

# Developing an Evidence Base to Sustain and Grow a Farm to ECE Movement

Policy Brief 4





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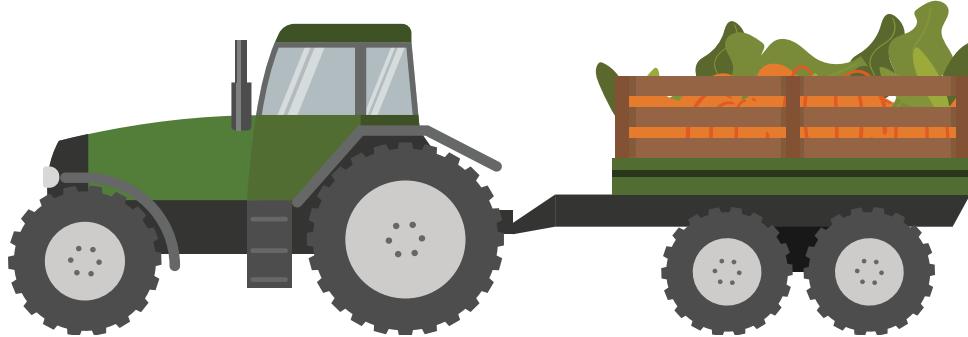
Finally, we would like to extend our deepest gratitude to all the individuals who took part in the 9-state Farm to ECE Community of Practice (CoP) for close to a decade, with a special extended note of appreciation for the individuals who provided additional time and insight to inform these briefs: Dara Bloom (North Carolina State University, North Carolina), Stacy Daniels (Wilkes Community Partnership for Children, North Carolina), Monica Griffin, MS, RD, LD (Quality Care for Children, Georgia), Caroline Hundley (Chick & Sprout, formerly with Center for Environmental Farming Systems, North Carolina), Charlotte Neely (Wayne Action Group for Economic Solvency, North Carolina), Lynn Policastro (Wake County Smart Start, North Carolina), and Audra Wieser Larson (The Parenting Place, Wisconsin).



# Table of Contents

<b>FARM TO ECE PRIMER</b>	<b>4</b>
<b>INTRODUCTION</b>	<b>5</b>
<b>THE ROLE OF MONITORING AND EVALUATION IN ADVANCING FARM TO ECE</b>	<b>8</b>
<b>THE CURRENT STATE OF THE EVIDENCE BASE FOR FARM TO ECE</b>	<b>10</b>
Key Findings from Outcome Evaluations	11
Key Findings from Process Evaluations	12
Directions for Future Research	12
<b>STEPS FOR ENGAGING IN MONITORING AND EVALUATION</b>	<b>14</b>
Step 1: Gather Cross-Sector Input (Who)	15
Step 2: Establish Benchmarks (What)	16
Identifying Intended Outcomes and Metrics	17
Step 3: Collect and Analyze Data (How)	18
Quantitative Research Methods	18
Qualitative Research Methods	19
<b>RECOMMENDATIONS</b>	<b>21</b>
<b>APPENDIX A. EVALUATION AND MONITORING TOOLS AND RESOURCES</b>	<b>23</b>
<b>ENDNOTES</b>	<b>25</b>





## FARM TO ECE PRIMER

Farm to Early Care and Education (Farm to ECE) is a national movement that works to connect early childhood programs with local food sources to support nutrition education and healthy eating among young children.<sup>1</sup> The movement is characterized by a set of four core activities that take place in early learning settings:

**nutrition  
education**

**on-site  
gardening**

**family  
engagement**

**local food  
procurement**

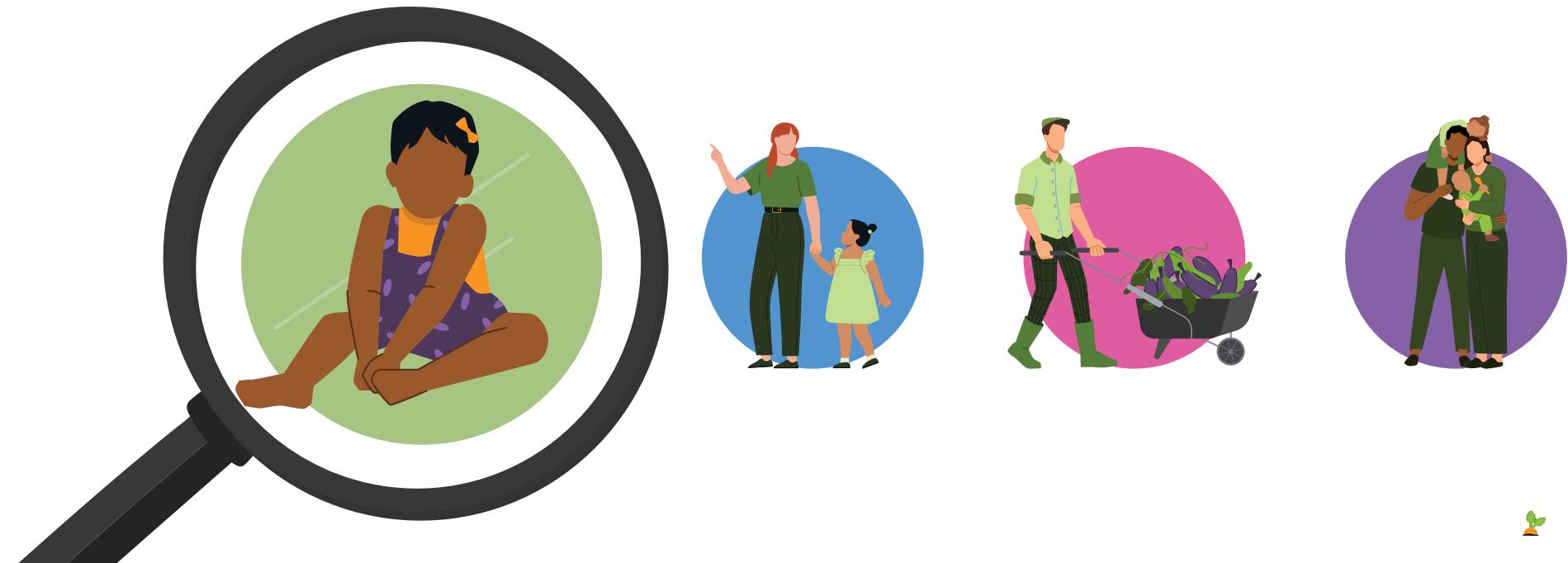
This brief outlines the importance of building an evidence base to demonstrate the positive impact of Farm to ECE and support the movement's sustainability and expansion.



# INTRODUCTION

A key part of growing and sustaining a Farm to ECE movement is demonstrating the impact that Farm to ECE activities have on young children, families, the ECE workforce, and farm and food system workers. Building an evidence base involves a systematic approach that gathers, analyzes, and synthesizes successes, lessons learned, and observed outcomes from those implementing Farm to ECE.

