



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION



Health is Academic: The Role of School Health Programs in Promoting Good Health and Academic Success

Howell Wechsler, EdD, MPH

Director, Division of Adolescent and School Health
Raleigh NC, May 18, 2009



Overview of Session

- A word about H1N1
- Why health is academic
- CDC's vision for promoting the health and academic success of students

Tips for Preventing H1N1 Flu

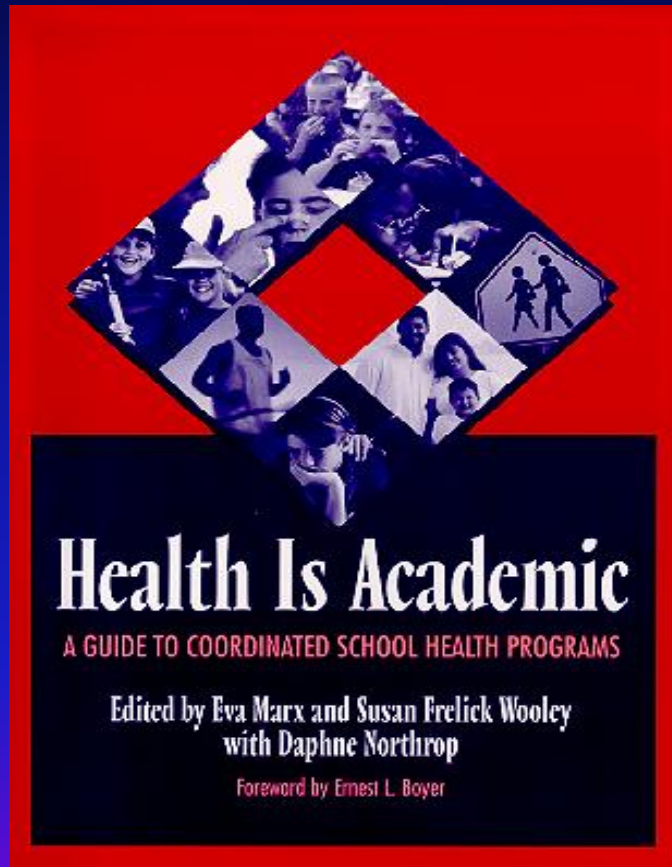


- Wash hands frequently with soap and water for 20 seconds
- Cough and sneeze into a tissue or into the inside of elbow
- Stay at least six feet away from people who are sick
- If sick, stay home from work, school, or daycare and stay away from other people until better

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- A word about H1N1
- **Why health is academic**
- CDC's vision for promoting the health and academic success of students

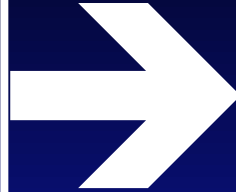
Health is Academic Because...



- School health programs can help improve students' educational outcomes
- Helping young people stay healthy is a fundamental part of the mission of our schools

Key Health Risks

- Physical inactivity
- Poor eating habits
- Injuries
- Alcohol/drug use
- Tobacco use
- Sexual risk behaviors
- Asthma
- Mental health issues



Key Educational Risks

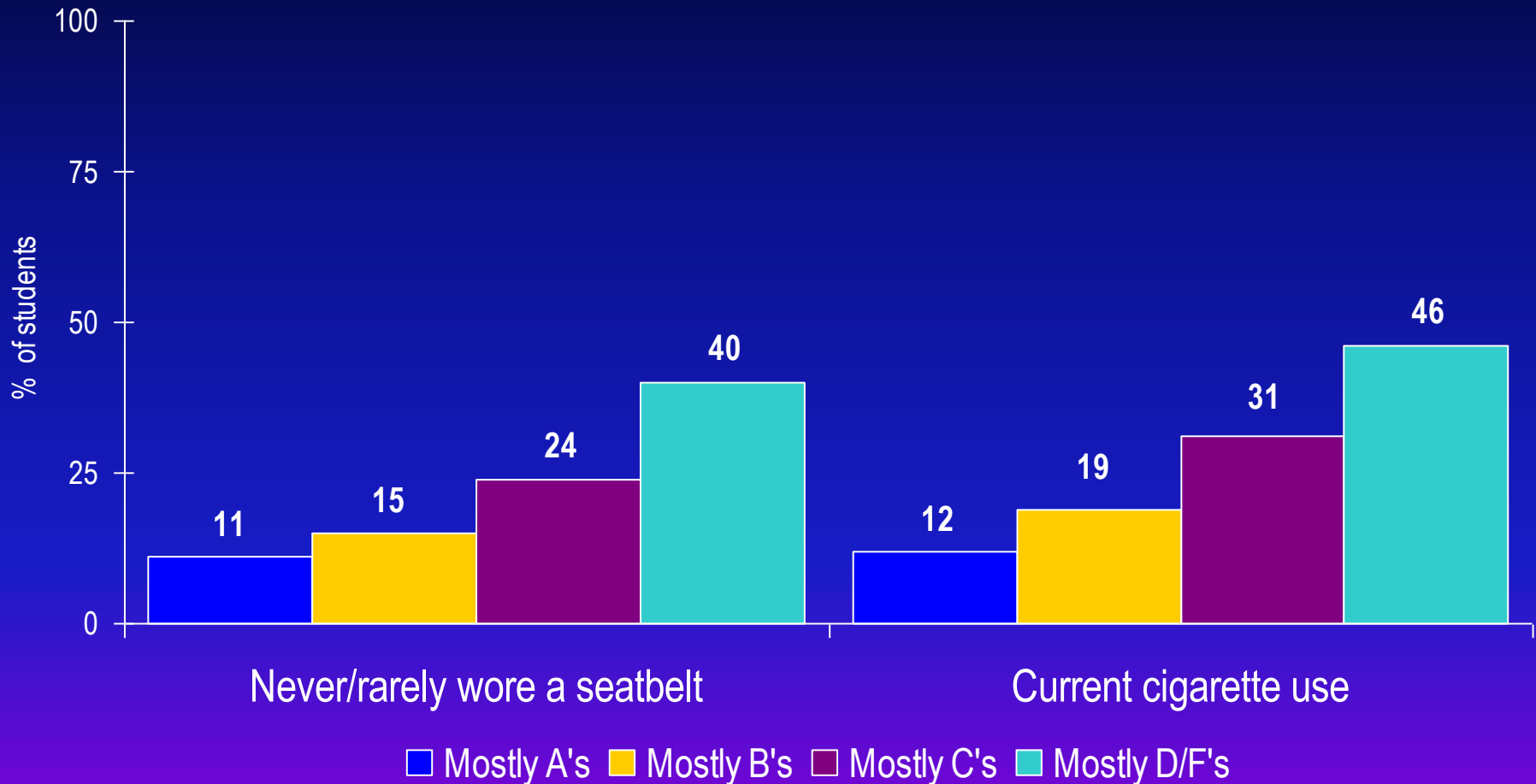
- Behavioral problems
- Short-term ↓ in intellectual functioning
- Lack of motivation
- Lack of connectedness/engagement
- Absenteeism



Poor Educational Outcomes

- Low academic grades
- Low standardized test scores
- Grade level retention
- Dropout

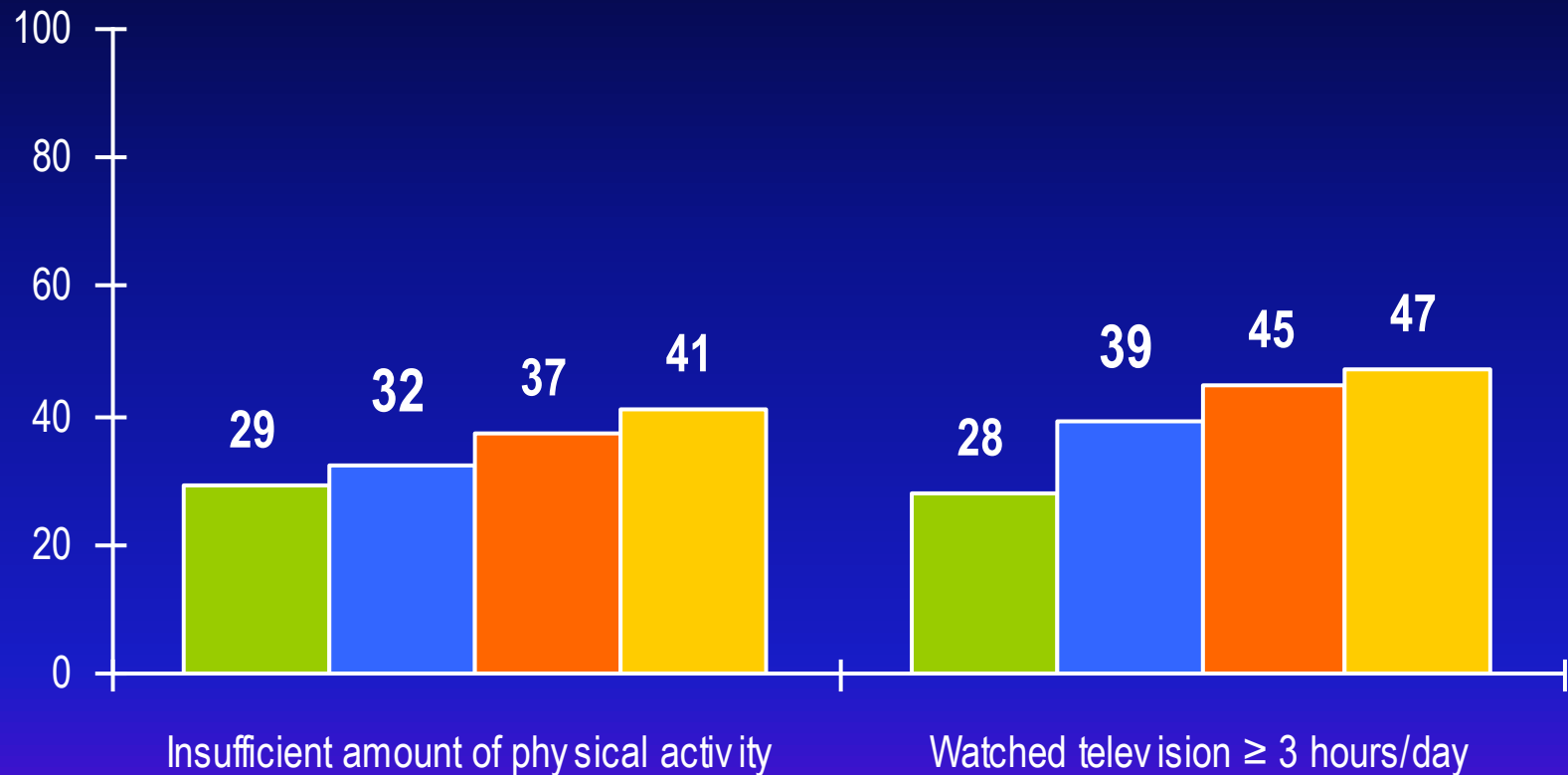
Percentage of U.S. High School Students Getting Mostly A's, Mostly B's, Mostly C's, or Mostly D/F's* Who Engage in Selected Health Risk Behaviors



