Illinois Department of PUBLIC HEALTH

Communicable Diseases in Illinois
July – September 2011

Pat Quinn, Governor

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October 31, 2011

A summary of incidence and information about infectious disease in the State of Illinois produced by the Communicable Disease Control Section of the Illinois Department of Public Health

Pat Piercy *retired from the Communicable Disease Section of the Illinois Department of Public Health after more than 20 years of dedicated service. We certainly wish him well in his retirement.*

The genus Listeria was named to honor Joseph Lister who pioneered the use of antiseptics.

Infectious Disease in Review

Listeriosis in Colorado Cantaloupes

Consumption of Cantaloupe under the Microscope

On September 2, 2011, the Colorado Department of Public Health and Environment notified CDC of seven cases of listeriosis reported since August 28. By September 6, 2011, all seven Colorado patients interviewed reported eating cantaloupe in the month before illness began, and three reported eating cantaloupe marketed as “Rocky Ford”. On September 14, 2011, FDA issued a press release announcing that Jensen Farms was issuing a voluntary recall of its Rocky Ford-brand cantaloupes after being linked to the outbreak. By October 11, 116 cases had been reported from 25 states. As of October 18, 2011, Illinois has only seen two cases with matching pulse field gel electrophoresis (PFGE) patterns to the outbreak. This outbreak includes multiple different PFGE patterns which have been found in both human and environmental samples. Cantaloupes are a novel source for a *Listeria monocytogenes* outbreak.

Listeriosis is caused by *Listeria monocytogenes*, a gram-positive bacillus common in the environment and acquired by humans primarily through consumption of contaminated food. The incubation period can be variable, but is longer than most foodborne pathogens with most cases occurring three weeks after exposure. Infection causes a spectrum of illness, ranging from febrile gastroenteritis to invasive disease, including sepsis and meningoencephalitis. Invasive listeriosis occurs predominantly in older adults and persons with impaired immune systems. Pregnant women may develop fever, chills, and back pain, but typically experience only a mild, flu-like illness. However, infections during pregnancy can lead to miscarriage, stillbirth, premature delivery, or life-threatening infection of the newborn.

The long incubation period for listeriosis can make obtaining food histories difficult, but is vital in determining the source of outbreaks. In Illinois, laboratories shall report to the local health authority patients from whom *Listeria monocytogenes* has been cultured from a normally sterile site or patients who have a positive result on any other laboratory test indicative of and specific for detecting *Listeria monocytogenes*. Laboratories shall forward all clinical materials from normally sterile sites that are positive for *Listeria monocytogenes* to the IDPH lab. At the IDPH laboratory PFGE patterns are determined on all submitted isolates and compared against a national database to determine if other cases match across the nation. Comparing isolates allows IDPH and CDC to quickly determine if an outbreak is occurring.

Escherichia was named for Theodor Escherich, who discovered it in 1885.

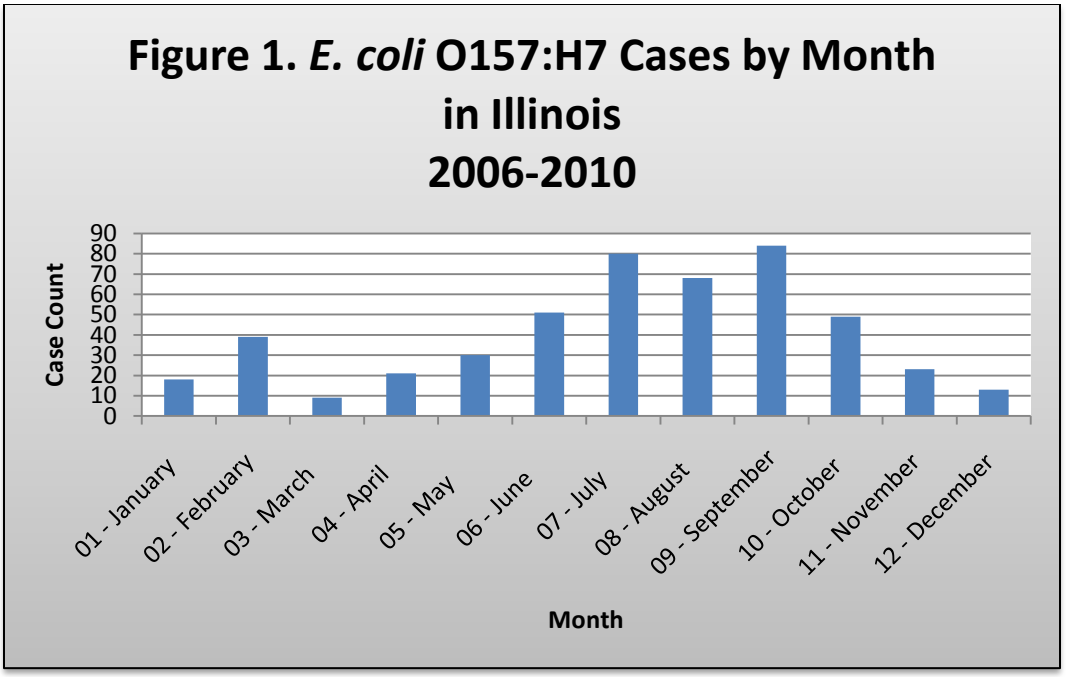
Shiga toxin-producing *E. coli* in Illinois 2006-2010

