

Vector Surveillance and Control Assessment: Post Zika- Response and Tick Capacities

OSTLTS Generic Information Collection Request
OMB No. 0920-0879

Supporting Statement – Section A

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Program Official/Project Officer

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- **Purpose of the data collection:**
The purpose of this study is to determine the vector control capabilities of local jurisdictions within the District of Columbia, Territories, and 50 states that responded to Zika virus (ZIKV) outbreaks. The study will differentiate between current mosquito and tick control capacities.
- **Intended use of the resulting data:**
The information collected during this study will provide jurisdictions with their current status (ranging from 'needs improvement' to 'fully capable') related to various vector control activities. This will enable respondents to focus future efforts and initiatives on observed areas for improvement.
- **Methods to be used to collect data:**
This study will utilize an electronic assessment that will be distributed to 3,000 local vector control departments and districts. Information collected in this study will be self-reported.
- **Respondent Universe:**
3,000 environmental scientists and specialists, including health, within state, local, and tribal vector control departments and districts.
- **How data will be analyzed:**
The data will be analyzed using descriptive statistics and subgroup analyses.

Section A – Justification

1. Circumstances Making the Collection of Information Necessary

Background

This information collection is being conducted using OMB No. 0920-0879 “Information Collections to Advance State, Tribal, Local and Territorial Governmental Agency System Performance, Capacity, and Program Delivery” nicknamed the “CSTLTS Generic.” The respondent universe for this information collection aligns with that of the CSTLTS Generic Data will be collected from a total of 3000 respondents across 3000 state, local, tribal, and territorial health departments/jurisdictions. The National Association of County and City Health Officials (NACCHO) will collect data from the 3000 environmental scientists and specialists, including health, within these jurisdictions. Of the 3000 vector control individuals 2,933 are local, 50 state, 12 Island/Territory, and 5 are tribal agency respondents.

This information collection is authorized by Section 301 of the Public Health Service Act (42 U.S.C. 241). This information collection falls under the essential public health service(s) of

- 1. Monitoring health status to identify community health problems
- 2. Diagnosing and investigating health problems and health hazards in the community
- 3. Informing, educating, and empowering people about health issues
- 4. Mobilizing community partnerships to identify and solve health problems
- 5. Development of policies and plans that support individual and community health efforts
- 6. Enforcement of laws and regulations that protect health and ensure safety
- 7. Linking people to needed personal health services and assure the provision of health care when otherwise unavailable
- 8. Assuring a competent public health and personal health care workforce
- 9. Evaluating effectiveness, accessibility, and quality of personal and population-based health services
- 10. Research for new insights and innovative solutions to health problems¹

Vector borne diseases (VBD) like West Nile Virus (WNV) and Zika virus infection (ZIKV), as well as Lyme disease which is primarily spread to humans through mosquito and tick vectors respectively, have become a public health concern in the United States. While the majority of ZIKV infections reported in the United States were among individuals who have traveled to regions with ongoing ZIKV transmission, more than 850 locally acquired mosquito borne WNV cases have been reported in the United States to date. CDC expects that the number of vector borne disease cases in the United States will likely increase and that the pathogens have the potential to spread locally, particularly if vector control measures are not taken.

In an effort to reduce the incidence of vector borne diseases in the United States, NACCHO has been working with CDC and other federal partners to help local health departments (LHDs) prepare for potential cases of mosquito and tick diseases in their communities through activities such as sharing resources, collecting feedback about their preparedness needs, and raising awareness of the potential impact of funding cuts on the ability of LHDs to respond to vectors. Additionally, CDC has been leading efforts to track and monitor reported WNV, Zika, Dengue, and Lyme cases nationally, and awards funding to states, territories, local jurisdictions, and universities to support efforts to protect Americans from vector borne disease infection and associated adverse health outcomes.

For many local jurisdictions, preparing for and responding to VBD involves developing partnerships with a variety of stakeholders from the local, state, and federal levels for information sharing purposes. In addition, these jurisdictions must conduct surveillance, vector control, and public education activities to ensure an effective response. NACCHO is committed to working with these jurisdictions to ensure that their vector control capabilities meet the needs of their communities.

