EPI GRAM July, 2009

A Monthly Publication of the
Stark Public Health Infrastructure Coalition

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: **Arboviral Infections** (mosquito-borne diseases caused by a blood parasite).
In Ohio Arboviral neuroinvasive and non-neuronivase diseases are reported as Class B(1) These are diseases of public health concern needing timely response because of potential for epidemic spread - report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known. Arboviral diseases include arthropod-borne encephalitis, eastern and western equine encephalitis, LaCrosse and other California serogroup virus disease, Powassan encephalitis, St. Louis encephalitis, and West Nile encephalitis. Further, any arthropod disease of unusual incidence (eg malaria) is reportable as a Class C disease in Ohio and should be reported by the end of the next business day.

Malaria is spread by the bite of an infected *Anopheles* mosquito. While the mosquito vector can be found in Ohio, a locally acquired case has not been reported in Ohio since 1975. In July, 3 cases of malaria were reported in Stark County residents who recently traveled to Africa. 2 of the 3 residents were hospitalized with severe illness. The cases were aware of available prophylactic treatment and were not able to take or complete the prevention measures for personal or physical reasons.

West Nile Virus (WNV) is found in a common mosquito vector in Ohio, *Culex sp.* According to the Ohio Department of Health (ODH), Director Alvin D. Jackson, M.D, “West Nile is endemic in Ohio." . About one in every 150 people bitten by an infected mosquito will become severely ill; most people will experience mild, flu-like symptoms - including, fever, headache, tiredness and body aches - or none at all.

An early indicator of WNV activity is through mosquito testing at ODH laboratories. Public Health departments in Stark County have collected over 3,600 mosquitoes for WNV testing in 2009, all of which have tested negative. However, surrounding communities, including Summit County have confirmed the presence of the virus in their mosquito populations. Further, ODH reported a sharp increase in the number of WNV-positive mosquitoes in August. August also recorded Ohio's first probable human case of WNV in 2009. The first case in Ohio is an 11-year-old male from Cuyahoga County. Stark County has reported 0 to 8 human cases every year since 2002

LaCrosse Encephalitis is carried by *Aedes spp* of mosquitoes. A small number of cases are reported every year in Ohio and in other north central states including, Minnesota, Wisconsin, Iowa, Illinois, and Indiana. Ohio has reported 1 human case of LaCrosse Encephalitis in 2009. The case is an 8 – year old male from Vinton County.

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

	July 2009				Aug 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	35	5	18	N/A	195	10	61	N/A
Mold Count	12670	1350	4400	2 Moderate	14,160	3,990	8,339	2 High
Air Quality Index	38	25	50	10 Moderate	54	19	36	1 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

	July-09	YTD 2009	2008 Total
Live Births	534	2916	5169
Births to Teens	60	304	580
Deaths	205	1611	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

If you have any questions, including how to receive copies of this report, please contact Karen Schanz at 330.493.9928 or Schanzk@starkhealth.org or Christina Henning at 330.489.3327 or Chenning@cantonhealth.org.

Table 4-Jurisdictional summary of reportable diseases in Stark County, Ohio in July 2009.

	Alliance City		Canton City		Massillon City		Stark County		All	
	Jul	YTD	Jul	YTD	Jul	YTD	Jul	YTD	Jul	YTD
Campylobacteriosis	1	3	0	2	1	2	9	27	11	34
Chlamydia infection	10	70	65	388	5	53	32	196	112	707
Creutzfeldt-Jakob Disease	0	0	0	0	0	1	0	0	0	1
Cryptosporidiosis	0	1	1	3	0	0	0	5	1	9
Cytomegalovirus -congenital (CMV)	0	1	0	0	0	0	0	0	0	1
E. coli (STP) - Not O157:H7	0	0	0	0	0	0	0	0	0	0
E. coli (STP) O157:H7	0	0	0	0	0	0	0	2	0	2
E. coli (STP) Unknown serotype	0	0	0	0	0	1	2	3	2	4
Ehrlichiosis-Ehrlichia chaffeensis	0	0	0	0	0	0	0	1	0	1
Giardiasis	1	2	3	10	0	3	3	31	7	46
Gonococcal infection	1	9	23	185	2	21	7	41	33	256
Haemophilus influenzae bacterial	0	0	0	2	0	1	0	3	0	6
Hepatitis A	0	0	0	1	0	0	0	0	0	1
Hepatitis B - acute	0	0	0	0	0	0	0	2	0	2
Hepatitis B - chronic	1	1	0	6	0	3	0	15	1	25
Hepatitis C - acute	0	0	0	0	0	1	0	1	0	2
Hepatitis C - past or present	1	4	10	56	2	15	9	36	22	111
Influenza A - novel virus infection	0	0	0	0	0	0	0	2	0	2
Influenza-hospitalization	0	1	0	30	0	3	0	26	0	60
Legionellosis	0	0	2	4	0	1	2	4	4	9
Listeriosis	0	0	0	0	0	0	0	1	0	1
Lyme Disease	1	1	0	0	0	0	0	1	1	2
Malaria	0	0	0	0	0	0	3	3	3	3
Meningitis - aseptic/viral	1	3	0	0	0	0	2	6	3	9
Meningitis - bacterial	0	1	2	2	0	0	0	1	2	4
Meningococcal disease	0	0	0	0	0	0	0	1	0	1
Pertussis	0	8	0	3	0	0	2	12	2	23
Salmonellosis	2	2	1	1	1	2	1	21	5	26
Shigellosis	0	1	1	9	0	2	0	12	1	24
Streptococcal - Group A -invasive	0	0	0	1	0	0	0	5	0	6
Streptococcal-Group B- newborn	0	0	0	1	0	0	1	1	1	2
Strep pneumo, Invasive <5 Yrs	0	1	0	0	0	0	0	0	0	1
Strep pneumo, Resistant, 5+ yrs	0	1	0	4	0	1	0	3	0	9
Strep pneumo, Suscep or Unk, 5+ yrs	0	2	0	3	0	1	0	18	0	24
Syphilis, Total	0	0	1	2	0	0	0	2	1	4
Syphilis, Pr & Secondary	0	0	1	2	0	0	0	1	1	3
Varicella	1	4	0	5	1	2	0	28	2	39

