Evaluation for Transformation: How to Use the Framework in Your Farm to School Program

Tia Henderson, Research Manager
Upstream Public Health
Groundbreaking Launch

Overview
Context
Contents
Use

http://www.farmtoschool.org/resources-main/evaluation-framework
Why an evaluation framework?

What are your MOST COMMON ACTIVITIES?
- 87% Teach children about where food comes from and how it's grown
- 79% Serve meals or snacks with at least some local food
- 78% Plant or work with children in edible gardens
- >50% Give families information about locally grown food

We asked:
What FARM to PRESCHOOL activities are you engaged in?
- What are your challenges and opportunities? What support do you need?

WHAT IS FARM to PRESCHOOL?
It's about connecting young children (ages 0-6) with local foods!
Farm to preschool includes any type of child care that incorporates local foods through: meals & snacks, taste tests, lessons, farm visits, cooking, field trips, growing food, or community and parent engagement.

We taught children about local traditional ways of preserving fresh produce.

4,322 districts
40,328 schools
23,513,237 children
Defining local

How does your district define local?

- 13% said 100 miles
- 21% said 50 miles
- 6% said 200 miles

2% said a day's drive, 26% said within the state, 10% said within the region, and 5% had another definition for local. (See the details)

National Farm to School Network – Growing Stronger Together
The Evaluation Framework is:

• a framework, NOT a Toolkit / Step by Step Guide for Evaluation
• Meets specific gaps in the field:
  – Common definitions and language
  – Deeper dive into FOUR key sectors connected to farm to school
  – Articulation and understanding of cross-sectoral connections
  – Recommended approaches for evaluation / tracking at the program level, research level and policy level
  – Program Articulation
  – Policy linkages for farm to school outcomes
• There is something for everyone!
Framework Development Process

• Informal engagement – over years (250+ persons)

• Formal engagement – Sep 2013 onwards (50+persons)
  1: Identification of broad areas
  2: Framework content development
  3: Content expansion and feedback
  4: Testing at a short course in Austin, April 2014
Common Definitions, Language

CORE ELEMENTS OF FARM to SCHOOL

EDUCATION

SCHOOL GARDENS

PROCUREMENT
Supplemental Elements

6 SEEDS OF AN EFFECTIVE PROGRAM

- Training and Professional Development
- Promotion and Media
- Planning, Coordination and Evaluation
- Outreach and Community Engagement
- Policy Alignment
- Funding
Actors and Touch Points

Use this for:
Building your team
Planning your program
• What activities are you doing?
• Who are they for?
• Who participates in them?
  • Who does the actions?
  • Who experiences outcomes?
Designing an evaluation plan
Concept: Programs Drive Policy

Policy Drives Programs

- Programs
  - Policy Review
    - Evaluation
    - Accountability
  - Policy Implementation
    - Enforcement
    - Implementation
  - Policy Formation
    - Negotiation
    - Formulation
    - Organization
  - Agenda Setting
    - Problem Identification
    - Agenda Setting
    - Research
    - Options and Strategies

Stronger Together
Concept: User Levels

PROGRAM
Program planning, reporting and evaluation

RESEARCH
Research that builds on programs and feeds into policies

POLICY
Policies that support programs
Concept: Deep Dive into 4 Sectors Impacted by Farm to School

<table>
<thead>
<tr>
<th>Public Health</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Economic Development</td>
<td>Environmental Quality</td>
</tr>
</tbody>
</table>

National Farm to School Network – Growing Stronger Together
Theory Based:
Hybrid Socio Ecological Model
Equity

• A critical frame for considering farm to school outcomes, indicators and measures
• Dig deeper and explore equity focused outcomes and indicators
Indicator 1: Farm to school activities increase awareness of local food availability in the community.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Number of people who received local, healthy food through participation in farm to school program activities; for example, garden harvest baskets</td>
</tr>
<tr>
<td>1.2</td>
<td>Number of people who receive resources about accessing local, healthy foods in farm to school family outreach events</td>
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<td>1.3</td>
<td>Number of families that begin gardening at home or in a community garden after participation in farm to school activities</td>
</tr>
<tr>
<td>1.4</td>
<td>Number of coupons given and redeemed by farm to school program for farmers’ markets, farm stands or other access point for local, healthy foods</td>
</tr>
<tr>
<td>1.5</td>
<td>Self report of Supplemental Nutrition Assistance Program (SNAP) users who report using SNAP benefits to buy local, healthy foods, whole foods, edible plants and seeds and/or use at farmers’ markets, food stands or other access points</td>
</tr>
<tr>
<td>1.6</td>
<td>The number of farmers’ markets accepting SNAP electronic benefits transfer cards (EBT), Women Infant and Children (WIC) and Senior Farmers’ Market Nutrition Program (SFMNP) vouchers participating in farm to school family activity programs</td>
</tr>
<tr>
<td>1.7</td>
<td>The percentage of direct sales to SNAP EBT clients participating in farm to school family activities at farmers’ markets, including WIC and SFMNP vouchers</td>
</tr>
<tr>
<td>1.8</td>
<td>The number of local products that are SFMNP and WIC eligible sold by grocery markets in community participating in farm to school community activities</td>
</tr>
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</table>
Community Economic Development

