



RNECE

Regional Nutrition Education and
Obesity Prevention Centers of Excellence
National Coordination Center at the University of Kentucky

POINTING THE WAY
TO GOOD
NUTRITION

RNECE Initiative Mission and Objectives

The overarching goal of the RNECE is to improve the health of low-income Americans by fostering a culture of health through multiple strategies, including nutrition education and complementary public health approaches implemented at each level of the socio-ecological framework through policy, systems and environmental changes.

- Strengthen the evidence-base on effective nutrition education and obesity prevention programs for diverse population groups.
- Evaluate the long-term effectiveness of nutrition education and obesity prevention interventions for disadvantaged and underserved populations and opportunities for new research.
- Identify and create research collaborations and synergistic relationships among researchers and EFNEP/SNAP-Ed program directors, universities and other implementers, and state and federal agencies.
- Enhance the impact of state and community nutrition education and obesity prevention efforts by providing the public health-related training and evidence that practitioners need for improving nutrition and health behaviors, environments, and policies in ways that are equitable, efficient, and sustained over time.

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QUARTERLY REPORT

October 1 – December 31, 2016

Message from the Director, National Coordination Center

The third and final year of the RNECE Initiative is well underway, with research projects and resource development coming to fruition. A virtual meeting of Project Directors and federal partners was held on January 5, 2017 to provide a concise, comprehensive report of the initiative accomplishments to date. The web site below my signature provides easy access to all Center web pages and initiative resources, including presentations and posters. We have begun to collate results into a report summarizing how the work of the Centers addresses the four RNECE objectives. New training resources will soon be available for increasing the ability of EFNEP and SNAP-Ed educators to assist low-income families. Over the next few years, papers and presentations will continue to contribute to the evidence base for nutrition education programs.

Dr. Ann Vail

<http://rnece-ncc.org>



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RNECE National Coordination Center at University of Kentucky

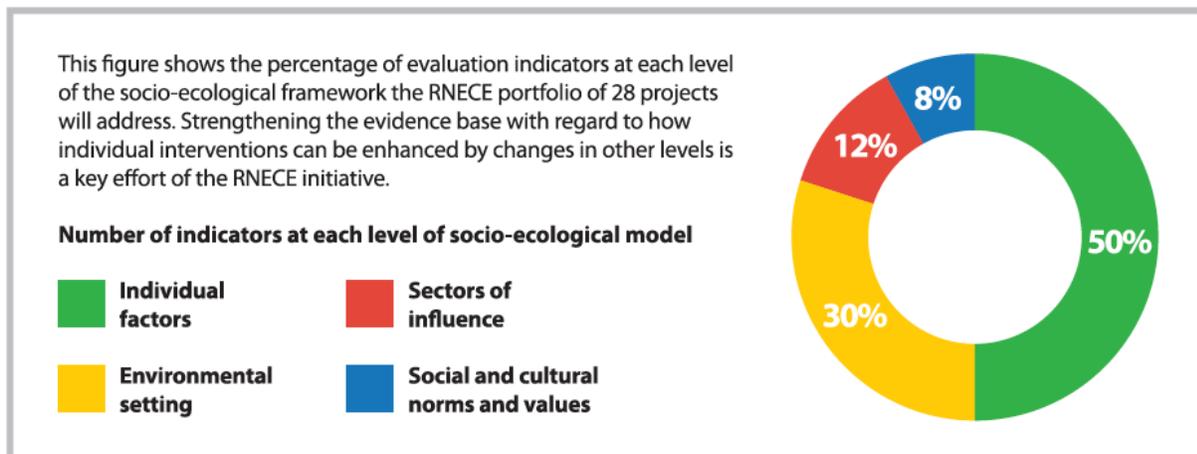
The National Coordination Center (NCC) hosted monthly conference calls with participation from all Centers. Call dialog this quarter focused on project updates and discussion as to how each Center plans to continue the work of this initiative after 2017. The NCC relayed and clarified information regarding the January RNECE virtual meeting of Project Directors and federal partners.

During this quarter, preparation for the January meeting included the creation of a presentation. The presentation was a reflection of the other material created this quarter, the Executive Summary. The Executive Summary presents the focus, objectives, challenges and solutions related to the overall RNECE initiative. Distribution of this report is planned for next quarter.

The following timeline illustrates major accomplishments during the three-year initiative.



Projects in Relation to Socio-Ecological Model



See the Research Project Inventory (RPI) at the end of this report for more details about these 28 RNECE projects.

The Regional Nutrition Education and Obesity Prevention Centers of Excellence Policy, Systems, and Environmental Change Center (RNECE-PSE) is committed to equipping, training, and empowering local level coordinators and supervisors to integrate effective Policy, Systems and Environmental change (PSE) approaches into SNAP-Ed and EFNEP programs. In cooperation with regional and national coordinating RNECEs, RNECE-PSE strives to provide timely and relevant real-world PSE guidance that will accomplish two objectives:

1. Enhance the capacity of SNAP-Ed and EFNEP networks to effectively implement and evaluate PSE approaches and
2. Strengthen SNAP-Ed and EFNEP nutrition education interventions through incorporation of effective culturally responsive PSE approaches centered on readiness to change best practices.

To achieve these objectives, RNECE-PSE is tasked with the following aims:

1. Complete a situational analysis of SNAP-Ed and EFNEP programs related to PSE adoption and implementation.
2. Adapt readiness to change resources to strengthen SNAP-Ed and EFNEP efforts to implement PSE strategies.
3. Create a framework and provide resources to increase intercultural competence in SNAP-Ed and EFNEP PSE implementation.
4. Develop, disseminate, and evaluate systematic competency-based PSE instruction, guidelines, and resources including readiness to change and intercultural competence development that are tailored to the needs of trainees.

Aim 1. Complete a situational analysis. In collaboration with the EFNEP PSE national committee, RNECE-PSE has recruited eleven subject matter experts to sit on a Developing a Curriculum (DACUM) panel to identify PSE competency skills and tasks specific to EFNEP. The EFNEP PSE DACUM panel will take place in March of next quarter.

Aim 2. Adapt readiness to change resources to strengthen SNAP-Ed and EFNEP efforts to implement PSE strategies. Validation using cognitive testing methods of the collaboration readiness tool, a tool that gauges a partner's readiness to collaborate with implementing agencies, was conducted during this quarter. Four rounds of interviews, with sixteen total participants, were completed. The final round of testing will be completed in January, 2017. Monthly meetings occurred with RNECE-PSE and SNAP-Ed coordinators from Florida, Guam, Indiana, Oklahoma and South Carolina to discuss changes to the collaboration readiness tool generated from the cognitive testings that were held. A webinar was conducted with selected SNAP-Ed local coordinators on how to implement the collaboration readiness tool on October 20th, 2016. RNECE-PSE continues to contribute to the SNAP-Ed Evaluation Framework Working Group (NCCOR) as readiness consultants.

Aim 3. Create a framework and provide resources to increase intercultural competence in SNAP-Ed and EFNEP PSE implementation. An intercultural competence development guide has been drafted. The continuum model and associated strategies to increase intercultural competence are included. The guide will be reviewed and edited next quarter.

Aim 4. Develop, disseminate, and evaluate systematic competency-based PSE instruction, guidelines, and resources including readiness to change and intercultural competence development that are tailored to the needs of trainees.

Competency-based PSE instruction. Identified SNAP-Ed PSE competencies, duties and tasks are guiding the development of video training modules to be located on the SNAPedPSE.org website.

Development. The bidding process was completed this quarter and a web developer has been selected to expand the www.SNAPedPSE.org splash page into an interactive web page that will house training resources to support competency-based skill building. Two planning meetings took place this quarter.

- Several collaborative projects to support PSE trainings are ongoing. An advisory committee to support development of training resources has been established and monthly calls have been initiated.
- RNECE-PSE continues to participate in discussions with the National RNECE Training Workgroup to develop PSE modules based on the duties and tasks found in the SNAP-Ed DACUM panel. Modules will be expanded to cover assessing needs and opportunities, building partnerships, creating a PSE action plan, and implementing a PSE action plan in addition to PSE 101 and evaluating PSE strategies.
- RNECE-PSE continues to work with Dr. Joel Gittelsohn, Johns Hopkins University, to develop PSE competency-based healthy corner store trainings. PowerPoint presentations have been developed and will be piloted next quarter.
- Dr. Karla Shelnutt and Dr. Danielle Treadwell, University of Florida, are developing a food systems 101 presentation as well as competency-based trainings for settings such as school gardens, and farmers markets.
- A PSE Competency Skill Guide is in development to support the web based resources.

RNECE North Central Region Center at Purdue University

The primary focus of the Regional Nutrition Education and Obesity Prevention Centers of Excellence North Central Center (RNECE-NC) is to increase the evidence base of multi-level SNAP-Ed and EFNEP interventions, with a strong emphasis on research in rural areas. Through an affiliates' program, the RNECE-NC also seeks to increase partnerships between researchers and SNAP-Ed and EFNEP implementers. Efforts this past quarter concentrated on helping each of the funded projects be successful in reaching their key goals and milestones. A progress update for the RNECE-NC's research projects follows.

