



FARM ➤ TO CHILD CARE

Highlights and Lessons Learned



INSTITUTE FOR
AGRICULTURE AND TRADE POLICY

Farm to Childcare Curriculum: Lessons Learned report

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IATP would like to thank New Horizon Academy teachers, kitchen staff, center directors and other staff for their collaboration in implementing the Farm to NHA program at their centers, with special thanks to our core planning team for jointly designing the program with us: Cisa Keller, Director of Government and Community Relations; Cara Johnson-Bader, Director of Parent Experiences; Bev Bauman, Director of Education and Staff Development; Juli Seehusen, Food Program Coordinator.

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INTRODUCTION: ABOUT OUR EXPERIENCE WITH FARM TO CHILDCARE

In late 2011, the Institute for Agriculture and Trade Policy (IATP) began exploring a potential collaboration with New Horizon Academy (NHA), a for-profit childcare provider, to jointly design and conduct a pilot Farm to Childcare (F2CC) program in Minnesota. Together, we developed and launched a Farm to Childcare pilot program in 14 NHA childcare centers in June 2012 and then expanded the program to all 62 NHA centers in Minnesota in June 2013.

Through this publication, we are sharing the story of that collaboration—including both the ups and downs, the successes and missteps as we learned along the way—with the hope that our experiences might provide some helpful insight and tools for other organizations wishing to start or expand their own Farm to Childcare initiatives. Our experience is beholden to the particular context in which IATP and NHA are working and the particular strategies that we used, but we hope that sharing it will help others when they consider how they might strengthen their own efforts in whatever contexts they call home.

Inside, you will find a description of our experience developing partnerships, the timetable for our program, our approach for designing the pilot Farm to Childcare program, and the tools we developed, including our curriculum and teaching materials, the locally grown foods used in our pilot, sample menus, parent outreach strategies and more. Throughout this material, we share “what we did” and then “what we learned.” We also conducted an extensive evaluation of the pilot, and we share our tools and lessons from that experience.

Overview and highlights of our approach

What is Farm to Childcare?

Farm to Childcare initiatives connect very young children with local food and farms, providing fresh, healthy foods in childcare meals while teaching children where that food comes from. Farm to Childcare programs, sometimes referred to as Farm to Preschool programs, can also build markets for local farmers, boost the local economy by

keeping more childcare providers’ “food dollars” circulating close to home and support more environmentally and socially sustainable farming.

Given growing nutrition challenges among America’s youth, engaging children in healthy eating early in life is essential. Incorporating local foods and related curriculum into childcare programming is a golden opportunity to support the development of healthy eating habits while engaging children and their parents in learning opportunities that are fun, informative and experiential.

Increasing implementation of Farm to Childcare programs to reach children early in life, particularly between the ages of 3 and 5 when their taste preferences are at their most formative and as they are building an understanding of where food comes from, will help ensure that the next generation makes better food choices for their health, their community and the environment. For more information on the benefits of Farm to Childcare and further resources to get started, check out the Farm to Pre-K website at www.farmtoprek.org.

How was the IATP Farm to Childcare pilot structured?

IATP worked together with New Horizon Academy (NHA) to design a set of practical, on-the-ground strategies for incorporating locally grown foods and related curriculum and parent outreach strategies into NHA childcare settings. The Farm to Childcare pilot was conducted at 14 NHA childcare centers from June through November 2012, with 1,350 participating children aged 2 to 6.

Our underlying goal was to engage in as much experimentation as we could in a relatively brief period of time and to learn as much as we could from that process. For instance, we sped up what might otherwise have been a “Harvest of the Month” approach and featured a new Farm to Childcare food every two weeks during Minnesota’s relatively brief season for fresh produce. We chose 11 foods that are grown widely in the Upper Midwest: zucchini, peppers, pea pods, tomatoes, cucumbers, cantaloupe, apples, cabbage, carrots and winter squash.

NHA had an exclusive purchasing agreement with a prime distribution company, limiting our purchasing options to the products and local farms that work with the distributor. Half a dozen Minnesota farmers provided the piloted foods.

The program focused on simple menu preparations like green pepper strips or tomatoes with hummus and zucchini muffins. Our goal in choosing these types of preparations was to make the food visible to the children and to help keep the food prep straightforward for cooking staff. In addition to eating the foods, children also participated in classroom activities that highlighted the featured foods (with a series of lessons about farming, weather and other themes added in early 2013 before the program was rolled out to all NHA centers in Minnesota). Activities designed to teach young children about local foods and farming ranged from math and science to art and sensory play.

Farm to Childcare curriculum activities specific to a given local food were highlighted in the classroom on Mondays and Tuesdays, and then that food was featured in a snack on Wednesdays and in the lunch menu on Thursdays. This approach worked well, as it familiarized kids with the foods first, created a buzz and then gave them a chance to eat the foods as part of their normal meals. By the end of a two-week period, children had had at least eight exposures to that period's featured food.

How did the program engage with children's families?

Display boards featuring the foods and farmers, e-newsletters and taste-testing sessions kept parents engaged with the Farm to Childcare initiative, along with recipes, song lyrics and book ideas that families could use to connect with local food concepts at home.

We had a very successful partnership with University of Minnesota-Extension's Simply Good Eating program, which is set up to provide nutrition education to low-income communities. The centers in our pilot program that had 50 percent or more of their children on childcare assistance were eligible for an on-site taste-test recipe demonstration for parents from a trained Simply Good Eating community educator. We coordinated with Simply Good Eating to have the taste test feature the food that was being highlighted in our Farm to Childcare program at the time of the site visit, and we provided family-size recipes for parents to try at home.

IATP also partnered with Minnesota Department of Agriculture's MN Grown program to develop a version of their annual local food and farming guide that included information on Farm to Childcare and suggestions for activities parents can do with their children to promote local foods. The Farm to Childcare MN Grown Directory

was released in the spring of 2013. We distributed 10,000 copies of the directory to our network of childcare partners, accompanied by an explanatory letter encouraging them to explore Farm to Childcare and to support local producers. MN Grown has produced an additional 190,000 copies of this special directory to distribute. Additionally, we worked with MN Grown to create a series of four posters designed with the childcare setting in mind, highlighting four Minnesota farmers and the vegetables they grow. Our partnerships with Simply Good Eating and MN Grown will be further explained in the Parent Outreach section to follow.

Initial results of pilot

Throughout the pilot, we attempted to track the degree to which children could identify the highlighted foods and whether or not they liked them. While our evaluation process had its challenges (which we illuminate in the Evaluation section below), by the end of the pilot, we found that:

- 84 percent of participating children could correctly identify foods featured in the program
- 72 percent reported liking the local foods that were featured
- Younger children (i.e., ages 3–4) were often more receptive to new foods than older kids

Through a survey of parents, we also learned that:

- 42 percent of responding parents said their child had talked with them at home about the F2CC foods or activities
- 48 percent have done something different at home as a result of the program, such as eating more fruits and vegetables or buying local foods at a farmers market
- 91 percent of parents said they would like to see the F2CC program continue

Collaborating with a partner organization

At the beginning of our partnership, IATP and NHA crafted a Memorandum of Understanding to set the groundwork for clear expectations about responsibilities during the program and to clarify that IATP would share the resources and insights that were developed through our collaboration.

When working as partner organizations to run a program as we did, it's important to be very clear about expectations and the division of labor from the beginning of the program, and to keep in regular communication throughout the planning process. We found that communication was easier when we had face-to-face meetings, frequent email contact and scheduled planning meetings, as well as mid-pilot check in meetings to be sure everyone on the planning committee was on the same page.

