

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: For the fifth time this year, the Air Quality Index (AQI) has exceeded 100. This is highly unusual during the first half of the year, when the AQI averages 35 or less. Elevated AQI has the potential to increase medical needs in sensitive groups. Sensitive groups are dependent on which measured air pollutant in the AQI is elevated. The measured pollutants are ground level ozone, particle pollution, carbon monoxide, and sulfur dioxide. Sensitive groups for two of these are:

Ozone: People with lung disease, children, older adults, and people who are active outdoors

Particle pollution: People with heart or lung disease, older adults, and children

Elevated particle pollution has been associated with cardiac arrhythmias and heart attacks, increased hospitalizations in people with heart or lung diseases and older adults, increased office visits due to aggravation of existing respiratory diseases, such as asthma and chronic bronchitis, and more use of medication.

Increased ozone can irritate the respiratory system, reduce lung function, inflame and damage the cells that line the lungs, make the lungs more susceptible to infection, aggravate asthma and other chronic lung diseases, and cause permanent lung damage.

Medical partners can reduce disease burden by advising sensitive groups to remain vigilant of the current AQI and to avoid exertion and the outdoors when levels are in unhealthy ranges. The AQI is reported locally by Repository, WHBC and at the following website:

<http://www.cantonhealth.org/apc/pdf/Current%20Air%20Quality%20Index.pdf> . Additionally, a brochure that will greatly aid your patients' understanding of AQI is available on the EPA website: http://www.epa.gov/airnow/aqi_brochure_08-09.pdf. This brochure details information mentioned above, and explains AQI values. These values are presented below in an excerpt from the aforementioned brochure.

- "Good" AQI is 0 - 50. Air quality is considered satisfactory, and air pollution poses little or no risk.
- "Moderate" AQI is 51 - 100. Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people. For example, people who are unusually sensitive to ozone may experience respiratory symptoms.
- "Unhealthy for Sensitive Groups" AQI is 101 - 150. Although general public is not likely to be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults and children are at greater risk from the presence of particles in the air. .
- "Unhealthy" AQI is 151 - 200. Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects. .
- "Very Unhealthy" AQI is 201 - 300. This would trigger a health alert signifying that everyone may experience more serious health effects.
- "Hazardous" AQI greater than 300. This would trigger a health warning of emergency condition. The entire population is more than likely to be affected.

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

	April 2010				May 2010			
	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	315	65	315	N/A	445	9	162	N/A
Mold Count	670	130	670	All at Low Levels	5690	760	2896	All at Low Levels
Air Quality Index	114	25	46	** 1 Unhealthy for S. G.	116	26	56.6	** 2 Unhealthy for S. G.

*See the following website for updated Air Quality Index terminology and color coding <http://www.airnow.gov/index.cfm?action=aqibasics.aqi> Data source for this table is the Air Quality Division of the Canton City Health Department.

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

	Apr-2010	YTD 2010	2009 Total
Live Births	400	1652	4839
Births to Teens	43	166	521
Deaths	387	1302	4110

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

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

*Source: Ohio Department of Health Data Warehouse

	2004	2005	2006	2007	2008
Birth	1172*	1163*	1191*	1190*	1166*
Death	971*	1022*	1000*	1035*	1067

Table 4: Jurisdictional summary of reportable diseases in Stark County, Ohio

	Alliance City		Canton City		Massillon City		Stark County		All	
	Apr	YTD	Apr	YTD	Apr	YTD	Apr	YTD	Apr	YTD
Campylobacteriosis	0	0	0	2	0	2	1	3	1	7
Chlamydia infection	8	29	50	235	9	45	25	143	92	452
Creutzfeldt-Jakob Disease	0	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	0	0	0	0	0	0	1	4	1	4
Cytomegalovirus -congenital (CMV)	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0
Giardiasis	0	0	1	2	0	1	2	7	3	10
Gonococcal infection	1	8	16	65	4	14	8	33	29	120
Haemophilus influenzae bacterial	0	0	0	1	0	0	0	1	0	2
Hepatitis A	0	0	0	0	0	0	0	0	0	0
Hepatitis B - acute	0	0	0	2	0	0	0	0	0	2
Hepatitis B - chronic	0	1	1	4	0	0	0	6	1	11
Hepatitis C - acute	0	0	0	0	0	0	0	1	0	1
Hepatitis C - past or present	2	8	5	28	2	12	10	38	19	86
Influenza A - novel virus infection	0	0	0	0	0	0	0	0	0	0
Influenza-hospitalization	0	0	0	0	0	0	0	1	0	1
Legionellosis	0	0	0	0	0	1	1	1	1	2
Listeriosis	0	0	0	0	0	0	0	0	0	0
Lyme Disease	0	0	0	0	0	0	0	1	0	1
Malaria	0	0	0	0	0	0	0	1	0	1
Meningitis - aseptic/viral	0	1	1	3	0	0	2	6	3	10
Meningitis - bacterial	0	0	0	0	0	0	0	0	0	0
Meningococcal disease	0	0	0	1	0	0	0	0	0	1
Mumps	0	1	0	0	0	0	0	0	0	1
Mycobacterial disease - other than tuberculosis	1	2	1	2	0	0	3	4	5	8
Pertussis	0	0	0	0	0	0	0	3	0	3
Salmonellosis	0	1	0	1	0	0	2	4	2	6
Shigellosis	0	0	0	0	0	0	2	4	2	4
Streptococcal - Group A -invasive	0	0	0	0	0	0	2	2	2	2
Streptococcal-Group B- newborn	0	0	0	0	0	1	0	1	0	2
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	0	0	0	0	0	0	8	0	8
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	0	0	3	0	1	1	3	1	7
Syphilis, Total	2	2	0	2	0	0	1	1	3	5
Syphilis, Pr & Secondary	1	1	0	0	0	0	1	1	2	2
Varicella	0	2	1	2	0	0	2	8	3	12

