Lyme Disease Advisory Committee (LDAC) Spring Meeting March 10, 2017 Minutes

Committee members in attendance

Barbara Barsocchini, California Lyme Disease Association (LymeDisease.org) [via phone]

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 [via phone]

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

Kerry Padgett, PhD, Supervising Public Health Biologist

Melissa Yoshimizu, PhD, Senior Public Health Biologist

Anne Kiemtrup, DVM, MPVM, PhD, Research Scientist

Greg Hacker, MS, Associate Public Health Biologist

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

1. Roll call and opening comments

Meeting brought to order by Chris Parlier, LDAC Chair, at 10:10am.

2. Committee member updates

Dr. James Miller indicated that completed but unpublished data in his laboratory have shown that the B31 strain of *Borrelia burgdorferi* can generate complete antibody-mediated protection in rabbits and mice against Ixodes ticks infected with four strains of *B. burgdorferi*, two of which were isolated from humans. This may have implications for vaccine development. Dr. Miller also provided an update on the literature regarding the new classification of the *Borrelia* species that include those that cause Lyme disease, currently called *Borrelia burgdorferi* sensu lato. It has been proposed that the *B. burgdorferi* sensu lato group be put into a new genus, *Borreliella*. New methods of gene sequencing were used to justify this idea to reclassify 52 species. The committee discussed the implications and scientific discourse surrounding this reclassification. It was noted that the disease would still be called "borreliosis" and that at least for now, people may still choose to use "*Borrelia burgdorferi* sensu lato" rather than "*Borreliella burgdorferi*" in publications.

Dr. Robert Lane reported on the recent Tick Working Group meeting that took place at CDPH- Richmond. He highlighted a recent molecular test result from his laboratory where a nymphal *Ixodes pacificus* tick that had bitten an individual, was saved, and later tested and found to be co-infected with *Anaplasma phagocytophilum* and *Borrelia burgdorferi*. The patient was later confirmed to be positive for human granulocytic anaplasmosis. Variability in time-to-transmission of tick-borne diseases was discussed by the committee.

Dr. Ray Stricker mentioned the Federal 21st Century Cures Act, which was passed in October 2016 and signed into law by then-president Obama. This Act provides for a national Lyme disease working group, including patient representation.

Lisa Messner, Barbara Barsocchini, and Dr. Miller provided an update regarding their planned outreach and Lyme disease education program in schools and their efforts to get more information published in their local newspapers (Los Angeles and Ventura counties).

Dr. Chindi Peavey reported on the current development of an interactive vector control agency map on the MVCAC website.

Barbara Barsocchini mentioned there is limited outreach in southern California for tick-borne diseases and requested some help from CDPH to address this issue.

Karen Chew reported on a Lyme disease prevention commercial she saw on TV at a local DMV office in Santa Clara County. Claudia Erickson will contact the local vector control agency for more information on this PSA.

Dr. Vicki Kramer reported on key activities of CDPH's Vector-Borne Disease Section (VBDS), and introduced several new staff hired to focus on Zika outreach and epidemiology.

Chris Parlier inquired as to the possible effects of this winter's heavy rainfall on tick abundance, prompting some discussion by the committee.

3. CDPH Progress Report

A. Education Update (Claudia Erickson, MS, CHES)

Ms. Erickson provided a report on tick bite prevention materials which have been updated and distributed from November 2016 to March 2017. Thousands of materials have been shipped to counties, national parks, and other organizations; the Tick ID Card continues to be the most requested tick prevention material from VBDS. The tick-borne disease prevention social media campaign from last year was also reviewed, including the number of "likes" and "shares" of various Facebook and Twitter posts by CDPH. The memes relating to tick-borne disease prevention seem to have engaged the most people on social media. Ms. Erickson also presented viewer metrics of CDPH's three YouTube videos regarding tick bite prevention.

The committee and the audience discussed other ways of tracking social media

metrics, and an audience member suggested tick-bite prevention materials also be sent to golf courses.

B. Surveillance Update (Melissa Yoshimizu, PhD)

Dr. Yoshimizu reported on the number of Lyme disease cases in 2016, with 83 confirmed cases from the data reviewed thus far. In response to a committee question, Dr. Anne Kjemtrup clarified the case definition. Dr. Yoshimizu mentioned that surveillance of ticks has been difficult because of the heavy rains, but since October 2016, 726 adult ticks have been tested from 11 counties – 3 tested positive for *B. burgdorferi* sensu lato and 6 tested positive for *B. miyamotoi*. CDPH goals include enhancing surveillance of ticks and increased in-house testing capabilities.

4. Ticks, *Borrelia*, and the Environment: An Update from Folsom Lake State Recreation Area (Greg Hacker, MS)

Mr. Hacker provided an update on tick surveillance in Folsom Lake State Recreation Area. This included a review of nymphal and adult tick studies within the area, a discussion as to why this area was chosen for study, the methods of tick collection, the variables and habitat characteristics impacting tick prevalence, and the results showing substrate-year comparisons. In general, there was an increase in nymph prevalence from 2015 to 2016, while adult prevalence has maintained a downward trend since 2011. The inclusion of rocks as substrates for adult and nymphal ticks was of interest to the committee, and it was discussed that this should be added to the brochure to help educate the public about potential exposure to ticks in wilderness areas.

The public inquired about the posting of tick warning placards in/around this area or the possibility for park rangers to distribute some of CDPH's tick education materials. Mr. Hacker responded that tick warning signs have been posted in the area.

5. "Lyme Disease in California" Brochure Update – Claudia Erickson, MS, CHES

Ms. Erickson provided a draft of the new "Lyme Disease in California" brochure for the committee and audience members to review. Those who wished to provide feedback made comments on the handouts, and these were collected for later review. Outdated prevention information was removed and updated; reasons for the changes were identified and additional changes were discussed by the committee. The brochure was re-organized to put the awareness and prevention components towards the front.

Committee members discussed the prevention content within the new brochure, as well as the goal of this brochure in educating the public and existing patients with Lyme disease. Additional formatting and graphic design changes were discussed. It was requested by the committee to have two weeks to review the brochure and offer additional edits/changes.

6. Public Comment

A member of the public (via phone) suggested that the new "Lyme Disease in

- California" brochure include information about exposure to ticks on or near rocks in tick habitat, as well as the possible use of blankets when sitting along a trail.
- An individual (via phone) requested that the new "Lyme Disease in California" brochure be printed and shipped to teachers in affected areas because there is not sufficient funding in schools to obtain such materials.
- A member of the public (via phone) recommended using hashtags on CDPH's Facebook and Twitter posts in order to increase impact of these social media posts. Claudia Erickson agreed to talk with CDPH's Office of Public Affairs to see about incorporating hashtags in these posts.
- A member of the audience provided an update on the "My Lyme Data" patient registry available at Lymedisease.org. A presentation of this information will take place on April 8, 2017 in San Ramon. Members of the LDAC committee were invited to attend.

Meeting adjourned at 1:35 pm.