

**V(A). Planned Program (Summary)**

**Program # 5**

**1. Name of the Planned Program**

Childhood Obesity

Reporting on this Program

**V(B). Program Knowledge Area(s)**

**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	50%	100%	100%	0%
704	Nutrition and Hunger in the Population	5%	0%	0%	0%
724	Healthy Lifestyle	35%	0%	0%	0%
806	Youth Development	10%	0%	0%	0%
	<b>Total</b>	100%	100%	100%	0%

**V(C). Planned Program (Inputs)**

**1. Actual amount of FTE/SYs expended this Program**

Year: 2014	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	9.0	1.5	5.0	0.5
<b>Actual Paid</b>	8.0	0.0	5.0	0.0
<b>Actual Volunteer</b>	0.0	0.0	0.0	0.0

**2. Actual dollars expended in this Program (includes Carryover Funds from previous years)**

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
341273	135656	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
341273	135656	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
292204	0	0	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

- Develop/implement training for cafeteria/food service workers using Walk the Line curriculum.
- Workshops and professional development for Growing Healthy Habits, Farm-2-School, and Walk the Line.
  - Create effective materials and programs that meet standards of health literacy.
  - Investigate taste preference and trying new fruits and vegetable measures for statewide evaluation.
    - Educational programs for cafeteria and food service workers and school administrators.
    - Educational programs targeting pre-schoolers and their parents through train-the-trainer approach for child care and pre-school teachers.
      - Up For the Challenge curriculum implemented for school-age youth in 3 sites targeted to geographically dispersed military families/youth.
      - Contribute articles and expertise to eXtension.org Community of Practice for Food, Fun, and Fitness
        - Develop Social Marketing and Social networking strategies to engage target audiences in Healthy Living dialogue
          - Conduct applied research to inform educational program interventions.

### 2. Brief description of the target audience

- School-age youth
- Parents of school-age youth
- Teachers
- Cafeteria/Food service workers
- School administration
- Providers of before and aftercare
- Limited Income Mothers and Children
- Food Stamp recipients
- Geographically dispersed military families

### 3. How was eXtension used?

eXtension was not used in this program

## V(E). Planned Program (Outputs)

### 1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	55379	500	38723	700

### 2. Number of Patent Applications Submitted (Standard Research Output)

**Patent Applications Submitted**

Year: 2014  
 Actual: 0

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

2014	Extension	Research	Total
Actual	8	0	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Growing Healthy Habits: # workshops; # train-the-trainer sessions; # school gardens developed; # community gardens developed; # new partnerships to implement GHH.

Year	Actual
2014	2892

**Output #2**

**Output Measure**

- Walk The Line: # sessions conducted; # school cafeteria workers trained; # cafeterias participating  
 Not reporting on this Output for this Annual Report

**Output #3**

**Output Measure**

- Farm 2-School: # Sessions conducted; # schools participating; # farmers participating; # New partnerships developed.

Year	Actual
2014	2408

**Output #4**

**Output Measure**

- Eating Smart/Being Active: # youth served; # sessions; # supporting resources developed.

<b>Year</b>	<b>Actual</b>
2014	241

**Output #5**

**Output Measure**

- Up For the Challenge: # sessions conducted; # youth reached; # teachers/afterschool providers trained; # schools implementing

<b>Year</b>	<b>Actual</b>
2014	36

**Output #6**

**Output Measure**

- Strong Women, Healthy Hearts: # women completing program; # sessions conducted; # partnerships developed to implement program  
Not reporting on this Output for this Annual Report

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	1. Fruit & Vegetable Consumption: # youth planning to increase consumption of fruits and vegetables.
2	2. Healthy Eating & Physical Activity: # of individuals and families who gain awareness, knowledge, or skills regarding healthy eating and physical activity
3	3. Policy Change: # schools, businesses and organizations with increased awareness of needed systems changes that will positively impact intake of healthier foods.
4	4. Systems Changes: # schools, businesses or organizations making systems changes to promote healthy lifestyles
5	5. Physical Activity: # youth and adults including physical activity in daily routine at least three times weekly

## **Outcome #1**

### **1. Outcome Measures**

1. Fruit & Vegetable Consumption: # youth planning to increase consumption of fruits and vegetables.

### **2. Associated Institution Types**

- 1862 Extension
- 1890 Extension
- 1862 Research

### **3a. Outcome Type:**

Change in Knowledge Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	0

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Recent studies have found that lifestyle choices and physical activity practices are established very early in life and have an impact on future health and well-being. Thus, preschool-age is a critical time for nutrition education intervention.

