

Summit County Health District

# Annual Summary of Communicable Diseases 2008



Submitted to the Board of Health:  
April 9, 2009

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## **Mission Statement**

The mission of the Summit County Health District is to protect and promote the health of the entire community through programs and activities designed to address the safety, health, and well-being of the people who live in Summit County. Through its programs and activities, the Health District seeks to create a healthful environment and ensure the accessibility of health services to all.

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## Introduction

In the State of Ohio, reporting of communicable diseases is mandated by law (Ohio Administrative Code 3701-3). Included in these reporting rules is a list developed by the Ohio Department of Health (ODH) detailing which communicable diseases are required to be reported to the local health department as well as the time in which they are to be reported. This list can be found on the next page.

The 2008 Annual Summary of Communicable Diseases details communicable disease reporting, prevention, and control measures taken by the Summit County Health District (SCHD) in 2008. Data for the communicable diseases represented in this report originated from the 2008 Class A, Class B, and Class C diseases that have been reported to the Summit County Centralized Communicable Disease Registry (CCDR) and recorded into the Ohio Disease Reporting System (ODRS) prior to January 21, 2009. This includes all cases that were classified as “suspected”, “probable,” or “confirmed” based on the epidemiological case definition. If a case was ultimately determined as “not a case,” it **was not** included in this report. This report does not necessarily reflect every disease case that could have been present within Summit County. Even though only a portion of cases are reported, these data provide a look into demographic, geographic, and secular disease trends.

**Unless otherwise noted, all statistics presented in this report only reflect the political subdivisions that SCHD serves.** The term “SCHD Resident” describes individuals who reside within the physical boundaries of the Health District. This includes all areas of Summit County except for the communities of Akron, Barberton, and Norton. Akron residents are served by the Akron Health Department. Barberton and Norton residents are served by the Barberton Health District. A section summarizing communicable diseases across all of Summit County begins on page 16.

### **Population Statistics Used For Incidence Rate Calculations**

Population information was derived from the most recent data provided by the Population Estimates Program of the United States Census Bureau. Unless otherwise noted, incidence rates were calculated utilizing the GCT-1: Population Estimates table from the 2007 Population Estimates data set for Summit County. Because 2008 population statistics were not yet available for the development of this report, 2007 population estimates were utilized where appropriate. This is current as of January 5, 2009. As of that date, the total population served by the Summit County Health District is approximately 301,564 (55.1% of the county population). Some incidence rates have been recalculated using the most current population statistics. The incidence rates depicted in this report may be different from those in the 2007 report.

## 2008 Ohio Reportable Disease List --“Know Your ABCs”

Diseases listed alphabetically, with class designation.

|  |  |   |
|--|--|---|
| <p>Amebiasis A(3)<br/>Anthrax A(1)<br/>Arboviral neuroinvasive and A(2)<br/>non-neuroinvasive Disease<br/>Eastern equine encephalitis<br/>virus disease<br/>LaCrosse virus disease<br/>Powassan virus disease<br/>St. Louis virus encephalitis<br/>virus disease<br/>West Nile virus disease<br/>(also current infection)<br/>Western equine encephalitis<br/>virus disease<br/>Other arthropod-borne<br/>disease<br/>Blastomycosis C<br/>Botulism, foodborne A(1)<br/>Botulism, infant A(3)<br/>Botulism, wound A(3)<br/>Brucellosis A(3)<br/>Campylobacteriosis A(3)<br/>Chancroid A(2)<br/>Chlamydia infections A(3)<br/>(urethritis, epididymitis,<br/>cervicitis, pelvic<br/>inflammatory disease,<br/>neonatal conjunctivitis<br/>and pneumonia)<br/>Cholera A(1)<br/>Coccidioidomycosis A(2)<br/>Conjunctivitis, acute C<br/>Creutzfeldt-Jakob disease A(3)<br/>(CJD)<br/>Cryptosporidiosis A(3)<br/>Cyclosporiasis A(2)<br/>Cytomegalovirus (CMV) A(3)<br/>(congenital)<br/>Dengue A(2)<br/>Diphtheria A(1)<br/><i>E. coli</i> O157:H7 and other A(2)<br/>enterohemorrhagic<br/>(Shiga toxin-producing)<br/><i>E. coli</i><br/>Ehrlichiosis A(3)<br/>Encephalitis, other viral A(3)<br/>Encephalitis, post infection A(3)<br/>Foodborne disease outbreaks A(2)<br/>Giardiasis A(3)</p> | <p>Gonococcal infections A(3)<br/>(urethritis, cervicitis,<br/>pelvic inflammatory<br/>disease, pharyngitis,<br/>arthritis, endocarditis,<br/>meningitis and<br/>neonatal conjunctivitis)<br/>Granuloma inguinale A(2)<br/><i>Haemophilus influenzae</i> A(2)<br/>(invasive disease)<br/>Hantavirus A(2)<br/>Hemolytic uremic syndrome A(2)<br/>(HUS)<br/>Hepatitis A A(2)<br/>Hepatitis B, perinatal A(2)<br/>Hepatitis B A(3)<br/>Hepatitis C A(3)<br/>Hepatitis D (delta hepatitis) A(3)<br/>Hepatitis E A(3)<br/>Herpes (congenital) A(3)<br/>Histoplasmosis C<br/>Influenza B<br/>Influenza-associated A(2)<br/>pediatric mortality<br/>Kawasaki disease A(3)<br/>(mucocutaneous lymph<br/>node syndrome)<br/>Legionnaires' disease A(2)<br/>Leprosy (Hansen disease) A(3)<br/>Leptospirosis A(3)<br/>Listeriosis A(2)<br/>Lyme disease A(3)<br/>Lymphogranuloma venereum A(2)<br/>Malaria A(2)<br/>Measles A(1)<br/>Meningitis, aseptic, including A(2)<br/>viral meningoencephalitis<br/>Meningitis, including A(3)<br/>other bacterial<br/>Meningococcal disease A(1)<br/>Mumps A(2)<br/>Mycobacterial disease, other A(3)<br/>than tuberculosis (MOTT)<br/>Nosocomial infections C<br/>of any type<br/>Pediculosis C<br/>Pertussis A(2)<br/>Plague A(1)<br/>Poliomyelitis (including A(2)</p> | <p>vaccine-associated disease)<br/>Psittacosis A(2)<br/>Q fever A(2)<br/>Rabies, human A(1)<br/>Reye syndrome A(3)<br/>Rheumatic fever A(3)<br/>Rocky Mountain A(3)<br/>spotted fever (RMSF)<br/>Rubella, congenital A(2)<br/>Rubella, not congenital A(1)<br/>Salmonellosis A(2)<br/>Scabies C<br/>Severe acute respiratory A(1)<br/>syndrome (SARS)<br/>Shigellosis A(2)<br/>Smallpox A(1)<br/>Sporotrichosis C<br/>Staphylococcal skin infections C<br/><i>Staphylococcus aureus</i>, with A(2)<br/>resistance or intermediate<br/>resistance to vancomycin<br/>(VRSA, VISA)<br/>Streptococcal disease, A(3)<br/>group A, invasive (IGAS)<br/>Streptococcal disease, A(3)<br/>group B, in newborn<br/>Streptococcal toxic shock A(3)<br/>Syndrome (STSS)<br/><i>Streptococcus pneumoniae</i>, A(3)<br/>invasive disease (ISP)<br/>Syphilis A(2)<br/>Tetanus A(2)<br/>Toxic shock syndrome (TSS) A(3)<br/>Toxoplasmosis C<br/>Toxoplasmosis (congenital) A(3)<br/>Trichinosis A(3)<br/>Tuberculosis (TB), including A(2)<br/>multi-drug resistant<br/>tuberculosis (MDR-TB)<br/>Tularemia A(1)<br/>Typhoid fever A(2)<br/>Typhus fever A(3)<br/>Varicella A(3)<br/>Vibriosis A(3)<br/>Viral hemorrhagic fever (VHF) A(1)<br/>Waterborne disease A(2)<br/>outbreaks<br/>Yellow fever A(1)<br/>Yersiniosis A(3)</p> |
|--|--|---|

### Reporting Requirement

#### Class A:

(1) Diseases of major public health concern because of the severity of disease or potential for epidemic spread. Report by telephone immediately upon recognition that a case, suspect case or positive laboratory result exists.

(2) Diseases of public health concern needing timely response because of potential for epidemic spread. Report by the end of the next business day after the existence of a case, suspect case or positive laboratory result is known.

(3) Diseases of significant public health concern. Report by the close of each working week after the existence of a case, suspect case or positive laboratory result is known.

