

# Nutrition and Physical Activity in Child Care

## The NAP SACC Program

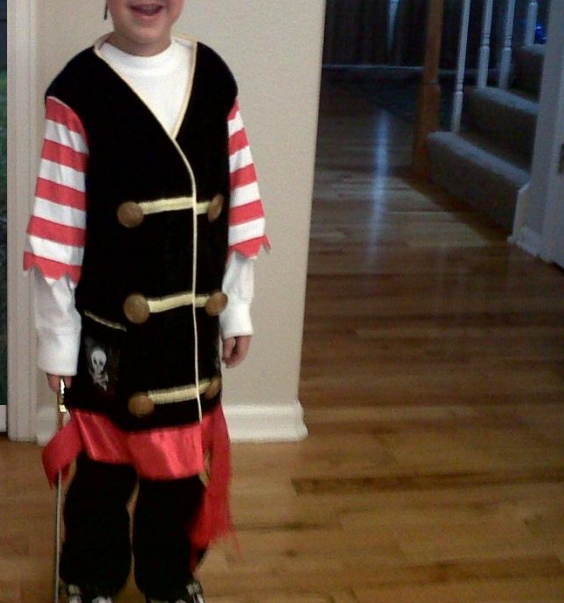


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Department of Nutrition

Center for Health Promotion and Disease Prevention

University of North Carolina at Chapel Hill



# Presentation Outline

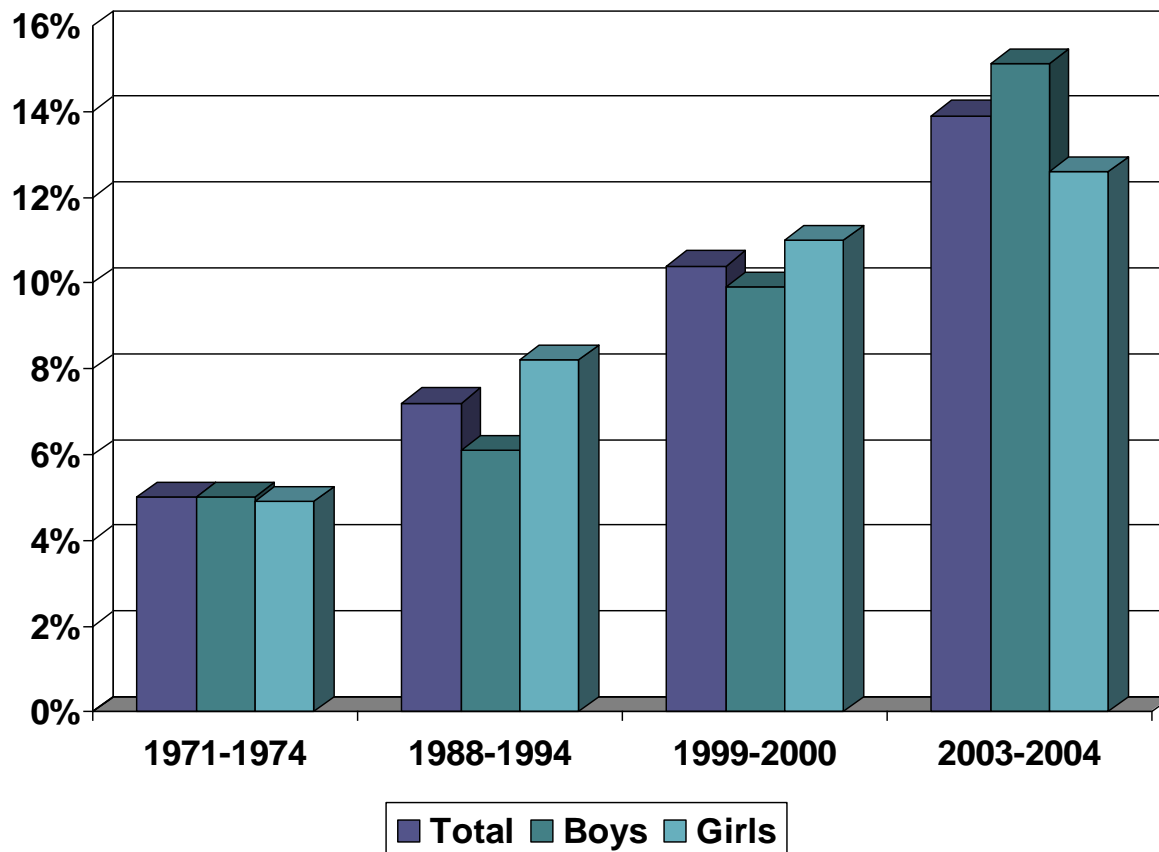
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- Present an overview of the NAP SACC program
- Explain how research evidence was used in the development of the NAP SACC program
- Describe how the NAP SACC program can be used with other approaches to address healthy weight development at child care settings
- Provide examples how the NAP SACC program is being used in other states
- Identify challenges and keys to success using the NAP SACC program



# Obesity in Children Ages 2-5 Years

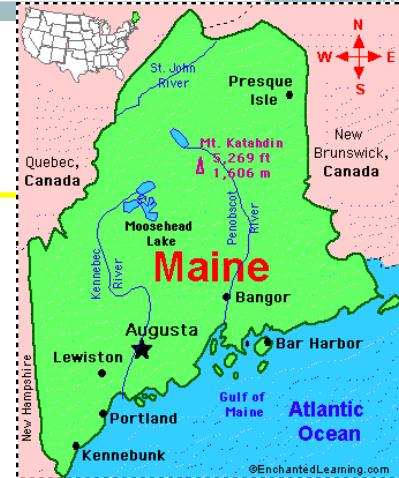
**Among preschool children aged 2–5, obesity increased from 5.0% to 10.4% between 1976–1980 and 2007–2008.**



# F is for Fat Report: Maine

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- *Washington, D.C., July 1, 2009* - Maine has the 35th highest rate of adult obesity in the nation, at 24.7 percent and the 39th highest of overweight youths (ages 10-17) at 28.2 percent
- Reported by Trust for America's Health the Robert Wood Johnson Foundation



# CDC Grand Rounds: Childhood Obesity in the United States

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MMWR: January 21, 2011 / 60(02);42-46

- The Maine experience
  - Pediatric community partnered the Maine-Harvard Prevention Research Center & state CDC
  - Maine Youth Overweight Collaborative (MYOC) started a simple message: 5-2-1-0
  - In 2006, unique profit/nonprofit partnership formed, Let's Go! to take the message to:
    - schools, child-care centers, communities, workplaces, after-school programs, and health-care settings.

