# Evidence-Based Practice in Public Health Preparedness and Response: Barriers and Facilitators

OSTLTS Generic Information Collection Request

OMB No. 0920-0879

## Supporting Statement – Section A

Submitted: December 4, 2018

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### 

* **Purpose of the data collection:** The purpose of this data collection is to examine the barriers (i.e., factors that may impede or prevent) and facilitators (i.e., factors that may enable or promote) to evidence-based practice (EBP) in public health emergency preparedness and response (PHPR) by identifying the key organizational and contextual factors affecting EBP implementation and dissemination by the PHPR practice community.
* **Intended use of the resulting data:** This data collection will help CDC to understand the barriers and facilitators to EBP in PHPR. CDC will use the resulting data to: a) support state, territorial, and local health department activities; b) better understand the PHPR practice community’s needs; c) inform and prioritize strategies and resources for EBP identification and dissemination; and d) address barriers and facilitators to EBP uptake.
* **Methods to be used to collect data:** The data collection method is a web-based assessment.
* **Respondent Universe:** The respondent universe consists of 562 public health emergency preparedness directors/coordinators, acting in their official capacities, from state, territorial, and local health departments. If a health department does not employ a public health emergency preparedness director/coordinator, the health department director will designate a staff person who has direct knowledge and/or primary responsibility for PHPR activities to complete the assessment.
* **How data will be analyzed:** Methods for data analysis include quantitative and qualitative analysis of the data. Quantitative analysis will include descriptive statistics and comparison between and across respondent sub-groups. Qualitative analysis to identify key themes from open-ended instrument responses will be performed using NVivo software.

### Section A – Justification

#### 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 a total of 562 respondents from public health departments: 50 state health departments, 8 territorial health departments, and 504 local health departments. Respondents acting in their official capacities will include public health emergency preparedness directors/coordinators. If a health department does not employ a public health emergency preparedness director/coordinator, the health department director may designate a staff person who has direct knowledge and/or primary responsibility for Public Health Preparedness and Response (PHPR) activities to complete the assessment (**Please see Attachment A – Respondent 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 1

Despite efforts to encourage evidence-based practice (EBP), implementation of EBP in PHPR is not consistent across the field. Implementation of EBP can be stalled for several reasons.1-3 It is clear that a number of organizational and contextual factors likely affect uptake of EBP. For example, organizational barriers may include lack of resources, lack of time among staff, or lack of staff trained to understand and implement research-based practices. Contextual factors can include such things as internal policies, legislations, or culture that can inhibit or promote EBP implementation.2 However, it is not yet clear what particular barriers and facilitators affect the PHPR field and under what conditions implementation of EBPs in PHPR will occur.

Given that EBP can advance the field of PHPR and strengthen the ability of public health emergency preparedness practitioners to protect the public’s health before, during, and after emergencies, it is imperative to examine the barriers and facilitators to EBP in PHPR.

This data collection will help CDC to understand this by identifying the key organizational and contextual factors affecting EBP implementation and dissemination by the PHPR practice community. CDC will use the resulting data to: a) support state, local, and territorial health department activities; b) better understand the PHPR practice community’s needs; c) inform and prioritize resources and strategies for EBP identification and dissemination; and d) address barriers and facilitators to EBP uptake.

CDC has contracted with NORC at the University of Chicago to implement this information collection. NORC has subcontracted with the Association of State and Territorial Health Officials (ASTHO) and the National Association of County and City Health Officials (NACCHO) to support sampling procedures and assessment implementation.

##### Overview of the Information Collection System

Data will be collected from 562 respondents via a web-based assessment **(Attachment B – Assessment Instrument Word Version and Attachment C – Assessment Instrument Web Version).** The web-based assessment instrument will be used to gather information from respondents regarding the barriers and facilitators to EBP in PHPR by identifying the key organizational and contextual factors affecting EBP implementation and dissemination by the PHPR practice community.

