A young child with light-colored hair is shown in profile, blowing bubbles. The background is a soft, greenish-yellow color with many bubbles of various sizes floating around. The child's face is lit up, and they appear to be enjoying the activity.

# **Nutrition and Physical Activity in Child Care: The NAP SACC Program**

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# NAP SACC

**The goal of the NAP SACC project is to promote healthy eating and physical activity in young children in child care and preschool settings**



# NAP SACC Development

- Interviews of child care staff
- Focus Groups with parents
- Review of literature, regulations and best practice guidelines
- Consultation with experts including advisory group

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 Steps

1. Self-Assessment
2. Action Planning
3. Workshop Delivery
4. Targeted Technical Assistance
5. Evaluate, Revise, and Repeat

# Step 1: Self-Assess



## Nutrition and Physical Activity Self-Assessment for Child Care

Your Name: \_\_\_\_\_ Date: \_\_\_\_\_

Child Care Facility Name: \_\_\_\_\_

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

### SECTION I: NUTRITION

#### (N1) Fruits and Vegetables

A. Fruit (not juice) is offered:	<input type="checkbox"/> 2 times per week or less	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1 time per day	<input type="checkbox"/> 2 or more times per day
B. Fruit is offered fresh, frozen, or canned in own juice:	<input type="checkbox"/> Rarely or never	<input type="checkbox"/> Some of the time	<input type="checkbox"/> Most of the time	<input type="checkbox"/> All of the time
C. Vegetables (not including French fries, tater tots, hash browns) are offered:	<input type="checkbox"/> 2 times per week or less	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1 time per day	<input type="checkbox"/> 2 or more times per day
D. Vegetables offered are dark green, red, orange, or yellow in color:	<input type="checkbox"/> 1 less than 1 time per week	<input type="checkbox"/> 1-2 times per week	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1 or more times per day
E. Cooked vegetables are prepared with added meat fat, margarine or butter:	<input type="checkbox"/> 1 or more times per day	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1-2 times per week	<input type="checkbox"/> Less than once a week or never

#### (N2) Additional Foods

A. Fried or pre-fried potatoes (French fries, tater tots, hash browns) are offered:	<input type="checkbox"/> 1 or more times per day	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1-2 times per week	<input type="checkbox"/> Less than once a week or never
B. Fried or pre-fried (frozen and breaded) meats (chicken nuggets) or fish (fish sticks) are offered:	<input type="checkbox"/> 1 or more times per day	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1-2 times per week	<input type="checkbox"/> Less than once a week or never
C. High fat meats (sausage, bacon, hot dogs, bologna, ground beef) are offered:	<input type="checkbox"/> 1 or more times per day	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1-2 times per week	<input type="checkbox"/> Less than once a week or never
D. Lean meats (baked or broiled chicken, turkey, or fish) or beans are offered:	<input type="checkbox"/> Less than 1 time per week	<input type="checkbox"/> 1-2 times per week	<input type="checkbox"/> 3-4 times per week	<input type="checkbox"/> 1 or more times per day

Ammerman, AS, Benjamin, SE, Sommers, JK, Ward, DG. 2004. The Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) environmental self-assessment instrument. Division of Public Health, NC DHHS, Raleigh, NC, and the Center for Health Promotion and Disease Prevention, UNC-Chapel Hill, NC.

- Center director completes self-assessment instrument with help from key staff, such as the cook, teacher or program planner.
- This should be done without Consultant help.




# **Nutrition and Physical Activity**

## **Key Areas**

- **Fruits and Vegetables**
- **Fried Foods and High Fat Meats**
- **Beverages**
- **Menus and Variety**
- **Meals and Snacks**
- **Foods Outside of Meals and Snacks**
- **Adult Role Modeling**
- **Nutrition Education**
- **Nutrition Policies**
- **Active Play and Inactive Time**
- **TV Use and Viewing**
- **Play Environment**
- **Adult Role Modeling**
- **PA Education**
- **PA Policies**

# Step 2: Action Plan

- Initially, director chooses 1 nutrition, 1 physical activity, and 1 other key area to improve.
- Improvements chosen should be facility guided with the Consultant available only for assistance and support.



**NAP SACC Action Planning Document**

Facility Name: \_\_\_\_\_

Date: \_\_\_\_\_ Target Date for Evaluation: \_\_\_\_\_

Areas for Improvement/Specific Goals:

Self-Assessment Area	Goals	Target date for completion
Nutrition Area:	1.	
	2.	
	3.	
Physical Activity Area:	4.	
	5.	
	6.	
Additional Area:	7.	
	8.	
	9.	

