V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Nutrition and Health

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>703</td>
<td>Nutrition Education and Behavior</td>
<td>70%</td>
<td>70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>724</td>
<td>Healthy Lifestyle</td>
<td>30%</td>
<td>30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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></th>
<th></th>
<th>Research</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1862</td>
<td>1890</td>
<td>1862</td>
<td>1890</td>
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</tr>
<tr>
<td>Plan</td>
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<td>0.0</td>
<td>3.5</td>
<td>0.0</td>
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<tr>
<td>Actual</td>
<td>10.2</td>
<td>0.0</td>
<td>1.5</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Extension</th>
<th></th>
<th></th>
<th>Research</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith-Lever 3b &amp; 3c</td>
<td></td>
<td>1890 Extension</td>
<td>Hatch</td>
<td>Evans-Allen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>137929</td>
<td></td>
<td>0</td>
<td>53805</td>
<td>0</td>
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<tr>
<td>1862 Matching</td>
<td></td>
<td>1890 Matching</td>
<td>1862 Matching</td>
<td>1890 Matching</td>
<td></td>
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<td>192896</td>
<td>0</td>
<td></td>
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</tr>
<tr>
<td>1862 All Other</td>
<td></td>
<td>1890 All Other</td>
<td>1862 All Other</td>
<td>1890 All Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
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<td>0</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

V(D). Planned Program (Activity)

1. Brief description of the Activity

EFNEP adult curriculum taught in a series of lessons; adult one-time lessons; youth curricula taught in a series of lessons and day camps; displays and demonstrations; state and community partnerships with agencies serving the low-income; training for educators; evaluation of program; ongoing updating of curricula and materials.

Other nutrition efforts will focus on educational programs; media outreach; health fairs; training; assessment/data collection; and research in human health and metabolic diseases and their interaction with diet.

Since skeletal muscle is the main site for utilization of glucose and fatty acids in the body and insulin resistance in skeletal muscle is the key step in the incidence of type 2 diabetes, we hypothesize that impaired fetal skeletal muscle growth due to nutrient deficiency plays an important role. Our goal is to understand how the development of fetal skeletal muscle affects the properties of skeletal muscle of adulthood, and to develop effective strategies to mitigate or avoid incidence of diabetes and obesity caused by impaired skeletal muscle development due to fetal nutrient deficiency.

2. Brief description of the target audience
The University of Wyoming is committed to reaching underrepresented groups and individuals and to implementing the objectives of equal opportunity regulations relative to the consideration and treatment of clientele for participation in all programs regardless of their race, national origin, gender, age, religion, or disability. Specific target audience groups for the CNP (EFNEP) program: low-income adults, youth in Title I schools.

Dining with Diabetes program targets the general public (youth and adults) with Type 2 Diabetes. All other nutrition efforts targeted audience includes: general public, both adults and youth and policy makers.

V(E). Planned Program (Outputs)

1. Standard output measures

<table>
<thead>
<tr>
<th>2009</th>
<th>Direct Contacts Adults</th>
<th>Indirect Contacts Adults</th>
<th>Direct Contacts Youth</th>
<th>Indirect Contacts Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>1000</td>
<td>4000</td>
<td>1500</td>
<td>3000</td>
</tr>
<tr>
<td>Actual</td>
<td>3890</td>
<td>6000</td>
<td>3319</td>
<td>3207</td>
</tr>
</tbody>
</table>

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

Patent Applications Submitted

Year: 2009
Plan: 1
Actual: 3

Patents listed
Curcumin-Containing Polymers and Water-Soluble Curcumin Derivatives as Prodrugs or Prodrug Carriers;
Differentiation of Leukotriene Based Asthmatics;
Individualized Treatment for Leukotriene Asthma Subtypes;

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>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Actual</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of Dining with Diabetes, food safety and programs which promote healthier food choices and lifestyles offered in Wyoming communities. Target is number of programs.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>35</td>
<td>53</td>
</tr>
</tbody>
</table>

Output #2

Output Measure

- Number of participants in educational programs offered in NFS initiative. Target is number of participants.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>800</td>
<td>1018</td>
</tr>
</tbody>
</table>
### Output #3

**Output Measure**
- Number of partnerships formed with environmental health specialists (food safety); public health of other agencies, and Diabetes coordinators. Target is number of partnerships.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

### Output #4

**Output Measure**
- Increased adoption of healthy food practices and participation in regular physical activities. Target is number of participants reporting outcome.

