V(A). Planned Program (Summary)

Program # 2

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
501	New and Improved Food Processing Technologies	0%		25%	
502	New and Improved Food Products	0%		15%	
503	Quality Maintenance in Storing and Marketing Food Products	0%		10%	
701	Nutrient Composition of Food	0%		5%	
702	Requirements and Function of Nutrients and Other Food Components	0%		20%	
703	Nutrition Education and Behavior	50%		15%	
704	Nutrition and Hunger in the Population	0%		5%	
724	Healthy Lifestyle	50%		5%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	15.0	0.0	0.4	0.0
Actual Paid	13.1	0.0	4.1	0.0
Actual Volunteer	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**
750729	0	106659	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
750729	0	106659	0
1862 All Other	**1890 All Other**	**1862 All Other**	**1890 All Other**
1368608	0	825703	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The childhood obesity issue is addressed through a multi-disciplinary programming approach led by experts in nutrition, youth development, and school and community gardens. Community nutrition programs, SNAP-ED and EFNEP account for a very large portion of the educational programming conducted in this area. Let's Eat for the Health of It is the primary curricula used to educate youth in grades 3rd through 5th and adults about the importance of good nutrition and being physically active. The information in the curricula is scientifically based on the 2010 Dietary Guidelines for Americans.

Smart Bodies is an innovative program of nutrition and physical activities that is integrated into core curriculum academics to promote child wellness. Smart Bodies consists of three components: Body Walk, the OrganWise Guys (OWG), and 2-Step in the Classroom. Body Walk students explore the brain, mouth, stomach, small intestines, heart, lungs, muscles, bones, and skin stopping at learning stations to participate in interactive activities focused on the effects that the food has on each organ. The OWG are fun characters that help children understand physiology and healthy behaviors through books, games, dolls and informational videos. The 2-Step in the Classroom program is a grade-specific educational tool that encourages short bouts of physical activity integrated with academic lessons. Parent newsletters are monthly themed and include tips for incorporating physical activity into family life and kid-friendly, low-cost recipes emphasizing fruits and vegetables.

The 4-H Healthy Living initiative emphasizes increased fruit and vegetable consumption and increased minutes of physical activity through a variety of delivery modes including the school garden program, the summer camp nutrition educational track, food and fitness boards at the state and local levels, and special interest workshops and day camps.

2. Brief description of the target audience

Efforts in this program area target Louisiana adults, college-aged students and youth including those eligible for SNAP-ED or EFNEP programming.

The target audience for the Smart Bodies program includes public and private elementary schools in Louisiana and their students in grades K-5 with emphasis on limited income youth. The program creates public value by indirectly influencing the schools' administrators, faculty, parents and siblings of participant students.

The target audience for the 4-H Healthy Living program is youth in grades 4-12, parents, school administrators and faculty, 4-H volunteers and Master Gardener volunteers.

3. How was eXtension used?

eXtension materials were used to enhance learning.

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	7164	377549	24557	0

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	1	29	30

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Web page views

Year	Actual
2014	47579

Output #2

Output Measure

- Number of Web page visits
  Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Number of youth who participate in Smart Bodies Program

Year	Actual
2014	41507

Output #4

Output Measure

- Number of elementary schools participating in Smart Bodies program

Year	Actual
2014	98

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Outcome: Louisiana youth and their caregivers adopt healthy lifestyle behaviors which will lead to reduced incidence of childhood obesity. Indicators: Number and percent of participants who increased consumption of fruits and vegetables; number and percent of participants who increase average minutes spent daily in physical activity
2	Adiposity of infants will be influenced by diet of the mother during pregnancy.
3	Participants adopt healthy lifestyle and weight management practices (General nutrition)
4	Identify and test dietary nutrients that may decrease obesity across the lifespan and validate instruments that assess willingness of individuals to consume "healthy foods".
5	Louisiana youth and adults in poverty adopt healthy lifestyle behaviors.