# Let's Go Core Principles

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- Environmental and policy changes influence behavior change
- Interconnectivity across sectors is essential
- Strategies should be evidence-based and continuously evaluated.



# The NAP SACC Program





# What is...

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Nutrition  
And  
Physical Activity  
Self  
Assessment for  
Child  
Care





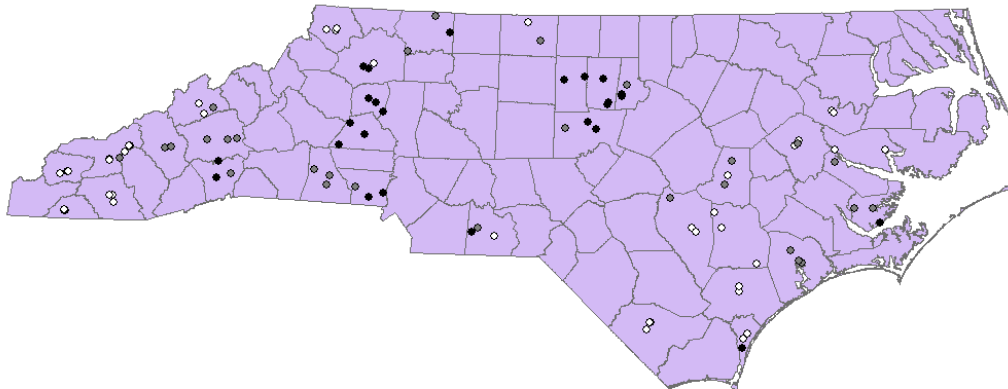
NAP SACC Program Identified as one of three model programs to address obesity prevention in child care.

The other programs noted were [Nemours Childhood Obesity Model](#), supported by the Nemours Health and Prevention Services and [I am Moving, I am Learning](#), a health promotion and obesity prevention enhancement developed for Head Start.

# NAP SACC History

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- NC Healthy Weight Initiative
- NAP SACC pilot program



**Moving Our Children  
Toward a Healthy Weight**

# Development Team

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UNC  
SCHOOL OF  
PUBLIC HEALTH



UNC  
CENTER FOR HEALTH PROMOTION  
AND DISEASE PREVENTION



# Intervention Development

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- Interviews
- Focus Groups
- Standards review
- Research evidence
- Expert input
- Community Advisory Committee



# Development Paper

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- Ammerman AS, Ward DS, Benjamin SE, Ball SC, Sommers JK, Molloy M, and Dodds JM. An intervention to promote healthy weight: Nutrition and physical activity self-assessment for child care (NAP SACC) theory and design. *Prev Chronic Dis*. 2007 Jul; 4(3):A67.

# Additional Background Research

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- Bower JK, Hales DP, Tate DF, Rubin DA, Benjamin SE, and Ward DS. *The childcare environment and children's physical activity.* Am J Prev Med. 2008 Jan; 34(1):23-9.
- Ball SC, Benjamin SE, and Ward DS. *Dietary intakes in North Carolina child-care centers: are children meeting current recommendations?*  
J Am Diet Assoc. 2008 Apr; 108(4):718-21.

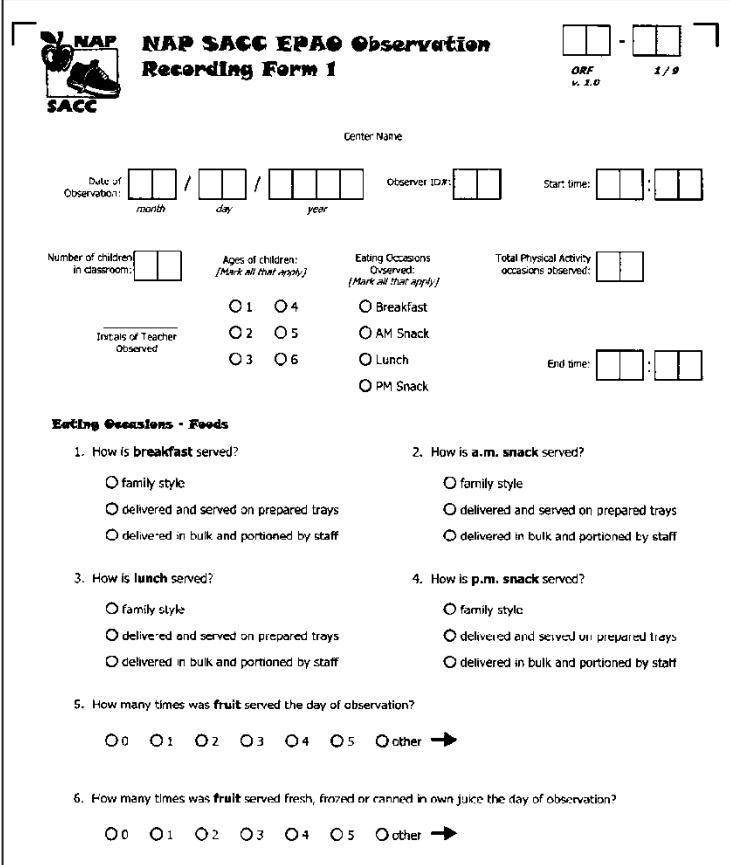
# Environment and Policy Assessment and Observation (EPAO)

- **Purpose:**

To objectively and effectively describe the nutrition and physical activity environment and practices of child care facilities.

- **Components:**

- Direct Observation
- Document review



The image shows a recording form titled "NAP SACC EPAO Observation Recording Form 1". It includes fields for Center Name, Date of Observation (month, day, year), Observer ID#, Start time, and End time. There are also checkboxes for Number of children in classroom, Ages of children (1, 2, 3, 4, 5, 6), Eating Occasions Observed (Breakfast, AM Snack, Lunch, PM Snack), and Total Physical Activity occasions observed. The form also contains a section for "Eating Occasions - Foods" with questions about how breakfast, a.m. snack, lunch, and p.m. snack are served, and how many times fruit and fruit juice were served during the day.

**NAP SACC EPAO Observation Recording Form 1**

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

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

Number of children in classroom:  Ages of children: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

Eating Occasions Observed: ☐ Breakfast ☐ AM Snack ☐ Lunch ☐ PM Snack

Total Physical Activity occasions observed:

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?

