



McHenry County Department of Health

June 2007

www.mcdh.info

**COMMUNICABLE DISEASE  
EMERGENCY NOTIFICATION  
INFORMATION**

Urgent Public Health issues shall be reported immediately (within 3 hours) to the McHenry County Department of Health and include the following:

- \* Anthrax (suspected or confirmed)
- \* Botulism (foodborne)
- \* Plague
- \* Q-fever
- \* Smallpox
- \* Tularemia
- \* Any suspected Bioterrorist threat or event

**REGULAR OFFICE HOURS**

(Monday – Friday 8am – 4:30pm)  
**(815) 334-4500**

Please call one of the following:  
**Mary Lou Ludicky**, Communicable Disease Coordinator  
**Mary Ann Randolph**, Investigator  
**Diane Doty-Brown**, Investigator  
**Barbara Birmingham**, Investigator  
**Susan Heger**, TB Nurse  
**Sherrie Gallas**, Epidemiologist  
**Shannon Bennett**, CD Health Educator

**AFTER OFFICE HOURS**

(Monday – Friday 4:30pm – 8am;  
Saturday, Sunday  
and Holidays)  
**(815) 344-7421**

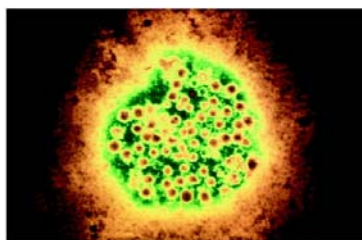
Ask to speak to the Communicable Disease “On-Call” Person.

**Mission**

The Communique is a newsletter intended to prevent morbidity and mortality of infectious diseases by providing data and recommendations to clinicians, laboratories, infection control personnel and others who diagnose, treat or report infectious diseases in McHenry County.

We welcome comments and suggestions. Please call if you wish to be added to our mailing list. Contact Mary Lou Ludicky at 815-334-4500 or mlludick@co.mchenry.il.us

**Bug of the Month:  
Hepatitis A**



Hepatitis A is classified as an RNA virus of the picornavirus group. It causes acute disease with symptoms of fever, jaundice, anorexia, malaise, nausea and sometimes diarrhea. Children younger than six years may not have jaundice and may be unrecognized as being symptomatic of Hepatitis A (HAV). Adults and older children will have jaundice approximately 70% of the time. Symptoms generally last for several weeks but approximately 15% of adults will have prolonged or relapsing disease for as long as 6 to 9 months. Those who already have underlying liver disease may have fulminant Hepatitis A. There is no chronic infection; and once a person has run the course of the disease, they will be immune for the rest of their lives.

Transmission is person to person by the fecal-oral route. An HAV infected person appears to be most infectious 1 to 2 weeks before the onset of illness and then rapidly decreases in infectiousness by 1 week after the onset of jaundice. Outbreaks have occurred related to contaminated water, food contaminated by infected food workers who handled uncooked food or food after it was cooked, contaminated produce such as lettuce, strawberries or green onions, or raw or undercooked mollusks taken from contaminated waters. The incubation period is from 15 to 50 days, with the average being 25 to 30 days.

The people who are most at risk for developing Hepatitis A are: 1) household contacts of infected cases, 2) sexual contacts of infected cases, 3) men having sex with men, 4) injecting and non-injecting drug users, 5) persons with chronic liver disease, 6) persons with clotting-factor disorders, 7) persons who travel to endemic areas, 8) children who live in communities with elevated Hepatitis A rates. The CDC website, [www.cdc.gov](http://www.cdc.gov), has a map of the United States showing counties that are at highest risk, as well as a world map, showing low to high risk countries. Illinois, with 8.17 cases per 100,000 population from 1987-1997 (most recent data available) and McHenry County, with 6.41 cases, are at low risk.

