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**Evaluation of the Birth
Month Breastfeeding
Changes to the WIC
Food Packages**

**Supporting Statement
for Paperwork
Reduction Act
Submission**

**Part B: Statistical
Methods**

**Task Order
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Prepared for
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Part B. Statistical Methods

B.1 Respondent Universe and Sampling Methods

Local Sites

The respondent universe is the 1,885 Local WIC Agencies (LWAs) in the United States. The participating LWAs will be selected as a probability proportional to size sample, where the measure of size is the number of pregnant women served. Based on FNS' priorities for ensuring representativeness with respect to particular site characteristics, the sampling cells are defined as follows:

1. **US Census region:** Northeast, South, Midwest, West. These account respectively for 13, 41, 19, and 27 percent of pregnant WIC participants.
2. **Current rate of women who are breastfeeding but do not receive the enhanced food package (i.e., they are partially breastfeeding):** top, middle, and bottom third of distribution of LWAs in WIC Participant Characteristic data set (2006) with respect to fraction of postpartum WIC participants who are partially breastfeeding and thus receiving the Package V for Pregnant and Post-partum Women (i.e., the non-enhanced food package).
3. **Racial/ethnic composition of LWA:** predominantly (at least 60 percent) non-Hispanic black, predominantly non-Hispanic white, predominantly white, and all other. These account for 6, 25, 30, and 39 percent of LWAs, weighted by number of pregnant WIC participants.

These three site characteristics are deemed of primary importance. Geographic and racial/ethnic diversity are necessary to ensure face validity of the study. Variation in the partial breastfeeding food package rate is essential because it is expected that impacts of the food package changes on the outcomes of interest will vary primarily according to whether a site currently has a high or low proportion of participants choosing an option which under the new Interim Rule will become less attractive.

Sites must be a certain minimum size to support the study. As described below, the study design requires that a total of 800 WIC participants with infants who have ever received breast milk from 0 to 60 days of age be interviewed in the 16 sites in a four-week period prior to the implementation of the Interim Rule 800 WIC participants who ever breastfed their infant in that age range in a four-week period following the implementation. Therefore, in order to assure that there will be a sufficient sample of WIC participants, we require that study sites serve a minimum of 125 infants up to age 2 months during a one-month recruitment period. Note that only those women who ever breastfed their infants will be eligible for inclusion in the interview group. As the US WIC initiation rate is around 60 percent, the criterion of at least 125 infants implies that a site with an average initiation rate would be serving a minimum of 75 ($= 0.60 \times 125$) ever-breastfed infants up to age 2 months, and thus would be able to supply an average of 50 sample members per selected site.¹ Sites with higher breastfeeding

¹ As discussed later in this section, we expect to achieve an 80% response rate among the WIC participants who are asked to be in the study. Our estimates of numbers of eligible mothers are however subject to error, as they are based on data that are more than two years old. We have therefore based our minimum LWA size calculations on a more

initiation rates would provide more sample members, and sites with lower initiation rate would provide fewer. This condition was met in PC 2006 by 36 percent of the LWAs, which served 80 percent of pregnant WIC participants. As the study is intended to be generalizable to LWAs that were eligible for inclusion, the sampling lattice matrix will be constructed based on these sufficiently large sites.

As only 16 sites will be selected, it will not be possible to represent all possible combinations of the three site sampling characteristics, of which there are 48 ($= 4 \times 3 \times 4$). Instead, the sample will proportionately represent every “marginal,” of which there are 11 ($= 4 + 3 + 4$). As an example, the sample will contain sites from the Northeast, sites with high partial breastfeeding food package rates, and sites that serve predominantly non-Hispanic white participants—but not necessarily sites that meet all three of these criteria simultaneously. Using lattice sampling, we will assign all of the eligible LWAs into one of the 48 cells and choose sites randomly by an iterative procedure to ensure that the marginals are appropriate.

This approach has the strength of being a probability sample, and therefore nationally representative of eligible sites. However, while the sample will represent each of the categories, it would not be representative within each of the categories. For example, the selected sites in the Northeast will not be representative of all sites in the Northeast.

