

2017 VIRGINIA SNAP-ED ANNUAL REPORT



The U.S. Department of Agriculture (USDA) is an equal opportunity provider and employer. This material is partially funded by USDA's Supplemental Nutrition Assistance Program - SNAP which provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact your county or city Department of Social Services or to locate your county office call toll-free: 1-800-552-3431 (M-F 8:15-5:00, except holidays). By calling your local DSS office, you can get other useful information about services. This material was partially funded by the Expanded Food Nutrition Education Program, USDA, NIFA.

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/ affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg.



Table of Contents:

SNAP-Ed Program Overview 3

Appendices:

FY 2017 Adult Evaluation Report 19

FY 2017 Youth Evaluation Report 23

FY 2017 Nutrition and Physical Activity
Social Media and Support 35

FY 2017 Food Access Report 47

FY 2017 Publication and Report 53

Copyright 2018, Virginia SNAP-Ed, Department of Human Nutrition, Foods, and Exercise, Virginia Tech

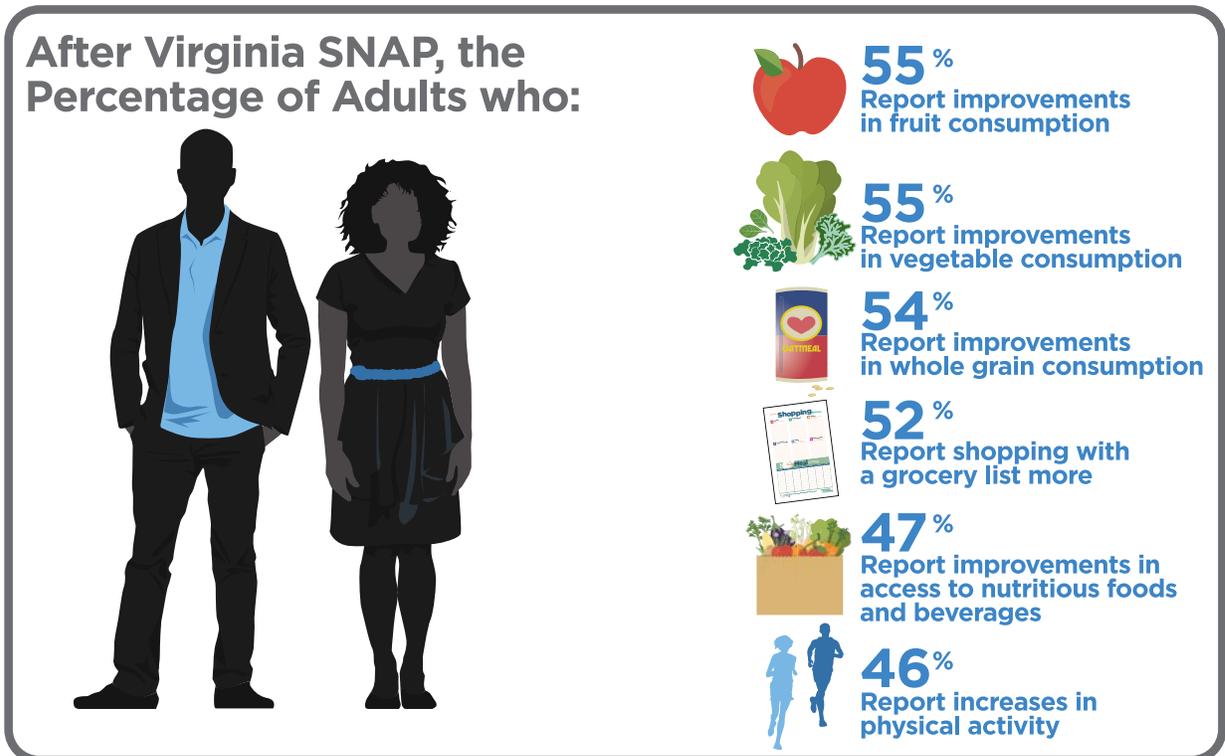
SNAP-ED PROGRAM OVERVIEW

Virginia's SNAP-Ed program continued to use integrated, coordinated approaches across the socio-ecological model to promote healthy eating and physical activity and shift social and cultural norms and values through four different initiatives: Peer-Led Nutrition Education (direct); Volunteer-Led Nutrition Education (indirect); Food Access and Availability (social marketing and policy, systems, and environmental changes) and Nutrition and Physical Activity Social Media and Support (social marketing and policy, systems, and environmental changes).

Overarching goals for Virginia's SNAP-Ed program include:

1. *Persons eligible for SNAP will make healthier food choices within a limited budget and choose physically active lifestyles consistent with the Dietary Guidelines for Americans and the USDA food guidance*

Following program participation, 54.7% and 55.4% of adult participants made positive behavior changes in fruit and vegetable consumption, respectively; 45.9% increased their physical activity and 47.9% decreased the amount of time spent sitting.



2017 Virginia SNAP-Ed Annual Report

2. *Persons eligible for SNAP will have improved awareness, access, and availability to affordable and nutritious foods and beverages and safe physical activity opportunities*

Following program participation, 20.6% of participants reported higher food security following program participation. Additionally, perceived availability of fresh fruits and vegetables increased for 47.4% of participants following program participation. Over half of program participants indicated they planned on using physical activity videos developed and provided by Virginia SNAP-Ed following program participation for the purpose of increasing safe and convenient opportunities for physical activity.

3. *Communities will incorporate comprehensive, coordinated, and integrated multi-level interventions through local, area, and state partnerships to promote healthy eating, physical activity, and obesity prevention, as well as health promoting normative behaviors, among SNAP eligible populations*

In FY 2017, Virginia SNAP-Ed strengthened multi-level interventions by endorsing and promoting “signature” programs, designed to integrate all SNAP-Ed initiatives to realize deeper and sustained impacts. Signature programs included *Eat Smart, Move More* in Schools and *Eat Smart, Move More – It’s a SNAP to Use EBT at Farmers Markets* that incorporated direct and indirect education, social marketing, and policy, systems, and environmental change strategies. These initiatives were implemented in communities across the state of Virginia.

Strategic planning was also completed for the healthy food retail initiative, *Shop Smart, Eat Smart*, designed to incorporate direct and indirect education, social marketing, and policy, systems, and environmental change strategies to increase demand for healthy options at small stores within food deserts. This program will be fully implemented in FY 2018.

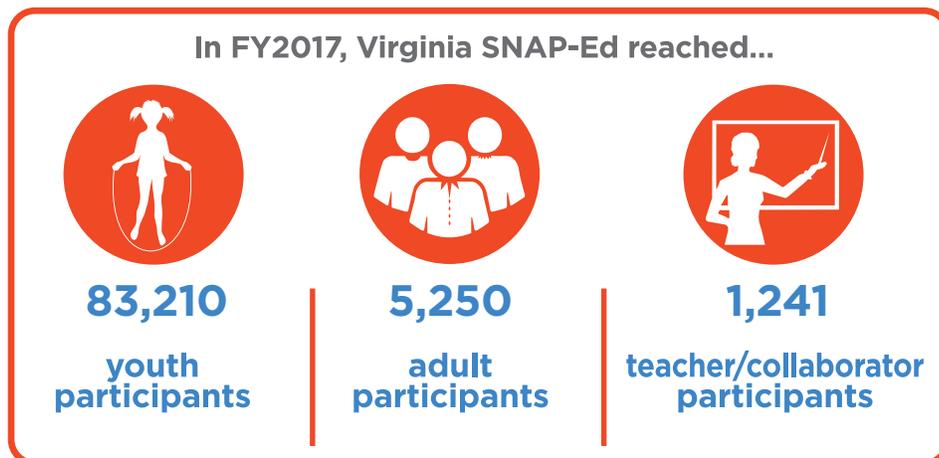


Setbacks:

A major setback was continued issues with the procurement process for social marketing campaigns through Virginia Tech. Given the cost of the campaigns, statewide social marketing campaigns are required to be publicly released for competitive bid. The process this past year took nearly 6 months to complete. This next year campaigns will be launched and coordinated at local levels, using social media, which will allow for more targeted and dynamic approaches to social marketing.

Achievements:

Several achievements are noted across each of the four SNAP-Ed initiatives.



PEER-LED NUTRITION EDUCATION

In FY 2017, the *Eating Smart • Being Active* evidence-based and learner-centered curriculum was adopted in Virginia for use by adult Peer Nutrition Educators. This curriculum was recently revised to be consistent with the Dietary Guidelines for Americans 2015 and to incorporate more physical activity within each lesson. The lessons are aimed at being participant-focused, not instructor-focused, which has been shown to more positively impact behavior change and also retention of participants.

Meanwhile, the Virginia SNAP-Ed administrative team also identified evidence-based programs to address aging audiences and parent-child/family-based programs for roll-out in FY 2018. Virginia SNAP-Ed also continues to work toward building capacity among Peer Educators in supporting physical activity within classes, as well as use of physical activity resources outside of class. Several worksite wellness challenges were implemented internally within Virginia SNAP-Ed to increase awareness and confidence toward physical activity.

Finally, all recipes used by Virginia SNAP-Ed were re-evaluated. First, new recipe guidelines were developed that supported the Dietary Guidelines for Americans 2015, promoted ‘whole’ not ‘processed’ foods, and utilized low-cost ingredients and common food staples, such as eggs, low-fat milk, and canned fruits and vegetables. They were also reviewed to make sure they could be prepared with minimal kitchen and cooking equipment, such as a can opener, cutting board, skillet, saucepan, and baking sheet. Second, existing recipes that were in the approved database were revisited by a recipe committee. The database was originally comprised of over 400 recipes, many of which were not being utilized or were found unappealing by staff and participants. Committee members rated each recipe as green, yellow, or red with green indicating acceptable, yellow requiring modifications, and red unacceptable. All green recipes were then converted into a new recipe format. The new format employed low-literacy principles, including easy to read instructions, consistent information, and colorful graphics to simplify reading. It also included the new Nutrition Facts label, key cooking/food preparation tips, and a photograph of the recipe to increase appeal for the recipe. Information aimed at re-directing participants to additional information and social media resources was also added. The yellow recipes are now being reconfigured and analyzed by dietetics students in the Virginia Tech Food Service Meal Management course. The red recipes were removed altogether from the database.

Eat Smart • Move More
Breakfast Fruit Pizza
 Prep Time: 5 minutes Total Time: 5 minutes

Ingredients

- 1 whole-wheat English muffin
- 2 tablespoons apple butter
- 2 tablespoons peanut butter
- ¼ cup mixed fruit, such as banana, cherries, and strawberries, sliced
- 1 teaspoon raisins or nuts (optional)

Directions

- Halve and toast an English muffin.
- Spread apple butter and peanut butter on each half.
- Top with desired fruit.
- Add raisins or nuts (optional).

Nutrition Facts
 Serving Size: 1 slice (21g)
 Calories: 110

Quick Tips

- Always wash produce before cutting.
- If you cannot or choose not to use peanut butter, try using a seed butter, such as sunflower butter.

Follow us | Like us

www.eat-smart-ed.edu

Virginia Cooperative Extension
 Virginia Tech • Virginia State University

(Recipe adapted from <http://www.thecookbookmag.com>)
 www.eat-smart-ed.edu

Family Nutrition Program
Recipes

Breakfast Pizza

Ingredients:

- 3/2 English muffin, whole-wheat
- 1 teaspoon low-calorie cream cheese
- 1 teaspoon apple butter
- 2 tablespoons mixed fruit

Equipment:

- Cutting board
- Knife
- Baking sheet

Number of Servings: 1
Prep Time: 5 minutes
Total time: 5 minutes

Directions

- Toast English muffin, spread cream cheese and apple butter over top.
- Top with any available fruit, such as banana, pineapple, strawberries.
- Can substitute peanut butter for cream cheese.

Nutrition Facts
 Serving Size: 1 (21g) (1 slice)
 Calories: 110

Virginia Cooperative Extension
 Virginia Tech • Virginia State University

2017 Virginia SNAP-Ed Annual Report

Virginia SNAP-Ed is currently in the process of designing a new client-friendly website; once final, all recipes will be migrated to that site. A farmers market version of the recipe is now being created too along with a new Healthy Kids cookbook.

VOLUNTEER-LED NUTRITION EDUCATION

In FY 2017, Virginia SNAP-Ed saw continued growth of volunteer-led programming by SNAP-Ed Agents. In FY 2016, Virginia SNAP-Ed increased the number of SNAP-Ed Agents to 13 to secure statewide coverage. One of the major responsibilities of SNAP-Ed Agents is to recruit and train volunteers to teach nutrition education, primarily within school settings. In FY 2017, the number of volunteers and youth reached by volunteers correspondingly increased. See the table below for contact numbers. The *Eat Smart, Move More* in Schools social marketing campaign had the potential of reaching 110,584 Virginia youth.

SNAP-Ed Data					
	# Volunteers	# Volunteer Hours	# Adult Clients Served By SNAP Volunteers	# Youth Clients Served By SNAP Volunteers	#Indirect Contacts
Program Totals	1,241	10,027	1,540	65,320	613,011
Grand Totals					
	# Volunteers	1,241			
	# Volunteer Hours	10,027			
	# Adult Clients	1,540			
	# Youth Clients	65,320			
	#Indirect Contacts	83,011			
	# Indirect Contacts (Media)	530,000			

FOOD ACCESS AND AVAILABILITY

To complement the *Shop Smart, Eat Smart* healthy food retail initiative, focus groups were conducted with SNAP-Ed eligible adults to help craft educational food champion lessons to be added to our existing curriculum. The goal of these champion lessons is to provide consumers with knowledge, skills, and competencies to request/ask for healthier options at SNAP-authorized food outlets, if they choose. The goal is to offer trainings on this champion curriculum at the all-state training in May 2018 to all adult SNAP-Ed Peer Educators.



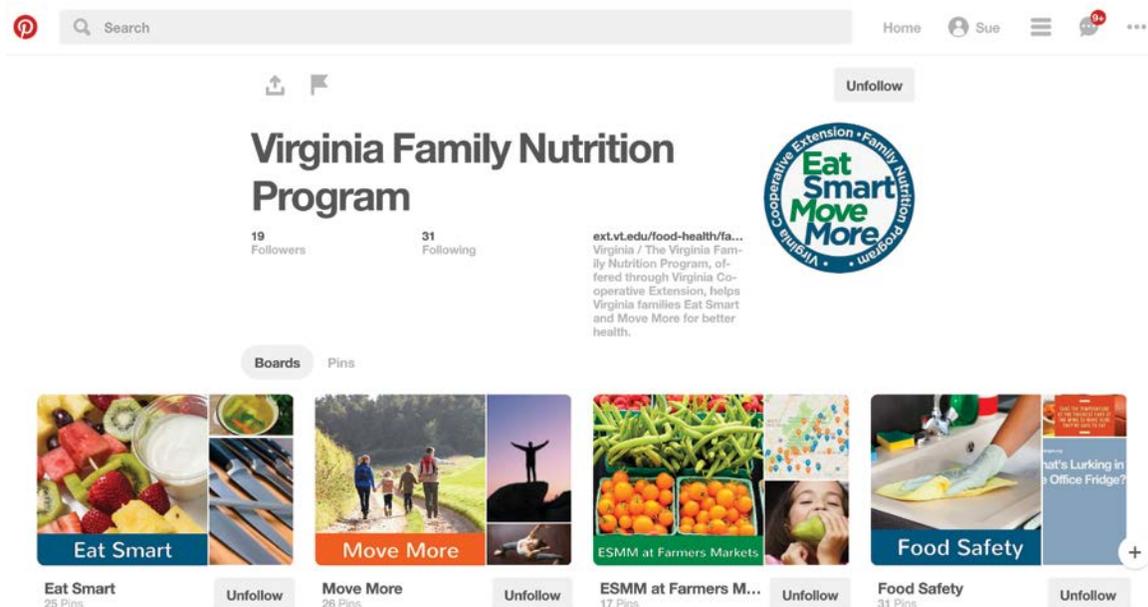
15
Policy changes

Virginia SNAP-Ed received funding from the Virginia Department of Health to support the adoption of school wellness policies that supported healthy eating and physical activity, within SNAP-Ed eligible schools. SNAP-Ed Agents worked with 14 different school divisions to: assess current school wellness policies for compliance with national mandates; identify opportunities for improvement; and/or craft language for the wellness policies.

Building upon existing partnerships with farmers markets, Virginia SNAP-Ed continued to expand SNAP consumer education about SNAP at farmer markets through marketing tools, the evidence-based farmers market orientation lesson, and by training volunteers and summer interns to conduct cooking demos at farmers markets that accept SNAP EBT. A farmers market manager certification program was also launched this year with Virginia SNAP-Ed as the lead.

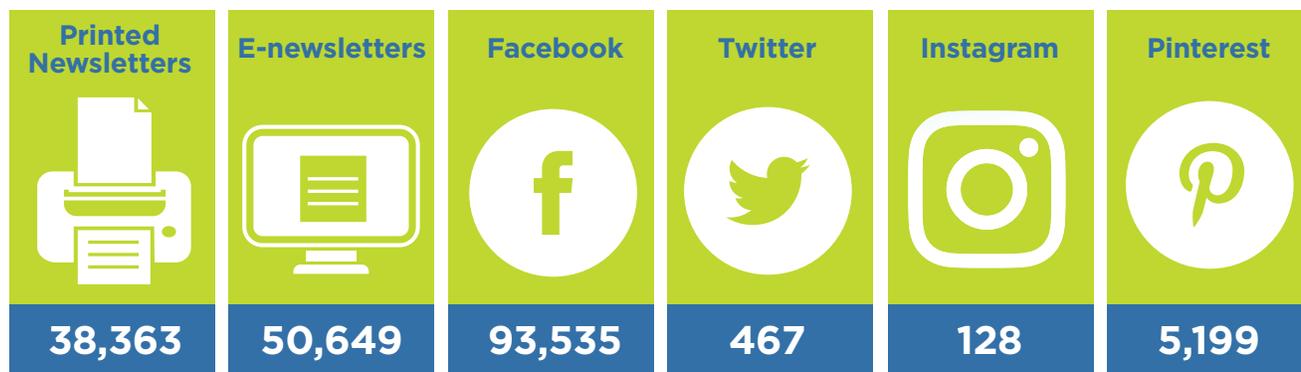
NUTRITION AND PHYSICAL ACTIVITY SOCIAL MEDIA AND SUPPORT

In tandem with reviewing the recipes, an emphasis was placed on photographing approved recipes for use across existing and new social media platforms. During FY 2017, the Virginia Family Nutrition Program, including Virginia SNAP-Ed, launched Pinterest and Instagram accounts with messages covering healthy eating, physical activity, food safety, healthy families, and behavior change.



2017 Virginia SNAP-Ed Annual Report

Other accomplishments included exploring the use of paid advertising to support recruitment of SNAP-eligible participants in regions with notoriously difficult recruitment rates and for recruitment of former SNAP-Ed participants in a long-term study. A formative evaluation was also completed with Peer Educators to inform the development of a telephone “make-up” lessons for adult participants.



SNAP-ED ADMINISTRATIVE EXPENDITURES

Percent of Total Administrative Expenditures for each Implementing Agency by Type of Expense

Type of Administrative Expense:	Name of IA: FNP Virginia Tech	
	% Values	\$ Values
Administrative Salary	69%	\$442,854
Administrative Training Functions	13%	\$83,964
Reporting Costs	0	0
Equipment/Office Supplies	2%	\$14,300
Operating Costs	0	0
Indirect Costs	16%	\$104,351
Overhead Charges (space, HR services, etc.)	0	0

SNAP-ED EVALUATION REPORTS COMPLETED FOR THIS REPORTING YEAR

SNAP-Ed Data						
Project Name	Key Project Objective(s)	Target Audience	Check all Evaluation Types for Which Reports Are Included			
			FE	PE	OE	IE
Peer-Led Nutrition Education	Nutrition and Physical Activity	SNAP-Eligible Adult	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Volunteer-Led Nutrition Education	Nutrition and Physical Activity	SNAP-Eligible Youth	X	X	X	<input type="checkbox"/>
Food Access and Availability	PSE	SNAP-Eligible Virginians	X	<input type="checkbox"/>	X	<input type="checkbox"/>
Nutrition and Physical Activity Social Media and Support	PSE	SNAP-Eligible Virginians	X	X	X	<input type="checkbox"/>

SNAP- ED PLANNED IMPROVEMENTS

With an increasing emphasis on policy, systems, and environmental changes and multi-component interventions, Virginia SNAP-Ed will be concentrating its resources for SNAP-Ed Agents on comprehensive and coordinated signature programs. A new training program and calendar are also being developed to support competencies in these areas. The main focus of SNAP-Ed Agents in the past has been on volunteer-led nutrition education. In the past two years, PSE responsibilities have also been added. Additional SNAP-Ed Agents will be added to reduce overall coverage area of several Agents and to help support more PSE work. More systematic PSE evaluations will also be developed.

