

# EPI CONNECTIONS

May 2009

A Monthly Newsletter of the Communicable Disease Division

## The Changing Epidemiology of Zoonotic Rabies in Colorado

Skunk rabies has become reestablished in eastern areas of Colorado and is potentially moving west toward the Front Range along Colorado's river drainage systems. The establishment of endemic rabies in a terrestrial wildlife reservoir, especially in the urban Front Range, has enormous public health repercussions and may impact how patients with animal bite wounds are evaluated in Boulder County this summer.

For the past 30 years, rabies has predominantly existed in bats in Colorado; however, since 2007, Colorado Department of Public Health and Environment (CDPHE) surveillance data indicate that skunk rabies variant is now widely circulating in the eastern counties of Colorado. Skunks are more efficient than bats at transmitting rabies to livestock, domestic animals, and potentially humans.

In the summer of 2008, Colorado had confirmed cases of rabies in a raccoon and a cat. These were the first confirmed cases for those animals since 1963 and 1985, respectively. CDPHE officials assume both animals were infected after contact with a rabid skunk. The last case of dog rabies acquired in Colorado occurred in 1974.

In 2008, of the 94 skunks submitted for testing from eastern plains and Front Range, 19 (20%) tested positive for rabies. In comparison, 44 (13.9%) of bats were positive for bat variant rabies virus in Colorado. The 19 rabid skunks were found in Arapahoe (2), Baca (4), Cheyenne (2), Kiowa (4), Kit Carson (2), Lincoln (2), Yuma (2), and Denver (1) counties. The rabid cat and raccoon were also confirmed in Cheyenne County as part of CDPHE's surveillance effort.

Animals with rabies might display strange behavior such as nocturnal animals being out during the daytime, or wild animals not showing fear of humans. When a wild animal approaches a human, it should be considered potentially infected until proven otherwise.

Rabies virus infects the central nervous system, causing encephalopathy and ultimately death. Symptoms of rabies in humans are initially nonspecific, consisting of fever, headache, and general malaise. As the disease progresses, neurological symptoms appear and may include insom-

## Test More Adults for HIV

Although the Centers for Disease Control and Prevention (CDC) revised HIV testing guidelines in 2006 to recommend that all persons be screened for HIV at least once in their lifetime, the 2007 National Health Interview Survey found that only 37% of adults over 18 years of age have ever been tested for HIV. These data reflect the need to increase routine HIV testing for all patients and repeat testing for those at higher risk of infection.

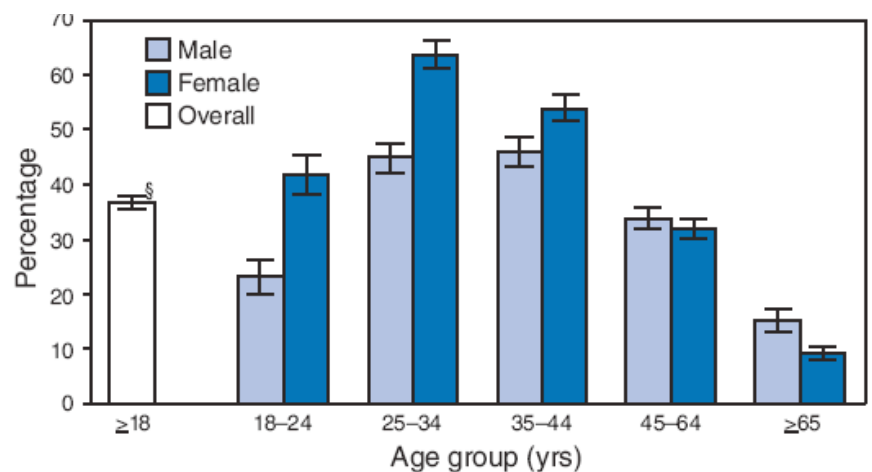
Because most patients do not disclose risk behavior to their clinician, it is difficult to target high-risk patients. Over 1 million people are living with HIV/AIDS in the United States, and 25% of them are unaware of their status. Early diagnosis improves treatment outcomes and reduces transmission.

Despite the CDC's recommendations and the release of similar recommendations by groups like the American College of Physicians, few clinicians have followed the guidelines. For assistance in implementing routine HIV testing in your practice, call the HIV/STI Outreach Program at 303-413-7522.

Source: MMWR January 30, 2009/58(03); 62

Contributed by Kyla Holcomb

Percentage of Adults Aged  $\geq 18$  Years Who Had Ever Been Tested for HIV By Age Group and Sex National Health Interview Survey, United States, 2007



*Zoonotic Rabies, continued on page 2*



# 1 in 12 Lives with Hepatitis

500 million people worldwide are living with chronic hepatitis B or C, leading to 1 million deaths from hepatitis every year. World Hepatitis Day on May 19 is designed to raise awareness of this disease.

