

# Lyme Disease Advisory Committee (LDAC) Fall Meeting

November 16, 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)

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

Chris Parlier, Lyme Disease Support Network, Committee Chair

### Other attendees

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

Christopher Kilonzo, DVM, MPVM, PhD, Associate 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 phone and WebEx.

## I. Roll Call and Opening Comments

Meeting brought to order by Dr. Vicki Kramer, on behalf of LDAC Chair (absent), at 9:30am.

## II. Committee Member Updates

**Dr. Robert Lane** shared that a new species of *Ixodes* tick, *Ixodes mojavensis*, has been identified in California, with all three life stages of this species described from small mammals from the Amargosa Valley of California. An [article](#) in *Ticks and Tick-borne Diseases* describes this finding. Dr. Lane mentioned this discovery to emphasize that we continue to learn about ticks and tick-borne diseases in California.

**Dr. Raphael Stricker** shared that an abstract is being presented at the Western Medical Research Conference about gender bias in the diagnosis of Lyme disease. According to data from the MyLymeData registry, Dr. Stricker's research suggests that the Lyme disease diagnostic tests more readily detect Lyme disease in males than females.

**Ms. Wendy Adams** provided an update on the Lyme Disease Biobank, a subsidiary of the Bay Area Lyme Foundation. Collections have been received from 1,100 participants (including acute Lyme disease patients, healthy controls, and patients with persistent symptoms); the Biobank also serves as a tissue bank for discarded surgical and post-mortem donations. Samples from the Biobank have been given to over 80 projects.

**Dr. Vicki Kramer** shared that the CDPH-VBDS Annual Report for 2021 was recently posted; the link and a PDF copy will be emailed to the Committee. Print copies are also available upon request.

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

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

Dr. Saunders provided a summary of reported Lyme disease cases in California from 2013 through 2022 to date. Dr. Saunders also detailed the results of *Ixodes pacificus* testing for *Borrelia* spp. by CDPH-VBDS from January 1 through November 1, 2022. During this period, over 4,300 adult and 1,000 nymphal *I. pacificus* were collected from various California counties and submitted for testing. Of the ticks submitted for testing, 59 adult and 43 nymphal ticks tested positive for *Borrelia burgdorferi* sensu lato, and 42 adult and 28 nymphal ticks tested positive for *B. miyamotoi*. For 2022, surveillance has been conducted in 31 counties in California. Of the surveyed southern California counties, *Borrelia*-positive ticks were detected only in Orange and San Luis Obispo counties; *B. 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, the Committee asked questions about the prioritization of counties for tick surveillance and testing, including high-incidence counties such as Santa Cruz County. Dr. Saunders noted that negative data were not presented; CDPH does conduct regular surveillance in high-incidence counties.

Questions about *Borrelia* in bats and bat ticks were also raised.

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

Ms. Nicolici provided an update on CDPH's tick-related outreach and education efforts since April 2022, including the distribution of CDPH-VBDS' tick-bite prevention print materials and digital social media messages. Key messages about tick-bite prevention and Lyme disease prevention are shared via CDPH-VBDS webpages, social media channels, staff trainings and site visits, and email newsletters. Ms. Nicolici also shared an overview of new and upcoming resources, including a Lyme disease messaging toolkit for social media and a tick-borne disease prevention webpage. Springtime Lyme disease awareness messages and fall-themed messages for adult tick season were shared and commented on by the Committee.

Following the presentation, the Committee discussed key points to clarify timing for outreach about tick-bite and tick-borne disease prevention. It was also suggested that symptom information and disease awareness be emphasized in addition to tick-bite prevention messaging.

#### **IV. Presentations**

##### **A. Overview of China Camp Sentinel Site Data (Chris Kilonzo, DVM, MPVM, PhD)**

Dr. Kilonzo provided an overview of tick surveillance data from one of CDPH-VBDS' sentinel sites, China Camp State Park, which is a high-use area along the shoreline of San Pablo Bay in San Rafael. Key findings presented were from 2019 to 2022 and included relative tick abundance, temporal trends, and pathogen prevalence from collected ticks. In summary, *Ixodes pacificus* was the most abundant tick in the area, with adult peak activity in January and nymphal peak activity in April. A higher pathogen prevalence was found in nymphs compared to adults, with *Borrelia burgdorferi* sensu lato being the most common borreliae found in *Ixodes pacificus*; *B. burgdorferi* prevalence was shown to peak in nymphal ticks in June. Key findings on *Dermacentor occidentalis* and *Borrelia miyamotoi* and *Anaplasma phagocytophilum* prevalence were also shared.

Following the presentation, the Committee discussed the implications of these findings and the need for tick-borne disease risk communication. The Committee also discussed the reasons why ticks were not found in this area during summer and early fall, as well as the role of lizards in *Borrelia* pathogen clearing.

##### **B. Tick Surveillance and Testing Data on CDPH Website/Reports (Megan Saunders)**

Dr. Saunders provided an overview of California's statewide tick surveillance system. Surveillance includes routine and responsive surveillance conducted by CDPH-VBDS, as well as in-house laboratory testing. Data are presented at the county level to allow for standardization, correspondence with human disease incidence, and avoidance of site-specific bias. CDPH shares surveillance data via the VBDS Annual Report and the Lyme Disease ArcGIS StoryMap, as well as via external collaborators, conferences, and invited presentations.

Following the presentation, the Committee discussed collection and data presentation by county vs. ZIP code, as well as the issue of awareness among physicians and health-care providers. The group discussed new ways to raise awareness among providers and communicate risk. Ideas discussed included presentations at medical symposia and online on-demand webinars for physicians. In the past, CDPH has communicated with medical associations and will continue to do so in the future.

## **V. Discussion: Physician Education on Tick-Bite Prevention (Allyx Nicolici)**

Ms. Nicolici led the discussion on CDPH’s preexisting physician education resources about tick-bite prevention, tick removal, and tick-borne disease prevention. One resource in particular ([“Hey Doc – Your Patient Has Been Bitten by a Tick, What Do You Do Now?”](#)) was shown, and suggestions were made for updates, especially regarding formatting and content. The Committee was asked to provide feedback on the best format for this provider resource, and if questions should be added to the resource to help initiate a conversation between provider and patient about exposure to ticks.

Discussion from the Committee provided valuable feedback about how to update the resource. It was suggested that the updated resource should be presented as a webpage instead of a PDF so that providers can more easily find and navigate through the resource. The use of color photos and graphics was also suggested, and the Committee agreed that providing suggested questions that providers can ask their patients about insect bites and skin rashes/bumps would be valuable. CDPH-VBDS will proceed with updating the “Hey Doc” physician resource and report back to the Committee with updates.

## **VI. Public Comment**

- A member of the public shared their personal experience with Lyme disease and awareness of/access to educational materials. This individual appreciated the outreach work of CDPH but recommended that more be done to actively communicate with the public about Lyme disease; tips for web design, social media, and distribution of print materials were shared. It was also suggested that digital resources developed for the web should be created with different devices in mind (laptops, smartphones, etc.), as some devices display content differently.

## **Closing Comments – Housekeeping Items**

1. It was agreed that a 2.5-hour meeting allowed for more discussion. LDAC meetings will continue to be virtual and be scheduled from 9:30am – 12pm with a 10-minute break in the middle.
2. The hosting format for future LDAC meetings will change from WebEx to Microsoft (MS) Teams per CDPH’s availability of hosting software for video conference calls.

The next LDAC meeting will be in April 2023 – date and time to be announced.

**Meeting adjourned at 11:56am.**