**Class B:** Report the number of cases by the close of each working week.

**Class C:** Report an outbreak, unusual incidence, or epidemic of these diseases by the end of the next business day.

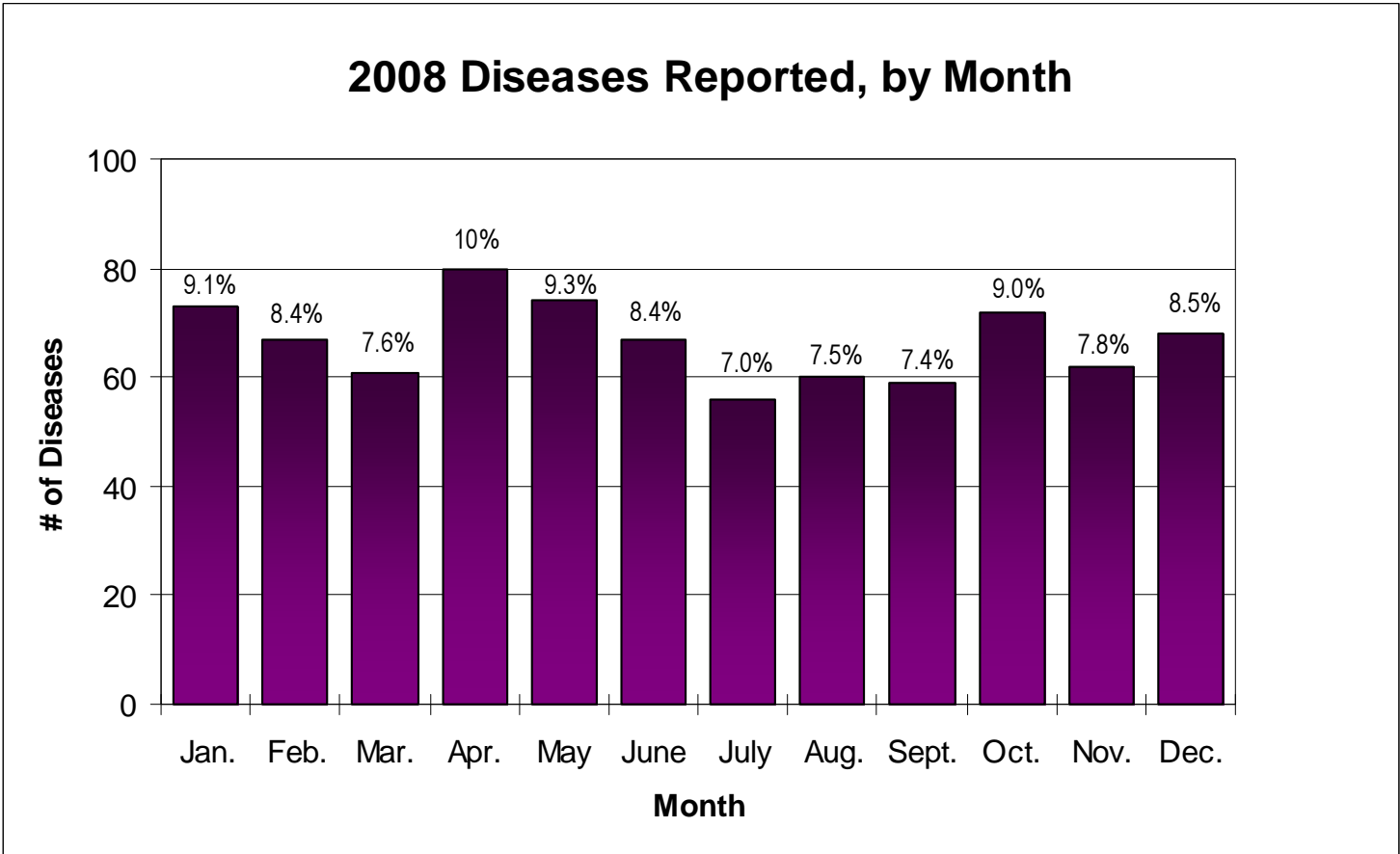
# 2008 Communicable Disease Summary

**Total # of communicable diseases reported in Summit County in 2008: 3,286**

- 24.3% (or 799) of diseases reported in Summit County were to residents in the Summit County Health District’s jurisdiction.

| Summary Statistics of all 2008 Communicable Diseases Reported in SCHED Residents |   |
|--|---|
| <b>Gender Distribution</b>   | 56.1% Female<br>43.2% Male<br>0.4% Unknown  |
| <b>Age Distribution</b>  | Range: 0 days to 93 years<br>Mean: 31.3 years (Median: 24 years)<br>For all reported diseases <u>NOT</u> including STDs:<br>Mean: 36.7 years (Median: 39 years) |
| <b>Race Distribution</b>   | 45.6% Caucasian                      1.1% Asian<br>10.5% African-American            0.5% Other<br>42.3% Unknown  |

Source: ODRS (ODH)



Source: ODRS (ODH)

| <b>Number of Reported Cases and Incidence Rates*, 2004-2008 (SCHD ONLY)</b> |              |                  |              |                  |              |                  |              |                  |              |                  |
|---|--------------|------------------|--------------|------------------|--------------|------------------|--------------|------------------|--------------|------------------|
| <b>Disease</b>  | <b>2008</b>  |                  | <b>2007</b>  |                  | <b>2006</b>  |                  | <b>2005</b>  |                  | <b>2004</b>  |                  |
|   | <b>Cases</b> | <b>Incidence</b> | <b>Cases</b> | <b>Incidence</b> | <b>Cases</b> | <b>Incidence</b> | <b>Cases</b> | <b>Incidence</b> | <b>Cases</b> | <b>Incidence</b> |
| Campylobacteriosis  | 37           | 12.3             | 45           | 14.9             | 38           | 12.6             | 48           | 16.2             | 47           | 15.9             |
| Chlamydia infections  | 247          | 81.9             | 247          | 81.8             | 228          | 75.5             | 188          | 63.3             | 188          | 63.5             |
| Cryptosporidiosis   | 6            | 2.0              | 6            | 2.0              | 4            | 1.3              | 10           | 3.4              | 3            | 1.0              |
| E. coli 0157:H7   | 0            | 0                | 0            | 0                | 3            | 0.99             | 4            | 1.3              | 3            | 1.0              |
| Giardiasis  | 25           | 8.3              | 20           | 6.6              | 15           | 5.0              | 31           | 10.4             | 26           | 8.8              |
| Gonococcal infections   | 64           | 21.2             | 67           | 22.2             | 74           | 24.5             | 49           | 16.2             | 62           | 21.0             |
| H. influenzae, invasive   | 3            | 1.0              | 5            | 1.7              | 1            | 0.33             | 4            | 1.3              | 1            | 0.33             |
| Hepatitis A   | 2            | 0.7              | 3            | 1.0              | 0            | 0                | 5            | 1.7              | 2            | 0.67             |
| Hepatitis B, acute  | 7            | 2.3              | 17           | 5.6              | 7            | 2.3              | 14           | 4.7              | 19           | 6.4              |
| Hepatitis B, chronic  | 25           | 8.3              | 29           | 9.6              | 30           | 9.9              | 36           | 12.1             | 36           | 12.2             |
| Hepatitis C, acute  | 3            | 1.0              | 0            | 0                | 1            | 0.33             | 2            | 0.67             | 0            | 0                |
| Hepatitis C, chronic  | 112          | 37.1             | 160          | 53.1             | 127          | 42.1             | 121          | 40.7             | 145          | 49.0             |
| Legionnaire's disease   | 11           | 3.6              | 11           | 3.6              | 8            | 2.7              | 10           | 3.4              | 5            | 1.7              |
| Lyme disease  | 3            | 1.0              | 3            | 1.0              | 1            | 0.33             | 10           | 3.4              | 3            | 1.0              |
| Meningitis- bacterial   | 2            | 0.7              | 2            | 0.67             | 2            | 0.67             | 3            | 1.0              | 9            | 3.0              |
| Meningitis-aseptic/viral  | 15           | 5.0              | 17           | 5.6              | 21           | 7.0              | 20           | 6.7              | 29           | 9.8              |
| Meningococcal disease   | 2            | 0.7              | 1            | 0.33             | 2            | 0.67             | 1            | 0.33             | 2            | 0.67             |
| Pertussis   | 11           | 3.6              | 11           | 3.6              | 11           | 3.6              | 18           | 6.1              | 10           | 3.4              |
| Pneumococcal disease, invasive  | 14           | 4.6              | 29           | 9.6              | 42           | 13.9             | 27           | 9.1              | 20           | 6.8              |
| Salmonellosis   | 39           | 12.9             | 32           | 10.6             | 37           | 12.3             | 41           | 13.8             | 37           | 12.5             |
| Shigellosis   | 34           | 11.3             | 9            | 3.0              | 2            | 0.67             | 4            | 1.4              | 5            | 1.7              |
| Streptococcal disease – Group A, invasive                                   | 15           | 5.0              | 13           | 4.3              | 8            | 2.7              | 2            | 0.67             | 8            | 2.7              |

Source: ODRS (ODH)

\* The incidence rate for this table and throughout this document describes the number of new cases per 100,000 residents.

## Sexually-Transmitted Infections

### Chlamydia & Gonorrhea

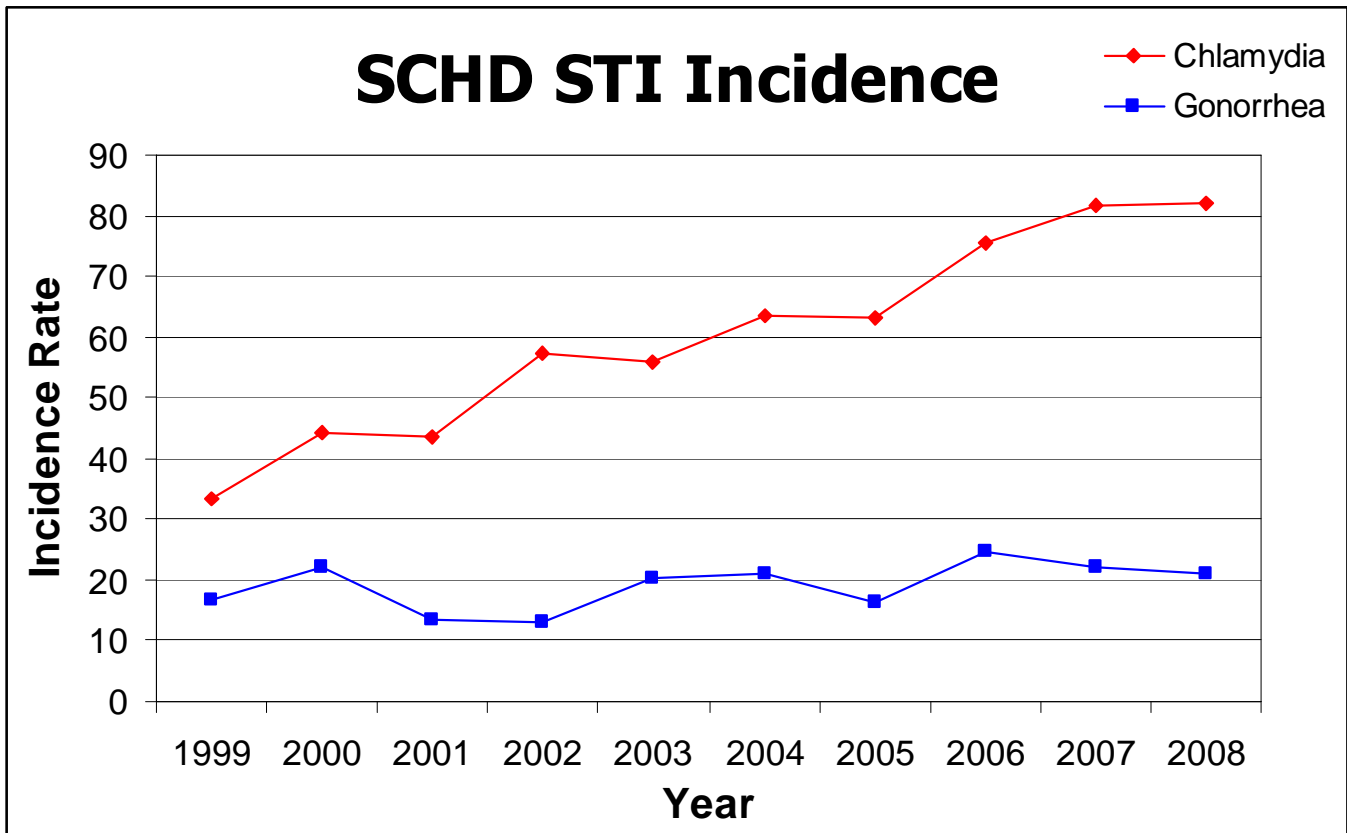
Of the cases of chlamydia and gonorrhea reported in 2008, 17.4% were a recurrent infection or co-infection. This means that 17.4% of SCHD residents diagnosed with a sexually-transmitted infection (STI) had more than one occurrence during 2008 (whether chlamydia, gonorrhea, or both simultaneously).

