

# Childhood Obesity in North Carolina: DPH Approaches

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# Outline

- Prevention Settings
- Evidence-based approaches
- Policy
- Priorities

# NC ranks 5<sup>th</sup> worst in Childhood Obesity

States with Highest Rates of Obese 10- to 17-Year Olds		
Ranking	States	Percentage of Obese 10- to 17-Year Olds
1	D.C.	22.8%
2	West Virginia	20.9%
3	Kentucky	20.6%
4	Tennessee	20.0%
5	North Carolina	19.3%
6	Texas	19.1%
7	South Carolina	18.9%
8	Mississippi	17.8%
9	Louisiana	17.2%
10	New Mexico	16.8%

Obese children are almost six times more likely than children with healthy weights to have an impaired quality of life--equal to that of children undergoing treatment for cancer.

--*JAMA*, 2003



**A statewide initiative promoting increased opportunities for healthy eating and physical activity.**

Active Living by Design · Alice Aycock Poe Center for Health Education · Alliance for a Healthier Generation · American Heart Association/NC Affiliate · Association of NC Board of Health · Be Active North Carolina, Inc · Blue Cross and Blue Shield of North Carolina Foundation · Cape Fear Healthy Carolinians/UNC-W · Catawba Valley Medical Center · Duke University Division of Community Health · ECU/School of Medicine · FirstHealth of the Carolinas · Fit City Challenge · Healthy Carolinians, Inc · Inter-Faith Food Shuttle · John Rex Endowment · NC A&T State University · NC Academy of Family Physicians · NC Academy of Physician Assistants · NC Action for Healthy Kids · NC Alliance for Athletics Health, Physical Education, Recreation and Dance · NC Alliance for Health · NC Alliance of Boys & Girls Clubs · NC Association of Local Nutrition Directors · NC Citizens for Public Health, Inc · NC Dietetic Association · NC Department of Agriculture and Consumer Services · NC Department of Environment and Natural Resources NC Office of Environmental Education· NC Department of Health & Human Services-NC Division of Public Health · NC Department of Public Instruction · NC Extension Association of Family and Consumer Sciences · NC Fruits & Veggies Nutrition Coalition · NC Health and Wellness Trust Fund · NC Local Health Directors Association · NC Medical Society · NC Medical Society Foundation · NC Office on Disability and Health · · NC Partnership for Children, Inc. · NC Pediatric Society · NC Public Health Association, Inc · NC Public Health Foundation · NC Recreation and Park Association · NC Senior Games, Inc · NC Society for Public Health Education · NC State Health Plan · NC State University NC Cooperative Extension 4-H Youth Development and Family & Consumer Sciences · Office of Healthy Carolinians/Health Education · Rex Healthcare · RTI International · School Nutrition Association-NC · Southeast United Dairy Association · The Leaflight, Inc. · UNC-CH Center for Health Promotion and Disease Prevention · University Health Systems of Eastern Carolina · Wake Forest University Health Sciences · WakeMed · YMCA of North Carolina



# Targeted Sites for Systems Interventions

- Medical Setting
- School
- Community
- Worksite



# Pediatric Obesity Clinician Reference Guide



**Pediatric Obesity**

**ASSESSMENT, PREVENTION & TREATMENT GUIDE FOR CLINICIANS**

1. Assess Body Mass Index (BMI) in children ages 2-18 annually.
2. Plot BMI on gender-specific BMI-for-age chart to determine percentile.
3. Diagnose weight category (Table 1).
4. Identify risk (Table 2) and comorbidities (Table 4).
5. History and physical exam, blood pressure, appropriate laboratory tests and referrals (Tables 3, 5).
6. Share prevention messages (5-3-2-1-Almost None).

**Assessment and Counseling Tips**  
Assess current behaviors (consider using questionnaires).

- Eating behaviors
  - Fruit and vegetable consumption
  - Breakfast consumption (frequency and quality)
  - Frequency of family meals prepared at home
  - Sugar-sweetened beverage consumption (soda, tea, energy drinks)
  - Excess juice consumption (<math>\leq 4-6\text{ oz/day}</math> for age 1-6 yrs, <math>> 8-12\text{ oz/day}</math> for age 7+ yrs)
  - Frequency of eating food bought away from home (esp. fast food)
  - Portion sizes of meals and snacks
  - Atypical eating/intuition behaviors
- Physical activity behaviors
  - Amount of TV and other screen time and sedentary activities
  - Amount of daily physical activity
  - Role of environmental barriers and accessibility

Assess motivation and attitudes.