Currently, there is limited information available regarding the current abilities of local vector control organizations to prepare for and respond to VBD. In order to provide these organizations with the most useful and beneficial information and resources, NACCHO and CDC must first determine what gaps and limitations still exist specific to these vector control capabilities. To determine the areas of need related to vector control at the local level, CDC and NACCHO have developed a Mosquito Control Program Questionnaire with additional Tick inquiries to collect information about the capabilities of local vector control organizations. This questionnaire is designed to assess the overall capabilities of vector control jurisdictions; depending on the responses, jurisdictions will be assessed as “fully capable”, “competent”, or “needs improvement”. A “fully capable” vector control program performs all core and supplemental capabilities. A “competent” vector control program performs all core capabilities. A “needs improvement” vector control program fails to perform one or more capabilities. This information will be valuable to local vector control organizations, as it can be used to strategically plan future vector control activities in their jurisdictions. Reporting and results are for local planning and improvement activities only. The results will not be used to make comparisons between jurisdictions or to produce generalizable findings.

The purpose of this collection is to assess the current capabilities of local vector control organizations to respond to VBD in their jurisdictions. Specifically, the data collection will: (1) assess existing vector surveillance capabilities at the local level; (2) obtain information on current mosquito abatement and pesticide licensing practices; (3) identify the current technical assistance needs of local vector control organizations; and (4) gather information on current tick programming. CDC will use the resulting data to inform and support future vector control activities and initiatives at the local level.

The proposed work will both advance ongoing efforts by LHDs, CDC, and other response stakeholders and partners to protect the health of communities from VBD and will enhance related preparedness and response efforts. NACCHO is in constant communication with its LHD members and is best positioned to understand their concerns and will leverage its environmental health portfolio to support LHD in their VBD preparedness and response efforts.

Overview of the Information Collection System

Data will be collected from 3000 respondents via a web-based questionnaire allowing respondents to complete and submit their responses electronically (see **Attachment A—Vector Borne Control Program Questionnaire: Word version** and **Attachment B—Vector Borne Control Program Questionnaire: Web version**). The instrument will be used to gather information from environmental scientists and specialists to assess the overall capabilities of vector control jurisdictions. This method was chosen to reduce the overall burden on respondents.

The information collection instrument was pilot tested by 9 public health professionals. Feedback from this group was used to refine questions as needed, ensure accurate programming and skip

patterns, and establish the estimated time required to complete the information collection instrument.

Items of Information to be Collected

The online data collection instrument consists of 26 questions of various types, including dichotomous (yes/no) and multiple response. An effort was made to avoid questions requiring narrative responses. Respondents are self-identified as having the primary role for vector control within their organization, and thus are the most qualified to complete the questionnaire. The instrument will collect data on the following:

- Vector surveillance practices
- Mosquito abatement practices
- Pesticide licensing regulations
- Communications capabilities with other vector control programs/stakeholders

In an effort to enable CDC and NACCHO to assess the level of capability of local jurisdictions potentially impacted by VBD both Arboviruses as well as Tick-borne diseases. Details surrounding the information to be collected include—

- **Program Description**
Questions 1-3 will collect information describing the size of the responding program and resources dedicated to vector control activities.
- **Vector surveillance practices (Mosquito)**
Questions 4 & 5 will collect information related to routine surveillance for mosquitos through standardized trapping and species identification, as well as how (if at all) decisions are made based on that surveillance.
- **Mosquito abatement practices**
Questions 6 & 7 ask respondents about various mosquito abatement practices, including application of larvicide and adulticide. These questions also explore abatement measures specific to the *Aedes* species of mosquito and in general, including chemical, biological, source reduction, and environmental management. Lastly, respondents are asked about pesticide resistance testing in their jurisdictions.
- **Pesticide licensing regulations**
Question 10 asks respondents about licensing practices related to pesticides in their jurisdictions.
- **Communications capabilities with other vector control programs/stakeholders**
Questions 12-14 explore the communications capabilities, both internal and external, of local vector control organizations. Respondents are asked to indicate whether community outreach and education activities occur, and about their ability to communicate with state and local officials, as well as other mosquito control programs.
- **Vector surveillance practices (Tick)**

Question 15 will collect information related to routine surveillance for ticks through standardized trapping and species identification, as well as how (if at all) decisions are made based on that surveillance.