STAFF/PARTNER TRAININGS

SNAP-Ed Agents: Volunteer-Led Nutrition Education and PSE Changes

SNAP Ed Agent Signature Program Training		
Title	Description	Date
PSE Signature Programs, Needs Assessment, & PEARS Training	Trained 13 SNAP-Ed Agents on following topics: <ul style="list-style-type: none"> • New format for PSE work (signature programs) • How to conduct a needs assessment to determine areas of need in service region • How to navigate and report in the new PSE reporting system PEARS 	August 10 & 11, 2017

2017 Virginia SNAP-Ed Annual Report

<p>Community Organizing, Coalition Building, and Facilitation Training</p>	<p>Trained 13 SNAP-Ed Agents on following topics:</p> <ul style="list-style-type: none"> • Community organizing and coalition building with Martha Walker • Facilitation training (review) with Jeremy Johnson 	<p>September 7 & 8, 2017</p>
<p>Online Modules</p>	<p>New Hire Training continues with online training modules that are completed in the home office of the staff after in-person training. These modules reinforce learning from in-person training and help new hires track their progress through all training requirements.</p> <p>The Nutrition training modules are completed by staff after in-person to give paraprofessional educators a strong foundation in basic nutrition knowledge and application. This year the modules have been updated to reflect the changes in the 2015 Dietary Guidelines. The approach to online nutrition training has also been adapted to cluster learning around food groups instead of focusing on individual nutrients. We also redesigned the modules for improved retention and application of material into the programs that our educators offer to the public.</p> <p>Nutrition Training Included the following modules</p> <ol style="list-style-type: none"> 1. 2015 Dietary Guidelines 2. MyPlate 3. Physical Activity and Guidelines 4. Food Safety 5. Understanding Nutrients Overview 6. MyPlate Food Groups <ol style="list-style-type: none"> a. Overview of each group (Vegetables, Fruit, Whole Grains, Lean Proteins, and Low-Fat Dairy) b. Nutrients and benefits of each group <ol style="list-style-type: none"> i. Preventing chronic disease ii. Vitamins and minerals in group and functions iii. Carbohydrates, Protein, and Fats in the group iv. Reducing saturated fats, added sugars, and sodium in food group c. Saving money when selecting and storing foods in each group d. Safe food handling and preparation of foods in each group <p>Online training is presented through Canvas, Virginia Tech's online course management infrastructure. New employees complete assignments and take post-assessments for each module. Feedback is given based on performance in each section and educators are allowed to repeat to reach a satisfactory rating.</p>	

Peer Educators (Program Assistants)

Continuing Education:				
<i>These training opportunities are meant to equip program assistants with the knowledge they need to effectively execute their job responsibilities. These trainings are in through online modules, conferences, and district trainings</i>				
Title	Objective	Training Type	Participants	Date
Fall District Trainings	Training staff and provide updates to curricula; leadership development and record keeping.	District level meeting	All SNAP-Ed & EFNEP program assistants	October 2016
Adult New Hire Training Phase 1	Train new staff on all aspects of their jobs; enabling them to be effective teachers and manage their records correctly	In-person meeting in regional site	3 SNAP-Ed and 1 EFNEP program assistants	October 2016
Adult New Hire Training Phase 2	New staff will familiarize themselves with all aspects of educational curricula; as well as on-line reporting; marketing and will successfully present a learner-centered lesson.	In-person meeting in regional site	3 SNAP-Ed and 1 EFNEP program assistants	November 2016
Adult New Hire Training Phase 1	Train new staff on all aspects of their jobs; enabling them to be effective teachers and manage their records correctly	In-person meeting in regional site	Five SNAP-ED and EFNEP program assistants	March 2017
Adult New Hire Training Phase 2	New staff will familiarize themselves with all aspects of educational curricula; as well as on-line reporting; marketing and will successfully present a learner-centered lesson.	In-person meeting in regional site	Five SNAP-ED and EFNEP program assistants	April 2017
Student Intern Training	Train six Virginia Tech students to deliver programming at farmers markets and perform outreach and marketing activities to SNAP-eligible populations	Site Training	Six student summer interns	May 2017
Multi-State Training	Train all staff on new adult curriculum; adult learner centered teaching practices, increasing physical activity, improving food experiences, recruitment and retention techniques, and new evaluation methods.	Multi-State in-person meeting	All SNAP-Ed and EFNEP program assistants and SNAP-Ed Agents	May 2017

2017 Virginia SNAP-Ed Annual Report

Youth New Hire Training Phase 1	Train new staff on all aspects of their jobs; enabling them to be effective teachers and manage their records correctly.	In-person meeting in regional site	Two New Youth SNAP-Ed & EFNEP program assistants	June 2017
Youth New Hire Training Phase 2	New staff will familiarize themselves with all aspects of educational curricula; as well as on-line reporting; marketing and will successfully present a learner-centered lesson.	In-person meeting in regional site	One SNAP-Ed and one EFNEP	July 2017
Eating Smart, Being Active Curriculum Training	Train all adult staff on newly revised curriculum, hands-on, learner centered sessions. To strengthen learner-centered techniques to support the implementation of ESBA curriculum. Trainings structured to model facilitated dialogue and provide opportunities to observe “best practices.”	In-person meeting in three regional sites	Sixty-five SNAP-Ed and EFNEP 18 adult program assistants	August 2017

CONFERENCE PRESENTATIONS AND JOURNAL PUBLICATIONS

Presenters	Title	Conference	Initiative					Number of estimated exposures
			Nutrition Programs Led by Peer Educators	Nutrition Programs Led by Volunteers	PSE Agent Initiatives	Nutrition & Physical Activity Social Media & Support Initiative	Food Access and Availability	
J Fisher, A Songer, E Meredith, A Farris, C Hart, Y Bruton, R Whitaker, G Foster, E Serrano	Building food parenting skills to reduce solid fat and added sugar intake among low-income preschoolers: The Food, Fun, and Families (FFF) intervention	International Society for Behavioral Nutrition and Physical Activity 2017	x					50
E Serrano, A Songer, E Meredith, A Farris, C Hart, Y Bruton, R Whitaker, G Foster, J Fisher	Building Capacity among Peer Educators to Implement a Clinical Intervention within Community-Based Settings: The Food, Fun, and Families Project	International Society for Behavioral Nutrition and Physical Activity 2017	x					100

2017 Virginia SNAP-Ed Annual Report

B Houghtaling, E Serrano, V Kraak, G Davis, S Misyak	Description of Retailer Perspectives of Environmental Changes in U.S. Food-Stores Using Behavioral Economic Domains: A Systematic Review of Literature, 1980 to 2016	International Society for Behavioral Nutrition and Physical Activity 2017 AND Society for Nutrition Education and Behavior 2017			x		x	100
B Houghtaling, E Serrano, S Misyak, G Davis, V Kraak	An Analysis of Frequent SNAP-Authorized Food Retailers' Corporate Social Responsibility Statements for Behavioral Economic Strategies Used to Promote Healthful Food and Beverage Purchases	Food and Nutrition Conference and Expo 2017			x		x	100
S Edwards, E Serrano, S Misyak, J Midkiff, S Dorsey, and S Curwood	School Principals' Perceived Concerns and Benefits of a School-Based Anti-Hunger Project (Virginia 365 Project) on School-Aged Children	Food and Nutrition Conference and Expo 2017	x				x	50
E Serrano, J Fisher, C Hart, G Foster, RC Whitaker, Y Bruton, E Meredith, A Songer, A Farris	Food, Fun, & Families	Society for Nutrition Education and Behavior 2017	x					50
S Misyak, A Farris, G Mann, J Midkiff, E Serrano	<i>Eat Smart, Move More</i> in Schools: A comprehensive program to improve the school food environment outside of the National School Lunch Program	Society for Nutrition Education and Behavior 2017		x		x	x	50
K Kinney, E Serrano, K Hosig, J Williams, V Kraak	Faith-Based Nutrition and Physical Activity Interventions: A Review of the Literature with Future Recommendations	Society for Nutrition Education and Behavior 2017		x			x	50
A Brooks, S Misyak, A Farris, J Midkiff, E Serrano	Family Engagement Strategies for Improving Health	Weight of the State (2017 - Virginia)	x		x	x		50

2017 Virginia SNAP-Ed Annual Report

S Diehl, D Cotterill, D Sellers, K Mulligan	Building Quality Paraprofessional Supervision	National EFNEP Conference 2017	x					150
S Diehl, K Cabbage, R Sheffield	No Pen, No Paper - No Problem: Teach participants how to set up an off-line Qualtrics survey for use with iPad technology and how to use the Socrative application for small group discussions.	National Extension Technology Community Annual Conference 2017	x					50
S Misyak, J Midkiff, S Diehl, AC Carrington	Four Session Series Pilot Study: Process Evaluation of Series Structure for SNAP- Eligible Populations	National Extension Association of Family and Consumer Sciences	x					30

Publications

- Kraak, VI, Englund, T, Misyak, S, & Serrano, EL (2017). Progress evaluation for the restaurant industry assessed by a voluntary marketing-mix and choice-architecture framework that offers strategies to nudge American customers toward healthy food environments, 2006-2017. *International Journal of Environmental Research and Public Health*, 14(7). doi: 10.3390/ijerph14070760.
- Kraak, VI, Englund, T, Misyak, S, & Serrano, EL (2017). A novel marketing mix and choice architecture framework to nudge restaurant customers toward healthy food environments to reduce obesity in the United States. *Obesity Reviews*. doi: 10.1111/obr.12553.
- Byker, CB, Banna, J, Serrano, EL (2017). Food Waste in the National School Lunch Program 1978-2015: A Systematic Review. *Journal of the Academy of Nutrition and Dietetics*, 117(11): 1792-1807.
- Mann, G, Hosig, K, Zhang, A, Serrano, E (2017). Smart Snacks in School Legislation Does Not Change Self-Reported Snack Food and Beverage Intake of Middle School Students in Rural Appalachian Region. *Journal of Nutrition Education and Behavior*, 49(7): 599-606.
- Kasparian, M, Mann, G, Serrano, EL, Farris, AR (2017). Parenting practices toward food and children's behavior: Eating away from home versus at home. *Appetite*, 114: 194-199.
- Parece, TE, Serrano, EL, Campbell, JB (2017). Strategically Siting Urban Agriculture: A Socioeconomic Analysis of Roanoke, Virginia. *Professional Geographer*, 69(1): 45-58.
- Price, TT, Carrington, AC, Margheim, L, Serrano, E. Teen Cuisine: Impacting Dietary Habits and Food Preparation Skills in Adolescents. *Journal of Nutrition Education and Behavior*, 49(2): 175-180.



2017 Virginia SNAP-Ed Annual Report

Curriculum Development

The Teen Cuisine program is a six lesson series designed to help teens in grades 6-12 become self-sufficient in the kitchen while learning healthy habits. Each 90-minute lesson has a nutrition, food safety, food preparation, and physical activity component. After completing the curriculum, teens are able to choose nutrient dense snacks and foods, read food labels, understand MyPlate and be able to incorporate MyPlate into meal planning, read and follow recipes, identify proper portions sizes, and use safe food handling practices.

In 2017, the Teen Cuisine workbook was updated to reflect changes requested by Peer Educators and the Dietary Guidelines for Americans 2015. The updated curriculum will be available on the national 4-H mall for use by other implementing agencies and 4-H programs in FY 2018.

Partnership Activities

Key partnerships during FY 2017 included the Virginia Department of Education with a special project for Breakfast before the Bell and the Virginia Department of Health with funding to support local school wellness policies.

KEY INDICATORS

The following table contains a snapshot of SNAP-Ed outcome indicators.

Indicator	Virginia Results
ST7: Partnerships	<p>Virginia SNAP-Ed has 366 cooperating partnerships. These partners have signed formal Memorandums of Agreement with the Virginia Family Nutrition Program. These partners have helped with advertising, program development, evaluation and tracking, provided human resources, assisted with program implementation, provided materials, helped with recruitment, and provided space for programming. Of those 366, 103 partnerships can also be classified as coordinating partnerships established by SNAP-Ed Agents focused on making PSE changes in addition to direct education.</p> <p>Collaborating partnerships are at the state level. They include the Virginia Department of Health, the Virginia Department of Education, and the Virginia Farmers Market Association.</p>
ST8: Multi-Sector Partnerships and Planning	<p>Virginia SNAP-Ed has 30 multi-sector partnerships committed to joint action in leading to the adoption of nutrition and physical activity practices, supports and/or standards</p>

<p>MT1: Healthy Eating</p>	<p>Youth, Grades 3-5: The percentage of youth indicating they eat vegetables and fruit every day rose by 22.4% and 25.9%, respectively. An additional 30.7% reported choosing healthy snacks and 17.8% reported eating breakfast every day.</p> <p>Youth, Grades 6-8: The percentage of youth participants consuming two or more servings of vegetables per day increased 8.4% from pre to post. The percent of students consuming two sugar-sweetened beverages per day or less increased by 16.7% following program participation.</p> <p>Adults: Following program participation, 54.7% increased fruit consumption, 55.4% increased vegetable consumption, 54.0% increased whole grain consumption, 52.2% increased dairy consumption, and 52.9% increased low-fat food consumption.</p>
<p>MT2: Food Resource Management</p>	<p>Adults: Following program participation, 52.0% of participants positively changed their behavior by shopping with a grocery list.</p>
<p>MT3: Physical Activity and Reduced Sedentary Behavior</p>	<p>Youth, Grades 3-5: The percentage of youth participants reporting increased physical activity levels was 26.5%.</p> <p>Youth, Grades 6-8: The percentage of youth participants engaging in two hours or less of recreational screen time per day rose by 12.8% from pre to post.</p> <p>Adult: Following program participation, 45.9% increased their physical activity levels.</p>
<p>MT5: Nutrition Supports (MT5a)</p>	<p>Of 48 sites targeted by SNAP-Ed Agents for PSE change, 40 (83.3%) made at least one change in writing or practice to expand access or improve appeal for healthy eating.</p>

2017 Virginia SNAP-Ed Annual Report

FY 2017 ADULT EVALUATION REPORT

During FY 2017, SNAP-Ed Peer Educators reached a total of 5,250 SNAP-eligible adults. Of the participants, 48% had a high school diploma or less and 42% resided in rural areas. The highest percentage of program participants reported themselves as white (45%, n=2,316), followed by Black/African American (40%, n=2,157).

SNAP-eligible adults were offered a comprehensive nutrition education experience consisting of at least six, 45-minute lessons. Curricula offered included *Eating Smart and Moving More* and *Eat Healthy, Be Active*. Lesson topics covered core areas of SNAP-Ed, including: healthy eating based on MyPlate and the Dietary Guidelines for Americans 2015; food resource management; physical activity; and food safety. The majority of program participants (77%) completed a comprehensive nutrition education series in six months or less.

Evaluation Method:

Medium Term: A pre/post questionnaire with responses rated on a likert type scale was used to evaluate changes in participants' dietary, food resource management, physical activity, and food safety behaviors, in addition to food access and availability. The questionnaire also assessed participants' social media usage and preferences (formative evaluation).

Long Term: To determine the long-term impact of participation in Virginia SNAP-Ed comprehensive nutrition education on dietary, food resource management, physical activity, and food safety behaviors, a follow-up electronic survey was distributed to program graduates through Facebook and an electronic e-newsletter listserv.

- **E-newsletter Listserv**

SNAP-Ed e-newsletter recipients were filtered. All past participants who were added to our listserv before May 1, 2017 (n=2,314) were sent an email to a Qualtrics link. Four email reminders were sent during one week. Overall, the survey link was clicked 164 times.

- **Facebook Paid Advertising**

Facebook ads were used to target e-newsletter recipients who were added before May 1, 2017. Facebook allows you to import email addresses of the people you want to reach. So, the people who received our email also saw Facebook ads to take the survey. The survey link was clicked 146 times in this campaign. Posts were also "boosted" for some local Facebook pages that included links to the follow-up survey. Only Facebook pages that had at least 30 followers were used. Some page followers and friends of the Virginia SNAP-Ed page were targeted as well. The survey link was clicked 263 times in these campaigns. In total, the survey link was clicked 409 times on all of Facebook ads.

Results:

Medium Term: A sample of 2,015 participants completed the pre/post questionnaire. Behavior change for select behaviors are shown in Table 1. With the exception of chilling foods after serving and physical activity behaviors, over half of respondents reported positive improvements. Of the respondents, 47% (n=947) felt they had greater access to fresh fruits and vegetables following SNAP-Ed program participation.

Table 1: Self-Reported Behavior Change Following SNAP-Ed Program Participation

Domain	Behavior	Positive Change (%)	Negative Change (%)	No Change (%)
Nutrition	Consumption of 2+ servings of fruit (MT1)	54.7	10.7	34.6
	Consumption of 3+ servings of vegetables (MT1)	55.4	11.2	33.4
	Whole grain consumption (MT1)	54.0	14.1	32.0
	Consumption of 2-3 servings of dairy (MT1)	52.2	15.2	32.6
	Lean protein consumption (MT1)	52.9	14.4	32.7
	Low-fat food consumption (MT1)	52.9	11.8	35.3
Food Resource Management	Shop with grocery list (MT2)	52.0	10.8	37.2
Physical Activity	Physical activity (MT3)	45.9	14.7	39.4
Food Safety	Chill foods after serving (MT4)	49.2	13.6	37.2

A total of 1,545 program participants provided information on their social media use and preferences. The majority of participants (68.9%) of participants access social media through a Smartphone or tablet. The greatest percentage of respondents were interested in learning about recipes (20.7%), followed by healthy eating (19.1%), physical activity (11.6%), and food budgeting information (10.0%) through Virginia SNAP-Ed. The most requested social media sites/platforms for connecting with Virginia SNAP-Ed were Smartphone “apps” (22.3%), text messages (19.5%), Facebook groups (13.3%), and Facebook (12.8%). Participants indicated they would prefer Virginia SNAP-Ed to help them find information to support healthy lifestyle choices through Smartphone “apps” or text messaging.

Long Term: A total of 144 eligible former participants self-selected to complete the survey. Eligibility included being over the age of 18 and having completed a comprehensive nutrition education series at least six months prior to their response date. Behavior change maintenance for selected behaviors are shown in the table 2. In contrast to medium-term responses which saw roughly a 50% improvement, maintenance of behavior was extremely high with at least three-quarters of all participants reporting they sustained behavior changes at least six months following program completion. In some cases, such as fruit and vegetable consumption and choosing lean protein, almost 95% of participants maintained positive behavior changes. One possible interpretation of differences in rates of medium and long-term behavior change results is that when program participants do change their behavior they are likely to sustain that behavior change.

Table 2: Long-Term Behavior Change Maintenance among Former SNAP-Ed Adult Participants				
Domain	Behavior	Maintained Behavior	Did Not Maintain Behavior	Did Not Initially Change Behavior
Nutrition	Increased fruit and vegetable consumption (LT1)	94.2% (n=130)	1.4% (n=2)	4.4% (n=6)
	Increased whole grain consumption (LT1)	79.7% (n=110)	13.8% (n=19)	6.5% (n=9)
	Choosing lean protein when eating protein (LT1)	94.2% (n=130)	3.6% (n=5)	2.2% (n=3)
	Decreased soda consumption (LT1)	84.7% (n=116)	9.5% (n=13)	5.8% (n=8)
Food Resource Management	Shop with grocery list (LT2)	86.9% (n=119)	5.8% (n=8)	7.3% (n=10)
	Plan meals (LT2)	87.0% (n=120)	6.5% (n=9)	6.5% (n=9)
Physical Activity	Increased physical activity (LT3)	94.9% (n=131)	2.9% (n=4)	2.2% (n=3)
Food Safety	Refrigerate food within 2 hours of serving (LT4)	91.3% (n=125)	5.1% (n=7)	3.6% (n=5)
	Wash hand before eating or preparing food (LT4)	98.5% (n=135)	0.7% (n=1)	0.7% (n=1)

Additional Educational Opportunities. Approximately 75% of survey respondents indicated they were interested in signing up for additional classes with Virginia SNAP-Ed. See Figure 1 for responses on possible courses and topics.

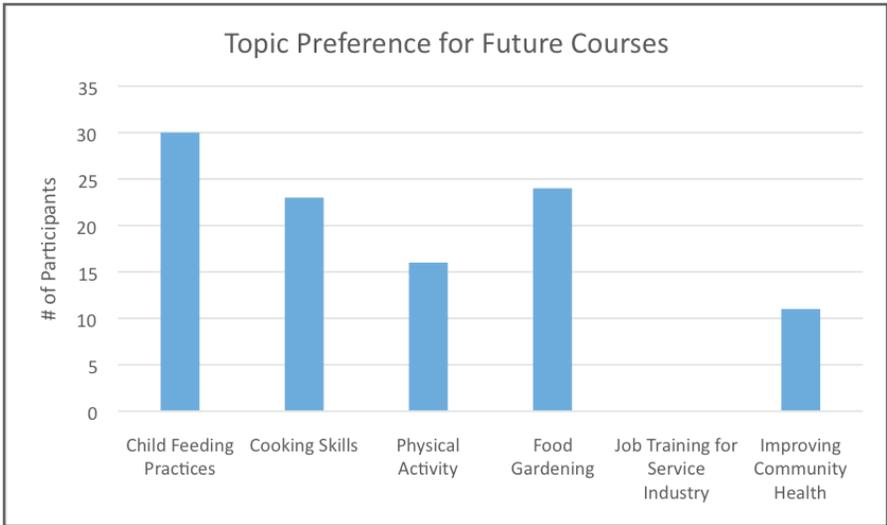


Figure 1: Former Virginia SNAP-Ed Program Participant Feedback on Future Courses

FY 2017 YOUTH EVALUATION REPORT

During FY 2017, Virginia SNAP-Ed Peer Educators reached a total of 83,210 SNAP-eligible youth through comprehensive, direct education programs. The primary behavioral goals targeted through youth programming included:

- Fruit and vegetable consumption
- Whole grain consumption
- Lean protein consumption
- Low-fat and non-fat dairy consumption
- Sugar sweetened-beverage consumption (grades 6-12)
- Food safety practices
- Asking parents/caregivers to purchase fruits and vegetables
- Physical activity

Of the total participants, 13% (n=11,510) were preschool aged, 41% (35,564) were in kindergarten through second grade, 36% (31,123) were in grades 3 to 5, 6% (5,459) were in grades 6 to 8, and 2% (2,041) were in grades 9 to 12. Participants were almost evenly split between male (51%) and female (49%). The greatest percentage of youth participants reported being black (40%), followed by white (34%), not specified (18%), all others (5%), Asian (2%) and American Indian or Alaskan Native (1%). About one in five (20%) of youth participants reported being Hispanic/Latino and 21% resided in rural areas of the state.

