Public Health
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COMMUNICABLE DISEASES

MONTHLY NEWSLETTER

For Joplin City, Barton, Dade, Jasper, McDonald, Newton and Vernon Counties

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Inside this issue

Communicable Diseases Report (January–June)	2
Salmonella /Tomato Outbreak updates	3
Campylobacteriosis	4
Rabies Vaccine Shortage	5
Human Avian Flu Update	5
Prevention of Mosquito and Tick-Borne Illnesses	6
Upcoming Events/Trainings	6

Special Point of interest

The outbreak associated with Salmonella Saintpaul has been linked to about 810 infected persons in 36 states since April, 2008.

In 2007, only three (3) infected persons were identified during the same period.

Missouri reported 12 infected persons

(See page 3 for details)

Source: CDC & FDA

Health Precautions After Flooding in some parts of Missouri

News Release: June 13, 2008

Tetanus Shots for residents and volunteers after flooding

As heavy rain caused flooding in northeastern, eastern and other portions of Missouri, the Missouri Department of Health and Senior Services (DHSS) urged Missourians who will be working in or near the flood waters to ensure their immunizations are up-to-date, especially for tetanus according to Jane Drummond, DHSS director. Tetanus shots may be obtained from the local public health agencies, clinics, as well as hospitals. Some health and safety precautions that need to be taken when working in or around flood waters which include:

- Wearing rubber gloves for extra protection
- Wearing a mask if allergic or has chronic lung conditions.
- Washing hands and skin frequently.
- Disinfecting or discarding clothing / supplies used in floodwaters immediately after use.
- Washing contaminated clothes separately.
- Disinfecting everything that floodwater or sewage has touched.

Caution on food and cooking utensils after flooding

The DHSS also urged residents to be extremely cautious with food and cooking utensils stored in flooded homes. Stored food and cooking utensils can become a media for the growth of bacteria such as salmonella and listeria, etc which can potentially cause serious food-borne illnesses.

Any food that is not in a waterproof container should be discarded. Any symptoms which might be related to consuming spoiled food should be reported to a physician or the local health agency. Some signs and symptoms of food-borne illness include stomach cramping, nausea, diarrhea, vomiting, and headache. While most food-borne illnesses resolve themselves in a few days, they can become serious and even life threatening for young children, senior adults, and people with weakened immune systems.

Water Safety Information Related to Private Water Supply Wells after flooding

Some guidance issued on the safety of wells and private water sources that have been subjected to flooding indicate that if the well casing has been submerged in floodwater, the water should not be used as it cannot be safely sanitized. However, when floodwaters recede, small quantities may be disinfected pending proper chlorination of the well.

Information on well disinfection from the DHSS is located at www.dhss.mo.gov/BT_Response/Nat_Disaster/index.htm.

Homeowners using private wells are encouraged to test the water at least once a year, regardless of any power interruption. For homeowners who do not know the past history of their well or who have lingering concerns about their water quality they may have their well tested.

Water testing kits and additional detailed information on well disinfection can be obtained by calling your local public health department or DHSS at 573-751-6080.

Source: Missouri Department of Health and Senior Services (DHSS) 573-751-6062

Communicable Disease Report

Table 1

Cumulative Cases From January Through End of June By Local Jurisdiction and Year (2007 & 2008)
(Includes confirmed, probable and suspect cases)

