Data Collection for Evaluation of Education, Communication, and Training Activities for the Division of Global Migration and Quarantine (0920-0932)

Request for Extension of a "Generic Clearance" Data Collection

Statement **B**

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PART B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Since receiving approval for this generic, activities conducted have confirmed that there is no reason to change the methods described in this Generic Information Collection.

B.1. Respondent Universe and Sampling Methods

Evaluation research participants will include refugees, immigrants, migrants, expatriates, international travelers, travel industry partners, emergency responders, healthcare providers, non-profit agencies, importers, school officials and staff, business owners and employers, customs brokers and forwarders, childcare providers, state and local health department staff, and the general public. Both purposive and probabilistic samples will be employed for these information collections.

In some cases, purposive samples of respondents will be selected to maximize diversity across demographic subgroups (e.g., age, education level, gender). In other instances, samples will be drawn to include specific characteristics dictated by the nature of hard-to-reach target groups (e.g., immigrants and refugees). For example, when assessing the information needs of immigrant populations, it may be important to select the immigrants based on their country of origin, language, or dialect.

Probabilistic procedures will be used when there is a desire to constitute a representative sample of a population. As an example, a systematic random sample of the U.S. public might be contacted to assess their perceptions about keeping their children home from school during an influenza pandemic.

B.2. Procedures for the Collection of Information

Due to the diverse nature of the Division of Global Migration and Quarantine's (DGMQ) target audiences and wide variety of public health issues, DGMQ plans to use both qualitative and quantitative information collection methods. Qualitative methods are often used for more exploratory research purposes. These procedures generally rely upon small samples and collect information in open-ended formats. In these studies, samples will be of sufficient size to usefully inform decisions about the development, refinement, implementation and effectiveness of communication, education, and training activities. In contrast, quantitative will employ larger randomly-selected samples and collect information using closed-ended response formats. The number of respondents anticipated for each type of information collection method is outline below. DGMQ will attempt obtain at least an 80% response rate for each information collection.

Four distinct data collection procedures will be used under this package. Each proposed evaluation project will submit the analytical techniques to be employed, tools used for data collection, including screenshots of web-based surveys, in the statement provided to OMB.

Focus Groups

Participants will be identified and recruited in accordance with the specific research purpose of the evaluation project. For example, in some instances individuals will be recruited from a variety of geographic regions (e.g., Northeast, South, Midwest, and West Coast) and in both large and small cities in order to maximize the diversity of the sample. As many as 1,500 respondents are anticipated to take part in focus groups discussions each year.

Participants will be recruited using proprietary databases of professional conferences, professional organizations, commercial focus group companies, and other sources. Eligibility criteria will be established for all focus group discussion participants, and potential participants will be screened using a telephone interview or self-administered screening form. Each proposed activity will submit an application for IRB review and approval, which will outline their procedure for participant consent.

Focus group discussions will occur under the direction of a trained moderator. The verbal discussion that ensues will be partly directed by the moderator and partly by the comments of other participants. These discussions may occur in-person, through web-interface or by telephone.

Interviews

Participants will be identified and recruited in accordance with the specific research purpose of the evaluation project. For example, in some instances individuals will be recruited based on their profession (such as travel medicine doctors or state health department employees). As many as 500 respondents may take part in an interview each year.

Similar to the focus groups, participants will be recruited using proprietary databases of professional organizations, commercial focus group companies, and other sources. Eligibility criteria will be established for all interview participants, and potential participants will be screened using a telephone interview or self-administered screening form. Each proposed evaluation project will submit an application for IRB review and approval, which will outline their procedure for participant consent.

Interviews will be conducted by trained interviewers, in-person, or over the telephone. The conversation that ensues will be directed by the interviewer, but the content and focus will depend, in part, on the responses of the interviewee.

Sample surveys

Information collections may employ large-sample self-administered mail surveys, telephone surveys, in-person-interviews, or electronic surveys. As many as 7,500 respondents may take part in a survey each year. Sampling frames will be created by a variety of methods that will include solicitation through the use of conference participant lists and commercial survey panels, or other means as appropriate for the target population. Potential participants will be randomly selected from the sampling frame and screened for appropriate demographic or other characteristics as indicated by the research purpose. Each proposed evaluation project will submit an application for IRB review and approval, which will outline their procedure for participant consent.

Pre/post-Tests

An evaluation of a respondent's knowledge or opinions regarding communications, training, or education materials, both prior to and after exposure to these materials, can be helpful in addressing deficiencies in CDC's approach. CDC intends to conduct pre/post-tests to assist in improving health communication, training, and education activities.

Estimation procedures

All data analysis will be conducted under the advice of a statistician/data analyst as needed, and will involve estimation of descriptive statistics and regression analysis. Linking collected data to existing data sources by non-personal identifiers (e.g., state, county, city name) may be used to increase the overall utility of a proposed data collection. When required, the planned sample sizes will also permit sub-analyses that may include analyzing knowledge, attitude, and belief disparities among different populations. Corrections will be made for over/under sampling, non-response, non-standard distributions, etc.

Degree of accuracy needed for the purpose described in the justification

DGMQ conducts evaluation research in order to plan, implement, and demonstrate outcomes and impact of health communication, education, and training activities. The use of scientifically sound sampling methods will ensure that DGMQ collects quality data to inform the division of the effectiveness of their programs and services.