Basic E. coli Information

Escherichia coli are a large, diverse group of bacteria. While most strains of *E. coli* are harmless, some strains can cause mild to severe illness. One strain of diarrhea-causing *E. coli* is called Shiga toxin-producing *E. coli* (STEC) due to the bacterium's ability to cause disease by producing a toxin referred to as Shiga toxin. This strain was first identified in the United States in 1982 as a result of an outbreak caused by *E. coli* O157:H7. While *E. coli* O157:H7 is the most common STEC in the United States, there are other serogroups of STEC. These are usually referred to as non-O157 STEC.

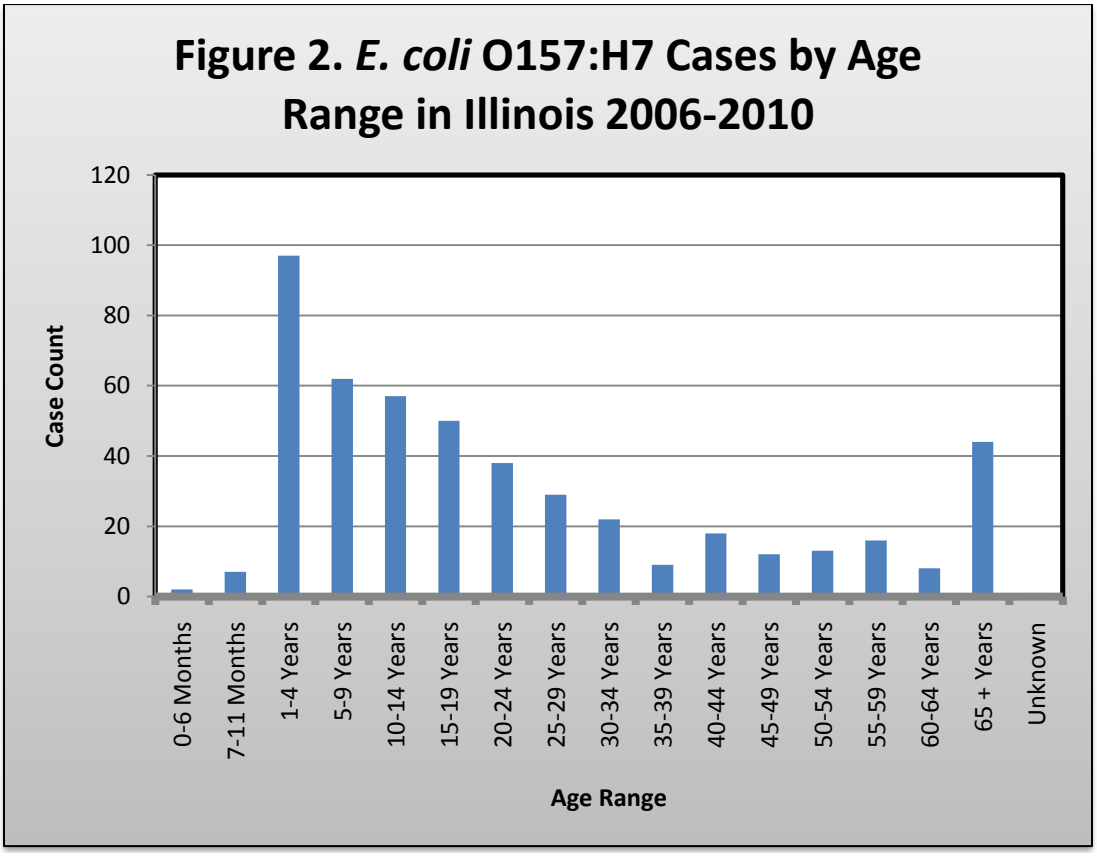
Outbreak investigations and the study of *E. coli* O157 infections has been the source of most of the known information about STEC. Outbreaks due to non-O157 STEC are rarely identified so little is known about non-O157 STEC. What is known is that non-O157 serotypes as a whole are less likely to cause severe illness compared to *E. coli* O157:H7. However, there are some serotypes, such as *E. coli* O104:H4 which was linked to the large outbreak in Germany during the summer of 2011, which are capable of causing severe illness and outbreaks of disease.

