



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

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Outbreak of Swine-Origin Influenza A (H1N1) Virus Infection: 2009

May 11, 2009

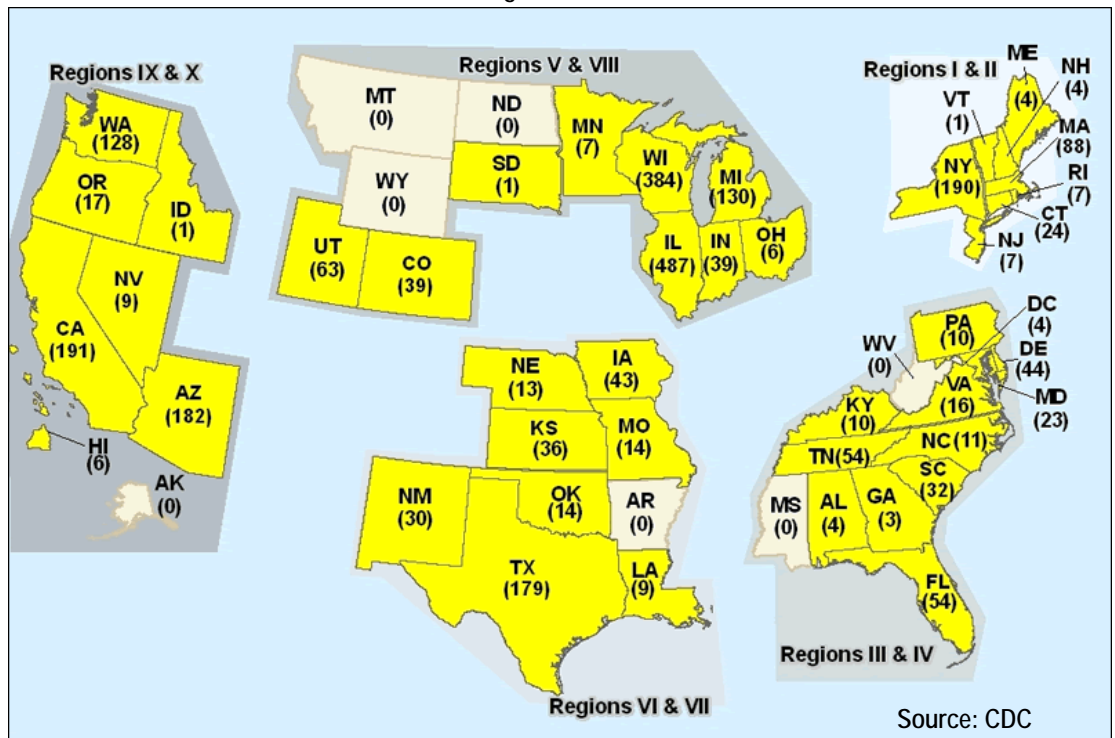
In March and early April 2009, outbreaks of influenza-like illness (ILI) were reported in several areas of Mexico, which were later confirmed to be swine-origin influenza A (H1N1) virus infection. These caused public health concerns in, and outside Mexico and as a result, surveillance efforts increased worldwide. Although the illness has so far not been severe in the United States, the flu virus has been linked to human deaths. This has prompted federal officials to declare a nationwide health emergency. About 2618 confirmed human cases and 3 death have been reported in the U.S to date in 44 states including District of Columbia as of May 11,2009. (See Figure 1 below)

Missouri has reported 14 confirmed cases of H1N1 and significant steps are being taken to deal with the incidence.

Worldwide, there are 4694 confirmed human cases of H1N1 reported in 30 countries. Mexico has reported 1628 cases, including 48 deaths.

On the local level, no case has been reported in **Joplin City, Jasper, McDonald, Newton, Dade, Vernon, Barton** and neighboring counties. (More information about H1N1 in p.3)

Figure 1



Source: CDC

Human Cases of H1N1 flu Infection

U.S.

