

# Lyme Disease Advisory Committee (LDAC) Spring Meeting

April 11, 2024

## Minutes

### Committee members in attendance (via phone/Microsoft [MS] Teams)

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

Matt Willis, MD, MPH, California Conference of Local Health Officers (CCLHO)

### Committee members absent

None

### Other attendees

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

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

Marco Metzger, PhD, Senior Public Health Biologist

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 MS Teams.

## I. Roll Call and Opening Comments

Meeting brought to order by LDAC Chair, Chris Parlier, at 9:30am.

## II. Committee Member Updates

**Dr. Vicki Kramer** shared an update on a new review article published in the journal of *Ticks and Tick-Borne Diseases* titled "[History of the geographic distribution of the western blacklegged tick, \*Ixodes pacificus\*, in the United States](#)"; contributing authors include CDPH-VBDS staff in collaboration with the U.S. Centers for Disease Control and Prevention (CDC).

**Dr. Raphael Stricker** provided an update on several journal articles sent to Committee members about relapsing fever *Borrelia*. Discussion focused on *B. miyamotoi* including mention of the first identification of a case in a California resident in 2021, and how illness from this pathogen may be underreported. Dr. Kjemtrup mentioned that CDC is currently developing a case definition for illness caused by *B. miyamotoi* infection and that diagnostic testing is challenging.

**Ms. Wendy Adams** provided an update on the federal government’s framework for research on tick-borne and vector-borne diseases, including Lyme disease. The national framework came out in February 2024, and the first meeting to discuss priority research areas will be in Washington D.C. in May 2024. The U.S. Health and Human Services Tickborne Disease Working Group ended in 2022, but two public meetings will be held to further engage the public. The first meeting, titled “Tick-Borne Diseases & Associated Illnesses: National Community Engagement Initiative”, will be held at the University of California, San Francisco on June 11, 2024, with a hybrid option to attend.

**Dr. Paula Macedo** provided updates from select local vector control agencies in California. Marin/Sonoma Mosquito and Vector Control District continues its surveillance in parks and recreational areas where data are limited, while sentinel surveillance is taking place at specific sites: two sites affected by fires, and one site that has seen significant forest management. Alameda County Vector Control Services District continues to do routine tick surveillance county-wide, including monthly surveillance on key trails where ticks are collected and later tested. Tick surveillance runs from January into the fall each year; ticks collected off wildlife, including feral pigs, are tested.

**Dr. Robert Lane** shared that he has been serving as the tick surveillance consultant for Alameda County Vector Control Services District (ACVCS) for 14 years. They currently are developing a project to learn more about *Borrelia* sp. R57 detected in roof rats in Alameda County in collaboration with colleagues in Germany. If that enigmatic spirochete can be cultured, it will be characterized and named. Dr. Lane also complimented the excellent work of ACVCS and other local vector control agencies throughout California, and the important role they play in surveillance and research in this field.

**Dr. Matt Willis** echoed Dr. Lane’s praise and gratitude to the local vector control agencies in California. He reiterated the importance of close relationships and aligned work between local public health departments and local vector control as their work necessarily overlaps.

**Ms. Karen Chew** shared some of the local awareness messaging she has recently seen in her area.

### **III. CDPH Progress Report**

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

Dr. Saunders provided an overview of reported Lyme disease cases in California from 2014 through 2024 with 2023 and 2024 data being provisional. Dr. Saunders also provided a summary of *Borrelia* spp. infection prevalence in ticks collected and tested by CDPH-VBDS from January 1, 2024 through April 9, 2024. During this period, 2,092 adult ticks were collected from various California counties and submitted for *Borrelia* spp. testing via real-time PCR. Of the ticks submitted for testing, 49 (2.3%) tested positive for *Borrelia burgdorferi* sensu lato and 17 (0.8%) adult ticks were positive for *B. miyamotoi*. Maps were shown depicting infection prevalence by California county, with northern coastal

and foothill counties continuing to show highest infection prevalence. Current CDPH-VBDS projects and goals for tick surveillance and testing were also described, including a continued focus on collecting *Ixodes pacificus* immatures and enhancing relationships with partners also doing tick testing and surveillance in California.

Following the presentation, the Committee discussed surveillance and reporting of soft ticks and *Borrelia hermsii*, as well as the general concern of underreporting, which is an ongoing issue with vector-borne diseases. It was reiterated by Committee members that the surveillance definition of Lyme disease is different from the clinical definition, which may be a nuance that is missed by physicians who might not be aware of Lyme disease in California. The Committee agreed that surveillance data can help raise awareness and inform providers.

