Illinois Department of PUBLIC HEALTH

Pat Quinn, Governor
Damon T. Arnold, M.D., M.P.H., Director

525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • www.idph.state.il.us

MEMORANDUM

TO: Local Health Departments, Regional Offices of the Illinois Department of Public Health (IDPH), Infection Control Professionals, Infectious Disease Physicians, Hospital Laboratory Professionals

FROM: Communicable Disease Control Section

DATE: May 4, 2011

SUBJECT: **Communicable Diseases in Illinois January - March 2011**

Infectious Disease in Review

2010 Case Reporting in the Homestretch

CDC Deadline for Final 2010 Case Counts Rapidly Approaching

The Communicable Disease Control Section is in the process of finalizing 2010 case counts with the Centers for Disease Control and Prevention. Local health departments should close all cases on or by May 2nd, 2011. If you work at an LHD, please do not retract or add any 2010 cases after that date. If there is a case from 2010 that needs modification after May 2nd, please contact the IDPH CD staff. Your cooperation is greatly appreciated.

Getting Back to Normal (, Illinois)

2011 Illinois Immunization and Communicable Disease Conference - August 8-9

Due to popular demand, the annual Immunization and Communicable Disease Conference is being held once again this summer. This yearly conference is sponsored by the Illinois Department of Public Health and the Illinois Public Health Association. In a departure from previous years, this year's conference will take place at the Marriott Hotel & Conference Center in Normal, Illinois. Details will be coming soon on the Illinois Public Health Association website, www.ipha.com.

