

# **Emergency Zika Package: Zika Reproductive Health Call-Back Survey (ZRHCS), Puerto Rico, 2017**

New Information Collection Request

## **Supporting Statement B**

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**Contact:**

Sascha Ellington  
Centers for Disease Control and Prevention  
1600 Clifton Road, NE  
Atlanta, Georgia 30333  
Phone: (770) 488-6037  
Email: [SEllington@cdc.gov](mailto:SEllington@cdc.gov)

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## 1. Respondent Universe and Sampling Methods

CDC's Division of Population Health administers the Behavioral Risk Factor Surveillance System (BRFSS) parent survey through the Puerto Rico Department of Health (PRDH) in Puerto Rico, which provides the foundation for the Zika Reproductive Health Call-Back Survey (ZRHCS) administration and data collection. There are no changes being made to the Respondent Universe or Sampling Methods when compared to "Emergency Zika Package: Zika Reproductive Health Survey, Puerto Rico, 2017," approved by the Office of Management and Budget (OMB) in July 2017 (OMB Control No. 0920-1188). The ZRHCS sample will be a subset of Puerto Rico BRFSS (PR-BRFSS) respondents who are women aged 18-49 years and agree to participate in the call back survey. Females younger than 18 will not be interviewed as they are not normally included in the PR-BRFSS sampling. Although males play an obvious role in contraception and pregnancy, all information needed to achieve the objectives of this assessment can be obtained from interviewing women. Including men makes the process more complicated, costly, time-consuming, and increases respondent burden without providing a large amount of additional information. As a follow-up component to the PR-BRFSS, this survey will be conducted by telephone.

The 2016 CAPRZ assessment interviewed women ages 18 to 49 years old, and calls were only made to cell phones with Puerto Rico area codes. At least 90 percent of 18-49 year-old women in Puerto Rico possess a cell phone. Additionally, the PR-BRFSS program found in 2015 that 20% of landline respondents were women 18-49 years of age, while 50% of cell phone respondents were women of 18-49 years of age. Therefore, excluding landlines from the sampling frame was not anticipated to have a significant effect on the representativeness of the sample, and increased the efficiency of the stand-alone survey. Completed surveys were regionally representative with a proportion of women from each region comparable to population estimates from the U.S. Census.

Because the ZRHCS will sample among women completing the core BRFSS survey, it will include both cell phone and landline sampling. PR-BRFSS conducts 70% of its surveys among cell phone participants and 30% among landline participants. Given that cell phone respondents are more likely to be women 18-49 years of age compared to landline respondents, most ZRHCS respondents will be cell phone respondents. Inclusion of landline numbers in the sampling for the ZRHCS is not anticipated to impact the ability to compare data from CAPRZ to ZRHCS since both data sets will be weighted to be representative of the entire population of women 18-49 years of age in Puerto Rico.

The landline sample for the PR-BRFSS is based on a Random Digit Dialing of residential (non-business) telephone numbers, drawn disproportionately from eight strata, according to Epidemiological Regions defined by the PRDH to ensure regional representativeness. The cellphone sample is randomly selected from lists of generated cell phone records based on all cell phone prefixes in Puerto Rico. The BRFSS sampling process is described in the 2015 BRFSS Overview

([https://www.cdc.gov/brfss/annual\\_data/2015/pdf/overview\\_2015.pdf](https://www.cdc.gov/brfss/annual_data/2015/pdf/overview_2015.pdf)), and sampling procedures specific to the PR-BRFSS are described in the Puerto Rico BRFSS Annual Report

(<http://www.estadisticas.pr/iepr/LinkClick.aspx?fileticket=wo1dnQRAaQA%3D&tabid=186>).

For the ZRHCS, eligible participants will be women aged 18-49 years who complete the main PR-BRFSS survey and reside in Puerto Rico. During May-December 2017, in conjunction with recruitment for the BRFSS Asthma Call-back Survey (ACBS), women aged 18-49 years who complete the main PR-BRFSS will be read a recruitment message at the end to ask if they are willing to be re-contacted (**Attachment 3**). The number of interviews that each jurisdiction completes each year for the BRFSS survey varies from jurisdiction to jurisdiction – based on the needs, population size and diversity of each

jurisdiction. PR-BRFSS currently averages 525 completed surveys per month, and approximately 215 of those are among women 18-49 years of age. Based on the CAPRZ survey conducted in 2016 (OMB Control No. 0920-1114), the cooperation rate is expected to be high at 96.5% (percent of eligible respondents that will agree to participate). Using estimates from the Asthma Call Back Survey that PR-BRFSS is also conducting, we anticipate that 70% of women will be reached upon callback and complete the ZRHCS. Therefore the total sample size is estimated by the following equation:

**[215 women 18-49 years old completing main BRFSS survey/month] \* [8 months] \* [96.5% cooperation rate when read recruitment script at the end of main BRFSS survey] \*[70% will be reached and complete ZRHCS upon callback] = 1,162 respondents.**

## **2. Procedures for the Collection of Information**

During May-December 2017, in conjunction with recruitment for the BRFSS Asthma Call-back Survey (ACBS), women aged 18-49 years who complete the main PR-BRFSS will be read a recruitment message at the end to ask if they are willing to be re-contacted (**Attachment 3**). For those who have consented and can be re-contacted, the first three questions they are asked on the call-back survey will serve as screening questions (**Attachment 4**). These questions determine that the number dialed is correct, if the interviewer is speaking to the correct person, and to confirm that she would still like to participate. If the answer to any of these questions is no, the interview will be terminated. Survey data will be weighted according to known distributions of region of residence, age group, and educational level to minimize response bias and produce population-based estimates.

ZRHCS data collection follows all standard PR-BRFSS data collection protocols (such as call attempts, assigning dispositions to cases, etc.). Data collection for ZRHCS must meet guidelines and data quality criteria established for the annual territory-wide survey.

ZRHCS Summary of Steps, Roles, and Responsibilities:

The ZRHCS steps, roles, and responsibilities are described below.

1. CDC designed ZRHCS questionnaire in consultation with the PR-BRFSS program.
2. Information collection will be conducted by telephone interview. CDC provides Computer-Assisted Telephone Interviewing (CATI) programming to the PR-BRFSS program for their use. The PR-BRFSS program may opt to use their own CATI programming software.
3. The PR-BRFSS program is responsible for field operations and determining how their data will be collected within the BRFSS guidelines. The data collector is the same for PR-BRFSS and the ZRHCS. Data collectors must develop and maintain procedures to ensure respondents' privacy, assure and document the quality of the interviewing process, and supervise and monitor the interviewers. Files containing phone numbers must be maintained separately from any files containing responses.
4. The PR-BRFSS program submits de-identified data files to CDC on a monthly or quarterly basis for cleaning and weighting. CDC returns clean, weighted data files to the PR-BRFSS program for its use..

ZRHCS Call/Interview Guidelines:

All standard PR-BRFSS data collection protocols (such as call attempts, assigning dispositions to cases, etc.) are followed among the sample of women responding ‘yes’ to the recruitment script (**Attachment 3**). Data collection for the ZRHCS will begin July 15. The ZRHCS is typically conducted within two weeks of the PR-BRFSS interview completion date, but the period between the two surveys will be extended for women who consented to participate in ZRHCS when completing the main BRFSS during May-June 2017. Additionally, conducting the ZRHCS interview earlier than two weeks is allowed. If the respondent is willing to participate immediately after the PR-BRFSS survey, the ZRHCS interview can be conducted immediately. Only one ZRHCS will be conducted per landline household.

#### Procedures to Promote Data Quality and Comparability:

ZRHCS follows the PR-BRFSS procedures to promote data quality and comparability, with minor revisions. In order to maintain consistency with the CAPRZ survey conducted last year, standard protocols for data collection will be implemented. The following items are included in the ZRHCS survey protocol:

1. The ZRHCS questions must be asked without modification. Interviewers may not offer information to respondents on the meaning of questions, words or phrases beyond the interviewer instructions provided by CDC and/or the PR-BRFSS coordinators.
2. Interviewers should be trained specifically for the ZRHCS.

General calling rules, listed below, are established by the BRFSS, and the PR-BRFSS program is encouraged to adhere to them whenever possible.

1. All cellular telephone numbers must be hand-dialed.
2. The PR-BRFSS program should maximize calling attempts as outlined in BRFSS. The maximum number of attempts (15 for landline telephone and 8 for cellular telephone) may be exceeded if formal appointments are made with potential respondents.
3. Calling attempts should allow for a minimum of 6 rings and up to 10 rings if not answered or diverted to answering devices.

#### Statistical Methods and Estimation Procedures:

The ZRHCS will assess questions related to knowledge of Zika transmission and sources of information, use of prevention behaviors related to mosquito-borne and sexual transmission of Zika, contraceptive use and barriers to accessing contraception, and pregnancy intentions and changes in plans for childbearing in relation to Zika in Puerto Rico. For key questions, prevalence estimates and 95% confidence intervals will be calculated using SAS-callable SUDAAN to analyze complex survey data. Relative standard error (RSE) will be calculated by dividing the standard error by the estimated prevalence and multiplying by 100. Prevalence estimates based on sample sizes with a denominator < 50 respondents or with a RSE >30% will not be reported. Prevalence estimates will be flagged as unstable if the RSE is 20%–30%. The target sample size of 1,162 is sufficient to ensure that for key measures the denominator will be > 50.

