



## 2013 Indiana Epidemiology Newsletter

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Editorial Staff

Welcome to the first edition of the *2013 Indiana Epidemiology Newsletter*. The new year brings some changes to the newsletter. Previously published every two months, the newsletter will now be published quarterly. For the disease tables, the information will be for the previous quarter, so you will notice the same information as the November-December newsletter for this issue. The next issue will include disease reporting for the first quarter of 2013. Public health information on the last page will vary. The layout has also had some updates. We appreciate your continued interest in the *Epidemiology Newsletter*.

## Respiratory Outbreak Among Residents of an Assisted Living and Rehabilitation Facility in Johnson County

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ISDH Field Epidemiologist, District 5

### Background

On December 21, 2012, the Indiana State Department of Health (ISDH) Long Term Care Division notified the ISDH District 5 Field Epidemiologist (FEPI) of multiple residents of a Johnson County assisted living and rehabilitation facility experiencing upper respiratory illness (URI) on December 17, 2012.

### Epidemiologic Investigation

The Johnson County Health Department (JCHD) and District 5 FEPI spoke with the facility Director of Nursing (DON), on December 27. According to the DON, initial onset of upper respiratory illness (URI) was December 15 and as of December 17, 29 of 103 residents were ill with URI (28%). Six of 125 staff became ill with URI, on December 18. The facility health services included: Assisted Living, an Alzheimer's Unit (Memory Care) and a Rehabilitation Short Stay Unit (not affected by the illness). All residents had their own primary care physician. Physicians ordered ill residents to be tested for influenza via nasopharyngeal (NP) swabs which were sent to Johnson Memorial Hospital Laboratory for analysis. Four residents, all Memory Care roommates, tested positive for influenza A and were prescribed Tamiflu. These four residents were asymptomatic by December 21. Other URI residents were prescribed various antibiotics. A fifth resident, hospitalized at Johnson Memorial Hospital, was diagnosed via chest x-ray with pneumonia and tested positive by NP swab for influenza A. The resident returned to the facility and symptoms resolved. Per the DON, a sixth resident was sent to Johnson Memorial Hospital for vertigo

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and became infected with hospital-acquired influenza and pneumonia. As of December 27, the DON reported that no staff were ill and four residents were recovering from URI.

The assisted living and rehabilitation facility implemented the following infection control measures:

- ▶ Residents stayed in their own rooms the week of December 17.
- ▶ All meals and activities were conducted in residents' rooms.
- ▶ Signs were posted on the doors regarding URI.
- ▶ No ill visitors were allowed.
- ▶ Standard precautions were implemented; gloves, gowns and masks were worn by staff and visitors.
- ▶ Staff were educated on proper hand washing techniques.
- ▶ Hand sanitizer was placed in the lobby, all hallways and nurses stations in the facility.
- ▶ Housekeeping increased cleaning of all hand contact surfaces, *e.g.*, handrails, door knobs, light switches and keyboards with a germicidal disinfectant daily.
- ▶ No group gatherings were allowed.
- ▶ Staff care plan meetings were conducted via phone instead of in person.

### **Environmental Assessment**

A facility inspection was not conducted.

### **Laboratory Results**

Five positive cases of influenza A were confirmed positive at Johnson Memorial Hospital Laboratory, one while hospitalized. A sixth resident originally hospitalized for vertigo was infected with hospital-acquired influenza and pneumonia unrelated to the assisted living and rehabilitation facility.

### **Conclusions**

The investigation confirmed an increase in the expected number of residents with URI at the assisted living and rehabilitation facility. The pattern of illness onset indicated probable person-to-person transmission. Five laboratory confirmed influenza A cases and at least two x-ray confirmed pneumonia cases were identified in residents of the facility. A sixth resident who acquired influenza and pneumonia while hospitalized was not related to the outbreak at the assisted living and rehabilitation facility.

