

**Knowledge, Attitudes, and Practices of Healthcare Professionals
Working in Schools Regarding Tickborne Disease Prevention
and Lyme Disease in New York State and Maryland**

Supporting Statement A for a New Generic Information Collection
Request

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- **Goal of the project:** To describe statewide healthcare professionals working in schools' knowledge, attitudes, and practices regarding tick bites, tickborne disease prevention, and Lyme disease.
- **Intended use of the resulting data:** We will use the results to develop and promote effective tick bite and tickborne disease prevention practices among healthcare professionals working in schools.
- **Methods to be used to collect:** CDC and partners will collect this information using self-administered surveys conducted via internet.
- **Subpopulation to be studied:** Licensed healthcare professionals working in schools who provide health services or consultation for student patients in a school setting, currently employed in the states of New York (excluding New York City) or Maryland are eligible for participation.
- **How data will be analyzed:** This is a voluntary survey and anonymous responses of individuals will be compiled generally and not on an individual basis. We will conduct overall descriptive statistical analyses for survey responses.

1. Circumstances Making the Collection of Information Necessary

The Centers for Disease Control and Prevention (CDC) Division of Vector-Borne Diseases (DVBD) and Emerging Infections Programs (EIPs) in Maryland and New York are requesting approval for a generic information collection (gen-IC) to conduct surveys on healthcare professionals working in schools (HPWS) knowledge, attitudes, and practices (KAP) regarding tick bite prevention and tickborne diseases (TBD).

Lyme disease (LD), caused by infection with the bacterium *Borrelia burgdorferi*, is the most common vector-borne disease in the United States. *B. burgdorferi* is transmitted by infected *Ixodes scapularis* ticks. Humans acquire LD incidentally, most often through the bite of an infected tick nymph or adult. In 2015, 95% of confirmed LD cases were reported from 14 states, including Maryland and New York. In 2016, New York and Maryland had LD incidences of 13.3 and 21.2 confirmed cases per 100,000 persons, respectively [1]. In addition to LD, a bite from an infected *I. scapularis* tick can transmit pathogens that cause other diseases, including anaplasmosis, babesiosis, and Powassan virus disease.

Children are considered a high-risk group for contracting tickborne illnesses, particularly the 5-9 year age category. HPWS, including school nurses and health care providers employed by school-based health centers, are responsible for providing services to students to promote optimum health for academic success. These professionals hold a unique position to offer education about TBD prevention to students, including proper tick removal and early identification of disease. HPWS are also often the first-line health care providers for students and can serve as a bridge between healthcare and education. CDC plans to conduct a survey of HPWS in Maryland and New York to learn about providers' knowledge and practices for the prevention of TBD.

Section 301 of the Public Health Service (PHS) Act (42 USC 241) authorizes the Secretary of Health and Human Services (HHS) to conduct studies relating to the control and prevention of physical diseases of man, such as TBDs, and to collect and make available through publications and other appropriate

means, information as to, and the practical application of, such research and other activities. These regulations are codified in 42 Code of Federal Regulations (CFR) Part A.

2. Purpose and Use of Information Collection

The data collection for which approval is sought will allow DVBD to use survey results to understand current HPWS knowledge, attitudes, and practices regarding TBD prevention. The results will be used to develop and promote effective tick bite and TBD prevention practices among HPWS in these jurisdictions.

Additionally, HPWS knowledge and application of antibiotics to prevent Lyme disease following a high risk tick bite has not been assessed in MD or NY. The ability to distinguish *I. scapularis* from other tick species, as well as accurate identification of a “high risk” tick bite, is necessary for the correct application of Lyme disease prophylaxis guidelines. We will specifically evaluate this knowledge in the KAP survey.

The primary target population for these data collections are licensed healthcare professionals working in schools who provide health services or consultation for student patients in a school setting, currently employed in the states of New York (excluding New York City) or Maryland.

Information will be collected via web-based surveys (Attachment 1). Paper-based surveys, if preferred by HPWS, will be mailed directly to the project coordinator at the respondent’s state health department (Attachment 4 and 9). Data from the paper-based survey will be manually entered into the electronic database.

