

SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC) INFANT AND TODDLER FEEDING PRACTICES STUDY 2: THIRD YEAR REPORT (SUMMARY)

Background

The U.S. Department of Agriculture's (USDA) Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) safeguards the health of low-income pregnant and postpartum women, infants, and young children who are at nutritional risk. The WIC Infant and Toddler Feeding Practices Study-2 (WIC ITFPS-2), also known as the "Feeding My Baby" Study, captures data on caregivers and their children over the first 6 years of the child's life after WIC enrollment. Study research questions include child feeding practices, associations between WIC services and those practices, and the health and nutrition outcomes of children receiving WIC. This report, the fourth in the series generated from this study, focuses on caregivers' employment, school, and child care circumstances, as well as the feeding beliefs and practices, dietary intake, and weight status of children from birth through approximately 36 months of age.

Methods

The study was designed to represent the national population of infants enrolled in WIC. Caregivers were recruited in person as they enrolled in WIC (either prenatally or before their infant was 2.5 months old) between July and November 2013. Study recruitment occurred at 80 WIC sites across 27 States and territories nationwide. Sites were eligible for study participation if they enrolled a minimum average of 30 participants per month.

The study sample includes 3,777 caregivers who completed at least a 1- or 3-month postpartum interview. This report sometimes utilizes a subset of respondents due to study attrition.

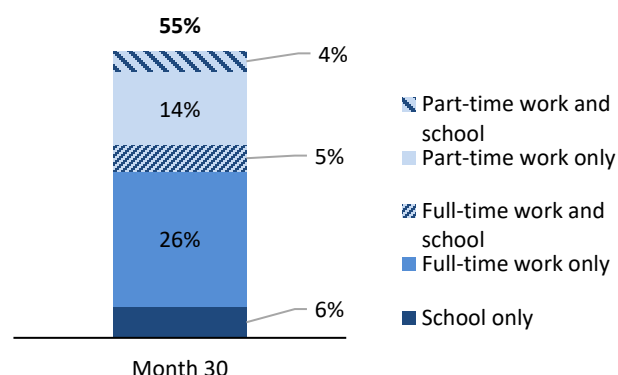
This report reflects the responses from follow-up interviews conducted between July 2013 and July 2017, occurring every 2-3 months between ages 1 and 24 months, and every 6 months thereafter, regardless of continued participation in WIC. At 36 months of age, nearly 60 percent of study participants were still receiving WIC.

The interviews included questions on feeding practices and related behaviors, as well as a 24-hour dietary recall to collect detailed information on the child's dietary intake. Additionally, WIC administrative or health care provider records provide data on children's weight and length at birth, and around 6, 12, 24, and 36 months of age.

Findings

WIC ITFPS-2 mothers are working and going to school. Fifty-five percent of study mothers with 30-month-old children have work and/or school commitments. At 30 months postpartum, 49 percent of mothers are working, 15 percent are in school, and 9 percent are combining work and school (Figure 1).

Figure 1. The percent of WIC Infant and Toddler Feeding Practices Study-2 mothers working and going to school (month 30)



WIC=Special Supplemental Nutrition Program for Women, Infants, and Children

Maternal work status varies by WIC participation. Mothers of children not receiving WIC at 24 months are more likely than those receiving WIC to be working and/or going to school at 30 months postpartum (62 percent versus 53 percent).

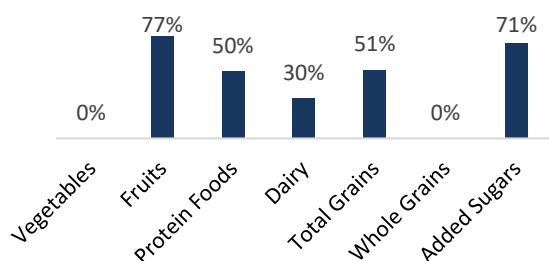
Most study children (65 percent) have a BMI in the normal/healthy range (5th to <85th percentile). Few (4 percent) are in the underweight range (less than 5th percentile). Fourteen percent are in the overweight

range (85th to <95th percentile), and 17 percent are categorized as obese (95th percentile and above). The 2015-16 National Health and Nutrition Examination Study estimates 10 percent of 2-5-year-old children in the United States are overweight and 16 percent are obese.

At 36 months of age, WIC ITFPS-2 children are consuming fruits, vegetables, dairy, grains, and meats and other protein foods on a given day. Analyses of the 24-hour dietary recall data also found that 36 month olds are consuming desserts, candy, sugar-sweetened beverages, and salty snacks on a given day. While usual median intakes of most micronutrients are above the recommended levels of the Dietary Reference Intakes (DRI), intakes of vitamin D, vitamin E, and potassium are lower than recommended and median intakes of niacin, magnesium, folate, vitamin A, zinc, and sodium exceed the tolerable upper intake levels of the DRI. While the diet quality of study children leaves room for improvement, it is consistent with findings from other studies of young U.S. children.

The quality of children's diets is also examined by reference to the Dietary Guidelines for Americans (DGAs) recommended amounts of select food groups (Figure 2). An analysis of consumption of DGA recommended food group servings shows that while high percentages of WIC ITFPS-2 children meet the DGAs for fruits (including 100 percent juice) (77 percent), and consume less than the recommended maximum for added sugars (71 percent), improvement is needed with regard to the DGAs for consumption of vegetables (0.1 percent) and whole grains (0.0 percent).

Figure 2. Percent of study children consuming the Dietary Guidelines for Americans (DGA) recommended servings by food groups (month 36)



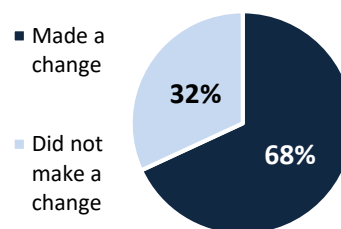
Meeting DGA recommendations varied by WIC participation. Children receiving WIC at 24 months were more likely to meet DGAs at 36 months for added sugars, but less likely to meet DGAs for total grains than children not receiving WIC at 24 months.

At 36 months of age, the average total score on the Healthy Eating Index (HEI-2015) was 61.4, compared to 60.5 at 24 months. The score for 36-month-old WIC ITFPS-2 remains below the optimal range of 81 or above, but consistent with the score of 62.1 from previous research on young children from low-income families, and higher than the 59.9 average score of the age-matched national population.

Families of children receiving WIC at 24 months report feeding practices at 30 months that are consistent with the content of WIC nutrition education. As compared to children not receiving WIC at 24 months, children receiving WIC are less likely to be identified as picky eaters at 30 months, and mothers whose children were receiving WIC at 24 months are less likely than their counterparts to report that the television is on most of the time during meals at 30 months.

Mothers report that WIC nutrition education is having an impact on their feeding practices. Almost 70 percent of study mothers report having made at least one change due to something they learned at WIC, including choosing more healthy foods, eating more fruits and vegetables, and offering appropriate portion sizes (Figure 3).

Figure 3. Percent of study mothers reporting making a change due to something learned at WIC (month 30)



WIC=Special Supplemental Nutrition Program for Women, Infants, and Children

For More Information

Borger, C., Weinfield, N., Zimmerman, T., et al. (2019). WIC Infant and Toddler Feeding Practices Study 2: Third Year Report. Prepared by Westat, Contract No. AG-3198-K-11-0031. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: Danielle Berman. Available online at: www.fns.usda.gov/research-and-analysis.