Summer Weight and Environmental Assessment Trial (SWEAT): PI - Gunther
Institutional Review Board (IRB) approval has been received at both the Ohio State University (OSU) and Purdue University (PU). Meetings are scheduled with the participating schools/principals to discuss recruitment plans and baseline data collection. In addition, preparations are being made to launch pilot testing, including face validity testing (certain surveys) and testing of data collection methods.

A Longitudinal Randomized and Controlled Evaluation of the Integrated Impact of SNAP-Ed on Food Security and Obesity Prevention in Rural and Urban Counties: PI- Eicher-Miller

This project is bit ahead of the timeline and has completed: data acquisition, cleaning, construction of variables, checking assumptions, baseline comparative analysis, statistical modeling and determining the best model.

Completed: Mixed-Modeling Analysis & Manuscript of Environmental Factor Influence on Food Security Improvement due to SNAP-Ed. One paper, entitled “Urban or rural county status and environmental, nutrition, and lifestyle-related resources do not influence SNAP-Ed’s improvement in household food security in Indiana” was submitted to the American Journal of Public Health in December 2016.

In Progress: Path analysis investigation of how factors (rural/urban status, community resources, and county characteristics) individually contribute to the impact on improvement in food security through integration of direct and PSE SNAP-Ed approaches.

Eat Smart in Parks (ESIP): PI - Wilhelm Stanis

This photovoice project helps to address the issues and needs identified by youth in urban and rural parks in Missouri. Four photovoice projects (two urban and two rural) with youth ages 10-17 were conducted in community centers and afterschool programs. Youth took photos, wrote captions, and as a group identified overall themes they wished to address with the community. Photos and themes were shared with the wider community at exhibition gallery events. Surveys were conducted with the participating youth before and after the photovoice project to assess youth’s perceptions of the environment, leadership and empowerment; additional surveys with community members were conducted at the gallery events. The data collection and gallery events are complete, and the research team is currently analyzing the data and writing reports and manuscripts. Youth identified the following three themes: ads and influence, access, and healthy/unhealthy opportunities. These youth perspectives have been included in the ESIP toolkit.

Evaluating a Multi-Modal Community Nutrition Education Model within SNAP-Ed and EFNEP (Phase 2): PI - McCaffrey

The research team is in the second phase of the project for the participant tracking, with 113 out of the original 303 participants agreeing to continue until spring 2017 in Illinois. The first round of collection for the Social Network Analysis (SNA) surveys in Illinois (5 counties) and Michigan (6 counties) is finished. Completion rates for counties are as follows:

Illinois Social Network Analysis completion rates: Vermilion (75%), Southern Illinois region that includes Alexander, Massac and Pulaski Counties (76%), and Macon (65%). A relevant manuscript has been accepted by the American Journal of Health Behavior detailing the findings from the initial SNA. A program proposal for a conference session has been submitted to the Society of Nutrition Education and Behavior (SNEB).

Michigan SNA completion rates: Ingham (44%), Allegan (90%), Tuscola (100%), Hartford (95%), Isabella (81%) and Muskegon (49%). A relevant manuscript has been submitted to Preventive Medicine Reports for publication this fall.

Social Network Analysis Conclusions:

- Agencies in eight out of the nine areas are weakly connected regarding communication networks for SNAP-Ed and EFNEP.
- Agencies may have limited familiarity with other agencies.
- No one agency seems to be influential.
- Agencies of similar types (schools, pantries, etc.) are not more connected than others.
- An agency connected in one way is much more likely to be connected in several areas (funding, communication, coordination, collaboration).
- All networks strategized about ways to communicate and become more connected to better serve the low income population. Networks hold meetings quarterly. A reassessment is planned for spring 2017.

Program Participant Tracking Progress:

- 303 total participants were recruited throughout five counties in Illinois.
- 117 participants completed three weigh-ins and three phone calls (Stage 1).
- 113 participants have agreed to continue in the study for an additional nine months (Stage 2).
- Analysis is ongoing regarding food security status, assistance program usage, body mass index (BMI), and physical activity.

An abstract has been submitted to Experimental Biology. In the five Illinois counties, environmental assessments are being finished: Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) in early childcare settings, Smarter Lunchroom Assessments in K-12 schools, and a food pantry assessment in emergency food locations.

The Influence of Policy, Systems and Environmental Nutrition Education Intervention on Dietary Quality at Diverse Low-Income Childcare Provider Settings: PI - Earnesty

Michigan State University (MSU) Extension has trained thirty nutrition educators from the Michigan Kidney Foundation and MSU Extension to use the NAP SACC assessment and provide nutrition education to home childcare providers focused on PSE best practices related to fruits and vegetables. Four research assistants have been trained to use the diet estimation method by Ball and colleagues to estimate food served and consumed in childcare homes. Fifty one home childcare providers have been recruited, and thirty seven pre-observations completed including five day menu analysis and direct diet observation of lunch and snack.

Food and Activity Environment Perceptions Among SNAP-Ed and EFNEP Participants in the North Central region: PI Katare

Progress and Timeline:

- Literature has been reviewed and a survey has been developed based on validated questions.
- Focus group evaluation has been conducted.
- Indiana pilot data has been collected for further validation.
- The survey instrument has been reviewed by the RNECE-NC Steering Committee.
- Winter/spring data collection is ongoing in the NC states.
- A RNECE-NC meeting is scheduled in April/May to review data.

RNECE Northeast Region Center at Cornell University

The mission of the Regional Nutrition Education and Obesity Prevention Centers of Excellence Northeast Center (RNECE-NE) is to promote a culture of health among low-income populations by bringing researchers and program implementers together to engage in sound intervention research congruent with implementation and dissemination science. The primary goal of the RNECE-NE is to expand the evidence base that supports effective nutrition education of diverse low-income program participants delivered in conjunction with policy, systems, and environmental (PSE) approaches that make healthy choices easier in order to prevent obesity.

The RNECE-NE's key initiatives are a signature research program, a systematic review of literature and a nationwide training program; progress on these initiatives follows.

Signature Research Program

The goal of the signature research program is to investigate whether the combination of direct nutrition education and PSE changes have greater impact on dietary intake and physical activity than either strategy alone.

The five signature research projects encompass variation in race, ethnicity, and cultural contexts, target audience, and methods of delivery:

- Two projects were implemented in SNAP-Ed, three projects were implemented in EFNEP.
- Three projects were conducted in urban settings, one project was conducted in a suburban setting, and one project was conducted in a rural setting at two sites within micropolitan areas.
- One project was a randomized controlled trial (RCT) and four projects used quasi-experimental designs.

Four projects are now complete – see abstracts that follow. The Adopting Healthy Habits in Worksites project in New York State, ongoing through June 2017, completed another round of recruitment and data collection in October 2016.

Abstracts:

Nutrition Ed, Access and Texting (NEAT): Combining the Hartford Mobile Market with e-Marketing

Damio G, Pérez-Escamilla R, Segura-Pérez S

Hispanic Health Council, Hartford CT and Yale School of Public Health, New Haven CT

Objective: To assess the effects of combining nutrition education with produce vouchers and a text messaging campaign promoting fresh produce purchases at the Hartford Mobile Market (HMM) on access, purchase and intake of fruits and vegetables.

Participants: Parents with children age five years or younger.

Design: All participants received a MyPlate SNAP-Ed direct education lesson and were randomly assigned to the intervention group (n=100) or control group (n=93). The intervention group received daily text messages for thirty days promoting the use of the HMM, as well as \$20 in HMM coupons as incentives. The control group received daily text messages about free public events in the city. Surveys were conducted at baseline and six weeks after enrollment. Participants were mostly female (97%), Hispanics (79%), and SNAP beneficiaries (81%). There were no between-group differences at baseline.

Results: The participants in the intervention group spent more on fruit (\$42 vs \$30, p=.027), were more likely to purchase fruits and vegetables at the mobile market (46% vs. 23%, p=.002), and consumed 0.33 more servings of fruit compared to the participants of the control group. The intervention group participants redeemed 67% of coupons received. HMM users were very satisfied with price and quality of the produce and customer service.

Conclusion: NEAT is a culturally sensitive social marketing intervention that led to improved access to and purchase of produce and consumption of fruits in an urban low-income community.

Transforming Lifestyles: Integrating Direct Nutrition Education with Physical Activity Using the Health Care System Expansion Model

Mehta M, Sankavaram K, Benoit-Moctezuma D, Song H-J, Ashburn L

University of Maryland Extension, College Park MD

Objective: To test the effectiveness of engaging primary health care providers in assessing children's physical activity levels and providing information and referrals to physical activity resources and EFNEP.

Participants: The study engaged medical providers at two clinics: intervention n=12; control n=8. Latino parent-child dyads (children 5-18; BMI = overweight/obese) were recruited: intervention n=23, control n=26.