Items of information to be collected include:

- Demographics (healthcare licensure, employment type, years of employment as a HPWS, number of school sites, average hours of work per week in a school setting, total number of students served, and type of student population)
- Knowledge, attitudes, and practices regarding TBD
- Practices regarding removal of attached ticks
- Perceived risk for TBD in the student population
- Level of confidence regarding TBD prevention practices
- Sources of information about TBD
- Knowledge of the NYS Education Department TBD curriculum

3. Use of Improved Information Technology and Burden Reduction

Per the Government Paperwork Elimination Act (GPEA), Public Law 105-277, title XVII, information collection will be conducted using the most current modes of survey data collection, including web-based surveys and applications used on participants’ mobile devices (e.g., smart phones and tablets) or computers.

This information collection will be done completely online. The survey will be administered using the Research Electronic Data Capture software (REDCap). Potential participants will be sent a survey invitation (Attachments 3, 5, 10) that includes a survey web link. The beginning of the survey will confirm that the respondent is eligible to take the survey. If not, the respondent will not be allowed to proceed. Potential participants will receive up to two reminders (Attachments 6, 7, 8, 11, 12) to

complete the survey after the initial invitation. The project website (Attachment 13) and EIP site contact information will be provided in case of questions.

These electronic information collection techniques typically reduce burden because participants can submit responses at any time of day that is convenient for them rather than having to schedule phone interviews with project staff.

4. Efforts to Identify Duplication and Use of Similar Information

There are no similar, updated data available; other institutions collecting information on human TBDs are not collecting this information as it relates the knowledge, attitudes, and practices of HPWS in LD endemic states regarding TBD and prevention of tick bites. DVBD has verified through RegInfo.gov that there are no other federal collections that duplicate information included in this gen-IC request.

5. Impact on Small Businesses and Other Small Entities

This information collection request will survey individual HPWS and will have no impact on small business or other small entities.

6. Consequences of Collecting the Information Less Frequently

This is a one-time information collection. The timing of conducting this survey in spring and summer months is important due to the seasonal nature of tickborne diseases.

7. Special Circumstances Relating to Guidelines of 5 CFR 1320.5

This request fully complies with the regulation 5 CFR 1320.5.

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside Agencies

A. A 60-Day Federal Register Notice for the generic ICR was published in the Federal Register on June 8, 2016, Vol. 81, No. 110, pg. 36919. One non-substantive public comment was received. A standardized response was sent.

B. The following agencies and organizations outside of CDC have been consulted on the need for data collection with the audiences, and for the purposes, described in this gen-IC:

Maryland TickNET investigators/collaborators

Maryland Department of Health Emerging Infections Program (MD EIP)

David Crum, Co-PI/State PH Veterinarian

Patricia Ryan, Emerging Infections Program Director

Heather Rutz, Epidemiologist and TickNET Coordinator

Jeré Hutson, TickNET Epidemiologist

New York TickNET investigators/collaborators

New York State Department of Health Emerging Infections Program (NYS EIP)

Jennifer White, Vectorborne Disease Unit Deputy Director

Bryon Backenson, Director, Vector-borne Disease Unit
Alison Kaufman, Program Research Specialist
Adam Rowe, Research Scientist
Kristen Howard, Graduate Student Assistant

9. Explanation of Any Payment or Gift to Respondents

Participants will not be financially reimbursed for the time necessary to complete the survey. At the conclusion of the survey, participants will be provided with links to CDC and state health department websites for further information on LD and TBD prevention, and an EIP site email address to request to be sent free TBD educational materials. Participants will also be given the opportunity to view an answer sheet to knowledge assessment questions.

10. Protection of the Privacy and Confidentiality of Information Provided by Respondents

NCEZID's Information Systems Security Officer reviewed this submission and determined that the Privacy Act does not apply.

All DVBD staff receive appropriate annual privacy and confidentiality training.

Data will be collected and stored in an electronic database on a secure partition of the network with limited user access. All data will be kept private to the extent allowed by local, state, and federal law.

Participation in formative research information collection activities is strictly voluntary. The project does not meet the definition of research under 45 CFR 46.102(d). IRB review is not required.

