

California Arbovirus Surveillance Bulletin #4

Week 18 Friday, May 3, 2024



WEEKLY UPDATE

Humans

No human infections have been reported in 2024.

Dead Birds

No new West Nile virus (WNV) positive dead birds were reported this week. In 2024, 14 WNV positive dead birds have been reported in 5 counties. At this time last year, 2 WNV positive dead birds had been reported from 1 county.

Mosquito Pools

No new WNV positive mosquito pools were reported this week. In 2024, 1 WNV positive mosquito pools 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 2024.

| 2023 & 2024 YTD West Nile Virus Comparisons | | |
|---|-----------|-----------|
| | 2023 | 2024 |
| Total No. Dead Bird Reports | 1,195 | 1,020 |
| No. Positive Counties | 3 | 5 |
| No. Human Cases | 0 | 0 |
| No. Positive Dead Birds / No. Tested | 2 / 110 | 14 / 132 |
| No. Positive Mosquito Pools / No. Tested | 2 / 2,530 | 1 / 3,246 |
| No. Seroconversions / No. Tested | 0 / 0 | 0 / 8 |

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| YTD WNV Activity by Element and County, 2024 | | | | | |
|--|--------|--------|------------|----------------|-------------------|
| County | Humans | Horses | Dead Birds | Mosquito Pools | Sentinel Chickens |
| Alameda | | | 5 | 1 | |
| Contra Costa | | | 1 | | |
| San Diego | | | 2 | | |
| San Mateo | | | 3 | | |
| Santa Clara | | | 3 | | |
| Totals | | | 14 | 1 | |

TESTING SUMMARIES

| | | WNV | SLEV | WEEV |
|--------------------|------|-----|------|------|
| Human Cases | Week | 0 | 0 | 0 |
| | YTD | 0 | 0 | 0 |

| | | Positive / Total Tested | | | | | |
|-----------------------|------|-------------------------|-----------|-----------|--------|--------|--------|
| | | WNV | SLEV | WEEV | CHIK | DENV | ZIKA |
| Dead Birds | Week | 0 / 28 | | | | | |
| | YTD | 14 / 132 | | | | | |
| Chicken Sera | Week | 0 / 0 | 0 / 0 | 0 / 0 | | | |
| | YTD | 0 / 8 | 0 / 8 | 0 / 8 | | | |
| Mosquito Pools | Week | 0 / 534 | 0 / 534 | 0 / 534 | 0 / 0 | 0 / 0 | 0 / 0 |
| | YTD | 1 / 3,246 | 0 / 3,149 | 0 / 3,149 | 0 / 94 | 0 / 94 | 0 / 94 |

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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.

Website Information: For updated information on WNV in California, please visit the California WNV website, <https://westnile.ca.gov>, or the California Vector-Borne Disease Surveillance System website, <https://maps.vectorsurv.org>.

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