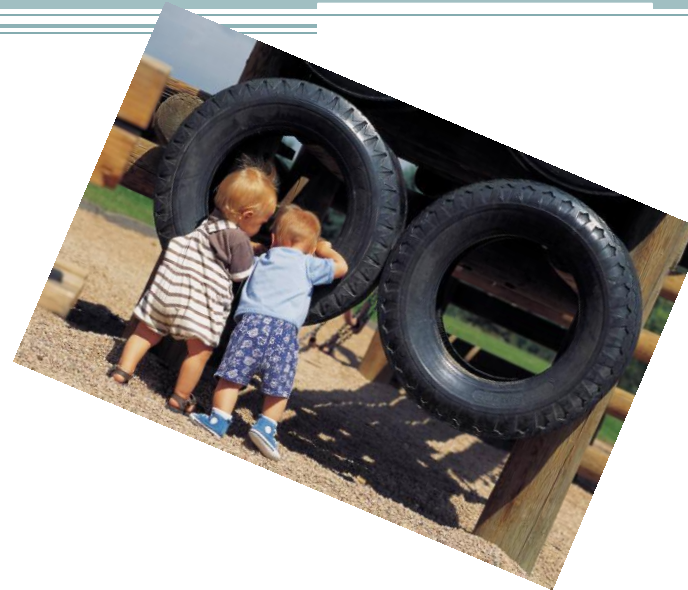
☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ other →

Ward D, Hales D, Haverly K, et al. An instrument to assess the obesogenic environment of child care centers. *Am J Health Behav.* Jul-Aug 2008.;32(4):380-386





# NAP SACC Best Practice Recommendations for Nutrition and Physical Activity



# References: Best Practice Guidelines

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- Physical Activity:

*McWilliams C, Ball S, Benjamin S, Hales D, Vaughn A, Ward DS. Pediatrics, 2009;Dec;124(6):16500-1659.*

- Nutrition:

Benjamin-Neelon S, Ball S, McWilliams C, Vaughn A, Ward DS. Journal of American Dietetics Association, in review.

# Nutrition Key Areas

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- Fruits and Vegetables
- Meats, Fats, and Grains
- Beverages
- Menus and Variety
- Feeding Practices
- Foods Outside of Meals and Snacks
- Supporting Healthy Eating
- Nutrition Education
- Nutrition Policies



# Physical Activity Key Areas

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- Active Play and Inactive Time
- Play Environment
- Supporting PA
- PA Education
- PA Policies







# Sample of Findings from NC

Fruits & Vegetables

Physical Activity (active play time)

# Best Practices for Fruits and Vegetables

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- Offer fruit (not juice) at least 2 times a day.
- Serve fruit canned in its own juice, fresh, or frozen all of the time.
- Offer vegetables (not French fries, tator tots, hash browns or dried beans) at least 2 per day.
- Offer vegetables, other than potatoes, corn or green beans 1 or more times per day.
- Prepare cooked vegetables without added meat fat, margarine or butter.



# Best Practice Guideline

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***Offer vegetables at least 2x a day (not including French fries, tator tots, hash browns or dried beans).***

**Result: 23% met Guideline**

- 16% None
- 62% Once
- 23% Two or more

***Offer vegetables, other than potatoes, corn or green beans 1 or more times per day.***

**Result: 32% met Guideline**

- 60% None
- 32% Once
- 7% Two or more

# Best Practice Guideline

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***Offer fruit (not juice) at least 2 times/day.***

**Result: 44% met Guideline**

- 7% None
- 41% Once
- 44% Twice or more

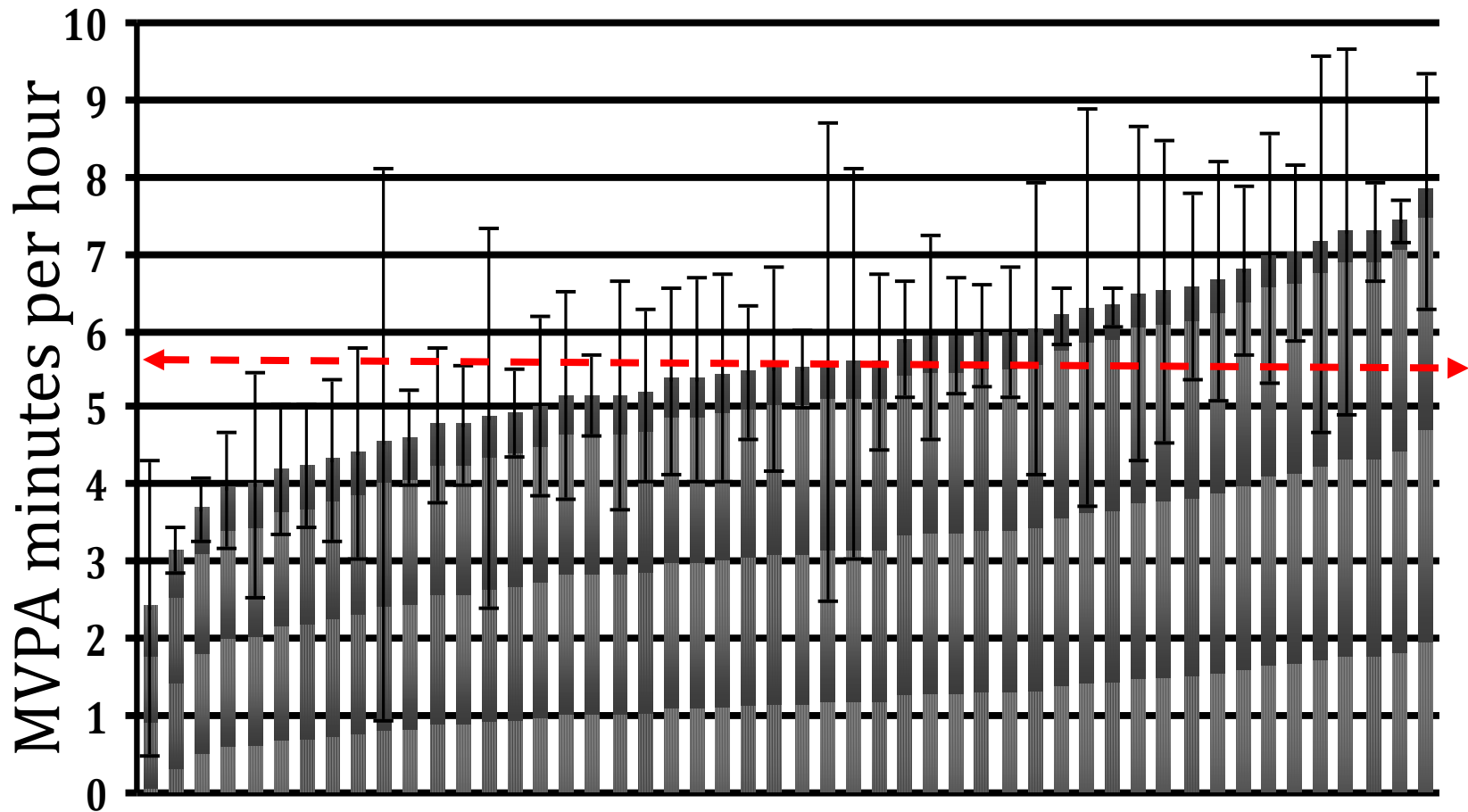
***Fruit (fresh, frozen, or canned in own juice) offered daily.***

