

Lyme Disease Advisory Committee (LDAC) Spring Meeting

April 22, 2022

Minutes

Committee members in attendance (via phone/WebEx)

Wendy Adams, Bay Area Lyme Foundation

Barbara Barsocchini, California Lyme Disease Association (LymeDisease.org)

Karen Chew, Lyme Disease Support Network

Vicki Kramer, PhD, California Department of Public Health (CDPH)

Robert Lane, PhD, University of California, Berkeley

Paula Macedo, DVM, PhD, Mosquito and Vector Control Association of California (MVCAC)

Chris Parlier, Lyme Disease Support Network, Committee Chair

Raphael Stricker, MD, California Medical Association

Committee members absent

James Miller, PhD, University of California, Los Angeles

Scott Morrow, MD, MPH, San Mateo County Health Department

Other attendees

CDPH Vector-Borne Disease Section (CDPH-VBDS) staff, including:

Anne Kjemtrup, DVM, MPVM, PhD, Research Scientist III

Allyx Nicolici, MPH, CHES®, Health Educator

Megan Saunders, PhD, MSPH, Senior Public Health Biologist

Other members of CDPH-VBDS, local vector control agencies, and the public joined the meeting via phone and WebEx.

I. Roll Call and Opening Comments

Meeting brought to order by LDAC Chair, Chris Parlier at 10:02am.

II. Committee Member Updates

General Welcome of Committee and attendees by Chris Parlier and Dr. Vicki Kramer.

Dr. Vicki Kramer provided a brief update about CDPH's efforts as it emerges from the COVID-19 pandemic and how CDPH-VBDS is continuing the important work of vector-borne disease prevention, surveillance, and control.

Dr. Robert Lane brought to the Committee's attention citizen science articles reporting the presence of *Amblyomma americanum* (the lone star tick) in California. The articles listed *A. americanum* as an established tick species in California, and Dr. Lane asked the Committee to address the findings and clarify if CDPH considered *A. americanum* established in California. Dr. Kramer and CDPH-VBDS staff stated that CDPH does not consider *A. americanum* established in

California because it does not meet strict species establishment criteria put forth by the U.S. Centers for Disease Control and Prevention (CDC). Furthermore, it is difficult to determine if ticks submitted via citizen science projects were transported to California from other regions of the U.S. in clothing or other belongings.

Dr. Paula Macedo provided an overview of the 2021 survey results of tick-related services offered by MVCAC member agencies. MVCAC member agencies were last surveyed about tick-related services in 2005 and 2011; in 2021, 47 agencies responded to a survey, over half of which (53.2%) indicated that their district provides some type of tick-related service. Survey responses regarding tick identification and testing services were detailed, including kinds of ticks tested and pathogens for which ticks are tested. In response to this update, the Committee discussed the importance of testing ticks for *Anaplasma phagocytophilum*, as well as limitations and barriers to tick-related services in counties where the population is small (including in northwestern California counties), or in areas where the local health department provides tick-related services instead of the local vector control agency.

III. CDPH Progress Report

A. Surveillance Update (Megan Saunders, PhD, MSPH)

Dr. Saunders provided a summary of reported Lyme disease cases in California from 2012 through 2021. Dr. Saunders also detailed the results of *Ixodes pacificus* tick testing for *Borrelia* spp. by CDPH-VBDS from January 1 through April 15, 2022. During this period, over 2,500 adult and 25 nymphal *I. pacificus* were collected from various California counties and submitted for testing. Of the ticks submitted for testing, 40 adult and 3 nymphal ticks tested positive for *Borrelia burgdorferi sensu lato*, and 30 adult and 1 nymphal tick tested positive for *B. miyamotoi*. Dr. Saunders noted that of surveyed southern California counties, *Borrelia*-positive ticks were detected only in Orange and San Luis Obispo counties. *Borrelia burgdorferi sensu stricto* was not identified in either county. Current CDPH-VBDS projects and goals for tick surveillance and testing were also described.

Following the presentation, it was clarified that CDPH-VBDS tests ticks using species-specific real-time polymerase chain reaction (PCR) tests versus direct fluorescent antibody (DFA) testing.

B. Education Update (Allyx Nicolici, MPH, CHES®)

Ms. Nicolici provided an update on CDPH's tick-related outreach and education efforts since November 2021. The distribution of CDPH-VBDS's tick-bite prevention messaging and educational materials (including tick identification wallet cards and brochures) was detailed. CDPH ships printed materials free-of-charge to requesting persons or local agencies, and CDPH-VBDS staff also distribute print materials during routine site visits to local agencies. Ms. Nicolici shared an overview of new or updated digital resources provided by CDPH-VBDS, including the tick-bite prevention curriculum for third grade students that has been undergoing changes and updates. Finally, an overview of social media efforts was described,

specifically highlighting social media messages shared during adult tick season in the winter of 2021-2022.

Following the presentation, the Committee discussed content in CDC's new Lyme disease training modules for health professionals, as well as ways to improve CDPH-VBDS' endemic tick-borne diseases at-a-glance document for healthcare providers.

IV. Presentation: Pathogen detection in *Ixodes pacificus* in California, 2019-2021 (Megan Saunders)

Dr. Saunders presented on CDPH-VBDS tick surveillance and testing, focusing specifically on *Ixodes pacificus* tested for *Anaplasma phagocytophilum* and *Borrelia* spp. infection. *Anaplasma* surveillance during 2019-2021 found infected ticks in six California counties. Based on surveillance and testing during the indicated time period, the infection prevalence (IP) of *Anaplasma* in adult ticks was 0.56%, and the minimum infection prevalence (MIP) of *Anaplasma* in nymphal ticks was 2.0%. With respect to *Borrelia burgdorferi sensu lato* and *B. miyamotoi*, the IP was 1.05% and 0.65%, respectively, for adult ticks, whereas the IP was 4.40% and 1.27%, respectively, for nymphal ticks. Based on sequencing results, *B. burgdorferi sensu stricto* was the most common member of the *B. burgdorferi* s.l. group in California during 2019-2021.

Following the presentation, the Committee discussed the possibility and challenges of compiling, comparing, and centralizing various types of tick surveillance and testing data collected by agencies and programs across California. The Committee also discussed if CDPH-VBDS provides specific geolocations of infected ticks. While CDPH-VBDS does not publish specific geolocations for infected ticks for privacy reasons, they do currently provide an online [interactive tick surveillance map](#), which indicates *Ixodes pacificus* collection locations from 1985 through 2019.

V. Discussion: Tick-borne disease prevention webpage development (Allyx Nicolici)

Ms. Nicolici provided a brief overview of CDPH-VBDS' proposal to centralize key tick-borne disease prevention information onto one webpage within CDPH's website. Content for this new webpage would include comprehensive tick-bite prevention information, as well as information about proper tick removal and awareness of general tick-borne disease symptoms. Due to time constraints, the discussion was diverted to an exchange and follow-up via email.

VI. Public Comment

- A member of the public was given pre-approval by the LDAC Chair to share additional points about the citizen science research related to *Amblyomma* detections in California. This individual relayed information about the historical report of *Amblyomma* found at McClellan Air Force Base, as well as tick detections on private property in

recent years. This individual also asked about the availability of tick-related resources developed by CDPH-VBDS for occupational risk and safety.

Dr. Kramer thanked attendees for their participation and announced that the next LDAC meeting will be held in the fall of 2022.

Meeting adjourned at 12:00pm.