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Evaluation of the FY 2016 Team Nutrition Training Grants: **Final Report**



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About This Report

This Final Report presents the findings of the Evaluation of the FY 2016 Team Nutrition Training Grants (TNTG). The report summarizes the characteristics of the grantees and their interventions, the results from the grantees' evaluations, and the lessons learned from implementing those interventions and evaluations.

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Executive Summary

Introduction

This Final Report presents the findings of the *Evaluation of the FY 2016 Team Nutrition Training Grants* (TNTG). The report summarizes the characteristics of the grantees and their interventions, the results from the grantees' evaluations, and the lessons learned from implementing those interventions and evaluations.

The purposes of the TNTG program are (1) to assist students participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) in making healthy food choices, and (2) to improve the nutritional content of meals and snacks served by programs receiving Child and Adult Care Food Program (CACFP) funding. The funding provided by the TNTG program to State agencies is intended to be used for providing training, technical assistance, and nutrition education to schools, child care settings, summer meal sites, parents/caregivers, and children. These activities are expected to help participants align dietary choices with the goals of the Dietary Guidelines for Americans.

In September 2016, FNS awarded three-year grants to 14 State agencies that administer USDA Child Nutrition Programs, most for somewhat less than the \$500,000 funding limit per State. One grantee declined the funding; therefore the report is based on 13 rather than 14 grantees. Of the 13 participating grantees, eight States chose to focus on improving school nutrition through the NSLP and the SBP (*school-focused grants*), and five States on providing training to child care providers participating in CACFP (*child care-focused grants*). For the first time in the TNTG program, grantees were required to report performance metrics and evaluate their interventions.

This report presents the findings from two research tasks: (1) Identify and describe the interventions as planned and implemented; and (2) Summarize and analyze the evaluation metrics collected by grantees. This report relies primarily on two sources—grantees' final reports and communications between the grantees and the evaluation team. These communications occurred as the team provided evaluation technical assistance to the grantees. Information from grantees' previous evaluation products supplemented these sources. The report focuses on the 33 interventions implemented by the eight school-focused grantees and 27 interventions implemented by the five child care-focused grantees.

The overall evaluation summarized in this report sought to learn from the grantees' evaluations in three ways. First, to the extent that the grantees succeeded in their evaluations, the metrics would provide an understanding of the individual outcomes of the array of interventions implemented by grantees. Second, the metrics could collectively provide a basis to assess the overall effectiveness of the TNTG program. Third, the grantees' experiences in evaluating their interventions could serve as a basis for identifying lessons for future evaluations of TNTG.

Highlights of Grantees and Interventions

Each grantee implemented multiple interventions, and each intervention was designed to promote a particular behavior change in a target population of participants. In their States, grantees implemented interventions using three behavior-focused strategies for effecting change required by the grant program: training and TA, nutrition education, and support for a healthy food environment. The 33 school-focused interventions were divided almost equally between training and technical assistance (11), nutrition education (12), and healthy food environment (10) strategies. Almost half of the 27 child care-focused interventions used training and technical assistance strategies (12), followed by healthy food environment (9), and nutrition education (6) strategies.

Interventions used one or more modes to accomplish the intended outcomes. The most commonly used modes included in-person training; coaching, mentoring, or technical assistance; classroom curricula; cafeteria activities; taste testing; and provision of additional resources or materials.

Summary of Evaluation Findings

The FY 2016 TNTG grantees were the first that faced specific requirements for evaluation of their interventions. Grantees developed evaluation designs and measures, engaged the support of social science researchers, and refined their approaches with technical assistance provided by the national evaluation contractor. The objective to emphasize evaluation as well as implementation of nutrition education interventions was met with substantial success.

Grantees reported that the transition from their typical concerns with providing nutrition education services to schools or child care providers to a combined role of providing and evaluating the effects of services was challenging. Other evaluation challenges that grantees described include insufficient planning time, budget, and background or experience in research methodology.

In spite of these challenges, the FY 2016 grantees undertook some form of outcome evaluation of most of their key interventions. Most positively, the breadth of their evaluations was noteworthy, as were their efforts to identify and/or develop measures that were well-aligned to the content of the objectives of their interventions. At the same time, because of the challenges, grantees in general were not able to implement rigorous evaluations, relying primarily pre-post designs measuring gains for intervention participants in their knowledge or understanding of key nutrition practices. Finally, the findings within and across types of interventions and participant groups were mixed in terms of numbers of statistically significant and non-significant results; also, there were many outcomes that were measured but not tested for significance. One overall finding that seems to hold is that, in general, the findings were more consistently positive for the interventions focused on child care sites versus schools.

Thus, the grantees' evaluations collected outcome data on the majority of their interventions, which provided them with evidence of varying rigor about how successful their interventions were at changing knowledge, attitudes, and behavior. However, the grantees evaluations provided limited insight into the overall effects of TNTG, because the findings were often mixed within and across interventions of the same type, and were mostly based on pre-post gains.

Among the grantees with interventions in schools, the following were the key evaluation findings.

- Eight interventions that provided training or technical assistance on different topics to various participant groups were evaluated using pre-post designs. For the two evaluations that performed tests for statistical significance, gains were reported for school wellness coordinators on their knowledge of school wellness policies and confidence in implementing these policies.
- Eleven interventions that provided resources and training for the implementation of nutrition education were evaluated, and all eleven performed significance testing of gains. The results for student and school outcomes were mixed, with as many or more of the outcomes shown to be non-significant as were shown to be significant.
- Nine interventions that attempted to improve the overall healthfulness of the school environment were evaluated, and six performed significance testing of gains. For students, there were mixed findings on changes in consumption of fruits and vegetables with equal numbers of significant and non-significant results. For the school outcomes, the results also were mixed, for level of participation in school breakfast and lunch programs, for Smarter Lunchrooms scores, and for School Health Index scores.

Among the interventions in child care centers and family day care homes, overall, the evaluations showed more consistent positive and significant gains, compared to the interventions focused on school settings, and the following were the key evaluation findings.

- Seven interventions that provided training and technical assistance interventions to child care providers were evaluated, and all seven performed significance tests of the findings. Significant gains in provider knowledge and healthy food options offered were reported, with no contrasting non-significant findings. There were mixed significant and non-significant findings for provider use of best nutrition practices and for culinary skills among providers who received culinary training.
- Four interventions that provided nutrition education to child care providers were evaluated for changes in provider practice. All four reported positive and significant changes in provider confidence in and actual use of best nutrition practices, including use of local food in the child care food programs. One intervention had a significant effect on the overall meal environment favoring participating providers when compared to non-participants.
- Six interventions for child care providers to improve the overall healthfulness of the food and physical activity environment conducted outcome evaluations. Six of the evaluations had tests of the statistical significance of the changes in providers from before to after the interventions. These evaluations both reported significant gains in provider knowledge of best practices, self-reported use of best practices, and self-efficacy/self-confidence about using best practices. Children were assessed for changes in their knowledge of, willingness to taste fresh fruits and vegetables, and there were consistent positive and significant gains in all of these domains.

The Team Nutrition grantees did not rigorously evaluate all of their activities, due to resource constraints and the inherent challenges of doing so for some activities. This report does not draw any conclusions about the value or impact of these activities.

Lessons Learned

In addition to the quantitative findings from the evaluations, grantees reported on challenges they faced and solutions they developed around implementation and evaluation of their interventions. Their thoughtful discussion of the lessons they learned is a real contribution to the grant program, and what they learned could be helpful to States or other agencies delivering nutrition education in the future.

The following were the grantees' key lessons about implementation and partnerships.

- Grantees described lessons learned about (a) engaging with participants, including recruitment into the intervention and sustaining continued participation in those interventions, and (b) effective approaches for supporting high-quality, high-fidelity implementation of the interventions in child care centers and schools.
- Most grantees described the benefits of partnerships they established with universities, local level and statewide agencies, and community organizations. These partnerships allowed grantees to (a) get help with the quality of implementation of their grant programs by participants, and (b) maximize their resources to improve implementation and evaluation, which in many cases ultimately led to (c) grantee programs or initiatives that were sustainable through these partnerships.
- Grantees indicated that partnering with other agencies and organizations to add expertise, leverage resources, and expand work helped to ensure grant activities were successful and sustainable. Partnerships built on State level partner assets and resources enhanced grantees' programs, in particular, school nutrition and wellness activities and trainings.

Grantees experienced numerous challenges in evaluating their interventions.

- Managing the simultaneous roll-out of the expanded performance reporting and intervention evaluations posed a burden for grantees.
- Grantees had insufficient time for evaluation design, experience in research methodology, and budget for the social science researchers' time and other resources for evaluation.
- Other lessons from conducting evaluations included: the burden of evaluation on school and child care professionals, the limited available measures of appropriate outcomes, the need for a good participant tracking system; the importance of measuring fidelity of implementation; and the value of evaluations that compared outcomes for participants who received different combinations of components.
- Grantees experienced a tension between implementing an array of services to meet all of the grant objectives and focusing on a smaller number of more intensive services.
- The evaluations had limited potential to detect changes in behavior and provide generalizable results because of the relatively brief and low-intensity interventions, and also the small samples. Grantees lacked the resources and tools to measure longer-term changes in nutrition and health practices. They wished they were able to measure more outcomes at the student level.

Based on the collective evidence from the FY 2016 TNTG program evaluations, future evaluations of similar programs could be improved by the following steps:

- Clearly stated expectations for/definitions of rigorous evaluations that are part of grant activities—e.g., priority designs and outcomes
- More planning time for evaluation at the start of the grant period
- More resources for multiple components of strong evaluations, including social science researchers and field data collection
- Allowing grantees to more narrowly focus their services on a smaller number of more intensive and longer-duration interventions.

1. Introduction

A program of the Food and Nutrition Service (FNS) within the U.S. Department of Agriculture (USDA), the Team Nutrition Training Grants (TNTG) program began in 1995. It has two purposes: (1) to assist students participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) in making healthy food choices, and (2) to improve the nutritional content of meals and snacks served by programs receiving Child and Adult Care Food Program (CACFP) funding.

This Final Report presents the findings of the *Evaluation of the FY 2016 Team Nutrition Training Grants*. The report summarizes the characteristics of the grantees and their interventions, the findings from the grantees' local evaluations, and the lessons learned from implementing those interventions and evaluations. This introduction provides an overview of the TNTG program, the research aims of the evaluation, the data sources for this report, and the focus of the evaluation.

1.1. Grant Objectives

The funding provided by the TNTG program to State agencies is intended to be used for providing training, technical assistance, and nutrition education to schools, child care settings, summer meal sites, parents/caregivers, and children. These activities are expected to help participants align dietary choices with the goals of the Dietary Guidelines for Americans.

Starting in FY 2016, Team Nutrition (TN) grantees received funds over three years to support them in providing that training, technical assistance, and education. FY 2016 grantees could apply to use the funds to support one of two TN grant objectives:

- **School-focused (Objective 1) grants:** Assist students participating in the NSLP and SBP with meeting the recommendations set forth in the 2015-2020 Dietary Guidelines for Americans by providing appealing and nutritious meals, nutrition education, and school environments that are conducive to healthy eating.
- **Child care-focused (Objective 2) grants:** Improve the nutritional content of meals and snacks offered in child care centers and family day care homes [referred to in this report collectively as “child care providers”] participating in the CACFP to be consistent with healthy eating patterns and to assist young children with meeting the 2015-2020 Dietary Guidelines for Americans.

All FY 2016 applicants (whether school- or child care-focused) were asked to include in their grant activities use of three behavior-focused strategies for effecting change, and to incorporate the use of six communication channels in strategy 2:

1. Provide **training and technical assistance** to child nutrition professionals to enable them to prepare and serve nutritious meals that appeal to children.
2. Increase **nutrition education** directed to children through six communication channels to help children have the knowledge, skills, and motivation to make healthy food and physical activity choices as part of a healthy lifestyle. (The six channels were school or child care events, classrooms, cafeteria/dining areas, home connections, community involvement, and media.)
3. Build **support** for healthy school and child care environments that encourage children's nutritious food choices and physically active lifestyles.

In September 2016, FNS awarded three-year grants to 14 State agencies that administer USDA Child Nutrition Programs, most for somewhat less than the \$500,000 funding limit per State. One grantee declined the funding; therefore the report is based on 13 rather than 14 grantees. Of the 13 participating grantees, eight States chose to focus on improving school nutrition through the NSLP and the SBP

(*school-focused grants*), and five States on providing training to child care providers participating in CACFP (*child care-focused grants*).

For the first time in the TNTG program, grantees were required to report performance metrics and evaluate their interventions. The required annual performance metrics included the number and duration of activities, number of participants, and number of participants with improvements in outcome measures. Grantees developed evaluation designs and measures, engaged the support of social science researchers, and refined their approaches with technical assistance provided by Abt Associates Inc., the national evaluation contractor.

1.2. Research Tasks

FNS contracted with the Abt Associates Inc. (the evaluation team) to conduct the FY 2016 TNTG Evaluation, which sought to fulfill five **research tasks**:

1. Identify and describe the interventions as planned and implemented by grantees.¹
2. Collect and summarize characteristics of the intended and actual sites and audiences for each intervention for each State. Where activities are statewide or lack a specific location, describe the characteristics of the target audience.
3. Determine and respond to grantee needs for evaluation-related technical assistance (TA).
4. Summarize and analyze the evaluation metrics collected by grantees.
5. Develop recommendations for both (a) an evaluation framework that grantees can implement to measure the effectiveness of their efforts and (b) an evaluation design for rigorous impact evaluations of a subset of grantees and their activities.

This final report presents the findings from Tasks 1 and 4 and focuses on the description of the interventions and the evaluation metrics. The evaluation team has submitted several memoranda and other reports to FNS (listed below) in fulfillment of Tasks 2, 3, and 5.

Relevant Previous Deliverables	Date Submitted to FNS
2.1 Technical assistance (TA) needs assessment memorandum	March 17, 2017
2.2 Memorandum of promising evaluation strategies	October 13, 2017
2.5 <i>White Paper on Team Nutrition Training Grant Evaluation Design</i>	December 27, 2017
2.5 Final summary memorandum of TA	November 7, 2019
3.3 Interim report on compiled data (based on grantees' FY 2017 annual performance reports)	March 6, 2018
4.1 Annual summary tables for FY 2018	February 14, 2019

The overall evaluation summarized in this report sought to learn from the grantees' evaluations in three ways. First, to the extent that the grantees succeeded in their evaluations, the metrics would provide an understanding of the individual outcomes of the array of interventions implemented by grantees. Second, the metrics could collectively provide a basis to assess the overall effectiveness of the TNTG program. Third, the grantees' experiences in evaluating their interventions could serve as a basis for identifying lessons for future evaluations of TNTG.

¹ In this report, an intervention is a set of activities directed toward a target audience with one or more intended impacts in common.

1.3. Data Sources

This report relies primarily on two sources—grantees’ final reports and communications between the grantees and the evaluation team—as described below. Information from grantees’ previous evaluation products supplemented these sources. All documents reviewed for this report were provided by FNS to the evaluation team.

Grantees’ final reports provided descriptions of their interventions, including design, audiences, curricula and materials developed. The reports also presented methods and findings from their local evaluations, and lessons learned about implementing and evaluating their interventions. Some grantees provided interim reports that supplemented the information in their final reports. Finally, grantees provided feedback on drafts of their Grantee Profiles in this report’s Appendix A.

The evaluation team provided TA to grantees from November 2016 to September 2019. During the first two years of the grants, the evaluation team’s TA liaisons held monthly calls with grantees, reviewed design documents, and exchanged further information via email. In addition, the evaluation team participated in discussions of interventions, evaluations, and lessons learned during the annual conferences of grantees convened by FNS. These communications provided insights into the successes and challenges of the grantees, particularly with respect to their local evaluations.

1.4. Focus of the Evaluation

Across the three-year grant period, the evaluation TA team communicated with the grantees about the interventions that were planned and those that were implemented. The previous deliverables listed in section 1.2 described the set of interventions that were initially proposed or planned by the grantees.

This Final Report, however, focuses on the interventions that were actually implemented, as documented in the grantees’ final reports. These include 33 interventions implemented by the eight school-focused grantees and 27 interventions implemented by the five child care-focused grantees. All 60 interventions are listed and described in the Grant Profiles in Appendix A.

2. Highlights of Grantees and Interventions

This chapter describes key features of the TNTG FY 2016 grantee interventions. The first section describes the behavior focused strategies grantees used and the participants targeted. The second section describes the modes grantees used in their interventions. School-focused and child care-focused interventions are considered separately. The intervention data come from the grantees' final reports.

2.1. *Grantee Intervention Behavior-Focused Strategies and Target Populations*

Each grantee implemented multiple interventions, and each intervention was designed to promote a particular behavior change in a target population of participants. In their States, grantees implemented interventions using the three behavior-focused strategies for effecting change required by the grant program: training and TA, nutrition education, and support for a healthy food environment.

The evaluation team assigned interventions with multiple activities that mixed the three types of strategies to the one strategy that described the main activity or the majority of the grantee's activities. Exhibit 2.1 shows the distribution of school-focused interventions and Exhibit 2.2 shows the distribution of child care-focused interventions across strategies and populations:

Of the 33 school-focused interventions:

- They were divided almost equally between training and technical assistance (11), nutrition education (12), and healthy food environment (10) strategies.
- Interventions using training and TA most frequently targeted food service staff (8). Of them, 4 targeted only food service staff, and 4 included other participants.
- All but 1 intervention using nutrition education targeted students (11), often in combination with others such as food service staff, teachers, and parents.
- Interventions using a healthy food environment strategy most frequently targeted food service staff (8), often along with other participants, such as students or school food authority (SFA) staff.
- Exhibit 2.1 shows the number of interventions that targeted each population; Appendix Table B.1 shows all the target population combinations reported by the States.

Of the 27 child care-focused interventions:

- Just less than half used training and TA (12), followed by healthy food environment (9), and nutrition education (6).
- Nearly all interventions using training and TA (10) targeted providers at child care centers; two of these also targeted providers at day care homes. The remaining 2 targeted child care sponsors.
- All 6 interventions using nutrition education targeted providers at child care centers; 3 of these also targeted providers at day care homes.
- Interventions using a healthy food environment strategy (7) nearly all targeted providers at day care homes; 6 of these also targeted providers at child care centers.
- Exhibit 2.2 shows all populations reached by child care-focused interventions.

HIGHLIGHTS OF GRANTEES AND INTERVENTIONS

Exhibit 2.1. Distribution of School-Focused Interventions, by Strategy and Target Population

Target Population	Training and Technical Assistance		Nutrition Education		Healthy Food Environment	
	Number of Interventions	Percentage of Interventions	Number of Interventions	Percentage of Interventions	Number of Interventions	Percentage of Interventions
SFA Staff	2	18	0	0	3	30
School wellness committees	4	36	0	0	2	20
Food service staff	8	73	3	25	8	80
Teachers	2	18	5	42	1	10
Students	0	0	11	92	3	30
Parents	3	27	3	25	1	10
Community members	2	18	1	8	0	0
Total	11		12		10	

Note: Most interventions focus on more than one target population; therefore, the number of interventions by target population does not sum to the total number of interventions for the strategy used, and the percentages of interventions by target population sum to more than 100%.
Sample = 8 grantees.

Exhibit 2.2. Distribution of Child Care-Focused Interventions, by Strategy and Target Population

Target Population	Training and Technical Assistance		Nutrition Education		Healthy Food Environment	
	Number	Percentage	Number	Percentage	Number	Percentage
Extension educators	0	0	0	0	1	11
Child care providers, centers and homes	8	67	3	50	6	67
Child care providers, centers	2	17	3	50	0	0
Child care providers, homes	0	0	0	0	1	11
Parents of preschool children	0	0	0	0	1	11
Child care sponsors	2	17	0	0	0	0
Total	12		6		9	

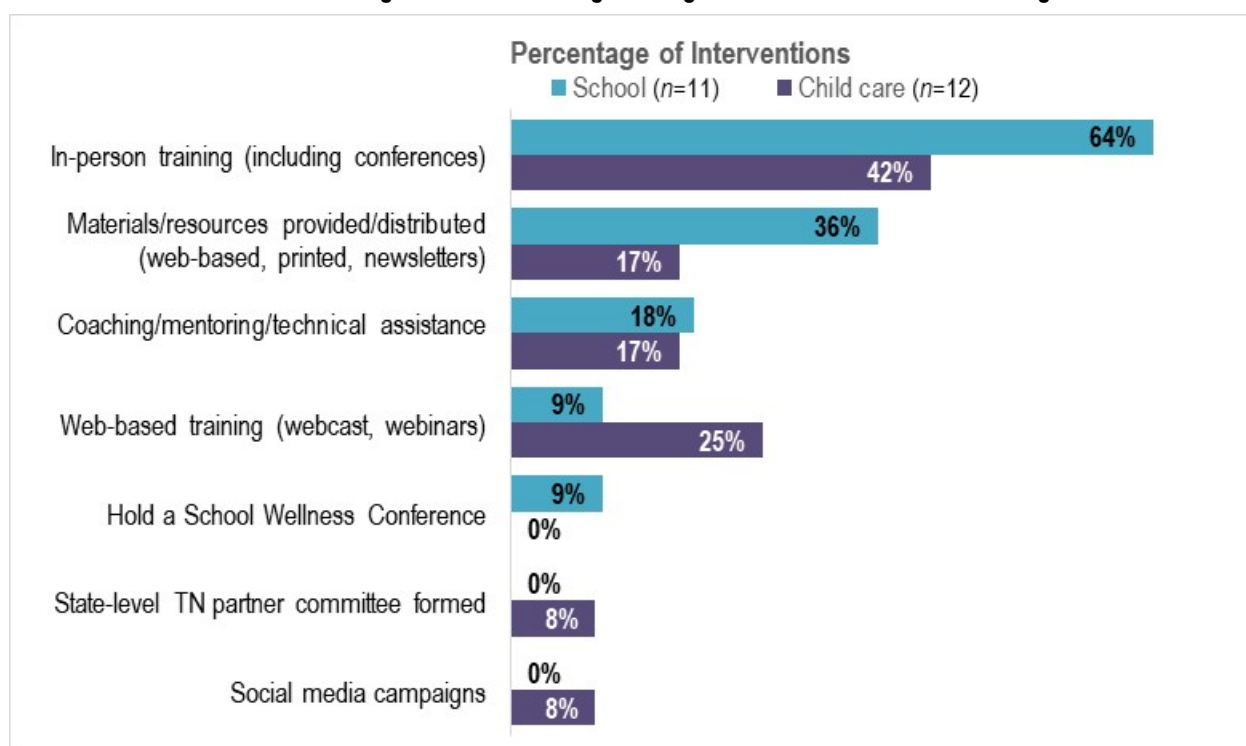
Note: Most interventions focus on more than one target population; therefore, the number of interventions by target population does not sum to the total number of interventions for the strategy used, and the percentages of interventions by target population sum to more than 100%.
Sample = 5 grantees.

2.2. Intervention Modes

Interventions used one or more modes to accomplish the intended outcomes. These modes describe the intervention activities at a high level. Both interventions using training and TA strategies and those using healthy food environment strategies featured similar intervention modes across objectives. Interventions using training and TA strategies most frequently included in-person training (see Exhibit 2.3).

HIGHLIGHTS OF GRANTEES AND INTERVENTIONS

Exhibit 2.3. Modes for Delivering Interventions Using Training and Technical Assistance Strategies

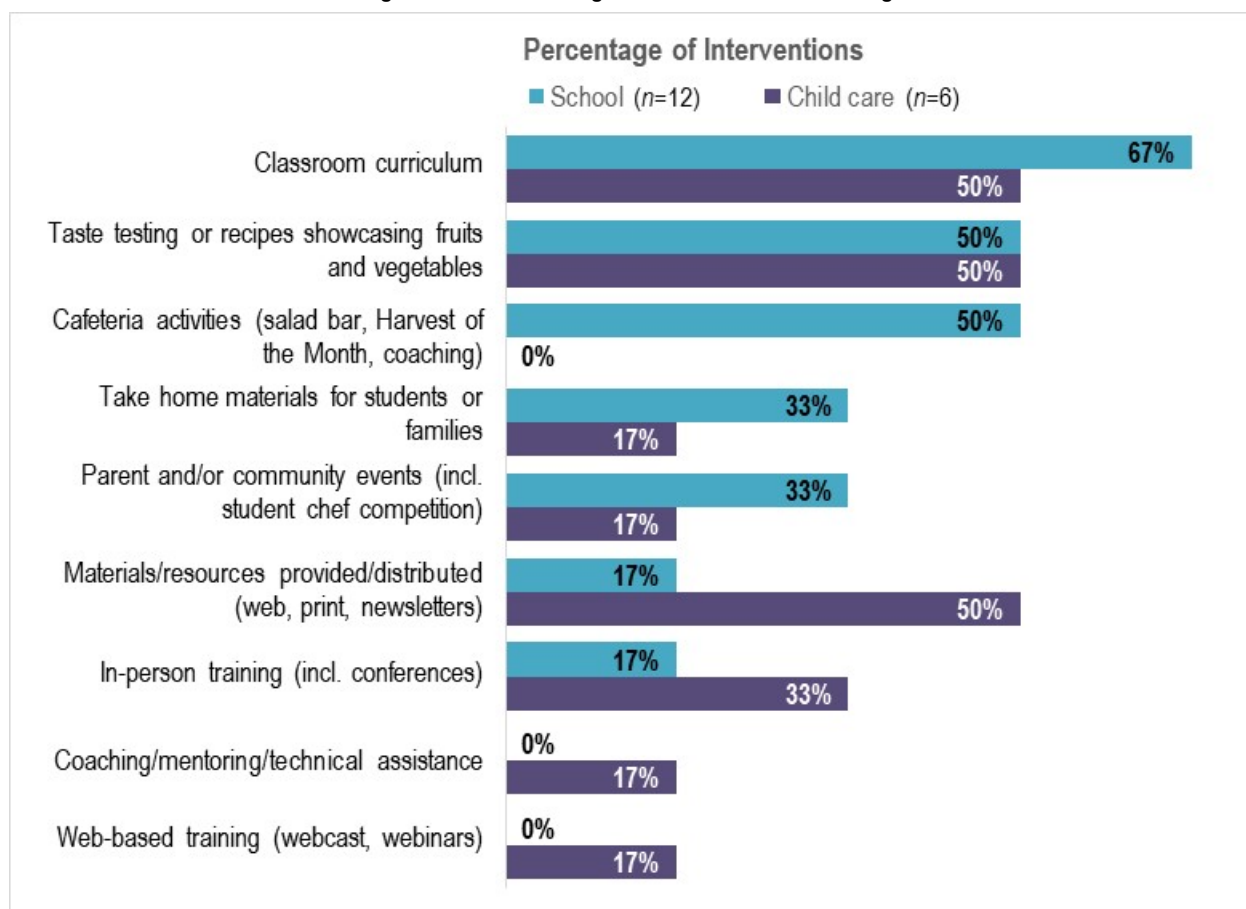


Note: Interventions can use more than one mode; therefore the number of interventions by mode does not sum to the total number of interventions for the strategy (training and TA) and objective (school, child care). Percentages are calculated for each objective as the number of interventions using a given mode divided by the total number of interventions for the intervention strategy and objective. Sample = 13 grantees.

HIGHLIGHTS OF GRANTEES AND INTERVENTIONS

Interventions using nutrition education strategies were both similar and different across school- and child care-focused objectives. For school-focused nutrition education interventions, the most common modes were classroom curriculum, cafeteria activities, and taste testing. For child care-focused interventions, classroom curriculum and taste testing were also most frequently used, along with the provision of additional resources or materials (see Exhibit 2.4).