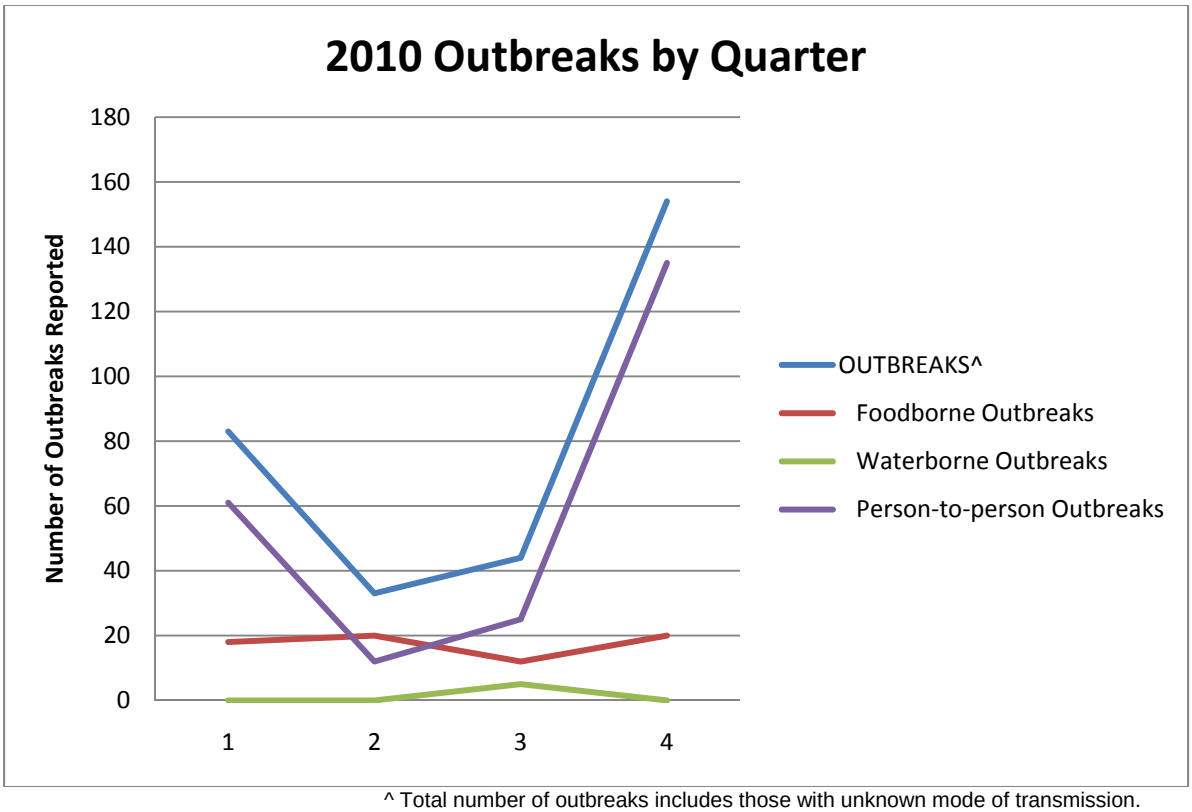
A Minor Change

Immunization Section Assumes New Surveillance Responsibilities

As of April 15, the Immunization Section of the Division of Infectious Diseases is now managing the surveillance of *H. Influenzae* Invasive Disease and *Streptoccocus pneumoniae* (Drug Resistant and Non Drug Resistant) Invasive Disease cases. Cases of these diseases should continue to be entered into I-NEDSS, but questions should be directed to the Immunization Section.

