January 8, 2004

First Autochthonous Human West Nile Virus Infection in LAC in 2003

The first case of locally acquired West Nile Virus (WNV) fever in a Los Angeles County (LAC) resident was confirmed in late December 2003 by the California Department of Health Services Viral and Rickettsial Diseases Laboratory (VRDL). The LAC Acute Communicable Disease Control Program (ACDC) was notified by ARUP Laboratory of Utah of a positive West Nile Virus (WNV) serum IgM test in late October 2003 in a LAC resident. ACDC contacted ARUP laboratory in Utah and found the patient's serum specimen had not been sent to the state’s VRDL for confirmatory testing and the original serum specimen had been thrown away. The patient and his physician were contacted and interviewed by ACDC, and the patient provided another serum specimen in early December 2003 so that confirmatory testing could be completed at the LAC Public Health Laboratory.

The 61 year- old Hispanic male was admitted to a Los Angeles hospital for complaints of fever, fatigue, nausea and diarrhea for 10 days in mid-October 2003. Serum WNV testing was ordered by the attending physician as part of a fever work-up during his hospital admission. The patient recovered uneventfully. He lives in Whittier and gave a history of mosquito bites two days prior to admission while sleeping in his living room with a broken screen door. He believes he was bitten in the early morning of the first week of October. He denied any travel outside of Whittier area 14 days before onset of symptoms. He received no blood products or organ donations within the month prior to symptom onset. In early December, the patient's serum tested weakly positive by CDC WNV ELISA testing in both the LAC Public Health Laboratory and the state VRDL. The plaque reduction neutralization test performed at the VRDL confirmed the diagnosis of WNV fever in late December 2003.

Related environmental findings include 11 dead crows with WNV recovered in Whittier and 6 WNV-infected mosquito pools in two adjoining cities in late September-November 2003. In 2003, there were no sentinel chickens with WNV-positive blood tests from LAC. This is the third endemic case of WNV infection acquired in the State of California. The risk of acquiring WNV at this time is extremely low due to decreased mosquito populations in the winter.