The increase in the incidence of STIs over the past decade may be a result of more complete reporting, better data collection methods, actual higher disease incidence, or a combination of all three.

| Summary Statistics for 2008 Chlamydia & Gonorrhea:<br>Cases Reported in SCHD residents |   |                                |   |
|--|---|--------------------------------|---|
| All Cases  |   | Recurrent & Co-Infections Only |   |
| <b>Gender Distribution</b>   | 74% Female<br>26% Male  | <b>Gender Distribution</b>     | 74.1% Female<br>25.9% Male  |
| <b>Age Distribution*</b>   | Range: 13 years to 60 years<br>Mean: 22.8 years<br>(Median: 21 years) | <b>Age Distribution</b>        | Range: 15 years to 45 years<br>Mean: 20.6 years<br>(Median: 20 years) |

\* 3 cases had an unknown value for age

Source: ODRS (ODH)



Source: ODRS (ODH)

## Enteric Diseases

The 2008 incidence rates for almost all enteric diseases reported in SCHD residents have either increased or remained the same since last year. For a comparison of all enteric incidence rates over the past five years, consult the table on page 8.

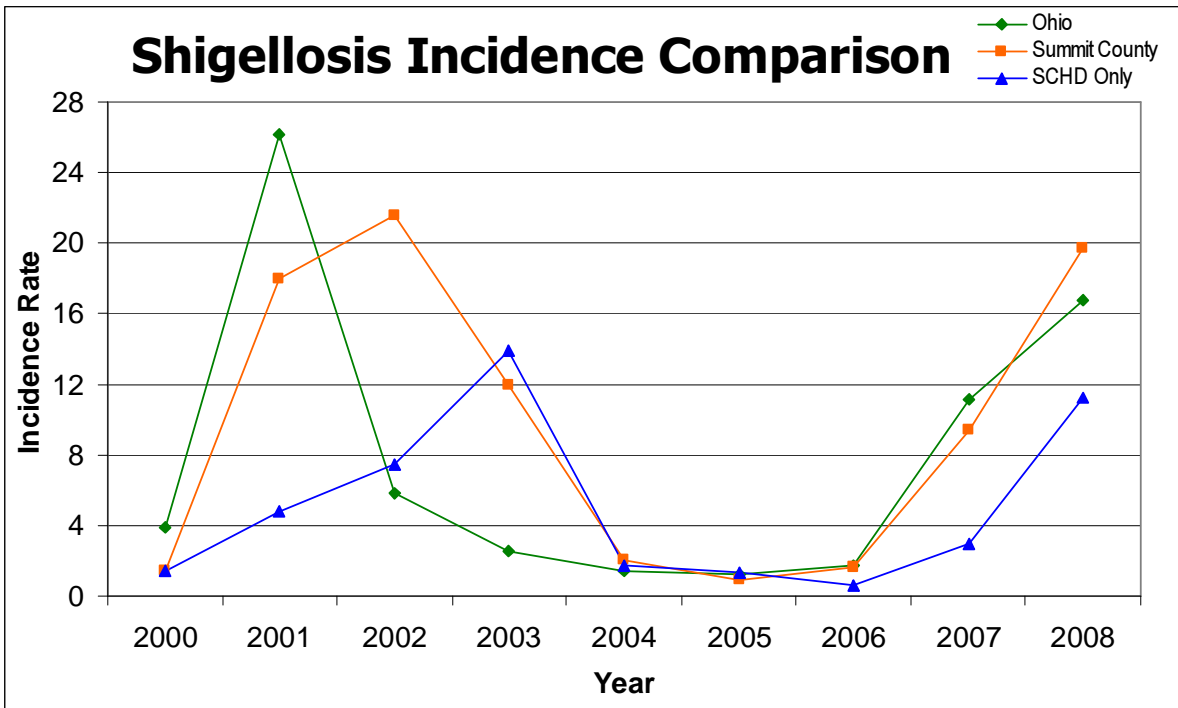
| <b>2008 SCHD Enteric Disease Summary</b> |                                |  |
|--|--------------------------------|--|
| <b>Disease</b>                           | <b>Gender Distribution</b>     | <b>Age Distribution</b>  |
| Campylobacteriosis                       | Females: 40.5%<br>Males: 59.5% | Range: 0 yrs. – 89 yrs.<br>Mean: 38.7 yrs.<br>Median: 42 yrs.  |
| Cryptosporidiosis                        | Females: 33.3%<br>Males: 66.7% | Range: 6 yrs. – 33yrs.<br>Mean: 15.5 yrs.<br>Median: 13.5 yrs. |
| Giardiasis                               | Females: 40%<br>Males: 60%     | Range: 1yr. – 77 yrs.<br>Mean: 31.9 yrs.<br>Median: 41 yrs.    |
| Salmonellosis                            | Females: 53.8%<br>Males: 46.2% | Range: 1 mo. – 87 yrs.<br>Mean: 36.6 yrs.<br>Median: 37 yrs.   |
| Shigellosis                              | Females: 52.9%<br>Males: 47.1% | Range: 6 mo. – 63 yrs.<br>Mean: 11.9 yrs.<br>Median: 4 yrs.    |

Source: ODRS (ODH)

### **Shigellosis Outbreaks**

Because it can be easily transmitted, the bacterium *Shigella* is often the cause of gastrointestinal outbreaks in many childcare settings. Two investigations of shigellosis outbreaks related to local childcare centers in the fall of 2007 were completed by mid-January 2008. There were two other outbreaks in childcare facilities in 2008 that occurred in late winter and early spring. Overall, 193 individuals (staff, children and appropriate contacts) were screened with 38 positive stool cultures obtained. Typically, the average duration of investigation was 2 months.

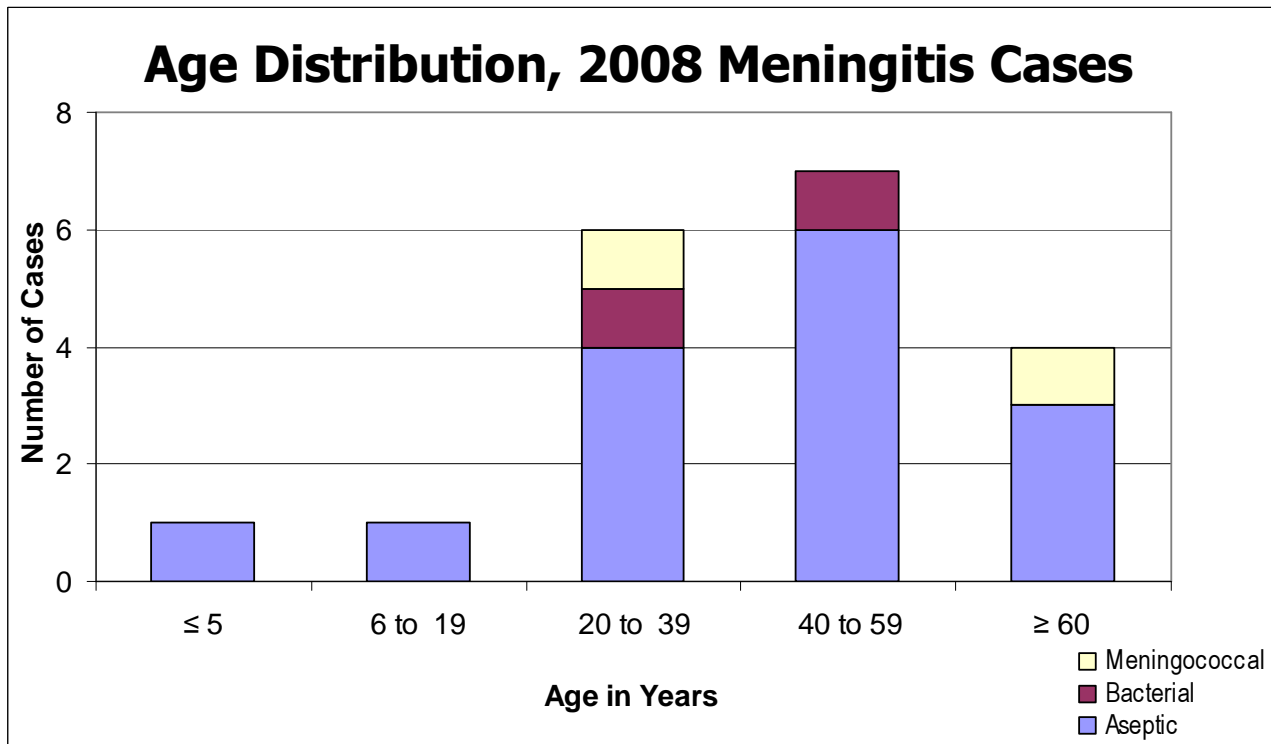
In 2008, the peak of shigellosis reported in residents served by SCHD occurred in the spring. The incidence rate of 11.3 cases per 100,000 residents has increased from last year. Comparatively, the entire state of Ohio had increasing incidence of shigellosis in 2008 as well.



Sources: Annual Summary of Infectious Diseases for Ohio 2003-2007(ODH); Quarterly Summary of Selected Reportable Infectious Diseases, Ohio: Fourth Quarter 2008 (ODH); ODRS (ODH)

## Meningitis

Meningitis is an infection of the lining of the brain and spinal cord. Both bacterial and viral meningitis are reportable to the local health department.



