Farm to Early Care and Education

National Farm to School Network

Overview

Farm to Early Care and Education (farm to ECE) is a PSE change intervention designed to increase access to healthy, local foods in ECE settings through local food purchasing and gardening; increase the quality of the ECE setting through food, nutrition, and agriculture related experiential education; increase children’s acceptance and preference for healthy foods; increase children and family knowledge about healthy foods and local food systems; and positively influence child, family, and provider health behaviors. Farm to ECE includes a set of activities and strategies that include 3 core elements of farm to school – local food purchasing, gardens, and food, nutrition, and agriculture education – implemented with the goal of enhancing the quality of the ECE environment and the educational experience in all types of ECE settings. As farm to ECE is not a “one size fits all” strategy, the core elements adapt readily to different settings, geographic locations, enrollment numbers, and diverse ages and abilities of children. Farm to ECE aims to advance racial and social equity by increasing access to healthy, local foods and high quality education opportunities for all children. **Target Behavior:** Healthy Eating **Intervention Type:** PSE Change

Intervention Reach and Adoption

Farm to ECE targets children and their families in the ECE environment in all types of ECE settings (e.g., preschools, child care centers, family child care homes, Head Start/Early Head Start, programs in K–12 school districts). Farm to ECE also adapts readily to different geographic locations and ages and abilities of children. According to the [2021 National Farm to ECE Survey](https://snapedtoolkit.org/interventions/programs/farm-to-early-care-and-education/), 81% ECE sites surveyed are currently participating in farm to ECE. Examples of farm to ECE interventions in sites serving low-income communities include [North Carolina](https://snapedtoolkit.org/interventions/programs/farm-to-early-care-and-education/) and [Pennsylvania](https://snapedtoolkit.org/interventions/programs/farm-to-early-care-and-education/). Farm to ECE is also a prevalent and impactful intervention in Head Start settings. [New York State’s Farm to Preschool Program](https://snapedtoolkit.org/interventions/programs/farm-to-early-care-and-education/) is an example of a state level comprehensive farm to early care and education intervention. **Setting:** Community gardens, Child care (Learn), Gardens, Indian Tribal Organizations **Target Audience:** Preschool (<5 years), Parents/Mothers/Fathers, Adults **Race/Ethnicity:** All

Intervention Components
Farm to ECE is a set of activities and strategies that include three core elements:

1. Local food procurement/purchasing: Purchasing and serving local and seasonal foods in meals and snacks can support adherence to Child and Adult Care Food Program (CACFP) meal patterns and allows every meal time opportunity to be a learning opportunity.

2. Gardening: Hands-on gardening opportunities, ranging from sprouting a seed on an indoor windowsill to maintaining large outdoor plots, allow young children to strengthen their understanding of how food grows and where food comes from.

3. Food, Nutrition, and Agriculture Education: Educational opportunities related to food, nutrition, and agriculture are expansive and diverse. Children can learn about how food grows by reading farm and garden books; engage in experiential education activities such as cooking and tasting local foods; or use local foods in literacy, math, science, and social studies lessons to support achievement of early learning standards.

Intervention Materials

The National Farm to School Network and partner organizations have created diverse resources to meet the needs of diverse audiences. A number of resources are available at the following websites:

- National Farm to School Network
  - Farm to Early Care and Education Landing page
  - English and Spanish language fact sheets
  - Webinar: Indigenous foods in Farm to ECE
  - NFSN’s Directory of Farm to ECE Materials and Guides
- USDA, Office of Community Food Systems (OCFS) Farm to Preschool
  - USDA OCFS Farm to Preschool Fact Sheet -
  - USDA OCFS Procuring Local Foods for Child Nutrition Programs -
  - USDA’s Farm to CACFP
- Pennsylvania Ready, Set, Grow - Multicultural book lists
- CDC’s Advancing Farm to Early Care and Education
- Enhancing Young Children’s Access to Local Foods and Farm to ECE: Federal Funding Opportunities and related webinar from September 2021
- MSU’s Everything in Good Season: Growing Farm to Family Care and Education
- CO’s Farm to Child Guide
- North Carolina’s Cherokee Elementary Pre-K farm to ECE program
- North Carolina's Gibson Elementary Pre-K farm to ECE program
- Vermont Mix of Early Care Educators: Sharing the Value of Farm to ECE