Outcome #1

1. Outcome Measures

Outcome: Louisiana youth and their caregivers adopt healthy lifestyle behaviors which will lead to reduced incidence of childhood obesity. Indicators: Number and percent of participants who increased consumption of fruits and vegetables; number and percent of participants who increase average minutes spent daily in physical activity

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Adiposity of infants will be influenced by diet of the mother during pregnancy.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Participants adopt healthy lifestyle and weight management practices (General nutrition)

2. Associated Institution Types

- 1862 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)
Louisiana residents suffer from chronic illnesses such as heart disease, stroke, cancer and diabetes at rates higher than the national average, while fruit and vegetable intake and physical activity is below the national average. Approximately 11.6% of adults are diabetic and one in

three adults is obese. There is an increasing rate of Type 2 diabetes being diagnosed in children and 27.1% of children are overweight or obese. Louisiana has the fifth highest cardiovascular death rate in the nation, accounting for almost 25% of all deaths in the state. Maintaining a healthy lifestyle by eating well and being physically active across the lifespan from the earliest ages can be effective in reducing these figures.

What has been done
Smart Portions, a series of sessions that address nutrition, physical activity and eating habits for a healthy lifestyle was taught in conjunction with local hospitals and as a workplace wellness program. Diabetes NEWS (Nutrition Education Works) classes were provided to Louisiana adults with diabetes or to those who had a family member with diabetes. Smart Bodies, a comprehensive nutrition education and physical activity program designed to promote lifelong healthy eating patterns and physically active lifestyles to Louisiana's children and their families, was taught in 98 schools and 14 public events to 41,507 children. Additional participants included 1,864 teachers and 1,793 volunteers.

Results
Clients participating in general nutrition education programs made positive changes in their eating habits such as choosing more fruits and vegetables and participating in physical activity programs. Participants in the Smart Bodies program significantly increased their knowledge about the health benefits of eating fruits and vegetables and their interest in eating them. The Smart Bodies program appeared to equip the students with the knowledge and motivation necessary for them to adopt positive lifestyle behaviors.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #4

1. Outcome Measures

Identify and test dietary nutrients that may decrease obesity across the lifespan and validate instruments that assess willingness of individuals to consume "healthy foods".

2. Associated Institution Types

- 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)
Louisiana residents suffer from chronic illnesses such as heart disease, stroke, cancer and diabetes at rates higher than the national average, while fruit and vegetable intake and physical activity is below the national average. Approximately 11.6% of adults are diabetic and one in three adults is obese. There is an increasing rate of Type 2 diabetes being diagnosed in children and 27.1% of children are overweight or obese. Louisiana has the fifth highest cardiovascular death rate in the nation, accounting for almost 25% of all deaths in the state. Maintaining a healthy lifestyle by eating well and being physically active across the lifespan from the earliest ages can be effective in reducing these figures.

What has been done
A double-blinded placebo controlled dietary intervention trial in pregnant women is on-going; infants born to these women are being assessed for growth. In other research, surveys are being evaluated for their ability to estimate willingness to consume foods recommended by the Dietary Guidelines for Americans 2010. Animal studies are used to examine dietary effects on the microbiota, which is known to affect health status, including obesity.

Results
Findings suggest that adolescent intrinsic motivation and perceived competence to prepare healthy foods increase as a result of participating in studies to evaluate the impact of nutrition education/culinary skills-building programs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
702	Requirements and Function of Nutrients and Other Food Components
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

Louisiana youth and adults in poverty adopt healthy lifestyle behaviors.

2. Associated Institution Types

- 1862 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)
An annual F as in Fat report (2014) indicated 46.7% of Louisiana adults consumed less than one fruit a day, and 32.5% consumed less than one vegetable per day. In 2012, 34.7% adults in Louisiana were obese, while 69.6% were overweight or obese making Louisiana the highest in the country in the incidence of overweight and obesity (F as in Fat, 2014). According to the CDC (2013) Louisiana ranked 4th in the nation in 2011 in deaths from all cancers. Louisiana has the 4th highest death rate in the nation from heart disease and 9th highest death rate from stroke. Stroke ranked 4th as the cause of death in Louisiana adults.

