



**Public Health**  
Prevent. Promote. Protect.

# COMMUNICABLE DISEASES

## MONTHLY NEWSLETTER

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

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### Special Point of Interest

#### Measles

- 64 confirmed reports of measles cases reported in 9 U.S. states from Jan – Apr 25, 2008.
- Worldwide, 20 million cases of measles still occur each year
- In 2005, 311,000 children under age 5 died from the disease.

## Measles Update: Outbreaks Continue in U.S.

CDC and state health officials are investigating and responding to cases and outbreaks of measles in the U.S. Measles is a highly contagious respiratory disease spread through coughing or sneezing. The symptoms can include rash, high fever, coughing, and runny nose. The disease can also cause more serious complications, such as ear infections, pneumonia, encephalitis (inflammation of the brain) even death.



From January 1 through April 25, 2008, CDC had received 64 confirmed reports of measles cases in nine states — the highest number for the same time period since 2001. In four of the states — Arizona, New York, Michigan, and Wisconsin — outbreaks (3 or more cases linked in time or place) are ongoing. Outbreaks may occur when measles cases are imported into the United States. Ten of the recent case-patients (5 US residents and 5 visitors to the U.S.) acquired measles abroad, and the remaining cases are considered linked to the imported cases.

Of the 64 people infected by the measles virus, only 1 had documentation of prior vaccination. Among the other 63 case-patients were 14 infants who were too young to be vaccinated. Many of the cases among US children occurred in children whose parents claimed exemption from vaccination due to religious or personal beliefs, or in children too young to be vaccinated. Disease transmission occurred in a variety of community and healthcare settings, including homes, childcare centers, schools, hospitals, emergency rooms, and doctors' offices.

These cases show the importance of vaccination in order to protect against measles. Although the ongoing transmission of measles was declared eliminated in the U.S. in 2000, the disease is still common in other parts of the world and can be imported into the U.S. from many countries. Worldwide, 20 million cases of measles still occur each year, and the disease is a significant cause of vaccine-preventable death among children. In 2005, 311,000 children under age 5 died from the disease.

The measles vaccine is administered as MMR, a combination vaccine that provides protection against measles, mumps, and rubella. The MMR vaccine is strongly endorsed by medical as well as public health experts as safe and effective.

All children should receive two doses of MMR vaccine. The first dose of MMR is recommended at 12–15 months of age and the second dose at 4–6 years of age.

All adults born during or after 1957 should receive at least one dose of vaccine unless they have documented evidence of measles immunity (a blood test or a physician's diagnosis of measles). Two doses are recommended for all international travelers, healthcare personnel, and students of secondary and post-secondary educational facilities. Infants 6–11 months of age should receive one dose prior to travel abroad.



For more information on measles vaccination visit <http://www.cdc.gov/vaccines/vpd-vac/measles/>

Source: CDC

# Communicable Disease Report

Table 1

Cumulative Cases From January Through End of July By Local Jurisdiction and Years (2007 & 2008) (Includes confirmed, probable and suspect cases)														
	JOPLIN		JASPER		BARTON		DADE		MCDONALD		VERNON		NEWTON	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
ANIMAL BITES	116	72	56	59	4	1	4	3	9	5	2	2	25	15
CAMPYLOBACTERIOSIS	4	3	9	14	2	1	0	2	0	2	3	3	6	5
CREUTZFELDT-JAKOB DIS	0	0	1	0	0	0	0	1	0	0	0	0	0	0
CRYPTOSPORIDIOSIS	0	1	1	2	0	1	0	0	0	1	5	7	3	1
DENGUE FEVER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
E. COLI SHIGA TOXIN	1	1	1	8	0	0	0	0	0	0	0	1	1	0
E. COLI O157 H7	0	0	0	0	0	0	0	1	0	1	0	0	0	0
ANAPLSMA PHAGOCYTOPHILUM	0	0	1	0	0	0	0	0	0	0	0	1	0	0
EHRlichIA CHAFFEENSIS	1	1	4	3	1	2	0	1	1	2	1	1	6	3
EHRlichIOSIS OTHER OR UNSP	0	0	2	0	1	1	0	0	0	0	0	0	1	0
GIARDIASIS	3	2	3	0	4	0	0	1	0	0	1	2	5	0
HEMOLYTIC UREMIC SYN	0	0	0	0	0	0	0	0	0	0	0	0	1	0
HEPATITIS A ACUTE	0	1	1	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS B PREGNANCY	0	0	0	2	0	0	0	0	0	0	0	0	1	1
HEPATITIS B ACUTE	4	3	1	3	1	0	1	2	1	1	2	1	3	5
HEPATITIS B CHRONIC	4	5	1	2	0	1	0	0	1	0	0	2	1	2
HEPATITIS C ACUTE	2	0	0	0	0	0	0	0	0	0	0	2	1	0
HEPATITIS C, CHRONIC IN	87	55	36	32	6	4	5	1	16	18	23	14	26	37
LEGIONELLOSIS	0	1	1	1	2	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	1	2	1	3	0	0	0	0	0	1	0	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	2	0
RABIES POST EXPO PROPHYLAX	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ROCKY MOUNTAIN SPOTTED FEV	3	6	9	6	0	0	0	0	2	6	2	7	26	18
SALMONELLOSIS	5	10	3	5	1	1	1	0	2	3	2	3	4	6
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 INVAS	0	1	1	0	0	0	0	0	0	0	0	1	0	0
STREP PNEUMONIAE, <4 YEARS	0	1	0	0	0	0	0	0	0	0	0	0	0	0
STREP PNEUMONIAE, DRUG RES	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	14	9	0	0	0	0	2	0	0	0	1	6
<b>Total Cases YTD</b>	<b>238</b>	<b>109</b>	<b>153</b>	<b>150</b>	<b>25</b>	<b>13</b>	<b>11</b>	<b>13</b>	<b>36</b>	<b>40</b>	<b>43</b>	<b>47</b>	<b>113</b>	<b>100</b>