Exhibit 2.4. Modes for Delivering Interventions Using Nutrition Education Strategies

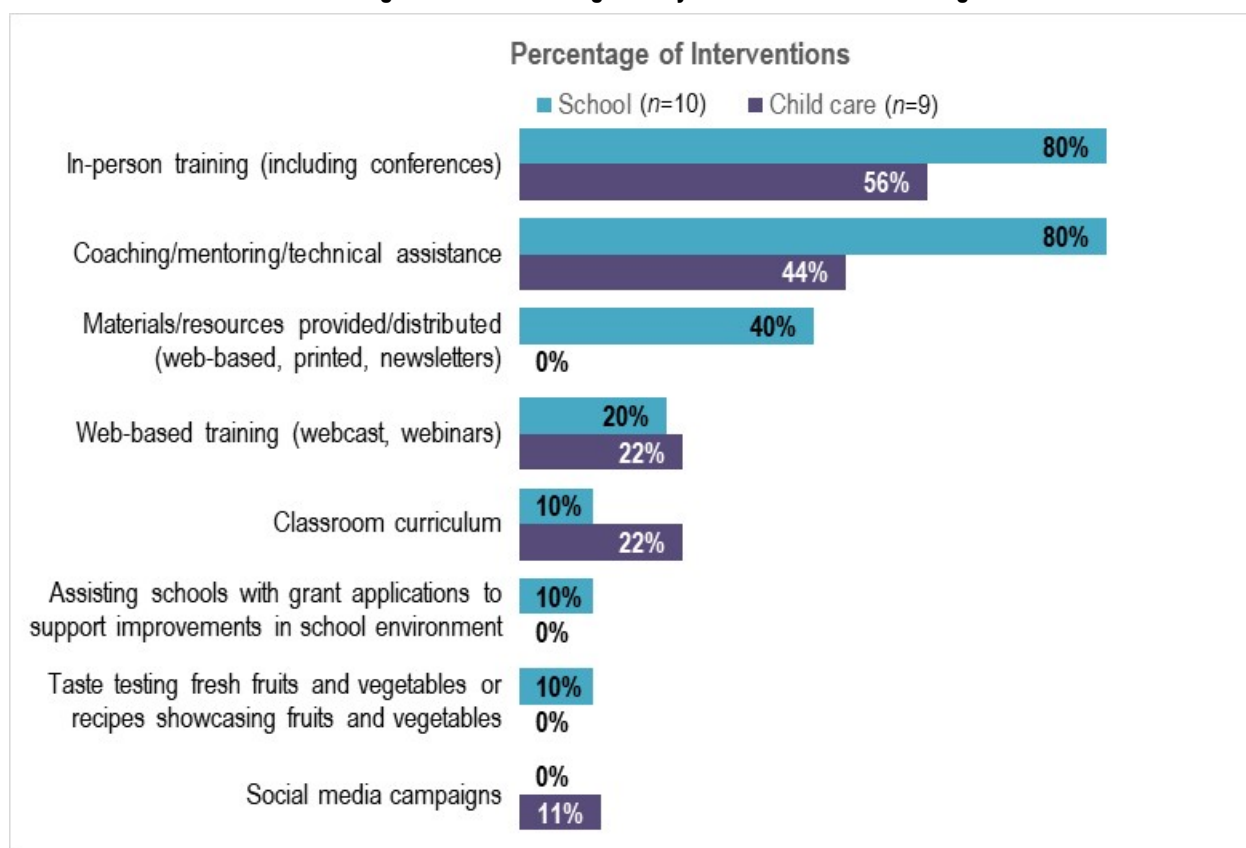


Note: Interventions can use more than one mode; therefore the number of interventions by mode does not sum to the total number of interventions for the strategy (nutrition education) and objective (school, child care). Percentages are calculated for each objective as the number of interventions using a given mode divided by the total number of interventions for the intervention strategy and objective. Sample = 13 grantees.

HIGHLIGHTS OF GRANTEES AND INTERVENTIONS

Interventions using a healthy food environment strategy most frequently included in-person training and coaching/mentoring/TA (see Exhibit 2.5).

Exhibit 2.5. Modes for Delivering Interventions Using Healthy Food Environment Strategies



Note: Interventions can use more than one mode; therefore the number of interventions by mode does not sum to the total number of interventions for the strategy (healthy food environment) and objective (school, child care). Percentages are calculated for each objective as the number of interventions using a given mode divided by the total number of interventions for the intervention strategy and objective. Sample = 13 grantees.

3. Summary of Evaluation Findings

The objective of the FY 2016 TNTG program to emphasize evaluation as well as implementation of nutrition education interventions was met with substantial success.

- FY 2016 grantees undertook some form of outcome evaluation of most of their key interventions.
- The breadth of their evaluations was noteworthy, as were grantees' efforts to identify and/or develop measures that were well aligned to the content of the objectives of their interventions.
- At the same time, because of the challenges identified below, **in general, grantees were not able to implement rigorous evaluations**, relying primarily on measuring pre-post gains for intervention participants in their knowledge or understanding of key nutrition practices.
- **The findings within and across types of interventions and participants populations were mixed in their numbers of statistically significant and non-significant results.**
- The Team Nutrition **grantees did not rigorously evaluate all of their activities**, due to resource constraints and the inherent challenges of doing so for some activities. This report does not draw any conclusions about the value or impact of these activities.

3.1. Overview

This is the first cohort of TNTG grantees that faced specific requirements for local evaluation of their interventions. As part of this new expectation, grantees were required to budget time for a social scientist to help them design their evaluation and analyze its data. The grantees' final reports included descriptions of the interventions that they implemented; for interventions whose outcomes were evaluated, reports included the significant findings on the intervention's outcomes for key participants. This chapter of the report summarizes these findings across grantees, separately for the school-focused and child care-focused interventions, after first discussing the challenges of evaluating local TNTG interventions.

Grantees reported that the transition from their typical concerns with providing nutrition education services to schools or child care providers to a combined role of providing and evaluating the effects of their services was challenging. Not only did this new role mean that some of the resources in their grant that might have been available for services now went towards evaluation. It also entailed a change in grantees' relationship to the providers in their State. Other challenges that grantees described were:

- Insufficient time to design evaluations, when the interventions/services were implemented as soon as the grant started;
- Insufficient budget for designing and conducting outcome evaluations of their interventions, including measure development, data collection, and analysis; and
- Insufficient background or experience in research methodology among State team members; and insufficient time budgeted for their social scientist, who might have brought that expertise to the team.

In spite of these challenges, the FY 2016 grantees undertook some form of outcome evaluation of most of their key interventions. Most positively, the breadth of their evaluations was noteworthy, as were their efforts to identify and/or develop measures that aligned well to the content of the objectives of their interventions. At the same time, because of the challenges identified above, grantees in general were not able to implement rigorous evaluations, relying primarily on pre-post designs measuring gains made by intervention participants in their knowledge or understanding of key nutrition practices.

Prior meta-analytic analyses conducted by various researchers that include findings from different types of evaluation designs show that pre-post designs typically overestimate the positive effects of interventions, because such designs combine true learning resulting from the intervention with other possible influences. This methodological issue is relevant to the TNTG evaluations. Also, even then grantees were able to address this issue by creating or identifying comparison groups of non-participants, which strengthen the belief that advantages for participants are related to the intervention, their evaluations often had other methodological flaws in design such as not examining whether the participant and non-participant groups started out at the same place on the or in analysis (clustering of participants from the same classroom/school/district) that biased the findings.

The rest of this chapter summarizes the evaluation findings for the school-focused and child care-focused grants. In those summaries, we:

- Present findings from all types of designs—one-group pre-post designs and two-group comparison designs (participants versus non-participants) where assignment to group was purposive or random; and
- Report on the findings “at face value”; that is, reporting individual findings without caveats regarding methodological concerns such as small sample size, inadequate controls for baseline differences, or failure to account for clustering.
- Prioritize findings that were tested and shown to be statistically significant (p -values less than .05 standard deviations).²

3.2. *Evaluation Designs of School-Focused Interventions*

Of the 33 interventions implemented by the eight school-focused grantees, three-quarters of the interventions were evaluated on the effects on participants in at least one outcome domain. The interventions that were not evaluated typically were dissemination or outreach activities that did not target specific participants, such as developing and posting resources, tools, or success stories on the State website.

Most of the school-focused interventions (about 70 percent) were evaluated using a one-group pre-post design that compared participants before and after receiving the intervention (Exhibit 3.1). One grantee also extended the pre-post evaluation to include follow-up assessment of how well knowledge gains were sustained a year later. A small number of interventions (15 percent) were evaluated using a two-group design that compared changes in outcomes for participants after receiving the intervention versus changes for non-participants over the same time period. Of those with two-group designs, two-thirds (12 percent overall) were evaluated with randomized control trial (RCT) that assigned participants randomly to receive the intervention or not. The other three percent of interventions were evaluated in a quasi-experiment in which participants were compared to non-participants who were not systematically matched to the participant group.

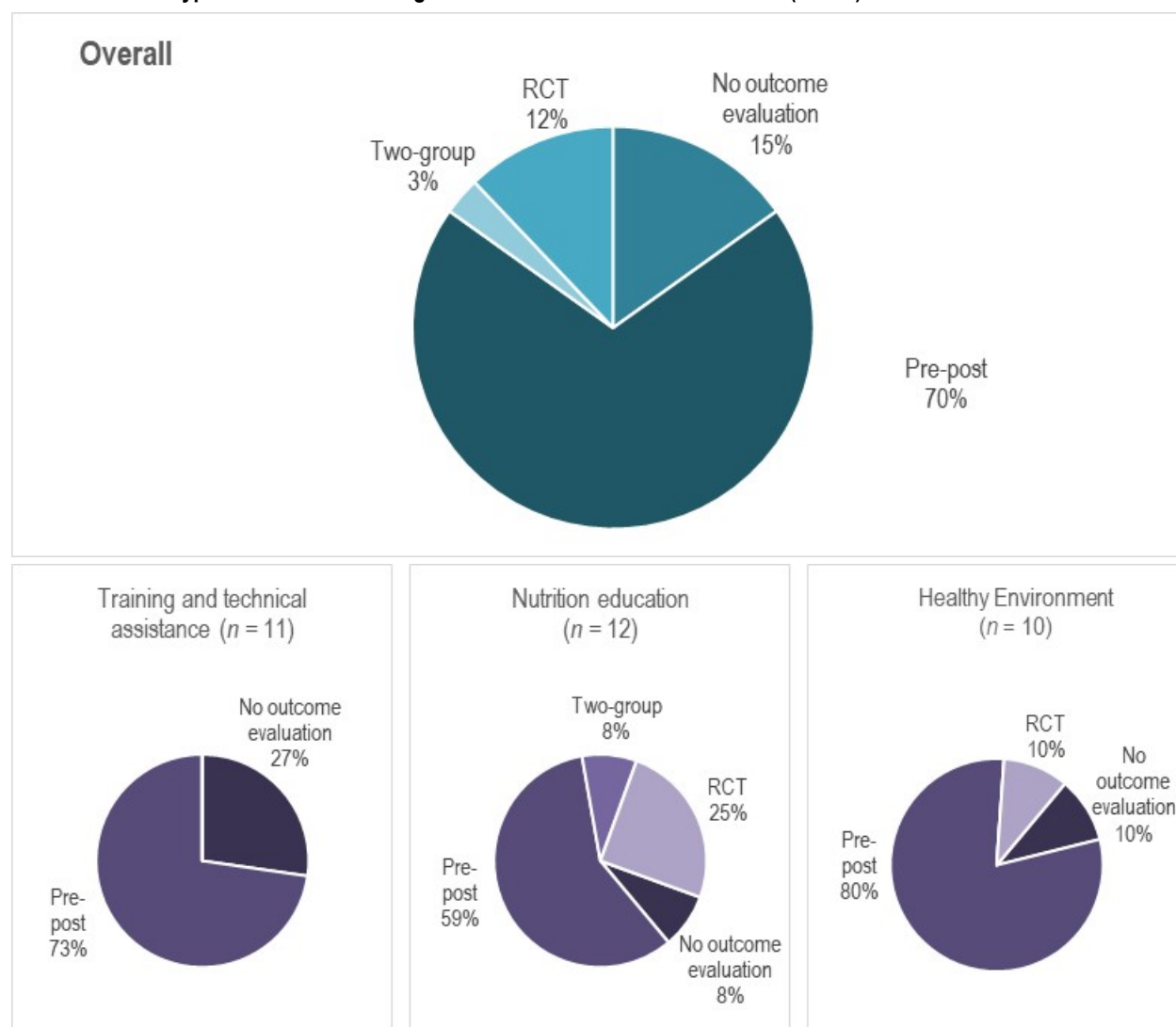
The evaluation designs employed varied among the three intervention strategies. The interventions using training and TA were evaluated exclusively with pre-post designs, where the outcome measures were essentially tests of knowledge gained at the immediate end of a short training or course. Pre-post designs were predominant for interventions using the other strategies, as well: more rigorous RCT evaluations

² The profiles in Appendix A are preceded by an index that lists the interventions by strategy, whether the intervention resulted in significant findings or not, and the page number for the intervention description in the profile.

SUMMARY OF EVALUATION FINDINGS

were conducted in 25 percent of nutrition education interventions and 10 percent of healthy food environment interventions.

Exhibit 3.1. Types of Evaluation Designs for School-Focused Interventions ($n = 33$)



Source: TNTG FY 2016 grantee final reports 2020.

3.3. Findings from Evaluations of School-Focused Interventions

The findings from the evaluations of school-focused intervention outcomes are summarized below. The findings are discussed separately for the three intervention strategies: training and TA, nutrition education, and healthy food environment. Although it would be ideal to be able to make valid comparisons of outcomes between interventions (a) within each strategy type and (b) across the different strategy types, the differences in evaluation design and outcomes preclude doing so. Therefore, this section summarizes the extent of significant findings without attempting to draw conclusions about whether one strategy is more effective than another.

Interventions Using Training and Technical Assistance Strategies

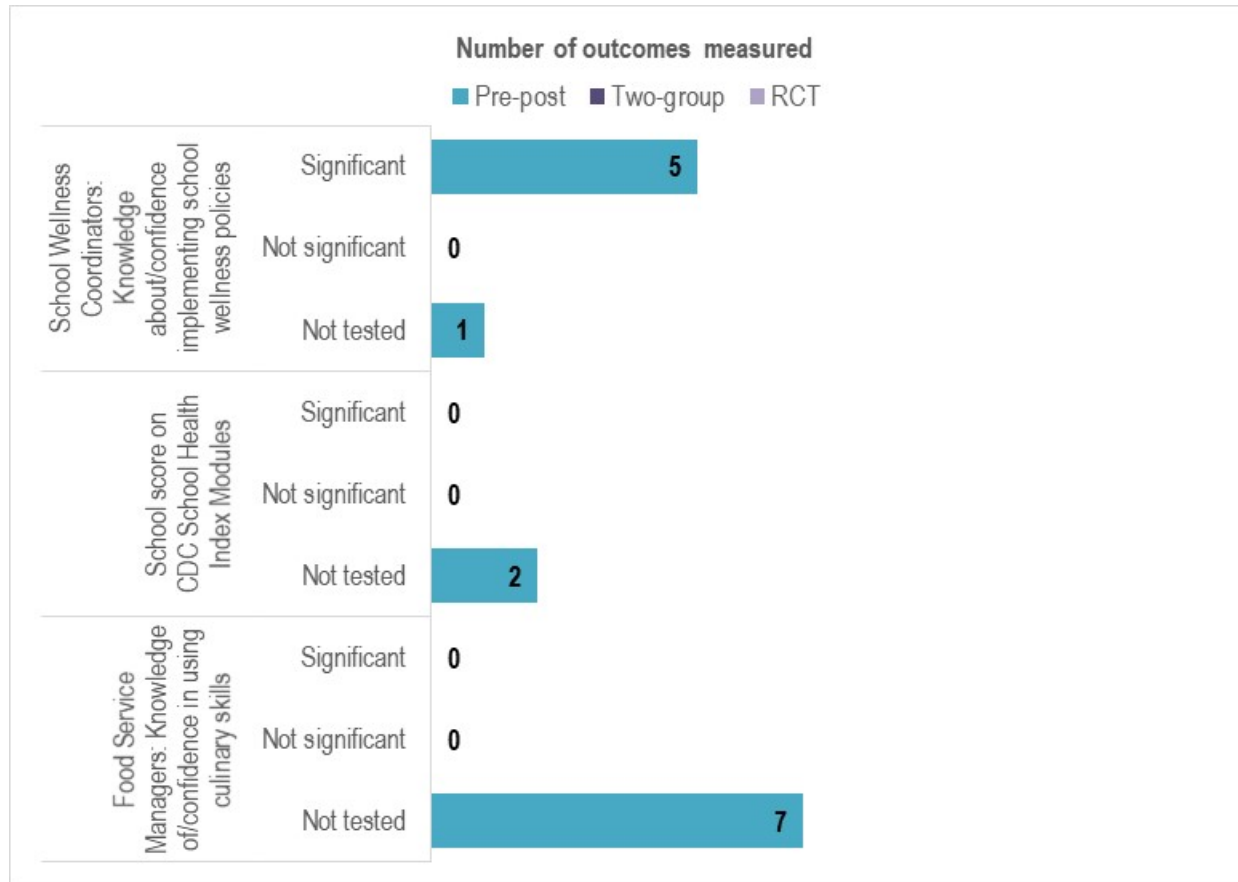
Eleven interventions provided training or TA to various participant populations on different topics, including school wellness policies and their implementation, culinary skills training, and messaging/

SUMMARY OF EVALUATION FINDINGS

communicating with the community about NSLP and SBP. Eight interventions were evaluated using pre-post designs, but only two of these performed tests of statistical significance.

On five measures of pre-post changes in the knowledge and confidence of school wellness coordinators about their school wellness policies, analyses showed significant gains (Exhibit 3.2). Measures of changes in school scores on the School Health Index after training on school wellness policies were not tested for significance. None of the interventions of outcomes for food service managers who received training on culinary skills were tested for significance, including measures of confidence in using their culinary skills and intention to use the culinary skills overall and in preparing fruits and vegetables for school meals.

Exhibit 3.2. Findings for School Outcomes from Evaluations of School-Focused Interventions Using Training and TA Strategies



Note: Individual interventions may be represented in multiple outcome domains. See Appendix Exhibit B.4 for a list of interventions and evaluation findings. Sample = 8 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

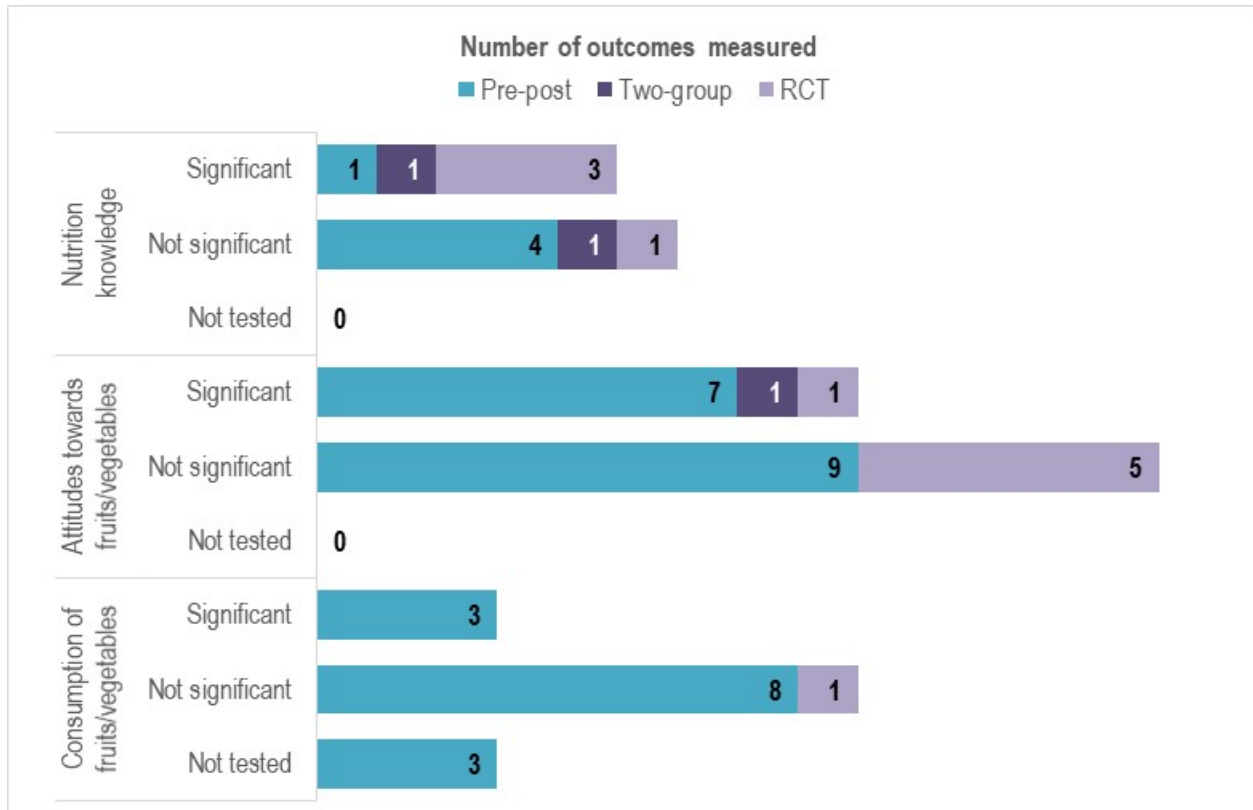
Interventions Using Nutrition Education Strategies

Twelve interventions provided resources and training for the implementation of nutrition education activities. Of these, 11 were evaluated and all 11 conducted significance testing of at least one outcome on which participants showed some gains. Some of the interventions involved training school staff to conduct nutrition education activities with students, and other interventions involved training students directly. The evaluations measured outcomes for students who participated in the interventions and for schools more broadly.

SUMMARY OF EVALUATION FINDINGS

For the student outcomes, the results were mixed (Exhibit 3.3). The measures of some student outcomes from pre-post designs showed significant changes in student knowledge, attitudes, and behavior; but more outcomes were non-significant than were significant. The more rigorous the evaluation designs were, the less likely were significant findings to result—as expected.

Exhibit 3.3. Findings for Student Outcomes from Evaluations of School-Focused Interventions Using Nutrition Education Strategies



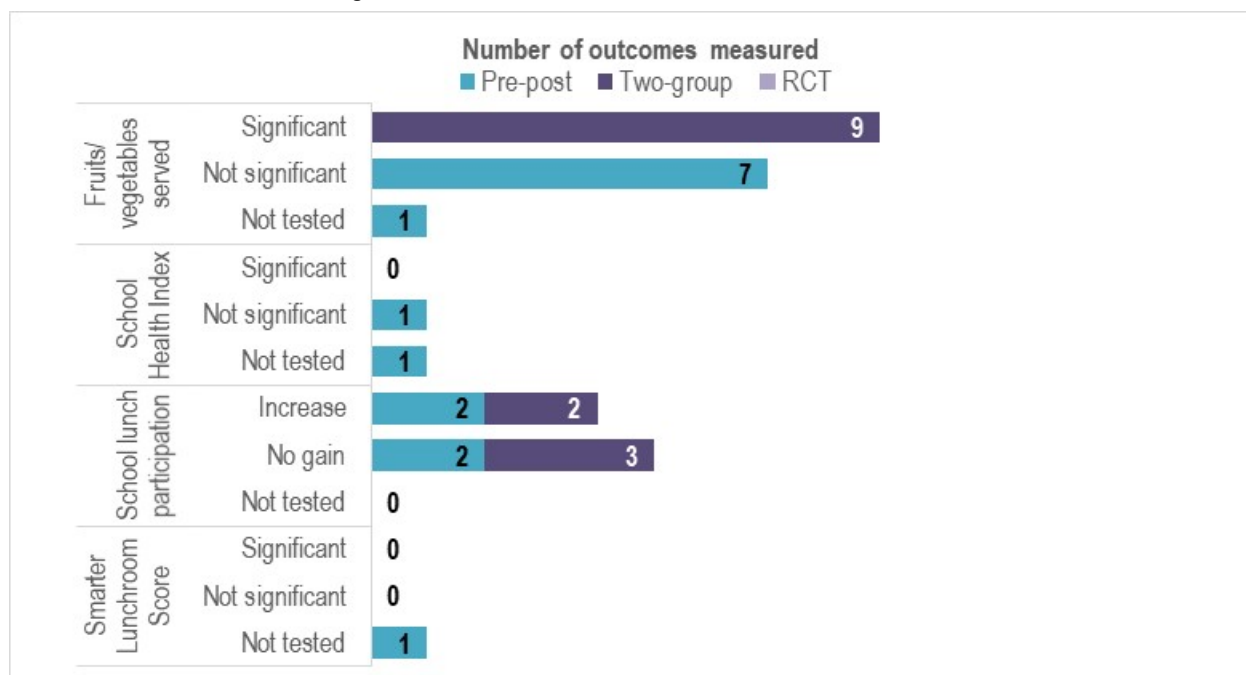
Note: Individual interventions may be represented in multiple outcome domains. See Appendix Exhibit B.5 for a list of interventions and evaluation findings. Sample = 11 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

SUMMARY OF EVALUATION FINDINGS

Outcomes of nutrition education measured for schools included the number of fruits and vegetables served, the score on the CDC School Health Index,³ NSLP participation, and Smarter Lunchroom.⁴ As was true for the student outcomes in Exhibit 3.3, the results for school outcomes were mixed (Exhibit 3.4). For example, multiple measures ($n = 9$) of the number of servings of fruits and vegetables in schools showed significant gains, but almost the same number of measures ($n = 7$) did not. The same mix of significant and non-significant findings was reported for measures of NSLP participation and for the School Health Index. No tests of significance were performed on the Smarter Lunchroom score.

Exhibit 3.4. Findings on School Outcomes from Evaluations of School-Focused Interventions Using Nutrition Education Strategies



Note: Individual interventions may be represented in multiple outcome domains. See Appendix Exhibit B.5 for a list of interventions and evaluation findings. Sample = 11 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

Interventions Using Healthy Food Strategies

Ten interventions attempted to improve the overall healthfulness of the school environment. These included interventions focused on Smarter Lunchrooms behavior economics or multi-component school wellness projects that combined training on Smarter Lunchrooms with student initiatives such as school taste testing or school-wide wellness awareness projects.

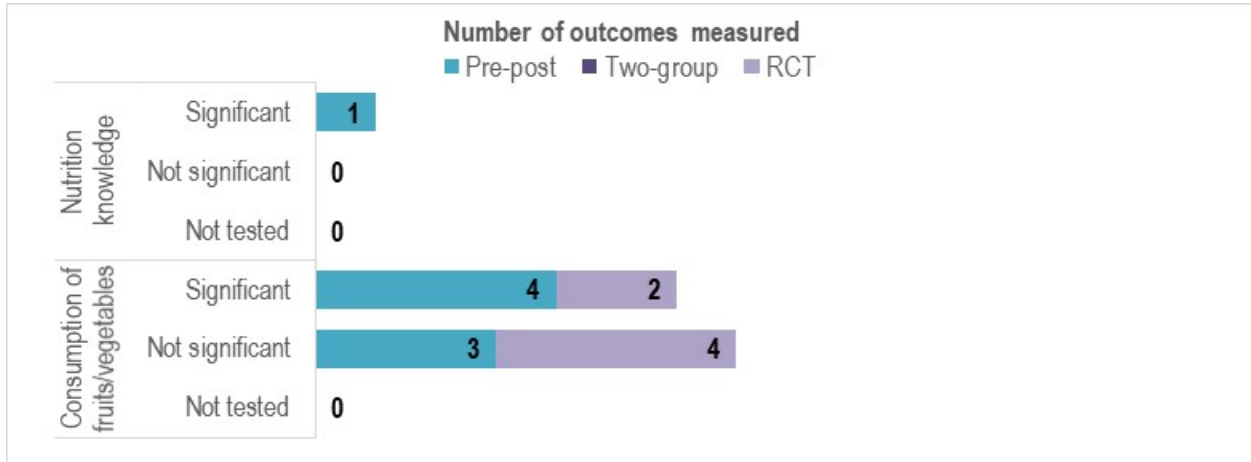
³ Centers for Disease Control and Prevention, *School Health Index: A Self-Assessment and Planning Guide* (Atlanta, GA: 2017).

