

Understanding the Needs, Challenges, Opportunities, Vision and Emerging Roles in Environmental Health (UNCOVER EH)

OMB Control No. 0920-NEW

New

Supporting Statement Part A –
Justification

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Part A. Justification

Goal of the study: The purpose of this proposed information collection (IC) is to examine the public health department environmental health (EH) workforce to determine: 1) the current supply of EH professionals; 2) EH workforce demographics and professional roles; 3) gaps in current EH education and competencies and training needs; and 4) critical skills and resources needed to meet the evolving and emerging EH issues and challenges.

Intended use of the resulting data: The proposed information collection will be used to support and inform initiatives and other efforts to enhance the EH workforce.

Methods to be used to collect: The EH workforce members (respondents) will be identified and enumerated by identifying a point of contact in each state, tribal, local, and territorial health department to request a roster containing names and email addresses of EH professionals. Data will be collected one time from a census of members of the public health department EH workforce using a web-based survey instrument.

Subpopulation to be studied: The respondent universe includes as many as 20,000 EH professionals working at public health departments.

How data will be analyzed: Data will be analyzed by CDC staff using descriptive and multivariate statistical analyses.

A.1. Circumstances Making the Collection of Information Necessary

The environmental health (EH) workforce is an essential component of the public health workforce. The proposed information collection (IC) will survey the public health department EH workforce to determine demographics, education and training, experience, areas of practice, job satisfaction, and current and future needs to address emerging environmental issues. The emergence of many new issues and threats, such as the Zika virus, points to a need for a well-prepared environmental health workforce. In addition, reduced funding and budget cuts have led to job losses and decreased services at state and local public health departments^{1,2}. These compounding factors reinforce the need to closely examine the EH workforce to ensure it is sufficient and well-prepared to meet the environmental health needs of the nation.

According to recent public health department surveys, EH professionals are employed at approximately 85% of local health departments,³ 81% of state health departments,⁴ and 30% of tribal health departments.⁵ While the profile surveys provide general information about the

public health workforce, there have been no efforts to closely examine the EH workforce. Furthermore, enumeration of the EH workforce has been identified as an important aspect of supporting the profession and there is no complete list or database of EH professionals working at public health departments.⁶

Describing and characterizing the public health workforce is emphasized by the importance of identifying gaps in staffing, training, and ultimately ensuring a sufficient workforce prepared to meet future challenges.⁷ Efforts are underway to describe these details for the general public health workforce and within specific discipline areas, such as public health nursing and epidemiology.⁸ A similar level of description and analysis is critical for environmental health, as a foundational area of public health that provides critical services and important activities for promoting safe and healthful communities.⁹ EH's important role within the public health framework warrants assessment and analysis of the practice and practitioners in order to assure a workforce well positioned to address current needs and well prepared for future environmental health challenges. This information collection will provide critical data on the 1) current supply of EH professionals; 2) EH workforce demographics and professional roles; 3) gaps in current EH education and competencies and training needs; and 4) critical skills and resources needed to meet the evolving and emerging EH issues and challenges.

Engaging in initiatives that generate important information about the EH workforce and EH professionals is recognized as a vital function for ensuring high quality services that address community need, as well as maintaining a sufficient and well trained workforce. For example, CDC's *National Strategy to Revitalize Environmental Public Health Services*, a consensus based document with broad stakeholder input about strategies to enhance the EH workforce and practice, identified the need to examine size and structure of the EPH workforce by explaining that "workforce evaluations are needed to ascertain the current level of competence, methods of training, effect of training, effect of the "essential services" approach to environmental public health, relations between competencies and practices as they pertain to community-based needs, information that reaches the environmental public health workforce, and effect of workforce-directed activities on the level of competence and job performance."¹⁰ This information collection will support the mission of the CDC Division of Emergency and Environmental Health Services and its efforts to support the state, tribal, local and territorial (STLT) EH workforce. The data collection is authorized under section 301 of the Public Health Service (PHS) Act, [42 U.S.C. section 241(a)] (Attachment 1).

The Centers for Disease Control and Prevention (CDC) is requesting a 12 month Paperwork Reduction Act (PRA) clearance from the Office of Management and Budget (OMB).

A.2. Purpose and Use of the Information Collection

This is a one-time information collection designed to thoroughly examine the public health department EH workforce. The assessment will: 1) determine the current supply of EH professionals; 2) describe EH workforce demographics and professional roles; 3) assess gaps in current EH education and competencies and training needs; and 4) identify critical skills and resources needed to meet the evolving and emerging EH issues and challenges. Not having this information limits the CDC's and other public health agency's abilities to establish accurate and necessary workforce development initiatives and support for improving the EH practice.

The overall purpose of this effort is to identify, describe, and understand EH professionals':

1. Demographics, skills and competencies, and potential training needs;
2. Areas of practice, primary responsibilities, and delivery of services; and
3. Grand challenges and emerging environmental health issues.