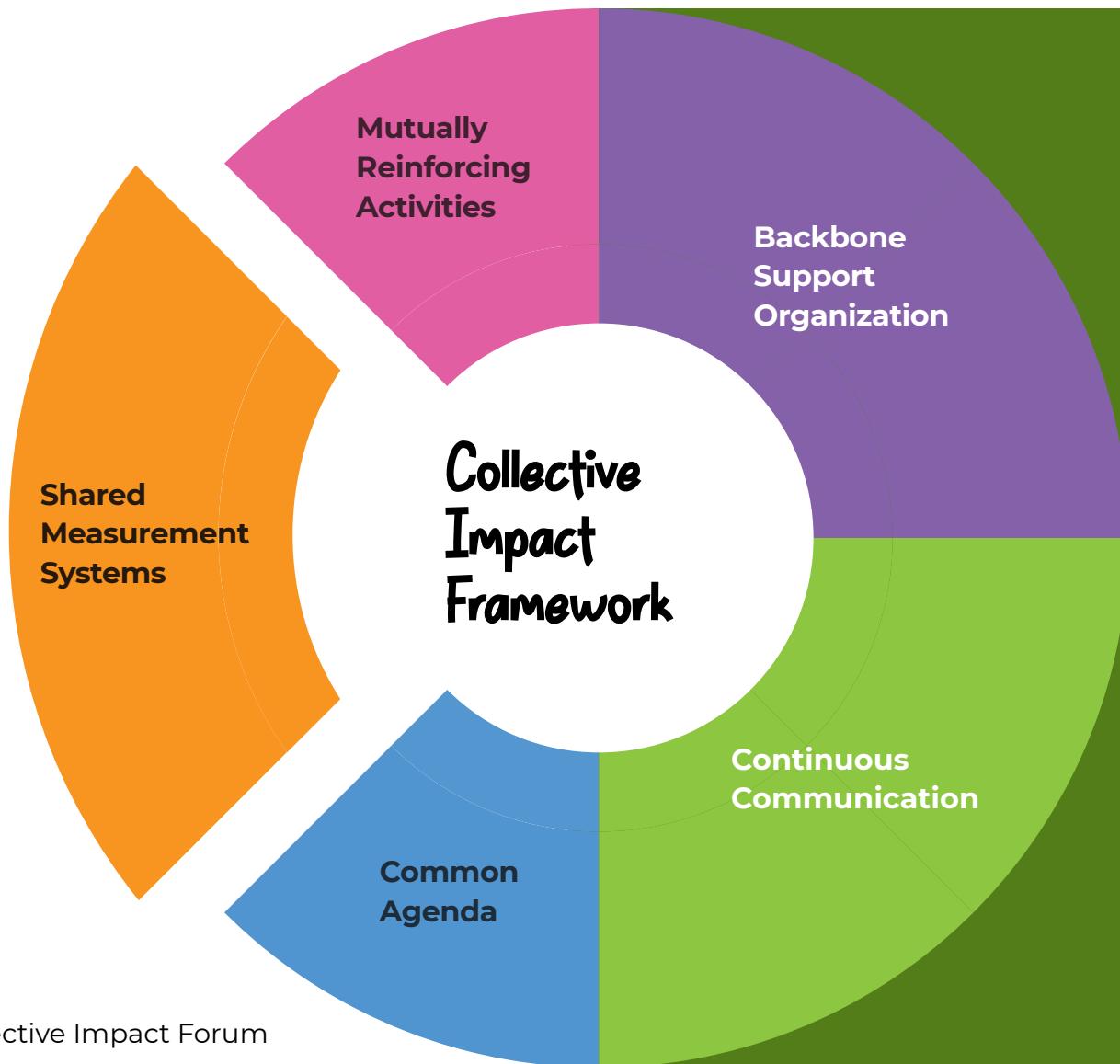
The current evidence base for the Farm to ECE movement is small but tells a compelling story. Initial research suggests that Farm to ECE is associated with positive outcomes for children, families, ECE providers, local economies and communities. While the initial findings are promising, expanding the evidence base will require demonstrating replicability across diverse settings, conducting longitudinal studies, broadening the scope of outcome measures, and examining the individual and combined effects of key Farm to ECE components. (See section on “The Current State of the Evidence Base for Farm to ECE” on page 12 for more detailed information).



Providing evidence for the impact of Farm to ECE activities is essential to strengthening the national Farm to ECE movement. A robust body of research informs policy, attracts funding, supports knowledge-sharing, and ensures

long-term program sustainability. The collective impact framework guiding Farm to ECE emphasizes using shared measurement strategies across the Farm to ECE movement. Tracking progress in the same way allows for continuous

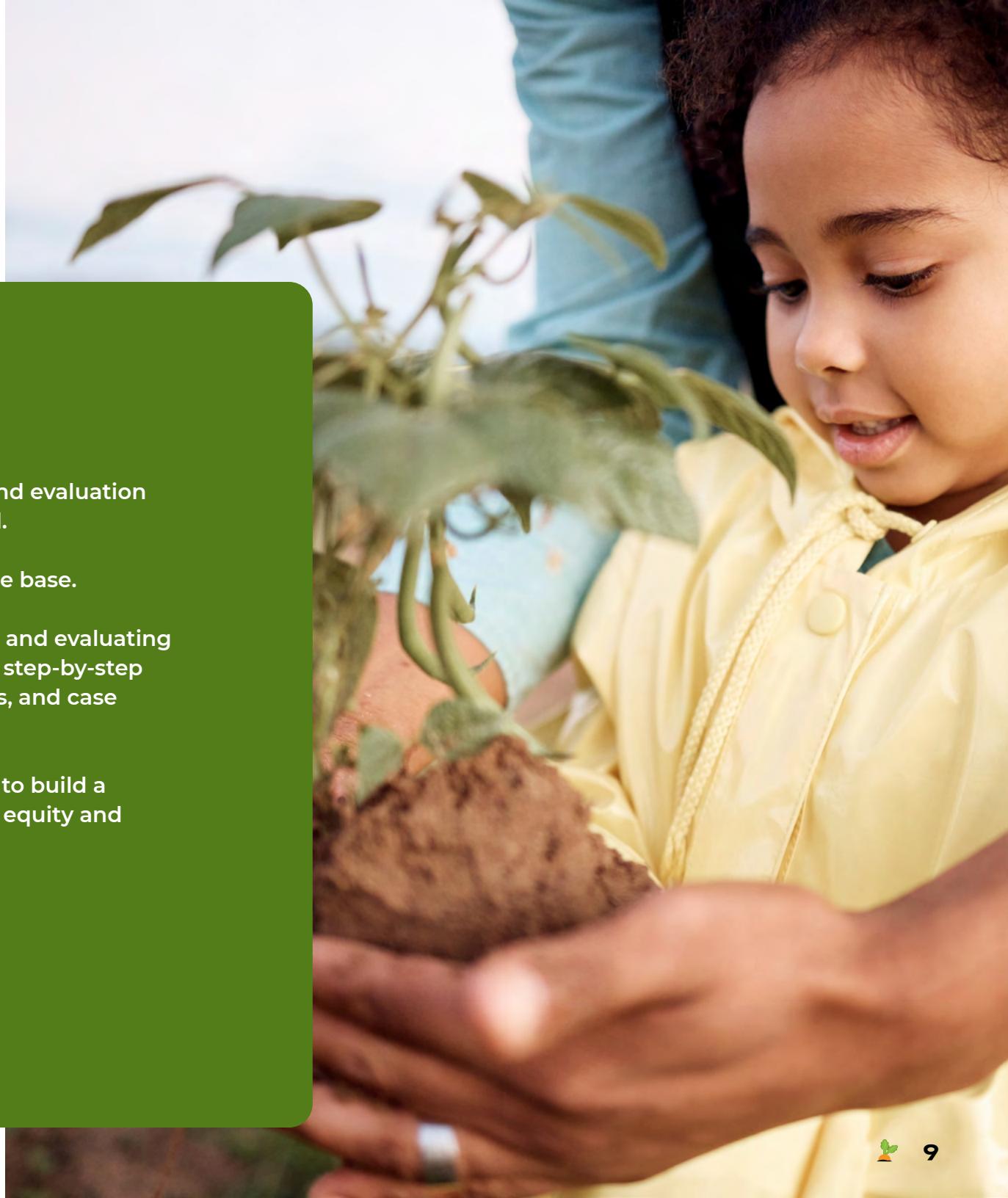
learning, accountability, and adaptation.<sup>2</sup> Strengthening the evidence base enhances program effectiveness, deepens understanding of impact, and helps ensure Farm to ECE remains centered on equity.