⁴ During the grant period, FNS changed its policy on recommending use of Smarter Lunchrooms as an activity due to irregularities uncovered in Smarter Lunchrooms studies in reviews by independent researchers and in a separate, internal audit by FNS researchers. Though the Smarter Lunchrooms evidence base was called into question, many school food service directors have reported anecdotally that they see results from the activities. FNS did not believe there was any harm in continuing or implementing Smarter Lunchrooms interventions, so it authorized grantees to continue using Smarter Lunchrooms techniques under the grant and using its scorecard as a measure of implementation.

SUMMARY OF EVALUATION FINDINGS

Nine of the 10 interventions were evaluated; across them they included measures of student and/or school outcomes. The student outcomes measured were nutrition knowledge and reported consumption of fruits and vegetables (Exhibit 3.5). The evaluations showed that students' nutrition knowledge increased significantly, as did their reported consumption of fruits and vegetables. For the latter, however, there were as many non-significant outcomes as significant ones.

Exhibit 3.5. Findings on Student Outcomes from Evaluations of School-Focused Interventions Using Healthy Food Environment Strategies

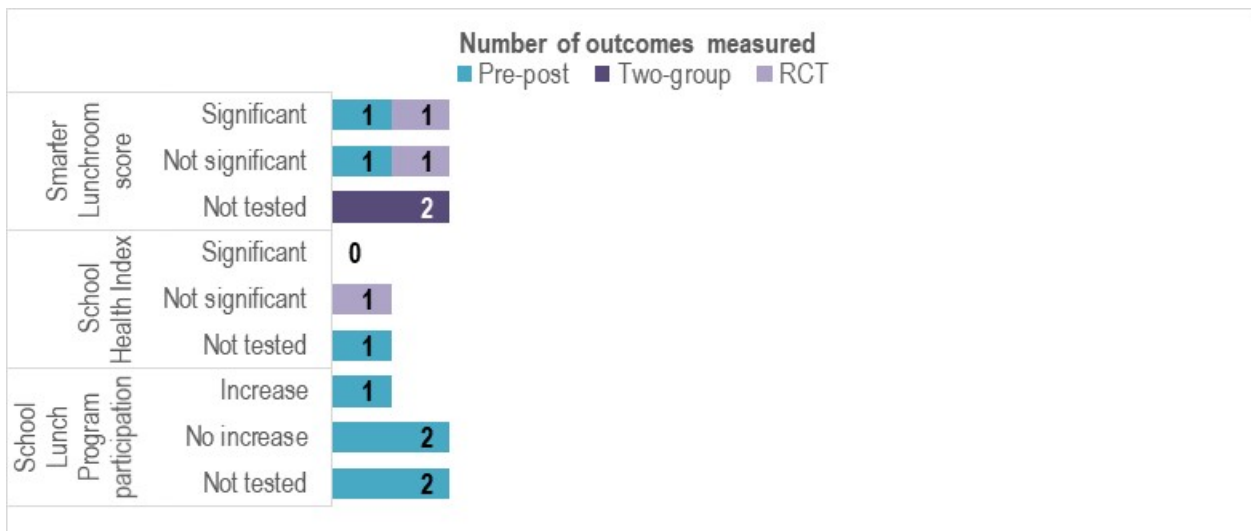


Note: Individual interventions may be represented in multiple outcome domains. See Appendix Exhibit B.6 for a list of interventions and evaluation findings. Sample = 9 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

The school outcomes measured included school scores on the Smarter Lunchrooms Scorecard and the School Health Index and participation rates in NSLP (Exhibit 3.6). The results were mixed. For all of the domains, there were equal numbers of significant and non-significant outcomes, making it unclear whether these interventions were effective at improving the healthfulness of the school food environment.

Exhibit 3.6. Findings on School Outcomes from Evaluations of School-Focused Interventions Using Healthy Food Environment Strategies



Note: Individual interventions may be represented in multiple outcome domains. See Appendix Exhibit B.6 for a list of interventions and evaluation findings. Sample = 9 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

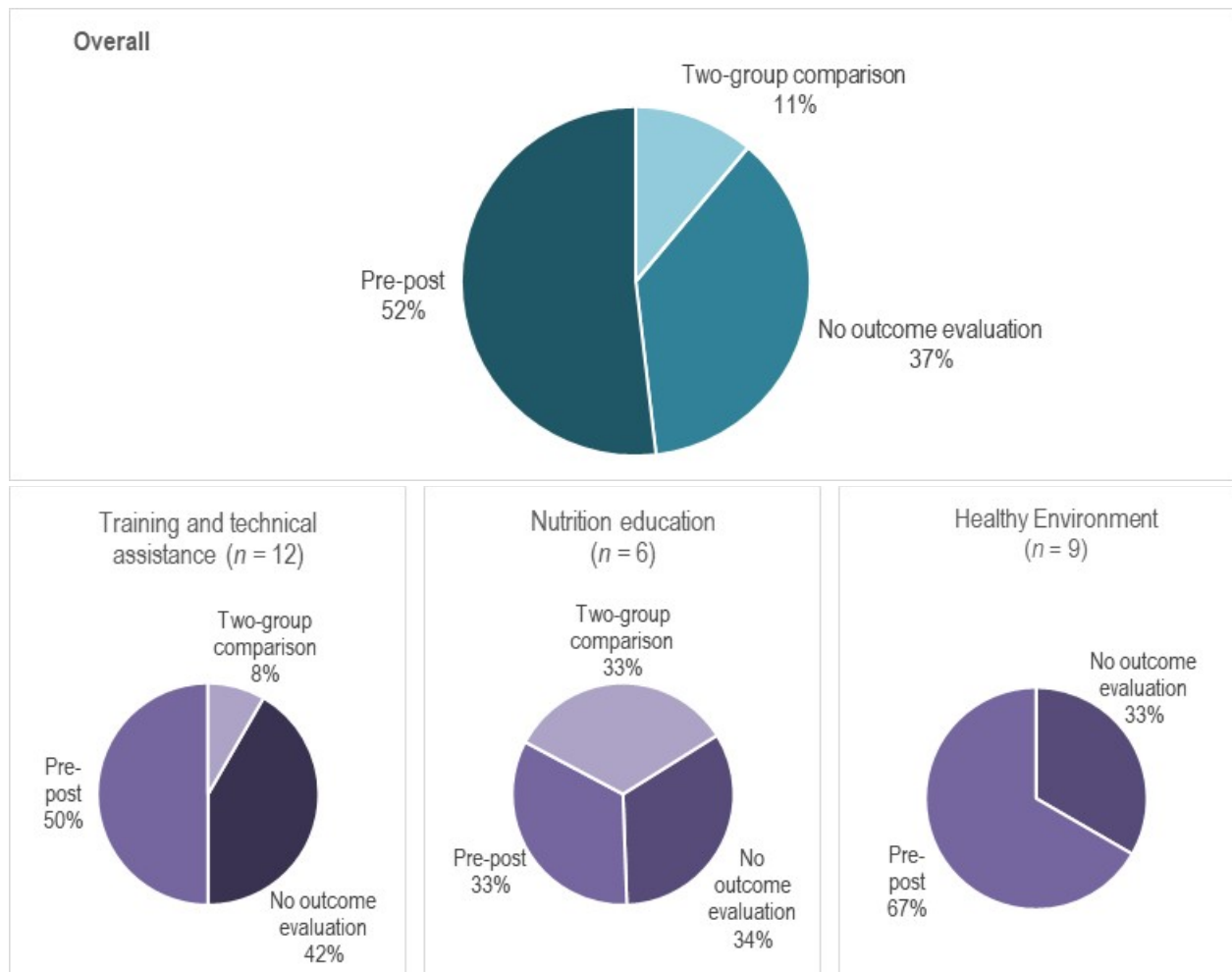
3.4. Evaluation Designs for Child Care-Focused Interventions

Of the 27 interventions implemented by child care-focused grantees, almost two-thirds were evaluated on their outcomes for participants. Across the five child care-focused grantees, the proportion of interventions evaluated ranged from 50 percent to 100 percent. The interventions that were not evaluated most often were dissemination or outreach activities that did not target specific participant populations, such as posting resources, tools, or success stories on the State website.

About half of the child care-focused interventions that were evaluated used pre-post designs that compared participants before and after receiving the intervention (Exhibit 3.7). A small number of interventions (11 percent) were evaluated using a two-group design which compared changes in participant outcomes after receiving the intervention versus changes in non-participant outcomes over the same time period. No grantees conducted an RCT evaluation. All of the findings from two-group comparison evaluations come from one grantee that used the design for several of its interventions.

The types of evaluation designs employed varied across the three types of intervention strategies. Two-group comparisons were more common for interventions that used nutrition education strategies than those using training and TA strategies. The interventions using training and technical assistance strategies were least likely to have been evaluated at all.

Exhibit 3.7. Types of Evaluation Designs for Child Care-Focused Interventions (n = 27)



Source: TNTG FY 2016 grantee final reports 2020.

3.5. Evaluation Findings for Child Care-Focused Interventions

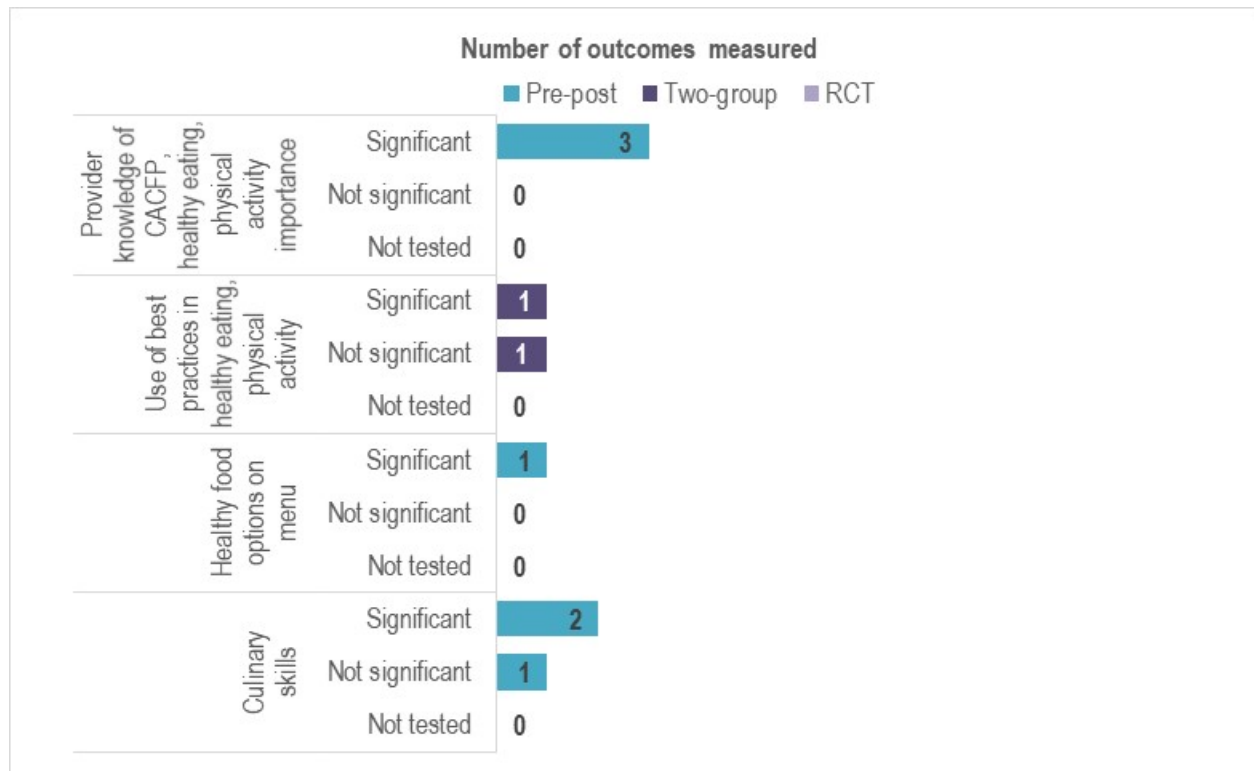
The significant findings on the outcomes of child care-focused interventions are summarized below. The findings are discussed separately for the three intervention strategies: training and TA, nutrition education, and healthy food environment. In general, the interventions with child care providers showed more consistently positive and significant outcomes than were reported for the interventions focused on schools. Although it would be ideal to be able to make valid comparisons of outcomes between interventions, note that it is not valid to summarize findings across types of interventions because the key outcome domains that are examined are different for the four types of interventions. It is difficult to say whether one type of intervention is more effective than another type when different outcomes are evaluated.

Interventions Using Training and Technical Assistance Strategies

Twelve training and TA interventions were implemented with child care providers, and seven were evaluated: four that involved training or TA to child care providers, cooks, and/or sponsors on CACFP meal standards and Dietary Guidelines for Americans (DGAs), and three that involved culinary skills training. Six of the evaluations of these interventions conducted tests of significance.

In general, the findings from the evaluations of these interventions showed positive and statistically significant outcomes. Findings were consistently significant for provider knowledge (including knowledge of CACFP meal standards and for the healthfulness of their menu options (Exhibit 3.8). There were equal numbers of significant and non-significant findings for provider use of best practices in healthy eating and physical activity. The providers who received culinary training reported more confidence in their skills and intention to use them.

Exhibit 3.8. Findings from Evaluations of Child Care-Focused Interventions Using Training and TA Strategies



Note: Individual interventions may be represented in multiple outcome domains. See Exhibit B.7 for a list of interventions and evaluation findings. Sample = 7 interventions with evaluations.

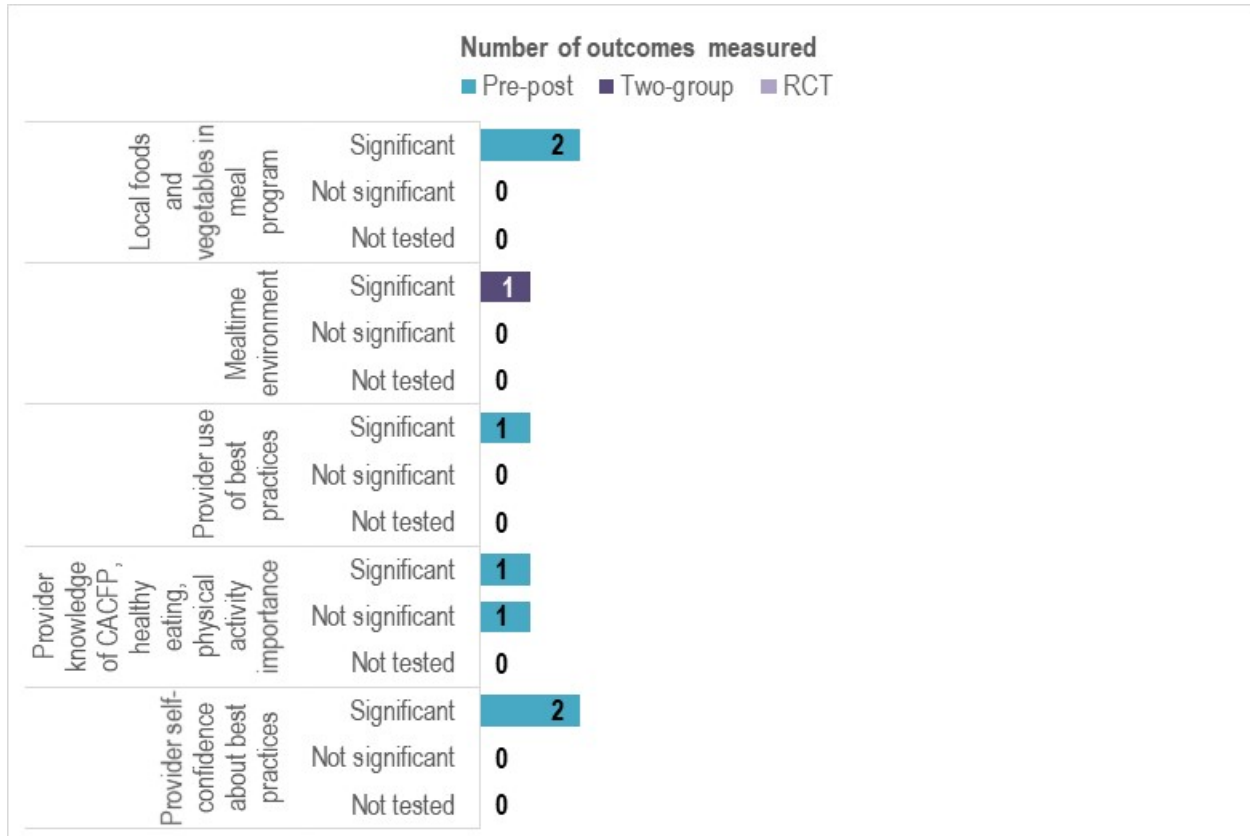
Source: TNTG FY 2016 grantee final reports 2020.

SUMMARY OF EVALUATION FINDINGS

Interventions Using Nutrition Education Strategies

Six interventions delivered nutrition education to child care providers. Four were evaluated for changes in provider knowledge, attitudes and practices, and there were generally positive and significant gains for participating providers. Providers who received training on nutrition showed significant gains in their self-confidence about using best practices (Exhibit 3.9). On measures of use of best practices by providers (including use of local foods), there was consistent evidence that the participating providers significantly increased their use of best practices in their programs (Exhibit 3.9). One evaluation also compared changes in the overall mealtime environment for participants versus non-participants and found that the gains by participants were significantly greater.

Exhibit 3.9. Findings from Evaluations of Child Care-Focused Interventions Using Nutrition Education Strategies



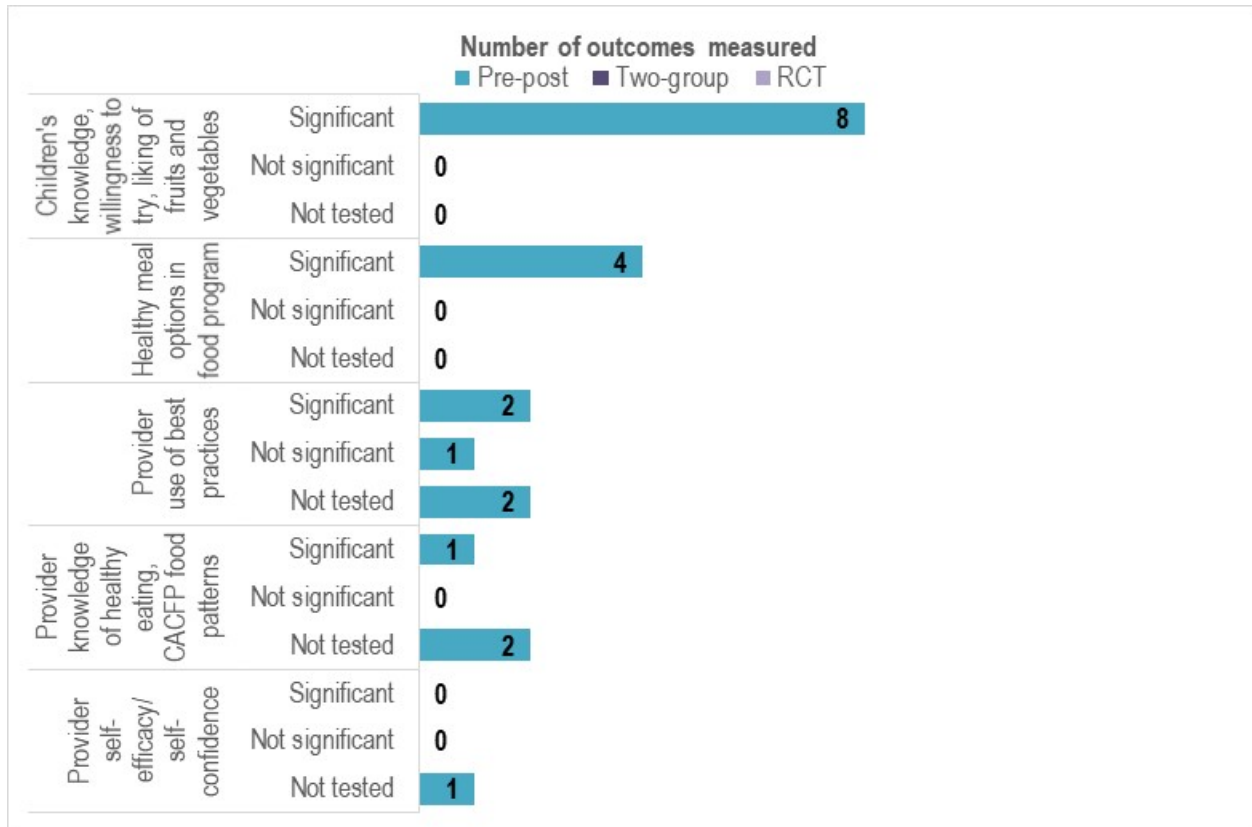
Note: Individual interventions may be represented in multiple outcome domains. See Exhibit B.8 for a list of interventions and evaluation findings. Sample = 4 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

Interventions Using Healthy Food Environment Strategies

Nine interventions used in-person coaching of child care providers to improve the overall healthfulness of the food environment and the physical activity environment in the child care sites. Six interventions conducted outcome evaluations, and all of them tested the statistical significance of changes in providers' nutrition knowledge and practice from before to after the interventions. These evaluations consistently reported significant gains in the healthfulness of the food offered in the child care programs, but the results for use of best nutrition practices and for provider knowledge or self-efficacy were mixed (Exhibit 3.10). Two interventions each examined changes in children's knowledge of, attitudes towards, and willingness to taste different healthy fruits and vegetables. Both of these interventions reported significant gains on each of the four outcomes.

Exhibit 3.10. Findings from Evaluations of Child Care-Focused Interventions Using Healthy Food Environment Strategies



Note: Individual interventions may be represented in multiple outcome domains. See Exhibit B.9 for a list of interventions and evaluation findings. Sample = 6 interventions with evaluations.

Source: TNTG FY 2016 grantee final reports 2020.

4. Lessons Learned

The previous chapters described the interventions implemented by the FY 2016 TNTG grantees and the findings from their evaluations of the effects of those interventions. In addition to the quantitative findings reported, grantees also reported on challenges they faced and solutions they developed around implementation and evaluation of their interventions. Their thoughtful discussion of the lessons they learned is a real contribution to the grant program, and what they learned could be helpful to States or other agencies delivering nutrition education in the future. This chapter describes some of the key lessons reported by grantees, in three sections: implementation of the interventions; the role and importance of partnerships; and evaluation.

4.1. Implementation Lessons Learned

Grantees described lessons learned about (a) engaging with participants, including recruitment into the intervention and maintaining engagement in those interventions, and (b) effective implementation approaches for supporting high-quality, high-fidelity implementation of the interventions in child care sites and in schools.

Lessons Learned about Recruiting and Engaging Participants

Many grantees reported lessons learned about participant engagement and offered some ways that it could be improved.

- Recruiting and tracking participants for the interventions is challenging.** For child care providers, grantees reported difficulty reaching out directly to them in general and especially to day care homes. Although day care home providers were often more eager than center providers to try new programs and initiatives, States often lacked any information management or tracking system for identifying and contacting home-based providers. That lack made recruitment very challenging. A number of grantees recommended that States create these kinds of tracking systems for child care providers of all types. Designing the system around unique identifiers would make it possible to document take-up of training and TA, to help disseminate information about training opportunities, and to support evaluations that involve collecting data from the same grantees over time. Under increasing demands of activities for quality improvement systems required by State agencies overseeing child care, center providers seemed the more stressed for time overall. Grantees reported that center providers often responded that they did not have time to commit to new programs in addition to those required activities.
- School administration support improves engagement.** For schools, grantees reported that buy-in and support from the school administration for improvement initiatives were key to successful recruitment of school food service staff or teachers. Grantees reported that when their State had a Healthy School Advisor to serve as a TA provider working with schools on the ground to implement all TN goals, that TA increased the success of schools applying for, receiving, and implementing grant activities. Two of the grantees made the decision to target a small number of schools to provide them with multiple, layered services. These grantees reported that this strategy resulted in a more comprehensive, school-specific approach that both attracted schools during recruitment and later helped in obtaining impacts. Grantees that tried to implement interventions directly with students in schools experienced barriers to recruitment for which they did not find effective solutions.
- Technical assistance sustains participation.** All of the grantees believed that offering more on-the-ground TA and support to participants would increase their engagement and sustain their participation. Grantees believed that having the resources to offer more follow-up to participants during and after an intervention would boost attendance and attendees' commitment to following through with new practices after the training. One tension that grantees felt was between in-

person versus online training. They had to weigh a potentially greater impact of in-person training and TA (e.g., through coaching) against the often better received online training, which offered more flexibility for child care providers who found it difficult to fit in-person training into their schedules.

- **Regular reminders also help sustain participation.** Multiple grantees reported that sending out monthly reminders and newsletters to intervention participants were ways to increase engagement and sustain participation.

Grantees described some of the adaptations and new approaches they used for recruitment and to encourage participation. As a group, however, they believed that many of their strategies were not effective and that better recruitment approaches need to be developed/adopted in the future.

Lessons Learned about Implementing Interventions

Grantees described a number of lessons learned about implementing their interventions most effectively.

- **To effectively implement interventions takes time.** An issue shared across grantees was participants in the grantees' programs needing more time and more support in order to implement the grantees' interventions with high quality and high fidelity. Grantees believed they needed to develop and deliver multiple interventions in order to address all of the grant requirements, which worked against having sufficient time and resources for any individual intervention.
- **Multiple interventions are harder to implement with fidelity.** Grantees recognized that implementing multiple interventions simultaneously with the same participants might be a good plan for obtaining outcomes, but these "bundled" interventions were harder for teachers and schools (or child care providers) to implement with fidelity. Grantees also recognized that in an evaluation, it is not possible to ascertain which of the interventions is related to or responsible for outcomes.
- **Specific tips to motivate students to try foods.** Grantees that worked directly with students, trying to encourage them to experience and learn to like fruits and vegetables, had very specific lessons learned about how to prepare and present food to motivate students to taste them:

"To make taste testing with young children go more smoothly, use roasted vegetables so they are more flavorful and easier to chew, start out with vegetables children know and like."

"To introduce new fruits to students, start small by offering one fruit choice, in addition to juice, and slowly increase the number of fruit choices; slicing fruit and presenting it in an appealing manner also nudges selection."

- **Ongoing technical assistance maintains fidelity of implementation over time.** Grantees reported challenges with maintaining fidelity of implementation over time and among different participants. They understood the importance of fidelity for obtaining expected outcomes, and so believed that more ongoing TA and communication between the grantee implementation team and the participants would be ideal (as would monitoring consistency of the training from different trainers in different sites) which most grantees did not do.

4.2. Partnerships Lessons Learned

Most grantees described the benefits of partnerships they established with universities, local and statewide agencies, and community organizations. Those benefits were that partnerships allowed grantees to (a) get help with the quality of implementation of their grant programs by participants, and (b) maximize their resources to improve implementation and evaluation, which in many cases ultimately led to (c) grantee programs or initiatives that were sustainable through these partnerships.

Lessons Learned about Partnerships to Improve Program Quality or Implementation

Most grantees reported on the benefit of successful partnerships to improve the overall quality of their interventions by enhancing expertise and fostering collaboration.

- **Partnerships can add expertise to interventions.** Grantees agreed that their partnerships brought an array of expertise that contributed to the quality of their programs. Grantees noted that an important factor to successful partnerships was finding partners who were already doing work in other arenas that was similar to the focus of the program, and who were passionate about the work they do. These qualities allowed the partners to bring relevant knowledge and enthusiasm to the programs.
- **Leverage community and university partners.** Grantees indicated that community partnerships were highly successful in the ability to offer training. This appeared to be most evident with wellness-oriented training programs. Some grantees found that leveraging relationships or affiliations with university partners was highly successful. One grantee's intervention created one such partnership, connecting school foodservice directors with SNAP Educators from a partnering university, led to the successful implementation of a Smarter Lunchrooms initiative.
- **Collaboration of multiple types of participants.** For successful implementation, some grantees indicated that a collaborative model across all program activities maximized the impact on students through the involvement of many types of participants including, for example, food service staff, educators, students, and community partners, providing a more comprehensive approach to their interventions that serves to reinforce the messages students receive about these programs from several sources.

