



A Multi-site Evaluation of Fruit and Vegetable Consumption Changes from SNAP-Ed for Adults and Children

Results from FFY 2010 and FFY 2011

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Thank You!

- The many colleagues on our local projects
- The Program Managers and Nutrition Education Consultants who guide our local projects in choosing and developing the best educational resources available
- Research colleagues on this multi-site evaluation: Patrick Mitchell, Andrew Bellow, Evan Talmage

Background

- Local *Network* partners deliver nutrition education interventions aimed at specific audiences, and are trained in evaluation capacity building to assess their own programs.
- The largest partners are required to conduct Impact or Outcome Evaluation annually (and a few conduct evaluations voluntarily)
- Children (grades 4-8) received either *PowerPlay!* or *Harvest of the Month* interventions.
- Adult interventions were nearly always parent education.

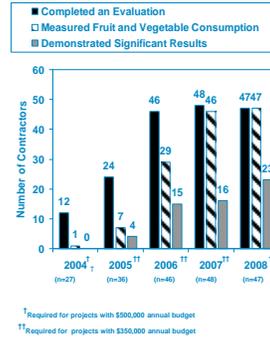
Background, where we've been

- Impact-Outcome evaluation first started in 2004.
- See “Building Evaluation Capacity” paper in JNEB
- How did diverse local programs learn to do rigorous evaluations?

How we tried to build evaluation capacity.



Expansion of contractors' evaluation capacity.



Introduction of Evaluation Capacity Building Tools

Each year training workshops, monitoring and one-on-one technical assistance were provided.

2004- Handbook, Compendium of Surveys, Final Report Template

2005-Standardized Scope of Work Objective

2006-Data Entry Template, Evaluation Plan Template

2007-Teleconferences, Fruit and Vegetable outcome required

Evaluation

- Some aspects of evaluations are standardized
 - Minimum sample sizes
 - Standardized survey tools
 - Pre-test/post-test design
- Other evaluation components are designed locally
 - Optional survey modules can be added
 - Control groups
 - And much more...

Analysis

- | | |
|---|--|
| <p>FFY 2010</p> <ul style="list-style-type: none"> • 44 projects total • 21 selected for analysis <ul style="list-style-type: none"> ❖ 12 children*, 9 adult <p>Intervention:
1474 children*, 646 adults</p> <p>Control:
544 children*, 159 adults</p> | <p>FFY 2011</p> <ul style="list-style-type: none"> • 42 projects total • 39 selected for analysis <ul style="list-style-type: none"> ❖ 29 children*, 10 adult <p>Intervention:
6858 children*, 1099 adults</p> <p>Control:
779 children*, 45 adults</p> |
|---|--|

*Children included in analysis were in grades 4-8.
Sample sizes are for fruit and vegetable intake.

The following notations are used throughout this presentation for all analyses:

- * p< .05
- ** p< .01
- *** p< .001
- ns non-significant

If no significance level is indicated for a change between pre-test and post-test, the change is non-significant.



FFY 2010
Children's Intervention & Analysis

Interventions Used by Local Projects

Projects* Using Harvest of the Month	Moderate	Intense	Projects* Using Power Play!	Moderate	Intense
	1-3 Activities	4+ Activities		1-10 Activities	11+ Activities
	5	6		1	4

*projects often use more than one intervention and may be duplicated in this count.

Evaluation Designs Used by Local Projects

Evaluation Design	Count
pre/post no comparison group	4
pre/post with comparison group	7
pre/post no comparison group, different intensities	1

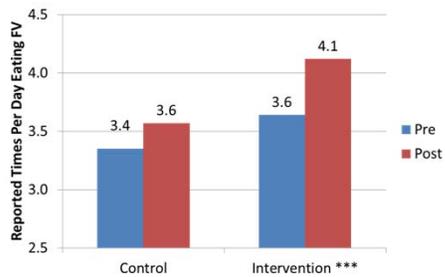
Network Youth Survey

Used by all child projects in FFY 2010 & 2011.
Condensed version of the School and Physical Activity Nutrition project (SPAN) survey, which was validated for 4th graders.

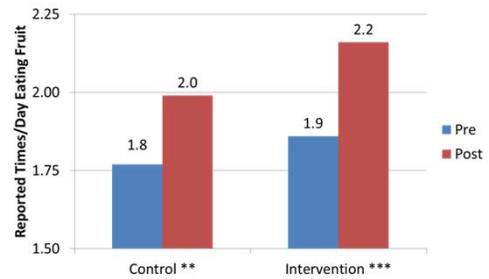
7. Yesterday, did you eat any vegetables? Vegetables are all cooked and uncooked vegetables; salads; and boiled, baked and mashed potatoes. Do not count French fries or chips.



- No, I didn't eat any vegetables yesterday.
- Yes, I ate vegetables 1 time yesterday.
- Yes, I ate vegetables 2 times yesterday.
- Yes, I ate vegetables 3 times yesterday.
- Yes, I ate vegetables 4 times yesterday.
- Yes, I ate vegetables 5 or more times yesterday.