#### **What has been done**

FSNE reached over 5,000 preschool-aged children through nutrition and gardening focused curricula, including Color Me Healthy; Read for Health; and Grow It, Try It, Like It. These nutrition education programs encourage healthy eating and physical activity through multiple interventions, including music, dance, children's books, fruit and vegetable tastings, and gardening/planting activities.

#### **Results**

Childcare providers and parents of preschool-aged children participated in curricula that encouraged healthy feeding practices. 1-2-3 Feed Me!, a childcare provider centered program, and Feeding for Healthy Eating (FHE), a parent-focused intervention, encourage adults to role model healthy eating, cook and eat with children, and introduce new foods to children. Ninety-one percent of FHE parents report often or always encouraging their children to make independent food decisions by determining when they are full; 86% report offering foods to children a second time if they did not like them initially; and 94% of childcare providers plan to implement healthy feeding practices through role-modeling healthy eating behavior.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

#### Outcome #2

##### 1. Outcome Measures

2. Healthy Eating & Physical Activity: # of individuals and families who gain awareness, knowledge, or skills regarding healthy eating and physical activity

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	0

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Healthy eating habits along with regular physical activity have an important role in weight control. Despite the proven benefits of these healthy habits, the CDC State Indicator Report for Maryland shows that less than 16% of adults report eating the recommended daily servings of both fruits and vegetables. Unfortunately, the statistics for adolescents are worse, with only 11% reporting daily consumption of the recommended amounts. Finding ways to increase fruit and vegetable consumption is vital to improving health and well-being.

###### **What has been done**

FSNE delivered nutrition education programs that focused on dietary quality choices and food resource management to over 5,600 adults. On average, adults received nutrition education through a series of five, 60-minute classes featuring food demonstrations, tastings, and real world application of learned skills.

###### **Results**

After participating in the FSNE nutrition education classes, adults report significant positive changes in their daily consumption of fruits and vegetables. Adults

reports they have increased their daily servings of fruits and vegetables by 23% percent for a total of five servings consumed per day. They also report they change their patterns of consumption at meals, saying they always or often eat two or more vegetables at their main meal.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

#### Outcome #3

##### 1. Outcome Measures

3. Policy Change: # schools, businesses and organizations with increased awareness of needed systems changes that will positively impact intake of healthier foods.

##### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension
- 1862 Research

##### 3a. Outcome Type:

Change in Knowledge Outcome Measure

##### 3b. Quantitative Outcome

Year	Actual
2014	0

##### 3c. Qualitative Outcome or Impact Statement

###### **Issue (Who cares and Why)**

Overweight and obesity have reached epidemic proportions nationwide and have become two of the most critical issues of our time. Over the years, environmental changes have resulted in trends toward inactivity and poor diets. It has been stated that children establish eating habits early in life and these are often the results of interactions with parents and caregivers.

###### **What has been done**

In FY13, 165 elementary and middle-school teachers participated in intensive teacher training programs, including the Integrating Nutrition into the School Curriculum (INC) and Youth Gardening for Nutrition courses. These 30-hour training programs are conducted in collaboration with MSDE and focus on increasing the integration of nutrition and gardening education into existing school subjects, including math, reading, and language arts.

### Results

After participating in the training, teachers report integrating nutrition and gardening activities on a weekly basis. The amount of time they encourage students to share healthy eating messages also increased from monthly to weekly after the training course. Nine out of 10 teachers report that their students speak more positively about healthy eating and physical activity. Number of healthy eating opportunities for students nine-fold to once per month during the school year. Teachers share healthy eating and physical activity information with parents on a monthly basis after participating in the teacher training.

### 4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

### Outcome #4

#### 1. Outcome Measures

4. Systems Changes: # schools, businesses or organizations making systems changes to promote healthy lifestyles

#### 2. Associated Institution Types

- 1862 Extension
- 1890 Extension
- 1862 Research

#### 3a. Outcome Type:

Change in Action Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2014	0

#### 3c. Qualitative Outcome or Impact Statement

##### Issue (Who cares and Why)

Overweight and obesity have reached epidemic proportions nationwide and have become two of the most critical issues of our time. Over the years, environmental changes have resulted in trends toward inactivity and poor diets. It has been stated that children establish eating habits early in life and these are often the results of interactions with parents and caregivers.

