

# Your Zoonosis Connection

Harris County

## HCPHES

Public Health & Environmental Services  
Veterinary Public Health Division

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## Hello from your Zoonosis Veterinarian

Hello, my name is Desiree Parks, and I am the new zoonosis veterinarian for Harris County Public Health & Environmental Services, Veterinary Public Health Division (HCPHES VPH). I was born in Chicago and moved to north Texas at a young age. I attended Texas Tech University for my undergraduate degree and earned a Masters in Microbiology in 2009.

I became fascinated with the connection of human and animal health and pursued a dual degree in Colorado, where I earned my MPH with the



Colorado School of Public Health in 2012 and my DVM from Colorado State University in 2014. Afterwards, I moved to the Houston area to be closer to family and worked as a private practitioner until joining HCPHES VPH. I have dedicated myself to the advancement of public health

through education and preventative medicine. I am excited to join HCPHES and provide a valuable service to the veterinary community.

Please feel free to contact me with any questions or concerns you may have at 713-418-1801 or [dmparks@hcpbes.org](mailto:dmparks@hcpbes.org).

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### Pet Health Awareness Holidays

#### Sept

28 World Rabies Day

#### October

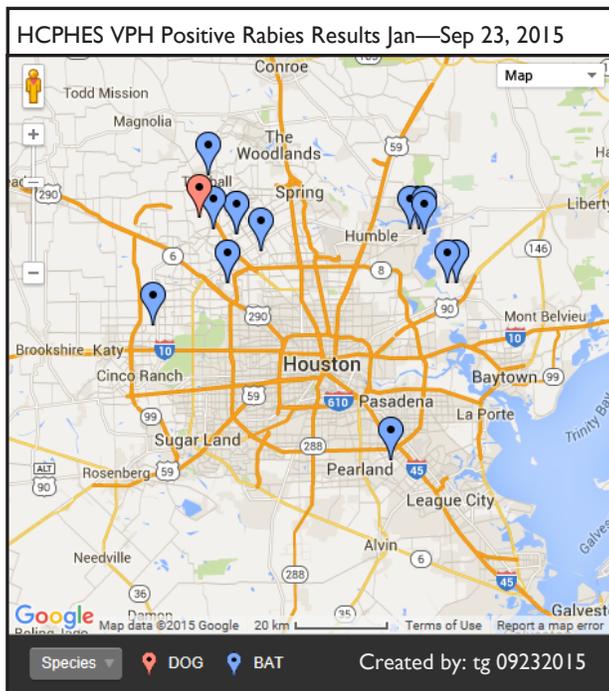
1-31 Adopt A Dog Month!

1-31 National Service Dog Month

#### November

11 Winter Weather Preparedness Day

## Rabies Update Summer 2015



Rabies continues to be a serious health threat to people and domestic animals. In Harris County, it remains enzootic in the bat population. The map below illustrates the locations of the positive specimens for January - September 2015, submitted by Harris County Public Health & Environmental Services (HCPHES), Veterinary Public Health (VPH). The majority of the positive specimens are bats (14) with the remaining specimen being a dog. The continued incidence of rabies in Harris County, serves as a reminder to keep pets and livestock current on rabies vaccinations. The high risk carriers in Texas are bats, coyotes, foxes, raccoons and skunks.

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## Websites:

[www.hcpbes.org/vph](http://www.hcpbes.org/vph)  
[www.countypets.com](http://www.countypets.com)

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Any abnormal behaviors in these species and all potential exposures with these species should be reported to the Local Rabies Control Authority (LRCA).

The veterinary community has a vital role in protecting the health of our community. Please continue to promote regular rabies vaccinations and educate your clients about rabies and prevention of dog bites.

The post exposure prophylaxis guidelines outlined by HCPHES are found as an insert this month, one for

people and one for animals. Please remember that only the Local Rabies Control Authority (LRCA) can issue home quarantines. If a pet or human has had contact with a bat or is bitten by an animal, please report it to your LRCA. The LRCA will make a decision regarding quarantine based on the circumstances surrounding the bite and the risk for rabies.

More information about rabies and maps may be found at [www.hcpbes.org/vph](http://www.hcpbes.org/vph), [www.countypets.com](http://www.countypets.com) and [dshs.state.tx.us/idcu/disease/rabies/](http://dshs.state.tx.us/idcu/disease/rabies/).

## Tick-borne Diseases



As we enter into the fall and hunting season, it is likely that people and pets will be exposed to ticks. Ticks can pose a health threat and can transmit a variety of infections called tick-borne diseases. These may be parasitic,

viral or bacterial infections. Many tick-borne diseases have similar clinical signs for all species, which may range from mild to life threatening illness. Therefore it is important to prevent tick bites, as well as recognize the early signs of a tick-borne disease.

### Lyme Disease

Lyme disease is caused by the bacterium *Borrelia burgdorferi* and is transmitted via the bite of infected Deer ticks. Lyme disease is found worldwide wherever these ticks are endemic, including in Texas where approximately 50-275 human cases are reported annually. The tick must be attached for 24-36 hours to transmit lyme disease, so early removal of a tick potentially reduces transmission.

In people, the symptoms of lyme disease usually occur between 3 and 30 days after an infected tick bite. These include fever, chills, headache, fatigue, swollen and aching joints and enlarged lymph nodes. In approximately 70-80% of people the "bull's-eye" rash

(Erythema migrans) develops at the site of the tick bite or elsewhere on the body.

In animals, the clinical signs may take 2 to 5 months to develop. Lameness and joint pain (knee and elbow) is the most common sign, along with shifting leg lameness. In rare cases it may affect the heart and kidneys and lead to a serious, sometimes fatal disease.

