

**Reducing or Preventing Weight-Related Disease
Through Increasing Fruit & Vegetable
Consumption Among Low-Income
Elementary Children: A Community-Based
Research & Extension Intervention
Systems Approach**



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An interdisciplinary, longitudinal endeavor of
The University of Maryland College Park
School of Public Health
College of Agriculture & Natural Resources
Maryland Cooperative Extension
The Maryland Department of Human Resources
The United States Department of Agriculture
The Maryland Food Stamp Nutrition Education Program

Project FRESH:

Fruits & Veggies Raise Energy for School Health

Project FRESH Focus:

Increasing fruit and vegetable consumption among low-income children, their families and school personnel.





Intended FRESH Outcomes

- ▶ **Long Term**—Increase access to, and availability and affordability of, fruits and vegetables in community, home, and school environments such that low-income youths who are introduced to a variety of fruits and vegetables regularly consume the minimum daily intake as a behavior carried over into adulthood.
- ▶ **Intermediate Term**—Provide research-based evidence that will be incorporated into curricula and programming so that maximum impact occurs among the targeted youths and adults.
- ▶ **Short Term**—Assess impact of interventions on student preference and consumption of fruits and vegetables

Interventions:

**Introducing nutrition education into
4th & 5th grade curricula;**



Enhancing the school cafeteria environment;

**Collaborating with the teaching faculty, food service workers
& school administration;**

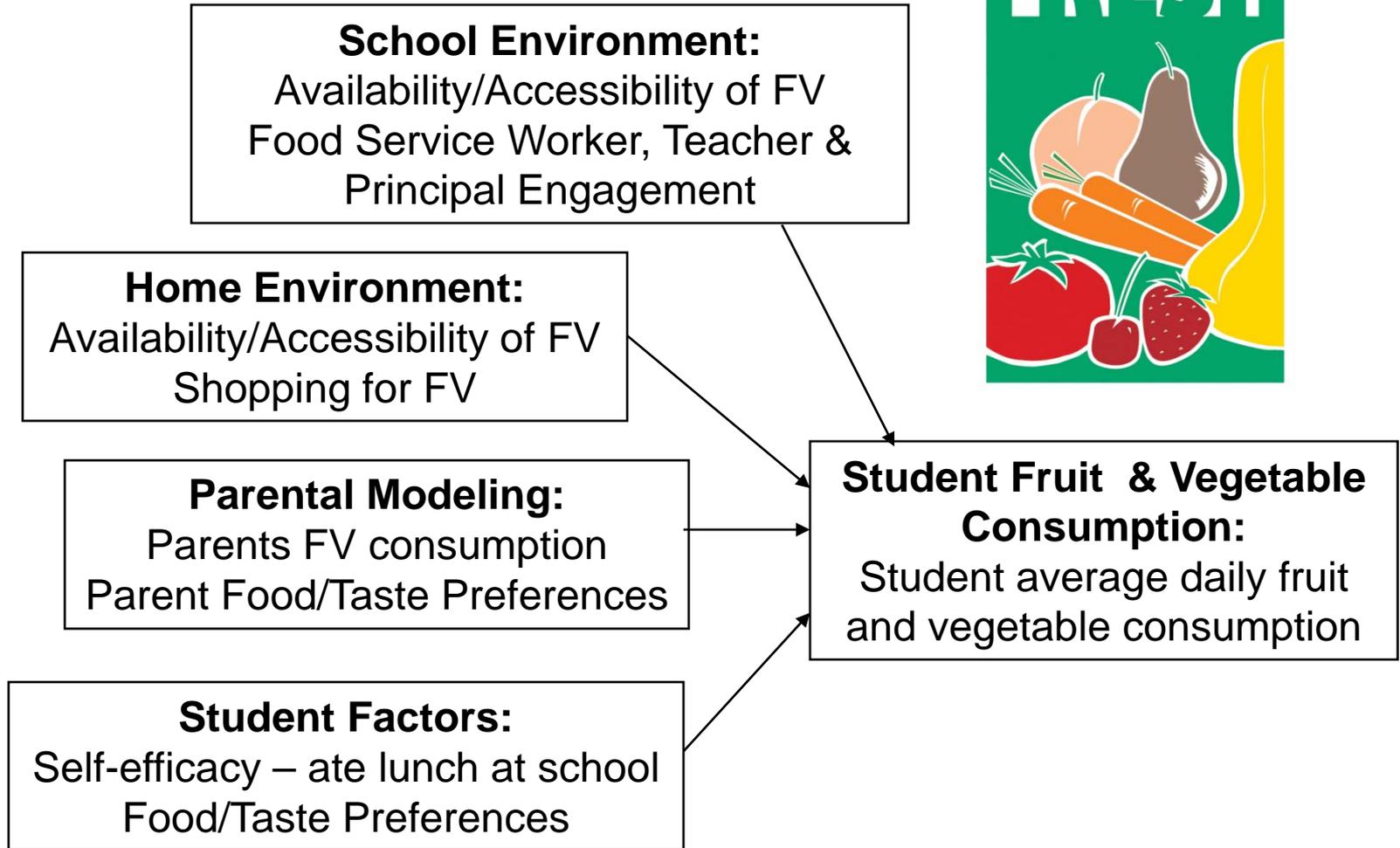
Providing healthy activities for the entire family;

