Research Article

Preferences and Perceived Value of WIC Foods Among WIC Caregivers

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ABSTRACT

Objective: To evaluate preferences for and values of *Special Supplemental Nutrition Program for Women, Infants, and Children* (WIC) foods and packages and understand what factors may influence these preferences and values.

Design: Using a mixed-methods approach, surveys and individual in-depth interviews were conducted to measure and understand preferences for specific WIC foods and how much WIC food packages are worth to participants.

Setting: Eight WIC clinics across Illinois.

Participants: Caregivers of infants enrolled in WIC for at least 3−6 months.

Phenomenon of Interest: : Preferences for WIC foods, WIC food package values, and factors that influence these categories.

Analysis: Frequencies were gathered to analyze survey data and interview transcripts were analyzed using constant comparative analysis to identify emergent themes.

Results: Survey (n = 150) and interview (n = 31) participants valued the food packages in WIC but they valued the infant packages more. The cash value fruit and vegetable voucher increased the perceived value of the program for many participants. Restrictions on food choice preferences (eg, type of milk) detracted value from the program.

Conclusions and Implications: This study shows that providing more choice in the program could improve satisfaction with WIC overall. More research is warranted with a more representative sample to assess whether expanded food choice would improve value of and preference for WIC foods.

Keywords: food preferences, low income, retention, WIC (*J Nutr Educ Behav.* 2018; 50:695−704.)

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INTRODUCTION

The mission of the *Special Supplemental Nutrition Program for Women, Infants, and Children* (WIC) is

> *to safeguard the health of low-income women, infants, and children up to age 5 who are at nutrition risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care.*[1]

Eight million participants are served by WIC each month[1] and the positive impact on maternal and child health outcomes has been long documented. Participation in WIC has been associated with better-quality diets,[2] obesity reduction among children,[3] and decreased risk for food insecurity in households with children.[4] Nevertheless, despite the positive impact of the program, a growing number of WIC participants discontinue participation before the end of eligibility. Children aged 1−4 years comprise the largest eligible participant group but hold the lowest coverage rate; only 49.8% of eligible children participated in 2013 whereas coverage rates for infants (birth to 11 months), pregnant women, and postpartum women were 84.4%, 68.4%, and 77.8%, respectively.[5] Previous studies suggested that the perceived value of WIC food packages may have a role in participants' intention to stay enrolled in the program. For example, in a survey of WIC participation patterns, approximately 26% of those who prematurely exited the program indicated that it was too much effort and the benefits were not worth the time.[6] In addition, limited variety, availability, and quantity of foods have been reported to be major barriers to using WIC services.[7] Given differences in coverage among participant groups, intention to remain in the program may vary at different

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stages owing to the perceived and actual value of the packages. However, the specific foods available to participants in WIC and the perceived value attached to them remain largely unexplored. The purposes of this study were to assess participants' preferences for and perceived value of WIC foods and packages and to gain a deeper understanding of the factors that may shape these preferences and values. Understanding WIC food preferences and food behavior in participants' own words using a qualitative approach, supplemented by quantitative data, could help policy makers improve WIC and inform efforts to keep families enrolled.

METHODS

Study Design

This study builds on a larger evaluation of the pilot *WIC to 5* program. *WIC to 5* was an intervention study to increase WIC participation and retention among eligible children in Illinois. Based partly on constructs from the Theory of Planned Behavior, *WIC to 5* included activities to improve client awareness of WIC benefits, improve staff–client interactions, and improve image and understanding of WIC among health care providers. Four clinic sites were selected to participate in the *WIC to 5* intervention to reflect both rural and urban counties within the state and various WIC agency structures (eg, county health department, health system). These 4 sites were then matched to 4 comparison sites for demographics, agency structure, caseload, and urbanicity for a total of 8 clinic sites. This study's analysis included 2 data sources: (1) a baseline survey of 150 parents and caregivers of WIC children, as well as (2) an in-depth interview conducted with a subsample (n = 31) from April, 2015 to July, 2016. This project was approved by the University of Illinois Chicago Institutional Review Board via expedited review.

Participant Recruitment and Eligibility

Participants aged ≥16 years with children aged 3–6 months who were enrolled in WIC were eligible for the study at baseline. Because WIC participation rates decline as children age, the larger retention study aimed to recruit parents and caregivers before their child reached age 7 months, when they were more likely to leave the program.[6] Participants were recruited using passive and active strategies including direct contact, flyers, and an introduction to the study at nutrition education classes. All data collectors recruited participants in compliance with Federal Human Subjects Regulations, and eligible parents and caregivers completed informed consent.

From the group recruited at baseline, a subsample of participants was recruited by phone to participate in an in-depth interview about WIC foods. To obtain a sample with diverse characteristics, maximum variation sampling[8] was used for the in-depth interviews. The participants were selected based on their potential to provide data that were rich in information and to offer useful manifestations of the phenomenon of interest. Sampling was therefore aimed at the research question, not empirical simplification.[8] Theoretical sampling continued and was repeated until the data analysis reached saturation. This sampling method was employed to garner information from interview participants that varied by ethnicity, age, socioeconomic status, household composition, employment status, formula use, breastfeeding status, and WIC experience. Saturation was determined to be reached when themes about food choice and WIC food preferences were no longer unique.

Data Collection

Survey measures. A WIC food preferences questionnaire was developed to measure the perceived value of foods available in the different WIC food packages. Participants were asked to rank on a 5-point Likert scale their preferences for receiving each WIC food, in which 1 = *very much dislike* and 5 = *very much like*.

Participants were also given a value-oriented questionnaire at baseline. This questionnaire asked them to reflect on the monthly cost in dollars of each WIC food package at different stages throughout participation and whether it was worth the time and effort to stay in WIC at each stage. These measures were developed with each type of WIC food and WIC food package in mind and were based on results from formative qualitative interviews on the barriers and facilitators to WIC retention.[9] The measures went through expert review with WIC staff at each site as well as state and regional coordinators.

In-depth interviews. Guided by a constructivist approach, interviews lasted approximately 1 hour and were conducted in a private area within the clinic or in the participant's home by a dietitian trained in qualitative methodology and public health nutrition. Constructivist inquiry provides an opportunity to gain a more detailed understanding of multilevel processes by allowing participants to report their own views, not limiting them solely to the researcher's conceptualization of the issues.[10] Interviews were conducted with several open-ended research questions in the form of a semistructured interview protocol informed by formative research on the barriers and facilitators to using WIC services.[7,9] The interview protocol was also based on previous qualitative research with dimensions related to food choice, and was edited to include motivations and values behind eating behavior.[11] A panel of 5 doctoral-level experts in public health nutrition as well as state and regional WIC coordinators reviewed the interview protocol.

Data Analysis

Survey analysis. The researchers calculated descriptive statistics (including frequencies, means, and range) for participant demographics, WIC food preferences, and perceived value using SPSS Statistics for Windows (version 22.0, IBM Corp, Armonk, NY, 2013). Favorable food ratings (*like* and *very much like*) for each WIC food were tabulated. Frequencies were compiled to calculate the percentage of participants who rated each WIC food as favorable (rating of 4 or 5) and unfavorable (rating of 1