

EPI Gram is a monthly publication of the Stark County Public Health Infrastructure 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.

Monthly Highlight: Elevated levels of Group A Streptococcal Invasive Disease and Giardia

- Giardia is a diarrheal illness caused by a one-celled, microscopic parasite, *Giardia intestinalis* (also known as *Giardia lamblia*). It is transmitted by the fecal-oral route and often associated with outdoor water activities. The number of cases tends to peak in late summer or early fall in Ohio. Stark County has seen seasonal peaks early in the year, most notably in 2009. The 25 cases already seen in 2011 span all ranges, 1-90+ with a median of 47 years and all cases with a listed race are White. Cases are geographically dispersed throughout the county with the largest percentage of cases centered in Northern half, particularly in the 44720 and 44721 zip codes. As of the printing of this document, the detailed patient case histories have no common source that can be identified. Medical practitioners are advised to recommend strong prevention measures to all clients presenting with a diarrheal illness. Giardia can be spread very easily in family, daycare, patient care, and food preparation settings and in water activities.
- In the first 4 months of 2011, the number of cases diagnosed with Group A Streptococcal (GAS) Invasive Disease has exceeded annual totals seen in the previous 6 years. Group A streptococcal bacteria are commonly found in the throat and on the skin. Invasive GAS disease occurs when the bacteria invade parts of the body (e.g. blood, lungs, deep muscle, and fat tissue) where bacteria are not usually found. Transmission is by direct contact with secretions from infected persons. Current cases in Stark County follow traditional age related patterns; they tend to be in infants and older people. Additionally, with only a single exception, they are well dispersed throughout the county and do not appear to have an atypical pattern of clustering at this time. In two individuals, GAS developed into the more severe form of the disease, Streptococcus Toxic Shock Syndrome (STSS). In Ohio, approximately 4% of all GAS are reported to develop into STSS. Additionally, three individuals have perished following diagnosis with GAS. According to the Ohio Department of Health, "The most efficacious way to prevent all types of group A streptococcal infections is through diligent hand washing, especially after sneezing or coughing and before preparing and eating foods. Early recognition of group A streptococcal infections is important because of the opportunity to reduce the severity and spread of disease and perhaps even prevent fatalities. For ill persons with sore throats, prompt diagnosis and treatment of group A streptococcal pharyngitis can prevent transmission to others within 24 hours of treatment. Those with skin lesions should provide attentive wound care and watch for signs of infection, seeking medical care if the wound becomes infected and especially if fever occurs. Post-exposure prophylaxis for contacts of persons with invasive group A streptococcal infections is not generally warranted. However, contacts with underlying disease or other risk factors may be cultured for group A *Streptococcus* and treated appropriately."

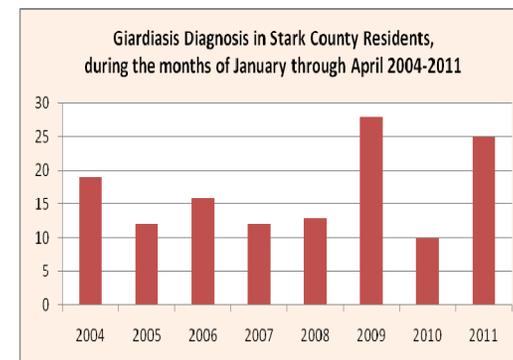


Table 1 Summary of Air Quality Index, Pollen, and Mold Counts for Stark County, Ohio, including historical data.

| | April 2011 | | | | 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 | 800 | 1 | 135 | N/A | 820 | 80 | 237 | N/A |
| Mold Count | 13,130 | 120 | 1,395 | 1 High | 7,430 | 450 | 1,940 | 1 Moderate |
| Air Quality Index | 58 | 23 | 39 | 1 Moderate | 67 | 28 | 43.5 | 5 Moderate |

**See the following websites for updated Air Quality Index and mold index terminology and color-coding <http://www.airnow.gov/index.cfm?action=aqibasics.aqi> https://pollen.aaaai.org/nab/index.cfm?p=reading_charts
Data source for this table is the Air Quality Division of the Canton City Health Department.

Table 2 Summaries of Select Vital Statistics for Stark County

| | April 2011 | YTD 2011 | 2010 Total |
|-----------------|------------|----------|------------|
| Live Births | 372 | 1368 | 4521 |
| Births to Teens | 31 | 146 | 457 |
| Deaths | 342 | 1602 | 4102 |

Table 3 Stark County Crude Birth and Death Rates

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

*Source: Ohio Department of Health Data Warehouse. Rates are per 100,000 population.