Break Out Data for 2010 Outbreaks

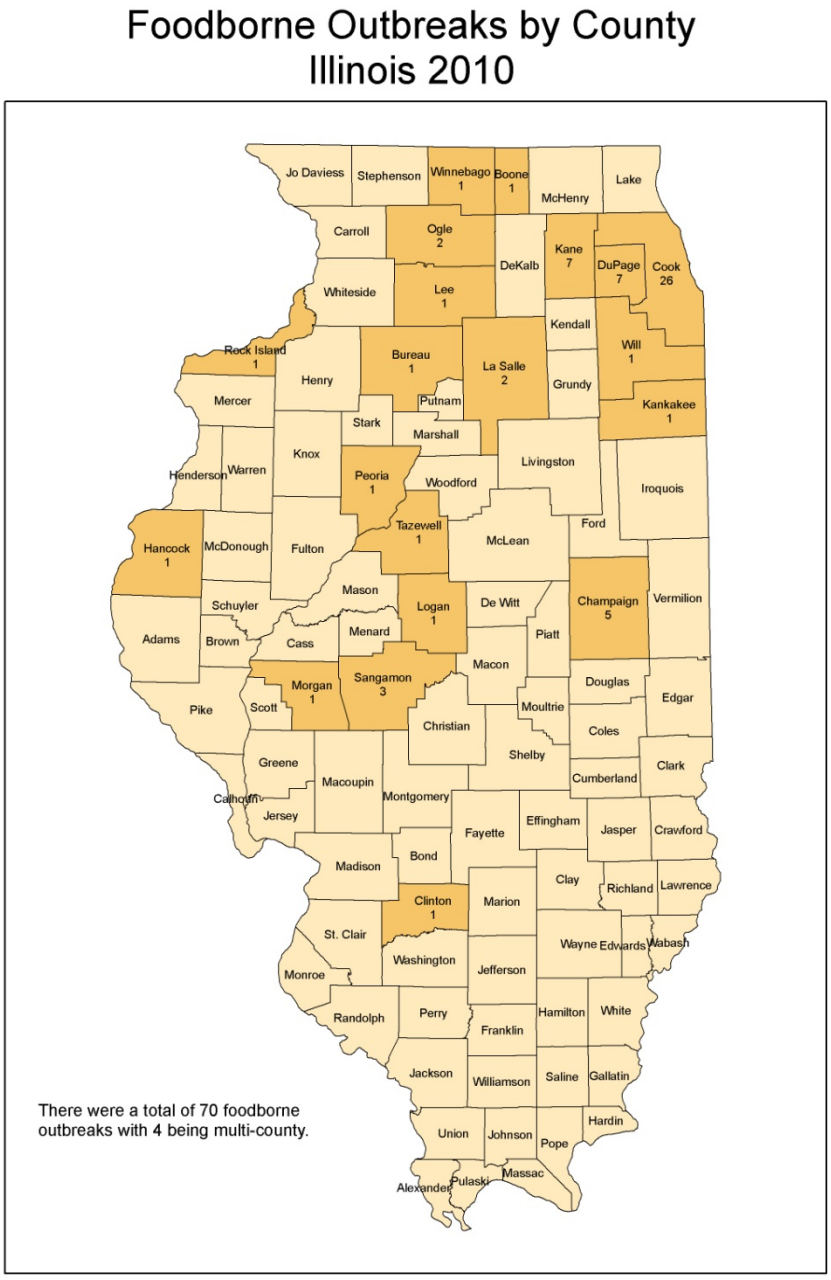
A Summary of 2010 Outbreaks



^ Total number of outbreaks includes those with unknown mode of transmission.

Summary of Waterborne Outbreaks in Illinois, 2010

- 5 recreational water outbreaks (58 cases with six hospitalizations and no fatalities) occurred in Illinois in 2010
- The etiology was confirmed as cryptosporidiosis in all five outbreaks.
- The recreational water outbreaks were reported from Jersey (one), Lake (one), Madison (one) and St Clair (two) counties.
- The recreational water outbreaks occurred in July (two) and August (three).



Summary of Foodborne Outbreaks in Illinois, 2010

- 70 foodborne outbreaks (1,409 cases with 100 hospitalizations and one fatality) occurred in Illinois in 2010. Note outbreaks linked to beverages including water are included in the foodborne numbers.
- Foodborne outbreaks reported during 2010 were from the following 22 Illinois counties: Cook (26), DuPage (seven), Kane (seven), Champaign (five), Sangamon (three); two each for the counties of LaSalle and Ogle; and one each for the counties of Boone, Bureau, Clinton, Hancock, Kankakee, Lee, Logan,

McHenry, Morgan, Peoria, Rock Island, Tazewell, Will and Winnebago counties; there were four multi-county or multi-state foodborne outbreaks recorded.

- The foodborne outbreaks occurred in all months of the year.
- The etiology was confirmed in 36 foodborne outbreaks.
    - In 38 percent of the 70 foodborne outbreaks reported, the etiologic agent was suspected or confirmed to be due to bacterial agents (infection or intoxication).
    - The bacterial pathogens were as follows: *Salmonella* spp. (12 outbreaks), shiga toxin producing *E. coli* (two), *S. aureus* (eight), *Shigella* (two), some type of toxin (two) and *Campylobacter* (one).
    - The etiologic agent in 47 percent of the 70 foodborne outbreaks was suspected or confirmed to be caused by viruses. All were suspected or confirmed to be due to norovirus infection. The IDPH laboratories were able to confirm 48 percent of these outbreaks as norovirus.
    - One outbreak was caused by a chemical agent.
    - Although investigations were conducted, there was inconclusive evidence to classify either suspect or confirm etiologic agents in nine (13 percent) of the foodborne outbreaks and they were thus classified as etiology unknown.
- Food handlers were laboratory tested in 26 percent of the 70 foodborne outbreaks. In 13 outbreaks food handlers were found to be positive for the etiologic agent implicated in the outbreak. Food handlers tested positive in outbreaks caused by the following pathogens: norovirus (seven), *Salmonella* (five) and *Shigella* (one).
- Through epidemiology, supportive information or food testing, food or water items were implicated in 21 outbreaks. Food implicated in outbreaks included produce (seven, 33 percent), complex foods (three, 14 percent), meat and poultry (two, 9 percent), dairy (one, 5 percent), non-dairy drinks (one, 5 percent) and multiple (five, 24 percent). The food or drink causing illness in 49 foodborne outbreaks was unknown.
- The site of food preparation in 70 foodborne outbreaks were: restaurant (61 percent); caterer (6 percent), banquet hall (10 percent); private home (6 percent); bakery (4 percent), multiple (4 percent) and one each for a camp, convenience store, grocery, church, dairy farm and unknown site.
- In 30 percent of the foodborne and drinking water outbreaks, contributing factors were known. Multiple contaminating factors may have been identified in an outbreak. The most common two contributing factors were handling of food by an ill or laboratory positive food handler (48 percent) and barehanded contact with food (29 percent), glove handed contact with food by food handler (9 percent), food handler ill at same time as patrons (9 percent), contaminated commercial product (9 percent) and contaminated raw product (9 percent). Other contributing factors mentioned in one outbreak report each included undercooking, inadequate holding temperatures and ill attendees. No contributing factors were reported by outbreak reporters in 70 percent of outbreaks.