CONDITION/YEAR BY LPHA	JOPLIN		JASPER		BARTON		DADE		MCDONALD		VERNON		NEWTON	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
ANIMAL BITES	102	60	45	48	4	1	3	2	8	4	2	2	21	13
CAMPYLOBACTERIOSIS	3	2	7	12	1	1	0	2	0	1	3	3	3	4
CREUTZFELDT-JAKOB DISORDER	0	0	0	0	0	0	0	1	0	0	0	0	0	0
CRYPTOSPORIDIOSIS	0	0	1	1	0	1	0	0	0	1	5	6	3	1
DENGUE FEVER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
E. COLI SHIGA TOXIN	0	1	0	8	0	0	0	0	0	0	0	0	1	0
E. COLI O157 H7	0	0	0	0	0	0	0	1	0	1	0	0	0	0
EHRLICHIOSIS HGE	0	0	0	0	0	0	0	0	0	0	0	1	0	0
EHRLICHIOSIS HME	0	0	3	1	0	2	0	1	1	2	0	0	3	3
EHRLICHIOSIS OTHER	0	0	2	0	1	1	0	0	0	0	0	0	0	0
GIARDIASIS	3	1	2	0	3	0	0	1	0	0	0	2	4	0
HEPATITIS B PREGNANCY	0	0	0	2	0	0	0	0	0	0	0	0	1	1
HEPATITIS B ACUTE	4	2	1	3	1	0	1	2	0	0	2	0	3	3
HEPATITIS B CHRONIC	4	5	1	1	0	1	0	0	1	0	0	2	1	2
HEPATITIS C ACUTE	2	0	0	0	0	0	0	0	0	0	0	1	1	0
HEPATITIS C, CHRONIC INFECTIO	77	49	33	29	5	3	5	1	14	18	17	13	21	29
LEGIONELLOSIS	0	1	1	1	0	0	0	0	0	0	1	0	0	0
LISTERIOSIS	0	0	0	3	0	0	0	0	0	0	0	0	0	0
LYME	1	0	2	1	2	0	0	0	0	0	1	1	0	0
MENINGOCOCCAL DISEASE	1	2	0	0	0	0	0	0	0	0	0	0	0	0
MUMPS	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Q FEVER	0	0	2	0	0	0	0	0	1	0	0	0	1	0
RABIES POST EXPO PROPHYLAX	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ROCKY MOUNTAIN SPOTTED FEV	2	3	9	2	0	0	0	0	1	3	1	3	17	20
RUBELLA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SALMONELLOSIS	4	9	3	5	1	1	1	0	2	3	2	3	3	5
SHIGA TOXIN + (NON E. COLI	0	1	0	0	0	0	0	0	0	0	0	0	0	0
SHIGELLOSIS	0	1	2	0	0	0	0	0	0	0	0	0	0	0
STREP DISEASE, GROUP A INVASI	0	1	0	0	0	0	0	0	0	0	0	1	0	0
STREP PNEUMONIAE, <4	0	1	0	0	0	0	0	0	0	0	0	0	0	0
STREP PNEUMONIAE, DRUG RESI	0	0	2	0	0	0	0	1	1	0	0	0	0	0
TULAREMIA	0	0	0	0	0	1	0	0	0	0	0	0	0	0
VARICELLA (CHICKENPOX)	6	0	10	9	0	0	0	0	0	0	0	0	1	6
Total Cases Year To-Date	209	140	126	126	18	12	10	12	29	34	34	38	84	88

Source: Missouri Department of Health and Senior Services, Crystal Reports

Data period : January through end of June 2008

Substantial increases in cases that have been identified in some jurisdictions e.g. E. coli Shiga Toxin positive and campylobacteriosis in Jasper county, as well as Cryptosporidium in Vernon county. Crypto cases in Vernon county is the highest in the 7 jurisdictions. Newton county had significant increases in Rocky Mountain spotted fever and Varicella while Joplin city has the most salmonellosis cases in this region. Rocky Mountain spotted fever in Newton County is the highest in the 7 county region. All these aforementioned increases have considerably exceeded the 5-year median and average level in those counties.

