

V(A). Planned Program (Summary)

Program # 10

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%	0%	0%
724	Healthy Lifestyle	50%	0%	100%	0%
	Total	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
Plan	3.0	7.0	1.0	0.0
Actual Paid	3.2	7.0	0.0	0.0
Actual Volunteer	0.0	35.0	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
34264	597735	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
34264	365275	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
283688	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

AgriLife Extension

Balancing Food & Play

Third grade students in Texas schools are the primary target audience with their families as a secondary target audience. The curriculum contains three elements: 20 lesson plans, 8 take-home reading assignments, and 41-page student journals. Pre/post survey instruments capture changes in knowledge and self-reported behaviors. The Balancing Food & Play curriculum was designed to improve knowledge and behaviors related to:

- * snacking on fruits and vegetables,
- * drinking milk with meals and water with snacks,
- * encouraging at least 60 minutes of physical activity each day, and
- * limiting screen time to two hours or less per day.

Extension OnLine Nutrition Education

Childcare providers, community nutrition educators, parents and other interested adults are the targeted audiences. Online education courses, generally one-hour in length, include learning objectives, subject matter content, supporting handouts, application activities, and references. Pre/post knowledge survey is part of each course; learners must correctly answer 80% of the post knowledge survey to complete the course. Course offerings are developed to enhance educator and caregiver knowledge and skills related to nutrition and best practice behaviors associated with healthful weight.

Evidence-based best practice behaviors associated with healthy weight are:

Make half your plate fruits and vegetables

Limit sugar sweetened beverages

Decrease TV to no more than 2 hours each day

Be physically active at least 1 hour each day

Prepare more meals at home rather than eating out

Eat at the table as a family at least 5 times a week

Eat a healthy breakfast each day

Involve the whole family in lifestyle changes

Allow the child to decide how much food to eat and do not totally restrict certain foods

Get enough sleep each night

WAT Youth Component

The mainstay of exercise and wellness programming is Walk Across Texas! Walk Across Texas! is an eight week program to help people of all ages support one another to establish the habit of regular physical activity. Three options are offered to participants: walk in teams of eight, classes at schools, or individually. Participants log miles and use programs on <http://walkacrosstexas.tamu.edu>. Walk Across Texas! is a best practice type physical activity program as described by the Centers for Disease Control at <http://www.thecommunityguide.org/>. It was recognized as a best program by the Texas Department of State Health Services in 2006.

A local coalition will recruit participants and provide leadership to implement Walk Across Texas! Teams of eight or classes of children at schools will be recruited to walk for eight weeks. Teams and classes are challenged to walk regularly for eight weeks, reporting their mileage on <http://walkacrosstexas.tamu.edu>, to achieve the goal of walking the approximate 830 miles across Texas on a map that allows comparisons of teams and class progress.

Youth in Texas Schools is the target audience. Evaluation strategies include surveys, observation, and recording of behaviors (such as miles walked).

AgriLife Research

Research is conducted in collaboration with State and Federal Women, Infant and Children Program leaders to provide data and programs to improve dietary habits of children and their parents or care givers. Research also involves native American populations and the school lunch program.

Cooperative Extension Program

Choose Health: Food, Fun, and Fitness

Choose Health: Food, Fun, and Fitness is aimed at 8-12 year olds and targets those behaviors research shows to be most important for preventing childhood obesity and chronic diseases such as heart disease and cancer.

The curriculum also supports key messages of the 2010 Dietary Guidelines for Americans as summarized by USDA in their new MyPlate initiative to help Americans build healthier diets:

- Drink water instead of sugary drinks.
- Switch to fat-free or low-fat (1%) milk.
- Make half your plate fruits and vegetables.
- Make at least half your grains whole grains.
- Enjoy your food, but eat less.
- Avoid oversized portions.

Step Up and Scale Down

Step Up & Scale Down is a 12 lesson program developed to provide nutrition information to people who want to live healthier lifestyles. The program focuses on weekly motivation, support, hands on learning and accountability to assist them achieve their goals.

Balance Living

Balance Living is a series of five lessons focusing on time management, stress management, mindful eating, physical activity, and sleep are the major components addressed in this curriculum because these areas tend to be overlooked when life gets hectic or out of control. The goal of this series is for participants to gain knowledge and skills to live a more balanced life.

2. Brief description of the target audience

AgriLife Extension

Balancing Food & Play

Third grade students in Texas Schools

WAT Youth Component

Youth in Texas Schools

AgriLife Research

Parents and others who care for children, school lunch program administrators, and native Americans.

