

Racial and Ethnic Approaches to Community Health across the U.S. (REACH U.S.) Evaluation

Supporting Statement Part B

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B. Collections of Information Employing Statistical Methods

1. Respondent Universe and Sampling Methods

Each REACH U.S. grantee will define a geographic region for intervention activities. Each of these geographic regions contains a population of at least 50,000 individuals. Each year 900 residents aged 18 and older per community will be interviewed. Given the total universe of respondents and the number of persons surveyed it is very unlikely that the same person would be surveyed more than once.

As in the REACH 2010 data collection, the main sampling method is dual-frame design, where a portion of the sample will be selected by random digit dialing and the other will be list selected.

Random-digit-dialing. The contactor will purchase randomly-selected telephone numbers from a vendor and select the set of exchanges that represent the coverage level and geographic incidence that are most appropriate for the study.

List numbers. The contactor will purchase a telephone frame consisting of all white pages-listed numbers that fall within the targeted geography. A number that is included in both random digit dialing and listed samples will be removed from one of the frames. In both sampling frames the sample is then selected from 100-telephone-number-banks with at least one listed residential number. Known business numbers will be excluded from the frame before sampling. The contactor will assign the sampled telephone numbers to replicates of size 100. Each replicate is a random subsample of the original sample of numbers.

In some communities, only list design may be used. For example, the sampling frame may be a targeted white pages list of telephone numbers that were listed under Vietnamese surnames. In some communities, part of the sample would be from the white pages list of Hispanic surnames.

The contractor will initially call the number and verify that the number is a residence. The contractor will verify that the household resides within the geographic region and that household members match the race/ethnicity groups targeted by the specific REACH US program. The contractor will then ascertain the number of men and women over the age of 18 living within the household. In the past years for the REACH 2010 data collection, the median screening response rate was 69% for households that were reached. Once all the adults living in the household have been enumerated, the computer randomly selects adults for the survey. The median response rate of completed household member interviews was 61% for eligible household members in the past. The response rates were comparable to those in another current national telephone survey (e.g., BRFSS).

2. Procedures for the Collection of Information

As in the past years for REACH 2010, we will select a most qualified contractor to conduct the survey through open competition. This contractor needs to have experience in successfully conducting a similar survey. The advantage of using one contractor to collect data in multiple communities is to assure the standardization of methodology across communities and across years.

The REACH US intervention project includes many new communities that were not previously included in the REACH 2010 project. CDC and the data collection contractor will conduct site visits to each surveyed community to find out the exact geographic boundary of the intervention activities. This ensures that the evaluation (the survey) targets the residents in the corresponding geographic area. To increase efficiency, in some communities we will use stratification in the sampling design, e.g., stratified by the density of the target minority population or by geographic location in communities with noncontiguous targeted areas.

Within each household, a random sample of adults will be selected. However, every woman aged 40-65 years will be selected for certain in addition to the random sample in the communities focusing on breast and cervical cancer to ensure an adequate sample of women for the questions pertaining to breast and cervical cancer screening.

A total of 900 persons will be interviewed per year within each community. The cumulative sample size will be 2,700 persons each community after 3 years and 4,500 after 5 years. Six communities will focus on breast and cervical cancer, and more than 10 communities will focus on cardiovascular disease and diabetes, respectively. **Attachment 4** provides sample size and power calculations to detect statistically significant intervention effects. Data from previous years show that the intervention effect was between 0.1 through 0.4. Hence, with a total of 6 communities focusing on breast and cervical cancer, a cluster correlation of 0.01 and an intervention effect of 0.2, a survey of 900 persons per community would provide close to 84% power to detect statistically significant results in the third year. The power is above 95% of health priority areas of cardiovascular disease and diabetes. In the fifth year, the powers will be even larger.

Based on prior experience with the REACH 2010 intervention, we proposed to use the software SUDAAN to perform data analysis to account for the complex sampling design, clustering, and probability of selection. Analyses will be performed by health priority area or by race/ethnicity. When a community is intervening in a specific health priority area, the remainder communities are considered control communities. In addition, state-based data from the BRFSS will be used as comparison for the REACH U.S. intervention communities, since the questions used in both studies are the same.

3. Methods to Maximize Response Rates and Deal with Nonresponse

To increase the response rate, advance letters describing the survey are sent to sampled households for which a valid street address could be obtained (**Attachment 5**. Draft Advance Letter). The letter will be in English as well as in Spanish, Vietnamese, or Khmer depending on the surveyed community and targeted minority population. The survey instruments will also be available in English, Hispanic, Vietnamese, and Khmer. Trained and certified interviewers who

speak the language of the respondent will conduct the personal interviews. Multiple attempts will be made over approximately a one-month period to contact the sampled household. These attempts will be made at different times of the day and on different days of the week, including weekdays and weekend days. If after the first seven attempts, the telephone number meets the criteria for “promising” (i.e., with evidence that the number reached a household), the number is kept active in the system and called up to six additional times, for a total of 13 calls.

Once a selected respondent has been located, the purpose of the survey is explained to the respondent. It is explained that participation in the survey is voluntary, that respondents may choose not to answer any questions, without penalty, and that there are no risks associated with participating in the survey. If the respondent has any questions about the survey, the respondent is provided a toll-free number to obtain additional information. After all this information has been explained to the respondent, the telephone interview commences. If for some reason the interview can not be completed at this time, a future time for a follow-up interview is made.

If the respondent is reluctant to participate in the study, the interviewer will discuss the reasons for the respondent’s reluctance in an effort to encourage the person to participate. The procedures for refusal conversion are as follows: If an interviewer encounters a refusal, the interviewing supervisor and Project Manager will determine whether to re-contact the respondent. Respondents who are extremely hostile or verbally abusive will not be re-contacted. All others will be considered for conversion. A refusal conversion attempt will be made on these refusals by a more experienced interviewer who is a refusal conversion specialist.

CDC will closely monitor the performance of the contractor through weekly conference call and reviewing monthly progress report. The telephone resolution rate, eligibility rate, screening completion rate, and member interview completion rate will be monitored on a weekly basis.

4. Tests of Procedures or Methods to be Undertaken

Procedures for the collection of information in this application have been used in the past 5 years for similar surveys associated with the REACH 2010 evaluation.

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

Individuals consulted on statistical aspects:

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Contractor collecting data for the next 5 years:

Will be determined through open competition.