Background

• 74% of children ages 3-6 yrs were enrolled in child care, with 56% in center-based care

• Child care is an ideal setting for promoting early development of health behaviors

• Little research has examined contributions of child care setting on children’s diet and physical activity levels
A Public Health Framework to Prevent and Control Overweight

Policy
Community
Organizational
Interpersonal
Individual

Food and Beverage Intake
Physical Activity

Energy Intake
Energy Expenditure
Energy Balance

Prevention of Childhood Overweight

- Child care center environment
- Policy governing child care centers
- Staff-child interactions

Note: Adapted from Preventing Childhood Obesity. Institute of Medicine, 2005.
The Nutrition and Physical Activity Self Assessment for Child Care Project (NAP SACC)

Promoting healthy eating and physical activity in child care and preschool settings
NAP SACC - Overview

- Environmental intervention to improve nutrition and PA policies and practices in child care facilities
- Goal is to promote healthy weight behaviors in young children
- Designed for implementation, not as a research study
Funding for NAP SACC was provided by the Centers for Disease Control and Prevention, the National Institutes of Health, and the NC Division of Public Health.
NAP SACC Development

- Interviews with child care staff
- Focus groups with parents
- Review of literature, regulations and best practice guidelines
- Consultation with experts including advisory group
NAP SACC Self-Assessment Instrument Models
NAP SACC Nutrition Areas

1. Fruits and Vegetables
2. Fried Foods/High Fat Meats
3. Beverages
4. Menus and Variety
5. Meals and Snacks
6. Foods Outside of Meals and Snacks
7. Modeling
8. Nutrition Education
9. Nutrition Policies
NAP SACC Physical Activity Areas

1. Active and Inactive Play
2. TV Use and Viewing
3. Play Environment
4. Modeling
5. PA Education
6. PA Policies
NAP SACC Self-Assessment

- Based on national recommendations, standards, and literature review
- 12 expert reviews of instrument
- Later reliability and validity testing

Nutrition And Physical Activity Self-Assessment for Child Care

Your Name: ___________________________ Date: ___________________________
Child Care Center/Home Name: __________________________________________

Please read each statement or question carefully and check the response that best fits your child care center or home. Your honest responses will help us work with you to build a healthy nutrition and physical activity environment at your center or home.

SECTION I: NUTRITION

(N1) Fruits and Vegetables

A. Fruit (not juice) is served: □ 2 times per week or less □ 3-4 times per week □ 1 time per day □ 2 or more times per day

B. Fruit is served fresh, frozen, or canned in own juice: □ Rarely or never □ Twice or three times a week □ Most of the time □ All of the time

C. 100% fruit juice is served: □ 2 times per week or less □ 3-4 times per week □ 1 time per day □ 2 or more times per week

D. Vegetables (excepting french fries or fried potatoes) are served: □ 2 times per week or less □ 3-4 times per week □ 1 time per day □ 2 or more times per week

E. Vegetables served are dark green, red, orange, or yellow in color: □ Less than 1 time per week □ 1-2 times per week □ 3-4 times per week □ 1 or more times per day

F. Cooked vegetables are prepared with added moist margarine or butter: □ 1 or more times per day □ 2-3 times per week □ 4-5 times per week □ Less than 1 time per week

(N2) Fried Foods and High Fat Meats

A. Fried or pre-fried meals (chicken nuggets) or fish (fish sticks) are served: □ 1 or more times each day □ 2-3 times per week □ 4-5 times per week □ Less than once a week or never

B. Fried or pre-fried potatoes (french fries, tots, tots, french fries) are served: □ 1 or more times each day □ 2-3 times per week □ 4-5 times per week □ Less than once a week or never

C. High fat meats (sausages, bacon, hot dogs, bologna, ground beef) are served: □ 1 or more times each day □ 2-3 times per week □ 4-5 times per week □ Less than once a week or never
Using NAP SACC with a Community Health Professional
Delivery of NAP SACC Intervention

• Child Care Health Consultants (CCHC) recruited and trained as NAP SACC Consultants

• In-person training (nutrition, physical activity and NAP SACC delivery) conducted in central NC

• CCHC deliver intervention—research staff have virtually no contact with centers
NAP SACC
The Intervention Process

Step 1
Centers self-assess their nutrition and physical activity environments

Step 2
Centers identify areas where they want to improve and map out improvement strategies with NAP SACC Consultant

Step 3
NAP SACC Consultants conduct continuing education workshops for center staff

Step 4
NAP SACC Consultants provide monthly technical assistance

Step 5
Centers self-assess their nutrition and physical activity environments
Step 3: Workshop Delivery

4 workshops are delivered with approved credits from NC Division of Child Development.