Design: Quasi-experimental with a convenience sample of participants assigned at the clinic level. Both clinics screened children for overweight/obesity and referred at-risk families to EFNEP nutrition education, Eating Smart Being Active and Cooking Matters for Kids (Health Care System Model). In the intervention clinic, two physical activity screening questions were added to the clinical protocol and electronic record. In addition to BMI, providers screened at-risk children for physical activity (PA), provided age-appropriate PA tip sheets and a free/low-cost community resource list for PA (Health Care System Expansion Model). Data were collected at the beginning and end of the six-week interventions.

Results: Providers in the experimental clinic sites found the screener easy to use (<3 min), helpful in communication, and recommended routine use. Compared to control sites, providers more frequently discussed BMI & PA with parents. Overall, providers mentioned that of community programs, only EFNEP provided lifestyle intervention. Parents in the experimental sites found the screener provided an opportunity to ask questions and receive guidance. Compared to control sites, parents in the experimental group increased PA, though not significantly ($p=0.11$). There were also improvements in the Healthy Eating Index (HEI) reflecting the impact of EFNEP (control group $p=.06$, intervention group $p=.02$). Children: When comparing the intervention group to the control group, there was an increase in physical activity in older children and a decrease in screen time in younger children, however the study was underpowered to see significant differences. Altogether, the two groups of children experienced improvements in dietary intake reflecting the impact of EFNEP: increased vegetables ($p<0.001$), fruits ($p<0.04$), low fat foods ($p=0.05$) and healthy snacks ($p<0.006$). Several measures also indicated that children significantly decreased intake of sugar-sweetened beverages.

Conclusion: Overall, this study suggests that incorporating screening questions about physical activity as part of routine vital signs in healthcare settings provides a promising strategy for encouraging physicians to engage children and their parents in discussions regarding weight and sustainable physical activity. Time for additional participant enrollment would have improved statistical power and the potential for finding significant changes in PA.

Sustaining a Successful Youth-Leader Program as part of a Multi-Level, Multi-Component Food Environment/Behavioral Intervention

Gittelsohn J, Trude A, Lachenmayr L

Johns Hopkins Bloomberg School of Public Health, Baltimore MD and University of Maryland Extension, Columbia MD

Objective: To test a model to train teen leaders to deliver nutrition education to younger youth and act as spokespersons in social media as part of a larger B'more Healthy Communities for Kids (BHCK) study that includes environmental changes in food stores and recreation centers to improve healthy food access, as well as nutrition education.

Participants: Youth leaders ages 15-18; caregiver/child (ages 10-14) dyads. Intervention: leaders $n=13$; dyads: $n=133$. Controls: leaders $n=11$; dyads: $n=103$. The setting was low-income areas near Baltimore City recreation centers, populated predominately by African-Americans.

Design: Quasi-experimental with a convenience sample of participants assigned at the recreation center level. A train-the-trainer approach was employed, using content on building nutrition knowledge, food preparation skills, skill-based teaching methods, presentation skills, teamwork, and leadership. Youth leaders were recruited and assigned to intervention and comparison groups based on availability. Youth leader teams were formed to act as spokespersons in BHCK social media, and deliver the SNAP-Ed and BHCK nutrition education in recreation centers, community corner stores and carryouts.

Results. Youth leaders showed more improvement in nutrition outcome expectations (i.e. expected health outcome from eating and drinking specific foods and beverages) compared to controls ($p=.02$). A secondary impact was that youth-leaders who were more engaged with the intervention had significantly higher mean change of outcome expectancy compared to youth who did not participate in the youth leader program. For the younger youth receiving the nutrition education, energy and fat intake decreased more in the intervention than control group, but the study was underpowered to see significant differences.

Conclusion: Having older youth acting as role models in the context of a PSE approach improved youth-leader psychosocial factors and leadership skills for those most involved. The approach shows promise for positively influencing dietary behaviors of children receiving the program. The BHCK nutrition curriculum is being disseminated through SNAP-Ed to other community organizations.

Empowering Urban Schoolchildren to Increase Fruit and Vegetable Consumption through EFNEP-enhanced PSE Interventions

Sebelia L, Greene G, Mulligan K

University of Rhode Island, Providence, RI

Objective: To test the effectiveness of an intervention to engage fifth grade students in activities to change their school food environment.

Participants: Fifth grade students in the urban Pawtucket School District which has an average of 74% free/reduced price lunch participation. Intervention: 2 schools, $n=142$ students; Control: 2 schools, $n=178$ students.

Design: Quasi-experimental in which students were assigned to groups at the school level. In both schools, students received the standard SNAP-Ed Fresh Fruit and Vegetable Curriculum. Intervention school students also received a new 10-week PSE curriculum, Students Take Charge!, in which students engaged with the school wellness committee and food service staff to change menus.

Results: Post intervention, the treatment group had a higher PSE knowledge score than the control group when adjusted for baseline score ($p<.001$). Intervention students were more likely to have an opinion about fruit/vegetable choices, and to recognize their school's encouragement of eating fruits/vegetables, compared to controls. There were no significant changes in fruit/vegetable intake from pre to post in either treatment or control groups.

Conclusion: The new PSE curriculum represents a first step in efforts to engage students and school food service in PSE efforts and could result in more healthy changes introduced by students and implemented by food service and school administrations.

Adopting Healthy Habits in Worksites: Increasing adoption and acceptability of policy, systems, and environmental changes within agencies serving low-income families

Dollahite J, Fontaine Hill T, Sellers D

Cornell University and Cornell Cooperative Extension

Objective: To assess the effects of adding direct education to PSE change efforts in three worksites (2 Head Start programs and 1 Community Action Planning Council). Specifically, the study is assessing the effects of adoption and implementation of PSEs; assessing the effects of providing direct education and PSE changes; and comparing the effect of PSE only to the effect of PSE and direct education.

Participants: Across all three worksites, there are 140 agency staff (46% low income) and 449 parents/clients (84% low income).

Design: Worksites are implementing PSE changes to promote eating more fruits/vegetables, drinking water instead of sugar-sweetened beverages, and increasing physical activity. Some agency staff and clients are also participating in direct education (Healthy Children, Healthy Parents Making a Difference!). Data collection includes participants reported behavior and BMI in Year One (T1+T2) and Year Two (T3+T4) as well as environmental scans and policy adoption for PSEs.

Progress: T1 - T3 data collection has been completed. PSE implementation includes: policy adoption (healthy food guidelines, physical activity during meetings, wellness committees); activities (healthy food events, physical activity offerings onsite, healthy celebrations); and messaging environment (newsletters, bulletin boards, signs promoting walking). Direct nutrition education is underway with participating staff and clients.

Signature Research - Systematic Review

Review question: What is the evidence for the effectiveness of combining direct nutrition education (DNE) with PSE changes, compared to either of these strategies alone, on weight status and food and nutrition behaviors related to obesity prevention?

Review Inclusion criteria using PICO:

- **Problem (Domain)** – Obesity prevention
- **Population** – Non-clinical, community dwelling adults and children >2 yrs. in middle and high income countries
- **Intervention** – Must include both PSE and DNE using a RCT or quasi-experimental design
- **Comparison** – Allows for comparison of combined PSE-DNE approach to either PSE or DNE alone
- **Outcomes** – Weight status and/or food/nutrition behaviors

The protocol has been registered with International Prospective Intervention Comparison Outcomes (PROSPERO) and the search of twelve databases was completed: 11,192 articles were identified. In October 2016, the Systematic Review workgroup members were trained to conduct full-text review. Overall, four WebEx meetings were held during the quarter to conduct training and to discuss and decide technical details related to the review. About one-third of the screening has been completed. Next steps are to extract data; assess risk of bias assessment using modified Cochrane instruments; evaluate the body of evidence using the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) approach and disseminate findings via peer-reviewed manuscript and conference presentations.

Nationwide Training Program: Policy Systems and Environmental Approaches to Promote Healthy Eating and Physical Activity

The competency-based training program will be delivered through the online Cornell NutritionWorks platform and will offer certification. Data from the national assessment of PSE training needs conducted earlier this year, along with the PSE Change Center's list of PSE Competencies for SNAP-Ed Coordinators based on their Developing a Curriculum (DACUM) results, are being used to inform the development of training modules. Complementary online resources will be linked. These training modules are being developed through a collaboration with the PSE Change Center and the Nationwide Training Workgroup.

The training workgroup and members of the PSE Change Center met via conference call on November 11, 2016; members reviewed the draft presentation for Module 1: Introduction to PSEs. The online training format will include: mini-quizzes after every 10-15 minutes of content and a graded online test at the end of each module. There will also be discussion forums for each module as well as for the entire course. Work group members, including a member from the PSE Change Center, have volunteered to finalize the content. Videos of PSE case examples, being developed by the PSE Change Center, will be linked as enhancements to the content. The workgroup is also identifying opportunities for poster sessions about the workgroup training activities.

