

Food, Nutrition & Health

Food, Nutrition & Health

V(A). Planned Program (Summary)

1. Name of the Planned Program

Food, Nutrition & Health

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
502	New and Improved Food Products	5%		5%	
503	Quality Maintenance in Storing and Marketing Food Products	5%		5%	
504	Home and Commercial Food Service	5%		5%	
701	Nutrient Composition of Food	5%		5%	
703	Nutrition Education and Behavior	50%		50%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	5%		5%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	5%		5%	
723	Hazards to Human Health and Safety	5%		5%	
724	Healthy Lifestyle	5%		5%	
806	Youth Development	10%		10%	
Total		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
Plan	73.0	0.0	12.0	0.0
Actual	86.8	0.0	22.9	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 888709	1890 Extension	Hatch 902721	Evans-Allen
	0		0
1862 Matching 888709	1890 Matching	1862 Matching	1890 Matching
	0	910123	0
1862 All Other 5811141	1890 All Other	1862 All Other	1890 All Other
	0	8639424	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Commercial Food Safety & Processing:

Improved food processing efficiency through an improved understanding of food chemistry
Determined the impact of food processing systems on product quality and food safety attributes
Developed new food products that utilize Arkansas raw products
Increased the research base on improved food processing systems to minimize food pathogens
Improve detection systems for Listeria, Salmonella and other major food pathogens

Developed new food products that have improved nutritional content

Conducted monthly HACCP Round Table meeting.

Conducted food safety workshops.

Conducted Better Process Control School

Conducted Labeling workshop.

Conducted the ServSafe workshop.

Provided online distance education in food safety and manufacturing

Conducted new product development workshop

Provided assistance to small food companies and entrepreneurs in the form of services, nutritional labeling, and consulting.

Conducted culinary workshop

Conducted research

Health: Division of Agriculture faculty developed, evaluated, and disseminated education programs and curricula that incorporated new research and emphasized healthy lifestyles. Programs Included:

Walk Across Arkansas (Adults and Youth)

Strong Women

Journey to Wellness

ServSafe

Aging in Place

Nutrition:

Extension faculty reached target audiences through the following nutrition education programs:

Food Stamp Nutrition Education

Expanded Food and Nutrition Education Program

Eating and Moving for Life

Reshape Yourself Healthy Weight Program

Right Bite Cooking School

Delta HOPE Initiative

Strong Women Healthy Hearts (Pilot Research Project)

A MOA was developed with the University of Arkansas Pine Bluff-Extension to assist with the development and implementation of the 1890 Expanded Foods and Nutrition Education Program. The program was implemented in Monroe and Phillips County under the direction of the county UAEX staff. The state UAEX FCS specialist responsible for the 1862 EFNEP initiative provided the guidance, support and program management for the 1890 initiative. Two program assistants were hired to work with youth and adults within the two counties.

2. Brief description of the target audience

- Food Companies
- Entrepreneurs & Restaurants
- Food Service Employees and/or Food Handlers
- Limited Resource Adults & Youth
- Minority Adults & Youth
- Overweight Adults & Youth
- Seniors
- Employers & Employees
- Child Care Providers
- Homeowners
- School Teachers, Faculty and staff
- Other researchers
- Students
- Extension Specialists
- Teaching Faculty
- Research funding personnel and agencies
- General Public

V(E). Planned Program (Outputs)

1. Standard output measures

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

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	96150	104063	202500	8000
2007	141572	230064	295996	3027

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

Patent Applications Submitted

Year	Target
Plan:	2
2007:	2

Patents listed

- 1) Apparatus and Method for Predicting Meat Tenderness - Jean F Meullenet. U.S. Provisional Patent Application # 60/846,214
- 2) Organic Acids incorporated edible Antimicrobial films. - Navam S Hettiarachchy and Eswaranandam Satchithanandam. Patent # U.S> 7,160,580, B2.

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	82	82

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

Number of grants written and funded in support of Food, Nutrition & Health programming & research

Year	Target	Actual
2007	6	79

Output #2**Output Measure**

Number of Food, Nutrition & Health educational sessions

Year	Target	Actual
2007	7000	21324

Output #3**Output Measure**

Number of Food, Nutrition & Health educational exhibits/displays

Year	Target	Actual
2007	550	1209

Output #4**Output Measure**

Number of news articles written in support of Food, Nutrition & Health programs

Year	Target	Actual
2007	615	447

Output #5**Output Measure**

Number of field demonstrations conducted to document the effectiveness of scientifically based production information

Year	Target	Actual
2007	5	105

Output #6**Output Measure**

Number of consumers participating in educational short courses or meetings related to sanitation and safety in food handling

Year	Target	Actual
2007	620	2348

Output #7**Output Measure**

Number of participants in educational programs leading to certification for food handlers (ServSafe & Better Process Control School)

Year	Target	Actual
2007	535	1297

Output #8**Output Measure**

Number of participants in health related educational classes, workshops, seminars and field demonstrations

Year	Target	Actual
2007	10514	36351

Output #9**Output Measure**

Number of participants in monthly HACCP roundtable

Year	Target	Actual
2007	30	30

Output #10**Output Measure**

Number of ServSafe classes offered

Year	Target	Actual
2007	20	53

Food, Nutrition & Health

Output #11

Output Measure

Number of hits on Food, Nutrition & Health websites

Year	Target	Actual
2007	300	26101

Output #12

Output Measure

Number of non-duplicated Food, Nutrition & Health 4-H Youth programs delivered

Year	Target	Actual
2007	200	271

Output #13

Output Measure

Number of non-duplicated participants in Food, Nutrition & Health 4-H Youth programs