Adapted from the Collective Impact Forum

## This brief provides:

- ✓ An overview of how monitoring and evaluation can advance the Farm to ECE field.
- ✓ A summary of the current evidence base.
- ✓ Practical strategies for monitoring and evaluating Farm to ECE activities, including a step-by-step guide, relevant tools and resources, and case studies.
- ✓ Recommendations for continuing to build a robust evidence base that centers equity and drives policy and systems change.



# THE ROLE OF MONITORING AND EVALUATION IN ADVANCING FARM TO ECE

Collecting both quantitative data and qualitative stories helps build an evidence base that captures the work and impact of Farm to ECE. Monitoring and evaluation serve as key tools in this process. **Monitoring** involves tracking specific activities and measuring progress, while **evaluation** assesses the effectiveness, efficiency, and overall impact of those activities.<sup>3</sup> Through evaluation, stakeholders can determine what worked, what did not work, and how intended beneficiaries were affected.

Engaging in monitoring and evaluation offers multiple benefits, helping to strengthen and expand an equitable Farm to ECE movement. Farm to ECE coalitions should use these tools to track key indicators and celebrate *continuous quality improvement* (CQI). A data-driven CQI approach helps coalitions identify strengths, address challenges, and fill gaps to ensure that decisions are informed by the best available evidence.<sup>4</sup>

As practitioners contribute to a more robust Farm to ECE evidence base, they help build momentum for the broader movement. Here, we outline key mechanisms through which an evidence base can support and advance the Farm to ECE movement.





## Policy & Systems Change

An evidence base can make a case for change, encourage the uptake of Farm to ECE among ECE programs, support funding efforts, and facilitate policy change at a systems level.

Through monitoring and evaluation, workgroups can also document the process of implementation and the positive impacts of a movement.



## Program Improvement & Course Correction

Establishing a process of monitoring and evaluation at an early stage creates a baseline for growth and helps a group determine if progress or outcomes are not occurring in the intended manner, providing an opportunity to address any gaps and shift activities.

The metrics and outcomes that an evidence base presents can provide data to help make informed decisions about how Farm to ECE workgroups can move forward.



## A Tool for Equity

Monitoring and evaluation play a crucial role in identifying gaps and uncovering potential areas of inequity within Farm to ECE initiatives.

By integrating evaluation and community engagement, workgroups can align their priorities with community needs, shift power, and foster community-driven solutions.

## THE CURRENT STATE OF THE EVIDENCE BASE FOR FARM TO ECE

Since Farm to ECE is a relatively recent innovation, its research base remains in the early stages of development. In the field of evaluation, it is widely recognized that programs and interventions should reach a certain level of “readiness” before being evaluated. Even when a model, like Farm to ECE, has a well-defined theory of change, it is advisable to allow for an initial implementation phase. This period helps identify and address any early challenges, ensuring that an evaluation measures the true impact of the intervention rather than issues related to implementation or other unanticipated challenges.<sup>5</sup>

However, as the Farm to ECE movement continues to grow and evolve, research on the topic is expanding. Recent reviews from the National Farm to School Network<sup>6</sup> and the U.S. Department of Agriculture<sup>7</sup> highlight nearly 20 peer-reviewed studies published over the past two decades. These studies including both *outcome evaluations*—examining the effects of Farm to ECE on children, families, educators, and communities—and *process evaluations* provide valuable insights into key implementation components and challenges. This growing body of research, summarized below, will help enhance the effectiveness and reach of Farm to ECE initiatives.



# Key Findings from Outcome Evaluations



## Child Outcomes

Increased knowledge of food, nutrition, farming practices, and the origins of food.<sup>14, 15, 16, 17, 18</sup>

Willingness to try and reported liking of target fruits and vegetables.<sup>19, 20, 21, 22, 23, 24, 25</sup>

Increased fruit and vegetable consumption.<sup>26, 27, 28, 29, 30, 31</sup>



## ECE Provider/Site Outcomes

Positive reactions to Farm to ECE programming from educators, particularly hands-on activities and ability to integrate into existing routines.<sup>8, 9, 10</sup>

Healthier meals served in ECE settings.<sup>11</sup>

Increased use of gardens to grow food and provide experiential learning for children.<sup>12</sup>

Enhanced food and nutrition opportunities for children.<sup>13</sup>



## Family Outcomes

Families have positive experiences and attitudes towards Farm to ECE programming.<sup>32, 33, 34, 35, 36, 37</sup>

Families engaged in discussions about healthy eating.<sup>38</sup>

Families increasing the availability of and serving more local foods at home.<sup>39</sup>

Parents reporting increased vegetable consumption for themselves and greater confidence in preparing vegetable-rich meals.<sup>40</sup>



## Community Outcomes

Support for local economies by creating markets for small farmers and fostering community relationships.<sup>41</sup>

Enhanced partnerships between ECE providers and local food producers.<sup>42</sup>

# Key Findings from Process Evaluations

## Key Enablers of Success

Sufficient funding for supplies and personnel are key to success.<sup>43,44</sup>

Low administrative and implementation burden is important for uptake and engagement.<sup>45,46</sup>



## Co-Design with Educators and Families

Can ensure an approach that is culturally relevant, tailored to community needs, practical, and impactful.<sup>47,48</sup>

This approach can also lead to higher levels of acceptance and engagement among participants.<sup>49</sup>



## Assessment and Measurement

Tracking produce sales, coupon redemption, and workshop attendance proved effective in measuring program reach.<sup>50</sup>

Self-assessment tools (e.g., *Go NAPSACC*) and associated CQI resources are highly valued among participants.<sup>51</sup>



## Directions for Future Research

Future research on Farm to ECE should focus on strengthening the evidence base by demonstrating the replicability of positive outcomes across diverse settings and populations. Longitudinal studies are needed to assess the sustained impact of these programs on children, families, educators, and communities over time. Additionally, expanding outcome measures beyond child nutrition to include benefits for ECE providers, farmers, food producers, and local economies will provide a more comprehensive understanding of Farm to ECE's reach. Further investigation into the individual and combined effects of key components—such as family engagement, on-site gardening, and local food procurement—can help identify the most effective strategies for maximizing impact and scalability.