From the start of this project, we organized three task forces made up of teachers, kitchen staff and center directors, IATP staff and NHA leadership. The task forces focused on the development of the curriculum, food-related issues and parent engagement. In keeping with NHA's organizational culture, participants were identified by NHA leadership and asked to participate. The task forces were helpful in providing a place for staff to share input and for them to be a part of shaping the initiative at the start. They also reviewed and improved upon the curriculum, gave helpful input about how best to incorporate new foods into recipes and menus, and flagged the desire for additional types of training. However, we found that their participation was hindered by their limited availability to meet during the day, given their work responsibilities, and complications with trying to meet at other times or venues. A longer "run-up" period during the pilot's development would have positioned us to leverage the wisdom of task force members more fully.

The initial planning for the pilot was the most time intensive period for the program, and it can be difficult for staff who already have other commitments to devote time to this project. To that end, we worked to find ways to lessen the burden for NHA staff by being available to participate in coordinating with the food distributor. We learned that we could address questions or challenges most efficiently by including both IATP and NHA representatives in meetings and conference calls with the food distributor. Initially, there were some delays in decision-making due to IATP having questions about a certain food item's specs that needed to go through NHA to

ask the distributor, or when NHA had concerns about food safety that they wanted to ask IATP while in a meeting with the distributor.

We were lucky that NHA has a very streamlined and efficient staff and process, so we were able to get things done on a very short timeline. Ideally, we would have liked more time to follow up on issues as they came up. If we had had more time, it might have allowed for a design process that involved deeper collaboration with more staff, perhaps through making greater use of staff task forces we formed in our initial planning process. The shorter timeline meant that our program focused on experimentation rather than a slower process that may have had a greater impact on kids' knowledge. For this complicated planning process, it is best to allow plenty of time to revise and double-check things as you go.

SECTION 1: ENGAGEMENT WITH MINNESOTA HEAD START ASSOCIATION

Recognizing the greater challenges in food security and access to fresh, healthy foods facing low-income communities, IATP has worked with Minnesota Head Start Association to identify opportunities and barriers for Farm to Childcare particular to the vulnerable communities they serve and the methodology they employ at their centers.

In an effort to expand the usefulness of the program to the Head Start community, IATP worked with the Minnesota Head Start Association to conduct a survey of Head Start center directors throughout the state to understand their perspective on Farm to Childcare-related issues and to gather their input about how Farm to Childcare strategies could most effectively be designed to serve their realities, needs and aspirations.

IATP and MN Head Start jointly designed the survey with input from Head Start's partners in the health sector. The survey was distributed by the Minnesota Head Start Association to Head Start locations throughout the state. Thirty-eight individuals responded to the survey. Full results are provided in Appendix 1-A. Some highlights include:

- Respondents were already somewhat familiar with Farm to School programming, which would provide a good knowledge base to start from when establishing a Farm to Childcare program.
- Half of responding centers run their own foodservice, which indicates that they would have significant control over what they purchase and serve, providing good flexibility for innovation (within the constraints of their kitchen equipment and skills). The second most commonly reported arrangement was foodservice provided by K-12 schools, and the comments suggest that at least some of those schools are already doing Farm to School to some degree and are providing that same food to the Head Start kids. In those situations, much of the legwork around local food procurement and menuing of local foods is already in place.
- 69 percent of respondents were not sure if their foodservice provider is purchasing locally grown

food, so more clarification is needed to identify where food items are sourced.

- Many respondents reported strong established efforts to incorporate ethnically appropriate foods, indicating experience modifying menus and incorporating learning opportunities into mealtime.
- Respondents indicated strong interest in nearly all of the potential Farm to Childcare resources identified, while rating most highly the development of a Statewide Action Plan for making Farm to Childcare programming part of Head Start.
- Similar to Farm to School, potential concerns identified by respondents were difficulty procuring locally grown foods and already having too many curriculum requirements to take on a new program.
- A high percentage of respondents are strongly interested in learning more about Farm to Childcare.

IATP has also conducted multiple workshops with Head Start nutritionists and center directors to explore the Farm to Childcare concept with them and to share easy ways to incorporate Farm to Childcare into their daily schedule. Based on feedback from Head Start staff, we have added a category of "Table Talk" activities to the curriculum. Head Start staff indicated that they already have a heavily booked day; however, lunch times were identified as an under-utilized opportunity to incorporate new material and a key chance to link Farm to Childcare curriculum with meal times through songs, stories and games about the origins of foods.

Unfortunately, as a result of the federal budget sequester that went into effect in early 2013, Minnesota Head Start is facing significant losses of teaching positions, and children are being cut from their programs due to decreased funding. Despite their strong interest in Farm to Childcare, they are unable to pursue a formal program at this time. Nevertheless, we remain in conversation and look forward to supporting the incorporation of Farm to Childcare strategies into Minnesota Head Start Association's work as their circumstances allow.

SECTION 2: FARM TO CHILDCARE PILOT TIMELINE

Our desire to develop a Farm to Childcare pilot program originated in the background research we conducted into Farm to Childcare in 2011 and early 2012. Although IATP had extensive experience with Farm to School, we had not worked in the childcare sector before and had a lot to learn. Our starting point was an exploration of the field to develop our understanding of how nutrition services work in childcare settings, how curriculum and meal programming could be mutually supportive, how various engagement strategies might best inform and excite kids and parents, and how various organizations around the country were already testing a wide range of approaches to Farm to Childcare and Farm to Pre-K. We released our report *Farm to Child Care: Opportunities and Challenges for Connecting Young Children with Local Foods and Farmers* in June 2012.

Along the way, we kept our eyes open for a potential childcare partner with whom we could jointly design and implement a pilot effort. We were fortunate to connect with New Horizon Academy (NHA), a nationally recognized childcare provider that operates 62 centers serving about 8,500 children, primarily in the Twin Cities Metro area and the smaller communities of Rochester and St. Cloud, Minnesota. About twenty percent of children enrolled in NHA centers receive childcare assistance, while the remainder are private pay. NHA serves a diverse population, including children from Caucasian, African American, Latino, Somali and Hmong communities.

NHA was the first childcare provider in the state to commit to the Minnesota Early Learning Foundation's Early Childhood Development Scholarship program, and was also one of only a dozen companies in the U.S. to make a formal commitment to the principles of First Lady Michelle Obama's "Let's Move!" anti-obesity campaign in 2011. All eligible NHA centers are accredited by National Association of the Education of Young Children (NAEYC). In addition, they have about 10 centers with dual accreditations of NAEYC and National Early Childhood Program Accreditation (NECPA). All NHA sites are 4-star Parent Aware rated.

NHA was also a great fit for the pilot effort because they have an organizational culture geared toward rapid innovation in key areas like curriculum development and parent outreach, and they have the staff capacity and a

decision-making structure that enable them to quickly move from exploration to commitment to design and implementation. They also have extensive experience piloting nutrition-oriented curricula (such as the highly regarded LANA: Learning About Nutrition Through Activities Preschool Program from the Minnesota Department of Health) and developing their own curricula in-house.

NHA's community of parents had already expressed strong interest in local foods, prompting NHA to look for a collaborator that knew the food systems, procurement and foodservice aspects of this work. Thus, we were fortunate to find a partner that was relatively "ready to go" and to form a collaboration that included a solid mix of capacity, commitment and knowledge.

IATP and NHA jointly developed a three-pronged approach for the Farm to Childcare pilot, focusing on menu innovations, student curriculum and parent outreach. In addition, we established evaluation protocols to document and assess the pilot from many different angles. Our goal was to maximize our opportunities to experiment, testing out a variety of locally grown foods, curriculum ideas and parent outreach strategies to explore their pros and cons in the particular context in which we were operating. We then used the hands-on experience and evaluation data we gathered from the pilot to refine our approach for a full roll-out across NHA's systems in 2013 and to make an improved set of materials and insights available to others who are looking to engage in Farm to Childcare programming.

Activities around the pilot program were mainly structured around three major phases: *Pre-Pilot Launch Planning, Pilot Launch and Implementation, and Evaluation*.

