions for Infectious Conditions Under Public Health Surveillance,” MMWR (Morbidity and Mortality Weekly Report) 1997; 46 (No. RR-10), the Ohio Department of Health Infectious Disease Control Manual or visit: www.cdc.gov/epo/dphsi/casedef/index.htm for case definitions.

This report includes confirmed, probable and suspect cases reported in the month of June to the specified local health department..

	Alliance City			Canton City			Massillon City			Stark County			Stark County Totals		
	Apr	YTD	YTD 2008	Apr	YTD 2009	YTD 2008	Apr	YTD 2009	YTD 2008	Apr	YTD 2009	YTD 2008	Apr	YTD 2009	5 Yr annual average
Campylobacteriosis	0	1	0	0	1	0	0	0	1	4	13	5	4	15	48
Chlamydia infection	16	36	27	44	217	211	6	27	32	27	106	96	93	386	1174.8
Cryptosporidiosis	1	1	0	0	0	1	0	0	0	1	3	4	2	4	17.2
E. coli - enterohemorrhagic (shiga toxin producing) O157:H7	0	0	1	0	0	0	0	0	0	1	1	0	1	1	2.8
Giardiasis	1	1	1	1	4	3	0	3	0	4	20	9	6	28	43.2
Gonococcal infection	1	6	9	24	108	133	1	12	11	2	21	29	28	147	599
Haemophilus influenzae (invasive disease)	0	0	0	0	1	2	0	1	0	1	3	1	1	5	5.6
Hepatitis A	0	0	0	2	2	0	0	0	0	0	0	0	2	2	2.8
Hepatitis B (including delta) - chronic	0	0	0	0	3	6	0	3	3	3	9	4	3	15	23.6
Hepatitis C - chronic	0	2	13	3	23	21	3	9	11	2	22	32	8	54	221.5
Pertussis	1	1	0	0	0	0	0	0	0	0	5	0	1	6	16
Shigellosis	0	0	0	2	7	7	0	2	0	0	12	2	2	21	46.6
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	1	0	1	3	2	1	1	2	0	0	8	3	5	24.8
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	1	3	1	0	3	3	0	0	0	2	13	11	3	19	24.8
Syphilis, Total	0	0	0	1	3	11	0	0	2	1	1	2	2	4	22.8
Syphilis, Pri & Secondary	0	0	0	1	2	3	0	0	0	0	0	1	1	2	9.4
Varicella	0	3	2	1	5	6	0	0	1	6	19	20	7	27	136

Incomplete 5 yr average due to a change in reporting.

If you have any questions, including how to receive copies of this report, please contact Karen Schanz at (330) 493-9928 x287 or Schanzk@starkhealth.org or Christina Henning at (330) 489-3454 or Chenning@cantonhealth.org.

Table 5 – Summary Table of Diseases Reported in the previous 5 years within Stark County, Ohio.(provisional data only)

	Stark County Totals					
	Apr-09	YTD 2009	YTD 2008	All of 2008	5 Yr annual average	Average rate per 100,000 population
Amebiasis	0	0	0	0	0.4	0.11
Anaplasmosis	0	0	0	0	0.2	0.05
Campylobacteriosis	4	15	6	56	48	12.70
Chlamydia	93	386	265	1122	1174.8	310.71
Creutzfeldt-Jakob Ds	0	1	1	3	0.8	0.21
Cryptosporidiosis	2	4	5	24	17.2	4.55
Cytomegalovirus, Congenital	0	1	1	1	1	0.26
Dengue	0	0	0	0	0.2	0.05
Enceph., Post Other	0	0	0	1	0.2	0.05
Enceph, Primary viral	0	0	0	2	1.8	0.48
E. coli - enterohemorrhagic (shiga toxin producing) O157:H7	1	1	0	1	2.8	0.74
E coli , STP, Unknown	0	1	1	1	2	0.53
Giardiasis	6	28	9	38	43.2	11.43
Gonorrhea	28	147	182	592	599	158.42
Haemo. Influz., Bac	1	5	3	8	5.6	1.48
Hemolitic Uremic Synd	0	0	0	2	0.8	0.21
Hepatitis A	2	2	0	4	2.8	0.74
Hep B, Acute	0	1	1	4	3.4	0.90
Hep B, Chronic	3	15	13	35	23.6	6.24
Hep C, Acute	0	0	0	5	1.8	0.48
Hep C, Past or Present	8	56	77	215	221.5	58.58
Herpes, Congenital	0	0	0	1	0.4	0.11
Influenza-Hospitalized	0	59	0	N/A	N/A	N/A
LaCrosse Encephalitis	0	0	0	0	0.2	0.05
Legionellosis	0	1	2	16	12	3.17
Listeriosis	0	1	2	3	2.8	0.74
Lyme Disease	0	0	0	1	0.6	0.16
Meningitis, Asep	0	2	5	28	44.4	11.74
Meningitis Bac.	0	2	1	3	1.8	0.48
Meningococcal Dis.	0	1	0	1	1.4	0.37
Mumps	0	0	1	3	0.8	0.21
Pertussis	1	6	0	3	16	4.23
Rheumatic fever	0	0	1	1	0.2	0.05
Rocky Mountain Spotted	0	0	0	0	0.2	0.05
Salmonellosis	0	14	6	44	41.4	10.95
Shigellosis	2	21	9	213	46.6	12.32
Strep Inv A GAS	0	5	8	10	7.6	2.01
Strep B Newborn	0	1	1	2	2.8	0.74
Strep toxic shock (STSS)	0	0	1	1	0.8	0.21
Streptococcus pneumoniae , Invasive Disease, Ages < 5 Yrs	0	0	0	3	4.8	1.27
Strep pneumo, Invasive Disease, Drug Resistant, Ages 5+ Yrs	2	5	12	25	21	5.55
Strept pneumo, Invasive, Susceptible or Unk, Ages 5+ Yrs	3	19	15	27	24.8	6.56
Syphilis, Total	2	4	15	19	22.8	6.03
Syphilis, Pri & Secondary	1	2	4	4	9.4	2.49
Toxic shock syndrome (TSS)	0	0	0	2	0.4	0.11
Toxoplasmosis, Congenital	0	0	0	0	0	0.00
Typhoid Fever	0	0	0	0	0.2	0.05
Varicella#	7	27	21	54	136	35.97
Vibriosis (Not Cholera)	0	0	0	0	0.2	0.05
West Nile Virus	0	0	0	0	1.2	0.32
Yersiniosis	0	0	3	3	2.4	0.63

Table includes information on diseases reported to the Ohio Department of Health in the previous five years.

This report includes confirmed, probable and suspect cases. Rate is based on an estimate population of 378,098