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>100</td>
<td>455</td>
</tr>
</tbody>
</table>

### Output #5

**Output Measure**
- Effectiveness of research programs will be based on integration into extension programs, patents, grant dollars, and publications. The ultimate research goal is to provide tools for detection of food contaminated products. (target is number of research projects in NRI)

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

### Output #6

**Output Measure**
- Improve ability to detect and analyze for the presence of food borne pathogens. Target is number of research projects.

Not reporting on this Output for this Annual Report.
## V(G). State Defined Outcomes

### V. State Defined Outcomes Table of Content

<table>
<thead>
<tr>
<th>O. No.</th>
<th>OUTCOME NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improved attitude related to diabetes self care, food, and physical activity. Targets are number of participants reporting outcome.</td>
</tr>
<tr>
<td>2</td>
<td>Increased knowledge of healthy food choices for optimal diabetes management, and health. Targets are number of participants reporting outcome.</td>
</tr>
<tr>
<td>3</td>
<td>Improved skill in selection of healthy foods. Targets are number of participants reporting outcome.</td>
</tr>
<tr>
<td>4</td>
<td>Improved eating behavior practices, food choices, and lifestyle habits. Targets are number of participants reporting outcome.</td>
</tr>
<tr>
<td>5</td>
<td>Individuals participating in Dining with Diabetes programs will have improved blood glucose control which will improve health and diabetes management resulting in decreased chronic disease risk factors. Targets are number of participants reporting outcome.</td>
</tr>
<tr>
<td>6</td>
<td>Nutrition programs will result in decreased medical costs. Targets are number of participants reporting outcome.</td>
</tr>
<tr>
<td>7</td>
<td>Using a variety of food resources to reduce food costs. Providing culturally acceptable meals that are balances for cost as well as for nutritional value. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>8</td>
<td>Improved personal hygiene such as hand washing. Avoidance of cross-contamination resulting in keeping foods safe. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>9</td>
<td>Increased availability of personal/family food resources. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>10</td>
<td>Individuals gain awareness, knowledge and skills related to: improved attitude about healthy eating; increased knowledge of healthy food choices; improved skill in selection of healthy foods; improved body image. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>11</td>
<td>Individuals incorporate skills and change behaviors related to: increased participation in physical activity; increased knowledge of healthy food choices; improved skill in selection of healthy foods; improved body image. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>12</td>
<td>Individuals and families experience: improved nutritional health; reduced medical costs; health improved through improved community opportunities; healthier weight; decreased risk factors for nutrition-health related problems. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>13</td>
<td>Increased awareness and knowledge of food safety practices. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>14</td>
<td>Behavior or practice changes that improve food safety. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>15</td>
<td>Reduced health care cost and economic loss to restaurants as a result of food-borne outbreaks. Target is number of participants reporting outcome.</td>
</tr>
<tr>
<td>16</td>
<td>Decreased incidence of food-borne illness outbreaks in food service establishments. Target is number of food service establishments reporting outcome.</td>
</tr>
<tr>
<td>17</td>
<td>The short term goal of research efforts is to increase grant funding and to patent detective process. Target is number of projects.</td>
</tr>
<tr>
<td>18</td>
<td>Research will result in easier, more rapid methods of detection of food borne pathogens such as E.coli and Listeria. Ultimately, delineate genes that promote survival in the environment and result in disease contamination of food. Target is number of projects with results that demonstrate outcome.</td>
</tr>
</tbody>
</table>
1. **Outcome Measures**

Improved attitude related to diabetes self care, food, and physical activity. Targets are number of participants reporting outcome.

2. **Associated Institution Types**

- 1862 Extension
- 1862 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>100</td>
<td>523</td>
</tr>
</tbody>
</table>

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

**Issue (Who cares and Why)**

Nearly 21 million Americans - about 7 percent of the population - have diabetes. The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System reports for Wyoming that the rate of diabetes in adults has more than doubled from 1997 (3 percent) to 2007 (7 percent). This percentage represents about 28,000 Wyoming adults. Estimated economic costs of diabetes in 2002 were $132 billion; on a per-capita basis, that translates to an economic burden in Wyoming of $22 million.