Analysis: Joseph Njenga

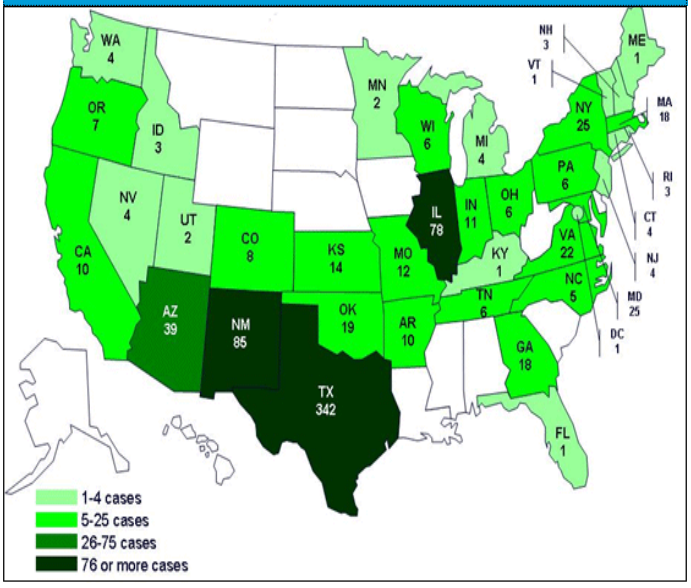
Investigation of Salmonella Saintpaul Infection Outbreak, in 2008

Eight hundred and ten (810) persons infected with *Salmonella* Saintpaul with the same genetic fingerprint have been identified in 36 states and the District of Columbia since April. These were identified because clinical laboratories in all states send *Salmonella* strains from the ill persons to State public health laboratory for characterization.

The number of ill persons identified in each state is as follows: Arkansas (10), Arizona (39), California (10), Colorado (8), Connecticut (4), Florida (1), Georgia (18), Idaho (3), Illinois (78), Indiana (11), Kansas (14), Kentucky (1), Maine (1), Maryland (25), Massachusetts (18), Michigan (4), Minnesota (2), **Missouri (12),** New Hampshire (3), Nevada (4), New Jersey (4), New Mexico (85), New York (25), North Carolina (5), Ohio (6), Oklahoma (19), Oregon (7), Pennsylvania (6), Rhode Island (3), Tennessee (6), Texas (342), Utah (2), Virginia (22), Vermont (1), Washington (4), Wisconsin (6), and the District of Columbia (1).

Figure 1

States Affected by Salmonella Saintpaul in USA from April through June, 2008



Source: CDC

Among the 523 persons with information available, illnesses began between April 10 and June 15, 2008. Patients range in age from <1 to 99 years; 51% are female. At least 95 persons were hospitalized. No deaths have been officially attributed to this outbreak. However, a man in his 60's who died in Texas from cancer had an infection with the outbreak strain of *Salmonella* Saintpaul at the time of his death, which is likely to have contributed to his death.

The previous rarity of this strain and the distribution of illnesses in all U.S. regions suggest that the implicated tomatoes are distributed throughout much of the country. Because of inherent delays in reporting and because many persons with *Salmonella* illness do not have a stool specimen tested, it is likely many more illnesses have occurred than those reported.

With about 810 persons infected with this strain of *Salmonella* Saintpaul since April 2008, only 3 infected persons were identified in the country during the same period in 2007.

Clinical features of Salmonella infection

Most persons infected with *Salmonella* develop diarrhea, fever, and abdominal cramps 12-72 hours after infection. The illness usually lasts 4-7 days. Although most people recover without treatment, severe infections may occur. Infants, elderly persons, and those with impaired immune systems are more likely than others to develop severe illness. When severe infection occurs, *Salmonella* may spread from the intestines to the bloodstream and then to other body sites, and can cause death. Antibiotic treatment may be necessary in these severe cases.

Advice to consumers

At this time, FDA is advising U.S. consumers to limit their tomato consumption to those that are not the likely source of this outbreak. These include cherry tomatoes; grape tomatoes; tomatoes sold with the vine still attached; tomatoes grown at home; and red plum, red Roma, and round red tomatoes.

Consumers everywhere are advised to:

- Refrigerate cut, peeled, or cooked tomatoes within 2 hours or discard them.
- Avoid purchasing bruised or damaged tomatoes and discard any that appear spoiled.
- Thoroughly wash all tomatoes under running water.
- Keep tomatoes that will be consumed raw separate from other raw food items.
- Wash cutting boards, utensils, dishes, counter tops, etc with hot water and soap.

