

## California Arbovirus Surveillance Bulletin #4

Week 13 Friday, April 1, 2016



### Weekly Update

#### **Humans**

No human cases have been reported in 2016.

#### **2015 Final Summary**

In 2015, a total of 783 symptomatic and 77 asymptomatic infections with West Nile virus (WNV) were reported to the California Department of Public Health. Of the 783 clinical cases, 198 (25%) were classified as West Nile fever and 585 (75%) were classified as West Nile neuroinvasive disease (i.e. encephalitis, meningitis, or acute flaccid paralysis). Case-patients were residents of 31 counties and 482 (62%) were male. The median ages for West Nile fever and neuroinvasive cases were 58 years (range, 9 to 94 years) and 61 years (range, 5 to 98 years), respectively. The median age of the 53 WNV-associated fatalities was 75 years (range, 44 to 98 years). Dates of symptom onset ranged from March 19 – December 4.

#### **Dead Birds**

Two West Nile virus positive dead birds were reported this week from Santa Clara County. To date this year, 12 birds have tested positive for WNV from four counties. At this time last year, four WNV positive birds had been reported from two counties.

#### **Mosquito Pools**

No positive mosquito pools have been reported in 2016. At this time last year, one WNV positive mosquito pool had been reported from one county.

#### **Sentinel Chickens**

No seroconversions have been reported in 2016.

2015 & 2016 YTD West Nile Virus Comparisons		
	2015	2016
Total # Dead Bird Reports	1,518	888
# Positive Counties	3	4
# Human Cases	0	0
# Positive Dead Birds / # Tested	4 / 168	12 / 118
# Positive Mosquito Pools / # Tested	1 / 630	0 / 897
# Seroconversions / # Tested	0 / 143	0 / 133

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YTD WNV Activity by Element and County, 2016				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Los Angeles		1		
Orange		1		
San Diego		7		
Santa Clara		3		
<b>Totals</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>

### TESTING SUMMARIES

#### Humans

		WNV	SLE	WEE
Human Cases	Week	0	0	0
	YTD	0	0	0

#### Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	15	2
	YTD	118	12

#### Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	0	0	0	0
	YTD	133	0	0	0
Mosquito Pools	Week	212	0	0	0
	YTD	897	0	0	0

### NEW POSITIVES

#### Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Santa Clara	Santa Clara Co VCD	Los Altos	94024	American Crow	2/29/2016	WNV
Santa Clara	Santa Clara Co VCD	Mountain View	94040	American Crow	2/29/2016	WNV

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### Test Protocols

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#### **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 the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing or confirmation.

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#### **Dead Birds**

Oral swab samples from corvids are collected onto RNA preservation cards and tested by the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus by the singleplex RT-PCR Taqman assay and confirmed with a second primer set. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

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#### **Sentinel Chickens:**

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for the presence of antibodies to West Nile, western equine encephalomyelitis, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

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#### **Mosquito Pools:**

Mosquito pools are submitted to CVEC and screened for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a Taqman multiplex RT-PCR. CVEC no longer performs confirmatory 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.

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*Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Tina Feiszli by phone (510) 412-6253 or email: [tina.feiszli@cdph.ca.gov](mailto:tina.feiszli@cdph.ca.gov).*

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*Website Information: For updated information on WNV in California, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.ca.gov), or the California Vectorborne Disease Surveillance System website, [www.calsurv.org](http://www.calsurv.org). For national information on WNV and other arboviruses, please visit the CDC website, [www.cdc.gov](http://www.cdc.gov), and the USGS website, [www.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov)*

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