

California Arbovirus Surveillance Bulletin #4

Week 17 Friday, April 28, 2017



Weekly Update

Humans

One human case of West Nile Virus (WNV) illness was reported this week to the California Department of Public Health from Kings County. **This is the first WNV case reported in 2017.** At this time last year, no WNV cases had been reported.

Dead Birds

No positive dead birds were reported this week. To date this year, three birds from three counties have tested positive for West Nile virus (WNV). At this time last year, 14 WNV positive birds had been reported from four counties.

Mosquito Pools

No positive mosquito pools have been reported in 2017. At this time last year, two WNV positive mosquito pools had been reported from Los Angeles County.

Sentinel Chickens

No seroconversions have been reported in 2017.

2016 & 2017 YTD West Nile Virus Comparisons		
	2016	2017
Total # Dead Bird Reports	1,316	1,007
# Positive Counties	4	4
# Human Cases	0	1
# Positive Dead Birds / # Tested	14 / 168	3 / 116
# Positive Mosquito Pools / # Tested	2 / 2,785	0 / 3,983
# Seroconversions / # Tested	0 / 181	0 / 304

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

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YTD WNV Activity by Element and County, 2017				
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens
Kings	1			
Orange		1		
San Diego		1		
San Mateo		1		
Totals	1	3	0	0

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	1	0	0
	YTD	1	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	21	0
	YTD	116	3

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	29	0	0	0
	YTD	304	0	0	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	0 / 598	0 / 575	0 / 535	0 / 23	0 / 23	0 / 23
	YTD	0 / 3,983	0 / 3,883	0 / 3,713	0 / 108	0 / 108	0 / 108

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

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.

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.

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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