



A CUP OF HEALTH WITH CDC

Mosquito Alert

West Nile Virus Activity — United States, January 1–December 31, 2009

Recorded: June 29, 2010; posted: July 8, 2010

[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC — safer, healthier people.

[Susan Laird] Welcome to *A Cup of Health with CDC*, a weekly feature of the *MMWR*, the Morbidity and Mortality Weekly Report. I'm Susan Laird, filling in for your host, Dr. Robert Gaynes.

Summer has arrived and so have the mosquitoes. Not only are they a nuisance, but they can also cause disease in both humans and other animals. The most common mosquito-borne illness is West Nile virus.

Jennifer Lehman is an epidemiologist with CDC's Division of Vector-Borne Diseases. She's joining us today by telephone to discuss strategies for preventing West Nile virus. Welcome to the show, Jennifer.

[Jennifer Lehman] Thanks for having me, Susan.

[Susan Laird] Jennifer, how common is West Nile virus in the United States?

[Jennifer Lehman] West Nile virus is the leading cause of mosquito-spread illness in the United States, including a severe and potentially fatal form of illness called encephalitis, or swelling of the brain. Since 1999, we've had almost 30,000 cases and 1,247 deaths reported. Last year, we had a low number of cases reported, and while that was good news, it doesn't necessarily tell us what to expect in the future.

[Susan Laird] Is this disease more common in any particular area of the country?

[Jennifer Lehman] Although some parts of the country are more affected than others, it's important to note that we do see evidence of West Nile virus human disease in all geographic regions of the continental U.S. The highest rates continue to occur mainly in the west central U.S., and the states with the highest number of severe disease cases in 2009 were Texas and California. It's hard to know which areas will be most affected from year to year. This has to do with the weather, the birds and their immune status, human behavior, and many other things. Remember, we still have July, August, and September ahead of us, so it remains to be seen where the most affected areas will be in 2010.

[Susan Laird] So what are the symptoms of West Nile virus and how long do they last?

[Jennifer Lehman] So the symptoms of severe disease, such as West Nile encephalitis or meningitis, include headache, high fever, neck stiffness, maybe even some disorientation or coma, possibly even paralysis, and these symptoms may last several weeks and the neurological

effects may be permanent. It is estimated that about 20 percent of people who become infected with West Nile virus will develop West Nile fever; this is the more mild form of the disease. Symptoms include fever, headache, maybe some tiredness, body aches, and a skin rash and swollen lymph glands. Symptoms can last for as little as a few days, even though healthy people have become sick for several weeks. Most people – about four out of five – who are infected with West Nile virus, will not develop any type of illness and will not show any symptoms at all, and this is known as asymptomatic.

[Susan Laird] How is it treated?

[Jennifer Lehman] Unfortunately, Susan, there is no specific treatment for West Nile virus infection. In cases with milder symptoms, people experience symptoms, such as fever and aches that pass on their own, although even healthy people have become sick for several weeks or longer. In the more severe cases, people usually need to go to the hospital where they can receive intravenous fluids, help with breathing, and possibly even nursing care. While some people with severe disease do recover, many never go back to their former level of functioning, and the disease is fatal in approximately one in 10 severe cases.

[Susan Laird] What about household pets, like cats and dogs? Are they susceptible to West Nile virus?

[Jennifer Lehman] Yes. A very small number of cats and dogs with West Nile virus infection have been reported to CDC. West Nile virus is primarily a cycle between birds and mosquitoes, so course, pet birds are susceptible, as well.

[Susan Laird] What are some strategies for preventing the disease?

[Jennifer Lehman] So the most important thing to do is avoid mosquito bites. People should get into the habit of using an effective insect repellent when they go outdoors. CDC recommends those with DEET, Picaridin, Oil of Lemon Eucalyptus, or IR3535. If it's practical, you should wear long pants and long sleeves for additional protection. The mosquitoes that spread West Nile virus are most likely to bite from dusk to dawn, so you should be especially careful to use repellent then or limit your time outdoors during these hours. You can empty any standing water around your home where mosquitoes can leave their eggs, and you should also make sure that your screens on windows and your doors are in good shape. You can also even support your community-based mosquito management programs in your area.

[Susan Laird] Where can listeners get more information about West Nile virus?

[Jennifer Lehman] Listeners get more information about West Nile virus at www.cdc.gov/westnile.

[Susan Laird] Thanks, Jennifer. I've been talking today with CDC's Jennifer Lehman about strategies for preventing West Nile virus.

To help prevent West Nile virus, drain standing water around your home and make sure screens on windows and doors are in good shape. If weather permits, wear long sleeves, long pants, and socks when outdoors and use insect repellent on exposed skin.

Until next time, be well. This is Susan Laird for *A Cup of Health with CDC*.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO, 24/7.