INTRODUCTION

Low income individuals are at a higher risk for food insecurity, certain chronic
diseases, and poor dietary intake as compared to their higher income counterparts. As a
result, it is essential that low income individuals eligible for the Supplemental Nutrition
Assistance Program (SNAP) are provided with opportunities to advance their nutrition-
related knowledge, skills, and self-efficacy. Unlike other federal nutrition assistance
programs, SNAP participants only receive benefits once a month and have very few
restrictions on what foods can be purchased. The Supplemental Nutrition Assistance
Program-Education (SNAP-Ed) is available to help SNAP-eligible individuals make healthy
food choices with their SNAP benefits, incorporate physical activity into their daily lives,
and improve their food security status. Developing and evaluating SNAP-Ed curricula
remains important to ensure curriculum content is evidence-based, consistent with the
most current Dietary Guidelines for Americans, and effective at facilitating behavior change
among SNAP-eligible individuals.

The Utah SNAP-Ed program developed the Create Better Health (CBH) curriculum
which augments the previously used Create curriculum. The CBH curriculum was
developed to 1) incorporate a greater emphasis on physical activity and 2) expand upon
the curriculum content and teaching instructions to provide a more structured guide for
the Nutrition Education Assistants (NEA) when using the curriculum to teach SNAP-Ed
classes. This additional structure also helps ensure the curriculum is implemented
consistently among NEA's across the state. Although many other curricula for SNAP-Ed
programs exist, this curriculum is designed with an emphasis on improving food resource management through the use of the ‘create’ concept, making it unique and valuable to educators who want to help others eat healthfully even when limited by availability of foods, recipes, and kitchen appliances. Furthermore, the CBH curriculum strongly emphasizes physical activity-related skills and information in each lesson which is highly encouraged in the SNAP-Ed Plan Guidance.9

CURRICULUM

The CBH curriculum, which is based on the 2015-2020 Dietary Guidelines for Americans, was developed by a team of Utah SNAP-Ed program specialists and educators. Based on social cognitive theory, the goal of this curriculum is to improve nutrition and physical activity-related knowledge, skills, and self-efficacy to help SNAP-eligible individuals lead an active and healthy life on limited resources.10 Using a paraprofessional model, NEAs conduct a series of four to eight 60-minute classes. There are three lessons that Utah SNAP-Ed specialists determined to be essential to included in each series. The NEAs are able to determine which of the other five lessons they wanted to include in the series based on participant needs and interests. This curriculum is offered in a series since repeated education has been found to be more impactful than one-time education.11 Table 1 includes a list of lesson topics, objectives, and cooking demonstrations. All lessons contain three main components including a nutrition lesson, physical activity
discussion, and a cooking demonstration. To help keep participants engaged during the
lesson, “discussion starters” and “NEA tips” are included in the curriculum for each lesson.
Discussion starters are open ended questions that NEAs can use to engage participants and
cater the content to their needs. These questions are designed to help the NEA capture
changes the participants make as a result of what they learn during the series. NEA tips
include activities and other strategies that experienced NEAs previously determined to be
essential to keeping lessons lively and interesting. During the hands-on cooking
demonstration, NEAs facilitate a discussion on how to adapt the recipe to incorporate foods
participants have in their kitchens.

NEAs attend 3-4 regional trainings annually during which they receive instruction
on best practices to reach and engage their audience, including how to use NEA tips and
discussion starters. NEAs are given the opportunity to practice, observe, and give and
receive feedback on teaching techniques in small group settings that include their peers,
supervisors, and regional NEA trainers.

Easy recipe adaptation is taught through the use of the ‘create’ concept. The goal of
the ‘create’ concept is to increase the self-efficacy of participants so they feel prepared to
make a healthy meal out of foods they had on hand rather than needing to buy specific
ingredients for a recipe. ‘Create’ concepts teach participants the step-by-step process to
create a variety of healthful dishes including skillet meals, casseroles, soups, sandwiches,
smoothies, omelets, pizza, and salads. As NEAs demonstrate each step of the recipe,
participants are encouraged to share ideas of common ingredients that could be
substituted into each step of the dish to cater it to items they regularly have at home.
Figure 1 includes examples of handouts that are distributed during CBH classes that support the ‘create’ concept. Teaching SNAP-Ed participants how to stretch their food dollar by using foods on hand is a practical approach to improve food security among this vulnerable population. Each CBH class ends with participants setting personal nutrition and physical activity goals. Participants are encouraged to share facilitators and barriers to meeting their goals during subsequent classes. The curriculum was piloted by nine NEAs across the state of Utah over a six month period. Classes were held in six counties in locations that serve SNAP-eligible individuals including the Department of Workforce Services, Women, Infants, and Children; and Utah State University Extension Offices.

After attending one CBH class within a series, the NEA’s read a recruitment script asking participants to complete an evaluation on their experiences with the SNAP-Ed class. Participants had to be 18 years of age or older and English-speaking to complete the evaluation. Interested participants were asked to review and sign an informed consent prior to completing the paper evaluation. Participants received a small kitchen utensil (valued up to $5) for their time.

EVALUATION

A 30-item evaluation tool was developed by Utah SNAP-Ed specialists to determine the impact of the CBH curriculum. Survey questions were compared to the curriculum for content validity. Internal consistency was measured using Cronbach α. Nine questions
addressed nutrition and physical activity-related knowledge and behavioral intentions 
(α=.94), and four questions addressed the usefulness of the curriculum content (α=.93), 
with an overall Cronbach α of .96, demonstrating strong internal consistency. The 
remaining questions asked about demographic characteristics, qualitative experiences of 
the SNAP-Ed class, food security status, and program satisfaction. 

