

*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 may be under investigation and, at any given time, data may fluctuate from month to month for a specific category.

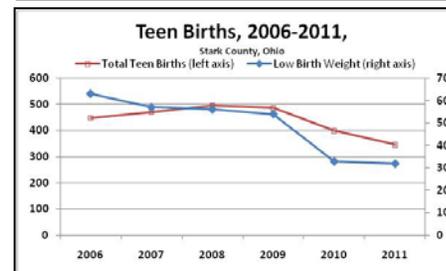
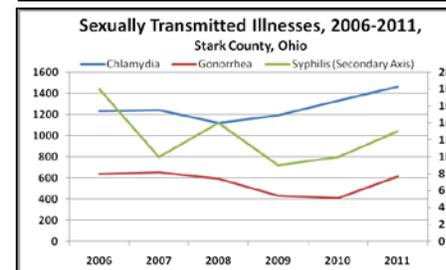
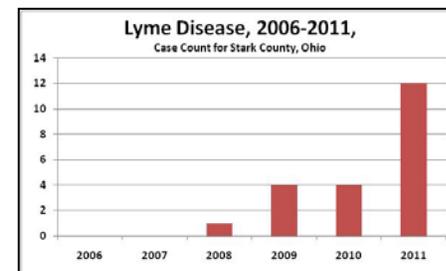
## Monthly Highlight: 2011 Communicable Disease, Outbreak and Vital Statistics Surveillance.

In 2011, four outbreaks were reported in Stark County. Two of the four outbreaks were in skilled nursing facilities with the agent identified as norovirus. The other two outbreaks were in daycare/school settings. One was confirmed as lice the other as ringworm. In each of the four outbreaks, a rapid and appropriate response by the affected organizations led to minimal spread and no poor outcomes.

One method of monitoring communicable disease includes observing the number of cases reported and comparing it to an upper threshold of expected cases. Different values can be used for the upper threshold. This report is based on the use of the confidence interval (CI) which provides a statistical calculation for the expected number of cases within a preset confidence range. In 2011, there were numerous commonly and rarely reported diseases that exceeded a 90% CI, where a rarely reported disease is defined as having an average annual rate of less than 1 per 100,000 Stark County residents.

In 2011, rarely reported diseases that exceeded the 90% CI threshold were Ehrlichiosis, Dengue, E coli, Acute Hepatitis C, Lyme, RMSF, STSS and Vibriosis. The most notable was the dramatic increase observed in the number of Lyme disease cases, from a previous 5-year average of 2 cases per year to 12 cases reported in 2011. Commonly reported diseases that exceeded the 90% CI include Chlamydia, Giardiasis, Chronic Hepatitis C, Aseptic Meningitis, Group A Streptococcal Disease and Syphilis. The top and middle graphs to the right depict the observed increases in the number of cases of Lyme Disease and Sexually Transmitted Infections (STIs) among Stark County Residents.

Despite increases in STIs, the number of Teen Births has decreased for the 3<sup>rd</sup> consecutive year. Additionally, the number of low birth weight babies born to teen moms (2500g) has been cut by nearly 49% since 2006, from 63 in '06 to 32 in '11. (See line graph to the right of this paragraph) Additional information on birth records collected through local vital statistics units can be obtained by contacting local health departments respective Epidemiologist.



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

|                   | December 2011          |             |                |   | January 2011 |             |                |   |
|-------------------|------------------------|-------------|----------------|---|--------------|-------------|----------------|---|
|                   | 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      | Seasonally Unavailable |             |                |   |              |             |                |   |
| Mold Count        | Seasonally Unavailable |             |                |   |              |             |                |   |
| Air Quality Index | 70                     | 7           | 19             | 2 Moderate                                      | 46           | 1           | 22             | All Good  |

\*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](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**

|                 | Dec 2011 | 2011 | 2010 |
|-----------------|----------|------|------|
| Live Births     | 224      | 3934 | 4075 |
| Births to Teens | 25       | 346  | 399  |
| Deaths          | 355      | 4205 | 4110 |

**Table 3 Stark County Crude Birth and Death Rates**

|       | 2006  | 2007  | 2008  | 2009 | 2010 |
|-------|-------|-------|-------|------|------|
| Birth | 1191* | 1190* | 1166* | 1139 | 1085 |
| Death | 1000* | 1035* | 1055* | 1072 | 1094 |

\*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](mailto:Chenning@cantonhealth.org) or Lauren Drinkard at 330.493.9928 or [Drinkard@starkhealth.org](mailto:Drinkard@starkhealth.org).