*As reported by students

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

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



■ Mostly As ■ Mostly Bs ■ Mostly Cs ■ Mostly Ds & Fs

*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



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

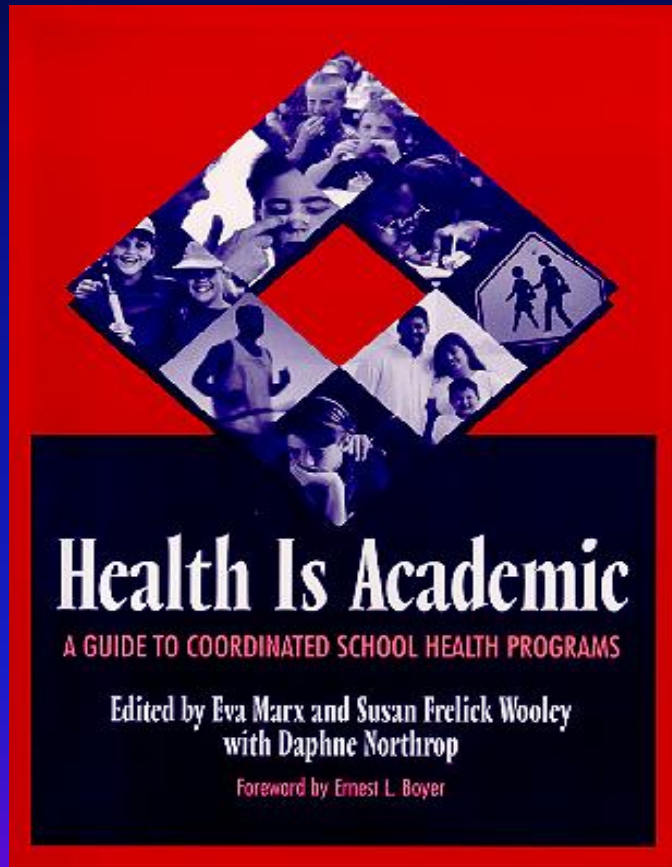


Association of State and
Territorial Health Officials (ASTHO)



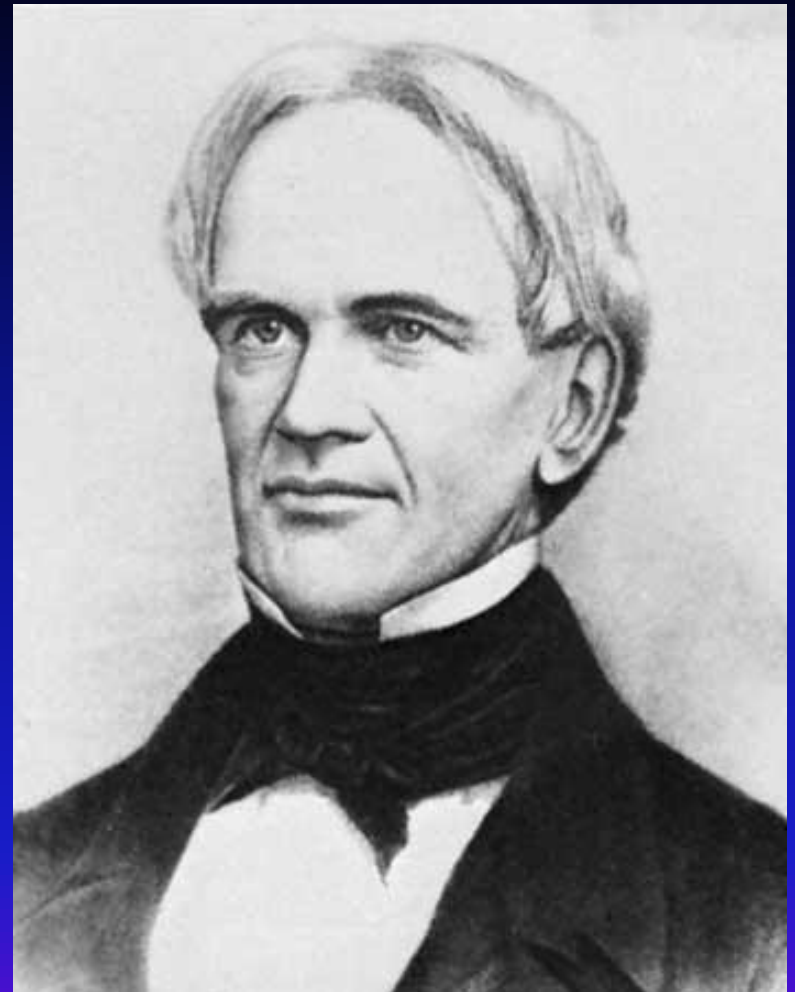
© 2002 Association of State and Territorial Health Officials (ASTHO) and the
Society of State Directors of Health, Physical Education and Recreation (SSDHPER)

Health is Academic Because...



- School health programs can help improve students' educational outcomes
- Helping young people stay healthy is a fundamental part of the mission of our schools

“In the great work of education, our physical condition, if not the first step in point of importance, is the first in order of time. On the broad and firm foundation of health alone can the loftiest and most enduring structures of the intellect be reared.”



Horace Mann

“We know what the Greeks knew: that intelligence and skill can only function at the peak of their capacity when the body is healthy and strong, and that hardy spirits and tough minds usually inhabit sound bodies.”



John F. Kennedy

“So the only way that we can initiate true health care reform is if we control costs. And one of the most important ways for us to control costs is to deal with the issue of prevention. Which means making sure that we have proper nutrition programs in our schools, making sure that we've got effective physical education programs for our children.”



Barack Obama

Opinions of U.S. Adults About School Health Programs

- 81% of parents of children in K-12 want their kids to receive daily physical education¹
- 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 subjects²

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

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

School Board Association Perspectives on the Relationship Between Health and Education

“NSBA recognizes the critical link of health and learning and the role of schools in promoting life-long health and preventing health risk behaviors.”

- National School Board Association

“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

Assoc. for Supervision and Curriculum Development *A New Compact to Educate the Whole Child*



Each student:

- **Enters school healthy and learns about and practices a healthy lifestyle.**
- Learns in an intellectually challenging environment that is physically and emotionally safe for students and adults.
- Is actively engaged in learning and is connected to the school and broader community.
- Has access to personalized learning and to qualified, caring adults.
- Is prepared for success in college or further study and for employment in a global environment.

Partners Supporting the “New Compact to Educate the Whole Child” Include:

- America’s Promise Alliance
- American Assoc. School Administrators
- American School Counselor Assoc.
- National Alliance of Black School Educators
- National Assoc. of Elementary School Principals
- National Assoc. of Secondary School Principals
- National Assoc. of State Boards of Education
- National Education Assoc.
- National Middle School Assoc.
- National School Boards Assoc.