Youth participants were reached through age-appropriate, evidence-based nutrition education curricula, mostly in school settings consisting of at least six, 45-minute lessons. FNP newsletters were provided to 38,363 parents of youth participants.

In FY2017, Virginia SNAP-Ed educators extended the reach of classroom-based nutrition education to the home environment by delivering more than **38,363** newsletters to the parents of youth participants



PRE-KINDERGARTEN

Nutrition education is provided to preschool-aged children through the Literacy, Eating, and Activity for Preschoolers (LEAP) curriculum. LEAP is delivered at Head Start, childcare facilities, Even Start, family resource centers, and public libraries by teachers recruited and trained as program volunteers by SNAP-Ed Extension Agents.

Evaluation Method:

Preschool-aged children are difficult to evaluate directly. So, impacts from participating in LEAP are evaluated using a post-only teacher observation form that is completed by teachers on behalf of a group of youth. The evaluation includes questions on physical activity knowledge and behaviors, and fruit and vegetable consumption knowledge and behaviors.

Results:

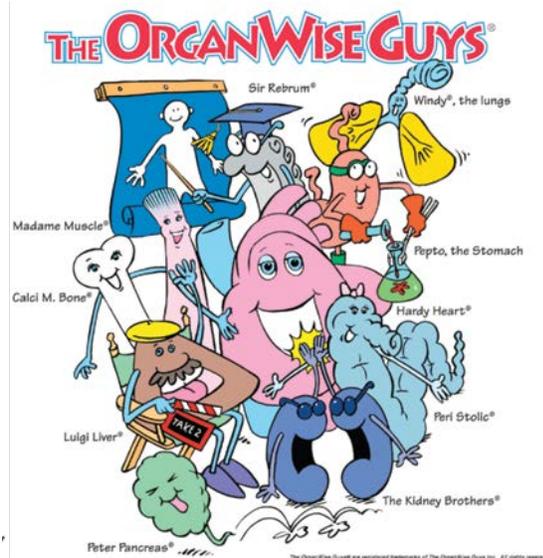
A sample of preschool-aged children (n=874) were evaluated using the LEAP teacher observation form. Following participation in the LEAP curriculum, 100% (n=874) of students were willing to try new fruits or vegetables (ST1a and b), 73.7% (n=644) asked for a fruit or vegetable for a snack (MT1), 94.7% (n=828) consumed a fruit or vegetable at mealtime (MT1), and 89.5% (n=782) participated in physical activity (MT3). Additionally, 100% (n=874) could name at least one health benefit to eating fruits and vegetables and 94.7% (n=828) could name at least one health benefit of physical activity.

GRADES K-2

The *OrganWise Guys*[®] curriculum is used to provide nutrition education to children in kindergarten through second grade. The program is delivered by SNAP-Ed peer educators and teachers recruited as volunteers and trained by SNAP-Ed Extension Agents.

Evaluation Method:

Similarly to preschool-aged children, children in kindergarten through second grade are difficult to evaluate directly, so the *OrganWise Guys*[®] program is evaluated using a post-only teacher observation form. This one page form includes information on nutrition and physical activity behaviors, behavior in the classroom, overall health, parent impact, impact on the teacher, and whether the teacher has requested a policy, systems or environmental changes in the school following the program. Teachers were asked to report whether behaviors had improved or stayed the same. Teachers could also report behaviors that were not observed.

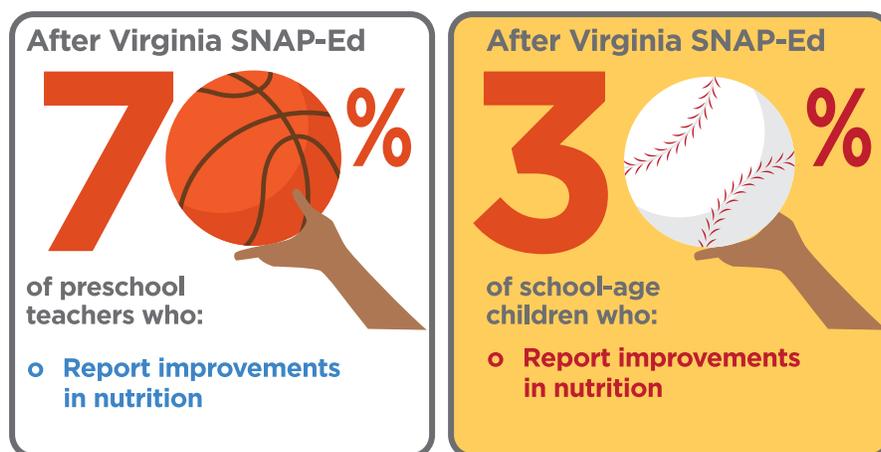


Results:

A total of 296 teacher observation forms were completed for groups of approximately 25 to 30 children per form, representing approximately 7,400 to 8,880 youth participants. Of the respondents, 76.6% (n=226) and 59.1% (n=175) reported children eat more fruits and vegetables at school (MT1), respectively. Other behaviors with the highest percentage of teachers indicating a positive change include children eating healthier food at school (69.6%, n=206) (MT1), children behaving better at mealtime and snack (54.7%, n=161), children complaining less about food at mealtime and snack (59.7%, n=176), and children working better as a team (68.8%, n=203).

Educators were less successful in encouraging positive behavior change for children's consumption of calcium-rich beverages (42.0%, n=124) (MT1), impacting children's weight (43.7%, n=128), increasing physical activity (26.3%, n=77) (MT3), and decreasing sick days (23.9%, n=70).

In addition to what teachers observed, they were also asked about reported behavior change by students and parents. Almost 61% (n=179) of teachers said parents had reported making healthier food choices at home. Fewer children reported making healthier food choices to teachers (26.9%, n=79) (ST1) and only 16.0% (n=47) of teachers indicated parents had communicated about what their children learned. Of the 296 teachers, only 282 reported whether or not they were personally making healthier food choices with 12.4% (n=35) indicating they were making healthier choices following the program (MT1). Only two teachers requested PSE changes in the school following the program (MT5).



GRADES 3-5

The *Choose Health and Healthy Weights for Healthy Kids* curricula were offered to youth in grades 3-5 in school or after school settings. Programs were delivered by SNAP-Ed Peer Educators and teachers recruited and trained as volunteers by SNAP-Ed Extension Agents.

Evaluation Method:

A sample of youth (n=214) were selected for evaluation. Pre/post tests were used to evaluate gains in nutrition, food resource management (e.g. asking parents to purchase food items, physical activity, and food safety using a likert-type scale).

Results:

Following participating in a SNAP-Ed lesson series, the percentage of youth indicating they eat vegetables and fruit every day rose by 22.4% and 25.9%, respectively (MT1). An additional 30.7% reported choosing healthy snacks and 17.8% reported eating breakfast every day (MT1). While only a small percentage of youth participants reported enjoying being active (5.7%) and that being active was good for them (4.7%) following lesson participation, the percentage of youth participants reporting increased physical activity levels was 26.5% (ST3, MT3). For a comparison of reported behaviors and intentions from pre- to post-for nutrition and physical activity behaviors, see Figure 2. The percentage of youth participants able to identify proper food safety behaviors in two separate situations increased by 14.9% and 22.3%, with 15.4% more youth participants indicating they make safe decisions (ST4, MT4). For a comparison of reported food safety knowledge and behaviors from pre to post, see Figure 3. The percentage of youth participants indicating they would ask their family to purchase their favorite fruit or vegetable and non-fat or 1% milk instead of regular milk increased by 11.8% and 33.1%, respectively (ST2). An additional 20.2% and 12.3% also indicated they would ask their family to place fruits and or vegetables within easy reach at home following program participation (ST2). For a comparison of intention to improve food resource management behaviors, see Figure 4.

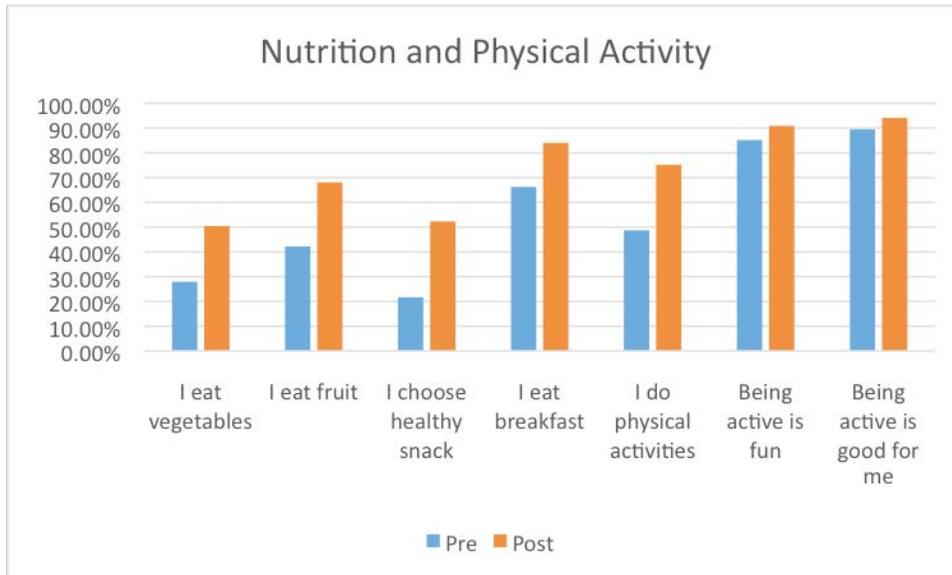


Figure 2: Nutrition and Physical Activity Behaviors Reported by SNAP-Ed Youth Participants



Figure 3. Food Safety Knowledge and Behaviors Reported by SNAP-Ed Youth Participants

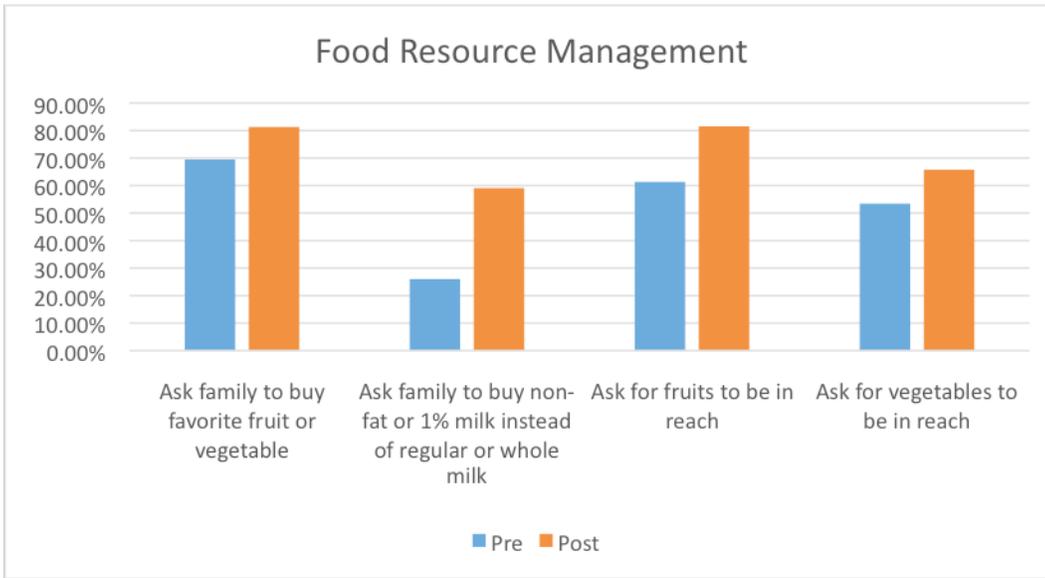


Figure 4: Reported Intention to Alter Food Resource Management Behaviors Reported by SNAP-Ed Youth Participants

GRADES 6-8

Youth in grades 6 through 8 were offered either the *Healthy Weights for Healthy Kids* or *Choose Health* curriculum. Programs were delivered by SNAP-Ed peer educators and teachers recruited and trained as volunteers by SNAP-Ed Extension Agents in school or after school settings.

Evaluation Method:

An unmatched pre-/post-test evaluation was used to evaluate gains in nutrition, food resource management (e.g. asking parents to purchase food items, physical activity, and food safety, using a likert type scale.

Results:

Based on a random sampling of classes around the state that included 171 pre-tests and 189 post-tests), several positive changes were noted. For example, the percentage of youth participants consuming two or more servings of vegetables per day increased 8.4% from pre to post and the percentage of youth participants engaging in two hours or less of recreational screen time per day rose by 12.8% from pre to post (MT3). The percentage of youth participants indicating they wash produce before consuming it and wash their hands before eating rose 5.3% and 2.5%, respectively (MT4). For positive behavior changes from pre to post, see Figure 5.

Several behaviors saw no change or declines however – including fruit and whole grain consumption (no change) and non-fat or 1% milk consumption (MT1). The percent of students consuming two sugar-sweetened beverages per day or less also increased by 16.7% following program participation.

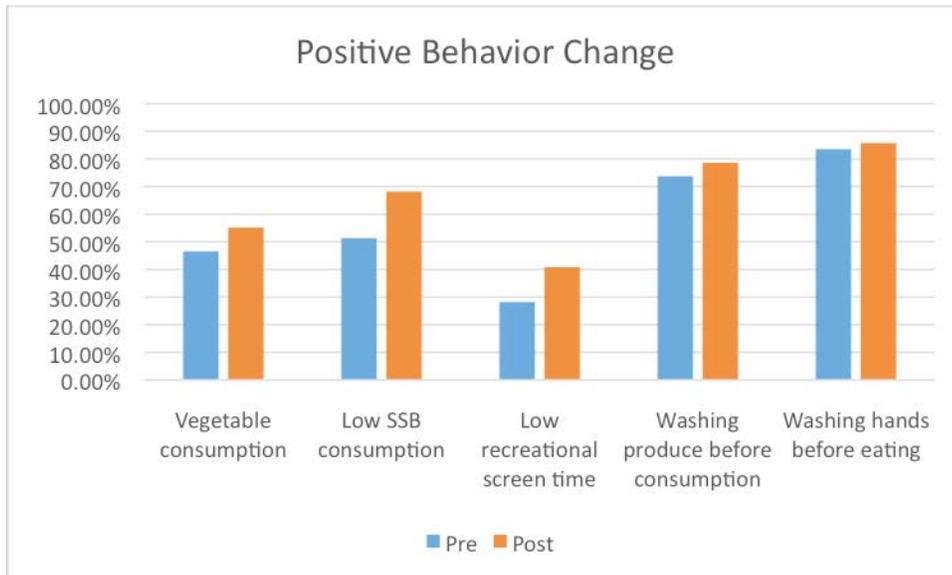


Figure 5. Positive Behavior Changes from Pre- to Post-Test among a Sampling of SNAP-Ed Participants

GRADES 9-12

Youth in grades 9 through 12 were offered the *Teen Cuisine* curriculum. Programs were delivered by SNAP-Ed Peer Educators and teachers recruited and trained as volunteers by SNAP-Ed Extension Agents in after school settings. The *Teen Cuisine* curriculum was previously developed by the Virginia Family Nutrition Program with support from Virginia Cooperative Extension 4-H to fill a gap in skill-based nutrition education programming targeting teens. For an overview of the program, see the attached publication from the *Journal of Nutrition Education and Behavior*.

Evaluation Method:

The 4-H Common Measures post-only survey was used to evaluate, changes in nutrition and physical activity knowledge, changes in nutrition behaviors, gains cooking skills, and food safety behaviors. This instrument is endorsed by National 4-H and Virginia 4-H.

Results:

All youth participants (n=1,330) completed the Common Measures evaluation. A total of 97.0% (n=1,290) and 85.7% (n=1,140) of youth participants said it would not be difficult to eat fruit or vegetables for a snack, respectively (ST1). Of the youth participants, 83% (n=1,104) reported eating more fruits and vegetables following the program (MT1). For physical activity knowledge (ST3), 85.7% (n=1,140), 92.1% (n=1,125), and 92.2% (n=1,226) agreed that physical activity is fun, good for them, and will help them stay fit, respectively. Youth participants agreed they had better measuring skills (79.3%, n=1,053) and knife skills (90.9%, n=1,209) following the program. For food safety behaviors (MT4), 93.4% (n=1,242) and 91.0% (n=1,210) reported washing their hands before cooking and washing their hands before eating, respectively.

SUPPORTING POSITIVE NUTRITION AND PHYSICAL ACTIVITY BEHAVIOR IN SCHOOL ENVIRONMENTS THROUGH PSE CHANGES

Breakfast After the Bell

Virginia SNAP-Ed collaborated with Virginia Department of Education (ST7) by serving as program evaluators for their Breakfast After the Bell (BaB) program. The BaB program was pilot test of alternative breakfast service models where school breakfast was served outside of the traditional service model of in the cafeteria before the start of the school day (MT5). Please see the attached report that was submitted to the office of the Governor of Virginia detailing project findings.

EAT SMART, MOVE MORE IN SCHOOLS: A VIRGINIA SNAP-ED SIGNATURE PROGRAM

Eat Smart, Move More in Schools, a social marketing campaign, was implemented in 14 target communities across Virginia. The campaign consisted of providing in school marketing materials promoting (see Figure 6), direct education targeting children in schools (see results in above sections) and a PSE-focused initiative. In response to the Final Rule for Local School Wellness Policy Implementation under the Healthy, Hunger-Free Kids Act of 2010, Virginia SNAP-Ed collaborated with the Virginia Department of Health (ST7) to assist school divisions in 15 targeted communities to evaluate and strengthen their local school wellness policies.



Figure 6: Example of School Social Marketing Campaign

Evaluation Method:

We evaluated 16 school division’s written wellness policies using the Wellness School Assessment Tool 2.0 (WellSAT 2.0, Schwartz, et al., 2013). The WellSAT 2.0 tool utilizes a standardized method, which aids in the quantitative assessment of school wellness policies. Upon completion of the assessment, two scores are generated. These scores cover the areas of policy comprehensiveness and policy strength. In each

of these areas, scores were rated on a scale of 0 to 100. Lower scores indicated that some content was lacking and that language was weaker. Higher scores indicate that the level of content is more in depth and the language is concise and descriptive. Comprehensiveness scores reflect the extent to which the recommended areas of content were covered within the policy.

To evaluate the impact of marketing materials on student behavior, a post-only observation form was distributed to cafeteria staff. This one page form includes information on nutrition and physical activity behaviors, behavior in the lunchroom, parent impact, staff impact, and whether the cafeteria staff member requested a policy, systems or environmental changes in the school following the campaign. Staff members were asked to report whether behaviors had improved or stayed the same. Staff members could also indicate the behaviors were not observed.

Results:

The WellSat 2.0 scores for the targeted school divisions are presented in Table 3. The potential reach of work improving School Wellness Policies is in Table 4.

Table 1. WellSat 2.0 Scores				
	Overall			
School Division	Comprehensiveness	Quartiles	Strength	Quartiles
Accomack County Public Schools	76	26	50	4
Bristol Virginia Public Schools	44	42.75	7	6.75
Brunswick County Schools	82	48.5	48	9
Buchanan County Public Schools	47	60	9	22.25
Carroll County Schools	59	82	22	56
Chesterfield County Public Schools	72	-	56	-
Dickenson County Public Schools	26	-	5	-
Galax City Public Schools	48	-	6	-
Grayson County Public Schools	47	-	19	-
Halifax County Public Schools	49	-	9	-
Henry County Public Schools	32	-	7	-
Martinsville City Schools	56	-	23	-
Mecklenburg County Public Schools	49	-	7	-

Northampton County Public Schools	63	-	16	-
Russell County Public Schools	39	-	4	-
Smyth County Public Schools	37	-	6	-
Average	51.625	-	18.375	-

Table 2. Potential Reach of Improved School Wellness Policies

School Division	# of Students in School Division
Accomack County Public Schools	5,199
Bristol Virginia Public Schools	2,263
Brunswick County Schools	1,644
Buchanan County Public Schools	2,836
Carroll County Schools	3,807
Chesterfield County Public Schools	60,976
Dickenson County Public Schools	2,128
Galax City Public Schools	1,302
Grayson County Public Schools	1,584
Halifax County Public Schools	5,101
Henry County Public Schools	7,479
Martinsville City Schools	2,016
Mecklenburg County Public Schools	4,338
Northampton County Public Schools	1,654
Russell County Public Schools	3,826
Smyth County Public Schools	4,431
Total	110,584

A total of 27 completed observation forms were received. Of the respondents, 92.3% and 51.9% indicated children in their lunchroom were eating more fruits and vegetables, respectively, following the campaign (MT1). Approximately 74% indicated students were eating healthier at school and 70% indicated students were drinking more calcium-rich beverages (MT1). Only 33.3% of respondents reported children behaving better at mealtime and snack and 50% reported children complaining less about the food served at meal and snack times. Of the respondents, 51.9% heard children report making healthier food choices (ST1). Only 14.8% had parents communicate to them about what their children had learned.

Eat Smart, Move More in Schools may have impacted the dietary habits of cafeteria staff and teachers with 66.7% of survey respondents reporting they saw positive dietary changes for themselves and teachers (MT1).