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

|  | Alliance City |     | Canton City |     | Massillon City |     | Stark County |     | All Departments |      |
|--|---------------|-----|-------------|-----|----------------|-----|--------------|-----|-----------------|------|
|  | Dec           | YTD | Dec         | YTD | Dec            | YTD | Dec          | YTD | Dec             | YTD  |
| Campylobacteriosis                             | 1             | 5   |             | 5   |                | 4   | 2            | 26  | 3               | 40   |
| Chlamydia infection                            | 12            | 139 | 66          | 716 | 12             | 141 | 37           | 468 | 127             | 1464 |
| Creutzfeldt-Jakob Disease                      |               |     |             |     |                |     |              | 2   | 0               | 2    |
| Cryptosporidiosis                              |               |     |             | 3   |                |     |              | 13  | 0               | 16   |
| Dengue   |               |     |             |     |                |     |              | 2   | 0               | 2    |
| E Coli (STP) NOT O157:H7                       |               |     |             |     |                |     |              | 2   | 0               | 2    |
| E Coli (STP) O157:H7                           |               |     |             |     |                | 1   |              | 1   | 0               | 2    |
| Ehrlichiosis                                   |               |     |             | 1   |                |     |              |     | 0               | 1    |
| Giardiasis                                     |               | 2   |             | 13  |                | 2   | 3            | 45  | 3               | 62   |
| Gonococcal infection                           | 6             | 74  | 24          | 366 | 2              | 44  | 15           | 131 | 47              | 615  |
| Haemophilus influenzae                         |               | 1   |             | 2   |                |     | 1            | 5   | 1               | 8    |
| Hepatitis A                                    |               |     |             |     |                |     |              | 1   | 0               | 1    |
| Hepatitis B- Perinatal Infection               |               |     |             | 1   |                |     |              | 2   | 0               | 3    |
| Hepatitis B- Acute                             |               |     |             |     |                |     |              | 2   | 0               | 2    |
| Hepatitis B-Chronic                            |               | 2   | 1           | 7   |                | 2   |              | 12  | 1               | 23   |
| Hepatitis C - acute                            |               |     |             | 3   |                | 2   |              | 1   | 0               | 6    |
| Hepatitis C - chronic                          | 1             | 18  | 10          | 85  | 2              | 36  | 14           | 145 | 27              | 284  |
| Influenza-associated hospitalized              | 1             | 9   |             | 41  |                | 12  |              | 81  | 1               | 143  |
| LaCrosse Virus                                 |               |     |             |     |                |     |              | 1   | 0               | 1    |
| Legionellosis                                  | 1             | 2   |             |     |                | 2   | 1            | 5   | 2               | 9    |
| Listeriosis                                    |               |     |             |     |                |     |              | 2   | 0               | 2    |
| Lyme Disease                                   |               | 1   |             | 2   |                |     | 1            | 9   | 1               | 12   |
| Malaria  |               |     |             |     |                |     |              | 1   | 0               | 1    |
| Meningitis - aseptic/viral                     |               | 9   | 1           | 17  |                | 14  | 1            | 23  | 2               | 63   |
| Meningitis - bacterial (Not N. meningitidis)   |               |     |             | 1   |                | 1   | 1            | 1   | 1               | 3    |
| Meningococcal disease -                        |               |     |             |     |                |     |              | 1   | 0               | 1    |
| Mycobacterial disease-Not TB                   |               | 2   |             | 2   |                | 1   | 2            | 18  | 2               | 23   |
| Pertussis                                      |               |     |             |     |                | 1   |              | 10  | 0               | 11   |
| Rocky Mountain Spotted Fever                   |               | 1   |             |     |                |     |              | 1   | 0               | 2    |
| Salmonellosis                                  |               | 2   |             | 4   |                | 1   | 3            | 25  | 3               | 32   |
| Shigellosis                                    |               |     |             |     |                |     |              | 1   | 0               | 1    |
| Streptococcal - Group A -Invas                 |               |     |             | 5   |                |     |              | 17  | 0               | 22   |
| Streptococcal -Group B in Newborn              |               |     | 1           | 2   |                |     |              | 1   | 1               | 3    |
| Streptococcus Toxic Shock STSS                 |               |     |             | 1   |                |     |              | 1   | 0               | 2    |
| Strep pneumo resistance unk or non-resistant   |               | 2   | 1           | 7   |                | 4   | 2            | 24  | 3               | 37   |
| Strep pneumo antibiotic resistant/intermediate |               | 4   |             | 2   |                | 2   |              | 9   | 0               | 17   |
| Syphilis, Total                                |               |     | 3           | 9   |                | 1   | 1            | 3   | 4               | 13   |
| Syphilis, Pr & Secondary                       |               |     | 3           | 8   |                | 1   | 1            | 1   | 4               | 10   |
| Varicella                                      |               | 5   |             | 3   |                | 2   | 3            | 24  | 3               | 34   |
| Vibriosis - other (not cholera)                |               |     |             | 1   |                |     |              |     | 0               | 1    |

