

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: Salmonella: In the month of November, nine (9) cases of Salmonella were identified in residents from all four local health jurisdictions. Through improved Pulsed Field Gel Electrophoresis (PFGE) testing at the State Health Department Laboratory, 4 distinct PFGE patterns of Salmonella emerged. The PFGE patterns aid in identifying clusters of cases and often lead to further investigations to determine the source of the illness.

A Massillon case, identified very early in the month, was a PFGE match to an on-going Multi-Nation cluster investigation of *Salmonella* Poona. The patient was administered an extended questionnaire provided by the CDC to aid in determining the source of illness. Previous sources of *S. Poona* include contaminated cantaloupe and turtles. The other 8 cases, identified primarily in the 3rd week of the month, were all loosely epi-linked and believed to be part of one cluster of cases. An investigation, to determine the source of illness, led to an area restaurant. The restaurant was inspected and concluded with the temporary closure of the facility. The inspection found conditions highly suspicious for cross contamination of cooked products with uncooked raw chicken. Thus leading to an initial finding that raw, undercooked, or contaminated chicken from this restaurant may have sickened the 8 cases.

Shortly after the initial investigation, PFGE patterns on these 8 cases were made available to the local health jurisdictions. Three of these cases had a PFGE pattern not seen in Ohio since 2006. Further, these 3 cases, along with a PFGE-matched 4th case from Summit County, had no epi-link, other than consuming a meal prepared with chicken from the suspected restaurant. As no further cases with this PFGE pattern have been identified since the restaurant closure, it is believed that the investigation identified the true source and eliminated the threat to the public. However, the PFGE identification of two other patterns in the four remaining cases, associated with newly emerging nation-wide clusters, has led to additional investigatory work.

The identification of these two very similar patterns in Ohio and at least 40 other states affecting greater than 330 individuals has caught the eye of the CDC and they are investigating to determine the source. Due to one particular cluster of cases that developed into December, much of the CDC's investigatory efforts have centered in the Alliance, Ohio area. All area health jurisdictions are aiding in every way possible with the CDC's efforts to determine the source of the nation-wide clusters of *Salmonella* Typhimurium. Additionally, schools, hospitals and physicians have aided by quickly identifying and reporting new cases.

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

	November 2008				December 2007			
	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	Suspended for Season			N/A	Suspended for Season			N/A
Mold Count	Suspended for Season			High	Suspended for Season			N/A
Air Quality Index	22	16	18	All Good	42	5	23.9	All Good

Pollen and Mold counts are derived from rotorod samples on the 2nd story roof of the Canton City Health Department. 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. These indices are produced from March to October. The Air Quality Index (AQI) is derived by comparison to EPA standards from the following readings: Particulate Matter 2.5 continuous monitoring on CCHD 2nd floor roof top and ozone monitors in Canton, Brewster, and Alliance. 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

	Nov-08	YTD 2008	2007 Total
Live Births	369	4440	5057
Births to Teens	35	472	537
Deaths	341	3788	4061

Due to the current method of reporting live births, 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.

	2003	2004	2005	2006	2007
Birth	1260	1240	1211	1282	1340
Death	1110	1040	1140	1076	1076

Table 4 – Summary of Select Reportable Diseases for November, 2008 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.

	Alliance City			Canton City			Massillon City			Stark County			Stark County Totals			
	Nov-08	YTD 2008	YTD 2007	Nov-08	YTD 2008	YTD 2007	Nov-08	YTD 2008	YTD 2007	Nov-08	YTD 2008	YTD 2007	Nov-08	YTD 2008	YTD 2007	5 Yr annual average
Amebiasis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Campylobacteriosis	0	1	3	0	11	10	0	4	1	1	36	32	1	52	46	51.8
Chlamydia	12	93	90	55	552	609	5	73	66	42	278	284	114	996	1049	1126.4
Creutzfeldt-Jakob Ds	0	0	0	0	0	0	0	0	0	0	3	3	0	3	3	0.6
Cryptosporidiosis	0	2	0	2	5	2	0	1	4	1	15	19	3	23	25	14
E Coli 0157	0	0	0	0	1	0	0	0	0	0	0	2	0	1	2	2.4
E Coli	0	1	0	0	0	0	0	0	0	0	1	1	0	2	1	3
Enceph., WNV	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3.6
Enceph., Other	0	1	2	0	0	0	0	0	0	0	2	0	0	3	2	2.8
Giardiasis	0	1	5	2	11	8	0	1	5	0	21	21	2	34	39	49.2
Gonorrhea	1	16	17	41	424	397	3	28	48	9	74	111	54	542	573	646
Haemo. Influz., Bac	0	0	0	0	2	1	0	0	1	1	6	0	1	8	2	5.8
Hepatitis A	0	0	1	0	1	1	0	3	0	0	0	5	0	4	7	8
Hepatitis B*	0	1	2	1	13	19	1	6	3	1	20	26	3	40	50	44.6
Hepatitis C*#	2	28	19	6	73	89	1	23	21	5	88	106	14	212	235	273.5
Kawasaki Syndrome	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3.6
Legionellosis	0	0	0	0	6	3	0	0	0	1	10	7	1	16	10	12.2
Listeriosis	0	0	0	0	0	0	0	0	0	0	3	2	0	3	2	2.4
Lyme Disease	0	0	0	0	0	0	0	0	0	1	5	1	1	5	1	2.6
Malaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8
Meningitis, Asep	0	3	1	1	7	24	0	1	3	4	18	27	5	29	55	53.8
Meningitis Bac.	0	0	0	0	1	0	0	0	0	0	2	1	0	3	1	4.4
Meningococcal Dis.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2.4
Mumps	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0.4
Pertussis	0	0	0	0	1	2	0	0	0	0	1	6	0	2	8	17
Salmonellosis	2	3	5	3	5	5	1	4	3	3	26	22	9	38	35	49.4
Shigellosis	0	0	0	20	77	2	2	38	0	11	75	0	33	190	2	11.8
Strep Inv A GAS	0	0	0	0	2	3	0	0	2	0	8	4	0	10	9	12.2
Strep B Newborn	0	0	1	0	0	1	0	0	0	0	2	1	0	2	3	2
Strep Pneu ISP	0	3	3	0	9	18	0	3	0	1	34	24	1	49	45	47.8
TSS Strep & Staph	0	1	0	0	0	0	0	0	0	0	2	2	0	3	2	0.4
Syphilis	0	0	0	0	11	2	0	1	0	0	2	7	0	14	9	21.6
Typhoid Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Varicella#	0	6	10	0	7	23	1	3	4	3	31	109	4	47	146	#
Vibriosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Yersiniosis	0	0	0	1	1	0	0	0	1	0	2	4	1	3	5	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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