Diagnosis is based on symptoms and is confirmed by serology. At the onset of illness, serum IgM will be noted and will usually disappear by 4 months, but may persist longer than 6 months in very young children. Although false-positive results do happen, the presence of IgM indicates a current or recent infection. If the total anti-HAV is positive but there is no IgM present, then the patient had a past infection and is immune.

**When the McHenry County Department of Health receives a report of a Hepatitis A case, an immediate investigation is done to find household and sexual contacts who should receive prophylactic IG (Immune Globulin). In order for IG to be effective, it has to be given within 2 weeks of the last exposure. When a report is delayed to the Health Department, it may be too late to give IG to contacts of the case and, therefore, more cases may occur. The Hepatitis A vaccine has not yet been proven to be effective for post exposure prophylaxis. It takes 4 weeks after the vaccine is**

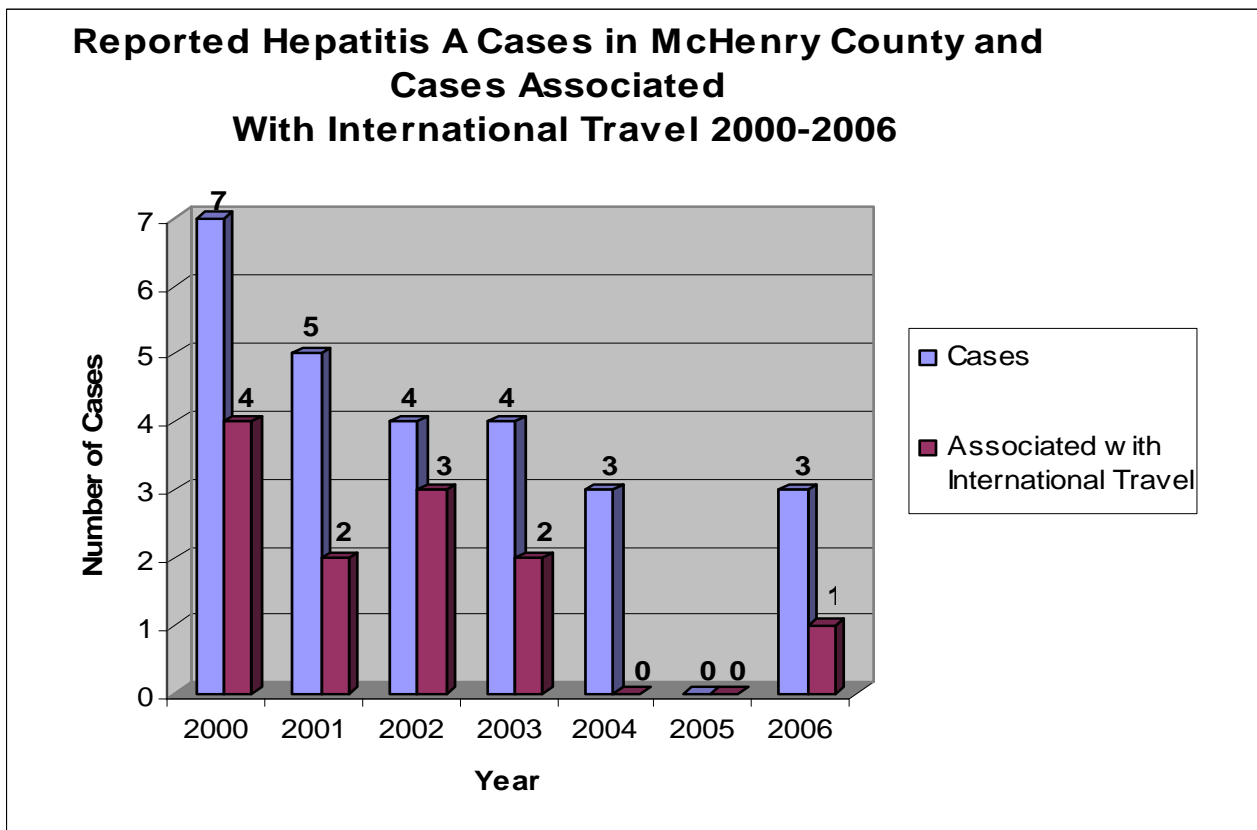
administered for complete effectiveness to occur. The timely reporting of Hepatitis A infection is important since there will be several days' delay, from the date of the report, to contacting household or sexual contacts, to giving the IG. Hepatitis A should be reported by physician offices, medical clinics, hospitals, urgent care centers and laboratories, as soon as possible. . Recently, the Kane County Health Department provided prophylactic IG to over 3000 individuals who were exposed to a food handler with Hepatitis A.