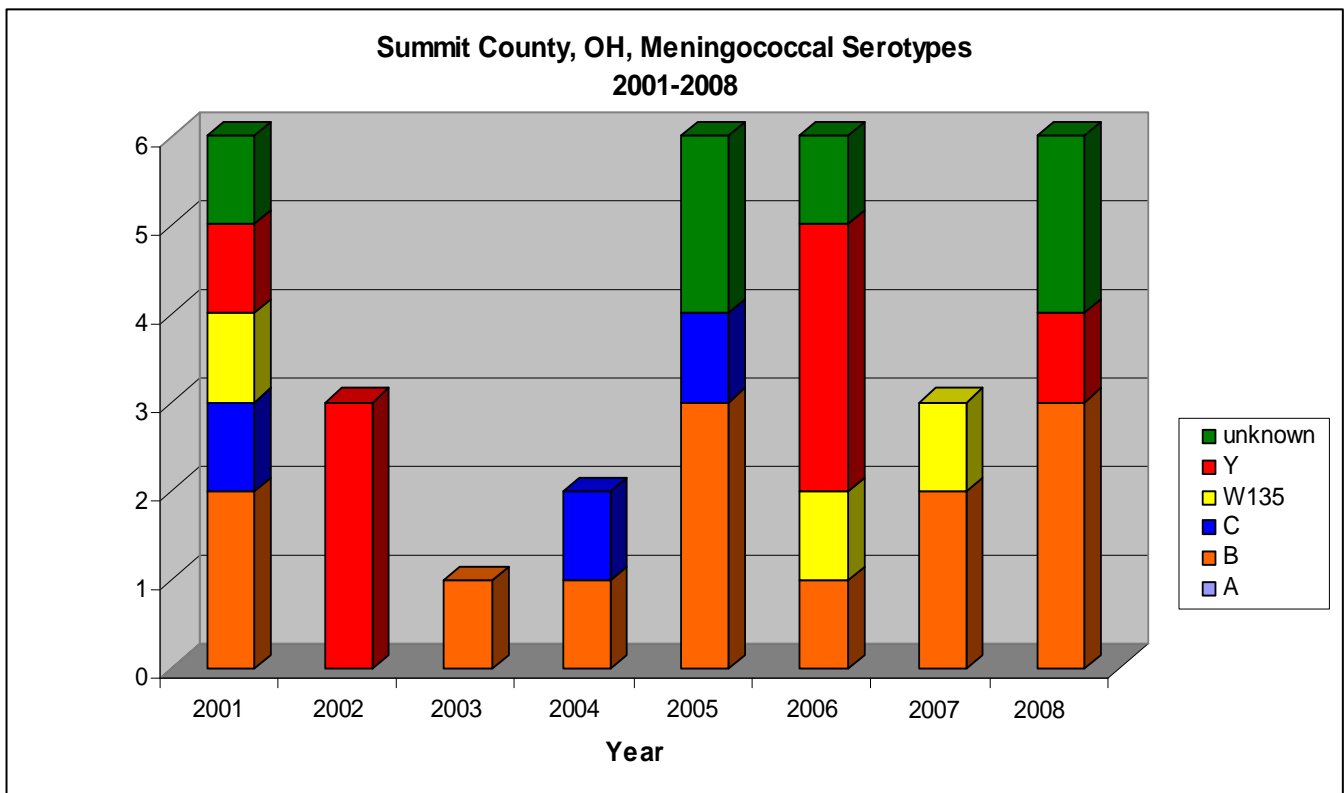
Source: ODRS (ODH)

**Aseptic (Viral) Meningitis** – Aseptic (viral) meningitis is caused by a variety of viruses, including viral meningoencephalitis.

**Bacterial Meningitis** – Bacterial meningitis is caused by various bacteria and includes all cases of meningitis that are not classified as aseptic or meningococcal.

**Meningococcal Disease** – Meningococcal disease is caused a specific bacterium: *Neisseria meningitidis*. It can also cause blood infections and pneumonia in addition to meningitis and can be prevented with a vaccine. There are a variety of different serogroups that can cause an infection; the meningococcal vaccines cover four serogroups: A, C, W-135, and Y.

**West Nile Virus** - West Nile Virus (WNV) meningitis is a typical aseptic viral meningitis and accounts for 20% to 30% of central nervous systems infections associated with WNV. In 2008, 78 WNV tests were ordered in Summit County hospitals, but there were not any positive reports of human cases within Summit County.



Source: ODRS (ODH)

## Viral Hepatitis

Hepatitis is a liver disease that can be transmitted through bodily fluids from an infected person. Hepatitis B and C infections can be acute (short-term) or chronic (lasting an entire lifetime). Depending on a person's immune system, the disease will either resolve or turn into a lifelong illness.

### **Chronic hepatitis**

Even though the prevalence of chronic hepatitis B in Summit County is not known, the incidence rate of chronic hepatitis B in SCHD residents has been declining over the past seven years. In comparison, the 2008 incidence of reported chronic hepatitis C in SCHD residents has decreased for the first time since 2002. For a comparison of chronic hepatitis B and chronic hepatitis C incidence rates over the past five years, consult the table on page 8.

### **Peri-natal hepatitis B**

The hepatitis B virus can be passed from a mother to her baby during pregnancy and birth. When this happens it is called peri-natal transmission. Peri-natal transmission of hepatitis B can be prevented by management of the disease in pregnant women who have previously tested positive. In 2008, six cases of hepatitis B in pregnant women were reported in SCHD residents. Of these, all were diagnosed with chronic hepatitis B. The ages of the mothers ranged from 21 to 37 years. The primary risk factor of disease incidence was being foreign born. Due to successful management of these cases by SCHD, there was no infection seen for any of the infants born to these mothers.

## Disease Outbreaks & Interesting Cases

The Summit County Health District Communicable Disease Program investigates all reported communicable disease outbreaks. The State of Ohio requires reporting of any unusual cluster of communicable illness. During 2008, SCHD investigated several communicable disease outbreaks that involved residential healthcare facilities.

### January\*

- Assisted-Living facility: 11 of 71 residents and > 35 staff members reported gastrointestinal symptoms. Selective stool sampling via ODH identified norovirus.
- Extended-Care facility: report of widespread respiratory illness affecting staff and residents
- Long-Term nursing facility: report of gastrointestinal illness affecting staff and patients.

\*The onset of illness, in 2 of these facilities, began in the Alzheimer's or Memory Units.

### May

- Cooperated with Holmes County Health Department in the investigation of gastrointestinal illness related to a men's retreat held in that county. SCHD Communicable Disease staff conducted 10 telephone interviews in Summit County attendees of the retreat.

### June

- An isolated, noninfectious case of Leprosy was identified via skin biopsy of a foreign-borne individual. Treatment was provided by National Hansen's Disease Center in Baton Rouge, LA.

## Disease Prevention & Surveillance Activities

The Communicable Disease Program continues to provide information resources for schools, healthcare facilities and the general community regarding infection prevention and control. Common topics that foster significant public interest include scabies, head lice, MRSA, tuberculosis, meningitis, and *Clostridium difficile*.

The Communicable Disease Division collaborates with Akron and Barberton Health Departments in the following activities for disease prevention and disease surveillance. The three health departments participated in the following activities in 2008.

- Annual influenza and West Nile Virus surveillance
- Local and regional communicable disease exercises and drills
- Monitoring of EpiCenter (previously called the Real-Time Outbreak & Disease Surveillance or RODS) system in Summit County hospitals
- Local and regional communicable disease committees and groups
- Creating and publishing quarterly communicable disease newsletters sent to primary care physicians, veterinarians, and nursing homes
- Improving communicable disease investigation through quality assurance activities which are standardized among all three health departments

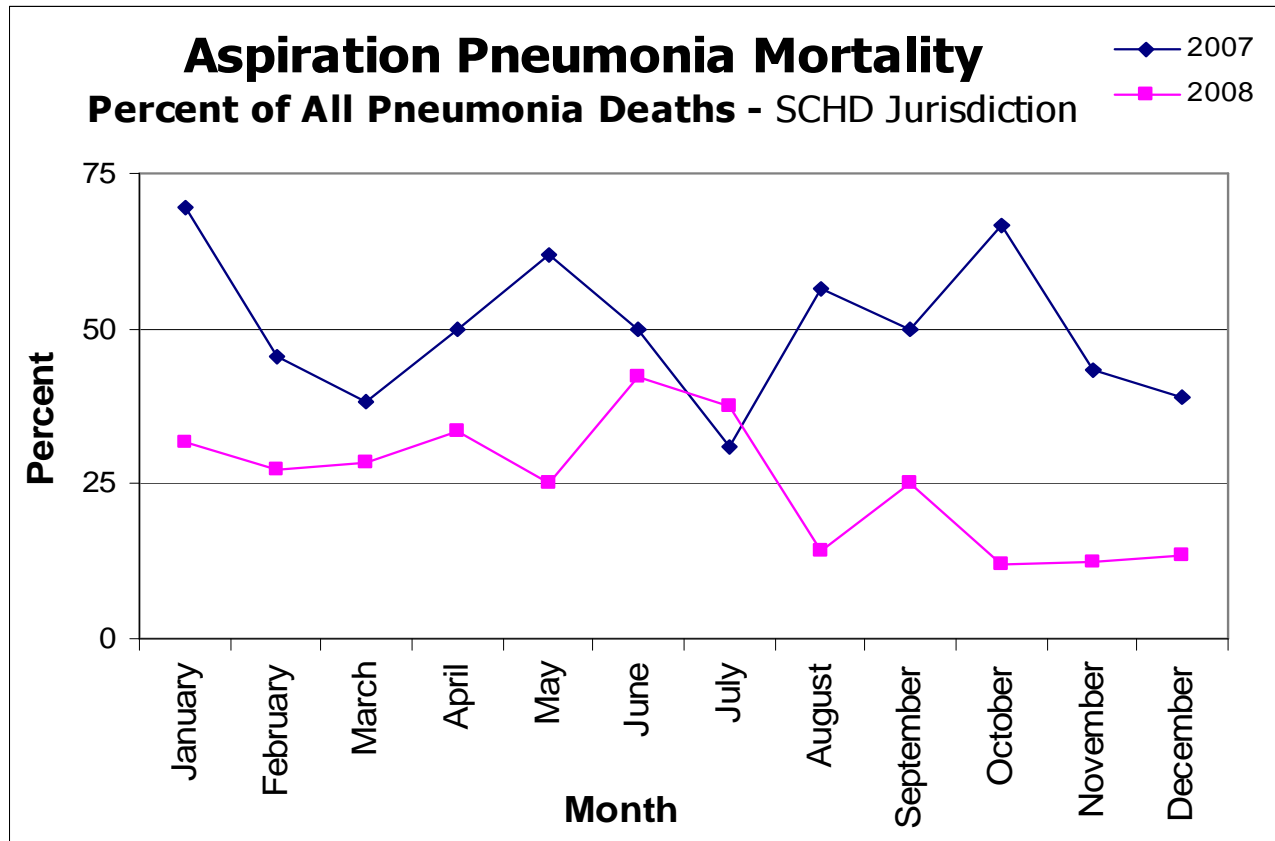
## Pneumonia Mortality

**NOTE:** The following describes the number of 2008 deaths occurring in the SCHD jurisdiction. These deaths took place within the physical boundaries that the Health District serves (which do not include deaths occurring in Akron, Barberton, or Norton and hospitals in those jurisdictions). The following results ARE NOT official; they are to be used for **surveillance purposes only**.