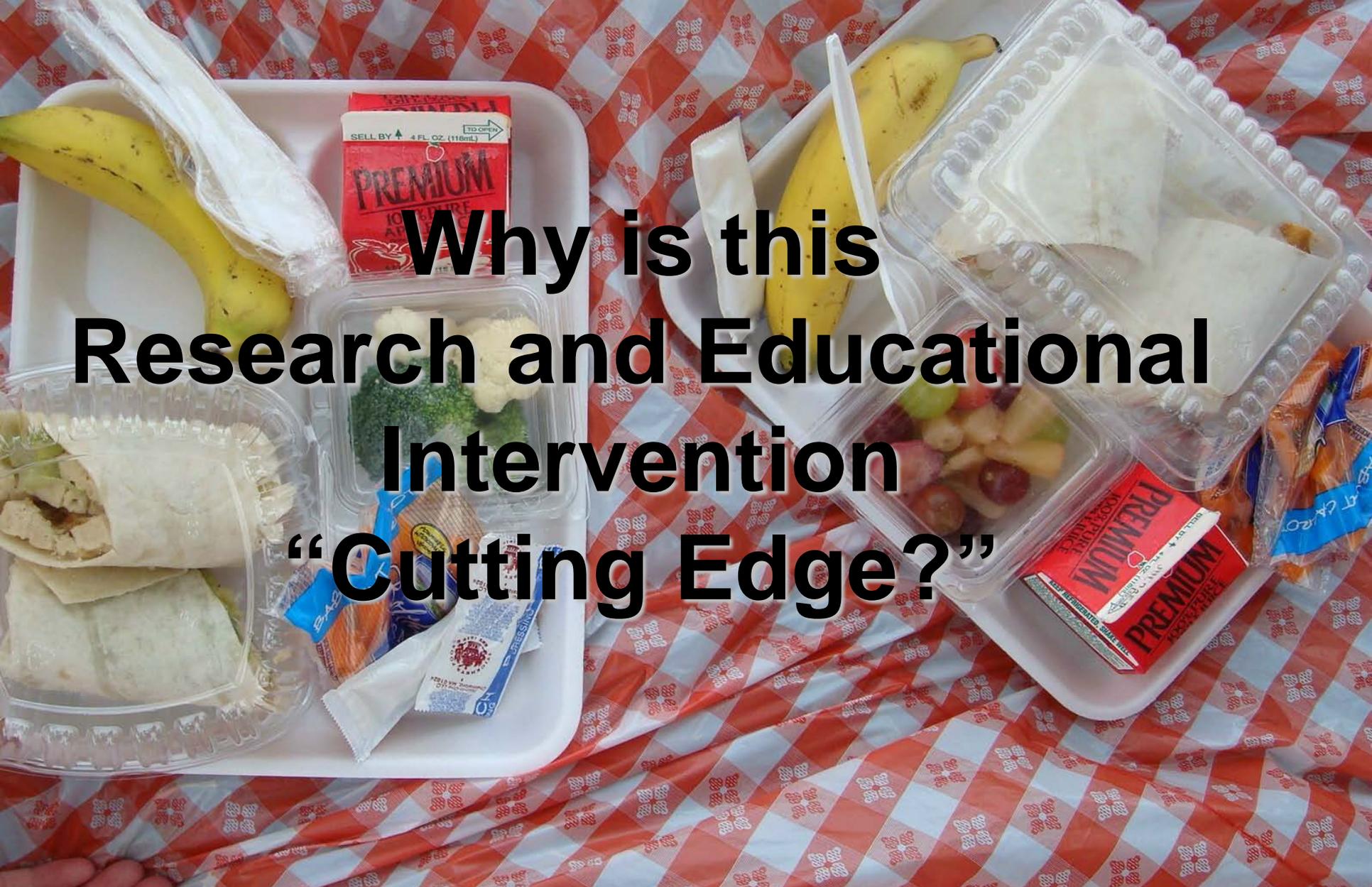
Offering nutrition workshops to parents and guardians;

Encouraging gardening by students and families; and

Bringing a farmers market directly to the community.

FRESH Framework





Why is this Research and Educational Intervention “Cutting Edge?”



Significance of this Research & Extension Outreach Intervention Initiative

- Low-income families experiencing low levels of food security
- Fruits and vegetables costly
- Fruits and vegetable consumption associated with prevention of weight-related diseases
- These students depend on school food for 1/3-2/3 of daily intake
- Behaviors of parents, teachers and food service workers affect children's preferences & consumption
- Little research or evidence for intervention exists
- Few interventions address multiple systems impacting consumption
- Research often separate from translation and application &/or conducted without input of community under investigation.

Filling a gap in knowledge that may lead to improved health and well-being



“I didn’t know that I liked apples!”
Student

“The word "impressive" hardly describes the excellence of FREShtival...the children and their parents had fun, everyone learned, and everyone ate lots and lots of fruits and vegetables.” *State agency executive director*



“I learned that I do not need to go to McDonalds for yogurt parfaits anymore because now I know how to make them myself” *Parent*

“I asked my kids if they wanted an ice cream party as an end of the year treat. Instead of ice cream, they **CHOSE** a fruit salad party!

You would be so proud!!

We had blueberries, honeydew, strawberries, bananas, grapes, and pineapple. Thanks again for all your help this year!!

I am sure the kids thank you too!!”

Tiffany M. Marr

Baltimore Highlands Elementary School

Unsolicited E-Mail 6-14-08



FRESH Future



- ▶ **Second year measures being collected for analysis**
- ▶ **Additional expanded investigations underway or proposed for funding include:**
 - 1) Measuring Availability, Accessibility and Affordability of Fruits & Vegetables at Community Food Outlets**
 - 2) Measuring Family Level Social, Behavioral & Other Environmental Determinants of Fruit & Vegetable Consumption**
 - 3) Incorporating Findings into School, Family and Community-based Interventions and Testing For Impact on Behavior**

Project FRESH Contact Information



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