



Foods & Nutrition

*College of Family and
Consumer Sciences*

UNIVERSITY OF GEORGIA


Research, Collaboration, and Funding for Obesity Prevention in the ECE Setting

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Current Research

- Core Value: Direct Education & PSE Approaches
 - **Healthy Child Care Georgia** 
 - USDA SNAP-Ed Funded Project (Cotwright, Bales)
 - **Examining the Degree of Implementation of Healthy Beverage Policies in Child Care Programs in Georgia to Inform Health Promotion**
 - Robert Wood Johnson Foundation (Cotwright, Birch)
- Healthy Eating Research Round 10 Funding



Partnership Pathways for Collaboration ↔ Funding

Easter Seals of Northeast GA Head Start

Private ECE Centers and Homes

FIND YOUR PATH

Clarke County School District
Office of Early Learning

Bright from the Start: GA Department of Early Care and Learning



Clarke County School District: Healthy Child Care Georgia



Project funded by USDA SNAP-Ed

A combined approach to improve the wellness environment and quantity and quality of nutrition education in early care and education (ECE) classrooms

POLICY

SYSTEMS

ENVIRONMENT



DIRECT EDUCATION

- Provides training on obesity prevention best practices and policies
- Utilizes a developmentally appropriate curriculum –
Eat Healthy, Be Active to teach healthy behaviors
- Head Start and Pre-K Classrooms in Clarke County, GA



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HCCG Policy, Systems, and Environment (PSE) Change

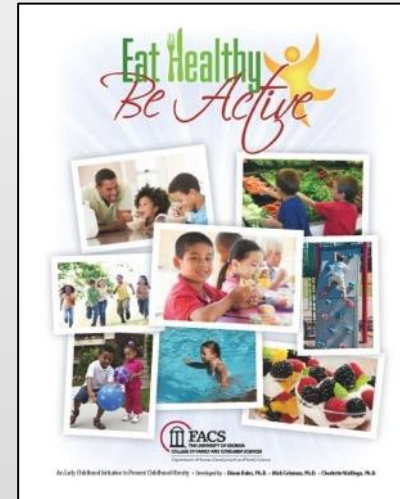


- Two free teacher trainings on obesity prevention policies and best practices for nutrition and physical activity in ECE:
 - Food
 - Beverages
 - Physical activity
 - Screen time
- Teachers identify at least one nutrition and one physical activity goal to improve in their classroom via action planning
- Program assistant and graduate assistants provide coaching and resources



HCCG Direct Education: 6-Week Classroom Intervention

- Utilizes a developmentally appropriate and play-based curriculum
 - *Eat Healthy, Be Active*
- Includes 5 activities per week for 6 weeks:
 - Large group and song
 - Children's book
 - **Fruit and vegetable tasting**
 - Two additional activities (i.e. math, science, etc.)
- Both teacher-directed and child-centered activities
- Focuses on 5 key concepts -- each week introduces a different key concept
- Teacher training to increase confidence in incorporating activities into lesson plans
- Goals: Increase teachers' confidence; **increase children's knowledge of food groups and willingness to try fruits and vegetables.**
- To learn more, visit: <http://eathealthybeactive.net>

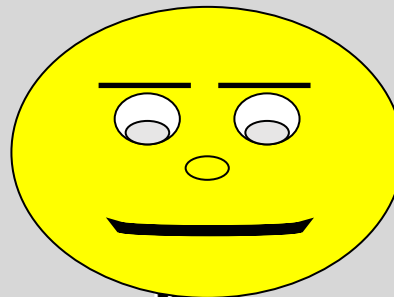
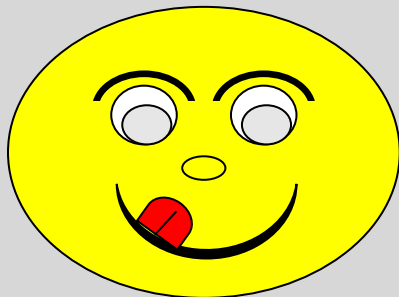


D.W.Bales et. al, 2013

HCCG Evaluation Tools



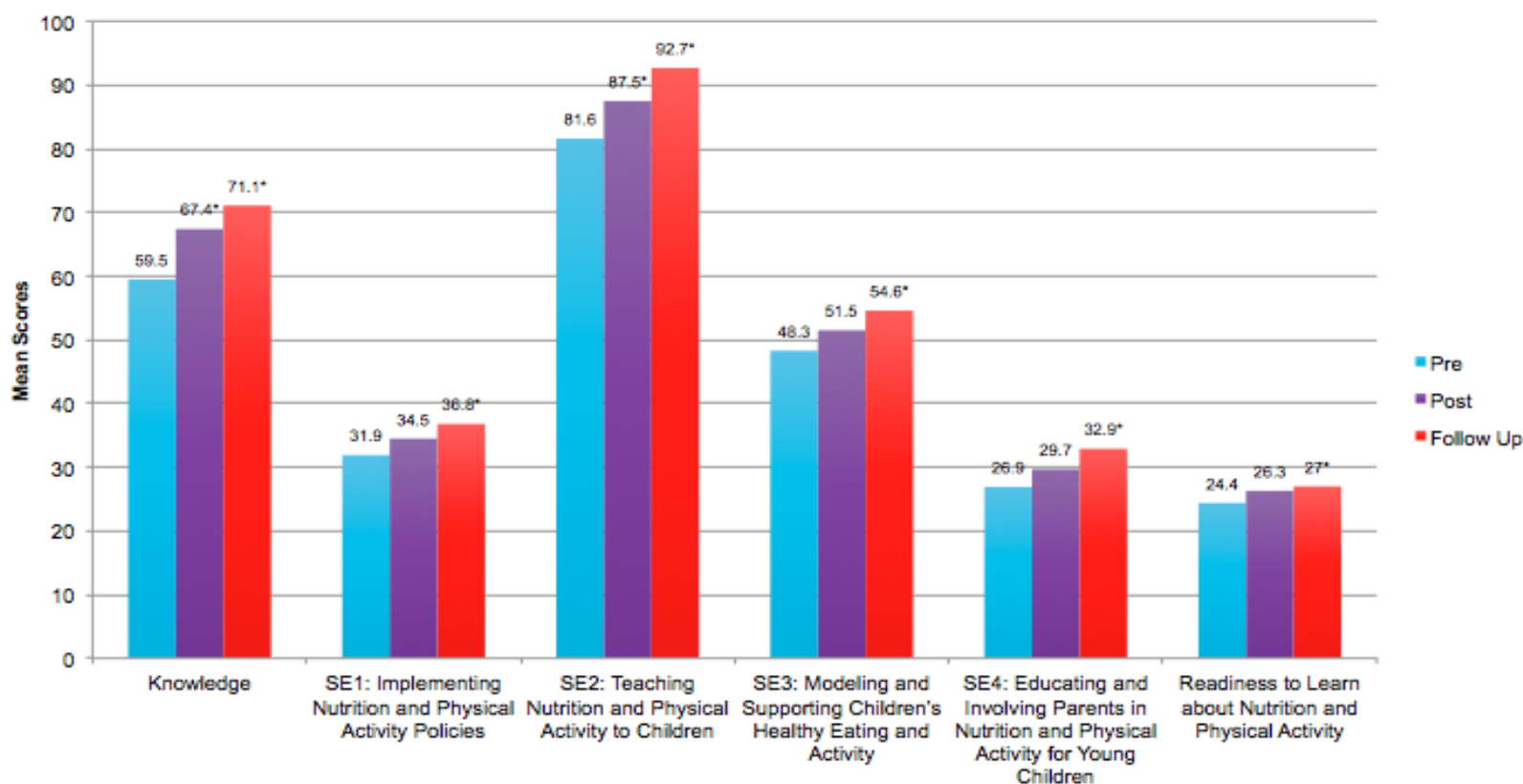
- Confidence about Nutrition (CAN-Teach) survey
 - Self-reported assessment of ECE teacher knowledge and self-efficacy (on 4 subscales) to implement nutrition and physical activity best practices.
- Nutrition and Physical Activity Best Practice Assessment
 - Self-reported assessment of the nutrition and physical activity best practices implemented by ECE teacher.
- Taste and Rate
 - Assesses children's knowledge, ability to identify, and willingness to try specific fruits and vegetables.
 - Administered to each child individually by a trained Program Assistant.



HCCG Year 2 Outcomes: Teacher Knowledge and Self-Efficacy



Table 1. Change in ECE Teachers' Mean Nutrition Knowledge & Self Efficacy (SE) (Year 2) N=22



Knowledge Max Score=100; SE1 Max Score=49; SE2 Max Score=105; SE3 Max Score=63; SE4 Max Score=30; * $p < 0.05$

HCCG Year 2 Findings



- There was a statistically significant difference in the proportion of children in **both groups who were willing to taste certain fruits and vegetables** at 6 weeks and 10 weeks after the intervention started.
- Of the children willing to try selected fruits and vegetables, most reported that they “liked” or “sort of liked” them at all three time points. No statistically significant changes in rating were observed.
- Future research will incorporate more formal coaching for implementation of PSE approaches in classrooms and enhance parent participation through online intervention.



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Robert Wood Johnson Foundation

Healthy Eating Research

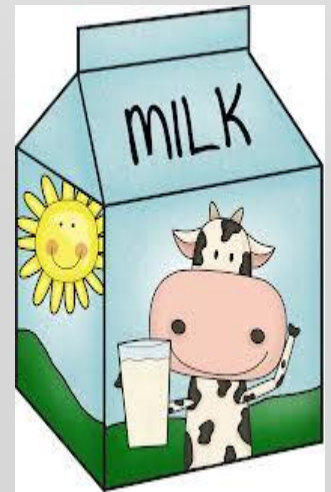
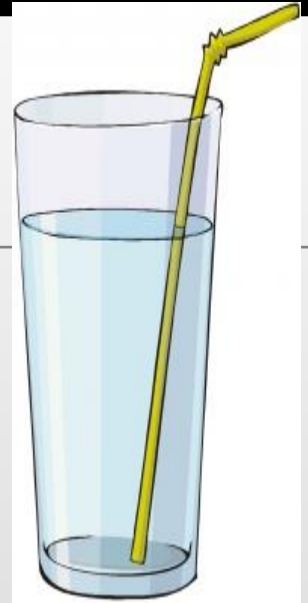
Round 10

Principal Investigator: Caree Cotwright

Co-Investigator: Leann Birch

Background

- Increasing access to water and other healthy beverages and reducing consumption of sugar-sweetened beverages are viable strategies to prevent childhood obesity.
- Nationally, low income, minority children aged 2-5 have the highest consumption of SSBs.
- In 2014, Georgia (GA) added beverage provisions to child-care licensing regulation.
- The target population for this study includes **licensed and license-exempt** child-care programs in GA serving children ages 0 to 5.
- This study will examine the extent to which beverage policies are implemented.



Specific Aims

The specific aims of this project are to:

- 1) Assess the current status of the implementation of beverage policies in child-care programs in GA through a statewide survey;
- 2) Examine the quality of beverages served, and whether this differs by CACFP participation, location of program, income level, and race/ethnicity of children enrolled;
- 3) Use qualitative methods to explore barriers and facilitators to the implementation of beverage policies; and
- 4) Use study findings to inform beverage policy training.



Hypothesis

- Our **primary hypothesis** is that programs participating in CACFP will have higher compliance to beverage policy implementation as compared with programs that do not participate in CACFP.
- We further hypothesize that beverage quality will differ by location of program, income level of families served, and by race/ethnicity of children served.



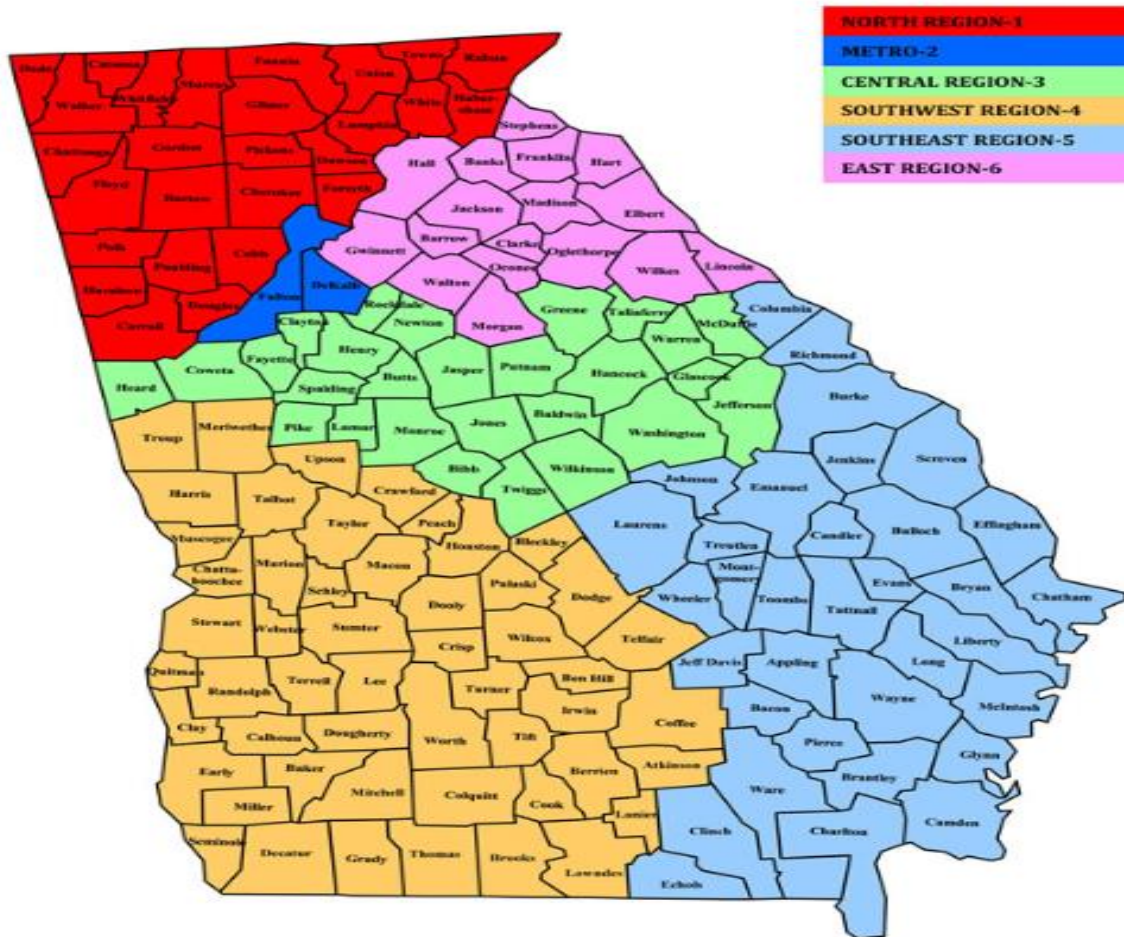
Study Design

- The research design is a cross-sectional, mixed methods study that investigates the current status of beverage policy implementation in child care programs across the state of GA using two forms of measurement:
 - 1) a statewide survey;
 - 2) in-depth interviews and focus groups.



Child Care Regions in Georgia

Child Care Resource & Referral Regions



A random sample of 3540 child care programs was selected from 10,000 programs in GA. Programs were stratified by location in six regions across the state to obtain a representative sample.

Methodological Approach



- Stratification of Random Sample of GA Child Care Providers by Region
- Survey Introductory Letter sent by GA DECAL Commissioner
- Online distribution of GA Child Care Provider Survey via Qualtrics
- Distribution of paper surveys via mail
- Healthy Beverage Kit for early respondents



- Recruitment of Focus Group and Interview participants by region
- Focus Group and Interviews with Child Care Directors and Teachers



- Conduct statistical analysis and use findings to guide focus group and interview protocols
- Work in partnership with GA Dept of Early Care and Learning to develop online beverage training



GA Survey of Child Care Providers of 0-5 Year Old Children

Example of Questions on Beverages Served Yesterday

Which were provided YESTERDAY to 1-5 year olds?	Not Provided	Provided at Breakfast	Provided at Lunch	Provided at Dinner	Provided at Snack-time
1. Sugar-sweetened* drinks like soda, sports drinks, Kool-aid, Sunny Delight, Capri Sun, Hawaiian Punch, lemonade, fruit drinks, aguas frescas, sweet tea (do not include diet drinks)*	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
2. 100% fruit or vegetable juice (do not include fruit-flavored drinks like Kool-Aid, Sunny Delight, Capri Sun, Hawaiian Punch, lemonade, aguas frescas)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. Milk (all types, including whole, low fat, nonfat, skim, flavored, rice or soy milk)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. Bottled water	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. Water from the tap or faucet	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
*Sugar-sweetened drinks are sweetened with sugar, high fructose corn syrup, or other caloric sweeteners					



Statistical Analysis

- Aim 1: MANOVA will be used to test the impact of CACFP participation, facility type, and geographic region. Logistic regressions will be used to test the effects of CACFP participation and facility type
- Aim 2: Descriptive statistics will be used to examine outcome measures; reported as means, standard deviations, and percentages
- Program location, income levels of families and race/ethnicity of children enrolled will be separately added to the MANOVA and logistic regression models described for Aim 1 to assess disparities
- Aim 3: NVivo will be used to examine qualitative data for themes



Policy Relevance

- Survey results will assist in identifying beverage practices in greatest need of improvement across the state.
- Results will also indicate if the state licensure requirement for centers to adhere to CACFP policies regardless of participation in the program is effective.
- Determining if there are differences in beverage quality based on demographic and socioeconomic variables is important for intervention development tailored to the needs of high risk children.
- Project will lead to the development a state beverage policy training.



ECE Work Group Expertise

- 1) What suggestions do you have based on lessons learned from other projects?
- 2) What forms of collaboration do you foresee for this project or related projects?
- 3) What future research directions would you explore?



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- Kaur J, Lamb MM, Ogden CL. The Association between Food Insecurity and Obesity in Children – The National Health and Nutrition Examination Survey. *Journal of the Academy of Nutrition and Dietetics*. 2015; 115 (5):751-8.
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- Ward DS, Vaughn A, Story M. Experts and Stakeholder Consensus on Priorities for Obesity Prevention Research in Early Care and Education Settings. *Childhood Obesity*. 2013;9(2):116-24.
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