## STEPS FOR ENGAGING IN MONITORING AND EVALUATION

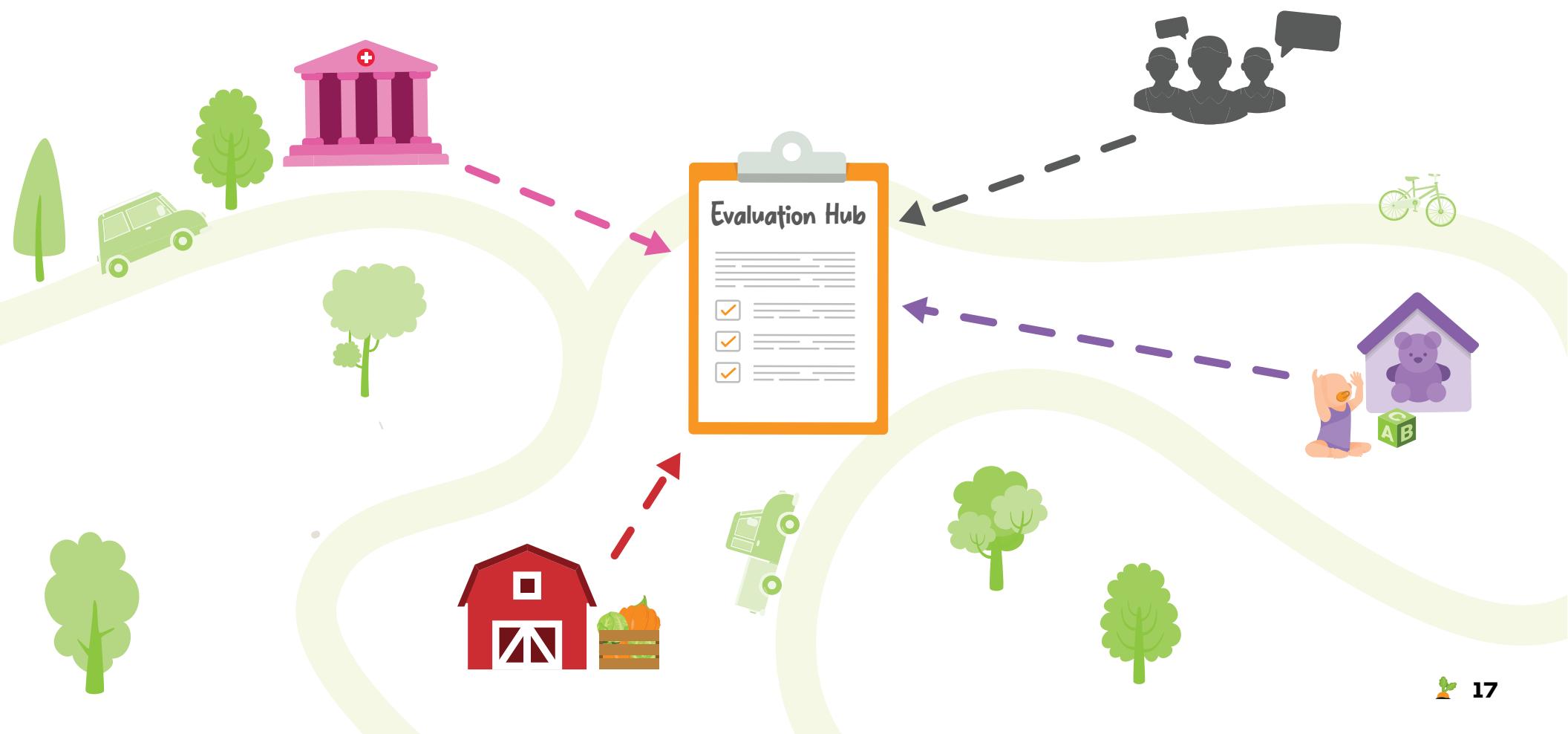
Ideally, evidence gathering should be integrated into the early stages of planning Farm to ECE programs. By aligning data collection with agenda setting and logic model development, coalitions can ensure that meaningful progress is measured throughout implementation. Defining desired outcomes from the start enables more accurate assessment of Farm to ECE activities while also allowing coalitions to establish baseline data and track progress over time. A proactive approach to monitoring and evaluation not only supports continuous program improvement but also contributes valuable insights to the broader Farm to ECE evidence base. The following sections offer guidance to help coalitions determine the key players (who), focus areas (what), and methods (how) for effective evaluation.



## Step 1. Gather Cross-Sector Input (Who)

Stakeholders need to have a role in the design of the evaluation, particularly regarding outcomes.<sup>52</sup> For example, cross-sector input can help define the measurements and outcomes of evaluation. Perspectives collected across multiple systems will strengthen the monitoring and evaluation process, including individuals who represent the ECE system, food system, and public health. By embracing a diversity of roles and perspectives, the coalition can best understand the strengths, gaps, and impact of Farm to ECE work. A core purpose of collective impact is to transform

the systems of power and give it back to communities, further advancing equitable solutions that address root causes. For example, one important aspect of Farm to ECE is elevating culturally appropriate foods at a young age best defined by the community. Evaluations can also be opportunities to develop partnerships with other entities, such as academic institutions or public health organizations, that may be willing to support or inform evaluation efforts and can also bring a more objective, external perspective.



## Step 2. Establish Benchmarks (What)

A coalition's logic model—the way in which activities are connected to outcomes—provides a foundation for the evaluation process by outlining key activities, outputs, and both short- and long-term outcomes. These components serve as a framework for identifying meaningful benchmarks to measure progress effectively. Beyond tracking outcomes, logic models help

coalitions stay grounded in their “why” or core purpose for engaging in Farm to ECE. Evaluation efforts should assess the extent to which programming addresses the root issues initially identified, and at what scale these efforts are making an impact. Additionally, revisiting the intended audience—whether policymakers, funders, or potential collaborators—can further

refine what data, stories, or insights will be most useful in driving policy and systems change.

The questions in Table 1 may help formulate questions and plan for an evaluative process.