**What has been done**

In response, University of Wyoming Cooperative Extension Service (UW CES) nutrition and food safety educators, with support from the Wyoming Diabetes Prevention and Control Program, teamed with local diabetes educators to conduct Dining with Diabetes in Wyoming. This five-session program combines education on diabetes self-care with recipe demonstrations, food tasting, nutrition information, and low-impact physical activity for people of all fitness levels. Participants complete questionnaires at the beginning of the first class (pre), at the end of the fourth class (post), and at the beginning of the fifth class (follow-up - two to four months after the fourth class).

**Results**

Shorter term (by the end of the program)

Better understanding of . . . the plate method for portioning their food; Feeling more strongly . . . that they can eat their favorite foods; Longer term (at three-month follow-up)

Decreasing the proportion of participants . . .

who drink whole or 2% milk

who are never physically active

Feeling more strongly . . . that physical activity comes more easily to them.

Selected comments:

I have definitely made changes in serving sizes.

I have changed my cooking style, modifying recipes to be more healthy.

I realize I need to be more serious about what I'm eating - not just once in awhile but all the time.

I have really learned a lot about how to cook for my husband (and) how important exercise is. (I also) understand more about how he feels with higher and lower blood sugars.

4. **Associated Knowledge Areas**

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
<tr>
<td>724</td>
<td>Healthy Lifestyle</td>
</tr>
</tbody>
</table>
Outcome #2

1. Outcome Measures

Increased knowledge of healthy food choices for optimal diabetes management, and health. Targets are number of participants reporting outcome.

2. Associated Institution Types

● 1862 Extension

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>500</td>
<td>523</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**

Nearly 21 million Americans - about 7 percent of the population - have diabetes. The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System reports for Wyoming that the rate of diabetes in adults has more than doubled from 1997 (3 percent) to 2007 (7 percent). This percentage represents about 28,000 Wyoming adults. Estimated economic costs of diabetes in 2002 were $132 billion; on a per-capita basis, that translates to an economic burden in Wyoming of $22 million.

**What has been done**

In response, University of Wyoming Cooperative Extension Service (UW CES) nutrition and food safety educators, with support from the Wyoming Diabetes Prevention and Control Program, teamed with local diabetes educators to conduct Dining with Diabetes in Wyoming. This five-session program combines education on diabetes self-care with recipe demonstrations, food tasting, nutrition information, and low-impact physical activity for people of all fitness levels. Participants complete questionnaires at the beginning of the first class (pre), at the end of the fourth class (post), and at the beginning of the fifth class (follow-up - two to four months after the fourth class). Eight programs were completed in 2009, an additional 20 programs were held since inception in 2006. Over the four-year period, 447 individuals took the course. Additionally educators participated in health fairs and one time sessions to promote diabetes prevention.

**Results**

One hundred percent of participants reported increasing knowledge as a result of educational efforts. Over half of evaluation respondents indicated they had changed at least one dietary behavior. Shorter term impacts included participants reporting they feel strongly that:

* what people do can make a big difference in the control of their diabetes
* healthy food can taste good
* physical activity comes more easily to them

Longer term (at two- to four-month follow-up)

* Better understanding of the Plate Method for portioning their food
* Increasing the proportion of participants...who eat high-fiber cereal

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
</tbody>
</table>
Outcome #3

1. Outcome Measures

Improved skill in selection of healthy foods. Targets are number of participants reporting outcome.

2. Associated Institution Types

● 1862 Extension

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>200</td>
<td>537</td>
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</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Wyoming has more than 30,398 food stamp recipients living in 12,337 households. This represents an increase of 34.6% in recipients and 31% in household members from September 2008. Due to Wyoming's large geographic size and low population, food security is a challenge for those with limited resources making nutrition education, including food resource management, very important.

What has been done

The University of Wyoming's CES's Cent$ible Nutrition Program, which is the umbrella title for the Expanded Food and Nutrition Extension Program had the following outputs over the past year:

115 adults participated in a series of lessons, averaging 8.1 lessons per person (931 teaching contacts).
422 adults participated in one-time lessons with 80 percent reporting intended behavior change.

Results

46 percent reported thinking about healthy food choices more often when deciding what to feed their families.
57 percent reported using the 'Nutrition Facts' labels more often to make food choices.
36 percent reported they or their children more often eat something in the morning within two hours of waking.
47 percent reported serving more than one kind of fruit to their families each day more often.
42 percent reported serving more than one kind of vegetable to their families each day more often.
37 percent reported when eating bread, they eat whole-grain bread more often.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
</tbody>
</table>

Outcome #4

1. Outcome Measures

Improved eating behavior practices, food choices, and lifestyle habits. Targets are number of participants reporting outcome.