Year	Target	Actual
2007	59000	116518

Output #14

Output Measure

Number of Food, Nutrition & Health in-service trainings conducted

Year	Target	Actual
2007	10	139

Output #15

Output Measure

Number of Arkansas Commodity Board Grants

Year	Target	Actual
2007	4	14

Output #16

Output Measure

Number of federal grants and contracts

Year	Target	Actual
2007	6	16

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of 4-H Youth awarded post secondary scholarships related to foods, nutrition, and health
2	Percent of participants who report an improved quality of life as a result of using a targeted personal development behavior
3	Number of research projects conducted related to Food, Nutrition & Health
4	Number of participants who indicated that they increased their knowledge related to Food, Nutrition & Health following an educational class, seminar, or workshop
5	Number of participants receiving certification for Better Process Control School
6	Percent of participants who increased knowledge of chronic disease prevention
7	Number of participants who indicate that they have gained new knowledge on a targeted personal development behavior
8	Number of 4-H Journals completed in Food, Nutrition & Health
9	Number of 4-H Youth projects completed in Food, Nutrition & Health
10	Number of 4-H Youth participants who learned self-responsibility life skill
11	Number of 4-H Youth participants who learned healthy lifestyles life skill
12	Percent increase in knowledge of healthy food choices among nutrition program participants
13	Percent of county and state Extension FCS/Nutrition educators and other public and private representatives involved in discussions regarding public and organizational policies, regulations and industry practices that are barriers to dietary quality and physical activity
14	Number of Refereed Journal Publications
15	Number of food service managers who report improved food handling practices within a commercial establishment
16	Number of growers, producers, distributors, or retailers implementing one or more practices to minimize food safety hazards
17	Percent of individuals who increased walking activities from less than 3 times per week to 3 or more times per week as a result of completing an Extension program
18	Percent of individuals that exchanged at least two unhealthy lifestyles for healthy ones as a result of completing an Extension program
19	Percent of individuals who increased strength training activities from less than 3 times per week to 3 or more times per week as a result of completing Extension program
20	Percent of individuals who increased aerobic exercise activities from less than 3 times per week to 3 or more times per week as a result of completing an Extension program
21	Percent of individuals who reported they now get 30 minutes of moderate physical activity on most days as a result of completing an Extension program
22	Number of food processing and safety laboratory services provided
23	Number of Nutrition labels developed
24	Percent of participants adopting a targeted personal development behavior
25	Number of journal articles accepted
26	Percent increase in adoption of healthy food practices among nutrition program participants
27	Percent increase in use of a variety of food resources to reduce costs among nutrition program participants
28	Number of county and state Extension FCS/Nutrition educators involved with other public and private representatives in discussions regarding needed changes in laws, policies, and practices related to dietary quality and physical activity
29	Number participants reporting reduction in body weight after completing a nutrition education program
30	Number of participants reporting a reduction in blood pressure after completing a nutrition education program
31	Number of participants reporting a reduction in blood cholesterol after completing a nutrition education program
32	Number of participants reporting a reduction in blood glucose after completing a nutrition education program
33	Number of revised and or adoption of new public laws and organizational policies and practices that support sustained improvement of diet quality and physical activity for Arkansas citizens
34	Business start ups
35	Number of new food businesses started

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
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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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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.)

Brief Explanation

Factors that affected the outcomes of planned programs are as follows: •Health faculty FTE reduction due to retirement impacted health education programs, ServSafe trainings and the collection of data. •New FTE in gerontology expanded the health-related programs to include areas that addressed a growing aging population. •The EFNEP initiatives experienced an expansion due to concentrated efforts focusing on the Hispanic audience. •External funding impacted the degree in which programs were expanded.

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)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Other (BMI measures)

Evaluation Results

Participants were evaluated using multiple tools to determine the outcome of the various programs. These tools included retrospective evaluations with nutrition and health program participants, behavior and knowledge assessments with in-school youth. Health screenings were used to measure blood glucose, high blood pressure and cholesterol; and an intervention/control group study was conducted with midlife and older women. BMI assessments were also used with study participants. End of program testing was used to determine pass/fail rate of participants seeking certification in food safety and ServSafe programs.

Key Items of Evaluation

Outcome data from program participants included in pre/post health screenings for cholesterol and glucose indicated:

- 304 program participants decreased blood glucose levels as a result of completing an Extension health program,
- 32 program participants decreased blood cholesterol as a result of completing an Extension health program,
- 6 participants reduced their medication or eliminated prescribed medication as a result of completing an Extension health program.

Behavior and knowledge assessments proved to be useful to determine participant outcome for those enrolled in the Arkansas Hope Project. Assessments indicated that participants in the five participating schools increased activity by an average of 9.5 hours over the 2006-2007 school year. The parent survey (n=609) revealed that 44% of parents stated that they made changes in their family's eating and/or physical activity practices as a result of what their child had learned. Fifty-five percent of parents stated that their child had asked for more or different fruits, vegetables, milk or yogurt since the program started in the fall.

The intervention/control group study indicated that compared to the controls, intervention subjects reported larger decreases in energy intake and sweets servings per day. BMI, body weight and waist circumferences decreased in intervention subjects and increased in control subjects.