Source: Ohio Disease Reporting System, downloaded 01/23/2012.

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

|  | Dec 11 | YTD 2011 | YTD 2010 | All of 2010 | 5 Yr annual average | Rate   |
|--|--------|----------|----------|-------------|---------------------|--------|
| Anaplasmosis   | 0      | 0        | 0        | 0           | 0.2                 | 0.05   |
| Campylobacteriosis   | 3      | 40       | 50       | 50          | 50                  | 13.31  |
| Chlamydia  | 127    | 1464     | 1333     | 1333        | 1269.6              | 338.03 |
| Creutzfeldt-Jakob Disease (CJD)  | 0      | 2        | 0        | 0           | 1.6                 | 0.43   |
| Cryptosporidiosis  | 0      | 16       | 23       | 23          | 21.2                | 5.64   |
| Cytomegalovirus (CMV), Congenital  | 0      | 0        | 0        | 0           | 0.4                 | 0.11   |
| Dengue   | 0      | 2        | 1        | 1           | 0.6                 | 0.16   |
| Ehrlichiosis-Ehrlichia chaffeensis   | 0      | 1        | 0        | 0           | 0.2                 | 0.05   |
| Encephalitis, Post Other Infection   | 0      | 0        | 0        | 0           | 0.2                 | 0.05   |
| Encephalitis, Primary Viral  | 0      | 0        | 0        | 0           | 0.8                 | 0.21   |
| Escherichia coli , Shiga Toxin-Producing, Not O157:H7                              | 0      | 2        | 1        | 1           | 1                   | 0.27   |
| Escherichia coli , Shiga Toxin-Producing, Unknown Serotype                         | 0      | 0        | 1        | 1           | 1.4                 | 0.37   |
| Escherichia coli O157:H7   | 0      | 2        | 3        | 3           | 2                   | 0.53   |
| Giardiasis   | 3      | 62       | 69       | 69          | 52.2                | 13.90  |
| Gonorrhea  | 47     | 615      | 410      | 410         | 540.4               | 143.88 |
| Haemophilus influenzae , Invasive Disease  | 1      | 8        | 8        | 8           | 7                   | 1.86   |
| Hemolytic Uremic Syndrome (HUS)  | 0      | 0        | 0        | 0           | 0.6                 | 0.16   |
| Hepatitis A  | 0      | 1        | 0        | 0           | 2.4                 | 0.64   |
| Hepatitis B, Acute   | 0      | 2        | 5        | 5           | 3.4                 | 0.91   |
| Hepatitis B, Chronic   | 1      | 23       | 39       | 39          | 36.4                | 9.69   |
| Hepatitis C, Acute   | 0      | 6        | 4        | 4           | 4.2                 | 1.12   |
| Hepatitis C, Past or Present   | 27     | 284      | 234      | 234         | 239.8               | 63.85  |
| Hepatitis E  | 0      | 1        | 0        | 0           | 0.2                 | 0.05   |
| Herpes, Congenital   | 0      | 0        | 0        | 0           | 0.4                 | 0.11   |
| Influenza A - novel virus infection  | 0      | 0        | 0        | 0           | 0.4                 | 0.11   |
| Influenza-associated hospitalization   | 1      | 143      | 7        | 7           | N/A                 | N/A    |
