BEHAVIORAL NUTRITION & PHYSICAL ACTIVITY LABORATORY
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER

THE IMPACT OF THE FOOD ENVIRONMENT ON FAMILY CHILD CARE HOME MEAL QUALITY

Preschool aged children commonly over-consume sodium and under-consume dietary fiber, vitamin A, vitamin E, and potassium.[1–3] Nutritious food groups such as fruits and vegetables contain greater amounts of these nutrients.[4] Early childhood is a period in which children develop eating habits and food preferences.[5] Three in five US preschool-aged children attend child care, such as family child care homes (FCCH), and eat up to two-thirds of their meals while in care.[6] FCCHs can participate in the Child and Adult Care Food Program (CACFP), which targets reimbursement to low-income areas for qualifying food costs.[6] Food deserts, typically found in low-income neighborhoods, lack healthy food outlets such as grocery stores and these unhealthy food environments are associated with child malnutrition and obesity.[7]

A study involving 51 FCCH providers who cared for at least one 2-to-5 year old, participated in the CACFP, and were located within 1 hour of Oklahoma City was conducted to determine if the food environment had an impact on access to healthy food outlets and quality of meals served to children attending these FCCHs. Two lunch observations were conducted to gather information about the meal, while mapping software was used to assess the food environment of the FCCHs.

Grading the Food Environment

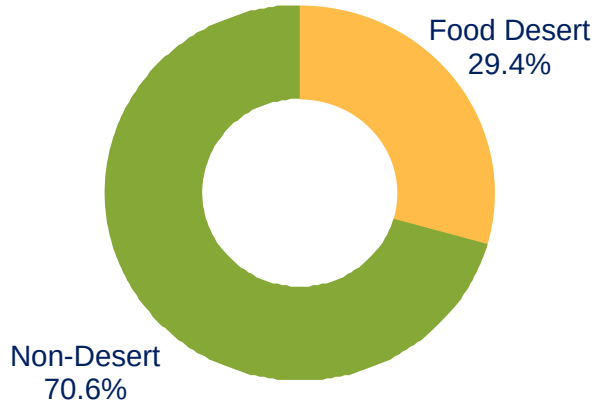
- Grocery store locations were obtained from a list of Oklahoma businesses.
- Food desert status of census tracts was calculated as the proportion of healthy food outlets to the total number of food outlets available.

Calculating Distance to the Nearest Grocery Store

- FCCH providers reported roundtrip distance to the grocery store, and distance to the nearest grocery was mapped.

Measuring Meal Quality

- Foods served were recorded at two lunch observations.
- The number of fresh fruits and vegetables served on each observation day was recorded.
- Sodium, dietary fiber, vitamin A, vitamin E, and potassium were calculated.

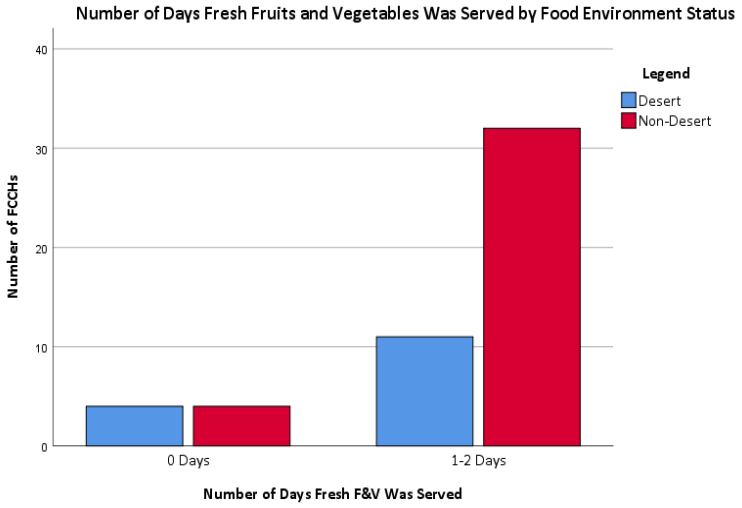


Food Environment and Access to Grocery Stores

- In our sample, the majority of FCCHs were not located in food deserts.
- 8.7% of the food outlets were considered healthy across the census tracts of the participating FCCHs.
- Driving distance to the grocery store was 3.2 miles longer than the distance reported by the providers. There was no difference between FCCHs in deserts and non-deserts.

Food Environment and Meal Quality

- The majority of FCCHs that served fresh produce were located in non-deserts.
- Providers did not serve the recommended amount of all nutrients, except vitamin A, and over-served sodium. There was no difference in the amount of nutrients served between FCCHs in deserts and non-deserts.



Summary of Findings

FCCH providers may spend longer amounts of time driving to full-service grocery stores with better fresh produce and other product selections. Limited access to these healthy food outlets may prevent FCCH providers from serving fresh items and meeting nutrient recommendations. Our findings can inform future policy regarding the need to improve access to grocers and fresh produce, as well as improve or update child care and CACFP regulations.

References

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This report was prepared by Sara Fortin-Miller, MS on behalf of the Behavioral Nutrition and Physical Activity Laboratory directed by Dr. Susan Sisson. Data were collected as part of the Happy Healthy Homes Project (2017-68001-26355). If you have questions or comments, please contact us at nutritionactvlab@ouhsc.edu or 405.271.8001x41173.