

**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:**

Warm weather has ushered in vector-borne diseases. Although, to date there have been no human reports of West Nile Virus (WNV) in Ohio, three counties have confirmed the presence of the virus in mosquitoes. Three states (Iowa, South Dakota and Mississippi) have reported confirmed human cases of the virus. A member of the Ohio Department of Health stated that the relatively dry spring might lead to increased cases of WNV infection. This is due to the increase in the vector mosquito, which thrives in catch basins that are not being flushed out by repeated rains. By far the greatest risk factor for developing neuroinvasive WNV infection is increased age. The incubation period for WNV infection is thought to be 2 - 14 days; with fully 80% of those infected showing little evidence of disease. Of the remaining 20%, most will develop a relatively mild form of the disease referred to as West Nile Fever and only a few will develop severe disease. The clinical features of severe disease include fever, gastrointestinal symptoms, ataxia and extrapyramidal signs, optic neuritis, seizures, weakness, change in mental status, myelitis, polyradiculitis, and flaccid paralysis is sometimes seen. A minority of patients with severe disease develop a maculopapular or morbilliform rash involving the neck, trunk, arms, or legs. Although not observed in recent outbreaks, myocarditis, pancreatitis, and fulminant hepatitis have been described.

Other mosquito borne diseases reported in Stark County since 2006 include, LaCrosse encephalitis, travel related Malaria and Dengue Fever.

Vector-borne diseases also include those transmitted by ticks. Lyme disease is the most common disease transmitted by ticks reported in Stark County, followed by Rocky Mountain Spotted Fever (RMSF). Both of these are transmitted by varieties of ticks not commonly found in Stark County and therefore are usually related to travel in areas where the source ticks are widespread. The CDC provides the following case definition for Lyme Disease surveillance purposes, a reportable case of Lyme disease is defined as 1) physician-diagnosed erythema migrans  $\geq 5$  cm in diameter or 2) at least one objective late manifestation (i.e., musculoskeletal, cardiovascular, or neurologic) with laboratory evidence of infection with *B. burgdorferi* in a person with possible exposure to infected ticks. Unlike WNV Lyme disease has a bimodal distribution of ages, with cases occurring most frequently among persons aged 5--14 years and 45--54 years.

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

	May 2007				June 2006			
	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	775	40	230		240	10	65	
Mold Count	4580	1020	2356	All good	13260	3030	7102	1 High
Air Quality Index	90	27	54	9 Moderate	77	30	49	9 Moderate

Pollen and Mold counts are derived from rotorod samples on the 2<sup>nd</sup> story roof of Canton City Hall. The readings are from a 24 hour period/24 hour avg. on all work days. Mold counts of 6,500-12,999 are moderate and many individuals sensitive to molds may experience symptoms, counts of 13,000 to 49,999 are high and most individuals with any sensitivity to molds will experience symptoms. The Air Quality Index (AQI) is derived by comparison to EPA standards from the following readings: Particulate Matter 10, Particulate Matter 2.5 continuous on CCHD 2<sup>nd</sup> floor roof top; Sulfur Dioxide at Malone College; and ozone monitors in Canton, Brewster, Alliance, and Middlebranch. This index is produced from March to October. AQI ratings are 151-200: unhealthy (UH); 101-150: unhealthy for sensitive groups (UH sg); 51-100: moderate (M); 0-50: good (g).

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

	May 2007	YTD 2007	2006
Live Births	346	1946	4839
Births to Teens	34	198	434
Deaths	332	1861	4061

**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.

	2002	2003	2004	2005	2006
Birth	1270	1260	1240	1211	1282
Death	1090	1110	1040	1140	1141

**Table 4 – Summary of Select Reportable Diseases for May 2007 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](http://www.cdc.gov/epo/dphsi/casedef/index.htm) for case definitions.

This report includes confirmed, probable and suspect cases.

	Alliance City			Canton City			Massillon City			Stark County			Stark County Totals			
	May 2007	YTD 2007	YTD 2006	May 2007	YTD 2007	YTD 2006	May 2007	YTD 2007	YTD 2006	May 2007	YTD 2007	YTD 2006	May 2007	YTD 2007	YTD 2006	5 Year annual average
Amebiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Campylobacteriosis	0	0	0	2	2	3	0	1	2	1	9	11	3	12	16	51.8
Chlamydia	7	36	31	63	245	276	7	24		21	121	141	98	426		1126.4
Creutzfeldt-Jakob Ds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6
Cryptosporidiosis	0	0	0	0	1	4	0	2	0	0	3	4	0	6	8	14
E Coli 0157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4
E Coli	0		0	0	0	0	0	0	0	0	0	0	0	0	0	3
Enceph., WNV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6
Enceph., Other	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	2.8
Giardiasis	1	4	1	0	1	6	0	2	1	3	9	13	4	16	21	49.2
Gonorrhea	1	8	12	30	184	167	2	18		11	59	41	44	269		646
Haemo. Influz., Bac	0	0	0	0	1	1	0	0	0	0	0	2	0	1	3	5.8
Hepatitis A	0	1	1	0	0	0	0	0	1	1	1	1	1	2	3	8
Hepatitis B*	0	0	2	0	3	8	0	2	0	3	7	12	3	12	22	44.6
Hepatitis C*#	6	15	10	9	44	50	2	6	8	7	44	54	24	109	122	273.5
Kawasaki Syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6
Legionellosis	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	12.2
Listeriosis	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2.4
Lyme Disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6
Malaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8
Meningitis, Asep	0	0	1	1	6	3	0	1	0	1	5	3	2	12	7	53.8
Meningitis Bac.	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	4.4
Meningococcal Dis.	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2.4
Mumps	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.4
Pertussis	0	0	0	0	2	0	0	0	0	1	5	2	1	7	2	17
Salmonellosis	0	2	1	0	2	9	0	0	0	4	11	8	4	15	18	49.4
Shigellosis	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	11.8
Strep Inv A GAS	0	0	3	0	3	2	0	0	0	0	2	2	0	5	7	12.2
Strep B Newborn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Strep Pneu ISP	0	0	3	1	10	14	0	1	0	4	17	14	5	28	31	47.8
Strep TSS	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0.4
Syphilis	0	0	1	0	0	2	0	0	0	1	4	3	1	4	6	21.6
Typhoid Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Varicella#	1	6	21	1	17	27	0	4	8	10	87	153	12	114	209	
Vibriosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Yersiniosis	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2

\*This includes all hepatitis reports; acute, chronic, and status not known. # Incomplete 5 yr average due to a change in reporting.

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