

## ***Eating Smart • Being Active*** **Curriculum Description and Evidence-Base**

***Eating Smart • Being Active*** is a nutrition education, healthy lifestyles curriculum for low income adults with young children developed at Colorado State University and University of California at Davis. In 2010, the curriculum won the National Extension Association of Family and Consumer Sciences (NEAFCS) National Educational Curriculum award and was featured as a resource with a published review in the September/October 2010 issue of the Journal of Nutrition Education and Behavior (JNEB).<sup>1</sup> The curriculum was also reviewed by and accepted for inclusion in the online resource center, SNAP-Ed Connection ([http://snap.nal.usda.gov/foodstamp/resource\\_finder\\_details.php?id=567](http://snap.nal.usda.gov/foodstamp/resource_finder_details.php?id=567)).

The lesson plans of ***Eating Smart • Being Active*** are detailed and appropriate for use by paraprofessional (peer) nutrition educators (without formal training in content) when teaching low-income families about healthy lifestyle choices. The curriculum consists of eight core lessons, each designed to be taught in 60 to 90 minutes. The information included in ***Eating Smart • Being Active*** is based on the latest research in health and nutrition from the Dietary Guidelines for Americans 2010 and MyPlate. Each lesson also includes a reference section called “For Your Information.” All participant materials are available in English and Spanish\*.

The authors of ***Eating Smart • Being Active*** utilized the Social Cognitive Theory as well as adult learning principles when developing the curriculum. These principles of adult learning, outlined in the book *From Telling to Teaching*<sup>2</sup> by Joye Norris, are incorporated throughout the curriculum activities and materials. Curriculum activities include facilitated discussion (dialogue-based learning) and hands-on activities such as menu planning, while information sharing sections (lecture) are short. Facilitated discussion and hands-on activities help participants to be actively engaged in the learning process, increasing their retention of the new information and increasing the chances of behavior change.

***Eating Smart • Being Active*** can be used to teach adults one-on-one or in small group classes (2-12 people). While the materials could be used in larger groups, adult learning principles guide us toward smaller groups to encourage greater participant involvement and enhanced learning.

### **The Lessons**

The eight core lessons of the curriculum include the latest, research-based information from the Dietary Guidelines for Americans 2010 and cover topics about physical activity, nutrition and healthy lifestyle choices, food preparation (cooking), and food resource management (saving money at the grocery store), eating a variety of healthy foods from all of the food groups, food safety, reducing fat, sugar and salt, and feeding children. The lessons contain a variety of hands-on activities to reinforce learning and allow participants to apply the newly learned information. A food preparation activity, tasting, and physical activity are included in every lesson.

### **The Lesson Titles and Focus**

- *Get Moving!* (physical activity is part of a healthy lifestyle)
- *Plan, Shop, Save* (how to stretch your food dollars)
- *Fruits & Veggies: Half Your Plate* (how to increase amount and variety of fruits and vegetables)
- *Make Half Your Grains Whole* (identify whole grain foods and why whole grains are beneficial)
- *Build Strong Bones* (calcium rich foods and weight bearing activity help build strong bones)
- *Go Lean With Protein* (choosing lean sources of protein and how to keep food safe)
- *Make a Change* (choosing foods low in fat, sugar, and salt)
- *Celebrate! Eat Smart and Be Active* (review of key concepts and how to involve family in good food choices)

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\*Materials translated into Spanish were translated into the most commonly used form of Spanish in the US. Once translated, the materials were then back translated to ensure that content was still accurate.

The curriculum also contains three maternal and infant nutrition lessons as a supplement to the core eight lessons:

- *Eating Smart and Being Active During Pregnancy*
  - The pregnancy lesson is designed to be taught early in pregnancy and covers topics about seeing a healthcare provider regularly, eating healthy and being active during pregnancy, and combating common pregnancy discomforts.
- *Feeding Your New Baby*
  - The new baby lesson covers information about breastfeeding and formula feeding to aid women late in their pregnancies in deciding how to feed her baby.
- *Feeding Your Baby Solid Foods.*
  - The solid food lesson is designed to be taught to mothers of young infants and provides information regarding introducing solid foods including when and how to introduce new foods.