Outline of Training Modules

Module A: Defining PSEs

- Make sense of the terminology
- Understand the importance of community context
- Understand PSE resources
- Provide example PSE resources
- Support staff and community partners

Module B: Identifying Community Needs and Opportunities

- Understand demographic data
- Understand the community of interest
- Assess current efforts
- Understand community needs assessment methods

Module C: Building Multi-Level, Multi-Sector Partnerships

- Identify multi-level and multi-sector partners
- Communicate interests to potential partners
- Coordinate collective resources

Module D: Creating PSE Action Plans

- Select PSE approach
- Identify evaluation methods
- Prepare an action plan

Module E: Implementing PSE Action Plans

- Review action plan
- Train staff and partners
- Monitor PSE implementation
- Identify next steps

Module F: Evaluating PSE Strategies

- Evaluate PSEs
- Share PSE evaluation findings
- Refine action plan(s)
- Plan for sustainability

Next steps include:

- Pilot testing modules A and F; launching these two modules.
- Developing and reviewing content for modules B, C, D and E; piloting B, C, D and E and then launching these modules.

RNECE South Region Center at University of North Carolina at Chapel Hill

The Regional Nutrition Education and Obesity Prevention Centers of Excellence Southern Regional Center (RNECE-South) at the University of North Carolina-Chapel Hill (UNC) and North Carolina State University (NC State) equips SNAP-Ed and EFNEP implementing agencies to create a culture of wellness where program participants experience measurable improvements in their health, nutrition and physical activity through multiple strategies including nutrition education and public health approaches. The RNECE-South has promoted nutrition education and PSE change through Faithful Families Signature Project and Innovation Sub-Awards; research in social media interventions for EFNEP and healthy retail interventions for SNAP-Ed; and online training opportunities and SNAP-Ed Obesity Prevention Toolkit website development. RNECE-South serves SNAP-Ed and EFNEP efforts in Alabama, Arkansas, Florida, Georgia, Oklahoma, Virginia, Louisiana, South Carolina, Kentucky, Mississippi, Tennessee, Texas, Puerto Rico, and the Virgin Islands.

Eat Well Be Well Healthy Stores Project

Project Goal: To test a healthy retail intervention in rural corner stores in North Carolina to build the evidence-base for its use in SNAP-Ed programming to address obesity by expanding the settings of the Baltimore Healthy Stores intervention to low-income, rural neighborhoods in the southern United States and evaluate its impact at the store, store-owner, and consumer-levels.

During this reporting period, the healthy retail project collected customer intercept survey data in the eight intervention and eight control stores. A total of 391 surveys were collected. All post data measuring store environmental changes were collected with the Communities of Excellence (CX3) instrument. Post intervention store manager interviews were conducted measuring the effect of the intervention on sales, facilitators, and challenges to the intervention from the store management perspective. A scoring system was developed to rate the fidelity of all intervention stores in upholding the different intervention components (hanging signage and shelf labels, procuring healthy food) for comparison purposes. Control store managers were interviewed to inform an end of participation report populated with data from customer intercept surveys conducted in these stores. The healthy retail team met weekly to discuss data analysis and project plan for the 2017 healthy retail intervention.

Social Media

Project Goal: To develop, implement and evaluate a social media toolkit designed to provide guidance to SNAP-Ed and EFNEP implementers using social media campaigns to enhance program goals.

An abstract based on findings has been accepted to the Society of Behavioral Medicine. A publication is currently under development. RNECE-South developed a participant survey for a convenience sampling of 150 EFNEP participants enrolled in the program between October 2014-November 2015 to measure participant demographics, barriers and facilitators to use, value to participants, adverse effects and evaluation of message characteristics. This survey has been approved as exempt from the IRB and has been distributed; fifty surveys have been returned. The deadline has been extended in order to reach a sufficient sample size. Content is being populated on the EFNEP Social Media Communications Guidance website. Five states have been recruited to test the guidance materials using a one-month social media campaign. The protocol for this is drafted and the IRB application will be submitted in January, 2017. A survey is being drafted to evaluate the feasibility of use of the guidance materials to be distributed to thirty five national program implementers.

Faithful Families Signature Sub-Awards

The RNECE-South Team selected the Faithful Families Eating Smart and Moving More program (Faithful Families) as RNECE-South's Signature Program. The purpose of these sub-awards is to strengthen the evidence base for adult nutrition education programming with diverse low-income populations, specifically for SNAP-Ed and/or EFNEP programs implementing the Faithful

Families program, to test strategies for supporting positive nutrition, obesity prevention and health behavior change, to assess long-term outcomes, and to test strategies to evaluate PSE within a faith-based community.

University of Florida: PI - Karla Shelnut, PhD

Project On-going: During this quarter, the team facilitated the nine-week Faithful Families curriculum at two urban sites in Hillsborough County and one rural site in Escambia County. During the first week of programming, pre-assessments were completed by all participants. In addition, participants in Hillsborough County were randomly selected to take part in the accelerometer subgroup. Those selected and willing wore their assigned accelerometer for one week. Throughout the implementation of the Faithful Families program at all three sites, the team worked closely with all lay leaders to maintain retention and engagement of participants as well as oversee the overall success of each program. Lay leaders and EFNEP Program Assistants completed weekly surveys to provide feedback. In addition, all participants in the two intervention sites completed weekly surveys and engaged with each other on customized Facebook pages. Once each site reached their ninth lesson, post-assessments were completed by all participants and those who took part in the accelerometer subgroup wore an accelerometer a second time.

With the direct leadership of our Family Nutrition Program (FNP) District Coordinators of Procurement, policy and environmental approaches were strategized and quickly implemented at each location. The Hillsborough County control site formed a health initiative team, which will meet regularly to lead and support healthy efforts that will affect their entire faith community. For their environmental project, a vegetable and herb garden was rejuvenated so community members can learn gardening skills and enjoy the healthy fruits of their labor. The Hillsborough intervention site adopted a water policy, which will be supported by the availability of water coolers and fruit infusers. For their environmental project, this site will install a garden. The team has connected this faith community to Tampa Bay's Coalition of Community Gardens, which is a network formed to support and to promote establishing new community gardens. This newly-formed partnership aims to establish additional support for long-term sustainability.

In Escambia County, the intervention site also adopted a water policy, which was supported by water coolers with fruit infusers. In addition, this intervention site shaped their environment by creating an exercise area with fitness equipment so community members could workout either individually or together at scheduled times.

Subsequent to each week's Faithful Families session, an online survey was emailed to each participant at the two intervention sites. In this survey, participants were prompted to "Reflect" on the past week, "Take a Step" towards a behavior change and "Connect" with each other on customized Facebook pages. Weekly reminders were also mentioned in class to encourage participants to complete the surveys. As a result, many participants routinely engaged using the Facebook page. Staff members consistently monitored the Facebook page to further engage and acknowledge participant involvement.

University of Tennessee: PI - Karen Franck, PhD

Project is complete; abstract follows.

In Tennessee in 2016, *Faithful Families'* participants were compared to participants in another EFNEP and SNAP-Ed curriculum that is used in the state; *Eat Smart*. Two counties implemented both programs: a rural county in the Appalachian region and an urban county in the Delta region. Four churches (two in each county) received programming: two congregations received *Faithful Families* and two congregations received *Eat Smart*. Forty-nine participants were enrolled in *Faithful Families* and 34 were enrolled in *Eat Smart*. *Faithful Families'* participants were more likely to graduate from the program (33 vs. 23 or 73% vs. 68%), had more men participate (15 vs. 3) and were more likely to have children (11 vs. 4 or 24% vs. 12%). There were no differences between the two groups regarding changes in healthy eating and physical activity with participants in both groups making positive changes in eating fruits and vegetables and being more physically active. *Faithful Families'* congregations also implemented environmental changes including written policies for church functions to promote drinking water, being more physically active, and including healthier food options.

University of Arkansas: PI - Lisa Washburn, DrPH

Project On-going: Signed informed consents were obtained for all participants. All entry surveys (24-hour Diet Recall, Behavior Checklist, Social Media) and biometrics (BMI, BP) have been collected for the six sites enrolled in the study as well as collection of the Faith Community Health Assessments. Exit surveys and biometrics have been collected for all sites, as have 3-month follow-up data. Focus groups were conducted with participants at program sites to explore program impact and recordings have been transcribed.

Data analysis is on-going. Comments and notes from field staff indicate that policy and environmental approaches have been implemented and include healthy tips in a monthly newsletter, a water policy, and parking lot/walking track mapped with signage indicating how many laps around the parking lot equaled one mile .

Innovation Sub-Award

University of Georgia: PI - Jung Sun Lee, PhD, RD

Project On-going: The purpose of this project is to evaluate a smartphone-based eLearning program by assessing users' expectations and experiences prior to, during, and after engaging in Food eTalk. In the fourth quarter of this grant period, the team has transcribed all interviews and have been analyzing the data using Atlas.ti as a qualitative data organizational tool. All photos have been organized into one database and preliminary analysis using geographic information system (GIS) methods and participant addresses/location of images has begun. Qualitative data will be used to augment these findings and better understand the food retail environment and grocery shopping habits of the sample.