Lessons Learned about Partnerships to Maximize Resources and Build Sustainability

Multiple grantees reported lessons learned about how partnerships can be leveraged to improve implementation and evaluation.

- Grantees reported that partnering with other agencies and organizations to leverage resources and expand work helped to ensure activities under the grant were successful and sustainable.
- Partnerships helped to establish buy-in from program participants and allowed for sharing of the program workload.
- Partnerships built on State-level partner assets and resources enhanced grantees' programs, in particular, school nutrition and wellness activities and trainings. This appeared to be a consistent theme for grantees.
- Certain grantees reported the benefit of developing relationships with large universities, especially those whose athletes are well known, as an effective way to reach participants, especially in rural communities. The use of the university's resources and its existing film clips of

"By the end of the grant we had built a great network of knowledgeable culinary professionals whom we can collaborate with on future Farm to ECE projects."

athletes in action was a cost-effective way to develop videos and make them available online. The video and online resources could then be made available to rural communities.

- Certain grantees reported that partnerships with community organizations allowed them to expand their work, maximize their capacity and budgets, and build a strong foundation for sustainability for continued nutrition education work in the State.

4.3. Evaluation Lessons Learned

For the FY 2016 grantees, this was the first time they were expected to design and conduct evaluations of the interventions they delivered in their State. For the first time in the TNTG program, grantees were required to report performance metrics and evaluate their interventions. Some of the key challenges for grantees are described in Chapter 3. Grantees also reported on some of the lessons they learned about evaluation.

- If evaluations are expected to find measurable impacts, the interventions need to be longer and more intensive than most of what grantees delivered.
- The challenge of measuring appropriate outcomes was a concern of many grantees:
 - Grantees commented directly about the appropriateness of expecting their nutrition education interventions to increase school participation in the NSLP and NBP.
 - Grantees commented on the fact that measuring immediate changes in knowledge was not the most important outcome. Following up with participants and measuring actual nutrition and health practices in settings was more important but often more difficult and expensive. Grantees also wished they were able to measure more outcomes at the student level, because affecting students was the ultimate goal of the interventions they delivered.
- Individual grantees did not have the expertise or resources to address the problem of the limited number of valid and appropriate measures available to examine the expected effects of their interventions.
 - Grantees were in consensus about the difficulty of using production records to measure changes in students' food choices. Grantees reported these records were not only cumbersome and time-consuming to collect, clean, and analyze, but they also were not comparable because the data were collected in different ways across schools and districts.
 - Grantees encountered problems with “ceiling effects” with the measures they developed to assess change in participants' knowledge from a training. Having to quickly develop measures while limiting the burden on participants led to measures that were not able to assess deep knowledge or understanding. As a result, it was too easy for participants to obtain very high scores at baseline, even before the training. This ceiling effect at baseline makes it challenging to detect growth across a training or TA activity.

“It is possible that lunch participation was not a measure sensitive to the changes in this intervention. Changes in Smarter Lunchrooms and School Health Index assessments were appropriate short-term measures for the...intervention. Whereas the lunch participation rates may be a better measure for a longer-term intervention.”

- Grantees reported that asking participants in their interventions to be part of data collection for an evaluation added an undue burden and led to low response rates on surveys and questionnaires and drop-out from the intervention itself.
 - Grantees believed that evaluation data collection would be more robust if they could provide incentives to participants for filling out surveys, participating in interviews, or conducting observations, often multiple times during an intervention. One grantee was able to use some of its subgrant budget to provide incentives to participants to complete evaluation data collection requests. The grantee reported the incentive improved participation in both the intervention and the evaluation, but other grantees did not try to do the same.
 - Grantees reported that asking participants to be in a control or no-treatment group was especially difficult. Some grantees tried to incentivize it by offering potential control sites the option of receiving the intervention in the following year (i.e., delayed treatment), but reported the incentive was not a compelling argument for the sites to agree to participate in data collection during the control group initial non-treatment year.
- Grantees described some of the practical barriers that they faced in collecting evaluation data because of inadequate tracking systems, as referenced in Chapter 3.
 - Several grantees reported that the lack of a good tracking system kept them from identifying participants in training and TA, tracking completion of surveys at the end of training, and following up with participants to measure later outcomes (e.g., how well change was sustained, whether change in knowledge was related to later changes in practice, etc.).
- Grantees reported that evaluation should include measurement of the fidelity of implementation of intervention activities over time and across participants. Grantees consider this important because they believed that inconsistent implementation was one reason why their expected outcomes weren't observed in their evaluation.
- Grantees reported that “planned variation” evaluations, which compare outcomes for participants who receive different combinations of components, were the most informative for the field. Without these kinds of designs, it was difficult for the field to learn about which components were most strongly related to positive outcomes.
- Many grantees reported that their evaluations were conducted on small samples of participants, which limited the kinds of inferences evaluators could draw from their analyses.
 - Small sample sizes meant that the evaluations were often underpowered to detect what were likely to be relatively small effects of the interventions.
 - Small sample sizes also limited the generalizability of the results to broader populations of interest in the States.

4.4. *Improving Evaluations of Future Grants*

Moving forward from the 2016 cohort of TNTG, some key lessons could be applied to strengthen the rigor and learning for future grant evaluations. In particular,

- **Clearly stated expectations for/definitions of rigorous evaluations that are part of grant activities—e.g., priority designs and outcomes.** To help grantees understand better what kinds of evaluations they should be designing and conducting, FNS could provide a clear set of standards and procedures related to evaluation. Along with these standards, FNS could convey clear guidance on how to balance strong evaluation with service delivery, to assist grantees in making decisions about budget allocation.

- **More planning time for evaluation at the start of the grant period.** The 2016 grantees felt constrained by having to start service delivery immediately upon receipt of their grant, leaving little time to plan evaluations and coordinate evaluation and implementation of the interventions. Grantees recommended that at a minimum, there should be allowance for evaluation planning prior to having to start service delivery. Some grantees suggested the idea of FNS offering planning grants for states interested in conducting rigorous evaluations, which would be then planned in advance of the actual grant itself.
- **In general, grantees felt that the grants should include more sufficient resources for multiple components of strong evaluations, including:**
 - More resources to allocate to a social scientists on the grant team
 - More resources for the costs of conducting a field evaluation, including data collection costs, recruitment costs, incentives.
- **Finally, grantees felt challenged by the expectations to provide services that addressed an array of participants, represented an array of delivery modes, and included social media as well as in-person delivery of services.** In the future, it is possible that allowing grantees to more narrowly focus their services on a smaller number of interventions, particularly interventions that are more intensive and longer duration, could produce stronger effects.

Appendix A. Grant Profiles

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School *Focused*



School-Focused Grants: Assist students participating in the National School Lunch and School Breakfast Programs with meeting the recommendations set forth in the 2015-2020 *Dietary Guidelines for Americans* by providing appealing and nutritious meals, nutrition education, and school environments that are conducive to healthy eating.

Profiles for FY 2016 grantees that used their TNTG funds to support school-focused interventions include:

- Indiana
- Iowa
- Maryland
- Missouri
- Montana
- Nevada
- South Dakota
- Wisconsin

On the next page is an index of school-focused interventions, organized by strategy (training and technical assistance, nutrition education, and healthy food environment) and State. The index also indicates whether there were any significant findings from the evaluation and the page number for the intervention table in the grant profile.

School Focused



Intervention	Significant Findings	Appendix A Page Number
Training and Technical Assistance		
<i>Indiana</i>		
Culinary Training of School Food Service Workers with a Celebrity Chef	No	32
<i>Iowa</i>		
Activities Available for all Iowa Schools	No	36
<i>Missouri</i>		
Culinary Skills Institute	No	44
<i>Nevada</i>		
Culinary Training	No	51
Menu Production Records Handbook	No	52
School Wellness Implementation Reporting	No	54
School Wellness Policies	Yes	53
School Wellness Policy Training	Yes	54
<i>Wisconsin</i>		
Training school nutrition professionals on communications strategies	No	60
Training school nutrition professionals on culinary techniques	No	59
Trainings for school staff, parents and community on LWPs	No	62
Nutrition Education		
<i>Indiana</i>		
Family and Consumer Sciences Curriculum	Yes	32
Power Up with Produce	Yes	31
<i>Iowa</i>		
Healthy Schools Healthy Students Project	Yes	35
<i>Missouri</i>		
Fresh Life: Enjoy a Salad Today!	Yes	42
Rainbow Days	Yes	42
<i>Montana</i>		
Montana Harvest of the Month (HOM) Program	Yes	46
<i>Nevada</i>		
Pick a Better Snack (PABS) / Fresh Fruit and Vegetable Program (FFVP)	Yes	52
<i>South Dakota</i>		
Farm-to-School (F2S)	Yes	57
Power Chef Challenge	Yes	56
<i>Wisconsin</i>		
Let's Plant Classroom Gardens Sub-grants	Yes	61
Serving Up MyPlate Taste Testing Sub-grants	Yes	61
Whipping Up Wellness student chef competition	No	60

School Focused



Intervention	Significant Findings	Appendix A Page Number
Healthy Food Environment		
<i>Indiana</i>		
Wellness Policy and Training on Smarter Lunchroom	No	33
<i>Maryland</i>		
Project SELECT	Yes	39
<i>Missouri</i>		
School Wellness Project	Yes	43
<i>Montana</i>		
Creating Smarter Breakfast Programs	Yes	48
Montana Team Nutrition's Smarter Lunchrooms Initiative	Yes	47
<i>Nevada</i>		
Smarter Lunchroom Movement Training	Yes	51
<i>South Dakota</i>		
School Breakfast Programs (Fuel Up to Play 60)	No	57
Smarter Lunchrooms	No	56
<i>Wisconsin</i>		
Provide SFAs with Local Wellness Policy (LWP) resources	No	62
Training school nutrition professionals on behavioral economics	Yes	59

INDIANA



Indiana Team Nutrition Training Grant		
	Grant amount	\$372,522
	Training and Technical Assistance Interventions	Culinary Training of School Food Service Workers with a Celebrity Chef
	Nutrition Education Interventions	- Power Up with Produce - Family and Consumer Sciences Curriculum
	Healthy Food Environment Intervention	Wellness Policy and Training on Smarter Lunchroom
	Significant positive evaluation findings	Two-group randomized
		2 interventions: One or more positive and significant finding
		Pre-post
		1 intervention: No significance tests
		No outcome evaluation
		1 intervention: No outcome evaluation
	Lessons learned	✓ More follow-up is needed to boost training attendance, and to help implement action plans (Project A). ✓ Schools need more school administration support for changes related to Smarter Lunchroom and School Health Index (Project C) ✓ Recruiting busy food service staff for training can be difficult (Project A). ✓ Collecting detailed food production records is time consuming and schools weren't always able to provide the requested records (Project B1). ✓ Teachers need adequate time to implement curriculum, especially if there are fees/costs associated with the curriculum; because of school policies regarding course budget requests need lead time (Project B2)
	Sustainability	State will continue to offer culinary trainings and promote National School Lunch Week to showcase new recipes (Project A). SHI and SL materials are being revised to make them more effective (Project C).
	Transferability	Resources are available online for others to use (Projects A, B1, B2, C).

APPENDIX A: GRANT PROFILES

Power Up with Produce	
Project description (key modes)	• Video with Power Panther mascot and student athletes mentors modeling healthy eating behaviors and sharing DGA 2015 messages • Students led through blindfolded tasting games with fresh produce • 6 monthly follow-up video PSAs
Target participant(s)/ Reach	Students • 2443 students from 11 rural elementary schools (includes both the treatment schools and the control schools that received the delayed intervention)
Significant positive evaluation findings	Two-group randomized <i>[11 rural schools randomly assigned to treatment (5 schools) and control (6 schools) in 3 strata of type of rural communities; comparisons from pretest (fall) to end of intervention in spring after 1 academic year (posttest) and again in fall of next school year (follow-up).]</i> Outcomes with statistically significant difference between participants and non-participants • Preferences for fruits and vegetables (participants did not change and non-participants decreased) • Knowledge of recommended food groups (participants > non-participants) • Knowledge of recommended plate portion for fruits and vegetables (participants > non-participants) • Breakfast: amount of fruit (intervention schools decreased more) • Lunch: increased amount of dark green vegetable subgroup, decreased amount of starchy vegetable subgroup. (At follow-up, increased amount of all vegetables without starchy; increased amount of dark green vegetable subgroup)
Grantee conclusion(s) about intervention effectiveness	The intervention to improve FV nutrition produced benefits in some but not all outcomes. Some improvements in nutritional attitudes and knowledge creates optimism that this program may enhance student nutrition. Improvements in vegetables served, both total and without starch, decreases in starchy, and improvements in vegetable variety extend the benefits from the intervention. Program outcomes may be enhanced with additional attention to components that support variety, frequency, familiarity, and comfort in trying FV to students. The intervention was found to have no statistically significant effect on: • Fruit neophobia, familiarity, daily variety, frequency of eating fruits and vegetables, efforts to try new fruits or vegetables, ability to identify nutrient-dense fruits and vegetables, • Lunch: Amount of fruit served; amount of red/orange vegetables subgroup, varieties of legumes
Lessons learned	Fidelity of implementation issues were encountered: emcee at assembly did not follow script, exceeded time allotted, fidelity of intervention was restored for the video posted for distribution by deleting errant sections and replacing it with appropriate text. Fruits and vegetables offered for tasting were already familiar to children—were intended to be less common produce. Food for tasting was bagged for convenience with did not allow for ideal presentation in appetizing or inviting ways. Burden of obtaining and analyzing food production records; problems with data in terms of accounting for students making multiple selections. Intervention can be implemented in states in a cost-effective way by developing relationships with large universities with well-known athletes, who are not needed in person (filming can be done at universities) and using existing film clips of athletes in action. Video and online resources makes this intervention available to rural communities.

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Culinary Training of School Food Service Workers with a Celebrity Chef	
Project description (key modes)	- Professional development to improve culinary skills, healthy food promotion strategies, and knowledge of the latest food guidance, particularly fruits and vegetables - Staff implement knowledge and skills from their training to plan and conduct event for students using training themes
Target participant(s)/ Reach	Food service staff at middle and high schools 46 staff
Significant positive evaluation findings	No outcome evaluation No outcome evaluation [post-test only]
Grantee conclusion(s) about intervention effectiveness	Satisfaction of the training venue (using a celebrity chef) was very high indicating this intervention is worth additional investigation.
Lessons learned	Low attendance at training suggests need for new and better recruitment strategies. Low follow-through by trainees with expected marketing event suggests need for new and better motivational strategies as well as follow-up assistance with events, such as helping trainees create implementation teams back at their schools.

Family and Consumer Sciences Curriculum	
Project description (key modes)	Teacher training on new nutrition curriculum “<i>Forecasting Your Future: NUTRITION MATTERS</i>” that included messages from the DGAs.
Target participant(s)/ Reach	Family and consumer science high school teachers 22 received training initially - Delayed intervention trained an additional 24 teachers Students 702 were exposed to the intervention in some way. 310 high school students were taught curriculum and completed pre and post surveys
Significant positive evaluation findings	Two-group randomized <i>[Teachers randomly assigned in 9 strata based on school geographical location and size; surveys conducted at beginning and end of semester-long course.]</i> Outcomes with statistically significant difference between participants and non-participants - Teachers - Knowledge of DGAs - Self-efficacy to teach nutrition - Students - Number times student tried a new vegetable - Number times student tried a fruit
Grantee conclusion(s) about intervention effectiveness	Overall, the training of high-school nutrition teachers in the Forecasting Your Future: NUTRITION MATTERS, curriculum has promise for improving teachers’ self-efficacy to teach nutrition and also for increasing exposure to new fruits and vegetables for their students. Further research is needed to determine the long-term effects of training teachers on student outcomes. Teacher satisfaction with training on the new curriculum was high and all of the teachers learned helpful ways to teach nutrition in the classroom, indicating that the training was successful in meeting its objectives. Teachers overall knowledge of dietary guidelines and overall self-efficacy for teaching nutrition improved after the training. Students who were exposed to more lessons from the curriculum reported trying more new fruits and vegetables. Intervention had no effect on students’ familiarity with fruit and vegetable, Preferences of fruit and vegetable, Affinity towards vegetables, Affinity towards fruit, Daily intake of fruit (frequency), Daily intake of vegetable (frequency), or Knowledge of Dietary Guidelines.

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Family and Consumer Sciences Curriculum	
Lessons learned	Some teachers had difficulty implementing the curriculum immediately after training; also, teachers need more time to learn and begin teaching a new curriculum in schools. Main barriers to implementation reported by teachers were lack of time and lack of flexibility in being able to add new labs within the school year. Teacher suggestions for improving curriculum included more supplemental materials, improved formatting, and more in-depth lessons on MyPlate. Barriers in schools for students to eat healthy that teachers identified were need for school lunches with more flavor and variety, responding to student preference for food made from scratch. Teachers felt that healthier breakfast options, in particular, might help students have more focus and energy, and reduce overeating at lunch. Teachers referenced unhealthy drink options in school vending machines, lack of time for students to enjoy meals at school, lack of exposure to healthy food at home. Teachers would like curriculum units on evaluating popular diets, sports nutrition, tracking calories/nutrients/food groups online/meal planning/budgeting/grocery shopping, and menu planning for people with special dietary requirements.

Wellness Policy and Training on Smarter Lunchroom	
Project description (key modes)	- Indiana DOE provided training on using SL principles and SHI to improve the school environment. - Schools completed the assessments, attended Wellness Policy Workshops, participated in follow-up webinars on SL and SHI, and continued to receive technical assistance to implement SL/SHI.
Target participant(s)/ Reach	Food Service Director and/or Food service staff 5 schools
Significant positive evaluation findings	Pre-post
	No significance tests
Grantee conclusion(s) about intervention effectiveness	Typical Smarter Lunchroom improvements included: eliciting feedback from students on menu items; posting menus in the office; growing food locally (gardens) and including Smarter Lunchroom principles in Wellness Policies. Areas of SL change that were the most challenging to implement were: showcasing a fruit or vegetable of the day; creating menus with descriptive or creative names; featuring a combo meal of the day; instituting cash for a la carte; displaying "tomorrow's featured meal" on menus; encouraging students to name menu items; allowing students to pre-order; and displaying students' artwork. Changes in the SHI were challenging to implement.
Lessons learned	Food service directors appeared energized to make positive changes in their school but support from administration fell short. Schools need additional time to evaluate and implement SHI changes as well as have a need for additional members on the School Wellness Committee.



Iowa: Team Nutrition Training Grant		
	Grant amount	\$498,255
	Training and Technical Assistance Interventions	Activities Available for all Iowa Schools (additional grant activities): • School Nutrition webcasts • School Wellness Beyond the Cafeteria Webinar • Update on School Wellness Regulations webinar • School Wellness Conference • School Wellness Signage Webpage • Healthy Schools Healthy Students Newsletter
	Nutrition Education Interventions	Healthy Schools Healthy Students Project • In-classroom nutrition education • Cafeteria Coaching • Smarter Lunchrooms • Food Service Staff Culinary Training
	Significant positive evaluation findings	Two-group randomized
		1 intervention: One or more positive and significant finding
		No outcome evaluation
		1 intervention: No outcome evaluation
	Lessons learned	✓ While the Healthy Schools—Healthy Students project was stated to be successful, simple changes to the nutrition education curriculum, increased training and preparation for cafeteria coaches, and further communication from the evaluation team prior to the interventions implementation would have enhanced the intervention. ✓ Partnerships bring an array of expertise that contributes to both the quality and the sustainability of successful project outcomes and implemented trainings. Grant objectives built on state level partner assets and resources to enhance school nutrition and wellness activities and trainings.
	Sustainability	Additional funding would be required to expand, enhance, or continue the intervention or technical assistance. Connections made with nutrition educators in the community have contributed to relationships that will enrich future school wellness initiatives and committee involvement. Partnerships bring an array of expertise that contributes to both the quality and the sustainability of successful project outcomes and implemented trainings. Grant objectives built on state level partner assets and resources to enhance school nutrition and wellness activities and trainings in the state of Iowa.
	Transferability	Resources developed for the project will be shared on the Child Nutrition Sharing Site, along with evaluation outcomes.

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Healthy Schools—Healthy Students	
Project description (key modes)	• In-classroom nutrition education: 4th grade students in participating schools were taught Team Nutrition's Serving Up MyPlate curriculum which integrates nutrition education into Math, Science, English Language Arts, and Health and introduces the importance of eating from all five food groups through a variety of hands-on activities. Curriculum had 6 lessons taught once per month that included a food tasting and physical activity. • Cafeteria Coaching: Middle and high school students modeled healthy behaviors conducting taste tests and eating lunch with 4th graders in participating schools once a month. • Smarter Lunchrooms: The evaluation team completed the scorecard for each participating school in the fall and spring of the intervention year. Schools received results of the first scorecard in order to identify changes that could improve their lunchroom. • Food Service Staff Culinary Training: School nutrition professionals attended the ICN workshop Practical Skills for Preparing Quality Meals, topic was preparing nutritious meals that look and taste good.
Target participant(s)/ Reach	• 20 Schools — School foodservice staff (received culinary training and SL score summary) • 1,118 4th grade Students (received nutrition education and cafeteria coaching)
Significant positive evaluation findings	Two-group randomized <i>[The intervention design was a cluster-randomized trial with a delayed intervention arm that included 10 pairs of schools matched on school size, public vs private, geographic region, and grades served. One school from each matched pair was randomly assigned to the intervention or control condition. Control school received the intervention the following school year.]</i> The intervention has a significant effect on: • Increased nutrition knowledge • Increased MyPlate awareness Fourth graders in intervention schools demonstrated greater increases in nutrition knowledge and more positive attitudes to fruits and vegetables when compared to students in control schools. Survey results indicated that students' nutrition knowledge and ability to identify MyPlate was improved.
Grantee conclusion(s) about intervention effectiveness	• Increased SL scores in participating schools (based on pre-post comparison with no significance testing). • Results for the qualitative evaluation indicated that the taste tests were well received and allowed students to try new, healthy foods and were seen as particularly successful. The nutrition education and cafeteria coaching were also seen as being successful. • The intervention was mostly implemented as planned, with minor adaptations or changes.
Lessons learned	Interviews indicated that more communication from Team Nutrition and the evaluation team to ensure that school staff understand the full scope of the project would have improved their experience. Logistical issues were the most commonly cited barrier. Other barriers included the amount of work required to implement all the intervention component, difficulties engaging students for cafeteria coaching, and issues acquiring taste test items. Stakeholders also stated that increasing the time allotted for nutrition education and/or increasing the frequency of nutrition education sessions would improve the intervention. Furthermore, nutrition educators suggested that the lessons were difficult to deliver in thirty minutes, and in the future they should either expand the time for each lesson or retool the lessons to fit in the time allotted. Nutrition educators also suggested addressing additional content, such as meal planning, and adding more components, such as a hands on food preparation component. Cafeteria coaches stated that while the experience was enjoyable and beneficial to the younger students, more training, preparation, and direction for engaging with younger students to encourage healthy eating would have improved their capabilities.

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Activities for all Iowa Schools					
Project description (key modes)	• School Nutrition webcasts: 10-15 minute talks on school foodservice topics including hands on activities, quizzes, and links to additional trainings and topics. • School Wellness Beyond the Cafeteria Webinar provided strategies and actions that schools can take to create a healthy environment that reaches beyond the cafeteria and engages the community. • Update on School Wellness Regulations webinar provided an overview of the USDA Local Wellness Policy Final Rule, Iowa Association of School Boards sample wellness policy, Child Nutrition Administrative Review School Wellness questions, and school wellness resources. • School Wellness Conference sessions highlighted successful school wellness initiatives in Iowa schools, the impact of wellness on academic success, strategies to engage key stakeholders, and resources to support school wellness implementation. • School Wellness Signage Webpage Collection of bulletin board and signage resources that include ideas that can be used throughout the school to feature wellness messages to support the school wellness environment. • <i>Healthy Schools Healthy Students</i> monthly newsletter that provides information on implementing nutrition and physical activity programs in schools, upcoming school wellness training opportunities, success stories, and ideas from Iowa schools working to promote healthy habits in their students and staff. • \$500 sub-grants were available to non-project schools throughout the grant period to support school wellness policy implementation.				
	180 School Wellness Conference attendees <i>Healthy School Healthy Students</i> Monthly Newsletter				
Target participant(s)/ Reach		Start of Grant	End of Year 1	End of Year 2	End of Year 3
	Subscribers	2,100	3,863	4,074	4,116
	Open Rate	48%	44%	45%	47%
	School Nutrition Webcasts				
	Webcast Topic		Total Number of Views		
	Food Waste Reduction		244		
	School Wellness and Smart Snacks		198		
	Cafeteria Coaching		45		
	Sodium in Schools Meals		88		
	Pleasant and Positive Mealtimes		247		
	Civil Rights		2,574		
	Practical Skills		220		
	Food Production Records		332		
	Customer Service		183		
	Build a Healthy Lunch		621		
Build a Healthy Breakfast		427			
Total		5,179			
Significant evaluation findings	No outcome evaluation				
	No outcome evaluation				

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Activities for all Iowa Schools	
Grantee conclusion(s) about intervention effectiveness	The School Wellness Conference, Healthy Choices Count Summit, webinars, and school nutrition webcasts allowed attendees to learn about successful school wellness initiatives, school nutrition topics, and policy regulations to assist with ongoing compliance. Sub-grant opportunities create momentum for creating change at the local level to support healthy school environments.
Lessons learned	Partnerships bring an array of expertise that contributes to both the quality and the sustainability of successful project outcomes and implemented trainings. Grant objectives built on state level partner assets and resources to enhance school nutrition and wellness activities and trainings in the state of Iowa.



Maryland Team Nutrition Training Grant		
	Grant amount	\$499,821
	Healthy Food Environment Interventions	Project SELECT • Culinary Operations Training & Technical Assistance • Smarter Lunchroom Training & Technical Assistance • Nutrition Education Training & Technical Assistance (and implementation of curriculum in schools) • Collected student feedback by conducting food tastings and developed feedback tools • Wellness Policy Implementation
	Significant positive evaluation findings	Two-group randomized 1 intervention: One or more positive and significant finding
	Lessons learned	✓ School nutrition professionals identified the importance of the on-site technical assistance provided to staff to be able to transfer what they learned in training back to their kitchens. ✓ Grant leaders noticed a considerably higher level of commitment and intention to sustain grant activities among Cohort 1 LEAs (2 year participants) and schools when compared to Cohort 2 (1 year participants). For the schools and LEAs, most of their first year of participation was spent troubleshooting challenges, building relationships with staff, understanding the goals and priorities of schools and central office food service staff. It is difficult to make a strong, lasting impact over just one school year. During year 2, cohort 1 LEAs committed to expanding the reach of Project SELECT activities and the training plus technical assistance model. Their approaches include: implementing SELECT training with additional schools with regional managers providing follow-up technical assistance; implementing new salads, power bowls, and other new menu items tested in SELECT targeted schools; and conducting more food tasting events with students and staff. Future projects should look at ways to conduct activities over an extended period of time, ideally following SELECT's two year model. ✓ Results were likely impacted by the variability in intervention activities. LEAs could tailor the training and technical assistance to their own needs and didn't all receive the same training. ✓ There was inconsistent, and in some cases limited uptake from teachers on some of the nutrition education lessons and activities. ✓ Certain Smarter Lunchroom techniques (fruit/vegetable signage, bundled entrees with fruits and vegetables, food tastings) generated positive conversations between school and central office staff

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Maryland Team Nutrition Training Grant		
	Sustainability	Nutrition Education toolkit will be updated to align with the new State health education framework and to incorporate teacher suggestions, and will be posted on the MSDE-OSCNP website for public access along with the Family Engagement Wellness Toolkit. Grant leaders and participating LEAs presented at the Statewide Administrative Meeting for Public LEAs to share two finalized SELECT training modules with representatives from all Maryland LEAs. The session was well received, and many LEAs indicated interest in utilizing the modules, and interest in having additional topics prepared in this format which reduces the burden for LEAs to develop their own training materials.
	Transferability	Materials developed for training and technical assistance have broad utility as they are not heavily tailored to MD. Other states could easily use them.

