

# How Schools Can Help Prevent Obesity and How States Can Help Them Do It

**Howell Wechsler, EdD, MPH**

Director

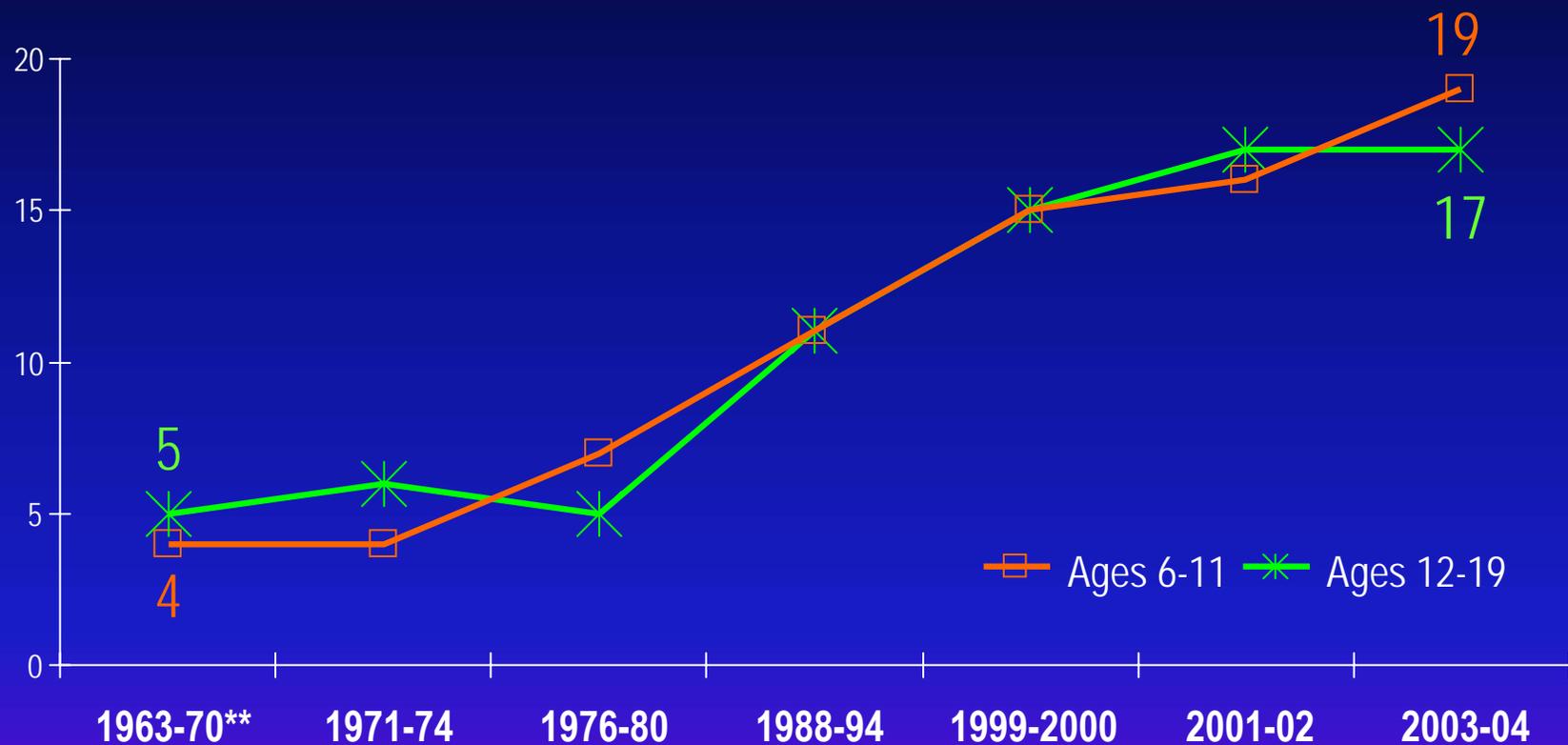
Division of Adolescent and School Health (DASH),

NCCDPHP, CDC

August 29, 2007



# Percentage of U.S. Children and Adolescents Who Were Obese, 1963-2004\*



\* $\geq$ 95th percentile for BMI by age and sex based on 2000 CDC BMI-for-age growth charts.

\*\*1963-1970 data are from 1963-1965 for children 6-11 years of age and from 1966-1970 for adolescents 12-17 years of age.

Source: CDC, National Center for Health Statistics

# Consequences of Obesity in Children

% of children, aged 5-10,  
with 1 or more risk factors  
for heart disease:

**27%**

% of children, aged 5-10,  
with 2 or more risk factors  
for heart disease:

**7%**

*Source: Freedman DS et al. Pediatrics 1999;103:1175-82*

# Consequences of Obesity in Children

**obese**  
% of children, aged 5-10,  
with 1 or more risk factors  
for heart disease:

~~27%~~

61%

**obese**  
% of children, aged 5-10,  
with 2 or more risk factors  
for heart disease:

~~7%~~

27%

Source: Freedman DS et al. Pediatrics 1999;103:1175-82

# U. S. Children Born in 2000



1 in 3

**will develop Diabetes during lifetime**

*Source: Narayan KMV et al. Lifetime risk for diabetes mellitus in the United States. JAMA. 2003;290(14):1884*

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# Economic Costs Associated with Obesity are High

Direct and indirect health care costs of obesity and overweight:

- **\$98 billion** in 2004<sup>1,2</sup>
- ½ of costs publicly financed by Medicare or Medicaid<sup>1</sup>

For obese vs. normal-weight adults:

- Healthcare costs **36%** higher<sup>3</sup>
- Medication costs **77%** higher<sup>3</sup>

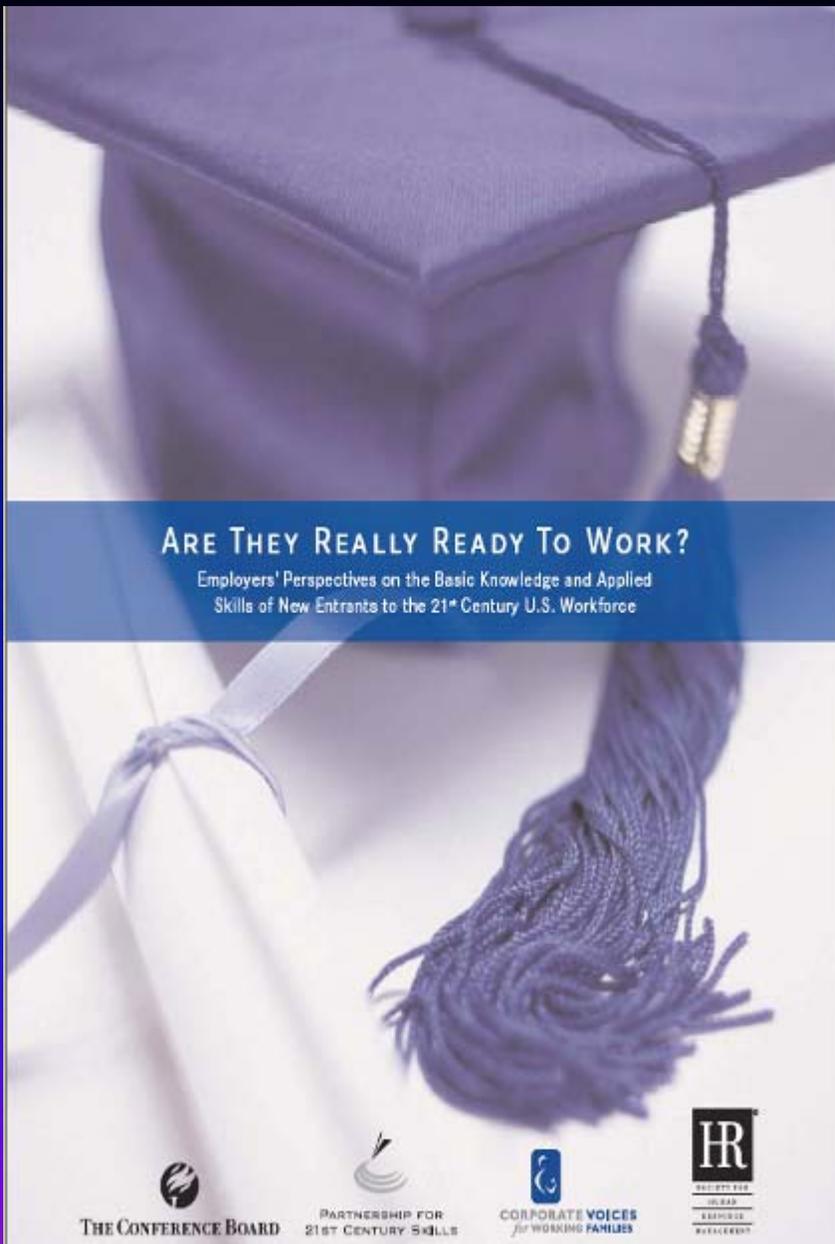
Obesity accounted for over 25% of the increase in per capita health care costs between 1987 and 2001<sup>4</sup>