The information collection instrument was pilot tested by eight 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 data collection instrument consists of 102 main questions of various types, including multiple response, interval rating scales, and open-ended items. The instrument will collect data on key areas that will assist in determining where the barriers and facilitators to EBP implementation and uptake among the PHPR practice community. Assessment items will include:

* Demographics: the assessment includes 6 background questions about the respondent’s leadership role in agency’s PHPR activities, years worked in public health, years worked in public health emergency preparedness and response, highest degree or level of school, field(s) of academic study, and participation in certificate/professional development programs).
* Professional factors affecting EBP implementation and dissemination: the assessment includes 9 questions about the agency’s use of EBP in daily work; 10 questions about team skills in EBP and research activities; 5 questions about team’s training and education in EBP; and 9 questions about frequency of staff performing specific activities related to EBP.
* Organizational factors affecting EBP implementation and dissemination: the assessment includes 7 questions about the agency’s organizational culture related to the use of EBP in PHPR.
* Contextual factors affecting EBP implementation and dissemination: the assessment includes 9 questions about the agency’s access to sources of information with PHPR content; 9 questions about the agency’s use of information sources; and 1 question ranking the agency’s use of various sources of information for decision-making.
* Barriers to EBP implementation and dissemination: the assessment includes 26 questions regarding factors that potentially prevent or impede the use of EBP in PHPR, informed by the literature, as well as open-ended questions to capture additional barriers not presented.
* Enablers of EBP implementation and dissemination: the assessment includes 11 questions regarding factors that potentially enable or promote the use of EBP in PHPR, informed by the literature, including open-ended questions to capture additional facilitators not presented.

#### Purpose and Use of the Information Collection

The purpose of this data collection is to examine the barriers (i.e., factors that may impede or prevent) and facilitators (i.e., factors that may enable or promote) to evidence-based practice (EBP) in public health emergency preparedness and response (PHPR) by identifying the key organizational and contextual factors affecting EBP implementation and dissemination by the PHPR practice community.

This data collection will help CDC to understand the barriers and facilitators to EBP in PHPR. CDC will use the resulting data to: a) support state, territorial, and local health department activities; b) better understand the PHPR practice community’s needs; c) inform and prioritize strategies and resources for EBP identification and dissemination; and d) address barriers and facilitators to EBP uptake.

#### Use of Improved Information Technology and Burden Reduction

Data will be collected via a web-based assessment. This method was chosen to reduce the overall burden on respondents by allowing respondents to easily access and complete the assessment at their own convenience. The data collection instrument was designed to collect the minimum information necessary for the purposes of this project (i.e., limited to 102 questions).

#### Efforts to Identify Duplication and Use of Similar Information

This study would be the first of its kind to systematically assess the barriers and facilitators to evidence based practice implementation and dissemination by the public health emergency preparedness and response practice community. No other information collections, to date, have attempted to ascertain these barriers and facilitators. We have also reviewed previous OPHPR collections that have been approved and/or completed through the 0920-0879 O2C2 Gen IC and have found no IC that collected information on barriers and facilitators to evidence-based practice implementation and dissemination by the PHPR practice community.

#### Impact on Small Businesses or Other Small Entities

No small businesses will be involved in this information collection.

#### Consequences of Collecting the Information Less Frequently

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

* Examine the barriers and facilitators to evidence-based practice (EBP) in public health emergency preparedness and response (PHPR).
* Identify the key organizational and contextual factors affecting EBP implementation and dissemination by the PHPR practice community.
* Support state, territorial, and local health department activities.
* Understand the PHPR practice community’s needs.
* Inform and prioritize strategies and resources for EBP identification and dissemination.
* Address barriers and facilitators to EBP uptake.

#### 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.

#### 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 OSTLTS OMB Clearance Center (O2C2) – 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.

#### Explanation of Any Payment or Gift to Respondents

CDC will not provide payments or gifts to respondents.