Policy Outcome: Institutional support for local and regional foods

<table>
<thead>
<tr>
<th>Indicator 1: Institutional procurement policies supporting local and regional foods.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure 1.1:</strong> The number of institutional procurement policies with supportive language</td>
</tr>
<tr>
<td><strong>Measure 1.2:</strong> The number of state and local procurement policies with supportive language</td>
</tr>
<tr>
<td><strong>Measure 1.3:</strong> Government agency allocation of resources and creation of programs, grants and positions for farm to school</td>
</tr>
<tr>
<td><strong>Measure 1.4:</strong> Government programs that provide community food project grants to support local and regional foods, including farm to school efforts</td>
</tr>
<tr>
<td><strong>Measure 1.5:</strong> Number of state agencies that identify local food systems as a priority</td>
</tr>
<tr>
<td><strong>Measure 1.6:</strong> Number of states with &quot;buy local&quot; food programs that include farm to school</td>
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<table>
<thead>
<tr>
<th>Indicator 2: Institutional programs supporting local and regional foods</th>
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<tbody>
<tr>
<td><strong>Measure 2.1:</strong> Government agency allocation of resources and creation of programs, grants and positions for farm to school</td>
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</tbody>
</table>
Program Planning, Implementation and Promotion: Cross-Sector Connections

Education -> Public Health

Public Health -> Environmental Quality
Appendices

- Evaluation resources
  - Online repository of tools – search under “resources” on [www.farmtoschool.org](http://www.farmtoschool.org)
- Implementation resources
- Farm to School Menu of Options
- Sample Logic Model
- Sample Evaluation Tools – for all 4 sectors
- Ideas for Exploration - for all 4 sectors
## How You Can Use the Framework (Example 1)

<table>
<thead>
<tr>
<th>USDA F2S Evaluation Toolkit</th>
<th>Evaluation Framework Content</th>
</tr>
</thead>
</table>
| Establishing a Vision & Goals | • Sector Outcomes, Indicators, Measures  
                               | • Appendix 3: Menu of Options   |
| Promoting Your Program | Cross Sector Sub Sections  
                           | Appendix 2: Implementation Resources  |
| Education & Curriculum Integration | Chapter 4:  
                                  | • Sectors, Outcomes, Indicators, Measures  
                                 | • Program Articulation |
| Evaluating Your Efforts | • Appendix 1: Evaluation Resources  
                           | • Appendix 4: Sample Logic Model  
                           | • Appendix 5: Sample Evaluation Tools |
| Sustaining Your Program | Appendix 2: Implementation Resources |
# How You Can Use the Framework (Example 2)

<table>
<thead>
<tr>
<th>Colorado Evaluation Toolkit</th>
<th>Evaluation Framework Content</th>
</tr>
</thead>
</table>
| (Step 2) Identify Your Outcomes                                 | • Sector Outcomes, Indicators, Measures  
• Appendix 3: Menu of Options                                  |
| (Step 4) Create Your Evaluation Plan                            | Chapter 4:  
• Sectors, Outcomes, Indicators, Measures  
• Program Articulation                                         |
| (Step 5) Complete Your Evaluation Plan                          | • Appendix 1: Evaluation Resources  
• Appendix 4: Sample Logic Model  
• Appendix 5: Sample Evaluation Tools                          |
Research Outcome: Increased consumption of local and healthy foods

4.2 Public Health
Key Takeaways

Common Language
Common Outcomes, Indicators, Measures
Common Tools
Common Vision

Questions? Contact NFSN

Download Here:

http://www.farmtoschool.org/resources-main/evaluation-framework
Program Goals

- Increase students’ knowledge of where food comes from and how it’s grown
- Increase students’ and their families’ understanding of our local food system and the community, health and environmental benefits of buying locally
- Increase students’ and their families’ exposure, access to and consumption of fresh locally grown fruits and vegetables, giving priority to schools with high levels of food insecurity
Educational Activities include:

- Lesson on where food comes from
- Farm field trip
- Cooking with food from the farm
- Tasting table
- School garden sessions
- Food literacy lesson
What we evaluate:

Learning/ change in knowledge
- Where food comes from and who grows it
- How it's grown
- Benefits of eating locally grown food
- Learned something
What we evaluate:

Change in behavior
- Preference for fruits and veggies
- Consumption of fruits and veggies

What was their experience?
Number of participants
Evaluation techniques:

- Pre/post tests
- Quotes from kids and stories from staff
- Pictures
- Great thank you notes
- Count number of kids and schools
- Teacher and principal evaluations
Pre/post test example questions:

Do you like fruits?  Yes  No

How often do you eat fruits and vegetables at lunch?
Never, Sometimes, Almost every day, Every day

How often do you eat fruits and vegetables at home?