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

### Data period : January through end of July 2008

Cryptosporidiosis cases continue to gradually increase in the region with Vernon County having more cases (7) than the neighboring jurisdictions. This is also the highest within the neighboring counties during the same time period since 2005.

Similarly, Rocky Mountain Spotted Fever (RMSF) and animal bites continued to rise except for Barton and Dade counties in July.  
Analysis: Joseph Njenga

## Rocky Mountain Spotted Fever (RMSF) in 7 selected SW region jurisdictions in June & July 2008

Rocky Mountain Spotted Fever (RMSF) doubled from the month of June to July 2008 in four jurisdictions; Joplin City, Jasper, McDonald, and Vernon counties. No cases were reported in Barton and Dade counties during the same time period in 2007 and 2008. (see fig. 1 below).

RMSF is a tick-borne illness that begins with a sudden onset of influenza-like symptoms, and may include fever, chills, severe headache, muscle pain, and fatigue. Nausea, vomiting, and a lack of appetite are also reported by some. The classic spotted rash is usually not apparent until the fifth or sixth day and may indicate a potentially serious illness.

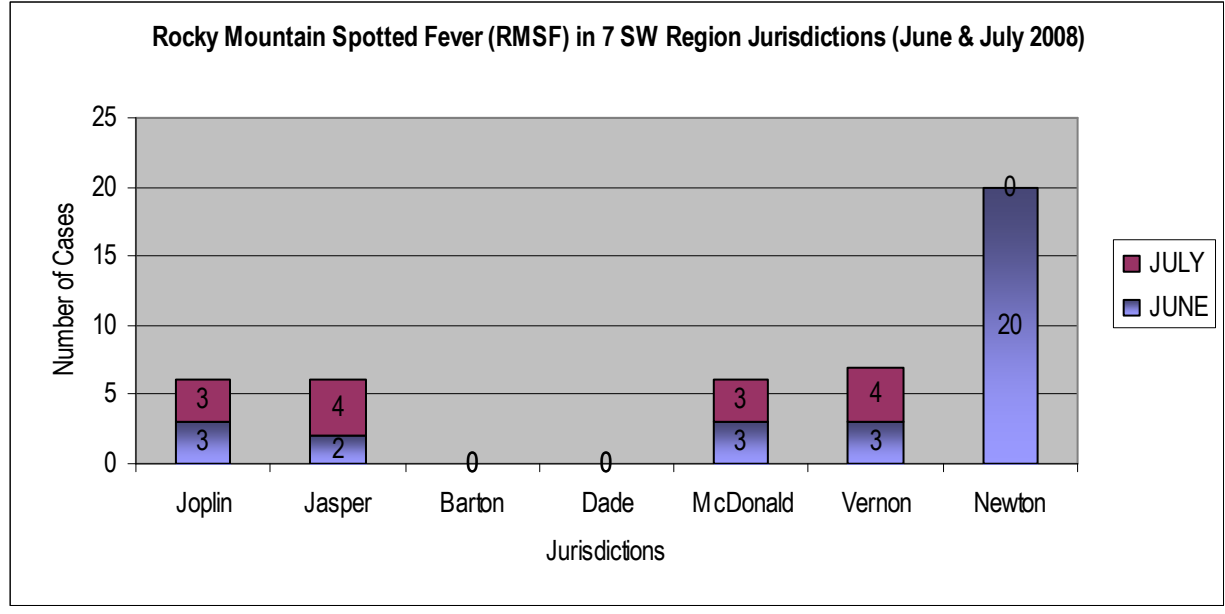
RMSF is the most frequently reported tick-borne illness in

Missouri. However, the population of the ticks infected with the disease-causing bacteria is usually low (about 1-3% even in areas where most human cases are reported). Doxycycline is the accepted treatment of presumptive RMSF in adults and children.