Findings from the focus group portion of this project were presented at the Society of Nutrition Education and Behavior (SNEB) conference in San Diego in August 2016. This poster was titled:

SNAP-Ed Eligible Georgians' Experience Using an eLearning Nutrition Education Program – A Qualitative Study. RNECE-South was listed as a funding source. A paper is currently under review at the Journal of Nutrition Education and Behavior titled: Development of an Online Smartphone-based eLearning Nutrition Education Program for Low-Income Individuals.

Preliminary findings from focus groups include:

- Technical issues in the eLearning lessons persist and are a significant barrier to the user experience,
- Users were highly fond of the interactive games/activities and much prefer this sort of learner-engagement to static screens with voiceover, and
- Participants had no issues with digital literacy/comfort using the device/navigation of the program (other than technical issues which were beyond their control).
- Participants enjoyed the video-components of Food eTalk and would like to see more short videos included in future eLearning programs.
- Participants enjoyed the 'questions of the day' section of each eLesson, as these allowed opportunities for the participant to reflect on his/her own answers to questions such as "how would you rate your health" and "how would you rate your weight".

Recommendations: Users would like competition built into the learning games, with a system of 'points' or 'score' so they can compete with others (and their children) or compete with their previous 'best score'. Users would also like some of the learning lessons and games to be tailored to child-friendly games to engage their kids in nutrition education. Participants prefer shorter cooking videos, and more recipes. Participants would also like more ideas as to how to feed 'picky' children, snack ideas for children, as well as more in-depth nutrition information such as information on diabetes, gluten, and ingredient substitutions.

Results from this project are being used to improve the user experience of Food eTalk, and preliminary development of an additional curriculum which will be offered in person and as eLearning has started. This curriculum will focus on healthy weight and is titled Food eTalk: Better U.

A new Food eTalk program is being offered at a local safety net clinic, allowing patients to use Food eTalk on borrowed devices while they are waiting for their appointments or waiting for prescription medication refills. This partnership with a local safety net clinic serves as a pilot as plans are developed to provide Food eTalk for safety net clinics across the state of Georgia.

SNAP-Ed Toolkit Website

Work continues on the development of the interactive toolkit website. The website has been populated with information on all but fifteen of the interventions. RNECE-South has tested the website with multiple audiences and are incorporating the suggested changes. Progress has been slowed by the review of the old interventions as well as updates to the interpretive guide.

RNECE West Region Center at Colorado State University

The Regional Nutrition Education and Obesity Prevention Centers of Excellence West (RNECE-West), a joint effort of Colorado State University and Washington State University Extension, aims to improve the health of low-income Americans, especially Hispanics, through strategies at the individual and environmental levels of the social-ecological model, including complementary nutrition education and public health approaches particularly for EFNEP and SNAP-Ed programs.

The RNECE-West primary goals include:

1. **Working to build the evidence-base** for nutrition education and obesity prevention strategies and interventions that produce measurable improvements in health, obesity, nutrition (food behavior), and physical activity-related outcomes of interest to USDA;
2. **Developing effective education/extension, and policy, systems and environmental translational activities** that promote health and prevent/reduce obesity in disadvantaged low-income families.

RNECE-West objectives address:

- **Building the evidence-base for nutrition education** interventions through rigorous evaluation;
- **Developing research collaborations and synergistic relationships;**
- **Supporting effective education, policy, systems and environmental (PSE) activities** that promote health.

TARGET AUDIENCE

Those who were served by RNECE-West projects this quarter. Where appropriate, population groups such as racial, and ethnic minorities and those who are socially, economically, or educationally disadvantaged are listed.

Target Audience Type	Description
Individuals	Limited resource families
Groups	EFNEP and SNAP-Ed program leaders, educators, participants and stakeholders
Population Group: Racial Minorities	African Americans
Population Group: Ethnic Minorities	Latinos and Non-Latinos
Population Group: Economically Disadvantaged	Individuals/families at 185% of poverty and below

PRODUCTS

RNECE-West products for this quarter, with a brief description, reference, and/or link.

Type of Product	Product Description
Websites (new, current, and/or updated)	<ul style="list-style-type: none"> • Updated RNECE-West website (www.wrnece.org)
Papers presented	<ul style="list-style-type: none"> • Guenther, P.M., <i>Evaluation of a novel, low cost, low burden, scalable technology for evaluating EFNEP and SNAP-Ed effectiveness</i>. Presented at the annual meeting of NC 2169, October, 2015, Portland, ME. • Hurdle JF., <i>Nutritional Data Mining: measuring household grocery quality for clinical and public health applications Low burden, scalable tools to improve dietary health</i>. Invited seminar, University Utah Department of Biomedical Informatics, Salt Lake City, UT. Sep 2015. • Brewster, P.J., Guenther, P.M., Jordan, K.C., Hurdle, J.F. <i>An innovative approach to assessing food purchase behavior</i>. Presented at the 39th National Nutrient Databank Conference, May, 2016, Alexandria, VA. • Guenther, P.M., <i>Validating the Mobile ASA24 in the Low Income Population</i>. Presented at the mid-year virtual meeting of NC 2160, June, 2016. • Hurdle JF., <i>Nutritional Informatics: measuring household grocery quality for clinical and public health applications Low burden, scalable tools to improve dietary health</i>. Invited seminar, Oregon Health and Sciences University, Portland, OR. Feb 2016. • Tran LT, Brewster PJ, Chidambaram V, Hurdle JF., <i>Estimating USDA FPED Components Based on Grocery Sales Data: Towards the Improvement of Dietary Quality Assessment of Grocery Purchases</i>. National Nutrient Databank Conference. Arlington, VA. May 2016. • Brewster, P.J., Guenther, P.M., Jordan, K.C., Hurdle, J.F., <i>An innovative approach to assessing food purchase behavior. Manuscript submitted to the Journal of Food Composition and Analysis</i>. • Tran LT, Brewster PJ, Chidambaram V, Hurdle JF., <i>An innovative method for monitoring food quality via assessment of healthfulness of consumers' grocery purchases</i>. Manuscript submitted to Nutrients. • Ricart G, Brewster PJ, Guenther PM., <i>An improved method for scoring the moderation components of a diet quality index</i>. Abstract submitted for presentation at Experimental Biology, Chicago, IL, April 2017.

ACCOMPLISHMENTS

RNECE-West accomplishments for this quarter.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
Testing of Mediums to Reach Program Graduates Long-term	<ul style="list-style-type: none"> Determine the best way to reach EFNEP and SNAP-Ed graduates 6 and 12 months post-graduation. 	<ul style="list-style-type: none"> No new results this quarter. New Mexico had a change of leadership and did not complete Phase I (contact past graduates to test best way to reach them 6 or 12 months post-graduation). Colorado has begun Phase II (contacting graduates at 6 months post-graduation using the specific medium the participants suggested). 	<ul style="list-style-type: none"> Reaching the EFNEP/SNAP-Ed target population long-term is difficult due to the transient nature of this population. Response rates were low in all categories. 	<ul style="list-style-type: none"> Data collection for Phase I (retrospective attempt to contact graduates) has been completed in Colorado, West Virginia and Kentucky. West Virginia and Kentucky will be starting Phase II soon.
RNECE-West Needs Assessment	<ul style="list-style-type: none"> Conduct an assessment to understand the regional implementation of nutrition education and obesity prevention public health approaches. 		<ul style="list-style-type: none"> Low response rates on both PSE and direct education surveys. 	<ul style="list-style-type: none"> Report is in final edits and will be posted to the web.

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
Long-Term Follow-Up Evaluation of Eating Smart Being Active	<ul style="list-style-type: none"> Determine the long term impact of Eating Smart Being Active on participant behavior, blood pressure, Body Mass Index (BMI) and HbA1c, delivered through EFNEP and SNAP-Ed. 	<ul style="list-style-type: none"> IRB approved in CO and WA. As of December 31, 2016, Colorado has collected data at pre (n = 72) post (n = 61) and 6 months post (n = 4). Washington has collected pre data from 19 participants. Both states will continue collecting data at the appropriate times. 	<ul style="list-style-type: none"> CSU has been collecting data from participants who speak English and participants who speak Spanish (72 people at pre, 61 at post, and 4 at 6 month post). WSU has collected time 1 from 8 people. 	<ul style="list-style-type: none"> In Colorado, the matched pre/post data shows that average values improved for all four measures: BMI, systolic and diastolic blood pressure (DBP) and HbA1c. Preliminary statistically significant changes were seen for HbA1c and DBP.
Validation of nutrition items on new EFNEP Behavior Checklist	<ul style="list-style-type: none"> Collect 3 phone dietary recalls after first and last lesson; new Behavior Checklist Questionnaire (BCL) items completed at those two time points. 	<ul style="list-style-type: none"> Eight states have collected data (new nutrition items and 3 day dietary recalls) from a total of 60 participants at pre and 30 at post. Recall data is being formatted so that statistics can be run to validate the nutrition items. 	<ul style="list-style-type: none"> States agreeing to participate: RI, CO, WY, SD, SC, TN, MD, MN. All states are collecting data. 	

