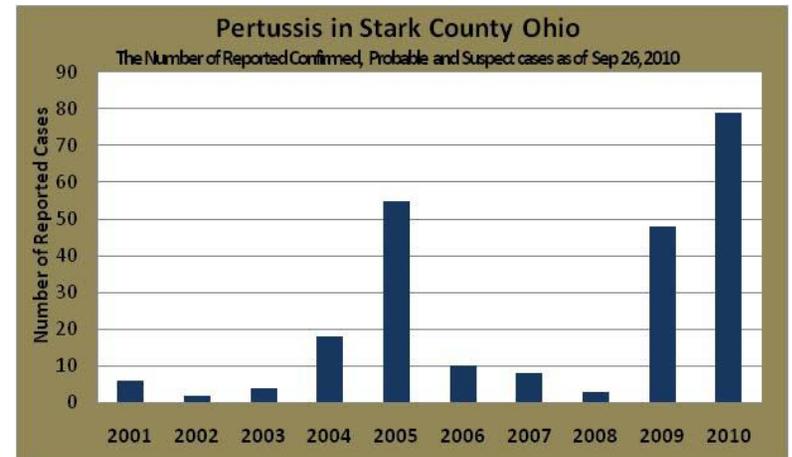


EPI Gram is a monthly publication of the Stark County Public Health Coalition. It contains a summary of provisional communicable disease reports and other key public health indicators, with summary tables for Stark County, Ohio. Some reportable conditions might be under investigation; and, at any given time, data might fluctuate from month to month for a specific category.

**IN THE NEWS: Temporal and Geographic Clustering of Pertussis in Stark**

**County Ohio.** Seventy nine cases of Pertussis have been reported in Stark County Ohio from 01/01/2010 through 09/29/2010. All four health jurisdictions within the County have reported cases: Alliance = 46, Canton = 3, Massillon = 3, Stark County = 27. Of the cases reported this year, at least 60 have been clustered both temporally and geographically. The clustering is apparent in cases residing in or epi linked to the 44601 area code beginning in May and most predominantly in August and September 2010.

The 44601 area code includes Lexington and Washington Townships which are in the Stark County Health Department Jurisdiction and the City of Alliance Ohio. The Estimated 44601 zip code population in 2008 was 35,980. With 55 cases living in the 44601 zip code, a population rate since May 1<sup>st</sup> is 153 cases per 100,000 population. This grossly exceeds the countywide expected rate of 6 cases per 100,000 and is the largest amount of Pertussis reported in the past 10 years; see bar chart to the right.



Of concern with this cluster, is that the demographic and vaccination history differs significantly from cases historically seen in Stark County. Cases in this cluster tend to be young, with a median age of 3 years, and properly vaccinated for age. As would be expected in a well-vaccinated population, anecdotal reports of relatively mild illness have been documented, still, hospitalizations have occurred. Hospitalizations were primarily in the very young or immune compromised population and have also been reported in adults with a history of respiratory illness.

To reduce the burden of Pertussis in our community the Health Departments in Stark County have recommended PCR testing of symptomatic individuals, isolation and treatment of symptomatic individuals, prophylaxis of all contacts with appropriate antimicrobial therapy, administration of the Tdap vaccine for qualifying individuals who live with or care for infants, and ensuring all children are up-to-date with vaccinations.

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

	Aug 2010				Sep 2009			
	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	160	5	52.5	N/A	85	5	25	N/A
Mold Count	8810	2360	5110	5 Moderate	26360	3380	8520	1 High
Air Quality Index	109	28	50	3 Unhealthy for SG	61	28	39	10 Moderate

\*\*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**

	Aug-2010	YTD 2010	2009 Total
Live Births	423	3084	4839
Births to Teens	39	321	521
Deaths	309	2666	4110

**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

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](mailto:Schanzk@starkhealth.org) or Christina Henning at 330.489.3327 or [Chenning@cantonhealth.org](mailto:Chenning@cantonhealth.org).