Foodborne Outbreaks of interest during 2010

- An outbreak of *Campylobacter* occurred in residents of three Midwestern states including Illinois in March after consumption of raw milk.
- An Illinois resident developed *E. coli* O157:H7 after consumption of bison meat. This case was part of a multi-state outbreak of disease associated with bison meat.
- Two large outbreaks of *Salmonella* associated with multiple restaurants within restaurant chains occurred in Illinois in 2010. The serotypes involved were Hvittingfoss and I 4,5,12,i:-. Produce items were suspected as the source in both outbreaks.
- A large outbreak of *Shigella sonnei* occurred in individuals who ate food from a single sandwich chain restaurant in DuPage County.
- Four outbreaks of *S. aureus* occurred after consumption of bakery items from a single bakery in Cook County. Three outbreaks occurred in Illinois and one in Wisconsin. Food handlers had barehanded contact with bakery items.
- Three cases of chemical esophagitis occurred after consumption of water contaminated with sodium hydroxide in Cook County.

<u>Non-Foodborne, Non-Waterborne Outbreaks in Illinois, 2010</u>

- There were 241 outbreaks with 7,881 persons affected counted in the state as non-foodborne non-waterborne (NFNW). There were 210 persons hospitalized and six fatalities reported. The mode of transmission was person-person (232), animal contact (four), other (two) and unknown (three). The suspected or confirmed pathogens included viral (81 percent), bacterial (13 percent), other (3 percent) and unknown (3 percent). Outbreaks occurred at the following sites: long term care facilities (78), schools (67), assisted living facilities (20), other senior facilities (21), day care facilities (18), hospitals (10) and correctional facilities (nine). NFNW outbreaks occurred in 50 Illinois counties. The five counties reporting the most outbreaks included Cook (50), DuPage (21), Kane (20), Sangamon (18) and Madison (16). NFNW outbreaks increased in the winter months, consistent with the increase in the most common pathogen implicated, norovirus. The bacterial pathogens included MRSA, *Salmonella*, *Streptococcus*, Group A, *Shigella*, KPC, *C. burnetti*, *N. meningitidis*, *C. difficile* and *Acinetobacter*. The most common viral pathogen implicated was norovirus and 76 of these outbreaks were confirmed as norovirus with 117 suspected to be norovirus. Overall, there were 87 norovirus outbreaks with genotyping available; 75 were genotype 2 and 11 were genotype 1 and one outbreak was a mixed genotype 1 and 2 outbreak. See more complete summary on the IDPH Intranet, Infectious Disease, communicable disease, NEWS page.