After sites are randomly selected from the various cells, their suitability for the study will need to be confirmed. After the FNS regional offices are notified, project staff will call each site to ascertain:

- planned date of implementation of mother and infant food package changes,²
- feasibility of linking program data on mothers and their infants,
- availability of necessary administrative data elements, and
- willingness to participate in the study.

Sites that are found to be inappropriate for inclusion will be replaced by back-up selections from the same sampling stratum.

Given the recognized importance of the study by FNS and by State and local WIC agencies, we expect that 80% of the LWAs that are approached and meet all feasibility criteria will agree to participate in the study. We will be conducting interviews with State and local officials representing these agencies and expect, once participation has been agreed upon, to have a 100% response rate in our interviews with state and local officials from those sites.

WIC Participants

From each site, there will be a WIC participant interview sample and an administrative data sample.

Interview Sample

The universe for the WIC participant sample will be all post-partum women receiving WIC in a four-week period prior to the implementation of the new Interim Rule and in a four-week period after the

conservative 67 percent completion rate.

² The first data collection must occur two months prior to the implementation of the Interim Rule and can only occur after OMB clearance has been obtained.

Rule has been implemented, with infants from 0-60 days who report at certification that they had initiated breastfeeding.³

The sample will comprise 1600 completed interviews across the 16 sites, 800 conducted prior to implementation and 800 conducted after implementation. The “pre” interviews will be conducted in each site two months before implementation. The “post” interviews will be conducted in each site four months after implementation. Each group of interviews will comprise a random sample of WIC participant breastfeeding initiators up to two months postpartum.

Only some women are of interest for the survey outcomes (intensity and duration), namely those who initiated breastfeeding. There is variation among local WIC agencies in the percentage of WIC participants who initiate breastfeeding; therefore sampling an equal number of women from each site, regardless of the initiation rate, would make it difficult to generalize the study’s findings for these two outcomes. For the survey sample to scale up to breastfeeding initiators in WIC, we will sample the number of WIC participants within sites *proportional to the breastfeeding initiation rate*.

The sample will be drawn based on two sources: the preceding month’s administrative data extract (for ongoing WIC participants), obtaining information to estimate the age of infants in the target month (including using due dates); and real-time referrals from the LWA (for newly enrolling and re-enrolling participants). We will reserve survey respondent “slots” for referrals in each site based on the site’s last month intake of newly enrolling and re-enrolling WIC mothers relative to their ongoing caseload. We will, if necessary, increase recruitment from larger sites, if enrollment into the study is at a lower rate than anticipated.

Administrative Data Sample

The universe for the WIC administrative sample will be WIC mothers with infants aged 0 through 5 months for the three months prior to the implementation period and for nine months post-implementation. Given that there is no respondent burden, we will include the universe of women/infant dyads in the 16 local sites.

Statistical Power

The comparison of mother/infant pairs from samples pre- and post-implementation involves issues of statistical power and effective sample sizes. Effective sample sizes are determined by the design effects arising from departures from simple random sampling. This study has three main sampling components: 1) the probability sample of LWAs; 2) the probability sample, drawn from administrative records, of eligible mother/infant pairs in each LWA; and 3) the probability sample of eligible mother/infant pairs from each LWA for the pre-implementation versus post-implementation interviews.

The corresponding proposed sample sizes are: 1) 16 LWAs, 2) a sample drawn from administrative records of *all* eligible mother/infant pairs 0 through 5 months postpartum in each LWA for the time period 3 months prior to implementation and 9 months after implementation (i.e., for 12 months in total), and 3) a sample of 1600 eligible mother/infant pairs up to 60 days postpartum from the 16 LWAs for the pre-implementation versus post-implementation interviews, with a target of 800 completed interviews pre-implementation and 800 interviews post-implementation. Because the

³ To initiate breastfeeding, breast milk must be fed to the infant at least one time. Many women who qualify for the study will have stopped breastfeeding in the first few days postpartum.

interview sample is smaller than the administrative data samples and form the binding constraint, we present our power calculations based on interview sample only.