Pneumonia mortality surveillance is important to monitor, particularly because of the threat of pandemic influenza. **Pneumonia** is a disease of the lungs that is characterized by inflammation of lung tissue. Pneumonia may be accompanied by fever, chills, cough, and difficulty breathing. **Aspiration pneumonia** is an inflammation of the lungs and bronchial tubes caused by inhaling foreign materials (including food, drink, or vomit). During 2008, deaths due to pneumonia and aspiration pneumonia accounted for 11.2% of all deaths occurring in the SCHD jurisdiction. This is a slight increase over the previous year.

| 2008 Pneumonia Mortality Statistics (for SCHD jurisdiction only) |   |
|--|---|
| <b>Deaths in SCHD jurisdiction</b>                               | <b>Pneumonia:</b> n = 195<br><b>Aspiration Pneumonia:</b> n = 64 (24.7% of all pneumonia deaths)                                  |
| <b>Gender Distribution</b>                                       | (Includes pneumonia <u>and</u> aspiration pneumonia deaths)<br>Females: 54.4 %<br>Males: 45.6%                                    |
| <b>Age Distribution</b>  | (Includes pneumonia <u>and</u> aspiration pneumonia deaths)<br>Range: 51 years – 101 years<br>Mean: 83.9 yrs.<br>Median: 85 years |

Source: SCHD Vital Statistics Database



Source: SCHD Vital Statistics Database

## Communicable Disease Across All Of Summit County

Communicable diseases do not stop at jurisdictional and geographic boundaries. Because of this, the three health departments in Summit County routinely collaborate with each other on communicable disease surveillance, investigation, and planning activities. The following section provides a brief insight to communicable disease occurrence across all political subdivisions of Summit County in 2008.

### Demographic Breakdown of Summit County, Ohio

According to the United States Census Bureau, Summit County has a total population of approximately 543,487 persons. As of July 1<sup>st</sup> 2007, Summit County is the 4<sup>th</sup> largest populated county in Ohio. Summit County residents account for approximately 4.7% of the entire population of the State of Ohio. Akron is the largest city in Summit County and has a population of 207,934 persons living within the city limits.

The following demographic, social, and economic characteristics for all political subdivisions of Summit County are approximate. Information was obtained from the 2005-2007 American Community Survey 3-Year Estimate provided by the United States Census Bureau.

#### Age Distribution:

Residents under 5 years old = 6.1%                      Residents 18 years to 64 years = 62.2%  
Residents 5 years to 17 years = 17.8%                Residents 65 years and over = 13.9%

#### Racial Diversity:

Caucasian = 82.3%  
African American = 14.0%  
Asian = 1.8%  
Other Race = 1.9%

#### Ethnicity:

Hispanic/Latino = 1.1%  
Two or more races = 1.2%  
Foreign-born = 3.6%

#### Gender:

Female = 51.7%  
Male = 48.3%

#### Education:

Adults 25 years and over that hold at least a high school diploma = 89.1%  
Adults 25 years and over that do not hold a high school diploma = 10.9%  
Adults 25 years and over that hold a Bachelor's degree or higher = 28.7%

#### Employment:

Residents 16 years and over that are employed = 61.4%  
Residents 16 years and over that are unemployed = 4.6%  
Residents 16 years and over that are not in the labor force = 34.0%

#### Income:

Median household yearly income (inflation-adjusted) = \$46,997  
Families below the poverty level = 9.0%

## Selected Communicable Disease Reports, ALL Summit County\*, 2003-2008

| Disease                               | Number of Reports Received (2008) | Number of Reports Received (2007) | Number of Reports Received (2006) | Number of Reports Received (2005) | Number of Reports Received (2004) | Number of Reports Received (2003) |
|---------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Campylobacteriosis                    | 62                                | 61                                | 70                                | 69                                | 71                                | 76                                |
| Chlamydia infections                  | 1,377                             | 1,453                             | 1,295                             | 1,008                             | 1,119                             | 1,393                             |
| Cryptosporidiosis                     | 9                                 | 10                                | 5                                 | 12                                | 3                                 | 2                                 |
| E. coli 0157:H7                       | 0                                 | 2                                 | 4                                 | 5                                 | 5                                 | 3                                 |
| Encephalitis, WNV                     | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| Encephalitis, other viral             | 0                                 | 3                                 | 5                                 | 3                                 | 4                                 | 11                                |
| Giardiasis                            | 74                                | 73                                | 42                                | 56                                | 48                                | 46                                |
| Gonococcal infections                 | 736                               | 789                               | 676                               | 536                               | 642                               | 827                               |
| H. influenzae, invasive               | 7                                 | 10                                | 4                                 | 6                                 | 2                                 | 7                                 |
| Hepatitis A, acute                    | 6                                 | 3                                 | 1                                 | 4                                 | 4                                 | 9                                 |
| Hepatitis B, acute                    | 20                                | 34                                | 49                                | 27                                | 40                                | 29                                |
| Hepatitis B, chronic                  | 73                                | 88                                | 83                                | 92                                | 78                                | 102                               |
| Hepatitis C, acute                    | 4                                 | 1                                 | 5                                 | 4                                 | 0                                 | 2                                 |
| Hepatitis C, chronic                  | 412                               | 471                               | 458                               | 406                               | 437                               | 493                               |
| HIV diagnoses/AIDS                    | 35                                | 37                                | 34                                | 32                                | 31                                | 15                                |
| Kawasaki disease                      | 0                                 | 3                                 | 2                                 | 10                                | 4                                 | 9                                 |
| Legionnaire's disease                 | 20                                | 22                                | 26                                | 25                                | 8                                 | 13                                |
| Lyme disease                          | 7                                 | 5                                 | 4                                 | 11                                | 5                                 | 4                                 |
| Meningitis- Aseptic                   | 53                                | 37                                | 53                                | 65                                | 57                                | 95                                |
| Meningitis- Bacterial                 | 3                                 | 2                                 | 12                                | 4                                 | 20                                | 4                                 |
| Meningococcal disease                 | 7                                 | 3                                 | 6                                 | 6                                 | 4                                 | 1                                 |
| Pertussis                             | 13                                | 16                                | 20                                | 31                                | 16                                | 16                                |
| Pneumococcal disease, invasive        | 40                                | 70                                | 79                                | 82                                | 71                                | 62                                |
| Salmonellosis                         | 61                                | 54                                | 62                                | 64                                | 64                                | 45                                |
| Shigellosis                           | 98                                | 51                                | 8                                 | 4                                 | 12                                | 64                                |
| Streptococcal disease (GAS), invasive | 28                                | 28                                | 15                                | 4                                 | 18                                | 27                                |
| Streptococcal Toxic Shock             | 0                                 | 2                                 | 3                                 | 1                                 | 1                                 | 1                                 |
| Syphilis (all stages)                 | 86                                | 64                                | 23                                | 25                                | 20                                | 7                                 |
| Tuberculosis                          | 5                                 | 4                                 | 1                                 | 8                                 | 6                                 | 8                                 |

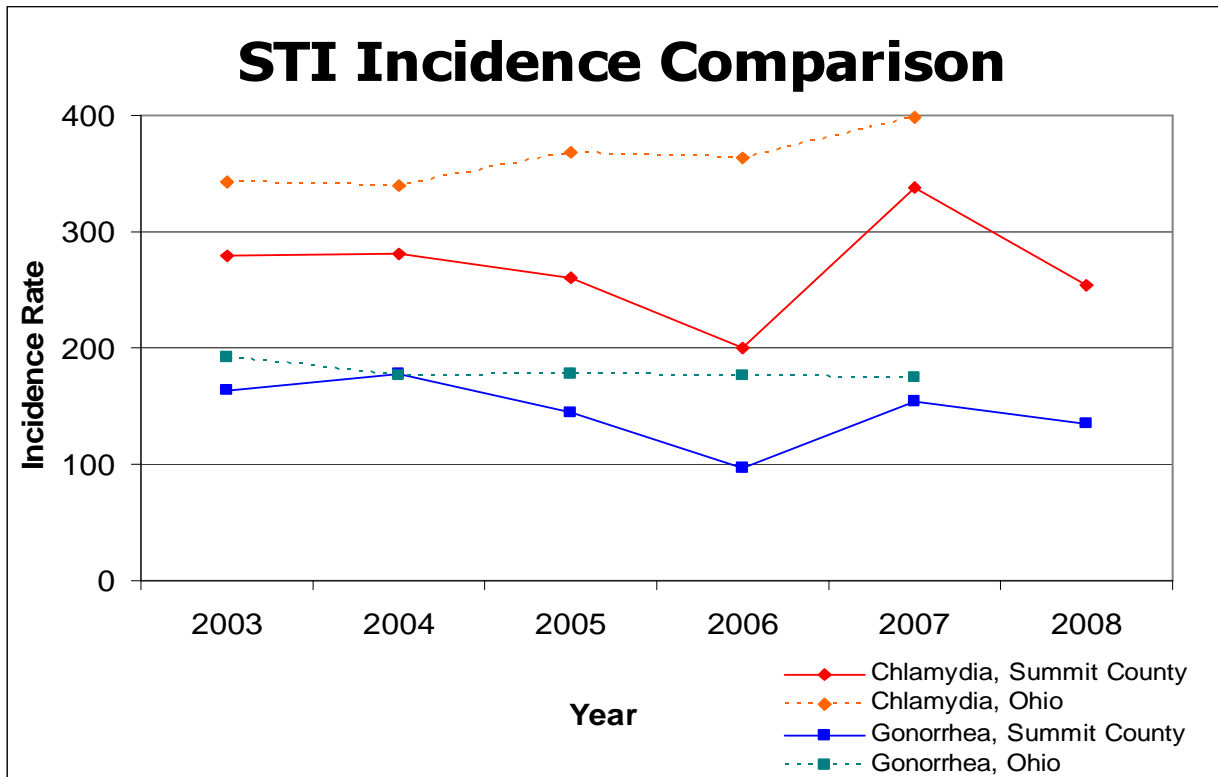
Source: ODRS (ODH)

\* Includes all political subdivisions of Summit County.

