

**Jefferson County Public Health
Zoonosis and West Nile Virus (WNV)
Newsletter # 1
July 10, 2014**

ZOONOSIS

RABIES IN COLORADO

January 1 – July 3, 2014

Lab Confirmed Rabies Positive Animals

County	Bat	Skunk	Other Wildlife	Domestic	Total
Adams		3			3
Arapahoe	1	1			2
Boulder	2	3			5
Chaffee	1				1
Denver	2				2
Douglas			1 raccoon		1
Elbert	1	1			2
El Paso	1				1
Jefferson	2				2
Larimer	3				3
Mesa	1				1
Pueblo		1			1
Weld	3	9			12
Yuma				2 – cat	2
Totals	17	18	1	2	38

On Wednesday, July 3, 2014, the CDPHE laboratory confirmed rabies in a young raccoon from the Littleton/Highlands Ranch (zip code 80126) area in Douglas County. Other than bats, this is the first rabies positive animal in this area. Variant typing is pending to confirm whether this is a bat variant or an indication of significant westward spread of the South-Central skunk rabies variant that is endemic in eastern and front range counties.

Any wild animal suspected of being rabid (nocturnal animals found out during the day, animals exhibiting abnormal behavior such as aggression, walking as if drunk, circling or loss of their natural fear to humans) or that potentially had contact with either people or domestic animals (including livestock) should be euthanized and tested for rabies. Rabies in terrestrial wildlife increases the risk of spillover into domestic animals and livestock, further increasing the risk to humans. Healthcare providers encountering persons who may have been exposed should evaluate them for the need for rabies post-exposure prophylaxis (PEP) and arrange for its administration if indicated. To assist with the evaluation consider the following:

Domestic Animal Exposures

- Domestic animals shall be put on a 10-day home quarantine after biting a person. No PEP recommended at this time.

- Domestic animals that do not complete the 10-day quarantine due to euthanasia shall be submitted for rabies testing at the owner's expense. No PEP recommended at this time, unless the animal tests positive for rabies.
- Domestic animals that are not available for quarantine or testing (i.e. stray cat or dog) are recommended to contact the state or local health department to assist with rabies risk assessment.

Wildlife Exposures

- Wildlife shall be submitted for rabies testing after biting a person or suspected contact (i.e. bat in bedroom). No quarantine periods allowed.
- If the wildlife is a rabies reservoir (i.e. skunk, raccoon, bat, fox, and coyote) and is not available for testing consider PEP immediately.

Animal bites are a 24-hour reportable condition. Healthcare providers shall contact the local or state health department to report the bite.

For additional information on rabies visit: <https://www.colorado.gov/pacific/cdphe/rabies>

For assistance with rabies risk assessment or questions about post-exposure prophylaxis contact JCPH at 303 271 5700 or CDPHE at 303-692-2700.

RABIES IN JEFFERSON COUNTY

JCPH has submitted 58 animals for rabies testing thus far this year that include 23 bats, 10 skunks, and 2 raccoons with two of the bats testing positive for rabies.

Historically bats have been the common carrier of rabies in Colorado but because of the approaching skunk rabies animal control officers and veterinarians should remain alert to possible skunk rabies and are encouraged to recommend rabies vaccinations by a licensed veterinarian for ALL domestic animals including dogs, cats, and valuable livestock by a licensed veterinarian.

In addition to rabies vaccinations for pets and livestock, there are additional precautions to prevent possible exposure to rabies:

- Do not feed, touch, or handle wild animals.
- Teach children to leave wildlife alone.
- Do not leave pet food or livestock feed in areas accessible to wildlife.
- Maintain control of your pets by keeping cats indoors and keeping dogs under direct supervision.
- Spay or neuter your pets to reduce the number of unwanted or stray animals in your community.
- Call your local animal control office to remove stray animals from your neighborhood or Jefferson County Animal Control at 303-271-5070
- Call the Colorado Division of Wildlife at 303-297-1192 if you have problems with wild animals.

WNV NATIONAL

Outside of Colorado, the Centers for Disease Control (CDC) and United States Geological Survey (USGS) have posted 18 human cases of WNV: Arizona (1), California (9), Mississippi (2), Missouri (1), South Dakota (3), Tennessee (1), and Texas (1): For updates during the WNV season visit the CDC and USGS websites at

<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>
http://diseasemaps.usgs.gov/wnv_us_human.html

WNV COLORADO

On July 3, 2014 the first two human cases of West Nile virus were reported this season from: Saguache (1) and Pueblo (1) counties.

There have been 175 mosquito pools submitted to CDPHE from throughout the state and there have been positive WNV pools from the following counties. Adams (2), Boulder (4), Delta (1), Greeley (2), Mesa (1), Pueblo (1), and Weld (5).

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

WNV JEFFERSON COUNTY

Jefferson County has not had a positive mosquito pool for WNV and there are no verified reports of human cases in Jefferson County at this time.

In past years, standing water on properties throughout the County has been evaluated by the Jefferson County WNV contractor for the presence of mosquito larvae and treated if mosquito larvae were found. However, beginning in 2011, any standing water that has the potential to breed mosquitoes is the responsibility of the property owner, meaning they must provide all WNV monitoring and control activities on their property. This applies to all cities, parks, special districts, and private property in the county.

Eliminating standing water is the most effective way to stop mosquito breeding. If the water cannot be eliminated, the installation of an aerator to keep the water flowing is the next best step. If this is not possible, clean the edges of your pond of grass, moss, and bushes to eliminate the breeding sites for mosquito larvae.