Planning (September 2011)

- IATP and NHA signed a Memorandum of Understanding outlining our shared intentions and responsibilities (see Appendix 2-A).
- Formed a core planning team that included NHA's director of government and community relations, director of parent experiences, director of education and staff development and the food program coordinator, as well as IATP staff working on Farm to Institution.
- Coordinated with core team and NHA center staff to select 14 childcare sites to participate in the Farm

to Childcare pilot. When choosing which centers to include, we aimed to engage a mix of centers that varied by center size, cooking skills and kitchen equipment, demographics and income levels of participating children, and a mixture of urban and suburban locations (NHA does not have centers in rural communities).

- Sent a joint letter from NHA and IATP to selected centers to provide information about Farm to Childcare and outline roles for center staff, NHA headquarters staff, and IATP staff in the coming pilot program.
- Developed and solicited participation in three Farm to Childcare task forces focused on food, curriculum and parent outreach. Composed of teachers and kitchen staff from pilot centers, each was co-chaired by IATP and a senior leader from New Horizon and met periodically over the spring of 2012. The task forces brainstormed potential strategies, served as a sounding board and helped ensure that the voices of staff working at various levels throughout NHA's childcare operations were actively driving the design of the pilot effort. (see Appendix 2-B for the Farm to New Horizon Curriculum Task Force group's description.)
- Coordinated with NHA's food program coordinator, prime distributor and produce processing partner to select eleven local foods for the pilot, identify local sources of product, ensure adequate transparency in the supply chain and finalize procurement procedures.
- Worked closely with NHA's director of education and staff development to develop curriculum oriented around these 11 featured foods. We later expanded the material to include supplemental content that is more thematically focused.
- Worked closely with NHA's director of parent experiences to develop a variety of parent engagement strategies.
- Developed and tested evaluation protocols to comprehensively assess strengths and weaknesses of the pilot's approach, gauge initial outcomes for children, and gather feedback from teachers, cooking staff, center directors and parents.

- Developed and conducted group trainings for approximately 120 childcare teachers, kitchen staff and center directors in the spring of 2012. Lessons from our approach to staff training are provided in Section 3, and the presentations and other materials we used in these trainings are provided in attachments there.

Pilot launch and implementation (June–November 2012)

- Launched the pilot in 14 NHA childcare centers (see Appendix 2-C).
- For the two-week period that each F2CC food was featured, teachers included curriculum focused on that food item in their lessons on Monday and Tuesdays.
- Similarly, kitchen staff included that food item in two snacks and two lunches on Wednesdays and Thursdays.
- Each featured food was highlighted in parent-outreach materials during the two-week period.
- NHA's food program coordinator stayed in close communication with their prime distribution company throughout the pilot period to confirm delivery of the agreed locally grown foods.
- As discussed more fully in Section 4: Food related strategies, IATP and NHA staff addressed issues with product availability for two featured food items that proved to be unavailable locally during their scheduled time periods.
- Members of the core team stayed in close contact through the pilot period to identify and address any concerns and questions.

Evaluation (June 2012–March 2013)

- Conducted biweekly evaluation interviews with children at four selected pilot centers throughout the pilot period to assess their ability to identify featured foods, their experience with trying each food, and their taste preferences both before and after foods were featured in their curriculum activities and center meals.

- Conducted biweekly online surveys of teachers at pilot sites throughout the pilot period to gather feedback on the curriculum for each featured food item.
 - Conducted biweekly online surveys of kitchen staff at pilot sites throughout the pilot period to gather feedback on each featured food item.
 - Conducted phone interviews of directors from the pilot sites midway through the pilot to gather feedback.
 - Held mid-pilot check-in meeting with core planning group of IATP and NHA staff to examine evaluation data collected and discuss next steps.
 - Refined our child evaluation process based on initial data-gathering efforts and added an interview question to explore children's perception of the origins of the featured foods.
 - Conducted final online survey of kitchen staff in early December 2012 to assess their overall perception of the pilot and recommendations for improvement.
 - Conducted an online survey of parents of children in pilot centers to assess their awareness of the pilot program, whether changes had occurred in children's homes as a result of the pilot, and their interest in seeing it continue.
 - Assessed overall dollar value and types of local foods purchased.
 - Identified lessons learned to strengthen the program.
- Added more foods that are available outside of the high growing season, including Oats, Broccoli, Kale, Radishes and Chives.
 - Added curriculum that is centered on themes of weather and farms, farm animals, and life as a farmer to complement curriculum that is focused on individual foods, and to act as a backup curriculum in cases when scheduled foods are unavailable.
 - Added "Table Talk" activities based on input from stakeholders at Minnesota Head Start (discussed more fully below).
 - Strengthened emphasis on learning about farms through additional activities.
 - Incorporated information on farmers, song booklet and flashcards directly into the curriculum instead of offering them as a separate supplement.
 - Redesigned the farmer and food info sheets to be more visual so that they could be used with kids.

IATP also coordinated with NHA to plan for the full roll-out of the F2CC program at all 62 sites. The roll-out began in June 2013 (see Appendix 2-D press release).

Post-pilot developments (December 2012–May 2013)

Based on what we learned, we made these improvements to our materials (as reflected in the curriculum section):

- Changed layout of curriculum to fit into a binder rather than a static booklet in order to allow for updates and additions as it is used from year to year.
- Reorganized the curriculum activities by type instead of organizing the curriculum around the foods, since many activities can be used for multiple foods.

SECTION 3: TRAINING OF CHILDCARE CENTER STAFF AND GENERAL PREPARATION FOR PILOT

What we did

In preparation for the pilot launch in June, the planning team arranged for two 2-hour training sessions to take place in April. These sessions included all the center directors, teachers and kitchen staff at the childcare centers who would be participating in the pilot program. The trainings included the following components:

- Both the NHA leadership and IATP staff presented to the group, beginning with PowerPoint presentations giving background information on the concept of “Farm to Childcare,” a description of the structure of the forthcoming pilot and a description of the benefits we hoped to gain from participating in the pilot (see Appendix 3-A and 3-B for training presentation and outline).
- Teachers, center directors and kitchen staff split into breakout groups to talk more deeply about their respective roles in the pilot.
- The teachers and directors were given a copy of the curriculum booklet we had developed for the program, and the planning team explained how the booklet was organized and the schedule of classroom activities that would reinforce the children’s experiences eating the foods highlighted in menu items during the Farm to Childcare program.
- Next, they formed small groups and were given an example highlighted food and a worksheet to record brainstormed Farm to Childcare classroom activities. Each group reported back to the larger group on the ideas they came up with, which was a good way to demonstrate the versatile approaches that Farm to Childcare activities can take.
- We made sure to emphasize that this new program is a way to complement what they already do, and to let them know we would be there to help address any challenges that emerged during the pilot.

- We used the breakout training time with the kitchen staff to further familiarize them with what Farm to Childcare is, and introduced wild rice, the first food that was scheduled to be highlighted in the pilot program.

What we learned

- We were able to fit the training into NHA’s already established training cycle, and staff were compensated for attending. Both of these aspects were helpful in syncing the program with NHA’s other staff development efforts and limiting the time that was being asked of staff.
- Not all the kitchen staff were familiar with cooking wild rice, and the breakout time gave us the opportunity to show them how it is prepared and allow them to taste a Wild Rice Chicken Casserole that was slated to be menued in the program. We initially thought this session would follow an overview of F2CC and focus on the preparation of a wild rice casserole.
- The kitchen staff valued the opportunity to discuss the impact that the Farm to Childcare program would have on their daily production activities and to brainstorm ideas for managing new challenges.
- Many of the kitchen staff had great ideas for menu items we could use, and incorporating these ideas helped to gain their investment in the program. Providing these channels for input both improved the quality of the program and helped build a sense of buy-in among the cooking staff.
- We heard feedback from the kitchen staff that they would appreciate more hands-on training in cooking skills through NHA’s staff development programs. The kitchen staff conveyed their interest in doing more with their cooking skills through increased scratch (or modified scratch) cooking. They were very interested in trainings focused on advancing their cooking techniques.
- We also learned that, given the challenges with preparing wild rice, wild rice was not the easiest food to begin with. We did so because of seasonality challenges and NHA’s desire to start the pilot in June, but if repeated, we might have delayed the launch date until locally grown fresh produce would be reliably available.