Training resources and materials are available on the NFSN Resource Database. Examples include the following:

- National Farm to School Network - A Roadmap for Farm to Early Care and Education
- Michigan State University Center for Regional Food Systems - Farm to Early Childhood Programs: A Step-by-Step Guide

Intervention Costs
Evidence Summary

Studies indicated that participation in farm to ECE activities contributes to an increased ability to identify fruits and vegetables (1), as well as willingness to try and reported liking of target fruits and vegetables (2,3,4,5) and increased fruit and vegetable consumption (1,2,5,6,7,8). Additional benefits cited included positive reactions to the intervention activities from both parents and teachers (2,4,6,8,9), an increase in local foods served in the homes of participating families (4) and healthier meals served in the ECE setting (10).

1. Hands-on childcare garden intervention: A randomized controlled trial to assess effects on fruit and vegetable identification, liking, and consumption among children aged 3–5? years in North Carolina
2. Impact of a Farm-to-School Nutrition and Gardening Intervention for Native American Families from the FRESH Study: A Randomized Wait-List Controlled Trial
3. Harvest for Healthy Kids Pilot Study: Associations between Exposure to a Farm-to-Preschool Intervention and Willingness to Try and Liking of Target Fruits and Vegetables among Low-Income Children in Head Start
4. Feasibility and acceptability of a gardening-based nutrition education program in preschoolers from low-income, minority populations
5. Youth Gardens Increase Healthy Behaviors in Young Children
6. Farm to Family: Increasing Access to Affordable Fruits and Vegetables Among Urban Head Start Families
7. Overcoming Barriers to Vegetable Consumption by Preschool Children: A Child Care Center Buying Club
8. Frequency of Eating Homegrown Produce Is Associated with Higher Intake among Parents and Their Preschool-Aged Children in Rural Missouri
9. Nutrition-education program improves preschoolers’ at-home diet: a group randomized trial
10. Farm to School, School to Home: An Evaluation of a Farm to School Program at an Urban Core Head Start Preschool Program

Evidence-based Approach: Research-tested

Evaluation Indicators

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

<table>
<thead>
<tr>
<th>Readiness and Capacity – Short Term (ST)</th>
<th>Changes – Medium Term (MT)</th>
<th>Effectiveness and Maintenance – Long Term (LT)</th>
<th>Population Results (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>ST1, ST2</td>
<td>MT1, MT2.</td>
<td></td>
</tr>
<tr>
<td>Environmental Settings</td>
<td></td>
<td>MT5</td>
<td></td>
</tr>
<tr>
<td>Sectors of Influence</td>
<td></td>
<td>MT8</td>
<td></td>
</tr>
</tbody>
</table>

- ST1a and ST1b: Children more willing to try fruits and vegetables. Increase child requests for vegetables. Increased child reported liking of fruits and vegetables. Higher nutrient content of served lunches.
- ST2a and ST2f: Parent plans to increase fruit and vegetable purchasing.
- MT1c, MT1d, MT1l, and MT1m: Increased child consumption of fruits, vegetables, and low-fat/fat-free milk.
- MT2a and MT2f: Increase in family shopping at farmstand/market. Increase in local food purchases. Increase in home gardening.
- MT8c: Increase in ECE sites participating in farm to ECE.

### Evaluation Materials

The National Farm to School Network (NFSN) has developed the [Farm to Early Care and Education Shared Metrics: Outcomes, Indicators, and Measures for Farm to ECE Evaluation](#) to guide and support planning, implementation, research, evaluation, and reporting efforts. Additional evaluation tools are available in the [NFSN Resource Database](#).

- [NFSN & ASPHN 2021 Farm to Early Education Self Assessment](#)
- [GNS self-assessment paper form](#)

### Additional Information

**Website:** The [National Farm to School Network (NFSN) website](#) includes information about NFSN, the organization’s work and network, resources, farm to school advocacy, and ways to get involved. **Contact Person:** Tomas Delgado Farm to Early Care and Education Associate (949) 395-1666 [tomas@farmtoschool.org](mailto:tomas@farmtoschool.org)