FDA information on this investigation can be found at: http://www.fda.gov/oc/opacom/hottopics/tomatoes.html*

Some tomatoes implicated in the outbreak

Source: CDC & FDA

Campylobacteriosis: A common bacterial cause of diarrheal illness in the United States.

What is Campylobacter?

Campylobacter is a bacterium that infects the intestines. It is the most common bacterial cause of diarrheal illness in the United States.

What are the symptoms?

Symptoms are usually diarrhea (sometimes bloody), stomach-ache, fever, nausea and vomiting. The illness usually ends by itself within one week, but some people may require treatment with antibiotics.

How is Campylobacter spread?

The bacteria are found in human and animal feces. It is very common in cattle and chickens. People can get it by eating or drinking raw or contaminated water, milk, poultry, meat, or from infected pets and other animals. While it is very rare to get Campylobacter from another person who has it, person-to-person spread occasionally occurs, primarily in young children with diarrhea. Outbreaks of diarrhea in child care centers have been reported, but they appear to be uncommon. Infected individuals may shed Campylobacter bacteria in the feces for 2 -7 weeks. However, treatment with the appropriate antibiotic(s) typically shortens the duration of communicability to 2-3 days. Following infection, temporary immunity often develops.

How long from when a person is infected until they get ill?

Usually people get sick within two to five days of infection with these bacteria, but it can be as short as one day to as long as ten days before illness occurs.

How can Campylobacter infection be prevented?

It can be prevented by properly cooking poultry and meats to at least 165° F; by thorough handwashing with soap and water after using the toilet; before handling any food and after handling raw foods; only drinking pasteurized milk; and never drinking water from creeks, lakes, or springs.

Where can I get more information on campylobacteriosis?

To find out more, call your doctor or local public health agency.

Reporting Requirements

Campylobacteriosis is a Category II disease and shall be reported to the local health authority or to the Missouri Department of Health and Senior Services within 3 days of suspected diagnosis

Source: Missouri Department of Health and Senior Services

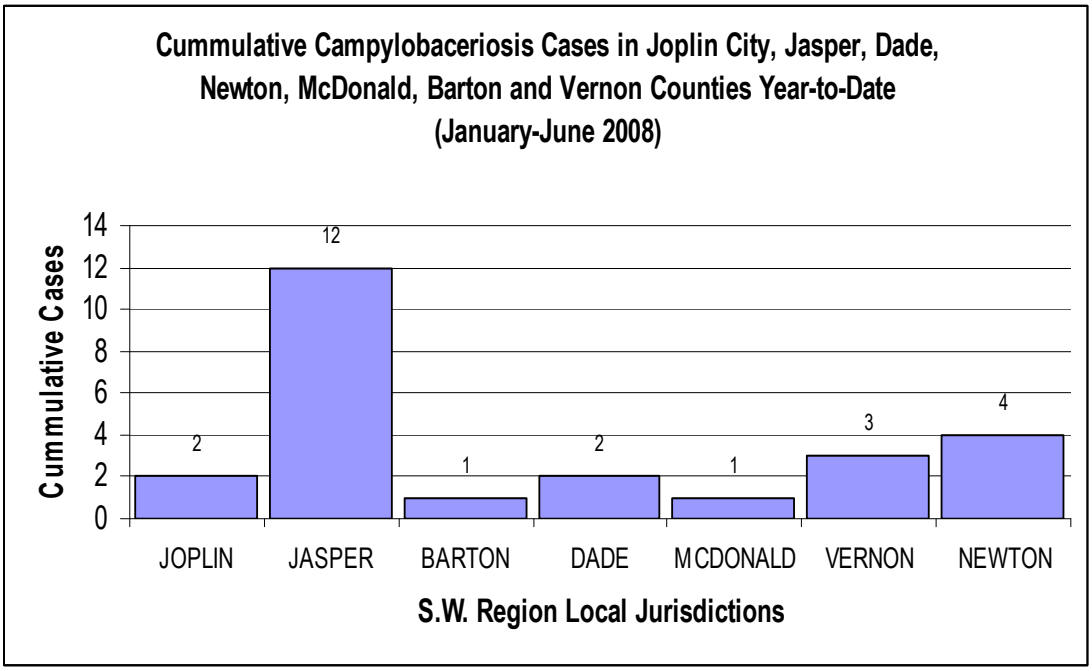
Campylobacteriosis Cases in some S.W. region Counties

