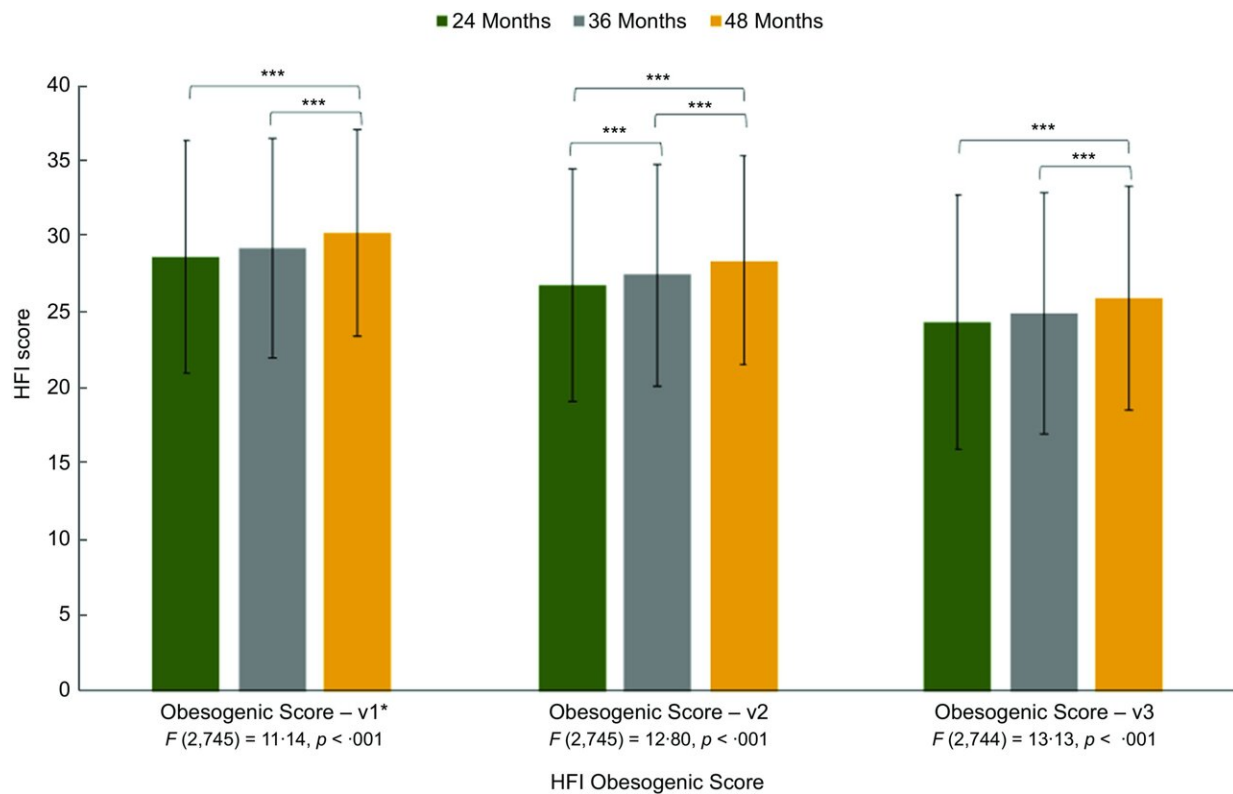


Study: How home food availability affects young children's nutrient intake

March 12 2024, by Marianne Stein



Changes in the Home Food Inventory (HFI) obesogenic scores across from 24 to 48 months. Results of the repeated-measures ANOVAs are provided under the x-axis. Post hoc pairwise comparisons with a Bonferroni correction were used and presented above the bars in the figure.***P Public Health Nutrition (2024). DOI: 10.1017/S1368980024000375

Early childhood is an important time for learning about nutrition and establishing healthy eating behaviors. Young children rely on parents to provide food options, and the availability of food in the home affects their dietary choices. A new study from the University of Illinois Urbana-Champaign looks at changes in home food availability and nutrient intake for children from 2 to 4 years old.

"It's important to understand how the environments that children are in can influence their diet and nutrition. What types of foods and beverages are available in the home, and how accessible are those items for the young child?"

