

Jefferson County Department of Health and Environment (JCDHE)
West Nile Virus and Zoonoses
Newsletter # 4
July 5, 2007

WNV NATIONAL

Outside of Colorado, CDC and USGS have listed 19 human cases of WNV: 1 from Arkansas, 1 from California, 1 from Illinois 1 from Iowa, 6 from Mississippi, 2 from Nebraska, 1 from North Dakota, 5 from South Dakota, and 1 from Texas: For updates visit their websites at

<http://www.cdc.gov/ncidod/dybid/westnile/Mapsactivity/surv&control07Maps.htm>

http://diseasemaps.usgs.gov/wnv_us_human.html

WNV COLORADO

CDPHE lists seven mosquito pools that have tested positive for WNV all from Larimer County. To date the CDPHE laboratory has tested 14 dead birds and over 800 mosquito pools submitted from Colorado counties. All except the Larimer County mosquito specimens have been negative.

CDPHE has confirmed two human cases of WNV one from Logan and one from Cheyenne County. For updates on WNV in Colorado, please visit CDPHE's Zoonosis website at

<http://www.cdphe.state.co.us/dc/Zoonosis/wnv/index.html>

WNV JEFFERSON COUNTY

Mosquito Surveillance: Our contractor began mosquito trapping twice a week at 16 locations in the county, which will continue until the second week of August. This week's trapping yielded a total of 1019 mosquitoes with 386 being Culex mosquitoes. Ottertail Environmental submitted 7 pools of Culex mosquitoes to the state lab for WNV testing during this past week bringing the total number submitted to 14. All of the mosquito pools from Jefferson County has been negative for WNV this season. The highest numbers of Culex were caught at Johnson Park in Wheat Ridge (96) and Sanctuary Park in Lakewood (57). The total to date is 2,631 mosquitoes with 830 being Culex.

Dead Bird Surveillance: All reports of dead birds should be sent to the Colorado Help Line at 1-877-462-2911 for tracking and counting. JCDHE will monitor dead bird reports and will work with the animal control agencies for selecting and testing of dead corvids (Jays, Magpies, and Crows) that die in county. We will closely monitor all dead bird reports in conjunction with our sentinel mosquito program.

REMEMBER:

- **EVERYONE should always use repellent for ALL outdoor activities. Use DEET or one of the two new EPA approved repellents, Picaridin or Oil of Lemon Eucalyptus, (according to labeled instructions).**
- Wear long sleeves and pants when outdoors at dawn and dusk.
- Citizens should **D**rain and **E**mpy all containers in their yard because you can be bitten by WNV carrying mosquitoes in your own yards.
- Check your home to make sure all windows and doors have screens and are in good condition. This will reduce the chance of mosquitoes and bats gaining entry into your home.

Mosquito Complaint Hotline:

Ottertail Environmental operates a toll free telephone line for citizen reports and concerns, that number is 1-888-774-2161 and locally the local number is 303 273-2878.

RABIES IN COLORADO

Two recent events involving terrestrial mammals provide good examples of rabies exposure risk assessment. The first incident involved a coyote in Prowers County that attacked a woman and received limited media coverage outside the local area. The second incident was a young girl bitten by a fox in Denver County in which media coverage was sensationalized and often inaccurate.

In the coyote incident, the animal was seen during the day and was not frightened away by the rancher or his dog. It charged a woman standing on her front porch, inflicting multiple bites. This animal was shot and tested positive for rabies, subsequently confirmed as the south central skunk variant. The local health department, Division of Wildlife, Department of Agriculture and CDPHE are conducting additional surveillance in the area. The finding of rabies in a coyote is unusual, but not unexpected. Clinically the

animal appeared ill and exhibited aberrant, aggressive behavior consistent with rabies infection. The epidemiology was also consistent in that skunk rabies is routinely reported in areas of Kansas and Oklahoma bordering Prowers County. However, very few terrestrial animal specimens are submitted for rabies testing from this area of Colorado.