Project SELECT	
Project description (key modes)	- Culinary/operations training and technical assistance from chefs and food service operation specialists, with topics determined by site needs. Available topics included: ordering and handling produce, assembling salads, understanding flavors and taste, roasting vegetables, planning and conducting tastings, general cookery (steaming, roasting), bundling entrees with vegetables, and utilizing spices and herbs. - Smarter Lunchroom training and technical assistance from regional Smarter Lunchroom assistants. Topics include: Introduction to Choice Architecture, Smarter Lunchroom Principles, Planning and Implementing Tastings, Promoting featured meals and components on the service line, Bundling entrees with vegetables and fruits, and Flavor stations (self-serve herbs and spices) - Developed a Project SELECT Nutrition Education toolkit, targeted to grades 6 – 8 and trained health education teachers on implementation of the health education toolkit, lessons, and activities. Lessons were divided into two groups. Lesson Group A focuses on The Dietary Guidelines for Americans, MyPlate, and the importance of consuming fruits and vegetables. Students will also assess the influence of their environment, and other dynamics on their food choices. Lesson Group B focuses on examining personal food choices, setting goals to adopt a health-promoting behavior, and considering strategies to persuade and/or advocate others to do the same. - Partners from the MD Wellness Policies and Practices Project developed a Family Engagement Toolkit. - Conducted food tasting events and developed student and family feedback tools on School Meals and menu items. - Provided application process and sub-grant awards to 5 LEAs for the implementation of Culinary Operations, Smarter Lunchroom, and Nutrition Education activities.
Target participant(s)/ Reach	Food and nutrition staff 16 schools in 5 LEAs (405 professionals across both culinary/operations training and Smarter Lunchroom training) Health teachers 44 Teachers in 8 schools Students 1470 in 8 schools receiving nutrition education curriculum

Project SELECT	
Significant positive evaluation findings	Two-group randomized <i>[Two cohorts of 23 schools in 5 LEAs were recruited and randomly assigned to treatment A (cafeteria + nutrition education intervention), treatment B (cafeteria intervention only), or control (no intervention). There were 16 treatment schools (groups A + B) and 7 controls (group C). Cohort 1 participated in two years of the intervention; Cohort 2 participated in one year. Data were collected in the spring of each school year that the school was part of the intervention, except for student surveys which were administered at the beginning and end of the semester when nutrition education was offered.]</i> Outcomes with statistically significant difference between participants and non-participants in Cohorts 1 and 2 after 1 year of intervention. • Average daily NSLP participation (decreased less in participating schools) • Student selection of starchy vegetables (decreased more in participating schools) • Student selection of other vegetables increased • Student total vegetable consumption increased Outcomes with statistically significant difference between participants and non-participants in Cohort 1 only after 2 years of intervention. • Average daily NSLP participation (decreased less in participating schools) • Student selection of other vegetables
	Overall, the cafeteria intervention was effective at increasing the selection and consumption of vegetables, mitigating a decline in NSLP participation and decreasing selection of starchy vegetables. In addition, the cafeteria intervention was effective at improving food environment (observed, using Observational School Environmental Checklist "OSEC"), based on pre-post gains in treatment groups (treatment A + B). The intervention had no significant positive effect on student selection of dark green vegetables, beans and/or peas, red and/or orange vegetables, or total vegetables;; or, OSEC Scores, comparing intervention to control, after one year of the intervention (cohorts 1 and 2). The intervention had no significant positive effect on student selection of dark green vegetables, beans and/or peas, red and/or orange, starchy, or total vegetables after two years of the intervention (cohort 1). Grantee reports that nutrition education intervention was effective at increasing students' My Plate Nutrition Knowledge, based on pre-post gains in treatment group (treatment group A compared to B+C).
Lessons learned	Included in table above.



Missouri Team Nutrition Training Grant		
	Grant amount	\$496,500
	Training and Technical Assistance Interventions	Culinary Skills Institute
	Nutrition Education Interventions	- Rainbow Days - Fresh Life: Enjoy a Salad Today!
	Healthy Food Environment Interventions	School Wellness Project
	Significant positive evaluation findings	Pre-post
		3 interventions: One or more positive and significant finding
		1 intervention: No significance tests
	Lessons learned	✓ Conducting all interventions in the same school might increase the impact. Such an approach would impact the school practices through multiple channels and audiences resulting in a more comprehensive approach and greater intervention intensity.
	Sustainability	DHSS plans to continue to provide the salad bar promotion materials to schools. However, without additional funding, the stipends to support the purchase of fruits and vegetables will not continue. School Wellness Project activities will continue through DHSS school health programs. Smarter Lunchroom resources and training will be available through school health and nutrition programs. DHSS is developing the CSI into a curriculum that can be adapted to different length trainings, but implementation is dependent on securing funding.
	Transferability	Once completed, DHSS will share the CSI curriculum with other grantees through PartnerWeb. MOTN already shares CSI recipes and teaching tools with early childhood education sites participating in the Missouri Growing with MO–Harvest of the Season Learning Collaborative. The salad bar promotion, SL, and SHI are all already universally available.

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Rainbow Days	
Project description (key modes)	- MOTN supplied cafeteria staff with <i>Salad Bar Event Toolkit</i>, sustainable program supplies such as aprons and food safety visors which were imprinted with program logos, <i>Kids MyPlate Fruit & Veggie</i> stickers for the elementary students and age-appropriate posters with call to action tag lines. <i>Salad Bar Event Toolkit</i> contained word documents and templates of essential materials such as a promotional flyer, parent and community volunteer to-do list, press release and classroom teaching ideas. - School site coordinator used the event's <i>Produce Guide</i> to plan for the salad bar event. - A \$200 stipend was provided to offset produce costs upon receipt of a completed day of event survey.
Target participant(s)/ Reach	Schools (elementary) 92 (based on one classroom selected for survey per school) Students, grades K – 5 1,496 students participated in pre-surveys 1,398 participated in post-surveys.
Significant positive evaluation findings	Pre-post - Number of students who like to eat fruit - Number of students willing to try new vegetables - Number of students reporting that eating from the school's salad bar has made them more aware of the many kinds of fruits and vegetables available to eat
Grantee conclusion(s) about intervention effectiveness	The intervention was successful in affecting attitudes and awareness. Salad bar sales increased 13.4% on day of salad bar event compared to 15 days before. Salad bar sales 15 days post-event were 2.7% above the pre-event sales.
Lessons learned	School Wellness and Salad Bar events might need increased event duration to show more impact.

Fresh Life: Enjoy a Salad Today!	
Project description (key modes)	- MOTN supplied cafeteria staff with <i>Salad Bar Event Toolkit</i>, sustainable program supplies such as aprons and food safety visors which were imprinted with program logos, <i>Kids MyPlate Fruit & Veggie</i> stickers for the elementary students and age-appropriate posters with call to action tag lines. <i>Salad Bar Event Toolkit</i> contained word documents and templates of essential materials such as a promotional flyer, parent and community volunteer to-do list, press release and classroom teaching ideas. - School site coordinator used the event's <i>Produce Guide</i> to plan for the salad bar event. - A \$200 stipend was provided to offset produce costs upon receipt of a completed day of event survey.
Target participant(s)/ Reach	Schools (middle/high) 16 (based on one classroom selected for survey per school) Students, grades 5 – 11 - More than 220 students participated in pre- and post-surveys.
Significant positive evaluation findings	Pre-post Number of students reporting that eating from the school's salad bar had made them more aware of the many kinds of fruits and vegetables available to eat

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Fresh Life: Enjoy a Salad Today!	
Grantee conclusion(s) about intervention effectiveness	There was a statistically significant decrease between the pre- and post-surveys for students who reported that they were willing to try new vegetables, suggesting that the salad bar event did not result an increase in desire to try new vegetables. Salad purchases increased 26% on the day of the event, demonstrating that the event led to a marked increase in salad purchase and consumption. Sales increase was not maintained 15 days post-event.
Lessons learned	The FreshLIFE salad bar events do not appear to have had the same level of impact on middle school and high school students' attitudes towards fresh fruits and vegetables as the Rainbow Days events for elementary school students. School Wellness and Salad Bar events might need increased event duration to show more impact.

School Wellness Project	
Project description (key modes)	• MOTN selected local public health agencies to receive subgrants via an application process • LPHA recruited schools to participate in onsite training on conducting SHI self-assessments (6 hours) • LPHA received training on SL movement (6 hours) • Schools received technical support throughout the year to complete the SHI and SL self-assessments and to implement action plans (average of 4 hours)
Target participant(s)/ Reach	Local public health agencies (LPHA) Schools (Wellness committees) • 48 recruited (37 completed SHI intervention, 41 completed SL intervention)
Significant positive evaluation findings	Pre-post • Smarter Lunchroom scores
Grantee conclusion(s) about intervention effectiveness	4 schools showed significant pre-post gains in school lunch participation. Grantee attributes changes in health practices at participating schools to the intervention, including improving health and wellness of faculty and staff, improved school environment, and improved physical education program and physical activity opportunities for students.
Lessons learned	It is possible that lunch participation was not a measure sensitive to the changes in this intervention. Changes in SL and SHI assessments were appropriate short-term measures for the SWP intervention. Whereas the lunch participation rates may be a better measure for a longer-term intervention. Schools may not have been sufficient in strength or exposure time to drive increases in lunch participation. Several of the schools did not participate in the SWP until the second semester of the school year. It is possible that the SWP would have had a greater impact if schools' participation continued beyond one school year. LPHA's are often under resourced and dependence solely on them may not have been sufficient to meet the schools' needs

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Culinary Skills Institute	
Project description (key modes)	• Nutritionist and chef provide classroom instruction, culinary demonstrations, and hands on culinary labs in a 2.5 day workshop • Topics include: - Basic culinary skills, such as kitchen organization and knife skills; - Layering flavor in dishes to reduce sodium; - Understanding the connection between the Dietary Guidelines for Americans and planning healthy, tasty meals for children; - Preparing and serving fresh fruits and vegetables, meat/meat alternates and whole-grain rich foods; - Sharpening teamwork skills; and - Developing a better understanding of farm to school and small steps schools can take to begin or expand implementation.
Target participant(s)/ Reach	School nutrition professionals • 116 attendees (paired pre-post surveys available for only 12/74 attendees, an additional 42 hadn't reached the 6 month post intervention timeframe for survey)
Significant positive evaluation findings	Pre-Post
	No significant tests
Grantee conclusion(s) about intervention effectiveness	Based on untested pre-post survey findings, grantee reports CSI intervention increased knife skills, kitchen organization, and methods for incorporating fruits, vegetables, herbs and spices into school meals, participants reported increasing confidence in skills and knowledge. Participating in CSI has been a catalyst for change. Many participants used their CSI training to design afterschool or extra-curricular cooking classes for students. CSI graduates modeled the class format to design a cooking experience for their students. The hands-on aspect of the class is leading students to try fruits and vegetables many have never seen or tasted.
Lessons learned	Technology and time constraints contributed to low post intervention survey response rates. Additional follow-up is needed with CSI participants to help them use their new found skills in day to day school kitchen practices.

MONTANA



Montana Team Nutrition		
	Grant amount	\$482,669
	Nutrition Education Interventions	Montana Harvest of the Month (HOM)
	Healthy Food Environment Interventions	- Smarter Lunchrooms Initiative (SLI) - Smarter Breakfasts
	Significant positive evaluation findings	Pre-post
		3 interventions: One or more positive and significant finding
	Lessons learned	✓ Implementation of a collaborative model across all activities in administering HOM and SLI maximized the impact to students through the involvement of food service staff, educators, students, and community partners. ✓ Through partnerships with local and statewide agencies, MTN optimized resources and laid a strong foundation for sustainability for HOM and SLI. ✓ Utilized social media for promoting project successes to reach wider audiences in helping to promote school nutrition programs and improve the public's perception of school meals.
	Sustainability	Through the collaboration of several partners, the State Agency provided support for HOM funding and other resources in future years and, with partner support, is expanding into venues such as grocery stores, healthcare, preschools, and businesses. School nutrition programs will continue to benefit from the featured recipes introduced through the grant activities. These recipes can continue to be served providing increased access to dark green or red/orange vegetables, and dried beans and peas. The Salad Bar and Breakfast Scorecards and resources developed from grant activities will be utilized as assessment tools by the State Agency staff. Behavioral economic strategies will continue to be promoted as best practices for school nutrition programs. Through training received, school staff are skilled in completing student taste tests and classroom activities. Thus, these activities can be repeated and expanded using other foods in the following years. Taste testing can also be incorporated into special events and by other educators. Enhanced media exposure, including social media, will continue at the local and state level through the HOM media messages and will continue to promote Team Nutrition resources.

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Montana Team Nutrition		
		As schools understand the value of forming a Smarter Lunchroom Advisory Committee (SLAC) to implement simple, low cost behavioral economic strategies to nudge students' selection of healthier choices, the SLAC model can be a sustainable way to promote student engagement.
	Transferability	All of the resources, including validated tools, developed in the grant activities have a high level of transferability to other state agencies. All resources will be shared with USDA Team Nutrition via the State Sharing Center website. Smarter Lunchrooms resources have been shared with Cornell BEN Center. MTN staff have shared outcomes from the Smart Breakfast Boosts Breakfast Initiative and HOM with national audiences. Participating schools have access to all of the HOM videos, guides, handout (cafeteria, classroom, and home) materials, and recorded trainings to utilize in future years.

Montana Harvest of the Month (HOM)	
Project description (key modes)	Implemented a K-12 school level program to improve student knowledge, attitudes, and behaviors toward Montana-grown foods and awareness of MyPlate. Through a team approach, schools or afterschool programs featuring a locally grown food each month over 10-12 months with a coordinated strategy of: • Showcasing the target food by serving it in at least one meal, snack, or a la carte offering, and displaying or distributing HOM materials • Coordinating monthly classroom nutrition education including student involvement in recipe development and taste testing activities • Engaging parents and community through school events, community outreach, and exposure to media The key activities in this project include: • Worked with sub-grant schools to increase student engagement and leadership in HOM implementation and to collect additional impact evaluation data • Developed 2 HOM videos to increase teacher and parent participation in the program and consistent educational opportunities • Developed materials for cherries, a new food for HOM • Developed HOM cookbook including recipes collected from HOM sites • Provided training and outreach
Target participant(s)/ Reach	The HOM intervention reached: • 70,801 (duplicated) students in 144 schools and 47 afterschool programs through 3,184 activities in grades K-12. • 419 school foodservice professionals through activities, workshops, and technical assistance • 305 non-foodservice staff through activities, workshops, and technical assistance • 12 childcare providers through activities and technical assistance • 1,306 parents through activities, workshops, and community outreach • 595 community stakeholders through activities, workshops, and technical assistance

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Montana Harvest of the Month (HOM)	
Significant positive evaluation findings	Pre-post
	- Students' attitude and preference towards HOM foods—Student preference for lentils, lettuce and winter squash significantly increased. - Knowledge of HOM foods and MyPlate food groups—significant gains in students' knowledge were observed within 3 of the 6 basic nutrition assessment questions. - Frequency of targeted Montana HOM foods served in HOM sites—Participating sites increased the frequency of serving Montana grown and raised HOM foods in meals and snacks. In the first year of the grant period (2016-2017) significant changes were observed for kale, beef, and leafy greens. In the final year of the grant period (2018-2019), sites demonstrated appreciably more serving of Montana grown and raised HOM foods with significant increases for summer squash, kale, apples, winter squash, carrots, beets, beef, grains, lentils, and leafy greens.
Grantee conclusion(s) about intervention effectiveness	The comprehensive HOM evaluation conducted indicates that MTN's HOM activities were successful in improving children's preferences for HOM foods and enhancing the school nutrition environment. Students maintained or improved their attitudes, preferences, behaviors, and knowledge towards nutritious foods. Schools increased their collaboration internally and externally to provide students with nutritious meals. MTN's HOM program is important to sustain a culture that supports healthy food consumption and environments among students in Montana schools.
Lessons learned	HOM sites were often innovative and creative in implementing the program in a way that best fit their school, afterschool program, and/or community. Best practices included: 1) allowing sufficient time, staffing, and contract resources for developing materials and resources; 2) building strong partnerships for program development, materials, and resources; 3) use existing resources as much as possible rather than creating new content; 4) provide multiple formats for training including handouts, in-person trainings, webinars, and videos; 5) maintain regular (monthly) correspondence with participating sites; and 6) developing a simple system for tracking reports and providing status updates. The top challenges were: 1) finding and testing recipes appropriate for Child Nutrition programs and finding high-quality lessons to showcase the specific foods, especially for middle and high schools; and 2) at the site level, limited staff time, availability and resources to implement the program each month.

Montana Team Nutrition's Smarter Lunchrooms Initiative (SLI)	
Project description (key modes)	- Developed and promoted new SLI tools to enhance healthy nutrition environments in school lunchrooms including: - Let's Eat: Engaging Students in Smarter Lunchrooms Guide - Eat the Rainbow Salad Bar Checklist - Smarter Lunchrooms Recipes and Taste Testing Resources Handout - Encouraged schools to develop a Smarter Lunchrooms Advisory Council - Provided training and technical assistance to school nutrition directors and staff on Smarter Lunchroom techniques
Target participant(s)/ Reach	- SLI training support to 40 schools (remotely and in-person) by regional school wellness coaches - Conducted 26 workshops statewide to school nutrition professionals - Collaborated with Montana State University Extension Supplemental Nutrition Assistance Education Program (SNAP-Ed) educators in 5 schools in 2017-18 to create Smarter Lunchrooms - Used sub-grants to provide training and collect data in 10 school districts to evaluate interventions that specifically targeted fruit and vegetable subgroups using a representative sample of urban, rural tribal locations in elementary, middle and high schools.

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Montana Team Nutrition's Smarter Lunchrooms Initiative (SLI)	
Significant positive evaluation findings	Pre-post
	- Combined student selection (averaged across all 10 sites) of total vegetable subgroups (red/orange, dark green, beans/peas/legumes) significantly increased. - Combined student selection within each individual vegetable subgroups also significantly increased.
Grantee conclusion(s) about intervention effectiveness	Smarter Lunchrooms techniques and behavioral economics principles were an effective tool to enhance school meal programs. Smarter Lunchroom Scorecard values increased by an average of 4.5 points, in the 10 schools participating in the targeted fruit and vegetable SLI project, and by an average of 6.4 points in the 5 schools that collaborated with SNAP-Ed educators, thus enhancing the school nutrition environment. Behavioral economic strategies increased participation for some schools, but not for others. Larger increases were seen in the schools with the SNAP-Ed partnership. Student selection of fruit increased slightly as a group, but not significantly. Student selection of fruit was high at pre and remained high through the intervention period.
Lessons learned	Montana schools appreciated the simplicity of the Smarter Lunchroom Scorecard and schools were receptive to trying the behavioral economic strategies in their own lunchroom environment. Best practices included: 1) Connecting school foodservice directors with SNAP-Ed Educators yielded a successful partnership; 2) Schools could successfully identify and implement 1 to 3 strategies from the Smarter Lunchrooms Scorecard per school year; and 3) Schools that developed a SLAC received invaluable ideas from students to enhance programs and increase student involvement. The top challenges included: 1) Accuracy of production records and the added burden of data collection completed by the schools; and 2) Timing of Average Daily Participation may have been influenced by seasonal shifts in participation relative to when data were collected.

Creating Smarter Breakfast Programs	
Project description (key modes)	- Development of the <i>Smart Breakfast Boosts Brainpower Scorecard</i> to enhance Montana School Breakfast Programs - Training and technical assistance to school nutrition professionals to implement simple behavioral economic strategies in their School Breakfast Programs - Tested the use of the <i>Smart Breakfast Boosts Brainpower Scorecard</i> on up to 10 behavioral economic strategies with four Montana School Breakfast Programs to increase student selection of fruits, vegetables, and milk, and increase participation in the program.
Target participant(s)/ Reach	- Four School Foodservice Directors in 4 Montana School Breakfast Programs - Students participating in 4 Montana School Breakfast Programs
Significant positive evaluation findings	Pre-post
	Participating schools significantly increased their Smarter Breakfast Scorecard score value by an average of 4.25 points.

Creating Smarter Breakfast Programs	
Grantee conclusion(s) about intervention effectiveness	Behavioral economics strategies were successful in Montana school lunch and breakfast programs, specifically the fruit and milk strategies. Schools increased the variety of fruit offered at breakfast and increased student selection of fruit (however, these results were not significant). Schools offered more ounces of unflavored (white) milk. Students selected more white milk and less chocolate milk, while the combined overall ounces of milk selected per student increased by 0.29 ounces. However, the level of change was not significant. An underlying goal of creating the Smarter Breakfast Scorecard was to create a tool to help schools plan and serve a more nutrient dense (less processed, lower sugar) menu. The Scorecard provides strategies support schools in offering more protein, less sugar, and more made from scratch items at breakfast. Schools reported the Smarter Breakfast Scorecard was easy to use, gave them a guideline to follow, and identified simple changes to improve their school breakfast program.
Lessons learned	Implementing several strategies from the fruit section of the Breakfast Scorecard helped schools increase the variety of fruit offered daily. Promoting unflavored milk over flavored milk by alternating the location of it on the service line or limiting it on the menu can impact students' milk choices. Best practices included: 1) plan the menu to offer two fruit choices daily, offer fresh fruit daily, and offer mixed fruit (whole and/or sliced) in an eye-appealing serving bowl; and 2) slicing fruit and presenting it in an appealing manner positively nudges selection. The top challenges included: 1) the accuracy of production records; 2) the burden of data collection on the pilot sites; and 3) securing enough schools to participate in the project due to staffing shortages. Monitoring of schools' utilization of the Breakfast Scorecard needs to occur in additional school sites to document outcomes.



Nevada Department of Agriculture (NDA) FY 2016 Team Nutrition Training Grant		
	Grant amount	\$415,188
	Training and Technical Assistance Interventions	• Culinary Training • Menu Production Records Handbook • School Wellness Policies • School Wellness Implementation Reporting • School Wellness Policy Training
	Nutrition Education Interventions	• Pick a Better Snack (PABS) / Fresh Fruit and Vegetable Program (FFVP)
	Healthy Food Environment Interventions	• Smarter Lunchroom Movement Training
	Significant positive evaluation findings	Two-group nonrandomized design
		1 intervention: One or more positive and significant finding
		Pre-post
		3 interventions: One or more positive and significant finding 2 interventions: No significance tests
		No outcome evaluation
		1 intervention: No outcome evaluation
	Lessons learned	✓ Target outreach to attract intended audience to attend trainings ✓ Work with community partners to promote local resources and to reach a larger audience ✓ Having a project manager from start to finish is critical to your project timeline and project completion
	Sustainability	Many of the interventions can be sustained for future use. The Smarter Lunchroom materials used and developed can be used anytime in the future, and the culinary trainings can be sustained with continued funding. The Menu Production Handbook is available electronically on the NDA website and additional copies are available to SFAs. The PABS program can be sustained by committed teachers and site level kitchen staff. Site staff could utilize PABS materials as the required nutrition education component for the FFVP. All updated School Wellness Policies have been approved individual SFA boards. The updated online School Wellness implementation tool is fully functional and will continue to be maintained by NDA. Through the engagement and continued commitment of multiple local community partners NDA will be able to keep the school wellness momentum going.

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Nevada Department of Agriculture (NDA) FY 2016 Team Nutrition Training Grant		
	Transferability	Smarter Lunchroom and Culinary Training materials are easily transferable and adaptable to other state agencies, and NDA is willing to share all materials and methods used in the PABS intervention. NDA can also share any materials developed to create and screen School Wellness Policies, and the organizational model and partnerships that were created for Nevada's school wellness conferences are available and easily replicated by other states. The NDA School Wellness Implementation tool, designed by NDA staff can be transferred to other State Agencies to collect School Wellness Implementation Data.

Smarter Lunchroom Movement Training	
Project description (key modes)	With the goal of increasing the number of SFAs using Smarter Lunchrooms Movement strategies from 5 to 30 by June of 2019, key strategies included: • Asked school foodservice professionals to complete a self-assessment of their lunchrooms against smarter lunchroom strategies • Hosted of three regional trainings for school foodservice managers or directors on the implementation of Smarter Lunchrooms. • Provided follow-up technical assistance to schools in further need.
Target participant(s)/ Reach	• School foodservice professionals (number of participants not reported).
Significant positive evaluation findings	Pre-post • Knowledge on two individual questions (of 16) on a Smarter Lunchrooms knowledge test
Grantee conclusion(s) about intervention effectiveness	Most training participants were satisfied with the training, and reported a moderate or substantial increase in their knowledge and skills to implement the content. Overall, knowledge scores did not show a statistically significant improvement from pre-test to post-test; however, given the small sample size (N = 34), it is possible that significant differences may be found when data is collected from larger groups of participants. Participants did gain knowledge from pre-test to post-test with respect to increasing fruit consumption and the minimum number of vegetables to be offered. Outcomes were hard to identify because of the difficulty to collect post-test from all who attended.
Lessons learned	Training attendance had people from various roles within School Nutrition. Not all attendees worked at a school site kitchen in which they could implement change. Follow-up was extremely difficult to gather if attendees had implemented any Smarter Lunchroom recommendations at their school site

Culinary Training	
Project description (key modes)	• Conducted Culinary Skills Trainings for school nutrition professionals in winter and spring 2018 in five counties on how to do a student taste test and on standardized recipe development
Target participant(s)/ Reach	• A total of 95 school foodservice staff representing 40 schools/agencies.
Significant positive evaluation findings	Pre-post No significance tests
Grantee conclusion(s) about intervention effectiveness	Based on a post-training evaluation survey, both knowledge and confidence were rated higher at the post-test compared to the pre-test. Participants' self-ratings of confidence in their knife skills increased and perceptions of their knowledge of strategies to improve culinary skills increased the largest amount from pre-test to post-test. Since attending the culinary training, 100% of the participants are mostly to completely confident in their knife skills and over 71% of participants use these skills weekly to daily. Student taste tests had been conducted four or more times by 73% of participants with student feedback being mostly positive to mixed results.

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Culinary Training	
Lessons learned	Many of the SFAs in Nevada have limited kitchen facilities and operate 'heat and serve' or vended meal operations. Therefore, it was difficult to find SFAs interested in hosting a culinary training and choosing a day and time that would work well for their staff. The culinary trainings were successful because they were hosted at the SFA in one of their own kitchens, where participants felt most comfortable. Trainers used equipment that the SFAs already had in their kitchens.

Menu Production Records Handbook	
Project description (key modes)	To address SFAs' significant challenges of keeping complete and accurate menu production records NDA: - Developed a Menu Production Record Handbook modeled off of Texas Department of Agriculture's Production Record Handbook. - Distributed a printed copy for every school within each SFA
Target participant(s)/ Reach	School nutrition professionals in every school in each SFA (642 copies distributed)
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	NDA has received positive feedback from the workbook. NDA will track upcoming findings in future Administrative Reviews and hopes to see a decrease in deficiencies within this area of review. No formal training was offered by NDA on the Menu Production Record Handbook, but will explore offering a formal webinar to ensure SFAs understand how to utilize and implement the handbook.
Lessons learned	NDA released the workbook to it's SFAs without an accompanying training. NDA staff felt that releasing the workbook in conjunction with a training would have increased the effectiveness and the likelihood that school food service staff would utilize this resource.

