

V(A). Planned Program (Summary)

Program # 23

1. Name of the Planned Program

childhood obesity--research

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
701	Nutrient Composition of Food	0%	0%	25%	
702	Requirements and Function of Nutrients and Other Food Components	0%	0%	15%	
703	Nutrition Education and Behavior	0%	0%	15%	
704	Nutrition and Hunger in the Population	0%	0%	15%	
723	Hazards to Human Health and Safety	0%	0%	20%	
724	Healthy Lifestyle	0%	0%	10%	
	Total	0%	0%	100%	

V(C). Planned Program (Inputs)

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

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	0.0	0.0	2.4	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
0	0	121007	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	121007	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	121007	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Projects in the area of childhood obesity identify effective, scientific measures that can be used to guide individuals and families in reducing child hood obesity and improve health.

2. Brief description of the target audience

Health care providers
 schools
 families
 individuals

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2010
 Plan:
 Actual: 2

Patents listed

Lactobacillus Supplement to Prevent Diabetes Type 1
 Lactobacillus Supplement to Prevent Diabetes Type 1

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	0	10	10

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- {No Data Entered}

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Develop and implement a clinically effective and cost efficient lifestyle treatment for obesity in the rural communities
2	Develop a CBPR-based model that can be used to target populations to identify and prioritize problems of young people related to weight that affect quality of life and health
3	Develop and implement a clinical effective and cost efficient lifestyle treatment for obesity for a rural community.

Outcome #1

1. Outcome Measures

Develop and implement a clinically effective and cost efficient lifestyle treatment for obesity in the rural communities

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The prevalence of overweight and obesity in both adults and children in the United States is a leading public health concern. Over sixty-six percent of US adults are either overweight or obese with 32.2% falling into the obese category. Many chronic health conditions such as high blood pressure, type 2 diabetes, heart disease, stroke, gallbladder disease, arthritis, sleep apnea, and some types of cancers are strongly related to increasing body weight. A combination of environmental factors appears to be responsible for this sharp rise in obesity including changes in both physical activity and nutrition habits. Because the rise in obesity is not due to a single cause, effective weight management strategies must also take a broad approach targeting both physical activity and nutrition interventions through creative low-cost methods. Thus, our goal is to cast a wider net into society to combat obesity and improve health for all peoples, not just those with access to quality health care and associated resources. Specifically, this set of obesity related projects has 4 goals: to investigate best methods for long-term weight management support for Floridians in rural areas; improve physical activity and dietary habits of children receiving Medicaid benefits; gain understanding into how children make food choices and how to best communicate sound nutrition information to children; and to study how different dietary fibers affect blood sugar levels.

What has been done

The physical and psychological effects of our nation's current obesity epidemic are well documented. The dramatic rise in obesity is likely due to a combination of environmental factors that have affected both physical activity and dietary patterns. Working with colleagues from various departments at the University of Florida, both within and outside IFAS, our goal is to develop sustainable multifaceted strategies to reduce the rate of obesity and its related diseases. To this end, our objectives include projects aimed at increasing physical activity and improving the dietary behaviors of the citizens of Florida.

Results

Our initial analyses reveal that food quality does impact the intake of certain, but not all foods, indicating that while quality is important, it is not the only factor that effects intake and that other factors such as energy density/volume may also need to be considered when designing meals. We are currently developing and will analyze the price/quality index and make recommendations on the benefits of providing higher quality foods to elders at congregate meal sites. The results of the dietary fiber/glycemic response study will add to a growing body of knowledge evaluating the impact of various types of fiber (not just total amount) on glucose control and satiety. This has potential impacts for both food manufacturers and individuals attempting to manage their glucose levels and body weight. All 3 weight management intervention projects described above have very large potential impacts on the health of our society, particularly those living in rural areas where access to health care is often limited. Each of these projects are multi year interventions and initial analysis of baseline data has just begun.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior

Outcome #2

1. Outcome Measures

Develop a CBPR-based model that can be used to target populations to identify and prioritize problems of young people related to weight that affect quality of life and health

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Risks of cardiovascular disease, hypertension, and type 2 diabetes are exacerbated by excessive weight gain. Development of specific strategies is needed to promote healthful eating among young adults, an age group with high risk of weight gain and unique interests in diet/health issues. To date, few interventions have been designed for obesity prevention among young adults. This multi-state research group is currently designing an intervention to prevent weight gain and promote healthy diet/exercise choices among young adult college students. The experimental

intervention will utilize principles of community-based participatory research (CBPR), a collaborative approach to research that equitably involves & community members, organizational representatives, and researchers in all aspects of the research process'. Outputs: 1) Each state will report frequency of contact with partners, how and when they completed their participatory research training and how they plan to achieve their CBPR objectives . States will communicate through bi-monthly conference calls and will prepare a summary report for the annual NC 219 meeting. 2)Each state will prepare a report identifying the partner(s), frequency of contact with each partner, and perceived problems. Survey data will be evaluated and prioritized by each state/community team. Objectives will be generated for each PRECEDE-PROCEED phase by the state/community teams and consolidated by the NC219 group. States will communicate through bi-monthly conference calls and will prepare a summary report for the annual meeting identifying similarities and differences between states. Publications reporting results of qualitative work on perceived health concerns and quality of life concerns will be prepared and submitted for publication. Publications connecting quality of life, health and educational and environmental needs will be prepared and submitted. 3) The community teams' work will be compiled into one large database. 4) A report will define institutionalization progress and identify future plans

Outcomes or projected Impacts: 1)Successful completion of the proposed Multistate Research Fund (MRF) project will have three important immediate impacts: 1) the cadre of researchers and extension educators working on the project will develop skill in using a new and promising research model - - community based participatory research (CBPR), 2) the usefulness of CBPR will be determined with a vulnerable population group and 3) the usefulness of a new approach to preventing weight gain - - the non-calorically restrictive, weight gain prevention intervention - - will be determined with this target audience. 2) If the CBPR research model and/or the non-calorically restrictive, weight gain prevention intervention prove successful with young adult college students, these approaches can be adapted to meet the needs of more difficult to reach and more vulnerable young adult audiences. The results of the proposed MRF project should provide a strong basis from which to compete for further funding.

What has been done

1. Enhance NC219 researchers' skills in participatory research techniques and to build partnerships among researchers, extension and outreach educators, and populations of young adults to develop cooperative intervention programs. 2. Use participatory research techniques to assess, prioritize, and connect: (a) young-adults' quality of life issues and needs (Social Diagnosis); (b) young-adults' perceived health issues, and the behavioral and environmental health determinants (Health, Behavioral and Environmental Diagnosis); (c) young-adults' specific predisposing, reinforcing, and enabling factors determining their health and quality of life (Educational and Ecological Diagnosis). 3. Address needs identified in objective 2 by compiling and evaluating evidence-based methods and material for promoting healthful eating and/or prevention of weight gain (Administrative and Policy Diagnosis). 4. Develop community based applications that can be refined and evaluated in future projects.

Results

As mentioned above every aspect of the online intervention has been cognitively assessed with University of Florida students. First, the website appearance (i.e. colors, text, pictures) were changed and finalized. Lesson content was corrected and tailored to student preferences. Weekly messages designed to reinforce lesson concepts were changed to make them more user friendly with student input. Formative evaluation of the online intervention was performed by each student involved in the pilot study and provided researchers with feedback pertaining to every aspect of the study. All participants indicated they learned something new as a result of the intervention and will use the information learned again. Participants indicated that the online intervention provided

good tips on how to make behavioral changes. The website is now ready for use in the spring 2011 intervention. The BECS validation study showed that BECS survey is a good tool to gain insight into health behavior that young adults find important and are willing to improve. Students indicated that the most important factors associated with health included environmental aspects needed to support healthful lifestyles. The result from the walkability/bikeability assessment were used to inform a campus-wide health committee on one aspect of physical activity promotion on campus and helped the committee determine priorities for change. Personality emerged as one factor that could contribute to the effectiveness of an intervention. In order to explore this further an NIH R21 on the tailoring weight management interventions based on personality was submitted but funding was not received. We have revised according to comments and resubmitted the proposal.

