

## **Supporting Statement B**

### **Title V Maternal and Child Health (MCH) Block Grant Jurisdictional MCH Survey**

**OMB Control No. 0906-0042**

#### **B. Collection of Information Employing Statistical Methods**

##### **1. Respondent Universe and Sampling Methods**

###### ***Respondent Universe***

The respondent universe is women age 18 or older who live in one of the eight U.S. jurisdictions (Puerto Rico, U.S. Virgin Islands, Guam, Northern Mariana Islands, American Samoa, Palau, Marshall Islands, or Federated States of Micronesia) and who are mothers or guardians of at least one child aged 0-17 years living in the same household.

###### ***Sampling Methods***

**Sampling Households.** We will first create population estimates for each jurisdiction and for sub-locations within the jurisdictions from the most recent census data available in each jurisdiction. Some jurisdictions, such as the U.S. Virgin Islands and Guam, have partial updates to their population estimates that are more recent than 2010. In the event that a more recent set of population estimates is available, such as a more recent enumeration of the jurisdiction's population conducted by an NGO, we will evaluate the quality and completeness of those estimates and use them if they represent an improvement over the available census figures.

The next step will be to select a sample of primary sampling units (PSUs) in each jurisdiction using a probability proportional to population size (PPS) method. The PPS method assigns a greater probability of selection to PSUs that have larger populations. The PSUs will be defined as sub-locations within the jurisdictions and will align with geographic designations commonly used within each jurisdiction (states, counties, districts, census enumeration areas, etc.). Households will be sampled only within the sampled PSUs. The sampling of PSUs and households within sampled PSUs is preferred to simple random sampling of households from the jurisdiction as a whole because it confines the selected households to be within a relatively small number of geographic locations, which reduces the cost of in-person interviewing by reducing travel costs.

Households will be selected within sampled PSUs using a random walk sampling approach. The random walk approach will begin with the data collection team randomly selecting a starting point (a landmark, building, intersection, or other easily identifiable location), within the sampling unit. Interviewers will then begin walking in different directions from the starting point. Interviewers will use a pre-determined skip interval, where a certain number of dwellings will be skipped before screening for the next household to be sampled, to ensure a geographically diverse and random distribution of interviews within the primary sampling unit. For example, if the data collection team is in a village with an estimated 150 households and they need to select 10 households to interview, the basic skip interval

could be set for 15 to assure that interviews are conducted throughout the entire village and are not clustered near the starting point. This basic skip interval will be further adjusted to account for factors such as expected ineligibility rates (households without children, in this case) and refusal rates.

This method ensures that interviewers do not simply select the households that are easiest to access or the most convenient locations in general. Interviewers will be required to select households using the protocol rather than their preferences. Adherence to the selection protocol will be monitored by supervisors on the ground during field implementation and by using the GPS coordinates on the tablet for each survey.

The random walk methodology is standard protocol for conducting household surveys in international locations. This technique is used by USAID, the United Nations, World Bank, Department for International Development (DFID), and a wide variety of other international organizations who conduct field research in locations where fully enumerated household listings are not available.

**Target Sample Size.** NORC will conduct 250 interviews in each jurisdiction. This target sample size is based on a consideration of the tradeoffs between the precision of the resulting estimates and the cost of data collection.

**Within-Household Selection.** The goal of the Jurisdictional MCH survey is to provide data for many National Performance Measures and National Outcome Measures. When there is more than one child in the household, a selection method for choosing one child to be the subject of the topical interview will be established based on the specific interests and needs of each jurisdiction and MCHB. Thus, the method of selection will be based on the priorities of each jurisdiction and MCHB. When selecting a child for the Core and jurisdiction-specific interview, children with special health care needs will be given higher probabilities of selection.

**Sample Plan Overview.** Table 1 presents the number of addresses or housing units that we estimate will need to be sampled to achieve the target number of completed interviews.

To complete an interview, a sampled address or housing unit first must be screened for the presence of children. Based on the results of prior rounds of data collection, we have assumed that the proportion of housing units screened for the presence of children will vary by jurisdiction, ranging from 60 percent in Guam to 99 percent in Marshall Islands.

To be eligible for the survey, the household must contain one or more children under the age of 18. We have set expectations for the proportion of screened households that will contain one or more children in each jurisdiction based on the results of prior rounds of data collection. These expectations range from 19 percent in Puerto Rico to 93 percent in Marshall Islands.

Finally, of households that complete the screener and are eligible, we have assumed that the proportion that will complete the interview will range from 49 percent in U.S. Virgin Islands to 95 percent in Marshall Islands. These assumptions are based on the results from prior rounds of data collection.