1. Finkelstein EA, Fiebelkorn IC, Wang G. National medical spending attributable to overweight and obesity: How much, and who's paying? *Health Affairs* 2003;W3:219

2. Institute of Medicine. Preventing Childhood Obesity: Health in the balance. Washington, DC: The National Academies Press; 2005

3. Sturm R. The effects of obesity, smoking, and drinking on medical problems and costs. *Health Affairs*. 2002;21(2):245.

4. Thorpe KE et al. The impact of obesity on risking medical spending. *Health Affairs*. 2004;W4:480.



## A Survey of >400 Employers

- # 1 factor that will have the largest impact on the workplace over the next five years:  
**rising health care costs**
- #1 emerging content area in terms of its importance for future graduates entering the U.S. workforce in the next five years:  
**Making Appropriate Choices Concerning Health and Wellness (76% of employer respondents rated it as “most critical”)**

# Opinions of U.S. Adults About School Health Programs

- 65% of U.S. adults believe schools should play a major role in fighting the obesity problem<sup>1</sup>
- 81% of parents of children in K—12 want their kids to receive daily physical education<sup>2</sup>
- 74% of parents of adolescents said schools should spend more time or the same amount of time teaching health education as they do teaching other subjects<sup>3</sup>

1. Survey by Lake Snell Perry and Associates for Harvard Univ., based on interviews with a nationally representative sample of 1,002 adults, May-June 2003

2. Survey by Opinion Research Corp. based on interviews with a nationally representative sample of 1,017 adults, February 2000 (margin of error =  $\pm 6\%$ )

3. Gallup Organization for the American Cancer Society, national telephone survey of 1,003 parents of adolescents enrolled in U.S. public schools, 1993

# Opinions of Leading Education Associations on School Health Programs

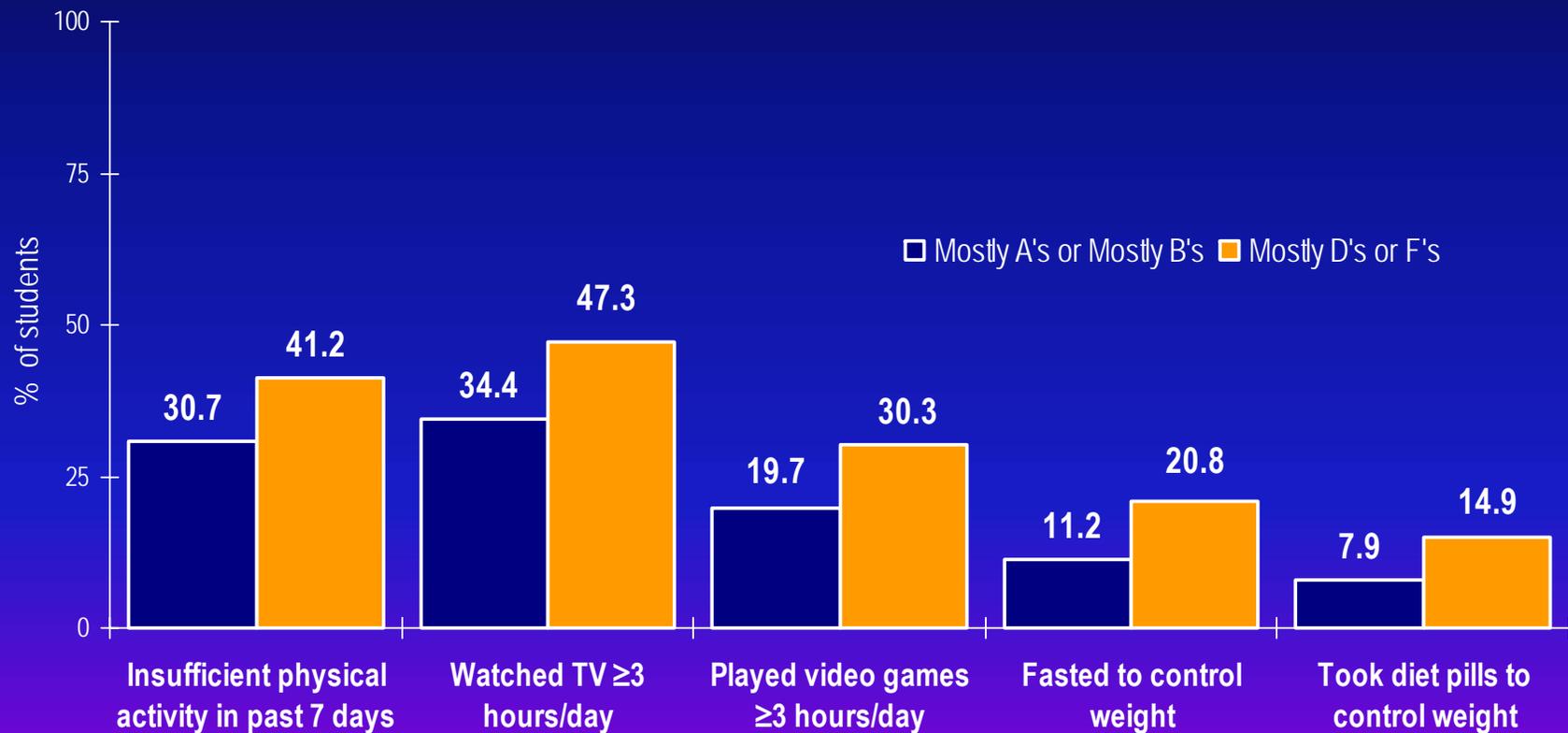
*"Health and success in school are interrelated. Schools cannot achieve their primary mission of education if students and staff are not healthy and fit physically, mentally, and socially."*

- National Association of State Boards of Education

*"No educational tool is more essential than good health... Policies and practices that address the health and developmental needs of young people must be included in any comprehensive strategy for improving academic performance."*

- Council of Chief State School Officers

# Percentage of U.S. High School Students Getting Mostly A's or Mostly B's and Mostly D's or F's\* Who Engage in Selected Health Risk Behaviors



\*As reported by students

Source: Unpublished analyses of CDC, National Youth Risk Behavior Survey, 2003

# Making the Connection: Health and Student Achievement

[www.thesociety.org](http://www.thesociety.org)