According to the Centers for Disease Control and Prevention, "an estimated 265,000 STEC infections occur each year in the United States". Within Illinois 485 confirmed cases of *E. coli* O157:H7 were reported during the past five years. The onset date for a majority of the confirmed cases (68.5%) occurred during the months of June through October (Figure 1).



Cases consisted of 52.6% females (n=255) and 47.4% males (n=230). A majority of the cases were under 35 years of age (75.1%), while 21.9 % of the total cases occurred in children under the age of 5 years (Figure 2). Between 2005 and 2010, there were 163 confirmed cases of non-O157 STEC in Illinois. The *E. coli* serogroups O103 (36 cases), O26 (32 cases), and O111 (23 cases) were the most common non-O157 STEC identified.

Figure 2. *E. coli* O157:H7 Cases by Age Range in Illinois 2006-2010



All suspect and confirmed STEC (*E. coli* O157 and *E. coli* non-O157) infections are reportable to the Illinois Department of Public Health and should be investigated. Once a suspect STEC case has been verified, it must be reported within 24 hours. A link to the CDC case definition can be found on the IDPH CD *Escherichia coli* intranet page. Isolates, broth, or other specimens positive for STEC should be sent to the IDPH laboratory in order to determine the *E. coli* serotype and for pulse field gel electrophoresis to be performed.

Electronic Laboratory Reporting (ELR) to the Illinois Department of Public Health (IDPH) Frequently Asked Questions (FAQ)

Warning: Technical Section Ahead

1. *Do hospital labs have to report using HL7 Version 2.5.1?*

   If a hospital is wanting to take advantage of Meaningful Use (MU) money from the federal government then yes, they would want to report using HL7 2.5.1. If a hospital is already set up to report using HL7 2.3X, IDPH is already set up and processing this version in production.

2. *Do hospitals have to report using Logical Observation Identifiers Names and Codes (LOINC)?*

   Yes, for disease routing IDPH needs LOINC codes in at least OBX 3, but it is also valid in OBR 4.

3. *Do hospitals need to use Specimen Specific LOINC codes for reporting?*

   Currently IDPH's electronic disease surveillance system, I-NEDSS, is only set up to pull the Specimen Source from the LOINC code. This is a modification that is currently being worked on and should be in the next release of I-NEDSS. This will then allow for more generic LOINC codes and the Specimen Source to be reported in either the OBR 15 field for HL7 2.3X or in the Specimen Segment in HL7 2.5.1.

4. *Do hospitals have to pay for the use of LOINC?*

   No, there is no cost for using LOINC and the Regenstrief Institute has tools to help with mapping local codes to LOINC codes. This can all be downloaded from the Institute at http://LOINC.org . The Centers for Disease Control (CDC) has also developed PHIN VADS that contain cross reference tables that can be used to get valid LOINC codes for reportable diseases. This can be found at http://phinvads.cdc.gov.

5. *Do hospitals have to use Systematized Nomenclature of Medicine (SNOMED) codes?*

   In Illinois we do require the use of SNOMED, but it is for only a small number of tests that this is required. SNOMED is needed for micro-organism testing to identify the organism being reported. There are also SNOMED codes for standard test results, such as positive, reactive, susceptible and negative; however, IDPH can accept some of these standard codes as local codes as long as they are sent in the proper format within the HL7 message.

HL7, or Health Level-7, is a set of flexible standards meant to facilitate the exchange of information between different electronic health systems.

LOINC is a standard to describe medical observations. In I-NEDSS, LOINC is used in laboratory test results.

SNOMED is a standardized medical terminology coding system. In I-NEDSS, it is most commonly used to identify organisms.

PHINMS, or Public Health Information Network Messaging System, sends and receives encrypted data over the Internet to facilitate communication between public health information systems.

ELR benefits include improvements in accuracy, timeliness and completeness of the data being reported to public health.