FY 2017 NUTRITION AND PHYSICAL ACTIVITY SOCIAL MEDIA AND SUPPORT

A total of 27 completed observation forms were received. Of the respondents, 92.3% and 51.9% indicated children in their lunchroom were eating more fruits and vegetables, respectively, following the campaign (MT1). Approximately 74% indicated students were eating healthier at school and 70% indicated students were drinking more calcium-rich beverages (MT1). Only 33.3% of respondents reported children behaving better at mealtime and snack and 50% reported children complaining less about the food served at meal and snack times. Of the respondents, 51.9% heard children report making healthier food choices (ST1). Only 14.8% had parents communicate to them about what their children had learned.

Eat Smart, Move More in Schools may have impacted the dietary habits of cafeteria staff and teachers with 66.7% of survey respondents reporting they saw positive dietary changes for themselves and teachers (MT1). In FY 2017, the Virginia Family Nutrition Program continued efforts to reach participants and community members using a variety of social media platforms, including Facebook, Twitter, and YouTube. During the year, the social media team collected data from participants on social media preferences and then launched Instagram and Pinterest accounts during the second and third quarters. The goal is to reach more unique audiences on these channels and highlight SNAP-Ed work more effectively, especially by using high-quality photography. Paid advertising was also tested with Facebook and Instagram to see how digital and highly-targeted ads could help improve the social marketing campaign and assist in recruiting participants for the Virginia 365 Project. Overall, the results were extremely positive.

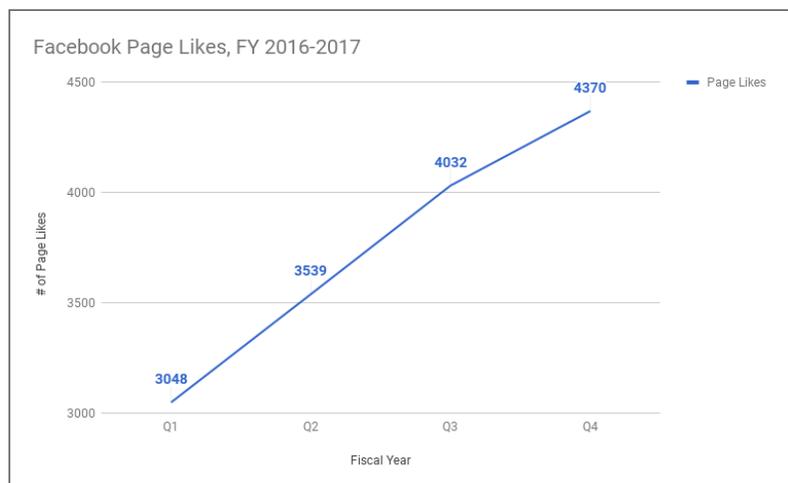
*In Virginia, SNAP-Ed and EFNEP are coordinated together under the Virginia Family Nutrition Program. As a result, the social media addresses and hashtags appear as the Virginia Family Nutrition Program.

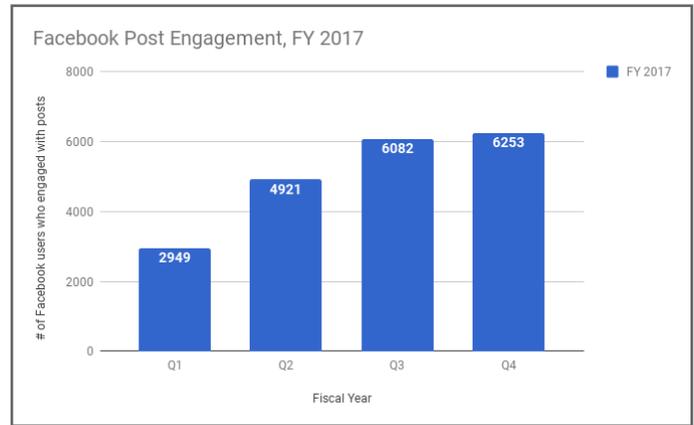
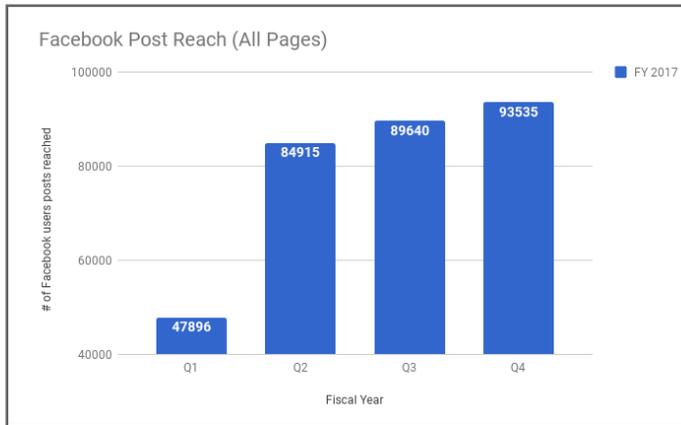
FACEBOOK

All Facebook Pages

Virginia SNAP-Ed (Virginia Family Nutrition Program) continues to make progress by reaching more and more people on Facebook. New pages were created to represent Family Nutrition Program staff in the City of Alexandria, Amherst County, Gloucester County, and Suffolk County. Throughout the fiscal year, SNAP-Ed gained 1,322 new Page (% increase from FY 2016) likes across all 62 Virginia Family Nutrition Program pages.

Post reach (the number of Facebook users who saw our posts) and post engagement (the number of reactions, comments and shares on our posts) across all of Facebook pages grew throughout the year. In the first quarter, SNAP-Ed content reached 47,896 Facebook users; in the second quarter 84,915 Facebook users (37,019 more users





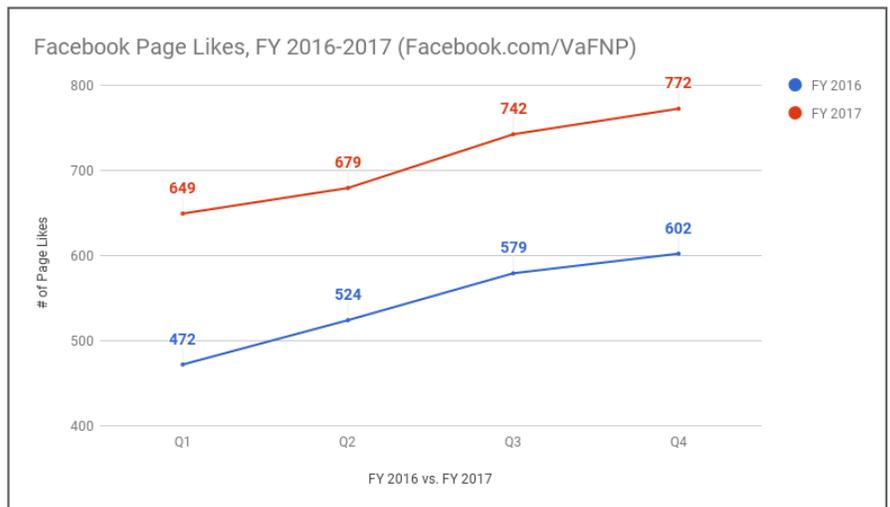
than in the previous quarter); in the third quarter 89,640 Facebook users (4,725 more users than the previous quarter); and in the fourth quarter 93,535 Facebook users (3,895 more than the previous quarter).

Post engagement also grew throughout the year. By the end of the first quarter, SNAP-Ed saw 2,949 post engagements with SNAP-Ed content. At the end of the second quarter, there were 4,921 post engagements. At the end of the third quarter, there were 6,082 engagements. Finally, at the end of the fourth quarter there were 6,253 engagements.

Statewide Facebook Page (Facebook.com/VaFNP)

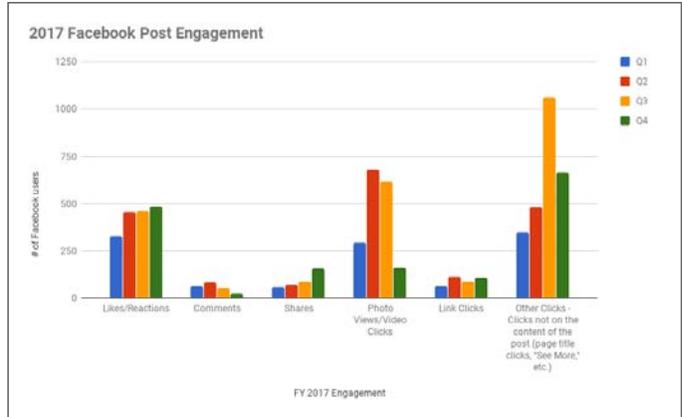
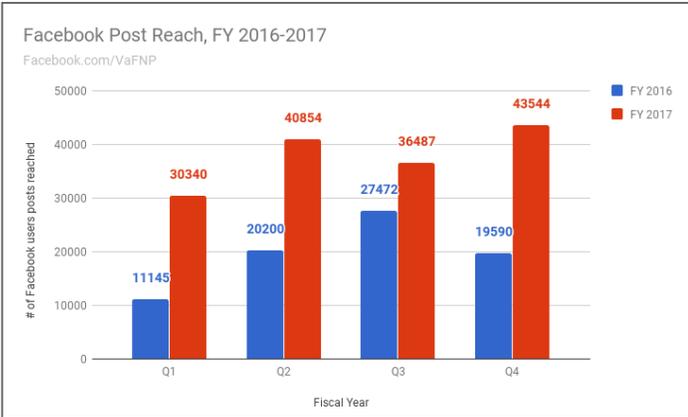
Virginia SNAP-Ed saw significant improvements on the statewide page alone. By the end of FY 2017, there were 772 Page likes, 170 more than at the end of FY 2016. More Facebook users were reached in FY 2017 compared to FY 2016. These improvements are attributed to a number of strategy changes.

First, Facebook paid advertising campaigns were incorporated to promote using SNAP at Virginia farmers markets. These campaigns helped to extend the reach beyond just the page audience. With the ability to define a target audience based on estimated income, geography, and interest in food and nutrition, it helped us reach our specific target audience: SNAP recipients likely to visit farmers markets that accept SNAP.



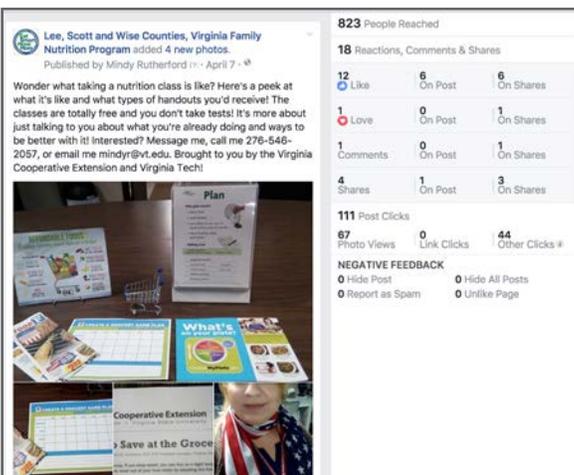
More experimentation also took place with videos and live videos, which are prioritized automatically by Facebook in its newsfeeds. More users saw content, watched it, and even engaged with it through reactions, comments, shares, and clicks.

In addition to these changes, informational content about nutrition, physical activity, food safety, and stories about participants' successes after taking our classes were promoted. These types of content continue to be popular on Facebook, as well as on our other social media channels.



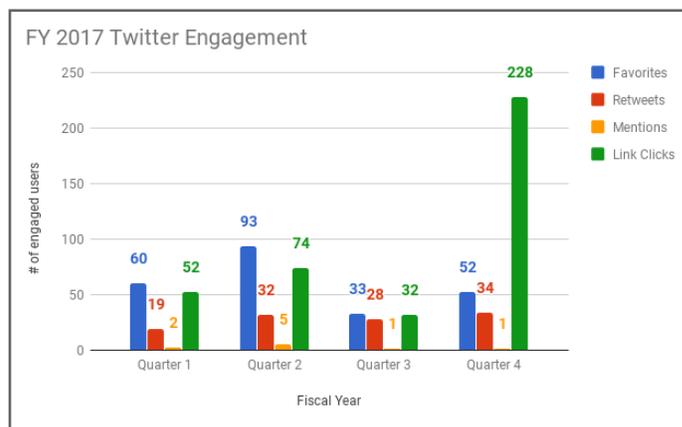
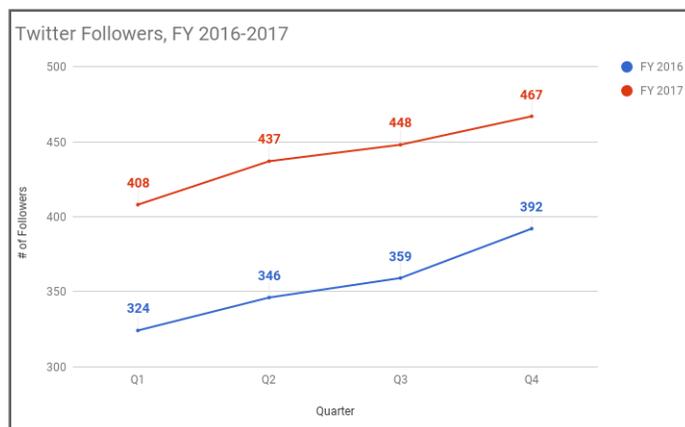
Local Facebook Pages

In FY 2017, the social media team also began more actively reaching out to Peer Educators and SNAP-Ed Agents to share updates about the growth of their local Pages, see how things were going in their areas, and to ask if they needed help promoting any classes or events on their Facebook pages. This monthly check-in process has helped the program stay informed about classes happening in communities across Virginia and also helps remind staff to use their Facebook pages to highlight their work (see examples below). We have seen an increase in posting about local events, which has helped us increase reach and engagement. We have also seen an increase in mentions and engagement from community partners, which offers us better professional-level networking and shares our work with a wider audience.



Twitter

Virginia SNAP-Ed continue to maintain a strong presence on Twitter, particularly among community partners and stakeholders. Our Twitter followers increased from 392 followers at the end of FY 2016 to 467 by the end of FY 2017. Twitter engagement also was good throughout FY 2017. “Favorites” and clicks on shared links and photos were the strongest types of engagement overall.



YouTube

In FY 2017, traffic remained steady to the Virginia SNAP-Ed YouTube videos and views on those videos. Some of the most popular videos in FY 2016 remained popular in FY 2017: Four out of five of our most-watched videos in FY 2017 are workout videos that were filmed in previous years.

YouTube Overview:

	2016	2017	% Change
Watch Time (minutes)	7,007	5,896	▼ -15.86%
Total Number of Video Views	3,945	3,478	▼ -11.84%
Subscribers	21	19	▼ -9.52%

FY 2016:

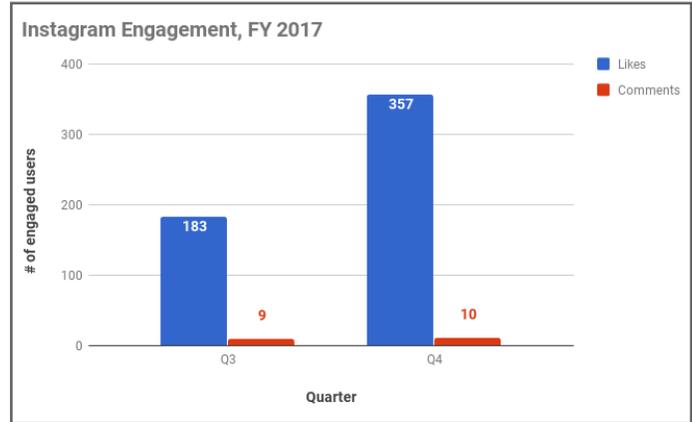
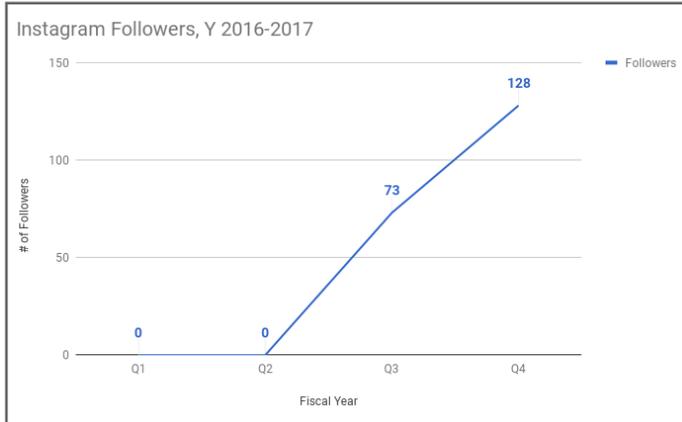
	Video	Date Uploaded	Total Views	Average Length of Views (minutes)	Video Length (minutes)	Time Watched (minutes)
1	15 Minute Stretch Band Workout	1/26/16	470	2:50	20:37	1,335
2	How To Use My EBT Card at Farmers Markets	2/6/13	843	1:27	2:30	1,229
3	Healthy Start: A SNAP-Ed Partnership	10/22/15	273	3:10	5:36	868
4	Cooking For Beginners	6/25/14	214	1:36	3:14	343
5	20 Minute Core Workout	1/26/16	112	2:48	22:18	314

FY 2017:

	Video	Date Uploaded	Total Views	Average Length of Views (minutes)	Video Length (minutes)	Time Watched (minutes)
	15 Minute Stretch Band Workout	1/26/16	341	3:43	20:37	1,270
	How Can I Use My EBT At The Farmers Market?	2/6/13	736	1:18	2:30	966
	20 Minute Core Workout	1/26/16	100	5:59	22:18	600
	Move More, Virginia! 30 Minute Workout	11/5/15	63	4:40	28:40:00	294
	HIIT Promo and 7 Minute Workout	1/26/16	87	2:48	10:24	245

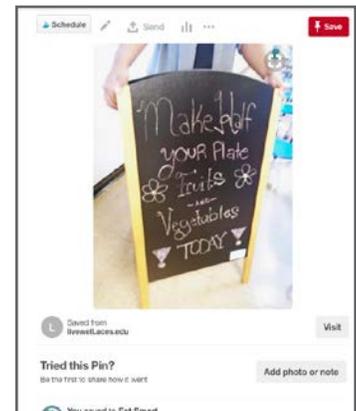
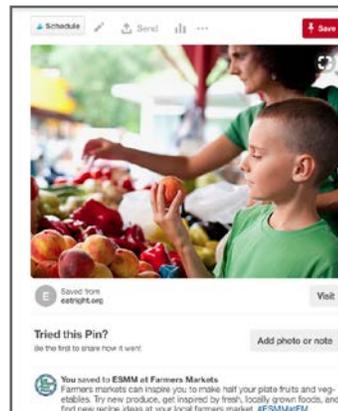
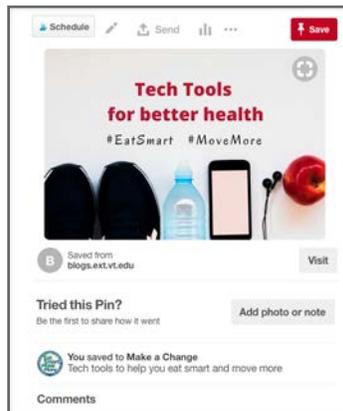
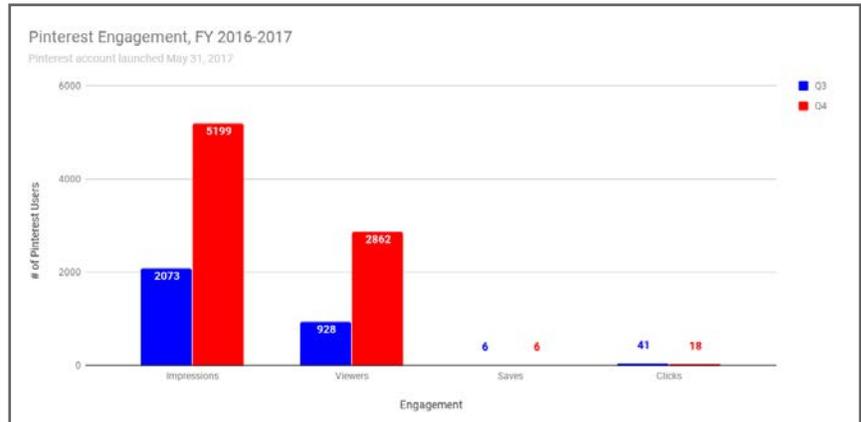
Instagram

In May 2017, Virginia SNAP-Ed launched an Instagram profile and began posting content regularly to the channel. The channel received immediate followers and engagement. Many community partners have their own Instagram accounts, so it proves to be a great channel to help connect with these community partners and find shareable content for use by Virginia SNAP-Ed. Some of our most popular posts included photos of SNAP-Ed staff; photos of recipes were also very popular. By the end of FY 2017, the Instagram account had 128 followers. Engagement grew throughout the year as well.



Pinterest

At the end of May 2017, Virginia SNAP-Ed launched a Pinterest profile as well. Throughout the rest of FY 2017, the number of impressions and viewers increased steadily. The profile was populated by blog posts with the blog posts organized into different boards. After all of the blog posts were “pinned,” articles and links scheduled on Facebook and Twitter were pinned on Pinterest as well. Other relevant Pinterest users like the USDA, CDC, and other Cooperative Extension programs throughout the country were also followed to build the network and find reliable sources to build and re-pin content.



Conclusion

Overall, we were extremely pleased with the progress we made on all of our social media channels. As we move forward, we plan to focus on optimizing each of our social media channels with content that best fits the channel. We have also started working on a new website for our program. The website is projected to launch in April 2018. It will serve as a resource for participants and employees alike, where items like shopping lists and meal planners will be available. Features of the website will be interactive and helpful for participants and employees looking for information about nutrition and physical activity. One of the biggest changes will be that recipes will be easier to access, and will feature high quality photos of these recipes. Since recipes are our most popular form of content, this will help us drive more traffic from social media to our website.

