

**Lyme Disease Advisory Committee (LDAC) Fall Meeting
November 9, 2016
Minutes**

Committee members in attendance

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
Lisa Messner, Lyme Disease Support Network
James Miller, PhD, University of California, Los Angeles
Chris Parlier, Lyme Disease Support Network, Committee Chair
Chindi Peavey, PhD, Mosquito and Vector Control Association of California (MVCAC)
Raphael Stricker, MD, California Medical Association

Committee members absent

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

Other attendees:

CDPH staff included:

Claudia Erickson, MS, CHES, Public Health Educator, Committee Coordinator
Anne Kjemtrup, DVM, MPVM, PhD, Epidemiologist
Kerry Padgett, PhD, Supervising Public Health Biologist
Melissa Yoshimizu, PhD, Senior Public Health Biologist
Sarah Billeter, PhD, Associate Public Health Biologist

Various members of local vector control agencies and the general public joined the meeting.

I. Roll call and opening comments

The meeting was brought to order by Mr. Parlier, LDAC chair, at 10:00 a.m.

II. Committee member updates

Dr. Kramer provided an update on the Lyme Disease in California brochure, which will be reprinted in response to ongoing requests for this brochure. Prior to printing, the brochure will be revised, with input from LDAC, to reflect current information on tick bite prevention. Dr. Kramer also noted that CDPH has been very busy over the past ten months responding to and preparing for Zika virus.

Ms. Barsocchini noted that lymedisease.org has contributed funding for a research project to be conducted by Sharon Brummitt, a PhD student in epidemiology at UC Davis. Sharon is planning to collect 500 human serum samples from blood banks to evaluate whether Californians are being exposed to Lyme disease and other tick-borne diseases.

Dr. Miller is interested in a variety of topics, including modern instrumentation for early Lyme disease detection and diagnosis, effective treatment, vaccine development, and medical student education. He will provide updates on these topics to the group as they arise. He has recently been involved in case study exercises for medical students, which allows them to develop their problem-based learning skills related to infectious diseases, including Lyme disease and other significant vector-borne diseases.

Dr. Lane has been involved in various publications, which he shared with members of the committee.

1. Dr. Lane highlighted a research paper which proposed that the name for *Borrelia bissettii* be changed to *B. bissettiae*.
2. Dr. Lane collaborated with Dr. Kjemtrup to update a 2008 UC Pest Notes titled "Lyme Disease in California."
3. Dr. Lane (with coauthors Vanessa Cook, Natalia Fedorova, Warren Macdonald, and Dr. Alan Barbour) have a forthcoming paper in Emerging Infectious Diseases about the lack of genetic diversity in DNA isolates of *B. miyamotoi* from California. Nonetheless, their findings demonstrated that Californian isolates differed slightly from those in the eastern United States, Europe, and Asia.
4. Dr. Lane, Dr. Padgett and several other researchers are working on a paper exploring the potential impact of global climate change on the distribution of western blacklegged ticks.
5. Dr. Lane, Tara Roth, and Dr. Janet Foley have a forthcoming paper in the Journal of Medical Entomology describing their novel findings detecting *Rickettsia felis* in the rabbit tick (*Haemaphysalis leporispalustris*). DNA isolates were obtained from ticks collected from Tilden Regional Park (Contra Costa County) and the Hopland area (Mendocino County).

Dr. Stricker recently attended the Columbia University/Lyme Disease Association, Inc. conference where Dr. Ben Beard from the U.S. Centers for Disease Control and Prevention (CDC) described the distribution of ticks in the United States and the relationship between tick distribution and Lyme disease cases. He also attended the International Lyme and Associated Diseases Society meeting in Philadelphia, which focused on the science, diagnosis, and treatment of Lyme disease. In addition, Dr. Stricker described the "My Lyme Data" website,

sponsored by lymedisease.org, which is actively collecting information from Lyme disease patients. Over 6000 people have signed up to contribute their data.

III. CDPH Progress Report

A. Education Update (Claudia Erickson)

Ms. Erickson presented updates on tick-borne disease public education items. Target populations include the general public, local agencies, occupational health programs, and the medical community. Social media posts are planned for this fall. The number of views of educational videos on YouTube continues to be tracked, with viewer metrics collected including viewership by location, age, and gender. Viewership continues to increase. Educational materials continue to be distributed to the public, occupational health, and medical health communities, including the “Facts about Tick-Borne Relapsing Fever in California” brochure, “Don’t Let the Ticks Bite” brochure, “Beware of Ticks” bookmark, “Prevent Tick Bites - Prevent Disease” brochure, the “Lyme Disease in California” brochure in Spanish, and Tick ID cards. Various talks were provided for the occupational health and medical communities. The newly created “Keep Ticks Off You!” flyer has been posted on the CDPH website. Current projects include reviewing all CDPH materials to ensure that CDPH tick bite prevention messaging matches the CDC’s latest recommendations.

