

**APPENDIX EE1**  
**NASS Review**

**NASS Review of Revision to OMB 0584-0580**  
**WIC Infant and Toddler Feeding Practice Study-2 Age 5 Extension**  
**December 2015**

- The descriptions in the questionnaire are very clear and abides by Dillman's principles. For example:
  - a. Placing special instructions inside of question numbers and not as freestanding entities.
  - b. Listing answer categories vertically instead of horizontally, and
  - c. Placing instructions exactly where the information is needed
- The data collected for this survey is appropriate, it includes 42, 48, 54, and 60 month old children who are infant enrolled in the base cohort.
- The Sampling Methodology used in this survey design is appropriate. It is a longitude study that involves repeated observations of the same variables over long periods of time. Children's weight, height, and other information are followed up and collected at different time points (24, 36, 42, 48, 54, and 60 month). Since it is a type of observational study, it is reasonable to have the longitudinal weights (which weight up respondents to particular combinations of interviews) developed for specific analyses. It also can be a cross-sectional study (data collected from many subjects at the same point of time) comparing the differences among the subjects, such as individual children, at the same time point. It is necessary to prepare a separate set of cross-sectional weights for each wave of data collection, including the 42, 48, 54, and 60 month interviews.
- Sample size is expected to reach 2,319, 2,200, 2,087, and 1,980 for 42, 48, 54, and 60 months respectively (Table B2.1 shows all of projected sample sizes and response rates at the interviewing stages 30, 36, 42, 48, 54, and 60 Month interviews).
- Data quality control is fairly practicable. Obtaining height and weight measurement from WIC administrative records and direct measurement from WIC sites, doctors' offices, and health care provider records. Moreover, for those who cannot go to WIC or a provider, you offer to send a home health agency nurse to measure the child directly. These methods will ensure the reliability of your data.

- Thoughtful thinking to maximize response rates and address non-response issues (such as providing an incrementally larger incentive for each interview, sending birthday cards to participating caregivers and children, etc.).

## Suggestions

- The United State Department of Agriculture's (USDA) special supplemental nutrition program for woman, infants, and children (WIC) serves a special population: low-income pregnant and post-partum woman, infants, and children through their fifth birthday who are at nutrition risk. While the total amount of the food intake is very important, the appropriate distribution of the calories from each meal is also very important.
  - You could ask the caregiver what is the child's typical three days meal and snack intake and calculate the average calories intake by meal and snack to derive their daily calorie intake pattern<sup>1</sup>.
- Fay's method is a variant of balanced repeated replication (BRR), where the basic idea is to modify the sample weights less than in BRR by using both half-samples in each replicate. Instead of deleting one-half of the sample in each replicate, one-half of the sample is weighted down by a deflating factor  $k$ , between 0 to 1, and the remaining half is weighted up by a compensating or inflating factor of  $2 - k$ . For example, if  $k = 0.60$ , then the weights decrease by 40 percent in one half of the sample and increases in the other half of the sample by 40 percent. When using Fay's method, the variance of the replicates from the full sample estimate decreases by a factor of  $(1 - k)^2$  (Judkins, 1990). As there is no measure of the true variance, a conservative approach to selecting a Fay-factor for the estimated means would be to select a relatively small Fay-factor. Choosing  $k = 0.30$  is reasonable, but testing different value of  $k$ , such as 0.20, 0.40 and 0.50, is recommended.

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<sup>1</sup>Liquids such as milk or juice and solids such as pasta and cereals can be recorded by volume, and meat or cheese can be record can be recorded by weight.