Overview of Session

- A word about H1N1 influenza
- Why health is academic
- **CDC's vision for promoting the health and academic success of students**

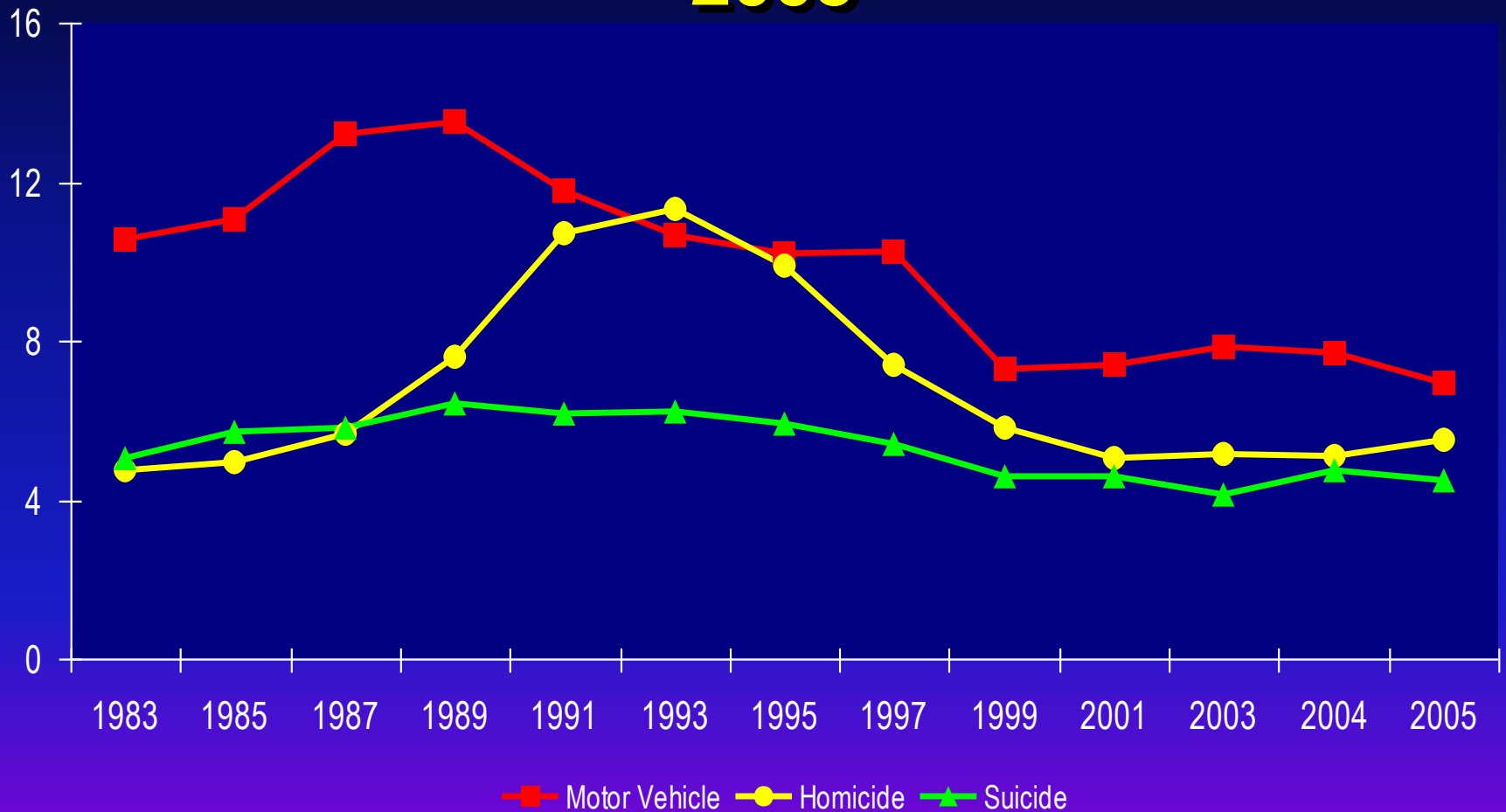
CDC's Vision for Promoting the Health and Academic Success of Students

- Focus on the most critical health risks

Most Critical Health Risks for Young People

- Intentional and unintentional injuries
- Alcohol/drug use
- Sexual risk behaviors
- Tobacco use
- Physical inactivity
- Poor eating habits
- Asthma
- Mental health

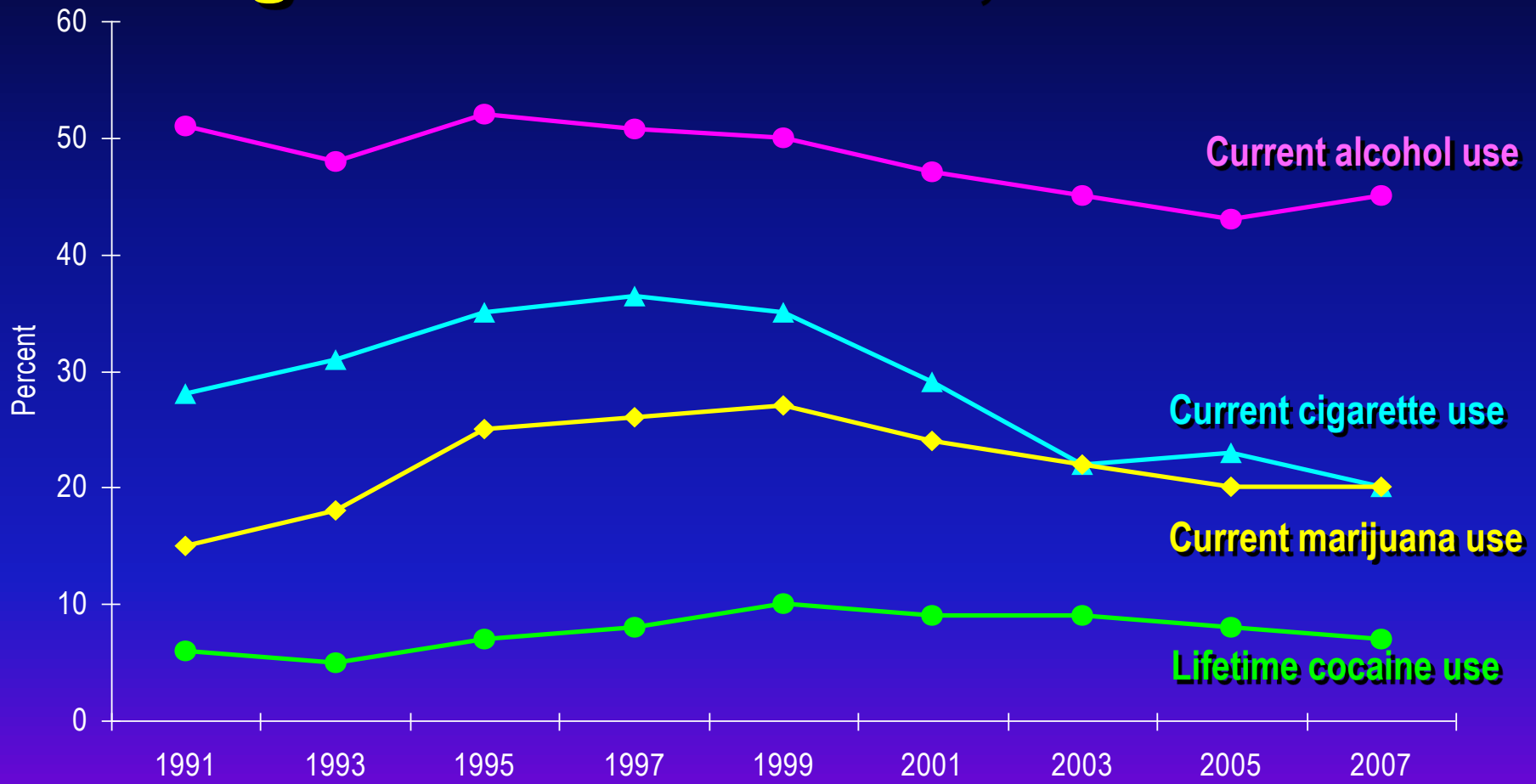
Trends in Leading Causes of Death Among 10 to 19 year olds, Rates per 100,000, 1981-2005



Source: CDC, National Center for Injury Prevention and Control, WISQARS

The coding of mortality data changed in 1999 from ICD-9 to ICD-10.

Trends in the Prevalence of Selected Substance Use Behaviors Among U.S. High School Students, 1991-2007