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

Ms. Nicolici provided an update on CDPH's tick-related outreach and education efforts since November 2023, including an overview of key times for seasonal outreach and the distribution of CDPH's print materials over the years. Outreach via newsletters was specifically highlighted, as well as the ways CDPH-VBDS staff are involved with education and outreach during their field work activities. In February 2024, the new CDPH Tick-Borne Disease Prevention webpage was translated into [Spanish](#), and CDPH plans to revise the CDPH Lyme Disease webpage with input from the Committee. May is Lyme Disease Awareness Month and will be an opportunity to share social media messages about Lyme disease signs and symptoms, prevention, and the importance of tick-bite prevention.

Following the presentation, a member of the Committee encouraged the emphasis of Lyme disease symptom awareness in messaging and to address what to do if bitten by a tick (versus focusing only on tick-bite prevention), in order to provide the public with helpful, actionable information.

#### **IV. Presentation: Adult tick surveillance at two recreational sites in eastern Los Angeles County, 2019 – Present (Marco Metzger, PhD)**

Dr. Metzger presented on CDPH-VBDS' sentinel tick surveillance sites in Southern California, which were established for the purpose of documenting seasonal adult tick presence and prevalence of tick-borne pathogens to determine when and where humans are at risk for tick exposure and associated disease(s). The project is ongoing and thus far spans 5 years and 2 months of monthly surveillance at Sturtevant Falls Trail at Chantry Flat Recreation Area and Schabarum Trail at Schabarum Regional Park. Descriptions of habitat were provided, as well as an overview of sampling protocol for tick collection. From February 2019 through August 2020, the Chantry Flat location produced 525 *Ixodes pacificus* and 250 *Dermacentor occidentalis*. One female *D. occidentalis* tested positive for *Rickettsia* 364D, the pathogen that causes Pacific Coast tick fever. In September 2020, the Bobcat Fire burned the Chantry Flat study site, so sentinel surveillance was switched to a new location at Schabarum Regional Park and resumed in February 2021. To-date, Schabarum Trail has produced 503 *I. pacificus*, 1288 *D. occidentalis*, and 27 *D. variabilis*. Eighteen female *D. occidentalis* tested positive for *Rickettsia* 364D and one

female *I. pacificus* tested positive for *Anaplasma phagocytophilum*, the pathogen that causes anaplasmosis. Data from both locations suggest that risk of encounters with adult ticks are highest from November to April for *I. pacificus*, from September to June for *D. occidentalis*, and from May to August for *D. variabilis*. Testing indicated that pathogens of concern in ticks in the area are *Rickettsia* 364D and potentially *Anaplasma phagocytophilum*, rather than *Borrelia burgdorferi* and *B. miyamotoi* detected in other parts of California. No nymphal or larval ticks were collected during this study.

Following the presentation, members of the Committee asked about public awareness of ticks at these locations; educational awareness signs are not present at these locations, but Dr. Metzger speaks with members of the public who are interested in his work while he is conducting surveillance at the sites. The Committee also discussed the absence of nymphal *D. occidentalis* and collection methods that might be better suited for that species' nymphal questing behavior; it was shared that these ticks are more abundant during periods of darkness.

#### **V. Discussion: CDPH Lyme disease webpage revisions (Allyx Nicolici)**

Ms. Nicolici provided an overview of the current [CDPH Lyme disease webpage](#) for the public and summarized past discussions held by the Committee to update this webpage. Questions were posed for Committee input about improvements to the existing webpage and how best to expand and organize content. Specific areas for improvement included expanding information about the signs and symptoms of Lyme disease, minimizing content that emphasizes the avoidance of tick habitat to prevent disease, and adding information about when to seek medical care if symptoms appear or if concerned about Lyme disease.

After the presentation, the Committee discussed additional messaging to emphasize on the revised webpage, including risky habitats where ticks may be present, what to do if bitten by a tick, and Lyme disease signs and symptoms, which might not always include an erythema migrans (EM) rash. A member of the Committee also recommended that the Lyme disease webpage for the public be interlinked with information and resources for health professionals. CDPH will review and incorporate the recommendations from Committee members and revise the webpage. The updated webpage will be shared once completed.

#### **VI. Public comment**

- A member of the public shared their experience with the difficulties of Lyme disease and its relationship to another health condition with which they have been diagnosed. This individual expressed concerns about the effects of Lyme disease on genetic predispositions for other chronic illnesses.

#### **Closing Comments**

The Committee Chair thanked the Committee, the presenters, and members of the public for attending the meeting and contributing. The next LDAC meeting will be held in mid-November 2024 – date and time to be announced.

**Meeting adjourned at 11:55am.**