



Seacoast Public Health Network Year-End Report June 30, 2019 Update

A Pilot Program To Implement Tick-Safe Practices In The Seacoast

The Seacoast Public Health Network (PHN), with funding provided by NH's Division of Public Health Services Building Resilience Against Severe Weather and Climate Effects grant, established a work group in May of 2018.

The work group was tasked with developing an action plan, with evaluation measures, that would address the issue of Lyme Disease in the Seacoast area. Research revealed that Lyme Disease cases in Rockingham County were on the rise, particularly in the communities of Kingston and Exeter, NH.

Year One Goal (May 2018 – June 2019) was **to improve both the prevention and treatment of tick-borne disease (TBD) among youth, caregivers and clinicians** in high-risk areas of the Seacoast PHN.

Strategy included partnering with a clinical expert, a subject matter expert on ticks and youth program leaders to **develop and pilot-test training programs** for youth summer camp counselors, after-school program educators and healthcare providers in the spring of 2019.

Evaluation included the development of survey instruments that would measure knowledge levels and likely behaviors, pre- and post-training sessions, relative to Lyme Disease and tick-safe practices. The workgroup enlisted the expertise of Jackson Jackson & Wagner, a public relations and research firm headquartered in Rye, NH, to draft and finalize the surveys and analyze results.

Results: Evaluation results showed a positive increase in knowledge and confidence of those in attendance when dealing with ticks and tick related disease. The Seacoast YMCA in Portsmouth, Camp Gundalow and Great Bay Kids Co. in Exeter have expressed interest in participating in training in Year Two of this program.

Next Steps: In the second year, the group plans on discussing the development of online training or making their training online in addition to face-to-face presentations which could increase the number of agencies participating and lower costs per individual trained.

Action Plan: Five Interventions Undertaken

1. Education and training of adult counselors and educators at after-school programs and summer camps to instruct others in tick-safe knowledge, skills, and abilities.

- The workgroup met with UNH Cooperative Extension to identify a subject matter expert with knowledge of prevention and control measures to conduct the training. Seacoast PHN selected Rachel Maccini to facilitate both the after-school program and camp training sessions
- Seacoast PHN representatives spoke with both Camp Lincoln and Exeter Area YMCA leadership to discuss their participation and get their ideas on the best times to execute the training
- Rachel Maccini, entomologist with UNH Cooperative Extension, conducted a 1-hr. training with Exeter Area YMCA After School Program on May 18 and educated 30 after-school staff
- She also conducted a 1-hr training with Camp Lincoln counselors on June 12 and educated 85 camp counselors at that location
- Between the 2 training sessions, 115 participants completed pre-tests and 111 participants completed post-tests. 74% of respondents are from Camp Lincoln and 26% from the Exeter Area YMCA

Overall Survey Result Highlights:

- Correct answers increased from the pre-test to the post-test on every question
- When asked how knowledgeable training participants feel about tick identification and prevention, those who feel “very knowledgeable” increased from 4% on the pre-test to 48% on the post test (Q6). Those who feel “not very knowledgeable” moved from 36% on the pre-test to 1% on the post-test.
- When asked how comfortable they feel teaching others about tick identification and prevention, comfort levels moved from 26% of participants who were “very or somewhat comfortable” on the pre-test to 86% who were “very or somewhat comfortable” on the post-test (Q7)
- When asked the first thing they would do if they found a tick on another camper or staff member, 56% on the pre-test responded with the correct answer of “take the camper to the nurse right away”; that jumped to 87% on the post-test (Q25 pre/Q14 post)
- 12% said they would be very comfortable removing a tick on another person on the pre-test; that number jumped to 43% on the post-test (Q27 pre/Q15 post)

2. Education of youth participating in school or camp programs.

- The Seacoast PHN has developed a Tick Safe Practices page on their website that can be accessed at <http://www.seacoastphn.org/tickborne-disease-prevention.html>
- Members of the Seacoast PHN staff ordered materials from TickFree NH and assembled and distributed information packets at both the Camp Lincoln and Exeter YMCA training sessions
- Packets contained both tick spoons for easy tick removal and tick detective workbooks for use by kids
- Mary Cook of the Seacoast PHN also attended the June 1st Camp Lincoln Parent Open House and distributed additional information packets to families and 60 tick removal spoons were distributed. Parents were very interested in tick prevention and many voiced that they were pleased that Camp Lincoln was being proactive in tick safe practices.
- In April 2019, the Seacoast PHN conducted a dipstick survey with 19 participants at a Relay for Life event and found that:
 - 16 of 19 respondents say they have found a tick on themselves, a family member or pet
 - 18 of 19 respondents wear protective clothing or repellent when outdoors
 - 17 of 19 respondents had not heard of the TickFree NH resources before that day

3. Policy change related to insect repellent use by targeted camps and after-school programs.

- Seacoast PHN researched and provided a sample tick policy that could be used by Camp Lincoln and the Exeter area YMCA as an addition to their sunscreen policies
- A permethrin product was recommended for use by the families of campers from both programs, with instructions that if the clothing that campers wear is sprayed proactively, effectiveness lasts up to 60 clothing washes

4. Environmental control measures to reduce the tick habitat by targeted camps and after-school programs.

- On April 29, prior to the Camp Lincoln training, Rachel Maccini of the UNH Cooperative Extension conducted 5 tick sweeps on camp property and assessed the property. No ticks were found in the initial sweep. Plans have been made for a return visit to the property in the summer of 2019.

5. Continuing Medical Education (CMEs) for clinicians on prevention and the timely diagnosis and treatment of Tickborne Diseases (TBDs).

- Seacoast PHN met with Dr. Aparna Dave, Infectious Disease Specialist at Exeter Hospital, to develop a 2-hour training session delivered on April 22, 2019 to 30 training participants for healthcare providers.

- 22 participants responded to a pre- and post-survey instrument to measure increase in knowledge levels and desired behaviors around Lyme Disease to identify a clinical champion with the knowledge of diagnosis and treatment of TBDs. *Survey highlights include:*
 - The number of training participants who “strongly agree” or “agree” with the statement, “*I am very knowledgeable on the subject of tick-borne illness*” jumped from 8 (pre-test) to 18 (post-test) (Q1a)
 - The number of training participants who “strongly agree” or “agree” with the statement, “*I am able to identify different types of ticks that are prevalent in NH*” jumped from 10 (pre-test) to 19 (post-test) (Q1b)
 - The number of training participants who “strongly agree” or “agree” with the statement, “*My comfort level in diagnosing tick-borne illness is high*” jumped from 5 (pre-test) to 13 (post-test) (Q1c)
 - The number of training participants who “strongly agree” or “agree” with the statement, “*My ability to prescribe treatment options for a patient with suspected Lyme disease is good*” increased from 9 (pre-test) to 14 (post-test) (Q1d)
 - All 22 training participants “strongly agree” that the presentation of the training material by Dr. Aparna Dave, MD was effective (Q5a)
 - 21 of 22 training participants say their “*knowledge has increased on the topics presented*” (Q5g)

6. Next Steps:

- We have interest from the YMCA of the Seacoast in Portsmouth, Camp Gundalow in Greenland, and Great Bay Kid’s Co. in Exeter for trainings next year.
- We are also planning on working with UNH Cooperative Extension to make these trainings online so that they would be available to more camps and after school programs in our region.