Case Definitions for Infectious Conditions Under Public Health Surveillance can be found in "MMWR 1997; 46 (No. RR-10).
This report contains confirmed, probable and suspect cases, as reported by the local health jurisdictions in Stark County, Ohio.

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

	Stark County Totals					
	July	YTD 2009	YTD 2008	All of 2008	5 Yr annual average	Rate
Amebiasis	0	0	0	0	**0.4**	**0.11**
Anaplasmosis	0	0	0	0	**0.2**	**0.05**
Campylobacteriosis	**11**	**34**	**34**	**56**	**48**	**12.7**
Chlamydia	**114**	**709**	**523**	**1122**	**1174.8**	**310.71**
Creutzfeldt-Jakob Disease	0	**1**	**3**	**3**	**0.8**	**0.21**
Cryptosporidiosis	**1**	**9**	**16**	**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	**1**	**1**	**0.2**	**0.05**
Enceph, Primary viral	0	0	**2**	**2**	**1.8**	**0.48**
E. coli - enterohemorrhagic (STP) NOT O157:H7	0	**1**	0	0	**0.2**	**0.05**
E. coli - enterohemorrhagic (STP) O157:H7	0	**2**	0	**1**	**2.8**	**0.74**
E coli , STP, Unknown	**2**	**3**	**1**	**1**	**2**	**0.53**
Ehrlichiosis, Ehrlichia chaffeensis	**0**	**1**	0	0	0	0
Giardiasis	**7**	**46**	**22**	**38**	**43.2**	**11.43**
Gonorrhea	**35**	**258**	**237**	**592**	**599**	**158.42**
Haemo. Influz., Bacteria	0	**6**	**6**	**8**	**5.6**	**1.48**
Hemolitc Uremic Syndrome	0	0	**1**	**2**	**0.8**	**0.21**
Hepatitis A	0	**1**	**3**	**4**	**2.8**	**0.74**
Hep B, Acute	0	**2**	**3**	**4**	**3.4**	**0.9**
Hep B, Chronic	**1**	**23**	**21**	**35**	**23.6**	**6.24**
Hep C, Acute	0	**2**	**2**	**5**	**1.8**	**0.48**
Hep C, Past or Present	**22**	**111**	**139**	**215**	**221.5**	**58.58**
Herpes, Congenital	0	0	0	**1**	**0.4**	**0.11**
Influenza A - novel virus infection	0	**2**	0	0	0	0
Influenza-Hospitalized	0	**59**	**N/A**	**N/A**	**N/A**	**N/A**
LaCrosse Encephalitis	0	0	0	0	**0.2**	**0.05**
Legionellosis	**4**	**9**	**9**	**16**	**12**	**3.17**
Listeriosis	0	**1**	**2**	**3**	**2.8**	**0.74**
Lyme Disease	**1**	**2**	0	**1**	**0.6**	**0.16**
Malaria	**3**	**3**	0	0	**0.2**	**0.05**
Meningitis, Asep	**3**	**9**	**16**	**28**	**44.4**	**11.74**
Meningitis Bac.	**2**	**4**	**3**	**3**	**1.8**	**0.48**
Meningococcal Dis.	0	**1**	**1**	**1**	**1.4**	**0.37**
Mumps	0	0	**2**	**3**	**0.8**	**0.21**
Pertussis	**2**	**23**	**1**	**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	**4**	**26**	**18**	**44**	**41.4**	**10.95**
Shigellosis	**1**	**24**	**87**	**213**	**46.6**	**12.32**
Strep Inv A GAS	**0**	**6**	**9**	**10**	**7.6**	**2.01**
Strep B Newborn	**1**	**2**	**2**	**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	**1**	**3**	**3**	**4.8**	**1.27**
Strep pneumo, Invasive Disease, Drug Resistant, Ages 5+ Yrs	0	**9**	**19**	**25**	**21**	**5.55**
Strept pneumo, Invasive, Susceptible or Unk, Ages 5+ Yrs	0	**24**	**19**	**27**	**24.8**	**6.56**
Syphilis, Total	**1**	**4**	**10**	**17**	**22.8**	**6.03**
Syphilis, Pri & Secondary	**1**	**3**	**7**	**11**	**9.4**	**2.49**
Toxic shock syndrome (TSS)	0	0	**1**	**2**	**0.4**	**0.11**
Toxoplasmosis, Congenital	0	0	0	0	0	0
Typhoid Fever	0	0	0	0	**0.2**	**0.05**
Varicella#	**2**	**39**	**36**	**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**

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 on a total population of 378,098