6. Do hospitals have to pay for SNOMED?

No, SNOMED was purchased by the National Library of Medicine (NLM) and there is no longer a cost for using this as long as it is used properly. The guidelines and downloads are available at http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html

7. How do the data get sent to IDPH?

There are two methods for sending data to IDPH. The state currently has PHINMS working but this type of message transport can be complicated to set up and requires the renewal of certificates every year. IDPH also can receive messages with a Secure File Transfer protocol. We have tested this with several different FTP clients and have been successful in implementing these. Each lab will need to apply for a user id and password to get established on IDPH's web portal. This is now being set up as a generic ID that is an FTP account only and is utilized for the state's immunization registry, ICARE, and ELR directories.

8. Are any labs currently in production in Illinois?

Yes. There have been electronic data feeds of laboratory reporting since late 2004 from some of the major reference labs throughout the US. There are currently 49 labs sending production data in an HL7 2.3X format and about 15 more testing with that version. There are also another 20 hospitals that are working on or testing using HL7 2.5.1, but no one is in production using this version as of October 2011.

9. How long does the process take?

This really depends on if the interface is custom-built in house or if the vendor software is one that has already been implemented by IDPH. The time estimate to map all tests to LOINC and SNOMED can vary depending on the number of tests performed by the lab. The length of time to get this done depends on the ability of the lab and vendor software to produce the required message because there are some data fields that IDPH would like to have along with all the required HL7 data elements. The state estimates a minimum of 20 weeks, but it can be longer.

10. What are the advantages of doing this?

There are important benefits in the accuracy, timeliness and completeness of the data being reported to public health. IDPH has observed considerable increases in the number of cases being reported since ELR was implementing. Hospital Infection Preventionists can leverage ELR data and significantly decrease the need for manual data entry. The IP can add information to the case after the ELR feed is imported into the I-NEDSS application, eliminating the need to complete, fax/mail and file paper reports. Data are routed in near real-time to the local health department jurisdiction based on the address data sent in the message.

The California encephalitis virus was named as such because it was discovered in Kern County, which is in the Central Valley of California in 1943.

California Encephalitis virus infection

California teemin' (with mosquitoes, that is)

A case of non-La Crosse California encephalitis (CE) virus infection was reported in a resident of Lee County with an onset in late July. This infection tends to occur in younger individuals. Symptoms include fever, headache and vomiting which can progress to meningitis or encephalitis. The virus is transmitted by the tree hole mosquito that transmits this virus is an aggressive daytime-biting mosquito that breeds in tree holes, tires and containers. In Illinois and other states CE virus cases in human cases have been correlated with the presence of water-filled artificial containers. The local health department's environmental health section visited the home of the case to do an inspection of the residence and neighborhood and to collect samples for mosquito identification. A 55-gallon drum was found with mosquito larvae. The mosquitoes turned out to be a mixture of different species or mosquito including the eastern tree hole mosquito, a vector for CE virus; *Culex salinarius* larvae and *Ocherotatus* sp. mosquitoes, both secondary vectors of West Nile Virus.

Although, there is no direct evidence that the mosquitoes did transmit the infection to the case, the presence of mosquitoes that are vectors of infection showed the possibility of transmission. Emphasis should be placed on removing or regularly changing water in artificial containers, like bird baths at least on a weekly basis. Old tires should also be removed and properly disposed.

Rheumatic Fever

Can Follow a Case of Strep Throat

Rheumatic Fever derives its name from rheumatism due to both conditions sharing the symptom of joint pain.

Rheumatic Fever is a rare "inflammatory" disease that most often follows an infection of the throat with the group A *streptococcus* bacteria. Although not totally understood, rheumatic fever is believed to be a complication of strep throat in persons whose infection was inadequately treated with antibiotics. Symptoms of rheumatic fever vary but may include fever, painful and tender joints, chest pain, and shortness of breath.

Because Rheumatic Fever can cause permanent damage to the heart, persons should be instructed to see their doctor if rheumatic fever is suspected. There are treatments available that can reduce tissue damage from inflammation. The only known method for prevention of rheumatic fever is to take all medications as prescribed by a doctor for treatment of strep throat.

Health care providers need to be aware that rheumatic fever is a reportable condition in Illinois.

Histoplasma capsulatum, the causative agent of histoplasmosis is a dimorphic fungus that is found in bat and bird droppings.

Histoplasmosis Heroics

Bravo! Bravo!

IDPH would like to thank Monica McDonald and her staff at OSF St. Joseph Medical Center in Bloomington for their quick work in identifying a cluster of occupational histoplasmosis cases. A very astute Emergency Department nurse noticed the hospital had admitted several individuals with respiratory illness who had a common exposure. Monica quickly pulled in public health resources and gathered essential information about each case. Without this notification the cluster may have gone unnoticed.