This assessment could provide information serving a wide range of purposes, such as:

1. Establishing uniform practice benchmarks and workforce competencies;
2. Allocating funds to support improvement of the practice based on identified needs;
3. Informing decision-making about the practice, staffing, services, and activities; and
4. Supporting broader public health initiatives, such as workforce enumeration, health department accreditation, and academic and training efforts.

An effort of this magnitude will result in a wide range of benefits to the EH workforce that span across the levels of government and beyond by reaching leaders and decision makers within non-governmental organizations, private industry, and other sectors. National level decision-makers and leaders will be provided with essential data for shaping the delivery of EH services and preparing the workforce to address current and future EH issues.

A.3. Use of Improved Information Technology and Burden Reduction

A web-based survey instrument will be used for 100% of the responses. The survey is designed to collect only essential information to meet the objectives of the workforce assessment. The information being collected was reviewed by four EH experts and the instrument was pilot tested by six EH professionals. Those reviewers and testers provided recommendations for ensuring only necessary and important information is collected. Additionally, the survey was programmed with skip logic to ensure respondents are prompted to only respond to applicable items.

A.4. Efforts to Identify Duplication and Use of Similar Information

A review of government websites, publication databases and general web-based searches, and consultation with non-governmental organizations revealed no duplication of effort for collecting this information. In addition, the National Environmental Health Association (NEHA), a contractor supporting this information collection, recognizes the important need for detailed information about the EH workforce.

The National Association of County and City Health Officials (NACCHO), Association of State and Territorial Health Officials (ASTHO), and National Indian Health Board (NIHB) already produce health department profiles that report general information about EH staffing levels and the type of EH services departments are providing. The proposed collection of information spans beyond the scope of these reports by focusing directly on the EH workforce to collect detailed information at the level of the professional. This is the first effort of this magnitude designed to collect this essential information about the EH workforce.

A.5. Impact on Small Businesses or Other Small Entities

This data collection will not involve small businesses.

A.6. Consequences of Collecting the Information Less Frequently

This one-time assessment will collect the minimum amount of information needed to clearly understand current EH workforce characteristics, areas of practice, and challenges and needs. If the collection is not conducted, there will be limitations in the information needed to accurately support and enhance the EH workforce. There are no technical or legal obstacles to reducing burden.

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

This request fully complies with the regulation 5 CFR 1320.5.

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

A 60-day Federal Register Notice was published in the *Federal Register* on October 31, 2016, vol. 81, No. 210, pp. 75405-75406 (Attachment 2). CDC received one non-substantive comment (Attachment 2a) and replied with a standard CDC response.

In the public comment received, the commenter stated that this information collection is an unnecessary expenditure of taxpayer dollars and the contact person at each health department should simply ask the environmental health workers to complete the survey. Identifying environmental health professionals at each health department is required to ensure the survey is sent directly to each individual respondent. This process will result in enumeration of the workforce and allow determination of a survey response rate (Attachment 2b).

The following persons outside the agency were consulted with to obtain their views on the availability of data, frequency of collection, the clarity of instructions, disclosure, and on the data elements to be recorded, disclosed, or reported. CDC has a funded contract with NEHA and a funded intergovernmental personnel agreement with Baylor University to support their involvement in this information collection.

Table 1. 2016 External Consultations

Name	Title	Affiliation	Phone	Email
<i>OUTSIDE CONSULTANTS</i>				
David Dyjack, DrPH	Executive Director	National Environmental Health Association	(303) 756-9090	ddyjack@neha.org
Sandra Whitehead, PhD	Manager, Research & Development	National Environmental Health Association	(850) 727-2431	swhitehead@neha.org
<i>ACADEMIC INSTITUTIONS</i>				
Bryan Brooks, PhD	Professor, Environmental Health Sciences	Baylor University	(254) 710-6553	Bryan_Brooks@baylor.edu
Murray Rudd, PhD	Associate Professor, Department of Environmental Sciences	Emory University	(404) 727-3262	murray.a.rudd@emory.edu

A.9. Explanation of Any Payment or Gift to Respondents

Respondents will not receive any payment or gift.

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

On November 29, 2016, the NCEH/ATSDR PRA Contact determined that the Privacy Act does not apply. Although the data collection staff will use identifiable information, such as names and business email addresses, to facilitate administration of the data collection process, this information will be maintained in a separate password-protected record file on secure servers and will not be linked to response data. Participants will receive unique ID numbers; data collection records identified by participant ID numbers will not be stored with participant identifying information (i.e. name, business email address). Procedures will be followed to limit the linkage of ID numbers and personal identification information. The assessment does not require a full Privacy Impact Assessment.

