

# **Measuring Vector Control Capabilities of Local Jurisdictions**

OSTLTS Generic Information Collection Request  
OMB No. 0920-0879

## **Supporting Statement – Section A**

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- Goal of the study: The goal of this study is to determine the vector control capabilities of local jurisdictions within the District of Columbia and 41 states potentially impacted by Zika virus (ZIKV).
- Intended use: 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 information: This study will utilize an electronic assessment that will be distributed to 2,181 local vector control departments and districts. Information collected in this study will be self-reported.
- The subpopulation to be studied: 2,181 environmental scientists and specialists, including health, within state, local, and tribal vector control departments and districts.
- 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 the Generic Information Collection mechanism of the OSTLTS OMB Clearance Center (O2C2) – OMB No. 0920-0879. The respondent universe for this information collection aligns with that of the O2C2. Data will be collected from approximately 2,181 individuals with responsibilities related to vector control in 2,181 governmental entities (one individual per entity) within state, local, and tribal departments and districts in 41 U.S. States including the District of Columbia. The National Association of County and City Health Officials (NACCHO) will collect data from the 2,181 environmental health scientists and health specialists, within these state, local, and tribal vector control organizations. Of the 2,181 vector control organizations, 2,157 are local, 19 are state, and 5 are tribal agencies (see **Attachment A – Sample Breakdown**).

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 problems <sup>1</sup>

Zika virus infection (ZIKV), which is primarily spread to humans through the *Aedes* species mosquito, has become a public health concern in the United States, particularly for pregnant women. While the majority of ZIKV infections reported in the United States are among individuals who have traveled to regions with ongoing ZIKV transmission, more than 220 locally acquired mosquito-borne cases have been reported in the United States to date.<sup>2</sup> CDC expects that the number of ZIKV cases in the United States will likely increase and that the virus has the potential to spread locally, particularly if vector control measures are not taken.

In an effort to reduce the incidence of ZIKV 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 Zika 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 Zika. Additionally, CDC has been leading efforts to track and monitor reported Zika cases nationally, and in September, 2016, awarded funding to states, territories, local jurisdictions, and universities to support efforts to protect Americans from ZIKV infection and associated adverse health outcomes, including microcephaly and other serious birth defects.<sup>3</sup>

For many local jurisdictions, preparing for and responding to ZIKV 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 no information available regarding the abilities and limitations of local vector control organizations to prepare for and respond to ZIKV. 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 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 to collect information about the capabilities of local mosquito control organizations. This questionnaire is designed to assess the overall capabilities of vector control jurisdictions; depending on the responses, jurisdictions will be rated as “fully capable”, “competent”, or “needs improvement” based on the CDC framework for mosquito control competency.<sup>4-6</sup>

The purpose of this collection is to assess the current capabilities of local vector control organizations to respond to ZIKV 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. 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 Zika virus 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 LHDs in their Zika preparedness and response efforts.

### **Overview of the Information Collection System**

Data will be collected via a web-based questionnaire allowing respondents to complete and submit their responses electronically (see **Attachment B—Mosquito Control Program Questionnaire: Word version** and **Attachment C—Mosquito Control Program Questionnaire: Web version**). This method was chosen to reduce the overall burden on respondents. The information collection instrument was pilot tested by 6 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 10 questions of various types, including dichotomous (yes/no) and multiple response. 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 information on vector surveillance practices, mosquito abatement practices, pesticide licensing regulations, and communications capabilities with other mosquito control programs/stakeholders in an effort to enable CDC and NACCHO to assess the level of capability of local jurisdictions potentially impacted by ZIKV. Details surrounding the information to be collected include—

- **Vector surveillance practices**  
Questions 1 & 2 will collect information related to routine surveillance for mosquitoes through standardized trapping and species identification, as well as how (if at all) decisions are made based on that surveillance.
- **Mosquito abatement practices**  
Questions 3-5 & 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 6 asks respondents about licensing practices related to pesticides in their jurisdictions.

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

Questions 8-10 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.

## **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 ZIKV 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. 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 ZIKV 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.

## **3. Use of Improved Information Technology and Burden Reduction**

Data will be collected via a web-based questionnaire allowing respondents to complete and submit their responses electronically. This method was chosen to reduce the overall burden on respondents. The information collection instrument was designed to collect the minimum information necessary for the purposes of this project (i.e., limited to 10 questions).

