

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

#### Program # 1

##### 1. Name of the Planned Program

Childhood Obesity, Nutrition and Healthy Lifestyles

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
702	Requirements and Function of Nutrients and Other Food Components	5%			
703	Nutrition Education and Behavior	45%			
724	Healthy Lifestyle	45%			
802	Human Development and Family Well-Being	5%			
	<b>Total</b>	100%			

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

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

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	2.6	0.0	0.0	0.0
Actual Paid Professional	2.8	0.0	0.0	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
42979	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
99672	0	0	0

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

**1. Brief description of the Activity**

- Conduct train the trainer workshops
- Conduct workshops, seminars, meetings
- Conduct health fairs
- Facilitate meetings, discussion groups, focus groups
- Develop local and state partnerships
- Develop MontGuides (fact sheets), publications, website materials, video based materials
- Conduct web based, interactive training/education opportunities

**2. Brief description of the target audience**

- Low income adults and children under the age of 19
- Low income youth, ages 5-12
- Adults that are FSP eligible
- Youth from FSP eligible households
- Teachers in the Montana School System
- Middle to older aged women, especially those living in rural areas
- Parents and youth living in rural areas
- Working people

**3. How was eXtension used?**

Extension professionals and clientele use eXtension as a resource for specific information and educational materials.

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

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	10995	207497	6810	88809

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

**Patent Applications Submitted**

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
Actual	1	0	1

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

**Output Target**

**Output #1**

**Output Measure**

- EFNEP/FSNP: The NEP curriculum will be used to teach a series of 8-12 sessions to adults who are enrolled. The NEP youth curriculum will be used to teach 6-7 lessons to youth in workshops (after school, in school, summer camps, park programs). Develop and maintain local and state partnerships and collaborations.

Year	Actual
2013	8856

**Output #2**

**Output Measure**

- Strong Women: Certify 10 county agents so they are qualified to conduct strength training classes. Conduct two 14 week sessions in each county with qualified leaders to deliver the program.

Year	Actual
2013	2204

**Output #3**

**Output Measure**

- Healthy Lifestyles: To reach adult and youth audiences in rural communities with health fairs and school/community based programs that will provide medical screenings and classes. To track people who follow up with a physician or professional as a result of information gained at the health fair or similar activity. To assess numbers of people who participate in the worklife wellness program.

Year	Actual
2013	6445

**Output #4**

**Output Measure**

- 4-Health: Design and introduce curriculum targeted at childhood obesity and healthy lifestyles for youth ages 8-12. Provide training for parents on relevant information, effective parenting skills and strategies and a strong social support network that encourages them to solve everyday problems relating to the health and well-being of their pre-teen children.

Year	Actual
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2013

127

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

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

O. No.	OUTCOME NAME
1	EFNEP/SNAP Ed: Number of adults gaining awareness and knowledge regarding the importance of: Healthy eating (more fruits and vegetables, whole grains) Increasing physical activity Food Safety practices Food resource management practices Food planning and preparation Number of youth increasing knowledge regarding the importance of: Eating a variety of foods Healthy eating Increased physical activity Food safety principles (hand washing) Number of adults: Improving the family diets by choosing/preparing healthier choices (more fruits/vegetable/whole grains). Improving food safety practices (storing and thawing foods properly) Improving food resource management practices (meal planning, shopping with list) Improving nutrition practices (reading food labels) Participants will: Decrease their risk of developing diet-related chronic disease, obesity, osteoporosis, cardiovascular disease and diabetes. Increase their confidence in the ability to manage food resources as well as other resources.
2	HEALTHY LIFESTYLES: As a result of having medical screenings at a health fair, participants will follow up with their physician or health professional. People will make better nutrition and food choices and engage in regular physical activity. Working people will participate in the worklife wellness programs as a way to manage stress and address risky behaviors.
3	STRONG WOMEN: Participants will improve physical measurements (maintaining or lowering BMI) and reducing resting heart rate. Amount of increase in weight resistance over the course of the program as measured by specific exercises (bicep curl) and amount of weight lifted (2# increasing to 5#).
4	4-HEALTH: Rural parents of 4-H 8-12 year olds will gain knowledge about healthy diets, physical activity and improved body image while enhancing their understanding, skills and potential roles as positive change agents for their pre-teen children. Rural 4-H families will have greater levels of knowledge related to nutrition, body image and physical activity. Parents will assist their pre-teens in making healthier choices and practicing healthier behaviors after participating in 4-Health programs. Rural families will have decreased rates of childhood obesity.