## Sexually-Transmitted Infections in Summit County

### **Chlamydia and Gonorrhea**

Chlamydia and gonorrhea incidence are significant concerns in Summit County. The graph shown below shows the trends for chlamydia and gonorrhea in Summit County and Ohio over the past six years.



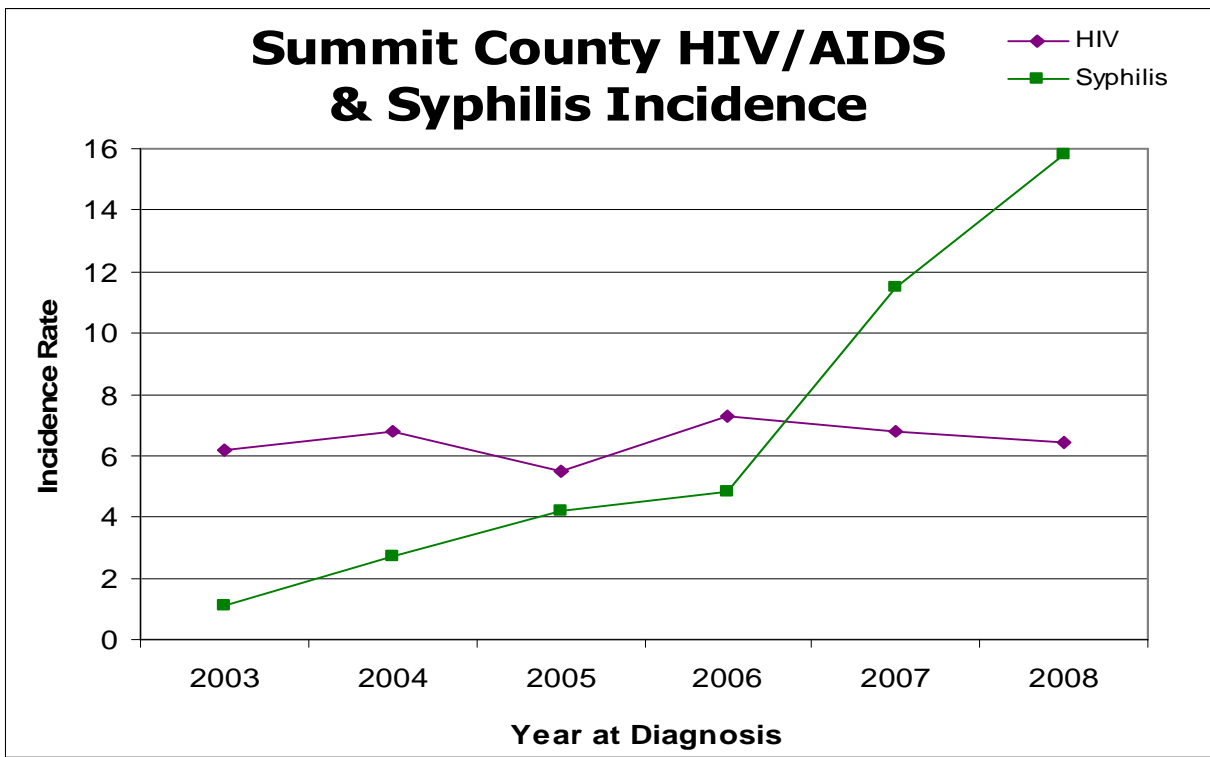
Sources: 2003 to 2007 Ohio Infectious Disease Status Report: Chlamydia (ODH); 2003 to 2007 Ohio Infectious Disease Status Report: Gonorrhea (ODH); 2003 to 2007 County Infectious Disease Status Report: Chlamydia (ODH); 2003 to 2007 County Infectious Disease Status Report: Gonorrhea (ODH); ODRS (ODH)

### **HIV & Syphilis**

Due to the confidentiality concerns of HIV/AIDS and syphilis patients, the Akron Health Department provides the Disease Intervention Specialist services for these diseases in all political subdivisions of Summit County. Statistical information is only available at the county level. The following information describes HIV/AIDS and syphilis information for all Summit County residents, whether they reside in the SCHD jurisdiction or not.

There were 35 reported cases of newly identified HIV/AIDS within Summit County in 2008. The Ohio Department of Health states that as of December 31, 2006 (the latest information available), there are 592 persons living with HIV/AIDS within Summit County. This number equates to a prevalence of 108.4 HIV/AIDS cases per 100,000 residents, which is lower than the prevalence rate of all HIV/AIDS cases in Ohio (128.1 cases per 100,000 residents).

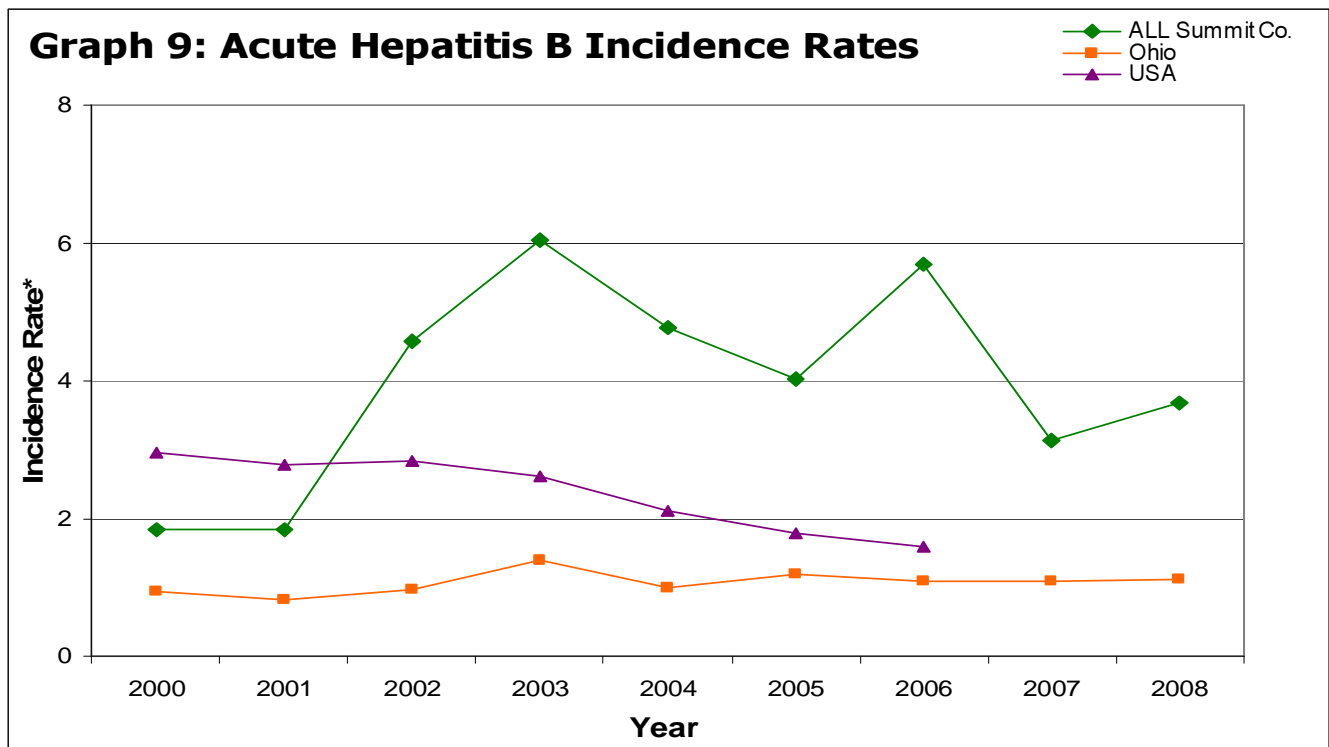
The syphilis incidence rate in Summit County continues to increase. In 2008, there were 86 reports of newly identified syphilis cases.



Sources: 2003 to 2007 County Infectious Disease Status Report: Total Syphilis (ODH); 2002-2006 HIV/AIDS Statistics for Ohio and by county (ODH); ODRS (ODH)

### Hepatitis B

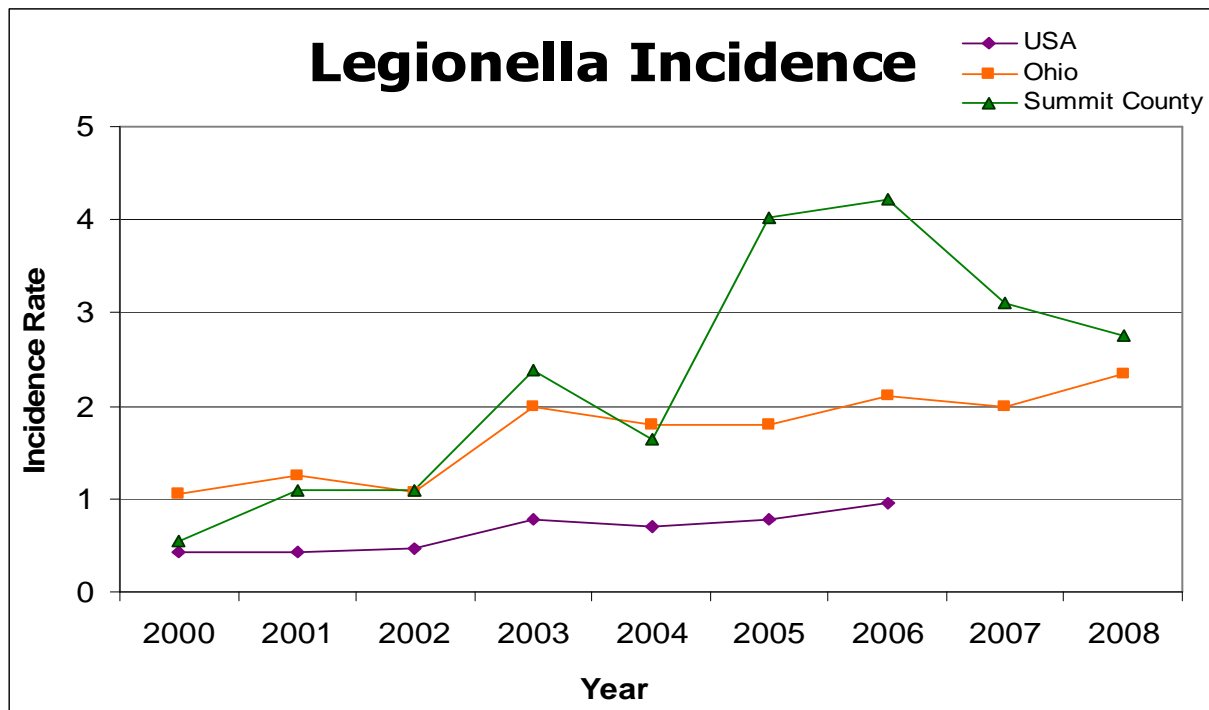
Hepatitis B, a blood-borne pathogen, is a common disease in Summit County. The incidence rate for acute hepatitis B has slightly increased since last year (from 3.13 new cases per 100,000 people in 2007 to 3.68 new cases per 100,000 people in 2008). According to ODH's Quarterly Summary of Selected Reportable Infectious Diseases, Ohio – Fourth Quarter 2008, new acute hepatitis B cases in Summit County accounted for 8.7% of all new cases of acute hepatitis B in Ohio. While this is an improvement over last year, the Summit County rate is high when compared to state and national rates.



