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



Quality of Menus in Family Child Care Homes in OKC

In the U.S., approximately 3.6 million children (25%) under 6 years old in child care, receive care from licensed home-based child care programs called family child care homes (FCCH).¹ Early childhood is a time of critical growth and development where nutrient needs are high.² Children in the U.S. may be receiving excess calories without adequate nutrients, specifically when served energy-dense foods like fried, high fat, and sugary foods. Lack of proper nutrition can impact a child's health in regards to growth and development,³ and nutrient-dense foods including fruits, vegetables, and legumes can help prevent diseases in adulthood.⁴ Research on child care center menu quality suggest room for improvement, specifically to serve fewer energy-dense foods and higher nutrient-dense foods.^{5,6} This is important, as children in child care may consume up to two-thirds of their daily calories in these settings.⁷

A study was conducted including 49 FCCH who participated in the Child and Adult Care Food Program (CACFP), served at least one child 2-5 years old, and were located within 60 miles of downtown Oklahoma City. Weekly 5-day menus with breakfast, lunch, and snack were collected. The aim of this project was to describe quality of FCCH menus, including nutrients, variety of foods served, and compliance with CACFP requirements and best practices.



Describing Menu Quality

- Nutrients were analyzed to determine whether menus included at least two-thirds of federal daily recommendations for 1-3-year and 4-8-year old children.
- Nutrients analyzed included: total kcals, carbohydrate, protein, total fat, saturated fat, fiber, calcium, sodium, vitamin A, vitamin C, vitamin D, zinc, and iron.
- Food variety was determined by the number of unique foods listed from food categories: fruit, vegetable, high sugar, and high fat.
- CACFP compliance was determined by the percentage scored on meeting CACFP requirements and best practices for menus, using the CACFP Menu Compliance Data scoring tool.

Results of Menu Quality

- The majority of macronutrients (protein and carbohydrates) and micronutrients (vitamin A, vitamin C, calcium, sodium, and zinc) <u>exceeded</u> two-thirds of daily recommendations.
- Energy, total fiber, and vitamin D were <u>insufficient</u> to meet two-thirds of daily recommendations.
- There were <u>more exposures</u> to different types of fruits and vegetables compared to different types of high sugar foods and high fat foods during the week.
- Average scores of FCCH's menus were 65.9% for CACFP requirements, 66.8% for CACFP best practices, and <u>66.3% for total compliance score</u>.

Practical Strategies to Improve Menu Quality

Serve more:

- <u>Lean Proteins</u>: chicken, turkey, fish, eggs, and low-fat dairy to lower saturated fats. Beans and legumes are low-fat, high fiber sources.
- <u>"Healthy" fats</u>: avocados, nuts, and seeds to provide adequate fat for growth, with minimal saturated fat.
- <u>Fruits and vegetables</u> for snack to offer more variety of nutrients served to promote proper growth and development.
- <u>Whole grains</u> to provide adequate fiber to lower risk of chronic disease and promote healthy blood sugar levels.





Food Variety **Summary of Findings** Higher variety of fruits and vegetables than high sugar or high fat foods were listed on menus. CACFP High sugar foods can be further Compliance reduced. Leaner proteins and foods Nutrients low in saturated fat can be incorporated into menus, Menus met around 66% of CACFF requirements and best practices, The menus meet energy, vitamin A, which are associated with healthier vitamin C, calcium, and zinc needs meals. while at child care. Menus coud be further improved to The menus exceed sodium and meet a higher percentage of CACFP saturated fat recommendations, while not requirements and best practices to meeting recommendations for fiber, increase healthfulness of menus. vitamin D, and iron.

References

- 1.
 Children under age 6 in family-based childcare in the United States. Annie E. Casey Foundation.

 <u>https://datacenter.kidscount.org/data/tables/109-children-under-age-6-in-family-based-childcare?loc=1&loct=1#detailed/2/2-52/false/18,14/any/435,436</u>. Published 2007. Accessed.
- 2. Benjamin Neelon SE, Briley ME, American Dietetic A. Position of the American Dietetic Association: benchmarks for nutrition in child care. *J Am Diet Assoc.* 2011;111(4):607-615.
- 3. Agriculture UDo. 2015 Dietary Guidelines for Americans. <u>https://health.gov/dietaryguidelines/2015/resources/2015-2020_Dietary_Guidelines.pdf</u>. Published 2015. Accessed 4/28/2019.
- 4. Markovic TP, Natoli SJ. Paradoxical nutritional deficiency in overweight and obesity: the importance of nutrient density. *Med J Aust.* 2009;190(3):149-151.
- 5. Maalouf J, Evers SC, Griffin M, Lyn R. Assessment of mealtime environments and nutrition practices in child care centers in Georgia. *Child Obes.* 2013;9(5):437-445.
- 6. Frampton AM, Sisson SB, Horm D, Campbell JE, Lora K, Ladner JL. What's for lunch? An analysis of lunch menus in 83 urban and rural Oklahoma child-care centers providing all-day care to preschool children. *J Acad Nutr Diet*. 2014;114(9):1367-1374.
- 7. Dev DA, McBride BA. Academy of Nutrition and Dietetics benchmarks for nutrition in child care 2011: are child-care providers across contexts meeting recommendations? *J Acad Nutr Diet*. 2013;113(10):1346-1353.

This report was prepared by Hope Hetrick, MS on May 2020 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.