

Food, Nutrition & Health Planning & Program Evaluation Logic Model (2009-2013)

Brief Program Summary

Five of the ten leading causes of death in the U.S. have been linked to diet and nutrition as contributing factors. Poor diet and obesity remain as common problems especially among under-served populations. The Extension Food, Nutrition & Health programs have four components: 1) participation in regular physical activity, 2) adoption and maintenance of healthy lifestyles, 3) chronic disease prevention; and 4) nutrition education. The health program identifies and promotes evidence-based policies and practices that will reduce the incidence of chronic disease. Using science-based information, Arkansans are engaged in programs such as Walk Across Arkansas, Strong Women and the Medicine Cabinet Series to prevent chronic disease and promote healthy lifestyles and increased physical activity.

The nutrition education program responds to the nutritional issues and needs of Arkansans across the lifespan and socioeconomic spectrum. Participants gain knowledge and skills that will help them adopt appropriate behaviors to prevent or delay lifestyle-related chronic diseases. Children and adults with limited resources learn healthy eating and activity practices through the Food Stamp Nutrition Education and Expanded Food and Nutrition Education Programs. Adult Arkansans interested in achieving and/or maintaining healthy weight are targeted with the 15-week Reshape Yourself program and the Right Bite cooking school. African American and Hispanic Arkansans learn healthy eating and activity practices through participation in the Eating and Moving for Life program.

Like never before, biotechnology and an improved understanding of food constituents that improve human health and nutrition will make possible the development of food products with improved nutritional value. Advances in knowledge of human nutrition can be rapidly utilized to produce improved food products. Nutritionists must be linked to multi-disciplinary teams of food scientists, biotechnologists and medical experts to address this need.

Given the importance of the food production and processing industry to the economy of Arkansas, a strong research and extension base in Food Science and Nutrition is of paramount importance. Food safety issues associated with the poultry industry and other food processing firms are also of high priority to the Division of Agriculture. The implementation of HACCP and related food safety programs significantly increases the need for research-based information. The Center for Food Safety provides scientists and research infrastructure which are major resources where food safety research can be addressed from the producer through processing and product preparation. The Division of Agriculture's Institute of Food Science and Engineering was created to focus multi-disciplinary research on food issues. This Institute draws on expertise in microbiology, food science, processing, nutrition, engineering, sensory analysis, and other disciplines; bringing together corporate partners and faculty members with the appropriate research expertise to address research problems of immediate need to the industry.

ASSUMPTIONS





Our Extension education process is a straight-forward approach to Arkansas health issues. Arkansans will choose to be active participants in the decisions that affect their health to remain active and healthy. Evidence-based education can enable rural individuals and families to better maintain healthy lifestyles and manage physical health. Nutrition education is based on the belief that: 1) Participants have access to and consume specific foods, 2) Targeted audiences are willing and able to participate in nutrition education programs, 3) Knowledge change can lead to behavior change and 4) People will be motivated to learn/change. One in five Arkansans is without health insurance coverage. Lack of health care professionals and facilities in rural Arkansas limit access to quality health care.

The majority of the food safety programs is nationally- or state-mandated programs such as the Better Process Control School and the ServSafe program, respectively or is at the request of food processing companies and entrepreneurs in Arkansas. Since the programs are clientele-driven, it is believed that they represent the concerns and needs of the food processing industry. Similarly, they will continue to be important, and this concern will be reflected in the attendance and participation of the food manufacturing

companies. It is also assumed that the Experiment Station scientists will continue to secure grant funding to assist in developing new information and technologies and to assist the delivery of outreach programs. Finally, it is assumed that by working with food scientists and agricultural economists, entrepreneurs will continue to be identified and assisted to ultimately establish more successful food-processing and food-related businesses.

Inputs Resources & Activities	If, then	Methods	If, then	Target Audience(s) Participation	If, then	Short-Term Impact	Medium-Term Impact	If, then	Long-Term Impact
<p>1. Activity for the Program</p> <ul style="list-style-type: none"> • Health and Nutrition: • Division of Agriculture faculty will develop, evaluate, and disseminate education programs and curricula, incorporating new research and emphasizing healthy lifestyles. Programs include but are not limited to: <ul style="list-style-type: none"> ○ Walk Across Arkansas (Adults and Youth) ○ Strong Women ○ ServSafe ○ Food Stamp Nutrition Education ○ Expanded Food and Nutrition Education Program ○ Reshape Yourself Healthy Weight Program ○ Commercial Food Safety & Processing: ○ Improve food processing efficiency through an improved understanding of food chemistry. ○ Determine the impact of food processing systems on product quality and food safety attributes. 	➔	<p><u>Direct Methods</u></p> <ul style="list-style-type: none"> • Demonstrations • One-on-One Intervention • Workshop • Group Discussion • Education Class <p><u>Indirect Methods</u></p> <ul style="list-style-type: none"> • Newsletters • Other 1 (Grant Development) • Billboards • Web sites • Public Service Announcement 	➔	<ul style="list-style-type: none"> • Food Companies • Entrepreneurs and Restaurants • Food Service Employees and/or Food Handlers • Limited Resource Adults and Youth • Minority Adults • Youth, adults and senior adults • Employers & Employees • Child Care Providers • School personnel 	➔	<p>Indicators:</p> <ul style="list-style-type: none"> • # of participants who indicated that they increased their knowledge related to food, nutrition and health following an educational class, seminar or workshop • # of participants receiving certification in Better Process Control School, Culinary Scientists and ServSafe • # of participants who indicate that they intend to adopt one or more healthy food/nutrition practices • Peer Reviewed Publications. 	<p>Indicators:</p> <ul style="list-style-type: none"> • # of 4-H journals completed in Food, Nutrition and Health • # of individuals who increased physical activities as a result of completing an Extension program • # of nutritional labels developed • # of Journal articles accepted • # of participants who adopted positive nutrition practices. • # of new food businesses started • # of culinary participants sampled by survey that reported actual practice change as a result of the workshop within 2 years 	➔	<p>Indicators:</p> <ul style="list-style-type: none"> • # of participants reporting reduction in body weight after completing a nutrition education program • # of participants reporting reduction in blood pressure after completing a nutrition education program • # of participants reporting a reduction in blood cholesterol after completing a nutrition education program • # of participants reporting a reduction in blood glucose after completing a nutrition education program • # of small and very small meat and poultry plants that successfully completed an Action Plan developed in consultation with

<ul style="list-style-type: none"> ○ Develop new food products that utilize Arkansas raw products. ○ Increase the research base on improved food processing systems to minimize food pathogens. ○ Improve detection systems for Listeria, Salmonella and other major food pathogens. ○ Identify health related nutritional factors that will improve human health. ○ Develop new food products that have improved nutritional content. ○ Conduct quarterly HACCP Roundtable meeting. ○ Conduct food safety workshops. ○ Conduct Better Process Control School. ○ Conduct Labeling workshop. ○ Conduct the ServSafe workshop. ○ Provide online distance education in food safety and manufacturing. ○ Conduct new product development workshop. ○ Provide assistance 									<p style="text-align: center;">the University of Arkansas after a USDA-FSIS Food Safety Assessment</p>
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<p>to small food companies and entrepreneurs in the form of services, nutritional labeling, and consulting.</p> <ul style="list-style-type: none"> o Conduct culinology workshop for food technologist. o Conduct research. 									
EXTERNAL INFLUENCES									
<p>Data Collection Plan:</p> <ol style="list-style-type: none"> 1. <u>Who? (will collect data & enter into AIMS or AES Survey)</u> 2. <u>How? (survey method/instrument?)</u> 3. <u>When? (When will the data be collected & entered?)</u> 									