Infection control measures implemented by the facility staff ended disease transmission. Seasonal influenza, commonly called "the flu," is caused by influenza viruses, which infect the respiratory tract (*i.e.*, the nose, throat, lungs). Symptoms can include fever, cough, sore throat, muscle or body aches, headaches and fatigue.<sup>3</sup> Unlike many other viral respiratory infections, such as the common cold, the flu can cause severe illness and life-threatening complications in many people, such as pneumonia and bronchitis. Annually, approximately 5 percent to 20 percent of the United States population is infected with influenza and more than 200,000 people are hospitalized from seasonal flu-related complications.<sup>2</sup> A 1990 study by the Centers for Disease Control and Prevention (CDC) published in 2003 in the *Journal of the American Medical Association* indicated that flu-related deaths in the United States ranged from 17,000 to 52,000, with an average of 36,000 annually. Another CDC study, based on data during 31 influenza seasons from 1976 through 2007, estimated influenza associated deaths in the United States range from a low of about 3,000 to a high of about 49,000 people annually. During a regular influenza season, about 90 percent of deaths and 60 percent of hospitalizations occur in people 65 years and older.<sup>4</sup> Severe medical consequences from influenza can happen at any age, but people 65 years and older, those with certain chronic medical conditions (*e.g.*, diabetes or heart disease),

immunocompromised, pregnant women and young children are at higher risk of developing flu-related complications.<sup>3</sup>

Elderly patients residing in long-term care facilities are vulnerable to influenza outbreaks, which in this setting may cause widespread illness with a high fatality rate.<sup>5</sup> On January 23, 2013, the CDC recommended that long term care facility residents and health care personnel should be vaccinated against influenza. Suspected influenza outbreaks should trigger immediate infection control measures, standard and droplet precautions and surveillance to identify new cases. The CDC further recommends that all facility residents with confirmed or suspected influenza should receive antiviral treatment without waiting for confirmatory lab results and all eligible residents in the entire facility receive chemoprophylaxis upon knowledge of an influenza outbreak. For more details on the management of long-term care facility influenza outbreaks, please see [Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities](#).<sup>5</sup>

### Recommendations:

In general, most URI can be prevented by strictly adhering to the following guidelines<sup>1</sup>:

- ▶ Use your elbow or upper arm (instead of your hands) or a tissue to cover your mouth and nose when you cough or sneeze. Immediately discard used tissue in a wastebasket.
- ▶ To clean your hands after coughing or sneezing, wash with soap and water or clean with alcohol-based hand cleaner if water is not available.
- ▶ Clean frequently touched objects like doorknobs, countertops, keyboards and phones to remove germs.
- ▶ Avoid close contact with people who are sick.
- ▶ If you become ill, stay home from work, school and social gatherings.
- ▶ While sick, limit contact with others as much as possible to avoid infecting them.
- ▶ If you are sick with flu-like illness, the CDC recommends that you stay home for at least 24 hours after your fever is gone except to get medical care or for other necessities. (Your fever should be gone without the use of a fever-reducing medicine.)
- ▶ Try not to touch your eyes, nose or mouth. Many diseases are often spread this way.
- ▶ Keep up-to-date with recommended immunizations.

### Resources:

1. CDC Says “Take 3” Actions To Fight The Flu. Centers for Disease Control and Prevention. <http://www.cdc.gov/flu/protect/preventing.htm>
2. CDC What is Seasonal Influenza. <http://www.cdc.gov/flu/about/qa/disease.htm#immunity>
3. CDC Flu Symptoms and Severity. <http://www.cdc.gov/flu/about/disease/symptoms.htm>
4. CDC Estimating Seasonal Influenza-Associated Deaths in the United States: CDC Study Confirms Variability of Flu. [http://www.cdc.gov/flu/about/disease/us\\_flu-related\\_deaths.htm](http://www.cdc.gov/flu/about/disease/us_flu-related_deaths.htm)
5. CDC Influenza Update for Geriatricians and Other Clinicians Caring for People 65 and Older. <http://www.cdc.gov/flu/professionals/2012-2013-guidance-geriatricians.htm>

## May is Hepatitis Awareness Month

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*Viral Hepatitis Prevention Coordinator*

