

## Poster Session: Wellness and Public Health

### Evaluating Existing Marketing Tactics Utilized to Promote Nutrition to Children in Arizona Schools

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**Learning Outcome:** \*describe marketing used to promote FVs among youth \*compare/contrast marketing materials used to promote FVs in schools \*discuss the need for the development of more effective FV marketing materials.

**Purpose:** To evaluate and compare the content of existing nutrition marketing materials within school cafeterias in Arizona. Results from this novel study provide insight into nutrition marketing and how it can be modified to promote fruit and vegetable consumption in schools effectively.

**Methods:** In this cross-sectional study, investigators took photographs of all nutrition marketing materials at baseline from a convenience sample of 22 elementary, middle and high school cafeterias (e.g., posters, table tents, displays) between 2017-2019; 158 pieces of nutrition marketing were captured. The photographs were sorted by grade level and coded quantitatively and qualitatively for message type, purpose (e.g., fruit/vegetable behavior, education, campaign), appeals, visual components (i.e., design, size, textual content), strategies, and relevance for the student population.

**Results:** Baseline prevalence of nutrition marketing materials within all school cafeterias was low (mean = 7.2 ± 6.7 number of pieces). Several types of messaging were present across schools (e.g., 46% nudges vs. 15.8% social modeling vs. 38.6% education). A variety of appeals (e.g., cartoons, bright colors, celebrity endorsements) were utilized with little consistency. Strategies often appeared inappropriate for the target population. Many materials targeted to elementary students were text heavy. Educational components were notably lacking within middle school cafeterias but were often integrated into high school nutrition marketing.

**Conclusion:** Results indicate a need to evaluate the content of existing nutrition materials on a larger scale across grade levels, so initiatives can be made to develop strategies for age-appropriate marketing and improve the promotion of fruit and vegetable consumption in schools.

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### Examining Differences in Farmers' Market Patronage In Low-income Communities in New Jersey

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**Learning Outcome:** Identify differences between consumers who regularly shop at farmers' markets and those who do not, including store and market preferences.

**Background:** Consumers in low-income communities face barriers to farmers' market patronage. The purpose of this research was to identify differences between consumers in low-income communities who regularly shop at farmers' markets and those who do not.

**Methods:** A survey was administered at WIC clinics in Northern NJ (n=520). Descriptive statistics and independent t-tests were used to compare demographics, consumption patterns, and procurement preferences among the group of respondents who shopped at farmers' markets and those who did not.

**Results:** Regular farmers' market shoppers reported having higher average fruit and vegetable consumption ( $p < .05$ ). Farmers' market shoppers placed higher importance on frequenting stores or markets with locally-grown produce and that were open on weekends, whereas non-farmers' market shoppers were more likely to value stores or food markets that also sold non-food items ( $p < .05$ ).

**Conclusions:** To support the implementation of farmers' markets in low-income communities, it is important to consider fruit and vegetable consumption, procurement practices, and preferences of the consumers within these communities.

**Funding source:** This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2017-70001-25994.

### Examining the Feeding Beliefs, Rules, and Practices of Toddler Caretakers: Findings from the WIC Infant and Toddler Feeding Practices Study-2

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**Learning Outcome:** Describe the feeding beliefs, rules, and practices of caregivers with low-income toddlers.

The Academy's strategic plan includes a focus on expanding prospective food and nutrition research, and one of the largest prospective studies of low-income, 0-6 year old children in the U.S. is the WIC Infant and Toddler Feeding Practices Study-2 (WIC ITFPS-2). During the third year of life, WIC ITFPS-2 examined feeding practices and dietary behaviors of 24-36 month old children who received WIC benefits at birth. Specifically, during a telephone interview, study children's caretakers answered questions about their feeding beliefs, rules, and practices. We used chi-square and multivariate analyses to examine associations between these beliefs, rules, and practices and socio-demographic data. Furthermore, as a data reduction technique for analysis, we created an index from the feeding behavior items related to control over child consumption, and used Spearman's correlation to explore whether caretaker beliefs were associated with feeding practices. Preliminary results suggest that select feeding beliefs vary by socio-demographic variables. African-American, Hispanic, and unmarried caretakers, as well as caretakers with incomes less than 75 percent of the Federal poverty level, were more likely than their counterparts to agree that it is important for their children to finish the food on their plates and to agree that parents should determine how much food their child eats. Additionally, our index demonstrated that more controlling beliefs were moderately associated with more controlling feeding rules and practices. These findings have important implications for dietitians who educate low-income caretakers with young children, particularly because these feeding beliefs, rules, and behaviors may strongly influence children's dietary intake.

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### Exploratory Decision Tree Analysis to Predict Dietary Factors Contributing to Obesity Intervention Response Among Hispanic Youth

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**Learning Outcome:** Upon completion, participants will be able to describe which dietary characteristics of the spotlight diet best predict response to a school-based pediatric obesity intervention.

**Background:** Spotlight-based diets are commonly recommended for pediatric obesity treatment. Little is known regarding which food group should be prioritized when educating families.

**Research Outcome:** This study identified profiles of dietary changes made by Mexican-American youth that distinguish those who responded from those unresponsive to an established school-based obesity intervention that uses a spotlight dietary approach.

**Methods:** Classification and Regression Tree (CRT) analysis was used to classify 174 Mexican-American middle school students with BMI percentile  $\geq 85$  who received the spotlight dietary intervention. Predictors included baseline zBMI and percent change at six months in the number of foods consumed in each group (red, yellow, or green) of the spotlight diet as assessed by the Block Food Frequency Questionnaire. Response after six-months was defined according to American Academy of Pediatrics guidelines.

**Results:** Participants (50.6% male) were  $12.01 \pm 0.64$  years old and had a zBMI of  $1.83 \pm 0.43$  at baseline. Three distinct pathways were identified, correctly predicting 69.0% of participants. Individuals with a greater baseline zBMI were likely to be unresponsive. Of individuals with a lower zBMI, response was more likely among those who had the greatest decreases in red food consumption. Changes in green and yellow foods did not appear in the tree.

**Conclusion:** This preliminary evidence suggests a reduction in red foods is more predictive of intervention response than a change in yellow or green foods. Replication of this finding would warrant the prioritization of reducing foods high in calories from fat and sugar over increasing fruits and vegetables.

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