**Result: 19% met Guideline**

- 43% None
- 38% Once
- 19% Twice or more



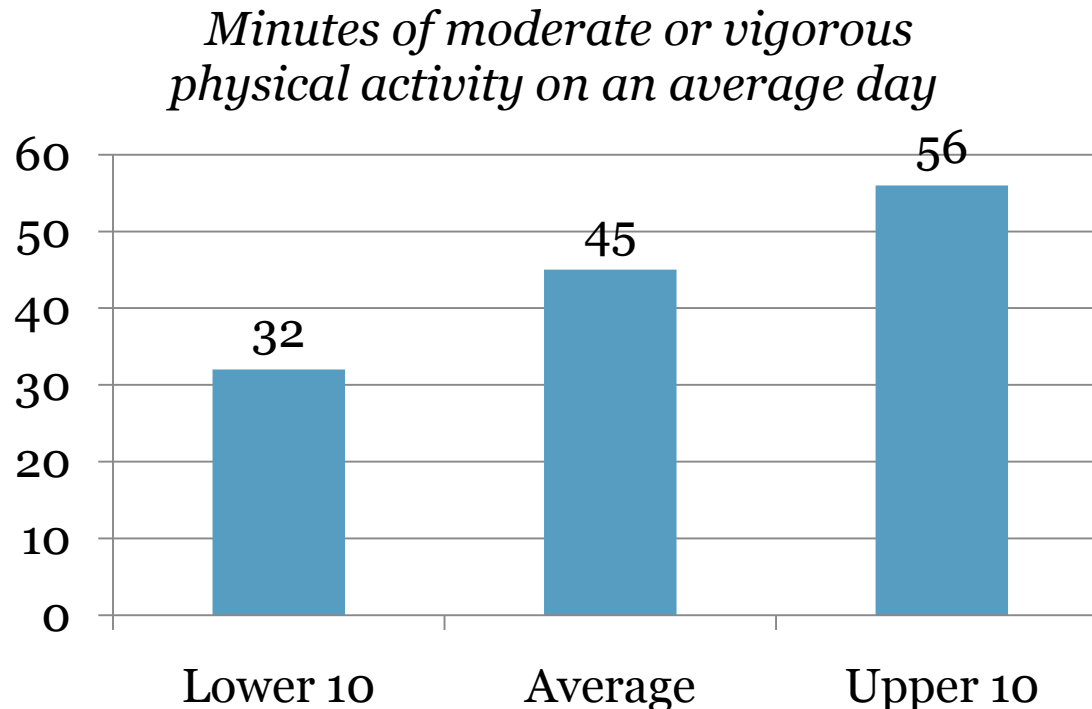
# Minutes per hour of moderate or vigorous physical activity across 50 child care centers



Average minutes of MVPA per hour: 5.58min ( 1.66)

# Why Physical Activity in Child Care?

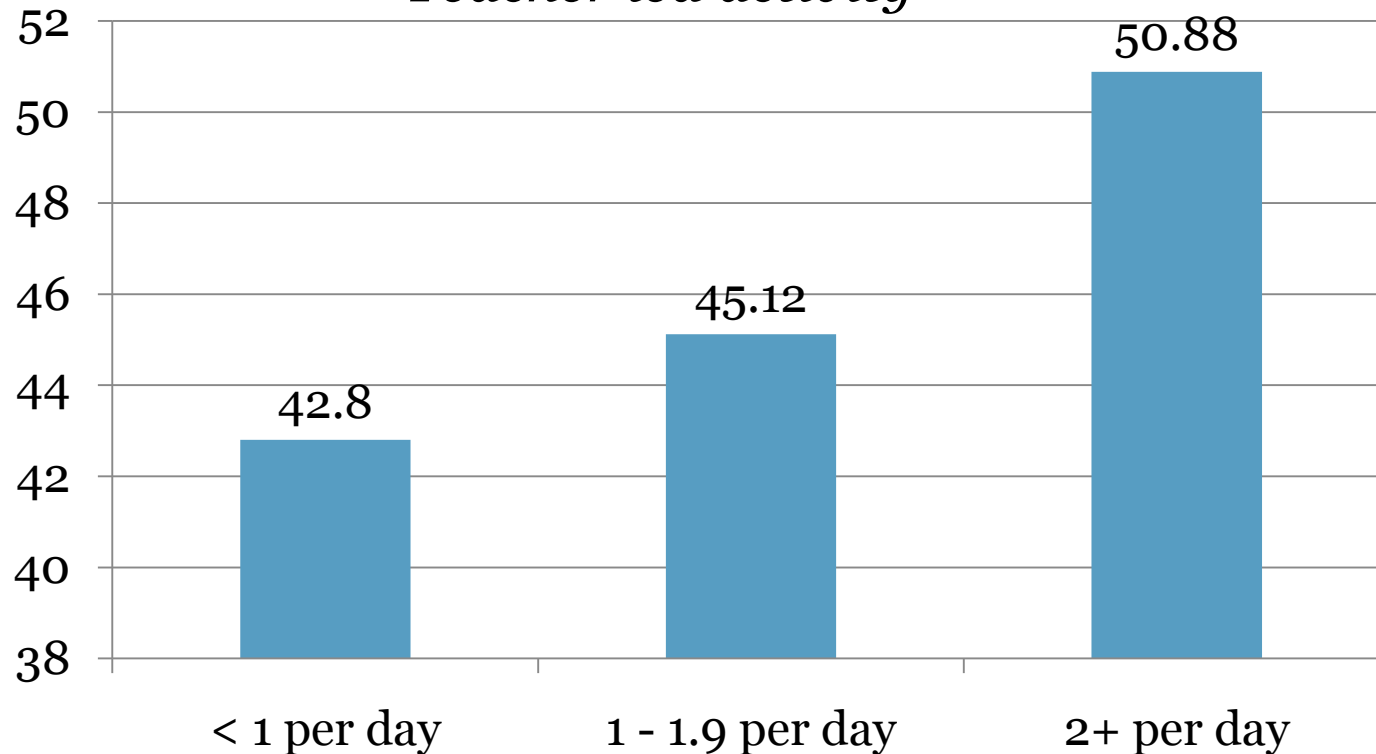
The amount of physical activity children get is related to what child care center they attend



In one month the difference between the upper and lower groups is about 8 hours!