According to the CDC, hepatitis is defined as an inflammation of the liver and also refers to a group of viral infections that affect the liver. In the U.S., the most common types of viral hepatitis are hepatitis A, hepatitis B and hepatitis C. As of 2010, the CDC reported that nationwide, an estimated 1.2 million people had chronic hepatitis B infections, with 38,000 new infections that year. CDC also reported that nationwide, as of 2010, an estimated 3.2 million people had chronic hepatitis C infection, with 17,000 new infections that year. That's a total of 4.4 million people infected with hepatitis in the U.S. alone! In Indiana, in 2010, 27 cases of acute Hepatitis C and 5,927 cases of chronic Hepatitis C were reported. Additionally, there were 75 cases of acute hepatitis B reported in Indiana in 2010. In 2010, eleven Indiana counties reported at least one case of chronic hepatitis B occurring in a refugee from another country. While chronic cases of both hepatitis B and hepatitis C are tracked, they are not required to be reported to the CDC; therefore, the numbers of chronic infections could be much higher within the state.

Unfortunately, the incidence of viral hepatitis infection has increased. In response to this rising problem, the CDC has designated May as Hepatitis Awareness month. The ISDH will join the CDC in observing Hepatitis Awareness Month by providing valuable information regarding viral hepatitis infections each week including website prevention messages and social media postings. Visit the new ISDH Viral Hepatitis Prevention web page at <http://www.in.gov/isdh/25797.htm> to take a free hepatitis risk assessment developed by the CDC.

### **Facts about viral hepatitis:**

Hepatitis A is a contagious liver disease that results from infection with the hepatitis A virus. Severity ranges from a mild illness lasting a few weeks to a severe illness lasting several months. Hepatitis A is usually spread when a person ingests fecal matter — even in microscopic amounts — from contact with objects, food or drinks contaminated by the feces, or stool, of an infected person. Fortunately, hepatitis A is preventable with a safe, effective vaccine.

Hepatitis B is a contagious liver disease that results from infection with the hepatitis B virus (HBV). Ranging in severity from a mild illness lasting a few weeks to a serious, lifelong illness, hepatitis B infection can be either “acute” or “chronic.” Acute HBV infection is a short-term illness that occurs within six months after someone is exposed to HBV. Although most people fully recover and are immune, acute infection can — but does not always — lead to chronic infection. Chronic HBV infection is a long-term infection that occurs when HBV remains in a person's body. HBV is spread through contact with infected blood and semen, primarily through sexual contact. Other common modes of transmission include intravenous drug use, or sharing needles, and vertical transmission from infected mother to baby. Hepatitis B is also preventable with a safe and effective vaccine.

Hepatitis C is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness. It results from infection with the hepatitis C virus (HCV), which is spread primarily through contact with the blood of an infected person. Like hepatitis B, hepatitis C can be either acute or chronic. Acute HCV infection is a short-term illness that occurs within six months after someone is exposed.

For most people, acute infection leads to chronic infection. Chronic HCV infection is a long-term illness that occurs when HCV remains in a person's body. HCV infection can last a lifetime and lead to serious liver problems, including cirrhosis (scarring of the liver) or liver cancer, and is the number one reason for liver transplantation in the US. HCV is spread through contact with infected blood, primarily through sharing of contaminated needles, syringes and other injection drug equipment. Hepatitis C is not vaccine preventable. While each hepatitis infection is a different disease, they share many signs and symptoms including jaundice, fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, joint pain, gray-colored bowel movements and dark colored urine. Laboratory testing is necessary to confirm cases of viral hepatitis. For more information on viral hepatitis and Hepatitis Awareness Month, visit the CDC's website at <http://www.cdc.gov/hepatitis/> or contact Brittany Gross at [bgross@isdh.in.gov](mailto:bgross@isdh.in.gov) or 317-233-7627.

#### References:

1. Centers for Disease Control and Prevention. *Viral Hepatitis*. Accessed at <http://www.cdc.gov/hepatitis/> on March 5, 2013.
2. Centers for Disease Control and Prevention, National Center for Health Statistics. *Underlying Cause of Death 1999–2010 on CDC WONDER Database*. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on March 4, 2013.
3. Centers for Disease Control and Prevention, National Center for Health Statistics. *Multiple Cause of Death 1999–2010 on CDC WONDER Database*. Accessed at <http://wonder.cdc.gov/mcd-icd10.html> on March 4, 2013.