Because there will not be any mosquito larval surveillance or control during the 2014 season. JCPH strongly encourages everyone to follow the **4 “Ds”** listed below:

- Use **DEET** insect repellent for ALL outdoor activities (even out to get the mail). Additional insect repellents available are Picaridin and Oil of Lemon Eucalyptus, (Always follow Label Directions Carefully).
- At **Dawn and Dusk** - outdoor activities should be limited, because it is at these times that mosquitoes are most active.
- **Dress** in long sleeves and pants when outdoors and be sure to cover feet and ankles if you have outdoor activities.
- **DRAIN and EMPTY** all containers (toys, kiddie pools, flowerpots, buckets) in your yards because mosquitoes carrying WNV can bite at anytime and anywhere, even in your own yards. Make sure your gutters and downspouts are clean and running freely.

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 entering your home.

For additional information from repellents to how to protect you and your family around home go to <http://jeffco.us/public-health/healthy-environments/animal-borne-disease/> at WNV or www.FightTheBiteColorado.com.

PLAGUE IN COLORADO

The Colorado Department of Public Health and Environment (CDPHE) laboratory identified pneumonic plague in a Colorado resident on July 8, 2014. The investigation revealed that the family dog had recently died unexpectedly so the carcass was sent to the Colorado State University Veterinarian Diagnostic Laboratory, where it tested positive for plague. The patient and the dog may have been exposed in eastern Adams County.

Tri-County Health Department officials and the CDPHE are working together to investigate the source of exposure and to identify people who may have had close contact with the individual. Any individuals exposed will be recommended for antibiotic treatment.

Plague is spread from fleas on rodents, most commonly prairie dogs. People walking in open spaces and trails should avoid contact with rodents.

JCPH encourages people take the following precautions to prevent plague exposure:

- Do not directly handle any dead rodents.
- Keep pets away from wildlife, especially dead rodents.
- Don't let dogs or cats hunt prairie dogs or other rodents.
- Don't allow pets to roam freely.
- Treat all pets for fleas according to a veterinarian's advice.
- Do not feed prairie dogs or other rodents – this attracts them to your property, brings them in close contact with other rodents and increases the risk of disease transmission.
- Be aware of rodent populations in your area and report sudden die-offs or multiple dead animals to your local health department.

Contact your physician if you develop a high fever and other plague symptoms following a fleabite or direct contact with dead rodents. Symptoms of plague include a sudden onset of high fever, muscle pain, malaise, nausea and vomiting, or a general feeling of being ill. Individuals with bubonic plague will develop a large, swollen, painful lymph node in the area of a flea bite, usually in the groin or armpit. If untreated, the disease can enter the bloodstream or lungs, which are severe, life-threatening complications. Individuals with pneumonic plagues (the lung form) develop fever, headache, weakness, shortness of breath, chest pain, cough which can lead to respiratory failure. Pneumonic plague is the most serious form of the disease and is the only form of plague that can be spread from person to person (by infectious droplets from coughing). Although human cases occur infrequently, plague is severe and potentially life-threatening if not detected and quickly treated with common antibiotics.

Plague often is identified when there is an unusual die-off of prairie dogs in an area. When an infected animal dies, the fleas leave the carcass to find another host, thus spreading the disease. Most human plague cases occur when humans are bitten by infected fleas. Less commonly, people are infected by direct contact with blood or tissues from an infected animal or from pets that become infected and transmit the disease. Since 1957, Colorado has identified 60 cases of human plague, nine (15 percent) of which were fatal.

Additional information on plague can be found at: <http://www.cdc.gov/plague>

HANTAVIRUS PULMONARY SYNDROME (HPS)

As the weather warms and people spend more time outdoors and begin their annual spring cleaning projects everyone should keep in mind the following:

HPS is a serious respiratory disease caused by a virus (Hantavirus). Hantavirus is carried by wild rodents, particularly deer mice, and is present in their droppings (feces), urine and saliva. These dried droppings or urine can be stirred up in dust and breathed in by people. People may get Hantavirus when they breathe in air contaminated by the virus. Hantavirus has not been shown to infect other kinds of animals, such as dogs, cats or farm animals. The disease is not contagious and does not spread from human to human.

Symptoms: The incubation period (time between exposure and appearance of symptoms) varies widely, but ranges from 1 to 6 weeks, with an average of 2-3 weeks. First symptoms of HPS include fever, headache, and muscle pain, severe abdominal, joint and lower back pain, nausea and vomiting. A cough and shortness of breath usually develops 1 to 5 days after the onset of symptoms. The primary symptom of HPS is difficulty in breathing due to fluid build-up in the lungs. This can quickly progress to respiratory failure.

Preventing Hantavirus: The best way to prevent the risk of Hantavirus infection is to control the presence of rodents in and around the home. This includes sealing up rodent entry holes or gaps; trapping mice and rats; and, being careful not to create food sources for the rodents, i.e. keeping yard clean and putting away pet food. Hantavirus is often encountered when cleaning vacated sheds, cabins or other enclosed areas, so it is especially important that areas where rodents have been are cleaned cautiously and carefully. Areas should not be swept or vacuumed as this can stir up dust. Instead, use gloves and thoroughly wet contaminated areas with a bleach and water solution or household disinfectant. Once wet, contaminated materials can be taken up with damp towel and then mopped or sponged with bleach solution or household disinfectant. Contaminated gloves should be cleaned and disinfected before taking them off. After taking off the clean gloves, wash hands with soap and warm water.

For Information on other Zoonosis concerns visit our web site at <http://jeffco.us/public-health/healthy-environments/animal-borne-disease> or contact David Volkel at dvolkel@jeffco.us or 303-271-5730.