NON FOODBORNE NON WATERBORNE OUTBREAKS, CASES, AND DEATHS BY ETIOLOGY IN ILLINOIS, 2010

Etiology[#]	Outbreaks Count	%	Cases Count	%	Deaths Count	%
Bacterial						
Acinetobacter	1		18		0	---
C. difficile	1		3		0	
C. burnetti	1		1 (Illinois resident)		0	
K. pneumoniae (KPC)	1		3		0	
MRSA	18		41		0	
N. meningitidis	1		2		0	
Shigella	2		15		0	
Salmonella	4		12		0	
Streptococcus, Group A	2		84		0	
Total Bacterial*	**31**		**179**		**0**	
Fungal						
Ringworm	1		3		0	
Total Fungal	**1**		**3**		**0**	
Viral						
Herpes simplex type 1	2		10		0	
Norovirus	193		7403		6	
Total Viral	**195**		**7413**		**6**	
Parasites						
Cryptosporidiosis	2		8		0	
Scabies	2		15		0	
Total Parasites	**4**		**23**		**0**	
Multiple						
Norovirus and GAS	1		67		0	
Total Multiple	**2**		**97**		0	
Unknown etiology	**8**		**168**		**0**	
Total 2010	**241**		**7883**		**6**	

[#]Confirmed and suspected etiologies

Don’t Let Rabies Drive You Batty

What is Rabies, potential human exposure?

Rabies, Potential human exposure is reportable in Illinois. Persons who are started on rabies post-exposure prophylaxis (PEP) should be reported. In addition, all persons exposed to any bat (either a bite or non-bite exposure) should be reported to the local health department. Anyone bitten by a wild animal excluding small rodents and rabbits should be reported to local public health authorities. Animal bites of any kind are reportable to the local animal control. The purpose of this reporting is to facilitate

communication between health care providers and public health authorities to correctly determine if rabies PEP is needed for any particular exposure.

Tips: Bites from small rodents, rabbits and opossums rarely if ever require rabies PEP. No rabies PEP is recommended for provoked bites from healthy dogs, cats and ferrets. These animals should be confined for 10 days under the supervision of local animal control authorities if possible. Persons who awaken to a bat in a room and it cannot be tested negative are recommended for rabies PEP if they are not sure if they were bitten while asleep. Persons are not recommended for rabies PEP if they are awake and a bat is in the room and they are not bitten.

Epidemiology of Infectious Diseases

	Provisional 2010*					2011*	
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Year	Jan-Mar	Quarter % change#
West Nile Virus Infection (WNV)	0	0	58	3	**61**	0	---
Cryptosporidiosis	46	49	189	50	**334**	27	-41%
Giardiasis	169	162	236	122	**689**	97	-43%
Ehrlichiosis / Anaplasmosis	0	12	11	5	**28**	3	---
***H. Influenzae* Invasive**	37	55	37	44	**173**	42	14%
Histoplasmosis	31	28	17	34	**110**	22	-29%
Listeriosis	5	3	11	7	**26**	5	0%
Lyme Disease	6	60	57	12	**135**	6	0%
***Neisseria meningitidis*, Invasive**	7	10	2	5	**24**	10	43%
Q Fever	2	2	1	1	**6**	0	---
Rocky Mountain Spotted Fever	0	17	18	2	**37**	4	---
Salmonellosis	275	649	670	387	**1981**	233	-15%
Typhoid Fever	8	0	11	1	**20**	7	-13%
Yersiniosis	7	6	2	7	**22**	3	-57%
Brucellosis	0	0	1	0	**1**	0	---
Hepatitis A	13	10	19	6	**48**	7	-46%
Hep C Acute	0	0	0	1	**1**	4	---
Legionellosis	14	49	68	18	**149**	9	-36%
Malaria	8	14	28	8	**58**	9	13%
Rabies- positive animals	1	31	77	6	**115**	4	300%
Rabies- potential human exposure	38	104	218	57	**417**	29	-24%
STEC O157:H7	8	19	34	19	**80**	8	0%
Shigellosis	473	122	145	101	**841**	54	-89%
***Streptoccocus*,Group A, invasive**	92	78	47	76	**293**	117	27%
***Vibrio spp*. Non-cholera**	0	2	9	1	**12**	1	---

OUTBREAKS^	**83**	**33**	**44**	**154**	**314**	**84**	1%
Foodborne Outbreaks	18	20	12	20	**70**	13	-28%
Waterborne Outbreaks	0	0	5	0	**5**	1	---
Person-to-person Outbreaks	61	12	25	135	**233**	64	5%

Not all reportable diseases are contained in this table.
*2010 and 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.

Highlights January to March 2011

- **Brucellosis –** There were no cases reported in the first quarter of 2011.
- **Cryptosporidiosis –** There were 27 cryptosporidiosis cases reported in the first quarter. All but two cases were probable. Case onsets were reported in January (10), February (6) and March (11). Cases resided in 13 counties. Counties with multiple cases included Cook, Jersey, Macon, Marion and Peoria. Ages ranged in age from one to 82 (mean = 38 years). Forty-six percent of cases were hospitalized. Only two cases were confirmed cases due to the new case definition. No outbreaks were identified.
- ***Ehrlichia/Anaplasma* –** The three *Ehrlichia* / *Anaplasma* cases were from Cook and St. Clair Counties with age range of 20-36 years, one is female and two are males. Two of the cases had onsets in February and one case had an onset in March.
- ***Streptoccocus*, Group A, invasive –** There were 3 cases of this diagnosis with necrotizing fasciitis (NF), and 1 of those also had streptococcal toxic shock syndrome (STSS). There were 15 cases of STSS without NF. Of the remaining cases of invasive group A strep, 16 were from Chicago, 17 from elsewhere in Cook Co. and 7 each were from Du Page and Will counties.
- ***H. influenzae* –** Cases were reported in January (14), February (15) and March (13). Ages ranged from less than one year to 97 (mean = 59 years). There were 27 females and 15 males. Forty cases were hospitalized and three were fatal. Cases resided in 19 counties. Counties with multiple cases included Cook (15), Sangamon (four), DuPage (three), Lake (three) and McLean (three). Serotypes included not typable (17), type e (six), type f (four), type b (three), type a (one). For 11 isolates, no serotype was available. After this quarterly report, responsibility for *H. influenzae* surveillance will shift from IDPH Communicable Disease to IDPH Immunization section.
- **Hepatitis A –** Only Du Page County, with 2, had multiple cases.
- **Histoplasmosis –** There were 22 histoplasmosis cases reported in the first quarter. Eight were confirmed and 14 were probable cases. Seventy-three percent were male. Ages ranged from 16 to 83 years (mean = 47 years). Cases resided in ten counties. Counties with multiple cases included Cook, Sangamon and Vermilion. Fifteen cases were hospitalized. No outbreaks were identified.
- **Legionellosis –** There were 9 confirmed cases, with 3 cases from Chicago, 2 others from elsewhere in Cook Co.; Champaign, with 2, was the only other county with more than one case.
- ***Listeria* -** There were five cases of *Listeria monocytogenes* in the first quarter. Ages ranged from infant to 81 years, three of the cases were female and two were male. Cases resided in Cook (3), Lake and Du Page Counties. Onsets occurred in January, February and March (3).
- **Lyme -** There were six cases of Lyme disease with onset in the first quarter of 2011. The cases composed of two females and four males (67%), with age ranging from 37 to 82. The cases reside in Cook (3), Macon (1), Mason (1), and Peoria (1).

- **Malaria –** Nine malaria cases were reported in Illinois in the first quarter. Five (56%) of the cases are females. The age range for the cases is 15-48 with a median age of 32. The cases reside in Cook (6), Kane (2), and McHenry (1) counties. There were five onset of symptoms in January, and two each in February and March.
- ***N. meningitidis* –** Ten cases of *N. meningitidis* were reported in the first quarter of 2011. Six were male and four were female. Ages ranged from one year to 71 years (mean = 8 years). Cases resided in six counties (Cook, Du Page, Kane, Tazewell, Will and Winnebago). Counties with multiple cases included Cook with four cases and Winnebago with two cases. Eight cases were hospitalized and one fatality occurred. Serogroups reported were Group B (two), Group C (two), Group W 135 (one) and Group Y (three). Serogroup was unknown for two cases.
- **Rocky Mountain Spotted Fever –** There were four cases of Rocky Mountain Spotted Fever in Illinois in the first quarter of 2011. Cases reside in the counties of Hardin, Jackson, Randolph, and St. Clair. The cases' ages are from 24 to 88, with a median of 67. Fifty percent are females. Three of the cases had onsets in January and one case had an onset in March.
- **Salmonellosis –** There were 233 *Salmonella* cases reported in the first quarter. All but 12 cases were confirmed. Cases had onsets in January (97 cases), February (61) and March (75). Forty-four percent were female. Thirty-six percent of cases were hospitalized. Cases resided in 44 counties. Counties reporting the most cases were Cook (84), Lake (36), Will (15) and DuPage (12). There were 51 serotypes reported. The most commonly reported serotypes include Enteritidis (60), Infantis (26) and Typhimurium (16). A cluster of *Salmonella* cases linked to ready-to-eat items from a grocery store increased the number of *S*. ser. Infantis cases.
- **STEC O157:H7 -** Eight cases of STEC O157:H7 from Cook (5), Dupage (2) and Kane Counties were reported in the first quarter. Cases ranged in age from less than one to 97 years, five of the cases were male and three were female. Onsets of illness were in January (2) and March (6). There were also seven cases of Shiga toxin-producing *E. coli* identified that were not the O157:H7 serotype. The serotypes of these cases included O103:H2 (3), O121:nonmotile (2), O26:nonmotile, and O103.
- **Typhoid fever –** There were seven cases of Typhoid Fever from Cook (5) and Du Page (2) counties in this quarter. Four had onset in January, one in February and two in March. Four cases were female and three were male, and ages ranged from three to 60 years. Six of the cases reported travel out of the country and one case did not travel but had exposure to persons who recently moved to the U.S.
- **Vibrio –** One case of *V. parahaemolyticus* was reported in the first quarter of 2011. The case was 30 year old male from Cook County with onset in January.
- **West Nile Virus –** There were no cases reported in the first quarter of 2011.
- **Rabies, potential human exposure -** Twenty-nine rabies, potential human exposure cases were reported in the first quarter. The majority of persons were exposed to bats (53 percent). Other persons were exposed to raccoons, cattle, dogs or squirrels. Ages of the exposed persons ranged from less than one year

of age to 58 years of age. Exposed individuals resided in 15 counties in the state. Persons were exposed in January (six), February (10) and March (13). For 25 persons the PEP recommendation was evaluated according to ACIP guidelines. For 16 persons rabies PEP was recommended and correct, for seven persons PEP was recommended but was not needed according to ACIP guidelines and for two persons PEP was not recommended and that was correct according to the ACIP guidelines.

- ***Yersinia* -** There were 3 cases reported in the first quarter. Two had illness onsets in January and one had illness onset in March. Two resided in Cook and one in Du Page. Ages ranged from one year to 52 years. All three cases were male.

- **Reported Outbreaks** - The provisional count of outbreaks in Illinois for the first quarter of 2011 is 84.

    - **Foodborne Outbreaks** - Thirteen preliminary foodborne outbreaks were reported in the first quarter of 2011. The etiologic agents *Clostridium perfringens, Salmonella* ser. Infantis, and norovirus (2 outbreaks) were confirmed in four outbreaks by testing of ill persons. The outbreaks began in January, February (7) and March (4) and occurred in Cook (7), Du Page, Lake, Macon, Madison and McHenry counties.

    - **Person-to-person Outbreaks** - Of the 64 person-to-person outbreaks, 26 were associated, either confirmed or suspected, with norovirus.

    - **Waterborne Outbreaks** – There was one waterborne outbreak, suspected to be associated with *Pseudomonas aeruginosa*, reported during the first quarter of 2011.

    - **Outbreaks with other transmission mode** – There were six outbreaks with unknown transmission mode reported during the first quarter of 2011.