## **Educator Materials**

The eight core lesson plans are part of what is called the Educator Guide; a 3-ring binder with all eight lessons as separate lessons plans, in magazine style format so the educator can remove each lesson plan for ease of use during a class.

The Educator Guide is accompanied by the *Eating Smart • Being Active CD* which contains the following: all recipes used in the lessons (available in English and Spanish\*), instructions for creating the activity bins for each lesson (necessary to do the hands-on activities in the lessons), hundreds of food labels that can be printed and laminated for use in the activity bins, and pre/post evaluation forms. Each lesson is also accompanied by at least three, full color visuals (posters) with photographs in three different sizes (small, medium and large) to use with different size classes. Visuals are available in English or Spanish\*.

## **Participant Materials**

In addition to the materials available for educators to use, the curriculum authors developed a variety of participant materials designed to enhance the learning experience for learners. These materials include:

- Full color worksheets and handouts with photographs. Each lesson has a worksheet for participants to use during lesson activities. Each lesson also has a handout that serves as a reference of key information that participants take away. Worksheets and handouts are available in English or Spanish\*.
- Each lesson contains an enhancement item to reinforce learning and help participants practice their newly learned skills at home.
  - Water bottles
  - Grocery list pads (available in English or Spanish\*)
  - Produce brushes
  - Dry measuring cups
  - Measuring spoons
  - Exercise stretch bands
  - Physical activity booklets (available in English or Spanish\*)
  - Cookbooks (available in English or Spanish\*)
  - Prenatal magnets (available in English or Spanish\*)
  - Training cups

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## Evaluations of *Eating Smart • Being Active* (research-based)

Before *Eating Smart • Being Active* was developed, a needs assessment was conducted to identify which state EFNEP programs were either editing current curricula or writing new curricula as a result of the major changes in the 2005 Dietary Guidelines for Americans as compared to the previous version AND the release of MyPyramid to replace the Food Guide Pyramid. From this evaluation, researchers discovered that most states didn't know what they were going to do AND that the curricula most commonly used around the country were not going to be updated. This led researchers to choose to develop a whole new curriculum – *Eating Smart • Being Active*.<sup>3</sup>

Several evaluation studies have been conducted to assess the effectiveness of *Eating Smart • Being Active*. Specifically, curriculum developers utilized experts in adult education, nutrition and the Expanded Food and Nutrition Education Program (EFNEP) and Supplemental Nutrition Assistance Program Education (SNAP-Ed) from multiple states to review the curriculum during its development. Reviewers assessed the curriculum and confirmed it adhered to and effectively applied the tenets and principles of Social Cognitive Theory and Adult Learning and the content was based on the 2005 Dietary Guidelines<sup>4</sup> (*Eating Smart • Being Active* has now been updated to reflect the 2010 Dietary Guidelines).

In a separate research project, researchers compared behavior change outcomes from *Eating Smart • Being Active* with behavior change outcomes of prior EFNEP curricula in five states.<sup>5</sup> *Eating Smart • Being Active* generally produced better outcomes than curricula used previously. In addition, when comparing pre and post test scores from participants taught *Eating Smart • Being Active*, participants reported significant, positive behavior change in food resource management, nutrition, food safety, and physical activity. Researchers also found that participants who received *Eating Smart • Being Active* increased their fruit and vegetable intakes.<sup>5</sup> Similar results were seen in an Iowa study of a draft version of *Eating Smart • Being Active*.<sup>6</sup>

Lastly, two qualitative evaluations of the curriculum were conducted using focus groups and interviews; investigators are currently preparing these results for publication. The first study focused on the physical activity aspects of *Eating Smart • Being Active*; researchers found that the participants, paraprofessionals and state level coordinators from four states generally liked the physical activity components of the lessons and that participants make positive behavior changes as a result of the physical activity content of *Eating Smart • Being Active*.<sup>7</sup> The second study looked at the satisfaction of ESBA among paraprofessionals and state level coordinators from four states. Generally both groups like the curriculum, found the curriculum easy to use, found that their participants like the curriculum and think that the curriculum content makes a difference in their participants' lives.<sup>8</sup>

## Case studies, pilot studies, and evidence from the field (practice-based)

*Eating Smart • Being Active* was piloted by four states (California, Colorado, Iowa, and South Carolina) for six months. Results from the pilot and formative evaluation (described above) drove the editing process leading to the final version of *Eating Smart • Being Active*. The curriculum was released in 2008, revised in 2010 (to comply with the 2010 Dietary Guidelines) and is now being used by EFNEP and/or SNAP-Ed programs in over 40 states and three US territories.