4. Associated Knowledge Areas

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

Outcome #3

1. Outcome Measures

Develop and implement a clinical effective and cost efficient lifestyle treatment for obesity for a rural community.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

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effective weight management strategies must also take a broad approach targeting both physical activity and nutrition interventions through creative low-cost methods. Thus, our goal is to cast a wider net into society to combat obesity and improve health for all peoples, not just those with access to quality health care and associated resources. Specifically, this set of obesity related projects has 4 goals: to investigate best methods for long-term weight management support for Floridians in rural areas; improve physical activity and dietary habits of children receiving Medicaid benefits; gain understanding into how children make food choices and how to best communicate sound nutrition information to children; and to study how different dietary fibers affect blood sugar levels.

What has been done

The physical and psychological effects of our nation's current obesity epidemic are well documented. The dramatic rise in obesity is likely due to a combination of environmental factors that have affected both physical activity and dietary patterns. Working with colleagues from various departments at the University of Florida, both within and outside IFAS, our goal is to develop sustainable multifaceted strategies to reduce the rate of obesity and its related diseases. To this end, our objectives include projects aimed at increasing physical activity and improving the dietary behaviors of the citizens of Florida.

Results

Our research evaluating the effects of food quality on food intake by elders at congregate meal sites has large potential impacts for both the meal recipients and the FL Dept of Elder Affairs. Our initial analyses reveal that food quality does impact the intake of certain, but not all foods, indicating that while quality is important, it is not the only factor that effects intake and that other factors such as energy density/volume may also need to be considered when designing meals. We are currently developing and will analyze the price/quality index and make recommendations on the benefits of providing higher quality foods to elders at congregate meal sites. The results of the dietary fiber/glycemic response study will add to a growing body of knowledge evaluating the impact of various types of fiber (not just total amount) on glucose control and satiety. This has potential impacts for both food manufacturers and individuals attempting to manage their glucose levels and body weight. All 3 weight management intervention projects described above have very large potential impacts on the health of our society, particularly those living in rural areas where access to health care is often limited. Each of these projects are multi year interventions and initial analysis of baseline data has just begun. We have submitted 3 abstracts to the Society for Behavioral Medicine annual meeting. Two compared self reported physical activity reports from 2 separate questionnaires with objective physical activity data and showed that individuals are poor reporters of their activity levels, particularly in regards to physical activity intensity which has a large impact on daily energy expenditure and thus energy equilibrium. The 3rd abstract reports on the use of a 5 week campaign implemented several months after the initial behavioral intervention. Impacting the weight and health of children has proven to be difficult in other intervention studies and few large scale projects have been reported. The FLIP and E-FLIP projects are targeting two nontraditional and underserved populations - those receiving Medicaid benefits and those living in rural areas. Lastly, the GIS project has potential national impacts as it will provide a tracking and evaluative system not only for RWJF grantees but for researchers, policy makers, and community advocates across the country. The UF Health Behaviors will contribute to our understanding of why self-monitoring is so important for long term weight management and also contribute to a body of collected information on the behaviors of undergraduate students. Weight and weight change in this age group is largely indicative weight patterns later in life. This information will also help us in designing the most appropriate interventions for this age group. Published manuscript on effects of the first year of a 12 year

intervention on physical activity and fitness from the Look AHEAD Study.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

The weak economy and reduction of funding in the state continues to impact research. Also, weather conditions common to the tropics including hurricanes, weather extremes from drought to flooding have impacted Florida over the past year.

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)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

Florida Extension does a great deal of research in the area of nutrition and especially in areas that could improve health related illness including obesity. They have in the past not done as much specially related to children as the feeling in Florida has been you need to change the habits of the whole family but start with a better understanding of nutrition

by the parents. In future we plan to have more research in the area of child obesity.

Key Items of Evaluation