**The McHenry County Department of Health will provide free, adult Hepatitis A and Hepatitis B vaccinations for patients who are diagnosed with Hepatitis C, who have approval from their physician.** Since they already have underlying liver disease, contracting HAV can be life-threatening, but preventable. Please note that this is the only time that the Health Department will provide Hepatitis A and B vaccinations to adults.

**Hepatitis A vaccine is also available through the Vaccine for Children (VFC) program for**

**children aged 1- 18 years of age at the Health Department.** The most recent recommendation by the American Academy of Pediatrics (4-9-2007) is that all 1 year olds receive Hepatitis A. It is a 2 dose series 6 months apart.

Manufacturers of the vaccine are Havrix by GSK and Vaqta by Merck. Information about Hepatitis A can be found at the CDC website, IDPH website, [Control of Communicable Diseases Manual](#) by Dr. David Heymann and the American Academy of Pediatrics, [Red Book 2006](#).



# MRSA Posters/DVD Available!

The CDC has MRSA posters available. The posters are useful to a wide variety of audiences, including: hospitals, long term care facilities, dialysis centers, day care centers, schools, military and police academies, gyms, and sports centers. They are available at: [http://www.cdc.gov/ncidod/dhqp/ar\\_\\_mrsa\\_ca\\_posters.html](http://www.cdc.gov/ncidod/dhqp/ar__mrsa_ca_posters.html) and can be printed out at no charge. The McHenry County Department of Health also has a DVD available on MRSA suitable for high schools and sports teams. If you would like a copy, please contact us at 815-334-4500 and ask for the Communicable Disease Program.

# ARBOVIRUS



The warmer spring weather is a welcome relief from the freezing Illinois winters and people of all ages finally shed their winter clothes for shorts, t-shirts and bathing suits. Unfortunately, humans are not the only species that enjoy the warmer weather. Mosquitoes come out of hibernation as the temperature rises, and as spring and summer arrive, so does the threat of West Nile Virus (WNV) and other arboviral diseases.

The 2002 WNV outbreak in Illinois occurred during a summer with above normal temperatures. By the end of 2002, Illinois had counted more human cases (884) and deaths (66) than any other state in the nation. In contrast, the summers of 2003 and 2004 were much cooler than normal and there were many fewer cases in Illinois (54 and 60 respectively). In 2003, McHenry County reported no cases of West Nile Virus. However, through active surveillance efforts, two cases of California encephalitis were detected. Both of these cases occurred in children under the age of 12 in the northern section of McHenry County.

Public health officials believe hot summer temperatures increase *Culex* mosquito production, which in turn increases the proportion of birds infected with WNV and the risk of disease to humans. Mosquito-borne West Nile Virus activity and the number of human West Nile disease cases increased during the hot summers of 2005 and 2006 compared to the cool summers of 2003 and 2004.

In 2006, Illinois reported 211 cases of WNV, 6 of which were in McHenry County. All six of the

McHenry County cases had West Nile fever, which is a mild form of the disease resulting in fevers, stiff joints, headaches, and rash.

The highest incidence of human WNV disease was in northeastern Illinois: Cook County (86 cases), DuPage County (43 cases), Will County (18 cases), McHenry County (6 cases) and Kane County (4 cases). More than half of Illinois' human WNV cases were neuroinvasive disease (59%), the remainder being West Nile fever (32%) or the "other clinical" presentation.