##### What has been done

ReFresh is a partnership between Maryland State Department of Education (MSDE) and the University of Maryland Extension (UME) to utilize partnerships between food service staff, instructional staff, and UME educators within the school setting to work to increase students preference and selection of fruits and vegetables. FSNE provided classroom-based nutrition education in low income schools and in the development of the ReFresh curriculum for 4th and 5th grade students.

**Results**

FSNE educators trained 31 teachers to deliver the ReFresh curriculum in their schools. Youth who participate in ReFresh make healthy choices regarding their lunchtime meals. 95% of students report regularly eating fruit with lunch, while 82% report regularly consuming vegetables at their lunchtime meal. Youth who participate in ReFresh report significant increases in their preference for healthy foods, including fruits, vegetables, and whole grain foods - 86% report liking vegetables, 98% report liking fruits, and 94% report liking whole grain foods after participating in the curriculum.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**Outcome #5**

**1. Outcome Measures**

5. Physical Activity: # youth and adults including physical activity in daily routine at least three times weekly

**2. Associated Institution Types**

- 1862 Extension
- 1890 Extension
- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2014	0

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

Healthy eating habits along with regular physical activity have an important role in weight control and decrease the risk of chronic disease. Obesity, diabetes, heart disease, cancer, food allergies and lack of exercise are among the priority health risks that must be addressed.

**What has been done**

FSNE reached over 650 senior adults through nutrition education programming in FY13. The two primary programs utilized with this population were Eat Smart, Live Strong and Eating Smart, Being Active, which encourage participants to eat more fruits and vegetables and to engage in moderate-intensity daily physical activity.

**Results**

After participating in the programs, seniors intend to make significant, positive changes to their daily health behaviors, specifically by engaging in at least 30 minutes of physical activity during the day, as well as increasing the number and variety of fruits and vegetables they consume on a daily basis.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
703	Nutrition Education and Behavior
724	Healthy Lifestyle

**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

**Brief Explanation**

**V(I). Planned Program (Evaluation Studies)**

**Evaluation Results**

Nutrition to GO! - Approximately 20% of the low-income adults served by Maryland FSNE were reached through Nutrition to GO! displays that provide simple, clear information on nutrition or physical activity concepts. Before attending Nutrition to GO! events, participants report rarely thinking about/knowing the calorie content of their foods and beverages; after programming, they report plans to increase their awareness of the nutrition content of their food and beverage choices to go. Before Nutrition to GO! programming, participants

report rarely choosing smaller portions of food; after programming, they report an intention to choose smaller portions of food.

In FY13, 22,733 youth were reached through nutrition education curricula delivered both in-school and outside of the classroom environment, such as after-school programs and gardening clubs. School-aged youth received nutrition education through primary nutrition-focused curricula, including Nutrition Nuggets, Read for Health, ReFresh, Media Smart Youth, and Up for the Challenge. Nearly 20% of youth participants were reached through Growing Healthy Habits, a gardening for nutrition education program focused on enhancing students' tasting and preference for locally grown vegetables. Youth in these programs report an increase in the amount of new vegetables they try, and their preference for locally grown vegetables, which are the two primary goals of this curricula. Further, when youth prefer foods, they are more likely to select and consume them. Students report a significant increase in their preference for 11 vegetables, including lettuce, spinach, zucchini, cauliflower, cabbage, broccoli, tomatoes, summer squash, peppers, cucumbers, and radishes. 60% of students report tasting zucchini and summer squash for the first time during the program. Youth in grades 3 and higher who participate in these programs report an increase in the amount of new foods they try, the total number of fruits/vegetables they consume, and their preference for healthy foods.

### **Key Items of Evaluation**

FSNE educators worked with farmers' markets throughout the state of Maryland to encourage shoppers to add nutrient-rich, in-season fruits and vegetables to their diets. After ending events that offer recipe demonstrations, 78% of adults report that they plan to buy the healthy ingredients used in the recipe so they could prepare it themselves. Seventy-six percent of participants plan to involve their family in the preparation of the recipe.