In FY 2018, we plan to use Facebook Live on a more regular basis to give our audiences a chance to ask questions and interact with us live. Live videos are prioritized by Facebook’s algorithm and should help to increase the reach of these videos to our audience. We plan to seek out more conversations on Twitter to increase our mentions and further establish ourselves as experts in nutrition and physical activity. We plan to start promoting our recipes on Pinterest, creating unique pins for each recipe. We plan to increase our Instagram activity, since this is a constantly growing platform. We also plan to continue using Facebook paid advertising within our overall marketing strategy to utilize the audience targeting features and promote new digital resources or recruit for programming. We were happy with the results we saw when we used them for our social marketing campaign; we were able to not only reach our specific target audience, but we also used a smaller budget to achieve the results we were looking for. We believe that Facebook ads will be helpful in promoting classes, events, and other important information for our audience’s benefit.

Social Marketing

In FY 2017, Virginia SNAP-Ed implemented its main social marketing campaign, *Eat Smart, Move More Eat Smart, Move More - It’s a SNAP to Use EBT at Farmers Markets ets*, at 29 markets across the state. One advertising strategy included the use of exterior and interior bus ads available in four counties and billboards available in the state capitol, Richmond, VA. See samples pictured below. The social marketing campaign was possible through 24 partnerships (ST7). Events in the Eat Smart, Move More at Farmers Markets campaign were covered by 16 media outlets (LT8). See Table 5 below for links to media coverage and Facebook advertisements from local groups.

Table 5. Media Coverage (LT8)
https://www.washingtonpost.com/local/alexandria-arlington-community-calendar-aug-3-10-2017/2017/07/31/0c921f16-6dc1-11e7-96ab-5f38140b38cc_story.html?utm_term=.0a38874b3f58
https://www.eventbrite.com/e/family-fun-day-at-columbia-pike-farmers-market-tickets-36282472853#
https://www.facebook.com/events/751847084994913/?active_tab=discussion
http://wset.com/news/local/we-got-the-beet-promotes-healthy-eating-to-children
http://lynchburgcommunitymarket.com/wegotthebeet/

http://www.yourgv.com/news/town_of_halifax/halifax-celebrates-opening-of-market-with-taste-tour-event/article_4aa84fba-55fb-11e7-a000-abe137ce4fc7.html
http://www.yourgv.com/news/local_news/hot-dog-days-of-summer-at-sobo-farmers-market/article_4cba83a6-71fb-11e7-b71e-c3578d959995.html
https://www.facebook.com/BedfordVAFNP/
http://www.yourgv.com/news/town_of_south_boston/town-council-hosts-community-cookout-at-south-boston-farmers-market/article_1603412c-75e8-11e7-a32c-d35b61a6710e.html
http://www.jacksonnewspapers.com/news/20170903/column-farmers-markets-are-popular-destination-for-local-fresh-healthy-foods
http://www.thecoalfieldprogress.com/coalfield_progress/eat-smart-move-more-coming-to-norton-farmer-s-market/article_8daebbb8-5223-11e7-ad84-0b003ff79b0d.html
http://www.virginiafirst.com/ag-life/virginia-cooperative-extension-eat-smart-move-more/764456592
https://www.instagram.com/p/BUw-OvMFCm0/?taken-by=vce_roanoke
https://www.facebook.com/events/1928495160763603/?acontext=%7B%22source%22%3A5%2C%22page_id_source%22%3A142649529270299%2C%22action_history%22%3A[%7B%22surface%22%3A%22page%22%2C%22mechanism%22%3A%22main_list%22%2C%22extra_data%22%3A%22%7B%5C%22page_id%5C%22%3A142649529270299%2C%5C%22tour_id%5C%22%3Anull%7D%22%7D]%2C%22has_source%22%3Atrue%7D
https://www.facebook.com/RoanokeVCE/photos/a.542548972613684.1073741830.142649529270299/738138829721363/?type=3&theater
https://www.facebook.com/RoanokeVCE/photos/a.542548972613684.1073741830.142649529270299/738138833054696/?type=3&theater



Figure 7. Sample Exterior Bus Ad for Virginia SNAP-Ed Social Marketing Campaign, *Eat Smart, Move More* – at Farmers Markets

Figure 8. Sample Interior Bus Ad for Virginia SNAP-Ed Social Marketing Campaign, *Eat Smart, Move More* – at Farmers Markets



Figure 9: Sample Billboard Advertisement for Virginia SNAP-Ed Social Marketing Campaign

In FY 2017, Facebook paid advertisements were also incorporated into this social marketing campaign. The hope was to create ads that would allow Virginia SNAP-Ed to reach a more

specific target audience; specifically the goal was to ensure that the ads were being seen by potential SNAP recipients who would be most likely to use their SNAP benefits at Virginia farmers markets.

Since Facebook’s algorithm gives preference to video content, recorded footage from farmers markets in Virginia were used to create short videos showing fresh fruits and vegetables on stands, as well as people picking up and purchasing produce. Virginia SNAP-Ed was also responsible for creating a page on the main blog that included a map and a list of farmers markets that accept SNAP. The pins on the map and the names of the farmers markets on the list all included links to the farmers markets’ websites, as well as basic information like location, contact information, and whether they have a SNAP Match Program.

Two target populations were chosen to reach with these promotions: potential SNAP recipients (based on estimated household income and wealth) and “Friends of FNP.” Friends of FNP included stakeholders, community partners, farmers market managers, and any of our Facebook followers and their friends. Using Facebook ads, we were able to target users by location, age, income, and interests.

This allowed us to only show Virginia SNAP-Ed ads to people who met the targeting choices. A series of boosted posts from August 7-11 were also ran. These posts included very short videos with nutrition information about the produce featured in the video. The boosted posts helped to create more variety in the types of ads we ran during the social marketing campaign, which spanned the length of the market season. The primary goal was to build engagement on these posts.

Throughout the social marketing campaign, the budget was monitored closely. For example, one of the ads was on Instagram in the hopes for more engagement and clicks. However, when the cost per result was too high, the social media team stopped the campaign and ultimately returned to running the campaign on both Facebook and Instagram. They used the benchmark of cost per impression of the more traditional social marketing channels (bus ads and billboards) of previous campaigns.



Eat Smart Move More Virginia Family Nutrition Program
Sponsored · *

Shop at the farmers market this summer! Many Virginia farmers markets now accept SNAP/EBT. Find a SNAP-friendly farmers market near you.

Fresh, Local Fruits & Veggies
Visit our map to find a farmers market near you that accepts SNAP/EBT.

[HTTP://BLOGS.EXT.VT.EDU/EATSMART-MOVEMORE/VIRGINIA-FARMERS-MARKETS-ACCEPTING-SNAP/](http://blogs.ext.vt.edu/eatsmart-movemore/virginia-farmers-markets-accepting-snap/) [Learn More](#)

Ad Name	Starts	Ends	Amount Spent (USD)	Results (3-second video views)	Cost per Result	Reach	Impressions	Cost per Impression	Link Clicks
FM Spring 2017 Promo 1	5/8/17	6/12/17	\$249.87	8,503	\$0.03	10,960	16,121	\$0.015	92
FM Spring 2017 Promo 1 - Friends of FNP	5/8/17	6/12/17	\$249.97	14,593	\$0.02	17,955	28,475	\$0.009	111
FM Spring 2017 Promo 1 - Friends of FNP - Video 2	6/12/17	7/17/17	\$250.00	10,819	\$0.02	12,035	18,273	\$0.014	123
FM Spring 2017 Promo 2	6/12/17	7/17/17	\$250.00	7,824	\$0.03	7,524	13,309	\$0.019	80
FM 2017 - Friends of FNP - Promo 3	7/17/17	7/24/17	\$50.00	2,338	\$0.02	2,783	3,546	\$0.014	38
FM 2017 Promo 3	7/18/17	7/24/17	\$50.00	2,680	\$0.02	3,060	4,553	\$0.011	10
Instagram - Traffic	7/25/17	8/1/17	\$21.45	3	\$7.15	3,919	4,579	\$0.005	3
Boosted Post: "Taste the difference of a locally grown tomato at..."	8/7/17	8/8/17	\$10.00	484	\$0.02	1,633	1,789	\$0.006	
Boosted Post: "We love colorful peppers! What's your favorite..."	8/8/17	8/9/17	\$10.00	494	\$0.02	1,613	1,778	\$0.006	
Boosted Post: "We're right in the middle of squash season..."	8/9/17	8/10/17	\$10.00	470	\$0.02	1,759	1,886	\$0.005	
Boosted Post: "You'll find fresh, local foods at the farmers..."	8/10/17	8/11/17	\$10.00	389	\$0.03	1,482	1,608	\$0.006	3
Boosted Post: "Leafy greens taste better from the farmers..."	8/11/17	8/12/17	\$10.00	723	\$0.01	1,725	1,880	\$0.005	
FM campaign - Friends of FNP - Video 4	8/17/17	9/22/17	\$249.80	12,165	\$0.02	12,591	21,857	\$0.011	85
FM Video 4	8/17/17	9/22/17	\$249.79	9,559	\$0.03	10,164	19,371	\$0.013	31
Total results (cost, video views, reach, impressions, link clicks)			\$1,670.88	71,044		89,203	139,025		576
Average cost per result or impression					\$0.53			\$0.01	

The social marketing campaign resulted in 139,025 total impressions, with an average cost of \$0.01 per impression (MT12). This is lower than the cost per impression with billboards and bus ads while reaching a more precise audience. Social media reached a total of 89,203 people and had 576 clicks to the farmers market map on our website (MT12). These additional metrics were helpful in truly understanding if the messages were resonating with our target audiences.

Using social media advertising as part of the Virginia SNAP-Ed social marketing campaign has advantages over more traditional social marketing channels used in the past. Using Facebook ads allowed us to define our desired target audience of SNAP-eligible populations in Virginia with greater precision than bus ads or billboards. The process is far more agile and adaptable, allowing us to modify and refine the messaging and location throughout the campaign, whereas once bus ads and billboards are designed and installed, they are static for the duration. Due to bottlenecks in the procurement process, our social marketing campaign has been delayed each year, missing the beginning of the market season, whereas we can create and deploy Facebook ads within hours, not months. Finally, the analytics available with social media marketing offered more valuable insights into the impact of campaign messages and calls to action. We are able to see how many people were exposed to the message (reach), how many people interacted with the content (engagement) and how many responded to the call-to-action (clicks to the farmers market map). The data from bus ads and billboards from the advertising company includes questionably high numbers of impressions and is presented without information on the methodology used to arrive at these estimates. We have more confidence in the accuracy of the data from the social media ads, as well as more control over targeting the SNAP-Ed population with this method, while reaching the audience at similar costs per impression.

VIRGINIA 365 PROJECT

The Virginia 365 Project (VA365) is a USDA- funded initiative to address hunger and support academic achievement among children living in high poverty areas of Virginia, by providing free school breakfast, lunch, and dinner meals, along with weekend backpack meals and backpack programs and summer SNAP EBT benefits.

To help encourage parents and guardians of participating Virginia 365 Project schools to enroll in nutrition programs, online sign-up forms and upcoming program promotions were created on Facebook. Some paid advertising was also used to reach more parents and guardians – including a Google form, which was linked to from the Virginia SNAP-Ed Facebook pages and a sign-up form integrated into Facebook that was created through Facebook's Ad Manager.



These resulted in some engagement and online sign-ups. After following up with Program Assistants in those areas, many of the people who signed up for classes online did not actually attend the classes however. Of the 32 online sign-ups, just five respondents enrolled in programs (15.63%). After promoting a special 365 grant-funded 12-piece cookware incentive, more engagement on posts were observed; more people signed up online. However, in some cases, the people who signed up for classes were not eligible to participate. For example, sixteen people signed up on Tazewell County’s Facebook post, but most of the respondents were not parents or guardians of students at the participating schools.

	Carroll County	Grayson County	Tazewell County	Richmond City	Buchanan County	Washington County	Lee, Scott, and Wise Counties
Online sign-ups through Google form	3	1	16	0	0	0	4
Facebook ad sign-ups (lead generation)						4	4

The schools selected to participate in the 365 project were predominantly rural; the surrounding communities have less internet access than other parts of the state. This limited the available audience on Facebook and led to small numbers of online sign-ups. The decision to experiment with online recruitment for the 365 project was made due to initial difficulty in recruiting parents using traditional techniques, like tabling at school events and sending kids home with informational flyers. Our attempts at online recruitment resulted in similar issues of low attendance and program dropouts. We plan to continue to use Facebook for recruitment in the future, with additional refinement of the process, targeted locations, and types of programs.



FY 2017 FOOD ACCESS AND AVAILABILITY REPORT

The Food Access and Availability Initiative aims to increase access to affordable, nutritious, safe, and culturally appropriate foods and beverages among SNAP-eligible audiences. The initiative seeks to both build consumer demand for healthy foods at these locations and provide technical assistance to these locations so they can better serve SNAP shoppers.

Farmers Markets: Eat Smart, Move More - It's a SNAP to Use EBT at Farmers Markets

This year the number of farmers markets accepting SNAP increased to 127 from 109 in 2016. Data from the Virginia Department of Social Services indicated that SNAP sales at Farmers Markets in Virginia totaled \$179,190.24 (10/2016-9/2017). This is up from \$163,523 last year.

Programming for the Food Access and Availability Initiative includes:

Project	Evaluation Methods	Outcomes
Providing technical assistance through ongoing management of the online EBT Toolkit	Measuring access to the online EBT Toolkit	This toolkit has been accessed over 1,700 times since its publication in 2015 according to google analytics of the page.
Piloting a farmers market manager certification program with the Virginia Farmers Market Association to provide market managers with training in best practices for market management, including starting and running a EBT program.	Surveying certification program participants on knowledge change for each module and surveying program participants on satisfaction with course and instructor quality.	See description below under New Programs
Mini grants to agents providing programming at SNAP Farmers Markets and community or school gardens	Recording project collaborators, media mentions and policymaker involvement.	

<p>Providing cooking demonstrations and tastings at SNAP farmers markets using the Just Say Yes! To Fruits and Vegetables curriculum.</p>	<p>Dot surveys of adult participants of farmers market demonstrations measuring intent to change shopping and cooking behaviors and consumption of fruit and vegetables counting short term contacts.</p>	<ul style="list-style-type: none"> • 7,900 short term contacts. • Of 297 respondents, 86.7% Always or Often Wash hands with warm, soapy water before preparing food • Of 221 respondents, 60.64% Always or Often Shop with a grocery list • Of 516 respondents, 67.44% Always or Often Use a nutrition facts label to make purchasing decisions • Of 469 respondents, 73.77% Always or Often Eat a variety of fruits and vegetables daily • Of 376 respondents, 78.46% Rarely or Never Let fruits and vegetables spoil before use
---	---	---

Social Marketing

The Virginia SNAP-Ed program has sponsored media campaigns over the past several years, as part of its efforts to support PSE changes. The previous campaigns have included billboards, banners, posters, and various press and media releases and featured Virginia Tech athletes and youth. This last year, a new and broader social marketing campaign was employed to highlight adult SNAP audiences served by SNAP-Ed, support other Extension opportunities and grass-roots efforts, and connect more with farmers and farmers markets. The campaign was titled, *Eat Smart, Move More - SNAP at Farmers Markets*. Competitive mini-grants were offered to a total of eight VCE units and districts across the Commonwealth that had developed a collaborative plan to promote redemption of SNAP benefits at farmers markets. Collaborations were required between SNAP-Ed Educators (Program Assistants and/or FCS SNAP-Ed Agents), VCE staff, and farmers market managers or representatives. Activities were locally driven and included cooking, canning, and gardening demonstrations, as well as outreach to media and local policymakers. Initial discussions were also held with the Partnership for a Healthier America to determine how to potentially collaborate on the FNV campaign that is being pilot tested in Hampton Roads/Norfolk area.

Farmers Market Manager Certification Pilot

In response to requests from farmers market managers for professional development opportunities the Family Nutrition Program partnered with the Virginia Farmers Market Association to develop a market manager certification program. This program is based off of similar programs run by New York and Michigan Extension services. The goal of the certification program was to professionalize the role of market manager and lessen turnover in this position. This will assist the Family Nutrition Program long term as it will require less training of new market manager in the best practices of starting and running an EBT program.

The certification program was taught over 17 weeks January to June 2017. In the end, the following topics/modules were included in the certification program.

1. Role of a Market Manager
2. Market Operations: accounting, SNAP, sales and expenses
3. Market Rules, Polices and Governance
4. Special Events: Planning and Marketing
5. Market Data and Reporting
6. Building Community and Partnership around Your Market
7. Food Safety at the Market
8. Conflict Management

A total of 15 market managers and one market vendor operating a farm market signed up for the course. Thirteen of the 16 participants completed the course: one chose to audit the course due to personal commitments; one had to drop out due to a family issue and hopes to complete the course at a later date; and one did not submit assignments, but did attend classes.

Twelve participants responded to the exit survey:

How likely are you to recommend this certification program to other market managers?	Extremely Likely 10 (90.9%)	Somewhat Likely 1 (9.1%)
How effective do you feel the module leaders were in covering the topic areas?	11 (100.0%) Extremely Effective or Very Effective	

Effectiveness of Course -

- “Perfect course for new managers! Might not be as helpful for more experienced managers, but course quality is great!”
- “This was a great program. I learned so much about all aspects of market management, and also learned from everyone’s experience.”
- “From the sessions I participated in there is no doubt this course is a plus for current and future market managers, and not just for markets but other business ventures as well.”
- “This series of classes most certainly not only gave me insight to what I didn’t know I didn’t know but filled my toolbox with a huge amount of resources - practical, professional and personal.”

This course will continue in 2018 and participants of the 2017 cohort will be surveyed again to measure change in perceived skill gain in the areas covered by the course.

HEALTHY RETAIL: SHOP SMART, EAT SMART

Tool Development

In FY 2016 Virginia SNAP-Ed modified the Nutritional Environment Measures Survey (NEMS) to create the Market Basket Assessment Tool for uniform assessment across multiple retail store types. The NEMS was adapted to incorporate constructs from the Thrifty Food Plan to be more applicable to SNAP-eligible populations. The instrument was found to be reliable. This tool will be used as an evaluation tool for a healthy retail project, *Shop Smart, Eat Smart* in FY 2018.

Literature Review

A systematic literature review was conducted in order to identify opportunities, barriers, and perspectives from owners and managers to implementing comprehensive behavioral economic interventions in food stores. Such strategies may be a feasible approach to improving consumer purchases to align with the Dietary Guidelines for Americans (DGAs). The literature indicates intervention barriers and/or facilitators include community or staff level relationships, community crime rates and economic status, store and food vendor policies, limited space and infrastructure to support healthy food stocking, and the perceived convenience, demand, profitability, and prolonged shelf-life of unhealthy food and beverages in comparison to healthier consumer options. Enhancing consumer demand of DGA-aligned foods and beverages is paramount and using promotions such as signs and food demonstrations seem well received from the store owner and manager perspective.

Store Owner/Manager Interviews

A formative initiative to understand SNAP-authorized food store owner and manager willingness, ability, and feasibility to implement a variety of behavioral economic strategies to encourage purchases of foods and beverages aligned the Dietary Guidelines for Americans (DGAs) was conducted. Two predominantly rural, low-income/low-access counties in Virginia were purposefully targeted to sample owners and managers of SNAP-authorized food stores to complete: (1) a survey with a cost analysis to determine personal and store demographics in addition to perceived costs associated with implementing eight

broad behavioral economic interventions; (2) a free list exercise to gather perceptions of healthy foods and beverages from the owner/manager perspective, and; (3) a multi-component card sort inclusive of specific intervention examples that were categorized as feasible or infeasible to implement. These processes were voice recorded in order to add context to the decision-making process.

A total of 29 SNAP-authorized owners and managers participated. Results indicate that retailers perceive changes to properties and placements of unhealthy products as less feasible, in part due to corporate policies and sales and revenue concerns. Introducing or incorporating healthy food promotion strategies alongside such strategies is more favorable. Retailers' perceptions of healthy foods and beverages are potentially influenced by their immediate store environment parameters. Prompting materials and changing the proximity or location of healthy options are likely the most feasible strategies to draw attention to healthier products across corporate and non-corporate stores. This information provides practical information for tailoring SNAP-authorized food store interventions that are acceptable for both public health and business goals.

Initiative Overview

A new state staff position was hired in Lynchburg in January 2017 to create a comprehensive healthy retail program. The healthy food retail coordinator traveled to Philadelphia to review the Philadelphia Healthy Corner Stores Network and related Heart Smarts Program. Phone conversations with representatives from DC Central Kitchen, the Richmond Healthy Corner Store Initiative, Double Up Food Bucks in Michigan, Stock Healthy Shop Healthy, and other organizations helped to shape the program design. The director of Stock Healthy Shop Healthy out of University of Missouri Cooperative Extension was contracted to provide technical assistance for FNP's program design and invited to participate in the first training of SNAP-Ed Agents.

The *Shop Smart Eat Smart* program is designed in a 2-phase approach: (1) Building demand for healthy foods already available in partner stores, and (2) Supporting supply changes to increase stocking of healthy foods. This means that stores must carry a minimum amount of healthy food prior to participating in the program. By focusing on increasing sales and demand of existing healthy foods, SNAP-Ed agents can spend time fostering positive relationships with retailers. This trust, with both the agent and the surrounding community, is a crucial element in making retailers feel comfortable taking the business risk of adding new products to their shelves if they choose to do so in Phase 2.

