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Scientist warns of West Nile virus

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A scientist from the Center for Disease Control and Prevention warned the public Thursday of becoming increasingly complacent to the danger of the West Nile virus, calling the infection “an endemic disease in the United States.”

Dr. James Sejvar, a neurologist and epidemiologist for the CDC, addressed science professors and public health professionals during a lecture at Utah State University and said the future of West Nile virus (WNV) and its long-term effects are unknown.

“There are still a number of different surprises this virus can throw at us,” said Sejvar. “The emergence of WNV in North America serves as a hallmark example of the ability of some of these previously exotic viruses to thrive in a brand new environment.

This is going to be an impact on human health for the foreseeable future.”

Sejvar says the virus is transmitted from mosquitoes to birds.

The virus multiplies in the bird’s bloodstream and is introduced to new mosquitoes that take a blood meal from the bird.

Humans and other mammals are infected with WNV if they’re bitten by a virus-carrying mosquito, he added.

“Humans are dead-end hosts, meaning mosquito-to-human-to-mosquito transmission doesn’t occur,” he added.

Sejvar said a vast majority of West Nile cases, about 80 percent, are asymptomatic, meaning those infected show little or no signs of disease.

“The positive offshoot of that is that even asymptomatic infection results in the generation of antibodies,” he said. “And we presume that these antibodies are long standing, perhaps even lifelong.”

Another 20 percent of those infected with WNV develop West Nile fever — often manifested by headache, fatigue, dehydration, rash and fever.

West Nile neuro-invasive disease (WNND), a more serious stage of the infection, affects less

than 1 percent of patients but can be life threatening.

WNND may lead to meningitis, swelling of the brain and spinal chord and even death. WNND is more common among the immuno-suppressed and the elderly, Sejvar explained.

“It’s now the most common cause of (insect-borne) encephalitis in the western hemisphere,” he said.

Interestingly, said Sejvar, some patients who develop a rash from **See VIRUS on A6**

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West Nile fever have reduced chances for developing the more serious WNND.

Sejvar called the immuno-protective reaction “intriguing.” He says there’s no definitive treatment for WNV infection

yet but told the group that vaccines are being developed.

“Everything including the kitchen sink has been thrown at this virus,” he said. “With respect to vaccines in humans, there are several under development and by all accounts appear promising.”

The cost effectiveness of a widespread West Nile vaccine, however, “remains questionable,” he added.

Sejvar pushed the importance of using insect repellent, eliminating standing water and “mosquito-proofing” homes and windows.

“There’s absolutely no reason for anybody in this room to develop West Nile Virus, just don’t get bit by mosquitoes,” he quipped. “In all reality, this is a preventable disease.”