**Table 1: Guiding questions to support the identification of evaluation benchmarks**

- **What were our initial short- and long-term desired outcomes?** (e.g., increase access to local food; reducing the prevalence of heart disease)
- **What products, trainings, or other activities did we plan for and ultimately engage in?** (e.g., Farm to ECE communication tools; Farm to ECE trainings for providers)
- **What do we want to learn from an evaluation?** (e.g., effectiveness of programming at accomplishing long-term vision).
- **How are we planning to use the information we gather?** (e.g., funders or policymakers)
- **How does it relate to the logic model?**
- **What do community members/intended beneficiaries want to know?**

# Identifying Intended Outcomes and Metrics

Below are examples of outcomes and metrics that coalitions may consider. These are originally from the “*Farm to Early Care and Education Shared Metrics: Outcomes, Indicators, and Measures for Farm to ECE Evaluation User Guide and Framing Resource*,” a resource developed by the Policy Equity Group and the National Farm to School Network.<sup>53</sup> “**Appendix A. Evaluation and Monitoring Tools and Resources**” provides additional tools and resources to support coalitions in evaluation planning and design.



## CHILD OUTCOMES

**Priority Outcome:** Children eat a variety of nutrient-dense, minimally processed, local foods in ECE settings.

**Indicator:** Amount of local fruits, vegetables, and other nutrient-dense and minimally processed foods children are consuming in Farm to ECE programs.



## PARENT & FAMILY OUTCOMES

**Priority Outcome:** Families have access to and knowledge about local foods and the benefits for their family, community, and environment.

**Indicator:** Attainment of food-related skills, such as recipe development, food preparation, gardening, and cooking.



## ECE PROVIDER & SITE OUTCOMES

**Priority Outcome:** ECE providers promote positive food experiences and adult role-modeling to support children’s attitudes toward and relationship with food.

**Indicator:** Changes in ECE staff diet and lifestyles, including increase in amount of local fruits and vegetables ECE staff report eating.



## PRODUCER & FOOD SYSTEM OUTCOMES

**Priority Outcome:** Farm to ECE programs and purchasing advance local and regional food system infrastructure, market opportunities, and economic impacts.

**Indicator:** Amount of market opportunities/income generation for local producers, processors and distributors through sales to ECE and potentially to other institutions through procurement activity.

**Indicator:** Amount of new income generated from local Farm to ECE sales for local producers.



## COMMUNITY & SYSTEMS OUTCOMES

**Priority Outcome:** Increased community access to nutritious local food.

**Indicator:** Number of outlets for local food purchasing in community

**Priority Outcome:** State, federal, local, and organizational policies prioritize and support equitable and just food and ECE systems.

**Indicator:** Economic viability of food related interventions/projects in BIPOC communities (e.g. projected annual revenue, jobs created, etc.)

## Step 3. Collect and Analyze Data (How)

The method used to measure outcomes depends on the specific research question being addressed. Some approaches rely on **quantitative data**—numerical metrics that provide measurable, objective results—while others use **qualitative data**—rich, descriptive insights that capture experiences, perceptions, and context. In many cases, a **mixed-methods approach**, combining both qualitative and quantitative techniques, can offer a more comprehensive understanding of Farm to ECE's impact. Once coalitions identify key research questions, they can determine which methods will best support their evaluation goals. Below are some common research methodologies and approaches:

### Quantitative Research Methods

These methods focus on numerical data and statistical analysis to measure changes, trends, and correlations.

#### Surveys & Questionnaires

Structured tools that collect data from individuals through closed- and open-ended questions. They are useful for measuring attitudes, behaviors, and self-reported outcomes across large groups.

#### Standardized Assessments

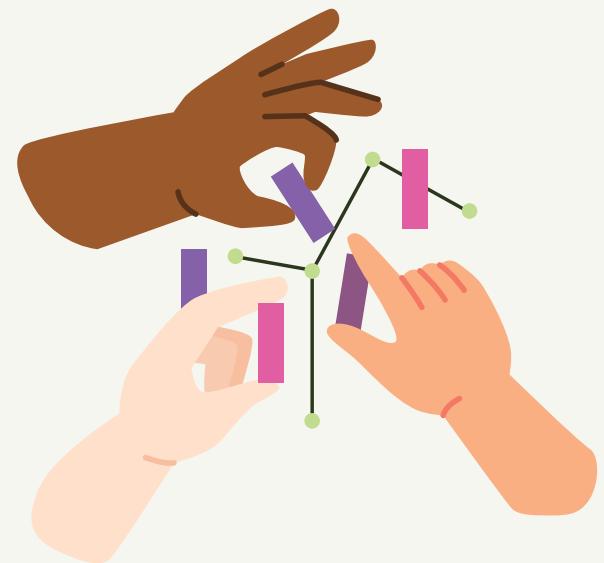
Validated tools designed to measure specific constructs, such as child nutrition, physical activity, or educational outcomes. These assessments help ensure consistency and reliability in data collection.

#### Population-Level Data

Large-scale datasets, such as public health records, census data, or ECE enrollment statistics, provide insights into broader trends and demographic patterns. These data sources help evaluate the impact of Farm to ECE at a community or regional level.

#### Tracking & Observational Data

Methods like meal tracking, food procurement records, or attendance logs help monitor program implementation and progress over time.



## Qualitative Research Methods

These methods explore individual experiences, perspectives, and program context to provide deeper insights into how and why outcomes occur.

### Interviews

One-on-one conversations with key stakeholders (e.g., educators, parents, farmers) to gather detailed personal insights and experiences related to Farm to ECE.

### Focus Groups

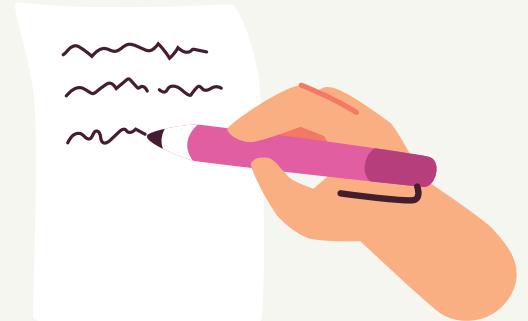
Group discussions that encourage participants to share thoughts and experiences, that generate a collective understanding of program impact and areas for improvement.

### Case Studies

In-depth analyses of specific programs or communities that illustrate real-world implementation, challenges, and successes.

### Ethnographic & Observational Studies

Direct observations of program activities (e.g., children interacting with Farm to ECE meals) to understand behaviors and interactions in natural settings.



## Mixed Method Approach

Combining both qualitative and quantitative methods provides a well-rounded perspective. For example:

- ✓ Conducting surveys to measure changes in fruit and vegetable consumption while using focus groups to explore children's attitudes toward new foods.
- ✓ Using standardized assessments to track child nutrition outcomes alongside interviews with ECE providers to understand implementation challenges.

By selecting the right research methods, Farm to ECE coalitions can effectively evaluate their programs, demonstrating both measurable impact and the lived experiences of those involved.





# RECOMMENDATIONS

Building a robust evidence base is essential for sustaining and expanding the Farm to ECE movement. While initial research demonstrates promising outcomes, such as improved child nutrition and strengthened local food systems, further study is needed to ensure scalability, effectiveness, and long-term impact. A commitment to monitoring and evaluation will allow coalitions to refine strategies, track progress, and make data-driven decisions that support both policy change and program sustainability. By centering equity and community engagement, Farm to ECE initiatives can continue to evolve in ways that are responsive to the needs of children, families, educators, farmers, and food producers.

