Smart Food Consumption Study

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Introduction:

The Smart Food Consumption summer workshop emphasized the importance of educating adolescents about healthy eating habits, food labels, and budget-conscious shopping as a way to foster lifelong health and financial literacy. Research cited throughout the program highlighted the role of poor nutrition education, increased screen time, and social media in promoting unhealthy dietary behaviors among teens.

The workshop provided hands-on learning experiences that helped participants develop critical skills in meal planning, label reading, and food safety, with a focus on nutrient-dense and cost-effective eating.

A key takeaway was the need for continued efforts to reach both teens and their families to break the cycle of poor in-home nutrition education and promote lasting behavioral change.

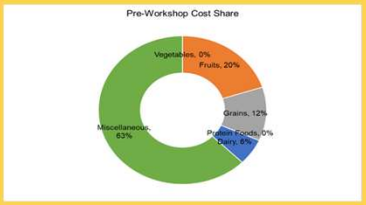
Method:

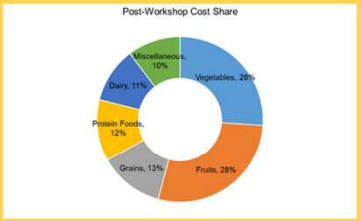
The Smart Food Consumption Summer Workshop took place over six sessions from June 13 to July 18, 2025, combining lectures, hands-on activities, and field trips to reinforce nutrition education, budgeting skills, and food-related behaviors.

Participants engaged in grocery store simulations, community garden visits, cooking demonstrations, and lessons on food safety, food security, and the USDA's MyPlate and Thrifty Food Plan.

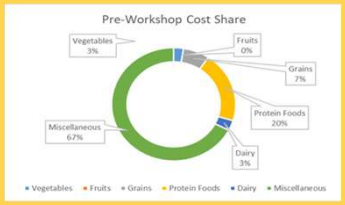
The program also included interactive tools like Mentimeter and involved both teens and parents to promote long-term healthy lifestyle changes, with pre- and post-surveys used to measure impact.

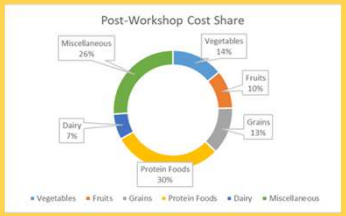
Teen Participant 1





Teen Participant 2





Category	Pre	Post	Max
Fruit Intake	2.0	2.46	4
Vegetable Intake	1.62	2.31	4
Whole Grain Choices	1.86	5.46	7
Healthy Food Choices	1.62	4.62	7
Nutrition Label Use	1.57	2.77	4
Make Own Meals	2.62	4.38	5
Plan Meals	2.24	4.31	5
Make Lists	2.62	4.31	5
Wash Hands	2.90	3.62	4
Screen Time (hrs/day)	2.81	3.62	4

Results:

Biggest Gains:

- Whole grain choices: +193% (1.86 → 5.46/7)
- Healthy food choices eating out: +185% (1.62 → 4.62/7)
- Meal planning: +92% (2.24 → 4.31/5)
- Grocery list use: +65% (2.62 → 4.31/5)
- Miscellaneous shopping items ↓ 43%
- Mean self-reported fruit intake went from 2 to 2.46 times/day
- Mean self-reported vegetable intake went from 1.62 to 2.31 times/day
- On a scale of 0-4 for checking nutrient labels, with 4 being always, students went from 1.57 to 2.77

Discussion:

The Smart Food Consumption Workshop effectively increased participants' awareness of nutrition and budgeting, equipping teens with practical skills like meal planning, shopping within a budget, and using tools like MyPlate.

Despite challenges such as limited attendance during summer and lack of access to household data, participants gained valuable real-world experience applicable to their daily lives.

The workshop empowered teens to make healthier, more cost-effective food choices through hands-on learning and guided activities.

This work is supported by the AFRI Education and Workforce Development Program, project award no. 2023-68018-40310, from the U.S. Department of Agriculture's National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and should not be construed to represent any official USDA or U.S. Government determination or policy.

Reference: Chen, D., Jaenicke, E. C., & Volpe, R. J. (2019). The Healthfulness of Food-at-Home Expenditures, the Local Food Environment, and Childhood Obesity. American Journal of health promotion, 33(3), 412-419.

USDA. (2021). Thrifty food plan, 2021. Food and Nutrition Service U.S. Department of Agriculture. Reference

U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov. Reference