One hundred and eight English-speaking adult participants completed the 
evaluation during the pilot study. Ninety-seven percent of participants reported being 
satisfied/very satisfied with the SNAP-Ed class and 93% reported interest in attending 
another SNAP-Ed class in the future. Most participants (97%) reported the length of the 
class and the amount of information provided was just right. 

When asked to describe their experiences in open ended questions on the 
evaluation, participants responded very positively about the CBH classes. One participant 
stated “[This was] the most comprehensive cooking class I've ever had. I just want to keep 
coming because not too much information is shared so it's not overwhelming. Just right for 
moms like us.” Another participant mentioned “I really enjoyed this class. I got so much great 
information and love the versatility of the recipes.” Participants seemed to appreciate the 
overall ‘create’ concept of the curriculum. For example, “I learned a lot about quick meals 
that are healthy and good without spending too much since most [of the food] is in my 
pantry.” 

There was a small yet significant positive correlation between the number of CBH 
classes attended and new ideas for physical activity (r=.220, R²=.048, P=.031), better 
understanding of specific cooking skills highlighted in the lessons (r=.258, R²=.067, 
P=.011), ability to create meals at home from food on hand (r=.203, R²=.041, P=.045), and
Encouraged by the effectiveness of the CBH curriculum, Utah SNAP-Ed specialists are working on submitting the curriculum to the national SNAP-Ed Toolkit which would make it an approved curriculum for SNAP-Ed programs across the country. Each CBH lesson is being made into a full-length video for individuals who are not able to attend in person classes due to common barriers such as busy schedules, transportation, and childcare, to name a few. Short five-minute lessons, broken up by specific curriculum topics, are also being developed to distribute and share on various social media platforms as additional resources for participants. In general, the development of supplementary online learning materials are essential for ensuring all SNAP-eligible individuals have access to SNAP-Ed nutrition education materials.

The CBH curriculum, handouts, and evaluation can be used by SNAP-Ed, Expanded Food and Nutrition Education Program (EFNEP), and other nutrition education professionals who help low income individuals make healthy choices on a limited food budget. These results support the recommendation of teaching the CBH lessons in a series. Therefore, this curriculum may be especially applicable for nutrition professionals who teach a series of lessons to the same group of participants.
REFERENCES


<table>
<thead>
<tr>
<th>Lesson #</th>
<th>a.) Nutrition Topic</th>
<th>b.) Physical Activity Topic</th>
<th>Select Lesson Objectives</th>
<th>Create Demonstration Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>a.) Introduction to MyPlate</td>
<td>b.) Introduction to Physical Activity Recommendations</td>
<td>Identify the five food groups represented in MyPlate. Identify USDA’s physical activity recommendations.</td>
<td>Create a Skillet Meal</td>
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<tr>
<td>2*</td>
<td>a.) Meal Planning &amp; Grocery Shopping</td>
<td>b.) Physical Activity Goal Setting</td>
<td>Name three grocery shopping tips that help stretch food dollars. Define realistic physical activity goal setting.</td>
<td>Create a Stir fry OR Create a Pizza</td>
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<tr>
<td>3</td>
<td>a.) Nutrition Facts Label</td>
<td>b.) Overcoming Physical Activity Barriers</td>
<td>Use the Nutrition Facts Label to make healthier food selections. Identify barriers to being physically active and at least one strategy to overcome that barrier.</td>
<td>Create a Soup OR Create a Quick Bread</td>
</tr>
<tr>
<td>4</td>
<td>a.) Fruits &amp; Vegetables</td>
<td>b.) Aerobic Activity</td>
<td>Identify the number of cups of fruits and vegetables needed per day according to My Plate. Name three ways to increase fruit and vegetable consumption. Define aerobic activity and USDA’s recommendations for aerobic activity.</td>
<td>Create Amazing Veggies OR Create a Salad</td>
</tr>
<tr>
<td>5</td>
<td>a.) Protein &amp; Food Safety</td>
<td>b.) Resistance Training</td>
<td>Identify the amount of protein needed per day according to My Plate. Explain the importance of protein and how to choose lean protein options. Define resistance training.</td>
<td>Create an Omelet</td>
</tr>
<tr>
<td>6</td>
<td>a.) Grains</td>
<td>b.) Balance &amp; Flexibility</td>
<td>Explain the benefits associated with eating whole grains. Identify how many ounces of whole grains needed per day according to MyPlate. Identify the recommendations for balance and flexibility activity.</td>
<td>Create a Wrap/Sandwich OR Create a Casserole</td>
</tr>
<tr>
<td>7</td>
<td>a.) Dairy &amp; Smart Beverage Choices</td>
<td>b.) Injury Prevention</td>
<td>Explain the benefits associated with dairy and making smart beverage choices. Identify tips for preventing injury during physical activity.</td>
<td>Create a Smoothie</td>
</tr>
<tr>
<td>8*</td>
<td>a.) Healthy Eating Patterns</td>
<td>b.) Physical Activity Review</td>
<td>Identify the three focuses of the 2015 Dietary Guidelines that are important to create better health. Define USDA’s recommendations for physical activity.</td>
<td>Create a Fruity Dessert</td>
</tr>
</tbody>
</table>

* Must be included in the series

All lessons also include the following objectives: 1) Identify at least two tips to stretch food dollars by cooking at home 2) Demonstrate the skills necessary to create nutritious desserts using healthy ingredients.