# West Nile Outbreak in Gulf States Seen as Unlikely

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A mosquito-eradication program is underway in the storm-ravaged Gulf Coast states, and federal officials hope that such an effort, combined with the hurricane's impact on the vector cycle, will prevent a surge in West Nile virus and other mosquito-borne diseases.

The aerial spray program began in mid-September and will be continued as long as it is needed to control mosquito populations, according to the Louisiana State Department of Health.

Although the huge expanses of standing floodwaters are conducive to a mosquito population explosion, the total disruption of the region's normal ecology may discourage mosquito-borne epidemics, said Jennifer Morcone, a spokesperson for the Centers for Disease Control and Prevention.

"Historically, we have not seen increases in these diseases after a storm like this," she said. "You need a bird population to fuel the transmission cycle and, right now, the bird population in these areas is almost nonexistent."

However, she said, the CDC has deployed entomologists to monitor mosquito populations and to assist with vector control in the affected areas.

The Louisiana Department of Health and Hospitals—in coordination with the Louisiana Department of Agriculture and Forestry, the CDC, the Agency for Toxic Substances and Disease Registry, the U.S. Environmental Protection Agency, the Department of Defense, and local mosquito control districts—is implementing a plan to reduce mosquitoes and flies in the areas affected by Hurricane Katrina.

The health and hospitals department had developed a management plan in anticipation of the hatching of mosquitoes and flies due to the flooding in the area. Mosquito control is needed to protect public health from the nuisances and diseases they transmit; flies will also be monitored. The plan will continue, based on field monitoring of mosquitoes and flies in the region.

People face two types of increased risks for mosquito-borne diseases in the region: the rise in the number of mosquitos, and increased exposure to the insects. "People are spending a lot more time outside, and even when inside, they may have broken windows and screens that let mosquitoes into the house," Ms. Morcone said.

It's too soon to predict what impact Hurricane Katrina will have on West Nile virus in the Gulf region, she added. "What we do know is that the virus did exist in every one of these states before the storm and that it is still there. We want people to take precautions against exposure, and we will facilitate that as much as possible."

As of early September, 821 cases of West Nile virus—of which 18 cases were fatal—had been reported in the United States, marking this as the slowest West Nile season since 2002. By early September 2002, 737 cases had been reported, with 35 fatalities. Numbers soared in 2003 to almost 1,900, with 37 fatalities, and stayed high last year, with 1,191 cases and 30 fatalities.

As in previous years, the highest number of cases (268) occurred in California. Of those, 7 have been fatal; 93 showed neurologic complications (West Nile meningitis, encephalitis, or myelitis). Other hard-hit states include South Dakota (138 cases; 1 fatality; 25 neuroinvasive illnesses); Illinois (89 cases; 1 fatality; 52 neuroinvasive); and Louisiana (52 cases; 4 fatalities; 40 neuroinvasive). Texas has reported only 27 cases, but almost all of them (24) were neuroinvasive; there was 1 fatality.

The reason for the decline this year is unclear, Ms. Morcone said. "If there's one thing we know about West Nile, it's that there's no such thing as a typical season. We have seen areas with large epidemics one year and very small case counts the next. Weather and ecology are among the factors that play a part in West Nile prevalence."

Although the cases are relatively low, physicians should still stress prevention to their patients. Repellents with DEET(*N*,*N*-diethyl-m-toluamide) are most effective for those who are outdoors for extended periods. Repellents with oil of lemon, eucalyptus, and picaridin are probably sufficient for "backyard exposure," she said.

West Nile virus has also been identified in blood from 163 blood donors, according to the CDC. Of these donors, 3 subsequently developed West Nile neuroinvasive illness, 38 developed West Nile fever, and 3 developed other illnesses. ■



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