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# Step 3: Deliver Workshops

- The NAP SACC Consultant delivers the 5 workshops to center staff at a mutually agreeable time and place.
- These are currently approved for CEUs.







## **Step 4: Provide Technical Assistance**

- Regular follow-up with center to see how they are doing.
- This offers them a means of support, helps break through barriers they may be facing, and facilitate the changes they hope to make.
- This may be the most important step in the process!!



## Step 5: Evaluate, Revise and Repeat



- This is not a finite process, but evolving over time.
- After 6 months or earlier if necessary, Director's complete the self-assessment again.
- What has changed? Did they make the improvements they chose? What would they like to do next?

# NAP SACC Tool Kit

## NAP SACC Notebook

- Assessment Tool
- Consultation Guides
- Parent Handout
- Center Handouts

## Workshops

- Childhood Overweight
- Healthy Eating
- Physical Activity
- Personal Health (2004)
- Working with Families (2006)



A young child with light-colored hair is shown in profile, blowing bubbles. The child is smiling and looking upwards. The background is a soft, greenish-yellow color with many bubbles of various sizes floating around. The overall mood is joyful and carefree.

# **NAP SACC Evaluation**

Statewide Evaluation

# NAP SACC Evaluation

- 96 child care center across 33 counties in NC
- Random assignment into:
  - Intervention
    - Web-trained
    - In-person trained
    - Minimal intervention (Self assessment only)
  - Comparison (delayed intervention)





## CCHC and Centers

- ALL active CCHC, except those from the pilot, were invited to participate
- Recruited 33 CCHC
- CCHC identified 3 centers in their county
- NAP SACC staff recruited centers



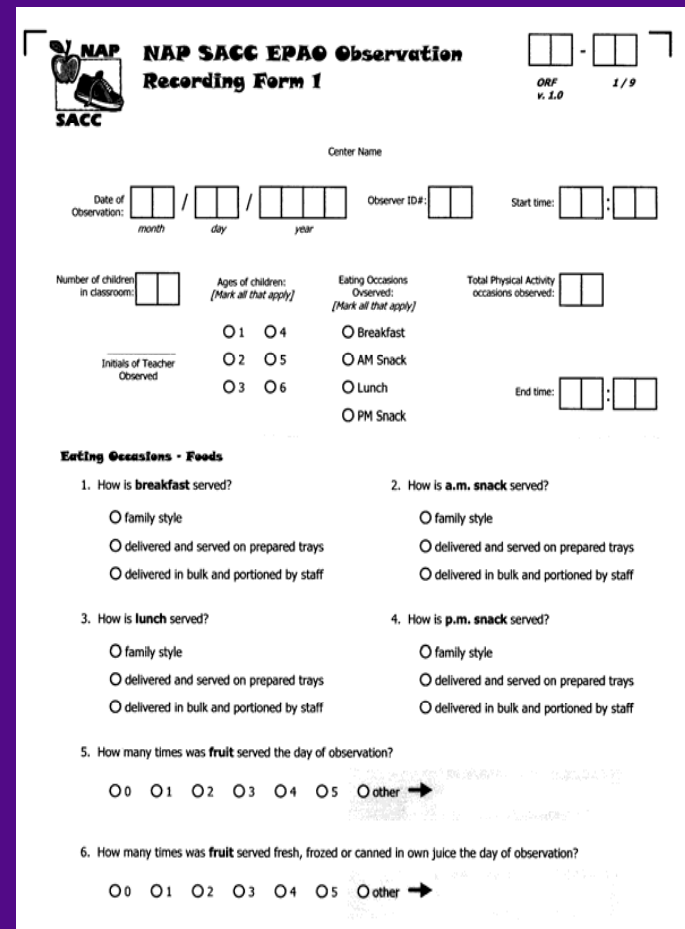
# Evaluation Design

Group 1	Group 2	Group 3	
Intervention (in-person training)	Intervention (web training)	Control	Totals
9 CCHC	10 CCHC	9 CCHC	28 CCHC
29 Centers	29 Centers	26 Centers	84 Centers

\*Additional 12 centers were in a “minimal” intervention group receiving self-assessment only

# Use Observational Outcome Measure

- EPAO: Environment and Policy Assessment and Observation
- Based on NAP SACC program and standards
- Completed by trained field observers



**NAP SACC EPAO Observation Recording Form 1** ORF v. 1.0 1 / 9

Center Name: \_\_\_\_\_

Date of Observation:  /  /  Observer ID#:  Start time:  :  :