With these assumptions, to complete 250 topical interviews in each jurisdiction, we estimate that the total initial sample size of addresses/housing units across all eight jurisdictions will be 7,410 and will range from 288 in Marshall Islands to 3,120 in Puerto Rico. Based on prior rounds of data collection,

we anticipate that overall response rates will range from 41 percent U.S. Virgin Islands to 93 percent in Marshall Islands.

Table 1: Sample Plan

|                                       | Northern<br>Mariana<br>Islands                                       | American<br>Samoa | Palau | Marshall<br>Islands | Federated<br>States of<br>Micronesia | Puerto Rico | U.S. Virgin<br>Islands | Guam  |
|---------------------------------------|----------------------------------------------------------------------|-------------------|-------|---------------------|--------------------------------------|-------------|------------------------|-------|
| <b>Target Population</b>              | Non-institutionalized children in housing units                      |                   |       |                     |                                      |             |                        |       |
| <b>Sampling</b>                       | Interval sampling (random walk method)                               |                   |       |                     |                                      |             |                        |       |
| <b>Within Household<br/>Selection</b> | Select one screened child to be the subject of the topical interview |                   |       |                     |                                      |             |                        |       |
| <b>Target Sample Size</b>             | 250                                                                  | 250               | 250   | 250                 | 250                                  | 250         | 250                    | 250   |
| <b>Estimated Sample</b>               |                                                                      |                   |       |                     |                                      |             |                        |       |
| Addresses/housing<br>units sampled    | 499                                                                  | 448               | 513   | 288                 | 383                                  | 3,120       | 2,607                  | 1141  |
| Assumed screener<br>completion rate   | 94%                                                                  | 95%               | 91%   | 99%                 | 89%                                  | 79%         | 83%                    | 60%   |
| Screened for<br>presence of children  | 470                                                                  | 426               | 467   | 284                 | 339                                  | 2,480       | 2,153                  | 684   |
| Assumed eligibility<br>rate           | 64%                                                                  | 73%               | 62%   | 93%                 | 79%                                  | 19%         | 24%                    | 49%   |
| Child in household                    | 303                                                                  | 312               | 289   | 263                 | 268                                  | 467         | 512                    | 332   |
| Assumed interview<br>completion rate  | 83%                                                                  | 80%               | 87%   | 95%                 | 93%                                  | 54%         | 49%                    | 75%   |
| Completed<br>interview                | 250                                                                  | 250               | 250   | 250                 | 250                                  | 250         | 250                    | 250   |
| Response rate                         | 78.1%                                                                | 76.6%             | 75.4% | 92.6%               | 83.0%                                | 44.4%       | 41.1%                  | 44.1% |

*Table 2: Estimated Number of Households and Households with Children Under Age 18 in the Population by Jurisdiction*

| <b>Jurisdiction</b>      | <b>Total Households</b> | <b>Households with Children</b> | <b>Eligibility Rate</b> | <b>Source</b>                                                             |
|--------------------------|-------------------------|---------------------------------|-------------------------|---------------------------------------------------------------------------|
| Puerto Rico              | 1,376,531               | 508,860                         | 37%                     | U.S. Census Bureau, 2010 Census                                           |
| U.S. Virgin Islands      | 43,214                  | 14,429                          | 33%                     | U.S. Census Bureau, 2010 Census                                           |
| Guam                     | 42,026                  | 22,343                          | 53%                     | U.S. Census Bureau, 2010 Census                                           |
| Northern Mariana Islands | 16,035                  | 8,030                           | 50%                     | U.S. Census Bureau, 2010 Census                                           |
| American Samoa           | 9,688                   | 7,375                           | 76%                     | U.S. Census Bureau, 2010 Census                                           |
| Palau                    | 4,713                   | 1,442                           | 31%                     | 2015 Census of Housing, Family, and Agriculture for the Republic of Palau |
| Marshall Islands         | 7,738                   | Not available                   | Not available           | Republic of the Marshall Islands 2011 Census Report                       |
| Micronesia               | 16,767                  | Not available                   | Not available           | FSM 2010 Census of Population and Housing                                 |

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

All data will be collected from respondents using a pre-programmed tablet. NORC will ensure that all needed supplies, including the tablets, will be available to each interviewer.

Interviewers will use a standardized script to assess household eligibility. The screener asks respondents to verify that they are a woman age 18 or older and mother or caregiver/guardian of at least one child aged 0-17 years, living in the same household. Respondents who meet these eligibility criteria will be asked to review and indicate verbal agreement to an informed consent statement, which is presented both as a printed copy and read out loud to each respondent. Those who agree to answer the survey questions will then be asked questions regarding each child in the household, including their ages, gender, and special-health-care-needs status. This set of questions produces a 'roster' of children in the household.

