

EFFECTIVE RISK COMMUNICATION FOR WATER-RELATED EMERGENCIES AND DISEASE OUTBREAKS

NATIONAL CENTER FOR ENVIRONMENTAL HEALTH, OFFICE OF COMMUNICATION

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Sponsoring institution(s): CDC National Center for Environmental Health and National Center for Emerging, Zoonotic, and Infectious Diseases.

Project background:

Ensuring water safety during emergencies is a core public health function. The Centers for Disease Control and Prevention (CDC) works with other federal agencies, states, and local governments to assess health risks in communities where people may have concerns regarding both public health emergencies and water related emergencies. Specifically, how should current CDC water-related communication messaging be addressed or modified to include issues and concerns of water-related public health emergencies such as water contamination, natural disasters, chemical spills, harmful algal toxins, routine water outages and issues related to water, sanitation and hygiene during the COVID-19 pandemic. The current COVID-19 pandemic begs new research questions regarding how risk communication messages for water-related emergencies may be impacted.

To develop effective health communication messages, formative work is needed to understand the determinants of health behavior in the context of a water safety, water emergencies, and COVID-19, so that health messages can be designed to target those key behavioral determinants.

Additionally, to ensure that health communication resources are meeting the needs of CDC partners, and are disseminated in the ways preferred by the general public, formative work is needed to examine preferences for health communication materials. Finally, as part of best practices in communication material development, health messages and communication materials should be tested to ensure that they are acceptable to the target audience (Attachments E-G).

The CDC National Center for Environmental Health together with the CDC National Center for Emerging Zoonotic and Infectious Diseases is conducting a study to gather information regarding how communities receive information during a water-related emergency. A water related emergency can be any emergency that causes drinking water to become unsafe to drink. Examples of harmful water contamination include algal blooms, floods, or chemical contamination. Powell Strategies is

supporting this effort by conducting focus group discussions with individuals who have received communication and messaging involving water-related emergencies. The information gathered from the focus group discussions and study will be used to assist public health staff improve how they communicate with community members.

Project goals and objectives:

1. Understand the health communication strategies and materials used during water-related public health emergencies.
2. Identify and understand the experiences and communication needs of the general public who have received communications regarding water emergencies. Identify best methods/platforms for receiving these communications during public health emergencies such as flooding, hurricanes, and disease outbreaks.
3. Discuss determinants of health behaviors during water-related emergencies among adults who experienced them.
4. Discuss sources, tone, format, and placement of health communication materials during water-related emergencies.
5. Discuss ways to prepare the public for water-related emergencies.
6. Discuss communication strategies and materials for post-emergency recovery.

Role of CDC:

CDC Will:

1. Develop all protocols and information collection materials (e.g., recruitment materials, screening forms, focus group discussion guides – Attachments A-D).
2. Provide existing communications materials to be tested in focus groups (Attachments E-G).
3. Obtain human subjects and OMB approval for all project data collection activities (e.g., message testing, focus groups).

Populations to be included:

The study will involve conducting 9 virtual focus group discussions with a sample of U.S. adults who have experienced a diverse range of water emergencies. Each focus group will include at least 10 individuals per group for a total of 90 participants. The community members may include, but are not limited to, the general public, community leaders, faith-based leaders, and business leaders. Recruitment will occur in the following three communities: Wilmington, NC, Salem, OR, and Newark, NJ.

Incentives to be provided:

At the completion of the virtual focus group, the focus group administrators will email each community participant a \$40 gift card.

Plans for data/sample collection and analysis:

The independent contractor will:

1. The contractor will recruit a sample of U.S. adults who have experienced a diverse range of water emergencies to participate in nine virtual focus groups of at least 10 individuals per group. Recruitment will occur in the following three communities: Wilmington, NC, Salem, OR, and Newark, NJ. There will be three focus groups in each city for a total of nine. The contractor will use screening and recruitment materials developed by CDC and follow CDC's guidance.
2. Recruitment will occur as follows: The contractor will post an advertisement in the local newspaper one week prior to the focus group study taking place. Participants can register to participate via website. Targeted social media will be used in each of the cities to recruit participants. When clicking on the tweet, participant will be directed to a web page to find more information about the focus group and to sign up to be contacted for the phone screening survey. Name, phone number and email address will be collected for each individual to schedule videoconferences, as well as mail incentives. If the individual is eligible to participate, they will receive a confirmation email about their eligibility and the date and time of the focus group. An email will be sent out to each participant 3 days prior to the focus group and on the day of to remind participants of the event and provide the internet address (i.e. videoconference link) and consent form for the focus group.
3. As participants arrive to the virtual meeting room, the trained contractor will direct them to sign the consent form that was sent to them via email and provide additional instructions for participating. The contractor will explain to participants that the focus group is expected to take 90 minutes and that they will receive a gift card as a token of appreciation upon completion.
4. The contractor shall conduct the virtual focus groups to examine determinants of health behaviors during water emergencies among U.S. adults who have experienced a diverse range of water emergencies, as well as test existing health materials (provided by CDC) used during these emergencies.
5. The contractor will use a trained moderator to conduct the focus groups who uses best practices for focus group moderation such as using probes, encouraging participation, minimizing moderator bias, and managing group dynamics. The moderator will use a semi-