- 2618 cases
- 3 deaths

Worldwide

- 4694 cases
- 53 deaths

Missouri

- 14 cases
- 0 death

Communicable Diseases Report

Table 1

Cumulative Cases From January Through End of April 2009, By Local Jurisdiction (2008 & 2009) (Includes confirmed, probable and suspect cases)														
	JOPLIN		JASPER		BARTON		DADE		MCDONALD		VERNON		NEWTON	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
ANIMAL BITES	39	53	29	28	1		1		1	6	1		9	5
BRUCELLOSIS														1
CAMPYLOBACTERIOSIS	1	2	5	5	1	0	1		1		3	2	2	
CREUTZFELDT-JAKOB DIS							1							
CRYPTOSPORIDIOSIS			1						1	1	3			2
E. COLI SHIGA TOXIN			8	2										1
E. COLI O157 H7							1		1	1				
GIARDIASIS	1			2			1							
HAEMOPHILUS INFLUENZAE				1										
HEPATITIS A ACUTE				1						2				1
HEPATITIS B PREGNANCY		2	1	1									1	
HEPATITIS B ACUTE	1	5	2	1			1	1		1			2	3
HEPATITIS B CHRONIC	4	1		2							1	1	2	
HEPATITIS C ACUTE		2												
HEPATITIS C, CHRONIC IN	35	13	19	23	2	2		2	18	8	4	9	21	14
LEGIONELLOSIS		1				3		1						
LISTERIOSIS			3											
MENINGOCOCCAL DISEASE	2													
MUMPS									1	1				
PERTUSSIS				4								1		6
RABIES POST EXPO PROPHY													1	4
ROCKY MOUNTAIN SPOT		2		1										4
SALMONELLOSIS	4	5	3	1					2	1	3	1	3	1
SHIGA TOXIN + (NON E. C	1													
STREP DISEASE, GROUP	1										1			
STREP PNEUMONIAE, <4	1													
STREP PNEUMONIAE, DR							1							
TOXIC SHOCK (STAPH) SY		1												
TULAREMIA					1									
VARICELLA (CHICKENPOX)			5	7				1		2			3	3
Total Cases Per Year To-Date	90	87	76	79	5	5	7	5	25	23	16	14	44	45

Source: Missouri Department of Health and Senior Services

Data period : January through end of April 2009

There were three (3) additional cases of pertussis in Jasper County in April 2009 and one in Vernon County. No such cases were reported in 2008.

Additionally, there were 20 more cases of animal bites in Joplin City in April (from 33 to 53) and few or no cases in other jurisdictions. To date, McDonald County has 6 animal bites cases compared to one case in 2008.

Of the 8 rabies positive cases reported in Missouri to Date (by April), five were skunk-related and 3 from bats. None of these positive cases were reported in the local jurisdictions above.

Analysis: Joseph T. Njenga

H1N1 Flu (Swine Flu) and You

What is H1N1 (swine flu)?

H1N1 (referred to as "swine flu") is a new influenza virus of swine origin that was first detected in April 2009. It has now been reported in 30 other countries. This virus is spreading from person-to-person, in much the same way as the regular seasonal influenza viruses.

Do pigs carry this virus and can I catch this virus from a pig?

At this time, there is no evidence that swine in the United States are infected with this new virus. However, there are flu viruses that commonly cause outbreaks of illness in pigs. Most of the time, these viruses do not infect people, but influenza viruses can spread back and forth between pigs and people.

Are there human infections with this H1N1 virus in the U.S.?

Yes. Cases of human infection with this H1N1 influenza virus have been confirmed in the United States. A total of 2,618 human cases and 3 deaths have been confirmed in 44 states as of May 11, 2009.

Is this new H1N1 virus contagious?

CDC has determined that this new H1N1 virus is contagious and is spreading from human to human.

What are the signs and symptoms of this virus in people?

Symptoms of H1N1 virus in people include fever, cough, sore throat, body aches, headache, chills and fatigue. A significant number of people who have been infected with this virus also have reported diarrhea and vomiting. Severe illnesses and death have also occurred as a result of illness associated with this virus.

How does this new H1N1 virus spread?

Spread of this H1N1 virus is spread mainly from person to person through coughing or sneezing by people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

Can I get infected with this new H1N1 virus from eating or preparing pork?

No. H1N1 viruses are not spread by food. You cannot get this virus from eating pork or pork products. Eating properly handled and cooked pork products is safe.

Are there medicines to treat infection with this new virus?