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

Table 4: 2011 Jurisdictional Summary of Reportable Diseases in Stark County, OH

| | Alliance City | | Canton City | | Massillon City | | Stark County | | All Departments | |
|---|---------------|-----|-------------|-----|----------------|-----|--------------|-----|-----------------|-----|
| | Apr | YTD | Apr | YTD | Apr | YTD | Apr | YTD | Apr | YTD |
| Campylobacteriosis | | | 1 | 2 | | 2 | | 3 | 1 | 7 |
| Chlamydia infection | 12 | 37 | 40 | 213 | 11 | 41 | 40 | 141 | 103 | 432 |
| Cryptosporidiosis | | | | 2 | | | | 4 | 0 | 6 |
| E Coli (STP) O157:H7 | | | | | | | 1 | 1 | 1 | 1 |
| Giardiasis | | | | 3 | | 2 | 5 | 20 | 5 | 25 |
| Gonococcal infection | 12 | 30 | 26 | 103 | 3 | 12 | 12 | 36 | 53 | 181 |
| Haemophilus influenzae (invasive disease) | | 1 | | | | | | 2 | 0 | 3 |
| Hepatitis A | | | | | | | 1 | 1 | 1 | 1 |
| Hepatitis B- acute | | | | | | | | 1 | 0 | 1 |
| Hepatitis B – Perinatal Infection | | | | | | | | 1 | 0 | 1 |
| Hepatitis B- Chronic | | 1 | 1 | 3 | | | 3 | 8 | 4 | 12 |
| Hepatitis C - acute | | | | 1 | | 1 | | | 0 | 2 |
| Hepatitis C - chronic | 1 | 8 | 9 | 33 | 3 | 12 | 5 | 45 | 18 | 98 |
| Influenza-associated hospitalization | | 8 | | 41 | 1 | 12 | 2 | 79 | 3 | 140 |
| Listeriosis | | | | | | | | 1 | 0 | 1 |
| Meningitis - aseptic/viral | | | | 1 | | | | | 0 | 1 |
| Meningococcal disease - Neisseria meningitidis | | | | | | | | 1 | 0 | 1 |
| Mycobacterial disease - other than tuberculosis | | 1 | | 2 | | | 2 | 5 | 2 | 8 |
| Pertussis | | | | | | | | 8 | 0 | 8 |
| Rocky Mountain Spotted Fever (RMSF) | | | | | | | | 1 | 0 | 1 |
| Salmonellosis | | 1 | | | | | 4 | 7 | 4 | 8 |
| Streptococcal - Group A - invasive | | | | 4 | | | 2 | 9 | 2 | 13 |
| Streptococcus Toxic Shock Syndrome (STSS) | | | | 1 | | | | 1 | 0 | 2 |
| Strep pneumoinvasive antibiotic resistance unk or non-resistant | | 1 | | 3 | 1 | 3 | 2 | 11 | 3 | 18 |
| Strep pneumoniae - invasive antibiotic resistant/intermediate | 1 | 2 | | 2 | | 1 | | 4 | 1 | 9 |
| Syphilis, Total | | | 1 | 5 | | | | | 1 | 5 |
| Syphilis, Pr & Secondary | | | 1 | 3 | | | | | 1 | 3 |
| Varicella | 1 | 2 | | 1 | | | 3 | 7 | 4 | 10 |

Source: Ohio Disease Reporting System

**Table 5 – 2011 Summary Table of Diseases Reported in the previous 5 years within Stark County, OH.
(Provisional Data)**