Society of State Directors of Health,  
Physical Education and Recreation (SSDHPER)



Association of State and  
Territorial Health Officials (ASTHO)



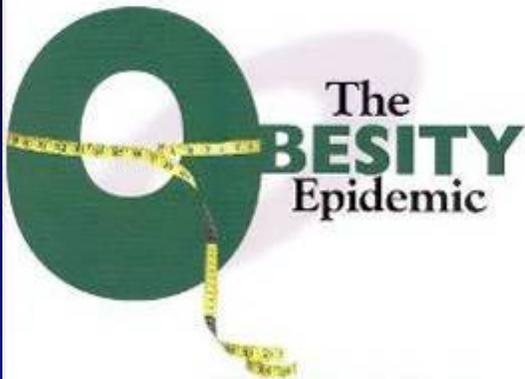
© 2002 Association of State and Territorial Health Officials (ASTHO) and the  
Society of State Directors of Health, Physical Education and Recreation (SSDHPER)

The State Education

December 2011

# Standard

The Journal of the National Association of State Boards of Education



## The BESITY Epidemic

What Schools Can Do

INSIDE: Understanding Childhood Obesity • Seven Steps to an Effective School Wellness Policy • The Role of School Physical Activity Programs • Developing State or National Standards • What States Are Doing to Combat Childhood Obesity

### Make a Difference at Your School!

CDC Resources Can Help You Implement Strategies to Prevent Obesity Among Children and Adolescents



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

# What Can Schools Do?

- Coordinated school health program
- Strong health policies
- Self-assessment and planning for improvement
- School health council & coordinator
- High-quality health education
- High quality physical education
- Increased physical activity opportunities
- Quality school meal program
- Appealing, healthy food and beverage choices outside of school meals
- Health promotion for staff

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# STRATEGIES for States to Help Schools Prevent **OBESITY**



# STRATEGY

**Coordinate and  
integrate school  
health-related  
programs across state  
agencies and with  
nongovernmental  
organizations**





**Media**



**Government Agencies**



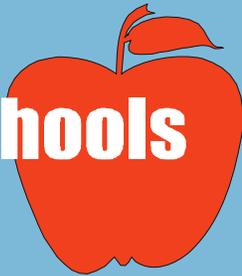
**Employers**

**Religious Organizations**



**Postsecondary Institutions**

**Schools**



**Community agencies that serve youth**

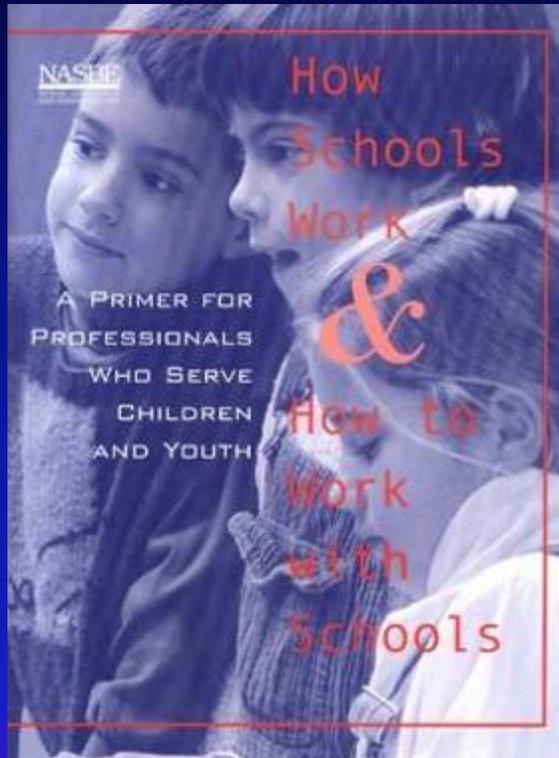


**Family**

**YOUTH**

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# Technical Assistance to Facilitate Cross-Agency Collaboration



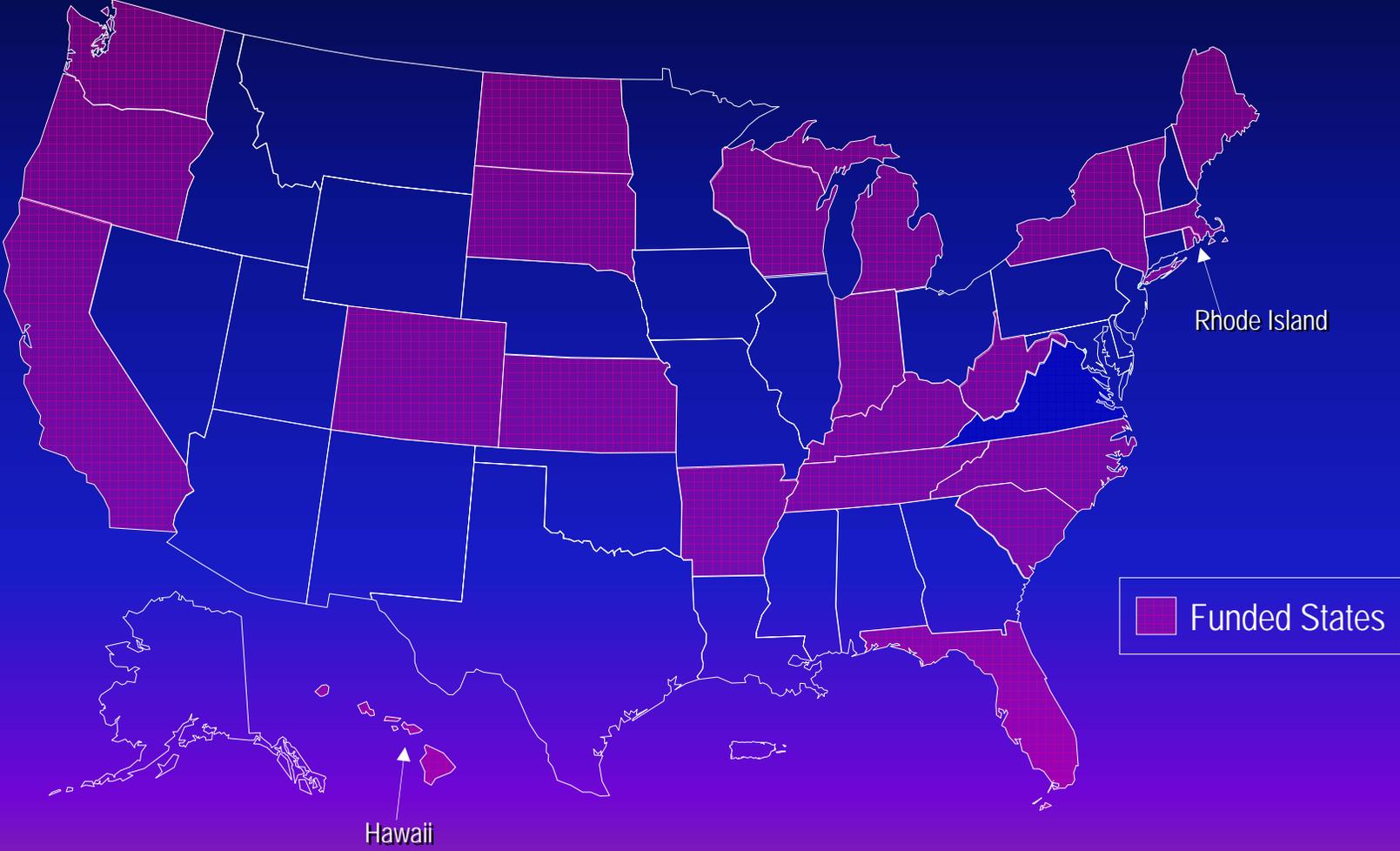
- How education works at the school, district, state, and national levels
- Practical tips for how to work with educators, administrators, and policymakers