Pick a Better Snack (PABS) / Fresh Fruit and Vegetable Program (FFVP)	
Project description (key modes)	- Implement eight monthly PABS nutrition education lessons given during the school day once monthly over the school year by a community-based instructor - Each lesson included monthly take home packet with fruit/vegetable fact sheets, parent newsletters in Spanish and English, and bingo cards to reinforce lessons. - Promotion to all students included fruit/vegetable fact sheets displayed on lunchroom tables during the student lunch service at least once per month. - Provide an interactive nutrition education display for at least one outreach event for parents and families - Classrooms were randomly assigned to intervention (students that received the lessons) or control conditions nested within schools to test the effects of nutrition knowledge, MyPlate knowledge, and attitudes toward fruits and vegetables
Target participant(s)/ Reach	641 2nd and 631 3rd grade students at four elementary schools participating in the FFVP in Clark County School District during the 2017-18 school year
Significant positive evaluation findings	Two-group nonrandomized design - Intervention group had greater increases in favorable attitudes towards fruits and vegetables than comparison group - Intervention group had greater increases in MyPlate knowledge than comparison group

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Pick a Better Snack (PABS) / Fresh Fruit and Vegetable Program (FFVP)	
Grantee conclusion(s) about intervention effectiveness	Although all students in these FFVP schools received fruit and vegetables as snacks in their classrooms, students that participated in the PABS program showed greater improvements in attitudes, nutrition knowledge, and recognition of MyPlate and associated food groups as compared to comparison group students who did not receive these lessons. These results indicate that nutrition skills and positive attitudes, such as willingness to try new fruits and vegetables are enhanced when fruit and vegetable tastings are paired with the PABS nutrition lessons in the classroom.
Lessons learned	NDA and UNCE deviated from the initial plan and chose control classes within each of the schools participating in the intervention instead of having one control school. Having a control class within each school allowed NDA and UNCE to obtain more reliable data because the control students were in the same school environment as the classes receiving the information. Also, NDA had some issues with staffing and scheduling resulting in late start during the first year of the grant and changed scope to only provide the outreach events and not the lessons.

School Wellness Policies	
Project description (key modes)	To increase the number of schools to 100% that have written and finalized school wellness policies by January 31, 2017, NDA conducted school wellness policy reviews of all 16 school districts and provided technical assistance to enable schools to bring wellness policies into compliance through: • Three half day trainings were conducted in the spring of 2017, each in different regions of the state, to help School Wellness Coordinators identify areas of their school's current wellness policy implementation that are not in compliance with NDA's Nevada School Wellness Policy, and provided technical assistance in key areas related to Smart Snacks in Schools nutritional requirements and other related TA. • The Center for Program Evaluation (CPE) at the University of Nevada assisted program staff with a pre-post evaluation of trainings
Target participant(s)/ Reach	• School Wellness Coordinators, School Administrators, Teachers, and Food Service Personnel (60 in total attended the three trainings).
Significant positive evaluation findings	Pre-post • Knowledge about Nevada's school wellness policy • Knowledge about strategies to improve implementation of wellness strategies at school • Confidence in ability to improve implementation of wellness policy at school
Grantee conclusion(s) about intervention effectiveness	Surveys of attendees indicated that 75 percent increase their knowledge of the school wellness policies, however knowledge test results indicated further clarification may be needed for participants regarding the allowable beverages and the Smart Snack minimum standards.
Lessons learned	NDA created a template School Wellness Policies modeled off the state policy. This gave school food authorities a base policy that encompassed all the necessary regulations to be complaint.

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School Wellness Implementation Reporting	
Project description (key modes)	To improve the percentage of all Nevada schools participating in NSLP that complete the annual school wellness policy implementation report for SY 2016-17 and SY 2017-18 by: - Upgrading and fixing the NDA Nevada School Wellness Policy online school reporting tool to make it more user-friendly - Contacting and providing technical assistance to all schools that did not submit wellness policy implementation data
Target participant(s)/ Reach	School Wellness Site Coordinators in 579 schools in SY 2016/2017 and 553 schools in SY 2017/2018
Significant positive evaluation findings	Pre-post
	No significance tests
Grantee conclusion(s) about intervention effectiveness	NDA exceeded the target goal of schools reporting their data in each of two years with 82 percent (475) of schools in SY 2016-17, and 92 percent (509) of schools in SY 2017-18 successfully reporting on School Wellness Policy implementation. NDA expects an even higher rate of school sites reporting for the SY 2019-20. The School Wellness Reporting Tool has created standardized school wellness data measures in which all schools are comparing their School Wellness Policy implementation to. The online platform has made it convenient for SFAs and school sites to collect this data.
Lessons learned	Best practice recommendations include creating a standardized set of measures, making electronic reporting easy by keeping survey short with easy to answer questions, giving schools an extended reporting period to allow them to complete when convenient, and employing constant contact and follow-up to promote reporting.

School Wellness Policy Training	
Project description (key modes)	- Conduct three School Wellness Conferences in two Nevada locations (Reno and Las Vegas) to help school wellness coordinators learn how to identify areas of improvement for their school environment and provide resources to help them to address these areas in school wellness policy implementation. - The Center for Program Evaluation (CPE) at the University of Nevada assisted program staff with conference pre-post evaluations
Target participant(s)/ Reach	67 wellness coordinators/school administrators attended the Las Vegas conference 28 wellness coordinators/school administrators attended the Reno 2018 conference 37 wellness coordinators/school administrators attended the Reno 2019 conference
Significant positive evaluation findings	Pre-post
	- Knowledge about the connection between school wellness and academic success - Knowledge about school wellness policy
Grantee conclusion(s) about intervention effectiveness	The majority (75 percent) of Las Vegas and (56 percent) of Reno attendees felt that the training sessions were quite or extremely useful. Nearly all (97 to 100 percent) of attendees of both conferences reported that conference provided <i>quite a bit</i> or <i>a great extent</i> of resources and knowledge to help improve school wellness policy implementation. Most (81 percent) of Las Vegas and (60 percent) of Reno attendees reported they felt quite or extremely confident in their ability to implement school wellness policy.
Lessons learned	Getting school wellness coordinators and school administrators to attend a conference on a weekend was a challenge. Participant feedback indicated that NDA's community partners are very motivated to help sustain the efforts of the school wellness conferences into the future. Best practice recommendations include surveying wellness coordinators on topics that will most meet their needs, and build the conference around those needs; create community partnerships for buy-in and sharing conference workload; and receiving survey feedback from attendees to improve future conferences.

SOUTH DAKOTA



South Dakota Team Nutrition		
	Grant amount	\$492,146
	Nutrition Education Interventions	• Power Chef Challenge • Farm-to-School
	Healthy Food Environment Interventions	• Smarter Lunchrooms • School Breakfast Programs (Fuel Up to Play 60)
	Significant Positive evaluation findings	Pre-post 2 interventions: One or more positive and significant findings 2 interventions: No significance tests
	Lessons learned	✓ All grant interventions worked to change knowledge and MyPlate recognition. However, it was hard to change the actual number of vegetable subgroups served, or the number of SBP and NSLP meals served, given the short implementation time periods. ✓ Having a Healthy School Advisor with the ability to provide technical assistance at the local, school and individual level was successful with schools applying for, receiving and implementing grant activities. ✓ Partnering with other agencies and organizations to leverage resources and expand work helps to ensure grant activities are successful and sustainable.
	Sustainability	Though the SD TN funding provided the seed money to start and grow activities, the successful partnership of a diverse network of partners and outside agencies including SDSU Extension, the Midwest Dairy Council, the SD Discovery Center, the SD DOH and the State Nutrition Action Collaboration, ensures that all activities started in this grant will continue for many more years.
	Transferability	The skills and knowledge acquired through this grant will be effectively applied to all future efforts by continuing to share best practices and lessons learned within the SD TN organizations and with partnering organizations throughout the state.

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Smarter Lunchrooms (SL)	
Project description (key modes)	• SDSU Extension assistance trained to provide support to and technical assistance to schools applying for the SL sub-grant • Training modules delivered on-line to sub-grantees including 2-hour online SL training, lunchroom assessment, introduction to PhotoVoice and Action Planning and Implementation • Smarter Lunchroom self-assessment scorecard administered Pre-Post activities to examine changes • Production records used to number of vegetable subgroup servings, pre and post activities
Target participant(s)/ Reach	Smarter Lunchroom Intervention: • SL teams of school foodservice director and K-12 students • One K-12 school participated in year 1 (unknown # of participants); • One tribal school participated in year 2 (unknown # of participants or grade level); • No schools participated in year 3
Significant positive evaluation findings	<i>Pre-post</i> No significance tests
Grantee conclusion(s) about intervention effectiveness	Lunchroom environments in the participating schools improved using mini-grant funds, demonstrated by an increase in Smarter Lunchroom Scorecards scores: • Year 1 school SL score-card increased from 23 to 33 pre to post activities. • Year 2 school SL score-card increased from 18 to 35 pre to post activities
Lessons learned	Fewer applications for the Smarter Lunchroom sub-grant as anticipated were received. While participating schools were able to import the lunchroom environment using smarter lunchroom techniques, based on SL scorecard scores, offerings of indicated vegetable subgroups decreased over the semester in one school, and decreased over the academic year in the other school. Reasons for this were unclear, but could be due to cost and availability.

Power Chef Challenge (PCC) & Cafeteria	
Project description (key modes)	• Implementation of the Power Chef Challenge curriculum to increase NSLP, SBP and out of school time program snack participation, and increase nutrition knowledge, culinary skills, and improve recognition/identification of MyPlate and associated food groups, and increase scores on two CDC School Health Initiative (SHI) modules. • Promote the school or agency food and nutrition programs to parents or caregivers by using resources provided by the Power Chef in the Cafeteria at school events
Target participant(s)/ Reach	The Power Chef Challenge (PCC) intervention reached: • Year 1: 91 students (grade 1 to 6) across three locations. • Year 2: 3,142 students across 12 locations (grade range not reported) • Year 3: 878 students across 2 locations (grade range not reported)
Significant positive evaluation findings	<i>Pre-post</i> • Knowledge scores and MyPlate recognition (students in years 2 and 3 only)
Grantee conclusion(s) about intervention effectiveness	Power Chef was a popular intervention that reached thousands of children in over 15 SD locations. Some locations improved SHI scores while others did not. This may be due to little variability in these scores with a limited range of 1-3. Some strides were made to improving participation the SBP, but it appeared to be more difficult to improve participation in the NSLP.
Lessons learned	A key component of the recipes that were used in the PCC was the availability of video demonstrations that accompanied them, versus the Healthy Kids recipes that were initially planned which did not have the video component.

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School Breakfast Programs (Fuel Up to Play 60 (FUTP60))	
Project description (key modes)	Fuel Up to Play 60 is a national in-school health and wellness program launched by the National Football League and National Dairy Council in collaboration with the USDA that features a playbook for schools to choose from Healthy Eating and Physical Activity strategies to encourage youth to consume nutrient-rich foods and achieve at least 60 minutes of daily physical activity. Two key strategies for the intervention included: • The fuel Up to Play 60 breakfast promotion, Breakfast for Everyone—First Meal Matters was used to promote school breakfast and implementation in two school districts on AI Reservations • Technical assistance to help 2 AI schools apply for and successfully receive FUTP60 receive grants of \$3,000 each to improve healthy eating and physical activity environments.
Target participant(s)/ Reach	The Fuel Up to Play 60 intervention reached (was present in): • 20 schools (FS operations) in Year 1; 13 schools in Year 2; and 9 schools in Year 3 across South Dakota. (total number of students not reported) The two schools that received Fuel Up to Play 60 Grants reached: • 449 students in Crow Creek Tribal School • 94 students in Lower Brule School
Significant positive evaluation findings	Pre-post
	No significance tests
Grantee conclusion(s) about intervention effectiveness	A pre-post evaluation to examine changes in the number of SBP and NSLP meals served in participating schools in years 2 and 3 of the intervention showed variable results. In year 2 few participating schools increased SBP participation, but the majority increased NSLP participation. In year 3, the majority of participating schools increased SBP participation, while fewer schools saw increases in NSLP participation. Participation in SBP and NSLP is likely due to other factors outside of FUTP60 activities such as funding and enrollment.
Lessons learned	Through the help of a Healthy School Advisor who offered technical assistance and one-on-one help with school administrators, and successful collaboration with the Midwest Dairy Council, two AI schools were able to successfully apply for and receive FUTP60 grants which helped to increase SBP in SBPs in AI reservations.

Farm-to-School (F2S)	
Project description (key modes)	In partnership with SDSU Extension and Dakota Rural Action (DRA), SD DOE was awarded a USDA F2S Training Grant that included: • Development of the 2019 South Dakota Farm to School Resource Guide. Two copies (396) were mailed to every school in SD. • Three SD schools were awarded funding (through the TN grant) to build and construct a high tunnel. • Production of a video in partnership with SDSU Extension on How to Install a Drip Irrigation System • Improve student knowledge and attitudes toward the targeted fruits/vegetables of the month.
Target participant(s)/ Reach	The F2S intervention reached: • 12 School nutrition professionals and non-foodservice school staff were trained on the SD F2S resource guide • 352 students in F2S activities across 10 locations in Year 3 of the TN grant.
Significant positive evaluation findings	Pre-post
	• Knowledge of fruits and vegetables
Grantee conclusion(s) about intervention effectiveness	Overall there were significant improvements in knowledge but no changes in attitudes towards fruits and vegetables. However attitudes towards fruits and vegetables were largely positive pre-intervention. Additionally, the frequency of serving noted vegetable subgroups, measured by production records submitted by participating schools did not change, pre or post.
Lessons learned	Partnering with other agencies such as SDSU Extension and DRA helped to leverage resources and expand work that would not be possible with a single grant.



2016 Wisconsin (WI) Team Nutrition Training Grant		
	Grant amount	\$497,977
	Training and Technical Assistance Interventions	• Training school nutrition professionals on culinary techniques to improve menu offerings • Training school nutrition professionals on communications strategies to encourage meal participation • Trainings for school staff, parents and community members on LWPs
	Nutrition Education Interventions	• Whipping Up Wellness student chef competition • Serving Up MyPlate Taste Testing Sub-grants • Let's Plant Classroom Gardens Sub-grants
	Healthy Food Environment Interventions	• Training school nutrition professionals on behavioral economics to improve school meal participation • Provide SFAs with Local Wellness Policy (LWP) resources
	Significant Positive evaluation findings	Pre-post
		3 interventions: One or more positive and significant finding
		3 interventions: No significance tests
		No outcome evaluation
	Lessons learned	2 interventions: No outcome evaluation
		✓ No Lessons Learned described at the grant level.
	Sustainability	WI TN will continue several projects in the coming years through collaboration with other state agencies. The WI Department of Public Instruction (DPI SNT) is committed to continuing the Whipping Up Wellness, WI Student Chef Competition. Several resources that were created as a part of the <i>Wisconsin School Meals Rock!</i> campaign are available in hard copy and electronically on the DPI SNT website. Smarter Lunchroom trainings and culinary trainings will continue as part of the Quality Meal Improvement courses that were proposed in the 2019 WI TNTG, and WI TN will continue to collaborate with other state agencies on the Healthier Schools Workshop.
	Transferability	The materials and resources developed to provide training and technical assistance to school nutrition professionals could be used by other states, either directly or adapted with minor modifications, such as removing specific state branding, or for example, modifying the <i>Let's Plant</i> curriculum and evaluation tools for each states' to local foods.

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Training for School Nutrition Professionals on Behavioral Economics	
Project description (key modes)	- Six trainings on behavioral economics to school nutrition directors and frontline staff aimed at improving school meal participation - Directors completed Smarter Lunchroom Training Action Plans to identify strategies to implement in their schools - Sub-grants of up to \$200 were made available to SFAs that attended trainings and completed action plans
Target participant(s)/ Reach	151 school nutrition professionals attended a training 55 SFAs were awarded sub-grants
Significant positive evaluation findings	Pre-post
	<i>Data analyzed for sub-grant only schools using grantee developed Smarter Lunchrooms Data Collection Form</i> Fruit servings selected by students
Grantee conclusion(s) about intervention effectiveness	Smarter Lunchroom Trainings resulted in an increase in the number of Smarter Lunchroom strategies implemented by schools. However, the availability of the funding to implement Smarter Lunchroom strategies did not increase scores on the Smarter Lunchroom Self-Assessment Scorecard compared to those that only received training. Additionally, schools showed no gains in vegetable servings or white milk selected by students and a decrease in student lunch participation. Many schools noted, however, that this decrease could have been due to numerous external factors such as weather, student illness and class field trips.
Lessons learned	While the Smarter Lunchrooms Self-Assessment Scorecard serves as a useful assessment tool for schools, it is not a reliable tool to measure intervention outcomes. A data collection period of greater than one week would be more appropriate to determine the impact of certain Smarter Lunchroom strategies, such as participation in school meals.

Training school nutrition professionals on culinary techniques to improve menu offerings	
Project description (key modes)	- Four WI TN MyPlate recipes featuring targeted vegetable sub-groups for use in school meals programs and for use in culinary skills trainings - A 1.5 hour skills-based culinary training for school nutrition professionals with a focus on preparing a wider variety of fresh fruits and vegetables, tips for including the four new MyPlate recipes and using herbs and spices in their school nutrition programs
Target participant(s)/ Reach	All WI SFAs were invited to attend the training through bi-monthly emails 40 school nutrition professionals attended the training
Significant positive evaluation findings	Pre-post
	No significance tests
Grantee conclusion(s) about intervention effectiveness	An evaluation was administered pre- and post-training to measure confidence on a number of preparation skills, and again six months after the training. Thirty-three participants completed a post-training survey and only 8 completed the 6-month post-training survey. The culinary training was effective in improving school nutrition professionals' confidence in applying culinary skills learned and preparing menu items from scratch, and utilization of these skills were maintained six months post-training for those that reported.
Lessons learned	Due to low response rate, the results cannot be applied broadly to all culinary training programs and further research is needed to determine if utilization of skills is maintained by school nutrition professionals resulting in greater use scratch cooking in school meals programs. Additionally, it may be beneficial to measure whether preparing more menu items from scratch results in increased student participation of school meals.

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Training school nutrition professionals on communications strategies to encourage meal participation	
Project description (key modes)	- Developed a parent brochure, <i>Get School Breakfast for an A+ Boost</i> to highlight healthfulness and benefits of student participation in the SBP - Developed the <i>Wisconsin School Meals Rock! School Nutrition Outreach Toolkit</i> to provide school nutrition professionals with resources to manage communications with students, parents, and school staff - Biannual surveys were completed by school nutrition professionals to measure school community perception of school meal programs before and after promotional activities
Target participant(s)/ Reach	- The brochure was distributed to over 17,000 parents and school staff. - A hard copy of the toolkit was sent to over 700 SFAs with information on where to find additional <i>Wisconsin School Meals Rock!</i> Promotional materials
Significant positive evaluation findings	Pre-post No significance tests
Grantee conclusion(s) about intervention effectiveness	Results indicated that the <i>Get School Breakfast for an A+ Boost</i> brochure was most utilized by school nutrition professionals. A system to track the number of brochures that actually reached parents was not feasible. The <i>Wisconsin School Meals Rock!</i> campaign resulted in decreasing a negative perception of school meals programs by the school community from 27 percent in 2015 to 13 and 12 percent in 2017 and 2019, respectively. While the customizable resources helped to increase outreach and promotion of school meal programs to students, parents and the school community, school nutrition professionals still encountered barriers with utilizing the ready-to-use resources.
Lessons learned	The development of a system for ensuring that the communication resources reached the intended audience and a method for providing user feedback would be helpful in assessing effectiveness of the resource.

Whipping Up Wellness student chef competition	
Project description (key modes)	- An annual event where teams of middle and high school students compete to develop a nutritious, student-friendly recipe that can be incorporated into the school meals program and used at home - Participating teams of students were required to include one of the targeted vegetable subgroups each year in their recipe. - All qualifying recipes were included in the annual Whipping Up Wellness cookbook - Teams with the top five recipes were invited to compete at a cook-off - Students submitted a survey with applications to the competition that measured changes in confidence with using culinary techniques attitudes towards the targeted vegetable subgroups
Target participant(s)/ Reach	A total of 930 middle and high school students participated during the grant period
Significant positive evaluation findings	No outcome evaluation No outcome evaluation [post-test only]
Grantee conclusion(s) about intervention effectiveness	The cooking competition increased student confidence in using basic cooking techniques and positively influenced preferences for vegetables from two of the targeted vegetable subgroups. These results suggest that cooking programs may be effective in improving student food preparation skills and preferences for healthier foods.
Lessons learned	The majority of entries were from students already enrolled in a class where cooking techniques and nutrition information were being taught. Future interventions should investigate the impact of such programs on students without prior knowledge of and experience with basic cooking techniques.

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Serving Up MyPlate Taste testing	
Project description (key modes)	- Taste testing sub-grants provided \$3 per student for third and fourth grade teachers to implement nutrition education and conduct taste testing of three vegetable sub-groups in classrooms - Teachers implemented the “We Are What We Eat” lessons from <i>Serving Up MyPlate: A Yummy Curriculum</i> - Taste test recipes featured foods from the dark green, red/orange, and beans/peas subgroups - Recipe cards for the recipes tasted were provided to teachers for students to share with their families
Target participant(s)/ Reach	472 third and fourth grade students participated 3rd and 4th grade teachers delivered nutrition lessons and taste testing. (Number of classrooms not reported)
Significant positive evaluation findings	Pre-post - Knowledge of MyPlate food groups - Student attitude toward legumes - Self-reported consumption of dark green vegetables
Grantee conclusion(s) about intervention effectiveness	Nutrition education and taste testing activities were effective in improving student nutrition knowledge as well as favorability and selection of foods from the targeted vegetable subgroups.
Lessons learned	Results suggest that nutrition education along with taste testing could apply to settings outside of the classroom, such as the school cafeteria, to increase selection of targeted foods. Future interventions should investigate the impact of nutrition education on student nutrition knowledge, attitudes, and behavior with and without taste testing.

Let's Plan Classroom Gardens	
Project description (key modes)	- Provide classroom garden sub-grants to fifth and sixth grade classrooms to increase student nutrition knowledge and favorable attitudes towards fruits and vegetables - Classrooms implemented the <i>Let's Plant</i> lessons to students on MyPlate and local foods, incorporating hands-on gardening and taste testing activities - Schools received up to \$1,500 for individual classrooms and \$2,000 for joint classrooms to implement the sub-grant activities
Target participant(s)/ Reach	1443 fifth and sixth grade students participated - Number of classrooms not reported
Significant positive evaluation findings	Pre-post - Student knowledge of MyPlate - Student identification of foods not grown in Wisconsin - Student attitudes towards carrots, sugar snap peas, Swiss chard, black beans, lentils, and tomatoes
Grantee conclusion(s) about intervention effectiveness	Nutrition education along with taste testing and gardening activities in the classroom were effective in improving student nutrition knowledge as well as attitudes and behaviors towards vegetables.
Lessons learned	Future interventions should investigate the impact of each individual component—nutrition education, taste testing, and gardening activities—on student nutrition knowledge, attitudes, and behavior towards fruits and vegetables.

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Provide SFAs with Local Wellness Policy (LWP) resources	
Project description (key modes)	- Provide SFAs with LWP resources to increase support for healthy school environments - Revised the <i>Wisconsin Wellness: Putting Policy into Practice</i> toolkit that was developed under the 2012 TN Training Grant to align with new regulatory requirements to provide information on creating a comprehensive wellness policy that establishes a framework of accountability and best practices to help SFAs create strong wellness policies
Target participant(s)/ Reach	The toolkit was sent to over 700 SFAs in hard copy
Significant positive evaluation findings	No outcome evaluation
	No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	The toolkit serves as a resource for SFAs to assist them with developing comprehensive wellness policies that meet the requirements. Data was not collected on utilization of the toolkit or barriers to its use. However, individual feedback obtained from users indicated overall satisfaction with the toolkit. Specifically, users appreciated the easy to follow format and inclusion of best practice strategies.
Lessons learned	Not described.

Trainings for school staff, parents and community members on LWP	
Project description (key modes)	- Provide SFAs with LWP resources to increase support for healthy school environments through four 7-hour school wellness trainings that were held during the grant period. - Three were annual meetings for participants to develop comprehensive wellness policies for successful implementation, working in teams to develop an action plan for implementing their wellness initiatives - The fourth training was a large one-day school wellness summit that included breakout sessions featuring best practices and innovative strategies in the areas of nutrition, physical activity, and parental and community involvement.
Target participant(s)/ Reach	Trainings were attended by a total of 435 school nutrition professionals, school nurses, school administrators, teachers, community partners, and parents
Significant positive evaluation findings	Pre-post
	No significance tests
Grantee conclusion(s) about intervention effectiveness	The wellness policy trainings were an effective method to provide school wellness leaders with information and resources as evidenced by participant satisfaction. Over the grant period, six schools increased their score on the CDC's School Health Index Module 2 (question N.1) and eight schools increased their score on the CDC's School Health Index Module 8 (question N.1). In addition, participants who attended the large one-day school wellness summit reported a high level of satisfaction with the overall training. The limited number of schools that increased their score using the CDC's School Health Index suggests that this measure does not serve as a reliable tool to measure intervention outcomes.
Lessons learned	Wellness policy trainings may not be the best method for schools to apply the best practices and strategies learned. It would be beneficial to determine the most effective method that provides schools the ability to implement goals and strategies to improve their school wellness environment.

Child Care *Focused*



Child Care-Focused Grants: Improve the nutritional content of meals and snacks offered in child care centers and family day care homes participating in the Child and Adult Care Food Program (CACFP) to be consistent with healthy eating patterns and to assist young children with meeting the 2015-2020 *Dietary Guidelines for Americans*.

Profiles for FY 2016 grantees that used their TNTG funds to support child care-focused interventions include:

- Arkansas
- Colorado
- Kansas
- Michigan
- Nebraska

On the next page is an index of child care-focused interventions, organized by strategy (training and technical assistance, nutrition education, and healthy food environment) and State. The index also indicates whether there were any significant findings from the evaluation and the page number for the intervention table in the grant profile.

Child Care

Focused



Intervention	Significant Findings	Appendix A Page Number
Training and Technical Assistance		
<i>Arkansas</i>		
Social media support	No	68
Web-based training on SEED and WISE	No	68
<i>Colorado</i>		
Culinary coaching	Yes	71
Group Culinary Training	Yes	70
<i>Kansas</i>		
At-Risk Meals Cycle Menu Toolkit	No	76
Training on CACFP meal patterns and best practices for child care programs	Yes	74
Workshops (3 <i>Team Up for Success Workshops</i>) to assist CACFP sponsors in implementing the new meal pattern	Yes	74
<i>Michigan</i>		
Dissemination of information on best practices through 15 Healthier Child Care Environment success stories	No	79
State-Level TN Partner Committee	No	79
Training/resources on creating healthier environments/Improving nutritional content of meals	Yes	78
<i>Nebraska</i>		
CACFP Online Training	Yes	81
Culinary workshops	Yes	82
Nutrition Education		
<i>Arkansas</i>		
Community nutrition engagement	No	68
Sensible Eating and Educational Development (SEED)	Yes	67
Together, We Inspire Smart Eating (WISE)	Yes	67
<i>Kansas</i>		
Discover My Plate and Power Panther Preschool nutrition education curricula	Yes	75
Family, Fun, Food and Fitness events for families	No	76
Grow it, Try it, Like it gardening curriculum	Yes	74
Healthy Food Environment		
<i>Colorado</i>		
Grow It! Try It! Like It! & Harvest for Healthy Kids Curriculum	Yes	70
<i>Kansas</i>		
Healthier Child and Adult Care Food Program Award	No	75
<i>Michigan</i>		
Coaching on Healthier Child Care Environment process	Yes	78

Child Care

Focused



Intervention	Significant Findings	Appendix A Page Number
<i>Nebraska</i>		
Ecological Approach to Family Style Dining (EAT-FSD) Curriculum Training	No	83
EatPlayGrow Curriculum	Yes	83
Go NAP SACC: Comprehensive Nutrition Education	No	82
Go NAP SACC: Comprehensive Nutrition Education—Train the trainer	No	82
Physical activity training	No	--
Social media campaign focused on low income families' mealtime behaviors and barrier	No	84

ARKANSAS



Arkansas We Inspire Smart Eating (WISE)		
	Grant amount	\$483,422
	Training and Technical Assistance Interventions	• Web-based trainings based on WISE Classroom Best Practices content or SEED Meal Pattern content • Social media support
	Nutrition Education Interventions	• Sensible Eating and Educational Development (SEED) • Together, We Inspire Smart Eating (WISE) • Community nutrition engagement
	Significant positive evaluation findings	Pre-post
		2 interventions: One or more positive and significant finding
		No outcome evaluation
		3 interventions: No outcome evaluation
	Lessons learned	Most research has focused on the connection between child care and parents in promoting healthy eating. This grant looked at role CNPs can play and found that three background characteristics predicted level of CNP engagement: education, experience, and age.
	Sustainability	WISE and SEED interventions are being sustained through online webinars with content about selected WISE classroom best practices and SEED meal pattern training.
	Transferability	Not described.