The sites that will be included in the study will need to be sufficiently large to supply enough mother/infant pairs for pre- and post-implementation interviewing. In both the pre- and post-implementation target months, interviews are to be completed on an average of 50 eligible mothers per site—more mothers in sites with higher breastfeeding initiation rates, and fewer mothers in sites with lower breastfeeding initiation rates. To allow for errors in estimating the size of the eligible population we have assumed that the minimum total estimated number of eligible mothers in each site is $75 \times R$, where R is the ratio of the site's breastfeeding initiation rate to the average initiation rate. Because the breastfeeding initiation rate of WIC participant infants nationwide is about 60 percent, this corresponds to a required minimum of 125 WIC infants under age 6 months in a site ($75/0.60 = 125$).

The probability sample of eligible mother/infant pairs from each LWA will be allocated to yield a total of 800 pre-implementation and 800 post-implementation interviews across the 16 LWAs.

The estimate of the difference in domain proportions must take into account the design effect arising from clustering within LWAs. The design effect for the difference in proportions can be written as:

$$Deff(p_{pre} - p_{post}) = \left[\frac{\text{var}(p_{pre}) + \text{var}(p_{post}) - 2\text{cov}(p_{pre}, p_{post})}{\text{Simple Random Sample var}(p_{pre}) + \text{SRS var}(p_{post})} \right],$$

where $\text{var}(p_{pre}) = \text{SRS var}(p_{pre}) \left[1 + \rho_{pre} (\bar{b}_{pre} - 1) \right]$ and

$\text{var}(p_{post}) = \text{SRS var}(p_{post}) \left[1 + \rho_{pre} (\bar{b}_{pre} - 1) \right]$. In these formulas ρ is the intra-cluster correlation

and \bar{b} is the average cluster size.

The intra-cluster correlation increases the sampling variances of the pre and post proportions compared to simple random samples of the same size. At the same time, the fact the pre and post samples come from the same LWAs allows us to take advantage of the covariances that will arise and reduce the design effect of the difference. Because the covariance is related to the correlation, it is often easier to use the correlation in the calculation of the magnitude of the difference in proportions that can be detected with 80 percent power. Using squared correlations of 0.00 (worst case scenario), 0.20, and 0.40 and a moderately high intra-cluster correlation of 0.01, and operating at the 0.05 significance level with a two-tailed test, the differences in proportions that can be detected from the sample of survey records is shown in Exhibit B-1.1. In a worst case scenario ($r^2=0.00$) the sample design has the power to detect a pre-post difference in outcome measures of as little as 8.5 percentage points.

Exhibit B-1.1

Minimum Detectable Effects (MDE) for the Pre- and Post-Implementation Interview Sample

r^2	P_{pre}	MDE
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0.00	0.50	±0.085
0.20	0.50	±0.056
0.40	0.50	±0.043

Assumes $\rho=.01$ and $\alpha_2=.05$.

The MDE estimates correspond to dichotomous outcomes measured on the survey, assuming a pre-implementation mean of 50 percent. For outcomes with pre-implementation means closer to 0 or 100 percent and for outcomes measured from the administrative data (using the full population in the site rather than a sample) greater statistical power will be achieved.

B.2 Procedures for the Collection of Information

Statistical Methodology for Stratification and Sample Selection

As described in B-1, LWAs will be selected with probability proportional to size using a lattice sampling technique. They will be stratified according to US Census region, current rate of women who are breastfeeding but do not receive the enhanced food package (i.e., they are partially breastfeeding), and the racial/ethnic composition of LWA.

Estimation Procedures

The study’s research questions will be addressed by a variety of analytic techniques:

- Tabulation (e.g., what proportion of women choose each food package in the first month postpartum?)
- Regression-adjusted tabulation (e.g., are the pre- and post-implementation proportions of women choosing each food package in the first month postpartum different, after accounting for women’s characteristics)
- Regression (e.g. what is the relationship between site characteristics and food package choices?)
- Qualitative analysis (e.g., why do women reportedly choose food packages that are inconsistent with their infant feeding behavior, such as partially breastfeeding women requesting the fully breastfeeding food package?)
- Life table analysis (e.g., what is the duration of breastfeeding among women up to two months postpartum, overall and by food package choice, pre- and post-implementation?)

The techniques to be used for each research question are shown in Part A. Exhibit A-1.