#### Protection of the Privacy and Confidentiality of Information Provided by Respondents

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

#### 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.

#### Estimates of Annualized Burden Hours and Costs

The estimate for burden hours is based on a pilot test of the data collection instrument by eight of 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 30 minutes (range: 20 – 35). For the purposes of estimating burden hours, the upper limit of this range (i.e., 35 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 Emergency Management Directors (State and Local Government) <http://www.bls.gov/oes/current/oes_nat.htm>. Based on DOL data, an average hourly wage of $30.98 is estimated for all 50 respondents from state health departments, $30.98 is estimated for all 8 respondents from territorial health departments, and $35.58 is estimated for all 504 respondents from local health departments. Table A-12 shows estimated burden and cost information.

There will be a total of 562 respondents and 562 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** |
| Assessment Instrument | State health departments | 50 | 1 | 35 / 60 | 29 | $30.98 | $898 |
| Assessment Instrument | Territorial health departments | 8 | 1 | 35 / 60 | 5 | $30.98 | $155 |
| Assessment Instrument | Local health departments | 504 | 1 | 35 / 60 | 294 | $35.58 | $10,461 |
|  | **TOTALS** | **562** | **1** |  | **328** |  | **$11,514** |

#### 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.

#### Annualized Cost to the Government

There are no equipment or overhead costs. The only cost to the federal government would be the salary of CDC staff and contractor, NORC at the University of Chicago. NORC is developing the web assessment instrument, working with subcontractors ASTHO and NACCHO to develop the sample and field the assessment, collecting data, performing data analysis, and developing reports. The total estimated cost to the federal government is $487,865.44. 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** |
| CDC Project Director – GS-15, Step 10;  Develop project concept and proposal SOW; manage project on behalf of the Government; provide scientific input into assessment development, interpretation of data, and communication of findings. | 72 | $110.15/hour | | | $7,930.80 |
| ORISE Fellow – GS-11, Step 2 (equivalent): Provide input into assessment development, literature review, data interpretation, and communication of findings. | 144 | $44.56/hour | | | $6,416.64 |
| Contractor: NORC at the University of Chicago (5 staff)  Subcontractors: ASTHO (1 staff) and NACCHO (3 staff) – 9 total staff | N/A | N/A | | | $473,518.00 |
| **Estimated Total Cost of Information Collection** | | |  |  | **$487,865.44** |

#### Explanation for Program Changes or Adjustments

This is a new data collection.

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

Contractor (NORC at the University of Chicago) will conduct preliminary analyses with the data. Both quantitative and qualitative analyses will be performed. Quantitative analyses will include descriptive statistics and, if feasible, a comparison between and across subgroups (e.g., comparison between state health departments responses and local health department responses). Qualitative analyses will be performed on open-ended questions to compile additional findings and recommendations regarding barriers and enablers to EBP in PHPR.

All data collected will be maintained on secure, password protected servers maintained by NORC and accessible only to project team members identified by the Project Director. Data collected during the assessment will be shared only in aggregate form. NORC will prepare a written summary report of the data analysis and findings from the information collection. The written summary report will be delivered to CDC. NORC and CDC will collaborate to develop manuscript(s) for submission and potential publication in peer-reviewed journals.

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 6 weeks)
* Code data, conduct quality control, and analyze data 3 months
* Prepare summary report(s) 3 months
* Disseminate results/reports 5 months

#### Reason(s) Display of OMB Expiration Date is Inappropriate

We are requesting no exemption.

#### 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

Attachment A – Respondent Breakdown

Attachment B – Assessment Instrument Word Version

Attachment C – Assessment Instrument Web Version

### REFERENCE LIST

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.

2 Williams, B., Perillo, S., & Brown, T. (2015). Review: What are the factors of organizational culture in health care settings that act as barriers to the implementation of evidence-based practice? A scoping review. *Nurse Education Today*, *35*e34-e41. doi:10.1016/j.nedt.2014.11.012

3 Sadeghi-Bazargani, H., Tabrizi, J. S., & Azami-Aghdash, S. (2014). Barriers to evidence-based medicine: a systematic review. *Journal Of Evaluation In Clinical Practice*, *20*(6), 793-802. doi:10.1111/jep.12222

4 Stirman, S. W., Kimberly, J., Cook, N., Calloway, A., Castro, F., & Charns, M. (2012). The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implementation Science*, *7*(1), 17.