[www.nasbe.org](http://www.nasbe.org)

## Coming Soon

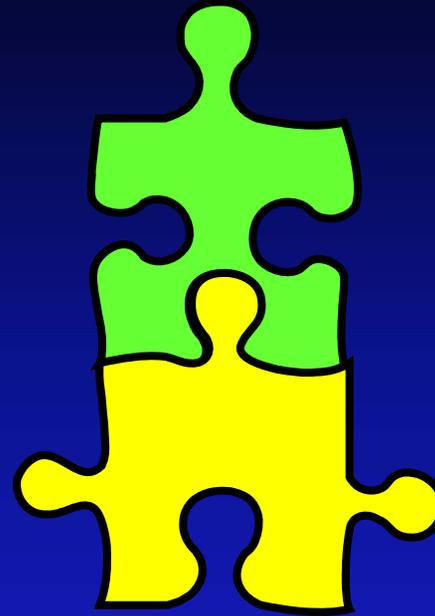
*How Health Departments Work and How to Work with Health Departments*  
by the National Association of Chronic Disease Directors

# CDC-Funded State Coordinated School Health Programs (Through 02/08)

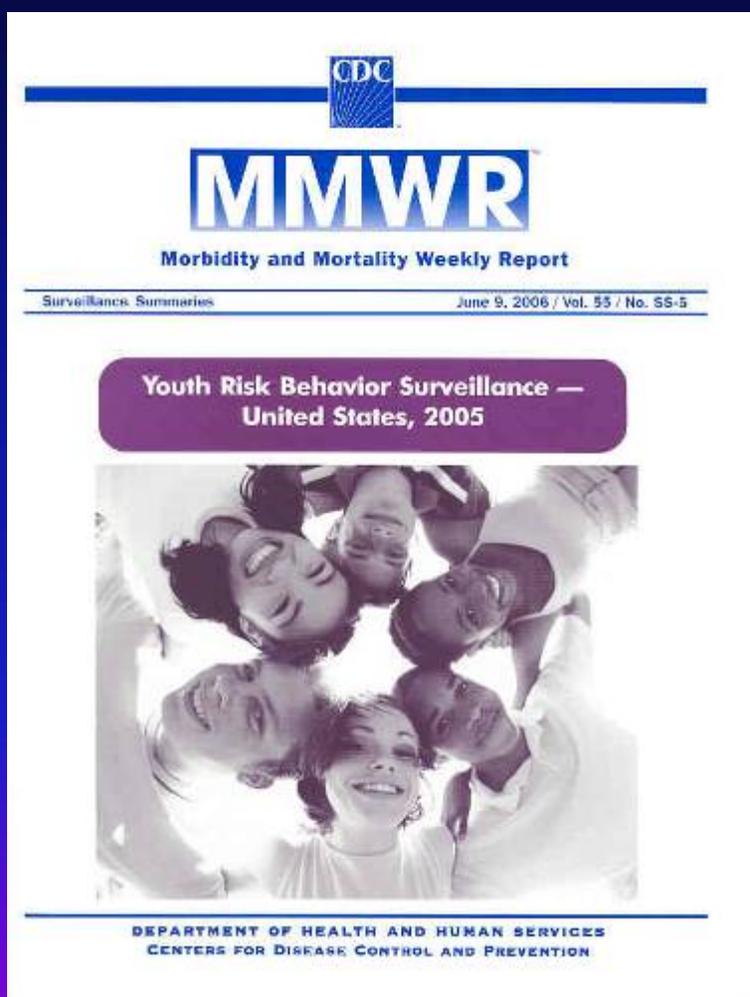


# STRATEGY

Use state and local  
data to guide  
decision-making and  
policy formulation



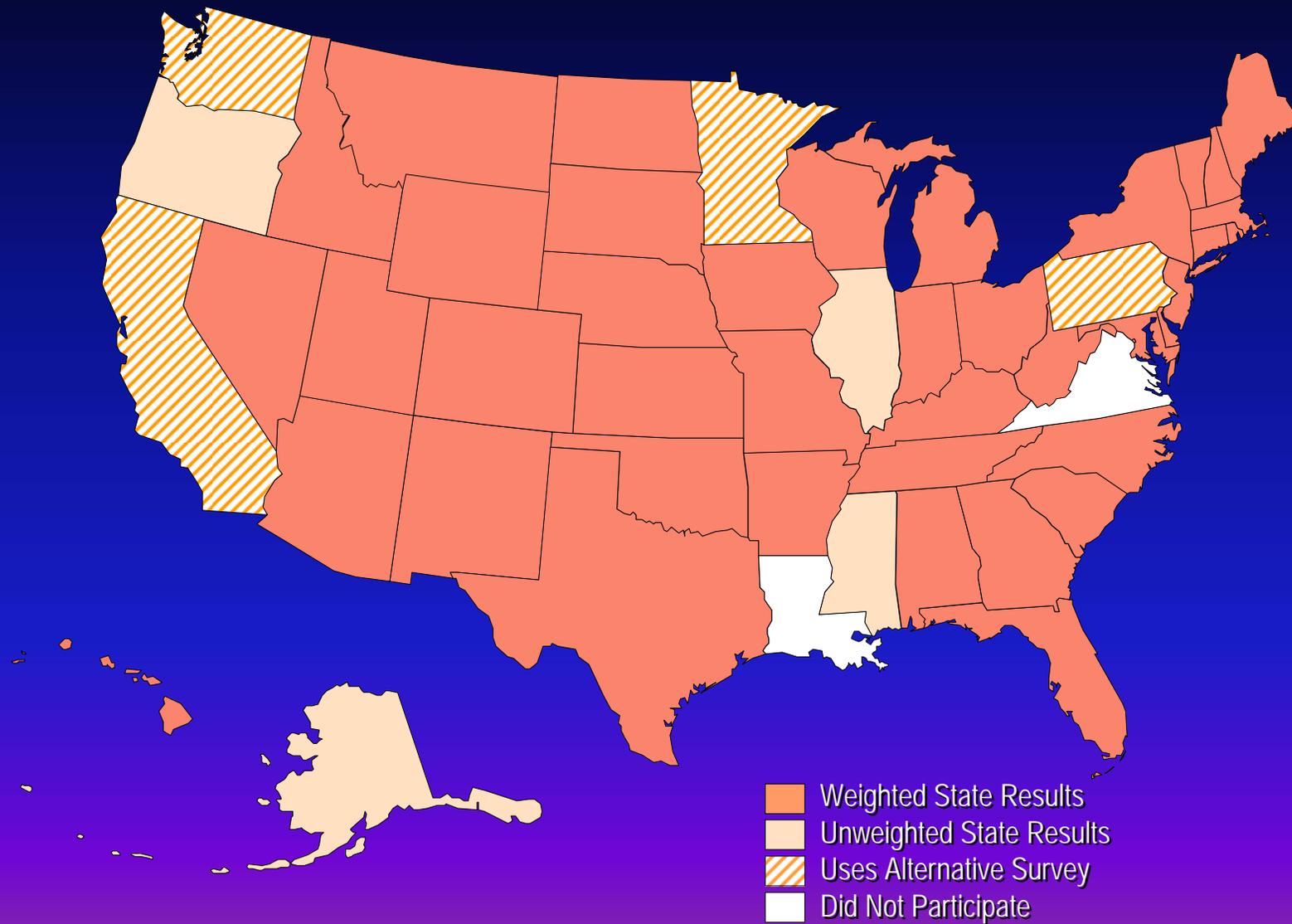
