

Language in the SNAP-Ed Guidance refers to interventions as “Projects”. In PA SNAP-Ed, the term “Track” is used to describe a statewide intervention that is implemented by local partners (i.e. in PA a Track is a project) and detailed in Section D. Three life-cycle based programming tracks, developed cooperatively by the Management Entity of the PA Nutrition Education TRACKS (TRACKS) and local partners, are described in this section. Goals and objectives include key behavioral outcomes from the *Guiding Principles* and *SNAP-Ed Plan Guidance*, as well as others based on *2005 Dietary Guidelines for Americans* and *MyPyramid*.

Adult/Senior Track - The Adult/Senior Track is the project implemented across Pennsylvania for provision of nutrition education to Supplemental Nutrition Assistance Program (SNAP) eligible individuals aged 18 and older. Caregivers with dependent children are the primary audience with other eligible audiences served as well.

School-Age Track - The School-Age Track is the project implemented across Pennsylvania for provision of nutrition education to SNAP eligible children aged 5-17, or those in Kindergarten through 12th grade. Caregiver involvement with activities in this Track is encouraged to enhance the possibility of reaching SNAP eligible women with children.

Preschool Track - The Preschool Track is the statewide project for provision of nutrition education to preschool age children from SNAP eligible families. Caregivers are also targeted since they have the primary responsibility for food choice for preschool children.

Adult/Senior Track

1. Description of Track/Intervention

(a) Adult/Senior Track Goals and Objectives - All nutrition education goals and objectives specific to the adult/senior programming track are outlined in this section; these are related to statewide goal #1 – Implementation of the Programming Tracks.

Goal 1: Adopt behaviors consistent with current USDA guidance outlined in *MyPyramid* and *2005 Dietary Guidelines for Americans*.

Objective 1: Consume or intend to consume recommended amounts and variety of fruits daily

Objective 2: Consume or intend to consume recommended amounts and variety of vegetables daily

Objective 3: Consume or intend to consume recommended amounts of whole grain foods daily

Objective 4: Consume or intend to consume recommended amounts of low-fat calcium-rich foods daily

Objective 5: Be or intend to be physically active every day as part of a healthy lifestyle

Objective 6: Balance or intend to balance calorie intake from foods and beverages with calories expended

Objective 7: Choose or intend to choose a diet with adequate fiber

Objective 8: Use or intend to use the food label or package to make healthy food choices

Objective 9: Consume or intend to consume a diet low in saturated fat, trans fat and cholesterol and moderate in total fat

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

Objective 10: Choose or intend to choose beverages and foods to moderate intake of sugars

Objective 11: Adopt or intend to adopt food safety practices

Goal 2: Adopt behaviors that stretch food resources.

Objective 1: Use or intend to use shopping strategies to stretch food dollars

Goal 3: Adopt cognitive eating behaviors compatible with good health.

Objective 1: Increase practice of eating competence constructs

(b) Audience

The primary target is caregivers with dependent children. Secondary adult audiences (e.g. seniors) are also served. Participant demographics served by this Track vary depending on geographic location and site at which programming is provided (such as senior centers vs. public housing). TRACKS Statewide Needs Assessment (Appendix 1) provides specific demographic characteristics of the target audience.

(c) Focus on SNAP Eligibles

TRACKS intervention sites are chosen to maximize reach to SNAP eligibles. The number of County Assistance Offices (CAOs) selected as programming sites increased in FY 2010, demonstrating increased targeting to SNAP eligibles. Category 2 sites such as food pantries and low income housing are additional examples of sites in which interventions are delivered.

(d) Track Description

This Track includes both direct and indirect education strategies. Project implementation features are described in each local partner Statement of Work (such as key messages, duration, projected participants served, and total number of contacts).

Direct education. Delivery approaches include series or single session group classes, one-on-one education, and small group problem-based learning classes using curricula listed in section 1g. Engaging the target audience through experiential approaches is encouraged. PA TRACKS Adult/Senior Track direct education also includes core interventions and *TRACKS About Eating*.

Core intervention. PA TRACKS has established core interventions for the Adult/Senior Track. *Loving Your Family, Feeding Their Future: Nutrition Education Through the Food Stamp Program* will be used as the core intervention for caregivers with children. Local partners plan to utilize materials from this USDA developed intervention either as a 4 lesson series or delivered as single classes. *Eat Smart, Live Strong: Nutrition Education for Older Adults* will be (pending completion and release of the curriculum) the core intervention for adults ages 60-74 in sites such as senior centers. Local partners plan to utilize materials from this intervention either as a 4 lesson series or delivered as single classes.

TRACKS About Eating. Online modules consisting of 4-6 lessons that focus on the core constructs of the Satter eating competence model: eating attitudes, food acceptance, regulation of food intake and contextual skills (e.g. meal planning). Lessons provide education on enjoyment of meals, encouraging consumption of a wider variety of foods, self-trust to

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

manage food and eating, and other related topics (such as weight satisfaction and physical activity). This online intervention will provide a means for consistent, repeated exposure to for the TRACKS adult audience, a group that is often difficult to reach for face-to-face series classes.

Indirect education. Education disseminated via digital photo receiver (DPR) programs, community events, food tastings, and printed materials such as newsletters, fact sheets, or *State Nutrition Action Committee (SNAC)* materials will be provided to supplement direct interventions or as a means of recruitment.

(e) Summary of Research

Adult/Senior Track nutrition education methods include single and series classes, one-on-one individual sessions, multimedia (online modules), community health fairs, food demonstrations and tastings, and distribution of educational materials such as handouts, fact sheets, and newsletters. Most local partners delivering Adult/Senior Track programming use several of these strategies to address their nutrition education objectives. Integrating several different methods of presenting nutrition information provides both informational and experiential approaches to enhance behavior change. Research conducted with the Maryland WIC *Food for Life* program supports this approach (Havas, Anliker, Greenberg, et al., 2003).

Isobel Contento outlines several educational strategies that support meaningful learning for adults (2007, pgs 449-451). First, provide information that will be immediately useful for the learner. Many local TRACKS partners conduct single classes on one main nutrition objective, message, or behavior, such as how to read the food label while food shopping to help make healthier choices. Some local partners provide food pantry clients with newsletters that contain low-cost recipes incorporating food pantry items. A second strategy that supports meaningful learning is to recognize that adult learners are the decision makers in their own lives and often the nutritional gatekeepers for their families (Contento, 2007, pg 449). Correspondingly, TRACKS plans to utilize the FNS educational initiative *Loving Your Family, Feeding Their Future* as the core intervention for adults. This curriculum is designed to encourage participant dialogue in either single or series class settings. Facilitated group discussions can be an effective tool when educating adults. Discussion encourages the sharing of information and active participation resulting in shared understanding and motivated learners (Contento, 2007, pg 451).

Building on previous experience and knowledge is also an important educational strategy for this audience. Series classes allow participants to build on previous information and skills learned in prior sessions while key nutrition messages are continually reinforced. Sequencing the learning tasks from simple to more complex, including observations and opportunities for participants to practice can be another effective method for educating adults (Contento, 2007, pg 451). Food demonstrations and tastings are an integral component of TRACKS' direct and indirect education programming whereby participants have the opportunity to develop skills that address nutrition objectives. For example, demonstration of a simple, low-cost recipe fosters increased consumption of fruits and vegetables.

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

The Satter Model of Eating Competence (ecSatter) is a biopsychosocial model that addresses intrapersonal approaches to eating and food-related behaviors. Previous research suggests that interventions to enhance eating competence of low-income adults are needed and would be well-received (Lohse, Satter, Horacek, et al., 2007). During FY 2010, the Adult/Senior Track includes an online curriculum, *About Eating*, based on the constructs of ecSatter. Nineteen low-income adults evaluated this curriculum via the internet during FY 2008. Participants rated it as interesting (87%), useful (84%), well-designed (90%), of appropriate length (96%), easy to read (91%) and easy to navigate (97%). Only 35% of the 19 participants were considered eating competent supporting the need for nutrition education to enhance eating competence (TRACKS FY 2008 Final Report). Accessibility of online nutrition education for the target audience is supported by cognitive interview findings from TRACKS formative evaluation. Findings revealed that 80% of low-income persons interviewed had access to the internet at home or another location (Krall & Lohse, 2009). TRACKS local partner, Fayette Community Action Agency, programs at eligible sites with computer labs (such as senior centers or shelters) where online TRACKS-approved nutrition education websites are utilized to enhance nutrition knowledge of the audience while simultaneously teaching computer skills.