To continue building and strengthening the evidence base, we recommend the following:

## For Farm to ECE Workgroups, Coalitions, and Advocates

-  **Embed Monitoring and Evaluation Early** – Integrate evaluation planning into the initial stages of program development to ensure meaningful data collection.
-  **Prioritize Equity-Driven Metrics** – Ensure that evaluation frameworks assess the extent to which Farm to ECE is advancing equitable outcomes for children, families, and communities.
-  **Include Diverse Stakeholder Perspectives** – Engage farmers, food producers, ECE providers, and families in setting research priorities and interpreting findings.
-  **Utilize Mixed-Methods Approaches** – Combine quantitative and qualitative research methods to capture both measurable outcomes and lived experiences.
-  **Share Findings Broadly** – Disseminate research results to policymakers, funders, and practitioners to drive program improvements and policy support.



## For Farmers and Food Producers

- ✓ **Track Sales to ECE Programs** – Documenting Farm to ECE transactions can help demonstrate the economic impact and feasibility of sourcing local food for early childhood settings.
- ✓ **Engage in Storytelling and Case Studies** – Sharing experiences with ECE programs can highlight the mutual benefits of partnerships and inform best practices for procurement.

## For ECE Providers

- ✓ **Monitor Program Engagement** – Keep records of how Farm to ECE is integrated into classroom activities and meal programs to track implementation success.
- ✓ **Document Child and Family Impact** – Collect data on children's food preferences, dietary changes, and parent engagement to showcase program benefits.
- ✓ **Utilize Existing Self-Assessment Tools** – Tools such as Go NAPSACC can help track progress and identify areas for growth.

## For Policymakers and Funders

- ✓ **Support Research and Evaluation Funding** – Provide dedicated resources for ongoing Farm-to-ECE studies, particularly longitudinal and large-scale research.
- ✓ **Foster Cross-Sector Partnerships** – Encourage collaboration between public health, agriculture, and early education sectors to advance shared policy goals.

By taking these steps, Farm to ECE coalitions can continue building a strong evidence base that informs policy, secures funding, and enhances program effectiveness. This ultimately ensures that more children, families, and communities benefit from these initiatives.



## Appendix A. Evaluation and Monitoring Tools and Resources

Title	Description/Summary
National Farm to School Network and Policy Equity Group – <a href="#">Farm to ECE Metrics Guide</a>	Used for Farm to ECE practitioners and evaluators to guide planning, research, implementation, evaluation, and reporting.
National Farm to School Network and Policy Equity Group – <a href="#">Farm to ECE Shared Metrics</a>	This resource offers recommendations for outcome audiences covering children, parents and family, ECE providers and ECE sites, producers and the food system, and community and systems. Within each tab, a “Sample Tools” column showcases a variety of examples and resources for coalitions.
National Farm to School Network – <a href="#">Evaluation for Transformation: A Cross-Sectoral Evaluation Framework for Farm to School</a>	Though this resource is focused on Farm to School, the included outcomes, language, guidelines, and metrics may be helpful for thinking about evaluation in Farm to ECE. Coalitions may find it useful that this resource parses potential outcomes of Farm to School into the sectors of public health, community economic development, education, and environmental quality.
W.K. Kellogg Foundation – <a href="#">Step-by-Step Guide to Evaluation: How to Become a Savvy Evaluation Consumers</a>	This guide is a detailed resource about evaluation, especially for organizations that may choose to assess their work with the help of an external evaluator.
Michigan State University – <a href="#">Measuring Racial Equity in the Food System: Established and Suggested Metrics</a>	This report concentrates on racial equity in the food system and outlines metrics across food access, food and farm business, food chain labor, and food movement.
Association of State Public Health Nutritionists (ASPHN) - <a href="#">ASPHN Catalog – Evaluation Resources</a>	This is a searchable resource that includes various tools, resources, guides, and reports, including many related to assessment and evaluation.

## Appendix A. Evaluation and Monitoring Tools and Resources

Title	Description/Summary
<a href="#">National Farm To Institution Metrics Collaborative</a>	The National Farm to Institution (FTI) Metrics Collaborative is a resource for tracking and evaluating the impact of farm-to-institution initiatives using standardized metrics. It provides tools, benchmarks, and best practices to measure local food procurement's economic, environmental, and social benefits. This site supports stakeholders in assessing and improving Farm-to-Institution programs nationwide.
<a href="#">National Farm to School Google Drive</a>	This Google Drive folder from the National Farm to School Network contains Farm to ECE assessment and evaluation tools. It includes resources on capacity and readiness, evaluation instruments, logic models, and state-level data collection to support measuring and improving Farm to ECE initiatives.
<a href="#">Equity in Evaluation Resources Spreadsheet</a>	This spreadsheet, Equity in Evaluation Resources, is a collection of tools focused on equitable evaluation practices. It includes research articles, frameworks, webinars, and other resources to support organizations in developing culturally responsive and equity-centered evaluation methods.

## Endnotes

**1** Every Child Thrives. (2023). Farm to Early Care and Education Partner Toolkit. W.K. Kellogg Foundation. <https://everychildthrives.com/farm-to-early-care-and-education-partner-toolkit/> Every Child Thrives. (2023). Farm to Early Care and Education Partner Toolkit. W.K. Kellogg Foundation. <https://everychildthrives.com/farm-to-early-care-and-education-partner-toolkit/>

**2** For additional details about the collective impact framework, see Policy Brief 1: Engaging Farm to ECE Stakeholders and Setting an Agenda.

**3** <https://www.eval.org/Portals/0/What%20is%20evaluation%20Document.pdf>

**4** <https://www.childwelfare.gov/topics/casework-practice/continuous-quality-improvement-cqi/?top=294>

**5** Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., Petticrew, M., & Medical Research Council Guidance (2008). Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ (Clinical research ed.)*, 337, a1655. <https://doi.org/10.1136/bmj.a1655>

**6** <https://www.farmtoschool.org/resources-main/farm-to-early-care-and-education-research-and-literature>

**7** <https://snaped.fns.usda.gov/library/intervention/farm-to-early-care-and-education>

**8** Sharma, S. V., Hedberg, A. M., Skala, K. A., Chuang, R.-J., & Lewis, T. (2015). Feasibility and acceptability of a gardening-based nutrition education program in preschoolers from low-income, minority populations. *Journal of Early Childhood Research*, 13(1), 93-110. <https://doi.org/10.1177/1476718X14538598>

**9** Dannefer, R., Power, L., Berger, R., Sacks, R., Roberts, C., Bikoff, R., & Solomon, E. (2017). Process evaluation of a farm-to-preschool program in New York City. *Journal of Hunger & Environmental Nutrition*, 13(3), 396-414. <https://doi.org/10.1080/19320248.2017.1364192>

**10** Shedd, M. K., & Kelly, R. (2023). More than procurement: Examination of a farm-to-early-care and education pilot. *Journal of Agriculture, Food Systems, and Community Development*, 13(1), 175-196. <https://doi.org/10.5304/jafscd.2023.131.007>