Source: National Youth Risk Behavior Surveys, 1991-2007

Percentage of High School Students Who Reported Sexual Behaviors, 1991 – 2007

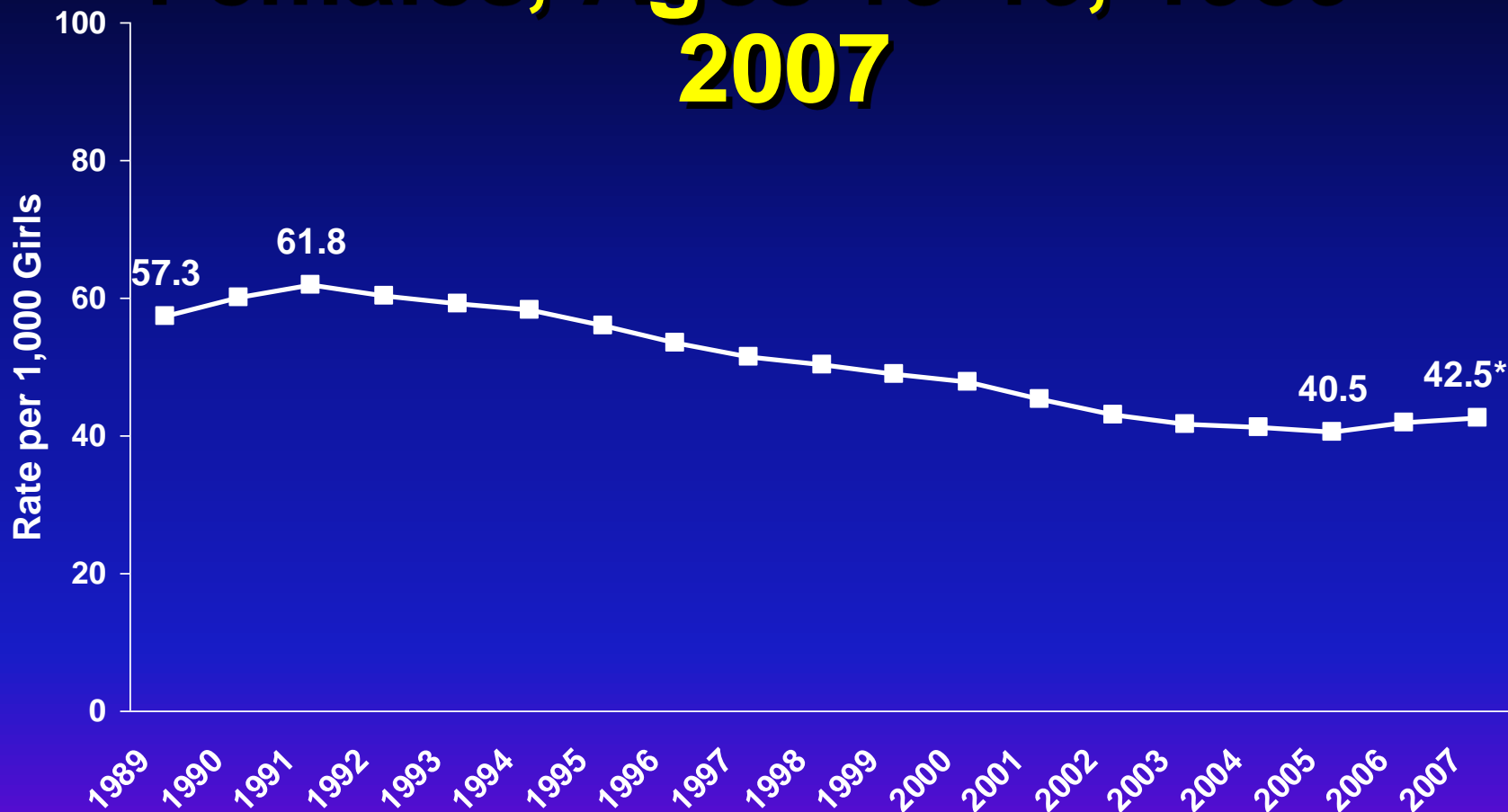


*Among students who had sexual intercourse during the past 3 months.

¹Significant linear increase 1991-2003, no change 2003-2007, $p < .05$; ²Significant linear decrease, $p < .05$

National Youth Risk Behavior Surveys, 1991 – 2007

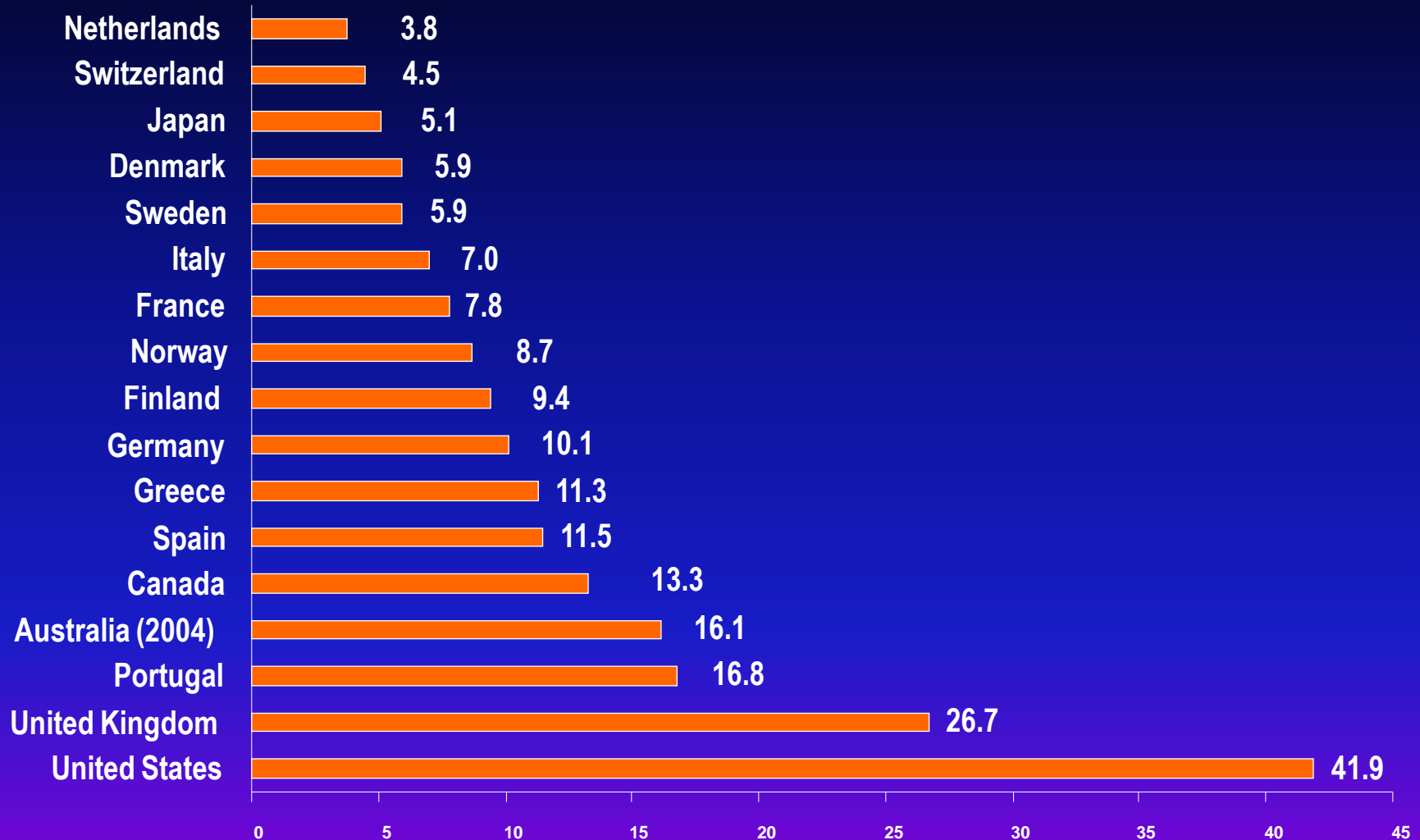
U.S. Birth Rates Per 1,000 Females, Ages 15-19, 1989 – 2007



* Data for 2007 is preliminary

Source: National Vital Statistics Reports

Teen Births Per 1,000 Females in U.S. and 16 Other Nations, 2006*



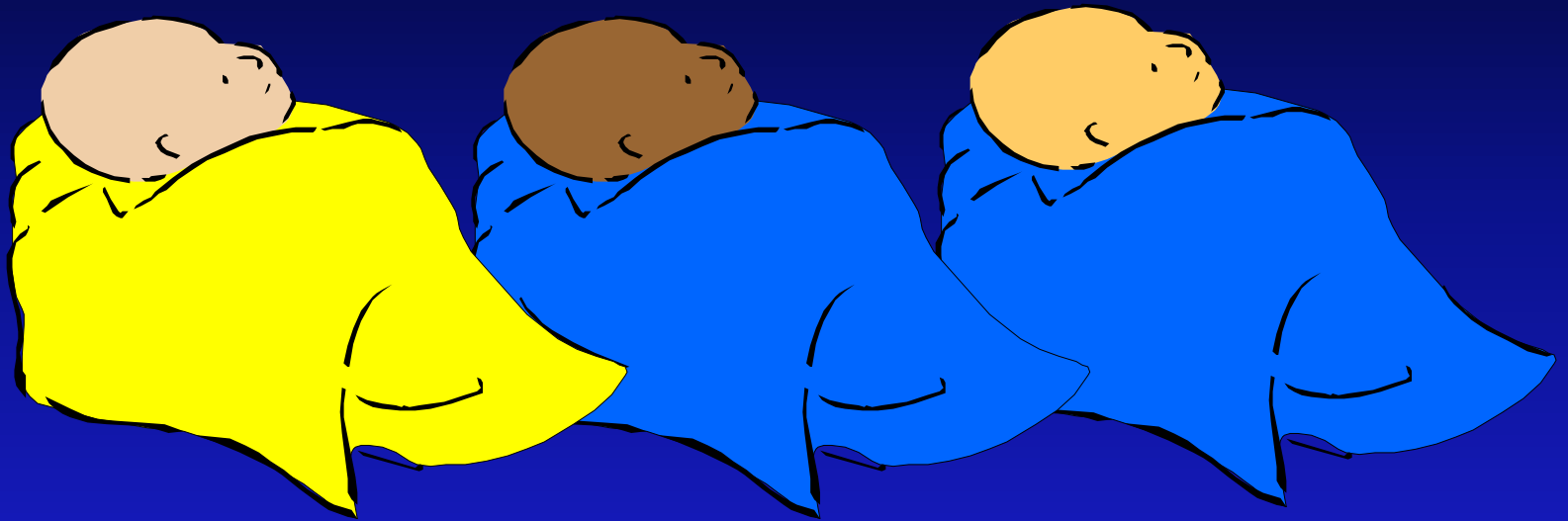
All birth rates are for 2006 unless otherwise noted.
Source: United Nations Demographic Yearbook, 2006

Percentage of U.S. Children and Adolescents Who Were Obese, 1963-2006



Note: Obesity is defined as BMI \geq gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.
Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17),
National Health and Nutrition Examination Surveys I, II, III and 1999-2006, NCHS, CDC.