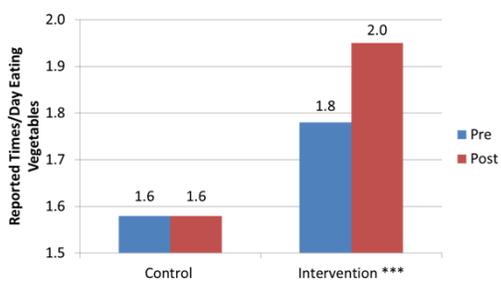


FV consumption increased significantly for the intervention group, but not for the control group.



Fruit intake increased significantly for both intervention and control groups.

The pre/post change for control vs. intervention was not statistically different, indicating a possible secular trend or seasonal influence.



Vegetable consumption increased significantly for the intervention group, but not for the control group.



FFY 2011
Children's Intervention & Analysis

Interventions Used by Local Projects

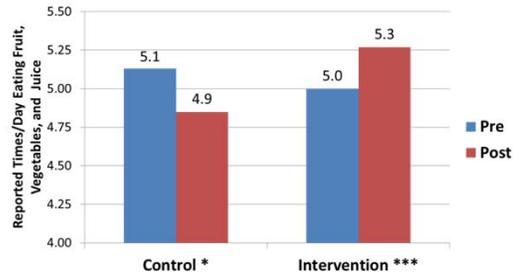
Educational Intervention	Count*
Harvest of the Month	23
Power Play!	12
Other materials or resources	8

*projects often use more than one intervention and may be duplicated in this count.

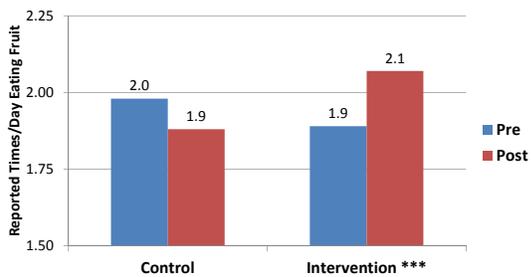
Evaluation Designs Used by Local Projects

Evaluation Design	Count
pre/post no comparison group	16
pre/post with comparison group	11
pre/post no comparison group, different intensities	2

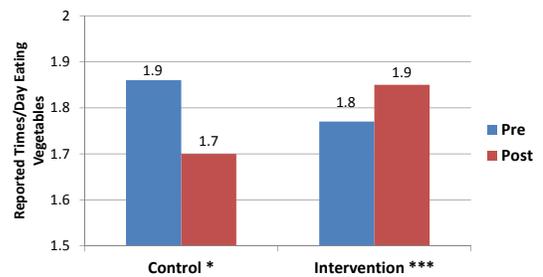
All child projects continued to use the Network Youth Survey in FFY 2011.



Children in the intervention group reported an increase in FV intake from pre to post, while control group children reported a significant decline.



Children in the intervention group reported a significant increase in fruit consumption. No change was detected in the control group.



Children in the intervention group reported an increase in vegetable intake from pre to post, while control group children reported a significant decline.



**FFY 2010
Adult Intervention & Analysis**

**Intervention Components Used by
Local Projects in FFY 2010**

**Most frequently mentioned materials,
activities, topics, and learning strategies:**

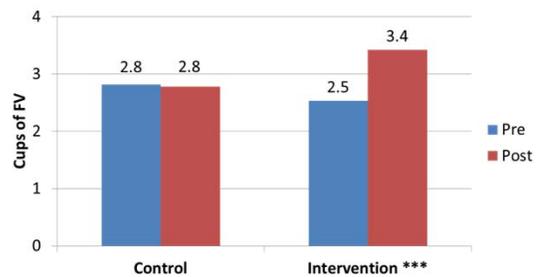
- Food demos
- Taste tests
- MyPyramid
- Understanding and measuring portions
- Label-reading
- Cookbooks and recipes
- Multilingual handouts

**Evaluation Designs & Surveys Used by Local
Projects**

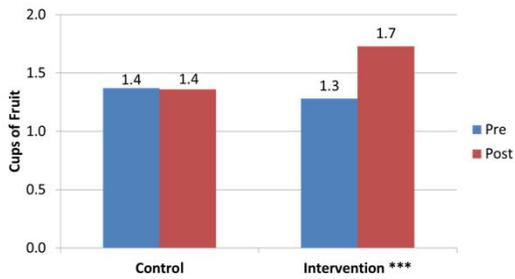
Evaluation Design	Count
pre/post no comparison group	3
pre/post with comparison group	3
pre/post no comparison group, different intensities	3

Survey	Count
Fruit and Vegetable Checklist (FVC) – 7 items	3
Food Behavior Checklist (FBC) – 16 items	6

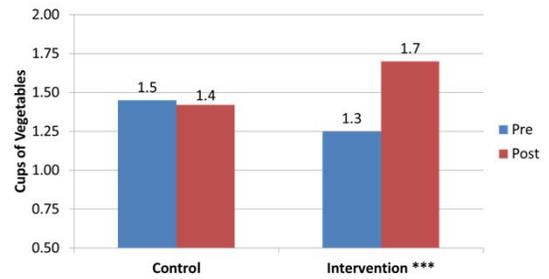
The **FVC** is a 7-item fruit and vegetable scale. It is contained within the **FBC**, which includes a broader range of dietary behaviors. Both are **validated** for use with **low-income** populations and available in **English** and **Spanish**.



