

# Health and Human Nutrition

Health and Human Nutrition

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

### 1. Name of the Planned Program

Health and Human Nutrition

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
206	Basic Plant Biology	0%		5%	
301	Reproductive Performance of Animals	0%		10%	
311	Animal Diseases	0%		15%	
313	Internal Parasites in Animals	0%		5%	
701	Nutrient Composition of Food	20%		15%	
703	Nutrition Education and Behavior	50%		15%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	0%		5%	
721	Insects and Other Pests Affecting Humans	0%		5%	
722	Zoonotic Diseases and Parasites Affecting Humans	0%		10%	
723	Hazards to Human Health and Safety	0%		10%	
724	Healthy Lifestyle	30%		0%	
803	Sociological and Technological Change Affecting Individuals, Families and Communities	0%		5%	
<b>Total</b>		100%		100%	

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

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	3.8	0.0	7.4	0.0
<b>Actual</b>	6.4	0.0	12.6	0.0

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

Extension		Research	
<b>Smith-Lever 3b &amp; 3c</b> 121661	<b>1890 Extension</b> 0	<b>Hatch</b> 523502	<b>Evans-Allen</b> 0
<b>1862 Matching</b> 121661	<b>1890 Matching</b> 0	<b>1862 Matching</b> 523502	<b>1890 Matching</b> 0
<b>1862 All Other</b> 394036	<b>1890 All Other</b> 0	<b>1862 All Other</b> 6503660	<b>1890 All Other</b> 0

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

**1. Brief description of the Activity**

ENP: Conduct 60 classes on MyPyramid to 600 adult participants.

EFNEP: More than 500 classes were held in District 4 covering a range of nutrition, food safety, and family economics topics.

Diabetes: Conducted 52 classes reaching more than 300 adults through 1510 personal teaching/learning contacts.

Overweight/Obesity Intervention: Conducted 32 classes ( Steps To A New You and weight management classes)to 229 adults.

Meal Time In Less Time: Conducted 37 classes reaching 328 adults.

Got Calcium?: Was presented directly to 19 youth (indirect contacts were not measured.)177 public school teachers were trained to use the Got Calcium? curriculum, and delivered the curriculum to hundreds of indirect learners.

MyPyramid/Dietary Guidelines: Conducted20 classes for 310 adults; Conducted 91 classes reaching 2180 youth.

Miscellaneous Health and Nutrition: Conduct 15 classes to 190 adults.

Factors Influencing Food Intake of Young Children: Observe food habits ofyoung children.

A variety of research projects that also involved undergraduate and graduate student training and which generated refereed research publications were conducted by UI faculty.The major areas of emphasis include basic physiology, microbial pathogenesis, microbial phsiology and molecular genetics, pathogen detection through biosensors, vaccine development, and analysis of school nutrition programs.

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

The Extension target audiences include children, low income families, school teachers, people interested in losing weight, seniors, and individuals concerned with diabetes and other nutrition-related health problems.Target audiences for research programs included governmental agencies such as the NIH, biotechnology and pharmaceutical companies, basic and applied research scientists at other universities and ARS.

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

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

	<b>Direct Contacts Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
<b>Plan</b>	3325	3000	6050	6000
2007	18890	0	17537	0

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

**Patent Applications Submitted**

**Year Target**

**Plan: 0**

**2007: 0**

**Patents listed**

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

**Number of Peer Reviewed Publications**

	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>			
2007	1	22	23

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

**Output Target**

**Output #1**

**Output Measure**

Conduct classes on nutrition and health.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	988	782

**Output #2**

**Output Measure**

Publish a nutrition curriculum.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	1	0

**Output #3**

**Output Measure**

Submit refereed journal articles.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	2	23

**Output #4**

**Output Measure**

Submit other publications.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2007	2	4

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

O No.	Outcome Name
1	O: Increase awareness of nutrition and health classes.I: Number of participants in nutrition and health classes.
2	O: Change in level of physical activity of individuals in the Diabetes Pedometer Program.I: Number of daily steps individuals enrolled in the Diabetes Pedometer Program walk.
3	O: Adult ENP participants will plan to change a behavior after completing MyPyramid class.I: Number of adult ENP participants who plan to eat a variety of foods from all five food groups every day.
4	O: Approximately 87% of Adult EFNEP participants will improve their diets after completing 6 core lessons.I: Use pre/post 24 hour recalls to determine the number of adults that improve their diets by at least one food group.
5	O: Steps To A New You participants will change their attitude toward physical activity.I: The number of Steps To A New You participants that complete pre, post, and follow-up surveys with questions on attitudes toward physical activity.
6	O: Kalispel children will improve their eating habits.I: Number of children changing their calorie, protein, fat, and vitamin intake.
7	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
------	---------------------	--------

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

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
---------	----------------

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

**External factors which affected outcomes**

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)

Other (Paired control)

## Evaluation Results

Of the 1449 adult ENP participants who completed a general nutrition behavior survey, 92% or 1333 planned on implementing a change in their eating habits or a change in a nutrition behavior. Approximately 46% planned to consume more fruits and vegetables; 23% planned to consume more whole grains; 13% planned to consume more low-fat dairy; 9% wrote in other behaviors they planned to implement; 8% did not plan on making any changes and 1% planned on making more than one nutrition behavior change.

There were 1359 adult ENP participants who completed a food group survey that asked specific questions on how they would change their diet. Approximately 50% reported they would make half of the grains they ate whole grains; 44% planned on eating vegetables as a snack; 43% said they would include 3 cups of calcium-rich foods daily; 42% said they would choose lean cuts of meat, and 37% said they would try and consume at least 2 cups of fruit per day,

## Key Items of Evaluation

### Meal Time in Less Time curriculum

Fewer meals are being prepared and eaten in-home. One study found a higher prevalence of obesity in those who ate the most meals away from home. Additional, studies have shown that teens that eat five or more meals a week with their families were more stable emotionally and socially, received higher grades, and attained a higher level of education. Teens that ate regular meals with their families were also less likely to use alcohol and drugs, be sexually active, or commit suicide.

The Health and Nutrition Topic Team received a grant to develop a curriculum on meal planning and preparation. They developed Meal Time in Less Time, a three-lesson curriculum for adult and young-adult audiences. It teaches individuals and families how to plan quick and healthy meals, shop to save time and money, and prepare healthy meals in less time.

A retrospective post-/pre-survey was administered to 101 participants at the end of each of the three lessons. The surveys asked participants to indicate their attitudes, knowledge and behaviors before taking the class and if they were planning to change as a result of taking the class. Survey results indicate an increase in the following behaviors ( $p < 0.05$ ):

### Behavior changes:

- Have accessible resources for menu planning
- Evaluate menus for nutrition
- Evaluate menus of ease of preparation
- Practice thrifty shopping strategies to save time and money
- Use nutrition fact labels to evaluate nutrition contents of foods
- Add whole grains, fruits, vegetables and dairy products to meals

### Got Calcium? Curriculum

UI Extension educators trained teachers enrolled in the Agriculture in the Classroom (AITC) workshops in 2007 on the Got Calcium? Curriculum, developed by UI Extension educators.

Funding was obtained to provide each teacher with a copy of the curriculum plus supplementary materials. The training was designed so that teachers of all grade levels could incorporate this information into their classroom. The curriculum emphasizes the importance of calcium in the diet; factors involved in building strong bones, food sources of calcium, and how to increase the calcium content of their diet. Additional materials that helped illustrate these main concepts were provided.

There were 177 teachers that attended the workshop. Teachers evaluated the main concepts covered in each of the lessons and the activities using a 5 point scale, (5 was the highest rating). Teachers gave the Got Calcium? curriculum high ratings in covering the main calcium concepts (4.7-4.9/5.0) and the hands-on activities (4.5-4.9/5.0). It is estimated that if each of the 177 teachers used just one lesson from the Got Calcium? curriculum and there is an average of 30 students/class, then 5,310 students will learn the importance of calcium in the diet. Students who increase the calcium content of their diet will develop strong bones and be less likely to experience a bone fracture. If they continue this practice, then they will decrease their likelihood of developing osteoporosis.