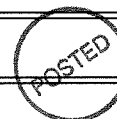


U.S. Department of Agriculture Work Unit Description AD-416 U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions				Date (Month/Day/Year) 11/30/2011	
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		LAB94127		6. Status A = New Project	
7. Title Modifying Food Choices and Lifestyles to Mitigate Obesity in Louisiana					
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10. Multistate Project No.				11. Cooperating States <small>sent via BITNET/INTERNET electronic mail systems</small>	
12. Investigator Name(s) Last Name and Initials				Date: <u>12/1/11</u>	
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Goals/Objectives/Expected Outputs					
<p>The goal of the "Modifying Food Choices and Lifestyles to Mitigate Obesity in Louisiana" project is to examine food choices and behaviors of children and caregivers and analyze the effectiveness of an alternative curricula in modifying behaviors associated with reduced risk for childhood obesity. The first objective is to assess children's and caregiver's: 1) personal taste preferences for sugar- and fat-rich (SF-rich) foods, 2) exposure to food marketing, 3) knowledge and mediating psychosocial variables aimed at consuming SF-rich foods (attitudes, outcome expectations, values, behavioral capability, and self-efficacy), and 4) barriers to making healthful food choices. The second study objective is to develop and validate food preference survey instruments suitable for use with children and their caregivers. The third program objective is to develop, pilot test, administer, and evaluate the effectiveness of an activity-based, hands-on research intervention for children and caregivers that will: 1) raise knowledge and awareness of personal preferences for SF-rich foods and persuasive advertising techniques that encourage the purchase and consumption of these items, 2) promote behaviors limiting exposure and consumption of SF-rich foods, and 3) develop preferences for foods contributing to healthful diets. Activities will include: assessment of food preferences and marketing awareness through focus group interviews, development and validation of food preference surveys, and development and testing of curriculum for use with children 9-14 years of age and their caregivers that promotes increased awareness of personal palate preference and persuasive techniques of food marketing. It is anticipated that after participating in the curricula youth and their caregivers will be more knowledgeable of their preference for SF-rich foods, aware of food marketing, willing to limit consumption of SF-rich foods and report greater preferences for food that contribute to healthful diets such as fruits and vegetables. The motivational components of the curriculum will include interactive, hands-on activities for youth and individual projects for caregivers that can be completed in the home. Materials will include self-assessment and goal setting and will build behavioral capabilities and self-efficacy through modeling and new skill development. The curriculum will be suitable for inclusion into Louisiana 4-H Healthy Living materials and will support the Positive Youth Development mandate of the National 4-H program.</p>					
Methods					
<p>Study participants will include children 9-14 years of age who participate in 4-H programs, their caregivers, and camp staff/volunteers. In year 1, a convenience sample of youth (n=25) and staff/volunteers (n=6) will participate in focus group interviews. Palate preference for sugar- and fat-rich (SF-rich) foods, marketing awareness, availability and exposure and barriers to consumption of healthful foods will be discussed. Youth enrolled in 4-H Summer Camp (n=60) and their caregivers will pilot-test the survey instruments and will</p>					



complete food frequency questionnaires. In year 2 of the study, children (n=180) who attend 4-H Summer Camp will complete the final, validated survey. Caregiver surveys will be mailed to randomly selected caregivers of children who have attended summer camp (n=245). Caregivers will complete the surveys and return them by mail. During year 3 of the study, youth attending 4-H Food and Fitness Spring Camp (n=100) and their caregivers will pilot test curriculum materials. Following formative evaluation and revision of the curriculum, in year 4 of the program children who participate in the 4-H Summer Camp Food and Fitness track (n=180) and their caregivers and children enrolled in another 4-H Summer Camp track (n=180) and their caregivers will participate in a control-intervention trial. Children will complete evaluation instruments at camp. Caregivers will complete evaluation instruments mailed to the home and will return them by mail. The behavioral focus of the curriculum will be to enhance the ability of youth and caregivers to limit exposure to and consumption of SF-rich foods while learning to like the flavors of healthful foods. Activities will promote awareness, impetus to change behaviors, and knowledge and skills to make behavior change. Evaluation measures will include youths' and caregivers' understanding of their palate preference score, persuasive techniques of commercials, ability to distinguish between truths and claims in advertising, and outcome expectations, values, self-efficacy, and behaviors related to limiting consumption of SF-rich foods. After participating in the curriculum participants will have increased awareness of their palate preference and understanding of the persuasive techniques of commercials for SF-rich foods and more positive outcome expectations, values, self-efficacy, and behaviors to limit consumption of SF-rich foods. Descriptive statistics will include: age, gender, racial/ethnic group, height, weight, BMI, SF palate preference, and psychosocial variables associated with SF palate. Cronbach's alpha coefficients will evaluate the internal consistency of the self-reported measures, bivariate analysis will examine relationships between variables and predictive strength of the youth's and caregiver's motivation and self-efficacy in predicting intention to limit intake of SF-rich food items will be examined using regression analysis. Linear mixed model analysis of variance (ANOVA) will be used to analyze the intervention program data and perform the appropriate treatment comparisons. Probability will be set at $P < 0.05$.

23. Non-Technical Summary

Developing and maintaining healthful dietary choices is important for children's health and quality of life. The current food environment, rich in highly marketed and flavorful sugar- and fat-rich items, encourages overconsumption of high calorie foods and contributes to the development of overweight and obesity. Obesity is considered to be the most serious nutritional problem in the United States today and includes an estimated 17% of children 2-19 years of age and 34% of adults. The prevalence is high in states such as Louisiana where in 2010 31% of children in grades K-12 and 32% of adults were obese. Strategies must be developed and tested to help children and their families become aware of their personal preferences for calorie-rich foods and the influence of marketing on food choices. The goal of this study is to promote healthful eating and behaviors by children 9-14 years of age and their caregivers. Taste preferences for sugar- and fat-rich foods, exposure to food marketing and barriers to making healthful food choices will be examined. Surveys estimating children's and caregivers' food preferences for sugar- and fat-rich foods will be developed and tested. Researchers will work with 4-H Program Development Specialists to develop a curriculum for youth enrolled in Louisiana 4-H Healthy Living programs. The program will: increase knowledge and awareness of personal preference for sugar- and fat-rich foods and advertising techniques that encourage the purchase and consumption of these foods, promote behaviors limiting exposure to and consumption of these foods and develop preferences for foods contributing to a healthful diet. Activities will increase participant awareness and knowledge of the issue and encourage behavior change. Youth and caregivers will participate in hands-on activities that encourage them to become aware of their personal preferences for sugar- and fat-rich foods and critically evaluate claims made by advertising. Behaviors and self-confidence to limit exposure to and consumption of these calorie-rich foods will be enhanced by setting goals and practicing new behaviors at home and at locations where food is purchased and consumed. The success of the program will be tested in a research study with children who attend at 4-H summer camps in Louisiana. Children and their caregivers who complete the curriculum will be compared to children who enroll in another summer camp program and their caregivers. It is anticipated that after participating in the program youth and their caregivers will be more knowledgeable of their preference for sugar- and fat-rich foods, aware of food marketing and willing to limit consumption of these calorie-dense foods. Curriculum materials will support the Healthy Living Mandate of the Louisiana and National 4-H programs.

24. Keywords

children; caregiver; obesity; consumer behavior; food preference;

**** The Original signed document is on file at this institution. ****

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