

Children, Physical Activity and the Built Environment

October 9, 2008



NC Childhood Obesity Task Force

Philip Bors
Project Officer



What is the Built Environment?

“Environments that are **human modified**, including homes, schools, workplaces, highways, urban sprawl, and air pollution.”

–Samuel H. Wilson, MD, Deputy Director, NIEHS
2004 Summit: Obesity and the Built Environment

Includes:

- Public policy, urban planning, access to healthy food
- sidewalks, parks in neighborhoods, trails/greenways
- lack of fresh fruits and vegetables in neighborhoods, fast food outlets

The Built Environment Matters

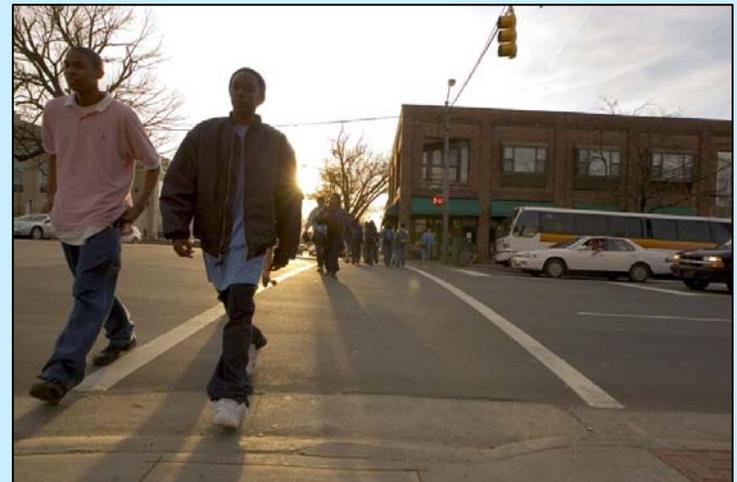
It influences:

- What activity happens where
- How we move
- Access to opportunities and choices
- Community character



Children and Physical Activity

- Access to facilities like **parks and time outdoors** is associated with **more activity** for both children and adolescents
- More children walk to school where there are **sidewalks and safety improvements**
- Elementary and middle school students are more active at school with **more facilities, equipment and supervision**
- Parental concerns about traffic and “**stranger danger**” are clearly linked to children’s activity levels; schools afraid of **liability**.



Sallis et al, 2001, 2000; 1993; Klesges et al, 1990; Baranowski et al, 1993; Ewing; Staunton et al, 2003; Boarnet et al, 2005; Jago t al, 2004; Gomez, 2004; IOM/TRB, 2005; Timperio et al, 2004