| | Apr-11 | YTD 2011 | YTD 2010 | All of 2010 | 5 Yr annual average | Rate |
|--|--------|----------|----------|-------------|---------------------|--------|
| Anaplasmosis (Ehrlichiosis) | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Campylobacteriosis | 1 | 7 | 7 | 49 | 52 | 13.7 |
| Chlamydia | 103 | 432 | 450 | 1291 | 1188 | 313.12 |
| Coccidioidomycosis | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Creutzfeldt-Jakob Disease | 0 | 0 | 0 | 0 | 3 | 0.7 |
| Cryptosporidiosis | 0 | 6 | 4 | 23 | 22 | 5.8 |
| Cytomegalovirus, Congenital | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Dengue | 0 | 0 | 0 | 1 | 1 | 0.26 |
| E. coli - enterohemorrhagic (STP) NOT O157:H7 | 0 | 0 | 0 | 0 | 2 | 0.53 |
| E. coli - enterohemorrhagic (STP) O157:H7 | 1 | 1 | 2 | 3 | 3 | 0.9 |
| E coli , STP, Unknown | 0 | 0 | 0 | 2 | 1 | 0.37 |
| Encephalitis - post other infection | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Encephalitis - primary viral | 0 | 0 | 0 | 0 | 2 | 0.53 |
| Giardiasis | 5 | 25 | 10 | 67 | 49 | 12.86 |
| Gonorrhea | 53 | 181 | 120 | 403 | 527 | 138.83 |
| Haemo. Influz., Bacteria | 0 | 3 | 2 | 8 | 6 | 1.63 |
| Hemolitic Uremic Syndrome | 0 | 0 | 0 | 0 | 2 | 0.53 |
| Hepatitis A | 1 | 1 | 0 | 0 | 5 | 1.19 |
| Hepatitis B - Perinatal Infection | 0 | 1 | 0 | 4 | 4 | 1.05 |
| Hep B, Acute | 0 | 1 | 3 | 4 | 5 | 1.21 |
| Hep B, Chronic | 4 | 12 | 12 | 38 | 39 | 10.38 |
| Hep C, Acute | 0 | 2 | 1 | 4 | 4 | 1.05 |
| Hep C, Past or Present | 18 | 98 | 87 | 230 | 232 | 61.09 |
| Herpes, Congenital | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Influenza A - novel virus infection | 0 | 0 | 0 | 0 | 2 | 0.53 |
| Influenza-Hospitalized | 3 | 140 | 1 | 7 | N/A | N/A |
| LaCrosse virus disease | 0 | 0 | 0 | 2 | 2 | 0.53 |
| Legionellosis | 0 | 0 | 2 | 16 | 15 | 3.9 |
| Listeriosis | 0 | 1 | 0 | 1 | 3 | 0.79 |
| Lyme Disease | 0 | 0 | 1 | 4 | 3 | 0.79 |
| Malaria | 0 | 0 | 1 | 2 | 3 | 0.66 |
| Meningitis, Asep | 0 | 1 | 10 | 33 | 38 | 9.91 |
| Meningitis Bac. | 0 | 0 | 0 | 2 | 3 | 0.74 |
| Meningococcal Dis. | 0 | 1 | 1 | 2 | 1 | 0.32 |
| Mumps | 0 | 0 | 1 | 1 | 2 | 0.4 |
| Mycobacterial disease - other than tuberculosis | 2 | 8 | 9 | 32 | 22 | 5.69 |
| Pertussis | 0 | 8 | 3 | 106 | 35 | 9.22 |
| Rheumatic fever | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Rocky Mountain Spotted | 0 | 1 | 0 | 1 | 1 | 0.26 |
| Salmonellosis | 4 | 8 | 6 | 34 | 41 | 10.8 |
| Shigellosis | 0 | 0 | 4 | 4 | 51 | 13.33 |
| Strep Inv A GAS | 2 | 13 | 2 | 12 | 10 | 2.53 |
| Strep B Newborn | 0 | 0 | 2 | 4 | 4 | 0.95 |
| Strep toxic shock (STSS) | 0 | 2 | 0 | 0 | 2 | 0.4 |
| Strep pneumo - invasive antibiotic resistance unk or non-resistant | 3 | 18 | 8 | 25 | 28 | 7.48 |
| Streptococcus pneumo - invasive antibiotic resistant/intermediate | 1 | 9 | 7 | 20 | 24 | 6.27 |
| Syphilis, Total | 1 | 5 | 5 | 10 | 14 | 3.74 |
| Syphilis, Pri & Secondary | 1 | 3 | 2 | 4 | 4 | 1.16 |
| Toxic shock syndrome (TSS) | 0 | 0 | 0 | 1 | 2 | 0.4 |
| Typhoid Fever | 0 | 0 | 0 | 0 | 1 | 0.26 |
| Varicella# | 4 | 10 | 12 | 56 | 119 | 31.41 |
| West Nile Virus | 0 | 0 | 0 | 0 | 2 | 0.53 |
| Yersiniosis | 0 | 0 | 0 | 0 | 3 | 0.88 |

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 379,466