U. S. Children Born in 2000



1 in **3**

will develop Diabetes during lifetime

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

SAFER • HEALTHIER • PEOPLE™

Economic Costs Associated with Obesity are High

Direct health care costs:

- **\$98 billion** in 2004^{1,2}
- ½ of costs publicly financed by Medicare or Medicaid¹

For obese vs. normal-weight adults:

- Healthcare costs **36%** higher³
- Medication costs **77%** higher³

Obesity accounted for over 25% of the increase in per capita health care costs between 1987 and 2001⁴

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

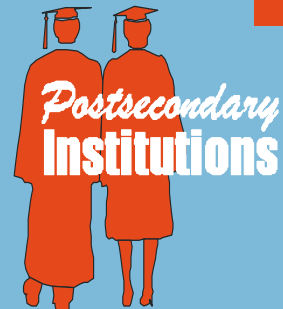
2. Institute of Medicine. Preventing Childhood Obesity: Health in the balance. Washington, DC: The National Academies Press; 2005

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.

CDC's Vision for Promoting the Health and Academic Success of Students

- Focus on the most critical health risks
- **Influence multiple sectors of society**

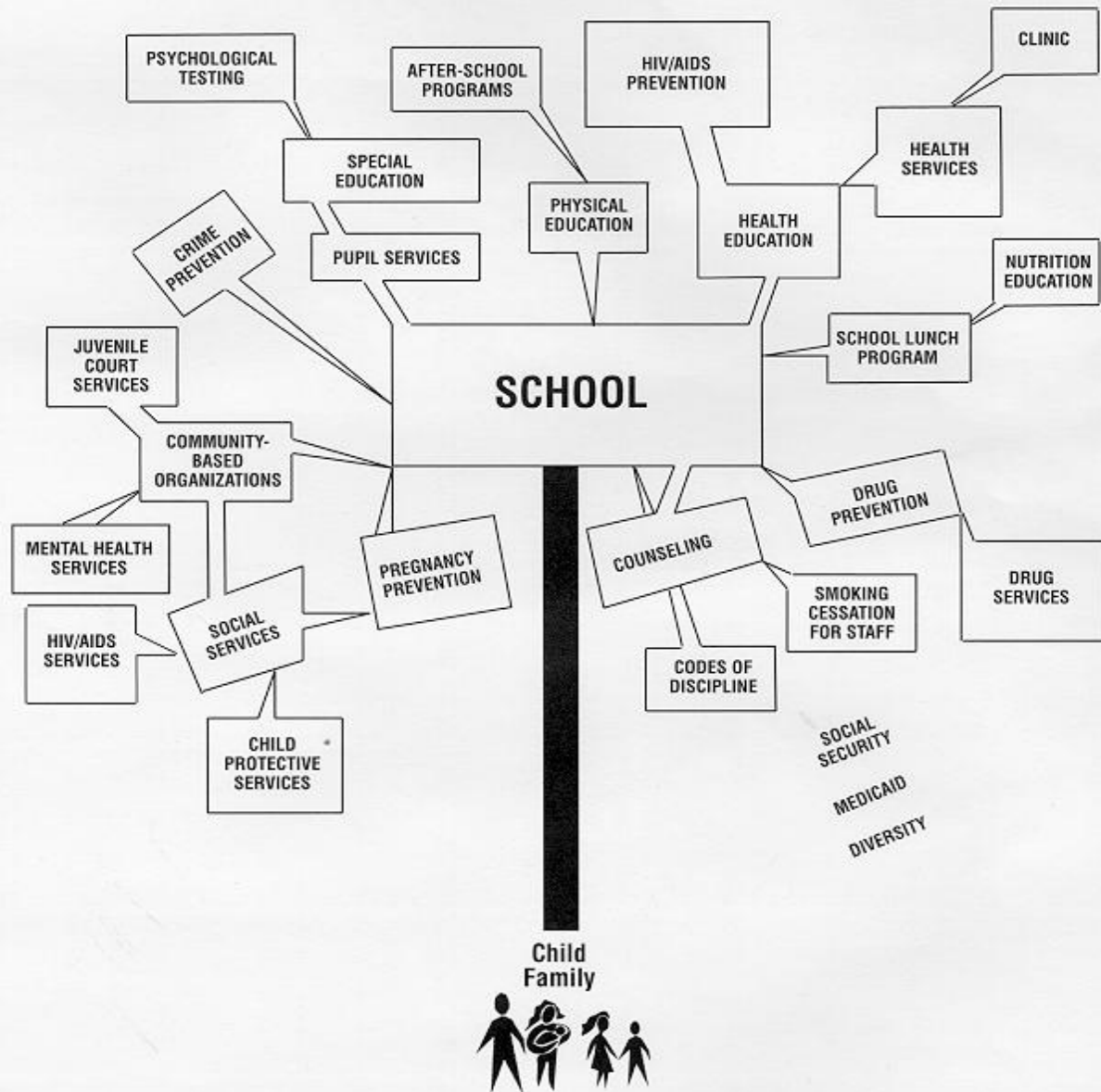


YOUTH

CDC's Vision for Promoting the Health and Academic Success of Students

- Focus on the most critical health risks
- Influence multiple sectors of society
- **Emphasize a systematic, collaborative, community-driven approach**

An Example of an Uncoordinated System



Source: *Talking About Health is Academic*, 1999

Coordinated School Health: The Components

Health Education

Physical Education

Family and
Community
Involvement

Health Services

Health
Promotion
for Staff

Nutrition
Services

Healthy and Safe
School Environment

Counseling,
Psychological, and
Social Services



Coordinated School Health: The Process

- School health coordinators and school health councils/ teams, with the active support of school administrators, provide leadership to enable school districts and schools to:
 - foster collaboration across CSHP components and between the school and the community
 - systematically assess health needs and develop, implement, and monitor sustainable plans for improvement
 - integrate health-related goals and objectives into school improvement plans

Benefits of Coordinated School Health

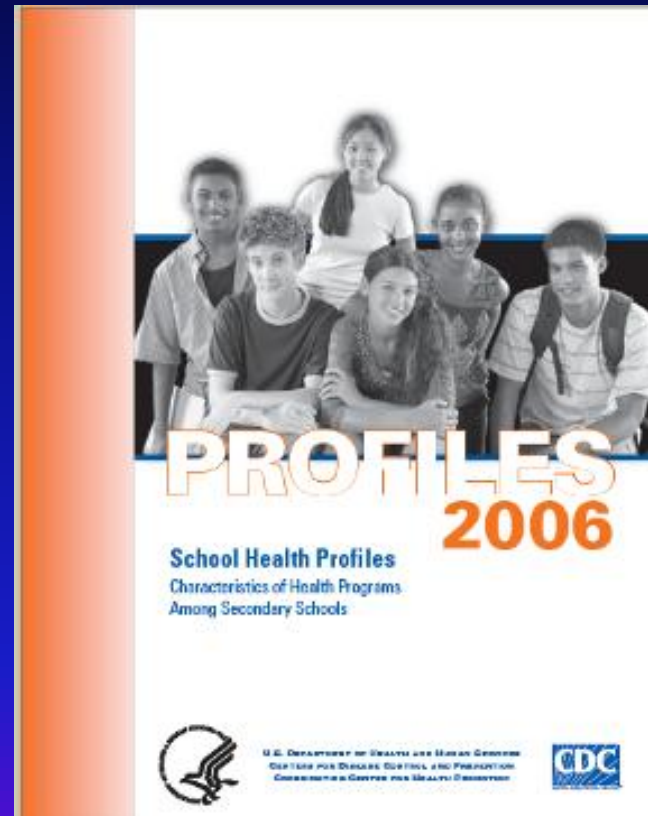
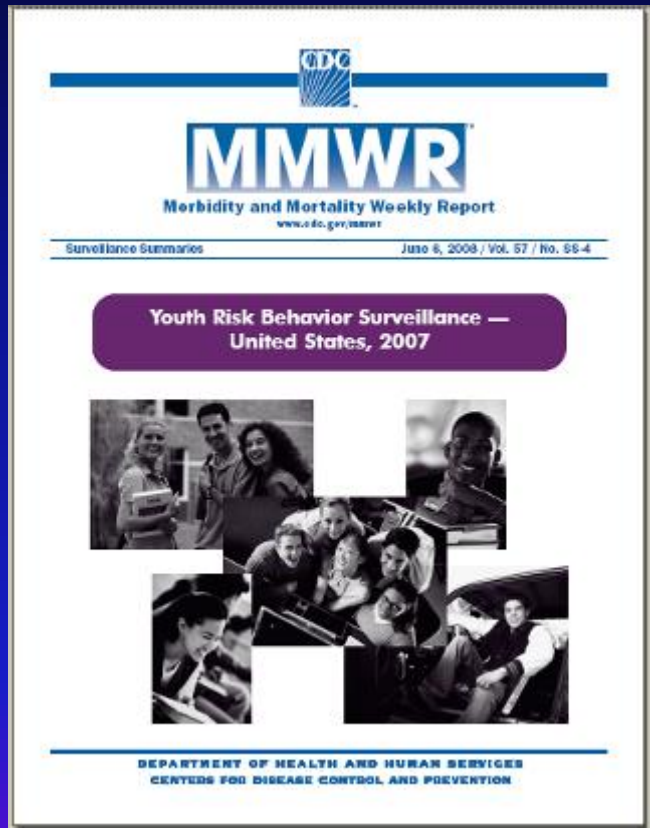
- Increased effectiveness of each component
- Synergy from collective effort
- Reduced duplication and fragmentation
- Links with community resources
- Opportunities for family and student involvement
- Fosters sustainability

CDC's Vision for Promoting the Health and Academic Success of Students

- Focus on the most critical health risks
- Influence multiple sectors of society
- Emphasize a systematic, collaborative, community-driven approach
- **Use data to guide planning and evaluation**