- Are you concerned about your/your child's weight?
- On a scale of 0 to 10, how important is it for you/child/family to change [specific behavior] or to lose weight?
- On a scale of 0 to 10, how confident are you that you/they could succeed?

Summarize and probe possible changes.

**Prevention Messages: 5-3-2-1-Almost None**

- 5** or more servings of fruits and vegetables daily
- 3** structured meals daily—eat breakfast, less fast food, and more meals prepared at home
- 2** hours or less of TV or video games daily
- 1** hour or more of moderate to vigorous physical activity daily

**Almost None:** Limit sugar-sweetened beverages to "almost none"

Adapted from the 5:2:2:2 message promoted by the National Children's Obesity Initiative (www.ncoi.org)

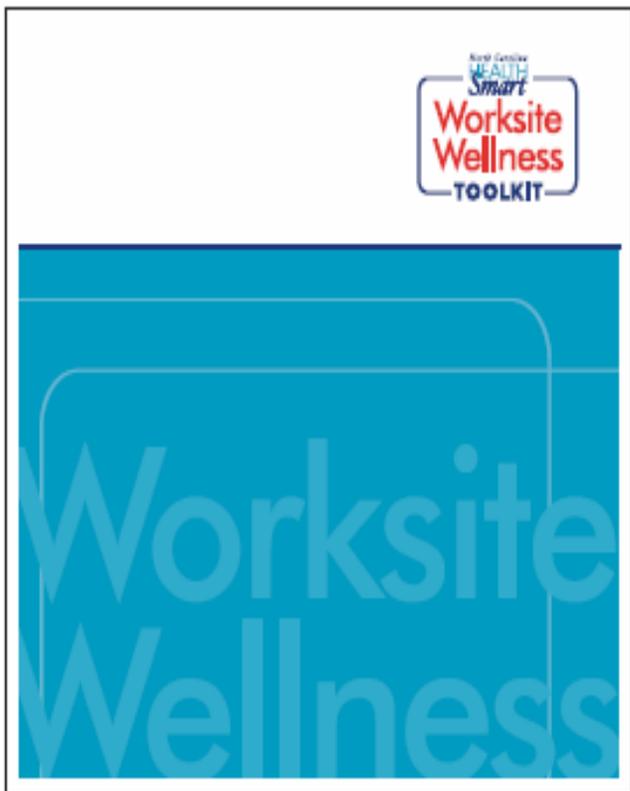
- Developed by a committee of NC physicians
- Based on recommendations released in *Pediatrics* in December 2007
- Includes color-coded BMI charts, blood pressure tables, and prescription pads

# Energize! Program

- Intensive, 12-week, family-based healthy lifestyle program
- High risk children 6-18 with type 2 diabetes, pre-diabetes or risk factors.
- Goal: To prevent and treat type 2 diabetes through sustainable lifestyle change.



# NC HealthSmart Worksite Wellness Toolkit



The original Toolkit has been modified to meet the unique needs of North Carolina schools.

# 8 Components of a Coordinated School Health Approach



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

- Statewide program aimed at improving eating and physical activity environments
- NC child care centers with children ages 2-5



# School Health Advisory Council (SHAC) Trainings

- Collaborative effort between DPI and DPH
- 3 trainings in 2004
- To improve community and SHACs collaborations