# CDC's Youth Risk Behavior Survey



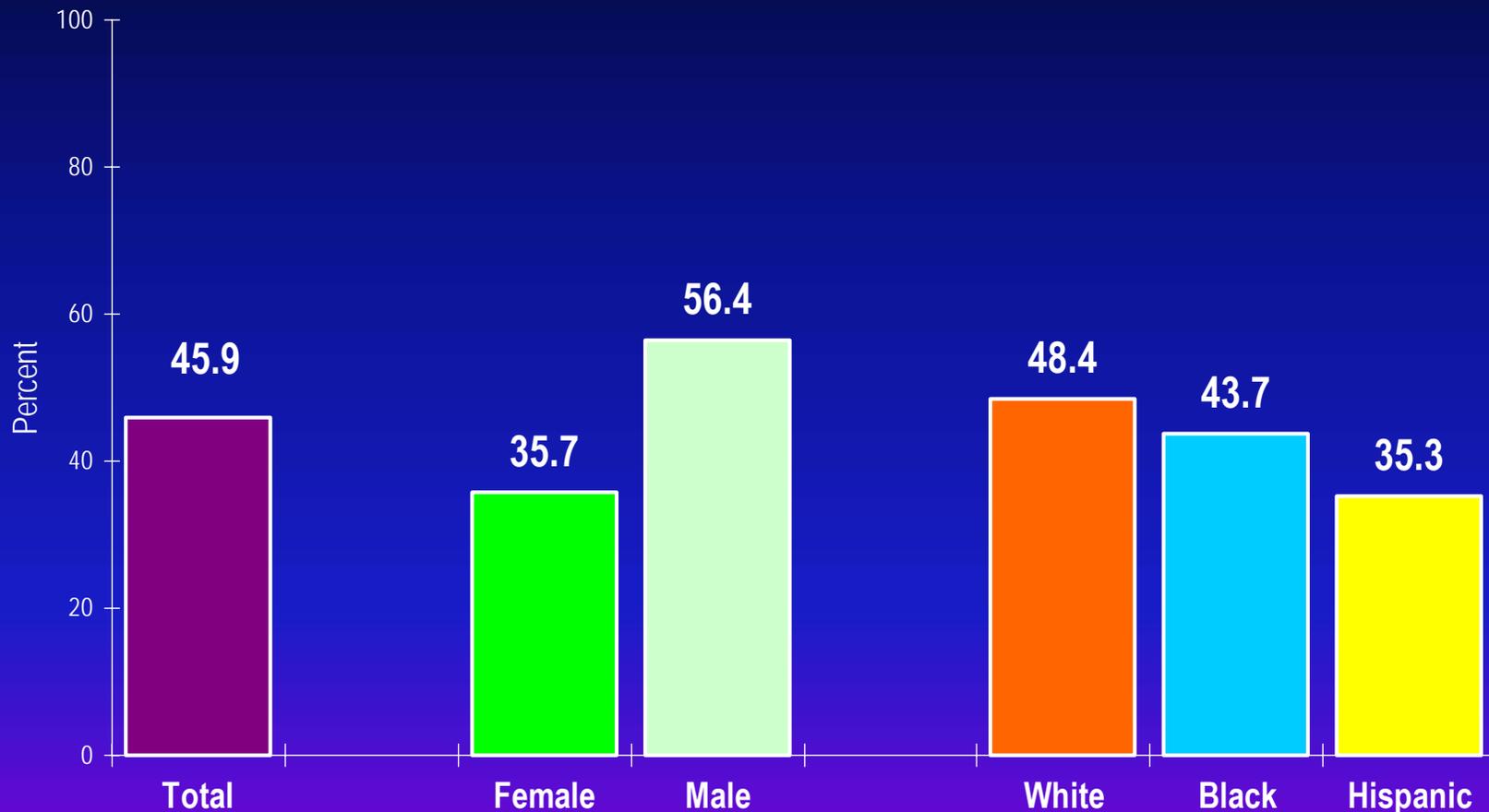
Topics covered include:

- Dietary behaviors
- Physical activity
- Height and weight
- Weight control behaviors
- Safety- and violence-related behaviors
- Sexual risk behaviors
- Tobacco use
- Alcohol and other drug use
- Asthma

# State Participation in YRBS, 2005



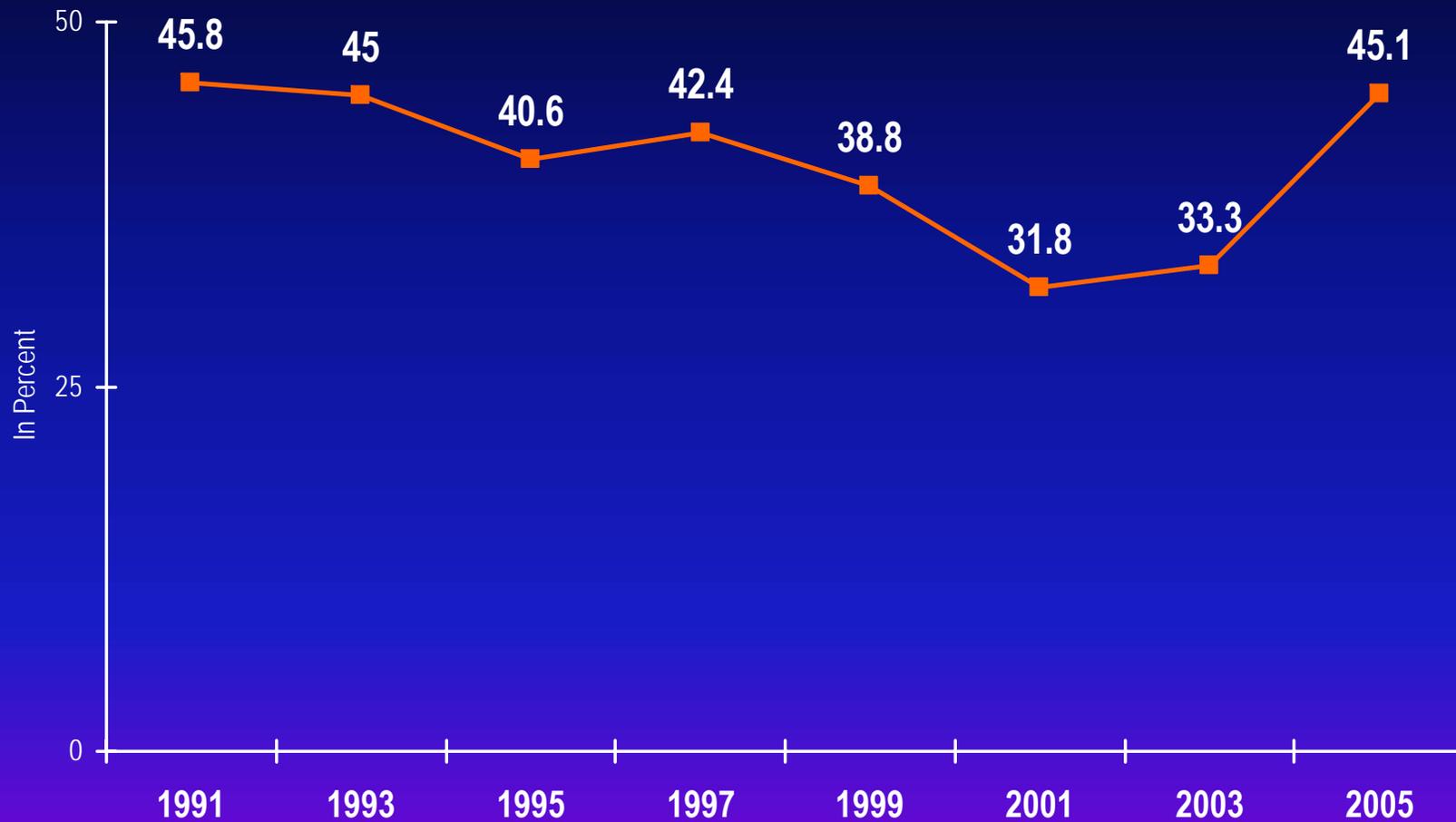
# Percentage of North Carolina High School Students Who Met Currently Recommended Levels of Physical Activity,\* by Sex\*\* and Race/Ethnicity,\*\*\* 2005



\* Were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes/day on  $\geq 5$  of the 7 days preceding the survey; \*\* M > F; \*\*\* W > H

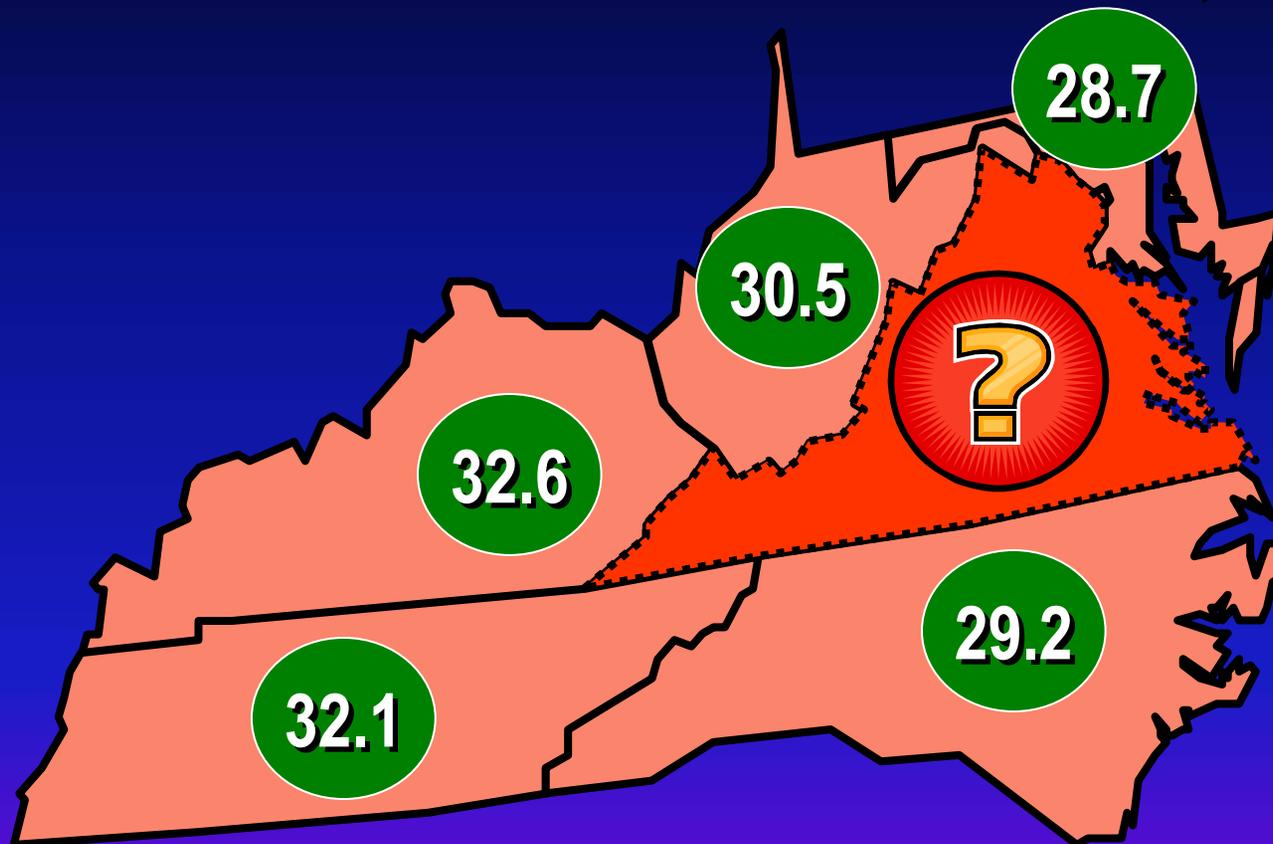
Source: North Carolina Youth Risk Behavior Survey, 2005

# Percentage of Alabama High School Students Who Attended PE Classes Daily,\* 1991 – 2005



\*Significant linear decrease and quadratic change,  $P < .05$   
Source: Alabama Youth Risk Behavior Surveys, 1991 – 2005

# Percentage of High School Students Who Were Obese\* or Overweight\*\* in Selected Southeastern States, 2005



\* Students who were  $\geq$  95th percentile for body mass index, by age and sex, based on reference data

\*\* Students who were  $\geq$  85<sup>th</sup> percentile but  $<$  95<sup>th</sup> percentile for body mass index, by age and sex, based on reference data  
State Youth Risk Behavior Surveys, 2005

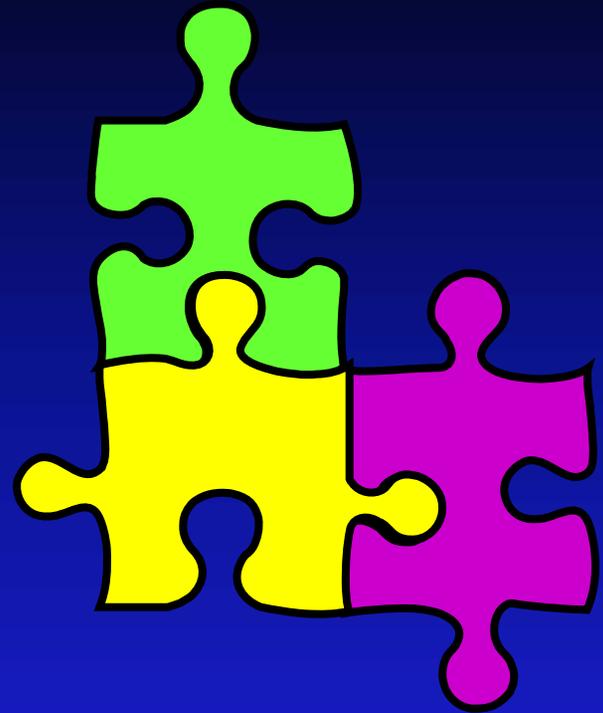


*“Without data you  
are just a schmuck  
with an opinion.”*

Alan Greenspan,  
Former Chair of the US Federal Reserve

# STRATEGY

Support the development of school health councils and rigorous school health program planning processes



# State Actions to Support School Health Councils and Rigorous Planning Processes

- Require each school district establish and maintain a School Health Council with designated responsibilities (AR, IN, MS, NM, RI, SC, TN)
- Provide professional development to school health coordinators and school health councils (CA, IN, MI, PA)
- Require use of CDC's *School Health Index* by each school (AR, HI, TN)
- Provide mini-grants for schools to implement health program improvement plans (AR, CA, CT, GA, HI, KT, MI, MO, MT, NC, NH, NY, OK, PA)

# STRATEGY

Help school districts  
establish strong  
wellness policies



# Federal Requirements for a Local Wellness Policy

- ✓ Goals for nutrition education, physical activity, and other wellness activities
- ✓ Nutrition guidelines and guidelines for school meals
- ✓ Must involve parents, students, community members, and others
- ✓ In place for 2006-07 school year
- ✓ Plan for measuring implementation
- ✓ Designation of a coordinator

# State Actions to Promote Implementation of Local Wellness Policies

- Produced policy guidance documents and resources to aid local education agencies in creating wellness policies (40 states)
- Disseminated model wellness policies (18 states)
- Passed laws or adopted regulations that establish content requirements that go beyond federal requirements (11 states)

# State Actions to Promote Implementation of Local Wellness Policies

- Strengthen policy evaluation and accountability (15 states)
  - Require school districts to report to the state on policy implementation
  - Require ongoing local level accountability for implementation of wellness policies

# STRATEGY

Improve the capacity  
of school staff through  
certification and  
professional  
development



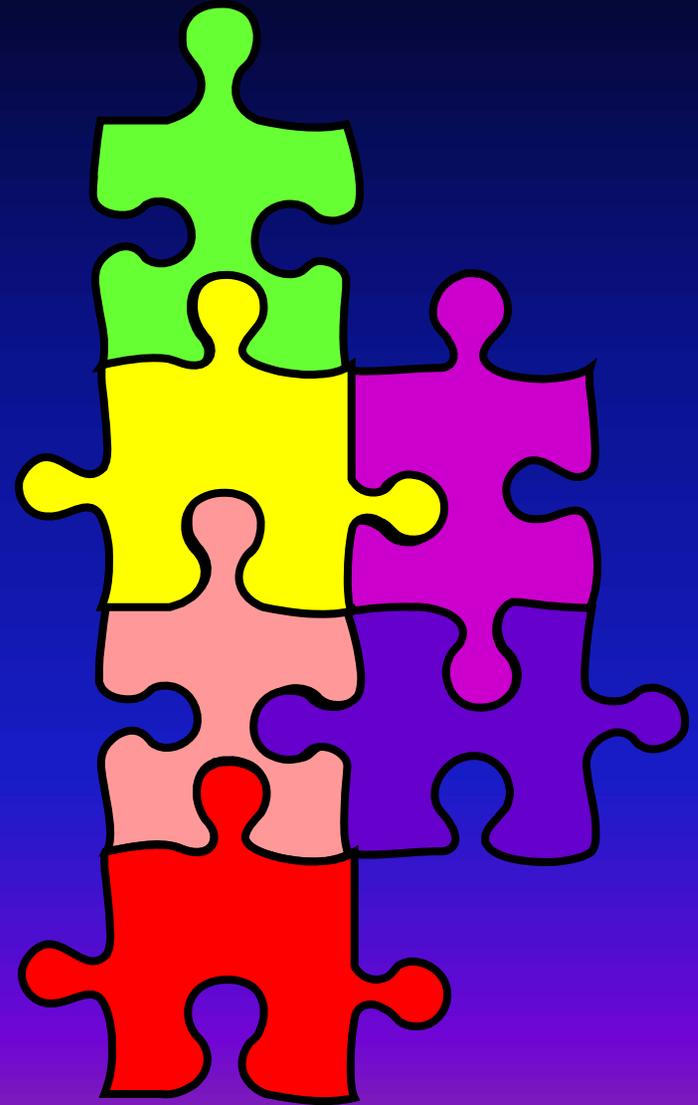
# Percentage of States That Require Certification, Licensure, or Endorsement in Field for Newly Hired Staff

- Health education teachers:
  - Elementary schools: 27%
  - Middle/junior high schools: 69%
  - High schools: 74%
- Physical education teachers:
  - Elementary schools: 65%
  - Middle/junior high schools: 88%
  - High schools: 92%
- Guidance counselors: 98%
- School psychologists: 96%
- School nurses: 41%
- District food service coordinators: 6%

Source: CDC, *School Health Policies and Programs Study, 2000*

# STRATEGY

**Establish  
requirements for time  
students must spend  
in physical education.**

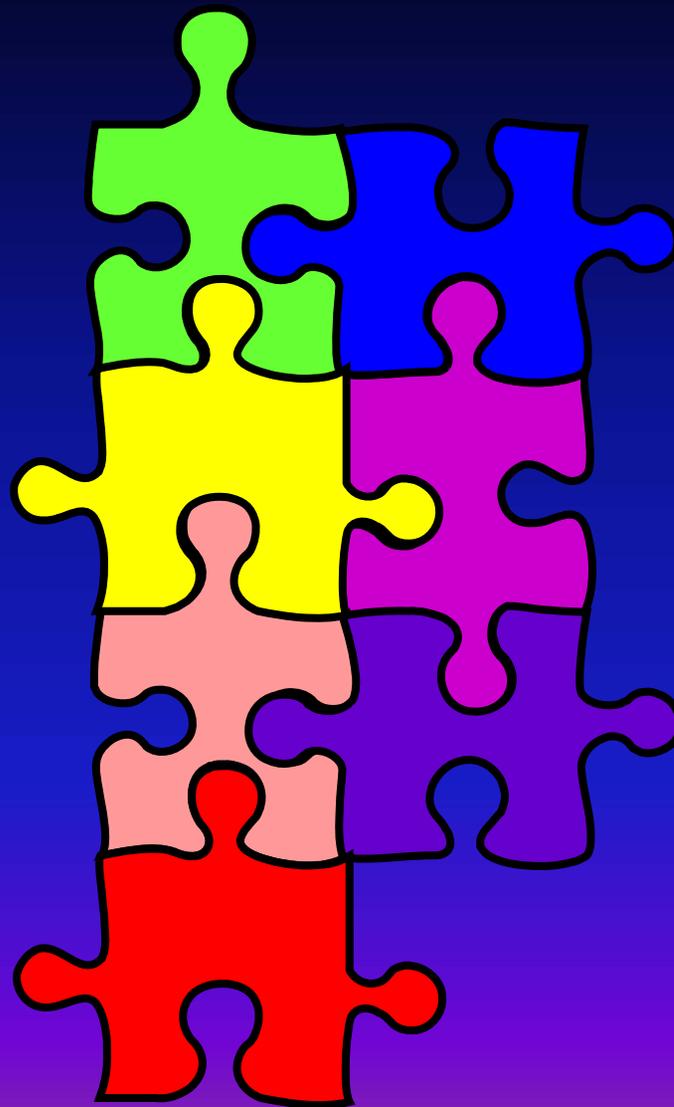


# Sample State Actions to Require More Time for Physical Education

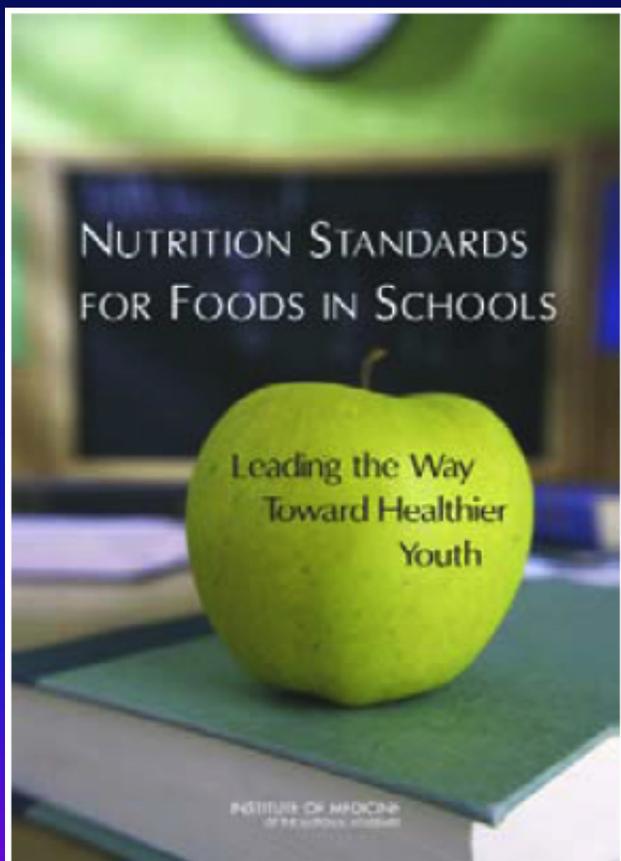
- Require daily PE for grades K-12 (IL)
- Require daily PE for grades K-8 (AL, MS)
- Require daily PE for grades K-5 (FL)
- Establish a future date by which daily PE will be required for grades K-8 (OR)
- Establish other time requirements for PE (CA, LA, MO, RI, SC, TX, WV)
- Require districts to eliminate exemptions or waivers from participation in PE (AL, CT, DE, IN, MO, NY, NC, RI, WI)

# STRATEGY

**Set nutrition standards for  
foods and beverages  
offered in schools**



# IOM's *Nutrition Standards for Foods in Schools: Leading the Way Toward Healthier Youth*



## *Major conclusions:*

1. Federally-reimbursable school nutrition programs should be the main source of nutrition at school
2. Opportunities for competitive foods should be limited
3. If competitive foods are available, they should meet standards for fat, saturated fat, trans fat, added sugars, calories, and sodium

# State Actions to Establish Nutrition Standards

27 states have adopted competitive food policies more restrictive than federal regulations

- 16 states currently require nutritional standards for competitive foods at school (AL, AZ, CA, CT, HI, IL, KY, LA, ME, NJ, NM, NC, RI, TN, TX, WV)
- 14 states restrict portion sizes of competitive foods or beverages (AL, AK, AR, CA, CT, IL, KY, LA, NJ, NC, RI, TN, TX, WV)
- 25 states prohibit access to all or some competitive foods to all or some students at specified times during the school day

*Health Policy Tracking Service, 2007, February 8. Nutrition Standards for Competitive Foods Sold in Elementary, Middle, or High School.  
Health Policy Tracking Service, a service of Thomson West.*

# STRATEGY

Promote high quality  
health education  
and physical  
education.



# Possible State Actions to Promote High Quality Health Education and Physical Education

- Develop and disseminate standards, curriculum frameworks, and/or curriculum guidelines
- Provide professional development and technical assistance
- Require grades in courses
- Promote rigorous curriculum analysis processes
- Promote high quality assessment and include in state education assessment systems



# PECAT

Physical Education Curriculum Analysis Tool



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention



# HECAT

Health Education Curriculum Analysis Tool



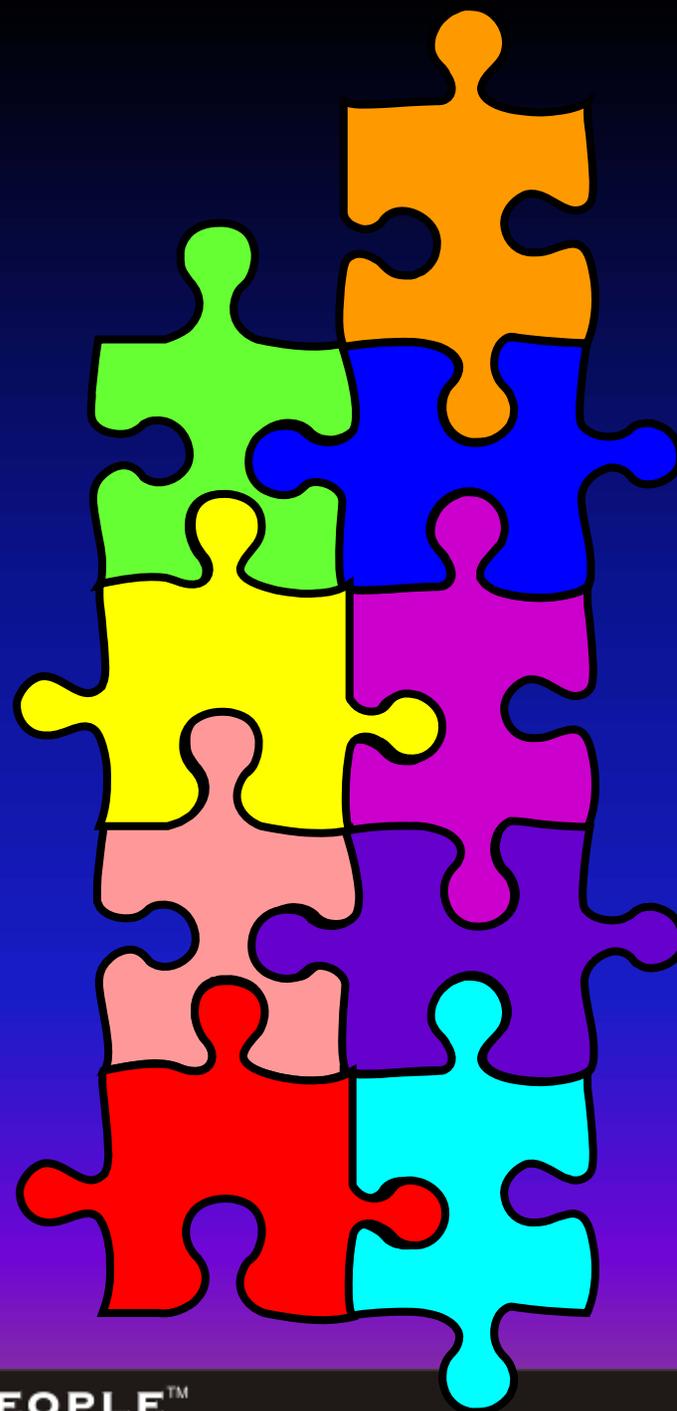
Department of Health and Human Services  
Centers for Disease Control and Prevention

# South Carolina Physical Education Assessment Program

- Established state physical education standards
- Developed materials to assess student proficiency in physical education
- Implemented staff development activities on assessment
- Piloted collection of data to determine school PE program effectiveness; included in school report cards
- May 2005 legislation funds the assessment program and requires it in all districts (with inclusion on school report cards)

# STRATEGY

Support student participation in high quality school meal programs



# STRATEGY

Support opportunities for students to engage in physical activity and consume fruits and vegetables:

- Recess
- Physical activity breaks
- Intramural sports
- Physical activity clubs
- Safe Routes to School
- Fruit and vegetable snack distribution
- Farm-to-school programs
- Salad bars
- School gardens



# 10 Strategies for States

- Coordinate across state agencies
- Use state and local data
- Support school health councils and planning
- Establish strong wellness policies
- Certification of school staff
- Physical education requirements
- Nutrition standards
- Assessment in physical education and health education
- Support school meals
- Opportunities for physical activity and fruit and vegetable consumption

# www.cdc.gov/HealthyYouth

Healthy Youth - Division of Adolescent and School Health (DASH) - DASH/HealthyYouth - Microsoft Internet Explorer

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Address: http://www.cdc.gov/HealthyYouth/index.htm

CDC Home Search Health Topics A-Z

National Center for Chronic Disease Prevention and Health Promotion

**Healthy Schools**  
**Healthy Youth!**

**SPOTLIGHT ON...**

**Managing Asthma in Schools: What Have We Learned?**

**NEW DATA! Youth Risk Behaviors (YRBSS)**

**Flu Season—Stay Healthy!**

**PECAT: Physical Education Curriculum Analysis Tool**

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