USDA Food and Nutrition Service
U.S. DEPARTMENT OF AGRICULTURE

Research Summary June 2022

# Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Infant and Toddler Feeding Practices Study-2: Fifth Year Report (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 pregnant and postpartum women, infants, and young children from low-income households 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, is the only national study to capture data on caregivers and their children over the first 5 years of the child's life after enrollment in WIC, regardless of their continued participation in the program. The study also conducts additional follow-ups with children at ages 6 and 9. Overall, the study examines child-feeding practices, associations between WIC services and those practices, and the health and nutrition outcomes of children who received WIC around birth. This report, the sixth in the series generated from this study, focuses on the dietary intake patterns, eating behaviors, and weight status of children during the fifth year of life. The report also examines associations between WIC participation and key diet and health-related outcomes.

## Key Findings

- Families who remain in WIC during children's fifth year of life report continued participation because of the food they receive, the education and information they receive, and that WIC staff listen to their thoughts about their child's health.
- Children who consistently participate in WIC through their fifth year of life have better overall diet quality, on average, than children who only participated in their second and third years of life.
- When compared to children not receiving WIC or SNAP, children participating in WIC but not SNAP at age 54 months are more likely to meet recommendations for limiting added sugar intake.

## Methods

This national study represents a population of infants enrolling in WIC during the initial recruitment period (July through November 2013) at eligible sites. Caregivers were recruited in person as they enrolled in WIC (either prenatally or before their infant was 2.5 months old). Study recruitment occurred at 80 WIC sites across 27 States and territories nationwide. Sites were eligible for study participation if they anticipated enrolling a minimum average of 30 study-eligible participants per month. Caregivers and their children remained eligible to participate in the study regardless of continued participation in WIC. The study's analytic sample includes 3,775 caregivers who completed at least a 1- or 3-month postpartum interview. However, in this report, analyses may use smaller sample sizes because of study attrition or missing data, or because research questions only pertained to a subset of participants.

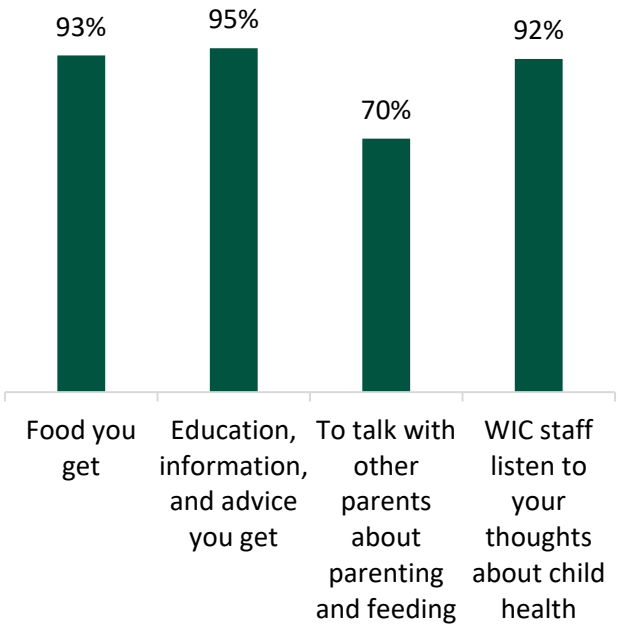
This report reflects the responses from follow-up interviews conducted between July 2013 and July 2019, occurring every 2-3 months between ages 1 and 24 months, and every 6 months thereafter, until the child was 60 months old. The interviews included questions on WIC participation, caregivers' feeding practices and related behaviors, as well as a 24-hour dietary recall to estimate the child's usual dietary intake of nutrients and overall diet quality as measured by the Healthy Eating Index (HEI)-2015.

Additionally, the study obtains data on children's length or height and weight from WIC or health care providers at birth, and around 6, 12, 24, 36, 48, and 60 months of age. Starting at age 24 months, age and sex-specific growth charts from the Centers for Disease Control and Prevention are used to classify children's body mass index (BMI)-for-age percentiles into four categories: underweight (less than the 5th percentile), healthy (5th percentile to less than the 85th percentile), overweight (85th percentile to less than the 95th percentile), and obese (95th percentile or greater).

## Findings

**Families continue participating in WIC because they value the Program's many benefits.** About half (52 percent) of study participants continued participating in WIC into the child's fifth year. Those who stay with WIC report doing so for a variety of reasons. Over 90 percent of caregivers report they value the supplemental foods they receive, the education and information they receive, and the fact that WIC staff listen to their thoughts about their child's health (Figure 1).

**Figure 1:** Among those participating in WIC at 54 months, percentage of participants by reason they stay with WIC.




**Longer, consistent participation with WIC is associated with better diet quality around children's fifth birthdays.** After adjusting for various factors, the mean diet quality score on a given day of children who consistently participated in WIC through the fifth year of life was 58.7 out of a possible 100 points on the HEI-2015. Multivariate analyses revealed that children who only participate in WIC through their second or third years of life have significantly lower HEI-2015 scores than those who consistently participate in WIC.

**WIC participation in the fifth year of life is associated with meeting recommendations for limiting added sugar intake.** The Dietary Guidelines for Americans, 2020-2025, recommend that individuals ages 2 years and older limit their added sugar intake to no more than 10 percent of their total energy intake. While only about half (53%) of study children meet this recommendation, multivariate analysis indicates that 5-year-olds who participate in WIC but not the Supplemental Nutrition Assistance Program (SNAP) at age 54 months are more likely to meet the added sugars recommendation on a given day than those who do not participate in either WIC or SNAP.

**Children participating in WIC during their fifth year of life consume less sodium than those who do not participate in WIC or SNAP.** At age 60 months, the median usual sodium intake of children in the study is 2,584 mg daily, with nearly all study children (97.6%) exceeding the Chronic Disease Risk Reduction intake level. Regardless of household SNAP participation status, average sodium consumption of children in families that participate in WIC at 54 months is significantly lower on a given day than sodium consumption of children who do not participate in either WIC or SNAP.

**Intake of calcium improves between ages 4 and 5 years.** For most micronutrients, the prevalence of inadequate intake was low (less than 5 percent) among children at age 60 months. The exceptions were calcium and vitamins D and E; however, the prevalence of inadequate calcium intake improved from 34.6 percent at 48 months to 25.3 percent at 60 months. The prevalence of inadequate intakes of vitamins D and E did not significantly change between ages 48 and 60 months. At 60 months, 68.4 and 44.9 percent of children had inadequate intakes of vitamins D and E, respectively.

**Three in five children have a healthy weight status around their fifth birthdays.** Around age 5 years, 60 percent of study children have a healthy weight status. About one-third (35%) have a BMI-for-age percentile above the healthy range, with 16 percent in the overweight range, and 19 percent in the obese range. Between ages 3 and 5 years, the percentage of study children with healthy weight status significantly decreases from 65 percent to 60 percent.

**For More Information:**

Borger, C., Zimmerman, T., Vericker, T., et al. (2022). WIC Infant and Toddler Feeding Practices Study-2: Fifth Year Report. Prepared by Westat, Contract No. AG-3198-K-15-0033 and AG-3198-K-15-0050. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: Courtney Paolicelli. Available online at: www.fns.usda.gov/research-and-analysis.