NC Department of  
Public Instruction

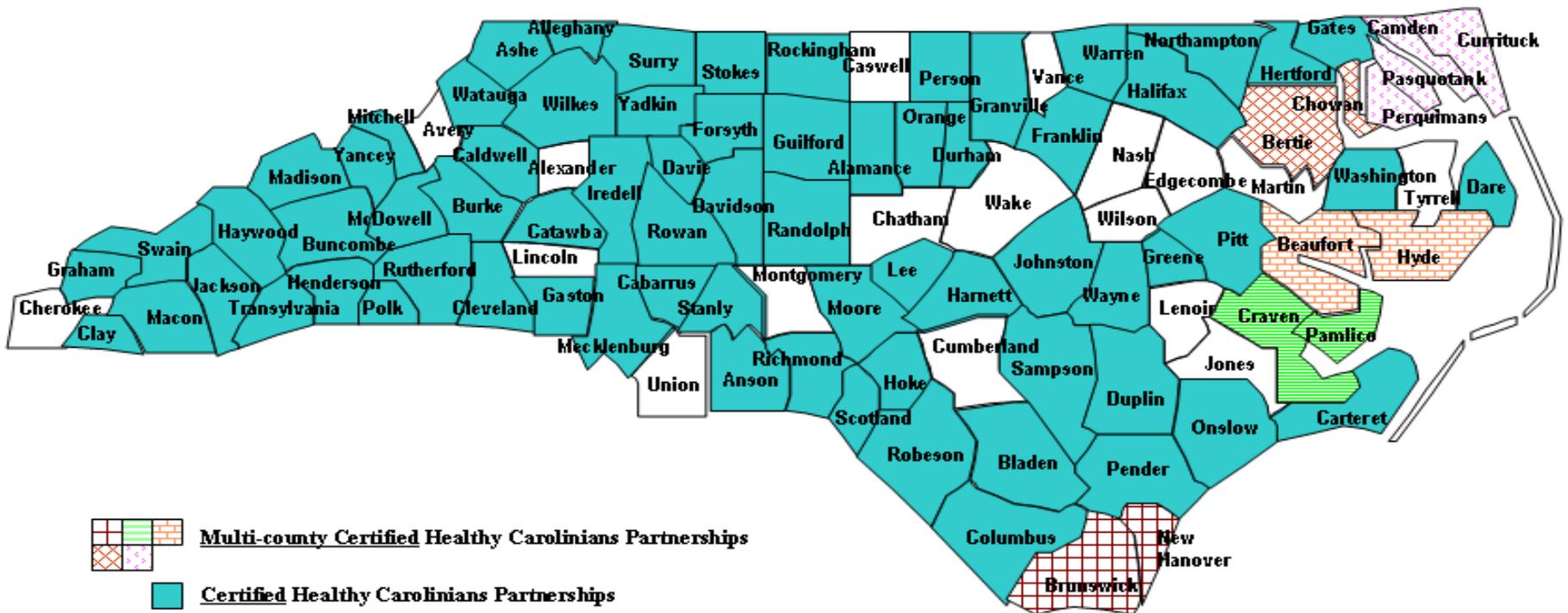


# Healthy Carolinians

- Provides infrastructure for local public health activities
- Program certification granted to communities with broad-based community partnerships that represent the needs of disadvantaged and whose mission is prevention based



# Healthy Carolinians Certified Partnerships (2007)




**Multi-county Certified Healthy Carolinians Partnerships**  
**Certified Healthy Carolinians Partnerships**

For more information, call the Office of Healthy Carolinians/Health Education (919-707-5150) or see our website: [www.HealthyCarolinians.org](http://www.HealthyCarolinians.org)

# Statewide Health Promotion



## Community Development Specialists...

- Provide technical assistance and consultation to local staff supported by Program funds.
- Review community action plans submitted by health departments.
- Review progress toward community action plan objectives.
- Conduct annual county site visits.
- Coordinate regional meetings for local staff.

# Statewide Health Promotion



## Local Programs...

- Designate staff to oversee local initiatives.
- Engage community partners in creating local solutions.
- Facilitate changes in policy and the environment to support physical activity, healthy eating, and tobacco use avoidance.

# Eat Smart, Move More Community Grants Program

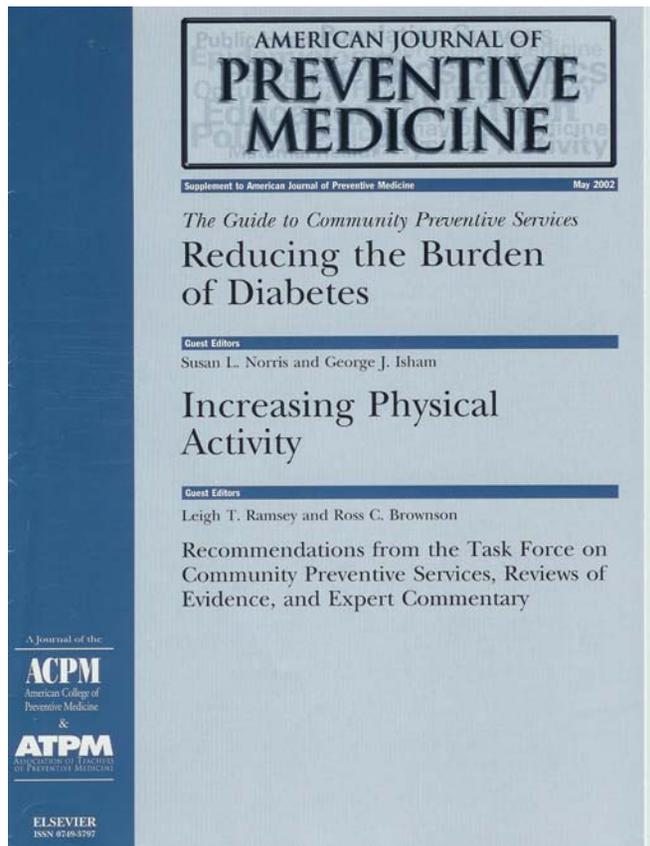


Support projects  
in local  
communities that  
are changing  
policies and  
environments for  
eating smart and  
moving more.