Yes. CDC recommends the use of oseltamivir or zanamivir for the treatment and/or prevention of infection with these new influenza A (H1N1) viruses. Antiviral drugs are prescription medicines (pills, liquid or an inhaler) that fight against the flu by keeping flu viruses from reproducing in your body. If you get sick, antiviral drugs can make your illness milder and make you feel better faster. They may also prevent serious flu complications. During the current outbreak, the priority is to treat severe influenza illness cases.

How long can an infected person spread this virus to others?

CDC believes that this virus may be contagious from one day before symptoms develop to up to 7 days after sickness. Children might potentially be contagious for longer periods.

What can I do to protect myself from getting sick?

There is no vaccine available right now to protect against this new H1N1 virus. Take these everyday steps to protect your health:



- Cover your nose and mouth with tissue when you cough or sneeze.
- Wash your hands often with soap and water, especially after you cough or sneeze.
- Alcohol-based hand cleaners are also effective.
- Avoid touching your eyes, nose or mouth. Germs spread this way.
- Try to avoid close contact with sick people.
- Stay home if you are sick for 7 days after your symptoms begin or until you have been symptom-free for 24 hours, whichever is longer. This is to keep from infecting others and spreading the virus.

Influenza-Like Illnesses (ILI) Situation Report: ESSENCE

According to ESSENCE Surveillance, there was an increase of Influenza-Like Illnesses reported in ERs in Jasper, Barton, Newton, McDonald and Vernon counties during the last week of April. No unusual activity was reported in Dade County. Increased visits were reported as follows:

NB.

ESSENCE data come from a number of hospital EDs and do not include non-ESSENCE hospitals, clinics, urgent care, or physician offices.

ESSENCE's chief complaint data, do not represent final diagnosis.

Influenza-like Illness (ILI) visits comprise of chief complaints that include: flu, flulike, influenza, or fever plus cough, or fever plus sore throat.

Table 2

	28-Apr	29-Apr	30-Apr	1-May	2-May
Dade					
Barton			4	0	3
McDonald	1	3	1	4	0
Vernon	0	0	2	4	5
Newton	6	11	11	16	5
Jasper	6	18	14	15	16

- Red means Alert i.e. Greater than expected cases and therefore some investigation is required.
- Yellow means Warning i.e. More surveillance is needed
- Blue means data (No significant activity)

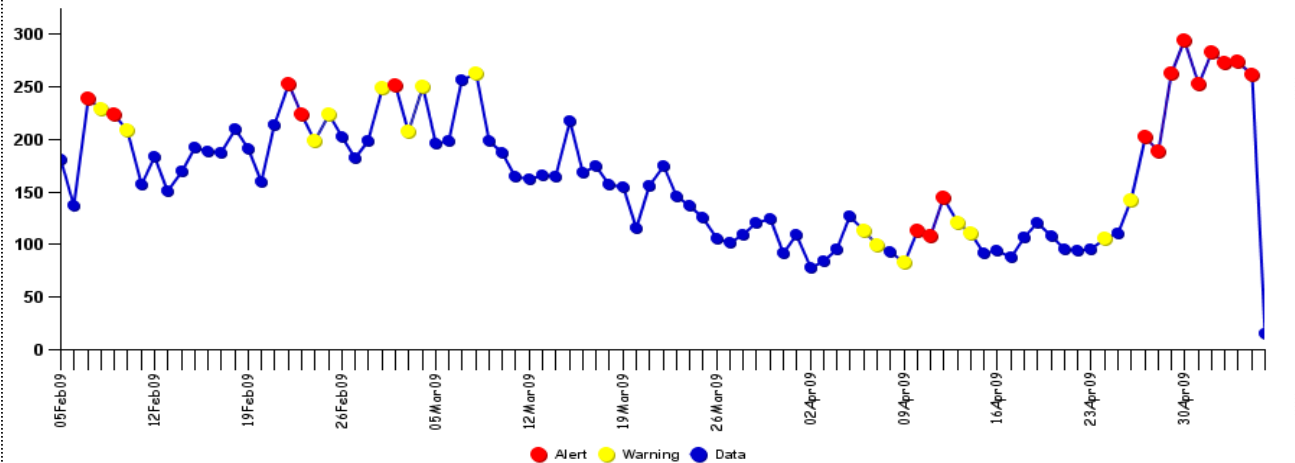
Based on the above information, there were more alerts/warnings relating to Influenza-Like Illnesses reported in the ED as from April 29 till May 2, 2009, after which the numbers started declining gradually.

