Supermarket Science: Multipronged Approaches To Increasing Fresh, Frozen and Canned Fruit & Vegetable Purchases

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**Background**

**Fruit & Vegetable (F&V) Consumption**
- Few US youth & adults meet F&V intake recommendations
- Children who consume a diet rich in F&V are less likely to exhibit overweight or obesity
- Maternal F&V consumption is positively associated with child’s F&V intake

**Barriers to Healthy Eating**
- Affordability and availability of fresh produce
- Low-income populations spend less on F&V
- Children living in households that spend less on F&V eat fewer F&V

**Why the Retail Grocery Environment**
- Has potential to impact key barriers
- Retail chains can promote products across large population segments
- Few studies done to demonstrate effectiveness of approaches in supermarkets (e.g. point of purchase education, choice architecture or through financial incentives)

**Project Goal**

Evaluate the success of promoting F&V purchases in a supermarket setting among low-income and SNAP-eligible families and children living in a rural Maine community.

**Research Objective**

Assess the effectiveness of a double value coupon incentive program, combined with Cooking Matters at the Store education program, on the purchase and consumption of healthful fresh, frozen or canned F&V among low-income families shopping at a large supermarket chain.

**Research Methods**

- Enrollment: 605 shoppers
- Enrollment criteria: child between ages 2-8 living in household, and use of the store as the primary grocery shopping venue
- Participants received 5% off all purchases at store for next 12 months (3 months baseline, 6 month intervention: 4 months, 3 months follow-up).
- Participants enrolled in store loyalty program & received study loyalty cards to track purchases
- Collected demographics, shopping habits, best method to communicate, SNAP eligibility/participation
- Participants randomized to intervention or control arms January 1, 2017
- Cooking Matters station style store events were offered to intervention arm participants over a two-month period Jan-March 2017

**Main Activities and Outcomes**

**Research Outcomes:**
1) Participants’ weekly spending on F&V
2) Participant-reported consumption of F&V and dietary habits via FFQ
3) Participants’ reporting of children’s F&V consumption at home.

**Outcomes tested among all study participants & SNAP-eligible participants**

**Years 3-4 Education and Extension:**
- The Food Trust
  - Develop educational toolkit for academics, professional associations & industry partners
  - Develop national webinar series hosted on the Healthy Food Access Portal
- University of Maine Cooperative Extension:
  - Webinar for 4H youth development & nutrition staff, and Healthy Maine Partnership/SNAP-Ed staff
  - Online training to eXtension Families, Food and Fitness, and Community Nutrition Education Communities of Practice.

**Community Nutrition Education Program Communities of Practice**
- Host materials developed from project
- Maine SNAP-Ed
  - Develop fact sheets & webinar trainings
  - Disseminate approaches to work with supermarkets/grocers
- University of New England
  - Involve undergraduate nutrition students in research, education and extension activities

**Conclusions & Implications**

Through research, education and extension, this project will promote fruit and vegetable purchases and consumption by families in under-resourced communities, thus reducing health disparities, improving human nutrition, and preventing unhealthy weight gain among children.

**References**


5Bushard N, Stewart H, Jeffreys D. Low-income households’ expenditures on fruits and vegetables USDAERS, AER-833, May 2004


**Acknowledgments**

This project was supported by Agriculture and Food Research Initiative Competitive Grant no. 2016-68001-24961 from the USDA National Institute of Food and Agriculture.