- Prevention**
- Avoid tick habitats during peak time of the year (April to Sep)
  - Use tick repellents with 20 to 50% DEET.
  - Wear clothes that will help shield you from ticks.
  - Check frequently for ticks and remove them promptly.
- For more information on RMSF, contact your local health department and/or your physician.

Source: Missouri Department of Health and Senior Services

Figure 1



Source: Crystal Reports

## Human Rabies Vaccine Availability: Update: August 1, 2008

As of August 1, Novartis will be distributing RabAvert for post-exposure prophylaxis use only without the need for a password from state or local health officials. Sanofi Pasteur will continue to provide its vaccine (Imovax) to medical providers for post-exposure use without prior consultation with state or local health officials. The situation with pre-exposure vaccine remains unchanged, i.e., Sanofi Pasteur provides Imovax for pre-exposure use for high-risk occupations after a request form has been coordinated through DHSS and CDC. The request form is available from Dr. Howard Pue ([howard.pue@dhss.mo.gov](mailto:howard.pue@dhss.mo.gov)). Novartis will not be providing any vaccine for pre-exposure use to the general medical community.

Questions on availability of human rabies vaccine may be directed to Dr. Howard Pue at [howard.pue@dhss.mo.gov](mailto:howard.pue@dhss.mo.gov) or 573-751-6114. Updates regarding this situation may also be obtained on CDC's website at [http://www.cdc.gov/rabies/news/2008-06-17\\_RabVaxupdate.html](http://www.cdc.gov/rabies/news/2008-06-17_RabVaxupdate.html).

Source: Missouri Department of Health and Senior Services

## Botulism and Home Canning

### What is botulism?

Botulism is a rare but serious paralytic illness caused by the bacterium *Clostridium botulinum*. There are three main kinds of botulism: Foodborne, wound and infant botulism. All forms of botulism can be fatal and are considered medical emergencies.

### How common is botulism?

In the United States, an average of 145 cases are reported each year. Of these, approximately 15% are foodborne, 65% are infant botulism, and 20% are wound.

### What are the symptoms of botulism?

- Double vision,
- Blurred vision,
- Drooping eyelids,
- Slurred speech,
- Difficulty swallowing,
- Dry mouth, and
- Muscle weakness.

Infants with botulism appear lethargic, feed poorly, are constipated, and have a weak cry and poor muscle tone.

### Are there complications from botulism?

Botulism can result in death due to respiratory failure. However, in the past 50 years, the case-fatality rate has fallen from about 50% to about 4%. A patient with severe botulism may require a breathing machine as well as intensive medical and nursing care for several months. Patients who survive an episode of botulism poisoning may have fatigue and shortness of breath for years and long-term therapy may be needed.

### Home Canning and botulism

Home canning fresh foods can be a great way to preserve home grown produce if done properly. However, it can pose serious health risk such as foodborne botulism if improperly done.

Foodborne botulism can be dangerous especially because it can be point source of contamination thus affecting many people. Outbreaks occur most years and are usually associated with eating contaminated home canned foods especially those with low acid content e.g. asparagus, green beans, beets, corn etc.

People who do home canning should follow strict hygienic procedures to reduce contamination of foods. Because the botulism toxin is destroyed by high temperatures, those who eat home-canned foods should boiling the food for 10 minutes before eating it to ensure safety.

Similarly, children less than 12 months old should not be fed honey because it has been a source of botulism infection to infants. Wound botulism can be prevented by promptly seeking medical care for infected wounds.

### Role of public health agencies to prevent / control botulism?

Public education, immediate investigation and coordination of appropriate control measures if outbreak is suspected, and ensuring suspected cases of botulism are reported by healthcare providers to the local or state health department immediately upon knowledge or suspicion.