Overview of the Data Collection System

The CDC is partnering with NEHA and providing funding through a contract to support their work and assistance with identifying EH professional respondents and communicating about the initiative and the results it produces. An intergovernmental personnel agreement was established with Baylor University to support the involvement of an academic consultant. The academic consultant provided valuable guidance for the design of the study and development of the survey instrument. The academic consultant has access to the survey software and will manage the administration of the survey and assist with the analysis of survey results.

EH workforce members (respondents) will be identified and enumerated by identifying a point of contact in each state, tribal, local, and territorial health department from whom a roster of EH professionals will be requested (Attachment 3). A list of respondents and their business email addresses will be generated and used for recruitment and survey administration. Any contact information collected will be related to their role in the organization. CDC, NEHA, and Baylor University will maintain the list of respondent email addresses, along with any other contact information, that will remain secure and stored on secure servers with controlled access. Respondent names and business email addresses will be maintained in a separate file from results. CDC will treat data/information in a secure manner and will not disclose, unless otherwise compelled by law. In addition, survey respondents will be coded for anonymity, and any personally identifiable information in open-ended responses will be removed by CDC and Baylor University. The survey software, which will be managed by the academic consultant at Baylor University, will assign and maintain the codes and linking information for survey respondents. Any ID number assigned to a respondent will be de-linked from personally identifying information at the end of data collection. Data from this information collection will be published in aggregate statistical form only.

Five email messages will be distributed to the respondents:

1. Pre-Survey Email – The pre-survey email will provide the potential respondent with information about the survey and indicate they will soon receive a link to the survey (Attachment 4a).
2. Invitation to Participate - An invitation letter will be emailed to the respondent universe inviting them to participate in the survey and directing them to the website where the survey is located (Attachment 4b).
3. First Follow-Up Email – The Thanks-Reminder email will be sent a week after the invitation to participate. The email will thank those respondents who already completed

the survey and remind those who have not to please consider completing the survey (Attachment 4c).

4. Second Follow-Up email – The reminder email will be sent several weeks after the invitation email to respondents who have not yet completed the survey (Attachment 4d).
5. Final Notice Email – The final notice email will be sent one month after the invitation email was sent as a final request for respondents to complete the survey (Attachment 4e).

The introductory message of the survey indicates that the survey is voluntary and the respondent may decide to quit the survey at any time. If they do not want to participate in the survey, they will have the ability to opt out and they will not be emailed again. There is further acknowledgement that responses will not be associated with any individual or organization.

The Understanding the Needs, Challenges, Opportunities, Vision and Emerging Roles in Environmental Health (UNCOVER EH) Survey (Attachment 5a and 5b) will collect standardized information from public health department EH professionals on their demographics, education and training, experience, areas of practice, job satisfaction, and current and future needs to address emerging environmental issues. The survey will be administered by a trained academic consultant at Baylor University (identified in Table 1) using Sawtooth survey software to develop and distribute the electronic survey to the respondent universe.

The academic consultant, funded through an intergovernmental personnel agreement, will download the data and prepare it for analysis. In the dataset, survey respondents will be coded for anonymity. Any potential personal identifiers will be removed from the dataset and the de-identified dataset will be provided to the CDC. CDC will maintain the dataset on secure servers with controlled access at all times. Data will be analyzed in aggregate form, and there will be no retrieval capability or intent in the collection of the respondents' responses.

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

The NCEH/ATSDR Office of Science determined that this activity is exempt human subjects research in which CDC is engaged. As such, the study protocol (Attachment 6) has been submitted and determined to be an exempt category of research involving human subjects by the CDC Institutional Review Board (IRB) (Attachment 7). All human subjects protections will be implemented and no sensitive questions will be asked within the survey.

A.12. Estimates of Annualized Burden Hours and Costs

Table 2 shows the estimated annualized burden hours for the respondents. These estimates are based on pretesting of the final surveys. Six state and local EH professionals in field,

management, and director positions pilot tested the survey instrument. The pilot testers provided comments pertaining to the survey format and measures, and gave an estimate of the time required to complete the survey. On average, the pilot testers reported that the time required to complete the survey was 30 minutes. Therefore, the total number of annualized burden hours requested for 16,000 respondents is 8,000 hours. The estimated number of respondents was based on results of public health department profile studies and discussions with EH experts about workforce estimates and identifying potential EH professionals not represented in the studies.^{3,4} We estimate that approximately 80% of the 20,000 EH professionals will complete the survey.