Cooperative Extension Program

Minority families and individuals

Senior adults

Single parents

Persons coping with and at risk for chronic illnesses

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	193	1874	9724	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	5	0	5

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # youth participating in WAT Program.
 Not reporting on this Output for this Annual Report

Output #2

Output Measure

- # youth participating in Balancing Food and Play Program.
 Not reporting on this Output for this Annual Report

Output #3

Output Measure

- # of classes/workshops addressing nutrition and health.

Year	Actual
2014	2398

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	The percent of youth that reported engaging daily in 60 minutes or more of physical activity. (National Indicator Outcome 2,1d)
2	Percentage decrease the number of children reporting decreased sweetened beverage intake.
3	The percent of youth that reported increasing their physical activity and/or reducing sedentary (National Indicator Outcome 2,1c)
4	# of participants who understand and use My Plate in meal buying and preparation, become aware of diet related diseases, understand the connection between diet and exercise, increase consumption of fruits and vegetables.
5	# of participants modify recipes to decrease amount of calorie and adopt healthy eating habits.

Outcome #1

1. Outcome Measures

The percent of youth that reported engaging daily in 60 minutes or more of physical activity.
(National Indicator Outcome 2,1d)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	77

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Children in particular are vulnerable to the deleterious consequences of excessive weight and the adoption of poor behaviors. Obesity and overweight often track into adulthood as do poor behavior choices learned or reinforced during childhood. As overweight or obese adults, these children will face higher healthcare costs and lower quality of life than their healthful weight peers. Therefore, educating children on nutrition and physical activity with the intent to reinforce positive lifestyles and the adoption of healthy behaviors can help prevent or slow the tendency toward unwanted weight gain.

What has been done

The Balancing Food & Play curriculum was designed to improve knowledge and behaviors related to:

- * snacking on fruits and vegetables,
- * drinking milk with meals and water with snacks,
- * encouraging at least 60 minutes of physical activity each day, and
- * limiting screen time to two hours or less per day.

Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity best practice recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time, all of which are associated with obesity improved during the time that Balancing Food & Play was

taught. The percentage of students who reported:

* getting at least 60 minutes of physical activity increased from 56 percent to 77 percent

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

Percentage decrease the number of children reporting decreased sweetened beverage intake.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	20

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity best practice recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time, all of which are associated with obesity improved during the time that Balancing Food & Play was taught. The percentage of students who reported:

* drinking soda almost never or never increased from 32 percent to 40 percent.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

The percent of youth that reported increasing their physical activity and/or reducing sedentary (National Indicator Outcome 2,1c)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	91

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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Results

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity best practice recommendations. Self-reported student behaviors related to physical activity, soda consumption, and screen time, all of which are associated with obesity improved during the time that Balancing Food & Play was taught. The percentage of students who reported:

- * limiting screen time to 2 hours or less increased from 81 percent to 91 percent.

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #4

1. Outcome Measures

of participants who understand and use My Plate in meal buying and preparation, become aware of diet related diseases, understand the connection between diet and exercise, increase consumption of fruits and vegetables.

2. Associated Institution Types

- 1890 Extension

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)

Texas citizens, living in rural or urban areas, are socially disadvantaged or low income and are experiencing problems with diet related illnesses such as diabetes, hypertension and elevated cholesterol levels. Children living in food deserts are lacking access to retail venues in their communities to purchase healthy foods; such as supermarkets, has been associated with a lower quality diet and increased risk of obesity. Having a balance diet to include fruits, vegetables, and controlling portion sizes are steps to preventing and managing obesity related diseases including diabetes, hypertension, cancer and heart disease. Unfortunately, nearly two out of three (64.5%) of U.S. adults are overweight or obese. Overweight and obese individuals are at increased risk for the healthcare issues previously mentioned.

What has been done

The Cooperative Extension Program and the Cooperative Agricultural Research Center have been working collaboratively to introduce medicinal vegetables into the diets of limited resource citizens. Home and community gardens are being introduced to families in an effort to combat health disparities while educating participants on culturally relevant nutrition education. As a pilot project approximately 50 families from Waller County were introduced to juicing vegetables, using the pulp to bake with and make a soup. Other demonstrations included using the savory Indian Melon instead of starchy potatoes for the processing of individuals who are diabetic. Instead of taking over the counter appetite suppressants, Bottle Gourd and Bitter Melon (*Momordica charantia* L) was introduced as a method of juicing. While Extension employees demonstrated new recipes, the Research team provided background information on the value of medicinal plant consumption.

Results

Presentations have been made to families which exposed them to alternative vegetables. After using these products, one family has lost over 60 lbs., they have reduced their diabetes and hypertension medication. Instead of skipping meals, 20 families are now juicing rich green leafy vegetables, and colorful fruit as a nutritious way of balancing their diet.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #5

1. Outcome Measures

of participants modify recipes to decrease amount of calorie and adopt healthy eating habits.