Source: CDC

Adapted from an article by Jaci McReynolds - Regional PIO (Region D)  
For guidelines on home canning, visit: [USDA Home Canning Guide](#)

### ER Visits for Botulism-like Illnesses in 6 SW region counties in July, 2008 (ESSENCE Surveillance)

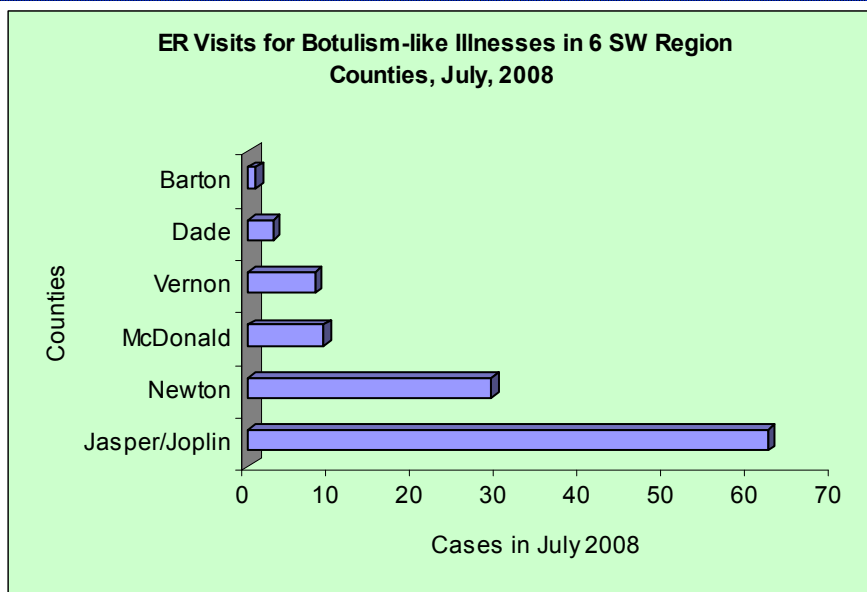
Jasper (Joplin city included) and Newton county had almost the same rates of the reported botulism-like symptoms in July, 2008 (6 @ 10,000\* population\*). McDonald, Vernon and Dade counties had the almost the same rates of 4 @ 10,000 population, while Barton county had the lowest (0.7\*).

\*Rates are based on 2002 population estimates.

The symptoms include: blurred vision or difficult focusing, speaking, swallowing, or dilated pupils or double vision, or dry mouth or muscle weakness or ptosis.

**NB: The ESSENCE cases are botulism-like symptoms (not necessarily actual botulism) and are used for surveillance purposes only.**

Analysis: Joseph Njenga



Source: ESSENCE Surveillance (ER Data only)

### **Health Department Administrators**

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**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  
(417) 667-7418

### **Questions/Comments, please**

**contact:**

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### **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.

### **UPCOMING EVENTS / TRAININGS**

#### **Principles of Epidemiology Course – October 22-23**

The training is made up of two parts: On-line and 2 days of face-to-face exercises in Jefferson City on October 22 and 23. Class size is limited. To attend, see instructions at <http://www.dhss.mo.gov/fridayfacts/7ff25.html>. The registration deadline is August 15. For questions, call 573-751-6113.

#### **International Infection Prevention Week - October 19 - 25**

(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 newsletter)

### **MRSA Interventions Improved according to APIC Survey, 2008**

According to a recent survey conducted by the Association of Professionals in Infection Control and Epidemiology (APIC) between April 25 and May 15, 2008, it was found that health care professionals are making progress in preventing MRSA in the healthcare settings. This online survey was a follow-up to the APIC's National MRSA Prevalence Study released in June 2007 and was designed to determine if additional MRSA interventions have been adopted since its release.

Below are the findings:

- 76% of respondents said they had implemented additional MRSA interventions in the last year.
- 54% of respondents said their institution was not doing enough to prevent MRSA.
- The identified intervention strategies being used to address MRSA problem included: Staff education, more aggressive hand hygiene programs, stricter use of contact precautions (e.g., gloves and gowns) for patients who test positive for MRSA, more emphasis on housekeeping/decontamination practices and targeted screening.
- Of those who adopted new MRSA intervention measures during the last year, 17% were able to increase staff or hours dedicated to infection control at their facilities, and 21% added better healthcare-associated infection (HAI) surveillance technology
- Of those who believe their institution could and should be doing more to prevent MRSA, two of the top items on their wish list include additional staff and better HAI surveillance technology.
- Other top choices include more aggressive hand hygiene programs and greater compliance with housekeeping/equipment cleaning and decontamination practices.
- Of the 24% who have not adopted interventions in the last year, the primary reasons given were that they already have programs in place to address the issue, or MRSA is not a problem for their institution. But 14% cited lack of resources, 13% cited lack of time, and 16% cited lack of support from clinical and administrative leaders as barriers to introducing additional MRSA prevention programs.
- The APIC Guide to the Elimination of MRSA Transmission in Hospital Settings is being used by 65% of respondents.
- Respondents most often (28%) reported to the director of nursing/chief nursing officer or the director of patient safety /quality officer (27%). Many fewer (<10%) reported to the hospital administrator, chief medical officer, infectious disease physician or hospital epidemiologist.

For a copy of the survey, visit [www.apic.org](http://www.apic.org)

Source: APIC