

**SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC)  
NUTRITION EDUCATION STUDY: PHASE II FINAL REPORT (SUMMARY)**

**Background**

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is administered at the Federal level by the U.S. Department of Agriculture, Food and Nutrition Service. The program is operated by 90 WIC State agencies, including States, Indian Tribal Organizations, U.S. territories, and the District of Columbia, and provides supplemental nutritious foods, nutrition education, including breastfeeding promotion and support, and screening and referrals to other services to pregnant, postpartum, and breastfeeding women, infants, and children up to age 5.

Phase I of the study provided a comprehensive, nationally representative description of WIC nutrition education policies, practices, and features in 2014, based on surveys of local WIC agencies and sites and in-depth interviews with a subset of these sites (USDA, FNS, 2016).

Phase II was a methodological study, conducted in six sites during 2015–2016, to test an approach to determine its feasibility for a national evaluation. Impact evaluations of nutrition education are very challenging due to variation in interventions. The Phase II study included (1) a process evaluation that characterized the delivery of WIC nutrition education and (2) an impact evaluation that used a longitudinal, exposure-response design to assess the influence of WIC nutrition education on participants' nutrition and physical activity attitudes and behaviors.

The study was intended to determine if this approach could be used in a national evaluation study. Results indicate that a national study may not be feasible, but that other approaches may achieve similar goals on a smaller scale.

**Methods**

The pilot study comprised the collection of both qualitative and quantitative data from WIC staff and participants and direct observations of pilot site staff providing nutrition education, intended

to provide a comprehensive view of WIC nutrition education in the pilot sites. It also supported comparisons across data sources to inform best practices for future studies. For the impact evaluation, participant-level survey data were collected over the course of 12 months at three periods (initial, interim, and final) to measure exposure to WIC nutrition education and participant attitudes and behaviors related to nutrition and physical activity. Site-level characteristics were also incorporated in the impact analysis.

Data sources included:

- Interviews with site's point of contact (POC)
- Web-based nutrition educator survey
- Onsite observations of one-on-one and group education sessions
- Focus groups (or interviews) with participants
- Participant surveys (initial, interim, and final)
- Administrative data for a subset of survey respondents

**Key Findings**

*Pilot study results demonstrated the limitations of using an exposure-response design to measure impacts attributable to nutrition education in a context where all program participants receive individualized nutrition education.* Conducting a nationally representative impact evaluation of WIC nutrition education may not be the best approach to assess the effectiveness of WIC nutrition education. In the absence of a true comparison group without exposure to the intervention, alternative approaches to consider include epidemiological designs or a series of smaller, experimental studies that examine specific aspects of nutrition education.

*Despite the purposeful selection of WIC sites to ensure variation in nutrition education practices, the distribution of exposure based on*

***participant survey responses was similar across sites.*** Sites selected were significantly different with regard to the characteristics of nutrition educators (e.g., percentage of educators who are a registered dietitian or licensed dietitian/nutritionist and mean years of WIC experience) and use of participant-centered education practices or VENA (Value Enhanced Nutrition Assessment). However, this variation did not translate into significant differences in reported exposure among participants by site nor observed effects on participant outcome behaviors.

### **Recommendations for Future Evaluations of WIC Nutrition Education**

***Enroll participants who are receiving WIC benefits for the first time and follow them longitudinally.*** Such an approach would establish a better baseline in order to examine the effects of WIC nutrition education.

***Use electronic, real-time data collection to collect information on participants' nutrition education experiences rather than retrospective self-reports or administrative data.*** This approach would improve accuracy in tracking the number and length of nutrition education contacts, mode of delivery, topics discussed, and use of reinforcers.

***Quantitative measures of exposure may not effectively capture the quality of participant experiences with nutrition education.*** Measures of frequency and duration do not capture the quality of participant experiences during nutrition education contacts. They may also reflect variation in nutrition educator style, participant experience with WIC, and other factors unrelated to effective participant-centered education. Future evaluations should consider including other measures of experience with WIC nutrition education that better reflect its individualized nature.

***Direct observation of nutrition education provides an important check on self-reported and administrative data.*** This approach was effective in coding sessions for: whether the participants' needs and interests determine the focus of the nutrition education discussion, the

level of engagement of the participant in the goal-setting process, and whether the nutrition education supports a positive approach with affirmations of participant strengths and behaviors. Including direct observation provides an important source of triangulation with other data collection methods.

### **Considerations for Nutrition Education Practice**

***Participant satisfaction with their nutrition education experience was highest at sites that consistently exhibited participant-centered practices.*** Both nutrition educators and participants noted the importance of participant involvement in goal setting. There was also agreement in responses about the benefits of having adequate time during appointments (not feeling rushed) and meeting with the same WIC nutrition educator over time.

***Participants want individualized WIC services.*** Participants want options and “tailored” services, ranging from how WIC visits are scheduled to the approach to setting goals; participants view education sessions as successful when they are engaged in the discussion and actively involved in deciding the focus of the conversation. Thus, it is important that WIC staff receive training and support on VENA and participant-centered practices.

***Participants prefer nutrition education focused on achieving positive behaviors rather than addressing deficits.*** Participants may respond most effectively to nutrition education that emphasizes a more positive approach, identifying participant strengths and internal motivations for change.

### **For More Information**

Cates, S., Blitstein, J., S, et al., RTI International, and Sallack, L., and K. Deehy, Altarum Institute. (2018). *WIC Nutrition Education Study: Phase II Final Report* Prepared Under Contract No. AG-3198-D-12-0082. Project Officer: Karen Castellanos-Brown. Alexandria, VA: USDA, Food and Nutrition Service. Available at: <http://www.fns.usda.gov/ops/wic-studies>.