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
Secondary Data Analysis	<ul style="list-style-type: none"> • Conduct a secondary data analysis of national EFNEP evaluation data set from 2007-2014. 	<ul style="list-style-type: none"> • 512,899 subjects with complete data. • National race / ethnicity breakdown was roughly 30% white, 30% black and 30% Hispanic. • Regionally % black was highest in the south (42%) and % Hispanic was highest in the west (57%). 	<ul style="list-style-type: none"> • Pretest scores are consistent over time as are change scores suggesting that EFNEP’s impacts are consistent over the years. • Predominant change scores: <ul style="list-style-type: none"> ▪ Healthy Eating Index (HEI) 70% of states improved 3-7 points on total score ▪ more than 2/3 of states improved on 3 BCL scales of 0.5-1 pts ▪ more than 70% of states improved by less than a ½ serving of fruits and less than a ½ serving of vegetables 	<ul style="list-style-type: none"> • Final report is complete and posted at http://wrnec.colostate.edu/docs/secondary-data.pdf

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
Environmental Support Activities	<ul style="list-style-type: none"> • Develop environmental support activities to couple with direct education. • Activities will be designed to empower EFNEP and SNAP-Ed participants to initiate change in their micro – environments. 		<ul style="list-style-type: none"> • Analysis of focus groups completed and initial report has been drafted. 	<ul style="list-style-type: none"> • Following focus group analysis, surveys and interviews will be conducted with program coordinators.
Youth Participatory Action Research	<ul style="list-style-type: none"> • RNECE-West Contract: Two-Year Assessment of <i>Youth Participatory Action Research - A PSE Intervention</i>. 	<ul style="list-style-type: none"> • The YPAR Evaluation Toolkit provides an overview of the development of the evaluation tools, instructions for use of data collections tools and the suggested evaluation process for YPAR. 	<ul style="list-style-type: none"> • YPAR Evaluation Toolkit. • Reliability Testing Protocol for future use. 	<ul style="list-style-type: none"> • Amended deliverables completed and report posted at http://wrnece.colostate.edu/docs/ypar.pdf • There is a protocol to assess reliability of the evaluation tools that can be implemented if additional funding can be secured.

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
Food Pantry Environmental Scan	<ul style="list-style-type: none"> • Explore avenues to pursue the development, field testing and validation of a food pantry environmental survey. 	<ul style="list-style-type: none"> • The food pantry assessment instrument was revised based on pilot testing. • Five states were recruited to field test the instrument (Wave 1) from October 2016 - May 2017 (WA, MT, CA, NH, MD), with two more states added for Wave 2, Jan-July 2017. • Field testing training started 9/30/16. Field tests will be conducted over a 6-8 month period with participating food pantry agencies and their community partners. 	<ul style="list-style-type: none"> • All IRBs have exempted this work. • Pantry recruitment is ongoing for Wave 2. • Wave 1 pantries, n=14. 	<ul style="list-style-type: none"> • A graduate research assistant at Colorado State University is assisting with data analysis and field testing.

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
<p>Sugar Sweetened Beverage (SSB) Intake among EFNEP Participants - An evaluation of the National EFNEP Database (continued on next page)</p>	<ul style="list-style-type: none"> RNECE-West Sub-award: Conduct a secondary analysis of the EFNEP data set from 2014 to include estimations of the change in sugar sweetened beverage (SSB) intake and expenditures among program participants. 	<ul style="list-style-type: none"> The 2014 EFNEP Western Region data set included 215,657 foods reported by 13,775 participants in a 24 hour recall format. The diet recall data was sorted according to <i>What We Eat In America</i> (WWEIA) food categories. For each food, for each category, for each participant, the recalls were split into pre- and post-intervention recalls. Likewise, the percent of daily calories for each food for each participant was calculated for each recall. Analysis of Variance was performed for each of the 9 major WWEIA categories to determine if pre/post recalls were different in percent calories. 	<ul style="list-style-type: none"> The F-test showed a significant difference existed for mixed dishes (category 3), with increased reporting for exit recalls. The F test did not indicate a likely difference in SSB intake between pre/post recalls, corroborated by the t-test (P = .74). The mean intake of SSB at entry was 23.6% of calories, compared to 26.2% of calories at exit. 	<ul style="list-style-type: none"> Further grouping of the SSBs by common category may indicate effective intervention targets.

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
<p>Sugar Sweetened Beverage (SSB) Intake among EFNEP Participants - An evaluation of the National EFNEP Database (continued)</p>	<ul style="list-style-type: none"> Evaluate the impact of EFNEP on SSB intake, calculate the impact of the EFNEP intervention on diet quality as estimated by the Healthy Eating Index 2010 (HEI2010) and estimate the expenditures being made on SSBs by EFNEP participants in the Western Region. 		<ul style="list-style-type: none"> The top 10 SSBs reported in this data set, using the 8 digit Food and Nutrient Database for Dietary Studies (FNDDS5) coding system, were: <ul style="list-style-type: none"> Soft drink, cola-type Fruit flavored drink (formerly lemonade) Soft drink, fruit-flavored, caffeine free Milk fruit drink Soft drink, pepper-type Fruit smoothie drink, made with fruit or fruit juice and dairy products Fruit smoothie drink Non Specified (NFS), Soft drink NFS, Soft drink fruit flavored caffeine containing Horchata beverage, made with rice 	

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
<p>Evaluation of a novel, low-cost, low-burden, scalable technology for evaluating EFNEP and SNAP-Ed Effectiveness</p>	<ul style="list-style-type: none"> • RNECE-W sub-award: Testing the feasibility of using QualMART to evaluate improvements in the home food environment through retail grocery food purchases. 	<ul style="list-style-type: none"> • Participant recruitment is complete, with 60 total participants. • Mapping UPCs/PLUs to What We Eat in America food groups for whole grains completed. • Currently waiting for an official Data Use Agreement (DUA) to be reached between grocery store partner and the University of Utah. Once this is in place, data can be transferred, and the data analysis process can be started. 		

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
<p>Multi-disciplinary methods for effective, sustainable, and scalable evaluations of nutrition education programs (RNECE Longitudinal Research Study, Utah State University) (continued on next page)</p>	<ul style="list-style-type: none"> To develop a tool for evaluating the effectiveness of EFNEP and SNAP-Ed over time by assessing the quality of household grocery food purchases. 	<p><u>Qualmart Aim</u></p> <ul style="list-style-type: none"> QualMART team met weekly. The data collection team for the QualMART aim (program directors from collaborating states, Dr. Durward, and others) met regularly to trouble shoot the data collection process and report on progress. Data collection has started in 4 out of 6 states. Still waiting on IRB approval in GA. In UT project was delayed waiting for the grocery store partner to agree and confirm the ability to recruit in their store lobbies. Recruitment has started for classes at grocery stores and participant recruitment from those classes will start by March. The DUA is still being negotiated with the grocery store partner. 	<p><u>Qualmart Aim</u></p> <ul style="list-style-type: none"> <i>Number of people recruited</i> <ul style="list-style-type: none"> ▪ UT – 0 ▪ CO – 23 ▪ TN – 11 ▪ ID – 11 ▪ WY – 6 ▪ GA – 0 	

RNECE-West accomplishments for this quarter continued on next page.

RNECE-West accomplishments for this quarter continued.

Achievement / Goal / Major Activity Completed	Specific Objectives Met	Results, including major findings, developments or conclusions (both positive and negative)	Key Outcomes or Other Achievements Realized	Additional Information
<p>Multi-disciplinary methods for effective, sustainable, and scalable evaluations of nutrition education programs (RNECE Longitudinal Research Study, Utah State University) (continued)</p>	<ul style="list-style-type: none"> • Measure at least two months prior and two months after program participation to assess feasibility, validate, and pilot test the Automated Self-administered 24-hour Recall (ASA24) for use in the low-income population. 	<p><u>ASA24 Aim</u></p> <ul style="list-style-type: none"> • The FEAST II team met regularly to plan, conduct, and coordinate activities. • FEAST II data analysis is ongoing. Assigning match categories to reported foods is taking longer due to increased number of food items reported (possibly due to more than three times as many participants as FEAST I). • Conversion of the Word version of the ASA24 training manual to an online interactive training with videos is complete. Nutrition educators from 18 states currently taking the training. In the next quarter we will collect feedback from them, via a questionnaire, for use in improving the manual for future users. 	<p><u>ASA24 Aim</u></p> <ul style="list-style-type: none"> • IRB approvals from Utah State University, University of Utah, Westat, Colorado, Tennessee, and Idaho remain in place. • The management team continued to meet weekly. Dr. Hurdle has stepped back to a reduced roll. He continues with financial management and consults as needed but does not participate in regular meetings. 	<p><u>ASA24 Aim</u></p> <ul style="list-style-type: none"> • FEAST II data analysis due to be complete by the end of the next quarter. Results will be submitted as an abstract for presentation at a national conference and as a manuscript for a high-impact journal.

COLLABORATIVE WORK AND MEETINGS

RNECE-West collaborative work and meetings held this quarter.

Major Activity	Specific Objectives Met	Results (major findings, developments or conclusions; positive and negative)	Key Outcomes or Other Achievements Realized
RNECE-West Leadership Team	<ul style="list-style-type: none"> Conference calls: 10.6.16 10.25.16 11.15.16 	Leadership team meets regularly to discuss RNECE-West project progress, develop protocols, develop advisory and steering committee agendas, complete reporting and work on RNECE-West led research projects.	<ul style="list-style-type: none"> Project protocols developed. Steering committee agendas developed.
PSE Advisory Group	<ul style="list-style-type: none"> Email update 10.13.16 	<ul style="list-style-type: none"> Updated advisory committee on project progress. 	<ul style="list-style-type: none"> Beginning June 2016, the advisory group received email updates following steering committee calls. If additional input is needed, the PSE Advisory group will be reconvened.
Nutrition education advisory group	<ul style="list-style-type: none"> Email update 10.13.16 	<ul style="list-style-type: none"> Updated advisory committee on project progress. 	<ul style="list-style-type: none"> Beginning June 2016, the advisory group received email updates following steering committee calls. If additional input is needed, the Nutrition Education Advisory group will be reconvened.
Steering Committee	<ul style="list-style-type: none"> Conference call 10.13.16 	<ul style="list-style-type: none"> Updated steering committee on project progress. 	

Outreach Activities and Dissemination of Information to Constituents of Interest

Outreach activities that have been undertaken by RNECE-West to reach members of communities who are not usually aware of these activities for the purpose of enhancing public understanding and increasing interest in learning and careers in science.

Graduate Student Projects:

- 2 graduate students involved in research projects (as Master's Theses) with the RNECE-West:
 - Environmental support activities
 - Long-term follow-up of Eating Smart • Being Active curriculum
- Graduate Research Assistant involved in field testing and validation of food pantry assessment tool.

RNECE Research Project Inventory

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
1	North Central	University of Illinois	Phase 1 Evaluating a Multi-Modal Community Nutrition Education Model within SNAP-Ed and EFNEP	8/1/2016 Phase I Completed Abstract Submitted	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Data collection instruments identified and/or developed. • Recruitment and baseline data completed. • Intervention and follow-up data collection nearly complete.
2	North Central	University of Missouri	Eat Smart In Parks (ESIP): Youth Mapping and Photovoice to Inform Healthy Food Environments	1/1/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Data collection instruments identified and/or developed. • Data collection and gallery events are complete • Research team currently analyzing the data and writing reports/manuscripts • Youth identified the following 3 themes: ads and influence, access, and healthy/unhealthy opportunities • These youth perspectives have been included in the ESIP toolkit.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
3 (cont. on next page)	North Central	University of Illinois	Phase 2 Evaluating a Multi-Modal Community Nutrition Education Model within SNAP-Ed and EFNEP in Illinois and Michigan	7/31/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Data collection instruments identified and/or developed. • Recruitment and baseline data collection in process. • Intervention in process. • Completed the first round of collection for the Social Network Analysis (SNA) surveys in Illinois (5 counties) and Michigan (6 counties). • A relevant manuscript has been accepted by the American Journal of Health. • Behavior detailing the findings from the initial Social Network Analysis. • Program proposal for conference session submitted to SNEB. • A relevant manuscript has been submitted to Preventative Medicine Reports this fall.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
3 (cont.)	North Central	University of Illinois	Phase 2 Evaluating a Multi-Modal Community Nutrition Education Model within SNAP-Ed and EFNEP in Illinois and Michigan	7/31/2017	<p>Program Participant Progress:</p> <ul style="list-style-type: none"> • 303 total participants recruited throughout five counties in Illinois • 117 participants completed three weigh-ins and three phone calls (Stage 1) • 105 have agreed to continue on in the study for an additional nine months (Stage 2) • Analysis ongoing regarding food security status, assistance program usage, BMI, and physical activity. • An abstract has been submitted to Experimental Biology detailing this process. • Environmental assessments (NAPSACC in early childcare settings, Smarter Lunchroom Assessments in K-12 schools, and a food pantry assessment in emergency food locations) are being finished in the 5 Illinois counties.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
4	North Central	Michigan State University Extension	Influence of PSE on Dietary Quality at Diverse Low Income Childcare Settings	7/31/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Data collection instruments identified and/or developed. • Recruitment and baseline data collection in process. • Intervention in process. 51 home child care providers have been recruited, and 37 pre-observations completed including five day menu analysis and direct diet observation of lunch and snack.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
5	North Central	Purdue University	A Longitudinal Randomized and Controlled Evaluation of the Integrated Impact of SNAP-Ed on Food Security and Obesity Prevention in Rural and Urban Counties	7/31/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Completed data acquisition, cleaning, construction of variables, checking assumptions, baseline comparative analysis, statistical modeling and determining the best model. • Completed Mixed-Modeling Analysis & Manuscript of Environmental Factor Influence on Food Security Improvement due to SNAP-Ed. • Paper, entitled “Urban or rural county status and environmental, nutrition, and lifestyle-related resources do not influence SNAP-Ed’s improvement in household food security in Indiana” submitted to American Journal of Public Health in 12/2016. • In Progress: Path analysis investigation of how factors (rural/urban status, community resources, and county characteristics) individually contribute to the impact on improvement in food security through integration of direct and PSE SNAP-Ed approaches.

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6	North Central	Purdue University	Survey development of 'participant survey of PSE' at Purdue	7/31/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Data collection instrument in development.
7	North Central	Ohio State University	Ohio SNAP-Ed in collaboration with the Ohio State University summer weight and environmental assessment trial	7/31/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contract finalized. • Literature reviewed and survey developed based on validated questions. • Focus group evaluation conducted. • IN pilot data collected for further validation. • Survey instrument reviewed by NCNECE Steering Committee. • Winter/spring data collection in NC States. • April/May NC meeting to review data.
8	Northeast	Hispanic Health Council	Nutrition Ed, Access and Texting (NEAT): Combining the Hartford Mobile Market with e-Marketing	9/30/2016 Project Completed Abstract Submitted	<ul style="list-style-type: none"> • IRB approval received. • Subaward contracts finalized. • Data collection instruments identified and/or developed. • Recruitment and baseline data collection nearly complete. • Intervention, data collection and analysis complete.

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9	Northeast	Johns Hopkins University School of Public Health	Successful Youth-Leader Program as part of a Multi-Level, Multi-Component Food Environment, Behavioral Intervention	9/30/2016	<ul style="list-style-type: none"> • IRB approval received. • Subaward contracts finalized. • Data collection instruments identified and/or developed. • Recruitment and baseline data collection nearly completed. • Intervention, data collection and analysis complete. <p>Project Completed</p> <p>Abstract Submitted</p>
10	Northeast	University of Maryland Extension	Transforming Lifestyles: Integrating Direct Nutrition Education with Physical Activity Using the Health Care System Expansion Model	9/30/2016	<ul style="list-style-type: none"> • IRB approval received. • Subaward contracts finalized. • Data collection instruments identified and/or developed. • Recruitment and baseline data collection completed. • Intervention and follow-up data collection completed. • Intervention, data collection and analysis complete. <p>Project Completed</p> <p>Abstract Submitted</p>

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
11	Northeast	University of Rhode Island	Empowering Urban Schoolchildren to Increase Fruit and Vegetable Consumption through EFNEP-enhanced PSE Interventions	9/30/2016 Project Completed Abstract Submitted	<ul style="list-style-type: none"> • IRB approval received. • Subaward contracts finalized. • Data collection instruments identified and/or developed. • Recruitment & baseline data collection complete. • Intervention, data collection and analysis complete.
12	Northeast	Cornell Cooperative Extension in Orange and Jefferson Counties	Adopting Healthy Habits in Worksites: Increasing adoption and acceptability of policy, systems, and environmental changes within agencies serving low-income families	6/30/2017	<ul style="list-style-type: none"> • IRB approval received. • Subaward contracts finalized. • Data collection instruments identified and/or developed. • Worksite PSEs implemented. • Recruitment & data collection for T1-T3 complete. • Direct nutrition education and further data collection underway.
13	South	University of Tennessee	Faithful Families in Tennessee: Improving the Health of Low Income Faith-Based Audiences	6/30/2016 Project Completed Abstract Submitted	<ul style="list-style-type: none"> • Intervention and Evaluation completed. • Final report submitted.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
14	South	UNC Center for Health Promotion Disease Prevention Healthy Retail	Healthy Retail	12/16/2016 Final Report Due 4/1/2017	<ul style="list-style-type: none"> • Conducted pre surveys with customers and store managers. • Conducted baseline store environment assessment. • Completed all phases of promotions and food demonstrations. • Post-test evaluation is in process.
15	South	University of Florida	Building Faith Through Health in the Community and Online	2/28/2017	<ul style="list-style-type: none"> • Completed the 9-week Faithful Families curriculum at two sites. • Post-assessments were completed by all participants. • PSE approaches were strategized and are in the process of being implemented at both locations. • Second round of program implementation started at four new sites.
16	South	University of Arkansas	Faithful Families: Implementation and Outcome Evaluation of Paraprofessionals and Volunteer Delivery Methods in Low-income Faith Communities	2/28/2017	<ul style="list-style-type: none"> • Interventions are complete. • Exit data collected. • 3-month follow up data has been collected.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
17	South	University of Georgia	Evaluation of online nutrition education eLearning program tailored to SNAP-Ed eligible adult Georgians	2/28/2017	<ul style="list-style-type: none"> • Focus groups transcribed and in the process of data analysis; PhotoVoice images are being analyzed. • Presented findings from the focus group portion of this project at the Society of Nutrition Education and Behavior conference in San Diego in August 2016. • Paper under review at the Journal of Nutrition Education and Behavior titled: Development of an Online Smartphone-based eLearning Nutrition Education Program for Low-Income Individuals. • Using preliminary findings from this evaluation of Food eTalk to inform the development of UGA SNAP-Ed's next nutrition education and obesity prevention curriculum, titled Food Talk: Better U.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
18	South	North Carolina State University	Social Media Guidance Materials	6/30/2017	<ul style="list-style-type: none"> • 500 posts across 37 NC counties have been identified from EFNEP Facebook pages, and content analysis is complete. Our aim is to identify the type of posts that result in the most engagement. • Follow-up site visits with Signature Projects will include interviews and a review of data to help determine if the collective evidence across Signature projects supports whether or not SM has an impact on program outcomes, recruitment and retention • We have found 5 EFNEP agencies willing to use the SM Guidance materials to develop a 1-month campaign to be implemented in the Fall 2016 (September – November). The participating agencies will participate in a phone interview in January to share thoughts regarding the design, engagement, and usefulness of the tools. We will use all of this information to revise and develop the tools for broad use by EFNEP and SNAP-Ed.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
19	West	Colorado State University	Secondary Data Analysis	8/1/2016	<ul style="list-style-type: none"> Final report is posted on the RNECE-West Website http://wrnece.colostate.edu/docs/secondary-data.pdf and accompanies the October, 2016 Quarterly Report. A data set of 512,899 participants with complete pre/post test data from the years 2007-2014 was created from national WebNEERS data. Analyses of the data, by region, examines race/ethnic and education level proportions, patterns of change scores from the Behavior Checklist scales and fruit or vegetable intakes (from the 24 hour recalls). The created data base is available to groups or individuals with strong statistics capabilities to conduct more sophisticated analyses.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
20	West	University of Alaska Fairbanks	Sugar Sweetened Beverage Intake among EFNEP Participants - An evaluation of the National EFNEP Database	11/1/2016 Project Complete Final Report Due 4/1/2017	<ul style="list-style-type: none"> • The F-test showed a significant difference existed for mixed dishes (category 3), with increased reporting for exit recalls. The F test did not indicate a likely difference in SSB intake between pre/post recalls, corroborated by the t-test (P = .74). • The mean intake of SSB at entry was 23.6% of calories, compared to 26.2% of calories at exit. • The top 10 SSBs reported in this data set (using the 8 digit FNDDS5 coding system) were: Soft drink, cola-type, Fruit flavored drink (formerly lemonade), Soft drink, fruit-flavored, caffeine free, Milk fruit drink, Soft drink, pepper-type, Fruit smoothie drink, made with fruit or fruit juice and dairy products, Fruit smoothie drink, NFS, Soft drink, NFS, Soft drink, fruit flavored, caffeine containing, Horchata beverage, made with rice.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
21	West	Colorado State University	Two-Year Assessment of Youth Participatory Action Research - A PSE Intervention	9/1/2016	<ul style="list-style-type: none"> Amended deliverables are complete. The YPAR Evaluation Toolkit (posted at RNECE-West website http://wrnece.colostate.edu/docs/ypar.pdf) provides an overview of the development of the evaluation tools, instructions for use of data collections tools and the suggested evaluation process for YPAR. In addition, there is a protocol to assess reliability of the evaluation tools that can be implemented if additional funding can be secured. <p>Project Completed</p> <p>Abstract Submitted</p>
22	West	Colorado State University	Behavior Checklist Validation (Nutrition Domain)	12/31/2016	<ul style="list-style-type: none"> Validation data has been collected from 60 participants at pre (completed the new questionnaire and two or three dietary recalls) and 30 participants at post. All data has been cleaned and analyses is underway. <p>Final Report Due 4/1/2017</p>

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
23 (cont. on next page)	West	Utah State University	Multi-disciplinary methods for effective, sustainable, and scalable evaluations of nutrition education programs (RNECE Longitudinal Research Study, Utah State University)	8/1/2017	<u>Qualmart Aim</u> <ul style="list-style-type: none"> • QualMART team continued to meet weekly. The data collection team for the QualMART aim (program directors from collaborating states, Dr. Durward, and others) met regularly to trouble shoot data collection process and report on progress. • Data collection has started in 4 out of 6 states. Still waiting on IRB approval in GA. In UT project was delayed waiting for the grocery store partner to agree and confirm the ability to recruit in their store lobbies. Recruitment has started for classes at grocery stores and participant recruitment from those classes will start by March. • The data use agreement is still being negotiated with the grocery store partner.

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
23 cont.	West	Utah State University	Multi-disciplinary methods for effective, sustainable, and scalable evaluations of nutrition education programs (RNECE Longitudinal Research Study, Utah State University)	8/1/2017	<p data-bbox="1312 300 1459 332"><u>ASA24 Aim</u></p> <ul data-bbox="1312 341 1984 1120" style="list-style-type: none"> <li data-bbox="1312 341 1984 414">• The FEAST II team continued to meet regularly to plan, conduct, and coordinate activities. <li data-bbox="1312 422 1984 625">• FEAST II data analysis is ongoing. Assigning match categories to reported foods is taking longer due to increased number of food items reported (possibly due to more than three times as many participants as FEAST I). <li data-bbox="1312 633 1984 836">• FEAST II data analysis is expected to be complete by the end of the next quarter. Results will be submitted as an abstract for presentation at a national conference as well as a manuscript for a high-impact journal. <li data-bbox="1312 844 1984 1120">• Conversion of the Word version of the ASA24 training manual to an online interactive training with videos is complete. Nutrition educators from 18 states currently taking the training. In the next quarter we will collect feedback from them, via a questionnaire, for use in improving the manual for future users.

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24	West	Utah State University	RNECE-West Subaward Evaluation of a novel, low cost, low burden, scalable technology for evaluation EFNEP and SNAP-Ed effectiveness	3/1/2017	<ul style="list-style-type: none"> • Participant recruitment is complete, with 60 participants total. • Mapping UPCs/PLUs to What We Eat in America food groups for whole grains was completed. • Currently waiting for an official DUA to be reached between grocery store partner and the University of Utah. Once this is in place, data can be transferred, and the data analysis process can start.
25	West	Colorado State University	Testing of Strategies to Reach Direct Education Participants Long-Term	8/1/2017	<ul style="list-style-type: none"> • Data collection (phase 1 retrospective attempt to contact graduates) for this project was completed in Colorado, Kentucky and West Virginia. • New Mexico was unable to participate. • Phase 2 involves a 6 month or 1 year prospective follow-up of graduates; this has begun in Colorado and will be underway in this quarter in Kentucky and West Virginia.

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26	West	Colorado State University	Food Bank Environmental Scan	8/1/2017	<ul style="list-style-type: none"> • The food pantry assessment instrument was revised based on pilot testing. • Seven states were recruited to field test the instrument from in 2 Waves: <ul style="list-style-type: none"> • Wave 1: October, 2016 - April 2017 (Washington, Montana, California, New Hampshire, Maryland). • Wave 2: January-July 2017 (California, Maryland, Delaware). • IRB exemption determination has been received for all testing sites. • Field test training started 9/30. • Field tests will be conducted over an eight-month period (per Wave) with participating food pantry agencies and their community partners. • Final data should be received by 7/30/2017. • Preliminary data analysis on Wave 1 will begin in May 2017. • Complete data analysis will begin in August 2017

Number	Center	Implementing Organization	Project Title	Projected End Date	Project Status
27	West	Colorado State University	Long Term Follow Up Evaluation of Eating Smart Being Active	8/1/2017	<ul style="list-style-type: none"> Amended deliverables will include completed collection of long-term follow-up data (BMI, blood pressure, Hemoglobin A1c, behavior checklist) in Colorado and Washington; protocols for long-term evaluation. In Colorado, data has been collected from 72 participants at pre, 61 at post and 4 at 6 months post. Washington has collected data from 19 participants at time 1.
28	West	Colorado State University	Developing Environmental Support Activities for Use in Conjunction with Direct Education	8/1/2017	<ul style="list-style-type: none"> A pilot focus group was completed with educators in Colorado; subsequently, questions were refined. 10 phone focus groups were completed with educators in multiple states. Transcriptions are complete and analysis is continuing. Interviews and surveys with program coordinators are planned in 2017 to augment the focus group results.

For more information, visit <http://rnece-ncc.org>