# Teacher Led Activity and MVPA

*Minutes of MVPA across three levels of  
Teacher led activity*



*Number of Teacher led physical activities per day*



# Results from the NAP SACC Evaluation

Ward DS, Benjamin SE, Ammerman AS, Ball SC, Neelon BH, Bangdiwala SI.  
Nutrition and physical activity in child care: results from an environmental  
intervention. *American Journal of Preventive Medicine*. Oct 2008;35(4):352-  
356

# NAP SACC Evaluation Design

- Sample

- A convenience sample of 96 child care centers recruited from 33 North Carolina (NC) counties
- Centers represented all three regions of NC (Western, Eastern, and Central Piedmont).
- Most (n=84) were part of an evaluation of the *NAP SACC* intervention); 12 additional centers were part of an exploratory study to test the self-assessment instrument.



# Change in EPAO Item Scores

Nutrition	Average Change	Range
Control	-0.50 7.5	(-19 to +15)
Intervention	+4.34 7.3	(-11 to +29)
Physical Act	Mean	Range High
Control	-0.15 6.8	(-8 to +11)
Intervention	+3.61 6.6	(-5 to + 15)



# How does it work?

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Nutrition  
And  
Physical Activity  
Self  
Assessment for  
Child  
Care



# NAP SACC Steps

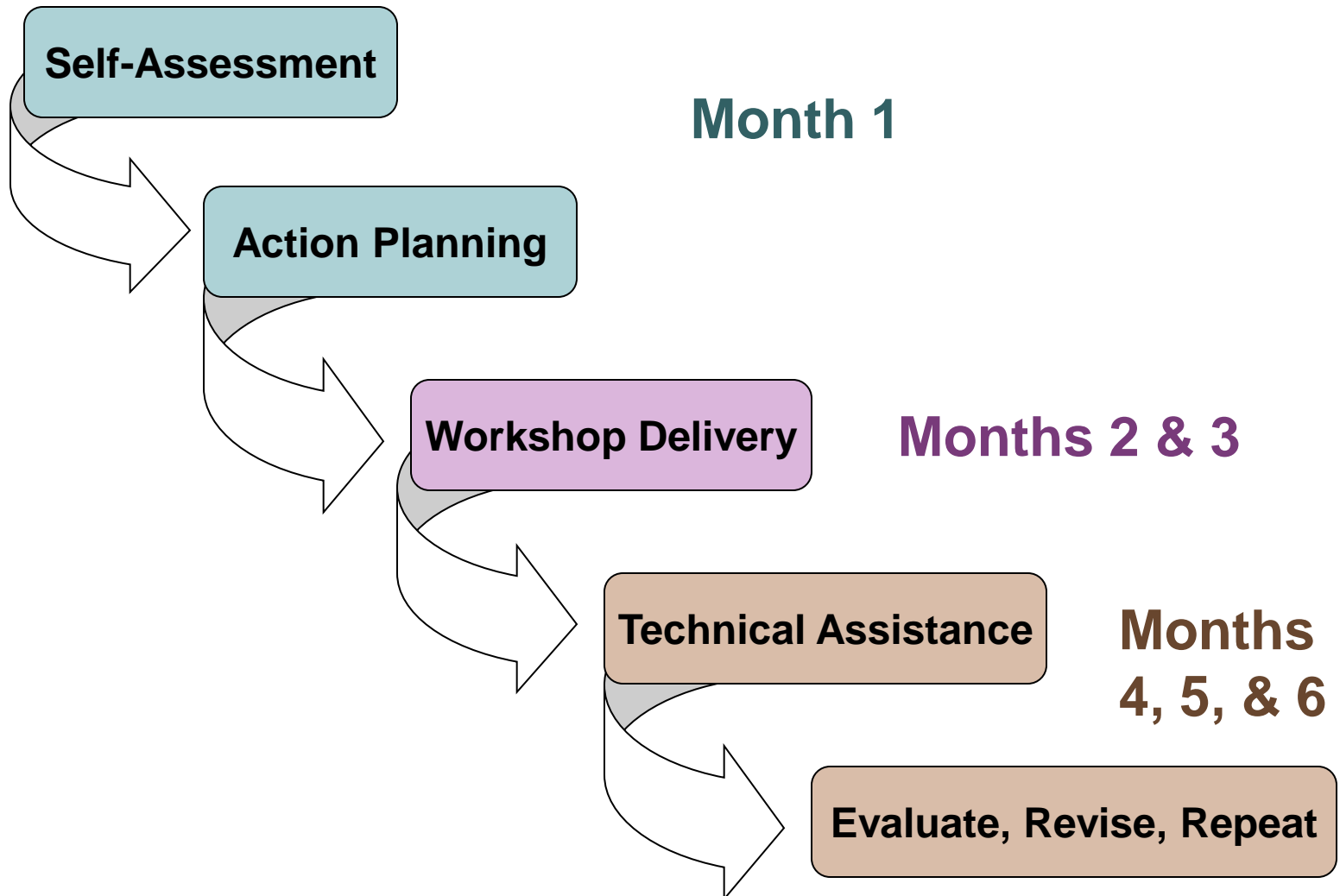
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- 1. Self-Assessment**
- 2. Action Planning/Goal Setting**
- 3. Workshop Delivery**
- 4. Targeted Technical Assistance**
- 5. Evaluate, revise and repeat**



# NAP SACC Timeline

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## Self-Assessment

# Step 1: Self-Assessment

- Facility director completes self-assessment instrument with help from key staff, such as the cook or program planner.



### 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. Refer to the instruction sheet for clarification of question, examples, and definitions.