Figure 1 below shows the statewide Influenza-like illnesses cases reported via ESSENCE as of May 5, 2009. As you can see, the alerts consistently appeared toward the end of April.

Statewide ESSENCE Surveillance for Influenza-Like Illnesses

Figure 2

ILI Statewide Reported Via ESSENCE, YTD 2009 as of 05.05.09



Sexually Transmitted Disease Monthly Update

Sexually Transmitted Diseases continued to increase steadily in some of the jurisdictions, with the highest rate reported in Jasper County. An addition of 34 Chlamydia cases were reported in Jasper County, 20 in Joplin City, 16 in Newton county, 4 in McDonald and 5 in Vernon County in the month of March alone. No STD cases were reported in Dade in March.

There were three cases of syphilis reported during the month of March.

Chlamydia continued to be the leading Sexually Transmitted Disease in the region followed by Gonorrhea.

Table 3

Reportable Sexually Transmitted Diseases (STDs) Year-To-Date, by County in 2009 (January through March, 2009)								
	Joplin	Jasper	Newton	McDonald	Dade	Barton	Vernon	Total
Chlamydia	69	108	32	10	1	3	10	234
Gonorrhea	11	14	4	0	1	0	14	44
Syphilis	1	2	0	1	0	0	1	5
Total	27	124	36	2	2	3	15	



Source: Missouri Department of Health and Senior Services

What is Chlamydia?

Chlamydia is a common sexually transmitted disease (STD) caused by the bacterium. It is the most frequently reported bacterial STD in the U.S. Even though the symptoms of chlamydia are usually mild or absent, serious complications can occur.

Transmission of Chlamydia

Chlamydia can be transmitted during vaginal, anal, or oral sex. It can also be passed to a baby during vaginal childbirth.

Risk factors

- Multiple sex partners
- Age: Young women are more susceptible because their uterus is not fully matured
- Sexually active individuals
- Oral or anal sex
- Men who have sex with men

Symptoms

Chlamydia is known as a "silent" disease because many of those infected have no symptoms. Symptoms, if any, usually do appear within 1 to 3 weeks after exposure.

Women

- Abnormal vaginal discharge
- Burning sensation when urinating,
- Lower abdominal/back pain,
- Nausea,
- Fever,

- Pain during intercourse,
 - Bleeding between menstrual periods.
- Men**
- Discharge from their penis
 - Burning sensation when urinating
 - Itching around the opening of the penis.

Complications of untreated chlamydia

Pelvic inflammatory disease (PID) in women can occur if infection is untreated. PID can cause chronic pelvic pain, infertility, and **potentially fatal ectopic pregnancy** (pregnancy outside the uterus).

Complications among men are rare. Infection sometimes cause pain, fever, and, rarely, sterility.

Treatment

Antibiotics: Azithromycin or Doxycycline.

Early treatment can prevent further complications. Those who know they have STD should notify all their recent sex partners to be evaluated.

Prevention

- Abstain from sexual contact,
- Avoid multiple sex partners
- Be in a long-term mutually monogamous relationship with an uninfected partner.
- Use of Latex male condoms
- Annual chlamydia testing for those at risk

For more information, visit CDC and the DHSS websites

Source: MDHSS and CDC

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TRAININGS

Principles of Epidemiology Course— July 29-30 & October 21-22, 2009. Contact Rose.Kowieski.dhss.mo.gov or call 573-751-6113 for more information about registration.

UPCOMING EVENTS

Resistant Coalition Meeting (ROC INC.,) Meeting on *May 27, 2009* at Panera Bread Meeting room (2401 E. 32nd St., Joplin, MO) at 8:00 am. ROC INC., group's mission is to reduce the incidence of multi-drug resistant organisms by increasing awareness and education in the community.



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

Influenza Season 2008-2009 at the end of April 2009

The current influenza season 2008/09 continue to lag behind the previous season 2007/08. There were less cases during this season compared to the previous one in all the jurisdictions below as of the end of April. The season ends in Mid May (Week 20).

Joplin City led in the number of influenza cases reported during all seasons followed by Jasper County.

Figure 3

Influenza Season Updates 2007/08 & 2008/09 as of End of April