WNV is a flavivirus in the arthropod-borne viral fever family. Although it has been detected in several species of mosquitoes, about 70% of the positive samples have been from *Culex pipiens* (the house mosquito) and related species of *Culex*. The house mosquito prefers to breed in stagnant water including catch-basins, used tires, poorly draining ditches, and other artificial water-filled containers. It is important to remember that although a mosquito tests positive for WNV, it may not be able to transmit the virus due to the fact that WNV must migrate into the salivary glands for transmission. The infected *Culex* mosquito passes the virus as it gathers a blood meal from birds or mammals. The virus can then be transmitted to another mosquito as it gathers its meal.

Mild cases of WNV infections may cause a slight fever or headache. More severe infections are marked by a rapid onset of a high fever with head and body aches, disorientation, tremors, convulsions and, in the most severe cases, paralysis or death. Symptoms typically occur from three to 14 days after being bitten by an

infected mosquito. Persons who are 50 years of age and older are most at risk for developing serious illness associated with WNV. However, children as young as three months have been documented as cases.

**California Encephalitis** is spread by the treehole mosquito (*Aedes triseriatus*) which lives in woodland habitats. This vector breeds in artificial containers such as tires and buckets. Most cases occur in the Great Lakes states and Mid-Atlantic region. Children under the age of 16 are a high risk group. Symptoms can range from mild illness with fever, headache, and nausea to more severe with seizures, coma, paralysis and neurological damage.

## ARBOVIRAL HUMAN SURVEILLANCE

Surveillance for WNV will continue this summer in Illinois and McHenry County. The surveillance system includes infectious disease physicians, hospital laboratory directors, infection control practitioners, emergency departments, local health departments, health laboratories, and MCDH environmental health and communicable disease divisions who test for and report suspected or confirmed cases of various diseases, including WNV. Surveillance begins May 15 and continues until two weeks following the first hard frost. Previous years of dealing with WNV have taught us that the first human case of WNV can typically be expected 8 to 12 weeks after the first positive mosquito pool has been located, and 2 weeks before the first horse case has been detected.

## 2006 West Nile Virus

**Numbers at a Glance (Last Updated February 26, 2007)**

	Illinois	McHenry Co.
<b>Human Cases</b>	215	6
<b>Human Deaths</b>	10	0
<b>Average Age of Human Cases</b>	54 yrs	40 years
<b>Youngest Human Case</b>	2 years	31 years
<b>Oldest Human Case</b>	91 yrs	50 years
<b>Counties w/positive human, birds, mosquitoes and/or horses</b>	77	N/A
<b>Positive Birds</b>	161	19 of 53 tested
<b>Positive Mosquito Batches</b>	2,980	10 of 253 tested
<b>Positive Horses and Other Animals</b>	21	Not Available

Physicians are encouraged to report and test patients who meet the following criteria:

- **admitting diagnosis of aseptic meningitis, meningoencephalitis or encephalitis**
- **patients with more than 5 white blood cells in CSF with no other clinical explanation**
- **those patients for whom a physician has ordered testing for neurotropic viruses**
- **Patients diagnosed with Guillain-Barre Syndrome**

- Diagnostic testing for WNV is generally NOT recommended for individuals with non-specific "flu-like" symptoms in the outpatient setting. There are many causes of these non-specific symptoms, and testing for WNV would be non-productive for the majority of patients.
- Serum and cerebrospinal fluid (CSF) from all patients with encephalitic syndromes or aseptic meningitis should be sent to the Illinois Department of Public Health (IDPH) laboratory for **free** arbovirus testing. Acute serum and CSF will be tested for IgM antibody against WNV and St. Louis Encephalitis (SLE). Tests that are negative for West Nile Virus/SLE will also be tested for California Encephalitis (CE) in patients less than 18 years of age.
- Specimens should be sent to:  
**Illinois Department of Public Health Virology Laboratory**  
2121 West Taylor St  
Chicago IL 60612

The cost of shipping will be the responsibility of the submitter.

- Laboratory testing for WNV is available through the IDPH laboratory from May 15 to October 31 (or until 2 weeks after the first killing frost).
- Other Testing  
Testing for other arboviruses such as Dengue or Chikungunya can be requested through the IDPH Communicable Disease Control Section. This testing is only available at the CDC and prior arrangements are necessary for symptomatic persons who have traveled to areas endemic for these other arboviruses.
- A link for specimen submission forms can be found at <http://www.idph.state.il.us/envhealth/wnvhealthcare.htm>

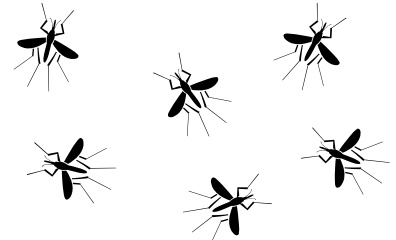
**Arbovirus testing continues to be of great importance. It monitors for other diseases carried by mosquitoes including St. Louis**

**Encephalitis and California Encephalitis. The information obtained will be used to focus and guide environmental activities to prevent further cases. Information is reported on a regular basis to the Centers for Disease Control and Prevention to assist in national assessment.**

Additional information on West Nile Virus may also be found at:

<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>  
<http://www.idph.state.il.us/envhealth/wnvhealthcare.htm>

References: Heymann, David (editor), Control of Communicable Diseases Manual, 18<sup>th</sup> Edition, 2004



**Citizens may report locations of dead birds to the Health Department. The Environmental Division will be collecting a limited number (approximately 20) of dead birds for analysis of WNV. This serves as one surveillance tool used to monitor WNV activity in the area. The Environmental staff also collects *Culex* mosquitoes using gravid traps which are tested for WNV. Currently, there are 9 traps located throughout the county. Birds that are accepted for analysis are perching birds, with first priority being crows, blue jays and robins. Eligible birds should be dead less than 24 hours and not decomposed or damaged. For more information, call 815-334-4585 or visit our web site at [www.mcdh.info](http://www.mcdh.info).**

# Giving and "Reading" TB Skin Tests Correctly

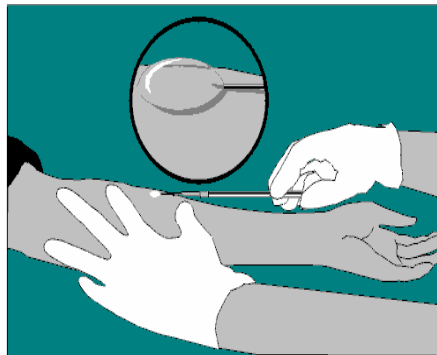


An accurate tuberculin skin test (TST), using the Mantoux method, depends entirely on the ability of the skin test administrator to give the TST correctly and then to interpret the result correctly. The most common errors noted in giving the test are placing the TST at an incorrect site and inserting the needle too deeply. For reading the TST, the most common errors are measuring redness (erythema) instead of induration (a raised, hard formation) and not putting the arm at a 45 degree angle so as not to confuse a margin of muscle with a margin of induration.

The purified protein derivative (PPD) solution needs to be stored away from light and refrigerated at 36 to 46 degrees F. If the vial of solution has been opened for more than 30 days or if the expiration date has passed, the vial must be discarded. Draw up the 0.1 ml. of solution into a tuberculin syringe just before administering it to avoid leaching from the plastic material of the syringe from into the solution.

The correct site for placing the tip of a 27 gauge tuberculin needle is on the palm-side-up surface of the forearm, 2 to 4 inches below the antecubital (elbow). Old posters and pictures from the CDC and books show the site in the middle of the arm and sometimes lower. Those sites are no longer acceptable and newer pictures are available.

By keeping the bevel up, insert the tip of the needle into the top layer of the skin so you can see the needle bevel through the skin. Don't insert the needle further than just covering the bevel. A pale wheal, about 6 to 10 mm, should form after the solution is injected. Do not cover the site with a bandaid; instead dab the area with a 2X2 or cotton ball if bleeding occurs.



Instruct the client not to scratch or rub the site and not to apply lotions or creams to the area until after it has been read. The client is to return within 48 to 72 hours to have the TST read, unless the first part of a two-step TST is being done.

To read the TST, inspect the arm on a firm surface and in a good light. Always palpate the site with your fingers because the induration may not be visible. Raise the arm to a 45 degree angle and palpate the site again to determine if there is a raised, hard bump. This is done to avoid interpreting a muscle edge as an edge of induration. Measure the area of induration and not the erythema, using a millimeter ruler with calipers. Only measure the induration at the perpendicular to the long axis of the arm, the same direction as a watch band. The

result is recorded by one number in millimeters and not by two numbers, such as 8X15. Do not measure redness or swelling, only the induration. If there is no induration, record the reading as 0mm of induration. Do not record the results as "positive" or "negative." See the next Communicate to learn how to interpret TST results.

**If you find that you aren't sure how to "read" an unusual TST, please call the McHenry County Department of Health TB Care and Treatment Program at 815-334-4500 and request that your client be evaluated by one of the trained TB nurses. If the client can't come to the office within the 48 to 72 hour reading time, the staff may repeat the TST. It is very important that the TST be read correctly to prevent clients from unnecessarily receiving LTBI (latent tuberculosis infection) treatment.**

**Comprehensive written instructions for giving and reading TSTs can be found at the New Jersey Medical School National TB Center web site: [www.undnj.edu/ntbweb/docs](http://www.undnj.edu/ntbweb/docs). The CDC has an excellent video that shows how to administer and "read" TSTs called "CDC Tuberculin Skin Testing (Mantoux)" and it can be ordered for free through the CDC TB website at [www.cdc.gov](http://www.cdc.gov). Also a large, colored poster with good pictures and explanations, can be obtained through the CDC TB website. The TB Clinic has a list of where to find and order available tuberculin reaction rulers that are calibrated in millimeters.**



# Rabies Wrap-Up 2006



In 2006, a total of 4574 animals were submitted for rabies testing to the Illinois Department of Agriculture and the Illinois Department of Public Health. Of this total number tested, 46 were fluorescent antibody-positive for rabies. All of those that were antibody-positive were bats. A total of 1311 bats were tested in 2006. 3.5% were positive for rabies. The majority of bats (63%) were tested from May to August when bats are most active and likely to come into contact with humans or pets. In McHenry County, of bats tested for rabies in 2006, 3 tested positive.

In 2006, no skunks tested positive state wide for rabies. Of the animals tested, only 125 (2.8%) were skunks. 12 skunks were submitted by McHenry County. To maintain adequate rabies surveillance in the state, testing of

skunks must be maintained, since it is the main terrestrial animal reservoirs for the rabies virus in Illinois. Negative testing of wild mammals in counties, especially skunks, is one factor used to determine whether rabies post exposure treatment is recommended for persons bitten by dog and cats that cannot be observed for the 10 day period.

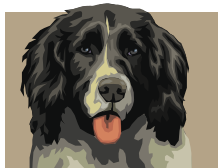
**Consultations about bat exposures or other animal bites and recommendations for rabies Post Exposure Prophylaxis are available to health care providers from The McHenry County Department of Health Communicable Disease Program, who will obtain consultation from the State Veterinarian at the Illinois Department of Public Health. Please contact the Communicable Disease Program**

at 815-334-4500 during office hours or 815-344-7421 after hours and on weekends.