## **4. Efforts to Identify Duplication and Use of Similar Information**

To our knowledge, this is the first time a national assessment of vector control and surveillance competencies has been performed. In July, 2016, NACCHO conducted an assessment of nine high-priority states using a similar data collection instrument and methods. This collection was not

approved by OMB and CDC has since notified OMB of this activity. Information gathered from this collection has been published and utilized.<sup>7</sup>

## **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 information 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 information collection is being conducted using the Generic Information Collection mechanism of the OSTLTS OMB Clearance Center (O2C2) – OMB No. 0920-0879. A 60-day Federal Register Notice was published in the Federal Register on May 16, 2014, Vol. 79, No. 95; pp. 28513. No comments were received.

CDC partners with professional associations and 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 information collection. State, local, and tribal governmental staff will be speaking from their official roles. Data will be stored by NACCHO on a secure, password-protected server. All data will be shared in aggregate form.

This information collection is not research involving human subjects.

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

No information will be collected that is of personal or sensitive nature. All data will be shared in aggregate form.

### 12. Estimates of Annualized Burden Hours and Costs

The estimate for burden hours is based on a pilot test of the information collection instrument by 6 public health professionals. In the pilot test, the average time to complete the instrument including time for reading the instructions/questions and completing the instrument, was approximately 3 minutes (range: 1.5 to 7.5 minutes). For the purposes of estimating burden hours, the upper limit of this range (i.e., 7.5 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. Based on DOL data, an average hourly wage of \$32.43 is estimated for all 2,181 respondents. Table A-12 shows estimated burden and cost information.

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

Information 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
Mosquito Control Program Questionnaire	Environmental Health Scientists and Health Specialists,	2,181	1	7.5/60	273	\$32.43	\$8,853

### 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 information collection.

#### 14. Annualized Cost to the Government

There are no equipment or overhead costs. Contractors, however, are being used to support development of the assessment tool, data collection, and data analysis. The only cost to the federal government would be the salary of CDC staff and NACCHO. The total estimated cost to the federal government is \$104,095. 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	Average Cost
Epidemiologist; GS-13, Step 1	80 (total hours)	43.14	\$3,451
Public Health Advisor; GS-13, Step 5	80 (total hours)	49.37	\$3,950
Epidemiologist; O5	20 (total hours)	84.70	\$1,694
Contractor – NACCHO (5 staff)			\$95,000
<b>Estimated Total Cost of Information Collection</b>			<b>\$104,095</b>

#### 15. Explanation for Program Changes or Adjustments

This is a new information collection.

#### 16. Plans for Tabulation and Publication and Project Time Schedule

Respondents will have a time period of approximately three weeks to complete the assessment tool. If needed, NACCHO will extend the assessment period by 2 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); data will be used in aggregate format and will not contain any personal identifying information. NACCHO and CDC will develop a final report which will be shared CDC senior leadership, as well as NACCHO members through various media.

##### Project Time Schedule

- ✓ Design questionnaire ..... COMPLETE
- ✓ Develop protocol, instructions, and analysis plan ..... COMPLETE
- ✓ Pilot test questionnaire ..... COMPLETE
- ✓ Prepare OMB package ..... COMPLETE
- ✓ Submit OMB package ..... COMPLETE
- ☐ OMB approval ..... TBD
- ☐ Conduct assessment\* ..... Assessment open 3-5 weeks
- ☐ Code, quality control, and analyze data ..... 5 weeks
- ☐ Prepare reports ..... 6 weeks
- ☐ Disseminate results/reports ..... 4 weeks

\*Reminder email at 3 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**

- A. Sample Breakdown
- B. Mosquito Control Program Questionnaire: Word version
- C. Mosquito Control Program Questionnaire: Web version

## **REFERENCE LIST**

1. Centers for Disease Control and Prevention (CDC). 2016. CDC awards nearly \$184 million to continue to fight against Zika, 22 December 2016. Accessed on 8 February 2017 from <https://www.cdc.gov/media/releases/2016/p1222-zika-funding.html>.
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6. American Mosquito Control Association (AMCA). 2017. Best Practices for Integrated Mosquito Management: A Focused Update, January 2017. Accessed on 7 March 2017 from [https://amca.memberclicks.net/assets/HomePage/amca%20guidelines%20final\\_pdf.pdf](https://amca.memberclicks.net/assets/HomePage/amca%20guidelines%20final_pdf.pdf).
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