- Preventing Childhood Overweight
- Preventing Childhood Overweight: Healthy Eating
- Preventing Childhood Overweight: Physical Activity
- Taking Care of Yourself: Nutrition and Physical Activity to Fit a Busy Lifestyle
Pilot Testing
NAP SACC
Pilot Intervention

Pilot project in 19 NC child care centers assessing the feasibility of NAP SACC with Child Care Health Consultants delivering the 6-month intervention
Pilot Results

• 13/14 intervention centers improved their overall NAP SACC score

• Average increase in overall score on self-assessment was 13 points (132 total possible points) for intervention centers

• Comparison centers increased as well, but the change wasn’t significant
NAP SACC

Nutrition Improvements

• Moved vending machine from lobby to less accessible (visible) area
• Wrote nutrition policies
• Revised menus to meet “best practice” guidelines
• Switched to low-fat milk for children over two years
NAP SACC
Physical Activity Improvements

- Wrote physical activity policies
- Created indoor play space
What Providers Said About Nutrition

“It was surprisingly easy to make these changes.”

“Until this program some of the staff did not realize that fat free milk was ok for children.”

“We started looking at our menus more closely.”
What providers Said About Physical Activity

“It helped make my staff realize how important modeling was.”

“The rainy day activities they brought to us were wonderful!”

“It reminded staff of things they should be doing, like physical activity.”
Need for Improved Training

- CCHC from the NAP SACC Pilot Intervention stated that the most burdensome aspect of the project was the training.
- Travel to the training site exceeded three hours for some CCHC and required an overnight stay for one CCHC.
- State CCHC training is now web-based.
- Need to evaluate the effectiveness of web compared to in-person training for health professionals.
Web Training

- Designed to be 3 hours duration
- Same content as in-person
State-wide Evaluation
NAP SACC Implementation

• 96 child care center across 33 NC counties

• 3 groups (intervention, minimal intervention, and control)

• Evaluated for effectiveness using a staff administered observation and assessment
Evaluation of NAP SACC

- 1-day observation in each center
- Director interview & questionnaires to staff
- Collected lesson plans, policies, and menus
Results of Evaluation

- Intervention centers improved both their nutrition and physical activity environments
- Most centers improved the most in nutrition
- Control centers stayed the same pre- to post-intervention
- NAP SACC Consultant made significant difference
What We Have Heard

• “The NAP SACC info was important for me to hear. I’m looking forward to sharing the action plan with my staff.”
• “I learned a lot about the benefits of serving whole fruits instead of juice.”
• “These workshops emphasized our job as a role model.”
One Center’s Success Story

• Added a green salad and a pasta salad with vegetables to the menu
• Switched to brown rice and whole wheat bread and increased the use of whole grain cereals
• Started encouraging parents to bring fruit cups instead of cupcakes for birthday party party treats
• Provided discounts to staff to join a small gym
Barriers to Implementing NAP SACC

- Initial meeting between the center director and consultant was often hard to schedule.
- Many centers have food catered and feel as if they have little ability to request changes.
- Centers and CCHC were less familiar with physical activity recommendations for young children and tended to work more on nutrition.
The Future of NAP SACC
New Research Studies

1. “NAP SACC intensive”: 12 month intervention with BMI as main outcome
2. Linking Child Care to Home: center and home intervention w/focus on parenting
3. “Baby NAP”: a companion to NAP SACC for children birth to 2 years
4. Adaptation of all materials for FCCH
States currently using NAP SACC
What We Have Observed

The Good

• Virtually all juice served is 100%
• Most follow CACFP guidelines
• Most centers serve fruit every day
• Children are provided with adequate amounts of active play time
• Most centers have climbing structures of some sort
What We Have Observed

**The Bad & The Ugly**

- Whole milk is predominant
- 100% juice served often in place of fruit
- Most serve a majority of high fat or fried meats
- Few serve meals family style
- Many facilities watch TV
- PA education for staff is rare
How Can We Make a Difference?

• Develop training programs for staff in PA and nutrition education (CE credit)
• Disseminate models that improve the healthy weight environment at child care
• Work with policy makers to encourage adoption of healthy weight environmental standards
How Can We Make a Difference?

• State and federal CACFP policy changes (e.g., require low-fat milk)

• Encourage states to enact more stringent nutrition and physical activity regulations for licensed child care facilities

• Compile evidence of successful policies and programs and disseminate results