Epidemiology of Infectious Diseases

	2010					2011*			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Year	Jan-Mar	Apr-Jun	Jul-Sep	Qtr % change
Brucellosis	0	0	1	0	**1**	0	6	0	---
West Nile Virus Infection (WNV)	0	0	58	3	**61**	0	0	29	-50%
Cryptosporidiosis	46	49	189	50	**334**	30	47	96	-49%
Ehrlichiosis / Anaplasmosis	0	12	11	5	**28**	3	12	18	64%
Giardiasis	169	163	236	123	**691**	116	94	152	-36%
Hepatitis A	13	10	19	6	**48**	12	12	23	21%
Hep C Acute	0	0	0	1	**1**	0	0	0	---
Histoplasmosis	36	29	17	34	**116**	29	30	28	65%
Legionella	14	49	68	18	**149**	12	19	60	-12%
Listeriosis	5	3	11	7	**26**	5	5	15	36%
Lyme Disease	6	60	57	12	**135**	10	68	88	54%
Malaria	9	14	29	8	**60**	11	19	22	-24%
***Neisseria meningitidis*, Invasive**	7	10	2	5	**24**	10	6	6	200%
Q Fever	2	2	1	1	**6**	0	3	0	---
Rabies- positive animals	1	31	77	6	**115**	4	12	30	-61%
Rabies- potential human exposure	38	104	218	58	**418**	45	101	173	-21%
Rocky Mountain Spotted Fever	0	17	18	2	**37**	7	40	37	106%
Salmonellosis	275	650	670	387	**1982**	241	482	636	-5%
STEC O157:H7	8	19	34	19	**80**	7	25	60	76%
Shigellosis	473	122	145	101	**841**	54	37	104	-28%
***Streptoccocus*, Group A, invasive**	92	78	47	76	**293**	146	100	54	15%
Typhoid Fever	8	0	11	1	**20**	7	4	9	-18%
***Vibrio spp*. Non-cholera**	1	2	9	1	**13**	1	2	12	33%
Yersiniosis	7	6	2	7	**22**	3	4	1	-50%

OUTBREAKS^	**83**	**33**	**44**	**144**	**304**	**87**	**28**	**48**	9%
Foodborne Outbreaks	18	20	12	20	**70**	15	10	19	58%
Waterborne Outbreaks	0	0	5	0	**5**	1	0	1	-80%
Person-to-person Outbreaks	61	12	25	133	**231**	66	15	20	-20%

Not all reportable diseases are contained in this table.
*2011 data are provisional and subject to change.
#Change from the same quarter of the previous year.
^ Total number of outbreaks includes those with unknown mode of transmission.

IDPH Intranet users may find more on information on infectious diseases at

Communicable Disease Topics A - Z

The IDPH web site has information on public health matters including infectious diseases at

A - Z Topics List

In the next few months, the CD section will be placing the CD Topics A-Z from the current intranet to a new area in Sharepoint which is the current location of I-NE.DSS.

Highlights July to September 2011

- **Brucellosis –** There were no cases reported in the third quarter of 2011.
- **Cryptosporidiosis –** There were 96 cryptosporidiosis cases reported in the third quarter (July - 57, August – 24, and September - 15). Forty-nine percent were female. Cases ranged in age from one year to 90 years (mean = 26). Cases resided in 29 counties with Cook (19), Douglas (19) and Champaign (six) reporting the most cases. Eighteen percent were hospitalized. Two outbreaks were reported during this time period. One outbreak occurred in Douglas County with 22 cases reported. One was in Champaign County which was a continuation of a cluster associated with animal contact in previous months.
- ***Ehrlichia/Anaplasma* –** There were 18 cases of ehrlichioses reported in the third quarter of 2011. There were seven reported cases of anaplasmosis, and nine reported cases of *Ehrlichia chaffeensis* infection and two undetermined Ehrlichiosis/anaplasmosis. Twelve of the cases have onsets in July, two in August, and one in September. Seventy-two percent of the cases were males with an age range of four to 84 years and a median age of 54. Cases resided in the following counties: Winnebago (three), Cook (two), and one each in the counties of Adams, Alexander, Clark, Jackson, Johnson, Lawrence, Massac, Pike, Pulaski, Saline, Sangamon, Union, and Williamson.
- **Hepatitis A -** There were 23 cases reported in the third quarter (July-three, August-twelve, and September-eight). Eight cases were male and fifteen were female. Ages ranged from seven to ninety years of age (mean = 34 years). Cases occurred in the following jurisdictions: Adams (1), Bureau (2), Champaign-Urbana (2), Chicago (6), Cook (3), Du Page (2), Kane (1), Kankakee (1), Lake (1), LaSalle (1), Macoupin (1), Tazewell (1), and Will (1). Ten cases were hospitalized. No outbreaks occurred during the third quarter.
- **Giardiasis -** There were 152 cases reported in the third quarter (July - 59, August - 57, and September - 36). Sixty percent were male. Ages ranged from less than one year to 86 years (mean = 32). Cases resided in 32 counties. Counties reporting the most cases were Cook (44), Du Page (19) and Kane (14).
- **Histoplasmosis –** There were 28 histoplasmosis cases reported in the third quarter (July - 6, August – 13, and September - 9). Five were confirmed by culture and the rest were probable cases. Seventy-five percent were male. Ages ranged from six to 89 years (mean = 47 years). Cases resided in 12 counties. The two counties reporting the most cases were Cook (11) and Mclean (six). Seventy-four percent were hospitalized. No fatalities were reported. One outbreak occurring from an exposure in Peoria County was reported with most of the cases residing in McLean County.
- **Legionellosis -** There were 60 confirmed cases of legionellosis during the third quarter. Jurisdictions with more than one case include Boone (2), Chicago (14), Cook (12), Du Page (5), Kane (5), Lake (4), McHenry (3), St. Clair (3), and Winnebago (7). Nineteen cases were female and forty-one were male, with ages ranging from 36 to 91 years. Cases had onsets in July (12), August (34), and September (14). Most cases were