Sources: Surveillance for Acute Viral Hepatitis – United States, 2006 (CDC); Annual Summary of Infectious Diseases for Ohio 2000-2007(ODH); Quarterly Summary of Selected Reportable Infectious Diseases, Ohio: Fourth Quarter 2008 (ODH); ODRS (ODH)

## Legionellosis

The incidence rate of reported cases of legionellosis in Summit County is high when compared to USA and Ohio rates. However, there has been a decrease in the Summit County incidence rate over the past three years. In 2008, legionellosis cases in all political subdivisions of Summit County accounted for 5.6% of all cases occurring in Ohio.



Sources: Summary of Notifiable Diseases – United States, 2006 (CDC); Annual Summary of Infectious Diseases for Ohio 2000-2007 (ODH); Quarterly Summary of Selected Reportable Infectious Diseases, Ohio: Fourth Quarter 2008 (ODH); ODRS (ODH)

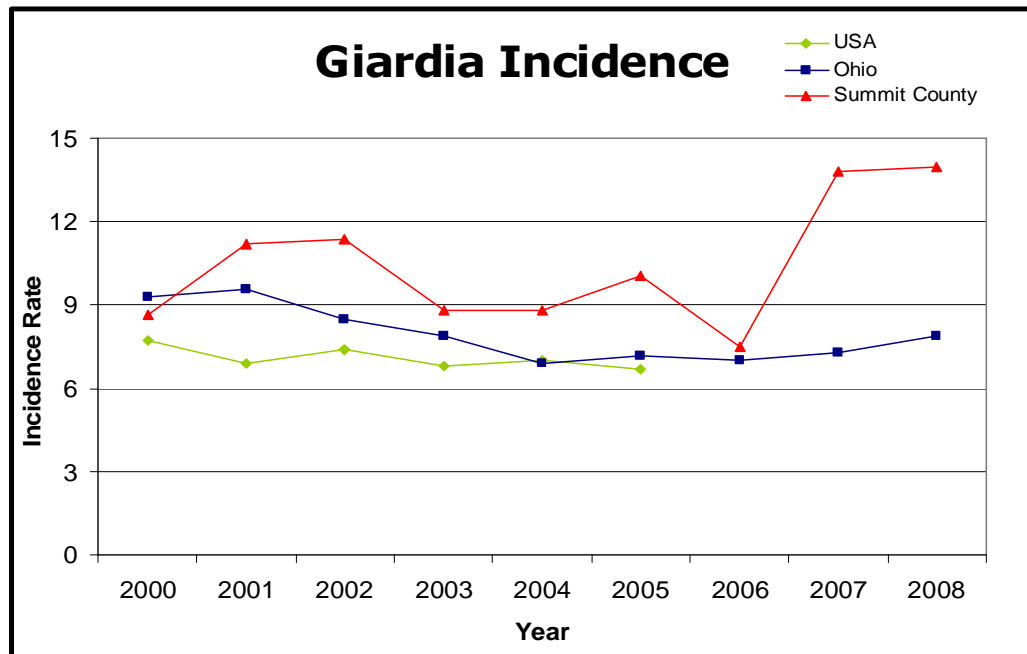
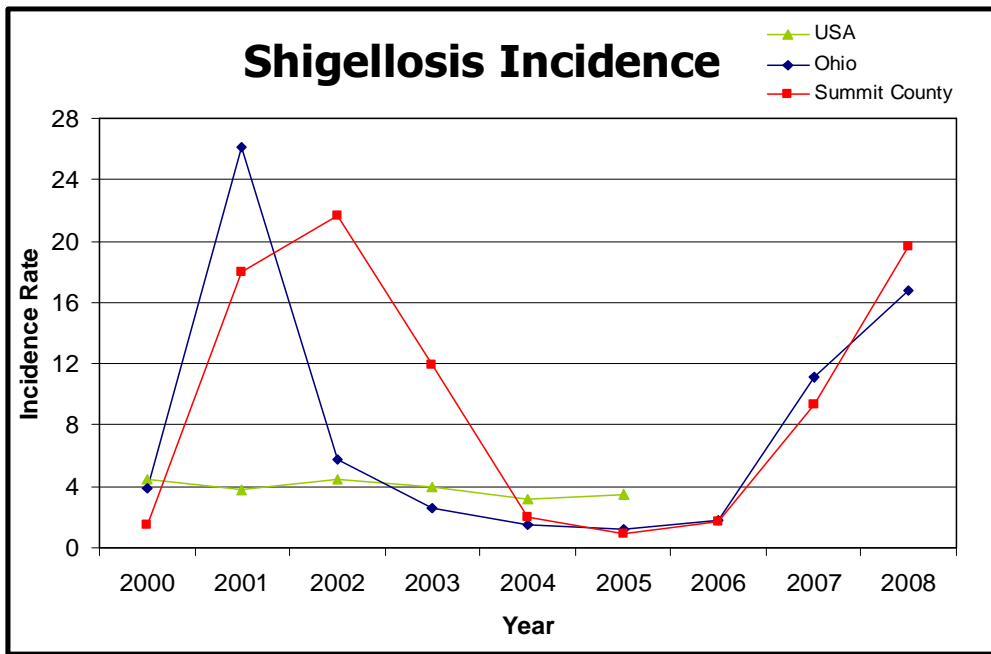
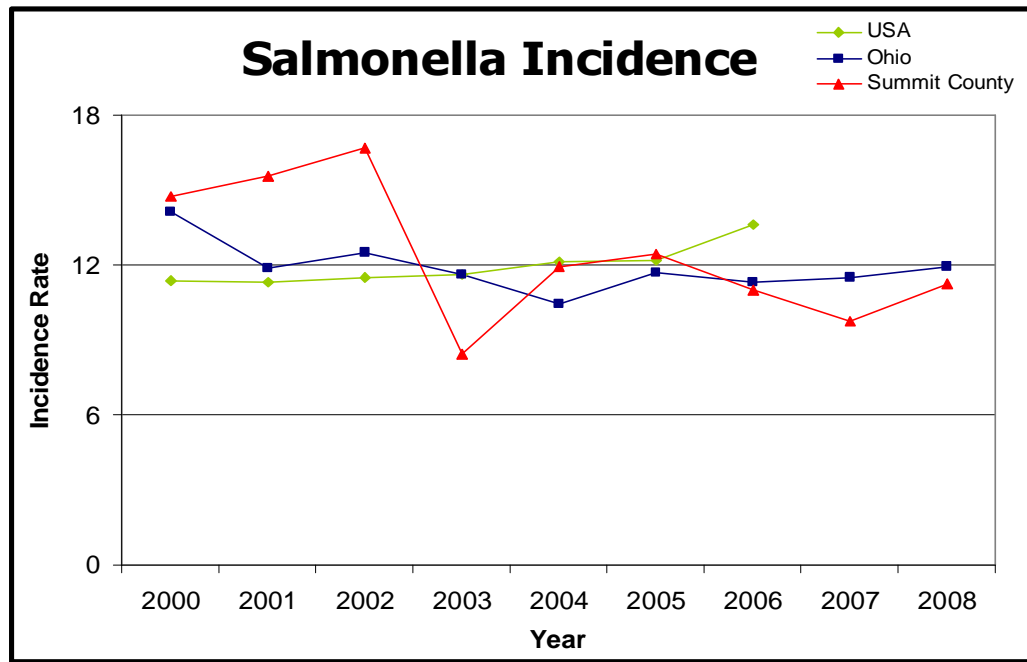
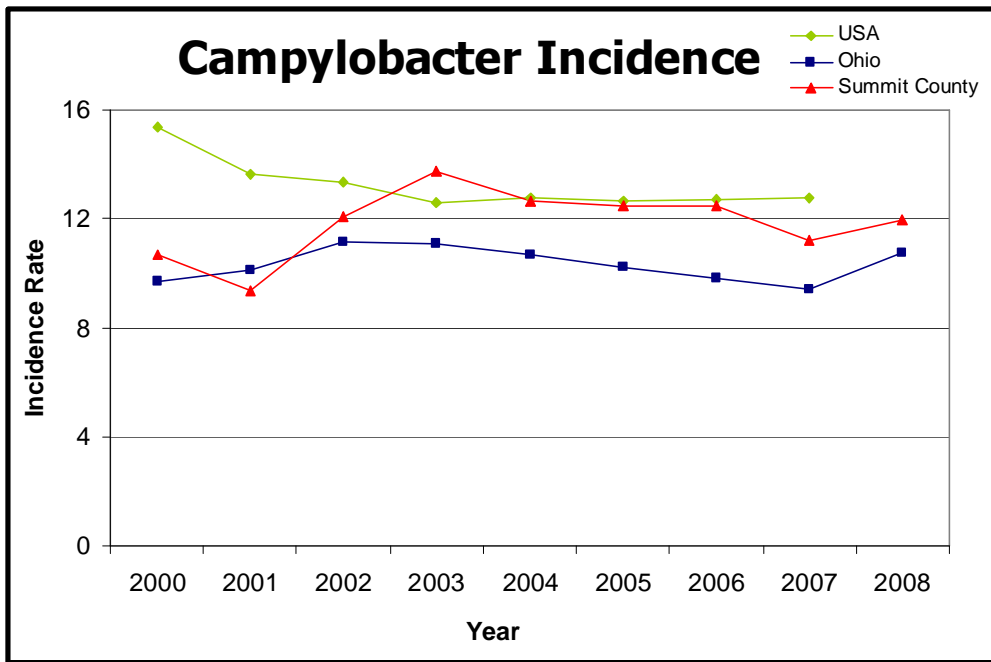
## Tuberculosis