**Table 4: Jurisdictional summary of Reportable Diseases in Stark County, Ohio**

	Alliance City		Canton City		Massillon City		Stark County		All	
	Aug	YTD	Aug	YTD	Aug	YTD	Aug	YTD	Aug	YTD
Campylobacteriosis	0	1	1	9	1	5	2	17	4	32
Chlamydia infection	5	56	58	479	8	78	27	250	98	863
Cryptosporidiosis	1	1	1	1	1	2	2	13	5	17
Dengue	0	0	0	0	0	0	1	1	1	1
E. coli - enterohemorrhagic (stp) O157:H7	0	0	0	0	0	0	0	3	0	3
E. coli - enterohemorrhagic (shiga toxin producing) Unknown serotype	0	0	0	0	0	0	2	2	2	2
Giardiasis	0	0	1	5	0	3	8	32	9	40
Gonococcal infection	5	25	25	132	2	24	4	72	36	253
Haemophilus influenzae (invasive disease)	0	0	0	1	0	0	1	6	1	7
Hepatitis B (including delta) - acute	0	1	0	2	0	0	0	1	0	4
Hepatitis B (including delta) - chronic	1	4	1	12	0	1	1	13	3	30
Hepatitis C - acute	0	0	2	2	0	0	1	2	3	4
Hepatitis C - chronic	5	15	6	58	5	25	12	78	28	176
Influenza-associated hospitalization	0	0	0	0	0	0	0	1	0	1
Legionellosis - Legionnaires' Disease	0	0	2	3	0	3	1	5	3	11
Listeriosis	0	0	1	1	0	0	0	0	1	1
Lyme Disease	0	0	0	0	0	0	0	2	0	2
Malaria	0	0	0	0	0	0	0	2	0	2
Meningitis - aseptic/viral	0	1	1	6	0	0	2	12	3	19
Meningitis - bacterial (Not N. meningitidis)	0	0	0	1	0	0	0	1	0	2
Meningococcal disease - Neisseria meningitidis	0	0	0	1	0	0	0	0	0	1
Mumps	0	1	0	0	0	0	0	0	0	1
Mycobacterial disease - not tuberculosis	1	3	0	4	0	3	2	14	3	24
Pertussis	10	14	0	2	0	0	3	10	13	26
Rocky Mountain spotted fever (RMSF)	0	0	0	0	0	0	0	0	0	0
Salmonellosis	0	2	0	3	0	0	0	21	0	26
Shigellosis	0	0	0	0	0	0	0	4	0	4
Streptococcal - Group A -invasive	0	0	1	1	0	0	0	4	1	5
Streptococcal - Group B - in newborn	0	0	0	0	0	1	0	1	0	2
Streptococcus pneumoniae - invasive antibiotic resistance unk or non-resistant	0	0	0	1	0	1	0	11	0	13
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	0	1	1	5	0	1	0	5	1	12
Syphilis, Total	0	2	0	2	0	0	0	3	0	7
Syphilis, Pr & Secondary	0	1	0	0	0	0	0	2	0	3
Tuberculosis	0	2	0	0	0	0	1	2	1	4
Varicella	0	1	1	5	0	0	2	22	3	28

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					
	Aug 2010	YTD 2010	YTD 2009	All of 2009	5 Yr annual average	Rate
Amebiasis			0	0	0.2	0.05
Anaplasmosis	0	0	0	0	0.2	0.05
Campylobacteriosis	4	32	40	55	50.8	13.44
Chlamydia	98	868	789	1191	1216	321.61
Creutzfeldt-Jakob Disease	0	0	1	3	1.4	0.37
Cryptosporidiosis	5	17	11	19	18.6	4.92
Cytomegalovirus, Congenital	0	0	1	1	1.2	0.32
Dengue	1	1	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	3	3	0.4	0.11
E. coli - enterohemorrhagic (STP) O157:H7	0	3	3	4	2.8	0.74
E coli , STP, Unknown	2	2	1	1	2.2	0.58
Giardiasis	9	40	49	57	43.8	11.58
Gonorrhea	40	260	292	436	567	149.96
Haemo. Influz., Bacteria	1	7	6	9	5.8	1.53
Hemolitic Uremic Syndrome	0	0	0	0	0.8	0.21
Hepatitis A	0	0	1	2	3	0.79
Hep B, Acute	0	4	2	2	3	0.79
Hep B, Chronic	3	30	31	39	29.4	7.78
Hep C, Acute	3	4	1	4	2.8	0.74
Hep C, Past or Present	28	176	120	193	216.6	57.29
Herpes, Congenital	0	0	0	1	0.4	0.11
Influenza A - novel virus infection	0	0	2	2	0.4	0.11
Influenza-Hospitalized	0	1	60	194	N/A	N/A
Legionellosis	3	11	15	21	14.8	3.91
Listeriosis	1	1	3	4	3.2	0.85
Lyme Disease	0	2	3	4	1.4	0.37
Malaria	0	2	3	3	0.6	0.16
Meningitis, Asep	3	19	10	23	40.2	10.63
Meningitis Bac.	0	2	4	5	2.2	0.58
Meningococcal Dis.	0	1	1	1	1.2	0.32
Mumps	0	1	0	1	1	0.26
Mycobacterial disease - other than tuberculosis	3	24	9	20	16.8	4.44
Pertussis	13	26	31	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	0	26	30	39	39.4	10.42
Shigellosis	0	4	24	28	51.8	13.7
Strep Inv A GAS	1	5	6	7	7.6	2.01
Strep B Newborn	0	2	4	5	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	13	25	31	31	8.2
Streptococcus pneumoniae - invasive antibiotic resistant/intermediate	1	12	9	16	24.2	6.4
Syphilis, Total	0	7	6	9	14	3.7
Syphilis, Pri & Secondary	0	3	4	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#	3	29	41	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