## Colorectal Cancer in Indiana Adults

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Data Analyst/BRFSS Coordinator

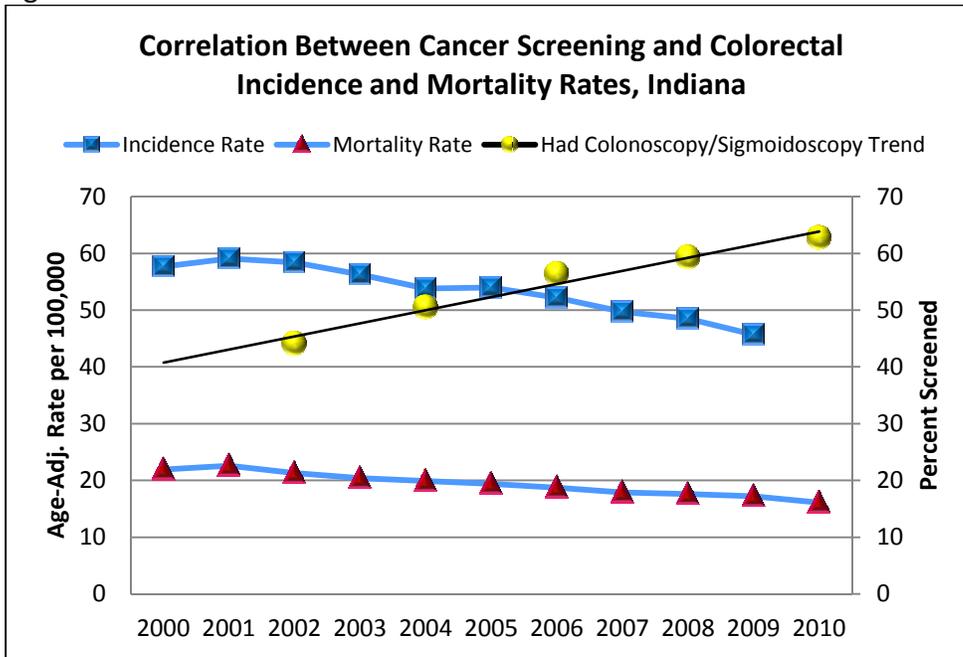
February was Colorectal Cancer Awareness Month. Cancer is the second leading cause of death in Indiana residents and colorectal cancer is the third leading cause of cancer death, accounting for approximately nine percent. Of the estimated 50,830 deaths from colorectal cancer expected to occur in the United States in 2013, screening/early detection tests could save more than half.

### Screening

Many health conditions and behaviors are not reportable; thus, prevalence data must be obtained from another source. The Behavioral Risk Factor Surveillance System (BRFSS) survey is an annual random-digit dial telephone survey of adults ages 18 years and older that is conducted through a cooperative agreement with the Centers for Disease Control and Prevention. All states and the District of Columbia participate. Information on colorectal cancer screenings of Indiana adults in this report was obtained from the 2010 BRFSS survey. Respondents ages 50 years and older were asked if they had cancer screenings to detect cancer of the colon and rectum. Additional questions gathered information to determine if the screenings were done as recommended. Overall, 62.8% reported they had ever had a sigmoidoscopy or colonoscopy and most adults reported having a colonoscopy than a sigmoidoscopy (93.7% vs. 6.3%, respectively). Approximately 16% (15.8) of adults reported having a fecal occult blood test within the past two years. For this article, screening will focus on the prevalence of adults ever having a sigmoidoscopy or colonoscopy.

The U.S. Preventive Service Task Force recommends colorectal screening for men and women ages 50-75 using high-sensitivity fecal occult blood testing (FOBT), sigmoidoscopy or colonoscopy. Screening reduces mortality by both decreasing incidence and by detecting cancer at earlier stages, which are more treatable (Figure 1). Ninety percent of colorectal cancer cases are diagnosed in those ages 50 years and older.

Figure 1.



The percent of adults who reported ever having a sigmoidoscopy or colonoscopy increased from 52.0% for those ages 50-59 to 71.3% of those ages 65 years and older. There were no differences by sex or between race (white and black, non-Hispanic). Those with less than a high school education were less likely than those with higher education to report ever having a sigmoidoscopy or colonoscopy (50.0% vs. 59.9%-70.6%).