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Sensible Eating and Educational Development (SEED)	
Project description (key modes)	• 6-hour in-person training to connect knowledge of CACFP meal requirements and DGAs with the value of the role in the direct consumption of the child • Existing research-based training materials • One-year training provided to two groups of participants
Target participant(s)/ Reach	Child care nutrition professional staff (administrators, cooks, servicers, educators) • 645 participants: administrators (51%), cooks (28%), and other staff (21%)
Significant positive evaluation findings	Pre-post • CACFP meal pattern knowledge • Confidence in implementation of meal patterns • Feelings of nutritional self-efficacy • Classroom nutrition practices • CACFP meal pattern knowledge
Grantee conclusion(s) about intervention effectiveness	The implementation of the SEED curriculum was successful in being implemented state-wide, included a diverse group of participants, and showed improvements in anticipated areas at the end of training. Limited data on gains at the end of the intervention hinted at sustained changes for some subgroups of participants.
Lessons learned	Changes in outcomes were related to baseline levels of variables: Participants with more knowledge of CACFP meal pattern at pre-training gained more knowledge, and participants with more positive nutrient beliefs at pre-training increased in positive beliefs Psychometric study of the grantee-developed assessment of knowledge of meal pattern requirements developed as part of grant demonstrated that the tool detected knowledge change before and after training/education.

Together, We Inspire Smart Eating (WISE)	
Project description (key modes)	• Agricultural literacy curriculum with weekly lessons and Mascot, which is a behavioral economics tool to encourage excitement for fruits and vegetables • Monthly hands-on food experiences with target foods • 6 hour training in best practices • Materials to engage parents and community retail, including monthly parent night materials linked to classroom activities, WISE webpage • One-year intervention provided to two cohorts of participants.
Target participant(s)/ Reach	Child care educators and other classroom staff • 822 participants, including lead teachers (46%), assistant teachers (33%), and other staff (22%)
Significant positive evaluation findings	Pre-post • WISE nutrition beliefs • Feelings of nutritional self-efficacy • WISE nutrition beliefs • Feelings of nutritional self-efficacy • WISE curriculum knowledge (decreased)
Grantee conclusion(s) about intervention effectiveness	Intervention increased nutrition beliefs and nutrition self-efficacy post-training, which have been shown to be linked to appropriate classroom nutrition behaviors. However, participant knowledge of the curriculum decreased by post-intervention. At the end of the intervention, parents reported using healthy mealtime practices, eating the foods targeted by the WISE curriculum, their children consuming fruits and vegetables 1 -2 times a week (as well as unhealthy options at the same frequency), and moderate ratings on their own habits related to eating healthy and resisting the influence of friends/family.
Lessons learned	WISE training was popular with ECE providers and rated as entertaining. However, project was not able to reduce common barriers to implementation of the curriculum, for example, having the right equipment, having sufficient small group time, issues with school rules.

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Web-based Training on SEED and WISE	
Project description (key modes)	10 web-based trainings on selected content from WISE classroom best practices and SEED meal pattern training
Target participant(s)/ Reach	Child care staff Between 5 and 100 participants in webinar online education, across the 10 webinars
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	Not described.
Lessons learned	The web-based training was a strategy for making the SEED and WISE interventions sustainable after the project ended. The project was not able to examine whether the webinars increased knowledge because of technical issues in accessing participant emails.

Social Media Support	
Project description (key modes)	Ongoing mentorship provided through an online support system using an array of social media
Target participant(s)/ Reach	Child care staff Between 5 and 100 participants in webinar online education, across the 10 webinars
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about effectiveness of intervention	Not described.
Lessons learned	Social media support was intended to augment the workshop training. However, the project was not able to engage sufficient ECE or CNP staff in substantive ways despite trying several options for improving engagement.

Community Nutrition Environment	
Project description (key modes)	- Community outreach/education with retail stores - Retail stores provided with handouts for community members - Retail stores asked to display a standup poster of WISE Mascot with target food of the month
Target participant(s)/ Reach	Not described.
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	Plan was to assess benefits of community-wide intervention on ECE programs based on director ratings of nutrition and physical activity healthfulness of their program environment pre- and post; however, directors did not have time to complete survey properly. Partnership between local early childcare and retail shown to be feasible. Most of the retail partners were committed to display Mascot. Numerous staff in stores reported that children recognized the Mascot and that the informational flyers were very popular.
Lessons learned	Partnership between local early childcare and retail shown to be feasible.



Colorado CHOP (Cooking Up Healthy Options with Plants)		
	Grant amount	\$499,707
	Training and Technical Assistance Interventions	• Culinary training classes • Culinary coaching
	Healthy Food Environment	• Grow it, Try it, Like it nutrition curriculum and gardening activities
	Significant positive evaluation findings	Pre-post 3 interventions (training alone and in combination with coaching and curriculum): One or more positive and significant finding
	Lessons learned	✓ Outcomes for children in child care homes stronger than for children in centers. May be because homes more easily can provide opportunities for children to try new fruits and vegetables and because home providers can interact with children more closely ✓ Learned strategies for making taste testing with children go more smoothly (e.g., using roasted vegetables that are more flavorful, easier to chew), starting out with food item children are familiar with).
	Sustainability	CHOP subgrantees plan to continue to invest in and expand their gardens, their efforts with families and visits to farmers' markets. Family events will become an annual tradition in some centers/homes. Data collected during the CHOP intervention will be a valuable tool to describe the impact of a three tiered farm to child care intervention. This will be used to guide the scope of future farm to child care interventions
	Transferability	To continue culinary trainings, which were expensive to offer in-person, found funding to develop online training modules that can be accessed on state website. In future, modules will be combined with in-person half day culinary training on knife skills, using other funding sources. CHOP Culinary Training curriculum materials have been placed in PartnerWeb and are available for use by other states. All of the materials developed during the CHOP grant such as newsletters, cooking tutorial videos, webinars and handouts are available on state website and have been placed in PartnerWeb.

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Culinary Training/Webinars	
Project description (key modes)	1 day (8 hours) of classroom-based culinary training - Culinary training webinars
Target participant(s)/ Reach	Child care providers (homes and centers) - Participating in training only: 117 providers from 58 centers/homes serving 6527 children - Participating in training and subgrants/classroom curricula: 50 providers from 23 centers/homes serving 1085 children - Participating in training, subgrants/classroom curricula, and onsite culinary coaching: 27 providers from 9 centers/homes serving 873 children
Significant positive evaluation findings	Pre-post - Knowledge of effective food service practices related to culinary skills and efficiencies, food storage systems and kitchen work surfaces, and production tools (total number of 10 items correct) - Number of healthy menu options 9-month follow-up: Knowledge of effective food service practices related to culinary skills and efficiencies, food storage systems and kitchen work surfaces, and production tools (total number of 10 items correct)
Grantee conclusion(s) about intervention effectiveness	Knowledge scores did not decrease from immediate posttest to follow-up for two or three content areas. Therefore, it appears that knowledge gained in one day training can be retained over a year. There was no significant difference in level of knowledge retention for providers who only participated in culinary training/webinars and providers who also received coaching and/or subgrants for nutrition curriculum and gardening activities.
Lessons learned	An important factor in success of model was finding partners who were already in other arenas doing the work and who were passionate about the work. The chefs that conducted training had extensive experience teaching scratch cooking to school food service staff and they brought this knowledge and enthusiasm to our trainings. Over the 3 years of the project, the trainings were very streamlined and more targeted to skills participants would use in child care kitchens. CHOP Culinary Trainings were fairly expensive to host which limited the number of trainings that could be offered.

Grow it, Try it, Like it curriculum with hands-on gardening activities	
Project description (key modes)	- Nutrition curriculum lessons - Hands-on gardening activities - Monthly webinars
Target participant(s)/ Reach	Child care providers 112 providers (17 homes and 95 centers) participated in curriculum and gardening and culinary training (but not coaching) 53 centers participated in curriculum and gardening, culinary training and culinary coaching
Significant positive evaluation findings	Pre-post Child care homes that participated in culinary training and nutrition curriculum and gardening activities (but not coaching) - Number of foods children (n = 17) were willing to try; number of foods children reported liking - Overall score (across 5 areas on Mealtime Assessment), score on staff involvement and support Assessment) - Number of healthy menu options Child care centers that participated in culinary training and nutrition curriculum and gardening activities (but not coaching)

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Grow it, Try it, Like it curriculum with hands-on gardening activities	
	• Number of foods children could identify • Overall score (across 5 areas on Mealtime Assessment), score on staff involvement and support, score on signage and communication • Number of healthy menu options Centers that participated in culinary training, and nutrition curriculum and gardening activities, and received culinary coaching • Number of foods children could identify • Overall score (across 5 areas on Mealtime Assessment), score on staff involvement and support, score on menu planning, score on signage and communication • Number of healthy menu options
Grantee conclusion(s) about intervention effectiveness	No significant differences were found between outcomes for children in homes versus centers or children in centers that received culinary coaching or not
Lessons learned	Not described.

Culinary Coaching	
Project description (key modes)	• 3-4 one-hour onsite culinary coaching sessions
Target participant(s)/ Reach	Child care providers with lower scores on the Food Services Checklist at pretest that also attended culinary training • 9 centers received coaching and culinary training
Significant positive evaluation findings	Pre-post • Self-reported use of food service practices that have been shown to increase healthy food and vegetable offerings (culinary skills and efficiencies, food storage systems and kitchen work surfaces, and production tools)—total score and 2 of 3 content areas
Grantee conclusion(s) about intervention effectiveness	The participants in the culinary training model greatly enjoyed the trainings and the opportunity to practice “hands-on” knife skills training. An additional goal of these trainings was to empower the child care cooks since our experience had shown us that cooks are often not respected and valued for the work they do to prepare healthy meals for children.
Lessons learned	Recruitment of Coaches was challenging for all 3 years. Finding individuals who had both the culinary experience as well as CACFP program experience was not an easy task. In the future we will modify our coaching recruitment strategy to include chefs who will attend a CACFP training to gain program knowledge. By the end of the grant we had built a great network of knowledgeable culinary professionals who we can collaborate with on future Farm to ECE projects.



Kansas Team Nutrition Training Grant		
	Grant amount	\$496,623
	Training and Technical Assistance Interventions	- Meal pattern training for CACFP sponsors on meeting CACFP meal patterns and best practices for program participants <i>Team Up for Success Workshops</i> to assist CACFP sponsors in implementing the new meal pattern - Cycle menu toolkit to support implementation of At-Risk
	Nutrition Education Interventions	- Grow it, Try it, Like it gardening curriculum - Discover My Plate and Power Panther Preschool nutrition education curricula - Family, Fun, Food and Fitness events for families
	Healthy Food Environment Interventions	Healthier Child and Adult Care Food Program Award
	Significant positive evaluation findings	Pre-post
		1 intervention: One or more positive and significant finding
		Two-group nonrandomized
		3 intervention: One or more positive and significant finding
		No outcome evaluation
		3 interventions: No outcome evaluation.
	Lessons learned	✓ Best Practices Survey developed for grant appears to be a beneficial instrument to examine change over time for providers and provides findings that can direct future work at KSDE ✓ Examined whether outcomes across centers and homes participating in any trainings were related to number of trainings attended. Sites that participated in 2 or more trainings scored higher on overall score and 5 of 8 subscores on Best Practices Survey. ✓ Is challenging to reach out directly to day care home providers, although day care home providers were eager to try new programs and showcase initiatives they are already implementing at their sites. – Need to develop information management system with contact information for home providers. ✓ Challenging to get providers to apply for subgrant opportunities—providers indicated that main reasons was lack of time to commit to new non-required program, although this was more true for centers than for homes, that appeared to have more flexibility in days' activities. ✓ Traditional in-person training difficult to fit into provider schedules; online training offers more flexibility and was much better received. ✓ Turnover in KSDE staff was a challenge for grant implementation. ✓ Data collection limitations have affected level of analysis possible (small sample sizes that affect power and generalizability, use of retrospective items that may skew response in a positive way)

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Kansas Team Nutrition Training Grant		
	Sustainability	KSDE will continue to develop more trainings into online format to increase access to information. All classes developed with grant have been added to permanent offerings through KSDE training system for CN professionals. Child care providers are encouraged to keep curriculum resources and materials provided during grant and utilize lessons with children in future years. Event planning guide for Family Fun, Food and Fitness Events remains on site with subgrantees to assist with planning future events.
	Transferability	Majority of materials developed as part of the grant have been made available on the KSDE CNW webpage and/or on PartnerWeb and in the ICN Child Nutrition Sharing Site. Trainings developed under grant are transferable for other state agencies to use, including all online trainings and, on request, in-person training materials. Other state agencies could utilize model of assigning staff Registered Dietitians to assist center and home providers in apply for Healthier CACFP Award. At-Risk Toolkit can be used by any sponsor participating in At-Risk Afterschool Meals Program and state agencies can use the resource during pre-approval visits and Administrative Reviews.

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Meal Pattern Training	
Project description (key modes)	Four in-person classes and 6 online classes to train CACFP child care sponsors on meeting CACFP meal patterns and best practices for program participants
Target participant(s)/ Reach	CACFP sponsors 234 sponsors (682 sponsor staff) attended 30 trainings
Significant positive evaluation findings	<i>Pre-post</i> Sponsor knowledge of CACFP meal patterns
Grantee conclusion(s) about intervention effectiveness	Participating in the training had a significant impact on sponsor knowledge of the meal patterns. Although providers whose sponsor participated in training did show improvement on the Best Practices Survey, the improvement was not significantly greater than that among providers whose sponsors did not attend training.
Lessons learned	No evidence that gains in understanding among sponsors who attended training are passed down to the provider level. This may be because sponsors are not consistently providing training to their providers, and/or because other providers are already adhering to the meal plan.

Team Up for CACFP Success Workshops	
Project description (key modes)	- In-person workshops to assist sponsors in implementing new meal pattern including sharing best practices and SMART goal development - Peer-to-peer mentoring during workshops
Target participant(s)/ Reach	CACFP sponsors 60 sponsors (98 sponsor staff) participated in workshops
Significant positive evaluation findings	<i>Two-group randomized</i> - Healthy offerings subscale of the Best Practices Survey (providers whose sponsor attended training gained more than providers whose sponsor did not) <i>Pre-post</i> - Score on Best Practices Survey for providers whose sponsor attended workshops
Grantee conclusion(s) about intervention effectiveness	There is growth over time in the Best Practices scores for providers whose sponsor participated in one or more workshops. Participants in the workshop contributed to an increase in the number of healthy foods offered in their child care settings, over and above number offered by non-participants.
Lessons learned	Lack of significant differences between providers whose sponsor did and did not attend workshops may indicate that all providers are getting support from sponsors on the new meal pattern and/or providers of sponsors who attended workshop might not be receiving consistent support from their sponsor on adhering to the new meal pattern.

Grow it, Try it, Like it Gardening Curriculum and Agricultural Education Materials	
Project description (key modes)	- Subgrants to providers to implement activities in the Grow it, Try it, Like it gardening curriculum - Books from KS Farm Bureau, <i>Kailey's Ag Adventures</i>, which extend Farm to Plate message to include information about farmers and ranchers who produce local foods - Introductory webinar on food safety information, tips for container gardening, gardening curriculum instructions
Target participant(s)/ Reach	Child care centers and day care homes 313 centers/homes participated (serving 9,265 children)
Significant positive evaluation findings	<i>Two-group nonrandomized</i> - Number of nutrition education lessons taught in child care settings (participants versus non-participants) <i>Pre-post</i> - Number of nutrition education lessons taught in child care settings - Availability of local foods and beverage in the meal program

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Grow it, Try it, Like it Gardening Curriculum and Agricultural Education Materials	
Grantee conclusion(s) about intervention effectiveness	There was a trend for a general decline in the number of nutrition lessons offered each year over three years, that is, the initial increase in lessons was not sustained.
Lessons learned	Understanding patterns of local food use may benefit from collecting outcome data strategically timed to align with program participation dates

Discover MyPlate and Power Panther Preschool Nutrition Education Curricula	
Project description (key modes)	- Subgrants to implement one of two preschool nutrition education curricula - Sites could implement one of the curricula or both, in alternating years or only one of the curricula
Target participant(s)/ Reach	Child care centers and day care homes - Discover MyPlate: 78 centers and homes (serving 2,500 children) - Power Panther Preschool: 62 centers and homes (serving 2,500 children)
Significant positive evaluation findings	Two-group nonrandomized
	- Number of nutrition education lessons taught (providers who did and did not participate in either curriculum) - Mealtime environment subscale score (providers who did or did not participate in Discover MyPlate)
	Pre-post
	- Number of nutrition education lessons taught - Frequency with which local foods are offered
Grantee conclusion(s) about intervention effectiveness	Results did not vary based on whether or not provider had used TN materials previously, but this is likely because most providers had used TN materials so there was little variability. In addition to the significant finding on the mealtime environment, participants in Discover MyPlate had higher scores than non-participants on best practices, and appears to be a promising program to improve the child care environment and opportunities to educate children on nutrition topics.
Lessons learned	Providing sub-grants to child care centers and daycare home providers assists in implementing nutrition education curriculum to children under their care.

Healthier CACFP Award	
Project description (key modes)	- One-on-one technical assistance to encourage day care centers to implement best practices and apply for the <i>Healthier Child and Adult Care Food Program Award</i> - Awarded sites recognized in CNW Monthly Updates and KSDE Sunflower Spotlight recognition program website to highlight best practices, encourage other sponsors to implement practices to improve nutritional quality of meals and snacks in the CACFP, increase wellness efforts, and meet recommendations in DGAs
Target participant(s)/ Reach	Child care centers and day care homes 8 child care centers and 26 child care home providers
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	During the grant period, 8 child care centers and 26 day care homes received support and were awarded the honor, which exceeded the target number set out at the beginning of the grant. The project demonstrated successful efforts in achievement the goal
Lessons learned	Having more activities to announce this opportunity or encourage participation may improve performance on this goal in the future.

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At-Risk Afterschool Meals Toolkit	
Project description (key modes)	- Menu cycle toolkit To support implementation of At-Risk Afterschool Meals Program - Toolkit includes hot and cold supper and snack cycle menus, recipes, production records, sample social media posts to increase recognition of program, nutrition education targeted to parents and community members
Target participant(s)/ Reach	At-Risk Afterschool Meals Program participants
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	Toolkits were distributed to all 73 At-Risk program participants. There was a 100% decline in the number of pre-approval findings. There were 443 page views during the grant period.
Lessons learned	Developing a toolkit for At-Risk Afterschool Meal Program participants and those interested in beginning the program provides tools and resources to successfully implement the program.

Family Fun, Food and Fitness Events	
Project description (key modes)	- Guidance and technical assistance on implementing a Family Fun, Food and Fitness event that reinforces nutrition and physical activity messaging from child care center to the home - Funding for events to mobilize parents, teachers, caregivers, foodservice staff and community members and capitalize on opportunities for adults to model healthy behaviors
Target participant(s)/ Reach	Child care centers and day care homes received subgrants 86 child care centers participated (serving 6,000 children)
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	Not described.
Lessons learned	More examination of activities to announce this opportunity or encourage participation might improve performance on this goal in the future.



Michigan Healthier Child Care Environment Program		
	Grant amount	\$498,291
	Training and Technical Assistance Interventions	• Coaching for child care programs on implementing Healthier Child Care Environment process • Training and resources for child care providers on creating healthier environments and improving nutritional content of meals • Dissemination of information on best practices through 15 Healthier Child Care Environment success stories • CACFP TN Partner Committee to establish provider buy-in, promote strategies and resources statewide
	Significant positive evaluation findings	Pre-post
		2 interventions: One or more positive and significant finding
		No outcome evaluation
		2 interventions: No outcome evaluation
	Lessons learned	✓ Both providers and coaches perceived the multi-component Healthier Child Care Environment program as not difficult to implement and quite effective.
	Sustainability	Not described.
	Transferability	Not described.

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Coaching for Child Care Providers on the <i>Healthier Child Care Environment</i> Program	
Project description (key modes)	• Training of university Extension educators as coaches • Coaching for child care homes (average of 8.5 visits, 9 hours of coaching), including \$200 stipend for nutrition education materials • Monthly conference calls with MSU Extension educators to problem solve, share successes, monitor overall grant progress
Target participant(s)/ Reach	• 37 Michigan State University Extension Educators trained • 90 home child care providers enrolled in coaching
Significant positive evaluation findings	Pre-post • Meal pattern scores for breakfast and lunch • Nutrition behaviors (self-assessed) for fruits and vegetables; meats, fats and grains; beverages; menus and variety • Nutrition support practices and policies (self-assessed)—feeding practices; foods offered outside of regular meals and snacks; support for healthy eating; nutrition education; nutrition policy • Breastfeeding support, education and policies (self-assessed)—breastfeeding support, breastfeeding education, breastfeeding support policy • Knowledge of CACFP requirements
Grantee conclusion(s) about intervention effectiveness	Most of the best practices significantly increased and no practices decreased. Majority of child care providers were satisfied with all of the program components and that they would recommend the program to other providers. Both the extension educators and the child care providers perceived the program as not difficult to implement and quite effective. The best practices and CACFP knowledge items that did not increase may be because of a ceiling effect at baseline.
Lessons learned	Although each provider picked a few practices to focus on, other practices also increased, suggesting that providers may only need to work on improving a few best practices and others will indirectly improve. To maximize participation, the monthly conference calls were combined with already existing, required monthly calls for MSU Extension educators.

Training for providers on healthier environments, nutritional content of meals	
Project description (key modes)	• In-person training
Target participant(s)/ Reach	Child care providers • 300 providers
Significant positive evaluation findings	Pre-post • Knowledge of current physical activity and meal patterns in child care setting • Knowledge of CACFP meal pattern requirements
Grantee conclusion(s) about intervention effectiveness	Overall, the regional training was valuable at improving providers' knowledge of available parental resources. The majority of providers increased their scores on all 9 items about knowledge of parental resources, 6 items about knowledge of the CACFP meal pattern requirements and supporting resources.
Lessons learned	At baseline, providers indicated they were quite knowledgeable about the health implications of nutrition practices and physical activity in child care. Pre- and post-test responses increased when: • The tests were double sided (pre-test on one side and post-test on the other) • Continuing education credits were awarded after pre and post tests were submitted • Providers were encouraged to submit completed surveys as they exited the doors rather than leaving them on conference chairs or tables

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Statewide Team Nutrition Partner Committee	
Project description (key modes)	Biannual meetings of committee of key stakeholders to share strategies and resources to assist home-based child care providers to improve the nutritional quality of meals and snacks served
Target participant(s)/ Reach	Committee included representatives from state DOE, state DHHS, Association for Child Development, MSU Extension, Campfire 4C, Mid-Michigan Child Care Food Program, United Dairy Industry of MI Met 6 times across grant period
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	Surveys of attendees indicated that partners did share information and resources from the meetings with child care providers. Also, partners believed that there was value in having the meetings.
Lessons learned	For maximum effectiveness, it is important to have sufficient TN materials available to share, and to forward materials directly to partners when new materials become available. Contact individual stakeholders on a quarterly basis to maintain their engagement throughout the grant period.

Dissemination of best practices	
Project description (key modes)	- Developed 15 Healthier Child Care Environment childcare success stories, including coaching by MSU extension educators - Distributed stories in video and print
Target participant(s)/ Reach	15 child care providers who participated in the Healthier Child Care Environment program
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about intervention effectiveness	The videos were viewed 296 times during the intervention period, indicating widespread interest.
Lessons learned	Hire a professional videographer that is comfortable working with children. Share videos with stakeholders to further promote the Michigan Healthier Child Care Environment program.



Nebraska Team Nutrition Training Grant		
	Grant amount	\$476,943
	Training and Technical Assistance Interventions	• Online training on 2015 DGAs and new CACFP meal pattern requirements for child care providers • Culinary training for child care cooks • Physical activity training^a
	Healthy Food Environment Interventions	• Ecological Approach to Family Style Dining (EAT-FSD) • EatPlayGrow nutrition and physical activity curriculum • Nutrition and Physical Activity Self-Assessment (Go NAP SACC): Training for child care providers • Nutrition and Physical Activity Self-Assessment (Go NAP SACC): Train the trainer • Social media campaign on home mealtime behaviors and barriers
	Significant positive evaluation findings	Pre-post
		3 interventions: One or more positive and significant finding
		2 interventions: No positive and significant finding
		1 intervention: No significance tests
		No outcome evaluation
		2 interventions: No outcome evaluation.
	Lessons learned	✓ The development of online modules expands the reach of NDE-TN programming for rural providers, parents and coaches, and the integrated model of online training and coaching was an effective use of resources. Online modules help maintain consistency in training content and allow for targeted feedback from participants to support adaptations. ✓ Partnerships with community organizations maximize capacity and budgets for sustained nutrition education work in the state. ✓ Social media is a quick, low cost and direct way to deliver programming to target audience.
	Sustainability	Online learning modules will continue to be offered to CACFP providers after the grant ends. The professional development for the Go NAP SACC training team in the state will allow for continued high quality training for child care providers. Social media programming to disseminate TN/USDA materials will be able to be sustained because it is low cost and quick.
	Transferability	All of the developed online training materials and modules on the state Moodle site and will be available to anyone. Links will be shared with the USDA/TN best practices sharing center. For evidence-based programs, updated trainings and assessments will be available online.

^a No descriptive information or findings were available in the grantee report for this intervention so an intervention level table is not included in the Nebraska profile.

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Online Training on 2015 DGAs and New CACFP Meal Requirements and Go NAP SACC	
Project description (key modes)	9 online training modules offered on state online learning management platform Moodle (topics: identifying whole grains, fruits & vegetables; meats & meat alternatives; serving mild; physical activity; reading nutrition labels; farm to preschools; snacks; breakfast; feeding infants. 3 additional training modules on family style dining; 2 additional modules on introducing solid foods to infants 5 additional supplemental modules to assist participants in integrating updated CACFP meal patterns - Recording of 6 trainings for on-line training modules and virtual coaching 18 webinar trainings that reviewed the different meal components and allowed participants to ask questions to state CACFP specialists
Target participant(s)/ Reach	CACFP trainings 500-553 child care providers participated in each of the 4 modules that were the focus of the grant 83-343 child care providers participated in each of the 5 supplemental modules on implementing CACFP meal pattern Go NAP SACC recordings 15 child care providers from 12 sites completed the online training 91 providers completed the Introducing Solids modules Webinars 10 – 33 providers participated in 18 webinar trainings
Significant positive evaluation findings	<i>Pre-post</i> Knowledge of fruits and vegetables, meat and meat alternatives, serving milk, and whole grains: Largest gains were for whole grains, followed by fruits and vegetables (at end of intervention and at one-year follow-up).
Grantee conclusion(s) about intervention effectiveness	Overall, online trainings proved to be successful method for delivering training to the Nebraska CACFP-participating audience. Although in-person trainings are still the preferred training medium, online learning can be incorporated into future training methods. Participants demonstrated substantial increase in knowledge for all modules at the end of training. One year later, participants achieved higher knowledge scores than they obtained immediately after training, for all modules except milk, indicating lasting changes in knowledge; however, the knowledge scores decreased from the scores from the end of training. Additional supplemental training available online also showed significant knowledge, attitude and practice changes.
Lessons learned	The CACFP online trainings were highly effective in the short term, and more effective in the long-term than the traditional, in-person trainings, when the knowledge scores for the online participants were compared with an annual CACFP knowledge assessment. Virtually no significant differences were found between overall knowledge gains for center-based versus family-based staff, between attendees from for-profit institutions versus nonprofit institutions, or between attendees from rural versus non-rural sites Significant differences based on where food was prepared: providers that prepared food on-site had significantly higher knowledge scores compared to providers that did not. The online Go NAP SACC online modules allowed the state to expand training and virtual coaching to locations without a resident trained Go NAP SAC trainer.