B. Surveillance Update (Melissa Yoshimizu)

Dr. Yoshimizu presented updates on Lyme disease surveillance and tick testing. Lyme disease cases reported by year from 2005 through 2016 were summarized. In 2015, 102 cases met surveillance criteria for confirmed, 16 were probable, and 7 were suspect; 2016 cases are still being reported so the information presented is preliminary. The prevalence of *Borrelia burgdorferi* in adult ticks tested since October 2016 is similar to the infection prevalence previously reported (<2%). Current projects include continued collection of *Ixodes pacificus* nymphs, investigating tick-borne disease cases as indicated, and continued enhancement of in-house tick testing capabilities.

IV. Species Composition and Temporal Distribution of Ixodid Ticks and Prevalence of *Borrelia* Species in Crystal Cove State Park, Orange County (Sarah Billeter)

Dr. Billeter performed a study to assess the species composition and temporal distribution of adult Ixodid ticks at Crystal Cove State Park, Orange County. From July 2013 to June 2016, ticks were collected every 2-4 weeks. Five tick species were present in the park, including *D. occidentalis*, *D. variabilis*, *H. leporispalustris*, *I. pacificus*, and *I. spinipalpis*. The most abundant tick species found were *D. occidentalis* and *I. pacificus*. Dr. Billeter described the seasonality of

these two species, as well as the public health importance of the various tick species identified in the park. The *I. pacificus* ticks collected during her study were tested for *Borrelia burgdorferi* sI, with a prevalence of 0.8%.

V. Public Education - Tick bite prevention social media campaign overview (Claudia Erickson)

Ms. Erickson described CDPH social media efforts on Facebook and Twitter to educate the public on tick bite prevention. Social media posts were planned and scheduled from October to December, 2016. Additional posts are planned for spring 2017. Social media posts include engaging digital graphics and catchy, evidence-based messaging. Topics include tick bite prevention strategies, the proper technique for tick removal, tick facts, and tick-borne disease information. Ms. Erickson encourages committee members to share social media posts on their own social media outlets, as well as during presentations and lectures.

Committee Comments:

- A suggestion was made to change the name of the Lyme Disease Advisory Committee to reflect committee members' broader work on tick-borne diseases beyond Lyme disease. Dr. Kramer mentioned that the committee was created through legislation and the name of the committee is in statute, thus it is unlikely this can be changed. However, she offered to follow-up and will report back at the next LDAC meeting.

VI. Public comment period

- A member of the public asked whether the "Emerging Tick-Borne Diseases" PowerPoint that was presented by Dr. Padgett in Ukiah could be made available. Dr. Kramer noted that most of the information from that presentation is posted on the CDPH tick-borne diseases website in the document "Epidemiology and Prevention of Tick-borne Diseases in California".
- A member of the lymedisease.org group noted that Sharon Brummitt, a UC Davis graduate student who is involved with CDPH, has created a crowd funding website to raise money for her research on *B. miyamotoi*. [Lymedisease.org](http://lymedisease.org) offered to match her research funds and promoted her crowd funding project. As a result, she was able to collect enough money to begin her research project.
- A member of the public noted that the Council of State and Territorial Epidemiologists (CSTE) is proposing to change the Lyme disease case definition. The proposed change will require that in locations where Lyme disease is less frequently reported, the clinical documentation of an erythema migrans rash will require laboratory support which is not currently the practice.

- Dr. Kjemtrup noted that the proposed change has not yet been posted on the CDC website. CDPH has looked at the potential impact of this proposed change. With the new case definition, it is estimated that 10% of confirmed Lyme disease cases in California would be reclassified as suspect cases. Therefore, all case classifications (confirmed, probable, and suspect) will be included when California case data are presented. One benefit of the proposed CSTE change is that the US Centers for Disease Control and Prevention (CDC) would release a morbidity and mortality report (MMWR) each year summarizing the data, rather than every five years. This will allow messaging to be created on a more regular basis.

Dr. Kramer announced that the next meeting will be held on March 10, 2017 in Sacramento.

Meeting adjourned at 11:55pm by Chris Parlier.