V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

Childhood Obesity

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
<th>%1862 Extension</th>
<th>%1890 Extension</th>
<th>%1862 Research</th>
<th>%1890 Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>502</td>
<td>New and Improved Food Products</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>701</td>
<td>Nutrient Composition of Food</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>702</td>
<td>Requirements and Function of Nutrients and Other Food Components</td>
<td>0%</td>
<td>0%</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
<td>50%</td>
<td>45%</td>
<td>0%</td>
<td>55%</td>
</tr>
<tr>
<td>723</td>
<td>Hazards to Human Health and Safety</td>
<td>5%</td>
<td>30%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>724</td>
<td>Healthy Lifestyle</td>
<td>45%</td>
<td>25%</td>
<td>0%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Total 100% 100% 100% 100%

V(C). Planned Program (Inputs)

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

<table>
<thead>
<tr>
<th>Year: 2009</th>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1862</td>
<td>12.3</td>
<td>3.0</td>
</tr>
<tr>
<td>1890</td>
<td>0.3</td>
<td>2.0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Extension</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Smith-Lever 3b &amp; 3c</td>
<td>Hatch</td>
</tr>
<tr>
<td>0</td>
<td>1890 Extension</td>
<td>22770</td>
</tr>
<tr>
<td></td>
<td>62764</td>
<td>110692</td>
</tr>
<tr>
<td>1862 Matching</td>
<td>0</td>
<td>1862 Matching</td>
</tr>
<tr>
<td></td>
<td>38238</td>
<td>18500</td>
</tr>
<tr>
<td></td>
<td>1890 Matching</td>
<td>1890 Matching</td>
</tr>
<tr>
<td></td>
<td>1862 All Other</td>
<td>1890 All Other</td>
</tr>
<tr>
<td></td>
<td>513181</td>
<td>0</td>
</tr>
</tbody>
</table>

V(D). Planned Program (Activity)

1. Brief description of the Activity

Researchers are developing new crops for health conscious consumers seeking enriched fruits and vegetables. In South Carolina, about 60 percent of the population is obese or overweight and over 20 percent children are obese. Obesity related medical costs amount to about $1 billion in South Carolina. Research on environmental factors can influence phytochemicals, which offer health benefits and can be used to develop practical ways to improve productivity of greenhouse. Small sustainable farmers can especially benefit with value-added produce. With increasing knowledge of the importance of vegetables in the diet, vegetable consumption is increasing about 15 percent per year

The 1890 Researchers conducted research experiments by providing a health and wellness camp, conducted workshops and meetings, provided training and counseling to project participants.
Clemson University Cooperative Extension nutrition programs for youth focused on the prevention of childhood obesity, increasing physical activity and the development of food preparation skills that fit current nutritional needs and lifestyles.

Good nutrition is important not only because it promotes a feeling of well-being, but it also has an important role in disease prevention. The 1890 Extension Program provided nutrition education intervention and demonstrated food preparation of nutritious meals consistent with the groups cultural traditions and resources. Nutrition education programs were interactive and taught skills needed to adopt healthy eating practices, provided training that contributed toward eating patterns that were consistent with the Dietary Guidelines for Americans, provided workshops that helped develop the knowledge, attitudes, skills, behaviors, and confidence needed to be physically active for life and provided workshops that addressed safe food handling, storage and preparation.

2. Brief description of the target audience

This research has the potential to impact a significant portion of the citizens in the state, since 60% is estimated to be obese or overweight. There is also the real potential of reducing medical costs in the state. Parents and youth are the target audiences. For the 1890 Program, emphasis was, specifically, placed on food stamp recipients, low-income individuals, EFNEP - limited resource families, youth, and the general public.

V(E). Planned Program (Outputs)

1. Standard output measures

<table>
<thead>
<tr>
<th></th>
<th>2009 Direct Contacts Adults</th>
<th>2009 Indirect Contacts Adults</th>
<th>2009 Direct Contacts Youth</th>
<th>2009 Indirect Contacts Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>{NO DATA ENTERED}</td>
<td>{NO DATA ENTERED}</td>
<td>{NO DATA ENTERED}</td>
<td>{NO DATA ENTERED}</td>
</tr>
<tr>
<td>Actual</td>
<td>4930</td>
<td>85</td>
<td>48438</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Patent Applications Submitted

Year: 2009
Plan: 
Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

<table>
<thead>
<tr>
<th>2009</th>
<th>Extension</th>
<th>Research</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational workshops conducted.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>{No Data Entered}</td>
<td>3954</td>
</tr>
</tbody>
</table>

Report Date       06/30/2010
Page              2 of 6
### Output #2
**Output Measure**
- Number of Attendees Completing Educational Workshops

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>{No Data Entered}</td>
<td>3180</td>
</tr>
</tbody>
</table>

### Output #3
**Output Measure**
- Number of Persons Making Healthy Food Choices After Program Participation

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>{No Data Entered}</td>
<td>1810</td>
</tr>
</tbody>
</table>
V(G). State Defined Outcomes

<table>
<thead>
<tr>
<th>O. No.</th>
<th>OUTCOME NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of people gaining knowledge and skills to prevent childhood obesity.</td>
</tr>
</tbody>
</table>

Report Date 06/30/2010
Outcome #1

1. Outcome Measures

Number of people gaining knowledge and skills to prevent childhood obesity.

2. Associated Institution Types

- 1862 Extension
- 1890 Extension
- 1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>{No Data Entered}</td>
<td>25401</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**

South Carolina is the 5th fattest state in the nation. Overweight, obesity and the associated risk factors of unhealthy eating and inadequate amounts of physical activity increase the risk for developing other chronic conditions such as diseases, such as diabetes, cardiovascular disease, certain cancers, arthritis, sleep apnea, and depression. The total cost of obesity in the United States was $117 billion in 2000. Obesity-attributable medical costs for South Carolina alone reached over one billion dollars in 2003.

**What has been done**

Over 3700 educational programs were conducted reaching approximately 46,357 children. Children of all ages from elementary, middle, and high school were reached through Building Healthy Habits for a Lifetime, Color Me Healthy, Jump Into Food and Fitness and Eat Fit workshops. Parents and Childcare Providers were reached through trainings, PTO meetings, Toddler Tidbits workshop, Young Children Mini Conference, Health and Wellness Camp and Veggie Olympics sessions. Over 3,644 volunteers worked with children and youth.

**Results**

Over 25,400 (55%) youth reported a gain in knowledge. In the Anderson Cluster, one male toddler with diabetes, now, enjoys eating fresh produce and is managing the disease with guidance from his guardians, teachers and Extension agents. The use of fun, innovative and interactive activities inspired the toddler to develop a preference for eating vegetables and fruits. After the 1890 Health and Wellness Camp, an analysis of the data strongly supported the participants were strong in about 70% of the concepts taught.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>701</td>
<td>Nutrient Composition of Food</td>
</tr>
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<td>Requirements and Function of Nutrients and Other Food Components</td>
</tr>
<tr>
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</tr>
<tr>
<td>724</td>
<td>Healthy Lifestyle</td>
</tr>
</tbody>
</table>
V(H). Planned Program (External Factors)

**External factors which affected outcomes**
- Economy
- Public Policy changes
- Populations changes (immigration, new cultural groupings, etc.)

**Brief Explanation**

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned
   - After Only (post program)
   - Retrospective (post program)
   - Before-After (before and after program)
   - During (during program)

**Evaluation Results**

**Key Items of Evaluation**