Where does food come from?

Circle the fruits and vegetables that grow in Oregon (with pictures)
Dear Wintergreen Farmers & Farmer Jabrilla

Thank you for... Pick tomatoes &
for the fresh, organic, delicious food.

I really enjoyed the hay ride and
meeting & watching your beautiful helpful,
singing cows & Thank you for being so polite.

I have a big garden of my own I love it... like

I love yours

Love, Mariya

I love farms
Dear Pam and Randy,

Thank you for letting us come and for the fresh apples and fruit and for giving us the awesome tour.

I really enjoyed learning about the bees and eating the delicious healthy fruit.

From Autumnnesia
Dear Groundwork Organics,

Thank you so much for letting us come to the farm. I learned so much and had so much fun. My first favorite thing was seeing the chickens, goats, pigs and ducks. My second favorite part was picking the lettuce, mint, mustard greens, fava-beans and spinach. One thing I noticed is all the plants looked fresh and gorgeous.

Also thanks for letting us pick and give us cucumbers to make salad. My third favorite thing was planting the lima beans. Thank you so so so much.

Sincerely,
Cherie
Family Activities include:

- Outreach events at school
- Field trips to local farms and farmers markets for families
- Cooking demonstration about how to use them
- Resources: coupons, information about using SNAP benefits and other resources for accessing local foods
What we evaluate (for families):

Learned something
- Where to access local foods
- Using SNAP at markets and farms

Change in behavior
- Eating more local food at home

What was their experience?

Number of participants, coupons, etc
Evaluation techniques:

- Quote and notes from families and stories shared by staff
- Pictures
- Family survey results
Evaluation techniques:

- Number and $ value of coupons distributed and redeemed
- Number of people reached at outreach events
- Number of people
- Number newsletters distributed
- Family center evaluations
Family Survey example questions:

- Did you learn something new about where to buy local foods from participating in our program?
- After participating in the program would you say it’s more important to you to get local fruits and vegetables for your family when you can?
- Are you and your family eating more local food after the fieldtrip?
Family Survey example questions:

- What are the barriers or what makes it difficult, if anything, for your family to access local foods?

- What could we do to make the farm to school family field trips better or what was your favorite part of the trip, something we did well?
Lessons learned:

- Change in behavior is difficult to measure.
- It's important to include both quantitative and qualitative data in your evaluation (telling stories and sharing numbers).
- Use a variety of evaluation techniques to gather info from kids who will share information visually, verbally, physically.
How we use evaluation

What does it mean for our program?

- Does it validate what we are doing?
- What changes are needed?

Report to others

- Funders (in grant reports and letters)
- Board of directors
- Organization’s annual report
For more inquiries, feel free to contact us!

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ACKNOWLEDGEMENTS

Thank you to the teachers, staff, and families at Mt. Hood Community College Head Start whose time and energy made this study possible.

This study was funded by Kaiser Permanente Northwest
PURPOSE

To evaluate Harvest for Healthy Kids, a farm-to-preschool program comprised of foodservice modifications and classroom education, and designed to promote fruit and vegetable intake among low-income children enrolled in Head Start.
8 FEATURED FOODS

- Beets
- Sweet Potatoes
- Root Veggies
- Carrots
- Winter Squash
- Cabbage
- Berries
- Asparagus
Foodservice Component

2x PER WEEK

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY
Classroom Education Components
Study Design

HIGH-INTERVENTION

LOW-INTERVENTION

CONTROL

n=461

BASELINE

WILLINGNESS TO TRY LIKING

POST-INTERVENTION

KNOWLEDGE WILLINGNESS TO TRY LIKING
HIGH-INTERVENTION

Foodservice Modifications
Classroom Education

LOW-INTERVENTION

Foodservice Modifications
DATA COLLECTION

- Survey and taste-test
KNOWLEDGE
What is this?

WILLINGNESS TO TRY
Do you want to taste it?