"It's about the likelihood of exposure to foods and having the opportunity to try foods and also whether they may be able to access or grab foods themselves," said lead author Jennifer Barton, now an assistant research professor at Pennsylvania State University. Barton conducted the research as a postdoctoral research associate at the Family Resiliency Center in the Department of Human Development and Family Studies (HDFS), part of the College of Agricultural, Consumer and Environmental Sciences (ACES) at Illinois.

Barton and her colleagues used the Home Food Inventory (HFI) to measure food availability at 24, 36, and 48 months of age. The HFI is a comprehensive checklist of food categories administered by a research assistant visiting the homes of participating families. The researchers correlated the HFI data with surveys of the children's [food consumption](#) completed by their mothers.

"We found significant changes in several food categories over time. Food items such as non-whole grains, processed meats, savory snacks, candy, and microwavable or quick-cook foods were more commonly available in the home at 48 months compared to 24 and 36 months," Barton said.

The study included 468 mothers and children who were participants in [STRONG Kids 2](#), an ongoing research project at Illinois that looks at nutrition and healthy habits from infancy through 10 years of age. STRONG Kids 2 co-directors Barbara Fiese, professor emerita of HDFS, and Sharon Donovan, professor of food science and human nutrition at Illinois, also contributed to the study.

The HFI includes an obesogenic score, which indicates the obesity risk of different foods. However, the scores are based on dietary recommendations for [older children](#) and include regular-fat dairy products such as milk, yogurt, and cheese. Toddlers have different energy and nutrient needs, and dairy products are considered as part of a healthy diet for [young children](#), necessary for growth and development.

The researchers tested three obesogenic scores, two of which were developmentally sensitive scores that excluded milk, yogurt, and cheese. Even with the modified categories, they found that obesogenic scores increased significantly from 24 to 48 months.

"It makes sense that as children get older, the presence of more energy-dense and high-fat foods tends to grow. Children may request these foods more often, and outside influences, such as the opinions of peers, are starting to become more apparent. I do want to point out that we found some positive changes. Vegetables also become more available in the home at 48 months," Barton said.

"The point is not to label certain foods as being good or bad. We likely all have food items in our home that are not 'recommended.'" It's really about trying to make sure that we get enough nutritious, recommended foods and eat the non-recommended items in moderation."

A second research goal was to test the validity of the HFI measure for young children, as the method has been developed for adolescents.

Barton and her colleagues conducted comprehensive tests of associations between food availability and [nutrient intake](#), overall finding the expected results.

For example, the availability of processed meats such as lunch meat and hot dogs was correlated with higher saturated fat intake. Sweetened beverages, candy, desserts, and savory snacks were correlated with higher intake of those foods. A higher presence of fruit and vegetables in the home was also a consistent indicator of nutrients. These findings indicate that HFI is a reliable measure of home food availability and has demonstrated associations with food and nutrient intake for children ages 24, 36, and 48 months, the researchers conclude.

It's important to support parents in making healthy decisions for their families, but food choice is much more than individual behavior, Barton stated.

"There are complex factors affecting parents' decisions. Children may ask for certain foods, which may stem from the influence of media and advertising. We should also consider who else lives in the home, such as siblings, and the parents may experience work demands and financial stressors that can spill over into their family life."

"Many people struggle with distance to food stores and access to fresh foods, as well as food insecurity. I believe we need a food systems approach to ensure people have access to [nutritious food](#) and that parents feel supported in making decisions to promote the health and well-being of themselves and their children," she concluded.

The study is [published](#) in the journal *Public Health Nutrition*.

More information: Jennifer M Barton et al, Longitudinal changes in home food availability and concurrent associations with food and nutrient intake among children at 24–48 months, *Public Health Nutrition* (2024). [DOI: 10.1017/S1368980024000375](https://doi.org/10.1017/S1368980024000375)

Provided by University of Illinois at Urbana-Champaign

Citation: Study: How home food availability affects young children's nutrient intake (2024, March 12) retrieved 28 April 2024 from <https://medicalxpress.com/news/2024-03-home-food-availability-affects-young.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.