- It is important to strike a balance between being enthusiastic about Farm to Childcare and acknowledging the very real challenges that can emerge for staff who will be implementing the program day to day. The tone set by NHA leadership and IATP had a direct influence on how participating staff perceived the program, the work involved, the level of support they would receive and more. In turn, it was important to provide ample opportunity for staff to help shape the program, raise concerns and brainstorm strategies for dealing with challenges. Fellow cooks and teachers were often the best source of ideas for addressing difficulties that their peers anticipated.
- For our pilot, we conducted trainings in April and launched the pilot in mid-June. NHA's structure, organizational culture and significant staff capacity made this short timeline workable, but it might be too short for other organizations that have a smaller staff or that aren't accustomed to new program launches or quick turnarounds.

Large group trainings (which involved roughly 40 staff, with the core planning team doing most of the training) worked well for the pilot phase, but as we moved toward the full rollout to 62 centers in the second year, this format wasn't feasible with the much larger number of staff involved. As a result, NHA moved toward a "Train the Trainer" approach in which center directors were divided into five groups to learn about the program using the same training methods used during the pilot. NHA made sure that a center director who had participated in the pilot was present in each of the training groups in order to share their experience and the benefits they had seen in their centers due to the program. These center directors were also informally available to give their group advice during the program implementation. After center directors were trained on the program, they were responsible for training the teachers and kitchen staff at their centers. The "Train the Trainer" model is NHA's usual method of program implementation, so the rollout went very smoothly. They received positive feedback after the training and felt that it allowed the center directors to take further ownership of the program.

SECTION 4. FOOD-RELATED STRATEGIES

Selecting featured foods

Exposing children to new, healthy, minimally processed foods is an essential component of our Farm to Childcare initiative, and deciding which foods to feature was a key starting point in designing our pilot.

What we did

IATP staff worked together primarily with NHA's food program coordinator to design the food-related components of the project. Together, we coordinated with NHA's distributor.

NHA has an exclusive purchase agreement with a prime distributor and needed to purchase all of their locally grown foods through this distributor. The distributor has produce cut by a fresh-cut processing company near the Twin Cities. All foods are delivered on the distributor's trucks directly to each center. This system meant that NHA was not able to purchase directly from individual farmers. However, it enabled them to access local foods through their existing food distribution system and to have the program's fresh fruits and vegetables delivered pre-cut.

The distributor provided a product list that identified what products were available from local Minnesota farms, which was the starting place for determining what foods we could include in our program. While NHA staff were the distributor's primary point of contact, we found that it was helpful to have IATP participate in conversations with the distributor, particularly when it came to clarifying the origins of the products in question, which was not a line of inquiry that NHA had pursued before.

The following criteria helped us identify priority foods:

- Crops that are grown widely in the Midwest (and many other regions of the U.S.) so that our experiences would be of maximum relevance to others exploring farm to childcare in their own regions
- Palatability for young children
- Cost
- Ease of preparation in NHA kitchens

- A selection that would be available locally from June through November

The final list of foods included in the pilot was zucchini, peppers, pea pods, tomatoes, cucumbers, cantaloupe, apples, cabbage, carrots and winter squash (see Appendix 4-A for our food calendar).

What We Learned

- Many other elements of the Farm to Childcare initiative (such as the curriculum and training for the cooks) were dependent on the choice of foods, so it was important to solidify the list of foods early on in the planning process.
- Because we were limited to crops available through the prime distributor and were aiming for crops that are commonly grown in our region, we didn't include any culturally specific foods in the program (such as tomatillos, Asian or African greens, or other possibilities). This was a limitation of our program and one that we hope to address as the initiative matures.
- Survey data collected from kitchen staff gave generally positive feedback about the choice of food items, but did flag that it was important to take delivery schedules into account when planning the menu choices for more delicate fresh produce items. Different centers received their food deliveries on different days of the week, while the foods were always served on Wednesday or Thursday. If a precut product (especially) was delivered on a Friday, for instance, the freshness could be compromised by the following week. Storage was also a challenge for centers that had limited refrigerator space and had to hold the product for a longer period of time before serving. Some centers with capacity to cut fresh product opted to purchase whole produce, rather than uncut, as they felt that this offered a fresher option. While our approach had the simplicity of offering the same menus and timing across all participating centers, better linking of menus with produce delivery schedules could help deal with this timing challenge.

One risk for local products: crop failure

During the pilot, the biggest challenge for the program was reacting in two instances when the foods we planned to feature were unavailable at the scheduled time. The first, cantaloupe, was impacted by a food safety problem from a supplier in Indiana that led the distributor to limit their cantaloupe purchases to large farms in the Western U.S. Although the food safety problem had nothing to do with farms in Minnesota, NHA was unable to access locally grown product through their distributor during this season. Further, in 2012, there was an unusually late freeze that caused massive weather-related failure of the apple crop in Minnesota (and many other areas of the U.S.). As a result, we were unable to purchase locally grown apples that fall. In response, NHA ended up replacing the food items with the same, non-local product, and went ahead with the scheduled curriculum. This compromise was not ideal, because it was difficult to distinguish to the kids that the product wasn't local. Through these experiences, we realized the necessity of having a backup plan in case a local food is not available.

Possible ways to deal with this problem would be:

- Make sure to choose reliable products from the beginning. If certain products are finicky and known to have issues, they may not be the best choice.
- Make a decision about how you will deal with product failure ahead of time. For us, we knew about a failure a couple of weeks ahead of time but then had to consider what we would do about it. By the time we decided, the teachers had already made their lesson plans and it was too late to ask them to change them. Having a backup curriculum from the start and communicating the plan to use it in cases when locally grown products are unavailable would help avoid confusion mid-program.

Our new model of response is to not serve a food for the week the product fails, and to provide three new lessons in the curriculum that are based on generic, farm-related topics instead of individual foods that can be substituted at any time for the food-based curriculum. This strategy would avoid any confusion about whether the product we are serving is local.

Menuing featured foods and recipe development

What we did

Once the featured foods were chosen, the next step was determining how they would be incorporated into the menu. Our hopes were to:

- focus on simple menu preparations that could work in centers with limited equipment and cooking capacity
- be palatable to the children
- make the food visible to the children to support the educational aims of the program

Based on the literature showing that six to ten food exposures are needed to begin impacting children's taste preference, we sought to provide the children with eight interactions with each food item. To that end, we developed a two-week schedule: on Mondays and Tuesdays, the featured food was highlighted in classroom activities; on Wednesdays, the featured food was incorporated into the children's regular afternoon snack; and on Thursdays, the featured food was incorporated into the children's lunch menu. This schedule meant that we needed to develop two snack and two lunch menu recipes that would highlight each of the featured foods.

When deciding what recipes to use with the featured foods, IATP worked with NHA staff to review past menus in order to become familiar with typical menu items and examine menu standards. We also visited the pilot centers to meet kitchen staff and understand the kitchen facilities available at different locations. Kitchen equipment, counter space, storage, oven and refrigeration capacity varied widely across locations, and it was important to consider these differences when identifying recipes that could work for all centers.

What We Learned

- The Monday/Tuesday curriculum and Wednesday/Thursday food format worked well, as it familiarized kids with the foods through fun activities first, and then gave them a chance to eat the foods as part of their normal meals.