LIKING
Can you point to the face that tells me what you think about it?
Baseline

HIGH-INTERVENTION  LOW-INTERVENTION  CONTROL
## Post-intervention

<table>
<thead>
<tr>
<th></th>
<th>HIGH (n=98)</th>
<th>LOW (n=99)</th>
<th>CONTROL (n=79)</th>
<th>p-value</th>
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<td>13 (13.4%)</td>
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<tr>
<td>Try</td>
<td>82 (87.2%)</td>
<td>88 (90.7%)</td>
<td>59 (74.7%)</td>
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<tr>
<td>Like</td>
<td>52 (64.2%)</td>
<td>33 (37.5%)</td>
<td>26 (44.1%)</td>
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# Post-intervention

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<tr>
<td>Name</td>
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<td>79 (82.3%)</td>
<td>41 (51.9%)</td>
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<tr>
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<td>67 (84.8%)</td>
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<tr>
<td>Like</td>
<td>80 (94.1%)</td>
<td>71 (78.9%)</td>
<td>48 (75.0%)</td>
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## Post-intervention

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<td>2 (2.1%)</td>
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<td>81 (83.5%)</td>
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<tr>
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## Post-intervention

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<td>Try</td>
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## Post-intervention

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<td>80 (86.0%)</td>
<td>69 (71.1%)</td>
<td>48 (61.5%)</td>
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<tr>
<td>Like</td>
<td>50 (62.5%)</td>
<td>26 (38.8%)</td>
<td>23 (46.9%)</td>
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KEY FINDINGS

- Positive impact on knowledge, but few children able to name foods beyond carrots, cabbage, berries
- Positive impact on willingness to try and liking
- Findings consistent with past studies of repeated exposure and food acceptance
STUDY STRENGTHS

First study to test impact of farm-to-preschool program on children’s knowledge of and attitudes about fruits and vegetables

Community-based approach enhanced acceptability and feasibility of intervention

Harvest for Healthy Kids curriculum is aligned with Head Start Child Development and Early Learning Framework
STUDY LIMITATIONS

- Small sample size made it difficult to detect statistically significant differences among groups.
- Response bias and social desirability.
- Findings not generalizable to other preschool children.
CONCLUSION

Results provide compelling evidence for a positive impact of a farm-to-preschool program on knowledge of, willingness to try, and liking of target fruits and vegetables among children in Head Start.

Further research with larger, more generalizable study populations and more rigorous methods is needed.
Tasting Table Evaluation
Lauren Kraemer, MPH
Oregon Farm to School Summit
Three Gorge Elementary Schools--2nd, 3rd, 4th graders
Evaluation Tools
Pre-Test Administered October 2013, Post-Test June 2014

Name: ____________
_2nd Grade _ 3rd Grade
_ 4th Grade

My birthday is (month & day):
____________

 Mortgage Game

Please place the number next to the food if you do not recognize the food, leave it blank.

1.) Cherry Tomatoes
2.) Sweet Pepper
3.) Cauliflower
4.) Carrots
5.) Apple
6.) Mushroom
7.) Rhubarb
8.) Radish

Circle each food you have tried before.

Circle every place you have tried one of the foods above.
• At my home
• At school
• At church
• I have never tried any of the foods above
• At a restaurant
• At a different location

At lunch, most kids at my school make half of their lunch fruit and vegetables.
Never
Sometimes
Usually
Always

At lunch do your friends encourage you to eat fruit or vegetables?
Never
Sometimes
Usually
Always

At lunch, are you sure you can eat fruit, even if your friends do not?
I cannot
A little sure I can
Very sure I can

At lunch, are you sure you can eat vegetables, even if your friends do not?
I cannot
A little sure I can
Very sure I can

Thank you!
Tasting Table Evaluation Significant Results:

• From Pre- to Post, students **increased ability to match images of fruits and vegetables with their correct name** (p<.005, N = 114)—may **NOT indicate increased knowledge**

1.) Cherry Tomatoes
2.) Sweet Pepper
3.) Cauliflower
Tasting Table Evaluation Significant Results (cont’d):

• 4th grade: the places they had tried the foods had increased from 3.38 places to 4.09 places (p<.032, N=34)
Tasting Table Evaluation Dashboard of Lessons Learned

Circle each food you have tried before.
Measuring Our Collective Impact
TABLE OF CONTENTS

Background 01
Overview 02
Where we’re at 03
How to engage 04
Questions 05
Background
Overview

Oregon is bringing the farm to school

82 districts
714 schools
366,066 children
Where we’re at

- Compared national, Oregon goals
- Compiled all existing data
- Next up: web development
How local programs can engage

- Complete surveys from ODE, partners
- Fill out F2S grant applications & reports accurately, thoroughly
- Align evaluation efforts
Questions?

Stacey Sobell
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Ecotrust
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Thank you.