The incidence rate of tuberculosis in Summit County has been decreasing for the last fifteen years. In 2008 there were five active *Mycobacterium tuberculosis* cases in Summit County (which equates to an incident rate of 0.9 cases per 100,000 residents). Three of the cases lived in Akron at the time of diagnosis, 2 cases lived outside Akron. Additional information regarding these five reported cases is listed below:

- **Gender:** 3 female; 2 male
- **Race:** 3 were of Asian decent; 2 were Caucasian
- **Age:** Range 4 to 82 years; Mean 38.8 years; Median 30 years
- **Birthplace:** 2 foreign born; 3 U.S. born
- **Site:** 4 out of the 5 cases were pulmonary

## Enteric Disease

The 2008 incidence rates for all reported enteric diseases have increased since last year. Several shigellosis outbreaks in childcare centers contributed to the increased incidence rate for that disease (from 9.4 in 2007 to 18.0 in 2008). In December, Communicable Disease staff was notified of salmonella cases related to two separate outbreaks. Both outbreaks were identified as *S. Typhimurium*. One was a local cluster of cases; the other was part of the national outbreak associated with peanut butter.



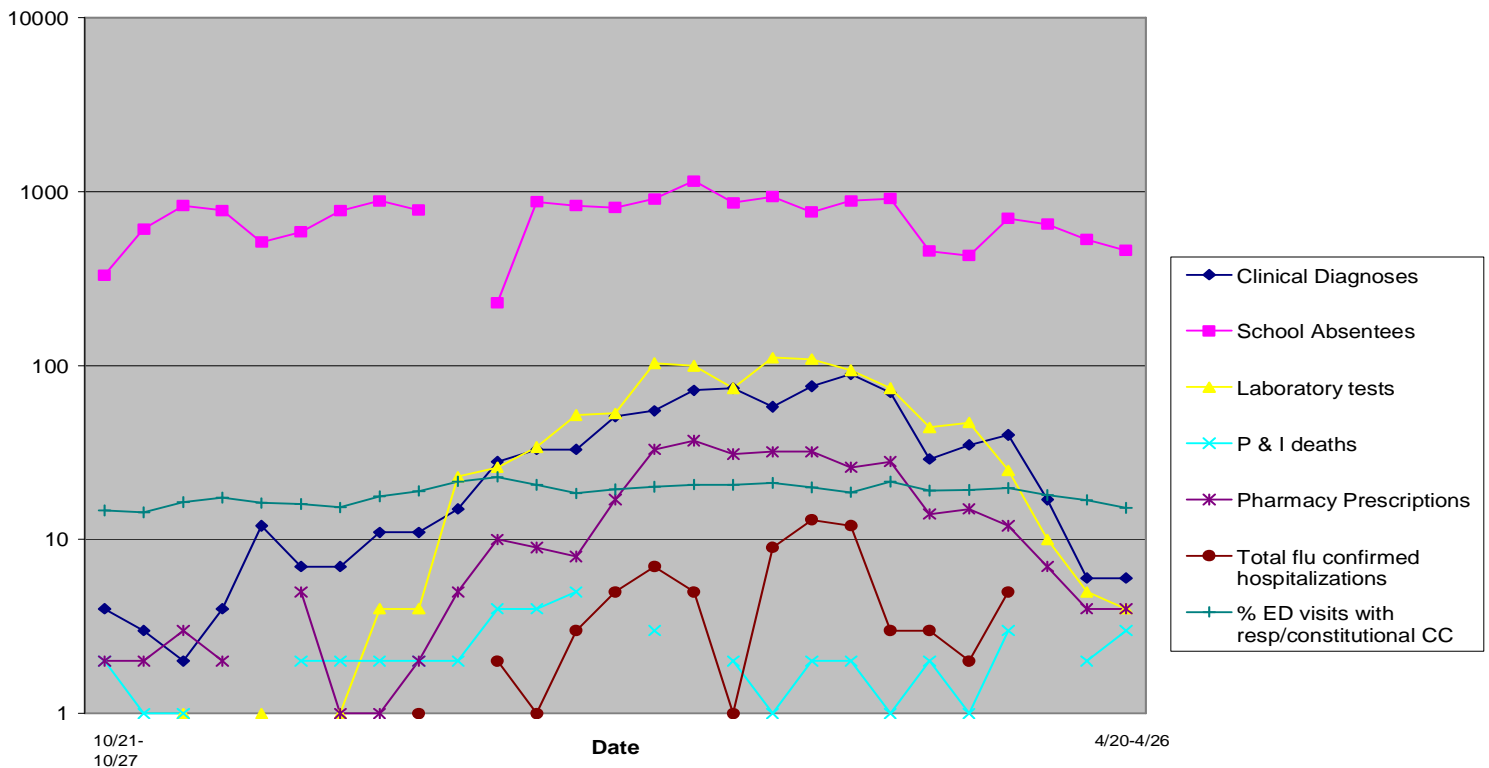
Sources: PHLIS Surveillance Data, Salmonella and Shigella Annual Summaries 2000-2006 (CDC); Giardiasis Surveillance – United States, 2003-2005 (CDC); Giardiasis Surveillance – United States, 1998-2002 (CDC); Foodborne Diseases Active Surveillance Network (CDC); Annual Summary of Infectious Diseases for Ohio 2000-2007(ODH); Quarterly Summary of Selected Reportable Infectious Diseases, Ohio: Fourth Quarter 2008 (ODH)

## Influenza

The Summit County Health District annually participates in a county-wide surveillance program for influenza activity. This surveillance does not try to capture every case of influenza, but looks at when and where influenza is occurring. The surveillance uses information from a variety of sites: clinical diagnoses, pharmacies, nursing homes, school absentee rates, confirmed influenza tests from laboratories, influenza and pneumonia deaths (City of Akron only), hospitalizations due to confirmed influenza, and the Real-Time Outbreak Detection System (RODS). The first positive laboratory report to the health department for the 2007-2008 season was an influenza B in the week ending November 24, 2007.

So far, the 2008-2009 season has seen mostly influenza A (85% of local positive influenza tests). Influenza activity in Summit County this season began to increase early January.

**Summit County Influenza Surveillance, 2007-2008  
Week 27 (week ending 4/26/2008, CDC week 17)**



## Resources:

Akron Health Department, Office of Epidemiology; 2007 Communicable Disease Summary

Centers for Disease Control and Prevention; Foodborne Diseases Active Surveillance Network - FoodNet: <http://www.cdc.gov/foodnet/index.htm>.

Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report; Summary of Notifiable Diseases – United States, 2006; March 21, 2008/ 55(53), 1-94

Centers for Disease Control and Prevention; PHLIS Surveillance Data, *Salmonella* Annual Summary (years 2000 through 2006)

Centers for Disease Control and Prevention; PHLIS Surveillance Data, *Shigella* Annual Summary (years 2000 through 2005)

ESRI, Inc.; ArcMap™ Version 9.2

Hlavsa MC, Watson JC, Beach MJ; Giardiasis Surveillance – United States, 1998-2002; January 28, 2005; Morbidity and Mortality Weekly Report 54(SS01), 9-16

Ohio Department of Health, Bureau of Health Surveillance and Infectious Disease Control, Division of Prevention; Annual Summary of Infectious Diseases for Ohio (years 2000 through 2007)

Ohio Department of Health, Bureau of Health Surveillance and Infectious Disease Control, Division of Prevention; Quarterly Summary of Selected Reportable Infectious Diseases, Ohio- Fourth Quarter 2008 (data reported through 1/5/2009)

Ohio Department of Health, HIV/AIDS Surveillance Program; 2002 to 2006 HIV/AIDS Statistics for Ohio and by County (data reported through 12/31/2007)

Ohio Department of Health, HIV/STD Prevention Program; 2003 to 2007 County Infectious Disease Status Report: Chlamydia (data reported through 3/26/2008)

Ohio Department of Health, HIV/STD Prevention Program; 2003 to 2007 County Infectious Disease Status Report: Gonorrhea (data reported through 3/26/2008)

Ohio Department of Health, HIV/STD Prevention Program; 2003 to 2007 County Infectious Disease Status Report: Total Syphilis (data reported through 6/10/2008)

Ohio Department of Health, HIV/STD Prevention Program; 2003 to 2007 Ohio Infectious Disease Status Report: Chlamydia (data reported through 3/26/2008)

Ohio Department of Health, HIV/STD Prevention Program; 2003 to 2007 Ohio Infectious Disease Status Report: Gonorrhea (data reported through 3/26/2008)

Ohio Disease Reporting System (provided by the Ohio Department of Health), Version 6.0 (data reported through 1/21/2009)

SAS Institute, Inc.; SAS Enterprise Guide Version 4.1

SPSS, Inc.; SPSS for Windows Version 13.0

Summit County Health District, Office of Epidemiology and Biostatistics; 2007 Communicable Disease Annual Summary

Summit County Health District, Office of Epidemiology and Biostatistics; 2007 and 2008 Vital Statistics Databases – Death Certificates

United States Census Bureau, American Factfinder; American Community Survey 3-Year Estimate: [http://factfinder.census.gov/home/saff/main.html?\\_lang=en](http://factfinder.census.gov/home/saff/main.html?_lang=en)

United States Census Bureau, Population Estimates Program; 2007 Population Estimates

Wasley A, Grytdal S, Gallagher K; Surveillance for Acute Viral Hepatitis – United States, 2006; March 21, 2007; Morbidity and Mortality Weekly Report 57(SS02), 1-24

Yoder JS, Beach MJ; Giardiasis Surveillance – United States, 2003-2005; September 7, 2007; Morbidity and Mortality Weekly Report 56(SS07), 11-18

The preceding summary was prepared by the Summit County Health District Office of Epidemiology and Biostatistics.