Number of children in classroom:  Ages of children: [Mark all that apply]  1  4  2  5  3  6 Total Physical Activity occasions observed:

Initials of Teacher Observed: \_\_\_\_\_ Eating Occasions Observed: [Mark all that apply]  Breakfast  AM Snack  Lunch  PM Snack End time:  :  :

**Eating Occasions - Foods**

1. How is **breakfast** served?  
 family style  
 delivered and served on prepared trays  
 delivered in bulk and portioned by staff

2. How is **a.m. snack** served?  
 family style  
 delivered and served on prepared trays  
 delivered in bulk and portioned by staff

3. How is **lunch** served?  
 family style  
 delivered and served on prepared trays  
 delivered in bulk and portioned by staff

4. How is **p.m. snack** served?  
 family style  
 delivered and served on prepared trays  
 delivered in bulk and portioned by staff

5. How many times was **fruit** served the day of observation?  
 0  1  2  3  4  5  other →

6. How many times was **fruit** served fresh, frozen or canned in own juice the day of observation?  
 0  1  2  3  4  5  other →





# Evaluation Outcomes

- 2 centers closed during the evaluation period
- 15 centers did not receive the intervention
  - 3 CCHC (9 centers)
  - 6 additional centers did not start the intervention



# Item Analysis

Nutrition	Mean	Low	High
Control	$-0.50 \pm 7.5$	-19	+15
Intervention	$4.34 \pm 7.3$	-11	+29
Physical Act	Mean	Low	High
Control	$-0.15 \pm 6.8$	-8	+11
Intervention	$3.61 \pm 6.6$	-5	+15

# Overall Results

- Intervention centers increased scores in both the nutrition and physical activity areas, although greater changes were seen in the nutrition area





## Process Evaluation: Action Plans

- 16 centers targeted a change in milk (from whole to reduced fat or skim)
  - 9 centers made this change and while 7 did not
  - Some centers made big changes (from whole to skim)
- 11 centers targeted fruit/vegetables
  - 5 changed fruit; 3 changed vegetables
  - Few were able to target both



## Process Evaluation: Action Plans

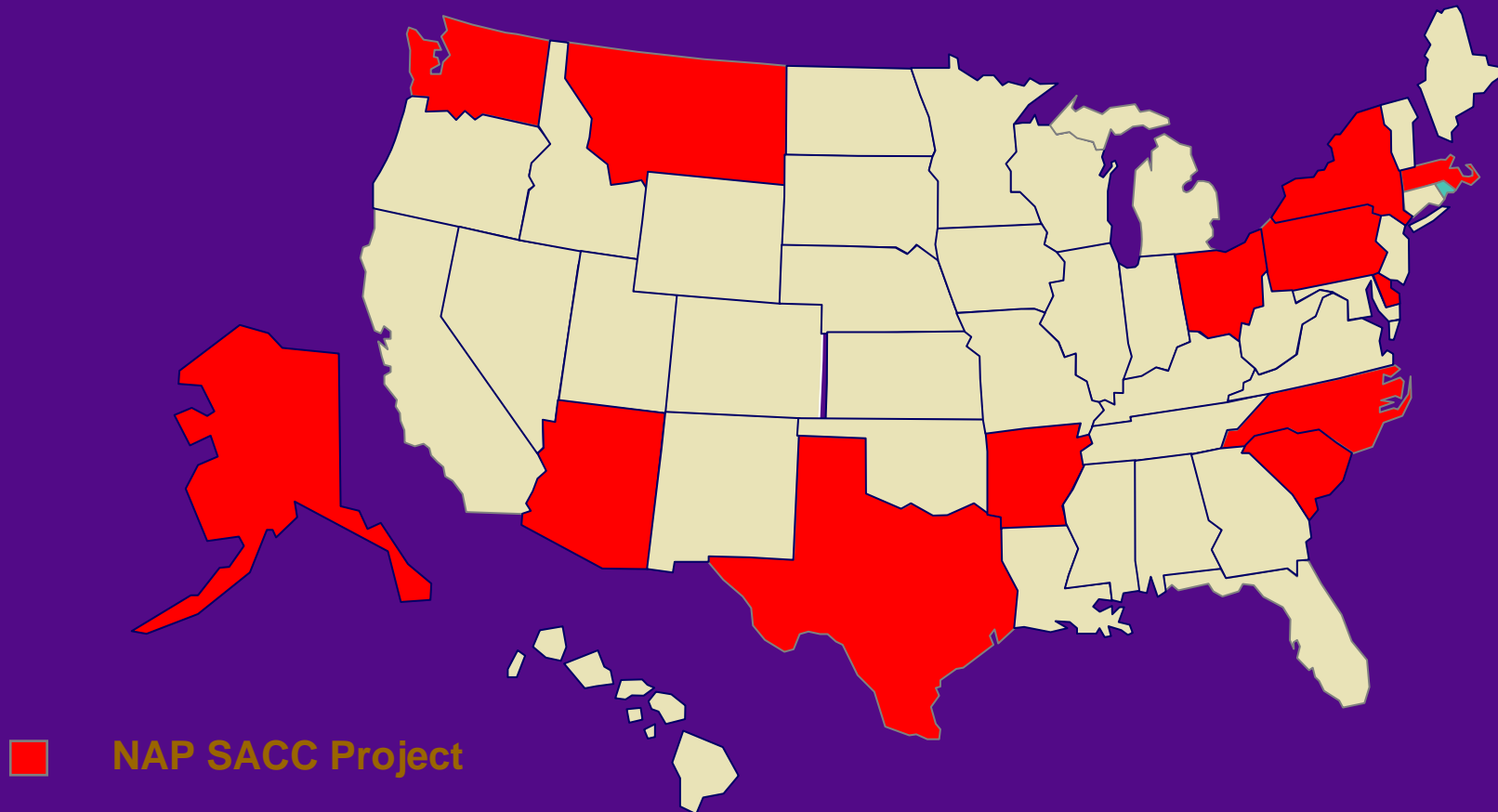
- 14 centers targeted increasing structured (some type of staff led) physical activity
  - 6 centers made this change, 8 did not
- 10 centers targeted parent nutrition and 12 centers targeted physical activity education
  - Of these 22 centers, only 1 center was able to achieve this objective