2. Associated Institution Types
3a. Outcome Type:
Change in Action 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>200</td>
<td>980</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
Wyoming residents are at risk as reflected by various health-related data: For example, over 20 percent of Wyoming adults report no leisure time physical activity, 47 percent of Wyoming high school students report not being enrolled in a physical education class, and 78 percent of both Wyoming adults and high school students do not eat recommended amounts of fruits and vegetables.

**What has been done**
UW CES educators conducted over 300 classes which emphasized a holistic approach including proper nutrition, increasing physical activity and healthy food choices. Strong Bones - Strong People, basic nutrition, and Steps to a New You were all programs focused on objectives.

**Results**
980 individuals participated in 56 classes of which 10 were multi-session with four to eight sessions in length. 400 participants reported improved eating behavior practices, food choices, and lifestyle habits through end of session evaluations.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
<tr>
<td>724</td>
<td>Healthy Lifestyle</td>
</tr>
</tbody>
</table>

**Outcome #5**

1. Outcome Measures

Individuals participating in Dining with Diabetes programs will have improved blood glucose control which will improve health and diabetes management resulting in decreased chronic disease risk factors. Targets are number of participants reporting outcome.

Not Reporting on this Outcome Measure

**Outcome #6**

1. Outcome Measures

Nutrition programs will result in decreased medical costs. Targets are number of participants reporting outcome.

Not Reporting on this Outcome Measure
Outcome #7

1. Outcome Measures

Using a variety of food resources to reduce food costs. Providing culturally acceptable meals that are balances for cost as well as for nutritional value. Target is number of participants reporting outcome.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantitative Target</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
<td>2009</td>
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<td>115</td>
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</table>

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)
Wyoming has more than 30,398 food stamp recipients living in 12,337 households. This represents an increase of 34.6% in recipients and 31% in household members from September 2008. Due to Wyoming’s large geographic size and low population, food security is a challenge for those with limited resources making nutrition education, including food resource management, very important.

What has been done
The University of Wyoming’s CES's Cent$ible Nutrition Program, which is the umbrella title for the Expanded Food and Nutrition Extension Program had the following outputs over the past year:
115 adults participated in a series of lessons, averaging 8.1 lessons per person (931 teaching contacts).
422 adults participated in one-time lessons with 80 percent reporting intended behavior change.

Results
84 percent showed improvement in one or more food-resource management practices.
46 percent reported planning meals ahead of time more often.
39 percent reported running out of food before the end of the month less often.
Families reported saving an average of $54.34 per month.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
</tbody>
</table>

Outcome #8

1. Outcome Measures

Improved personal hygiene such as hand washing. Avoidance of cross-contamination resulting in keeping foods safe. Target is number of participants reporting outcome.

Not Reporting on this Outcome Measure
Outcome #9

1. Outcome Measures

Increased availability of personal/family food resources. Target is number of participants reporting outcome.

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

Individuals gain awareness, knowledge and skills related to: improved attitude about healthy eating; increased knowledge of healthy food choices; improved skill in selection of healthy foods; improved body image. Target is number of participants reporting outcome.

2. Associated Institution Types

- 1862 Extension

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>100</td>
<td>630</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
The United States Department of Agriculture recently released the Dietary Guidelines for Americans 2005. Tommy G. Thompson, Secretary of Health and Human Services, identified the number one message of the new guidelines as getting the most nutrition out of calories consumed. Number two was finding a balance between food and physical activity. The key recommendations include an emphasis on increased consumption of fruits and vegetables, whole grains, and low-fat dairy and increased physical activity.

**What has been done**
Nutrition and food safety educators conducted 42 educational programs on basic nutrition, health, and food selection.

**Results**
End of session evaluations indicated 100 percent of participants gained awareness, knowledge, and skills as result of educational programs. Over 250 individuals indicated they planned to change one nutrition practice for their family. 90 percent reported they now understand nutrition fact labels.

4. Associated Knowledge Areas

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
</tbody>
</table>
**Outcome #11**

1. **Outcome Measures**

   Individuals incorporate skills and change behaviors related to: increased participation in physical activity; increased knowledge of healthy food choices; improved skill in selection of healthy foods; improved body image. Target is number of participants reporting outcome.