(f) Modification of Track Methods/Strategies

No modifications are planned for FY 2010.

(g) Use of Existing Educational Materials

Additional curricula or supporting materials listed after *Core Curricula* in the table below will be used to provide direct and/or indirect nutrition education that supplements the core interventions or that occurs in settings not conducive to core intervention delivery.

TITLE	AUTHOR/ DEVELOPER	DESCRIPTION
CORE CURRICULA		
Loving Your Family, Feeding Their Future, Nutrition Education Through the Food Stamp Program	USDA/FNS	4 discussion sessions covering nutrition and physical activity; includes staff support materials, participant handouts. Materials targeted and designed for English and Spanish speaking caregivers with children ages 2-18. In English & Spanish. Cost: None
Eat Smart. Live Strong	USDA/FNS	4 lesson behavioral intervention for adults ages 60-74; focuses on fruit and vegetable consumption and physical activity. English only. Cost: None
ADDITIONAL CURRICULA		
A New You: Health for Every Body	Wellness in the Rockies	10-lesson curriculum based on Health at Every Size model and non-diet approach; involves group discussion, journaling. English only. Cost: None to download, CDs \$25
Eating Smart, Being Active	Colorado State and UC-Davis EFNEP	8 lessons for caregivers that focus on nutrition and physical activity. Topics include exercise, food resource management, vegetables, whole grains, calcium, limiting high sugar/fat/salt-containing foods, lean protein, & healthy snacks. English only. Cost: \$51.96 for Educator Guide

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

FRIDGE (Food Related Inter-generational Discussion Group Experiences)	Matt Kaplan, PhD -Penn State University (PSU)	Program involving multiple generations within the family with the goal of fostering better communication and healthier food choices English only. Cost: None
Healthy Living	Barbara Myers, RD	10 lesson curriculum focusing on nutrition and physical activity for older adults; intended for group classes. English only. Cost: None
Money for Food (Oct 2007 ed.)	University of Wisconsin Cooperative Extension	13 lessons focusing on food resource management and food security. English only. Cost: None
MyPyramid	USDA	Official USDA food guidance; graphic representation of principles of the 2005 Dietary Guidelines; tracker feature gives guidance tailored to the user's gender and age; In English & Spanish. Cost: None
Problem Based Learning 1 (PBL1 lessons)	Penny Kris-Etherton, PhD, Tricia Psota & Barbara Lohse, PhD—PSU	Small group lessons utilizing a problem-based approach specifically designed to teach pre-menopausal women (usually mothers) about eating and lifestyle behaviors that are promoted in the Dietary Guidelines. English only Cost: None
Seniors Eating Well	Lynn James, PSU Cooperative Extension	9 lessons on nutrition & health for middle-aged and older adults. Lessons are 45 minutes; include visuals, handouts, recipes, & evaluation tools. English only. Cost: \$40
Simply Good Eating	University of Minnesota Cooperative Extension	Comprised of four units focusing on: moms and kids, seniors, nutrition and physical activity as part of a healthy lifestyle, and cooking on a limited budget. English only. Cost: \$102 for entire curriculum, units sold separately.
TRACKS About Eating	Barbara Lohse, PhD – PSU	4-6 web based lessons focusing on the constructs of eating competence. English only. Cost: None
SUPPORTING EDUCATIONAL MATERIALS		
Be Active, Healthy, and Happy!	USDA/ DHHS	8 chapter resource guide that outlines the 2008 Physical Activity Guidelines for Americans; An accompanying toolkit also contains posters, flyers, and fact sheets that promote and explain the guidelines. English only. Cost: None
Digital Photo Receiver programs	Barbara Lohse, PhD, RD Robin Rifkin, MS Kansas State University, funded in part by USDA	A Guide to Whole Grain Foods (Eng/Sp) A Guide to Eating Well (Eng/Sp) A Guide to Healthy Foods and Herbs (Eng) Breakfast is Smart* (Eng) Shop for Folic Acid (Eng/Sp)* *Kansas State University programs In English & Spanish. Cost: None
Finding Your Way to a Healthier You	USDA/ DHHS	12 page booklet summarizing the 2005 Dietary Guidelines in shorter, consumer friendly format. Addresses dietary quality, energy balance, food labels, food safety, and alcohol use. English only. Cost: None to download; \$21.60 for 100 color copies.

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

Fruits and Veggies: More Matters -CDC site -PBH site	CDC/DHHS/ NCI/ Produce for Better Health Foundation	Previously 5-a-Day sites; promote fruit and vegetable consumption; feature nutrition information & resources for professionals. English only. Cost: None
Good Food in Action Toolkit	USDA and SNAP-Ed projects in California	20 min. DVD demonstrating quick low-cost food preparation, poster display, brochures containing nutrition and food resource management tips, recipe cards, and resource guide; In English & Spanish. Cost: Contact PA NEN
Health Promotion Council's Low Literacy Educational Materials	Philadelphia's Health Promotion Council	Food For Health newsletters, lessons, and fact sheets that address fat, calcium, sodium, food safety, healthy weight, fruits, vegetables, label reading; In English & Spanish. Cost: None
Make Your Calories Count	FDA/DHHS	An online training module that reviews the Nutrition Facts label. English only. Cost: None
My Child, My Choices: Healthy eating when you are pregnant	University of Wisconsin-Extension	Colorful booklet for pregnant adolescents about nutrition, weight gain, taking care of self and baby, building decision-making skills. English only. Cost: \$2 per copy.
MyPyramid for Older Adults	University of Florida IFAS Extension	Adaptation of <i>MyPyramid</i> for use with older adults. The mini-poster outlines the <i>2005 Dietary Guidelines for Americans</i> that are specific to older adults; English only. Cost: \$15/pkg of 50.
<i>MyPyramid</i> handouts	Universities of Missouri & Florida ; Food and Health Communications	Power Point slides, handouts, lesson plans for teaching <i>MyPyramid</i> ; items for teaching adults/youth; English only. Cost: None for MO & FL materials; variable cost for Food and Health materials.
On The Table (SNAP-Ed Information and Resource Pamphlet)	PA NEN	Pamphlet to be distributed to SNAP Heads of Household at CAOs & contains nutrition information, tips for food resource management and referrals to local SNAP-Ed programs; In English & Spanish, Cost: \$0.50/booklet.
Pick a Better Snack	Iowa Dept. of Public Health	Newsletters, recipes, focused on increasing fruit and vegetable consumption; participants can subscribe to website and receive "Food, Recipe, Activity of the Week". In English/Spanish. Cost: None
State Nutrition Action Committee (SNAC) materials	PA NEN, PA Depts. of Public Welfare, Ed., Health, Ag., Aging, WIC	Downloadable newsletters, display materials for promotion of vegetables. Follows "Vegetable of the Month" format; includes information on purchase, storage, cooking, growing, and nutrition highlights of each vegetable. In English/Spanish. Cost: None
Stretching your Food Dollars	University of Wisconsin Cooperative Extension	Activity sheets and handouts that focus on food resource management. Includes recipes and money saving tips. English only. Cost: None

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

The Fruit and Vegetable Connection Magazine & Fruit and Vegetable Express Bites Website	Funded through a multi-state grant by USDA	Magazine format material for young adults; content based on Stages of Change model; focus on fruit and vegetable consumption and physical activity. English only Website provides interactive module providing assessment of and education on fruit and vegetable intake; In English & Spanish. Cost: None
---	--	---

(h) Development of New Educational Materials

New material development is not planned.

(i) Key Performance Measures/Indicators

Behavioral intention and/or mediators of behavior, such as knowledge and self-efficacy, will be assessed as outcome indicators for objectives listed in section 1a above.

2. Evaluation Plans**(a) Process Evaluation**

Process evaluation data, including education intervention and audience demographic information, will be collected via the STAR system from all TRACKS partners.

Core Intervention Evaluation. Evaluation of *Loving Your Family, Feeding Their Future (LYF)* intervention will continue to focus on process in FY 2010. Outcome evaluation development initiated in FY 2009 was suspended given the finding that *LYF* lessons were not widely used by partners. Educator feedback revealed that settings in which TRACKS SNAP-Ed delivery occurs (e.g. food pantries) are often not conducive to use of the *LYF* group discussion format because clients move in and out of sessions and/or the length of time available for education is brief. Group discussion participation is difficult to sustain in situations that do not facilitate development of trust among participants and between educator and participants. However, partners are using elements of *LYF* materials (e.g. handouts) and consider them relevant and user-friendly. Further process assessment is warranted to guide outcome evaluation. Process evaluation data will be collected from TRACKS educators either via telephone interviews or web survey and will focus on items such as: ease of obtaining and organizing materials for the lesson, barriers to use, and perception of how lesson format was received by target audience. Findings may lead to examination of alternative curricula for adult core interventions.

TRACKS About Eating Web Modules. Module use will be tracked using web statistics such as number of hits and time spent on lessons. Eating competence status will be assessed with online administration of the Satter Eating Competence Inventory for Low-Income Audiences.

Problem-based Learning (PBL). Use of the problem based approach will be evaluated for TRACKS educators and the target audience using qualitative methods such as focus groups and interviews. Qualitative methods are recognized as a valuable aspect of research methodology, particularly as relates to process or formative evaluation (Harris, Gleason, Shean, et al., 2009).

Eat Smart, Live Strong (ESLS). Process evaluation data will be collected from TRACKS educators via telephone interviews or web survey to solicit information on intended use of ESLS, perception of how the lesson format was received by target audience, and relevant barriers or facilitators of use. The client feedback surveys included with ESLS materials will be administered to assess client perceptions of ESLS lessons. Feedback from clients and educators will inform the need for development of additional evaluation tools.

(b) Outcome Evaluation

Post/Retrospective-Pre Evaluation Tools. A post/retrospective-pre protocol will be used to assess behavioral objectives related to food resource management, calcium intake, and food safety for TRACKS education delivered as single classes or individual classes within a series. Research suggests this methodology can extend the learning process by providing a means for participant self-reflection on behaviors targeted by an intervention and for reinforcement of self-efficacy (Hill & Betz, 2005). Administration of a retrospective pretest also reduces educator and respondent burden and provides more complete evaluation datasets (Swindle, Baker, Auld, 2007; Raidl, Johnson, Gardiner, et al., 2004). After receiving education, a topic-specific survey will be completed; participants will report behavioral intention and (retrospectively) their previous behavior. The Theory of Planned Behavior (Ajzen, 1991) is the theoretical basis for measuring intention as a means of predicting future behavior. A Spanish language version of the food resource management survey is available.

Newsletter Surveys. The FY 2009 revised newsletter survey will be used to elicit client reported behavior changes resulting from newsletter programming, and to provide client feedback for TRACKS partner use in developing locally tailored newsletters. Newsletter surveys are customizable by local partners to obtain feedback on specific recipes included in newsletters and to provide information on direct education opportunities in their service area, thus facilitating recruitment for more in-depth education.

(c) Formative Evaluation

New or revised evaluation tools will be formatively tested with the target audience by cognitive interviewing, focus groups, web-based interviewing, or other qualitative methods. Pending process findings, resources may be directed toward instrument development to measure PBL outcomes.

The food environment of low-income neighborhoods within West Philadelphia will be assessed, continuing earlier work conducted in rural and urban housing sites (Bose, Cook, Probart, et al., 2009) to determine residents' specific barriers to healthy eating. Assessment of neighborhood food outlets and local stakeholders and programs involved with food access will facilitate tailored nutrition education strategies for SNAP recipients with more likelihood of success.

3. Coordination Efforts

Refer to the **Statewide Coordination Efforts** section following the **Preschool Track**.

School-Age Track

1. Description of Track/Intervention

(a) School-Age Track Goals and Objectives - All nutrition education goals and objectives specific to the school age programming track are outlined in this section; these are related to statewide goal #1 – Implementation of the Programming Tracks. Specific grades targeted are found in parentheses.

Goal 1: Demonstrate knowledge and behaviors consistent with USDA guidance as outlined in the *2005 Dietary Guidelines for Americans* and *MyPyramid/MyPyramid for Kids*.

Objective 1: Address nutrition and health factors related to fruit consumption so that students will:

1. Identify a variety of fruits (K-2)
2. State the recommended amounts of fruits to consume daily (3-12)
3. Identify at least two health benefits of eating fruits (3-12)
4. Consume recommended amounts of fruits (8-12)

Objective 2: Address nutrition and health factors related to vegetable consumption so that students will:

1. Identify a variety of vegetables (K-2)
2. State the recommended amounts of vegetables to consume daily (3-12)
3. Identify at least two health benefits of eating vegetables (3 -12)
4. Identify the health benefits of vegetables from the different subgroups (3-12)
5. Consume recommended amounts of vegetables (8-12)

Objective 3: Address nutrition and health factors related to consumption of whole grains so that students will:

1. Identify a variety of whole grain foods (K-5)
2. State the recommended amounts of whole grain foods to consume daily (3-12)
3. Identify at least two health benefits of eating whole grain foods (3 -12)

Objective 4: Address nutrition and health factors related to consumption of calcium-rich foods so that students will:

1. Identify a variety of calcium-rich foods (K-2)
2. State the recommended amounts of calcium-rich food to consume daily (3-12)
3. Identify at least two health benefits of consuming calcium-rich foods (3-12)
4. Specify why fat-free or low-fat milk products are recommended instead of whole milk products (6-12)

Objective 5: Address health factors related to being physically active every day so that students will:

1. Identify alternatives to sedentary activities (K-12)
2. Identify at least two health benefits of physical activity (K-12)
3. Specify the Dietary Guideline recommended amount of daily physical activity (60 minutes most days) (3-12)

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

4. Meet recommended daily amounts of physical activity (8-12)

Objective 6: Address the concept that calorie intake from food and beverages should be balanced with calories expended so that students will:

1. Identify that energy comes from consuming food (K-12)
2. Demonstrate the ability to read food labels to determine the calorie content of food (3-12)
3. Identify how maintaining a balance between energy intake and energy output helps maintain a healthy weight (3-12)

Objective 7: Address nutrition and health factors related to consuming healthy snacks and beverages so that students will:

1. Identify a variety of healthy snacks (K-12)
2. Identify at least two reasons why eating snacks with lower fat and no added sugar is recommended instead of snacks with higher fat and added sugar (3-12)
3. Identify water and lower fat milks as healthier beverages options (K-12)
4. Identify 100% fruit juice (3-12)

Objective 8: Address nutrition and health factors related to eating a healthy breakfast most days so that students will:

1. State why it is important to eating a healthy breakfast (K-12th)
2. Know that a variety of foods can be healthy breakfast foods (K-12th)

(b) Audience

The primary target audience for this Track is children ages 5-17 (K-12th grade). Many TRACKS partners include education of caregivers in their school-age programming to address family nutrition behaviors and enhance reach to adults. TRACKS Statewide Needs Assessment (Appendix 1) provides specific demographic characteristics of the target audience.

(c) Focus on SNAP Eligibles

Eligible schools (i.e. those with $\geq 50\%$ free/reduced lunch enrollment) are primary target delivery sites for this Track.

(d) Track Description

This Track includes both direct and indirect education strategies. Project implementation features are described in each local partner Statement of Work (such as key messages, duration, and projected participants served and total number of contacts).

Direct education. School age education can be provided during the school day and/or in after school settings. Delivery approaches include series or single session classes (often incorporating games and/or food tastings) and brief, focused individual one-on-one education that may stand alone or may be used to reinforce messages delivered in other settings. School gardens and school markets are sometimes used as venues for experiential learning opportunities. Multimedia approaches incorporate web-based educational activities, computer games, video presentations, music, performance art, or other “non-traditional” educational elements (e.g. storytelling). Assembly programs provide a means for reaching large groups at

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

a relatively low cost per student. In order to extend and reinforce messages provided by these delivery approaches, follow up classes integrated with state education standards are conducted by classroom teachers. PA TRACKS School-Age Track direct education also includes a statewide core intervention and the *Pennsylvania Interdisciplinary Nutrition Curriculum*.

Core Intervention. TRACKS established a core intervention for 4th grade students in FY 2009 informed by results from previous TRACKS evaluation (Gromis et al, 2008). The intervention consists of four lessons about vegetables; three lessons are from USDA's Team Nutrition *MyPyramid for Kids* curriculum with an additional lesson that reinforces vegetable subgroups. Food tastings accompany all lessons. Lessons align with the Pennsylvania Department of Education (PDE) standards. Primary objectives are to increase knowledge and consumption of vegetables. Based on educator feedback, the lessons will be revised slightly to better fit the 45 minute lesson timeframe for delivery in FY 2010.

New to TRACKS for FY 2010. PDE has developed a 16-lesson *Pennsylvania Interdisciplinary Nutrition Curriculum*. Lessons align with PDE academic standards and are designed for students in grades K-12. Topics include *MyPyramid/MyPyramid for Kids*, fruits, vegetables, calcium, label reading, food media connection, energy balance, and factors influencing food choices. Nutrition lessons may be incorporated into a variety of different subject areas.

Indirect education is provided to students or caregivers via community events, food tastings, and printed materials such as newsletters or fact sheets. Posters, bulletin board displays, or classroom TV programming are used in tandem with classroom or after school programming to reinforce messages. Digital Photo Receivers (DPRs)/Videos are being tested in some sites as "learn-while-you-wait" options in locations where students normally wait, such as a nurse's office or cafeteria line.

(e) Summary of Research

School-Age Track methods include a variety of direct and indirect education strategies including single and series classes, assemblies, food demonstrations, taste testing, school gardens, nutrition education reinforcements, and multimedia. TRACKS school-age interventions employ both the Social Cognitive Theory (SCT) and the social-ecological model. SCT is the most widely used theory for the development of nutrition education and health behavior programming, providing not only a framework for understanding determinants of behaviors, but also a description of potential mediators of behavior change (Contento, 2007, pg 115). In line with FNS guidance that SNAP-Ed interventions are behaviorally focused and science-based (SNAP-Ed Guidance, pg 5), the constructs of SCT are applied in the School-Age Track. Behavioral capability is improved through the provision of nutrition knowledge and cognitive skills through various means (such as posters, handouts, demonstrations, multimedia, gardens, etc.). Development of behavioral skills such as cooking or food purchasing reinforces nutrition knowledge (Contento, 2007, pg 117). Findings from a recent literature review of studies involving garden-based nutrition education programs for school-age children, suggest that these programs may have potential to increase fruit and vegetable consumption among school-age participants (Robinson-O'Brien, Story & Heim, 2009). Several TRACKS local partners apply this theory construct through the delivery of

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

nutrition education classes that include a cooking and/or gardening component in which students learn about a nutrition concept but also gain hands-on experience. Another SCT construct, observational learning/modeling, is utilized when a nutrition educator conducts a food demonstration and provides an opportunity for school-age participants to practice the recipe (Contento, 2007, pg 117). Food demonstrations are widely used in PA SNAP-Ed to reinforce nutrition education concepts taught in the classroom.

Self-regulation/self-control involves goal setting, problem solving, and goal review (Contento, 2007, pg 120). TRACKS applies this SCT construct in the Statewide Fourth Grade Vegetable Core intervention through a goal setting activity in which the students specify a vegetable they would like to try and name actions that will support them in meeting this goal. Reinforcements, such as rewards or incentives, are also included in the SCT as potential mediators of behavior change (Contento, 2007, pg 117). Many TRACKS local partners distribute nutrition education reinforcement items of nominal value as a means of external reinforcement of a nutrition message delivered during a class. SCT's construct of self-efficacy describes the importance of an individual's confidence in carrying out an intended behavior or overcoming barriers to achieving the behavior. Practice application may involve assisting individuals in successfully making a change through small steps such as providing opportunities for modeling or mastering a behavior (Contento, 2007, pg 117-118). To improve self-efficacy relating to the preparation of vegetables as healthy snacks, students measure vegetables for a recipe while learning about recommended cup amounts from *MyPyramid* as part of the TRACKS Statewide *Fourth Grade Vegetable Core* intervention.

School-Age Track programming also utilizes the social-ecological model that outlines the multiple levels of intervention for nutrition education (Contento, 2007, pg 65). TRACKS programming intervenes at all levels from individual to policy and systems. Through direct education programming, individuals gain knowledge of nutrition through experiential learning. In addition, most TRACKS local partners now offer a caregiver nutrition education component (through classes, newsletters, websites, etc) that fosters learning at the intrapersonal level (e.g. family). Nelson, Lytle and Pasch (2009) found that parental nutrition knowledge of energy balance was a significant predictor of adolescent knowledge. TRACKS local partners include school districts and community organizations thus representing the institutional, organizational, and community level of the socio-ecological model. Finally, policy and systems level is represented through the partnership between the TRACKS and DPW in implementing and administering SNAP-Ed in Pennsylvania.

FY 2010 TRACKS indirect education will continue to utilize DPRs for delivery of nutrition education messages. DPRs have been shown to be a feasible and useful method of nutrition education in Pennsylvania. WIC participant feedback indicated that DPRs were easy to read and understand and a good way to learn about nutrition. Site coordinators were supportive of using DPRs in their clinics and observed participant interest in viewing the shows (Rifkin, Lohse, Bagdonis, et al., 2006; Lohse, Rifkin, Stotts, et al., 2009) For FY 2010, DPR content will target caregivers of school-age children and focus on the importance of family meals and making time for meals. Recent Project EAT (Eating Among Teens) findings revealed that family meals were positively associated with adolescent fruit and vegetable intake and

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

negatively associated with soft drink consumption. Family meals may improve dietary quality of adolescents through parental role modeling and/or the availability of foods adolescents may not otherwise choose on their own (Neumark-Sztainer, 2009). Regular family meals are also associated with increased frequency of breakfast, lunch, and dinner for males and increased frequency of breakfast and dinner meals for females 5 years later (Burgess-Champoux, Larson, Neumark-Sztainer, et al., 2009).

(f) Modification of Track Methods/Strategies

In FY 2009, FNS (USDA) released the publication *Maximizing the Message: Helping Moms and Kids Make Healthier Food Choices* that outlined 16 audience-tested core nutrition messages for use in the Federal nutrition assistance programs. Four of these messages are for mothers of elementary school-aged children, and five messages are for 8-10 year old children. TRACKS will train local partners on FNS core message development and use in PA for both direct and indirect education programming (e.g. classes, bulletin boards, and newsletters) for SNAP-Ed school-age participants and their caregivers during FY 2010.

DPR programs for caregivers of school-age children will be created from existing nutrition education materials and later distributed to local partners to enable them to strengthen their caregiver component through increased learning opportunities. Topics will relate to making time to prepare and eat healthy meals, encouraging families to eat together at meal times, and positive messages related to role modeling healthy eating and physical activity behaviors to their children. These DPR shows will be field tested during FY 2010. Target audience and TRACKS staff feedback will be gathered and used to guide the revision process.

Based on previous evaluation and needs assessment findings, TRACKS initiated a practical, ready-to-use educational intervention for partners with limited access to cost share entitled TRACKS Ready to Adopt and Implement Learning Structures (TRAILS) in FY 2009. TRAILS is a compilation of existing nutrition education materials repurposed for SNAP-Ed and structured to include all needed materials for lesson delivery, including a teacher guide with explicit instructions and guidance for implementation. Previous experience has shown that packaging nutrition education materials in this way results in ease of program implementation and consistency of lesson delivery by local partners. *TRAILS For Bones* consists of four lessons for middle school students that address the importance of adequate calcium intake. *TRAILS For Bones* was preliminarily pilot tested in FY 2009. Educator feedback will be used to refine the lessons and guide revisions to *TRAILS For Bones*.

(g) Use of Existing Educational Materials

Additional curricula and/or supporting materials listed after *Core Curriculum* in the table below will be used to provide direct and/or indirect nutrition education that supplements the core intervention or that occurs in settings not conducive to core intervention delivery.

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS
Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

TITLE	AUTHOR/ DEVELOPER	DESCRIPTION
CORE CURRICULUM		
Fourth Grade Vegetable Core	PA Nutrition Education TRACKS (USDA funded)	Four lesson for 4 th graders that focus on the benefits of the vegetable group and its subgroups; food tastings accompany each lesson and introduce a variety of vegetables to students; lessons align with PDE academic standards. English only. Cost: None
ADDITIONAL CURRICULA		
BodyWorks	Office on Women's Health, U.S. Dept. of HHS	10 session program for caregivers of adolescent females focusing on good nutrition, family food and physical activity habits, dialogue between caregivers and teens; teens attend 2 of 10 sessions. English only. Cost: None
Book in A Bag	Kansas State University Extension	Curriculum using age-appropriate storybooks with food-related themes, hands-on food and nutrition activities. Each lesson is centered around the food groups of MyPyramid, family times or mealtimes and includes an activity, recipes and a Dear Parent letter. English only. Cost: None
California Children's—Power Play! Campaign	CA Dept of Health Care Services and CA Dept of Public Health	10 lesson plans and classroom activities for 4 th and 5 th grade students. Includes parent tip sheets and teacher resource kits that promote fruit and vegetable consumption. In English & Spanish. Cost: None
Choice, Control, & Change (C3)	Teachers College Columbia University	C3 is a module from Linking Food and the Environment (LiFE) curriculum series, an inquiry-based approach to teaching science and health concepts. C3 is targeted to 6-8 th grade students. English only. Cost: \$30 for teacher guide
EAT.RIGHT. NOW.	Compiled from various sources by the School District of Philadelphia	K-12 curriculum focusing on MyPyramid, healthy breakfast, snacks, beverages, calcium, fruits and vegetables, whole grains, food safety; lessons grouped by grade level; include lesson plans, worksheets. English only. Cost: None
FRIDGE (Food Related Inter-generational Discussion Group Experiences)	Matt Kaplan, PhD -Penn State University	Program involving multiple generations within the family with the goal of fostering better communication and healthier food choices. English only. Cost: None
Horizon Student Nutrition Guide	Horizon Software International	Horizon Student Nutrition Guide is a comprehensive interactive nutrition and activity education resource for grades K-12 using the CDC National Health Education Standards and state standards from all 50 states. English only. Cost: \$99 for pkg
Kids Café	Commission on Economic Opportunity	18 lesson after school curriculum for grades 1-6 with focus on food safety and nutrition; lessons include interactive games. English only; Cost: None
Media Smart Youth: Eat, Think and Be Active! chapters 1, 2 (only activity B), 4, 5, 6, 8, and 9	US DHHS, NIH, and NICHD	7 chapters for students ages 11 to 13 that discuss the connection between media and health by using nutrition and physical activity examples that encourage youth to build their media analysis skills. Includes classroom materials, student and caregiver handouts, recipes, food tasting ideas, and group activities. English only. Cost: None

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

<u>MyPyramid</u> <u>MyPyramid for Kids</u>	USDA	Official USDA food guidance system; includes interactive “Tracker” feature, “Blast Off” game for kids. <i>MyPyramid for Kids</i> recommended for grades K-6. In English & Spanish. Cost: None
Nutrition Explorations: a) <u>Little D’s Nutrition Expedition</u> b) <u>Arianna’s Nutrition Expedition</u> c) <u>Bridges to Wellness</u> d) <u>Food Model Activities</u>	National Dairy Council	a) 10 lesson curriculum for 2nd grade; introduces the five food groups using stories, hands-on activities, and interactive video games. b) 8 lesson curriculum for 4th grade; explores MyPyramid for Kids using child characters, interactive games. c) Interactive lessons providing classroom instruction with school nutrition program-based activities for grades 5-10. d) Hands on activities for using life-size color photographs of commonly eaten foods. English only. Cost: None
<u>Pennsylvania Interdisciplinary Nutrition Curriculum</u>	PDE (funded by USDA)	Interdisciplinary curriculum of 16 lessons for K-12 that incorporate nutrition and physical activity topics into lesson plans that align with PDE state academic standards. English only. Cost: None
<u>Power Panther Pals</u>	Kansas State Dept. of Ed (funded by USDA Team Nutrition grant)	8-week health education program for 4-6th grade students to increase their fruit and vegetable consumption and physical activity; includes lesson plans, tastings, games and materials for caregivers. English only. Cost: None
<u>Professor Popcorn</u>	Purdue University Cooperative Extension Service	Curriculum for grades 1-6 exploring MyPyramid; each lesson includes nutrition concepts, a nutrition activity, food safety activity, brief physical activity, cooking activity, take home material, and evaluation tool. English only. Cost: \$50
<u>ReCharge!</u>	Action for Healthy Kids, NFL	After-school curriculum for grades 3-6 focusing on healthy food choices, energy balance, teamwork and goal setting. Curricula available in English. Parent newsletters available in English/Spanish. Cost: \$225 for kit
<u>Show Me Nutrition</u>	University of Missouri Cooperative Extension	Curricula for grades K-8 emphasizing nutrition, physical activity, and related decision making skills. English only. Cost: \$20 for printed copies, \$30 for CD’s
Smart Food Shopping for Teens Lessons 1-5, 7	University of Florida Extension Services (2004)	Six approved lessons for teens that include topics and activities about making healthy food choices when shopping, fruits, vegetables, breakfast, and a grocery store scavenger hunt. Exclude lesson 6 for SNAP-Ed. English only. Cost: None
<u>Team Nutrition: Nutrition Essentials</u>	USDA	Targeted to middle and high school; 6 lessons on MyPyramid, label reading, physical activity. Includes posters & handouts. English only. Cost: None
<u>Team Nutrition: The Power of Choice</u>	USDA	Targeted to pre-teens/young teens; 10 topic lessons on dietary choices, decision making skills related to diet, and consumer skills. English only. Cost: None

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

The Heat Club (Healthy Eating, Active Time)	Tufts University, Friedman School of Nutrition	Includes 26 hands-on activities to use with elementary school children in after school programs in order to improve eating habits and increase physical activity levels. Also includes family tip sheets matched with specific activities. Available in English, Haitian Creole, Portuguese & Spanish. Cost: \$50
Cooking With Kids	Lynn Walters and Jane Stacey	The program contains 3 spiral-bound, black and white curriculum guides and student journals (grades K-1, grades 2-3, and grades 4-6) which can be purchased individually or as a complete set. Engages elementary school children in hands-on learning with fresh and affordable food items from diverse cultures. Available in English and Spanish. Cost: \$150 for full set or \$55 for one grade
SUPPORTING EDUCATIONAL MATERIALS		
Chew This!	School District of Philadelphia	DVD presentations on variety of nutrition subjects; include live actors, animation, celebrities, recipes, and follow-up activities; generally for elementary age. English only. Cost: None
Digital Photo Receiver programs	Barbara Lohse, PhD, RD Robin Rifkin, MS	<i>Be Smart, Get a Good Start...Breakfast</i> Outlines the importance of breakfast and provides simple suggestions for a healthy breakfast. English only/ Cost: None
Eat Smart. Play Hard	USDA-FNS	Activity sheets, lesson plans, games, for elementary age. Focus on physical activity and general nutrition. Power Panther and Slurp mascots. English only. Cost: None
Food Smarts: MyPyramid for Kids DVD	Discovery Education	DVD for grades K-2 that features a diverse group of children in a summer camp setting learning about MyPyramid for Kids; uses concrete examples, games. English only. Cost: \$59.95
Fruits and Veggies: More Matters -CDC site -PBH site	CDC/DHHS/ NCI/ Produce for Better Health Foundation	Previously 5-a-Day sites; promote fruit and vegetable consumption; feature nutrition information, daily need calculator, shopping/cooking tips, Q&A list, resources for professionals, and an "ask the expert" interactive feature. English only. Cost: None
Fruit and Vegetables Coloring Book	Penn State Extension - Agriculture	20 page fruit and vegetable coloring book. English only. Cost: \$1.05 per book. (Publication #UK083)
Game On! The Ultimate Wellness Challenge Fuel Up to Play toolkit	Action for Healthy Kids, USDA, DHHS, National Dairy Council, and NFL	-Year-long school-wide program that challenges schools, students, and families to increase healthy food choices and physical activity into their daily lives; English only. Cost: None -Wellness toolkit for 2009-2010 school year that includes poster clings, banners, fact sheets, logos, newsletter drop-ins, and press releases. English only. Cost: None
How to Teach Nutrition to Kids	Connie Evers, MS, RD	Resource for integrating nutrition into the classroom, cafeteria, and home environments. Gives guidelines for instilling positive food attitudes, and explains how to make <i>MyPyramid</i> and Nutrition Facts food labels meaningful to children. Includes over 200 activities. English only. Cost: \$19.95

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

Learning Zone Express (School Nutrition and MyPyramid products only)	Learning ZoneXpress	Materials appropriate for K-12 th with key messages about healthy eating, physical activity, and <i>MyPyramid/MyPyramid for Kids</i> . Products include color worksheets, games, posters, table tents, banners, and nutrition education reinforcement items. In English & some in Spanish. Cost: Varies based on product.
Milk Matters	NIH, NICHD, DHHS	Public health education campaign to promote calcium consumption among tweens/teens (ages 11-15). Website includes 3 lesson plans for teachers and supporting classroom materials including caregiver handouts, glossary of terms, and a calcium fact sheet. English only. Cost: None
My Child, My Choices: Healthy eating when you are pregnant	University of Wisconsin-Extension	Colorful booklet for pregnant adolescents about nutrition, weight gain, taking care of self and baby, building decision-making skills. English only. Cost: \$2.00 per copy
MyPyramid lesson plans, worksheets, handouts	University of Florida Extension & University of Missouri Extension	Food Group word scramble sheets, coloring sheets, MyPyramid word search, "how much of each food group" sheets English only. Cost: None MyPyramid lesson plans by grade level. Tip sheets for following MyPyramid, coloring pages English only. Cost: None
Nutrition Fun with Brocc and Roll	Connie Evers, MS, RD	A 64-page activity guide including 42 pages of ready-to-copy activity sheets. Topics include self-assessment of current eating habits, goal setting, healthy snacking, gardening, food labels, and recipes. English only. Cost: \$14.95
Nutrition Nuggets newsletters	Resources for Educators	Prepared nutrition newsletters targeting caregivers of elementary students; include nutrition tips, recipes, ideas for increasing physical activity. Schools/school districts purchase subscription allowing unlimited reproduction. In English & Spanish. Cost: \$198-\$618 (based on size of school district) \$99 extra for Spanish
State Nutrition Action Committee (SNAC) materials	PA NEN, PA DPW, PA Depts. of Ed., Health, Ag., Aging, WIC	Materials promoting fruit and vegetable consumption; newsletters appropriate for caregivers with some games, puzzles for children; downloadable materials to make bulletin boards or table displays. In English/Spanish. Cost: None
Team Nutrition: Empowering Youth	USDA	Manual for after school programs and classrooms with youth 11-18. Contains hands-on activities that teach nutrition concepts. English only. Cost: None
Team Nutrition: Team Up at Home	USDA	Targeted to caregivers of younger elementary age children. Includes dietary and activity guidance, recipes, activity tips, activity sheets for children. English only. Cost: None
Wellness Ways Resource Book	University of Illinois Extension	Materials for teaching nutrition and healthy lifestyles include newsletters, activities, recipes and coloring books. English only. Cost: None
The Dairy Spot	Mid-Atlantic Dairy Association	Downloadable activity sheets, guides, handouts, posters, games and tip sheets available for all grades. Focus on Calcium. Also includes materials for parents. English only. Cost: None

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

School Breakfast: Ready, Set, Go!	School Nutrition Association	Breakfast promotion campaign for students K-12 that encourages participation in school breakfast as part of National School Breakfast Week 2010. Materials include suggested tasting activities, brochures, student activity sheets, banners, lesson plans (grades 5-10), an art contest, and ideas for parental involvement. English only. Cost: None
All 4 Kids: Happy, Healthy, Active Fit	University of Nevada Cooperative Extension	Four music videos (All 4 Kids Chant, Boogie Oogie Slide, Pack It Up, Ven Connmigo) that show youth demonstrating a variety of ways to be physically active. Musical styles include country line dance, hip-hop, and Latin salsa. All videos in English except Ven Connmigo which includes both English and Spanish. Cost: Free to download, \$5 for DVD/CD package.

(h) Development of New Educational Materials

New material development is not planned.

(i) Key Performance Measures/Indicators

Performance measures are listed for each objective in the Goals & Objectives section.

2. Evaluation Plans**(a) Process Assessment**

Process evaluation data, including education intervention and audience demographic information, will be collected via the STAR system from all TRACKS partners.

In addition to STAR, process evaluation data regarding the *Fourth Grade Vegetable Core*; *TRAILS for Bones; Choice, Control, and Change (C3)*; and the new *Pennsylvania Interdisciplinary Nutrition Curriculum* will be collected for specific lessons delivered. Other process evaluation of these initiatives will include feedback from educators via interviews or surveys, and observation of lesson delivery to determine program fidelity.

TRACKS values feedback from educators and considers their input essential to inform program planning and implementation. Therefore, methods for collecting educator experiences will be examined to determine best approaches. Use of technology such as wikis and web surveys will be considered along with more traditional survey methods. Data solicited from educators may include, but is not limited to: ease of obtaining materials for TRACKS lessons, barriers to implementing nutrition education in the classroom, and student perception of lesson format.

(b) Outcome Assessment

4th grade. Statewide outcome evaluation will be conducted for the *Fourth Grade Vegetable Core* intervention. Evaluation instruments tested for validity and reliability with 4th graders in New Mexico and Colorado (Lohse, Cunningham-Sabo, Walters, et al., 2008; Cunningham-Sabo, Lohse, Walters, et al., 2007) were modified for the TRACKS vegetable intervention. The modified survey measures attitude, self-efficacy, food preference, and knowledge. It will be administered to a statewide sample of 4th grade classrooms using a pretest/posttest protocol. Control school classrooms will be included in the sample where feasible. Trained staff will administer the evaluation surveys to children in their school classrooms.

8th-12th grade. A sample of students will be surveyed using a cross-sectional approach. Nutrition and physical activity items from the Youth Risk Behavior survey (Kann, Kolbe & Collins, 1993) will assess targeted student behaviors. These tools have been validated and determined to be reliable for assessing eating and activity behaviors in middle and high school age students. Nutrition and physical activity related behaviors will be compared from year-to-year for students in TRACKS schools and in control schools where feasible. This cross-sectional data will also be used as a needs assessment to guide future program planning and evaluation efforts.

(c) Formative Assessment

DPR shows for caregivers of school age children will be field tested; feedback from both the target audience and TRACKS staff will be gathered and used to guide the revision process.

Pending process findings, resources may be directed toward designing outcome evaluation methodology and development and testing of evaluation instruments for TRAILS education.

3. Coordination Efforts

Refer to the **Statewide Coordination Efforts** section following the **Preschool Track**.

Preschool Track

1. Description of Track/Intervention

(a) Preschool Track Goals and Objectives – All nutrition education goals and objectives specific to the preschool programming track are outlined in this section; these are related to statewide goal #1 – Implementation of the Programming Tracks.

Goal 1: Preschool children and their caregivers will have increased awareness of and exposure to a variety of healthy foods consistent with *2005 Dietary Guidelines for Americans* and *MyPyramid for Kids*.

Preschoolers will:

Objective 1: Recognize a variety of fruits and vegetables

Objective 2: Taste a variety of fruits and vegetables

Objective 3: Recognize healthy snack /beverage choices

Objective 4: Taste a variety of healthy snack /beverage choices

Objective 5: Recognize a variety of calcium-rich foods

Objective 6: Taste a variety of calcium-rich foods

Objective 7: Recognize healthy breakfast foods

Caregivers of preschool children will:

Objective 8: Identify a variety of foods from each *MyPyramid* food group

Objective 9: List at least two reasons why it is recommended that preschoolers eat a variety of foods within and among *MyPyramid* food groups every day

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

Goal 2: Preschool age children and their caregivers will be aware of the importance of physical activity as part of a healthy lifestyle.

Objective 1: Preschoolers will state why it is important to be physically active every day.

Objective 2: Caregivers of preschoolers will be able to identify the benefits of engaging their child in regular physical activity.

Goal 3: Include the psychodynamics of feeding behavior for preschoolers and their caregivers in nutrition education.

(b) Audience

The primary audience is preschoolers and their caregivers. The Statewide Needs Assessment (Appendix 1) provides specific demographic characteristics of the target audience.

(c) Focus on SNAP Eligibles

Primary delivery sites are preschools or day care centers; eligibility of sites is generally determined based on free/reduced school lunch data for preschool sites located in elementary schools and/or enrollment data for the Child and Adult Care Food Program.

(d) Track Description

This Track includes both direct and indirect education strategies. Project implementation features are described in each local partner Statement of Work (such as key messages, duration, and projected participants served and total number of contacts).

Direct education interventions. Curricula employ a sensory approach, including food tasting and recognition of a variety of healthy foods, with short but frequent interactions, and are most appropriate for children in group settings. Series lessons involve hands-on activities, songs, games, poems, books, and/or crafts all related to the nutrition content of the lesson. Classes or individual one-on-one education for caregivers reinforce messages presented to children and address questions or concerns relevant to family meals and family activity as part of a healthy lifestyle.

Indirect interventions. Family events, food tastings, and distribution of newsletters or fact sheets to caregivers supplement direct interventions or provide a means of recruitment into direct education activities.

(e) Summary of Research

Research with preschoolers suggests that division of responsibility in feeding can be an effective means of increasing both preference for, and subsequent consumption of, targeted foods (Satter, 2008, pg 58). Allowing preschoolers to choose whether to eat foods put on the table and how much of those foods was shown to increase the likelihood that children would try new foods (Satter, 2008, pg 268). Preschool-aged children consumed more servings/day of low-fat dairy and fewer servings/day of sweetened drinks, salty and sweet snack foods daily than school-aged children as assessed by parent report. Interventions for meeting dietary recommendations should start with families of preschool-aged children and future research should focus on identifying factors that might be contributing to increase reporting of problematic food patterns in school-aged children (Raynor, Jelalian, Vivier, et al., 2009).

During FY 2009, TRACKS conducted interviews with low-income caregivers of preschoolers to assess knowledge of appropriate feeding behaviors and dietary requirements of preschoolers, use of appropriate feeding behaviors, strategies used to help their children meet nutritional requirements, and interest in developing appropriate feeding behaviors and knowledge of dietary requirements for preschoolers. Interviews encompassed both qualitative interview questions and quantitative questionnaires. Qualitative results revealed a vague knowledge of what preschool-age children should be eating and clear racial/ethnic differences in knowledge, attitudes, perceptions and goals. Caregivers described using a wide array of strategies to get their children to eat, including pressure, encouragement, substitution, restriction, modeling, food modification, and problem avoidance. Quantitative analyses also revealed racial/ethnic differences in caregiver feeding practices. Findings from these interviews support the need for tailored nutrition education that addresses specific child feeding practices and concerns of diverse, low-income preschool caregivers in PA (Ventura, Lohse & Gromis, 2009). During FY 2010, TRACKS plans to implement *TRAILS for Tots*, a 4-lesson curriculum for preschoolers and caregivers, as well as DPRs incorporating FNS Core Messages as educational approaches to the target audience.

One research study indicated that child feeding practices may be modifiable. An analysis of child feeding factors among 3 groups of mothers using newsletters, booklets and control revealed a significant decrease in the “pressure to eat” score for participants in the newsletter group (Essery, DiMarco, Rich, et al., 2008). Distribution of parent newsletters is an integral part of TRACKS preschool programming.

(f) Modification of Track Methods/Strategies

During FY 2009, TRACKS initiated a practical, ready-to-use educational intervention called TRACKS Ready to Adopt and Implement Learning Structures (TRAILS) that consists of a compilation of existing SNAP-Ed appropriate nutrition education materials repurposed and packaged into an easy-to-use kit that includes all needed materials for lesson delivery and explicit instructions and guidance for implementation. Previous experience has shown that packaging nutrition education materials in this way results in ease of program implementation and consistency of lesson delivery by local partners. In response to FY 2009 TRACKS preschool needs assessment findings, TRACKS has begun development of *TRAILS For Tots* focused on the psychodynamics of feeding behaviors for preschoolers and their caregivers. *TRAILS For Tots* consists of nutrition education lessons for both preschoolers and their caregivers and will be piloted during FY 2010.

DPR programs for caregivers of preschool-age children created in FY 2009 will be distributed to local partners in FY 2010 to enable them to strengthen their caregiver component through increased learning opportunities. This caregiver DPR program will align with *TRAILS For Tots* content and relate to making time to prepare and eat healthy meals, encouraging families to eat together at meal times, and positive messages related to role modeling healthy eating and physical activity behaviors to their children.

In FY 2009, FNS (USDA) released the publication *Maximizing the Message: Helping Moms and Kids Make Healthier Food Choices*, which outlined 16 audience-tested core nutrition

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

messages for use in the Federal nutrition assistance programs. Of the 16 core messages, seven target mothers of preschool-age children. These message concepts relate to role modeling, cooking and eating together, and the division of feeding responsibility. During FY 2009, TRACKS trained local partners on message development and use of FNS core messages in PA. Local partners will be encouraged to incorporate these messages into both direct and indirect education programming (e.g. classes, bulletin boards, newsletters) during FY 2010. In addition, core messages for moms of preschoolers will be incorporated into *TRAILS For Tots*.

(g) Use of Existing Educational Materials

Curricula and/or supporting materials listed in the table below will be used to provide direct and/or indirect nutrition education to preschoolers and their caregivers during FY 2010.

TITLE	AUTHOR/ DEVELOPER	DESCRIPTION
CURRICULA		
Chef Combo	National Dairy Council	18 activities for ages 4-5; foci are basic nutrition concepts and basic culinary and food safety skills; involves food tasting and simple cooking activities. English only. Cost: None
Eat Well, Play Hard	New York State Department of Health	This ten-module curriculum was designed for three- and four-year olds and their parents. In addition to the ten lesson plans and related activities, the curriculum includes handouts, references, additional resources, and a handout disc. English only. Cost: None
F.U.N. (Families Understanding Nutrition)	Albert Einstein Healthcare System staff	26 lesson series for ages 3-5; uses the alphabet to teach about fruits and vegetables; lessons include taste testing, song, movement, games, crafts English only. Cost: None
Keystone Color Me Healthy	Adapted from original Color Me Healthy developed by NC Extension Service + N.C. DPH	Adapted from the original Color Me Healthy Curriculum; lessons encourage healthy foods and physical activity for ages 4-5; materials emphasize colors of fruits and vegetables; incorporates music, taste testing. English only. Cost: None
MyPyramid for Preschoolers	USDA	USDA food guidance system that targets children ages 2-5; includes personalized worksheets, information on developing healthy eating habits & physical activity preschool-age children and their caregivers. In English & Spanish. Cost: None
Show Me nutrition – Let’s Read about Healthy Eating	University of Missouri Cooperative Extension	11 lesson curriculum for preschoolers focuses on healthy eating, tasting healthy foods, engaging in physical activity, and practicing healthy habits such as hand washing. Includes books, handouts and visual aids. Family newsletters available to order. English only. Cost: \$50

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

Team Nutrition Fruit and Vegetable Lessons for Pre-School Children	USDA	10 lessons designed as a supplement to the Color Me Healthy Curriculum but developed to use as a hands-on, stand-alone curriculum for anybody wanting to encourage preschool children to develop healthy eating and physical activity habits. English only. Cost: None
SUPPORTING EDUCATIONAL MATERIALS		
Iowa Veggie Grant Project	Developed by Iowa Dept. of Public Health and Iowa State University	42 modules for counseling caregivers on providing fruits and vegetables to children; based on Stages of Change model; includes screening tool, lesson plans, and supplementary materials. English only. Cost: None
Lunchbox Chatter	Penn State University, PSU Cooperative Extension	5 newsletters that target caregivers of preschoolers; addresses the topic of packing healthy lunches for preschoolers & includes suggestions for ways to incorporate fruits, vegetables, grains, protein, and dairy foods; contains a worksheet for the child to complete. English only. Cost: None
Nutrition in Every Theme	Penn State Cooperative Extension	6 activity booklets for caregivers that focus on specific nutrition objectives including fruits, vegetables, whole grains, food safety and cooking skills using a single theme; each includes recipes, nutrition tips, relevant storybooks, art or craft activities. English only. Cost: None to download.
State Nutrition Action Committee (SNAC) materials	PA NEN, PA Depts. of Public Welfare, Ed., Health, Ag., Aging, WIC	Downloadable newsletters, display materials for promotion of vegetables. Follows “Vegetable of the Month” format; includes information on purchase, storage, cooking, growing, and nutrition highlights of each vegetable. English only. Cost: None
Nibbles for Health: Nutrition Newsletters for Parents of Young Children	USDA, FNS (revised 2008)	40 reproducible newsletters developed for child care center staff and parents of young children enrolled in child care centers. Updated version includes a CD that offers child care center staff guidance on conducting discussions with parents in four sharing sessions, four posters, and packages of two mini-posters. English only. Cost: None

(h) Development of New Educational Materials

New material development is not planned.

(i) Key Performance Measures/Indicators

Key performance measures include recognition and identification elements of stated objectives.

2. Evaluation Plans

Process evaluation data, including education intervention and audience demographic information, will be collected via the STAR system from all TRACKS partners.

Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

TRAILS for Tots initiative will be piloted and evaluated from a process perspective with feedback solicited from local partners on lesson content, materials, and format.

DPR shows for caregivers of preschool children will be field tested; feedback from both the target audience and TRACKS staff will be gathered regarding message comprehension and receptivity to the DPR format. Findings will be used to guide the revision process.

Formative testing of the Satter Feeding Your Child (fdSatter) survey will include cognitive interviews with preschool caregivers to assess understanding of survey items and to determine need for adaptation for the low income audience. The fdSatter survey measures two constructs of feeding dynamics, child autonomy and parent authority.

Outcome evaluation will include administration of the fdSatter survey to caregivers receiving DPR or TRAILS education to assess feeding dynamics and field test the survey with the TRACKS audience.

3. Coordination Efforts

Refer to the **Statewide Coordination Efforts** section below.

Statewide Coordination Efforts

Pennsylvania utilizes a locally driven model for SNAP-Ed delivery, enhancing collaborative efforts with other community agencies with similar goals. TRACKS partners coordinate nutrition education with several other nutrition-related programs serving low-income Pennsylvanians.

- Pennsylvania's State Nutrition Action Committee (SNAC) is a collaborative effort involving the PA Departments of Education, Health, Agriculture, Welfare, and Aging; the Pennsylvania Nutrition Education Network (PA NEN) is the SNAP-Ed representative. The goal of the SNAC efforts is "encouraging partnerships and collaborative interventions between the nutrition assistance programs and other related groups, such as public health programs, healthcare providers, schools, faith-based groups, and other community organizations in the consumption of at least five fruits and vegetables a day." SNAC materials promote a vegetable-of-the-month, featuring PA-grown produce with related recipes and purchasing, storage, and gardening tips. The intended outcome for consumers is to increase vegetable intake by providing consumers with widespread exposure to consistent messages. PA NEN will continue to provide these materials in downloadable format from their website, which now include some materials in Spanish. Additional PA NEN-facilitated SNAC efforts for FY 2010 include: translating more materials into Spanish, updating existing and developing materials for new Pennsylvania-specific produce, and the development of a toolkit format for use in County Assistance Offices will be explored.
- Penn State University Nutrition Links coordinates EFNEP programming in PA. In the locations that have both EFNEP and SNAP-Ed, efforts are made to ensure that individuals do not receive both types of programming; seniors, schools, and individuals who are not categorically eligible for EFNEP (e.g. males without dependent children) are designated for SNAP-Ed programs. EFNEP and SNAP-Ed strive to meet similar nutrition goals and present shared key messages to the target audience.
- Since women and children make up a large portion of Pennsylvania's SNAP eligible population, potential collaboration with WIC exists to reinforce and build upon shared nutrition messages to make the greatest impact on this key target audience. TRACKS partners that have WIC-based interventions complete Memoranda of Understanding (MOU) that outline responsibilities of all parties to coordinate nutrition education efforts.
- TRACKS partners that have school-based interventions complete Memoranda of Understanding (MOU) that outline responsibilities of all parties to coordinate nutrition education. Team Nutrition curricula and supporting materials are used jointly when possible.
- TRACKS partners that have Head Start based interventions complete a Memorandum of Understanding (MOU) that outlines responsibilities of all parties to coordinate nutrition education efforts.
- TRACKS partners provide SNAP-Ed services to eligible senior centers in conjunction with the Congregate Meals program.
- Many TRACKS partners provide nutrition education to clients of local food pantries. Efforts are made to provide nutrition information that will enhance the ability of food pantry clients to use the foods provided to them as part of a healthy diet.

References

- Ajzen I. The theory of planned behavior. *Organ Behav Hum Decision Processes*. 1991;50: 179-211.
- Bose M, Cook J, Probart C, and McDonnell E. Impediments to Healthy Eating: The Case of Public Housing Sites Neighborhoods in Harrisburg, PA. *Journal of Planning Education and Research*, 2009. In review.
- Burgess-Champoux T, Larson N, Neumark-Sztainer D, Hannan P, Story M. Are family meal patterns associated with overall diet quality during the transition from early to middle adolescence? *J Nutr Educ Behav*, 2009; 41(2): 79-86.
- Contento I. *Nutrition Education: Linking Research, Theory, and Practice*. Boston: Jones and Bartlett Publishers, 2007. pp. 65, 115-121, 236-237.
- Cunningham-Sabo L, Lohse B, Walters L, Stacey J, Hewitt-Redl C. What children have to say: Use of cognitive interviews to develop research instruments. *J Nutr Educ Behav* 2007; 39 (4 Suppl): S122.
- Essery E, DiMarco N, Rich S, Nichols D. Mothers of preschoolers report using less pressure in child feeding situations following a newsletter intervention. *J Nutr Educ Behav*, 2008; 40: 110-115.
- Gromis J, Wall D, Lohse B, Gingrich T. Pennsylvania food stamp nutrition education evaluation leads to core vegetable intervention for 4th graders. *J Amer Diet Assoc* 2008; 108; 9 (Suppl3): A-84.
- Harris JE, Gleason PM, Sheean PM, Boushey C, Beto JA, Bruemmer B. An introduction to qualitative research for food and nutrition professionals. *J Am Diet Assoc*, 2009; 109: 80-90.
- Havas S, Anliker J, Greenberg D, Block G, Block T, Blik C, Langenberg P, DiClemente C. Final results of the Maryland WIC food for life program. *Prev Med*. 2003; 37: 406-416.
- Hill LG and Betz DL. Revisiting the retrospective pretest. *Amer J Eval*, 2005; 26(4): 501-517.
- Kann L, Kolbe LJ, Collins JL. Measuring the health behavior of adolescents: the Youth Risk Behavior Surveillance Survey and recent reports on high-risk adolescents. *Public Health Report*. 1993;108(S1): 2-10,37-41,60-66.
- Krall JS, Lohse B. Interviews with low-income Pennsylvanians verify a need to enhance eating competence. *J Amer Diet Assoc*. 2009; 109 (3): 468-473.
- Lohse B, Cunningham-Sabo L, Walters L, Stacey J. Surveys of fruit and vegetable preference, attitude, and self efficacy for food preparation show test-retest reliability with fourth and fifth graders. *J Nutr Educ Behav* 2008; 40 (4 Suppl): S27 – S28.
- Lohse B, Rifkin R, Stotts JL, Cooper RG. Herbal education is reasonable and necessary for Food Stamp program participants. *J Nutr Educ Behav*, 2009. Accepted for publication.
- Lohse B, Satter E, Horacek T, Gebreselassie T, Oakland MJ. Measuring eating competence: Psychometric properties and validity of the ecSatter inventory. *J Nutr Educ Behav*, 2007; 39(5S): S154-S166.
- Nelson M, Lytle L, Pasch K. Improving literacy about energy-related issues: the need for a better understanding of the concepts behind energy intake and expenditure among adolescents and their parents. *J Amer Diet Assoc*. 2009; 109(2): 281-287.

FY 2010 PENNSYLVANIA NUTRITION EDUCATION TRACKS
Programming Tracks: Goals, Objectives, Interventions, Evaluation & Collaboration

Neumark-Sztainer D. Preventing obesity and eating disorders in adolescents: what can health care providers do? *J of Adolescent Health*. 2009; 44: 206-213.

Pennsylvania Nutrition Education TRACKS, FY 2008 Final Report to FNS Mid-Atlantic Region: Supplemental Nutrition Assistance Program Education (SNAP-Ed) Across the Commonwealth of Pennsylvania.
<http://www.panutritiontracks.org/public/documents/TRACKSFiscalYear08FinalReport.pdf> Accessed 4/24/2009.

Raidl M, Johnson S, Gardiner K, Denham M, Spain K, Lanting R, Jayo C. Use retrospective surveys to obtain complete data sets and measure impact in extension programs. *JOE* 2004; 42(2):
<http://www.joe.org/joe/2004april/rb2.php> Accessed 4/24/2009.

Raynor H, Jelalian E, Vivier P, Hart C, Wing R. Parent-reported eating and leisure-time activity selection patterns related to energy balance in preschool and school-aged children. *J Nutr Educ Behav*. 2009; 41: 19-26.

Rifkin R, Lohse B, Bagdonis J, Stotts J. Digital Photo Receivers are a Viable Technology for Nutrition Education of Low-Income Persons. *J Nutr Educ Behav*. 2006; 38: 326-328.

Robinson-O'Brien R, Story M, Heim S. Impact of garden-based youth nutrition intervention programs: a review. *J Amer Diet Assoc*. 2009; 109 (2): 273-280.

Satter E. *Secrets of Feeding a Healthy Family*. 2nd edition. Kelcy Press 2008.

Swindle S, Baker SS, Auld GW. Operation Frontline: Assessment of longer-term curriculum effectiveness, evaluation strategies, and follow-up methods. *J Nutr Educ Behav*. 2007; 39: 205-13.

Ventura AK, Lohse B, Gromis J. Feeding practices and styles used by racially-diverse, low-income parents of preschool-age children. *J Nutr Educ Behav*. 2009. In review.