

# Changing Environments, Changing Behaviors, Changing Lives

FRUVED is a USDA-funded 4-H project designed to ultimately decrease the proportion of older adolescents who are overweight or obese by developing an effective behavioral intervention with environmental supports.

The goal of the study is to use an interactive, peer-led, social marketing environmental intervention to aid older adolescents in effectively managing weight through:

- improved dietary quality
- increased physical activity
- improved stress management skills

This project begins with interventions targeting college freshmen. In later years, 4-H college students will work with 4-H high school students to design and implement interventions for high schools. Ultimately the peer-mentoring design will continue with 4-H high school students working with 4-H middle school students, and finally from middle school to elementary 4-H partners.

# THE FRUVED PROJECT TEAM: THE HEALTHY CAMPUS RESEARCH CONSORTIUM (HCRC)

The HCRC is a USDA multi-state research team applying behavioral theoretical constructs to design intervention strategies to promote healthful behavior patterns and environments among young adults.

# THE FRUVED PROJECT TEAM: THE HEALTHY CAMPUS RESEARCH CONSORTIUM (HCRC)

#### FRUVED GRANT UNIVERSITY COLLABORATORS:

#### **Coordinating and Intervention Site**

University of Tennessee — Dr. Sarah Colby

#### **Intervention Sites**

South Dakota State University — Dr. Kendra Kattelmann University of Florida — Dr. Anne Mathews West Virginia University — Dr. Melissa Olfert

#### **Control Sites**

Auburn University — Dr. Onikia Brown

Kansas State University — Dr. Tandalayo Kidd

University of Maine — Dr. Adrienne White

Syracuse University — Dr. Tanya Horacek

#### **Consultants**

University of Rhode Island — Dr. Geoffrey Greene
Rutgers University — Dr. Carol Byrd-Bredbenner
University of Florida — Dr. Karla Shelnutt

#### **Collaborating Universities**

New Mexico State University — Dr. Devon Golem University of Nebraska — Dr. Lisa Franzen-Castle University of New Hampshire — Dr. Jesse Morrell Tuskegee University — Dr. Beatrice Phillips

The HCRC is a multistate research program authorized by the Hatch Act, which enables research on high priority topics among the State Agricultural Experiment Stations (SAES) in partnership with NIFA, other research institutions and agencies, and with the Cooperative Extension Service (CES).

This Multi-State Research Team has had:

- 20+ years of collaborative research
- Continuous grant funding (>20 million dollars)
- Hundreds of conference presentations and peerreviewed journals
- At least 17 doctoral, 40 master's students, and four post-doctoral researchers mentored

### STUDY DESIGN

The study is a control-treatment, pre-test, post-test trial using a nested cohort design:

- Three conditions (intense intervention, diffuse intervention, and control)
- Four control universities and one intervention high school at each of the four intervention University towns in years 03-04



Assessments include physical measurements (height, weight, waist circumference, and blood pressure), online questionnaires, and physical activity measured with accelerometers.

# PEER LED APPROACH

A CBPR, peer-led approach is used for this project. At each stage, the intervention will be developed by a mentor group slightly older than the target population. This approach is used to:

- Increase likelihood of the project will be well-received, applicable, and sustainable within target communities
- Increase "buy in" and participant enthusiasm by increasing the "cool factor"



#### WHAT THE PROJECT MAY LOOK LIKE

- Campaign centered around six characters, each representing a "team" (students dressed in Spinach, Carrot, Banana, Grapes, Tomato, and Bean costumes)
- Characters recruit students to their teams and give out team wrist bands and t-shirts featuring student art and logos
- Recruited students will use the website to set and track healthy goals
- Team posters featuring student art will be placed throughout campus and in residence halls
- Characters and student team captains interact with other students in highly trafficked areas on campus
- Characters will appear in planned events on campus
- Photos and videos of interactions and character skits will be put on website and social media sites
- · Games, challenges, and activities promoting healthy lifestyles held on campuses and between campuses

#### CURRENT RESEARCH SUBPROJECTS

- Physical activity
- Transportation (includes biking and walking)
- Healthy body image/eating disorder prevention
- Gardening
- Dining services & campus food access Sleep assessment and intervention
- Cooking programs
- Green eating, sustainable food systems, and local foods
- Environmental assessments and interventions

- · Gay, lesbian, bisexual, and transgender studies
- Facial recognition software and body composition
- Metabolomics
- RE-AIM dissemination
- Effective recruitment strategies
- Health disparities
- Minority and diversity studies
- 4-H programming and youth behavior change

## POTENTIAL SUBPROJECTS FOR ADDITIONAL RESEARCHERS

This project is currently inviting additional researchers to join the research team. Areas for potential research include:

- Policy & Advocacy for Environmental Change
- Stress Assessment & Interventions
- Physical Activity Assessment & Interventions
- Social media
- Marketing
- Peer Mentoring and Peer-to-Peer inter- Built Environment, Landscaping, Archiventions
- Social Networks
- Substance Abuse Organizational Management

- Food Services Ordering and Manage-
- Event Planning
- Partnership Building
- Program Evaluation
- Behavioral Economics and Consumer **Behavior**
- tecture and Health Outcomes
- Online Communication and Interventions
- Art to Change Health Behavior
- Student and Residence Life

### WHAT WE NEED FROM OUR UNIVERSITY TO MAKE THIS A SUCCESS

- Supporting creation of social marketing and environmental intervention class for 30 sophomores and a class for 100 sophomores and juniors on peer mentoring
- Assistance identifying and bringing together current university programs for research and health promotion
- Assistance identifying and bringing together student organizations



- Supporting events and activities in on campus in public locations, residence halls, dining halls, and at university events,
- Assistance working with dining services and recreational wellness to assess usage
- Administrative opportunities for students to partner and learn about advocacy for positive environmental change



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