2. Associated Institution Types

- 1890 Extension

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)

Efforts targeting nutrition health and wellness engaged in activities focusing on chronic disease prevention targeting obesity and obesity related diseases. Among children and adolescents, 15% are overweight and more than 70% have diseases that are associated with obesity such as hypertension and elevated cholesterol levels. Preventable illnesses make up approximately 80 percent of the burden of illness and 90 percent of all U.S. health care costs. Over the past three decades, childhood obesity rates in America have tripled, and today, nearly one in three children in America are overweight or obese. The numbers are even higher in African American and Hispanic communities, where nearly 40% of the children are overweight or obese. Obesity has important consequences on our nation's health and economy. Among adults, the medical costs associated with obesity are estimated at 147 billion dollars (Finkelstein, 2009). Many American communities are characterized by unhealthy options when it comes to diet and physical activity.

What has been done

A minimum of 60 minutes of exercise is recommended for individuals to live a healthy lifestyle. In addition to an increase in knowledge and change in behavior, there is a goal to increase physical activity. Extension agents incorporate exercise within their programming to show the importance of being active. Physical activity includes walking, Zumba, Line Dancing and other movement exercise. Outreach activities with limited resource participants were conducted at community centers, senior activity centers, state, city, and county agencies, faith based institutions, and a hospital. A series of MyPlate messages are sent out monthly from the Program Specialists to agents so that that can relay this message to their local clientele and partners.

Messages include adding fruits and vegetables to their daily diet, reducing the intake of sodium, consuming less sugars and fats, and increasing the amount of vegetables and fruits on their plate and lessening the amount of consumed starches. The use of Face Book has allowed for various ideas in infusing water to reduce sweetened beverage consumption and increase fruit and vegetable intake by juicing.

A series of 6 one hour educational sessions consisting of classes that promoted health eating, weight management, diabetes education, awareness and prevention, and complications of chronic illnesses. Along with the educational monthly sessions, newsletters and informational materials focusing on diabetes information, health/wellness, and youth nutrition were distributed monthly to participants.

Results

A total of 532 students participated in these educational programs. Upon completion of these classes, 87% stated that they now understand that junk food or unhealthy snacks should be limited and eaten in moderation, 69% understand that drinking soda or high sugared beverages can cause weight gain and 97% stated that they now understand the warning signs of diabetes therefore, they are able to make behavioral changes with will make a positive impact on their overall health.

Step Up & Scale Down is a 12 lesson program developed to provide nutrition information to people who want to live healthier lifestyles. The program focuses on weekly motivation, support, hands on learning and accountability to assist them achieve their goals. Over 700 individuals completed the 12 lessons series. Approximately 97 % of the individuals reported that they adopted healthy lifestyles choices by increasing their physical activity to 3 or more days, 66% of participants checked calorie information when dining out, 89% of participants plan their family meals and snacks after completing the series of lessons. One participant stated 'I can lose weight and enjoy it! I am also reading the labels before making my purchase.'

A 90 day follow-up evaluation was conducted and one individual stated 'Before the class my weight was 175 and after adjusting my diet to the lifestyle taught in this class my weight is not 162. I am so pleased with the class and continue to use the things taught in this class and I feel so much better. My cholesterol was 165 and is down to 100.'

While participating in nutrition education classes, a participant was able to lose 40 lbs. in one year and motivated her sister to begin exercising.

4. Associated Knowledge Areas

KA Code	Knowledge Area
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

Any of a number of factors could affect the implementation, and subsequent number of participants, of the three programs such as changes in politics, priorities, and/or policy. For example, the Texas legislature cut funding for the Texas A&M AgriLife Extension Service; this could result in fewer county educators to provide leadership at the

local level. Likewise a change in either national, state or administrative priorities or policy could divert resources from child obesity programming.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

During 2014, Texas A&M AgriLife Extension Service agents in 13 counties recruited local third grade classroom teachers to participate in this program. They received permission to implement this school-enrichment program, and 832 students completed the curriculum. To date, 4,817 teacher manuals and 2,726 student journal masters have been downloaded from the website (<http://balance.tamu.edu>).

At the completion of Balancing Food & Play, students were more likely to correctly identify food and physical activity best practice recommendations.

Self-reported student behaviors related to physical activity, soda consumption, and screen time - all of which are associated with obesity - improved during the time that Balancing Food & Play was taught. The percentage of students who reported:

getting at least 60 minutes of physical activity increased from 56 percent to 77 percent;

drinking soda almost never or never increased from 32 percent to 40 percent; and

limiting screen time to 2 hours or less increased from 81 percent to 91 percent.

Key Items of Evaluation