Information in Identifiable Form

All responses will be entirely anonymous and kept private. No unique or personal identifying information will be asked or collected. Data from individuals completing the survey online will be sent to the RedCap administrator in New York State. A dataset of these responses will be forwarded to the project coordinator of the respondent's respective state health department. Paper-based surveys will be mailed directly to the project coordinator at the respondent's state health department. Data from the paper-based survey will be manually entered into RedCap. CDC will receive and store unidentifiable data and project documentation will be maintained according to each site's respective IRB file management and retention policy. Participants may voluntarily withdraw from the survey for any reason at any time before submission and may choose to not answer any question aside from eligibility.

No EIP sites will have access to personally identifiable information (PII). There is no collection of personally identifiable information used in this project, as the survey offers open access via web link and responses are anonymous.

11. Institutional Review Board (IRB) and Justification for Sensitive Questions

Institutional Review Board

Project does not meet the definition of research under 45 CFR 46.102(d). IRB review is not required (attachment 2).

Justification for Sensitive Questions

No sensitive questions are included in this information collection request.

12. Estimates of Annualized Burden hours and costs:

In this project, participants will complete one web-based survey which also doubles as the screener (Attachment 1). Paper-based surveys (Attachment 1), if preferred by HPWS, will be mailed directly to the project coordinator at the respondent’s state health department (Attachment 4 and 9).

Attachment 1 shows the OMB control number and burden statement on the first page. The survey will take approximately 10 minutes to complete. For purposes of estimating respondent burden, we used 10 minutes as the average burden per response. We aim to enroll up to 1317 participants or approximately 659 in each state (New York and Maryland). For an explanation of the target number of respondents, see section B.1. The estimated number of annualized burden hours is 264.

Estimated Annualized Burden to Respondents

Type of Respondent	Form Name	Number of Respondents	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
Healthcare professionals working in schools	Healthcare professionals working in schools (HPWS) Survey	1317	1	10/60	220
	Healthcare professionals working in schools (HPWS) Survey – Screen out	2634	1	1/60	44
Total					264

Estimated Annualized Burden Costs to Respondents.

The average annual cost burden cost is estimated to be \$5,229.84. The hourly wage estimate is based on the PayScale average school nurse hourly pay from (https://www.payscale.com/research/US/Job=School_Nurse/Hourly_Rate).

Type of Respondent	Form Name	Total Burden	Hourly Wage Rate	Total Respondent
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		Hours		Costs
Healthcare professionals working in schools	Healthcare professionals working in schools (HPWS) Survey	220	\$19.81	\$4,358.20
	Healthcare professionals working in schools (HPWS) Survey – Screen out	44	\$19.81	\$871.64
Total				\$5,229.84

13. Estimates of Other Total Annual Cost Burden to Respondents and Record keepers

There are no costs to respondents other than their time to participate.

14. Annualized Costs to the Federal Government

Governmental Costs are broken down in the following table.

		Total (\$)
Federal Government Personnel Costs	CDC Project Officer (GS-14 at 0.1 FTE)	\$11,214
	CDC Data Manager (GS-9, 0.25 FTE)	\$13,757
Subtotal, Federal Direct Costs		\$24,971
Cooperative Agreement	Cooperative agreement for implementation and information management	\$50,000
Total Annualized Cost to Government		\$74,971

15. Explanation for Program Changes or Adjustments

This is a new information collection request, therefore program changes and adjustments do not apply at this time.

16. Plans for Tabulation and Publication and Project Time Schedule

An estimated project time schedule for this gen-IC is outlined below.

A.16 - 1 Project Time Schedule	
Activity	Time Schedule
Survey administered	2-3 months after OMB approval of Gen-IC

A.16 - 1 Project Time Schedule	
Data cleaning and validation	5-7 months after OMB approval of Gen-IC
Analyses	7-12 months after OMB approval of Gen-IC

17. Reason(s) Display of OMB Expiration Date is Inappropriate

The OMB Expiration Date will be displayed.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

Sources:

1. Centers for Disease Control and Prevention. Lyme Disease Data Tables: Historical Data (2018)
<https://www.cdc.gov/lyme/stats/tables.html>