

California Arbovirus Surveillance Bulletin # 7

Week 14 Friday, April 6, 2007

Weekly and Year-To-Date Summaries

WEEKLY COMMENTS



Humans

No human cases have been reported in 2007.

Horses

No new equine cases were reported this week.

Dead Birds

Two WNV positive dead birds were reported this week from San Diego (1) and Stanislaus (1) counties. **This is the first indication of WNV activity in Stanislaus County this year.**

The California Department of Health Services has received a total of 6,334 dead bird reports (hotline and website) this year.

Mosquito Pools

No positive mosquito pools were reported this week.

Sentinel Chickens

No new seroconversions were reported this week.

.....

YTD ARBOVIRUS ACTIVITY

WNV* Activity by Element and County, 2007

County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens	Tree Squirrels
Imperial					1	
Los Angeles			2	1	1	
Orange			3			
Riverside				1		
San Diego			3			
Santa Clara			3			
Stanislaus			1			
Sonoma		1				
State Totals	0	1	12	2	2	0

*No other arbovirus activity has been detected in 2007.

Website Information

For updated information on WNV in California, please visit the California WNV website, www.westnile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westnilemaps.usgs.gov.

California Arbovirus Surveillance Bulletin # 7

Week 14 Friday, April 6, 2007

TEST SUMMARIES

Humans and Horses

		Number Tested	WNV Positive		WEE Positive		SLE Positive		Other Positive	
			Imported	Local	Imported	Local	Imported	Local	Imported	Local
Humans Tested	Week	10	0	0	0	0	0	0	0	0
	YTD	232	0	0	0	0	0	0	0	0
Horses Tested	Week	0	0	0	0	0	0	0	0	0
	YTD	59	0	1	0	0	0	0	0	0

Dead Birds

	Number Tested	WNV Positive
Week	53	2
YTD	733	12

Sentinel Chickens and Mosquito Pools

		Number Tested	WNV Positive	WEE Positive	SLE Positive	Flavivirus* Positive
Chicken sera	Week	90	0	0	0	0
	YTD	1432	2	0	0	0
Mosquito pools	Week	57	0	0	0	0
	YTD	667	2	0	0	0

*Does not include those later confirmed as WNV or SLE

Mosquito Pools Tested by Local Agencies

		Number Tested	WNV Positive
RAMP Tested	Week	3	0
	YTD	13	0

POSITIVES REPORTED: 4/2/07-4/6/07

Dead Birds

County	City	ZIP	Species	Collected	Tested	Tested Method
San Diego	San Diego	92130	American Crow	03/26/07	03/26/07	VecTest
Stanislaus	Modesto	95350	American Crow	03/20/07	04/02/07	PCR

California Arbovirus Surveillance Bulletin # 7

Week 14 Friday, April 6, 2007

National Comments (2006 Update): In 2006, WNV activity was reported from 48 states, the District of Columbia (DC), and New York City (NYC). A total of 4,261 human cases were reported to the Centers for Disease Control and Prevention (CDC) from 43 states and DC: Alabama (8), Arizona (150), Arkansas (29), California (278), Colorado (345), Connecticut (9), DC (2), Florida (3), Georgia (8), Idaho (996), Illinois (215), Indiana (80), Iowa (37), Kansas (30), Kentucky (6), Louisiana (180), Maryland (11), Massachusetts (3), Michigan (55), Minnesota (65), Mississippi (183), Missouri (62), Montana (34), Nebraska (264), Nevada (123), New Jersey (5), New Mexico (8), New York (24), North Carolina (1), North Dakota (137), Ohio (48), Oklahoma (48), Oregon (69), Pennsylvania (9), South Carolina (1), South Dakota (113), Tennessee (22), Texas (347), Utah (158), Virginia (5), Washington (3), West Virginia (1), Wisconsin (21), and Wyoming (65).

At the same time last year, 3,000 cases had been reported from 43 states, DC, and NYC. Of the 4,261 cases reported in 2006, 1,455 (34%) had West Nile neuroinvasive disease (i.e. encephalitis or meningitis). The median age of the 4,246 cases where data was available was 51 years (range: 3 months-99 years) and 55% were male. A total of 174 WNV-associated fatalities were reported, from Arizona (11), Arkansas (4), California (7), Colorado (7), Connecticut (1), Georgia (1), Idaho (21), Illinois (10), Indiana (5), Kansas (4), Kentucky (1), Louisiana (9), Maryland (1), Michigan (7), Minnesota (3), Missouri (5), Mississippi (14), Nebraska (1), Nevada (1), New Mexico (1), New York (4), North Dakota (1), Ohio (4), Oklahoma (6), Pennsylvania (2), South Dakota (3), Tennessee (1), Texas (31), Utah (5), Wisconsin (1), and Wyoming (2).

TEST PROTOCOLS

Humans:

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to VRDL for further testing or confirmation with a plaque reduction neutralization test (PRNT).

Horses:

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

Dead Birds and Tree Squirrels:

All bird and tree squirrel species from all zip codes are currently being accepted for testing unless otherwise requested by a local agency. Additionally, once WNV has been detected within a county, doves, pigeons, and chickens will no longer be accepted for testing from that county. Corvids that test positive via RAMP or VecTest are no longer confirmed. Dead birds and squirrels are necropsied at the California Animal Health and Food Safety (CAHFS) laboratory at UC Davis. Oral swabs from American Crows and kidney tissue from all other dead birds are forwarded to the UC Davis Center for Vector borne Diseases (CVEC) for WNV testing using the singleplex RT-PCR Taqman assay and confirmed with a second primer set. The WNV Dead Bird Surveillance Coordinator, Ryan Carney, can be reached directly at (510) 412-6254.

California Arbovirus Surveillance Bulletin # 7

Week 14 Friday, April 6, 2007

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. Positive samples are confirmed by western-blot or PRNT.

Mosquito Pools:

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.

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 Tina Feiszli by phone (510) 412-6298, FAX (510) 412-6263, or email: tfeiszli@dhs.ca.gov.