Conversely, the fox attack occurred in an urban area with adequate rabies surveillance and no terrestrial rabies in the surrounding area for several decades. The early evening attack on the two year-old child was not witnessed by any adults; most unwitnessed bites to small children (< 5 years of age) can be considered provoked. A provoked bite was supported by reports that the fox was regularly seen in the area and fed by residents. One person even bragged on TV that the fox would eat out of his hand. Thus, the fox likely approached the child looking for food and bit her when she reacted (tried to pet it, screamed and tried to run, etc.). The fox was subsequently shot by DOW and tested negative for rabies. The girl did initiate rabies post-exposure prophylaxis.

In both cases, based on the circumstances surrounding the bite and the epidemiology of rabies, the rabies status of the biting animal could be accurately predicted. However in absence of testing, bites from wild carnivores should be managed as a possible rabies exposure and rabies prophylaxis administered. When the animal is available for testing, treatment can be delayed until rabies testing is completed. Consultation on rabies exposures is available on a 24-hour basis from CDPHE.

RABIES IN JEFFERSON COUNTY

JCDHE has tested a total of 34 animals for rabies with 11 of those being bats and all testing results have been negative.

HANTAVIRUS PULMONARY SYNDROME (HPS) Case in Colorado

The third hantavirus case of the year was confirmed last week in a Chaffee County woman. The patient became ill on June 16th with typical HPS prodrome symptoms. She received non-specific treatment during a physician visit a few days later. On June 24th she became critically ill with ARDS and presented to a local hospital. HPS was immediately suspected; the patient was intubated and airlifted to a tertiary care hospital where she is currently recovering. The rapid diagnosis of hantavirus and intensive supportive care aided in her survival. Ten days prior to her onset she reported cleaning out a small un-ventilated mouse-infested utility room. Her husband reported a recent sharp increase in the mouse population around their rural home and had been placing poison out to control the mice.

Plague and Tularemia in Colorado Cats

The epidemiology, clinical presentation, and risk factors of feline plague and tularemia are similar. Infected cats usually have a history of being outdoor, free-roaming hunters that are exposed by consuming infected rodents and rabbits. Both diseases can be transmitted directly from an infected cat to a person via bites, scratches, contact with wound or abscess exudates or pneumonic spread. In addition, cats can bring plague-infected fleas into the home environment.

Cats suspected of having plague or tularemia should be hospitalized, using appropriate infection control practices, at a veterinarian hospital until completion of at least 48 hours of an appropriate antibiotic. Exposed persons should be placed on active fever watch for seven days. High-risk exposures, such as a bite or face-to-face contact with a cat with radiographically confirmed pneumonia, would warrant antibiotic prophylaxis. Environmental investigation of the home is usually not helpful given the large area a cat may roam.

Plague in Jefferson County

Because of this possibility of encountering plague in the rodent populations JCDHE recommends the following procedures for the remainder of the year.

- Do not feed squirrels or other rodents. This brings them onto your property and in close contact with each other, increasing the risk of disease transmission between squirrels.
- Rodent-proof your houses and outbuildings.
- Don't let dogs or cats catch or eat squirrels.
- Do not allow pets to roam freely, and keep them treated for fleas according to a veterinarian's advice.
- Be aware of rodent and rabbit populations in your area and report sudden die-offs or multiple dead animals.

- Contact your physician if you develop a high fever or other plague symptoms following a fleabite or direct contact with dead rodents or rabbits

To date no human cases of plague have been reported in Colorado.

For more information on plague, please visit CDPHE's Zoonoses website at:
<http://www.cdphe.state.co.us/dc/zoonosis/>

HELP line is also available to answer questions 1-877-462-2911.

For More Information on WNV and other Zoonoses:

Visit our web site for information and other resources on WNV at
http://www.jefferson.co.us/ext/dpt/health/home_ehs.htm or call 303 239 7075.
or contact dvolkel@jeffco.us or jdale@jeffco.us