#### SECTION I: NUTRITION

##### (N1) Fruits and Vegetables

A. Fruit (not juice) is offered:	<input type="checkbox"/> 3 times per week or less	<input type="checkbox"/> 4 times per week	<input type="checkbox"/> 1 time per day	<input type="checkbox"/> 2 or more times per day
B. Fruit is offered canned in own juice (no syrups), fresh, or frozen:	<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, or dried beans) 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, other than potatoes, corn, and green 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
E. Cooked vegetables are prepared with added meat fat, margarine or butter:	<input type="checkbox"/> All of the time	<input type="checkbox"/> Most of the time	<input type="checkbox"/> Some of the time	<input type="checkbox"/> Rarely or never

##### (N2) Meats, Fats, and Grains

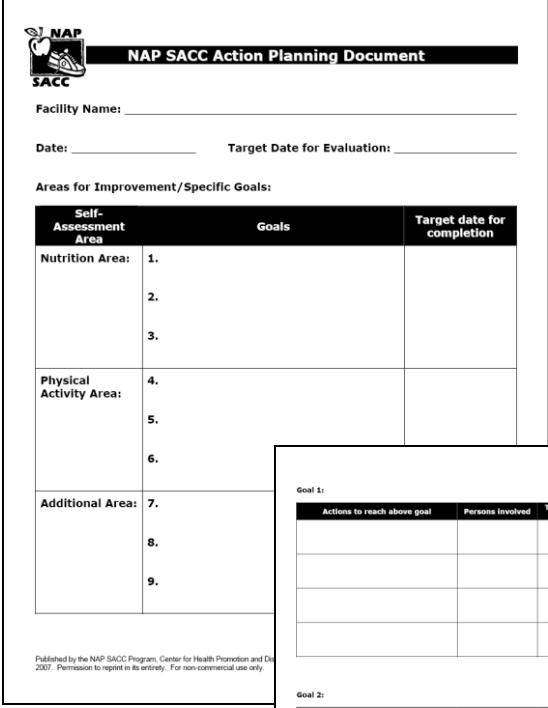
A. Fried or pre-fried potatoes (French fries, tater tots, hash browns) are offered:	<input type="checkbox"/> 3 or more times per week	<input type="checkbox"/> 2 times per week	<input type="checkbox"/> 1 time per week	<input type="checkbox"/> Less than once a week or never
B. Fried or pre-fried (frozen and breaded) meats (chicken nuggets) or fish (fish sticks) are offered:	<input type="checkbox"/> 3 or more times per week	<input type="checkbox"/> 2 times per week	<input type="checkbox"/> 1 time 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"/> 3 or more times per week	<input type="checkbox"/> 2 times per week	<input type="checkbox"/> 1 time per week	<input type="checkbox"/> Less than once a week or never

Ammerman, AS, Benjamin, SE, Sommers, JK, Ward, DS. 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, University of North Carolina at Chapel Hill. Revised May 2007.

## Action Planning

# Step 2: Action Planning

- Provider-generated with Consultant support
- 3 Key Areas selected for improvement
- At least 1 nutrition and 1 physical activity key area selected



**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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**Goal 1:**

Actions to reach above goal	Persons involved	Target date for completion

**Goal 2:**

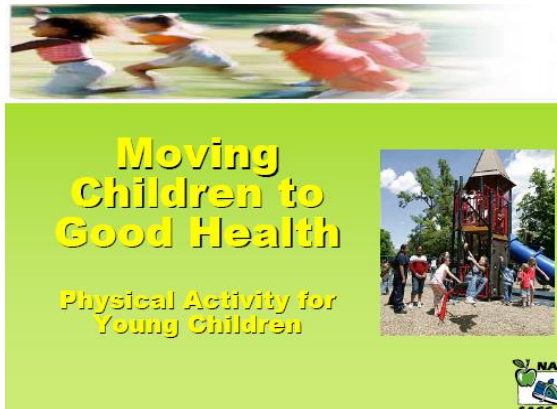
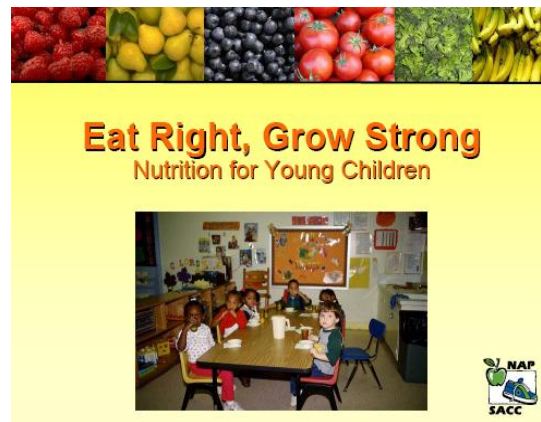
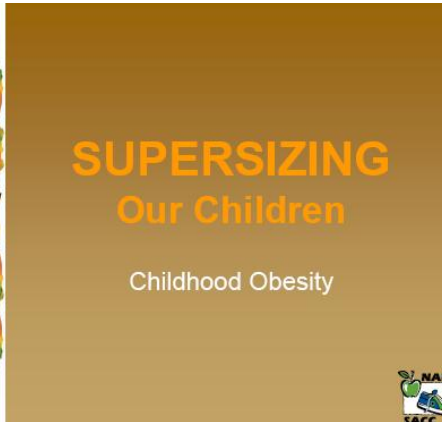
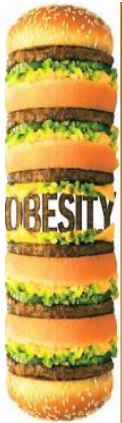
Actions to reach above goal	Persons involved	Target date for completion

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## Workshop Delivery

# Step 3: Workshop Delivery

- 5 workshops (approved for 5.5 CEUs)





## Technical Assistance



# Step 4: Provision of Technical Assistance

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- This may be the most important step in the process!!
- In-person, telephone, email
- This offers...
  - Support
  - Encouragement
  - Additional information
  - A reminder of goals

Evaluate, Revise, Repeat

## Step 5: Evaluate, Revise, and Repeat

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- Evaluate progress using repeat self-assessment.
- Revise, refine and add goals where necessary
- Celebrate the small changes, not just the big ones!




# Center TRT Website: [www.center-trt.org](http://www.center-trt.org)

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**Obesity Prevention** **WISEWOMAN**





**Overview**

**Methods**

**Contributing Factors**


**Research-tested Interventions**


- NAP SACC
- Weight-Wise
- New Leaf
- Baltimore Healthy Stores

**Practice-tested Interventions**

- VERB Scorecard
- Color Me Healthy
- FFFI Supermarket
- HFE Pricing Policy
- Smart Meal™ Seal
- RUSD Farmers' Market Salad Bar
- Kindergarten Initiative

## NAP SACC


[Download full description](#) 

[Download flyer](#) 

### Intent of the Intervention

The Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) program is a practice-based intervention designed to enhance policies, practices, and environments in child care by improving the:

- nutritional quality of food served,
- amount and quality of physical activity
- staff-child interactions
- facility nutrition and physical activity policies and practices and related environmental characteristics



The NAP SACC intervention primarily addresses the inter-personal and organizational levels of the socioecologic model.