YRBS

PROFILES



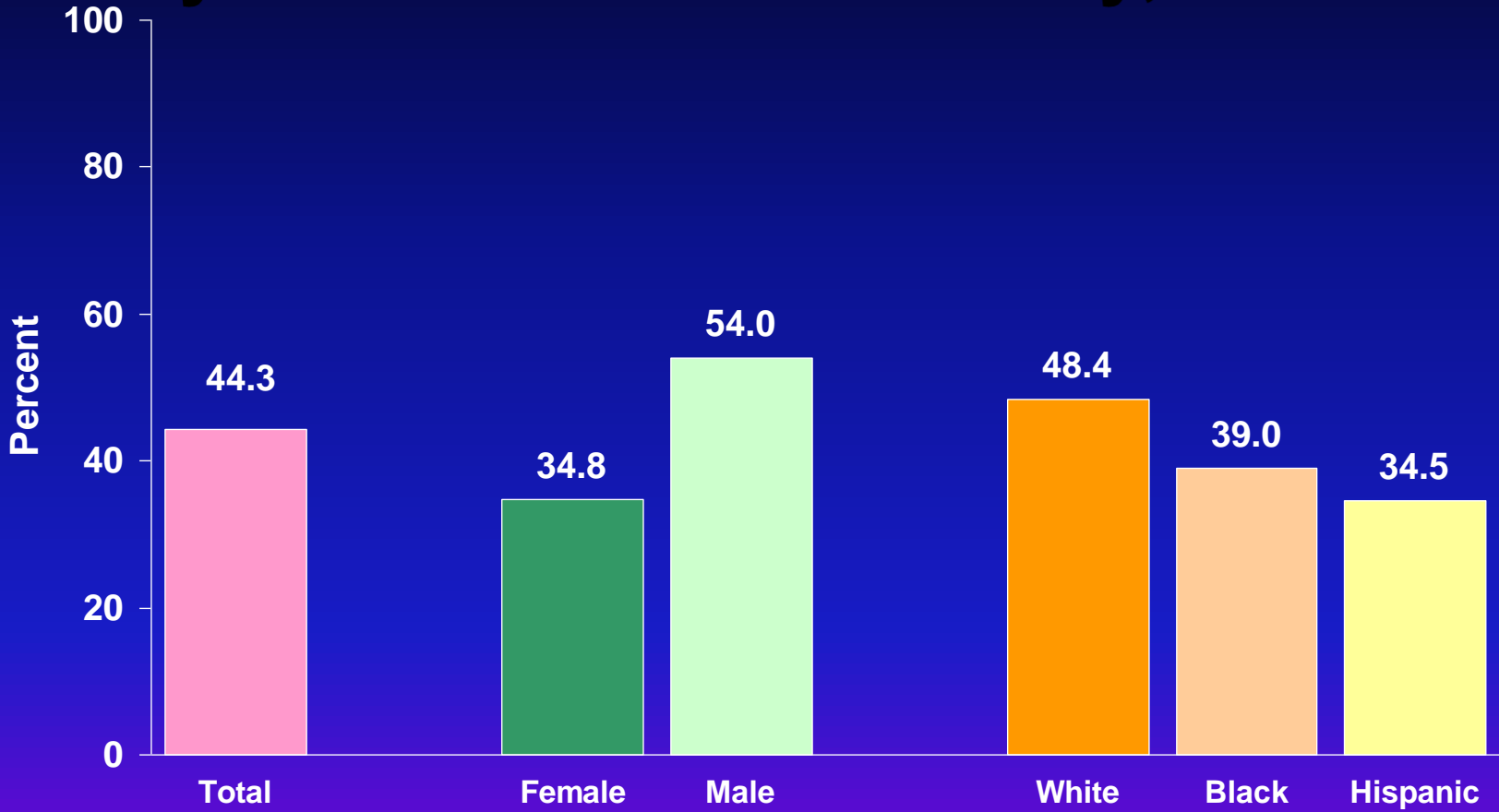
www.cdc.gov/HealthyYouth/yrbs

www.cdc.gov/HealthyYouth/profiles

Policy and Program Applications for Data

- Create awareness
- Set program goals
- Develop programs and policies
- Support health-related legislation
- Seek funding

Percentage of NC High School Students Who Met Recommended Levels of Physical Activity,* by Sex** and Race/Ethnicity,*** 2007



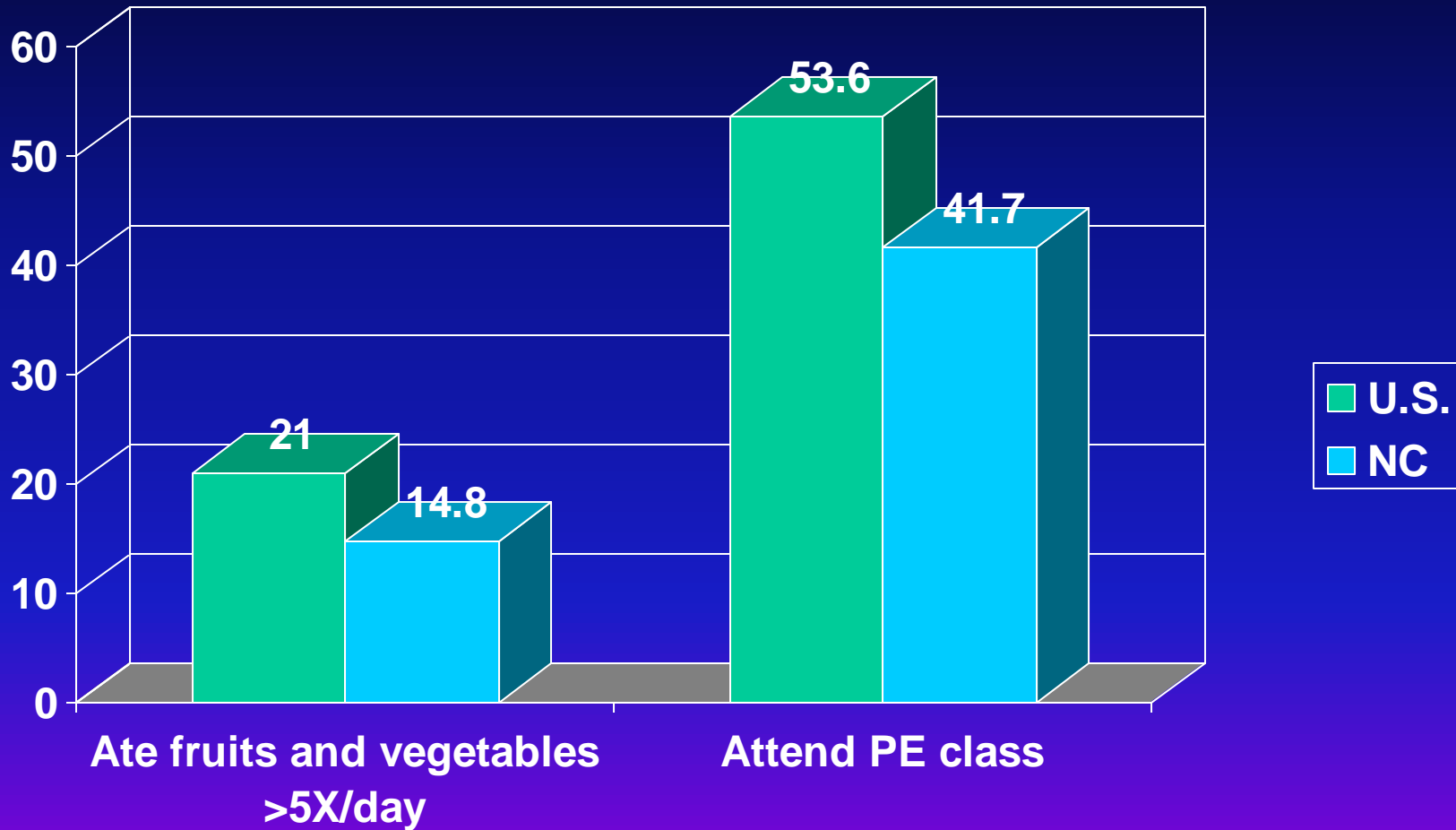
* Were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes/day on 5 or more days during the 7 days before the survey.