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Culinary Workshops	
Project description (key modes)	2.5 hour culinary workshop (5 workshops in 5 cities)
Target participant(s)/ Reach	CACFP child care cooks 100 cooks participated in culinary training in five locations across state
Significant positive evaluation findings	Pre-post Number of healthy menu options increased
Grantee conclusion(s) about intervention effectiveness	Results of the culinary training were mixed: knowledge declined but confidence increased for some subgroups (family child care providers, non-rural providers). Since increased confidence in culinary skills was the goal of the intervention, the intervention can be seen as mostly successful.
Lessons learned	Not described.

Go NAP SACC: Train-the Trainer	
Project description (key modes)	- Train the trainer events for Go NAP SACC trainers funded through SNAP-ED, local health departments and non-profit organizations - Training offered 1 times a year
Target participant(s)/ Reach	Existing Go NAP SACC trainers 154 trainers participated in 6 trainings
Significant positive evaluation findings	Pre-post No positive and significant findings
Grantee conclusion(s) about effectiveness	Although no direct outcome evaluation conducted. Indirectly, continued significant outcomes were reported in the pre-post best practice analysis component of the program (see findings for Go NAP SACC training). Continued Go NAP SACC Train-the Trainer activities and updates are an integral component of program integrity.
Lessons learned	Community partnerships were highly successful in offering the training.

Go NAP SACC: Training for Child Care Providers	
Project description (key modes)	- Up to 6 hours of training on Go NAP SACC 1-3 hours of individual coaching to develop an action plan and determine resource acquisition needs - Go NAP SACC action plan developed by each site and post-assessment conducted 3-5 months after enrollment - Mini-grants for participants that completed their post assessment to purchase materials to improve their nutrition and physical activity environments 4 physical activity trainings
Target participant(s)/ Reach	CACFP child care providers 68 Go NAP SACC trainings—134 family child care providers and 157 child care staff from 164 child care centers participated 60 mini-grants given out 87 providers attended the physical activity trainings
Significant positive evaluation findings	Pre-post No positive and significant finding
Grantee conclusion(s) about intervention effectiveness	Although significance testing was not conducted, both center-based and family-based child care providers increased their use of best practices across all assessment areas. Also, grantee reports that there are published articles from the state's Go NAP SACC program that provide additional information on program effects.
Lessons learned	The grant was successful in providing training to more than the planned number of providers. The grant also updated the Go NAP SACC training materials and the recordings of virtual trainings.

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Ecological Approach to Family Style Eating (EAT-FSD)	
Project description (key modes)	- Web-based professional development training that converted 7 EAT-FSD lessons into 3 online modules - Pilot study: 7-week intervention during which providers received 20 hours of training from Extension coaches
Target participant(s)/ Reach	Child care providers caring for children ages 3-5 years and their families, and the child care director and kitchen staff - Online training: 167 child care providers participated - Curriculum pilot study: 45 child care providers from 11 center and home-based sites, serving 760 children Training for 15 coaches
Significant positive evaluation findings	Pre-post No significance tests
Grantee conclusion(s) about intervention effectiveness	Online modules were successful in holding the attention of the child care providers—majority of providers reported that they could understand the material, that the content of the lessons was relevant to their work, and liked the variety of materials. Participants felt that the lessons increased their confidence level and were highly satisfied with the lessons. Directors of the programs with providers that participated in the intervention felt that the child care staff's knowledge about feeding practices with children increased and that their providers increased their use of responsive feeding practices with children.
Lessons learned	Combining online learning with one-on-one coaching showed to be a beneficial training delivery method. Further examination is needed to fully understand the impacts of this training program.

EatPlayGrow Nutrition and Physical Activity Curriculum	
Project description (key modes)	- Comprehensive nutrition and physical activity curriculum training using the existing curriculum EatPlayGrow, to help providers be able to meet Go NAP SACC-related requirements for nutrition and physical activities 11 lessons that involve nutrition and physical activity delivered through art, active play, story time, and a healthy snack, 5 of which were the focus of the state training - Train the trainer to prepare 15 Extension Educators to take over implementation of EatPlayGrow
Target participant(s)/ Reach	CACFP child care providers serving children 3 – 5 years - Pilot test: 15 center based child care teachers, 3 administrators, and 5 family child care home providers - Statewide training reached 118 child care providers
Significant positive evaluation findings	Pre-post - Children's consumption of fruits - Children's consumption of vegetables - Children's knowledge of fruits - Children's knowledge of vegetables - Children's familiarity for vegetables
Grantee conclusion(s) about effectiveness	Both center-based and family-based pilot participants reported regularly incorporating most of the lesson activities. Almost all pilot participants reported that they planned to incorporate most of the activities in the future. Participants increased in their self-ratings of their confidence incorporating nutrition and physical activity education into their classroom activities and lesson plans, but the improvement was not statistically significant. There was a slight improvement in self-efficacy in their ability to incorporate physical activity into lesson plans.

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EatPlayGrow Nutrition and Physical Activity Curriculum	
	Participants reported that the intervention improved their own knowledge of healthful eating, trying new foods, amount of physical activity, and the importance of physical activity and movement. They also agreed that the pilot improved children's knowledge of healthy eating, willingness to try new foods, amount of physical activity, and knowledge about movement and physical activity. The Train-the-Trainer activity means that there are trainers available across the state, who are also Go NAP SACC trainers.
Lessons learned	Not described.

Social Media Campaign	
Project description (key modes)	Social marketing campaign on Facebook and Twitter to deliver nutrition education. Three ads (in English and Spanish) were posted every week on both platforms, and the type of ad varied (text only, single image with text, multi-image (Twitter only),
Target participant(s)/ Reach	Ads targeted low-income families. Average number of engaged page views per day was 7 and the average number of unique visitors per week was 40. Daily total reach was 636.
Significant positive evaluation findings	No outcome evaluation No outcome evaluation
Grantee conclusion(s) about effectiveness	Using paid advertisements on both Facebook and Twitter greatly increased traffic to the posts and more people interacted with the platforms. Both Twitter and Facebook can be used effectively to reach a large audience quickly.
Lessons learned	It was difficult for people to interact with the content—both platforms had low rates of interaction, and the only way to generate large numbers of interactions would be through very large amounts of advertising. No major differences in the ability to reach the target evidence related to the type of content the posts contain. Evidence also suggests that advertising campaigns do not significantly change the amount of “organic” users who interact with the platforms. Twitter appeared to be more cost-effective than Facebook for advertising through posts. Twitter allows you to target a more specific audience than Facebook does, which may be helpful for researchers when they targeting specific populations. However, Facebook has more detailed analytics than Twitter offers, so the effectiveness of Facebook is easier to evaluate.

Appendix B. Supporting Tables

Table B.1. Distribution of School-Focused Interventions, by Strategy and Target Populations

Target Population	Training and Technical Assistance		Nutrition Education		Healthy Food Environment	
	Number of Interventions	Percentage of Interventions	Number of Interventions	Percentage of Interventions	Number of Interventions	Percentage of Interventions
SFA Staff	0	0	0	0	1	10
School Wellness Committees	3	27	0	0	1	10
Food service staff	4	36	0	0	3	30
Teachers	0	0	1	8	0	0
Students	0	0	4	33	0	0
SFA Staff, Food Service Staff	1	9	0	0	2	20
Food service staff, Students	0	0	1	8	2	20
School Wellness Committees, Food service staff, Teachers, Students, Parents	0	0	0	0	1	10
Teachers, Students	0	0	2	17	0	0
Students, Parents	0	0	2	17	0	0
Food service staff, Teachers, Students, Parents, Community members	0	0	1	8	0	0
Food Service Staff, Parents	1	9	0	0	0	0
Food service staff, Teachers, Students	0	0	1	8	0	0
Food service staff, Teachers, Parents, Community Members	1	9	0	0	0	0
Food service staff, Teachers, Parents, Community Members, SFA Staff, School Wellness Committees	1	9	0	0	0	0
Total Number Intervention Type	11		12		10	

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Table B.2. Modes for Delivering School-Focused Interventions, by Strategy

Modes	Training and Technical Assistance Interventions		Nutrition Education Interventions		Healthy Food Environment Interventions	
	Number	Percentage	Number	Percentage	Number	Percentage
Classroom curriculum	0	0	8	67	1	10
Cafeteria activities (for example: salad bar events, HOM, cafeteria coaching)	0	0	6	50	0	0
Taste testing fresh fruits and vegetables or recipes showcasing fruits and vegetables	0	0	6	50	1	10
Parent and/or community events (includes student chef competition)	0	0	4	33	0	0
Take home materials for students or families (for example: parent newsletter, web resources, cookbook with student developed recipes)	0	0	4	33	0	0
In person training (including conferences)	7	64	2	17	8	80
Web based training (webcast, webinars)	1	9	0	0	2	20
Materials/resources provided/distributed (web based, printed, newsletters)	4	36	2	17	4	40
Coaching/mentoring/technical assistance	2	18	0	0	8	80
Assisting schools with grant applications to support improvements in school environment	0	0	0	0	1	10
Hold a School Wellness Conference	1	9	0	0	0	0
Total Interventions	11		12		10	

Note: Interventions can use more than one mode; therefore the number of interventions by mode does not sum to the total number of interventions for the strategy (training and TA, nutrition education, healthy food environment). Percentages are calculated as the number of interventions using a given mode divided by the total number of interventions for the intervention strategy. Sample = 8 grantees.

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Table B.3. Modes for Delivering Child Care-Focused Interventions, by Strategy

Modes	Training and Technical Assistance Interventions		Nutrition Education Interventions		Healthy Food Environment Interventions	
	Number	Percentage	Number	Percentage	Number	Percentage
Classroom curriculum	0	0	3	50	2	22
Taste testing fresh fruits and vegetables or recipes showcasing fruits and vegetables	0	0	3	50	0	0
Parent and/or community events (includes student chef competition)	0	0	1	17	0	0
Take home materials for students or families (for example: parent newsletter, web resources, cookbook with student developed recipes)	0	0	1	17	0	0
Social media campaigns	1	8	0	0	1	11
In person training (including conferences)	5	42	2	33	5	56
Web based training (webcast, webinars)	3	25	1	17	2	22
Materials/resources provided/distributed (web based, printed, newsletters)	2	17	3	50	0	0
Coaching/mentoring/technical assistance	2	17	1	17	4	44
State level TN partner committee formed	1	8	0	0	0	0
Total Interventions	12		6		9	

Note: Interventions can use more than one mode; therefore the number of interventions by mode does not sum to the total number of interventions for the strategy (training and TA, nutrition education, healthy food environment). Percentages are calculated as the number of interventions using a given mode divided by the total number of interventions for the intervention strategy. Sample = 5 grantees.

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Table B.4. School-Focused Training/Technical Assistance Interventions with Evaluations and Evaluation Findings

Interventions	Measures	Findings
<i>Culinary Training</i>		
MO: Culinary Skills Institute	School nutrition professional knowledge of culinary WI skills	Pre-post gains were not tested for statistical significance.
	School nutrition professional confidence in using culinary skills/knowledge taught at training	Pre-post gains were not tested for statistical significance.
	School nutrition professional intention to use new skills and knowledge	Pre-post gains were not tested for statistical significance.
	School nutrition professional attitude regarding fresh fruit and vegetable use in school meals	Pre-post gains were not tested for statistical significance.
NV: Culinary Training	School foodservice staff knowledge of activities covered in training	Pre-post gain not tested for significance
	School foodservice staff confidence of skills covered in training	Pre-post gain not tested for significance
	School foodservice staff perceptions on how well the trainings prepared them to do student taste testing	Pre-post gain not tested for significance
WI: Training school nutrition professionals on culinary techniques	School nutrition professional confidence in using culinary skills and techniques taught at training	Pre-post gain not tested for significance
<i>School Wellness Training</i>		
NV: School Wellness Policy Training	School wellness coordinator's knowledge about the connection between school wellness and academic success	Significant pre-post gain in one of the two regional trainings
	School wellness coordinator's knowledge about school wellness policy	Significant pre-post gain (participants of both trainings)
	School wellness coordinator's confidence in their ability to implement school wellness policy	Pre-post gain not tested for significance
NV: School Wellness Implementation Reporting	Improved reporting by Nevada schools for the annual school wellness implementation report	Pre-post gain not tested for significance
NV: School Wellness Policies	School wellness coordinators' knowledge about Nevada's school wellness policy	Significant pre-post gain
	School wellness coordinator's knowledge about strategies to improve implementation of the strategies at their school	Significant pre-post gain
	School wellness coordinators' confidence in ability to improve implementation of wellness policy at their school	Significant pre-post gain
WI: Trainings for school staff, parents and community on LWPs	Schools' scores on the CDC School Health Index Module 2, question N.1	Pre-post gain not tested for significance
	Schools' scores on the CDC School Health Index Module 8, question N.1	Pre-post gain not tested for significance

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Interventions	Measures	Findings
Communications		
WI: Training school nutrition professionals on communications strategies	Utilization of resources by school nutrition professionals	No findings reported
	School nutrition professionals' assessment of school community perception of school meal programs	Pre-post gain not tested for significance

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Table B.5. School-Focused Nutrition Education Interventions with Evaluations and Evaluation Findings

State: Name of Intervention	Outcome Measure	Findings
IA: Healthy Schools—Healthy Students	• Student nutrition knowledge	Significant effect (gain)
	• Student fruit attitudes	No significant effect
	• Student vegetable attitudes	No significant effect
	• Student fruit preferences	No significant effect
	• Student vegetable preferences	No significant effect
	• Student awareness of MyPlate (food groups)	Significant effect (gain)
	• Student fruit and vegetable consumption	No significant effect
	• Number of servings of fruits, vegetables, and milk	Pre-post results not tested for significance
	• Smarter Lunchroom Score	Pre-post gain not tested for significance
IN: Power up with Produce	• Preferences for fruits and vegetables	Significant effect (participants did not change and non-participants decreased)
	• Knowledge of recommended food groups	Significant effect (participants > non-participants)
	• Knowledge of recommended plate portion for fruits and vegetables	Significant effect (participants > non-participants)
	• Amount of fruit served at breakfast	Significant effect (intervention schools decreased more)
	• Amount of dark green vegetable subgroup served at lunch	Significant effect (increase)
	• Amount of starchy vegetable subgroup served at lunch	Significant effect (decrease)
	• Amount of all vegetables without starchy served at lunch	Significant effect (increase)
	• Amount of dark green vegetable subgroup served at lunch	Significant effect (increase)
	• Variety of total vegetables served at lunch	Significant effect (increase)
	• Variety of total vegetables excluding starchy served at lunch	Significant effect (increase)
	• Variety of dark green vegetables served at lunch	Significant effect (decrease)
	• Variety of other vegetables served at lunch	Significant effect (increase)
	• Student fruit neophobia	No effect
	• Student familiarity with fruits and vegetables	No effect
	• Student self-reported daily variety of fruits and vegetables consumed	No effect
	• Student self-reported frequency of eating fruits and vegetables	No effect
	• Student self-reported efforts to try new fruits or vegetables	No effect
	• Student ability to identify nutrient-dense fruits and vegetables	No effect
	• Amount of fruit served at lunch	No effect
	• Amount of red/orange vegetables served at lunch	No effect
	• Amount of other vegetables served at lunch	No effect
	• Amount of legumes at lunch	No effect
	• Variety of red/orange served at lunch	No effect
	• Variety of legumes served at lunch	No effect

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State: Name of Intervention	Outcome Measure	Findings
IN: Family and Consumer Sciences Curriculum	• Teachers Knowledge of DGAs	Significant effect (increase)
	• Teacher Self-efficacy to teach nutrition	Significant effect (increase)
	• Number times student tried a new vegetable	Significant effect (increase)
	• Number times student tried a fruit	Significant effect (increase)
	• Students' familiarity with fruit and vegetable	No effect
	• Student preferences of fruit and vegetable	No effect
	• Student affinity towards vegetables	No effect
	• Student affinity towards fruit	No effect
	• Student self-reported daily intake of fruit (frequency)	No effect
	• Student self-reported daily intake of vegetable (frequency)	No effect
	• Student knowledge of Dietary Guidelines	No effect
MO: Rainbow Days	• Students like to eat fruit	Significant pre-post gain
	• Students like to try new fruit	No Significant pre-post gain
	• Students like to eat vegetables	No Significant pre-post gain
	• Students like to try new vegetables	Significant pre-post gain
	• Students believes salad bar event has made them more aware of the many kinds of fruits and vegetables available to eat	Significant pre-post gain
	• Number of student salad bar sales	Salad bar sales increased on day of event (significance not tested)
MO: Fresh Life: Enjoy a Salad Today!	• Students like to eat fruit	No Significant pre-post gain
	• Students like to try new fruit	No Significant pre-post gain
	• Students like to eat vegetables	No Significant pre-post gain
	• Students like to try new vegetables	Significant pre-post decrease
	• Students believes salad bar event has made them more aware of the many kinds of fruits and vegetables available to eat	Significant pre-post gain
	• Number of student salad bar sales	Salad bar sales increased on day of event (significance not tested)
MT: Harvest of the Month (HOM) Program	• Student attitude and preference towards HOM foods	Significant pre-post gains for lentils, lettuce, winter squash and whole grain bread. No significant gains for 10 other HOM foods
	• Student knowledge of HOM foods and MyPlate food groups	Significant pre-post gains student knowledge for 3 of 6 survey items
	• Frequency of targeted Montana HOM foods served in HOM sites	Significant pre-post increases in some HOM foods (Kale, beef, leafy greens) first year and nearly all HOM foods in the second year.
NV: Pick a Better Snack (PABS) / Fresh Fruit and Vegetable Program (FFVP)	• Student nutrition knowledge	No significant gain in intervention group knowledge over comparison group
	• Student MyPlate knowledge	Significantly higher gains by intervention group
	• Student attitudes toward fruits and vegetables	Significantly higher gains by intervention group

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State: Name of Intervention	Outcome Measure	Findings
SD: Power Chef Challenge	• Student nutrition knowledge	Significant pre-post gain
	• Student recognition of MyPlate food groups	Significant pre-post gain
	• Scores on CDC School Health Index (SHI) modules	No gains/not tested for significance
	• Participation in SBP and NSLP	Gains in SBP and no gains in NSLP but not tested for significance
WI: Let's Plant Classroom Gardens Sub-grants	• Student knowledge of MyPlate	Significant pre-post gain
	• Student knowledge related to gardening activities	Significant pre-post gain (identifying foods not grown in Wisconsin)
	• Student attitudes toward vegetables	Significant pre-post gains in 7 and no gains in 3 out of 10 vegetables
WI: Serving Up MyPlate Taste Testing Sub-grants	• Student knowledge of MyPlate food groups	Significant pre-post gain
	• Student attitudes toward vegetable subgroups	Significant pre-post gain (legumes)
	• Student self-report consumption of vegetable subgroups	No significant gain in attitude toward broccoli and carrots) Significant pre-post gain (dark green) but no significant gain in legumes or red/orange subgroups
SD: Farm-to-School (F2S)	• Student knowledge of fruits and vegetables	Significant pre-post gain
	• Student attitudes toward fruits and vegetables	No significant pre-post gain

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Table B.6. School-Focused Interventions for Healthy Food Environments with Evaluations and Evaluation Findings

State: Name of Intervention	Outcome Measure	Findings
MD: Project SELECT	• Average daily School Lunch participation	Significant effect (treatment declined less than control)
	• Student vegetable selection: dark green	No effect
	• Student vegetable selection: beans and/or peas	No effect
	• Student vegetable selection: red and/or orange	No effect
	• Student vegetable selection: starchy	Significant effect (treatment decreased more than control)
	• Student vegetable selection: other	Significant effect (increased in treatment)
	• Student vegetable selection: total	No effect
	• Student vegetable consumption	Significant effect (increased in treatment)
	• Observational School Environment Checklist (OSEC) Audit Tool	No effect
	• Student nutrition knowledge	Significant pre-post gain
	• Student nutrition attitudes and behaviors	No significant pre-post gain
MO: School Wellness Project	• Smarter Lunchroom Score	Significant pre-post gain
	• School Health Index	No significant pre-post gain
	• School Lunch participation	No significant pre-post gain
MT: Montana Team Nutrition's Smarter Lunchrooms Initiative	• Student selection of fruit and vegetable subgroups at lunch	Significant pre-post gains of combined (all sites) student selection of red/orange, dark green, beans/peas/legumes No significant pre-post gain in student selection of fruit
	• Smarter Lunchroom Scorecard scores	Pre-post gains in scores not tested for significance
	• Average daily NSLP participation	Participation in NSLP increased for some but not other schools—not tested for significance
MT: Creating Smarter Breakfast Programs	• Smarter Breakfast scorecard scores	Significant pre-post gain
	• Average daily SBP participation	No significant pre-post gain
	• Student selection of fruit at breakfast	No significant pre-post gain in student selection of fruit
	• Student selection of white over chocolate milk at breakfast	No significant pre-post gain in milk type selection
SD: Smarter Lunchrooms	• Smarter Lunchroom Scorecard scores	Pre-post gain not tested for significance
	• Production records of vegetable subgroups servings offered	Gains in subgroups served not tested for significance
SD: School Breakfast Programs (Fuel Up to Play 60)	• Participation in the number of SBP and NSLP meals served	Variable results—not tested for significance
WI: Training school nutrition professionals on behavioral economics	• Smarter Lunchroom Scores	Pre-post gain not tested for significance
	• Fruit servings selected by students	Significant pre-post gain
	• Vegetable servings selected by students	No significant gain
	• White milk selected by students	No significant gain
	• Average daily participation	Significant pre-post decrease

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State: Name of Intervention	Outcome Measure	Findings
Smarter Lunchroom Training		
IN: Wellness Policy and Training on Smarter Lunchroom	• Smarter Lunchroom Score	Pre-post gains were not tested for statistical significance.
	• School Health Index	Pre-post gains were not tested for statistical significance.
NV: Smarter Lunchroom Movement Training	• School foodservice managers' knowledge and skills to implement the SL content	Pre-post gain not tested for significance
	• Knowledge of Smarter Lunchroom strategies	No significant gain in overall knowledge scores but significant gain in two of the 16 items on the test

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Table B.7. Child Care-Focused Training/Technical Assistance Interventions with Evaluations and Evaluation Findings

Interventions	Measures	Findings
CACFP/Best Practices Training		
KS: Training on CACFP meal patterns and best practices for child care programs	• Child care sponsor knowledge of CACFP meal pattern	Significant pre-post gain
	• Child care provider use of best practices	No significant gain in use of best practices for providers whose sponsor attended training
MI: training/resources on creating healthier environments/improving nutritional content of meals	• Child care provider knowledge of CACFP meal pattern requirements	Significant pre-post gain
NE: CACFP Online Training	• Knowledge of fruits and vegetables, meat and meat alternatives, serving milk, and whole grains: Largest gains were for whole grains, followed by fruits and vegetables (at end of intervention and at one-year follow-up).	Significant pre-post gain
KS: Workshops (3 <i>Team Up for Success Workshops</i>) to assist CACFP sponsors in implementing the new meal pattern	• Child care provider use of best practices	Significant pre-post gain for providers whose sponsor attended training Significant effect: Greater gain compared with providers whose sponsors did not attend training
Culinary skills training/coaching		
CO: Culinary training classes	• Child care cook confidence in culinary skills	Significant pre-post gain
CO: Culinary coaching	• Child care cook confidence in culinary skills	Significant pre-post gain
NE: Culinary training for child care cooks	• Child care provider knowledge of effective food service practices related to culinary skills and efficiencies, food storage systems and kitchen work surfaces, and production tools	No significant gain
	• Number of healthy menu options	Significant pre-post gain (gain in menu options maintained at one year follow-up)

^a Use of best practices did not improve for providers whose sponsors attended training

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Table B.8. Child Care-Focused Nutrition Education Interventions with Evaluations and Evaluation Findings

State: Name of Intervention	Outcome Measure	Findings
AR: Sensible Eating and Educational Development (SEED) (in person training)	• Child care classroom nutrition practices	Significant pre-post gain
	• Child care provider CACFP meal pattern knowledge	Significant pre-post gain
AR: Together, We Inspire Smart Eating (WISE) agricultural curriculum and behavioral economics with parent and community engagement (in-person training)	• Child care provider nutrition beliefs	Significant pre-post gain
	• Child care provider nutritional self-efficacy	Significant pre-post gain
	• Child care provider knowledge of agricultural curriculum	Significant pre-post decrease
KS: Power Panthers or Discover MyPlate	• Number of nutrition education lessons taught in child care settings	Significant pre-post gain Significant effect: Greater gain than for providers who did not participate in training
	• Availability of local foods and beverage in the meal program	Significant pre-post gain
	• Mealtime environment	Significant effect: Greater gain than for providers who did not participate in training
KS: Grow It, Try It, Like It	• Number of nutrition education lessons taught in child care settings	Significant pre-post gain Significant effect: Greater gain than for providers who did not participate in training
	• Availability of local foods and beverage in the meal program	Significant pre-post gain

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Table B.9. Child Care-Focused Interventions for Healthy Food Environment with Evaluations and Evaluation Findings

State: Name of Intervention	Outcome Measure	Findings
CO: Grow It! Try It! Like It! & Harvest for Healthy Kids Curriculum	• Children's identification of fruits and vegetables	Significant pre-post gain
	• Children's willingness to try fruits and vegetables	Significant pre-post gain
	• Children's liking of fruits and vegetables	Significant pre-post gain
	• Mealtime environment score	Significant pre-post gain
	• Number of healthy menu options	Significant pre-post gain
MI: Healthier Child Care Environment (coaching)	• Child care home meal pattern scores for breakfast and lunch	Significant pre-post gain
	• Child care home provider nutrition behaviors: fruits/vegetables; meats, fats and grains; beverages; healthy menus; food variety	Significant pre-post gain
	• Child care home provider feeding practices	Significant pre-post gain
	• Child care home provider breastfeeding support	Significant pre-post gain
	• Child care home provider knowledge of CACFP requirements	Significant pre-post gain
NE: EAT-FSD Curriculum Training (online)	• Child care provider knowledge about feeding practices with children, as reported by program directors	Pre-post gain not tested for significance
	• Child care provider use of responsive feeding practices with children, as reported by program directors	Pre-post gain not tested for significance
NE: EatPlayGrow	• Child care provider self-ratings of confidence incorporating nutrition and physical activity education into their classroom activities/lesson plans	Pre-post gain not tested for significance
	• Child care provider knowledge of healthful eating, trying new foods, healthy amount of physical activity, importance of physical activity and movement.	Pre-post gain not tested for significance
	• Preschool children's consumption of fruits • Children's consumption of vegetables • Children's knowledge of fruits • Children's knowledge of vegetables • Children's familiarity for vegetables	Significant pre-post gain
NE: Go NAP SACC: Comprehensive (in-person coaching)	• Child care provider use of best practices	No significant gain
NE: Go NAP SACC: Comprehensive Nutrition Education--Train the trainer	• Child care provider use of best practices	No significant gain