**Intent of the Intervention**

**Overview**

**Core Elements**

**Resources Required**

**Implementation**

**Evidence Summary**

**Potential Public Health Impact**

**Intervention Materials**

**Training and Technical Assistance**


**Additional Information**

# NAP SACC Implementation Training

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Getting Started  
Register To Access Trainings  
View Trainings / Login  
Technical Requirements  
Contact Us

## Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) Training

**About This Training:**

This training is designed for those interested in adopting the Nutrition and Physical Activity Self-Assessment in Child Care (NAP SACC) intervention in their state or community. The training provides step by step instructions on implementing NAP SACC. This training and the associated materials will allow you to fully implement the NAP SACC program.

**Your Status in this Training:**

You are now ready to **begin** the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) Training.

### Preliminary Materials

Please read the materials linked below before beginning the training presentation. All Readings are in PDF Format except where otherwise noted.

### Intervention Materials

- Self-Assessment**
  - The NAP SACC self-assessment instrument is an intervention tool that allows child care facilities to freely assess their own environment, policies, and practices. The self-assessment consists of both nutrition and physical activity sections and will suggest areas for possible improvement.
- Sample Self-Assessment**
  - An example of what the self-assessment will look like once the provider has completed it.
- Self-Assessment Instruction Sheet**
  - The self-assessment instruction guide is provided for the director when filling out the selfassessment. It includes a term glossary and provides additional clarity for certain questions.
- Action Planning Document**
  - The Action Planning Document is used to help choose key areas for improvement, create goals, and action items.
- Sample Action Planning Document**
  - An example of what the Action Planning Document will look like once completed.
- Five NAP SACC Workshops with Activities (ZIP file format)**
  - The workshops are designed to inform the staff about nutrition and physical activity and help them understand why these topics are so important.

### Technical Assistance Materials

# NAP SACC is:

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- A great tool for addressing continuous quality improvement in nutrition and physical activity environments at childcare
- Designed to address changes in areas where a center feels ready and able
- Can be *guided* toward areas in need of change by an effective, patient NAP SACC consultant (such as coach!)



# NAP SACC is..

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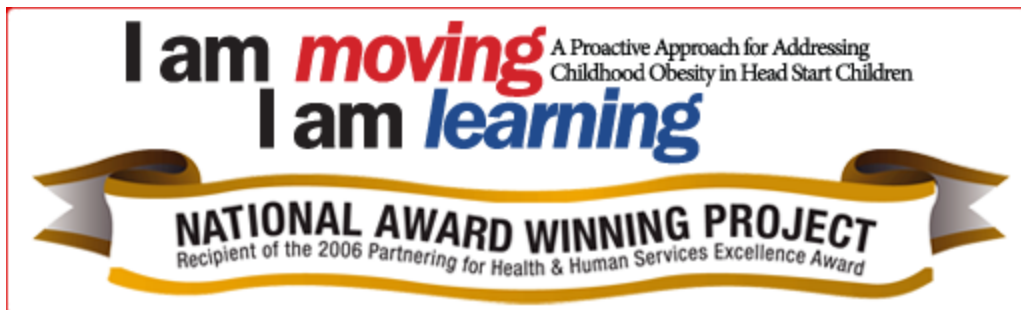
## a Planning Model – not a curriculum

- As a planning model, the NAP SACC program helps centers identify and address changes to their nutrition and physical activity environment
- Curricula, strategies, or program standards provide guidance or specific materials that can be used to guide practice or deliver lessons to children based on planning conducted using the NAP SACC program





# NAP SACC: Curricula and Approaches



# 5-2-1-0 Objectives

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- 5** or more fruits & vegetables
- 2** hours or less recreational screen time\*
- 1** hour or more of physical activity
- 0** sugary drinks, more water & low fat milk

\*Keep TV/Computer out of the bedroom. No screen time under the age of 2.

# Who's Delivering NAP SACC?

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## **Sponsors**

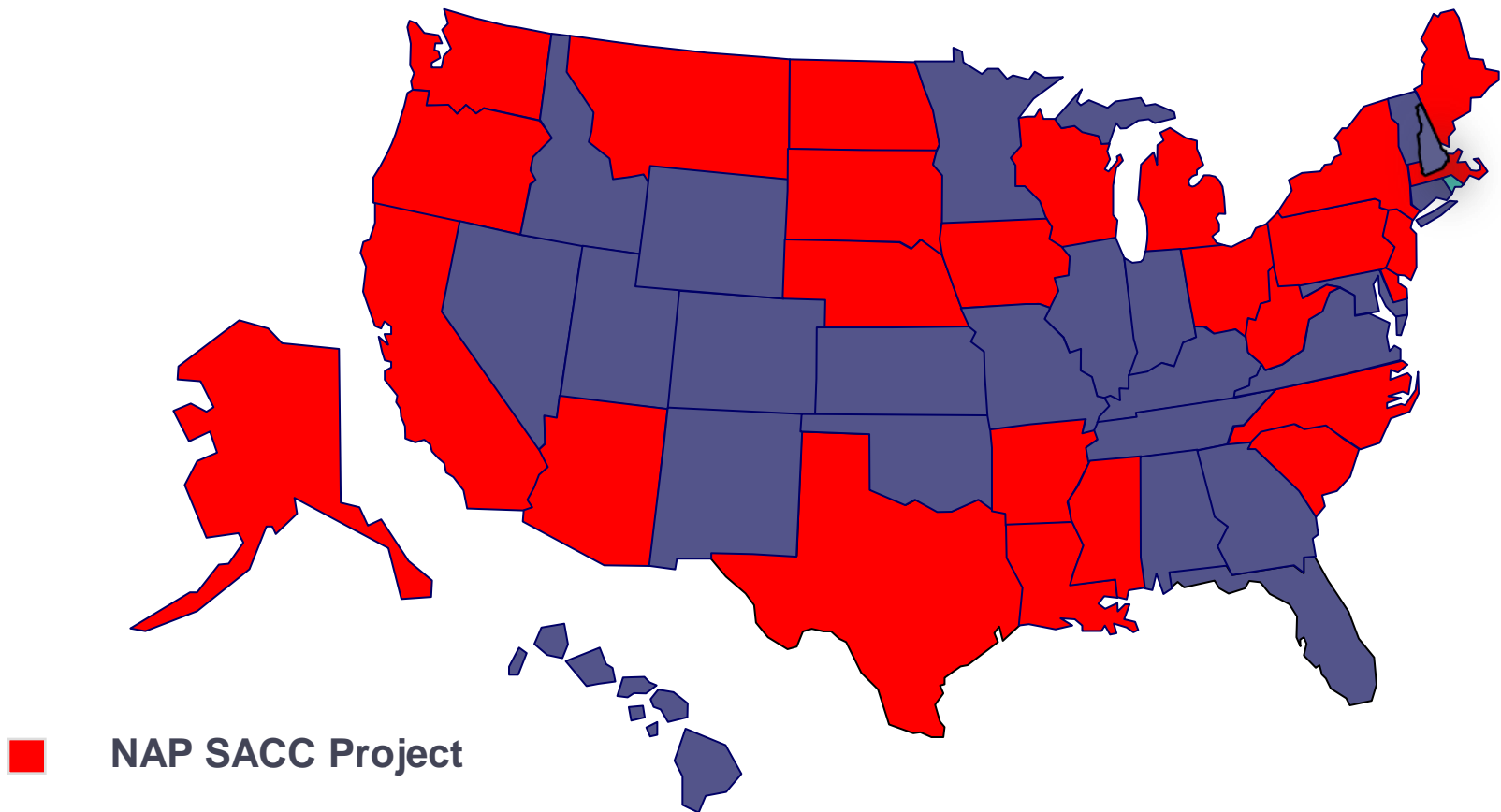
- State or local public health departments
- Colleges or universities
- Food Trust
- Childcare organizations
- Others