### **3. Methods to Maximize Response Rates and Deal with No Response**

The ZRHCS will use a number of techniques to deal with response rates and nonresponse. These include providing the interview in Puerto Rican Spanish, creating a number of call back protocols designed to convert refusals, and alternating times and days of calling attempts. Interviewers get permission from PR-BRFSS respondents to call them back during the PR-BRFSS survey. Experienced interviewers are used for callbacks when respondents provide a soft refusal to take part in the survey. Hard refusals are not called back.

The PR-BRFSS program must maintain training for all interviewers involved in the ZRHCS. Issues related to response rates are discussed in large annual meetings of the data collectors. Data collectors also participate in monthly conference calls organized by the CDC to discuss best practices, and share experiences.

### **4. Tests of Procedures or Methods to be Undertaken**

Subject matter experts from across CDC, including experts in reproductive health, birth defects, Zika, sexually transmitted infections, survey methodology, and health statistics were involved and consulted in the development of this survey. CDC has also consulted with the Puerto Rico Department of Health including the BRFSS unit in developing the survey and worked closely with the PR-BRFSS unit to implement the CAPRZ survey in 2016. Additionally, lessons learned from the 2016 CAPRZ survey have been incorporated into the ZRHCS including the omission of several questions that did not provide useful data.

With the exception of Zika-specific questions included in the assessment, all other questions have been drawn from other large surveys, including the National Survey of Family Growth (NSFG), the Pregnancy Risk Assessment Monitoring System (PRAMS), and [OMB Control No. 0920-1061]. Zika-specific questions included on the survey come from a similar survey implemented in Puerto Rico in 2016 (OMB Control number 0920-1114). These survey questions were cognitively tested and implemented.

BRFSS will carry out all steps necessary following the completion of data collection to prepare the data files for analysis, including final cleaning, weighting, and readying the data for analysis.

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

Following preparation of the assessment's data files, data analysis will be conducted by staff from CDC's National Center for Chronic Disease Prevention and Health Promotion, Divisions of Reproductive Health, and the National Center on Birth Defects and Developmental Disabilities, Division of Congenital and Developmental Disorders. While data collection is taking place, data analysis will be

planned. CDC staff will define a set of tabulations to be performed for the assessment and create table shells for the tabulations. It is expected that the principle tabulations will take about two weeks to perform. Those initial tabulations will provide information to answer all of the key questions the assessment is to address. Any additional analysis that may shed further light on important Zika prevention behaviors among women of reproductive age may be performed following the principle tabulations.

Additionally, in the event that Puerto Rico has an increase in Zika cases, interim data could be analyzed and provided within 10 business days to aid in emergency response planning.

Subject matter experts consulted include:

**Dr. Anjani Chandra**

CDC National Center for Health Statistics, Reproductive Statistics Branch  
301-458-4138  
[ayc3@cdc.gov](mailto:ayc3@cdc.gov)

**Dr. Howard Goldberg**

CDC Division of Reproductive Health  
770-488-5257  
[hig1@cdc.gov](mailto:hig1@cdc.gov)

**Dr. Karen Pazol**

CDC Division of Reproductive Health  
770-488-6305  
[ijb2@cdc.gov](mailto:ijb2@cdc.gov)

**Dr. Carrie Shapiro-Mendoza**

CDC Division of Reproductive Health  
770-488-6263  
[ayn9@cdc.gov](mailto:ayn9@cdc.gov)

**Dr. Carol Pierannunzi**

CDC Division of Population Health  
770-488-4609  
[ivk7@cdc.gov](mailto:ivk7@cdc.gov)

**Dr. Ruby Serrano Rodriguez**

Puerto Rico Department of Public Health  
787 765-2929 ext 4517  
[raserrano@salud.pr.gov](mailto:raserrano@salud.pr.gov)

**Dr. Machell Town**

CDC Division of Population Health  
770-488-4681  
[mpt2@cdc.gov](mailto:mpt2@cdc.gov)

**Ms. Allison Friedman**

CDC National Center for Emerging and Zoonotic Infectious Diseases

404-639-8537

[alf8@cdc.gov](mailto:alf8@cdc.gov)

**Ms. Sascha Ellington**

CDC Division of Reproductive Health

770-488-6037

[frk5@cdc.gov](mailto:frk5@cdc.gov)

**Dr. Lee Warner**

CDC Division of Reproductive Health

770.488.5989

[dlw7@cdc.gov](mailto:dlw7@cdc.gov)

**Attachments**

1. Public Health Service Act (42 USC 241)
2. (a) 60-Day FRN, and (b) Public comment received
3. Recruitment Script
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