Jasper County had the most number of reported campylobacteriosis cases in the region accounting for about 48 % of the total cases in the area.

Of the 12 cases in Jasper County, 4 were reported in the month of June. Joplin City, Dade and Newton counties each had one additional case in June, while Barton McDonald and Vernon Counties had no additional cases in June.

Analysis: Joseph T. Njenga

Figure 2



Source: Crystal Reports

Temporary Decrease in Human Rabies Vaccine Supplies: CDC HEALTH ADVISORY

The Centers for Disease Control and Prevention (CDC) has been notified that Novartis Vaccines, maker of RabAvert (Rabies Vaccine), will temporarily cease to provide rabies vaccine for both pre- and post-exposure prophylaxis uses to health care providers. A second company, Sanofi Pasteur, produces IMOVAX Rabies (Rabies Vaccine), and will continue to supply vaccine to health care providers for post-exposure prophylaxis (PEP). Overall, both manufacturers have limited supplies of the rabies vaccine, necessitating the need for judicious use by health care providers. It is expected that more RabAvert will be available on the market in July 2008, which can be expected to fully meet the demand for RabAvert pre-exposure vaccinations.

Due to the temporarily limited supplies, distribution of vaccine for pre-exposure prophylaxis (PreP) will be approved by state and federal public health authorities. Priority will be given to those at greatest rabies exposure risk (e.g., rabies laboratory workers, animal control officers, veterinary staff, wildlife workers) and in consideration of available rabies vaccine supplies. In the lower risk rabies exposure categories (e.g., travelers, veterinary students, etc.), human rabies PreP should be delayed until vaccine supply levels are restored. Priority use of the vaccine will be for post-exposure prophylaxis following ACIP human rabies prevention recommendations (http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5703a1.htm).

IMOVAX rabies vaccine is available for PEP and providers should carefully review the ACIP recommendations and guidelines from their states to ensure that PEP is needed. They are also strongly encouraged to consult with their local and state public health departments.

It is therefore important to take appropriate precautions to avoid rabies exposure and also take necessary actions if an exposure occurs. Appropriate precautions include the vaccination of pets, and livestock having close human contact, avoiding stray and wild animals, as well as safely capturing or detaining biting animals or obtaining owner contact information for follow up. Such practices will decrease the need for rabies PEP and thus allow for the responsible management of currently limited vaccine supplies.

Discussions among federal, state, and local public health personnel are ongoing to review additional strategies to manage the current supply of rabies vaccines. State and local health departments are working to ensure that health care providers are informed and have available consultation regarding best practices for the use of rabies vaccine.

Information about rabies, its prevention, and updates on the rabies vaccine situation can be obtained on the CDC rabies website http://www.cdc.gov/rabies/ or by calling 1-800-CDC-INFO.

Source: CDC

World Health Organization Updates on Human Cases of Avian Influenza

World Health Organization (WHO) has reported human cases of avian influenza A (H5N1) in Asia, Africa, the Pacific, Europe and the Near East. Indonesia and Vietnam have reported the highest number of H5N1 cases to date.

Overall mortality in reported H5N1 cases is approximately 63%. The majority of cases have occurred among children and adults aged less than 40 years old. Mortality was highest in cases aged 10-19 years old. Studies have documented the most significant risk factors for human H5N1 infection to be direct contact with sick or dead poultry or wild birds, or visiting a live poultry market. Most human H5N1 cases have been hospitalized late in their illness with severe respiratory disease. A small number of clinically mild H5N1 cases have been reported. Despite the high mortality, human cases of H5N1 remain rare to date.