- Staff also liked this format, as it gave them a clear structure for what needed to happen when, and it limited the expectations of them to those particular days. We also took Fridays "off." This reflected both the drop in headcount that many centers experience on Fridays (especially during the summer) and the desire to give staff a day that wasn't affected by the Farm to Childcare initiative. These factors, we believe, helped keep the initiative manageable for staff.
- On the other hand, the two-week cycle was challenging to sync with NHA's regular five-week cycle menu. We did not consider the regular menu cycle early enough, and addressing the mismatch required additional administrative planning time to insert the farm to childcare food items that did not fit in with the kitchen's regular schedule.
- One problem we faced was initially including menu items that needed to be baked without realizing that some centers would not have the oven capacity or labor time available to prepare the item as assigned. Given more time up front, it would have been ideal to visit each center that was participating in the pilot to assess their facilities.
- Considering the broad range of centers that would be serving the menu items, we looked for simple recipes that would feature our selected foods. Some center kitchen staff helped in the process of developing and testing potential recipes, and their feedback was invaluable to our selection process. In talking to kitchen staff, we learned that the easiest system for them was when we could provide a 25-portion standard recipe that included the amounts of product they would need so that they could determine how much to request in their weekly order based on how many children they would be serving. Knowing in advance how much product they would need helped the cooks avoid waste from over-ordering and gave them guidance on portion size.
- We felt in retrospect that some of the menu choices didn't do enough to make the featured food visible to the children, such as when shredded cabbage was tucked inside a sandwich. These preparations also meant that the quantities of food purchased were very modest, limiting the impact on children's diets and the economic benefit to growers. As we saw that challenge emerging, IATP developed a formal set of

menuing criteria that helped lend more rigor to the selection of recipes (see Appendix 4-B).

- These proved to be very helpful in shaping conversations about possible menuing strategies. Jointly agreeing to such criteria before the discussion about possible recipes began might have helped steer the pilot toward some different choices.
- We realized that we had not emphasized our definition of healthful and minimally processed menu items enough when we noticed some cooks altering recipes to make them more appealing to children, by putting colored sugar on top of featured baked goods, for example. We found that continually communicating with foodservice staff about the core goals of the F2CC pilot helped sync food practices at the centers with our key values and also translated directly into increased staff enthusiasm and commitment to the project.

SECTION 5: CONNECTING WITH OUR GROWERS

One of the primary goals of our Farm to Childcare program was teaching participating children where their food comes from and giving them a connection to the local producers who grew the foods highlighted in the program. Because NHA has an exclusive purchase agreement with their prime distributor (and was not able to purchase from farms directly), we knew it would take an extra effort to make that connection. The distributor identified which local Minnesota producers would supply fruits and vegetables for the program, and IATP visited each of the farms. These farm visits were a great opportunity for us to learn more about the farms and for the farmers to hear firsthand about the Farm to Childcare initiative and how their foods would be used. We also conducted interviews with them and took photos that we later used in our curriculum and outreach materials (See Appendix 5-A for general information on our producers and Appendix 5-B for an example of Ed Fields & Sons farm profile, including interview information).

As the pilot progressed, we felt that we needed to make it easier to familiarize children with the farmers and to make the farmer information in our curriculum more easily digestible for young children in a childcare setting. To that end, we added a large 8" x 10" photo of the farmer that teachers can show to their students and hang on classroom walls (see Appendix 5-C). We have also distilled the producer information for teachers—was originally in paragraph form—into simple bullet points that are easier to share with young children. We continue to use the paragraph-based version in parent newsletters and as background for the teachers and kitchen staff.

We had also hoped that producers could visit our childcare centers or that the children could take field trips to see one of the farms where their food is grown. Unfortunately, logistical challenges made this unworkable during the pilot phase. Many childcare facilities do not offer field trips because of liability concerns and difficulty obtaining parental permissions, making farm field trips a more difficult option than having a farmer visit the childcare center. Summer is a very busy time for farmers, so arranging a producer visit will be easier to do during the off-season in late fall, winter, or early spring. If the farm is nearby and the farmer is willing, having the farmer bring some of his or her produce in to the center to show to the children, talk about how it grows and leave time for questions can

be a great supplement to a Farm to Childcare program. If possible, it is best to offer a stipend to compensate the farmer for the time commitment and effort.

SECTION 6: CURRICULUM

What we did:

In designing the teaching curriculum, we:

- Organized the activities and information around the foods highlighted during the pilot phase, with curriculum organized into two-week time slots from mid-June through November.
- Included an easy-to-use chart where teachers could plot out their two-week lesson plan for the time period when each food would be featured.
- Organized the curriculum around classroom activities that would fit easily into NHA's usual educational routines, including Sensory and Dramatic Play, Math and Science, and Arts and Circle Time.
- Included a set of 8.5 by 11-inch laminated flashcards with large photos of each food item for teachers to use with children and a songbook to complement the curriculum.

NHA's director of education and staff development developed an initial draft of the curriculum. IATP staff and the project's curriculum task force then reviewed the draft and suggested revisions (including the addition of more classroom activities that teachers proposed). The curriculum was completed within four to six weeks.

That quick turnaround was needed so that staff could be trained in the spring before the pilot launched (with no time to spare!). It also meant that the process was quite hurried. We also didn't have a confirmed list of farm suppliers from the distributor at the time we were developing the curriculum. As a result, we conducted farm visits during the pilot and incorporated those photos and stories into the curriculum and parent newsletter over time. As the pilot progressed, we learned a lot about how to strengthen the curriculum, as highlighted below.

What We Learned:

CURRICULUM STRUCTURE: The curriculum was well-received by NHA staff. We believe that contributing factors included:

- The curriculum included activities focused on each highlighted food from categories like Sensory Play, Art, Circle Time, etc., which were familiar and consistent with the way their teaching day is already structured.
- We included a wide range of activities for each category and also encouraged teachers to develop and try other ideas. This empowered them to choose the activities that were best suited to their classroom and that they felt most comfortable teaching. It also gave us an opportunity to test out a wide range of teaching activities during the pilot.
- Teachers also liked the fact that they only needed to use the Farm to Childcare curriculum on Mondays and Tuesdays. This created some welcome boundaries and structure around what they were being asked to do. They also liked seeing how the kids received the featured foods on Wednesdays and Thursdays, as this often illustrated that teaching activities earlier in the week added to children's enthusiasm for the food itself.
- We realized that many generic activities (like food's color and shape) were repeated in the sections for each food. This became a bit repetitive, so we pulled those items into a central location. The food-specific pages were then focused on activities that were unique to that food, such as counting the number of peas in a pea pod.

Farm-oriented content and other themes:

Looking back, the original curriculum was less farm-oriented than we would have liked, with a greater emphasis on nutrition issues and generic activities like the color and shape of different foods. This reflected the tight turnaround under which it was developed and the fact that a knowledge of "Farm to" types of issues was limited among the core designers. At the time of finalizing the curriculum, we did not yet have finalized information on which farmers would be producing the featured foods and were unable to include farmer profiles in the curriculum

booklet itself. However, once we had confirmation of our producers from the distributor, we were able to visit the farms to meet our farmers and gather information to share with NHA. Throughout the pilot we created farmer “spotlights” with information and pictures of farmers and the featured foods in their fields. These spotlights were available for the teachers to access on NHA’s internal website. We also incorporated farmer information into parent newsletters throughout the pilot.

We ran into two situations where the featured local foods could not be served, leaving us in a bind with what curriculum to use (One situation occurred with apples when a snap freeze decimated our local crop. In the other, NHA’s distributor declined to make a local product available due to an unrelated food safety problem on a farm in another state).