- **Tick control practices**

Question 19 ask respondents about Tick control practices, including application of acaricide and other options. These questions also explore measures specific to the tick species in general, including chemical, biological, source reduction, and environmental management. Lastly, respondents are asked about pesticide resistance testing in their jurisdictions.

- **Communications capabilities with other vector control programs/stakeholders**

Questions 22-26 explore the communications capabilities, both internal and external, of local vector control organizations specific to tick activities. Respondents are asked to indicate whether community outreach and education activities occur, and about their ability to communicate with state and local officials.

2. Purpose and Use of the Information Collection

The purpose of this collection is to assess the current capabilities of local vector control organizations to respond to mosquito and tick borne illness in their jurisdictions. Specifically, the data collection will: (1) assess existing vector surveillance capabilities at the local level; (2) obtain information on current mosquito abatement and pesticide licensing practices; and (3) identify the current technical assistance needs of local vector control organizations and (4) gather information on current tick programming. CDC and NACCHO will use the resulting data to inform and support future vector control activities and initiatives at the local level.

By assessing these capabilities, CDC and NACCHO can identify areas for improvement for local vector control organizations. With this information, CDC and NACCHO can design evidence-based initiatives to support VBD prevention at the state and local levels, focused in the areas that need it the most. The information collected during this study will be used to provide the CDC, NACCHO, as well as state and local jurisdictions with their current status (ranging from 'needs improvement' to 'fully capable') related to vector control activities. This information will be valuable to local vector control organizations, as it can be used to strategically plan future vector control activities in their jurisdictions. Reporting and results are for local planning and improvement activities only, the results will not be used for comparisons between jurisdictions or to produce generalizable findings.

3. Use of Improved Information Technology and Burden Reduction

Data will be collected via a web-based questionnaire. This method was chosen to reduce the overall burden on respondents by allowing respondents to complete and submit their responses electronically. The data collection instrument was designed to collect the minimum information necessary for the purposes of this project (i.e., limited to 26 questions).

4. Efforts to Identify Duplication and Use of Similar Information

To our knowledge, this is the only national assessment of vector control and surveillance competencies to be performed. Previously in 2016, NAACHO administered a survey to select priority jurisdictions to assess VBD control capacities during the Zika response. This survey expands upon the 2016 NAACHO assessment by including all vector control jurisdictions and includes assessment of tick-borne disease control activities.

5. Impact on Small Businesses or Other Small Entities

No small businesses will be involved in this information collection.

6. Consequences of Collecting the Information Less Frequently

This request is for a one-time information collection. There are no legal obstacles to reduce the burden. If no data are collected, CDC will be unable to:

- Determine the overall state of vector control capabilities at the local, state, and regional levels;
- Identify gaps in vector control capabilities at the local level; and
- Effectively support vector control activities among state and local jurisdictions.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

There are no special circumstances with this data collection package. This request fully complies with the regulation 5 CFR 1320.5 and will be voluntary.

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

This data collection is being conducted using the Generic Information Collection mechanism of the CSTLTS Generic Information Collection Service (CSTLTS Generic) – OMB No. 0920-0879. A 60-day Federal Register Notice was published in the Federal Register on April 27, 2017, Vol. 82, No. 80, pp 19371-19373. One non-substantive comment was received. CDC sent forward the standard CDC response.

CDC partners with professional STLT organizations, such as the Association of State and Territorial Health Officials (ASTHO), the National Association of County and City Health Officials (NACCHO), and the National Association of Local Boards of Health (NALBOH) along with the National Center for Health Statistics (NCHS) to ensure that the collection requests under individual ICs are not in conflict with collections they have or will have in the field within the same timeframe.

9. Explanation of Any Payment or Gift to Respondents

CDC will not provide payments or gifts to respondents.

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

The Privacy Act does not apply to this data collection. STLT governmental staff and / or delegates will be speaking from their official roles.

This data collection is not research involving human subjects.

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

No information will be collected that are of personal or sensitive nature. This data collection is not research involving human subjects.

12. Estimates of Annualized Burden Hours and Costs

The estimate for burden hours is based on a pilot test of the data collection instrument by 9 public health professionals. In the pilot test, the average time to complete the instrument including time for reviewing instructions, gathering needed information and completing the instrument, was approximately 8 minutes (range: 7 – 9) For the purposes of estimating burden hours, the upper limit of this range (i.e., 9 minutes) is used.