serogroup 1 (59) except for one that was not further specified. None of these cases were known to be associated with an outbreak.

- **Listeriosis –** There were 15 confirmed cases of listeriosis reported in the third quarter (July 5, August – 7, and September – 3). Cases resided in seven counties. Counties with multiple cases included Cook (8) and Du Page (2). Ten cases were female, while the rest were male. Eleven of the 15 cases were analyzed by PFGE testing, and each case had a unique pattern. One case matched an outbreak linked to cantaloupes from Colorado.
- **Lyme -** Eighty-eight cases of Lyme disease were reported in residents of Illinois in the third quarter. Onsets of illness were in July (56), August (29), and September (3). Twenty-nine cases were female, while 59 were male. Ages ranged from two years to 79 years (median = 40 years), with cases residing in 20 counties. Counties with affected residents included Boone (two), Bureau (one), Cook (32), Du Page (14), Grundy (2), Kane (2), Knox (one), Lake (10), La Salle (one), Lee (one), McHenry (six), Montgomery (one), Ogle (2), Peoria (2), Rock Island (one), Stephenson (one), Tazewell (2), Vermilion (one), Will (three), and Winnebago (two). The probable sites of tick exposure for 49 cases were out-of-state with 31 of those exposures taking place in Wisconsin, five in Michigan, two each in Iowa, New York, and Utah; and one each for Colorado, Indiana, Minnesota, Missouri, Montana, and Washington states. One case with out-of-state exposure had multiple travels. Twenty-four cases had tick exposures within Illinois. This included 21 cases with exposures in the northern region of the state: McHenry (three), Cook (five), Du Page (two), Grundy (one), Bureau (one), Fulton (one), Jo Daviess (one), Lake (two), La Salle (two), Lee (one), and Ogle (one). Four cases reported exposures in the central Illinois region: Peoria (two) and Vermilion (two). One case with Illinois exposure has unknown county of exposure.
- **Malaria –** There were 22 cases of malaria reported in Illinois for the third quarter for 2011. The age range was 0 to 75 years with a median of 39. Fifty percent are males. The cases resided in the counties of Cook (ten), Du Page (four), Kane (one), Lake (two), Mclean (one), Sangamon (one), and Will (three). Nine of the cases had onsets in July, six in August, and seven in September. Seventy-seven percent of the cases reported out of the country travel exposures within the incubation period three have unknown possible exposures and eight still under investigation. The known out of the country travel were to the countries of India (one), Ghana (two), Nigeria (four), Republic of Congo (one), Pakistan (three), Sierra Leone (one), and Togo (one).
- ***N. meningitidis* –** Six cases of invasive meningococcal disease were reported in the third quarter (July - 3, August - 2, and September - 1). Four cases were female, while two were male. Ages ranged from seven to 85 years. Cases resided in five counties (Cook, Lee, Madison, Washington and Winnebago). Five patients were admitted to the hospital, but no fatalities were reported. Serogroups of cases were Group B (1), Group C (1), Group Y (2) and unknown (2).
- **Q Fever –** There were no cases reported in the third quarter of 2011.
- **Rabies, Potential Human Exposure -** There were 173 potential human rabies exposures reported for the third quarter (July - 51, August - 95, and