## **“NAPSACC Consultant”**

- Child Care Health Consultant
- Child Care Resource and Referral Staff
- Health educator
- Nutrition educator or Registered Dietician
- Childcare director

# States Using NAP SACC Intervention Materials

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# Arizona

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- ARIZONA: Yuma County
  - Drummond et al. A pebble in the pond: the ripple effect of an obesity prevention intervention targeting the child care environment. Health Promot Pract. 2009 Apr;10(2 Suppl):156S-167S.
- Pilot program in 30 Centers and 1800 children
- NAP SACC materials were adapted to fit the local community

# New York

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- 5 year state dissemination plan
- Goals of the evaluation plan
  - To evaluate the expert training model as a viable approach for implementing NAP SACC statewide
  - To evaluate the association between Active Organizational Support and fidelity to the NAP SACC process

# Coming Soon.....

## NAP SACC: Media Reduction Module

### Materials Included

- Intervention Materials
  - Media Self-Assessment
  - Media Workshop
- Technical Assistance Materials
  - Facility Handouts
  - Technical Assistance Manual
  - Sample Child Care Media Use Policy
- Parent Toolkit
  - Handouts
  - Rate your Family Media

The collage displays several materials from the NAP SACC Media Reduction Module:

- Managing Media in Your Home**: A handout titled "Strategies for Creating Media Rules" with sections on "TV allowance," "TV/video viewing time," and "Try this..."
- Computer and Video Game Use**: A handout with a checklist, "Choices You Make," and "NAP and ECERS RECOMMENDATIONS."
- Media Self-Assessment for Child Care**: A form with sections for (M1) Television and Video Use, (M2) Computer and Video Game Use, and a video thumbnail.
- Rate Your Media Environment**: A form with a checklist and a scale for rating media use.
- Unplugged: Moving Beyond Screens**: A video thumbnail showing children playing without screens.

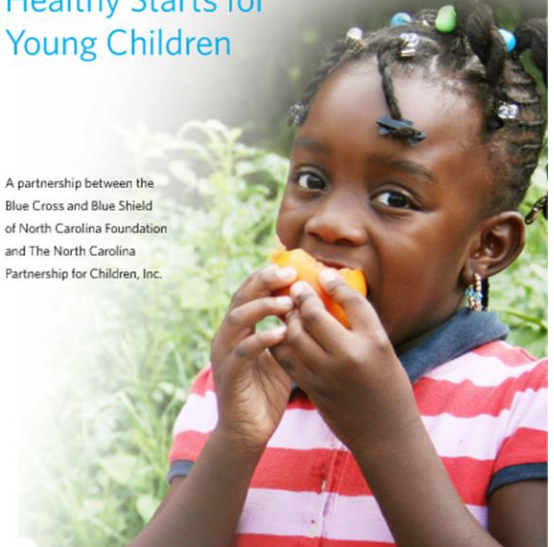



# North Carolina

- North Carolina is working with Smart Start and using NAP SACC to develop enhanced outdoor environments, active lessons, and improved nutrition (Blue Cross/Blue Shield sponsor)

*Shape NC*  
Healthy Starts for  
Young Children

A partnership between the  
Blue Cross and Blue Shield  
of North Carolina Foundation  
and The North Carolina  
Partnership for Children, Inc.



 Blue Cross BlueShield  
of North Carolina Foundation

 Smart  
START



Smart Start &  
The North Carolina Partnership for Children, Inc.

# QUESTIONS



Email: [napsacc@unc.edu](mailto:napsacc@unc.edu)

Web: [www.napsacc.org](http://www.napsacc.org)

# NAP SACC Self-Assessment



## 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:	<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 served 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. 100% fruit juice is served:	<input type="checkbox"/> 2 or more times per day	<input type="checkbox"/> 1 time per day	<input type="checkbox"/> 2-4 times per week	<input type="checkbox"/> 1 time per week or less
D. Vegetables (not including french fries or fried potatoes) are served:	<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
E. Vegetables served are dark green, red, orange, or yellow in color:	<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
F. 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 1 time per week

#### (N2) Fried Foods and High Fat Meats

A. Fried or pre-fried meats (chicken nuggets) or fish (fish sticks) are served:	<input type="checkbox"/> 1 or more times each 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 potatoes (french fries, tater tots, hash browns) are served:	<input type="checkbox"/> 1 or more times each 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 served:	<input type="checkbox"/> 1 or more times each 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

## Nutrition

9 nutrition areas of assessment

38 nutrition questions

## Physical Activity

6 physical activity areas of assessment

18 physical activity questions

*The EPAO is an expansion of the self-assessment into a tool that is executed by objective, trained field observers through direct observation and document review.*