**Number of Individuals in McHenry County referred for rabies post exposure prophylaxis due to exposure to bat or other animal**

Year	# of People
2006	23
2005	8
2004	24
2003	4
2002	1

**\*Remember... People suspected of having encountered a rabid animal MUST start prophylaxis within 10 days or less of the event.**



## BLASTOMYCOSIS SURVEILLANCE

Blastomycosis is a disease that impacts both animals and humans. It is caused when the fungus, *Blastomyces dermatitidis*, is inhaled into the lungs or enters the skin through a wound. The fungus grows naturally in moist soils and is most commonly diagnosed in people and dogs, but cats, horses, wolves, ferrets and bears have developed blastomycosis. The fungus is naturally occurring within McHenry County and grows in moist soil, particularly in wooded areas along waterways and undisturbed places, such as under porches or in sheds.

On March 1, 2007, the McHenry County Department of Health established a new surveillance program within the veterinary community. Each veterinary office has been asked to complete a simple case report form if they diagnose blastomycosis in a dog. The goal of this new program is to establish a baseline number of blastomycosis cases diagnosed in animals, particularly canines. Additionally, the program will seek to establish a potential correlation between animal and human infections. To date, such an assessment has not been conducted in McHenry County. Documentation of human diseases occurring first as zoonotic diseases within the animal population has long been recognized. We need only look as

far as current events involving avian influenza to see that a strong relationship exists between animal and human well-being. A strong collaborative effort between animal and public health disciplines must be established in order to develop strategies for minimizing the impact of dangerous outbreaks.

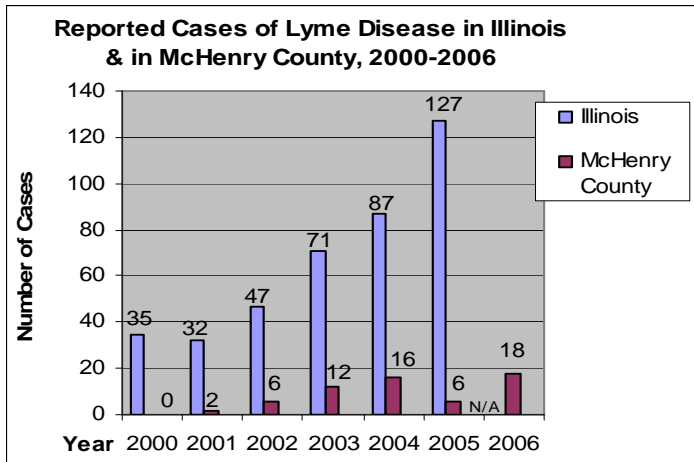
If you are a member of the animal health community and would like any additional information about blastomycosis disease, or for more information about the blastomycosis surveillance program, please do not hesitate to contact the MCDH Epidemiologist, Sherrie Gallas, at (815) 334 – 4510.



# LYME DISEASE

The Illinois Department of Public Health Environmental Division, based on data collected in 2006, indicates that the deer tick/black legged tick is believed to be established in Winnebago, Cook, DuPage, and other counties in the state. The tick may be established in Lake County, which is the first time this county has been included. At this time, the deer tick is not thought to be established in McHenry County. Populations of the deer tick / blacklegged tick are dynamic, and the deer tick continues to invade new geographic areas, particularly along river valleys where deer, small mammals, and migratory birds are common. The blacklegged tick is capable of transmitting Lyme Disease and human granulocytotropic anaplasmosis.

The "lone star tick", *amblyomma americanum*, is often confused with the deer tick because they are of similar size. The lone star tick is a POOR vector of Lyme Disease, but it can carry Tularemia Ehrlichiosis and less frequently, Rocky Mountain Spotted Fever. Although the lone star tick is common in some areas of central and southern Illinois, this tick is also expanding its range into northern Illinois.



