

Attachment 1 Background Information

Purpose

This project is part of a larger multi-year study investigating persuasive communication for infectious disease outbreaks. The study, entitled “Persuasive Communication about Risks from and Responses to Zika,” uses communication during the Zika outbreak as an example of the communication practices under investigation. Previous phases of the study have included interviews with public health officials and focus groups with community leaders and women of childbearing age (GenIC - *Persuasive Communication about Risks from and Responses to Zika – State, Local and Tribal Government Interviews* and GenIC - *Persuasive Communication about Risks and Responses to Zika – Focus Groups*, both under CDC Formative Research and Tool Development-OMB Control No. 0920-1154) as well as a news media content analysis, and an analysis of CDC-INFO inquiries. Findings from these previous phases identified a number of testable hypotheses related to effective communication practices. For instance, we found that the news media emphasized messages about health effects while people inquired with CDC-INFO about protective actions. We also found that public health officials targeted messages to pregnant women, but that women in focus groups felt that this put the burden of taking protective actions on them alone. This project will test how messages that vary in regard to related content influence behavioral intent, perceptions of efficacy, and information sufficiency.

Methods

We plan a one-time data collection in the form of an online message testing survey distributed to a sample from a nationally representative panel administered by the survey research firm GfK Knowledge Networks. It will include 6 groups: 5 experimental groups that are exposed to different 1 paragraph vignettes and 1 no-exposure control group. Participants will be asked to respond to a 5-minute message testing questionnaire containing 10 questions. Some respondents will not be asked the final question, which will only be asked of those answering “disagree” or “strongly disagree” on the previous question. The control group will answer the 10 questions without reading a vignette. Before reading a vignette, experimental groups will answer 2 questions. This is so answers about currently level of knowledge will not be biased by reading the vignette. After reading the vignette, groups will answer 8 questions.

The sample will be comprised of 2400 total respondents (approximately 400 per experimental group). This sample size was determined based on a power analysis using existing surveys of perceived efficacy in protection against Zika. The sample size calculation assumes that 60% of the control group would consider themselves able to protect against Zika transmission. It is realistic to believe that a 10% difference may result from experimental manipulations. At a type 1 error rate of .05, the minimum sample size needed is 353 per group. We chose a sample size of 400 per group to provide a margin of error in ensuring adequate power.

Protection of the Privacy and Confidentiality of Information Provided by Respondents

There is no direct contact between Johns Hopkins or CDC investigators and participants recruited for this project; recruitment and administration will be done by GfK Knowledge Networks. The study investigators will not recruit participants and will use an established online survey panel through GfK.

The collection should have no impact on privacy. Personally identifiable information will not be recorded in the data Johns Hopkins receives from GfK. Although Johns Hopkins will receive demographic information (e.g., age, education level, gender, etc.), only de-identified information will be shared with Johns Hopkins.

Information will be stored securely at Johns Hopkins on secure, password-protected servers. Johns Hopkins will securely share with CDC investigators the de-identified data received from GfK. Data will be treated in a secure manner and will not be disclosed, unless otherwise compelled by law. Electronic survey data collected by GfK Knowledge Networks will be stored securely at their facilities in Palo Alto, CA.

A system of records is not being created for this study.

GfK has obtained consent from all KnowledgePanel® members regarding their willingness to participate in panel online surveys and experiments. Separate consent for individual experiments, like the one proposed in this project, is not obtained. Access to the survey is restricted by password. Cookies are not used by the survey website. GfK has established specific privacy policies provided to panel participants when they are recruited and all employees sign a confidentiality agreement.

Justification for Sensitive Questions

The question related to pregnancy may be of a sensitive nature. However, collecting this information is critical for investigators to manage potential threats to validity that may result from pre-existing opinions on taking protective actions against Zika infection. Persons who were pregnant and those planning on becoming pregnant, as well as their partners, were targets of public health messaging campaigns about Zika over the past 3 years. As a result, they may have different responses and characteristics compared with other members of the study population. It is important that study investigators be able to separate these populations if needed. None of the information shared in the survey will be attributable to individual respondents.

Efforts to Identify Duplication and Use of Similar Information

We have identified several CDC message testing information collections that were completed during the Zika response. They are the following:

1. Formative evaluation of Zika prevention strategies and messages among pregnant women and community leaders in Puerto Rico
2. Message testing among important public audiences in Puerto Rico
3. Message testing among public audiences in US Virgin Islands for Zika prevention
4. Message testing among partners of pregnant women in Puerto Rico
5. Intercept interviews with travelers in Puerto Rico to test Zika prevention messages
6. Domestic Readiness Initiative on Zika Virus Disease
7. Domestic Readiness Initiative on Zika Virus Disease: Year 2 Message & Materials Testing
8. Domestic Readiness Initiative on Zika Virus Disease - Year 2 Core Campaign Materials

However, our proposed information collection is distinctly different from those collections.

Collection 1 was conducted at the beginning of the Zika response and was a formative evaluation of Zika prevention strategies and messages among pregnant women and community leaders in Puerto Rico.

Findings showed that pregnant women want and need the help of the community to protect their babies. Materials were then developed for men (to address sexual transmission) and the community to mobilize them in efforts to reduce the mosquito population. These messages were tested for clarity and for unintended effects (Collection 2), but again did not test for outcomes or test with the continental US audience. In contrast, the proposed information collection will separate out messages with actions aimed at pregnant women and women of childbearing age, community members at large, and male partners of pregnant women and then will ask them if this targeted messaging influences behavioral intent, perceptions of efficacy (self- and community-) and information sufficiency.

Collections 2-5 occurred in Puerto Rico and US Virgin Islands where Zika transmission was high during the outbreak. Collection 7 occurred in Miami and New Orleans where there was local transmission or a high risk for local transmission. Those collections tested very specific materials (social media messages, flyers, PSAs, billboards, health campaigns) directed towards pregnant women, partners, travelers, and community members that were intended for use with those audiences in those locations. Those messages were tested to ensure messages were clear and compelling, culturally competent, and did not have any unintended effects or misinterpretation. In contrast with the currently proposed information collection, information was not collected during the response to see if changes in messaging led to increases in positive outcomes of behavioral intent, self-efficacy, and information sufficiency.

Collections 6 and 8 tested campaign materials and slogans for a domestic media campaign. Specific audiences included pregnant women, non-pregnant women, men in a relationship with a woman, and healthcare providers. Targeted locations included New Orleans, Miami, and San Juan, Puerto Rico. In those collections, information was collected to explore which campaign advisements were more motivating. Unlike the currently proposed information collection, in those collections information was not collected to assess the impact of different messages on behavioral intent, self-efficacy, and information sufficiency. By running an experimental design that separates out the variables of messaging for specific audiences and messages that contain consequences compared to those that contain protective actions, we can better isolate which of these factors influence key outcomes of behavioral intent, self-efficacy, and information sufficiency.

We use Zika as the most relevant recent case example because it gives people a useful reference point of a disease they have heard of and had significant US media coverage in 2016. This also allows us to directly test findings from previous phases of our project that began in 2017. This message testing information will help improve the effectiveness of public health communication efforts in future public health emergencies by providing information on message attributes most important for public acceptance.