Table 2: Estimated Annualized Burden Hours

Type of Respondent	Form Name	No. of Respondents	No. of Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
Health Department Administrative Staff	Health Department Roster	3,231	1	5/60	269
Health Department EH Professionals	UNCOVER EH Survey	16,000	1	30/60	8,000
Total					8,269

Table 3 shows the estimated annualized cost burden for the respondents. The Bureau of Labor Statistics reported that the average hourly wage for “Environmental Scientists and Specialists, Including Health” in the United States was \$35.55 in May, 2015 (<http://www.bls.gov/oes/current/oes192041.htm>). The average hourly wage for “Administrative Staff” in the United States was \$17.55 in May, 2015 (<http://www.bls.gov/ooh/office-and-administrative-support/secretaries-and-administrative-assistants.htm>). The total estimated cost burden for respondents is \$360,221.

Table 3: Estimated Annualized Burden Costs

Type of Respondent	Form Name	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
Health Department Administrative Staff	Health Department Roster	269	\$17.55	\$4,721

Health Department EH Professionals	UNCOVER EH Survey	8,000	\$35.55	\$284,400
Total				\$289,121

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

There are no additional costs anticipated for respondents other than their time to participate in the survey.

A.14. Annualized Cost to the Federal Government

A total of \$125,000 annually is supporting contract and consultation costs for planning and administration of the information collection, analyzing the data, and reporting results. It is anticipated this collection of information will take place over the year following PRA clearance. This is a one-time action two-year project with approximately \$125,000 to support activities during each year. We estimate that two CDC staff will spend approximately 10% and 5% of their time on this data collection. Governmental full-time employee salary and travel expenses are estimated at \$16,536. The estimated total cost of the information collection annually is \$146,536.

Table 4: Annualized Cost to the Federal Government

Staff (FTE)	Average Hours per Year	Average Hourly Rate	Annual Cost
Environmental Health Specialist (GS 14 Equivalent) involved in the planning and implementation of the information collection and monitors contractor and academic consultant activities	208	\$50.00	\$10,400
Health Scientist (GS 15) Provides oversight and guidance on development and implementation of the information collection	104	\$59.00	\$6,136
Contract/cooperative agreement (academic consultant and NEHA will support their involvement in the planning, marketing, and survey			\$125,000

implementation, and analysis and reporting of the results)	
Travel, etc.	\$5,000
Estimated Total Cost of Information Collection	\$146,536

A.15. Explanation for Program Changes or Adjustments

This is a new information collection.

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

The start of data collection activities is contingent upon receiving PRA clearance. Table 5 shows the anticipated project time schedule. Aggregate data will be analyzed using descriptive and multivariate statistical analyses. The results will be summarized for a comprehensive report, that will be made publicly available, and subsequent publications pertaining to specific aspects of the EH workforce.

Table 5. Project Time Schedule

Project Time Schedule	
Activity	Time Schedule
Introductory email sent to respondents	1 month after PRA clearance
Information/data collection	2 months after PRA clearance
Validation	12 months after PRA clearance
Analyses	15 months after PRA clearance
Publication	24 months after PRA clearance

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

The display of the OMB expiration date is appropriate.

A.18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

References

1. National Association of County & City Health Officials. Local Health Department Job Losses and Program Cuts: Findings from the 2013 Profile Study. Available at <http://archived.naccho.org/topics/infrastructure/lhdbudget/upload/Survey-Findings-Brief-8-13-13-3.pdf>. Accessed September 7, 2016.
2. Association of State and Territorial Health Officials. Budget Cuts Continue to Affect the Health of Americans. Available at <http://www.astho.org/budget-cuts-Sept-2014/>. Accessed September 7, 2016.
3. National Association of County & City Health Officials. 2013 National Profile of Local Health Departments. Available at <http://archived.naccho.org/topics/infrastructure/profile/upload/2013-national-profile-of-local-health-departments-report.pdf>. Accessed May 24, 2016.
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6. Massoudi M, Blake R, Marcum L. Enumerating the environmental public health workforce—challenges and opportunities. [Commentary] *J Environ Health*. 2012; 75(4):34-6.
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8. Center of Excellence in public health workforce studies. University of Michigan, <http://sph.umich.edu/cephw/projects.html>.
9. Leider, J. P., et al. (2015). Practitioner perspectives on foundational capabilities. *Journal of Public Health Management and Practice*, 21, 325-335.
10. A National Strategy to Revitalize Environmental Public Health Services. (2003). <http://www.cdc.gov/nceh/ehs/docs/nationalstrategy2003.pdf>.

List of Attachments

Attachment 1. Authorizing Legislation

Attachment 2. 60-day Federal Register Notice

Attachment 2a. Public Comment

Attachment 2b. Program Response

Attachment 3. Health Department Roster

Attachment 4a. Pre-Survey Email

Attachment 4b. Invitation Email

Attachment 4c. Thanks-Reminder Email

Attachment 4d. Reminder Email

Attachment 4e. Final Notice Email

Attachment 5a. UNCOVER EH Survey (text)

Attachment 5b. UNCOVER EH Survey (online)

Attachment 6. Study Protocol

Attachment 7. IRB Exemption Determination Letter