**11** Gibson, C. A., Harvey, S. P., Spaeth, K., Sullivan, D. K., Lambourne, K., & Kunkel, G. H. (2014). Farm to School, School to Home: An Evaluation of a Farm to School Program at an Urban Core Head Start Preschool Program. *Journal of Hunger & Environmental Nutrition*, 9(3), 334-349. <https://doi.org/10.1080/19320248.2014.929540>

**12** Shedd, M. K., & Kelly, R. (2023). More than procurement: Examination of a farm-to-early-care and education pilot. *Journal of Agriculture, Food Systems, and Community Development*, 13(1), 175-196. <https://doi.org/10.5304/jafscd.2023.131.007>

**13** Gibson, C. A., Harvey, S. P., Spaeth, K., Sullivan, D. K., Lambourne, K., & Kunkel, G. H. (2014). Farm to School, School to Home: An Evaluation of a Farm to School Program at an Urban Core Head Start Preschool Program. *Journal of Hunger & Environmental Nutrition*, 9(3), 334-349. <https://doi.org/10.1080/19320248.2014.929540>

**14** Farfan-Ramirez, L., Diemoz, L., Gong, E., & Lagura, M. (2011). Curriculum intervention in preschool children: Nutrition matters! *Journal of Nutrition Education and Behavior*, 43(4), 284-288.

**15** Hughes L. J. (2007). Creating a farm and food learning box curriculum for preschool-aged children and their families. *Journal of nutrition education and behavior*, 39(3), 171-172. <https://doi.org/10.1016/j.jneb.2006.12.012>

**16** Kos, M., & Jerman, J. (2012). Preschool children learning about the origin of food, on local farms and in the preschool garden. *Early Child*

Development and Care, 182(7), 873-888.

**17** Izumi, B., Hoffman, J., Eckhardt, C., Johnson, A., Hallman, J., & Barberis, D. (2015). Harvest for Healthy Kids: A nutrition education curriculum aligned with the Head Start Child Development and Early Learning Framework. *Journal of School Health*, 85(10), 709-717.

**18** Cosco, N. G., Wells, N. M., Zhang, D., Goodell, L. S., Monsur, M., Xu, T., & Moore, R. C. (2022). 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. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.993637>

**19** Taniguchi, T., Haslam, A., Sun, W., Sisk, M., Hayman, J., & Jernigan, V. B. B. (2022). Impact of a Farm-to-School Nutrition and Gardening Intervention for Native American Families from the FRESH Study: A Randomized Wait-List Controlled Trial. *Nutrients*, 14(13), 2601. <https://doi.org/10.3390/nu14132601>

**20** Izumi, B. T., Eckhardt, C. L., Hallman, J. A., Herro, K., & Barberis, D. A. (2015). 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. *Journal of the Academy of Nutrition and Dietetics*, 115(12), 2003-2013. <https://doi.org/10.1016/j.jand.2015.07.020>

**21** Sharma, S. V., Hedberg, A. M., Skala, K. A., Chuang, R.-J., & Lewis, T. (2015). Feasibility and acceptability of a gardening-based nutrition education program in preschoolers from low-income, minority populations. *Journal of Early Childhood Research*, 13(1), 93-110. <https://doi.org/10.1177/1476718X14538598>

**22** Meinen, A., Fries, B., Wright, W., & Carrel, A. (2012). Youth Gardens Increase Healthy Behaviors in Young Children. *Journal of Hunger & Environmental Nutrition*, 7(2-3), 192-204. <https://doi.org/10.1080/19320248.2012.704662>

**23** Farfan-Ramirez, L., Diemoz, L., Gong, E., & Lagura, M. (2011). Curriculum intervention in preschool children: Nutrition matters! *Journal of Nutrition Education and Behavior*, 43(4), 284-288.

**24** Kos, M., & Jerman, J. (2012). Preschool children learning about the origin of food, on local farms and in the preschool garden. *Early Child Development and Care*, 182(7), 873-888.

**25** Izumi, B., Hoffman, J., Eckhardt, C., Johnson, A., Hallman, J., & Barberis, D. (2015). Harvest for Healthy Kids: A nutrition education curriculum aligned with the Head Start Child Development and Early Learning Framework. *Journal of School Health*, 85(10), 709-717.

**26** Cosco, N. G., Wells, N. M., Zhang, D., Goodell, L. S., Monsur, M., Xu, T., & Moore, R. C. (2022). 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. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.993637>

**27** Taniguchi, T., Haslam, A., Sun, W., Sisk, M., Hayman, J., & Jernigan, V. B. B. (2022). Impact of a Farm-to-School Nutrition and Gardening Intervention for Native American Families from the FRESH Study: A Randomized Wait-List Controlled Trial. *Nutrients*, 14(13), 2601. <https://doi.org/10.3390/nu14132601>

**28** Meinen, A., Fries, B., Wright, W., & Carrel, A. (2012). Youth Gardens Increase Healthy Behaviors in Young Children. *Journal of Hunger & Environmental Nutrition*, 7(2-3), 192-204. <https://doi.org/10.1080/19320248.2012.704662>

**29** Hoffman, J. A., Agrawal, T., Wirth, C., Watts, C., Adeduntan, G., Myles, L., & Castaneda-Sceppa, C. (2012). Farm to Family: Increasing Access to Affordable Fruits and Vegetables Among Urban Head Start Families. *Journal of Hunger & Environmental Nutrition*, 7(2-3), 165-177. <https://doi.org/10.1080/19320248.2012.703522>

**30** Carroll, J. D., Demment, M. M., Stiles, S. B., Devine, C. M., Dollahite, J. S., Sobal, J., & Olson, C. M. (2011). Overcoming Barriers to Vegetable Consumption by Preschool Children: A Child Care Center Buying Club. *Journal of Hunger & Environmental Nutrition*, 6(2), 153–165. <https://doi.org/10.1080/19320248.2011.576207>

**31** Nanney, M. S., Johnson, S., Elliott, M., & Haire-Joshu. (2007). Frequency of eating homegrown produce is associated with higher intake among parents and their preschool-aged children in rural Missouri. *Journal of the American Dietetic Association*, 107(5), 577-584.

**32** Taniguchi, T., Haslam, A., Sun, W., Sisk, M., Hayman, J., & Jernigan, V. B. B. (2022). Impact of a Farm-to-School Nutrition and Gardening Intervention for Native American Families from the FRESH Study: A Randomized Wait-List Controlled Trial. *Nutrients*, 14(13), 2601. <https://doi.org/10.3390/nu14132601>

**33** Sharma, S. V., Hedberg, A. M., Skala, K. A., Chuang, R.-J., & Lewis, T. (2015). Feasibility and acceptability of a gardening-based nutrition education program in preschoolers from low-income, minority populations. *Journal of Early Childhood Research*, 13(1), 93-110. <https://doi.org/10.1177/1476718X14538598>

**34** Hoffman, J. A., Agrawal, T., Wirth, C., Watts, C., Adeduntan, G., Myles, L., & Castaneda-Sceppa, C. (2012). Farm to Family: Increasing Access to Affordable Fruits and Vegetables Among Urban Head Start Families. *Journal of Hunger & Environmental Nutrition*, 7(2–3), 165–177. <https://doi.org/10.1080/19320248.2012.703522>

**35** Nanney, M. S., Johnson, S., Elliott, M., & Haire-Joshu. (2007). Frequency of eating homegrown produce is associated with higher intake among parents and their preschool-aged children in rural Missouri. *Journal of the American Dietetic Association*, 107(5), 577-584.