### Ehrlichiosis

Ehrlichiosis is caused by a bacterium in the *Ehrlichia* genus and can infect both people and animals. The disease is found worldwide, depending on the specific species, and is transmitted via a variety of tick vectors. In the U.S., it is primarily found in the South Central and Eastern regions.

Ehrlichiosis in humans and dogs can range from asymptomatic to severe disease. People may show signs and symptoms between 5 and 21 days after the tick bite. Symptoms include fever, chills, confusion, nausea, vomiting and joint pain. A rash is sometimes reported but it is rare.

Animals, including canines, felines and deer can become infected. In dogs, clinical signs can develop within 14-28 days after a tick bite and include fever, lethargy, anorexia, enlarged lymph nodes and weight loss. Vascular disorders due to thrombocytopenia frequently occur and include epistaxis, petechial hemorrhages, uveitis and retinal disorders.



### Rocky Mountain Spotted Fever

Rocky Mountain Spotted Fever (RMSF) is caused by the bacterium *Rickettsia rickettsia*. This organism is a cause of potentially serious, fatal illness in people. It has also been found in dogs, but has yet to be documented to cause significant disease in other species.

RMSF was originally found in the Rocky Mountain region, however the majority of the cases are now recognized in the South Central United States, as well as along the Atlantic and Pacific coasts.

In people, symptoms of RMSF can include fever, headache, abdominal pain, vomiting and muscle pain. The spotted rash is possible, but inconsistent. The infection is fatal in people left untreated. In dogs, RMSF is usually mild. Typically, clinical signs include fever, swollen lymph nodes, coughing, diarrhea, vomiting, joint and muscle pain. In severe cases, high fever, severe uveitis and retinal hemorrhage may occur along with vascular disorders and petechiation of the mucous membranes.

### Tularemia

Tularemia (Rabbit Fever) is a little known tick-borne disease caused by the bacterium *Francisella tularensis* and occurs naturally in the environment worldwide. The bacteria is usually transmitted after exposure to infected animal tissues (eating or handling) or a contaminated environment, but can also be transmitted by a tick or deer fly bite. Tularemia may also be inhaled and can cause severe fever and pneumonia.



Tularemia Skin Ulcer  
[http://www.cbwinfo.com/Biological/Pat\\_hogens/FT.html](http://www.cbwinfo.com/Biological/Pat_hogens/FT.html)

Clinical signs in people can occur within 2-10 days of exposure and include fever, headache, chills, ulcerative sores at the site of entry, painful and swollen lymph nodes, vomiting and diarrhea, or pneumonia if inhaled. Animals can exhibit clinical signs between 1 and 10 days of exposure and can include fever, ulcerative skin sores, lethargy, anorexia, as well as vomiting and diarrhea.

### Prevention guidelines

Prevention of tick bites when spending time outdoors is the most important method for preventing tick-borne diseases. People should use a repellent with at least 20% **DEET** and/or **picaridin** containing insect repellents on skin. **Permethrin** can be used to treat clothing, but should not be used on the skin. Domestic animals can also transport ticks indoors, where they can then bite people. For dogs, apply **topical acaricides (eg. pyrethroids, fipronil, amitraz)** to repel ticks.

The risk of tick bites while outdoors can be reduced with simple prevention. First, wear long sleeved shirts and long pants (tuck in socks). Second, avoid areas with high brush, woods or areas with large amounts of leaf litter. Lastly, a full body check should be done and ticks removed as soon as possible whenever returning from any high risk areas.

For more information about tick-borne disease, visit <http://www.cdc.gov/ticks/diseases/> or contact the HCPHES Veterinary Public Health, Zoonosis section.

### Sources:

The Center for Food Security & Public Health:  
<http://www.cfsph.iastate.edu/>  
 Texas Department of State Health Services:  
<https://www.dshs.state.tx.us/idcu/>  
 Centers for Disease Control:  
<http://www.cdc.gov/DiseasesConditions/>

## Zoonotic Disease Conference

The 8th Annual Zoonotic Disease Conference was held, Sunday, September 13th at the Baylor College of Medicine. This year's topics included One Health, *Borrelia* and relapsing fevers, Methicillin Resistant *Staphylococcus* infections, Caring for the Ebola Patient's Dog and the Texas A&M Veterinary Emergency Team (VET). The conference had 188 participants including veterinarians, physicians, registered veterinary technicians, certified veterinary assistants and animal control officers. Each participant earned 6.5 hours of continuing education for free! We would like to extend a special thanks to our co-hosts (National School of Tropical Medicine at Baylor School of Medicine, Harris County Veterinary Medical Association) and our sponsors (Merial, MWI, Scil animal care company) for their support! Hope to see you all next year!



## Harris County PROPOSITION No. 3

Harris County voters will have an opportunity in the November 3rd, 2015 election to vote “for or against” issuing bonds to build a new Harris County Animal Shelter. Proposition 3 designates \$24,000,000 in bonds for a new Veterinary Public Health Adoption and Care Center.

The current shelter was built in 1986 to handle 12,000 animals annually, but took in more than 25,000 animals last year. The proposed new Veterinary Public Health Adoption and Care Center will have five times as much kennel space which will provide more time to find them forever homes.

The improvements will include:

- New adoption center to house and showcase adoptable pets, and provide space for the public to visit and interact with them.
- New shelter holding area
- New isolation and quarantine building to hold sick animals and separate from healthy animals.
- Remodeling of the current shelter facility for improved animal intake.

Early voting for the November 3rd, 2015 election is Monday, October 19th through Friday, October 30th. Visit <http://www.harrisvotes.com> for more information.



Courtesy of BH Studios

<https://www.facebook.com/BHStudiosandPhotos>

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