** M > F

*** W > H

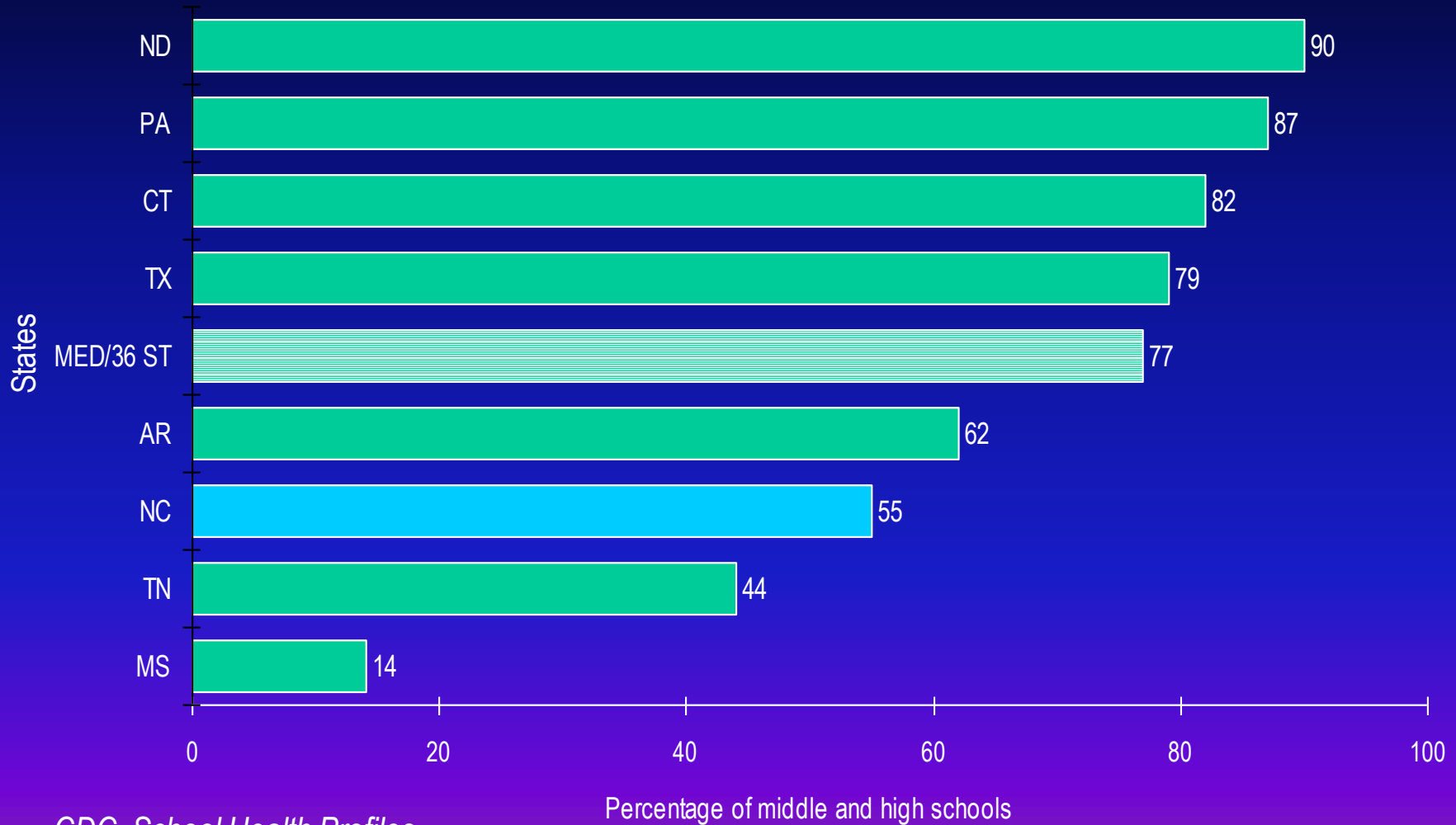
North Carolina Youth Risk Behavior Survey, 2007

Prevalence of Selected Health-Related Behaviors Among High School Students in the U.S. and North Carolina, 2007



Source: CDC, Youth Risk Behavior Survey

Percentage of Middle and High Schools that Required Students to Take 2 or More PE Courses — Selected States and Median Among 36 States, 2006

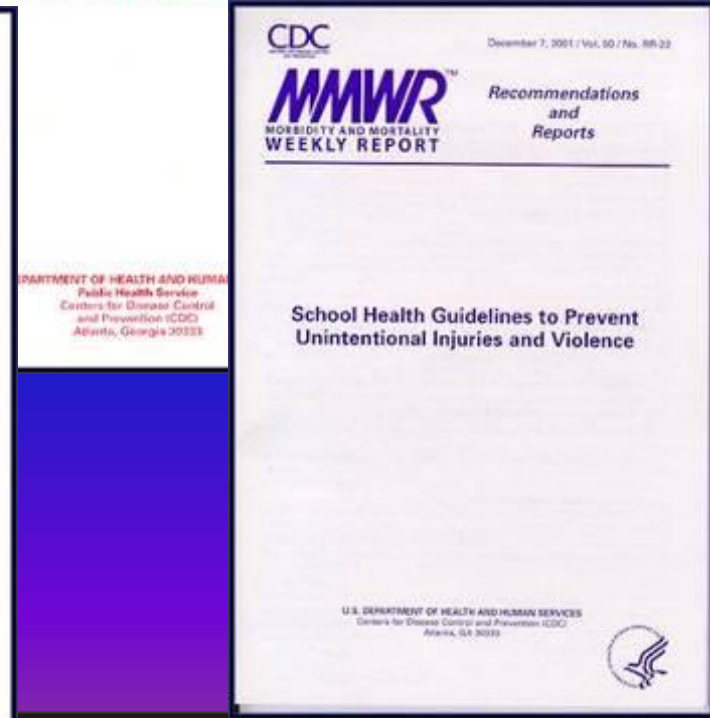
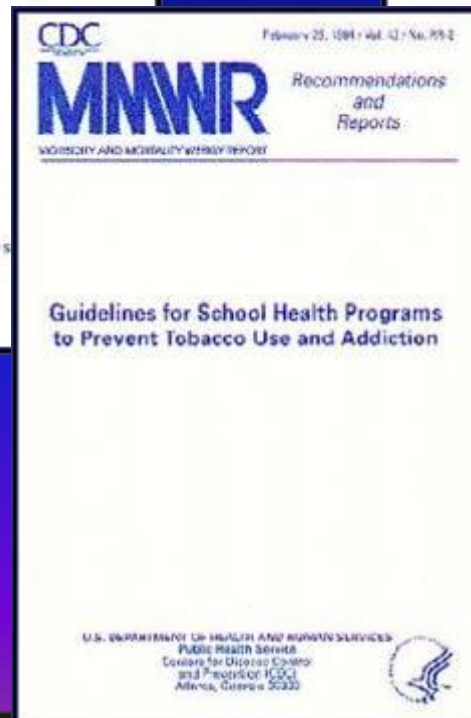
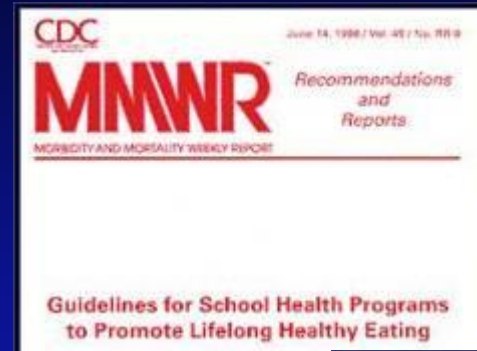
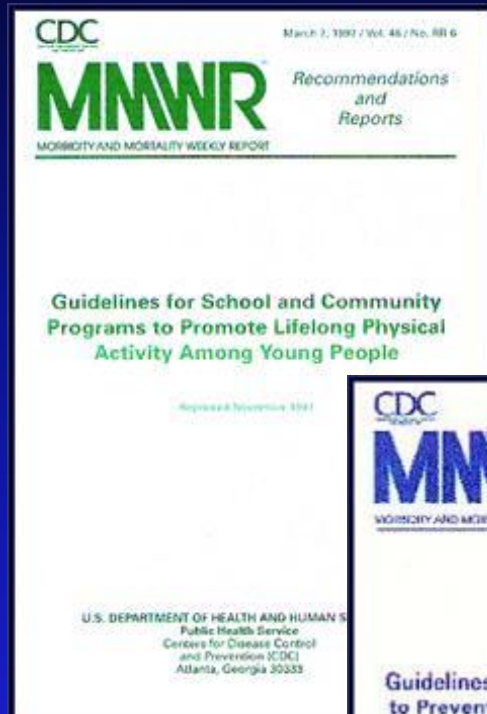


CDC, School Health Profiles

CDC's Vision for Promoting the Health of Youth

- Focus on the most critical health risks
- Influence multiple sectors of society
- Emphasize a systematic, collaborative, community-driven approach
- Use data to guide planning and evaluation
- **Promote evidence-based, effective policies and practices**

CDC Guidelines for School Health Programs



Priority Strategies for Schools to Prevent Obesity

Make a Difference at Your School!

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

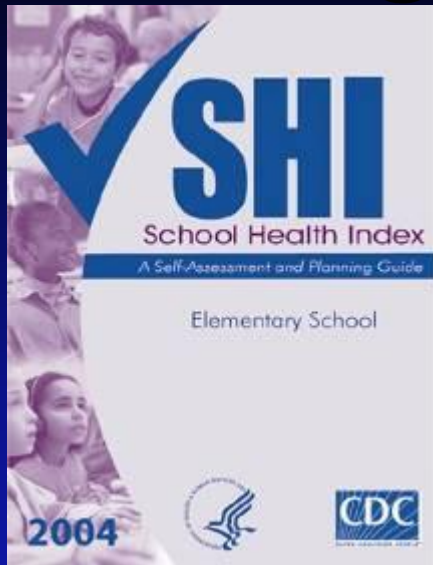


U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

- Coordinated school health
- School health council and coordinator
- Self-assessment and planning for improvement
- Strong wellness policies
- Health promotion for staff
- 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