Once the roster is completed for an eligible household, one child who is 17 years of age or under per household will be selected from the roster to be the subject of the main questionnaire. The interviewer will administer the main questionnaire on tablets using the Survey To Go application, a data collection software created by Dooblo. A topical survey will be administered for each selected child and will cover the following content areas: demographic information; child's health and functional status; health insurance coverage; health care access and utilization; medical home; early childhood; middle childhood and adolescence; family functioning; parental health; and health insurance experience. Following the topical survey, a series of jurisdiction-specific survey questions will be asked.

## **3. Methods to Maximize Participation Rates and Deal with Nonresponse**

Methods to maximize response rates include: advance outreach; hiring and training of local interviewers; incentives for respondents; number of in-person visits; and, the questionnaire design.

**Interviewer hiring and training:** To ensure cultural competency, NORC will make every effort to identify local interviewers familiar with the jurisdiction and fluent in the local languages. Interviewers will be trained in-person when possible; remote training sessions may be required due to COVID-19 related travel restrictions. This training will focus on the sampling and survey protocols, gaining cooperation, documentation contact efforts, and using the tablet-based instrument.

**Incentives:** As a thank you for participating, respondents in all jurisdictions except Palau will be offered a \$10 token of appreciation, as described in Supporting Statement A.

**Minimizing Non-Response:** Each household in which the selected respondent is not available during the initial visit will be re-visited at least three times at different times of the day in order to minimize non-response among selected respondents. Contacting protocols will maximize the chance that we will reach a possible respondent at home, while minimizing excessive contact attempts. Whenever possible, interviewers will re-visit households at times when others in the household believe the selected respondent will be home and available for the interview. All respondent contact attempts and outcomes will be documented. Non-contact and refusal cases will be discussed with the Field Manager in order to identify the best approach for gaining cooperation. To maximize response rates, all interviewers receive refusal aversion/conversion training and job aides with frequently asked questions that anticipate potential questions from respondents; such as how the respondent was selected.

**Questionnaire Design:** In designing the MCH Jurisdictional Survey Instrument, attention was placed on the following design elements to help facilitate cooperation and reduce item nonresponse by respondents:

- Creating a logical, clear questionnaire with concrete question wording, simple grammar, and questions grouped according to subject areas.
- Administering the survey in languages appropriate for the jurisdiction, based on the experience of the experts from CDC, jurisdictional leads, and other organizations. Table 3 presents the languages the survey will be fielded in.

**Table 3: Languages**

| <b>Title V Jurisdictions</b>   | <b>Languages</b>              |
|--------------------------------|-------------------------------|
| Puerto Rico                    | English, Spanish              |
| USVI                           | English, Spanish              |
| Guam                           | English, Chuukese, Tagalog    |
| American Samoa                 | English, Samoan               |
| Federated States of Micronesia | English, Chuukese, Pohnpeian  |
| Marshall Islands               | English, Marshallese          |
| Northern Mariana Islands       | English                       |
| Palau                          | English, Palauan, and Tagalog |

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

Items included in the survey were taken from validated, national surveys including:

- Behavioral Risk Factor Surveillance System (BRFSS)
- National Immunization Surveys (NIS)
- National Survey of Children's Health (NSCH)
- National Survey of Children with Special Health Care Needs (NS-CSHCN)
- Pregnancy Risk Assessment Monitoring System (PRAMS)
- Youth Risk Behavior Surveillance System (YRBSS)

In addition, we conducted a Pretest to evaluate the screener and survey for comprehension, skip patterns, and accurate wording prior to using the instrument for the main data collection. Feedback from this Pretest was incorporated into the final version of the survey questionnaires and was taken into account in planning data collection for the current survey. Experiences from the Pretest are reflected in two main aspects of the data collection plan for the current study. First, we piloted both in-person and telephone data collection in the pretest. We experienced difficulty reaching and recruiting eligible women using telephone mode, and have chosen to complete all data collection in person in the current study. Second, as discussed in Statement A, no incentive was offered during the Pretest and interviewers in all but one jurisdiction noted that multiple potential respondents refused to participate in a survey of this length when they learned there would be no incentive. Due to these refusals, additional time and cost were required to reach the target number of completed interviews. The sole exception is in Palau, where the Pretest confirmed that respondents in that location do not require an incentive to participate in a survey.

The survey was successfully fielded twice in five of the jurisdictions between April 2019 and January 2022; a second round of data collection is planned for Guam in early 2022, and Puerto Rico and the US Virgin Islands are planned for late 2022. Two non-substantive change requests (ICR 201910-0906-004 and 202102-0906-001) were reviewed and approved over this period to enable select survey questions to better align the data collected for National Performance Measures (NPM) 7 and 9 with other federally available data sources; add translations in the Marshall Islands and Federated States of Micronesia; adjust the height and weight data collection method; add COVID-19 related questions; and increase sample size to 250 respondents in each jurisdiction.

#### **5. Statistical Consultants**

Data collection will be conducted by a research organization under subcontract to NORC at the University of Chicago.

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