In response:

- We revised the farmer spotlights to be better geared toward young children and included large photos of the farmers and the foods they grow. Initial farmer spotlights that were more text-heavy were revamped to make them easier for teachers to use with children. An additional benefit is that the visual materials can be put up on bulletin boards or on classroom walls as well.
- The more detailed background material remains available in electronic form if teachers would like to print it out and send home to families, for instance, or for use in newsletters. To make sure that teachers are aware that this is possible, we included a note in the curriculum directing them to check the website as well.
- We developed three additional curriculum units that are not food-specific and can be used when local foods are unexpectedly unavailable or out of season. The new units—focused on A Day in the Life of a Farmer, Weather and Farm Animals—were also helpful in strengthening the “farm-oriented” aspect of the curriculum. This additional curriculum content can also be used extend the Farm to Childcare lessons beyond the growing season, or in other situations when childcare centers want to teach Farm to Childcare lessons without relying on food items. The program could be furthered strengthened by developing additional curriculum that helps children learn more about agriculture and farm-related themes. The curriculum would also

benefit from more culturally relevant content that reflects the diversity of the children served by NHA.

Packaging and access to the curriculum

Our original curriculum was in the form of a pre-printed, bound booklet. When we revised the curriculum, we shifted to a three-ring binder. We also incorporated various other materials that had only been available to teachers on NHA’s intranet into the binder. This proved to be helpful for several reasons:

- Having everything in one place makes it much easier for teachers to know what is available to them and to be able to turn to one place rather than multiple locations to find what is needed.
- Teachers could easily remove materials from the binder when needed and then replace them later. This was easier than them having to copy materials out of the bound booklet or print materials off the web.
- We were able to incorporate items like laminated photos in the binder.
- A three-ring binder allows for long-term flexibility, as additional materials can be added over time or changed year by year as new producers, foods, themes and activities are incorporated into the Farm to Childcare program.

See our original pilot version of the curriculum in Appendix 6-A.

SECTION 7: EVALUATION PROTOCOLS

What we did:

As an integral part of the Farm to Childcare pilot, we developed an extensive evaluation plan, collecting information from participating teachers, kitchen staff, center directors, producers, parents and children. Our primary hope was to learn as much as we could from the pilot phase so that we could improve it for the second phase. Overall, the evaluation work with the teachers, kitchen staff and center directors was quite fruitful. The effort to gather feedback from parents and producers was a little sketchier, reflecting the limits of our pilot and the challenges of reaching particularly those parents with limited literacy. Gathering data from participating children proved to be particularly challenging and labor-intensive, as discussed below.

TEACHERS: We conducted online surveys of teachers to capture their feedback on and experiences with the curriculum and parent outreach strategies for each food. We conducted the surveys on a biweekly schedule, sending out the survey link on the Friday that concluded each two-week period. IATP staff developed the survey questions, with input from NHA staff. The survey asked teachers to identify:

- which curriculum and parent outreach activities they tried (both from the curriculum and from other sources, if applicable)
- which curriculum activities and parent outreach strategies worked well and which did not
- what suggestions they had for additions or improvements to the resources we offered for the highlighted food item

We used an online survey service called SurveyMonkey to conduct the surveys and track results, which worked well. IATP emailed the survey web-link to center directors, who then forwarded it to their teaching staff. Staff were asked to reply within one week.

These surveys gave the NHA/IATP planning team timely information from the teachers on how the program was working for them, and provided a direct way for teachers to highlight successes and flag potential problem areas. The planning team conducted a mid-pilot review of

the data, which largely confirmed that teachers were feeling positively about the pilot and significant changes weren't needed. We were also able to gather a lot of helpful information from these surveys, including new and creative curriculum ideas that we then added to our resources. After the pilot period was finished, IATP again compiled a summary of the results for the planning team (provided in Appendix 7-A).

KITCHEN STAFF: Our strategy for gathering feedback from the kitchen staff was similar to that for teachers. We used biweekly online surveys to collect their feedback about each featured food after they had cooked with it. The menu was created centrally for all the centers by NHA's food program coordinator, so we particularly valued feedback from staff working on the ground about how it was going for them. The survey explored issues like:

- whether kitchen staff were able to successfully follow the scheduled menu or had to make any changes to it
- how difficult or easy it was to prepare the scheduled food
- how children reacted to the food
- whether they had any challenges with procurement and receipt of the food from the distributor
- What other recommendations or feedback they had

The planning team monitored the results of these surveys and created summaries the same way we had for those of teachers (see Appendix 7-B).

Halfway through the pilot, IATP staff hired a nutrition consultant with training in public health nutrition from the University of Minnesota and nearly 20 years of community nutrition education experience to meet with about 40 participating cooks to gather more detailed feedback on their experience with the pilot. We used information gathered from those conversations to develop a final end-of-pilot online survey with kitchen staff to capture their overall feedback on their experience, and what recommendations they would make for the program to succeed at the kitchen level.

What we learned about electronic surveys

SURVEY FREQUENCY: Conducting biweekly surveys for the duration of the pilot period was too frequent to sustain participation. We found that the teachers and kitchen staff both became “survey fatigued” after a couple of months of completing the survey for each food every two weeks. We saw our response rate decline over the course of the pilot and also noticed less detail and more repetition in responses over time. We initially set up the biweekly schedule in order to gather specific feedback about how well individual foods worked directly after the staff had worked with it and while their memories of the experience were still fresh. We found that responses tended to be more general, though, and respondents did not give much feedback specific to individual food items (perhaps because most foods worked pretty well). Instead, conducting two or three surveys over the course of the pilot might have been just as effective.

CONNECTING STAFF TO THE SURVEY INSTRUMENTS: Given how information sharing works within NHA, we had a multi-step process for connecting teachers and kitchen staff with the survey instruments. IATP staff sent the survey link to NHA leadership, who forwarded it to a central email address at each center. Center directors then informed the teachers and kitchen staff that surveys were ready to complete. This process introduced multiple stages where the survey could get lost along the way. Being able to email the survey link directly to responding staff would have been much simpler had NHA’s email system allowed for it.

In-person feedback: Online surveys were a great tool for collecting quantitative data from staff, but we often gathered more detailed feedback from teachers and kitchen staff when we spoke with them directly (whether informally when we visited centers or through formal methods such as the meeting we conducted with kitchen staff). If we repeated the pilot, we would include more in-person interactions with staff as a way to exchange ideas and feedback more informally.

CENTER DIRECTORS: With the center directors, we did not do electronic surveys. Instead, we conducted mid-pilot check-in phone calls in late August/early September 2012. At that point, the pilot had been running long enough that directors could provide specific feedback, and we still had time to make adjustments. We asked for directors’ perceptions of the program and how it was being received

by the children, teachers, kitchen staff and parents at their centers. We also asked for suggestions for improvements and examples of successful strategies they had seen at their center (see Appendix 7-C for a summary of directors’ answers to our survey). These conversations provided valuable perspective on the program, since the directors have a “bird’s eye” view of how the program integrated into their center as a whole and typically interacted with a wide range of parents, in particular.

PARENTS: We conducted a post-pilot online survey of parents whose children participated in the pilot in December 2012. Our goal with this survey was to:

- assess how effective our parent outreach strategies had been in making parents aware of the pilot and the activities their children were doing as part of the program
- gather parent feedback on the overall program
- ask for their perspective on whether the program had any impact on their family’s eating or activities outside of the childcare environment
- determine if they felt the Farm to Childcare program should be continued

See Appendix 7-D for a summary of parent responses.

PRODUCERS: We conducted in-person site visits and/or calls with each of our producers during the course of the pilot. Our ability to interact with our producers was somewhat limited, because NHA works through a prime distributor rather than directly with their growers. Our check-ins with producers included time for us to explain the Farm to Childcare pilot and let them know that we would be purchasing their products, time for us to learn about their farm’s history and structure, and time to gather their perspective and feedback on the program. The information collected from these conversations was used to create farmer profiles (see Section 5: Connecting with Our Growers).

