# Supporting Statement B

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

# OMB Control No. 0906-XXXX

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

**1. <u>Respondent Universe and Sampling Methods</u>**

***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***

**Sample Frame.** We will create population estimates using census data collected within the past eight years 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 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.). In cases where a jurisdiction has census data broken down into distinct enumeration areas, which are typically the most granular population estimates available, these enumeration areas will serve as the PSUs and a specified number of households will be randomly selected from each enumeration area for the survey. For some jurisdictions, population estimates will only be available for a higher level of geographic designation, such as the county or state levels. In these instances, we will define PSUs at the most granular level available (county, state, etc.) and will then randomly select towns, villages, neighborhoods, etc., within the PSU to serve as secondary sampling units (SSUs). In these cases, households will be randomly selected from within the SSUs. This PPS sampling methodology is preferred to simple random sampling because it helps mitigate the risk that sampling units with smaller populations could be overly represented in the final sample, thus ensuring that interviews are geographically distributed in a manner that approximates the distribution of the population within the jurisdiction.

Households will then be selected using a random walk sampling approach within the primary (or

secondary) sampling units which define the sample. 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 200 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.

**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. We have assumed that 89 percent of sampled addresses/housing units will complete the screening questions. This assumption is based on prior experience with in-person data collection in international locations that are similar to the jurisdictions.

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 households that will contain one or more children in each jurisdiction based on published census tables, where available, as shown in Table 2. These expectations range from about 31 percent in Palau to 76 percent in American Samoa.

Finally, we have assumed that 67% percent of households who complete the screener and are eligible will complete the interview. This assumption is based on prior experience with in-person data collection in international locations that are similar to the jurisdictions. With these assumptions, to complete 200 topical interviews in each jurisdiction, we estimate that the total initial sample size of addresses/housing units across all eight jurisdictions will be 6,699 and will range from 444 addresses/housing units sampled in American Samoa to 1,087 addresses/housing units sampled in Palau. Our assumed screener completion, eligibility, and interview completion rates imply a CASRO response rate of 59.4% in each jurisdiction.

*Table 1: Sample Plan*

| | **Northern Mariana Islands** | **American Samoa** | **Palau** | **Marshall Islands** | **Federated States of Micronesia** | **Puerto Rico** | **U.S. Virgin Islands** | **Guam** |
|---|---|---|---|---|---|---|---|---|
| **Target Population** | Non-institutionalized children in housing units | | | | | | | |
| **Sampling Frame** | Interval sampling (random walk method) | | | | | | | |
| **Within Household Selection** | Select one screened child to be the subject of the topical interview | | | | | | | |
| **Target Sample Size** | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| **Estimated Sample** | | | | | | | | |
| Addresses/housing units sampled | 674 | 444 | 1,087 | 963 | 963 | 911 | 1,021 | 636 |
| Assumed screener completion rate | 89% | 89% | 89% | 89% | 89% | 89% | 89% | 89% |
| Screened for presence of children | 600 | 395 | 967 | 857 | 857 | 810 | 903 | 566 |
| Assumed eligibility rate | 50% | 76% | 31% | 35% | 35% | 37% | 33% | 53% |
| Child in household | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Assumed interview completion rate | 67% | 67% | 67% | 67% | 67% | 67% | 67% | 67% |
| Completed interview | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| CASRO response rate | 59% | 59% | 59% | 59% | 59% | 59% | 59% | 59% |

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

| Jurisdiction | Total Households | Households with Children | Eligibility Rate | Source |
|---|---|---|---|---|
| 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. <u>Procedures for Collection of Information Collection</u>**

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. As part of the random walk sampling design, 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 sign or indicated verbal agreement to an informed consent statement. Those whom agree to answer the survey questions will then be ask asked questions regarding the number of children in the household; the ages, gender, and special-health-care-needs status of each child; as well as the respondent's level of comfort with English. This set of questions provides a 'roster' of children in the household.

Once the roster is completed for an eligible household, the interviewer will administer the main questionnaire using the questionnaire programmed in Survey To Go (data collection software created by Dooblo). 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. 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, the jurisdiction-specific survey will be administered, asking questions specific to that jurisdiction.

**3. <u>Methods to Maximize Participation Rates and Deal with Nonresponse</u>**

Methods to maximize response rates include: advance outreach; hiring and training of interviewers; incentives for respondents; number of in-person visits; and, 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. This training will focus on the survey protocol, gaining cooperation, documentation contact efforts, and using the tablet-based instrument.

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

Number of in-person visits: 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. 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.

Questionnaire Design: In designing the Jurisdictional MCH 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 group 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 organization. Table 3 presents the languages the survey will be fielded in.

**Table 3: Languages**

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

Dealing with nonresponse: Interviewers will vary their contact attempts, targeting times and days when respondents are most likely to be at home and available to participate. 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. Up to two refusal conversion attempts will be allowed per case prior to finalizing a case as a "Final Refusal". 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.

**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.

**5. Statistical Consultants**

Data collection will be conducted by Evaluation Technology for Development (Et4d), under subcontract to NORC at the University of Chicago.

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