California Arbovirus Surveillance Bulletin #5

Week 18 Friday, May 4, 2018



Weekly Update

Humans

No human infections have been reported in 2018. At this time last year, 1 human case of West Nile virus (WNV) illness had been reported from Kings County.

Dead Birds

No positive dead birds were reported this week. In 2018, a total of 4 WNV positive dead birds have been reported from 2 counties. At this time last year, 3 WNV positive dead birds had been reported from 3 counties.

Mosquito Pools

No positive mosquito pools were reported this week. In 2018, 1 WNV positive mosquito pool has been reported from 1 county. At this time last year, 2 WNV positive mosquito pools had been reported from 2 counties.

Sentinel Chickens

No seroconversions have been reported in 2018.

Website Information: For updated information on WNV in California, please visit the California WNV website, <u>www.westnile.ca.gov</u>, or the California Vectorborne Disease Surveillance System website, <u>www.calsurv.org</u>. For national information on WNV and other arboviruses, please visit the CDC websites: <u>www.cdc.gov</u> and <u>https://wwwn.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html</u>

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YTD WNV Activity by Element and County, 2018							
County	Humans	Dead Birds	Mosquito Pools	Sentinel Chickens			
San Bernardino			1				
San Mateo		2					
Santa Clara		2					
Totals	0	4	1	0			

2017 & 2018 YTD West Nile Virus Comparisons						
	2017	2018				
Total # Dead Bird Reports	1,167	902				
# Positive Counties	6	3				
# Human Cases	1	0				
# Positive Dead Birds / # Tested	3 / 128	4 / 153				
# Positive Mosquito Pools / # Tested	2 / 5,188	1 / 2,050				
# Seroconversions / # Tested	0 / 683	0 / 850				

TESTING SUMMARIES

Humans

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

Chickens

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	11	0
	YTD	153	4

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	278	0	0	0
	YTD	850	0	0	0

Mosquitoes

		Positive / Total Tested						
		WNV	SLEV	WEEV	СНІК	DENV	ZIKA	
Mosquito Pools	Week	0 / 225	0 / 225	0 / 225	0/0	0/0	0/0	
	YTD	1 / 2,050	0 / 2,050	0 / 2,050	0 / 35	0 / 35	0 / 35	

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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 with a plaque reduction neutralization test (PRNT).

Dead Birds

Oral swab samples collected from bird carcasses are tested at the UC Davis Arbovirus Research and Training laboratory (DART) or at a local agency for West Nile virus by RT-qPCR.

Sentinel Chickens:

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

Mosquito Pools:

Mosquito pools are tested at DART or at a local agency for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex RT-qPCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-qPCR.

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