# The Guide to Community Preventive Services



## Physical Activity



October 26, 2001 / Vol. 50 / No. RR-18

**MMWR**<sup>TM</sup>  
MORBIDITY AND MORTALITY  
WEEKLY REPORT

*Recommendations  
and  
Reports*

### Increasing Physical Activity

**A Report on Recommendations of the Task  
Force on Community Preventive Services**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention (CDC)  
Atlanta, GA 30333



# Environment and Policy

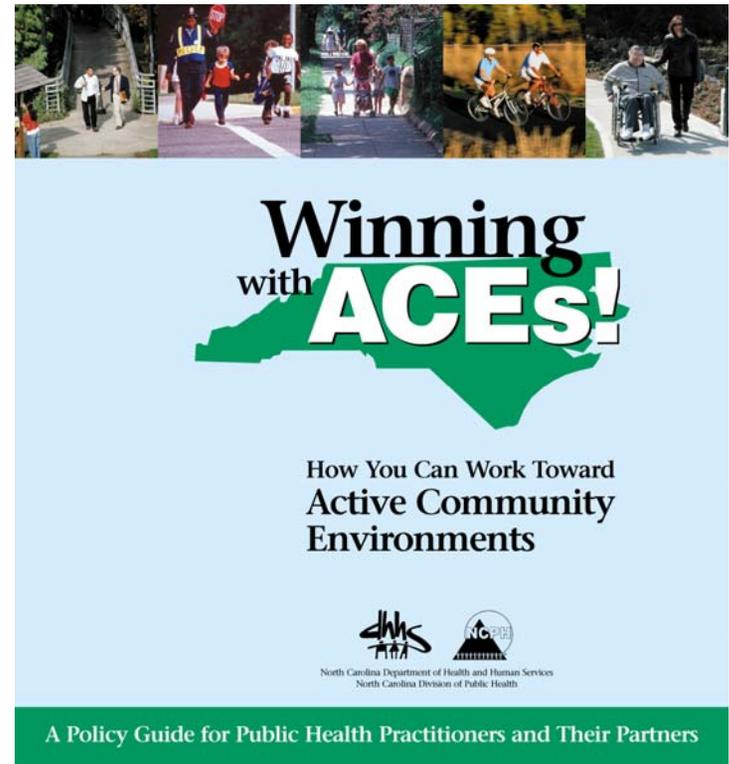
- Enhanced access with outreach
- Urban design and land use

Hyde  
County  
walking trail



# Active Community Environments (ACEs)

- Increase opportunities for people to be physically active.
- Serves as a policy primer
- Provides guidelines for getting involved in land use and transportation planning



# Behavioral and Social

- School-based physical activity
- Non-family social support
- Individually adapted behavior change

Jones County  
implements  
Take 10!  
Program



# Informational

- Community-wide campaigns
- Point of decision prompts

NC Walk  
to School  
Day



# Eat Smart Move More Messages

Eat Smart, Move More Health Tip



## This Year's #1 Baby Gift: Breast Milk!

For tips on healthy nutrition where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

Eat Smart, Move More Health Tip



## Enjoy More Fruits and Veggies

For tips on how to eat your fruits and veggies every day where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

Eat Smart, Move More Health Tip



## Prepare More Meals at Home

For tips on how to prepare meals where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

Eat Smart, Move More Health Tip



## Choose to Move More Every Day

For tips on how to move more every day where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

Eat Smart, Move More Health Tip



## Right-Size Your Portions

For tips on how to right-size your portions where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

Eat Smart, Move More Health Tip



## Re-Think Your Drink

For tips on how to re-think your drink where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

Eat Smart, Move More Health Tip



## Tame the Tube—and Get Moving

For tips on how to move more every day where you live, learn, earn, play and pray, visit



[www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

# Reducing the Barriers to Behavior Change

→Media

→Policy

→Systems Change



# Healthy Active Children Policy

- 30 mins a day in K-8
- Established School Health Advisory Councils
- No withholding recess for punishment or to do extra work
- No severe physical activity for punishment



# SafeRoutes

National Center for Safe Routes to School



# Safe Routes to School



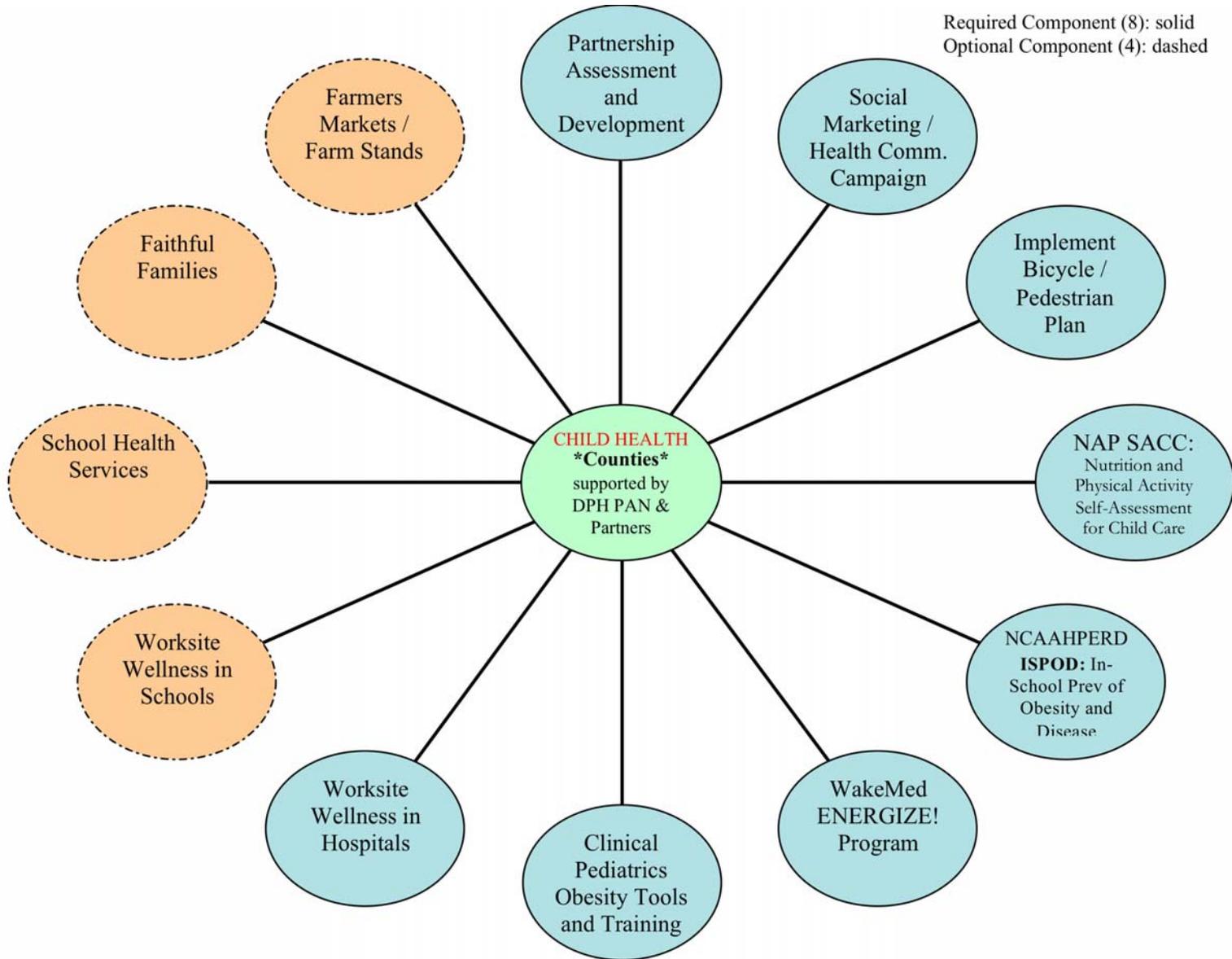


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# Childhood Obesity Prevention Project (COPP)

- 1<sup>st</sup> state funds dedicated to Childhood Obesity
- Selected counties: Cabarrus, Dare, Henderson, Moore, and Watauga (Appalachian District)
- \$380,000 per county
- Multi-level, multi-sector, integrated interventions
- Evaluation: partnerships, policy/environmental change, process measures, intervention specific

# COPP



# DPH Priorities

- Childhood Obesity Prevention Projects
- North Carolina State Employees' Worksite Wellness Program, including teachers