structured focus group guide developed by CDC to guide the focus group discussion. Focus groups will be conducted in a safe, virtual environment conducive to discussion that is comfortable, quiet, nonthreatening, and free of distractions.

6. The independent contractor will obtain informed consent from focus group participants based on protocols, and using materials, developed by CDC. The informed consent document will be emailed prior to the focus group meeting, and respondents will sign and return the informed consent document electronically.
7. The independent contractor will audio record the virtual focus groups to ensure that all participants are heard.
8. The independent contractor will use a non-participatory observer to take field notes during the virtual focus group. The observer should be in the videoconference and may take notes as an observed with their video camera on, but audio muted. Field notes should include key quotes or expressions, facial or body language, and attribution of comments when multiple people are talking at once. The independent contractor will share with CDC the field notes from the focus groups using a password protected, encrypted, FTP site supplied by CDC.
9. The independent contractor will transcribe the focus group discussion audio recordings verbatim, which captures both the words spoken by the participants and the facilitator. The independent contractor will identify the speaker with appropriate titles (P1, P2, I, etc.), label transcripts with interviewer identifier, speaker identifier, participant's emotions in brackets, and features of natural speech and expression (um, oh). All transcripts should be anonymized to eliminate identifiers (e.g., real names of participants, institutions/locations that may identify an individual). The independent contractor will share with CDC the transcripts from the focus groups using a password protected, encrypted, FTP site supplied by CDC.
10. The independent contractor will analyze the focus group data to the degree needed to write a general summary of the focus group findings and to inform the development of health messages.
11. The independent contractor shall ensure that they comply with all human subjects, OMB, Privacy Act, and other privacy guidelines while conducting the focus groups.

Human Subjects:

This data collection will not yield data that can be generalized. The purpose of this activity is to assess or improve a public health program or service. Intended benefits of the project are primarily or exclusively for the respondents or their community. Knowledge that is generated does not extend beyond the scope of the activity. No information will be collected that are of personal or sensitive nature.

Collection and management of personal identifiers:

The agency stakeholders (e.g., employees of state and local public health agencies) will be speaking from their official roles and will be solely asked their business contact information.

Items of information to be collected include a name, email address, phone number, and voice data. The name and email address are necessary for registering participant into key informant interview. The recording of participant voices is necessary for transcription of the key informant interview. All identifying information related to participants will be housed on a CDC secure data base and deleted following transcription of the interviews.

We will keep the information provided by participants private to the extent allowed by law. No statements made by participants will be linked to them by name. Only members of the research staff will be allowed to look at records. Names and other personal identifiers will not be used in the final report. When we present this project or publish its results, participant names or other facts that point to them will not show or be used.

A 0.1375B nondisclosure agreement is not applicable to this project.

Standard for Encryption. The Contractor (and/or any subcontractor) shall:

1. Comply with the *HHS Standard for Encryption of Computing Devices and Information* to prevent unauthorized access to government information.
2. Encrypt all sensitive federal data and information (i.e., PII, protected health information [PHI], proprietary information, etc.) in transit (i.e., email, network connections, etc.) and at rest (i.e., servers, storage devices, mobile devices, backup media, etc.) with FIPS 140-2 validated encryption solution.
3. Secure all devices (i.e.: desktops, laptops, mobile devices, etc.) that store and process government information and ensure devices meet HHS and CDC-specific encryption standard requirements. Maintain a complete and current inventory of all laptop computers, desktop computers, and other mobile devices and portable media that store or process sensitive government information (including PII).
4. Verify that the encryption solutions in use have been validated under the Cryptographic Module Validation Program to confirm compliance with FIPS 140-2. If applicable, the Contractor shall provide a written copy of the validation documentation to the COR within 30 days of award or use of that solution.
5. Use the Key Management system on the HHS personal identification verification (PIV) card or establish and use a key recovery mechanism to ensure the ability for authorized personnel to encrypt/decrypt information and recover encryption keys. Encryption keys shall be provided to the COR upon request and at the conclusion of the contract.