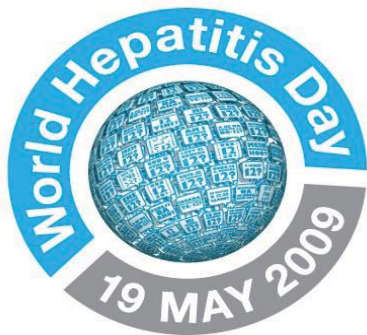
The prevalence of chronic hepatitis B and C is far higher than that of HIV or cancer, and the majority of those infected don't know it. A person can be infected with hepatitis B or C for many years and not know it. If left untreated, both viruses can lead to cirrhosis, liver cancer, liver failure, and death.

Hepatitis B is one of the most common viral infections in the world. Approximately 2 billion people have been infected with hepatitis B virus, and 350 million of them have developed chronic infection. Hepatitis B is highly infectious, and found in all major body fluids. There is a vaccine available to prevent infection with hepatitis B.

Approximately 170 million people are chronically infected with hepatitis C, and 3 to 4 million people are newly infected every year. Hepatitis C is also highly infectious but is found only in blood. There is no vaccine for hepatitis C.

The Centers for Disease Control and Prevention (CDC) recommends that all persons at risk be immunized for hepatitis A and B and tested for hepatitis C.

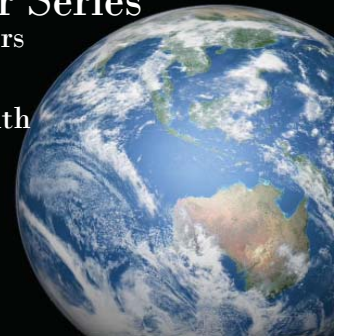
*Contributed by Kyla Holcomb*



## Big Shot Seminar Series for immunization providers

Third Tuesday every month  
February - June 2009  
12 noon - 2 p.m.

For more information, visit  
[www.BoulderCountyShots.org](http://www.BoulderCountyShots.org)



Zoonotic Rabies, continued from page 1

nia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation, difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of symptoms.

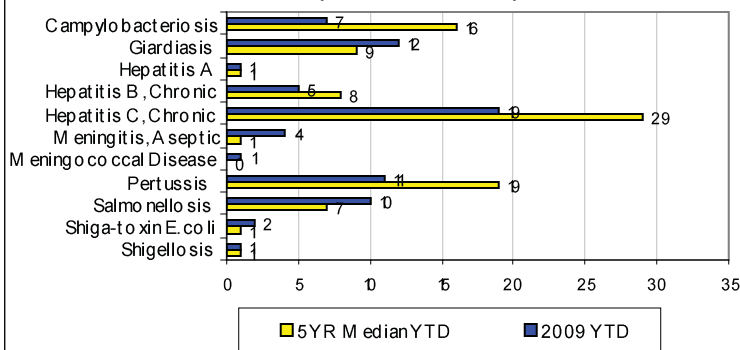
There is no treatment for rabies after symptoms of the disease appear; however, an extremely effective rabies vaccine can provide immunity when administered after an exposure (post-exposure prophylaxis) or for protection before an exposure occurs for those in high-risk occupations (pre-exposure prophylaxis).

Post-exposure prophylaxis involves wound care, Tetanus booster if indicated (Tdap vaccination), Rabies Immune Globulin (RIG), and a series of 5 rabies vaccinations over a 28-day period. According to CDPHE, with administrative costs, vaccine, and markups, it is not unusual for the treatment cost to be \$5,000 per person.

Consultation is available for the evaluation of patients bitten by wild or domestic animals at Boulder County Public Health at 303-413-7500 during regular business hours. Incidents occurring after hours or on weekends should be reported to CDPHE at 303-370-9395.

*Contributed by Gail Wright*

**Surveillance of Selected Diseases, Boulder County  
2009 YTD Compared to 5-year Median YTD  
(1/1/2009-3/31/2009)**



## Giardia Incidence Unseasonably High

Boulder County experienced an increase in giardiasis early this year. Giardia cases normally peak in the summer months, primarily due to an increased exposure to recreational water activities.

Salmonellosis incidence remains high so far this year, predominantly due to nationwide outbreaks of foodborne salmonella.

Providers are encouraged to perform laboratory testing on gastrointestinal illness to confirm diagnosis and prescribe appropriate treatment, when needed.