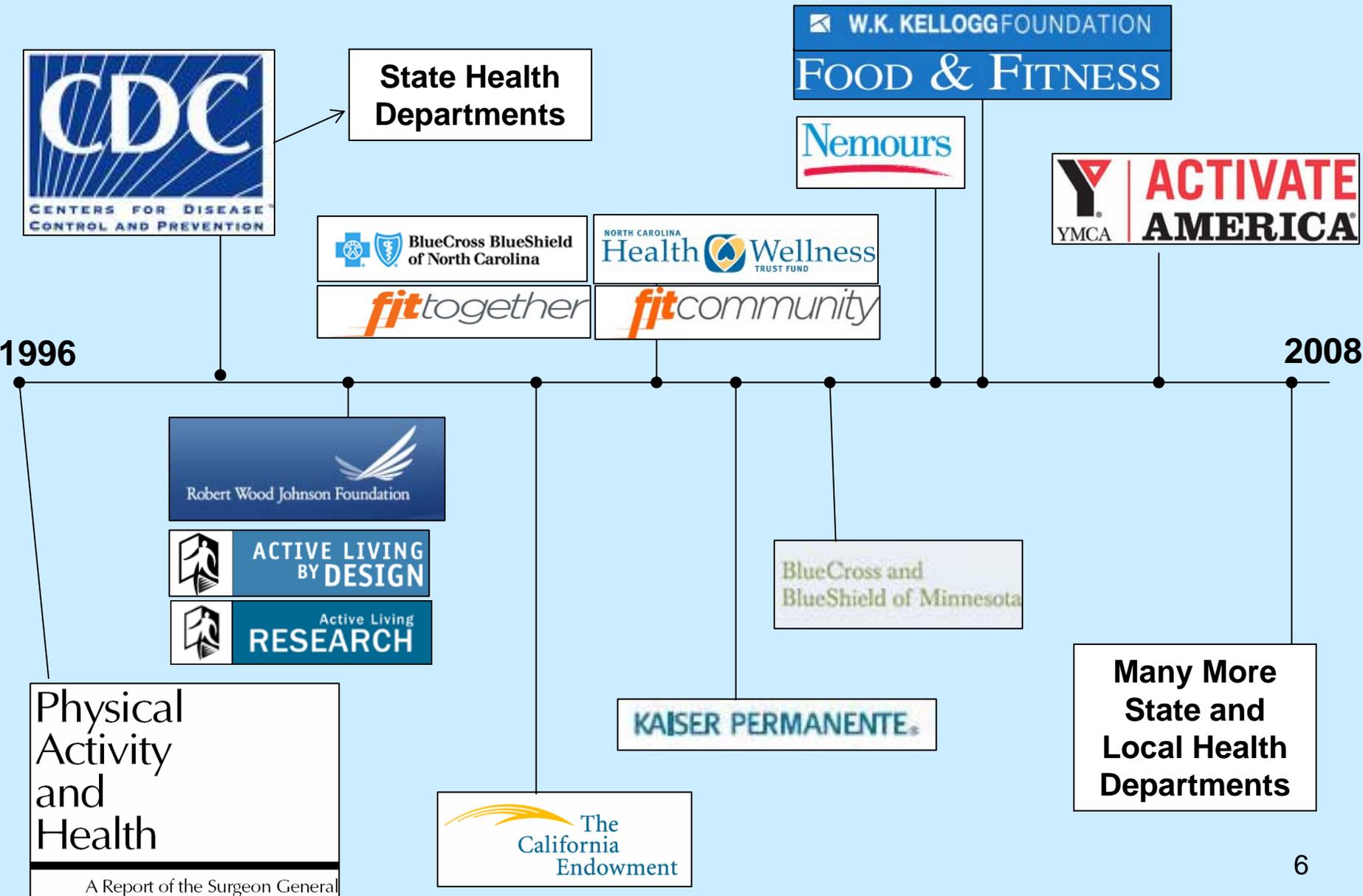
Public Health Synergies

Safety and Physical Activity

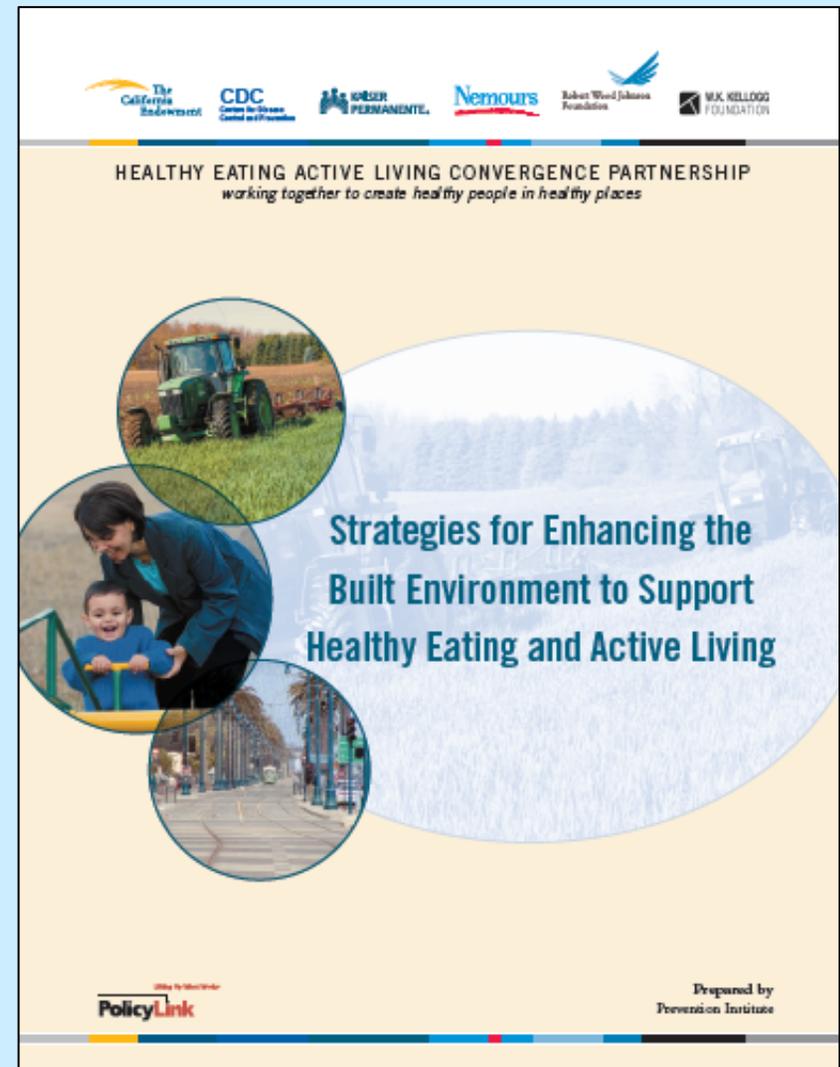
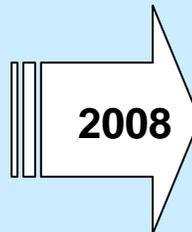
- **Safety in numbers:** increasing the number of pedestrians reduces injury rate



Trend: Focusing on the Built Environment



Convergence Partnership for Healthy Eating and Active Living



Trend: Focusing on the Built Environment

- The science base is building re: the role of the built environment for physical activity

*“Changing the built environment to **increase children’s physical activity for recreation and transportation...** can help provide long-term solutions to the childhood obesity epidemic.*

*Unlike the often-transitory effects of motivational and educational approaches to addressing obesity, **changes in behavior prompted by changes in the built environment should be long lasting.***

*Given the urgency of the childhood obesity epidemic, **we cannot wait for optimal evidence** and must instead base actions on the best available evidence.”*

- Jim Sallis and Karen Glanz, 2006

“The Role of Built Environments in Physical Activity, Eating, and Obesity in Childhood” The Future of Children, Vol. 16/No. 1/Spring 2006

The Role of Built Environments in Physical Activity, Eating, and Obesity in Childhood

James F. Sallis and Karen Glanz

Summary

Over the past forty years various changes in the U.S. “built environment” have promoted... Karen Glanz investigate whether... and whether improvements to... likely to lower rates of childhood

The Future of Children
PRINCETON • BROOKINGS

Childhood Obesity

VOLUME 16 NUMBER 1 SPRING 2006

3	Introducing the Issue
19	Childhood Obesity: Trends and Potential Causes
47	The Consequences of Childhood Overweight and Obesity
69	Markets and Childhood Obesity Policy
89	The Role of Built Environments in Physical Activity, Eating, and Obesity in Childhood
109	The Role of Schools in Obesity Prevention
143	The Role of Child Care Settings in Obesity Prevention
169	The Role of Parents in Preventing Childhood Obesity
187	Targeting Interventions for Ethnic Minority and Low-Income Populations
209	Treating Child Obesity and Associated Medical Conditions

A PUBLICATION OF THE WOODROW WILSON SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS AT PRINCETON UNIVERSITY AND THE BROOKINGS INSTITUTION

between the built environment and... evidence that aspects of the... patterns, such as a lack... busy streets, discourage walking... rates of active commuting. But... reduce rates of obesity.

environment, including greater... to fruits and vegetables, and... to the epidemic of childhood... environment will reduce rates

childhood obesity is still in its... environment have increased rates of... will decrease them. Nevertheless... who have access to safe places to... that offer healthful food are... types of behavior that can lead to

www.futureofchildren.org

of Active Living Research, a program of the Robert Wood Johnson Foundation, and leadership at Emory University and

VOL. 16 / NO. 1 / SPRING 2006 88

Built Environment Recommendations for North Carolina

Increase safe opportunities for active travel
– i.e. walking/bicycling

1. To/from school
2. Around their community
3. Walkable destinations

Increase safe opportunities for play and physical activity

3. Creating new parks
4. Maintaining existing parks
5. Shared use of schools for recreation after hours / weekends

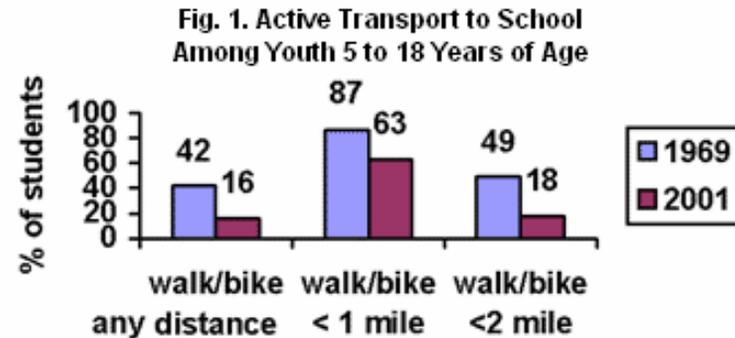


Recommended Direction for North Carolina

Increase safe opportunities for active travel

1. To/from school

- Safe Routes to School
- Liability/legal protection for schools for SRTS efforts
- Site selection in favor of neighborhood schools



Source: [1969 Nationwide Personal Transportation Survey](#) (USDOT, 1972) and 2001 National Household Travel Survey (analyzed by S. Ham DNPA, Spring 2005)



Recommended Direction for North Carolina

Increase safe opportunities for active travel

2. Around the Community

- Creating Ped/Bike master plans
- Funding for implementing Ped/Bike master plans
- “Complete Streets” policy

DRAFT | 08.2008

PITTSBORO PEDESTRIAN TRANSPORTATION PLAN
the town of pittsboro, north carolina | 2008



Prepared for:
The Town of Pittsboro, NC and
The North Carolina Department of Transportation,
Division of Bicycle and Pedestrian Transportation

Prepared By:
Greenways Incorporated

DRAFT | 08.2008



1 Sponsored by: Councilmember Calvin Goings File No. 467
2 Requested by: Council
3
4
5
6
7 **RESOLUTION NO. R2008-89s**
8
9 **A Resolution of the Pierce County Council Expressing Support for the**
10 **Complete Streets Concept and Requesting that a Complete**
11 **Streets Policy be Included as a Component of the**
12 **Transportation Plan Update.**
13
14
15 **Whereas,** the "Complete Streets" concept promotes streets that are safe and
16 convenient for all users, including pedestrians, bicyclists, transit riders, and motor
17 vehicle drivers of all ages and abilities; and
18
19 **Whereas,** streets constitute a large portion of the public space and should be
20 corridors for all modes of transportation, including pedestrians, bicyclists, and transit;
21 and
22
23 **Whereas,** streets that support and invite multiple uses, including safe, active,
24 and ample space for pedestrians, bicycles, and transit, are more conducive to the public
25 life and efficient movement of people than streets designed primarily to move
26 automobiles and trucks; and
27
28 **Whereas,** Pierce County currently has a number of land use and transportation
29 policies, plans, programs and regulatory requirements that focus on various
30 components of the transportation system including congestion management, multimodal
31 coordination, non-motorized improvements, access control, street trees, street lighting,
32 traffic calming, and transit services; and
33
34 **Whereas,** trends in energy and transportation costs, air quality, climate change
35 and public health necessitate a more comprehensive approach to mobility within
36 communities that offers a greater variety of mobility choices and which is not strictly
37 automobile based; and
38
39 **Whereas,** many of the existing roadways where Pierce County residents walk
40 and bicycle are incomplete and lack sidewalks or crosswalks, have lanes too narrow to
41 share with bicyclists, and make no accommodation for transit riders or for people with
42 disabilities; and
43
44 **Whereas,** recent trends indicate that Pierce County will experience increased
45 traffic congestion and travel times as the population increases and the number of
46 commuters to employment centers within the County increases; and

