

Lyme Disease Advisory Committee (LDAC) Fall Meeting

November 7, 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

Kelly Liebman, PhD, MPH representing 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

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

Other attendees

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

Allyx Nicolici, MPH, CHES®, Health Educator

Mary Joyce Pakingan, Microbiologist

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 9:34am.

II. Committee Member Updates

Dr. Raphael Stricker provided an update on journal articles sent to Committee members about babesiosis.

Dr. Robert Lane shared information about an [article](#) in *The Journal of Infectious Diseases* describing the new name given to *Rickettsia* species 364D, the causative agent of Pacific Coast tick fever. Dr. Lane summarized the work and noted that the new taxonomic scientific name is *Rickettsia rickettsii* subsp *californica*.

Dr. Kelly Liebman provided an update for MVCAC in lieu of Dr. Paula Macedo. Local vector control agencies in California, including in Butte, Marin, Sonoma, and Placer counties, continue

to do surveillance and test ticks for *Borrelia burgdorferi* and *B. miyamotoi*. Marin/Sonoma Mosquito and Vector Control District is seeing an increase in the presence of adult ticks after some severe fire damage in a few areas. MVCAC has also been working with VectorSurv to incorporate tick information from field surveillance into the VectorSurv database.

Ms. Wendy Adams provided an update about the LymeX Diagnostic Prize, a competition established to advance diagnostics for Lyme disease. Ms. Adams also commented on a new healthcare provider toolkit resource from the American Medical Association (AMA) and the U.S. Centers for Disease Control and Prevention (CDC).

III. CDPH Progress Report

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

Dr. Saunders provided an overview of reported Lyme disease cases in California from 2015 through 2024 (provisional data). Dr. Saunders also provided a summary of *Borrelia* spp. infection prevalence in ticks collected and tested by CDPH-VBDS from January 1 to October 31, 2024. During this period, 3,656 adult and 510 nymphal ticks were collected from various California counties and submitted for *Borrelia* spp. testing via real-time PCR. Of the ticks submitted for testing, 65 (1.8%) adult and 73 (14.3%) nymphal ticks tested positive for *Borrelia burgdorferi* sensu lato, and 25 (0.7%) adult and 4 (0.8%) nymphal 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 for both *B. burgdorferi* and *B. miyamotoi*. 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 surveillance and testing of ticks from counties with low sample sizes. Dr. Saunders also announced that CDPH has officially adopted the use of the name *Dermacentor similis* instead of *D. variabilis* for the American dog tick that occurs west of the Rocky Mountains in North America.

Following the presentation, Dr. Saunders answered questions about the name change for *D. similis*, explaining that recently published articles describing morphological and genetic differences warrant two separate species. Dr. Saunders also explained that *I. pacificus* nymphal tick collections are localized in certain areas of the state because of CDPH's sentinel surveillance sites and special projects in these areas where consistent surveillance collects more nymphal ticks than periodic or annual surveillance alone. Infection prevalence of *B. burgdorferi* can vary widely at different collection sites within the same property or surveillance area, which may be an important point to note on surveillance maps.

The Committee had some questions on the investigation and case reporting process for Lyme disease cases in California. Local health departments evaluate and close all cases before they are reported to CDPH, and as such, cases in a given year are finalized and

closed at the beginning of the following year. Data presented at the April 2025 LDAC meeting will have more definitive case counts for 2024.

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

Ms. Nicolici provided an update on CDPH’s tick-related outreach and education efforts since April 2024, including distribution of CDPH’s printed tick materials, social media messages, and recent tick safety and tick-borne disease presentations given by CDPH staff. Outreach via newsletters was highlighted, as well as examples of how local vector control agencies use CDPH tick materials and messaging in their local outreach efforts. In September 2024, CDPH launched a new brand and logo for the department. CDPH resources, including tick-related resources, will be gradually updated to feature the new designs and logo for CDPH. Upcoming outreach and education projects include updating the CDPH Lyme disease webpage based on Committee member input and updating social media collections for Lyme disease awareness and tick-bite prevention.

Following the presentation, members of the Committee provided suggestions for new and engaging social media content and supported CDPH’s effort to continue to update its resources.

IV. Presentation: Past to Present – *Borrelia* testing at CDPH through the years (Mary Joyce Pakingan, Megan Saunders)

Ms. Pakingan and Dr. Saunders presented a timeline and overview of CDPH-VBDS tick testing capabilities, starting with bacterial culture in the 1980s, use of indirect fluorescent antibody (IFA) testing in the 1990s, and introduction of molecular testing through the U.S. Army in the 1990s and early 2000s. In 2007, CDPH-VBDS began in-house tick testing using direct fluorescent antibody (DFA). In 2013, CDPH-VBDS initiated real-time TaqMan polymerase chain reaction (PCR) testing, and since then has incorporated nested PCR and Sanger sequencing to the *Borrelia* spp. tick testing protocol.

Following the presentation, the Committee asked about multiplex PCR testing; currently CDPH-VBDS uses a duplex real-time PCR to test ticks for *B. burgdorferi* and *B. miyamotoi* and a separate PCR for *Anaplasma phagocytophilum*. CDPH’s Viral and Rickettsial Disease Laboratory currently runs multiplex PCR on *Dermacentor* ticks for *Rickettsia* spp. The presenters expressed the valuable collaboration with partner agencies for additional tick testing.

V. Discussion: Revisions to CDPH’s Quick Guide to Ticks and Diseases They Transmit (Allyx Nicolici)

Ms. Nicolici provided an overview of one of CDPH’s current tick-borne disease educational materials, which is a [quick reference guide](#) to ticks of public health importance in California and the corresponding diseases they transmit. Ms. Nicolici shared ideas for

improving the resource and asked the Committee for input on how best to update the resource. The Committee discussed which additional pathogens and ticks should be added. Aesthetic elements of the resource were discussed, including use of images, links to more information, and formatting to optimize printing and/or viewing on a mobile device. CDPH will update the resource using recommendations from the Committee; an updated version of the resource will be posted on the CDPH website once finalized.

VI. Public comment

No public comments were announced during the meeting.

Closing Comments

The Committee Chair thanked the Committee and presenters for their contributions to the meeting. The next LDAC meeting will be held in April 2025 – date and time to be announced.

Meeting adjourned at 11:45am.