During Phase 1, retailers will choose from a "menu" of strategies, ranging from implementing shelf-labels highlighting healthy food options to conducting in-store food demonstrations with nutrition education, to help increase sales of healthy foods. Allowing retailers to choose from a list allows for flexible programming with uniform evaluation across the state. FCS SNAP-Ed Agents were trained on Phase 1 of the *Shop Smart, Eat Smart* program November 13th and 14th in Lynchburg and began doing formative research in their regions to begin to choose a retail partner. Once these partners are chosen and agree to work with FNP, they will sign an MOA and the program will begin, most likely starting in January of 2018.



FY 2017 PUBLICATIONS AND REPORTS

GEM No. 561

Teen Cuisine: Impacting Dietary Habits and Food Preparation Skills in Adolescents

Tonya T. Price, PhD¹; Anne-Carter S. Carrington, MS²; Lynn Margheim, MS³; Elena Serrano, PhD³

INTRODUCTION

Adolescence represents a vulnerable and transitional time, particularly related to diet and health. Adolescents report shortfalls in many nutrients such as vitamin A, C, folate, fiber, magnesium, and potassium and overconsume other nutrients such as sodium and saturated fat.¹ Since the 1980s, shifts in dietary patterns have been noted, such as increases in the consumption of sugar-sweetened beverages, calories consumed at quick-service restaurants, and skipping breakfast, all of which are behaviors shown to be associated with obesity.²⁻⁴ One strategy for promoting healthy eating along with eating at home is targeting teen populations through cooking-based programs.⁴

PROGRAM OVERVIEW

Virginia 4-H and the Family and Nutrition Program (consisting of the *Expanded Food and Nutrition Education Program* and the *Supplemental Nutrition Education Program—Education*) designed the *Teen Cuisine* curriculum to teach 8th- to 12th-grade youth important food preparation and cooking skills in addition to healthy eating patterns for obesity prevention. The curriculum is composed of 6 lessons, each 90 minutes

long: Eat Smart, You Are What You Eat, Power Up With Breakfast, Find the Fat, The Whole Truth on Grains, and Snack Attack. Each lesson consists of key nutrition messages from the 2010 US Dietary Guidelines for Americans,⁵ which also align with the 2015–2020 guidelines. The lessons encourage a healthy diet, emphasizing a variety of nutrient-dense foods that are rich in shortfall nutrients and limiting intake of added sugars, sodium, and saturated fat.⁶ Each session introduces food safety principles, simple cooking terms and techniques, and preparation of a simple, low-cost, nutritious meal and/or snack (Figure).⁶ Additional skill-building activities include label reading and creating daily food plans (Table). At the conclusion of the program, participants receive a workbook with healthy recipes to share with families. To date, 32,183 youth have been impacted through participation in this program.

The structure of *Teen Cuisine* is based on the Experiential Learning Model, a key theoretical framework within the 4-H youth development program. This model, developed by Kolb⁷ and modified by 4-H, includes 5 steps that contribute to learning: experiencing, sharing, processing, generalizing, and applying. Participants in *Teen Cuisine* go through each of these steps by experiencing

each lesson and doing the activities; sharing the experience with their peers by describing what happened or what they observed; processing the experience, determining what was most important, and identifying common themes; generalizing the experience to other experiences; and understanding how to apply what was learned to other situations.

Originally designed as a school enrichment curriculum for older teens, *Teen Cuisine* can easily be adapted for other settings. It can be tailored to younger audiences and offered as a family-based program. *Teen Cuisine* also can be taught by a variety of nutrition educators, peer educators, and public health nutritionists. Training could be offered using a train-the-trainer model, because the emphasis is on facilitating youth discovery and application, not necessarily on the content expertise of the educator. Furthermore, partially funded by the Youth Voice: Youth Choice 4-H Healthy Living grant, *Teen Cuisine* has been incorporated into both *Expanded Food and Nutrition Education Program* and *Supplemental Nutrition Education Program—Education* and has been found to be appropriate for limited resource audiences.

EVALUATION

A posttest consisting of relevant questions from the 4-H *Healthy Living Common Measures* for 8th through 12th grades⁸ was administered to a subsample of 531 high school participants immediately after completion of the *Teen Cuisine* program and within the final class. *Common Measures* for food choices were reported as being adapted from several instruments to serve as a common tool to evaluate health-related 4-H programs across the country.⁹ They were tested among California 4-H youth in 2012.¹⁰ Although the reliability could

¹State 4-H Office, Virginia Tech, Harrisonburg, VA

²Virginia Family Nutrition Program, Virginia Cooperative Extension, Halifax, VA

³Virginia Family Nutrition Program, Department of Human Nutrition, Foods, and Exercise, Virginia Tech, Blacksburg, VA

Conflict of Interest Disclosure: The authors' conflict of interest disclosures can be found online with this article on www.jneb.org.

Address for correspondence: Tonya T. Price, PhD, State 4-H Office, Virginia Tech, 2322 Blue Stone Hills Dr, Ste 140, Harrisonburg, VA 22801; Phone: (540) 432-6029, Ext 116; Fax: (540) 432-6251; E-mail: tonyaprice@vt.edu

J Nutr Educ Behav. 2017;49:175-178

©2016 Society for Nutrition Education and Behavior. Published by Elsevier, Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.jneb.2016.10.008>

Table. The Six Lessons of the *Teen Cuisine* Program, Inclusive of Topics and Activities

Teen Cuisine Lessons	Topics	Activities	Retrospective Evaluation Questions (As a Result of Participating in a 4-H Healthy Living Program I Now Take the Following Actions ...)
Eat Smart	Goal Setting	Write 2 nutrition goals you want to accomplish this week.	I think about what foods my body needs during the day [CM]
	My Daily Food Plan	List foods you like to eat that fit into each of the food groups	I make food choices based on what I know my body needs [CM]
	Cook Like an Expert	Tips on how to be prepared, clean, and safe	I cook more
	How to Measure Ingredients	Measuring dry, liquid, and sticky ingredients	I have better measuring skills now
	Recipe Reading	Circle the words you know are cooking terms and put a box around anything with which you are not familiar	I read recipes now when I cook or bake
	Cooking Terms	Introduction to cooking terms and definitions	I read recipes now when I cook or bake
	Hand Washing	How to wash your hands properly	I wash my hands before I cook I wash my hands before I eat
	Cutting Techniques/ Cooking Experience	How to chop an apple properly. Prepare a Yogurt Orange Dip for apple slices	I know how to safely use a knife now
You Are What You Eat	Label Reading	Learning the parts of a label and the importance of reading labels	I make healthy food choices whenever I can [CM]
	My Daily Food Plan	How much you should eat based on your age, gender, and activity level	I match my food intake to the number of calories I need to eat each day [CM] I think about what foods my body needs during the day [CM] I make healthy food choices whenever I can [CM] I encourage my family to eat meals together I encourage my family to cook meals together
	Right Size Your Portions	A guide to using your hand to estimate a smart portion size	I think about what foods my body needs during the day [CM]
	How to Use a Chef's Knife/Cooking Experience	Practice proper cutting techniques using a variety of cuts: slices, sticks, and cubes. Choose a recipe to prepare that requires cutting vegetables or fruits to allow more practice of knife skills	I know how to safely use a knife now
Power Up With Breakfast	Importance of Eating Breakfast	Write 3 reasons why teens skip breakfast. List foods from each group that would make great breakfast foods. Eggs are perfect for breakfast. Describe the nutrients found in each part of an egg	I make healthy food choices whenever I can [CM]
	Nutrients on the Nutrition Facts Labels	Match the nutrients as seen on a Nutrition Facts label with what they do for your body	I make healthy food choices whenever I can [CM]
	How to Cook Eggs/ Cooking Experience Cutting Techniques	Making scrambled eggs and hard-boiled eggs How to chop an onion. Consider using chopped onion to prepare an omelet	I cook more I know how to safely use a knife now
Find the Fat	Choosing Foods With Go, Slow, Whoa!	Label each source of fat as Go, Slow, or Whoa! List your favorite snack foods as Go, Slow, or Whoa!	I eat less saturated fat [CM] I eat fewer foods with little nutritional value [CM] I drink less soda/soft drinks [CM]

(continued)

Table. Continued

Teen Cuisine Lessons	Topics	Activities	Retrospective Evaluation Questions (As a Result of Participating in a 4-H Healthy Living Program I Now Take the Following Actions ...)
	Food Comparison/ Cooking Experience	Make the low-fat version of chicken nuggets and fries. How do they compare in taste, price, and nutrition?	I eat less saturated fat [CM]
	Food Safety	Tips for safely handling raw meats and using an instant-read thermometer	–
The Whole Truth on Whole Grains	Grain Identification	Have you seen these grains in your food?	I eat more whole grains [CM]
	Added Sugars	Suggestions on how to reduce sugar and fats in baked goods	I eat less saturated fat [CM] I drink less soda/soft drinks [CM]
	Food Safety	Avoiding the Danger Zone	–
	Cooking Experience	Preparing quick bread foods using whole grains	I eat more whole grains [CM]
Snack Attack	Smart Snacking	Tips on how to choose healthy, smart snacks	I eat less saturated fat [CM] I eat fewer foods with little nutritional value [CM] I drink less soda/soft drinks [CM] I drink more water [CM]
	Measuring Food Safety	Learning measurement equivalents Identifying ways you have followed the FightBac! rules in your kitchen	I have better measuring skills now –
	Cooking Experience	Preparing a fresh salad with fun toppings and making healthy fruit smoothies	I eat more fruits and vegetables [CM]

Note: CM indicates that questions were retrieved from the 4-H *Common Measures* questions and are available at <http://www.4-h.org/resource-library/common-measures/>. Other questions were created specifically for *Teen Cuisine*. Responses include: strongly agree, agree, disagree, strongly disagree, and not applicable.

not be determined owing to sample size constraints, the loading value of questions used in this evaluation ranged from .41 to .78 (employed in this evaluation), based on a factor analysis. *Teen Cuisine* evaluation included only selected *Common Measures* that were addressed within *Teen Cuisine*, with additional questions created to assess other domains, such as cooking skills and food safety. Evaluation of *Teen Cuisine* was deemed exempt by the Institutional Review Board of Virginia Tech because no personal information was requested or obtained from participants.

A variety of positive dietary impacts was reported. Just over three quarters (76.4%) of respondents indicated that as a result of participating in *Teen Cuisine* they made food choices based on what their body needed, and 70.4% made healthy food choices whenever they could as a result of the program. More specifically, 72.1%

reported eating more fruits and vegetables, 60.1% more whole grains, 57.9% less junk food, and 55.2% less saturated fat; and 73.0% drank less soda. In terms of food safety, preparation, and cooking skills, 91.2% washed their hands before they began cooking, 89.7% washed their hands before they ate; 80.9% improved knife skills and increased comfort when using a knife, 74.1% accurately used recipes when cooking, and 84% were cooking more.

APPLICATIONS

The *Teen Cuisine* program offered the opportunity to engage adolescents in cooking-based learning that resulted in positive shifts in self-reported dietary, cooking, and hand-washing behaviors in the short-term, although sustained impact was not been tested, nor were the reliability and validity

of select posttest questions. If dietary behaviors were maintained, *Teen Cuisine* may help address obesity, in concert with other activities and efforts, and if cooking behaviors were transferred to the home setting, *Teen Cuisine* may contribute to overall family well-being.

NOTES

The Virginia Tech Institutional Review Board reviewed this study and decided that it was exempt from institutional review board review. To obtain copies of the *Teen Cuisine Workbook and Leader's Guide*, contact Lynn Margheim, MS, at lmarghei@vt.edu. Financial support for the *Teen Cuisine* program was provided in part by the National 4-H Council through the Youth Voice: Youth Choice Healthy Living Grant.



Figure. Teen Cuisine in Stafford (top) and Pulaski (bottom) counties, VA.

REFERENCES

1. Food Surveys Research Group, Beltsville Human Nutrition Research Center, Agricultural Research Service, US

Department of Agriculture. What We Eat in America, NHANES 2007–2010, individuals 1 year and over (excluding breast-fed children and pregnant or lactating females), dietary intake data.

In: *Scientific Report of the 2015 Dietary Guidelines Advisory Committee*. Washington, DC: US Department of Health and Human Services, US Department of Agriculture; 2015. Appendix E-2.

2. Malik VS, Pan A, Willett WC, Hu FB. Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis. *Am J Clin Nutr*. 2013;98:1084-1102.
3. Drewnowski A, Rehm CD. Energy intakes of US children and adults by food purchase location and by specific food source. *Nutr J*. 2013; 12:59.
4. Niemeier HM, Raynor HA, Lloyd-Richardson EE, Rogers ML, Wing RR. Fast food consumption and breakfast skipping: predictors of weight gain from adolescence to adulthood in a nationally representative sample. *J Adolesc Health*. 2006;39:842-849.
5. US Department of Agriculture and US Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*, 7th ed. Washington, DC: US Government Printing Office; 2010.
6. Larson NI, Perry CL, Story M, Neumark-Sztainer D. Food preparation by young adults is associated with better diet quality. *J Am Diet Assoc*. 2006;106:2001-2007.
7. Kolb DA. *Experiential Learning: Experience as the Source of Learning and Development*, 1. Englewood Cliffs, NJ: Prentice-Hall; 1984.
8. National 4-H Council. Common Measures. <http://www.4-h.org/resource-library/common-measures/>. Accessed September 16, 2016.
9. Neumark-Sztainer D, Wall M, Perry C, Storm M. Correlates of fruit and vegetable intake among adolescents: findings from Project EAT. *Prev Med*. 2003;37:198-208.
10. Lewis KM, Horrillo SJ, Widaman K, Worker SM, Trzesniewski K. National 4-H Common Measures: initial evaluation from California 4-H. *J Extension*. 2015;53:2R1B3.

REPORT

Report on Alternative School Breakfast Service Models



VIRGINIA DEPARTMENT OF EDUCATION

Report

**Report on Alternative School
Breakfast Service Models**

Presented to:

**The Governor of Virginia
House Appropriations Committee
Senate Finance Committee**

Oct. 9, 2017

Virginia Department of Education

P. O. Box 2120

Richmond, Virginia 23218-2120

TABLE OF CONTENTS

Authority for the Study	1
Executive Summary	1
Fiscal Year 2016 Implementation.....	2
Fiscal Year 2017 Expansion.	3
Guiding Questions for Study	4
Data Collection	4
Findings	5
<i>Finding 1: Breakfast Participation and School Staff Support</i>	5
<i>Finding 2: Program Impact on School-level Metrics</i>	10
<i>Finding 3: Implementation Challenges and Barriers</i>	12
Summary	15
Appendix A: Perceived Program Impact.....	A-1
Appendix B: Open Text Comments from Survey Respondents.....	B-1
Appendix C: Sample Size Available for Analysis	C-1

AUTHORITY FOR THE STUDY

The fiscal year 2017 state budget provided funds to increase the number of school breakfast meals served to eligible students through an alternative breakfast service model. For this appropriation, the Virginia Department of Education (VDOE) was required to provide an evaluation and report of the educational impact of the project to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees.

VDOE contracted out the evaluation and reporting to an evaluation team in the Department of Human Nutrition, Foods, and Exercise at Virginia Tech. The evaluation team consisted of:

<p>Sarah Misyak, PhD Integrated Research-Extension, Food Systems and Policy Evaluator Family Nutrition Program (EFNEP/SNAP-Ed) Virginia Cooperative Extension</p>	<p>Alexa Brooks Masters student in Human Nutrition, Foods, and Exercise</p>
<p>Valisa Hedrick, PhD, RDN Assistant Professor in Human Nutrition, Foods, and Exercise</p>	<p>Judith Midkiff, MS Program Manager, Operations and Evaluation Family Nutrition Program (ENFEP /SNAP-Ed) Virginia Cooperative Extension</p>

EXECUTIVE SUMMARY

Alternative school breakfast service models provide meals to students through a distribution method different from traditional cafeteria service, removing various obstacles that can prevent students from accessing school breakfast. The most effective alternative breakfast models allow students to eat their meal after the official start of school day, commonly known as “breakfast after the bell.”

The evaluation team requested data from participating schools receiving funds to: (1) assess the impact of the program on student attendance and behavior; and (2) capture superintendents’, principals’, teachers, and school nutrition staffs’ perceptions of the program. Additional data were provided by the VDOE on School Breakfast Program participation.

There are three main findings from this evaluation:

- *Schools receiving state funding provided additional breakfast opportunities for students. Alternative breakfast service models were generally supported by superintendents, school nutrition directors/cafeteria managers, and principals. Nearly 80 percent of principals, teachers, school nutrition directors or cafeteria managers, and superintendents who completed the feedback survey reported being satisfied with the program overall and approximately 89 percent were supportive of the alternative school breakfast program.*

- *School-level outcome metrics showed small but statistically significant decreases in attendance and increases in school nurse visits. Results must be interpreted with caution given the small sample size (see Appendix C for more detailed description of the sample size for analysis). Additionally, other factors that may affect the outcome variables were not controlled for within this analysis. Survey participants perceived positive impacts on participation, the nutritional quality of students' breakfasts, hunger and stigma associated with School Breakfast Program participation. However, less than half of the survey respondents perceived the alternative breakfast service model positively impacted student academic performance, health, and behavior. Positive impacts from alternative breakfast service models may be limited to increased School Breakfast Program participation and decreased hunger.*
- *Perceived barriers and costs to implementing alternative breakfast service models decreased from the 2015-2016 to the 2016-2017 school year. Relatively few of the surveyed stakeholders identified common challenges as barriers to implementing an alternative breakfast service model. The percent of principals, teachers, school nutrition staff, and superintendents perceiving common challenges to not be a barrier to implementing alternative breakfast model(s) increased from the 2015-2016 to the 2016-2017 school year. The percent of surveyed stakeholders identifying extreme or moderate barriers decreased from the 2015-2016 to the 2016-2017 school year.*

Alternative breakfast service models can be highlighted to schools as a way to increase School Breakfast Program participation and decrease child hunger. Lessons learned from schools participating in alternative breakfast programs should be incorporated into training information and technical assistance provided to other schools.

FY2016 IMPLEMENTATION

In July 2015, VDOE released Superintendent's Memo #172-15 announcing applications for an alternative school breakfast service pilot or expansion of traditional breakfast service model supported by \$537,297 in state funds. State reimbursement of five-cents (\$0.05) per reimbursable meal served was allotted to each approved school in a division.

In total, 554 schools from 65 divisions applied for the funds. VDOE gave priority to elementary schools with total student eligibility for free or reduced price meals greater than 45 percent and schools that planned to implement an alternative breakfast service model throughout the entire school. For the 2015-2016 school year, 226 schools across 52 divisions received funding for alternative breakfast.¹ Seventeen additional schools were selected to expand their traditional school breakfast programs.

Schools were allowed flexibility in the model of alternative breakfast service they implemented, as long as it was within the framework of "breakfast after the bell." Some examples of alternative service models are:

- *Breakfast in the Classroom* - Students eat breakfast in the classroom. This can be after the first bell or when students arrive but before the official instructional day begins. Breakfast meals can

be delivered to each classroom or picked up from a central location (i.e., cafeteria or kiosk) on the way to class.

- *Grab and Go Breakfast* - Students pick up breakfast meals as they arrive at school and eat in the classroom. Meals are available in a variety of locations; such as, mobile service carts equipped with a computerized point of service or roster and placed at the school entrance or another high-traffic area or in the cafeteria. Food items are packaged as a unit to make this model convenient and appealing to students.
- *Second Chance Breakfast* - Students eat breakfast during a nutrition break in the morning, usually after first period, either in the cafeteria, from a mobile service cart, or in the classroom.

FY2017 EXPANSION

In fiscal year 2017, \$1,074,000 in state funds were available through a competitive application process to support implementation of alternative breakfast service models or expand traditional breakfast service by providing a reimbursement of \$0.05/meal to participating schools. More than 766 schools applied for funds, and 463 schools across 84 divisions were selected to receive funding. All of the funded schools had greater than a 45% free and or reduced price eligibility for the School Breakfast Program.

- Schools participating in the 2016-2017 school year provided an additional 1,435,256 breakfast meals to students than in the previous year. This was a nearly 8 percent increase. Compared to the baseline school year prior to implementation of the Breakfast After the Bell Program, participating schools provided an additional 3,159,846, or a 18.8 percent increase in breakfast meals served to students in the 2016-2017 school year.
- School-level outcome metrics showed promising but non-significant results on the impact of alternative school breakfast service models. Principals, teachers, and other school staff were unsure about the specific program impact on student behavior, attendance, health, and academic performance. Between the baseline year and the pilot year, schools implementing alternative school breakfast programs saw increases in attendance and decreases in tardiness and office discipline referrals. These differences, however, were not statistically significant. More than 75 percent of principals, teachers, and cafeteria/nutrition managers agreed that more students were eating breakfast and fewer students were hungry in the morning. However, more than 40 percent of school staff were unsure about the program's impact on student behavior, attendance, health, or academic performance.
- School staff reported few challenges during implementation of the alternative school breakfast program, and the implementation costs for most schools were minimal. Support from school administrators, parents, students and cafeteria staff were the least commonly identified barriers and disruptions in morning routines and limited janitorial staff were the most commonly identified barriers.

GUIDING QUESTIONS FOR STUDY OF THE 2016-2017 SCHOOL YEAR

The evaluation team was charged with collecting, analyzing, and reporting (1) attendance and behavior change data from principals, and (2) perceptions of superintendents, teachers, principals, and school nutrition staff in schools receiving funds to implement alternative breakfast models in the 2016-2017 school year. Attendance and behavior data included average daily attendance, average daily tardiness, average daily office discipline referrals, monthly suspensions, and monthly school nurse visits.