Resolution No. R2008-89s
Page 1 of 3

Pierce County Council
800 Center Ave. S. Box 500
Tusculum, TN 37688

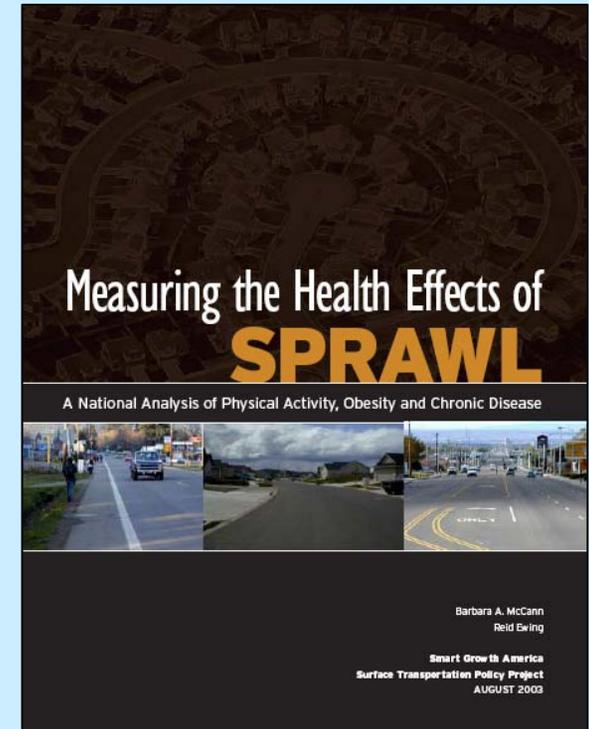


Recommended Direction for North Carolina

Increase safe opportunities for active travel

3. Walkable Destinations

- Creating close-knit communities
- “Smart Growth” strategies, e.g. planning, zoning

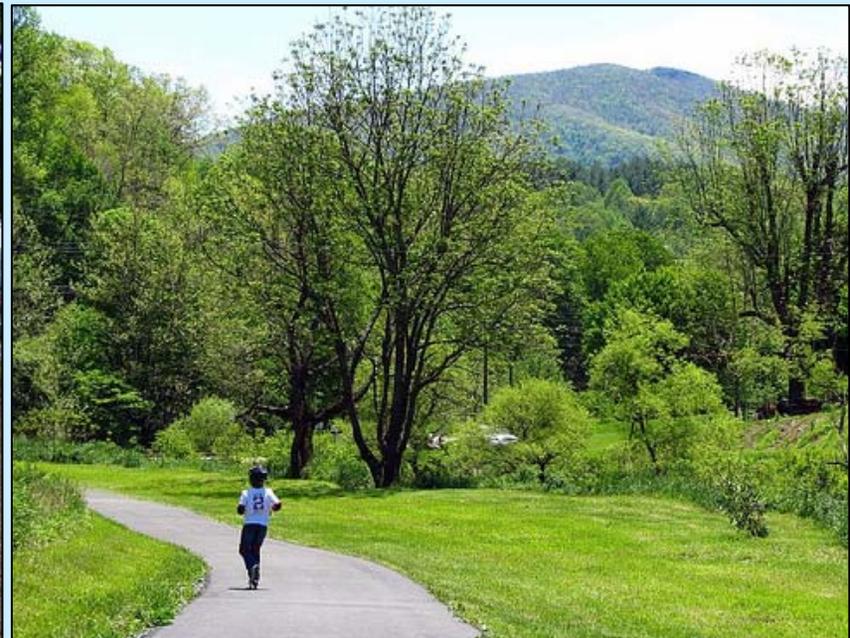


Recommended Direction for North Carolina

Increase safe opportunities for play and physical activity

4. Creating new parks

- Funding for parks and trails master plans
- Funding for smaller parks and play facilities
- Increase funding to communities for large parks (PARTF)



Recommended Direction for North Carolina

Increase safe opportunities for play and physical activity

5. Maintaining existing parks

- Funding for existing parks upkeep and enhancements
- Citizen involvement and surveillance for safety



Recommended Direction for North Carolina

Increase safe opportunities for play and physical activity

6. Shared use of schools for recreation

- Funding for shared use of facilities, e.g. utilities, staffing
- Joint use agreements for school facilities after-hours



Collaboration is Key

- Children's health >> beyond the clinic and the school
- Health is in part, determined by elected officials, planners, public works, parks, transportation
- Encourage communities to work across sectors

- N.C. Department of Transportation
DOT: Div of Bicycle & Pedestrian Transportation...
- Town of Cary: Parks, Recreation & Cultural Resources...