While there was no change in FV intake for the control group, adults in the intervention group increased FV intake by almost one cup per day.



Intervention group adults increased fruit intake by a reported .45 cups from pre to post, while control group adults reported no change.



Adults in the intervention reported a .45 cup increase in vegetable intake from pre to post. The control group reported no change.



FFY 2011
Adult Intervention & Analysis

Intervention Components Used by Local Projects in FFY 2011

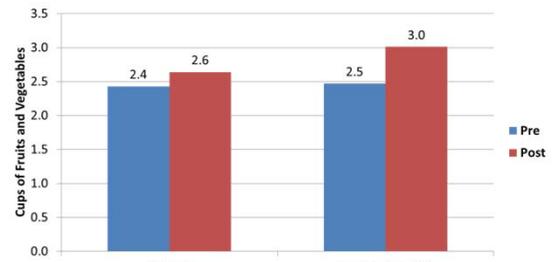
Most frequently mentioned materials, activities, and learning strategies:

- Food preparation
- Taste tests
- MyPyramid
- Role-playing
- Harvest of the Month
- Shape of Yoga
- Field Trips

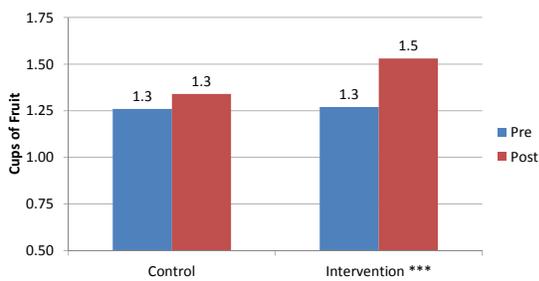
Evaluation Designs & Surveys Used by Local Projects – FFY 2011

Evaluation Design	Count
pre/post no comparison group	10
pre/post with comparison group	2

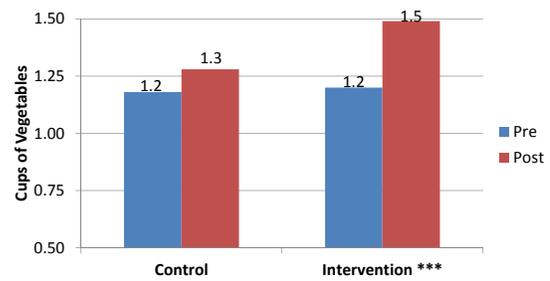
Survey	Count
Fruit and Vegetable Checklist (FVC) – 7 items	4
Food Behavior Checklist (FBC) – 16 items	8



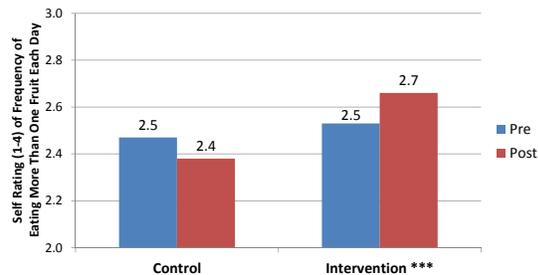
Intake of FV increased a **half cup** for intervention participants but there was no reported change for the control group.



Fruit intake increased a **quarter cup** for intervention participants but there was no change for the control group.



Intervention participants reported a significant increase in vegetable consumption. The control group reported no change.



Do you eat more than one kind of fruit each day?

- 1 No
- 2 Yes, sometimes
- 3 Yes, often
- 4 Yes, everyday

Intervention participants reported a significant increase in eating more than one kind of fruit each day. The control group reported no change.

Summary

- Local projects delivered interventions targeted to their specific audiences.
- In both FFY 2010 and 2011, results showed positive change in FV intake for adults and children participating in these local SNAP-Ed interventions.

Conclusions

- When assisted with developing the capacity to participate in evaluation, local programs can be an integral part of a multi-site evaluation like this one.
- Local, targeted nutrition education initiatives are an essential component of the success of multi-level social marketing campaigns such as the *Network for a Healthy California*.

This material was produced by the California Department of Public Health's *Network for a Healthy California* with funding from USDA SNAP, known in California as CalFresh (formerly Food Stamps). These institutions are equal opportunity providers and employers. CalFresh provides assistance to low-income households and can help buy nutritious foods for better health. For CalFresh information, call 1-877-847-3663. For important nutrition information, visit www.cachampionsforchange.net.