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					
	April	YTD 2010	YTD 2009	All of 2009	5 Yr annual average	Rate
Amebiasis	0	0	0	0	0.2	0.05
Anaplasmosis	0	0	0	0	0.2	0.05
Campylobacteriosis	1	7	15	55	50.8	13.44
Chlamydia	91	450	394	1199	1216	321.61
Creutzfeldt-Jakob Disease	0	0	1	3	1.4	0.37
Cryptosporidiosis	1	4	4	19	18.6	4.92
Cytomegalovirus, Congenital	0	0	1	1	1.2	0.32
Dengue	0	0	0	0	0.2	0.05
Enceph., Post Other	0	0	0	0	0.2	0.05
Enceph, Primary viral	0	0	0	0	1.6	0.42
E. coli - enterohemorrhagic (STP) NOT O157:H7	0	0	1	3	0.4	0.11
E. coli - enterohemorrhagic (STP) O157:H7	0	2	1	4	2.8	0.74
E coli , STP, Unknown	0	0	0	1	2.2	0.58
Giardiasis	3	10	28	57	43.8	11.58
Gonorrhea	29	120	149	442	567	149.96
Haemo. Influz., Bacteria	0	2	5	9	5.8	1.53
Hemolytic Uremic Syndrome	0	0	0	0	0.8	0.21
Hepatitis A	0	0	1	2	3	0.79
Hep B, Acute	1	3	2	2	3	0.79
Hep B, Chronic	1	12	17	39	29.4	7.78
Hep C, Acute	0	1	0	4	2.8	0.74
Hep C, Past or Present	10	86	63	193	216.6	57.29
Herpes, Congenital	0	0	0	1	0.4	0.11
Influenza A - novel virus infection	0	0	0	2	0.4	0.11
Influenza-Hospitalized	0	1	59	195	N/A	N/A
Legionellosis	1	2	1	21	14.8	3.91
Listeriosis	0	0	1	5	3.2	0.85
Lyme Disease	0	1	0	4	1.4	0.37
Malaria	0	1	0	3	0.6	0.16
Meningitis, Asep	3	10	2	23	40.2	10.63
Meningitis Bac.	0	0	2	5	2.2	0.58
Meningococcal Dis.	0	1	1	1	1.2	0.32
Mumps	0	1	0	1	1	0.26
Mycobacterial dis. NOT tuberculosis	5	9	4	20	5.6	1.47
Pertussis	0	3	6	48	22	5.82
Rheumatic fever	0	0	0	0	0.2	0.05
Rocky Mountain Spotted	0	0	0	0	0.2	0.05
Salmonellosis	2	6	14	39	39.4	10.42
Shigellosis	2	4	22	29	51.8	13.7
Strep Inv A GAS	2	2	5	7	7.6	2.01
Strep B Newborn	0	2	1	6	3.2	0.85
Strep toxic shock (STSS)	0	0	0	0	0.6	0.16
Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant	0	8	20	31	31	8.2
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	1	7	5	16	24.2	6.4
Syphilis, Total	3	5	4	9	14	3.7
Syphilis, Pri & Secondary	2	2	2	4	4.6	1.22
Toxic shock syndrome (TSS)	0	0	0	0	0.4	0.11
Typhoid Fever	0	0	0	0	0.2	0.05
Varicella#	2	12	27	61	121	32
West Nile Virus	0	0	0	0	0.8	0.21
Yersiniosis	0	0	0	0	1.6	0.42

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