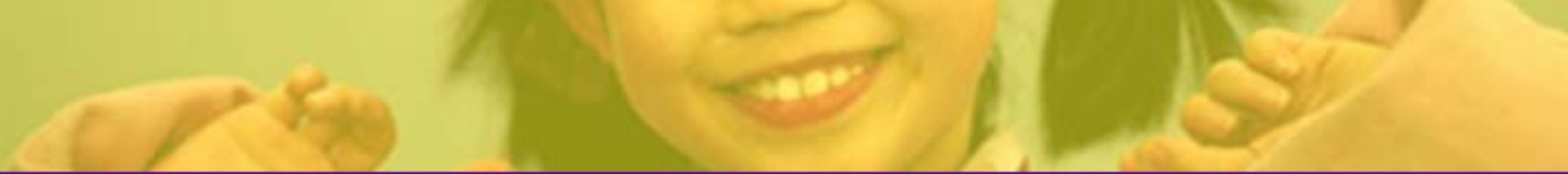
A young child with light-colored hair is shown in profile, blowing bubbles. The child is smiling and looking upwards. The background is a soft, greenish-yellow color with many bubbles floating around. The text "NAP SACC: Future Directions" is overlaid on the left side of the image.

# **NAP SACC: Future Directions**



# States Using NAP SACC Intervention Materials





# National Dissemination Efforts

- NAP SACC was selected as an “effective practice-based intervention”
- Received funds from the Center for Excellence in Training and Research Translation to revise and prepare NAP SACC for dissemination





# Timeline

- Currently, access can be granted to the current NAP SACC training web site
- Contact [napsacc@unc.edu](mailto:napsacc@unc.edu)
- New CDC-funded site will be available January, 2008



# NAP SACC Publications

- Ammerman A, Ward D, Benjamin S, Ball S, Sommers J, Molloy M, and Dodds J. An Intervention to Promote Healthy Weight: Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) Theory and Design. **Preventing Chronic Disease.** (Jul;4(3):A67. 2007
- Ball, S, Benjamin, S, Ward, DS. Development and reliability of an observation method to assess food intake of young children in child care. 2007; **Journal of the American Dietetics Association**; 107(4):656-61.
- Benjamin, S, Ammerman, A, Sommers, J, Dodds, J, Ward, DS. Improving nutrition and physical activity environments in child care: Results from the NAP SACC pilot project. **Nutrition Education and Behavior.** 2007;39(3):142-149.
- Benjamin SE, Neelon B, Ball SC, Bangdiwala SI, Ammerman AS, Ward DS. Reliability and Validity of a Nutrition and Physical Activity Environmental Self-Assessment for Child Care. **International Journal of Behavioral Nutrition and Physical Activity.** 2007 Jul 5;4(1):29.

# Contact Us

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