Programs report increased behavior change in their programs as a result of implementing *Eating Smart • Being Active*. Specifically in Colorado in FY14, as a result of graduating from *Eating Smart • Being Active*:

- 93% of participants showed improvement in nutrition practices
- 91% of participants showed improvement in food resource management
- 63% of participants showed improvement in food safety
- 52% of participants showed improvement in physical activity
- 47% of participants showed improvement in vegetable consumption
- 43% of participants showed improvement in fruit consumption

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- 44% of participants decreased their daily consumption of sodium
- 40% of participants more often choose low-fat foods

### Multi-level theoretical framework

- Individual level
  - Educators using **Eating Smart • Being Active** give low income adults the knowledge and skills needed to choose healthy foods, keep food safe to eat, increase their level of physical activity, and stretch their food resources further increasing their food security.
- Environmental level
  - **Eating Smart • Being Active** is designed to be used with low-income parents of young children and pregnant women. The goal is that by educating the parent not only on how to feed their children healthy foods but also teach the parent how they can choose to live a healthy lifestyle, that the home environment for the child will be affected positively. This will set the child up to choose healthy behaviors throughout their life.
  - Through the use of **Eating Smart • Being Active** in both our CSU-Extension EFNEP and SNAP-Ed programs, we have found that some organizations we work with have been willing to change their policies to incorporate the classes into their client services. As a result of these changes in policy, the organizational environments have been changed. Examples of some of these policy changes include:
    - Judges requiring parents to take the series of classes as part of their requirements to regain custody of their children.
    - Rehabilitation centers including the series of classes as part of a treatment plan.
    - Halfway houses incorporating the class series into treatment plans for inmates that are soon to be released.
    - WIC and SNAP offices offering the lessons to their frontline staff who not only often qualify for the programs but also help to promote the programs and refer clients to the classes.
    - Employers including a wellness program for employees after receiving the lessons as a result of increased value on nutrition and health.

### Resources:

1. Rees, D. Eating Smart Being Active. New Resources for Nutrition Educators. *Journal of Nutrition Education and Behavior*. 2010;42: 357-5. Accessed May 13<sup>th</sup>, 2014.
2. Norris JA. *From Telling to Teaching*. North Myrtle Beach, SC: Learning By Dialogue; 2003.
3. Rogers, K., Diker, A., Kendall, P., & Baker, S. (2006). In-depth Review of Selected EFNEP Curricula Revised for the 2005 Dietary Guidelines and MyPyramid. The Forum for Family and Consumer Issues, 11(2). Available at: <http://ncsu.edu/ffci/publications/2006/v11-n2-2006-december/ar-1-in-depth.php>.
4. Natker, E. Baker, S., Auld, G., McGirr, K., Sutherland, B., Cason, K. Formative Evaluation of EFNEP Curriculum: Ensuring the Eating Smart • Being Active Curriculum Is Theory-based. *Journal of Extension*. 2015; 53(1). <http://www.joe.org/joe/2015february/rb1.php>. Accessed March 4<sup>th</sup>, 2015.
5. Auld, G., Baker, S., Conway, L., Dollahite, J., Lambia, M. C., McGirr, K. (2015). Outcome Effectiveness of a Widely Adopted EFNEP Curriculum. *Journal of Nutrition Education and Behavior*, 47:19-27.

6. Hoover JR, Martin PA, Litchfield RE. Evaluation of a new nutrition education curriculum and factors influencing its implementation. *Journal of Extension*. 2009; 47(1). <http://www.joe.org/joe/2009february/a4.php>. Accessed August 16th, 2013.
7. Bartusek, S., & Moukkadem, K. Examining the Physical Activity Components of Eating Smart • Being Active. Master's research paper. Colorado State University. May, 2011.
8. Henderson, J. Examining EFNEP State Coordinator and Paraprofessional Perspectives of Eating Smart • Being Active Training and Curriculum. Master's research paper. Colorado State University. May, 2011.