

Lyme Disease Advisory Committee (LDAC) Fall Meeting

November 16, 2021

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)

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

Raphael Stricker, MD, California Medical Association

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

Matthew Ward, PhD, MSPH, National Parks 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, LDAC member serving as Committee Chair in the absence of Chris Parlier, at 10:01am.

II. Committee Member Updates

Dr. Vicki Kramer introduced new staff at CDPH-VBDS and provided an update on other staffing changes, including the promotion of Tina Feiszli to Supervising Public Health Biologist for the Coastal Region.

Dr. Paula Macedo provided a preliminary update on MVCAC's recent survey of tick-related services provided by local vector control agencies; a similar survey was conducted by Dr. Chindi Peavey in 2011. Agencies that did not respond to the online survey will be contacted via phone. Detailed results from the survey will be shared at the next LDAC meeting in April 2022.

Dr. Robert Lane reported that a technical research article titled [Modeling future climate suitability for the western blacklegged tick, *Ixodes pacificus*, in California with an emphasis on land access and ownership](#) was published in September 2021 in the journal *Ticks and Tick-borne Diseases*. This research explored how climate change may alter the distribution of *Ixodes pacificus* in the 21st century by modeling the expansion of suitable habitat for these ticks in future time periods (2026-2045 and 2086-2099). According to this study, suitable areas are expected to expand by 23% by the mid-century and by 86% by the end of the century.

Dr. Lane also shared an update about the post-burn tick ecology research project taking place at the UC Hopland Research and Extension Center; the research project is currently being written-up and Dr. Lane will notify the Committee when the paper is published.

Wendy Adams shared that the Bay Area Lyme Foundation has published [interactive maps](#) of data collected during Bay Area Lyme Foundation's Free Tick Testing program (2016-2019). The maps can be filtered by tick type and geographic area within the United States.

Ms. Adams also provided information about conferences held in October 2021 where the U.S. Centers for Disease Control and Prevention (CDC) provided an update that the Council of State and Territorial Epidemiologists (CSTE) is changing the surveillance case definition for Lyme disease. Dr. Kramer mentioned that VBDS is aware of the changes and is working with CDPH's electronic surveillance system team (CalREDIE) to make the necessary updates.

III. CDPH Progress Report

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

Dr. Saunders provided a summary of reported Lyme disease cases in California during 2012-2021. Dr. Saunders also detailed the results of *Ixodes pacificus* tick testing for *Borrelia* by CDPH-VBDS from October 2020 to October 2021. During this period, over 3,900 adult and 777 nymphal *I. pacificus* were collected from 23 counties in California and submitted for testing. Of the ticks submitted for testing, 76 adult and 76 nymphal ticks tested positive for *Borrelia burgdorferi sensu lato*, and 36 adult and 14 nymphal ticks tested positive for *B. miyamotoi*. Dr. Saunders noted that no ticks collected from southern California tested positive for *Borrelia* infection. Current CDPH-VBDS projects and goals for tick surveillance and testing were also described.

Following the presentation, the Committee discussed the proportion of collected nymphs to adults in southern and northern California. It was reiterated that nymphs are difficult to find in southern California despite ongoing surveillance by CDPH-VBDS and other researchers.

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

Ms. Nicolici provided an update on tick-related outreach and education efforts since April 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, and CDPH-VBDS staff also distribute print materials during routine site visits to local agencies. CDPH-VBDS has also utilized newsletters to share information about tick-bite prevention resources to local programs. Ms. Nicolici shared an overview of webpage updates for tick-related content and detailed the response to social media messages distributed during Lyme Disease Awareness Month (in May) and at the start of adult tick season (at the end of October) in 2021.

Following the presentation, the Committee discussed messaging for specific audiences, such as hunters and pet owners, as well as distributing content to wildlife agencies and hospitals/clinics. It was mentioned that CDPH-VBDS has developed messaging for hunters in the past, and actively provides outreach to the U.S. Forest Service and National Park Service.

IV. Presentation: Tick surveillance in Yosemite National Park (Matthew Ward, PhD, MSPH)

Dr. Ward provided an update on *Ixodes pacificus* surveillance in Yosemite National Park from 1992 to 2021. Collected ticks are tested for *Borrelia*, and since 1999, all ticks from Yosemite have tested negative for *Borrelia*. Dr. Ward also provided an overview of areas in Yosemite that provide suitable habitat for *I. pacificus*, including areas less than 4,500 feet in elevation; areas in Yosemite with suitable tick habitat include El Portal and Wawona (most of Yosemite is higher in elevation).

Following the presentation, the Committee discussed if higher elevations pose a risk of exposure to other ticks and tick-borne agents besides *I. pacificus* and *Borrelia burgdorferi*. The Committee also inquired about historical tick surveillance data in areas surrounding Yosemite National Park.

V. Discussion

C. Tick bite prevention materials for children: Revisions to “Timothy Tick-Finder” (Allyx Nicolici, Megan Saunders)

Ms. Nicolici and Dr. Saunders shared updates in progress to the [“Don’t Let the Ticks Bite” educational toolkit for children](#). A discussion about the need to update these resources took place at a prior meeting in 2019, and CDPH-VBDS has since been working to update the content included in the toolkit for young students and the accompanying guide for instructors. New content will include additional scientific information about tick ecology, habitat, and the specific kinds of ticks in California to provide a more comprehensive overview of ticks for young students. The presenters asked for feedback about new elements added to the toolkit, including new activities to engage students in learning about ticks and tick-bite prevention.

The Committee agreed to provide additional feedback as needed following the meeting. The Committee also discussed ways to promote this toolkit within outdoor education programs in California, and to consider collecting feedback about content based on geographic region to better represent varying landscapes in California.

D. California endemic “Tick-borne Diseases at a Glance” reference guide

(Anne Kjemtrup, DVM, MPVM, PhD)

Dr. Kjemtrup shared a one-page reference guide derived from materials previously posted on the CDPH-VBDS website about endemic tick-borne diseases in California. This at-a-glance document for healthcare providers provides an overview of the number of tick-borne disease cases in California from 2010 through 2020, and also indicates example habitats for the corresponding tick vectors for these diseases.

Following the presentation, the Committee discussed the format of the guide and the inclusion of confirmed case counts vs. disease incidence. The Committee also discussed the various tick habitats listed on the document and the proper classification of certain ecosystems. It was agreed that the guide should be kept to one page to better serve physicians throughout California, but edits would be made to link the at-a-glance resource to other existing CDPH-VBDS resources to provide additional information as needed. CDPH-VBDS will refine the document based on the comments from the Committee and then make it available online.

VI. Public comment

- A member of the public provided general comments about CDPH-VBDS outreach and the resources under discussion (“Don’t Let the Ticks Bite” toolkit and at-a-glance resource for physicians) and made suggestions to alter some of the images, including the depiction of dogs in these resources, to better convey key messaging. This individual also shared the personal experience of being a Lyme disease patient and the high costs associated with treatment.
- A member of the public shared their appreciation of the work presented during the meeting and reiterated the comments shared by the previous speaker about the cost of treatment as a Lyme disease patient.

The Committee thanked the public for their comments and for joining the meeting.

The next LDAC meeting will be held in the spring of 2022.

Meeting adjourned at 11:59 a.m.