A May 7, 2004 MMWR article titled [Lyme Disease: United States, 2001-2002](#), cites several prevention measures against tick borne diseases such as:

- Removing ticks within 48 hours of attachment can reduce the likelihood of disease transmission
- Antimicrobial prophylaxis of tick bites might be beneficial under certain circumstances
- Removing brush and leaf litter or creating a buffer zone of wood chips or gravel between lawns and forests may help prevent transmission

Additional information about ticks and prevention of tick-borne diseases can be found at:

IDPH- Common Ticks	<a href="http://www.idph.state.il.us/envhealth/pccommonticks.htm">www.idph.state.il.us/envhealth/pccommonticks.htm</a>
CDC	<a href="http://www.cdc.gov/ncidod/dvbid/lyme/index.htm">www.cdc.gov/ncidod/dvbid/lyme/index.htm</a>
Tick Images	<a href="http://www.cdc.gov/ncidod/dvbid/lyme/4ticks_cm.htm">www.cdc.gov/ncidod/dvbid/lyme/4ticks_cm.htm</a> <a href="http://www.ent.iastate.edu/imagegal/ticks/">www.ent.iastate.edu/imagegal/ticks/</a>
Modifying Landscaping to Reduce Tick Populations	<a href="http://www.wwhd.org/TLD_CD/anaprop2.htm">www.wwhd.org/TLD_CD/anaprop2.htm</a>
<u>Tick Mgmt Handbook</u> (Connecticut)	<a href="http://www.cdc.gov/ncidod/dvbid/lyme/resources/handbook.pdf">www.cdc.gov/ncidod/dvbid/lyme/resources/handbook.pdf</a>
Journals – Lyme Disease Treatment	<a href="http://www.journals.uchicago.edu/CID/journal/issues/v43n9/40897/40897.html">http://www.journals.uchicago.edu/CID/journal/issues/v43n9/40897/40897.html</a>
Tick Identification	The McHenry County Dept. of Health-Environmental Division: 815-334-4635

COMMUNICABLE DISEASES		
DECEMBER 1, 2006 – April 30, 2007		
DISEASE	# OF CASES	
	FY07	FY06
AIDS/HIV	1	3
Amebiasis	1	0
Blastomycosis	3	4
Campylobacter	9	15
Chickenpox (school report)	39	42
Chickenpox (adult only)	3	0
Cryptosporidiosis	4	0
E. Coli 0157:H7	1	1
Encephalitis	0	1
Giardia	3	4
Hepatitis A	3	0
Hepatitis B	16	20
Hepatitis C	34	57
Legionella	1	1
Lyme	7	4
Malaria	0	0
Aseptic Meningitis	12	17
Bacterial Meningitis	1	3
Mumps	1	0
Pertussis	9	11
Psittacosis	0	0
Salmonella	14	12
Shigella	3	3
Strep/Group A (invasive & wound)	2	9
Strep Pneumonia	18	15
TB Active	1	5
Chlamydia	100	67
Gonorrhea	7	19
Syphilis	1	4
West Nile Virus	0	0
Yersiniosis	0	0

**MCDH**

McHenry County Department of Health  
2200 N Seminary Avenue - Annex B  
Woodstock Illinois 60098

## BECOME PART OF OUR BROADCAST FAX NETWORK

Receive the latest health alerts on topics such as:

West Nile Virus      Bioterrorism  
Flu Updates          Area Outbreaks  
Other emerging infectious diseases



**From:** Centers for Disease Control      Illinois Department of Health      McHenry County Department of Health

Name \_\_\_\_\_  
Organization \_\_\_\_\_  
Specialty \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_  
Fax \_\_\_\_\_  
Email \_\_\_\_\_

**Mail to:**  
McHenry County Department of Health  
CD Program – Annex B  
2200 N Seminary Ave  
Woodstock IL 60098  
**Fax to:** 815-334-1884  
**Or email to:** [mlludick@co.mchenry.il.us](mailto:mlludick@co.mchenry.il.us)