2. **Associated Institution Types**

   ● 1862 Extension

3a. **Outcome Type:**

   Change in Action 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>100</td>
<td>580</td>
</tr>
</tbody>
</table>

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

   **Issue (Who cares and Why)**
   Wyoming residents are at risk as reflected by various health-related data: For example, over 20 percent of Wyoming adults report no leisure time physical activity, 47 percent of Wyoming high school students report not being enrolled in a physical education class, and 78 percent of both Wyoming adults and high school students do not eat recommended amounts of fruits and vegetables. Additionally, research in Wyoming, Montana, and Idaho documented body dissatisfaction as a significant predictor of self-consciousness keeping respondents from participating in physical activity.

   **What has been done**
   77 classes (which included over 20 which were multi-session) were held on Steps to a New You, Basic Nutrition, Size Acceptance, Strong Bones -Strong People, Steps to Weight Management, and Healthy Eating Habits. In addition, educators published educational articles in newsletters, newspaper columns, and produced educational displays used at health fairs.

   **Results**
   Participants reported incorporating skills and changing behaviors related to: increased participation in physical activity; increased knowledge of healthy food choices; improved skill in selection of healthy foods; improved body image as a result of educational efforts. 100 percent of participants listed at least one behavior change they incorporated to improve their health.

4. **Associated Knowledge Areas**

<table>
<thead>
<tr>
<th>KA Code</th>
<th>Knowledge Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Nutrition Education and Behavior</td>
</tr>
<tr>
<td>724</td>
<td>Healthy Lifestyle</td>
</tr>
</tbody>
</table>

**Outcome #12**

1. **Outcome Measures**

   Individuals and families experience: improved nutritional health; reduced medical costs; health improved through improved community opportunities; healthier weight; decreased risk factors for nutrition-health related problems. Target is number of participants reporting outcome.

2. **Associated Institution Types**
3a. Outcome Type:
Change in Condition 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>25</td>
<td>136</td>
</tr>
</tbody>
</table>

3c. Qualitative Outcome or Impact Statement

**Issue (Who cares and Why)**
Wyoming residents are at risk as reflected by various health-related data: For example, over 20 percent of Wyoming adults report no leisure time physical activity, 47 percent of Wyoming high school students report not being enrolled in a physical education class, and 78 percent of both Wyoming adults and high school students do not eat recommended amounts of fruits and vegetables. Additionally, research in Wyoming, Montana, and Idaho documented body dissatisfaction as a significant predictor of self-consciousness keeping respondents from participating in physical activity.

**What has been done**
A variety of classes (many multi-session) on Steps to a New You, Healthy Eating, Weight Management and basic nutrition were conducted by nutrition educators. Articles were published in newsletters, newspaper columns and educational displays were developed.

**Results**
36 percent reported being physically active for at least 30 minutes per day, on four or more days per week, more often.
40 percent reported getting a 'super-sized' portion less often. (A 'super-sized' portion of food or beverage is one that is much bigger but costs only a little more money).
92 percent showed improvement in one or more nutrition practices.
25 individuals reported weight loss as a result of changes in eating, meal planning, and increasing physical activity.

4. Associated Knowledge Areas

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</table>

**Outcome #13**

1. Outcome Measures

Increased awareness and knowledge of food safety practices. Target is number of participants reporting outcome.

Not Reporting on this Outcome Measure

**Outcome #14**

1. Outcome Measures

Behavior or practice changes that improve food safety. Target is number of participants reporting outcome.

Not Reporting on this Outcome Measure
Outcome #15

1. Outcome Measures

Reduced health care cost and economic loss to restaurants as a result of food-borne outbreaks. Target is number of participants reporting outcome.

Not Reporting on this Outcome Measure

Outcome #16

1. Outcome Measures

Decreased incidence of food-borne illness outbreaks in food service establishments. Target is number of food service establishments reporting outcome.

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

The short term goal of research efforts is to increase grant funding and to patent detective process. Target is number of projects.

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

Research will result in easier, more rapid methods of detection of food borne pathogens such as E.coli and Listeria. Ultimately, deliniate genes that promote survival in the environment and result in disease contamination of food. Target is number of projects with results that demonstrate outcome.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

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

Brief Explanation

Note that outputs and outcomes on food safety topics are reported in the new Food Safety planned program.

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

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
● During (during program)
● Time series (multiple points before and after program)
● Case Study

**Evaluation Results**

(No Data Entered)

**Key Items of Evaluation**

(No Data Entered)