CHILDREN: Collecting evaluation data from the children in the pilot proved to be the most complicated component. The primary goal of the pilot was to develop and test our Farm to Childcare program on a timetable that was quite compressed. That goal was served by strategies like featuring foods for only two weeks so that we could test as many foods as possible given our short harvest period. Going in, we recognized that this rapid-fire approach to introducing foods advanced our goal of testing menu

options and curricula, but it was not designed to maximize the potential impact on children's learning or their taste preferences during the pilot phase. As the model matures, it will be important to consider modifications (like expanding the time periods for featuring each food, increasing the number of interactions that children have with each food, and repeating foods over time), to increase the impact on the children.

What we did:

That said, we wanted to understand how our brief pilot might have affected the children. Our initial evaluation goals were threefold, as we looked to assess:

1. the number of children who had tried eating the highlighted foods
2. children's ability to correctly identify the highlighted foods
3. children's taste preferences for the highlighted foods

To this end, we designed an evaluation protocol in alignment with the two-week menu and activity cycle. A subset of children were interviewed on the Friday before a new food was highlighted and two weeks later after the food had been highlighted. We chose four pilot centers for the child evaluation, making sure to choose centers that were representative of the diversity of the larger group in terms of economic background of the children, size of the center, types of kitchen equipment, urban and suburban locations, and ethnic diversity of the children. We hired two paid interns to complete the evaluation interviews with the children. We also chose four "control" centers that were not part of the pilot to collect baseline information for comparison.

What we learned

IATP staff tested the initial evaluation protocol at one center to see how it worked with our children. In our first pass at child evaluation, we created worksheets to collect information on each child's perception of the highlighted food item (see Appendix 7-E for an example of the initial worksheet). Using "tomato" as an example of a highlighted food item, the evaluation process was as follows:

1. To assess the child's ability to correctly identify the food, the worksheet showed three photos, one of a tomato and then two of other food items, such

as other vegetables that were highlighted in the program or "distractor" items such as a piece of cake or candy that were not part of the program at all. The evaluation administrator showed the three photos to the child and started with the question "*Which is the tomato?*" To indicate their choice, the administrator gave the child a small sticker to put on the photo they thought was the tomato.

2. Next, the administrator asked "*Have you ever tried tomatoes?*" and recorded the answer by circling "yes," "no," or "I don't know" on the worksheet.
3. Lastly, the administrator asked "*Do you like tomatoes?*" Children indicated their answer by placing another sticker on an image of a happy face to indicate "yes," on a sad face to indicate "no" or on a question mark to indicate "I don't know."

EVALUATING IN SMALL GROUPS: Initially, the administrator attempted to complete the evaluation of a small group of four children at the same time, but we quickly found that the children were easily distracted by having classmates nearby, making it difficult for the administrator to give instructions. Children were also heavily influenced by the other children in their group, diluting the reliability of their answers. After trying evaluation with small groups a couple of times, we switched over to individual evaluations instead.

IMAGES AND STICKERS: In our situation, we found that the system of using worksheets did not work very well. The instructions for using the worksheets were a bit confusing for the children, especially the youngest ones, who were two years old. Sometimes, we weren't sure if where the children put their stickers actually reflected their answers to the questions or whether they did not understand what we were asking them to do. Some children just wanted to put the sticker on a picture of a food they liked, for example, rather than answering the question we asked. We also weren't sure whether the young children understood the abstract symbols of the smiley face, sad face and question mark to indicate whether they liked a food. Over the course of testing out the process, we found that it worked better to have the administrator verbally confirm each child's answers and then circle them for the child.

TOO MANY WORKSHEETS: Another issue we noticed when using worksheets is that it generated a lot of paperwork that needed to be organized and sifted through to gather the evaluation. Each child we interviewed had

their own worksheet with their recorded answers, which was a lot of paperwork to juggle while interviewing the children and meant that we left the center after our one day of testing with hundreds of pages of worksheets divided into stacks by class. This would have meant thousands of pages over the course of the pilot. We experienced firsthand how difficult managing this paperwork could be when the day that we had chosen to do our evaluation process turned out to be “Water Day” for the children. We ended up conducting one testing session outside during a recess period while the children played in their swimsuits, running through sprinklers and splashing each with water sprayers. We decided to develop a plan that would reduce the amount of paper we went through and hopefully simplify the process of analyzing the responses as well.

REVISING OUR APPROACH: Given these experiences, we soon adjusted our approach. We kept the questions the same, but redesigned how the administrator would interact with the child. We also abandoned the worksheets. Instead, we produced laminated 8” by 10” flashcards with large color photos of the food items (see Appendix 7-F for example Tomato flashcard). The new system worked this way:

When asked to identify “*Which is the tomato?*” and shown three flashcards, the child could point to a picture to answer, which was easier for the children to understand. We decided to only use food items that were highlighted in our program without any “distractor” items included, and chose in advance what three food items the children would choose from for this question to ensure that each child was given the same options across all the evaluation sites. The two questions assessing experience with the highlighted food item and the children’s taste preferences were asked verbally.

The administrators worked from a written script to maintain as much consistency as possible. They were also instructed to give children positive reinforcement for participating while avoiding any value judgments on whether children answered questions “correctly.” When the evaluation session was completed, the administrator gave the child a sticker to keep as a reward for participating. An added benefit of this system was that we could use the same flashcards that were provided to the teachers with the curriculum, which we hoped would be familiar to the children from classroom activities as well.

Instead of recording each child’s responses on a separate worksheet, we created a tracking sheet where responses from all the children in a class could be recorded in one

spreadsheet (see Appendix 7-G). Our administrators used a shared Google spreadsheet where they entered the responses from each evaluation period in one central location for easy analysis later on.

- IATP staff accompanied our hired intern evaluators on their first visit to each center to introduce them to the center directors and to train them in on the evaluation process. We also provided them with a written description of the evaluation protocol (see Appendix 7-H).
- Throughout the pilot, we had regular individual check-in meetings with the interns to review the data they were gathering and address any issues that came up.
- Midway through the pilot, we scheduled a group check-in meeting with both interns and IATP staff to discuss how the evaluation process was working, and we made several revisions to further streamline the process.
- Based on feedback from the interns, we realized that there was a lack of clarity on whether children who were incorrect when identifying the food in the first question were answering the experience and taste preference questions about the food that we were testing on or the food that they had incorrectly identified in the first question. We changed the process so that after the first identification question had passed, the administrator held up just the flashcard showing the food they were focusing on and asked “*Have you ever tried this?*” and “*Do you like this?*” instead of assuming the child was thinking of the correct food item.
- We omitted the “*Do you like this?*” question if the child answered that they had never tried the highlighted food in the second question.
- We also realized the evaluation wasn’t addressing the “Farm to” message of our program, so we later added a fourth open-ended question and asked the children “*Where do you think tomatoes come from?*” Our interns recorded the answers as they were given. Though analyzing this qualitative data was more subjective, we collected wonderful responses that gave colorful representation to the children’s understanding of the origins of their foods.

Over the course of the pilot, we were able to craft an evaluation process that worked well in our particular context. Even with the changes we made, however, we found that it was very difficult to gather standardized information from children in the 2- to 5-year-old age group, especially when interviewing the youngest children. We also completed evaluation surveys of 4 NHA centers that were not participating in the pilot to use as control sites. There were many factors beyond our control that could have an effect on our ability to conduct accurate interviews. For instance:

- Children could become easily distracted and were sensitive to whatever else was happening at the childcare center that day, whether it was Water Day, getting ready for lunch or having just woken up from a nap.
- Some children were not fluent in English, and others were very shy or simply refused to participate.
- The children were also often very curious and wanted to watch their friends participating in the evaluation, often with the impulse to help each other find the right answer to our questions. Most centers did not have room for us to complete the evaluation in an isolated area away from other kids, so the administrators would set up in a corner of the same room the rest of the class was playing in, making it difficult to avoid other children influencing the results occasionally.
- We also realized that different children were in the classes from week to week as they went on vacations with families, moved and switched centers, started preschool, etc.