Health insurance is a major factor in getting screened for colorectal cancer, especially for a sigmoidoscopy or colonoscopy. Indiana is one of 26 states with laws requiring private insurers to cover the full range of colorectal cancer screening tests for all individuals. Adults with health care coverage were more likely than those without to ever have a sigmoidoscopy or colonoscopy (65.1% vs. 37.7%, respectively).

### Incidence and Stage

According to the Indiana State Cancer Registry, 16,555 residents were diagnosed with colorectal cancer from 2005-2009 for an age-adjusted rate of 49.9 per 100,000. Black residents had a higher incidence rate than white residents (58.9 vs. 48.9, respectively), and males had a higher rate than females (58.3 vs. 43.6, respectively).

Comparing the age-adjusted incidence rates for 2001 and 2009, the decrease was significant for total white (58.5 to 45.0), white males (69.7 to 51.2) and white females (50.5 to 40.2), black total (70.6 to 52.3) and black males (88.3 to 60.3). The decrease for black females was not significant (59.6 to 46.8).

When colorectal cancer is detected at the local stage, the five-year survival is 90%; however, only 38% of Indiana residents were diagnosed at this stage in 2009. If the cancer is detected at the regional stage (involving nearby lymph nodes or organs), the five-year survival decreases to 70%. Approximately 31% of Indiana residents were diagnosed with their cancer at a regional stage. If the cancer is detected at the distant stage (spread to other parts of the body such as the lung or liver), the five-year survival rate is 12%. Approximately 20% were diagnosed with their cancer at the distant stage. Approximately 6% were diagnosed with an unknown stage.

## Mortality

According to the ISDH's annual mortality reports, age-adjusted mortality rate for colorectal cancer has decreased significantly when comparing 2000 (21.89) to 2010 (16.08). The number of deaths for that same time period decreased from 1,306 to 1,133. The following populations also had a significant decrease in the mortality rate when comparing 2000 to 2010: males (27.61 vs. 19.58), females (17.93 vs. 13.48), whites (21.66 vs. 15.68) and black (29.74 vs. 22.12).

In 2010, males had a significantly higher mortality rate than females and blacks had a higher rate than whites. Indiana's age-adjusted mortality rate (16.08) was similar to the nation's (15.8) in 2010.

## Symptoms

Screening is important since early colorectal cancer often has no symptoms. Medical advice should be sought for any of these symptoms:

- ▶ Bleeding from the rectum
- ▶ Blood in the stool or in the toilet after having a bowel movement
- ▶ Dark- or black-colored stools
- ▶ A change in the shape of the stool
- ▶ Cramping pain in the lower stomach
- ▶ A feeling of discomfort or an urge to have a bowel movement when there is no need to have one
- ▶ New onset of constipation or diarrhea that lasts for more than a few days
- ▶ Unintentional weight loss

## Lowering Your Risk

Some modifiable behaviors are associated with decreased risk of colorectal cancer:

- ▶ Regular physical activity (in 2011, 46.0% of Indiana adults ages 18 years and older reported they participated in at least 150 minutes of aerobic physical activity per week)
- ▶ Not being considered overweight or obese based on body mass index (BMI) (in 2011, 32.4% of adults ages 18 years and older had a normal BMI calculated from self-reported height and weight)
- ▶ Not smoking (in 2011, 74.4% of Indiana adults reported they were not current smokers)

## References:

1. American Cancer Society, Colorectal Cancer Facts & Figures 2011-2013, retrieved from <http://www.cancer.org/research/cancerfactsfigures/colorectalcancerfactsfigures/colorectal-cancer-facts-figures-2011-2013-page>
2. Cancer incidence from the Indiana State Cancer Registry Statistics Report Generator, accessed April 19, 2013.
3. Indiana State Department of Health, Indiana Mortality Reports
4. Indiana Behavioral Risk Factor Surveillance System, 2000-2010



# Training Room

## INDIANA STATE DEPARTMENT OF HEALTH IMMUNIZATION PROGRAM PRESENTS: *Immunizations from A to Z*

Immunization Health Educators offer this FREE, one-day educational course that includes:

- Principles of Vaccination
- Childhood and Adolescent Vaccine—Preventable Diseases
- Adult Immunizations—Pandemic Influenza
- General Recommendations on Immunization
  - Timing and Spacing
  - Indiana Immunization Requirements
  - Administration Recommendations
  - Contraindications and Precautions to Vaccination
- Safe and Effective Vaccine Administration
- Vaccine Storage and Handling
- Vaccine Misconceptions
- Reliable Resources

This course is designed for all immunization providers and staff. Training manual, materials and certificate of attendance are provided to all attendees. Please see the Training Calendar for presentations throughout Indiana. Registration is required. To attend, schedule/host a course in your area or for more information, please visit <http://www.in.gov/isdh/17193.htm>.

## ISDH Data Reports

The following data reports and the *Indiana Epidemiology Newsletter* are available on the ISDH webpage:

<http://www.IN.gov/isdh/>

<a href="#">HIV/STD/Viral Hepatitis Semi-Annual Report</a> (June 2007 - June 2012)	<a href="#">Indiana Mortality Report</a> (1999–2010)
<a href="#">Indiana Cancer Reports:</a> Incidence; Mortality; Facts & Figures	<a href="#">Indiana Linked Infant Birth/Death Report</a> (1999, 2002, 1990-2003)
<a href="#">Indiana Health Behavior Risk Factors Report</a> (1999–2010)	<a href="#">Indiana Natality Report</a> (1998–2010)
<a href="#">Indiana Health Behavior Risk Factors (BRFSS) Newsletter</a> (2003–2013)	<a href="#">Indiana Induced Termination of Pregnancy Report</a> (1998–2011)
<a href="#">Indiana Hospital Consumer Guide</a> (1996)	<a href="#">Indiana Marriage Report</a> (1995, 1997-2004)
<a href="#">Public Hospital Discharge Data</a> (1999–2011)	<a href="#">Indiana Infectious Disease Report</a> (1997-2009)
<a href="#">Assessment of Statewide Health Needs</a> (2007)	<a href="#">Indiana Maternal &amp; Child Health Outcomes &amp; Performance Measures</a> (1989-1998 through 1999–2008)

## HIV Disease Summary

*Information as of December 31, 2012\**

### **HIV - without AIDS:**

435	New HIV cases from November 1, 2011 thru October 31, 2012	12-month incidence	7.15 cases/100,000
4,888	Total HIV-positive, alive and without AIDS on October 31, 2012	Point prevalence	80.38 cases/100,000

### **AIDS cases:**

392	New AIDS cases from November 1, 2011 thru October 31, 2012	12-month incidence	6.44 cases/100,000
5,800	Total AIDS cases, alive on October 31, 2012	Point prevalence	95.38 cases/100,000
11,914	Total AIDS cases, cumulative (alive and dead) on October 31, 2012		

\*rates based on Indiana 2000 population

Reported cases of selected notifiable diseases				
Disease	Cases Reported in November-December MMWR Weeks 44-52		Cases Reported in January-December MMWR Weeks 1-52	
	2011	2012	2011	2012
Brucellosis	0	0	0	3
Campylobacteriosis	89	49	640	632
Chlamydia	5,517	28,987*	29,195	28,987*
Cryptococcus	3	5	36	36
Cryptosporidiosis	5	20	76	126
Dengue	0	0	3	1
<i>E. coli</i> , shiga toxin-producing	15	10	85	131
Giardiasis	42	30	320	249
Gonorrhea	1,284	7,207*	6,890	7,207*
<i>Haemophilus influenzae</i> , invasive	28	21	115	106
Hemolytic Uremic Syndrome (HUS)	1	1	13	11
Hepatitis A	7	1	24	13
Hepatitis B	12	12	70	89
Hepatitis C, acute	1	14	65	121
Histoplasmosis	23	38	126	169
Influenza Deaths (all ages)	0	8	24	11
Legionellosis	13	11	69	53
Listeriosis	0	0	11	10
Lyme Disease	5	1	81	62
Malaria	0	0	15	21
Measles (rubeola)	0	0	14	15
Meningococcal, invasive	5	3	24	9
Mumps	1	0	3	4
Pertussis	85	111	335	438
Rocky Mountain Spotted Fever	0	0	3	2
Rubella	0	0	0	1
Salmonellosis	63	65	617	771
Shigellosis	17	6	87	121
Severe <i>Staphylococcus aureus</i> in Previously Healthy Person	3	3	14	21
Group A Streptococcus, invasive	29	19	194	174
Group B, Streptococcus, Invasive (All ages)	64	62	335	377
<i>Streptococcus pneumoniae</i> (invasive, all ages)	170	164	799	719

Reported cases of selected notifiable diseases (cont.)				
Diseases	Cases Reported in November-December MMWR Weeks 44-52		Cases Reported in January-December MMWR Weeks 1-52	
	2011	2012	2011	2012
<i>Streptococcus pneumoniae</i> (invasive, drug resistant)	48	49	219	199
<i>Streptococcus pneumoniae</i> (invasive, <5 years of age)	8	11	40	38
Syphilis (Primary and Secondary)	30	221*	168	221*
Toxic Shock Syndrome, streptococcal (STSS)	0	3	8	17
Tuberculosis	20	24	100	102
Tularemia	0	0	0	4
Typhus/Rickettsial disease	0	0	1	1
Varicella	57	111	93	461
Vibriosis	0	0	2	6
West Nile Virus	0	0	11	1
Yersiniosis	0	3	10	10
Animal Rabies	1 (Bats)	0	33 (Bats)	8 (Bats)
Animal Bites*	New addition to report	861	New addition to report	6,703
<i>*Provisional aggregate data for 2012</i>				
<b>For information on reporting of communicable diseases in Indiana, call the ERC Surveillance and Investigation Division at 317.233.7125.</b>				

## Basic Epidemiology Terms

### cluster

an aggregation of cases over a particular period especially cancer & birth defects closely grouped in time and space regardless of whether the number is more than the expected number. (Often the expected number of cases is not known.)

### epidemic

large number of people over a wide geographic area affected

### pandemic

An epidemic occurring over a very wide area (several countries or continents) and usually affecting a large proportion of the population



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The *Indiana Epidemiology Newsletter* is published quarterly by the Indiana State Department of Health to provide epidemiologic information to Indiana health care professionals, public health officials and communities.

**FIND US ON THE WEB**



<http://www.in.gov/isdh/25154.htm>



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**Food Safety Progress Report for 2012**

Disease Agents	Percentage Change in 2012 compared with 2006-2008	2012 rate per 100,000 Population	2012 target rate per 100,000 Population	CDC estimates that...
<i>Campylobacter</i>	☹️ 14% increase	14.30	<b>8.5</b>	For every <i>Campylobacter</i> case reported, there are 30 cases not diagnosed
<i>Escherichia coli</i> O157	😐 No change	1.12	<b>0.6</b>	For every <i>E.coli</i> O157 case reported, there are 26 cases not diagnosed
<i>Listeria</i>	😊 No change	0.25	<b>0.2</b>	For every <i>Listeria</i> case reported, there are 2 cases not diagnosed.
<i>Salmonella</i>	😐 No change	16.42	<b>11.4</b>	For every <i>Salmonella</i> case reported, there are 29 cases not diagnosed
<i>Vibrio</i>	☹️ 43% increase	0.41	<b>0.2</b>	For every <i>Vibrio parahaemolyticus</i> case reported, there are 142 cases not diagnosed
<i>Yersinia</i>	😐 No change	0.33	<b>0.3</b>	For every <i>Yersinia</i> case reported, there are 123 cases not diagnosed

Preliminary FoodNet 2012 data provided by the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. For more information, see <http://www.cdc.gov/foodnet/>

**Social Media**

The Indiana State Health Department is on social media! Check out our social media pages for the latest health information, updates, event information and photos. Like us on Facebook at [www.facebook.com/ISDH1](http://www.facebook.com/ISDH1). Follow us on Twitter [@StateHealthIN](https://twitter.com/StateHealthIN). [Watch videos on YouTube.](#)