As such, the evaluation addresses the following guiding questions:

- *How has additional reimbursement for school breakfast programs increased student breakfast participation?* An additional \$536,703 in state funds were provided between the 2015-2016 and 2016-2017 school year. Principals, school nutrition directors, cafeteria managers and superintendents were asked for their perceptions of the impact of alternative breakfast service models on student participation in the School Breakfast Program.
- *What is the impact of alternative breakfast programs on student attendance, health, discipline, and academic achievement?* To address this question, the evaluation team compared attendance, health and discipline data by schools implementing an alternative breakfast program for the implementation year and previous years when provided.
- *What are the perceived impacts of alternative breakfast models on students? How satisfied were stakeholders with the alternative breakfast models? What were stakeholders perceptions on support received and barriers for implementing alternative breakfast models?* The evaluation team collected perceptions of the program's impact from principals, superintendents, teachers, and school nutrition staff.

DATA COLLECTION

Data were collected between May 30th and September 30th of 2017 from participating schools for this evaluation. Data summarized in this report are from three sources:

- *Alternative School Breakfast Service Models Feedback Report.* This 11-item feedback survey collected anonymous data from principals, superintendents, teachers, and school nutrition staff at participating schools on their level of satisfaction with the program, including perceived support for the program, perceived impact of the program, and challenges faced during implementation. School principals distributed the link to the online survey to appropriate staff in the school. During the time the online survey was available, the evaluation team received 1,700 responses. Of the respondents, approximately 58 percent were teachers, 24 percent were principals/assistant principals, six percent were school nutrition/cafeteria managers, and 12 percent were superintendents.
- *Alternative School Breakfast Service Models School Report.* Principals at participating schools were required to provide data from the 2015-2016 and 2016-2017 academic year on average daily attendance, average daily tardy counts, average daily office discipline referrals, total monthly suspensions, and total monthly school nurse visits. A total of 244 responded to the survey (53 percent response rate). Schools providing complete, quality data per variable ranged from 17 to 38 percent.

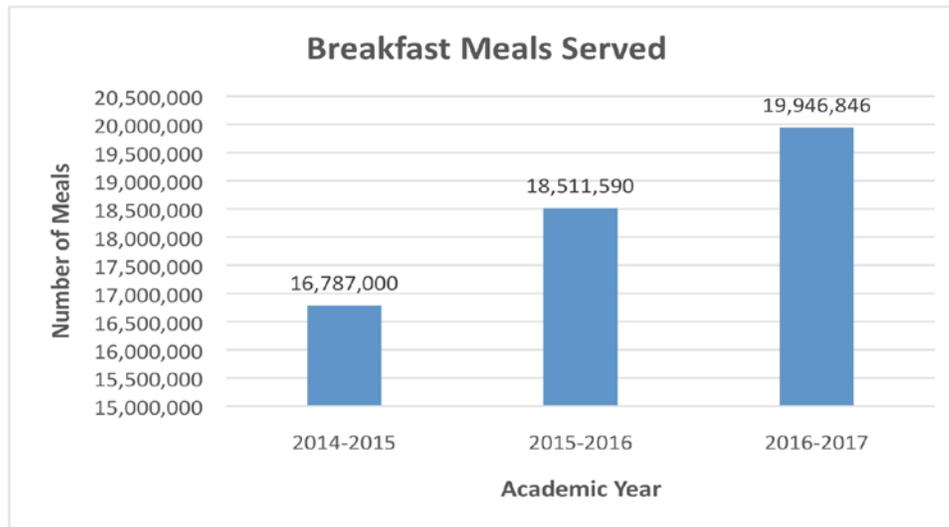
- *Data provided by VDOE.* The Director of the Office of School Nutrition Program provided School Breakfast Program participation data and results from the 2015-2016 evaluation.

FINDINGS

Finding 1: Schools receiving state funding provided additional breakfast opportunities for students. Alternative breakfast service models were generally supported by superintendents, school nutrition directors/cafeteria managers, and principals.

Schools participating in the alternative school breakfast program (n=463) provided 19,946,846 breakfast meals to students in July through May of the 2016-2017 school year compared to 18,511,590 meals in July through May of the 2015-2016 school year. Due to funding from the state, over 1.4 million or a nearly 8 percent more meals were served through this program. This is an increase of almost 19 percent over the number of breakfast meals in the same schools served prior to program implementation in the 2014-2015 school year. See Figure 1 for a progression of the number of breakfast meals served through schools participating in this project compared to the baseline breakfast meals served in the 2014-2015 school year.

Figure 1. Number of Breakfast Meals Served through Schools Participating in the Breakfast After the Bell Program for July through May of the 2015-2016 and 2016-2017 School Years and at Baseline for the 2014-2015 School Year.



Greater than 75 percent of breakfast meals served were free to students. The percent of breakfast meals served that were paid for by students increased slightly between the 2015-2016 and 2016-2017 academic school years. Percentages of breakfast meals served that were claimed in the free, reduced price, or paid categories for students for the 2015-2016 and 2016-2017 academic school years are provided in Table 1.

Table 1. Difference in the Percent of Breakfast Meals in the 2015-2016 and 2016-2017 School Years by Price Designation

Price Designation	2015-2016 (n = 243)	2016-2017 (n = 463)	Percent Change
Paid	15.1%	17.3%	2.2
Reduced	7.1%	6.9%	-0.2
Free	77.8%	75.8%	-2.1

Additional factors that could have affected meals served include variation in serving days due to calendar fluctuations and weather-related school closings or variation in the start of pilot program implementation among participating schools. The alternative breakfast service model(s) selected by schools may have impacted the School Breakfast Program participation in that school.

Of the 244 respondents, 71 (29 percent) implemented one or more alternative breakfast model for the first time in the 2016-2017 school year. Based on responses from school principals to the *Alternative School Breakfast Service Models School Report*, 4.5 percent had no alternative breakfast models, i.e., traditional breakfast service models only, as compared to 12 percent of survey respondents in the 2015-2016 school year. Approximately 41 percent of schools implemented both a traditional breakfast service and one or more alternative breakfast service models. Among schools that chose to implement only one alternative breakfast service model, 22 percent implemented breakfast in the classroom, where cafeteria staff deliver breakfast to classrooms; 25 percent of schools implemented the “grab and go” model, where students pick up packaged breakfasts from a central location and carry them to their classrooms; and less than one percent offered second chance breakfast where breakfast is served and eaten in the cafeteria after 1st period. See Table 2 for alternative breakfast service model use for the 2016-2017 school year.

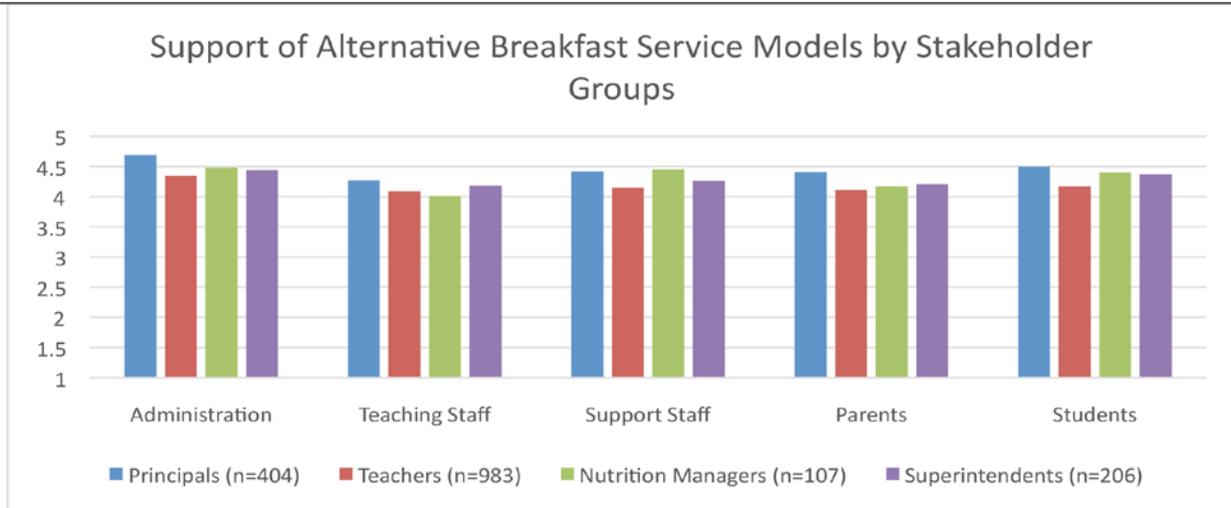
Table 2. Distribution of Traditional and Alternative School Breakfast Service Models in 2016-2017 School Year

School Breakfast Service Model	Number of Schools Implementing
<i>Schools Implementing Only One Model of Breakfast Service</i>	
Schools implementing traditional breakfast only , available in the cafeteria prior to the official start of the school day	11 (4.5%)
Schools implementing breakfast in the classroom only , where breakfast is delivered from the kitchen/cafeteria to classrooms in a cart, cooler, or wagon and then distributed to individual students	54 (22.1%)
Schools implementing grab and go only , where students pick up packaged breakfasts from carts or kiosks or from the cafeteria and carry them to their classrooms	61 (25.0%)
<i>Schools Implementing More than One Model of Breakfast Service</i>	
Schools implementing traditional breakfast and one or more alternative breakfast models	101 (41.4%)
Schools implementing more than one alternative breakfast model without traditional breakfast	12 (4.9%)

Overall, 83.5 percent of principals/assistant principals, teachers, school nutrition/cafeteria managers, and superintendents who completed the survey were satisfied or very satisfied with the implementation of the alternative school breakfast model(s). This is an increase of over 14 percent from the previous 2015-2016 school year. Only 6.3 percent of survey respondents indicated dissatisfaction with alternative breakfast service model(s). Among all survey respondents, more than 85 percent reported being supportive or very supportive of the program. Greater than 80 percent of all respondents also perceived high levels of support from school administration, teachers, custodial staff, school nutrition staff, parents, and students.

Differences in perceived support of alternative breakfast service model programs by administration, support and teaching staff, students, and parents were statistically significant between groups See Figure 2. Answers were given on a five-point scale (very supportive, supportive, neutral, somewhat opposed, very opposed). Principals and teachers differed significantly ($p \leq 0.05$) regarding their perception of support from all stakeholder groups, with principals perceiving higher support from stakeholders than teachers. Additionally, principals perceived higher support from the administration and parents than perceived by school nutrition directors/cafeteria managers and superintendents (Figure 2). Teachers perceived the lowest support for alternative breakfast service models by each stakeholder group except for their own support.

Figure 2. Survey Respondents Perceived Support of Alternative Breakfast Service Models by Stakeholder Groups



To determine if perceived support of alternative breakfast service models has increased over time, principal/assistant principal responses were compared between the 2015-2016 and 2016-2017 school year. Due to the anonymity assured to survey respondents, groups were considered independent when performing statistical analysis. Principal satisfaction with the overall program and model available at their school increased significantly in the 2016-2017 school year, as did likeliness of recommending the program to other schools (see Figure 3) and perceived support for the program among teachers. Principals’ own support of the program and perceived support for the program among school administration decreased significantly, though still remained high at approximately 96 percent. Table 3 summarizes the differences in responses between principals in the 2015-2016 and 2016-2017 school years.

Figure 3. Differences Between Groups of Survey Respondents in Likeliness to Recommend an Alternative Breakfast Service Model to Another School on a Five Point Likert-Type Scale (1=Very Unlikely and 5=Very Likely)

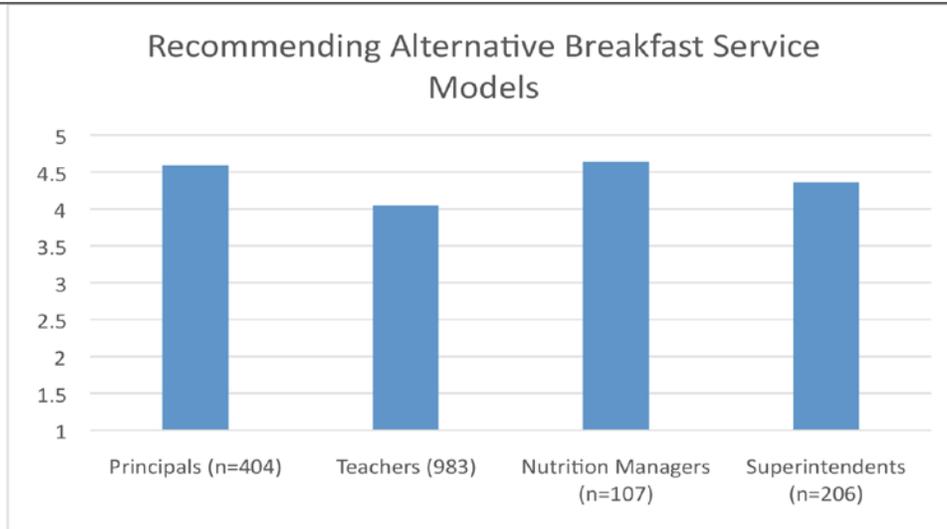


Table 3. Program Satisfaction and Perceived Support among Principal/Assistant Principal Respondents in the 2015-2016 and 2016-2017 School Years

Survey Item	2015-2016 (n = 204)	2016-2017 (n = 404)	Statistical Significance Between School Years (p-value)
Satisfied with program overall	89.9%	94.6%	0.07
Satisfied with model available at school	85.6%	94.7%	<0.001
Satisfied with program impacts	89.2%	92.3%	0.28
Likely to recommend program to other schools	89.1%	91.0%	0.54
Supportive of the program	99.2%	95.1%	0.05
Perceived support for program among school administration	100.0%	95.7%	0.02
Perceived support for program among teachers	86.9%	86.5%	0.92

Statistical significance was determined using a Chi Squared Goodness of Fit Test after grouping likert responses of Strongly Agree and Agree and No Opinion, Disagree, and Strongly Disagree

When asked to rate how likely they would be to recommend implementing an alternative breakfast service model to another school on a 1 to 5 scale, teachers’ responses were significantly lower than those of principals, school nutrition directors/cafeteria managers, and superintendents ($p \leq 0.001$) (see Figure 3). The average for all respondents (n=404) was between Somewhat Likely (4) and Very Likely (5) on a five point Likert-Type Scale ranging from 5 = Very Likely to 1 = Very Unlikely.

Finding 2: School-level outcome metrics showed small but statistically significant decreases in attendance and increases in school nurse visits. Survey participants perceived positive impacts on participation, the nutritional quality of students' breakfasts, hunger and stigma associated with School Breakfast Program participation. However, less than half of the survey respondents thought the alternative breakfast service model positively impacted student academic performance, health, and behavior.

Participating schools provided data on attendance, tardiness, office discipline referrals, suspensions, and school nurse visits for this evaluation. However, the lack of consistent, quality data across years limited the evaluation team's ability to conduct a rigorous analysis of program impact. Only a total of 54 percent of schools reported any data. The analysis was limited to schools providing complete data per variable. Seventeen to thirty-eight percent of schools provided data for each variable that were included in the analysis. Results must be interpreted with caution given, 1) the small sample size (see Appendix C for more detailed description of the sample size for analysis), 2) the data from each school year were two independent groups, not matched school to school, and 3) other factors that may affect the outcome variables were not controlled for within this analysis. For example, the spread of infectious diseases (such as cold or flu) would affect attendance and school nurse visits. Briefly, two of the five metrics to assess the impact of alternative school breakfast programs showed statistically significant but small, negative trends. Between the 2015-2016 and 2016-2017 school years, schools implementing alternative school breakfast programs saw decreases in attendance and increases in monthly school nurse visits. Schools reported no change in daily tardiness, daily office discipline referrals, and monthly suspensions. See Table 4 for more detailed information.

Table 4. Difference in Outcomes for Schools Implementing Alternative School Breakfast Service Models between 2015-2016 and 2016-2017 School Year

Metric (schools)	2015-2016 School Year)	2016-2017 School Year	Difference between Years	Statistical Significance
------------------	------------------------	-----------------------	--------------------------	--------------------------

reporting)			Between School Years (p-value)
Average daily attendance rate (n = 48)	95%	94.6%	Average daily attendance rate decreased by less than one percentage point. 0.02
Average daily tardiness (n = 38)	9.6	12.2	There was no significant change. 0.32
Average daily office discipline referrals (n = 71)	4.6	5.8	There was no significant change. 0.69
Monthly suspensions (n = 83)	4.7	4.6	There was no significant change. 0.29
Monthly school nurse visits (n = 56)	282.7	311.6	Schools nurse visits increased by an average of 29 visits per month. 0.02

Following implementation of the alternative school breakfast service model, 89 percent of all respondents agreed that more students were eating breakfast than with the traditional breakfast service model only. Additionally, 75 and 88 percent agreed that students were eating healthier breakfasts and that fewer students were hungry in the morning, respectively. Differences between groups for survey items are reported in Appendix A.

The evaluation team examined optional, open-text comments by respondents provided at the end of the feedback survey to contextualize perceptions of principals, school nutrition directors and cafeteria managers, and superintendents. Of the 90 comments received from principals and/or assistant principals, 62 percent (n=56) contained praise for the program while only 23 percent (n=21) contained concerns about the program. One principal stated:

“This program is easy to implement and supports the development of social bonds during the time students share a meal together. Tardiness has decreased, attendance is improving, and student academic performance has improved. By implementing this program, we have improved our overall school breakfast participation which has resulted in our students having a healthier start to their day. Not only are they eager and ready to learn, students enjoy the fellowship.”

Fifty-four percent (n=21) and 31 percent (n=12) of the 39 comments provided by school nutrition directors and cafeteria managers contained praise and concerns, respectively. A school nutrition director provided the following positive feedback:

“Since the beginning of this program we’ve seen at least a 25% increase in breakfast participation. We started as a pilot in three schools, and beginning the upcoming school year we will be district-wide.”

Of the 37 total comments by superintendents, 35 percent (n=13) contained praise while 32 percent (n=12) contained concerns. One superintendent wrote the following concern about the program:

“If the teachers and the administration are not pro-breakfast in the classroom, it makes it almost impossible to have a successful breakfast program.”

Another superintendent was pleased with the resulting increased participation in the school breakfast program:

“Our elementary schools went from 30-45% participation to 60-90% participation in the breakfast program.”

Of the 173 comments provided by teachers, 27 percent (n=47) contained praise for the program while 44 percent (n=76) contained concerns about the program. One teacher expressed the following concern about the program:

“It takes a lot out of a classroom teacher to serve breakfast in the classroom, and be prepared to deliver instruction as soon as breakfast is over. Overall, classroom teachers really don't have the time or support needed to handle this alternative school breakfast model.”

Another teacher shared positive feedback about the program:

“Many of our students would go hungry if we did not have the present breakfast model. Parents did not apply for free or reduced food even when they were eligible before the current model. The students came to school without money to purchase breakfast. Now, with the free breakfast the students eat and are able to focus on learning.”

Additional select quotes by each group are provided in Appendix B.

Finding 3: *Perceived barriers and costs to implementing alternative breakfast service models decreased from the 2015-2016 to the 2016-2017 school year. Relatively few of the surveyed stakeholders identified common challenges as barriers to implementing an alternative breakfast service model. The percent of surveyed stakeholders identifying common challenges as not being a barrier increased from the 2015-2016 to the 2016-2017 school year. The percent of surveyed stakeholders identifying extreme or moderate barriers decreased from the 2015-2016 to the 2016-2017 school year.*

More than 80 percent of survey respondents identified lack of support from students, parents, and school administration as *not* being a barrier to implementation. Insufficient training on implementation and lack of space were also identified by greater than 80 percent of survey respondents as not being barriers to implementation. The most commonly identified moderate or extreme barriers to implementation were limited janitorial staff, lack of support from teachers, and waste and trash disposal. These were identified by almost 17 percent of survey respondents. Table 5 lists all respondents’ perceptions of the five least and most commonly identified challenges.

Table 5. Challenges Ranked by Level of Barrier to Implementation for the 2016-2017 School Year

Challenge	Percentage Indicating
-----------	-----------------------

	“Not a Barrier”
Lack of support from students	88.7%
Lack of support from parents	85.1%
Insufficient training on implementation	84.4%
Lack of support from administrators	81.8%
Lack of space	81.5%
Challenge	Percentage Indicating “Moderate or Extreme Barrier”
Limited janitorial staff	16.9%
Lack of support from teachers	16.9%
Waste and trash disposal	16.9%
Disruptions in morning routines	15.6%
Interruptions in instructional time	13.9%

When comparing the five least and most commonly identified challenges from the 2015-2016 school year, the percent of survey respondents identifying the top challenges as not being a barrier increased while the percent of survey respondents identifying common challenges as being moderate or extreme barriers decreased substantially. See Table 6 for a comparison.

Table 6. Top Five Potential Challenges Not Perceived as Barriers and those Perceived as Barriers in the 2015-2016 Compared to Perceptions of the Same Challenges in the 2016-2017 School Year

Percent Indicating “Not a Barrier” for Top 5

Challenge	2015-2016	2016-2017
Lack of support from administrators	78.9%	81.8%
Lack of support from students	76.2%	88.7%
Lack of support from parents	72.8%	85.1%
Students are not hungry	72.4%	74.5%
Lack of support from cafeteria staff	71.3%	64.8%

Percent Indicating “Moderate or Extreme Barrier”

Challenge	2015-2016	2016-2017
Disruptions in morning routines	32.8%	15.6%
Limited janitorial staff	27.9%	16.9%
Waste and trash disposal	25.8%	16.9%
Interruptions in instructional time	23.5%	13.9%
Students prefer other food	21.6%	12.6%

Some survey respondents provided constructive feedback on the program that could be used to overcome potential barriers. Examples include providing free custodial supplies and assistance with tracking meal purchases to decrease the burden on schools, providing different alternative service models depending on grade level, and focusing alternative breakfast service model promotion on superintendents instead of principals and teachers. See Appendix B for select comments.