As a result, we have our concerns about the validity of the data when viewed through a more technical or quantitative lens. Nevertheless, the information we gathered was immensely helpful for engaging with the children, assessing how the pilot was going in the classroom and identifying changes to strengthen the program.

See a summary of combined results in Appendix 7-I.

SECTION 8: PARENT OUTREACH TOOLS

What we did

Together with our NHA partners, we identified parent engagement strategies NHA centers already had in place that we could use for the Farm to Childcare program. The planning team developed some central resources that were used across all centers, including:

- An introductory letter for families to provide an overview of the Farm to NHA program (see Appendix 8-A)
- Monthly menus sent home to families with a carrot icon indicating menu items using highlighted local produce, farmer spotlights showing who produced the highlighted food, and information about the program, along with recipes and wellness tips for families and a local produce seasonality chart (see Appendix 8-B and 8-C)
- The Family Resource section of NHA's website included information about the Farm to NHA program, recipes, and links to external web sites and apps with additional resources
- Parent Newsletters blurbs about the highlighted foods and the farmers who grew them, and also ideas about seasonal family activities, such as going apple picking together.
- We created a Book List to suggest books families could read at home to reinforce the messages of Farm to Childcare (see Appendix 8-D)

We devoted a section of the curriculum book to parent outreach, and identified certain activities that teachers and directors were required to complete as part of the program, including:

- Create a display that includes the menu along with information about the Farm to NHA program. Use the display to inform families of the featured locally grown foods for the month, to provide information about the farm the food item comes from and to provide information about the farmer.
- As appropriate, incorporate information about the program in the monthly newsletter. Share photos

of children sampling new foods, engaged in cooking projects, and/or learning about highlighted foods during group time, and photos and stories about the children's garden at the center.

- Include information about the program on the "daily sheets" sent home with children to let parents know what they did while at the center. Provide families with detailed information about their child's experience with the food items.
- Create a display in the classroom to highlight curriculum activities from the program, incorporating statements of learning and photos to explain the curriculum activity.
- Use display boards to highlight what children know about the featured food items, what they want to know, and what they learned about the item at the conclusion of the unit (using NHA's standard "KWL" learning strategy).

We also asked that teachers do additional parent outreach activities of their own choosing. Teachers could create activities themselves or choose from a list of additional suggested outreach activities we provided, including:

- Post a chart of Minnesota-grown in-season foods.
- Invite local farmers to visit the center and speak with the children.
- Invite families to participate in a recipe round-up. Families can share their favorite recipes using the food items highlighted in the program.
- Provide favorite snack and recipe ideas to families.
- Provide families with information about local farmers markets.
- Create a cookbook with recipes used as part of the program.
- Set up a Food Taste Test Event at the end of the day pick-up time. Families can chart their favorites. At the event, children visit "tasting stations" with their parents to taste samples of Farm to NHA foods featured in the program.
- Schedule a Family Cooking Event at pick-up time, encouraging families to explore cooking with their children and celebrating their participation in the program. At the event, families prepare and eat

simple recipes that the children have previously made as a part of the program's classroom activities.

Additionally, for each two-week period highlighting a new food, we included more food-specific recommendations of outreach activities to choose from in the curriculum booklet as a way to remind teachers to do a parent outreach activity for the program each week.

We also explored ways to encourage parents to reinforce the farm to childcare message at home:

- NHA expanded the Family Resource section on their website with additional parental resources, including copies of information sent home, such as the introduction letter to the program, a "what's in season" chart, and links to external websites about kid-friendly recipes, gardening and farm to childcare.
- IATP also partnered with Minnesota Department of Agriculture's Minnesota Grown program to develop a version of their annual local food and farming guide that included information on Farm to Childcare and suggestions for activities parents can do with their children to engage with local foods and farms. The Farm to Childcare Minnesota Grown Directory was released in the spring of 2013. We distributed copies of the directory to all NHA centers to make available for the parents of their children, accompanied by an explanatory letter encouraging them to explore Farm to Childcare and to support local producers. We shared 10,000 copies of this resource with NHA and our wider network of childcare partners, and Minnesota Grown has produced an additional 190,000 copies of this special directory to distribute. Additionally, we worked with MN Grown to create a series of four posters designed with the childcare setting in mind, highlighting three Minnesota farmers and the vegetables they grow.

What we learned

- Teachers responded positively to the variety of parent outreach strategies offered in our curriculum and appreciated being able to choose what methods they knew worked best for their own communities. Our program involved a diversity of centers serving a multitude of communities, and different directors said different strategies worked for them. Having a variety of methods of contact, including email,

written newsletters, visual displays, developing recipes to take home, open houses, demos and more, and then building flexibility to choose activities into the curriculum was key to our program.

- The pre-launch training was our opportunity to talk to staff directly, so it would have been ideal to have all of the resources ready to give to them at that point. Because we were still developing some outreach materials at the point of training, we shared them separately after the pilot had launched by sending them to NHA's central administrative staff to forward to individual center directors, who shared them with their teachers. This separate process created opportunities for the materials to be lost or overlooked along the way.
- Similarly, with certain parent outreach strategies that we really felt added to the program, providing ready-to-use materials from the beginning of the pilot rather than suggesting that teachers create something from scratch would have been easier for teachers. For example, we could create a large logo for the program and a large map of Minnesota with the farm locations labeled on it to be used in the teachers' wall displays. We partially addressed this in the revised version of the curriculum package by providing large photos of farmers that teachers could show to the children and hang on the wall, but were not able to create the larger visual displays yet.
- In retrospect, we felt that the book list we offered needed a few more farm-themed books in addition to the great food and nutrition-focused ones NHA staff had found, so we expanded the book list in the revised package.

Strategies at the centers

- One challenge to parent outreach for our program was lack of direct contact with parents. To address this, during the pilot we found an opportunity to access a subset of parents directly at the time of child pick-up through a partnership with University of Minnesota-Extension's Simply Good Eating program, which provides nutrition education to low income communities. Three of our pilot centers met Simply Good Eating's criteria of having 50 percent or more of their children on childcare assistance, and were eligible for an on-site taste test recipe demonstration for parents from a trained Simply

Good Eating community educator. Simply Good Eating was willing to work with us to have the taste test feature the food that was being highlighted in our Farm to Childcare program at the time of the site visit, and provided family size recipes for parents to try at home. The demonstrations were very successful at raising parent awareness of the farm to childcare initiative and allowed them to try a food.

- We found that not all parents noticed farm to childcare content on the walls or in newsletters, so the taste demo was an alternate, hands-on way to give information to parents verbally. It required no effort on the parents' part and took advantage of pick-up time to reach them.
- The demo was an especially effective way to reach non-native English speakers. Even parents who could not speak English still had a chance to try the food and have a positive engagement with the program.
- Since the Simply Good Eating Program is only available at centers that meet their assistance criteria, in the future it would be beneficial to build on this model to develop a taste-test program all centers could use, regardless of the income of their communities. The Simply Good Eating Program is focused on nutrition rather than locally grown foods, but their model could be adapted to further emphasize local farms through signage and clear messaging, and provided instructions for childcare staff on how to do a demo (including a recipe and script).
- Another successful strategy several centers used was incorporating Farm to Childcare themes into their regular open houses. Centers already hold three open houses a year and could plan to have a Farm to Childcare theme at one. Center Directors reported that serving food is always popular with parents, and an open house would give them an opportunity to highlight featured locally grown produce and recipes to parents. One center found a program that brought small farm animals to the center for a "petting farm" during the open house, and another planned a taco bar featuring local ingredients. Both directors had a very positive reception from their parents, prompting us to include an Open House section in our revised curriculum.