Plans for protection of privacy and data security:

Screening forms, digital audio-recordings of virtual focus group discussions, transcriptions, and any other electronic documents containing sensitive data will be stored only on password-protected computers located in locked offices. Personally identifiable information will not be kept longer than the duration of the data collection period. We are collecting participants' name and address to mail compensation (gift cards) in recognition of their time. Personal information, including name, phone number and address, will be deleted once the gift cards are mailed. Audio recording of this focus group will only be used to ensure participant responses are recorded correctly. Audio recordings will be deleted upon completion of this data collection activity. Physical documents, such as screeners, and informed consent documents will be stored securely in locked cabinets or offices. All ethical protocols developed by CDC for the safe destruction of materials such as screening forms, digital audio-recordings, transcriptions, and any other electronic or physical document will be followed. The independent contractor shall ensure that they

comply with all human subjects, OMB, Privacy Act, and other privacy guidelines for the duration of this project.

Projected time frame for the project:

3/12/2020 - 6/30/2021

Project Time Schedule

- ✓ Design and develop data collection tool..... (3/12/2020)
- ✓ Prepare OMB package..... (6/15/2020)
- ✓ Submit OMB package..... (8/21/2020)
- OMB approval..... (2-4 weeks)
- Conduct interviews at chosen sites..... (24-28 weeks)
- Collect, enter, quality control, and analyze data..... (4-6 weeks)
- Prepare report..... (2 weeks)
- Disseminate community results/reports..... (1 week)

Plans for publication and dissemination of the project findings:

With input and oversight from CDC, the independent contractor will use results to develop a creative brief. This brief will include background, objectives, target audience, key message, support, tone, deliverables, consideration of mandatory requirements for CDC clearance processes (e.g., 508 compliance), and timeline. The independent contractor will send the creative brief to CDC for review and will incorporate all CDC feedback and comments before finalizing and developing creative contents.

With input and oversight from a CDC health communication specialist, the independent contractor will develop three creative concepts with appropriate photos, graphics, infographics, messages, colors, fonts, and content based on the findings of the focus groups. The independent contractor will send the three creative concepts to CDC for review and will incorporate all CDC feedback and comments before finalizing and developing creative concepts.

The independent contractor shall ensure that they comply with all OMB, IRB, and other Privacy Act and Guidelines while developing the creative brief and concepts.

The results of the focus group discussions will provide suggestions to standardize and ensure consistent delivery of risk communications messages, improve implementation of public health recommendations for mitigating risks, and help

communities address environmental issues in the most impactful manner. In addition, the data will be used to show site differences in delivery of activities, respondent knowledge, perceptions, and community interactions.

With input and oversight from a CDC health communications specialist, the independent contractor will develop a final creative concept, taking into account the feedback during the focus group discussions on messages, tone, pictures, font, colors, and organization of content. Upon approval from CDC, the final creative concept will be used to develop health promotion materials. These materials might include, but are not limited to: Print materials (e.g., brochure, reminder/tip sheet, fact sheets), videos and audio podcasts that can be posted on CDC and partner websites, public services announcements, digital media tailored content (e.g., apps, shareable images, quizzes or engagement resources), posters, banners, social media infographics.

The contractor shall provide all pre- and post-production materials as requested by CDC. This includes but is not limited to providing all content in native formats that can be edited; native art files and design concepts, rough cuts of any audio and videotapes or film; and all other digital files for in-house editing, production, reproduction, and archiving.

Please also attach any relevant documents pertaining to this project, such as protocols, consent forms, surveys or other data collection instruments, technical assist letters, nondisclosure agreements, or IRB approval.

List of Attachments:

AttA_Rcrtmnt_Protocol_Screening_Instrmnt

AttB_Rcrtmnt_Flyer

AttC_Participant_Info

AttD_FocusGroup_Guide

AttE_TstMsg1_Making_Water_Safe_Webpage

AttF_TstMsg2_Cleaning_Sntzng_Bleach_Webpage

AttG_TstMsg3_Boil_Water_Facts

AttH_PRAWorksheet_2.1

AttI_PRAWorksheet_2.2

AttJ_STARS_Determination