Unusual problems requiring specialized sampling procedures

Unusual problems requiring specialized sampling are expected to be rare and will be disclosed in individual requests under this generic clearance.

Any use of periodic (less frequent than annual) data collection cycles to reduce burden

Use of periodic (less frequent than annual) data collection to reduce burden is likely for most data collection as part of this generic clearance. There may be a need for recurrent data collection, dependent upon purpose of data collection, which will be disclosed in individual requests under this generic clearance. Use of periodic data collection will be encouraged and will be described in each proposed evaluation project. Justification and description for more frequent data collection will be provided if it applies to the proposed evaluation project.

Tools used for analysis of information collected

Depending on the type of data collection and the number of participants, a number of tools may be used for data analysis. For smaller numbers of respondents, the analysis may be done by hand (reviewing data for themes, using Excel to tally totals, etc.). If it's a significant number, for qualitative data we may use a qualitative data analysis software such as NVivo, AtlasTi, MaxQDA. If it's a survey with more quantitative data, the analysis may be done using Epi-Info, SPSS, SAS, R, or other appropriate programs.

B.3. Methods to Maximize Response Rates and Deal with Non-response

The following are the examples of the procedures that have proven effective in previous studies and will be used when possible to obtain at least an 80% response rate:

- Informing respondents of what the evaluation project is asking, why it is being asked, who will see the results, and how the results will be used, as well as discussing how respondents will benefit from the results and how the findings will be put into action.
- Using bilingual and bicultural interviewers and culturally and linguistically appropriate data collection instruments.
- A token of appreciation for a respondent's time and interest may be given to research participants.
- Addressing data security and anonymity with respondents.
- Minimizing the time needed for participation in the evaluation project.
- Informing respondents how much time the evaluation project will take so that they know what to expect.
- Utilizing deadlines, reminders, and follow-ups to remind respondents and encourage participation.
- Providing easy access to research instruments, regardless of method being utilized. When appropriate for the audience being studied, research instruments will be designed to be easily accessed by electronic means, from a link in an e-mail or on a website.
- Potential respondents will be informed about the importance of these evaluation projects and encouraged to participate through a variety of methods, including newsletters from professional associations or community organizations and letters of support from key individuals.
- When appropriate, a dedicated toll-free number and e-mail account will be established at CDC or a contractor's office to allow potential respondents to confirm a research activity's legitimacy, ask questions, and voice concerns.
- For telephone interviews, outgoing calls that result in no answer, a busy signal, or an answering machine will be automatically rescheduled for subsequent attempts.
- A phone or in-person interview will be arranged in case of non-response to initial webbased distribution of questionnaires.
- Over-sampling if necessary to address potential for non-response.
- If, during analysis of the collected data, there are systematic issues with non-response among certain subsets of the respondent universe, CDC will describe any trends in non-response and determine if changes in methodology are warranted in future information collections.

B.4. Test of Procedures or Methods to be Undertaken

1. Focus Groups and Interviews

Before each information collection is implemented, instruments and method of data collection will be pilot tested. Lessons from the pilot test will be identified, and changes will be incorporated into the instrument and method, as necessary. All pre-tests will involve no more than nine individuals unless OMB clearance is sought for more than nine participants.

2. Surveys

The tests proposed for survey instruments include several procedures as outlined by Michael W. Eysenck (1) in *A Handbook of Cognitive Psychology*. Procedures that may be used include:

- Developing protocols, scenarios, and question probes--follow-up questions used to gain more information about respondents' strategies for answering questions.
- Concurrent think-aloud interview--respondents think aloud while answering questions and responses are probed extensively.
- Retrospective think-aloud interview--respondents answer all questions first, then are asked how they arrived at their answers.
- Sorting and ranking tasks--respondents sort lists or similar items into groups that go together and rank the items according to a specified scale.
- Confidence ratings--respondents relate the degree of confidence they have in the accuracy of their answers.
- Memory cues--interviewer reads terms which are intended as aids to recall.
- Response latency--measurement of the elapsed time between the presentation of the question and the respondent's answer.
- Paraphrasing--respondents repeat the questions in their own words.

B.5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

The following individuals, including contractors, who may be chosen to pre-test and conduct information collections, will be available to provide advice about the design of statistical and sampling procedures undertaken as part of these data collection activities:

- Clive Brown, MBBS, Associate Director for Science, Division of Global Migration and Quarantine
- Nicole Cohen, MD, Associate Chief for Science, Quarantine and Border Health Services Branch, Division of Global Migration and Quarantine
- Christine Prue, PhD, Health Communication Specialist, Office of the Director, National Center for Emerging and Zoonotic Infectious Diseases

- Margaret Coleman, PhD, Economist, Office of the Director, Division of Global Migration and Quarantine
- Jianrong Shi, Statistician, Office of the Director, Division of Global Migration and Quarantine

DGMQ will determine if additional consultation is required and will report any consultants, as well as any individuals collecting and/or analyzing the data in the individual packages.

REFERENCES

1. Eysenck MW. A handbook of cognitive psychology. London: Lawrence Erlbaum Associates, Ltd; 1984.