What has been done
Community nutrition education classes were conducted in 32 SNAP-ED parishes by 27 agents and educators and in 11 EFNEP parishes by 40 agents and educators. The primary curriculum utilized for both youth and adult educational activities is "Let's Eat for the Health of It." This curriculum teaches the principles of eating based on the Dietary Guidelines for Americans, food budgeting and foods safety. SNAP-Ed agents and educators reached 29,664 youth and 12,998 adults through direct education and 69,627 through indirect methods such as mass media including social marketing and social media. Additionally, EFNEP educators reached 1,931 families and 6,687 individuals through community outreach programs and another 20,559 youth through summer camps and in schools. Over 3,000 lessons and/or classes were conducted during this reporting period.

Results
Community nutrition adults in both SNAP-ED and EFNEP either increased fruit, vegetable and dairy intake or their perception of their ability to improve intake. In addition, EFNEP clients improved food resource and food safety practices. EFNEP youth were more likely to choose diets based on the Federal Dietary recommendations, improve food safety practices, and to prepare simple and nutritious foods. EFNEP adults were more likely to plan meals ahead of time, compare prices, use a grocery list, and make healthier food choices after participating in EFNEP education programs. While studies with SNAP-ED youth did not indicate a significant difference in pre- and post-program beliefs, they did show a significant difference in attitudes about consuming more healthy foods. Both community nutrition programs continue to seek new ways to effectively change behavior in an attempt to reduce the obesity numbers among both children and adults.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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
- Competing Public priorities

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

SNAP-ED Evaluation Results

In matched sets of pre-post data from 85 adults, analysis revealed a statistically significant increase in adult participants' belief that they could make healthy fruit and vegetable choices from pretest to posttest. Participants' attitude about healthy food choices also showed a statistically significant improvement.

Analysis revealed a statistically significant increase in participants' belief that physical activity was within their control from pretest to posttest The change in perception of social support (subjective norms) was also statistically significant from pretest to posttest. Participants' attitude about physical activity also showed a statistically significant improvement from pretest to posttest. Participants' knowledge of vegetable servings for adults 50 or younger showed a statistically significant increase in the percentage of correct answers from pretest (11%) to posttest (27%). Knowledge of servings for adults 51 and older showed no change in the percentage of correct answers from pretest (27%) to posttest (27%). Participants' knowledge of recommended daily servings of dairy showed a statistically significant increase in the percentage of correct answers from pretest (10%) to posttest (27%).

Matched sets of 120 youth yielded no significant difference in participants' belief that they could make healthy fruit and vegetable choices from pretest to posttest. However, participants' attitude about healthy food choices showed a statistically significant improvement from pretest to posttest. A close examination of individual responses from youth regarding physical activity intention revealed that youth tended to change stages more slowly than the adults.

EFNEP Evaluation Results

Thirty-three percent (500 of 1515) of participants had a positive improvement on physical activity based on EFNEP lessons. Eighty percent of participants showed improvement in one or more food resource management practice (i.e. plan meals, compare prices, does not run out of food or uses grocery lists). Eighty-six percent of participants showed improvement in one or more nutrition practice (i.e. plans meals, makes healthy food choices, prepares food without adding salt, reads nutrition labels or has children eat breakfast). Fifty-six percent (850 of 1515) of participants showed improvement in one or more food safety practice (i.e. thawing and storing foods correctly). Food Safety Practices of participants improved as indicated by the following:

- 35% always followed the recommended practices of not allowing meat and dairy foods to sit out for more than two hours.
- 47% more often followed the recommended practices of not thawing foods at room temperature.
- 57% of participants showed improvement in one or more food safety practice (i.e. thawing and storing foods correctly), while 22% of participants showed improvement in both food safety practices (i.e. thawing and storing foods correctly).

Studies with children and youth revealed:

- 85% improved their ability to choose foods according to Federal Dietary Recommendations or gained knowledge
- 46% used safe food handling practices more often or gained knowledge
- 47% improved their physical activity practices or gained knowledge
- 50% of children and youth improved their ability to prepare simple, nutritious, affordable food or gained knowledge
- 29% of youth acquire skills to be food secure or gained knowledge

Key Items of Evaluation