Based on table 2, the total number of cases includes the number of deaths. WHO reports only laboratory-confirmed cases.

Source: CDC and World Health Organization (WHO)

Table 2

Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO Since 2003

Country	cases	deaths
Azerbaijan	8	5
Bangladesh	1	0
Cambodia	7	7
China	30	20
Djibouti	1	0
Egypt	50	22
Indonesia	135	110
Iraq	3	2
Lao People's Democratic Republic	2	2
Myanmar	1	0
Nigeria	1	1
Pakistan	3	1
Thailand	25	17
Turkey	12	4
Viet Nam	106	52
Total	385	243

Source: WHO

Health Department Administrators

Joplin City : Dan Pekarek
(417) 623-6122
Jasper County: Tony Moehr
(417) 358-3111
Newton County: Bob Kulp
(417) 451-3743
McDonald County: Amy Haskett
(417) 223-4351
Barton County: Linda Talbot
(417) 682-3363
Dade County: Pamela Allen
(417) 637-2345
Vernon County: Beth Swopes
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Questions/Comments, please contact:

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UPCOMING EVENTS / TRAININGS

Telehealth Training: Missouri ESSENCE for Hospitals (Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE). **Offered on LMS - Credits Hours for Nurses and EMTs.** Presented by Amy Kelsey, MPH; Senior Epidemiology Specialist, Missouri DHSS. Access the LMS training at www.heartlandcenters.com and select the training in the course catalog.

October 1-3: Missouri Environmental Health Association Annual Education Conference at The Resort at Port Arrowhead, Lake Ozark, MO. Target audiences include environmental public health specialists, local and state regulatory officials, and industry professionals. The registration form may be downloaded at www.mmfeha.org/meha/files/registration_form.pdf. Direct questions to: Cherie Smith at 314-994-2261, or by e-mail at csmith@schnucks.com.

(If you have a communicable disease related event or training that you would like to share with others in the region, contact Joseph Njenga at JNjenga@Joplinmo.org so that it can be posted in the monthly communicable disease newsletters)

Communicable Diseases Surveillance

If your institution would like to participate in the Local Communicable Disease surveillance, please contact your local health department for more information.
A surveillance site can be:

- Public/Private school
- College
- Large employer
- Childcare facility
- Physician clinic
- Community clinic

Surveillance is an ongoing systematic collection, analysis and dissemination of health related data with the goal of detecting health related issues within our community, and using that information to control and prevent disease as well as promote health.

Prevention Against Mosquito and Tick-borne Illnesses

Mosquitoes and ticks affect many Missourians every year by transmitting illnesses such as West Nile Virus, Rocky Mountain spotted fever, Tularemia, Lyme and Lyme-like illnesses, Ehrlichiosis among others.
Both the mosquito and tick-borne illnesses have shown an increasing trend in the last few years especially during this period of the year in some parts of Missouri. For instance, five cases of West Nile Virus were reported in Joplin area in 2007 although none has been reported in 2008.

Symptoms may vary and range from mild to severe or even life threatening illnesses.
It is therefore important to take preventive actions against these illnesses. The Missouri Department of Health and Senior Services suggest the following steps:

- Use effective insect repellent with DEET or picaridin on skin and clothing.
- Wear protective clothing when practical.
- Remove standing water from flowerpots and other containers, including tires and buckets.
- Replace water in birdbaths, pet bowls, and wading pools at least every three days. Unclog gutters and repair leaky faucets. Use larvicide in water that cannot be removed.
- Limit outdoor activities at dawn and dusk when mosquitoes are most active.
- Ensure all screens fit tightly over doors and windows, and are in a good state of repair.
- After spending time outside in grassy areas, check for ticks crawling on you. If you find a tick, remove it. If it is already embedded, use tweezers to remove it, making sure that you do not squeeze the tick's body.

Source: Crystal Reports
Adapted from: Missouri DHSS