September - 28). Ages ranged from less than one year to 90 years of age. Fifty-four percent of the exposed persons were male. Of the 173 exposed persons, 155 (90 percent) started on rabies PEP. Eighty-three percent of the exposing animals were wild animals. Exposing animals included bats (126), dogs (20), raccoons (12), cats (eight) and other or unknown type (seven). Exposed persons resided in 34 counties. Counties reporting the most exposures included Cook (22), Du Page (17), Rock Island (12), Will (11), Winnebago (11) and McHenry (10).

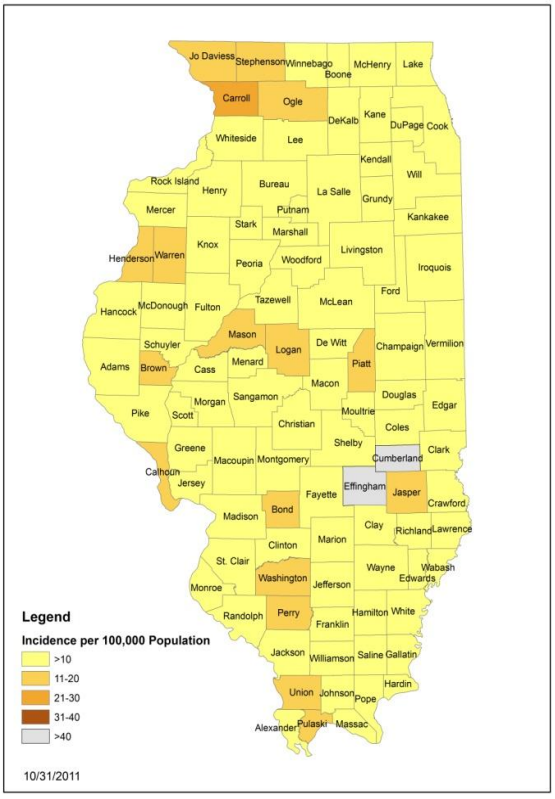
- **Rocky Mountain Spotted Fever –** Thirty-seven cases of RMSF were reported in the third quarter of 2011. Fifteen were female and 22 were male. Cases ranged in age from 16 years to 88 years (median age = 49 years). Onsets of illness occurred in July (18), August (11) and September (eight). Cases resided in 18 counties: Adams (one), Bureau (one), Calhoun (three), Cook (one), Hardin (three), Jackson (two), Johnson (four), Marion (one), Massac (two), Monroe (one), Montgomery (one), Pope (two), Saline (two), St. Clair (one), Union (one), and Williamson (seven).
- **Salmonellosis –** There were 636 Salmonella cases reported in the third quarter (July - 246 cases, August – 207, and September - 183). Forty-nine percent were male. Ages ranged from less than one year to 94 years (mean = 35). Thirty-nine percent were hospitalized and one case was reported to be fatal. There were 76 serotypes reported in the third quarter. The four most common serotypes were Newport (127), Typhimurium (96), Enteritidis (85) and I 4,5,12,i:- (26). Cases resided in 76 counties. The counties reporting the most cases were Cook (252), DuPage (30), Kane (37), Will (35) and Madison (22).
- **Shigellosis –** There were 104 cases reported in the third quarter (July - 31, August – 37, and September - 34). All but one case were confirmed. Ages ranged from one to 85 years (mean = 28 years). Fifty cases (48 percent) were male. Cases resided in 12 counties with the highest numbers of cases reported from Cook (62), Will (eight), Du Page (seven) and Lake (seven).Thirty-five percent of cases were hospitalized. No fatalities were reported. The species of *Shigella* reported were Sonnei, Flexneri and Boydii. The most common species reported was Sonnei (74 cases), followed by Flexneri (19 cases). Two small outbreaks were reported in this quarter, one in Calhoun and one in Cook County. One was due to *S. sonnei* and one due to *S. boydii* 4.
- **Typhoid fever -** Nine cases were reported in the third quarter (July - 3, August – 3, and September - 3). Cases resided in Cook (six), Champaign (two), and Will (one) counties. Seven were male and two were female. Cases ranged in age from two to 15 years of age, with one age unknown. Six cases were hospitalized. Prior to onset of illness, cases had traveled to India (five), Ghana (one), Mexico (one), Peru (one), and unknown travel history (one).**–** Twelve cases of *Vibrio* were reported in the third quarter of 2011. Case resided in Cook County (7), Du Page (3), Madison (1), and McLean (1). Most of the cases were diagnosed with *V. parahaemolyticus* (7), while other cases were diagnosed with *V. vulnificus* (1) and *V. cholera* non-toxigenic O1 or O139 (1). Three cases did not have serogroup testing completed. Ten cases (83%) were male and 2 cases were female. Ages ranged from 10 to 94 years. Nine cases

reported consumption of oysters prior to onset.

