

California Arbovirus Surveillance Bulletin # 34

Week 50 Friday, December 17, 2004

Weekly Summary

**** This is the last Arbovirus Surveillance Bulletin for 2004****

California Weekly Summary Comments:

This week, California reported no new human cases infected with West Nile virus (WNV). As of December 14, 2004, a total of 819 WNV infections have been reported from the following local health jurisdictions: Los Angeles (323), San Bernardino (191), Riverside (112), Orange (64), Kern (60), Fresno (15), Tehama (10), Butte (7), Shasta (6), Glenn (3), Tulare (3), Ventura (2), Imperial (1), Lake (1), Lassen (1), Merced (1), Placer (1), Sacramento (2), San Diego (2), San Joaquin (3), Santa Clara (1), San Luis Obispo (1), and Yolo (1) counties. Sixty-nine of the 819 WNV infections were initially detected in asymptomatic individuals through screening done at blood banks – 13 of these individuals later became symptomatic.

Of the 766 WNV cases with symptoms, 277 are classified as West Nile fever cases, 221 are classified as West Nile neuroinvasive disease, and 268 are of unknown status. The median age for all cases where data was available is 52 years (range: 2-94 years). Median age for West Nile fever cases is 49 years (range 7-89 years). Median age for West Nile neuroinvasive disease cases = 58.5 years (range: 4-91 years). Sixty-two per cent (472/766) of the cases are male. There have been 25 fatalities to date in California in Los Angeles (13), San Bernardino (5), Orange (3), Riverside (2), Kern (1), and Tehama (1) counties. The median age of the 25 fatalities was 76 years (range: 57-91 years).

Equine:

The California Department of Food & Agriculture reported no new WNV equine cases this week. The YTD total stands at 536 positive cases. A total of 228 horses have died or euthanatized from the WNV infections.

Dead Birds:

The hotline received 195 reported dead birds last week (YTD = 92,710). The UC Davis Center for Vectorborne Diseases (CVEC) reported 1 out of 38 dead birds submitted last week tested positive for WNV by RT-PCR. The dead bird was an American crow from Santa Clara County. A total of 38 dead birds were tested, thus 2.6% (1/38) of the birds tested were WNV positive.

No additional American crows were tested via Vec-Test, therefore the YTD total stands at 3,216 positive bird carcasses.

Mosquito Pools:

CVEC reported no positive pools this week. The YTD total stands at 1136 positive pools.

Chickens:

Six WNV chicken seroconversions were detected in five flocks from Los Angeles (3), Riverside (2), and San Bernardino (1) counties. The current YTD total stands at 811 WNV seroconversions.

Website Information:

For updated information on WNV, please visit the California WNV website, www.westnile.ca.gov; the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov. Please go to the Vector website at <http://vector.ucdavis.edu/arbo.html> for flock location and more information on WNV and other vector-borne diseases.

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TESTING SUMMARIES

Humans and Equines

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Individuals Tested	Week	33	0	0	0	0	0	0	0	0
	YTD	1821	0	819	0	0	0	0	0	0
Suspect Equine Cases	Week	n/a	0	0	0	0	0	0	0	0
	YTD	1273	0	536	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	38	1
YTD	5,497	3,216

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Other Positive
	YTD	32,616	811	0	0	0
Mosquito pools	Week	13	0	0	0	0
	YTD	14,698	1136	0	0	0

*This total has been adjusted to include local agency submission

POSITIVES

Chicken Seroconversions Reported by DHS:

Virus	County	State	Acode	City	Location
WNV	Los Angeles	CA	LACW1002	Torrance	Madrona Marsh
Bands: 2133					Probable Seroconversion Date: 30-November-04
WNV	Los Angeles	CA	LACW1007	Baldwin Hills	Baldwin Hills
Bands: 2163					Probable Seroconversion Date: 07-December-04
WNV	Los Angeles	CA	LACW1009	Los Angeles	Rosedale Cemetary
Bands: 2174					Probable Seroconversion Date: 07-December-04
WNV	Riverside	CA	NWST9401	Corona	Corona Airport
Bands: 4138					Probable Seroconversion Date: 22-October-04
WNV	Riverside	CA	NWST9401	Corona	Corona Airport
Bands: 4141					Probable Seroconversion Date: 08-December-04
WNV	San Bernardino	CA	SANB0007	Fontana	Fontana
Bands: 4245					Probable Seroconversion Date: 30-December-04

***Indicates a new flock

Dead Birds Tested Positive for WNV last week

Species	County	City	ZIP	Date Collected	Date Tested
House Sparrow	Santa Clara	San Jose		12/02/04	12/13/04

***Indicates Vec-Test

National Comments:

As of December 14, 2004, a total of 2432 human WNV cases have been reported in 40 states, DC and New York City. Thirty-six percent of the cases were classified as neuroinvasive. There have been 87 WNV-related fatalities nationwide in 2004.

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Dead Birds:

Dead bird kidney tissues are tested at CVEC using the PCR Taqman assay, subsequent to carcass necropsy at the California Animal Health and Food Safety (CAHFS) Laboratories. Organ pools from PCR positive carcasses are tested using cell culture for virus isolation. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6251.

All bird species (except chickens, doves, and pigeons) from all zip codes are being accepted for testing except from a limited number of agencies. Positive Vec-tests from oral swabs from crows are no longer confirmed. Other bird species tested by RT-PCR using singleplex and confirmed with a second primer set.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens submitted each week to the DHS Viral and Rickettsial Disease Laboratory (VRDL) are tested for the presence of antibodies to West Nile virus (WNV), western equine encephalomyelitis (WEE), and St. Louis encephalitis (SLE) viruses by EIA and IFA. The VRDL performs additional testing (including Plaque Reduction Neutralization (PRNT) and IgM Capture – Enzyme Linked Immunosorbent Assay (MAC-ELISA)) on specimens from sentinel chickens in which antibodies are detected in new geographic areas. The VRDL also forwards selected serum to the UC Davis Center for Vectorborne Diseases (CVEC) for additional testing for WNV, WEE, and SLE antibodies as needed.

Mosquito Pools:

All mosquito pools are screened for WEE, SLE, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR. There will be an elimination of *in situ* EIA testing for all mosquito species.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch) and the Viral and Rickettsial Disease Laboratory Branch, Division of Communicable Disease Control, California Department of Health Services, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Al Hom by phone (510) 412-6254, FAX (510) 412-6263, or email [ahom@dhs.ca.gov].