| LaCrosse virus disease (other California serogroup virus disease)                  | 0      | 1        | 2        | 2           | 0.6                 | 0.16   |
| Legionellosis  | 2      | 9        | 16       | 16          | 14.2                | 3.78   |
| Listeriosis  | 0      | 2        | 1        | 1           | 2.4                 | 0.64   |
| Lyme Disease   | 1      | 12       | 4        | 4           | 4.2                 | 1.12   |
| Malaria  | 0      | 1        | 2        | 2           | 1.2                 | 0.32   |
| Meningitis, Aseptic  | 2      | 63       | 33       | 33          | 40.8                | 10.86  |
| Meningitis, Other Bacterial  | 1      | 3        | 2        | 2           | 2.6                 | 0.69   |
| Meningococcal Disease  | 0      | 1        | 2        | 2           | 1.2                 | 0.32   |
| Mumps  | 0      | 0        | 1        | 1           | 0.8                 | 0.21   |
| Mycobacterial disease - other than tuberculosis                                    | 2      | 23       | 33       | 33          | 24                  | 6.39   |
| Pertussis  | 0      | 11       | 106      | 106         | 34                  | 9.05   |
| Rheumatic Fever  | 0      | 0        | 0        | 0           | 0.2                 | 0.05   |
| Rocky Mountain Spotted Fever (RMSF)  | 0      | 2        | 1        | 1           | 0.6                 | 0.16   |
| Salmonellosis  | 3      | 32       | 34       | 34          | 36.4                | 9.69   |
| Shigellosis  | 0      | 1        | 4        | 4           | 50                  | 13.31  |
| Streptococcal Disease, Group A, Invasive   | 0      | 22       | 12       | 12          | 10.6                | 2.82   |
| Streptococcal Disease, Group B, in Newborn   | 1      | 3        | 4        | 4           | 3.6                 | 0.96   |
| Streptococcal Toxic Shock Syndrome (STSS)  | 0      | 2        | 0        | 0           | 1                   | 0.27   |
| Streptococcus pneumoniae - invasive antibiotic resistance unknown or non-resistant | 3      | 37       | 25       | 25          | 30.8                | 8.20   |
| Streptococcus pneumoniae - invasive antibiotic resistant/intermediate              | 0      | 17       | 20       | 20          | 20.2                | 5.38   |
| Syphilis, Total  | 4      | 13       | 10       | 10          | 11.2                | 2.98   |
| Syphilis, Primary and Secondary  | 4      | 10       | 4        | 4           | 4.2                 | 1.12   |
| Toxic Shock Syndrome (TSS)   | 0      | 0        | 1        | 1           | 0.6                 | 0.16   |
| Tuberculosis   | 0      | 2        | 5        | 5           | 2.6                 | 0.69   |
| Varicella  | 3      | 34       | 57       | 57          | 68.6                | 18.26  |
| Vibriosis - other (not cholera)  | 0      | 1        | 0        | 0           | 0.2                 | 0.05   |
| Yersiniosis  | 0      | 0        | 0        | 0           | 1.2                 | 0.32   |

This report includes confirmed, probable and suspect cases, as reported in the Ohio Disease Reporting System (ODRS) from 01/01/2007.

\*Annual Rate per 100,000 population is derived from a five year average of disease incidence and on a total 2010 census population of 375,586