- **West Nile Virus –** There were 29 cases of West Nile Virus infection reported in the third quarter of 2011. Onsets of illness were July (two), August (seven), and September (11). Ages of cases ranged from nine to 88 years with a median of 60 years. Sixty-six percent (19) of the cases are male and ten were female. Cases resided in nine counties: Cook (18), Marion (three), Du Page (two), and one each for Coles, Franklin, McHenry, Rock Island, Will, and Winnebago counties. Seven blood donors were reported as positive for WNV to IDPH, two were reported to have symptoms and are included in the case counts. Three cases diagnosed with WNV died in the third quarter of 2011.
- ***Yersinia* -** There was one case reported in the third quarter.
- ***E. coli* O157:H7 –** There were 60 Shiga toxin-producing *E. coli* O157:H7 cases reported in the third quarter (July-28 cases, Aug-17 and Sept-15). Thirty-seven percent were male. Ages ranged from less than one year to 86 years (mean = 20). Forty-three percent were hospitalized. Cases resided in 28 counties. The counties reporting the most cases were Cook (10), Will (6), Lake (4), and Winnebago (4). Twenty-five confirmed cases of Shiga toxin-producing *E. coli* that were not the O157 serotype were reported during this timeframe. The serotypes included O26 (11), O103 (6), O45 (3), O111 (2), O121 (2), and O rough (1).

E. coli O157:H7 has a presence throughout the state. The map at right shows the incidence for each county in Illinois from 2006 to 2010.

Illinois *E. coli* O157:H7 Incidence Rates 2006-2010



Questions or comments about this newsletter may be sent to

CD Newsletter Comments

- **Reported Outbreaks** - The provisional count of outbreaks in Illinois for the third quarter of 2011 is 48.

  - **Foodborne Outbreaks -** Eighteen confirmed or suspect foodborne outbreaks were reported in the 3rd quarter. Seven outbreaks began in July, one in August and 11 in September. Single jurisdiction outbreaks were reported in 11 jurisdictions, including Calhoun (1), Champaign (1), Chicago (4), Cook (2), DeKalb (1), Kane (1), Lake (2), Livingston (1), McLean (1), Montgomery (1), St. Clair (1), and Stephenson (1) County. The suspect or confirmed etiologies of the outbreaks were norovirus (8), *Salmonella* (3), *Shigella* (1) and unknown (5). Two multi-state outbreak investigations began during this time period, including the *Listeria monocytogenes* outbreak linked to cantaloupe and a *Salmonella* ser. Newport outbreak.

  - **Person-to-person Outbreaks -** There were 25 non-foodborne non-waterborne outbreaks reported in the second quarter. Twenty of the outbreaks were person-to-person, one transmission was through inhalation, and four have unknown mode of transmission. Of the 20 person-to-person outbreaks, nine were laboratory confirmed. Person-to-person outbreaks occurred in the following counties: Boone (1), Christian (1), Cook (1), DeKalb (1), Du Page (3), Jersey (1), Kane (1), LaSalle (1), McHenry (1), Shelby (1), and St. Clair (1). There were three confirmed and two suspect norovirus outbreaks, four confirmed and four suspect MRSA outbreaks, one confirmed and two suspect scabies outbreak, one confirmed *Shigella* outbreak, one suspected group B *Streptococcus* outbreak, one suspected hand, food, and mouth disease outbreak, and one unknown. Four of the person-to-person outbreaks occurred in long-term care, assisted or supportive living facilities, four occurred in a hospital, four in a prison, one occurred in a facility for developmentally disabled facility, two in occurred in restaurants, three in school or daycare facilities, and two were classified as "other." Nine of the outbreaks occurred in July, five in August, and six in September.

  - **Waterborne Outbreaks –** There was one waterborne outbreak which was associated with cryptosporidiosis reported during the third quarter of 2011.

  - **Outbreaks with other transmission mode** – Of the eight outbreaks with different transmission modes, one was associated with inhalation histoplasmosis exposure, one with *Brucella* exposure, one with adenovirus type 21 infection, one with *Legionella* infection, and several associated with norovirus.