Cost was not a moderate or extreme barrier to implementation. The percent of survey respondents citing cost as not being a barrier was approximately 84 percent for the 2016-2017 school year, improving from 79 percent in the 2015-2016 school year. Further information on costs associated with revenue and costs associated with implementation of alternative breakfast service model was provided by division-level school nutrition program directors for all participating schools in their division. The following data represents 166 individual schools within 44 school divisions. In addition to state funds available during the 2016-2017 school year, most divisions reported two primary sources of revenue for the alternative school breakfast program: reimbursement from the federal government (86 percent of divisions) and revenue from student meals (77 percent of divisions). In addition, 16 percent of schools reported support from foundation grants and catering sales. A small percent of schools also reported using general school division funds as a source of revenue for alternative breakfast programs (7 percent).

Overall, 46 percent of schools reported no additional costs for program implementation. By category, 94 percent of schools reported no additional salary costs, 98 percent of schools reported no additional benefits costs, 94 percent of schools reported no additional capital equipment costs, and 49 percent of schools reported no additional costs for small wares or supplies. Fifty-four percent of schools reported at least one cost type. For schools reporting any costs, the average total cost to implement was \$1,636 per school. As compared the 2015-2016 school year, the average reported costs for salary and small wares/supplies were relatively consistent. However, costs related to benefits, equipment, as well as total costs substantially decreased for the 2016-2017 school year. See Table 7 for a comparison of average costs per category reported by schools between the 2015-2016 and 2016-2017 school year.

Table 7. Average Costs by Type for Schools Reporting Additional Costs to Implement Alternative Breakfast Programs for the 2015-2016 and the 2016-2017 School Years

Type of Costs	Average Costs* For 2015-2016	Average Costs* For 2016-2017	Percentage of Schools Reporting Costs for 2015-2016	Percentage of Schools Reporting Costs for 2016-2017
Salary	\$3,276	\$3,524	32%	6%
Benefits	\$1,497	\$544	11%	2%
Capital Equipment	\$5,314	\$3,951	18%	6%
Small wares and supplies	\$1,081	\$844	40%	51%
Any costs	\$4,066	\$1,636	47%	54%

*Average costs include only those schools reporting costs.

SUMMARY

In summary, alternative school breakfast programs provide additional meals for students, are supported by school staff who generally perceive barriers to be low, and can be implemented with minimal additional resources for most schools. The main benefits appear to be increased School Breakfast Program participation and perceived decreases in child hunger. Perceptions of alternative breakfast service models improved as perceived barriers and additional financial costs to schools to implement alternative breakfast programs decreased from the previous school year, indicating an increased chance for program sustainability. Teachers, while still being supportive of the program overall, were the least supportive group. A concern raised in the comments provided by teachers was the nutritional quality of the provided breakfasts. The VDOE recommends continued financial support for the initial implementation of alternative breakfast service model(s) in schools and additional funding and technical support for the improvement of the nutritional quality of food provided. Continued monitoring and evaluation of alternative breakfast service models is required to determine if programs can become self-sustaining following initial implementation costs.

Appendix A

Perceived Program Impact among Principals/Assistant Principals, Teachers, School Nutrition/Cafeteria Managers, and Superintendents in the 2016-2017 School Year

Survey Item	Principals/ Assistant Principals	Teachers	School Nutrition/ Cafeteria Managers	Superintendents	All Respondents
Agree more students are eating breakfast	332 (84.1%)	687 (75.7%)	100 (96.2%)	157 (83.5%)	1276 (80%)
Agree students are eating healthier breakfasts	274 (69.4%)	536 (59.1%)	92 (89.3%)	137 (72.5%)	1039 (65.2%)
Agree fewer students are hungry in the morning	344 (87.1%)	705 (77.6%)	86 (83.5%)	150 (79.4%)	1285 (80.6%)
Agree student overall health improved	151 (38.3%)	326 (35.9%)	43 (42.2%)	91 (48.1%)	611 (38.4%)
Agree student academic performance has improved	189 (48.0%)	377 (41.6%)	39 (37.9%)	81 (42.9%)	686 (43.1%)
Agree students attendance and tardiness rates have improved	163 (41.3%)	321 (35.4%)	39 (37.9%)	75 (40.1%)	598 (37.5%)
Agree student behavior has improved	152 (38.7%)	297 (32.7%)	37 (35.9%)	73 (39.0%)	559 (35.1%)
Agree student attentiveness has improved	224 (57.0%)	491 (54.3%)	41 (39.8%)	93 (50.3%)	849 (53.5%)
Agree stigma around eating school breakfast is reduced	303 (76.9%)	617 (68.0%)	74 (71.8%)	145 (78.0%)	1139 (71.6%)
Agree the overall school environment has improved	239 (60.8%)	458 (50.6%)	61 (59.2%)	109 (58.6%)	867 (54.6%)
Agree school(s) is/are closer to achieving wellness goals	238 (60.4%)	416 (45.8%)	57 (55.3%)	106 (57.0%)	817 (51.3%)

Appendix B

Open Text Comments from Survey Respondents

Comments Received from Principals/Assistant Principals (n = 90)

**3 comments expressed praise and concerns and were counted twice*

Percentage of comments containing praise for the program	62%
<i>“Going to breakfast served in the classroom has reduced lost instructional time, discipline issues in the very long serving lines, and ultimately has encouraged more students to eat breakfast. I would not want to ever go back to the traditional breakfast model.”</i>	
<i>“This program is easy to implement and supports the development of social bonds during the time students share a meal together. Tardiness has decreased, attendance is improving, and student academic performance has improved. By implementing this program, we have improved our overall school breakfast participation which has resulted in our students having a healthier start to their day. Not only are they eager and ready to learn, students enjoy the fellowship.”</i>	
<i>“Universal Breakfast has been a wonderful support for all our students, especially our at-risk students. Check out our test scores--we hit the 90s and 80s this year!”</i>	
<i>“This program has been the best program our school could implement. Our students are not hungry. This has proved so beneficial to our students. The tardies have almost diminished. The students arrive happy and ready to go to their classroom, get bookbags unpacked, and begin their work.”</i>	
<i>“Prior to the implementation of our grab-and-go breakfast I would have students coming to my office around 9:30 complaining that they were hungry. Behavior was an issue because they were hungry. As a result of the grab-and-go breakfast students are able to snack on items they have leftover from breakfast. This has helped tide them over to lunch and behavior issues have decreased.”</i>	
Percentage of comments containing concerns about the program	23%
<i>“We completed a survey at the end of the school year last year to find out why there wasn't a larger number of students participating in breakfast, especially since it is being offered for free. The survey responses from parent surveys and student surveys showed that 40% of students eat breakfast at home. Alternative breakfast would not be an option for us because we only have one custodian during the day so eating in the classrooms would not be feasible. There is also the concern with an increase in pest such as bugs and mice due to spills and food being present in classrooms. As an administrator I am feeling pressured to offer a program that 40% of the students and parents are just not interested in. And if families can eat breakfast together at home before school, we should encourage that.”</i>	
<i>“Serving breakfast beyond the start of the school day causes significant disruption to the learning environment. It disrupts the child who is already late, and it disrupts the classroom. Additionally, having food in classrooms has created bug problems in parts of our building where they did not exist previously. This has also put a strain on my one custodian who works in the morning. Instead of cleaning up from breakfast in one place, the cafeteria, he now has to clean up in multiple classrooms each day.”</i>	
<i>“Very unhappy that on the first day of school, our teachers were cited for not abiding to the rules; gave</i>	

<i>too many juices, not enough food, etc....Our teachers feel they are not being respected and trusted.”</i>	
<i>“Food inside the classroom is difficult because of the mess that younger students leave behind. The required types of food is also a barrier for some students because of interest level.”</i>	
<i>“Some of the breakfast choices contain so much sugar that they don’t seem to be healthy; i.e. PopTarts, sugary cereal.”</i>	
Percentage of comments containing constructive feedback	6%
<i>“Support should be provided to the school in the form of custodial supplies to support the program and for keeping track of meal purchasing”</i>	
<i>“Having fresh fruit and a source of protein would help make the meal more balanced.”</i>	
<i>“The breakfast program was smoother this year by splitting the grades and running two different models. It was easier for the younger students to eat in the cafeteria instead of transporting their food to the class and then trying to eat.”</i>	
Percentage of comments containing neutral descriptive program information	12%

Comments Received from School Nutrition Managers/Cafeteria Managers (n = 39)

**Two comments expressed praise and concerns and were counted twice.*

Percentage of comments containing praise for the program	54%
<i>“The alternative school breakfast program is an excellent model that increases instructional time and time on-task.”</i>	
<i>“Since the beginning the of this program we’ve seen at least a 25% increase in breakfast participation. We started as a pilot in three schools, and beginning the upcoming school year we will be district-wide.”</i>	
<i>“Alternative breakfast helps those most in need of a healthy meal in the morning!”</i>	
<i>“Excellent program to increase participation”</i>	
Percentage of comments containing concerns about the program	31%
<i>“I would love to provide alternative breakfast but it is not well-received by the teachers or the Administration. It is new and they do not like new.”</i>	
<i>“This is a great program; wish we could get more teachers to be supportive. Administration is great, but teachers do not want the food in their rooms and the custodial staff complains because of more trash.”</i>	
<i>“One of the biggest issues with early morning breakfast at the middle and high school levels is that students are not hungry and don't want to eat early in the morning. Second Chance Breakfast is the best option for those grades, but changing the schedule for the time needed to serve SCB is a big issue for administration and teachers.”</i>	

<i>"I have found that the grab-and- go breakfast has had an impact on tardiness because children know they can still get breakfast; it seems that more children are late than there used to be!"</i>	
Percentage of comments containing constructive feedback	18%
<i>"As the Director of Child Nutrition, the biggest barrier is principals and teachers, and not much else. Further, I just don't have time in the workday to advocate with each individual administrator. I think the focus should be directed to superintendents by the state. This takes it out of my hands, but also would hopefully get them to commit to alternative breakfast district wide, also taking the decision out of the principals' hands."</i>	
<i>"Children need choices that don't need to be kept hot or cold so that they can eat later in the day or take home if they are not hungry at breakfast. Some children just want a little something like a milk or fruit, then want to eat the rest later."</i>	
Percentage of comments containing neutral descriptive program information	3%

Comments Received from Superintendents (n = 37)

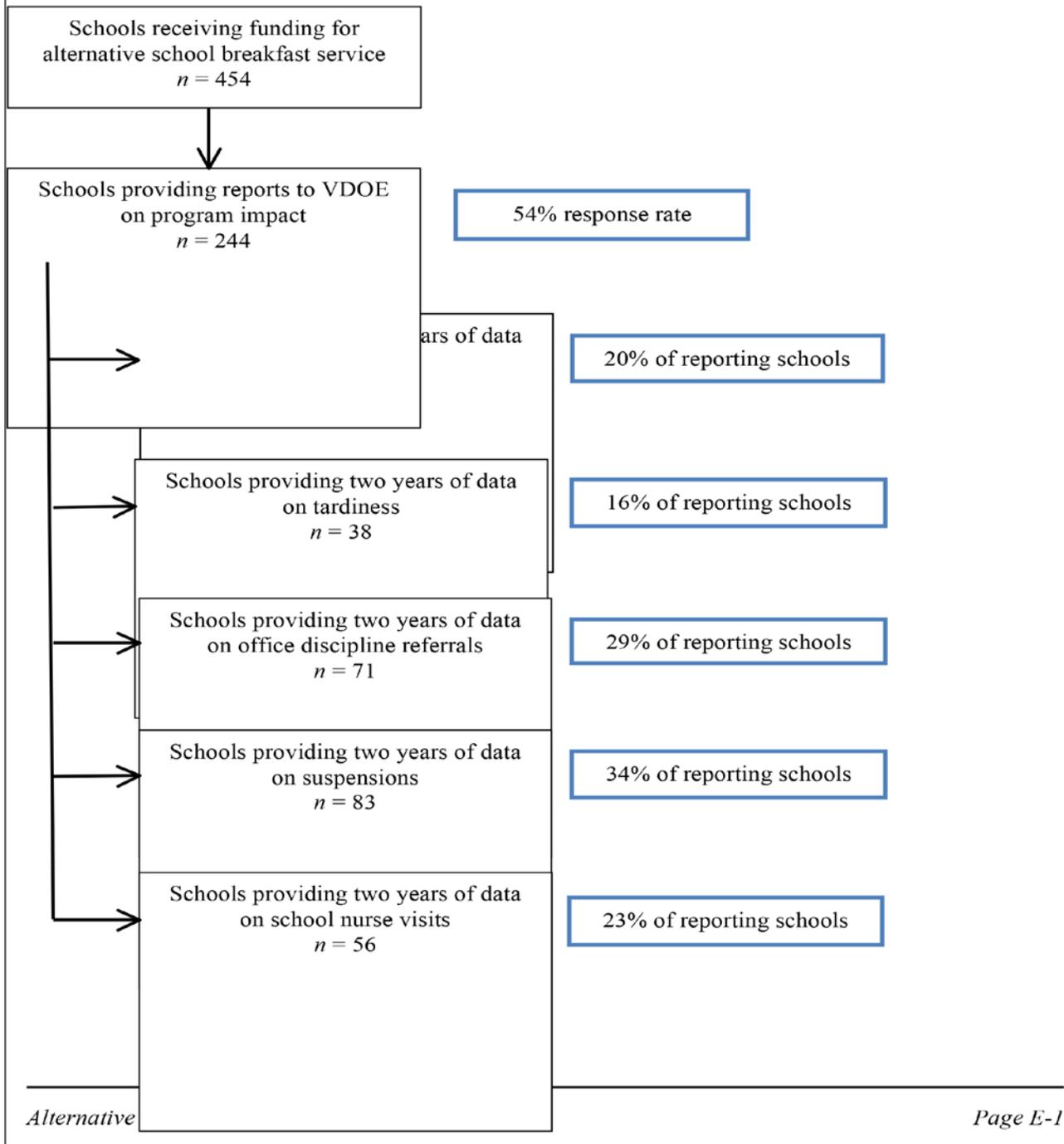
Percentage of comments containing praise for the program	35%
<i>"We love our new alternative breakfast program and have seen an increase in participation"</i>	
<i>"We have several types of alternative breakfast models. All seem to work well. As long as everyone works together, all barriers that come up can be worked through."</i>	
<i>"We just opened our 3rd kiosk at our Junior High this morning. I can see our breakfast participation continue to increase. I have high hopes this year for the best year ever."</i>	
<i>"I think the program is an excellent program, and as parent, I am very appreciative that my child is offered breakfast, even if we technically could afford it. It helps out financially, regardless, and I am glad my child doesn't have to worry about the stigma surrounding eating breakfast at school."</i>	
<i>"Our elementary schools went from 30-45% participation to 60-90% participation in the breakfast program."</i>	
Percentage of comments containing concerns about the program	32%
<i>"There is a conflict between what the students want for breakfast and what parents feel or believe to be healthy. Parents want a hot breakfast. Students prefer hot grab and go or cold options that are higher in carbohydrates."</i>	
<i>"I have seen children encouraged to get a breakfast meal even though they ate at home, just to get the numbers up, in my opinion. And the children get it and throw it away. Children are told they must get three things on a tray even when they don't want them, and those are thrown away also."</i>	
<i>"If the teachers and the administration are not pro-breakfast in the classroom, it makes it almost impossible to have a successful breakfast program."</i>	
<i>"Students are often tardy and know they can receive a grab-and-go bag so no attempt is made by parents to have students on time for school. Therefore, instructional time is interrupted."</i>	

<i>"Two or three of the food items typically go in trash. High carb breakfasts...not much protein."</i>	
Percentage of comments containing constructive feedback	22%
<i>"There is no one size fits all approach; each school has a different environment/leadership - some are very open and not afraid to try something new and different, others are very reserved and seem to focus more on teacher response than student need. We have found the 2nd Chance Breakfast was the absolute best model for high school."</i>	
<i>"I think more schools would try alternative models with the Superintendent pushing them to do so."</i>	
<i>"I think the concept is good, however, I think there would be less waste if students were allowed to just take the amount of food they are hungry for and had time to actually finish eating."</i>	
Percentage of comments containing neutral descriptive program information	11%
 <i>Comments Received From Teachers (n=173)</i> <i>*8 comments expressing praise and concerns were counted twice</i>	
Percentage of comments containing praise for the program	27%
<i>"While initially hesitant about the program, I believe it works. It is part of the morning routine and cuts out trips to cafeteria (which eats up more time than just eating breakfast in classroom). More kids eat breakfast, it gives kids some social time while eating, and kids aren't as hungry as before. I really like the program!"</i>	
<i>"For some of our students, this has made the difference in getting two meals a day and not getting any. The lunches are more nutritious and more students are eating at school. This program has been one of the very best things for our school system."</i>	
<i>"Many of our students would go hungry if we did not have the present breakfast model. Parents did not apply for free or reduced food even when they were eligible before the current model. The students came to school without money to purchase breakfast. Now, with the free breakfast the students eat and are able to focus on learning."</i>	
<i>"Our students have the choice of eating in the cafeteria or the classroom. Most students prefer eating in the classroom with their bagged breakfast. I have noticed a significant increase in fewer incidents with behavior in the cafeteria during breakfast."</i>	
Percentage of comments containing concerns about the program	44%
<i>"Breakfast after the bell is a disruption to morning routines and procedures. Students cannot eat breakfast and focus on other things at the same time. Eating breakfast at school is fine and helps the students that cannot eat at home, but it should be done before the bell. They do not eat lunch during class, so breakfast should be no different."</i>	
<i>"The breakfast program takes up instructional time, leaves a huge mess in the classroom and is an overall burden to the teacher. It is full of sugar and lends to hyperactivity in children."</i>	
<i>"It takes a lot out of a classroom teacher to serve breakfast in the classroom, and be prepared to deliver instruction as soon as breakfast is over. Overall, classroom teachers really don't have the time"</i>	
<hr/> <i>Alternative School Breakfast Service Models Report</i>	
<hr/> <i>Page B-4</i>	

<i>or support needed to handle this alternative school breakfast model.”</i>	
<i>“I’m not a fan of the grab and go piece. It is not particularly environmentally friendly (uses plastic bags and generates a lot of trash) and it requires more clean up by the custodians.”</i>	
<i>“If the goal is a nutritious breakfast for everyone, this program is a failure. Each day I see students eat a carbohydrate-laden “breakfast” that will have them crashing in an hour. The “in the classroom” part of this program inhibits the ability to provide a good breakfast, because of the concerns about food temperature and storage. A classroom teacher has other responsibilities in the morning, such as greeting students, and should not be going around bean-counting.”</i>	
Percentage of comments containing constructive feedback	28%
<i>“I agree that all students need breakfast. I have 2 significant disagreements with this specific implementation. First, I don't see why it is required to be “eaten in classrooms”. This creates mess and it is more noticeable who is and isn't taking breakfast. I think it would be better to serve in the cafeteria and offer this breakfast to all students. This would mean everyone gets a breakfast but would alleviate rodents and would have less impact on instructional time. My second and more significant concern is that the breakfasts are not healthy. As a parent of a 1st grader at this school as well as a teacher, I am appalled by the nutrition offered in these meals. I don't see how a muffin and juice is serving children's nutritional needs. I wouldn't serve that at home. I would be more comfortable if students got fresh fruit and nutritious grains, like oatmeal. If we are going to invest the time and attention necessary for this program then we should focus on improving the overall health of the students at this school.”</i>	
<i>“Healthier food options would be great for kids. A more streamlined system with not as many parts to track would make implementation easier, as it is difficult to track what students receive and maintain order and function in the classroom.”</i>	
<i>“The service model is fine. My issue with the breakfast program is with the quality and nutritional value of the breakfast served to our students. Pop Tarts, sticky buns, and apple fritters are high sugar, high fat and have no place in a healthy breakfast. These breakfast items do nothing to boost students' attention and learning. It just fills their stomach.”</i>	
<i>“The amount of food we throw in the trash on a daily basis is heartbreaking. I wish there was something more productive we could do with the non-perishable items, like donate them to the homeless or send them home with students you know have financial difficulties.”</i>	
<i>“While the intent is admirable, we are just overloading student with carbs and sugars. Students are consuming 2-3x more food than before. I agree with providing free breakfast. Do a healthy menu (one set option) and if “extras” are an option, then do fresh fruits and yogurts. Healthy meals are needed here.”</i>	
Percentage of comments containing neutral descriptive program information	6%

Appendix C

Cleaned Data Available for Analysis for the 2016-2017 School Year



Eat Smart Move More

Virginia Cooperative Extension • Family Nutrition Program
www.eatsmartmovemoreva.org

The U.S. Department of Agriculture (USDA) is an equal opportunity provider and employer. This material is partially funded by USDA's Supplemental Nutrition Assistance Program - SNAP which provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact your county or city Department of Social Services or to locate your county office call toll-free: 1-800-552-3431 (M-F 8:15-5:00, except holidays). By calling your local DSS office, you can get other useful information about services. This material was partially funded by the Expanded Food Nutrition Education Program, USDA, NIFA.

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/ affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg.