

# **Awareness and Practice of Disaster Risk Reduction for Health: A National Assessment**

OSTLTS Generic Information Collection Request  
OMB No. 0920-0879

## **Supporting Statement – Section A**

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- **Goal of the study:** To assess levels of awareness and/or practice of the principles of disaster risk reduction (DRR) and identify barriers to knowledge and implementation among state and territorial public health preparedness programs in the US.
- **Intended use of the resulting data:** The data will be used to identify research needs, education/training gaps, barriers to implementation, and best practices of DRR for health to ultimately help translate DRR concepts into public health practice. Data will also be used to inform activities related to the implementation of the National Platform for the Sendai Framework for Disaster Risk Reduction 2015 - 2030.
- **Methods to be used to collect:** A web-based assessment will be used to collect data from respondents.
- **The subpopulation to be studied:** The respondent universe includes 56 (50 states, 5 territorial, and the District of Columbia) public health emergency preparedness program directors funded under the Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness (PHEP) cooperative agreement managed by OPHPR/DSLRL.
- **How data will be analyzed:** Descriptive statistical analyses of responses will be conducted.

## Section A – Justification

### 1. Circumstances Making the Collection of Information Necessary

#### Background

This information collection will be 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 56 Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness (PHEP) grantees, specifically Program Directors of Public Health Preparedness in 56 (50 states, 5 territories, and the District of Columbia) state and territorial health departments acting in their official capacities. Throughout the continuation of this document, “Program Directors” will refer to the aforementioned 56 Program Directors of the CDC PHEP cooperative agreement.

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>

Between the years 2000 and 2015, there have been 438 disasters in the United States. These disasters have caused 7,476 deaths and 13,389 injuries, ultimately causing 21.6 million people to require immediate assistance, and resulting in an estimated cost in excess of \$571 billion USD<sup>2</sup>. As the impacts of disasters, both social and economic, continue to rise, it is incumbent upon governments at all levels to invest in strategies with the goal of protecting human lives and lowering vulnerability. Disaster risk reduction (DRR) is the practice of addressing the causal factors of disaster through systems-wide analysis and action. DRR emphasizes a “culture of prevention” over the reactive “mitigate, prepare, respond, and recover” cycle (United Nations Office for Disaster Risk Reduction).

The principles of DRR have been around since the 1990s, but gained greater global attention following the 2004 Indian Ocean earthquake and tsunami. This event remains the third-largest

earthquake ever recorded, and one of the worst disasters in history. <sup>3</sup>This powerful earthquake triggered a series of tsunamis which impacted most countries bordering the Indian Ocean, killing approximately 230,000 people in 14 countries, and inundating coastal communities with waves up to 100 feet high.<sup>4</sup> In many of the impacted areas, the tsunami presented by a dramatic receding of the ocean and, although these countries are in a tsunami prone part of the world, most bystanders did not understand the implications of the earthquake and were taken by surprise when the tsunami arrived.<sup>3</sup> Many of these people might have been saved had they understood their risk and known what actions to take in order to protect themselves and their families.

DRR is a systematic approach to identifying, assessing, and reducing the risks of disasters before they occur. This approach seeks to address the root causes of disaster impacts by reducing hazard exposure, reducing vulnerability, and building adaptive capacity.<sup>5</sup> Disaster risk reduction's emphasis on pre-disaster activities is analogous to many primary and secondary disease interventions that aim to prevent the disease before onset, and mitigate the effects of the disease in its early stages. Examples of these early activities include vaccinations, hygiene education and pre-screening for diseases. When DRR is applied from a public health perspective it aims to reduce morbidity and mortality caused by disasters through prevention, mitigation and preparedness.<sup>5</sup>

Focusing on the causal factors of disasters, DRR activities seek to prevent first, and then prepare for and mitigate the health effects of natural hazards.<sup>5</sup> Some examples of DRR activities that protect health include improving early-warning systems to target at-risk populations, increasing the resilience of critical health infrastructure, and enhancing cooperation between health authorities and other stakeholders to strengthen country capacity for disaster risk management.<sup>6</sup> Disaster impacts are strongly influenced by physical, social, economic and environmental factors.<sup>7</sup> Reducing disaster risk, therefore, requires concerted action across a wide range of sectors, institutions and disciplines.<sup>6</sup>

Applying the principles of DRR not only offers the opportunity to reduce morbidity and mortality, but also reduces costs. Studies have been conducted by the World Bank and FEMA which estimate that for every one dollar invested in DRR, four to seven dollars are saved in response and recovery costs.<sup>8,9</sup>

The enormous devastation which resulted from the Indian Ocean tsunami prompted the world to re-assess its approach to managing disasters. In 2005, governments around the world committed to taking action to reduce risk. This commitment was outlined in the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disaster*, and adopted by 168 governments at the 2005 World Conference on Disaster Reduction. This framework was recently updated in 2015 at the Third UN World Conference of Disaster Risk, culminating in the adoption of the *Sendai Framework for Disaster Risk Reduction 2015-2030* (see **Attachment A—Sendai Framework**).

One hundred and eighty seven countries, including the United States, joined consensus on the 2015 – 2030 Sendai framework. Each country agreed to work toward achieving the seven global targets of the framework by 2030.

<b>The Seven Global Targets of the Sendai Framework to Achieve by 2030<sup>10</sup></b> <b>(see Attachment A—Sendai Framework)</b>
<p><b>Substantially reduce</b></p> <ol style="list-style-type: none"><li>1. Disaster mortality</li><li>2. The number of affected people</li><li>3. Direct disaster economic loss in relation to global gross domestic product (GDP).</li><li>4. Disaster damage to critical infrastructure and disruption of basic services, including health and educational facilities</li></ol> <p><b>Substantially increase</b></p> <ol style="list-style-type: none"><li>5. The number of countries with national and local disaster risk reduction strategies by 2020.</li><li>6. International cooperation to developing countries to complement their national actions for implementation of this framework.</li><li>7. The availability of, and access to, multi-hazard early warning systems and disaster risk information and assessments to the people.</li></ol>

DRR is a complex, cross-cutting issue which requires collaboration of a broad range of stakeholders, including government at all levels, private sector, non-profit groups, and academia. UN member countries have established National Platforms for DRR as part of their commitment to incorporating the principles of DRR into their disaster risk management portfolios. A National Platform for DRR can be defined as “a nationally owned and led forum or committee of multi-stakeholders. It serves as an advocate of DRR at different levels and provides coordination, analysis and advice on areas of priority requiring concerted action through a coordinated and participatory process.”<sup>11</sup> The Subcommittee on Disaster Reduction (SDR) is a Federal interagency body of the U.S. National Science and Technology Council under the Committee on Environment, Natural Resources and Sustainability. The SDR is charged with facilitating and promoting natural and technological disaster mitigation, preparedness, response, and recovery<sup>12</sup>. The SDR also serves as the US National Platform for Disaster Risk Reduction.

Despite the new policy’s emphasis on the importance of DRR in the context of human health, there have not been any national assessments of the knowledge and use of DRR by public health entities, including the comprehension of terminology related to DRR. There is evidence of DRR practices at the state level, however, these activities may not be classified as DRR activities. In addition, there are no records of how or if DRR activities are being implemented at the jurisdictional level. Best practices and barriers to implementation of DRR for health have been observed internationally but are unknown within the United States.<sup>11,12</sup> The national platform for the implementation of the Sendai Framework is in its early stages of planning. It is pertinent that information on knowledge, use, best practices and barriers to use of DRR is available to inform strategies for effective implementation of DRR for health.

CDC is partnering with the Association for State and Territorial Health Officials (ASTHO), a national nonprofit organization representing public health agencies in the US, to assess levels of awareness and/or practice of the principles of disaster risk reduction (DRR) and to identify barriers to knowledge and implementation among US state and territorial public health preparedness. Data will be collected from 56 PHEP Program Directors using a web-based survey. ASTHO will be responsible for distributing the survey as well as the notification and reminder emails. The Centers for Disease Control and Prevention will be responsible for the data analysis activities following the survey period.

This data collection effort is the first national-level attempt to learn of knowledge of DRR principles and how principles are applied to state or territorial public health preparedness activities. The lack of available data on DRR knowledge and practices makes it difficult to develop effective health-focused strategies for the implementation of DRR and the Sendai framework. A baseline understanding of activities and knowledge of DRR by public health entities is a logical and necessary step to identifying knowledge gaps and best practices, recognizing research opportunities, evaluating education and training gaps, and guiding future activities to raise awareness.

Public health is a prominent focus in the DRR conversation due to its emphasis in the Sendai Framework. CDC is the national organization leading the implementing DRR for health and the Sendai Framework. The information collected in this survey will help guide these implementation efforts. Results will support the overall purpose of DRR and the Sendai Framework, which is to minimize the impact of disasters in the US by lowering morbidity and mortality, protecting property and livelihoods, and reducing cost.<sup>8,9</sup>

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

Information will be collected from a total of 56 (50 states, 5 territorial, and the District of Columbia) PHEP program directors, or their designee via a web-based questionnaire (see **Attachment B—Instrument: Word version** and **Attachment C—Instrument: Web version**). The online instrument will gather information on DRR knowledge and practice and identify barriers to knowledge and implementation. This method was chosen to allow respondents to complete and submit their responses electronically, reducing the overall burden.

The information collection instrument was pilot tested by 4 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 information collection instrument (see **Attachment B—Instrument: Word version** and **Attachment C—Instrument: Web version**) will assess levels of awareness and practice of the principles of DRR and identify barriers to knowledge and implementation among state and territorial public health preparedness programs. The survey consists of a total of 26 questions. Question formats include dichotomous (yes/no), multiple response, interval (rating scales), and open-ended. In an effort to minimize response burden, the instrument was designed with particular focus on streamlining questions to allow for skipping questions based on responses to previous questions. Also, an effort was made to limit questions requiring narrative responses from respondents whenever possible. The instrument is organized into two parts:

**1. Survey respondent information (5 questions):** This information is being collected in an effort to maximize the respondent rate by allowing direct follow up with non-respondents.

- State or territory
- Official role
- Name of respondent
- Work phone number
- Work email address

**2. Disaster Risk Reduction Questions (20 questions):** Respondents will describe their DRR knowledge use of these principles (when applicable) to the state or territorial preparedness activities in the following domains:

- Familiarity of the jurisdiction regarding the general principles of disaster risk reduction including the four DRR Priorities of Action (7 questions).
- Disaster risk reduction activities being carried out as part of the public health preparedness program activities; there are questions regarding agency involvement, primary leads, and partner organizations (7 questions).
- State/territory interest in acquiring additional information and training regarding disaster risk reduction as it relates to state/territory public health preparedness programs (5 questions).
- Comments or recommendations about implementation of DRR (1 question).

**3. Program interest in knowing results of the survey (1 question)**

## **2. Purpose and Use of the Information Collection**

The purpose of this information collection is to learn of PHEP program directors' of the knowledge, use, and barriers to use of DRR principles at the state/territorial level in the US. Specifically:

*Purpose 1: To determine the familiarity of the public health jurisdiction regarding the general principles of disaster risk reduction including the four DRR Priorities of Action.* Respondents will be asked whether, and to what extent, they are familiar with DRR terminology and activities, and the source of their knowledge.

*Purpose 2: To identify if disaster risk reduction activities are being carried out as part of the public health preparedness program activities.* Respondents will be asked questions regarding public health agency involvement, jurisdictional level where activities are conducted, partner organizations, and agencies leading for this effort.

*Purpose 3: To assess state/territory interest in acquiring additional information regarding disaster risk reduction as it relates to state/territory public health preparedness programs.* Respondents will be asked if they feel there is a need for additional information regarding the role of Disaster Risk Reduction in public health preparedness, and their preferred method for receiving this information.

*Purpose 4: Identify potential barriers to implementation of DRR activities within the state/territory.* If applicable, respondents will be asked to select reasons for not conducting disaster risk reduction activities as part of their public health programs.

This data collection effort is the first national-level attempt of its type. Results will serve as a baseline of jurisdictions' knowledge and use of DRR in public health.

Results will be compiled in a final report which will be developed by CDC and shared with the survey respondents. The information may be used for several purposes, such as identifying knowledge gaps, best practices, research opportunities, and education/training needs nationwide in the field of DRR for health. CDC will use this information to inform future activities to support the field. Additionally, this information will allow the CDC to contribute further to the development of a national platform for the implementation of the Sendai Framework. The current state of knowledge and practices in DRR, which this survey will provide, is a necessary component for identifying needs and designing effective activities that will further the goals of DRR for health.

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

Information will be collected via a web-based questionnaire. This method was chosen to allow respondents to complete and submit their responses electronically, reducing 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 26 questions). Further, skip patterns were incorporated to allow for streamlining responses and the reduction of burden on respondents.

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

The CDC Public Health Emergency Preparedness program has no mandate for grantees to conduct DRR activities, nor has any effort been made to collect information regarding these efforts by the



CDC. Prior to developing this information collection, CDC conducted literature searches, interviewed key stakeholders (Association of State and Territorial Health Officials (ASTHO), the National Association of County and City Health Officials (NACCHO), National Institute of Environmental Health Sciences (NIEHS), Institute of Medicine (IOM), Health and Human Services office of Assistant Secretary for Preparedness and Response (ASPR) and members of the National Science and Technology Council Subcommittee on Disaster Reduction (SDR)), and consulted with public health preparedness subject matter experts in order to confirm that this effort is not duplicative.

## **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 familiarity of the public health jurisdiction regarding the general principles of disaster risk reduction including the four DRR Priorities of Action.
- Identify disaster risk reduction activities being carried out as part of the public health preparedness program activities.
- Assess state/territory interest in acquiring additional information regarding disaster risk reduction as it relates to state/territory public health preparedness programs
- Identify potential barriers to implementation of DRR activities within the state/territory.
- Develop strategies for sharing best practices and enhancing collaboration in this area.
- Contribute baseline information to the development of a national platform for the implementation of the Sendai Framework.

## **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 October 31, 2013, Vol. 78, No. 211; pp. 653 25-26. No comments were received.

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), 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. STLT governmental staff will be speaking from their official roles. Although ASTHO will collect some individually identifiable information (IIF), used only for follow-up as needed, ASTHO will remove all IIF and use only the state name in the dataset sent to CDC. No IIF be distributed publically.

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 are of personal or sensitive nature.

#### **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 4 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 8.5 minutes (range: 7 to 10 minutes). For the purposes of estimating burden hours, the upper limit of this range (i.e., 10 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 Public Health Emergency Preparedness Directors ([http://www.bls.gov/oes/current/oes\\_nat.htm](http://www.bls.gov/oes/current/oes_nat.htm)). Based on DOL data, an average hourly wage of \$47.77 is estimated for all 56 respondents. Table A-12 shows estimated burden and cost information.

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

<b>Information collection Instrument: Form Name</b>	<b>Type of Respondent</b>	<b>No. of Respondents</b>	<b>No. of Responses per Respondent</b>	<b>Average Burden per Response (in hours)</b>	<b>Total Burden Hours</b>	<b>Hourly Wage Rate</b>	<b>Total Respondent Costs</b>
State Department of Health Disaster Risk Reduction Survey	State, Territory, or District Government Staff	56	1	10/60	9.0	\$47.77	\$429.93
	<b>TOTALS</b>	<b>56</b>			<b>9</b>		<b>\$429.93</b>

### 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, and no fees being paid to ASTHO for their support. Contractors, however, are being used to support the development of the assessment tool, data collection, and data analysis. The only cost to the federal government is the salary of CDC staff and contractors. The total estimated cost to the federal government is \$5,120. Table A-14 describes how this cost estimate was calculated.

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

<b>Staff (FTE)</b>	<b>Average Hours per Collection</b>	<b>Average Hourly Rate</b>	<b>Average Cost</b>
Senior Public Health Advisor (GS-13/7) Instrument development, pilot testing, OMB package preparation, data collection, data analysis and report preparation	40	\$50.00	\$2,000
Senior Public Health Emergency Operations Officer (PHS 05) Instrument development, pilot testing, OMB package preparation, data collection, data analysis and report preparation	40	\$50.00	\$2,000
ORISE fellow Instrument development, pilot testing, OMB package preparation, data collection, data analysis and report preparation	20	\$28.00	\$560
ORISE fellow Instrument development, pilot testing, OMB package preparation, data collection, data	20	\$28.00	\$560

analysis and report preparation			
<b>Estimated Total Cost of Information Collection</b>			<b>\$5,120</b>

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

This is a new information collection.

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

Once the 2 week survey period has closed, ASTHO will send the de-identified survey data set to CDC for analysis. All responses will be analyzed using Microsoft Excel to gather descriptive statistics. Data from the participant responses will be stored in a secure database maintained by CDC. Upon completion of data analysis, CDC will utilize the de-identified data to draft a report summarizing the results for distribution to CDC leadership, survey respondents, and various CDC stakeholders. CDC will also explore additional opportunities for presenting and publishing information collection findings following completion of the analysis and reporting activity.

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 2 weeks)
- Code, quality control, and analyze data..... (4 weeks)
- Prepare reports ..... (4 weeks)
- Disseminate results/reports ..... (4 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- Sendai Framework for Disaster Risk Reduction 2015-2030
- B. Attachment B- Instrument: Word version
- C. Attachment C- Instrument: Web version

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