**36** Williams, P. A., Cates, S. C., Blitstein, J. L., Hersey, J., Gabor, V., Ball, M., Kosa, K., Wilson, H., Olson, S., & Singh, A. (2014). Nutrition-education program improves preschoolers' at-home diet: a group randomized trial. *Journal of the Academy of Nutrition and Dietetics*, 114(7), 1001–1008. <https://doi.org/10.1016/j.jand.2014.01.015>

**37** Dannefer, R., Power, L., Berger, R., Sacks, R., Roberts, C., Bikoff, R., & Solomon, E. (2017). Process evaluation of a farm-to-preschool program in New York City. *Journal of Hunger & Environmental Nutrition*, 13(3), 396–414. <https://doi.org/10.1080/19320248.2017.1364192>

**38** Hughes L. J. (2007). Creating a farm and food learning box curriculum for preschool-aged children and their families. *Journal of nutrition education and behavior*, 39(3), 171–172. <https://doi.org/10.1016/j.jneb.2006.12.012>

**39** Nanney, M. S., Johnson, S., Elliott, M., & Haire-Joshu. (2007). Frequency of eating homegrown produce is associated with higher intake among parents and their preschool-aged children in rural Missouri. *Journal of the American Dietetic Association*, 107(5), 577-584.

**40** Izumi, B. T., Eckhardt, C. L., Wilson, D. P., & Cahill, J. (2016). A Cooking Intervention to Increase Vegetable Consumption by Parents With Children Enrolled in an Early Head Start Home Visiting Program: A Pilot Study in Portland, Oregon, 2013-2014. *Preventing chronic disease*, 13, E174. <https://doi.org/10.5888/pcd13.160259>

**41** Gibson, C. A., Harvey, S. P., Spaeth, K., Sullivan, D. K., Lamourne, K., & Kunkel, G. H. (2014). Farm to School, School to Home: An Evaluation of a Farm to School Program at an Urban Core Head Start Preschool Program. *Journal of Hunger & Environmental Nutrition*, 9(3), 334–349. <https://doi.org/10.1080/19320248.2014.929540>

**42** Gibson, C. A., Harvey, S. P., Spaeth, K., Sullivan, D. K., Lamourne, K., & Kunkel, G. H. (2014). Farm to School, School to Home: An Evaluation of a Farm to School Program at an Urban Core Head Start Preschool Program. *Journal of Hunger & Environmental Nutrition*, 9(3), 334–349. <https://doi.org/10.1080/19320248.2014.929540>

**43** Bouck, M. S., St Onge, R., He, M., Beynon, C., Lemieux, S., Khoshaba, L., & Stewart, S. (2011). Northern Fruit and Vegetable Pilot Program: a process evaluation. *Canadian journal of dietetic practice*

and research : a publication of Dietitians of Canada = Revue canadienne de la pratique et de la recherche en dietétique : une publication des Dietétistes du Canada, 72(1), 14–22. <https://doi.org/10.3148/72.1.2011.14>

**44** Shedd, M. K., & Kelly, R. (2023). More than procurement: Examination of a farm-to-early-care and education pilot. *Journal of Agriculture, Food Systems, and Community Development*, 13(1), 175–196. <https://doi.org/10.5304/jafscd.2023.131.007>

**45** Shedd, M. K., & Kelly, R. (2023). More than procurement: Examination of a farm-to-early-care and education pilot. *Journal of Agriculture, Food Systems, and Community Development*, 13(1), 175–196. <https://doi.org/10.5304/jafscd.2023.131.007>

**46** Izumi, B., Hoffman, J., Eckhardt, C., Johnson, A., Hallman, J., & Barberis, D. (2015). Harvest for Healthy Kids: A nutrition education curriculum aligned with the Head Start Child Development and Early Learning Framework. *Journal of School Health*, 85(10), 709-717.

**47** Izumi, B., Hoffman, J., Eckhardt, C., Johnson, A., Hallman, J., & Barberis, D. (2015). Harvest for Healthy Kids: A nutrition education curriculum aligned with the Head Start Child Development and Early Learning Framework. *Journal of School Health*, 85(10), 709-717.

**48** Barnes-Najor, J., Stonefish, B., Wentworth, C., Gartner, D., Saucedo, J., Howard-Bobiwash, H., Koval, P., Burnett, R., Martin, L., Leask, M., Schneider, R., Hopps, C., Gordon, C., Cameron, A. (2024) Stories and Teflections on Gikinawaabi: Recentering Indigenous Knowledge in Early Childhood Development through Food- and Land-based Practices. *Early Childhood Research Quarterly*. <https://doi.org/10.1016/j.ecresq.2023.12.014>. (<https://www.sciencedirect.com/science/article/pii/S088520062300176X>)

**49** Izumi, B., Hoffman, J., Eckhardt, C., Johnson, A., Hallman, J., & Barberis, D. (2015). Harvest for Healthy Kids: A nutrition education curriculum aligned with the Head Start Child Development and Early Learning Framework. *Journal of School Health*, 85(10), 709-717.

**50** Dannefer, R., Power, L., Berger, R., Sacks, R., Roberts, C., Bikoff, R., & Solomon, E. (2017). Process evaluation of a farm-to-preschool program in New York City. *Journal of Hunger & Environmental Nutrition*, 13(3), 396–414. <https://doi.org/10.1080/19320248.2017.1364192>

**51** Shedd, M. K., & Kelly, R. (2023). More than procurement: Examination of a farm-to-early-care and education pilot. *Journal of Agriculture, Food Systems, and Community Development*, 13(1), 175–196. <https://doi.org/10.5304/jafscd.2023.131.007>

**52** Barnes-Najor, J., Stonefish, B., Wentworth, C., Gartner, D., Saucedo, J., Howard-Bobiwash, H., Koval, P., Burnett, R., Martin, L., Leask, M., Schneider, R., Hopps, C., Gordon, C., Cameron, A. (2024) Stories and Teflections on Gikinawaabi: Recentering Indigenous Knowledge in Early Childhood Development through Food- and Land-based Practices. *Early Childhood Research Quarterly*. <https://doi.org/10.1016/j.ecresq.2023.12.014>.

**53** National Farm to School Network and Policy Equity Group. (2022). Farm to Early Care and Education Shared Metrics: Outcomes, Indicators, and Measures for Farm to ECE Evaluation. [https://policyequity.com/wp-content/uploads/2022/05/Farm-to-ECE-Metrics\\_Guide.pdf](https://policyequity.com/wp-content/uploads/2022/05/Farm-to-ECE-Metrics_Guide.pdf)