## **Outcome #1**

### **1. Outcome Measures**

EFNEP/SNAP Ed: Number of adults gaining awareness and knowledge regarding the importance of: Healthy eating (more fruits and vegetables, whole grains) Increasing physical activity Food Safety practices Food resource management practices Food planning and preparation Number of youth increasing knowledge regarding the importance of: Eating a variety of foods Healthy eating Increased physical activity Food safety principles (hand washing) Number of adults: Improving the family diets by choosing/preparing healthier choices (more fruits/vegetable/whole grains). Improving food safety practices (storing and thawing foods properly) Improving food resource management practices (meal planning, shopping with list) Improving nutrition practices (reading food labels) Participants will: Decrease their risk of developing diet-related chronic disease, obesity, osteoporosis, cardiovascular disease and diabetes. Increase their confidence in the ability to manage food resources as well as other resources.

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

- 1862 Extension

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

Change in Condition Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2013	8856

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

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

Food insecurity and hunger is prevalent in Montana. One in four individuals qualify for SNAP benefits. Seventy-six percent of households with children under 18 live in poverty. With great distances between rural communities, more than half the counties have food deserts, meaning residents must travel more than ten miles to the nearest supermarket. Accessing affordable, healthy foods is a challenge and can result in obesity and health issues. Nutrition Education helps Montanans learn how to stretch their food dollars while meeting USDA dietary guidelines.

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

SNAP-Ed: series of six nutrition education classes for adults and for 1st, 3rd and 5th grade children at Title One schools in 14 counties, including six reservations. EFNEP: series of seven nutrition education classes to adults and to children in Title One schools in Billings, Missoula and Great Falls. Grocery store tours: fifteen grocery tours were provided as an activity and recruitment tool in SNAP-Ed/EFNEP communities. Summer Feeding Program: Nutrition activities were provided at 56 sites statewide with more than 300 children attending.

#### **Results**

EFNEP: After completing the classes, 37 percent of participants increased their skills in comparison shopping and using a grocery list, and 32 percent indicated they could make their food budget last through the month. One participant shared, "I thought I could not afford to cook healthy foods for me and my grandchild. With new recipes and learning shopping tips, we now have healthier meals." SNAP-Ed adults, after the classes, increased their consumption of fruits and vegetables (35%), planned meals and comparison shopped (44%) and increased their physical activity level (34%). Youth decreased intake of sugary drinks (31%) and improved physical activity (38%).

#### 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
802	Human Development and Family Well-Being

### Outcome #2

#### 1. Outcome Measures

HEALTHY LIFESTYLES: As a result of having medical screenings at a health fair, participants will follow up with their physician or health professional. People will make better nutrition and food choices and engage in regular physical activity. Working people will participate in the worklife wellness programs as a way to manage stress and address risky behaviors.

#### 2. Associated Institution Types

- 1862 Extension

#### 3a. Outcome Type:

Change in Action Outcome Measure

#### 3b. Quantitative Outcome

Year	Actual
2013	6445

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

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

Chronic diseases are Montana's leading cause of death, illness, and disability and account for approximately 70 percent of health care costs. In Montana, heart disease is the leading cause of death, and along with other diseases including diabetes, stroke, osteoporosis, and hypertension, significantly impact quality of life. Research shows that healthy food choices, along with physical activity and early detection of symptoms, can prevent or delay the onset of these diseases.

Educational programs are needed to help rural people with limited access to health services and formal exercise programs, and often live in food deserts, learn how to reduce their health risks

and live healthy lifestyles.

### **What has been done**

Working with the Montana Department of Health and Human Services as part of the Cardiovascular Health Program, 32 Extension offices implemented nutrition standards in their office and proposed standards at one worksite in their county. They had a blood pressure cuff and instructions for use in their office and advised clients with more than two high readings to see a physician. Six counties conducted Health Promotion programs, two counties conducted disease management and prevention programs, two conducted unique physical activity programs and five ran healthy living programs for specific employee groups. Two counties worked with organizations to increase access to healthy food and nutrition at meetings and concessions. Many healthy living projects were completed statewide.

### **Results**

In Big Horn County, the Indian Health Service (IHS) worked with Extension to create and approve a new vending policy for staff to provide a good example for clients. In Choteau, healthy changes to concessions resulted in increased healthy snack sales and an increase in revenue. In the Arthritis Exercise Program utilized by two counties, 100 percent of participants reported implementing new healthy lifestyle changes, developing regular exercise habits, increasing knowledge about arthritis, improving balance and improved pain management. Two counties partnered with other community resources to offer Health Fairs with low-cost or free health screenings. Stillwater County Health Fair participants reported saving an average of more than \$500/each on healthcare costs. Health professionals in Fort Benton, Geraldine and Big Sandy reported a savings of more than \$250,000 by 471 health fair participants and indicated a number received important follow-up treatment for life threatening diseases.

## **4. Associated Knowledge Areas**

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

## **Outcome #3**

### **1. Outcome Measures**

**STRONG WOMEN:** Participants will improve physical measurements (maintaining or lowering BMI) and reducing resting heart rate. Amount of increase in weight resistance over the course of the program as measured by specific exercises (bicep curl) and amount of weight lifted (2# increasing to 5#).

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

- 1862 Extension

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

Change in Action Outcome Measure

### 3b. Quantitative Outcome

Year	Actual
2013	2204

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Women begin to show decline in muscle mass beginning at age 30. If this condition is not reversed, women will have reduced strength and other severe consequences as they age. The target audience for this program is middle and older age women in under-served areas and populations in Montana's rural settings, generally under-served by health and social services. Strong Women TM programs envision a diverse community of women who are fit, strong, and healthy; in turn these empowered women become agents of change for their families, communities and beyond.

#### What has been done

Strong Women TM programs are designed for women to increase muscle strength by strength training for 2-3 sessions per week. Counties offer the program to male and female adults throughout the year with new enrollee classes held every 12 weeks to introduce new people to the group. These trainings are directed by an Extension specialist who has been certified to teach Strong Women programs. In addition to improving muscle mass, strength training is shown to improve the psychological health of seniors by reducing depression and improving sleep and the classes are a valuable source of socialization as well.

#### Results

In 2013, 2,204 adults participated in the Strong Women TM program. Survey respondents reported an overall increase in stamina, strength, flexibility, balance and general health. All who reported, indicated they had greater ease in climbing stairs and lifting objects. One hundred percent who reported indicated the socialization of the class was a benefit. Twenty-five percent reported they reduced their overall salt intake and that they were sleeping better. One hundred percent reported an increase in knowledge about safe and effective physical activity. Long-term, broad-reaching impacts include an increase in the number of opportunities to access physical activity focused on strength training at home and in communities.

### 4. Associated Knowledge Areas

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

## **Outcome #4**

### **1. Outcome Measures**

4-HEALTH: Rural parents of 4-H 8-12 year olds will gain knowledge about healthy diets, physical activity and improved body image while enhancing their understanding, skills and potential roles as positive change agents for their pre-teen children. Rural 4-H families will have greater levels of knowledge related to nutrition, body image and physical activity. Parents will assist their pre-teens in making healthier choices and practicing healthier behaviors after participating in 4-Health programs. Rural families will have decreased rates of childhood obesity.

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

- 1862 Extension

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

Change in Action Outcome Measure

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

<b>Year</b>	<b>Actual</b>
2013	127

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

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

The increasing prevalence of childhood weight problems and obesity is cause for alarm across the globe. Because they have poorer nutrition, more sedentary lifestyles and poorer body image, children today are worse off both physically and emotionally than children were just 25 years ago. The main goal of this program is to deliver a healthy lifestyle promotion and obesity prevention curriculum that will change the behavior of parents and preteen children, thereby enhancing the health of families and reducing the likelihood of children becoming overweight.

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

The 4-Health Program has been disseminated across the state of Montana, with nine counties and two Native American reservations receiving facilitator training and program materials in 2013 through one in person training at the annual Montana Family and Consumer Science Agent Update, and one virtual training through Adobe Connect. Although initially funded by an Agriculture and Food Research Initiative NIFA grant, the 4-Health program has become a statewide plan of work through the Extension system, allowing agents to continue to offer it in their communities in future years, with free downloading of curricular materials available online at [www.4health.org](http://www.4health.org).

#### **Results**

Evaluation of the 4-Health curriculum in 2012 indicated that parents' behavior changed as a result of the program (77 percent made positive parenting-related changes, 73 percent indicated their family was working towards more positive body image, 94 percent made changes related to food and nutrition and 73 percent made changes related to a more physically active lifestyle). Six

months after completion of the program, 92.8 percent indicated they had continued with the positive changes. The success of the program enabled it to be included in 2013 in the Montana Office of Public Instruction's statewide nutrition education directory, and the Montana Rural Health Initiatives program listing. 4-Health has also recently been accepted through National 4-H as a Program of Distinction. State and national presentations on the use of program materials and related program research have been done regionally and across the United States.

#### 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
802	Human Development and Family Well-Being

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

##### External factors which affected outcomes

- Economy
- Appropriations changes
- Government Regulations
- Competing Programmatic Challenges

##### Brief Explanation

MSU Extension utilizes train-the-trainer methods to reach more people with limited resources and data from classes taught by Extension volunteers is not always easy to access. MSU Extension is in the process of enhancing the skills of agents and specialists by creating effective evaluation tools and methods for gathering participant demographics.

Funding, particularly related to EFNEP/SNAP-Ed caused concern during 2013, though the program continued and even expanded to include more summer programs.

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

##### Evaluation Results

Obesity, Nutrition and Healthy Lifestyle programs were successful in 2013. Evaluation tools most utilized were pre- and post-test surveys. MSU Extension is overhauling planning and evaluation processes and will institute a new training program in spring of 2014 to improve needs assessments, improve strategic planning, develop stronger evaluation tools, and maximize data collection. This year evaluations were often specific to individual projects and not easily summarized through qualitative data, but showed significant impact, nevertheless. Many of these results will lead to the adoption of similar efforts statewide.

- Operation Concession Intervention: Two agents and the 4-Health Coordinator teamed up to offer a webinar for 12 additional agents. 60% felt they had influence over concessions offered in their area and learned processes and ideas for improving their menus.
- Arthritis Exercise Program: Results from pre- to post-surveys included decreased depression and increased confidence. 100% reported implementing healthy lifestyle

changes, developing an exercise program, increasing knowledge, improving balance and improving pain management.

- Cascade County Wellness Program: County Commissioners worked with Extension to set up a planning/leadership committee to create a wellness program that included nutrition, financial wellness, growing and planting food and exercise. An average of 150 employees attended the monthly meetings and as a result received a discount on monthly insurance premiums.

- Richland County: Evaluation of nutrition presentations showed increased knowledge and intention to eat healthier. Parenting classes resulted in 100 percent of participants indicating they changed their mealtime behavior which led to the local Family Resource Center Director including nutrition education in her parenting program. Prenatal Health and Nutrition classes were highly rated and led to the creation of a new Health Education Coalition that prioritized prenatal health and a collaboration between the Richland County Health Department and Extension.

- Big Horn County: 18 county employees participated in a wellness program offering lunch and learn topics including nutrition, stress relief and simple exercises. Among them they lost over 200 pounds in three months. The County now prints wellness tips on pay stubs.

- Stillwater County Health and Wellness Fair: Twenty percent of participants who completed the exit survey indicated they saved \$500+ in potential doctor's visits, 25 developed an exercise routine that they continue to use on a daily or weekly basis and 60 percent indicated they made healthy lifestyle changes.

- Bi-annual county health fairs in Fort Benton, Big Sandy and Geraldine: 471 participants attended, saving \$250,000 on blood chemistry and other screening costs. In addition, 120 men and women received free bone density scans at a total savings of more than \$4,500. Local healthcare providers shared that the screenings helped them identify numerous life-threatening, yet treatable diseases and individuals reported that their health problems were discovered more quickly than if they waited to go to a doctor.

## Key Items of Evaluation

EFNEP/SNAP-Ed: After completing the classes, 37 percent of participants increased their skills in comparison shopping and using a grocery list, and 32 percent indicated they could make their food budget last through the month. SNAP-Ed adults increased their consumption of fruits and vegetables (35%), planned meals and comparison shopped (44%) and increased their physical activity level (34%). Youth decreased intake of sugary drinks (31%) and improved physical activity (38%).

Healthy Living: Agents and specialists invested more than 12,000 hours in work directly impacting communities. From large health fairs with partners (data shows an average savings of \$500/person on various tests and scans), to small workplace grab and go lunches (where 100 percent of participants learn improved skills related to healthy living) to various newsletters and public service announcements, MSU Extension reached people across Montana, from the very young to the very old, with important health related services on a daily basis.

Strong Women TM: Participants reported an overall increase in stamina, strength, flexibility, balance and general health. All participants reported greater ease in climbing stairs and lifting objects. Socialization of the class was a benefit reported by all participants. A quarter reported that they reduced their overall salt intake and that they were sleeping better. All participants also reported an increase in knowledge about safe and effective physical activity. Long-term, broad-reaching impacts include an increase in the

number of opportunities to access physical activity focused on strength training at home and in communities.

4-Health: Evaluation of the 4-Health curriculum in 2012 indicated that parents' behavior changed as a result of the program (77 percent made positive parenting-related changes, 73 percent indicated their family was working towards more positive body image, 94 percent made changes related to food and nutrition and 73 percent made changes related to a more physically active lifestyle). Six months after completion of the program, 92.8 percent indicated they had continued with the positive changes. The success of the program enabled it to be included in 2013 in the Montana Office of Public Instruction's statewide nutrition education directory, and the Montana Rural Health Initiatives program listing. 4-Health has also recently been accepted through National 4-H as a Program of Distinction.