Estimates for the average hourly wage for respondents are based on the Department of Labor (DOL) Bureau of Labor Statistics for occupational employment for [Environmental Science and

Protection Technicians, Including Health] http://www.bls.gov/oes/current/oes_nat.htm. Based on DOL data, an average hourly wage of \$22.20 is estimated for all 3000 respondents.

To account for potential increases due to the COVID-19 response, the hourly wage rate has been doubled to \$44.40 to account for fringe benefits and overhead (<https://aspe.hhs.gov/pdf-report/guidelines-regulatory-impact-analysis>).

There will be a total of 3000 respondents and 3000 responses.

Table A-12: Estimated Annualized Burden Hours and Costs to Respondents

| Data collection Instrument: Form Name | Type of Respondent | No. of Respondents | No. of Responses per Respondent | Average Burden per Response (in hours) | Total Burden Hours | Hourly Wage Rate | Total Respondent Costs |
|--|--|---------------------------|--|---|---------------------------|-------------------------|-------------------------------|
| Vector Control Program Questionnaire | Environmental Science and Protection Technicians, including Health | 3000 | 1 | 9/60 | 450 | \$44.40 | \$19,980 |
| | | | | | | | |
| | TOTALS | 3000 | 1 | | 450 | | \$19,980 |

13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There will be no direct costs to the respondents other than their time to participate in each data collection.

14. Annualized Cost to the Government

There are no equipment or overhead costs. The only cost to the federal government would be the salary of contractors. Contractors are being used to support development of the assessment tool, data collection, and data analysis. The total estimated cost to the federal government is \$95000. Table A-14 describes how this cost estimate was calculated.

Table A-14: Estimated Annualized Cost to the Federal Government

| Staff (FTE) | Average Hours per Collection | Average Hourly Rate | Total Average Cost |
|---|------------------------------|---------------------|--------------------|
| Public Health Advisor; GS-11, Step 2 | 80 (total hours) | 43.14 | \$3,451 |
| Contractor – NACCHO (5 staff) | | | \$95,000 |
| Estimated Total Cost of Information Collection | | | \$98,451 |

15. Explanation for Program Changes or Adjustments

This is a new data collection.

16. Plans for Tabulation and Publication and Project Time Schedule

As resources and respondents may be impacted by the COVID-19 pandemic, we propose that data collections begin in the fall of 2020. Respondents will have a time period of approximately three weeks to complete the assessment tool. If needed, NACCHO will extend the assessment period by two weeks to obtain additional responses. NACCHO will end the data collection once all respondents have completed the assessment or within the specified time period. Upon completion, data collected will be analyzed using STATA (descriptive statistics and subgroup analyses); The information collected during this study will be used to provide the CDC, NACCHO, as well as state and local jurisdictions with their current status (ranging from ‘needs improvement’ to ‘fully capable’) related to vector control activities. This information will be valuable to local vector control organizations, as it can be used to strategically plan future vector control activities in their jurisdictions. NACCHO and CDC will develop a final report which will be shared CDC senior leadership, Cooperative Agreement recipients (individualized information – not comparison), as well as NACCHO members through various media.

Project Time Schedule

- ✓ Design instrument (COMPLETE)
- ✓ Develop protocol, instructions, and analysis plan (COMPLETE)
- ✓ Pilot test instrument (COMPLETE)
- ✓ Prepare OMB package (COMPLETE)
- ✓ Submit OMB package (COMPLETE)
- OMB approval (TBD)
- Conduct data collection (Open 4-6 weeks)
- Code data, conduct quality control, and analyze data..... (2 weeks)
- Prepare summary report(s) (4 weeks)
- Disseminate results/reports (6 weeks)

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

We are requesting no exemption.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification. These activities comply with the requirements in 5 CFR 1320.9.

LIST OF ATTACHMENTS – Section A

Note: Attachments are included as separate files as instructed.

- A. Attachment A – Vector Borne Control Program Questionnaire: Word version**
- B. Attachment B – Vector Borne Control Program Questionnaire: Web version**

REFERENCE LIST

1. Centers for Disease Control and Prevention (CDC). "National Public Health Performance Standards Program (NPHPSP): 10 Essential Public Health Services." Available at <http://www.cdc.gov/nphpsp/essentialservices.html>. Accessed on 8/14/14.