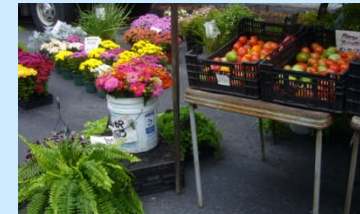


Preventing Childhood Obesity: Physical Activity Effective Policies and Built Environment Strategies

February 15, 2010



NC Legislative Childhood Obesity Task Force



Philip Bors, MPH
Project Officer
Active Living by Design

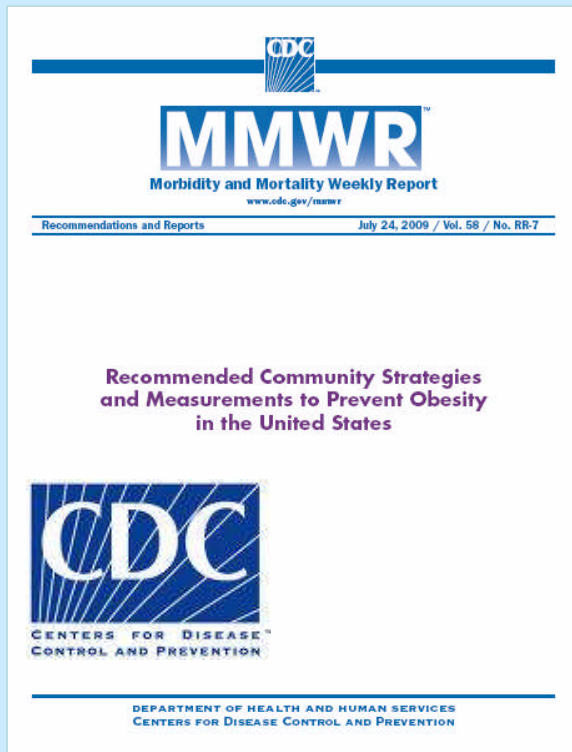


Kelly Evenson, Ph.D.
Research Associate Professor
Department of Epidemiology
NC Institute for Public Health
UNC Gillings School of Global Public Health

Overview

1. Rationale
2. Movement of the Field
3. Community Influences on Physical Activity
4. Recommendations for North Carolina
 - Six key goals
5. Beyond Policy Creation

Why Policies and Built Environment?



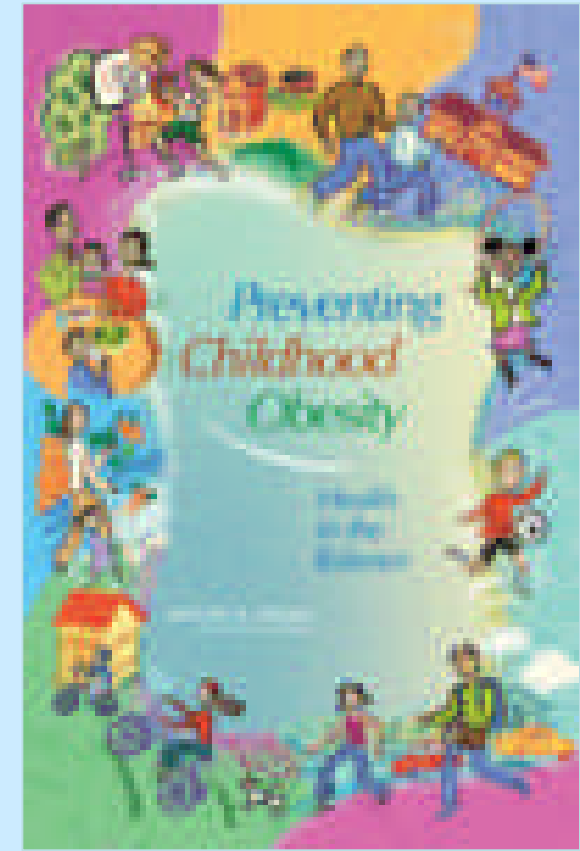
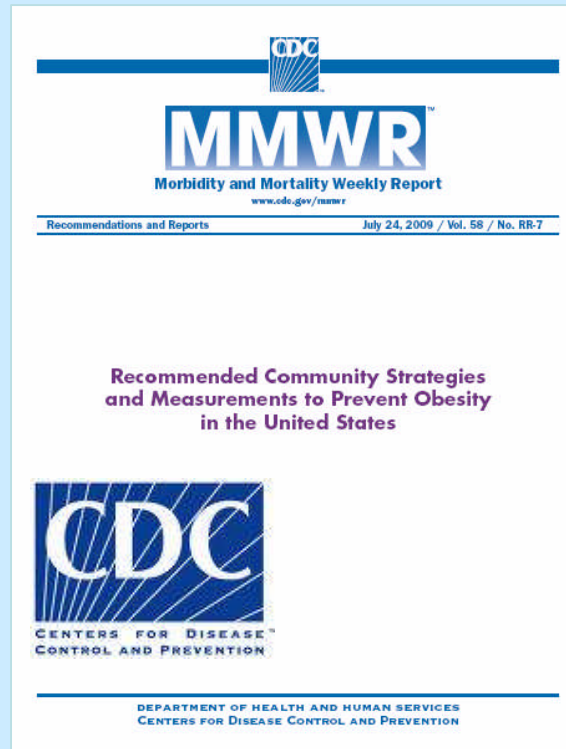
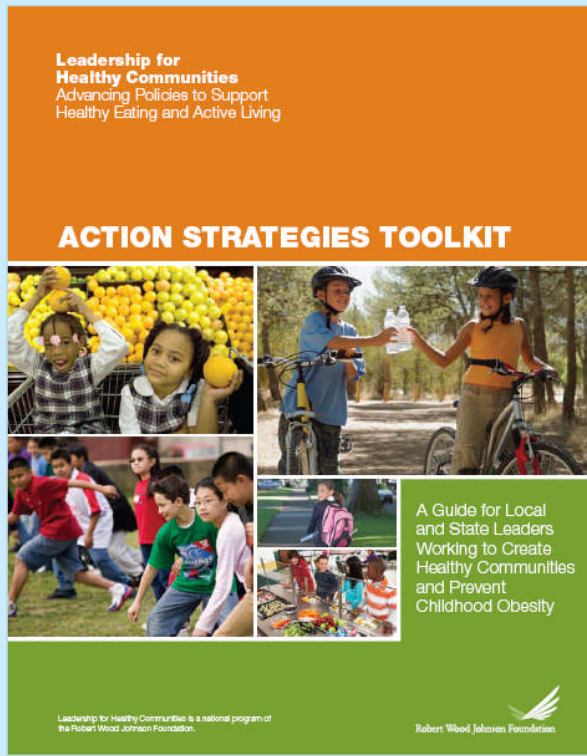
*“Reversing the U.S. obesity epidemic requires a comprehensive and coordinated approach that uses **policy and environmental change to transform communities into places that support and promote healthy lifestyle choices** for all U.S. residents.*

*Environmental factors (including **lack of access to full-service grocery stores, increasing costs of healthy foods and the lower cost of unhealthy foods, and lack of access to safe places to play and exercise**) all contribute to the increase in obesity rates by inhibiting or preventing healthy eating and active living behaviors.”*

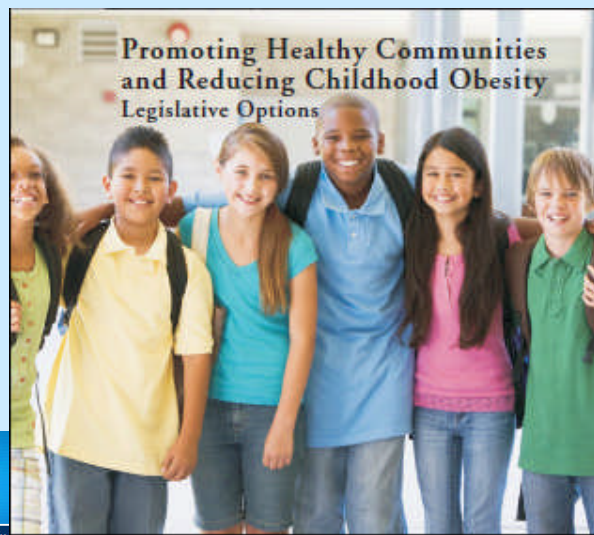
- Kahn, et al., MMWR, CDC

From Science to Implementation

- Growing consensus re: the importance of policies and built environments for childhood obesity



Converging Opinion on State Action



NCSL
NATIONAL CONFERENCE of STATE LEGISLATURES

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Issues & Research » Health » Healthy Community Design and Access to Healthy Food

Go 13227

To print, right-click in window

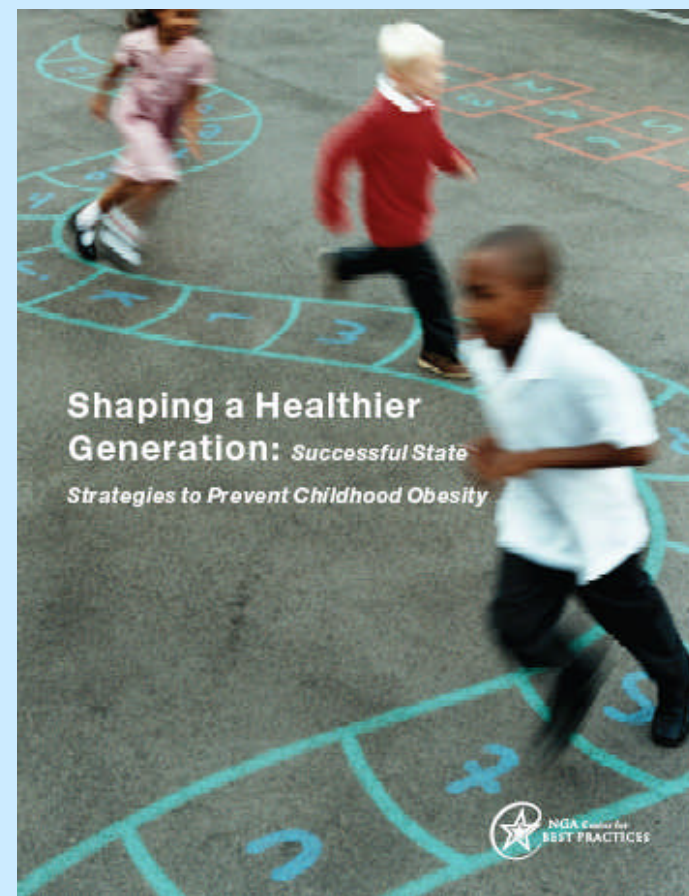
Healthy Community Design and Access to Healthy Food Legislation Database

Select states: All States Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois	Select topic areas: Match: <input type="radio"/> ALL <input checked="" type="radio"/> ANY Any Topic Area Agriculture/Local Foods Bike/Pedestrian Coalition/Council Direct Marketing Farm-to-School Farmers' Market Land Use/Smart Growth Nutrition Obesity Obesity - Childhood Physical Activity Supermarket/Food Access Transportation	Year: 2010 Bill Type: Any House Resolution House/Assem Bill Joint Resolution Referendum/Proposition Senate Bill Senate Resolution	Bill Status: Any Bill Number(s): (Separate numbers with comma, e.g., 313,414) Display Order: <input checked="" type="radio"/> State, Bill <input type="radio"/> Citation <input type="radio"/> Topic, State
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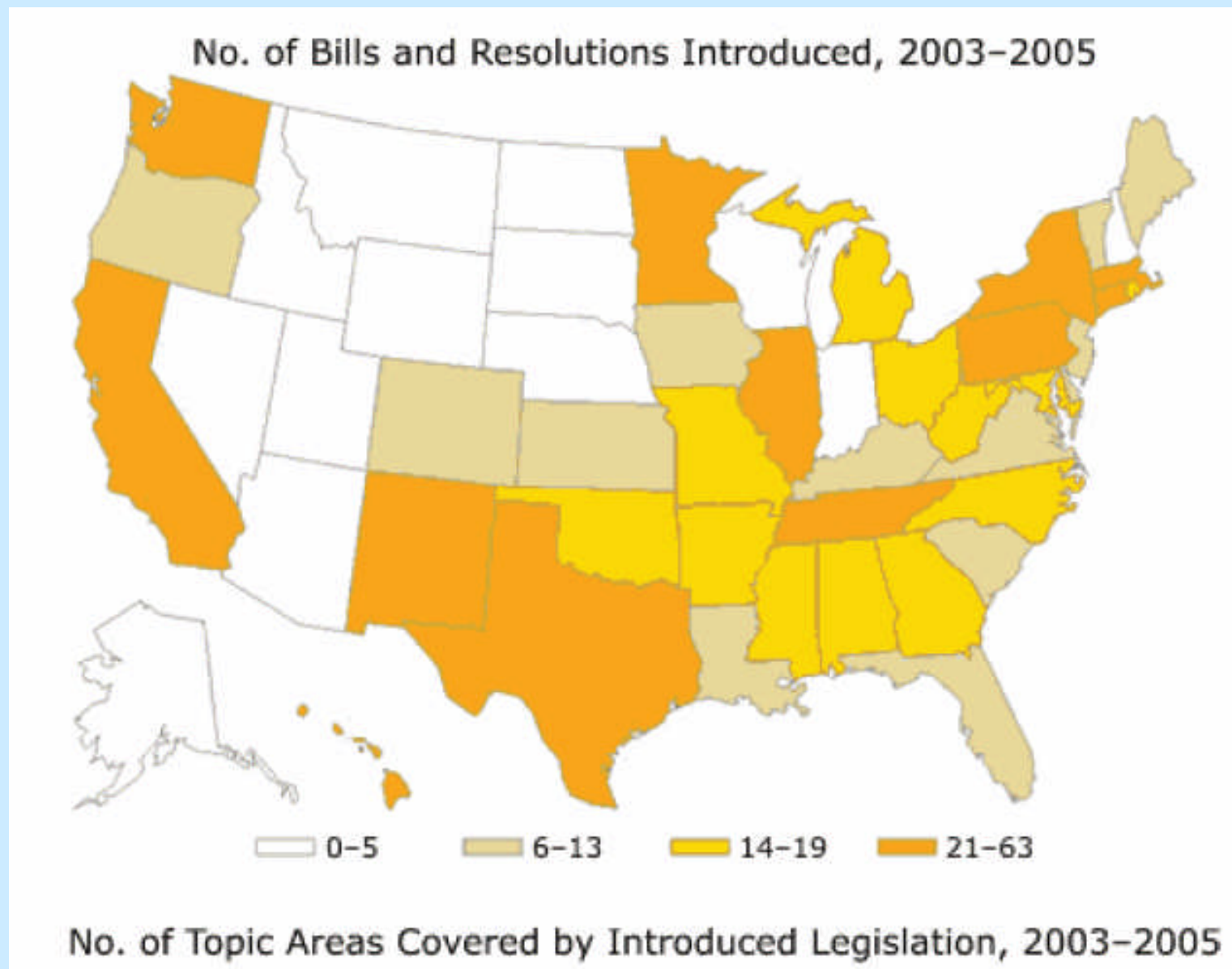
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National Conference of State Legislators


National Governor's Association



State Policy Activity: Childhood Obesity



High Level Support



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KIDS' COLLECTION

[Healthy Choices](#) [Healthier Schools](#) [Physical Activity](#) [Accessible & Affordable Healthy Food](#)

America's Move to Raise a Healthier Generation of Kids

Childhood obesity or excess weight threatens the healthy future of one third of American children. We spend \$150 billion every year to treat obesity-related conditions, and that number is growing.

Obesity rates tripled in the past 30 years, a trend that means, for the first time in our history, American children may face a shorter expected lifespan than their parents.


We need to get moving. Join First Lady Michelle Obama, community leaders, teachers, doctors, nurses, moms and dads in a nationwide campaign to tackle the challenge of childhood obesity.

Let's Move! has an ambitious but important goal: to solve the epidemic of childhood obesity within a generation.

Let's Move! will give parents the support they need, provide healthier food in schools, help our kids to be more physically active, and make healthy, affordable food available in every part of our country.

President Obama Names Childhood Obesity Taskforce

- [Read Memorandum](#)
- [Read the Event Blog](#)







00:00 / 00:00

Share

Our Let's Move Website is just a snapshot of the campaign and what's to come. Visit often as we will be adding new information almost every day. Check out the [blog](#) and [sign up to receive](#) new features, tips and tools.

GET MOVING!
Join Our Call
to Action

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THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release

February 9, 2010

February 9, 2010

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Establishing a Task Force on Childhood Obesity

Across our country, childhood obesity has reached epidemic rates and, as a result, our children may live shorter lives than their parents. Obesity has been recognized as a problem for decades, but efforts to address this crisis to date have been insufficient. My Administration is committed to redoubling our efforts to solve the problem of childhood obesity within a generation through a comprehensive approach that builds on effective strategies, engages families and communities, and mobilizes both public and private sector resources.

Nearly one third of children in America are overweight or obese -- a rate that has tripled in adolescents and more than doubled in younger children since 1980. One third of all individuals born in the year 2000 or later will eventually suffer from diabetes over the course of their lifetime, while too many others will face chronic obesity-related health problems such as heart disease, high blood pressure, cancer, and asthma. Without effective intervention, many more children will endure serious illnesses that will put a strain on our health-care system. We must act now to improve the health of our Nation's children and avoid spending billions of dollars treating preventable disease.

Therefore, I have set a goal to solve the problem of childhood obesity within a generation so that children born today will reach adulthood at a healthy weight. The First Lady will lead a national public awareness effort to tackle the epidemic of childhood obesity. She will encourage involvement by actors from every sector -- the public, nonprofit, and private sectors, as well as parents and youth -- to help support and amplify the work of the Federal Government in improving the health of our children. But to meet our goal, we must accelerate implementation of successful strategies that will prevent and combat obesity. Such strategies include updating child nutrition policies in a way that addresses the best available scientific information, ensuring access to healthy, affordable food in schools and communities, as well as increasing physical activity and empowering parents and caregivers with the information and tools they need to make good choices for themselves and their families. To succeed, these efforts must be strategically targeted, and accountability should be clear. They will help our children develop lifelong healthy habits, ensuring they reach their greatest potential toward building a healthier and more prosperous America. To these ends, I hereby direct the following:

more

(OVER)

The Built Environment

It influences:

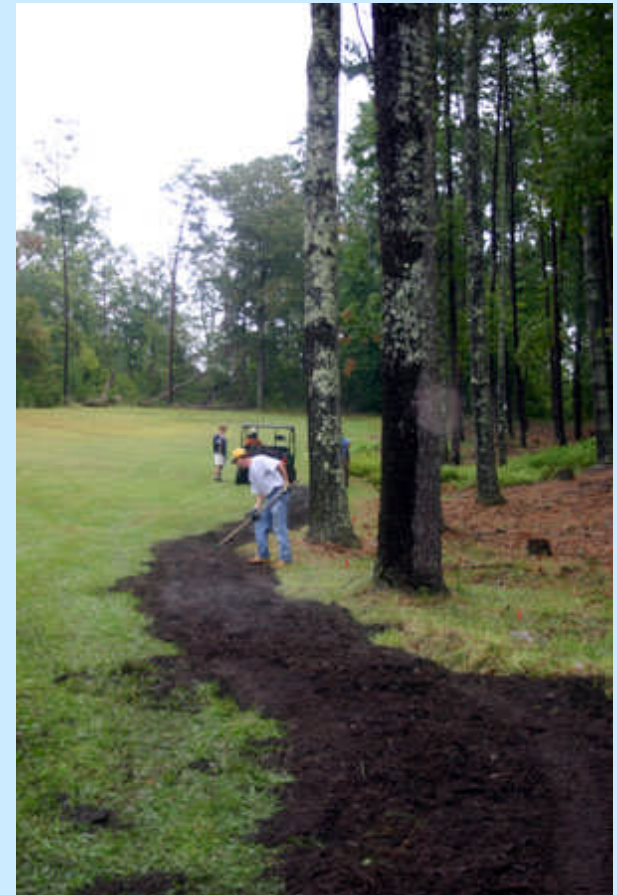
- What activity happens where
- How we move
- Access to opportunities and choices
- Community character



North Carolina Views

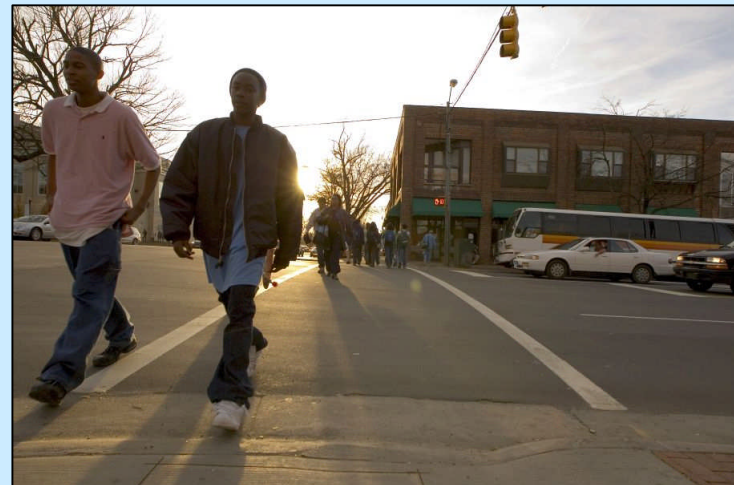
- In 2007, 60% of North Carolina adults reported that they would increase their physical activity if their community had more accessible sidewalks or trails for walking or bicycling.
 - Eastern NC (63%)
 - Piedmont (59%)
 - Western NC (53%)

NC BRFSS 2007



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 concern about **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

Recommended Direction for NC Six Goals

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

Goal 1: More walkable destinations

Goal 2: Safer routes to/from school

Goal 3: Safer routes in the community

B. Increase safe opportunities for **play and physical activity**

Goal 4: Create and maintain parks and open space

Goal 5: Create and maintain trails and greenways

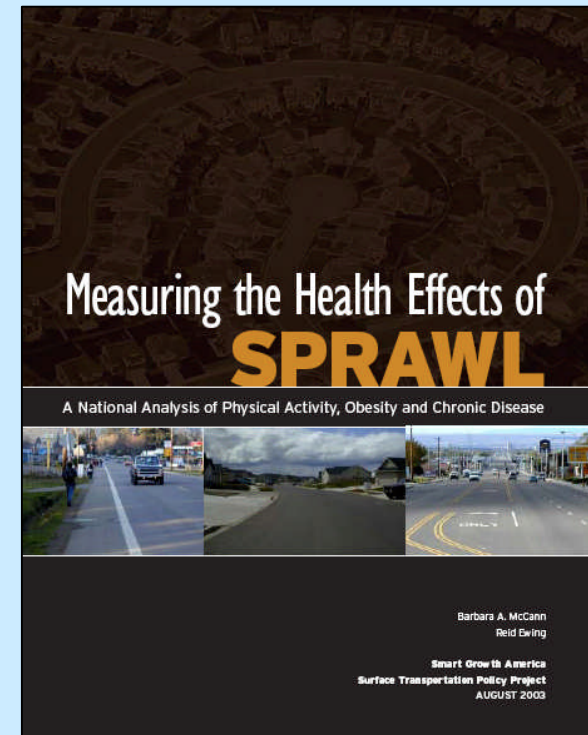
Goal 6: Shared use of schools after hours/weekends



Increase Safe Opportunities for Active Travel

Goal 1: More walkable destinations

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



Promising Policy State Actions

Increase safe opportunities for **active travel**

Goal 1: More walkable destinations

NC Chapter - American Planning Association

- Create and promote legislation requiring all NC communities to have current local comprehensive plans
- Land use management strategies that support healthy and environmentally friendly growth, (including multi-modal transportation and green communities)

Vermont : Act 183 (2009)

- Financial incentives for designated “growth centers,” e.g. Tax Increment Financing districts, priority in some state grants.
- “*Growth centers*” Includes characteristics of Vermont’s traditional villages and neighborhoods such as a mix of uses, high densities, and pedestrian scale. Defined “*smart growth*.” First one adopted by a state legislature as part of growth management legislation, provides guidance when reviewing applications for growth centers designation

Colorado: Established Office of Smart Growth

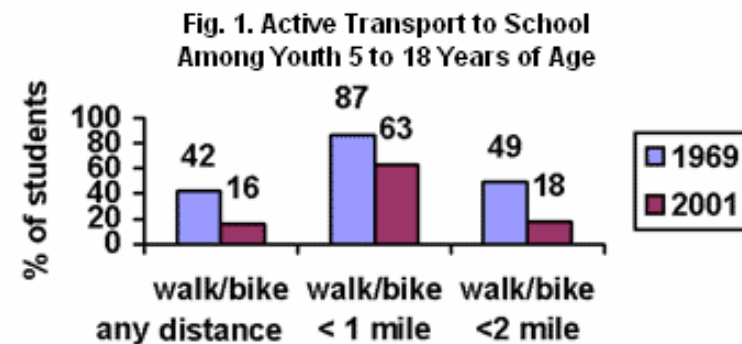
Wisconsin: Comprehensive Planning Law (s. 66)

Requires every town, village, city, county and regional planning commission to make decisions consistent with an adopted comprehensive plan by 2010; Nine required elements.

Increase Safe Opportunities for Active Travel

Goal 2: Safer routes to/from school

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



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



Promising Policy State Actions

Increase safe opportunities for **active travel**

Goal 2: Safer routes to/from school

Safe Routes to School

North Carolina: \$15M in federal funds for SRTS

- Two rounds of funding to municipalities for infrastructure (\$300K) and non-infrastructure (\$50K) grants. 22 projects selected in 2nd round totaling \$3.9M.
- Projected North Carolina funds: \$1.00M (FY05), \$2.33M (FY06), \$3.13M (FY07), \$3.88M (FY08), \$4.85M (FY09)
- \$18 million requested in the 2nd round (5 times the \$ available)

Other States: CA, WA also use state transportation dollars for SRTS programs (infrastructure and non-infrastructure)

Promising Policy State Actions

Increase safe opportunities for **active travel**

Goal 2: Safer routes to/from school

Other States (2003-05): 43 state bills and 4 resolutions were proposed regarding SRTS; 12 state bills and 3 resolutions adopted (Boehmer et al 2006).

- Bicycle facilities
- Crossing guards
- Safety
- Traffic calming measures

Nevada AB 231 (2005): requires local and regional governmental agencies to conduct studies of SRTS in areas near the school

Texas 460 (1991, with a number of changes): schools must have a school crossing guard program

- Child safety fund: \$1.50 vehicle registration and \$25 speeding ticket in a school zone; funds go to local jurisdictions based on how they were collected
- Example: Austin using monies to fund crossing guards

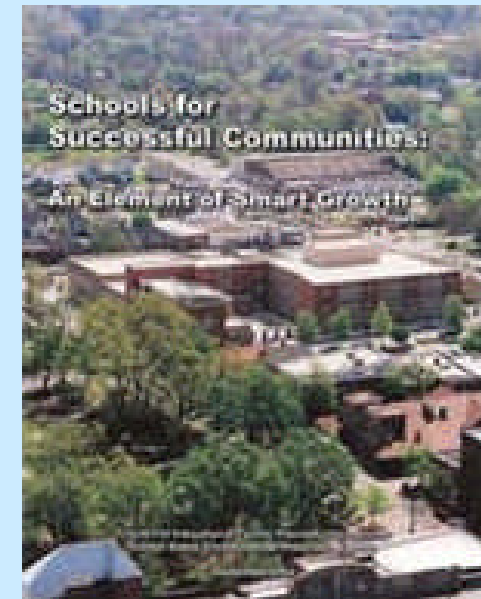
Promising Policy State Actions

Increase safe opportunities for **active travel**

Goal 2: Safer routes to/from school

School site selection

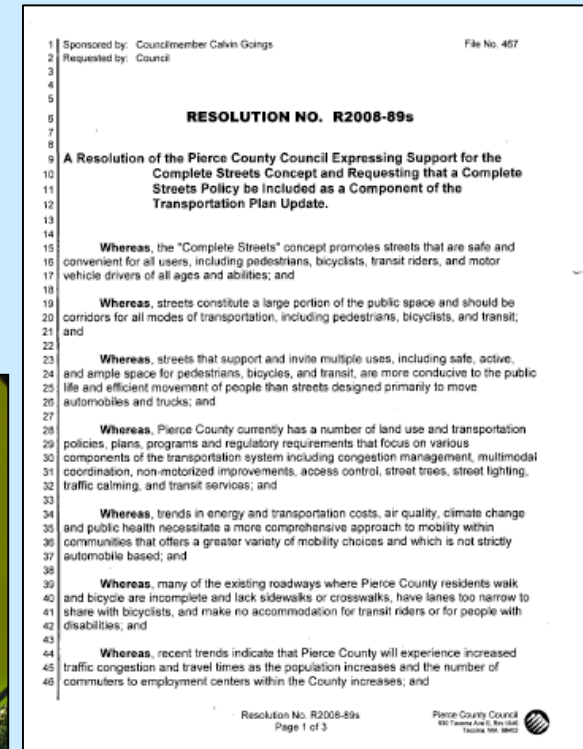
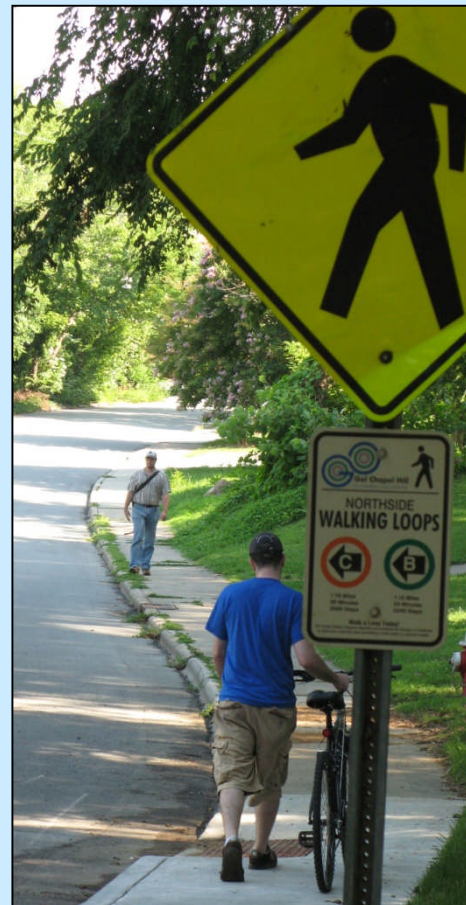
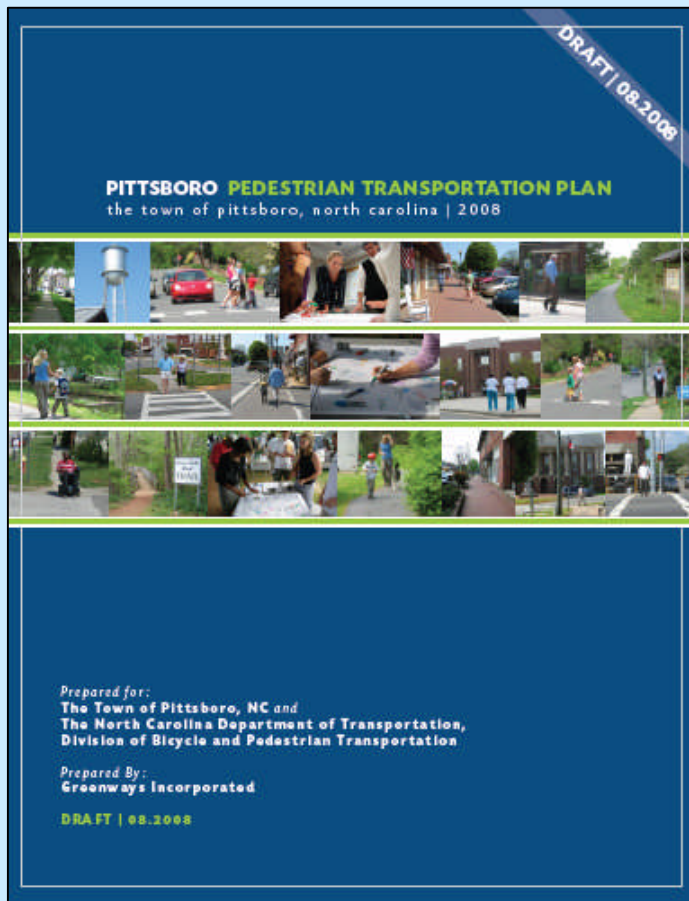
- US EPA — developing voluntary school siting guidelines
- Many states
 - Departments of Ed adopted Council of Educational Facility Planners International (CEFPI) guidelines for school construction (1953)
 - 10 acres for elementary; 20 for middle; 30 high school; +1 acre for every 100 students
 - No longer acreage specific, but minimums remain
- NC Facilities previous guide for school sites:
 - 10 acres for ES; 20 for MS; 30 HS; +1 acre for every 100 students
 - Acknowledges “tenets of smart growth” for finding “creative solutions”
 - Many school boards still use old acreage guidelines
- Maine — Adopted ABC’s (Avoid sprawl, Be site savvy, Consult community); established maximum acreage guidelines



Increase Safe Opportunities for Active Travel

Goal 3: Safer routes in the community

- “Complete Streets”
- Ped/Bike master plans



Promising Policy State Actions

Increase safe opportunities for **active travel**

Goal 3: Safer routes in the community

Complete Streets

North Carolina: (July 2009) NC DOT “Complete Streets Policy”

“This policy requires that NCDOT’s planners and designers will consider and incorporate multimodal alternatives in the design and improvement of all appropriate transportation projects within a growth area of a town or city unless exceptional circumstances exist.”

NC DOT Complete Streets Advisory Committee
currently developing DOT planning and design guidelines

Charlotte, NC – national model for policy/guidelines

Massachusetts: DOT “Project Development and Design Guidebook”
(2006)

Established an eight-step decision-making procedure that sets multi-modal accommodation as a guiding principle. ... The needs of bicyclists, pedestrians, transit users, and disabled people are integrated into every aspect of design.

Promising Policy State Actions

Increase safe opportunities for **active travel**

Goal 3: Safer routes in the community

Pedestrian and Bicycle Plans

A public document that typically:

- lays out a community's vision for future pedestrian and bicycling activity,
- identifies the actions required to realize that vision,
- ties actions to funding sources, and
- describes implementation and use.

Results from survey of municipalities in NC

(Evenson et al, 2009):

- Policies, programs, promotions, and projects related to walking and bicycling all occurred more often in municipalities when they were part of the plan.
- Among those with a plan: how important is the plan to policy makers when making decisions on development and funding that may impact walkers or bikers?
 - 25% very important, 66% somewhat important



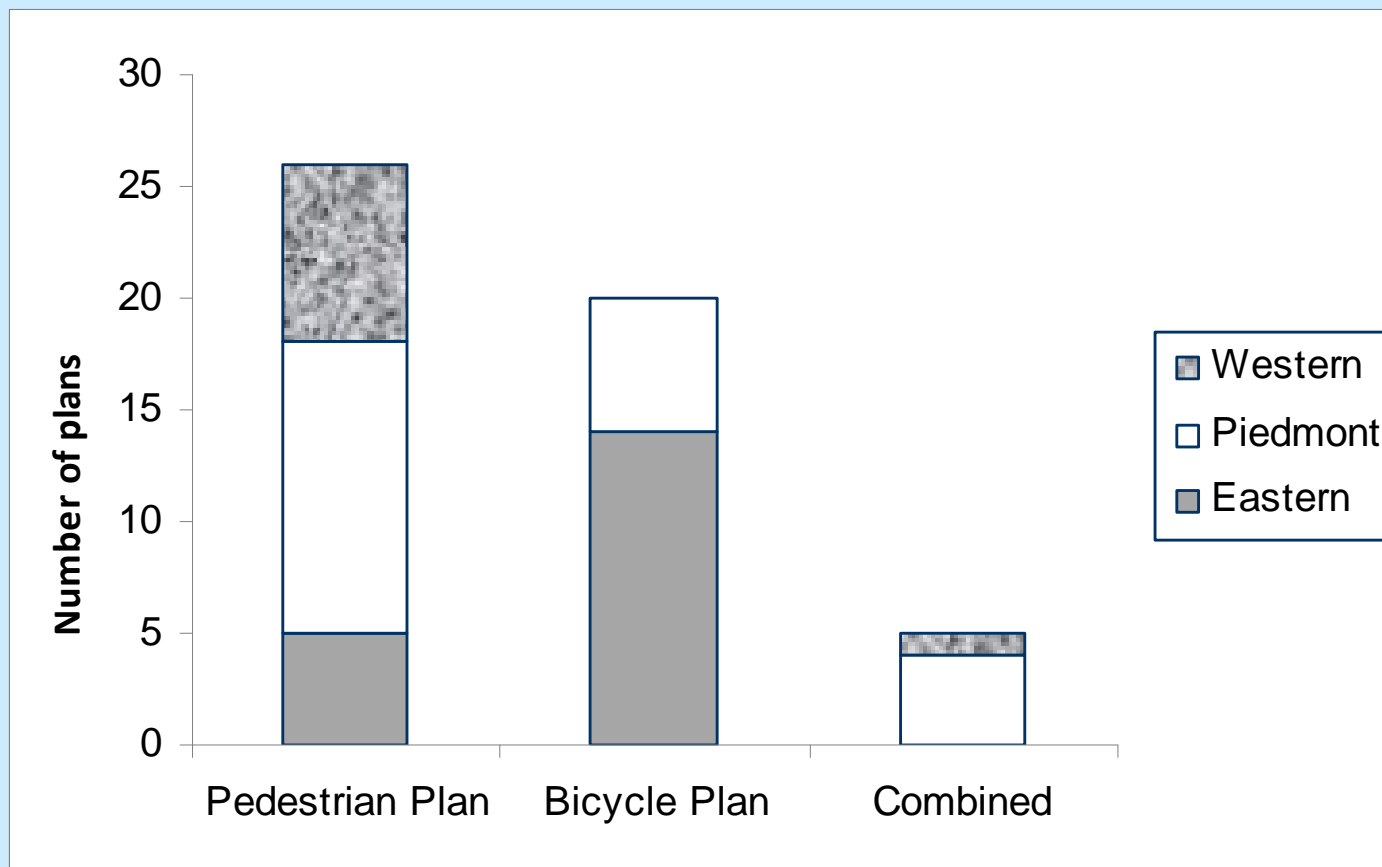
Promising Policy State Actions

Increase safe opportunities for **active travel**

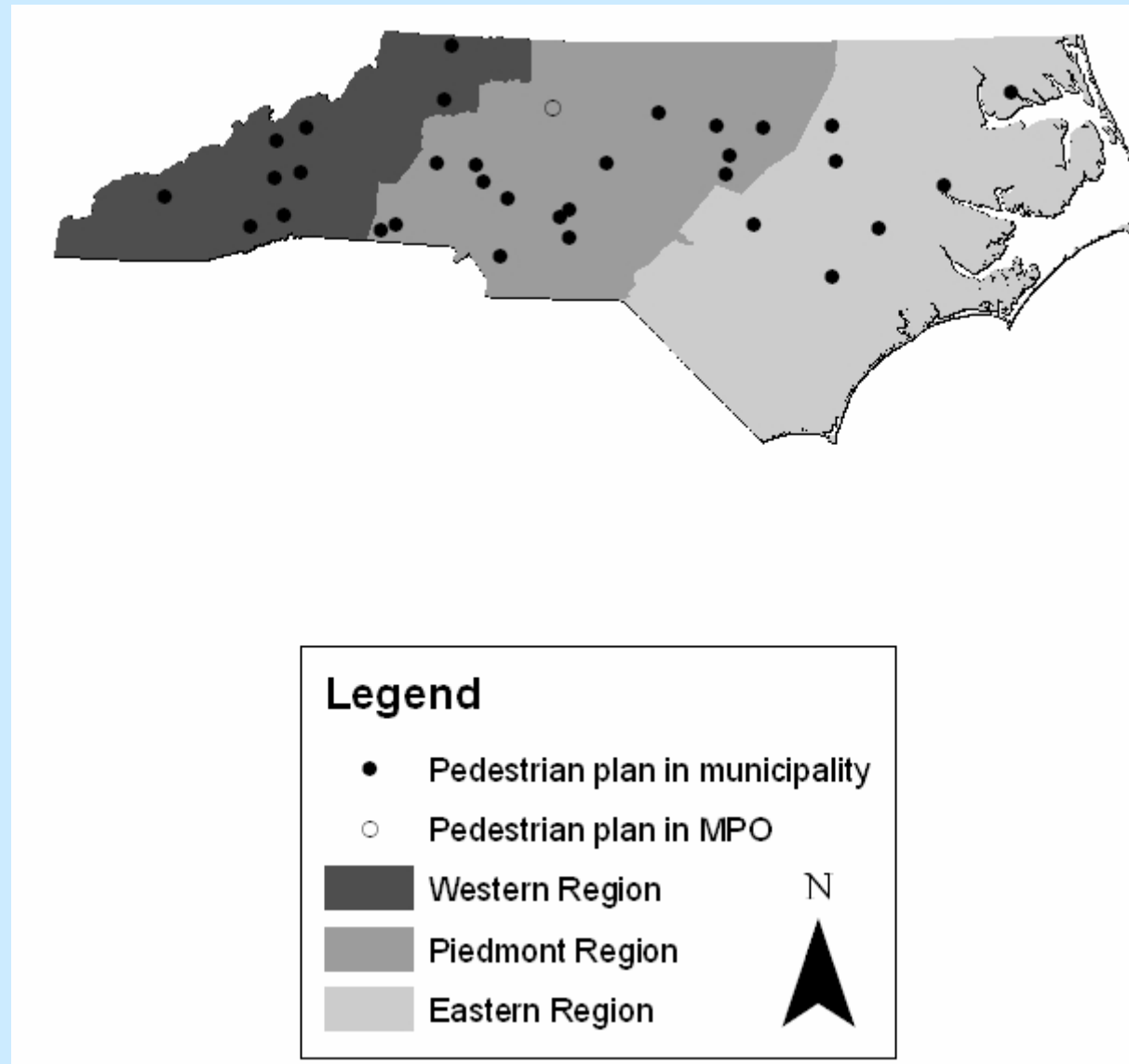
Goal 3: Safer routes in the community

Pedestrian and Bicycle Plans: (through 2008)

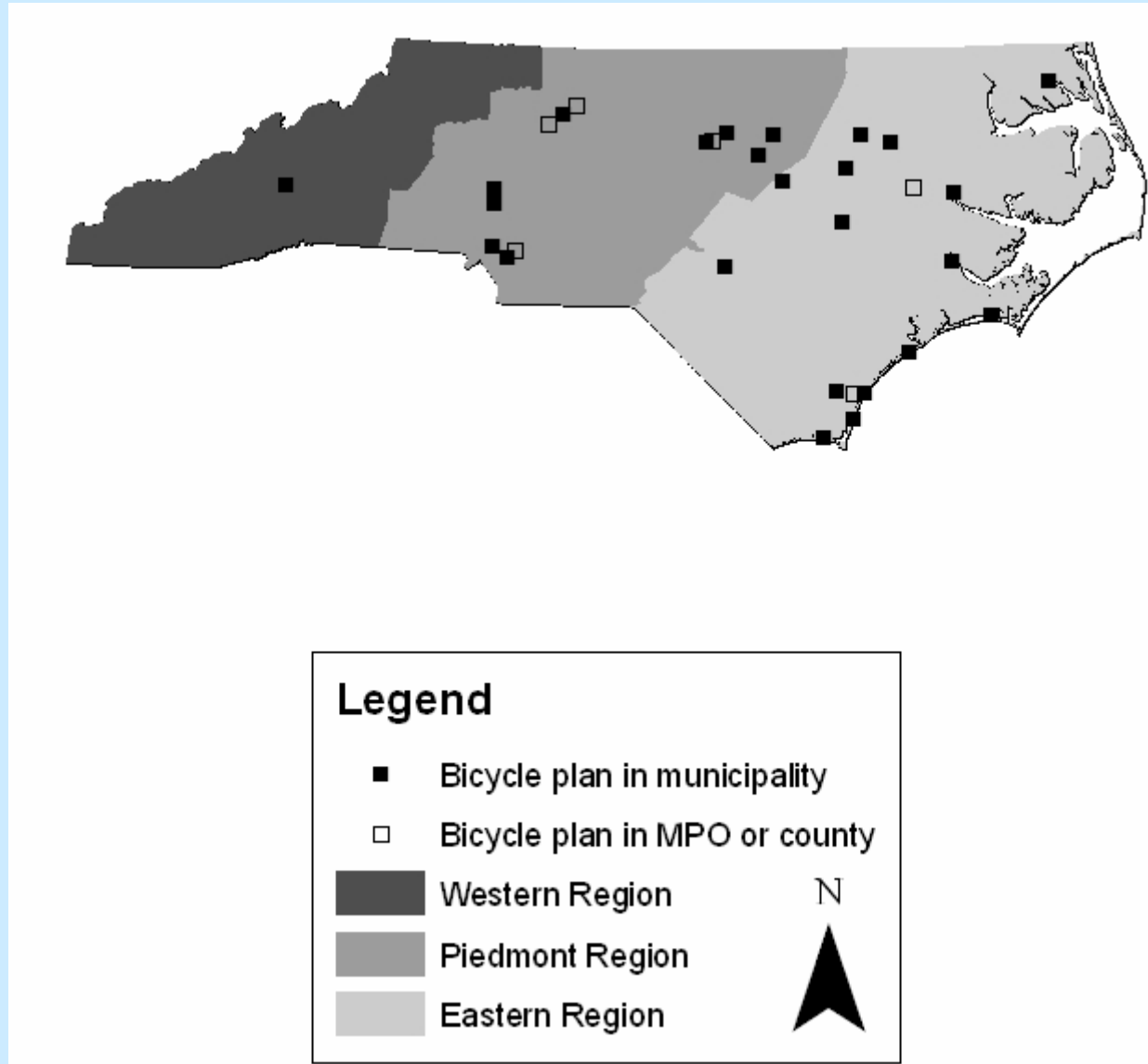
544 municipalities, 56 municipality plans; 72 total plans



Pedestrian Plans in NC Through 2008

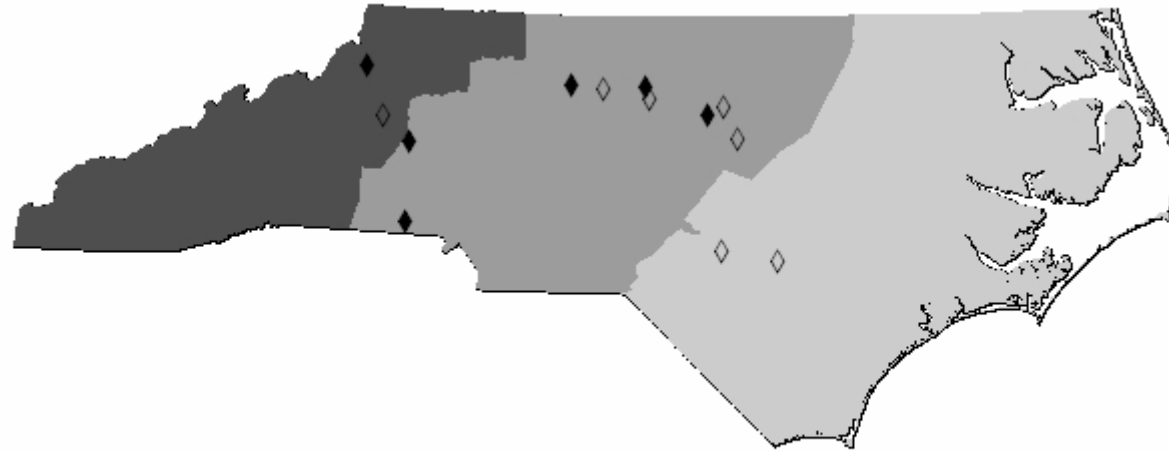


Bicycle Plans in NC Through 2008



Evenson et al
2009

Combined (Ped/Bike) Plans in NC Through 2008



Legend

- ◆ Pedestrian/bicycle plan in municipality
- ◇ Pedestrian/bicycle plan in MPO, RPO, county, or regional jurisdiction

- Western Region
- Piedmont Region
- Eastern Region



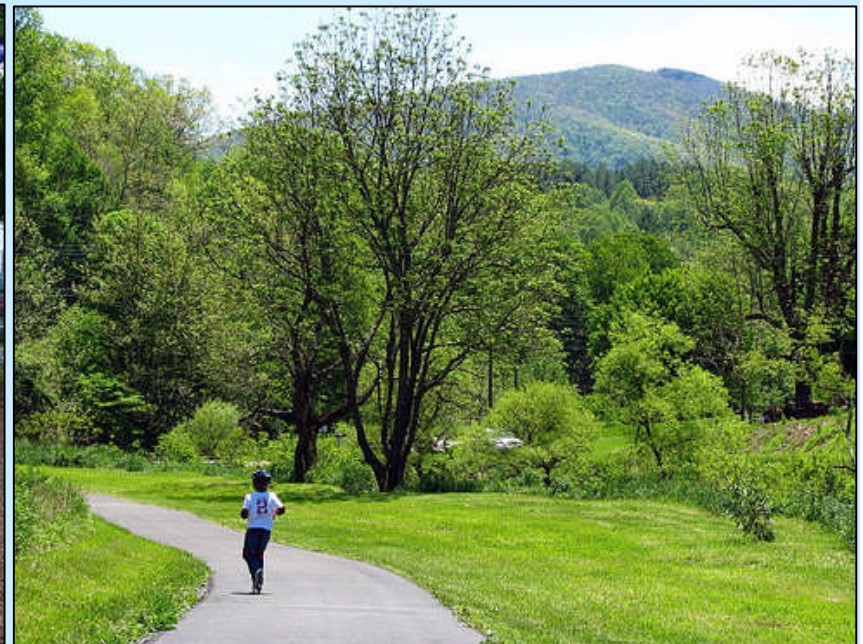
Summary Recommendations

for **Active Travel**

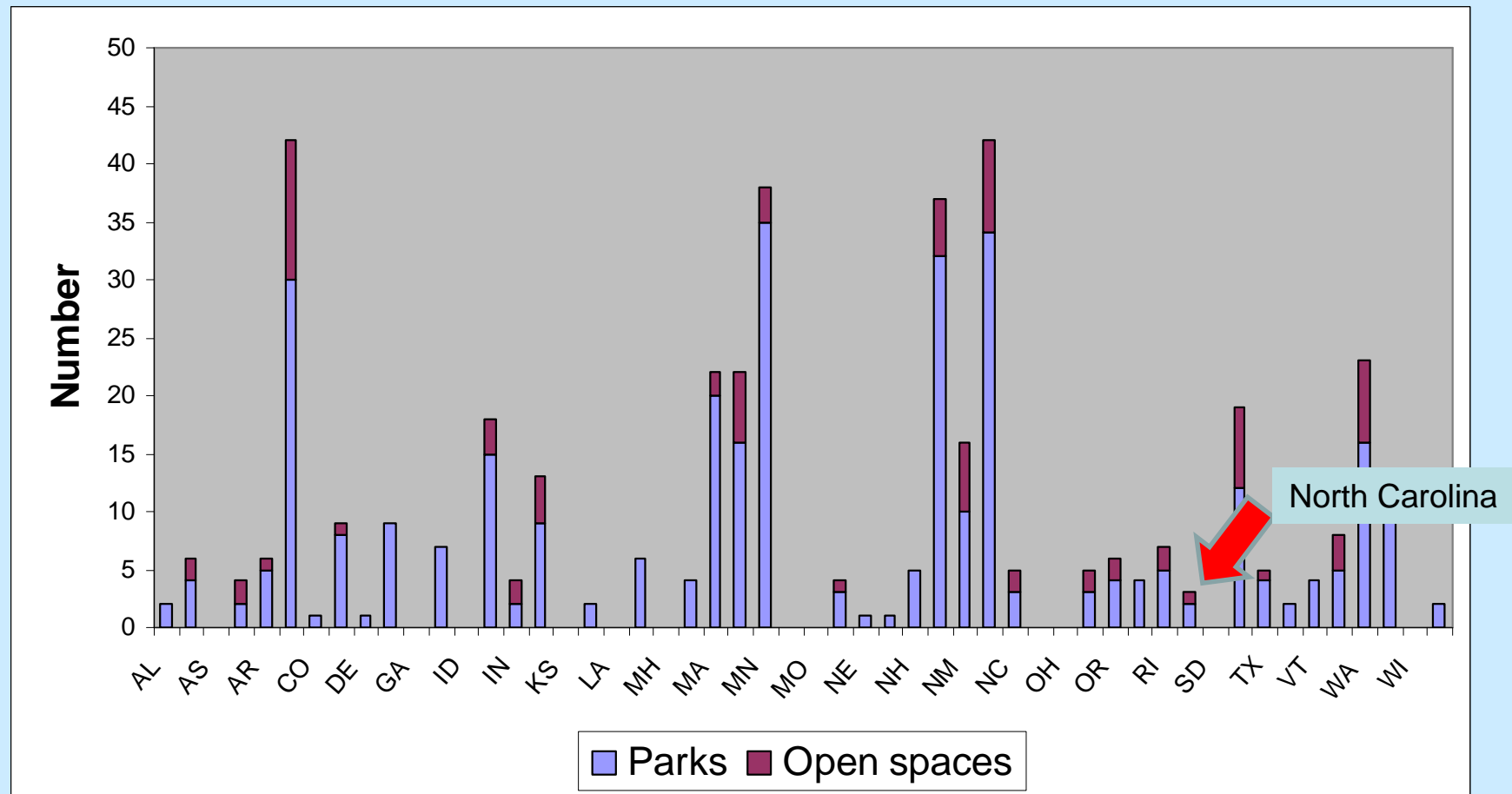
1. Work with local planners to identify incentives and promising legislation for healthy land use practices
2. Continue to support SRTS within DOT; consider state funding in addition to federal funds
3. Update school site selection guidelines and incentives to favor walkable/bikeable schools
4. Continue to support complete streets at DOT; consider ways to assist localities with implementation/funding
5. Continue to support DOT ped/bike plans (existing plans will need to stay current)

Increase Safe Opportunities for Play and Physical Activity

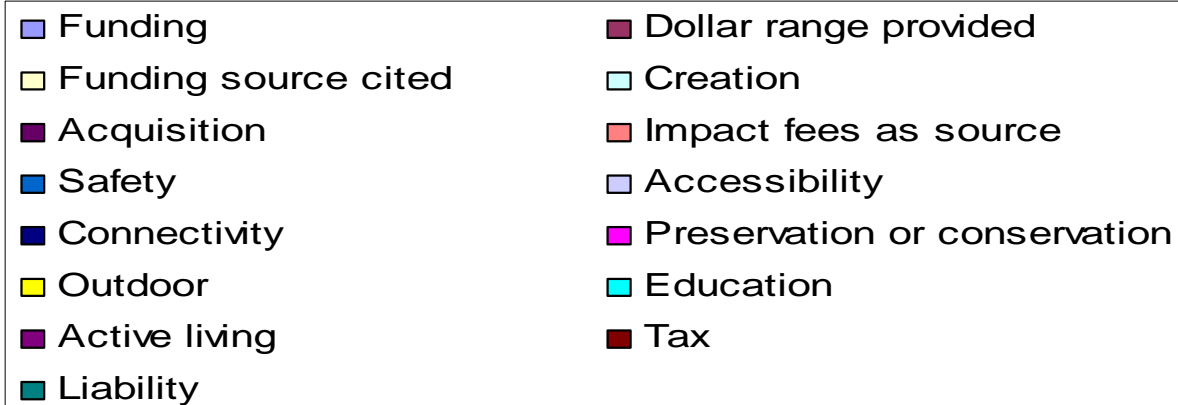
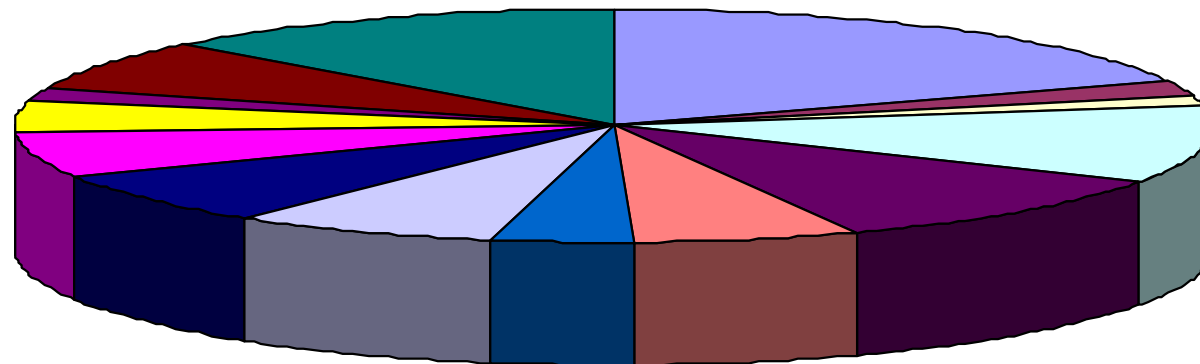
Goal 4. Create and maintain parks and open space



Number of legislative policies on parks and open space in 50 states and District of Columbia, 2001-2007



Distribution of legislative policies on parks and open space by recreational environment feature, 2001-2007



Promising Policy State Actions

Increase safe opportunities for **play and physical activity**

Goal 4. Create and maintain parks and open space

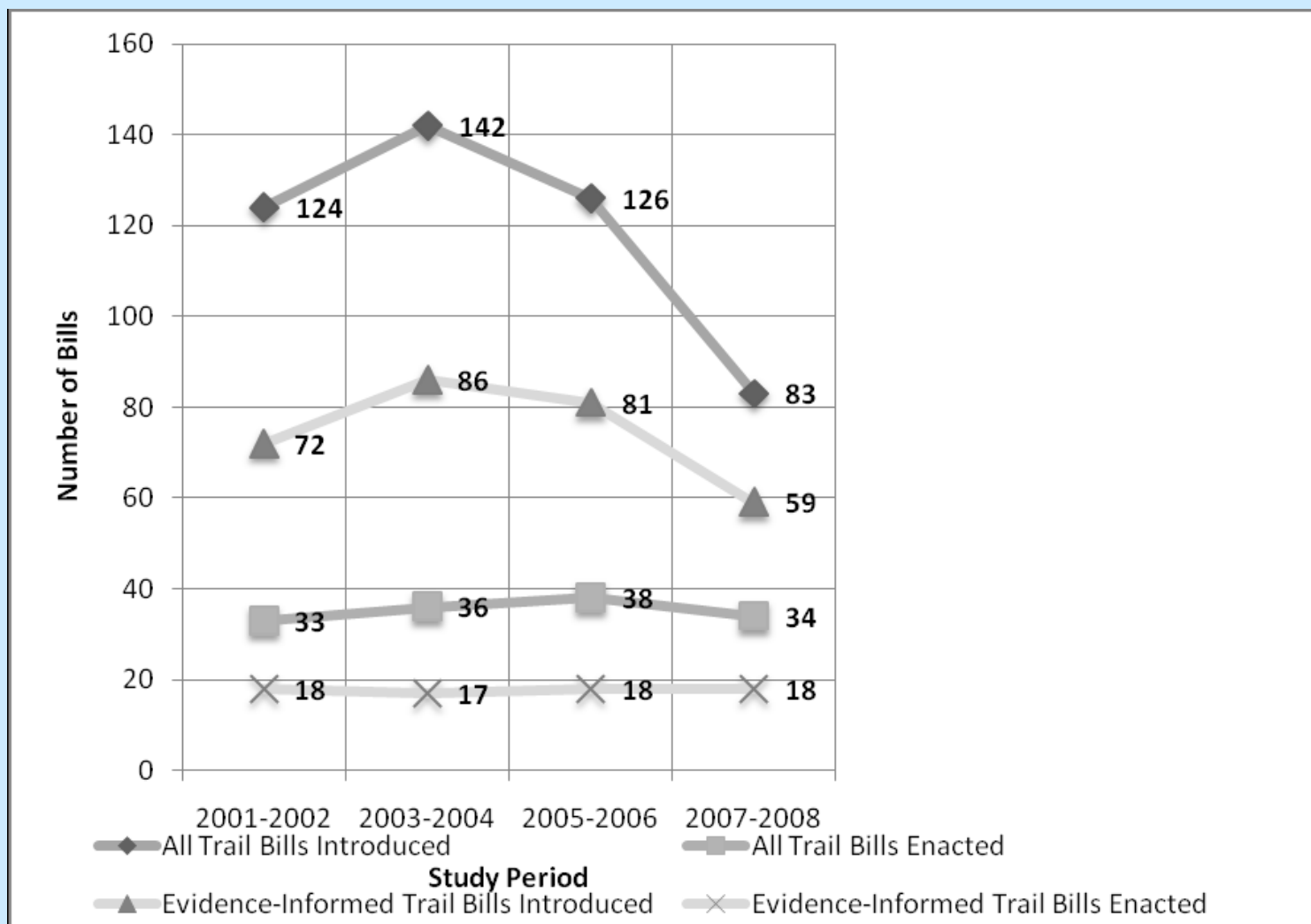
- US survey of state and local park directors –
 - major challenges were funding for land, capital expenditures/operations, and maintenance
- Funding source in NC:
 - NC Parks & Recreation Trust Fund (PARTF)
 - deadline just passed: received 87 applications for \$25 million, \$8 million to give out, requires a 50% match

Increase Safe Opportunities for Play and Physical Activity

Goal 5. Create and maintain trails/greenways



Number of total non-appropriations trail bills introduced and enacted and evidence-informed trail bills introduced and enacted by 2-year periods



Promising Policy State Actions

Increase safe opportunities for **play and physical activity**

Goal 5. Create and maintain trails and greenways

Evidence informed policies

Funding

Louisiana HB2 (2007) allocated \$400,000 to New Orleans for walking and bicycling path construction

Liability

Hawaii HB 1276 (2005) indemnifies land owners from liability for public use

Connectivity

Accessibility

Maintenance

Increase Safe Opportunities for Play and Physical Activity

Goal 6: Shared use of schools after hours/weekends

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



Increase Safe Opportunities for Play and Physical Activity

Goal 6: Shared use of schools after hours/weekends

2009 nationwide survey of school principals whose schools were located in low income and/or minority communities

- 49% did not share recreational/sport facilities
- 82% were somewhat to very concerned about liability
- 83% believed stronger legislation is needed to better protect schools from liability claims

Promising Policy State Actions

Increase safe opportunities for **play and physical activity**

Goal 6: Shared use of schools after hours/weekends

North Carolina – July 2009 - SECTION 1. G.S. 115C-12

- “To encourage local boards of education to enter into agreements regarding the joint use of facilities for physical activity. – The State Board of Education shall **encourage local boards of education to enter into agreements with local governments** and other entities regarding the joint use of their facilities for physical activity. The agreements should delineate opportunities, guidelines, and the roles and responsibilities of the parties, including responsibilities for maintenance and liability.”

Promising Policy State Actions

Increase safe opportunities for **play and physical activity**

Goal 6: Shared use of schools after hours/weekends

NPLAN Analysis (National Policy & Legal Analysis Network)

“Fifty-State Scan of Laws Addressing Community Use of Schools”

- States requiring use of school property by community:
Alabama, Wash DC, Hawaii, Oklahoma
- Arkansas – uses a portion of tobacco tax for incentives for joint use of schools
- In North Carolina: State protects school board from liability
“No liability may attach to the board of education, individually or collectively, for personal injury suffered by use of the school property.” (NC General Statute §115C-524)

Promising Policy State Actions

Increase safe opportunities for **play and physical activity**

Goal 6: Shared use of schools after hours/weekends

Strengthen liability to reduce this barrier through:

- recreational statutes: example – Idaho state policy
- other policies

Funding for shared use

- example – Arkansas using tobacco monies for this

Summary Recommendations

for Play and Physical Activity

1. Funding for: new parks and trails, park renovations, maintenance and preserving rail corridors for potential greenways
2. Support parks/greenway master plans and implementation
3. Encourage subdivision regulations to include parks, trails, and greenways
4. Consider gaps at the county level, outside of municipalities, and across jurisdictions; enhance connectivity of trails/greenways ; enhance shared park spaces
5. Stronger incentives for schools and parks to share space and schools to open to the public after hours (joint use)
6. Explore liability protections for schools re: joint use, including recreational user statutes
7. Creative mechanisms to help offset the added costs of extended use of school facilities

Built Environment Areas Not Covered

- Neighborhood safety
- Access to private physical activity facilities
- Child care facilities
- Others

Considerations Beyond Policy Creation

- Evidence based/informed policies
- Policy implementation
- Policy evaluation
- Surveillance
- Population impact

Consider Policy Evaluation

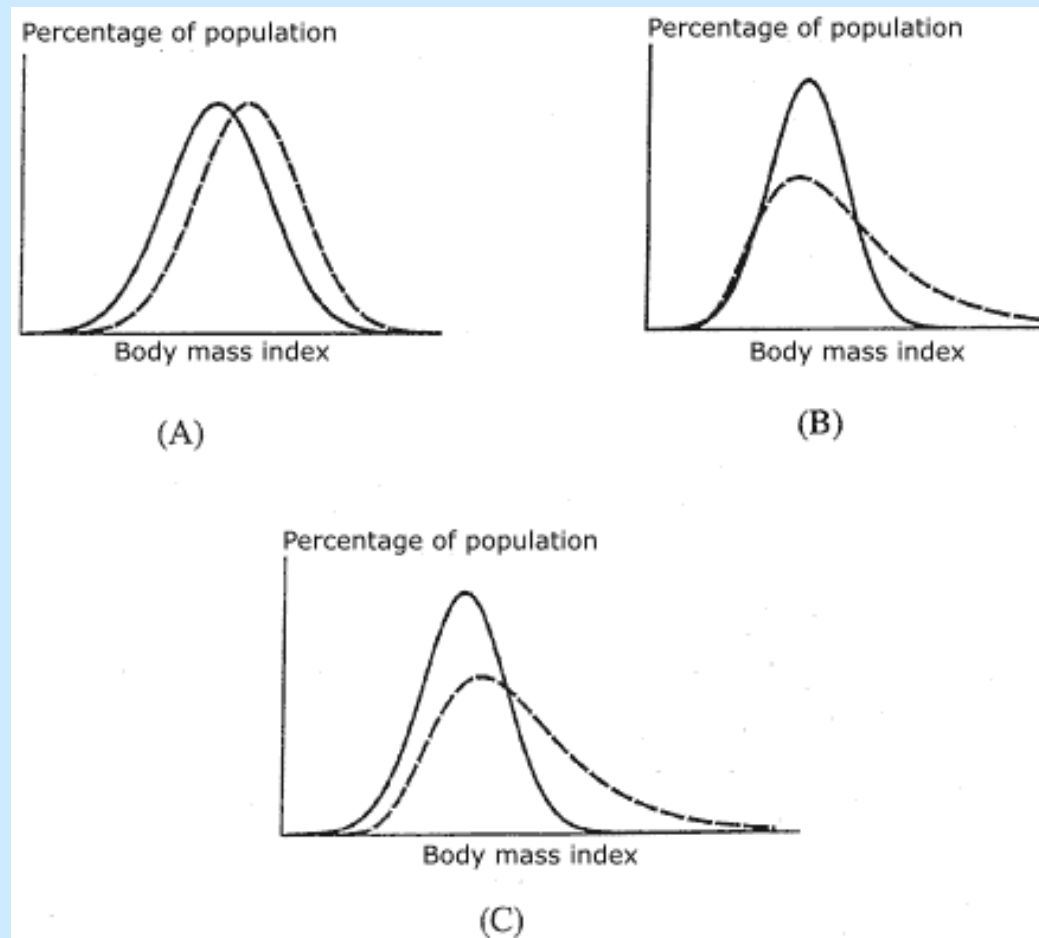
- 2005: NC State Board of Education passed the Healthy Active Children Policy to be implemented by the 2006-07 school year, requiring that all kindergarten through eighth grade children in the state receive a minimum of 30 minutes of moderate to vigorous physical activity each school day through physical education, recess, and other creative approaches.
- Evaluation: included a yearly progress report requirement at the school district (LEA) level
- Identified benefits and barriers to the policy; information used to help decide if the policy should be altered or continued



Consider Policy Implementation

- **MO SB 291 (2008):** School districts shall ensure that students in elementary schools participate in moderate physical activity for the entire school year, including students in alternative education programs. Students in the elementary schools shall participate in moderate physical activity for an average of one hundred fifty minutes per five-day school week, or an average of thirty minutes per day.

Surveillance & Population Impact



Penman et al 2006; based on Rose 1985

Your Questions



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