Abt Associates Inc. will assign sampling weights to the local WIC agencies in the study sample, based on the selection probabilities. We plan to assess the selected sample based on data from the forthcoming 2008 *Study of WIC Participants* (PC 2008) for both sampled sites and US WIC. Our comparison will be based on participants in the selected sites at the time of the PC data collection.

We will begin by comparing the values of the characteristics we stratified or performed lattice sampling based on:

- Distribution of the sites among US census regions
- Partial breastfeeding rate of postpartum women
- Racial and ethnic composition of sites

We will then make comparisons based on other variables of interest that we did not stratify on:

- Size of the local WIC agency (total number of WIC participants in April)
- Age distribution of postpartum women
- Distribution of trimester of enrollment among pregnant mothers
- Percent of participants with migrant status
- Distribution of family size
- Distribution of the ratio of family income to the poverty level
- Breastfeeding initiation rate for WIC infants and children aged 6-13 months
- Median duration of breastfeeding for WIC infants and children aged 6-13 months among those who initiate but continue for six months or fewer
- Percent of WIC infants and children aged 6-13 months who continue breastfeeding for six months or more

The last two items may not be available for all States. The comparisons will be displayed as shown in Exhibit B-2.2.

Exhibit B-2.2**Representativeness of Selected Sites**

	Selected sites	US WIC
Percent of WIC participants by US census region		
Northeast		
South		
Midwest		
West		
Percent of WIC participants by size of LWA		
Under 1000		
1000-5000		
5000-10,000		
Over 10,000		
Percent of WIC participants by racial/ethnic composition of LWA		
Predominantly non-Hispanic black		
Predominantly non-Hispanic white		
Predominantly Hispanic		
Other		
Age distribution of postpartum women		
Up to age 17		
18 to 34		
35 or older		
Race of postpartum women		
American Indian/Alaskan Native only		
Asian/Pacific Islander only		
Black only		
White only		
Multiple race		
Ethnicity of postpartum women		
Hispanic		
Not Hispanic, etc.		

Similar analyses will be performed to address the representativeness of the survey sample. Because the PC data do not identify postpartum women who initiated breastfeeding, the comparisons will be limited to infants. The survey sample will be compared with infants in WIC PC who were ever breastfed and who were certified within 60 days of birth, with regard to age at date of certification, race and ethnicity, migrant status, family size, and family income relative to poverty (Exhibit B-2.2). We will also report survey response rates and examine patterns of survey non-response based on administrative data, including food package choices.

Exhibit B-2.3**Representativeness of Survey Sample**

Participant Sample (infants)	US WIC (ever-breastfed infants, certified within 60 days of birth)
Percent by US Census region	
Northeast	
South	
Midwest	
West	
Percent by race/ethnicity	
Non-Hispanic black	
Non-Hispanic white	
Hispanic	
Other	
Family income relative to poverty	
Less than 100% FPL	
100-130% FPL	
Over 130% FPL, etc.	

Degree of Accuracy

The primary purpose of the study is to determine how the WIC food package changes affect breastfeeding initiation, duration, and intensity. While effects on initiation can be measured in administrative data, to measure changes in duration and intensity requires a survey of breastfeeding mothers. The sample of 1600 mother/infant dyads will be used to generate national means and proportions related to these infant feeding outcomes—for example, the proportion of breastfeeding initiators who continue to breastfeed their infants for at least two weeks. For a dichotomous outcome, the variance of the estimate is

$$\text{Deff} \times p \times (1 - p) / N$$

The design effect (Deff) for a cluster design such as this is $(1 + (\text{average cluster size} - 1) \times \text{ICC})$. With an average cluster size of 50, a total N of 800 in each period, an assumed probability of 0.5 for p, and an assumed ICC of 0.01, we have

$$\text{Deff} = 1.49$$

and variance of estimate = $1.49 \times 0.5 \times 0.5 / 800 = 0.000465$,
standard error of estimate = 0.022.

Unusual Problems Requiring Specialized Sampling Procedures

No specialized sampling procedures are involved.

Use of Periodic Data Collection Cycles to Reduce Burden

This is a one-time study requiring two data collection points.

Interviewer Training

Interviewers conducting the state and local official interviews and those conducting the WIC participant interviews will each be trained. The plans for the two sets of training are described below.

Training Staff to Conduct State and local WIC Agency Interviews. A team of four senior researchers and two junior researchers experienced in conducting implementation study site visits will be responsible for the State and local interview data collection. The team will participate in one full-day training approximately one week prior to the first data collection point (pre-implementation), and one half-day training approximately one week prior to the post-implementation data collection period. The trainings will provide an overview of the study and address procedures for arranging and conducting interviews, including a detailed discussion of the data collection instruments. Trainings will include practice in conducting telephone interviews and in-person interviews (e.g., consistently asking appropriate probing questions). Materials to support training will include the following:

- An overview of the study;
- Background information of the selected local WIC agencies;
- A description of the Interim Rule;
- Protocols for setting up interviews and sample schedules for completing interviews in State and local WIC agencies;
- Copies of letters of introduction sent to States and to local WIC agencies;
- Data collection instruments, with question-by-question explanations, as needed;
- A glossary of terms;
- Frequently asked questions with responses;
- Potential challenges and strategies to resolve them;
- Key contacts in case of questions or problems;
- Procedures for review and quality control of completed interviews;
- Procedures to follow after interviews; and
- Protocols for obtaining missing information via telephone follow-up.

We do not expect agency staff to find the interviews sensitive in nature. However, we want to encourage respondent candidness and assure confidentiality to the extent possible. Therefore, we will review confidentiality procedures at several junctures, starting with the first letters of contact with agencies. We will explain that collected information for a particular State or local agency will be reported in summary format without attributing specific information to a respondent identified by name or title. Personal names will not be used in any reports or included in the public use database. We will further inform respondents that the study is not part of an audit or management review of WIC operations in their State.

Training Field Staff. Two field staff per LWA (for a total of 32 field staff) will be responsible for conducting the WIC participant interviews. To prepare them for this task, we will train all of the field staff using a train-the-trainers model prior to the pre-implementation phase of WIC participant interviews. To achieve this, there will first be a 2-day training of four individuals (“the trainers”) with assistance from other survey and project staff. Specific training for the study will include an overview of the project, the recruitment process, and the interview methodology.

The trainers will be provided with a manual that outlines the background and purpose of the study, defines acceptable recruitment and interviewing practices and procedures, and contains Q&As needed for the participant recruitment, as well as specifications for questionnaire items. The training sessions will use a variety of learning techniques (lecture, visual aids, practice, and interviewer participation) to reinforce learning and to ensure that interviewers are qualified by the end of training. All project-specific training will stress techniques for refusal aversion particular to this study. Field staff will be trained to encourage respondent candidness while assuring confidentiality. This will include scripts that explain that no names or identifying information will be used in summary reports or in a public database and that no benefits will be changed or lost by participating in the interview. For WIC participants, this will be critical to alleviate potential concerns about losing benefits if they disclose particular information.

Question-by-question specifications (QxQs) will be prepared for the interview. This documentation will contain explanations, definitions of terms, and instructions for administering appropriate question-specific probes, as well as any other helpful information. To ensure comprehension of the interview questions and intent, two types of mock interviews will be performed: trainer-led interviews in which the trainer plays the role of the respondent and the interviewer conducts the interview using the CAPI system; and dual-trainee interviews in which one trainee performs the role of the interviewer and another acts as the respondent. Training will stress interviewer responsibilities regarding data confidentiality as mandated by the Privacy Act of 1974 (5 USC 552a) and FNS Standards and Policies. At the end of each training session, interviewers will complete an evaluated mock CAPI interview to ensure their proficiency. The training schedule will be coordinated with the sample release schedule to ensure staff is trained in a timely manner.

Once the four trainers have completed training, they will be responsible for going on site to each of the 16 locations to train the two field staff. Each trainer will train the field staff for four sites. These trainings will be tailored to each site, with the trainer spending one day with the two field staff at a local conference facility to train them on the project details described above. They will then spend the next half-day on site at the LWA to complete the training including assessing the physical environment for conducting the interviews and collaborating with the local agency staff.

Identifying Retraining Needs

We anticipate that the majority of the original 32 trained field staff in the pre-implementation phase will conduct the post-implementation interviews several months later. However, there will be some natural attrition that will require new field staff to be trained as well as refresher training for all field staff given the several months’ lapse that will occur between the pre- and post-implementation interviewing. At a minimum, refresher training for all remaining field staff will include a packet of information with updated materials highlighted and corresponding explanations. This will incorporate lessons learned from the pre-implementation interviews. New field staff, however, will participate in the same kind of in-person training described above.

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

The procedures to be used to ensure a high rate of response for the staff from State and local WIC agencies in the study are largely non-statistical in nature and focus on methods to ensure the cooperation of WIC staff at the State and local levels. Our expectation, based on similar studies, is that we will achieve 100% response rate from individuals once the LWA agrees to participate.

In eliciting cooperation from WIC staff to participate in the study, we have found that the following guidelines prove successful in achieving the target response rate:

- use senior-level staff for recruitment and refusal conversion;
- provide sufficient information about the study purposes, objectives, and methodology so that potential participants have an informed basis for their decision;
- provide a realistic appraisal of what contributions in time, information, space, and human resources the participants will be expected to invest in the study effort and a statement of anticipated benefits to them;
- demonstrate knowledge and understanding of WIC food packages, the new Interim Rule, breastfeeding promotion activities and a sensitivity to the problems facing WIC staff in trying to complete their day-to-day activities as well as implement the new Rule change; and
- obtain the endorsement and support of State agencies and professional associations for the objectives of the study.

In addition, use of highly trained data collectors helps minimize item non-response. These steps have proven to yield an honest, collaborative relationship between the research team and participants in the study.

State and Local WIC Officials

For the on-site data collection, our team of eight experienced research staff will begin making contact with sampled local WIC agencies during the recruitment phase. The assigned data collector will follow up with each of the local agencies to clarify any questions about participating in the study as part of the recruitment process. This will help to establish a working relationship with agency staff. In cases where directors of sampled WIC agencies are reluctant or refuse to participate, we will work with our FNS project officer in determining if the State WIC Director should be contacted to encourage the sampled agency to participate. As described earlier, we will replace local WIC agencies that refuse to participate with other agencies included in the sample as back-ups. These data collectors will then proceed to conduct the telephone interviews prior to the implementation of the Interim Rule on and do the on-site data collection after the Rule has been implemented. Every effort will be made to schedule interviews to minimize the burden and inconvenience to the respondents.

WIC Participant Interviews

Participants will be recruited at the WIC clinics and asked to agree to participate in the study, according to protocols approved by the data collector's (Abt Associates) Institutional Review Board. When a WIC participant agrees to be in the study, an interview will be scheduled.

The goal is to achieve an 80 percent response rate for the WIC participant interviews. Maintaining high response rates is critical to the success of the study. To minimize non-response, we use two primary methods: 1) limit it through rigorous data collection procedures; and 2) account for it analytically. To address non-response, we will use careful management of sample release and interviewer workload, thorough refusal aversion training for interviewers, specialized interviewers to convert refusals, and payment of \$35 to each respondent who participates in the interview. To minimize item non-response, raw data files will be monitored throughout the data collection period, and, if questions are missed inadvertently (the WIC participant has the right to refuse to answer any questions), the field interviewer will be contacted and asked to re-contact the WIC participant and obtain the missing information. Recovered data will be manually input into the CAPI system, with the data entry independently checked to ensure accuracy.

Although we believe our data collection strategy for interviewing WIC participants will be effective in reaching participants, we understand that we cannot predict how many women we will be able to interview when they are at the WIC office being certified. Therefore, the telephone component of the data collection will be critical. One concern is that we have accurate telephone numbers for such women, which is why we will review their contact information with them when they are in the LWA. Field staff, however, will be used to locate participants who cannot be reached by telephone, despite our having reviewed their contact information. A field search would include the following steps:

- Visiting the respondent's last known address and researching the area. Early evenings and weekends are often the best times to find people at home, but, depending on the population, attempts may need to be made in the morning and/or afternoon, as well. Field staff is always prepared with Sorry-I-Missed-You notes to be left when nobody seems to be at home.
- Speaking with the current residents if the respondent no longer resides at the last known address. They may have forwarding information or at least know if the respondent still lives in the area. Field staff is always prepared with flyers containing a toll-free number that can be left with persons who think that they may be able to assist but who may not feel comfortable providing a new address or phone number for the respondent outright.
- Speaking with neighbors, as they may still keep in touch with the respondent (and sometimes are relatives). Depending on the community, extended family members sometimes reside near each other.

After the potential respondent has been re-contacted, new arrangements will be made to conduct the interview, which can either happen at the time of re-contact or be scheduled for later. As at any contact, the respondent will be advised that they can refuse to participate in the study and, if they do participate, although their responses will be kept confidential as allowed by law, they do not have to respond to all questions.

To track progress in reaching the goal of an 80 percent response rate, each completed interview will be transmitted to a central database where it is posted with disposition to indicate if it is a complete record to be included in the data system. The sample tracking will be managed by Abt Associates' Field Management System (FMS), a major application composed of a set of interrelated applications that control all aspects of sampling, data collection, data cleaning, and delivery of survey data. At the core of the FMS is the Bellview computer-assisted personal interviewing (CAPI) system, which controls sample management, interviewing, edit checking, and raw data storage.

To account for non-response, we will develop a sample weight adjustment based on characteristics of responders and non-responders. Because all of the mothers eligible to be interviewed are WIC participants, we will have administrative data for both responders and non-responders on such factors as mother's age, race, and ethnicity, WIC participation during pregnancy, and age of the infant at time of enrollment.

B.4 Tests of Procedures or Methods to Be Undertaken

Interview Instruments

Two rounds of instrument testing are planned for the WIC participant interview instrument. The first round of interviews will be cognitive interviews to assess the comprehensibility of the questions. WIC participants will be selected from a local WIC agency in the Washington, DC, area. We will conduct cognitive interviews with up to nine WIC participants. If possible, these will take place at our cognitive interview lab located in Bethesda, Maryland for face-to-face interviews. If this is not convenient to cognitive interview participants, we can meet them at the appropriate local WIC agency. Individuals who participate in cognitive interviews will be provided \$50 for their time.

The results of the cognitive interviews will be used to revise the instrument in preparation for the second round of interviews to pilot test the instruments. The purpose of the second round is to pilot test the measures and the procedures for data collection. It will additionally allow us to test the appropriateness of language level and word choice in the instruments and will confirm our estimates of the length of time to complete the interview. A pilot test will be conducted with WIC participants from two different local WIC agencies. We will conduct pilot tests in Massachusetts and preferably another New England State, within driving distance of our Cambridge, Massachusetts's office. Results of the pilot testing will be used to revise the instrument as needed.

Pilot test respondents will be selected from locations that are not part of the sample of selected research sites. We will work with FNS to confirm working with Massachusetts and select an additional pilot test State so they can assist with contacting the respective State WIC Directors and identify two local WIC agencies accordingly. We will work with the two State WIC directors and enlist their assistance in contacting the two local WIC agencies identified. Pilot testing for the WIC participant interviews will be conducted either in person or over the phone, utilizing CAPI technology. WIC participants will receive cash or a gift card valued at \$35 for their participation. A brief summary of the pilot results including any problems encountered and recommended solutions will be submitted to FNS. Once clearance has been obtained by OMB, FNS will inform OMB of any changes resulting from the pre-test and revised instruments will be submitted.

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

The contractor, Abt Associates, will be responsible for the data collection. Individuals responsible for the data collection, analysis, and all statistical aspects of the study include Project Director, Ann Collins (617-349-2664 or ann_collins@abtassoc.com); Project Quality Advisor Joan McLaughlin (301- 634-1833 or joan_mclaughlin@abtassociates.com; Analysis Consultant, Burstein (781- 646-3698 or impresaria@rcn.com); and Evaluation Design Leader, Fred Glantz from Kokopelli Associates LLC (505-983-0785 or Fred@kokopelliassociates.com).

In addition, staff from FNS' Office of Research and Analysis has reviewed the study design and instruments. Ted Macaluso is the FNS contact for this effort. He can be reached at 703-305-2121 or Ted.Macaluso@fns.usda.gov. Abt Associates is responsible for all data collection and analysis for this study.