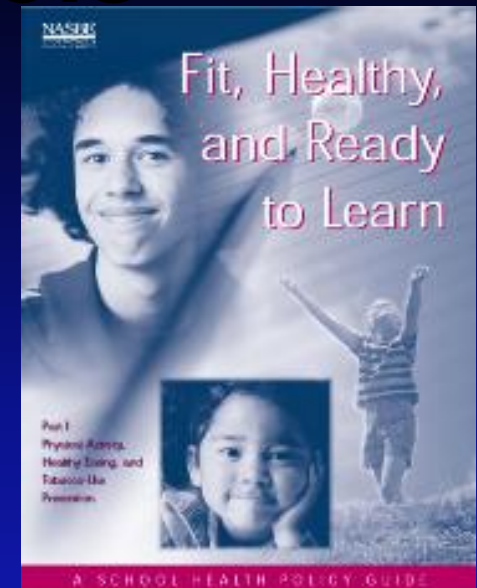
www.cdc.gov/HealthyYouth/keystrategies

School Health Tools

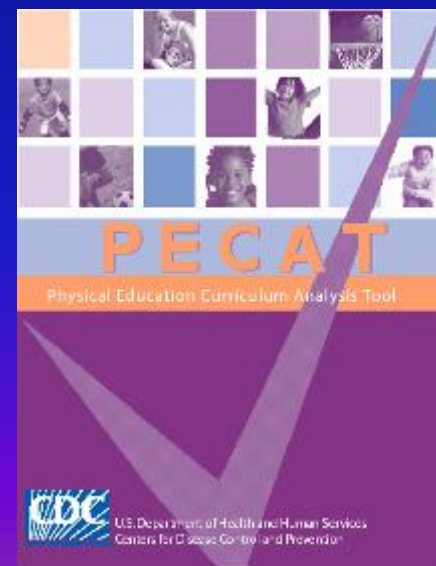
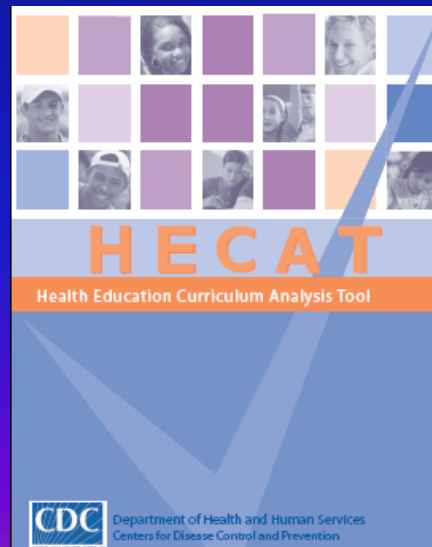


Self Assessment
and Planning

Policy
Guidance



Health Education
Curriculum
Selection or
Development



Physical
Education
Curriculum
Selection or
Development

NC Leading the Nation

- North Carolina Healthy Schools
- Eat Smart, Move More
- Healthy Active Children Policy
- Childhood Obesity Prevention Demonstration Project
- School Health Leadership Assemblies
- 100% tobacco-free school districts

Lessons From Other States (1)

■ South Carolina

- Standards-based PE assessments
- Staff development
- Data collection
- Inclusion of results on school report cards

■ Connecticut

- State nutrition standards
- Financial incentive for Healthy Food Certification
- Wellness policies analyzed

Lessons From Other States (2)

■ Tennessee

- School health coordinators in every district
- School Health Index by every school

■ Minnesota

- Integrate health goals into school improvement plans
- Integrate school health programs into health care reform



National Center for Chronic Disease Prevention and Health Promotion

Healthy Schools

Healthy Youth!



About DASH

[CDC's Division of Adolescent and School Health \(DASH\)](#)

[Adolescent Health](#)

[Contact Us](#)

School Health

[Adolescent & School Health Tools](#)

[CSHP](#)

Coordinated School Health Program

- [SHER](#)
CDC's School Health Education Resources
- [HECAT](#)
Health Education Curriculum Analysis Tool

[Health and Academics](#)

[Make a Difference at Your School!](#)

Key Strategies to Prevent Obesity

[Program Evaluation](#)

[SHI](#)

School Health Index

[School Health Policy](#)

[Publications & Links...](#)

Data & Statistics

[Summary of Major Surveillance Activities](#)

[YRBSS](#)

Youth Risk Behavior Surveillance System

Health Topics

[Asthma](#)

[Childhood Obesity](#)

[Crisis Preparedness & Response](#)

[Injury & Violence](#)

(including suicide)

[Physical Activity](#)

- [PECAT](#)
Physical Education Curriculum Analysis Tool

[Nutrition](#)

- [Making It Happen](#)
School Nutrition Success Stories

[Sexual Risk Behaviors](#)

[Tobacco Use](#)

[More on Health Topics...](#)
[Publications & Links...](#)

Our Funded Partners

[National Nongovernmental Organizations](#)

[State, Territorial, and Local Agencies and Tribal Governments](#)

SPOTLIGHT ON...

H1N1 Flu Info (Swine Flu)

- [H1N1 \(Swine\) Flu](#)
- [Info for Schools](#)



[Nutrition Standards for Foods in Schools](#)



[School Connectedness](#)



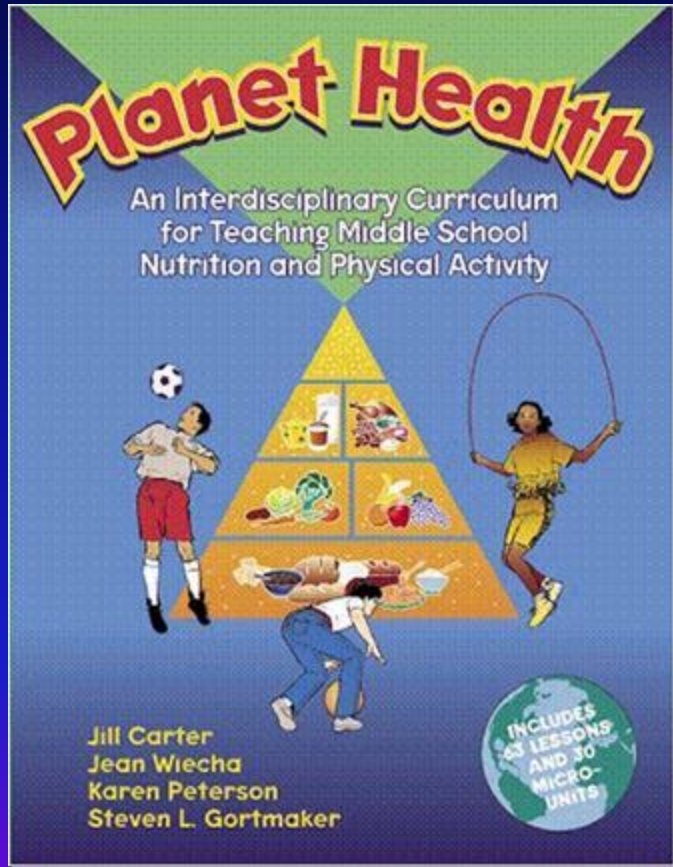
[HIV Testing Among Adolescents](#)
[pdf 948K]



[Addressing Health Disparities](#)

Every 9½ minutes
Act Against AIDS.

Economic Analysis of School Nutrition and Physical Activity Curriculum



Source: Arch Pediatr Adolesc Med 1999; WANG



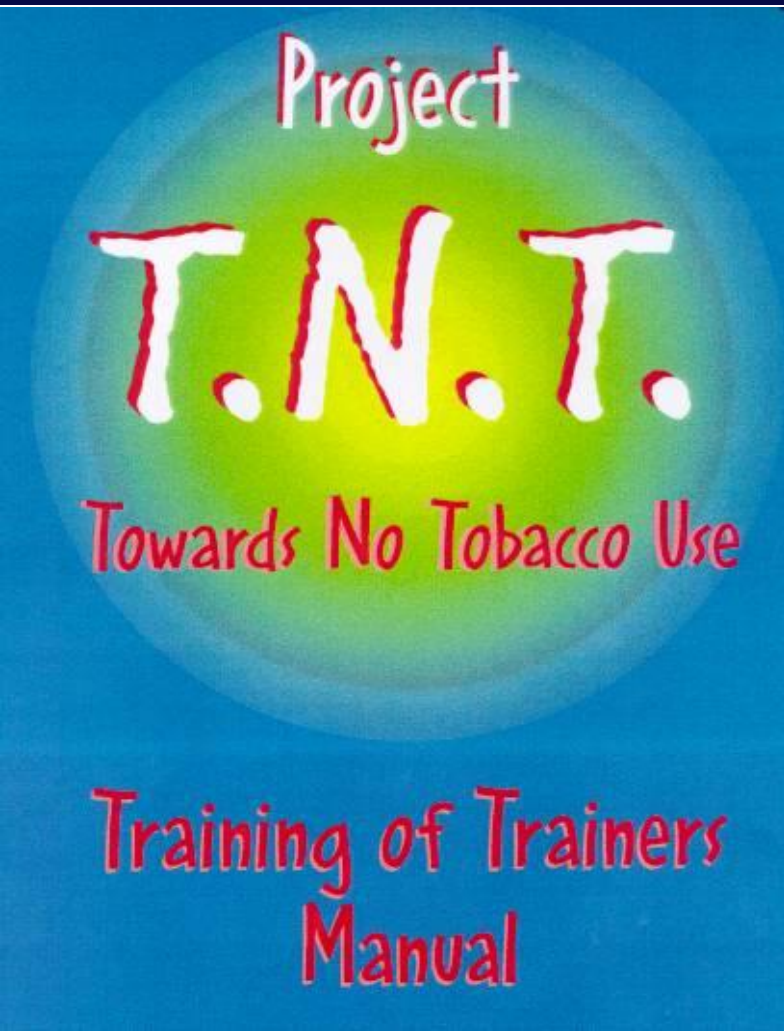
- Fruit and vegetable intake, physical activity for girls



- TV time for boys and girls
- Obesity prevalence for girls

Intervention was cost effective and cost saving

Economic Analysis of Tobacco Use Prevention Curriculum



RCT OUTCOMES

- Significantly less smoking initiation and weekly smoking in treatment group

ECONOMIC IMPACT

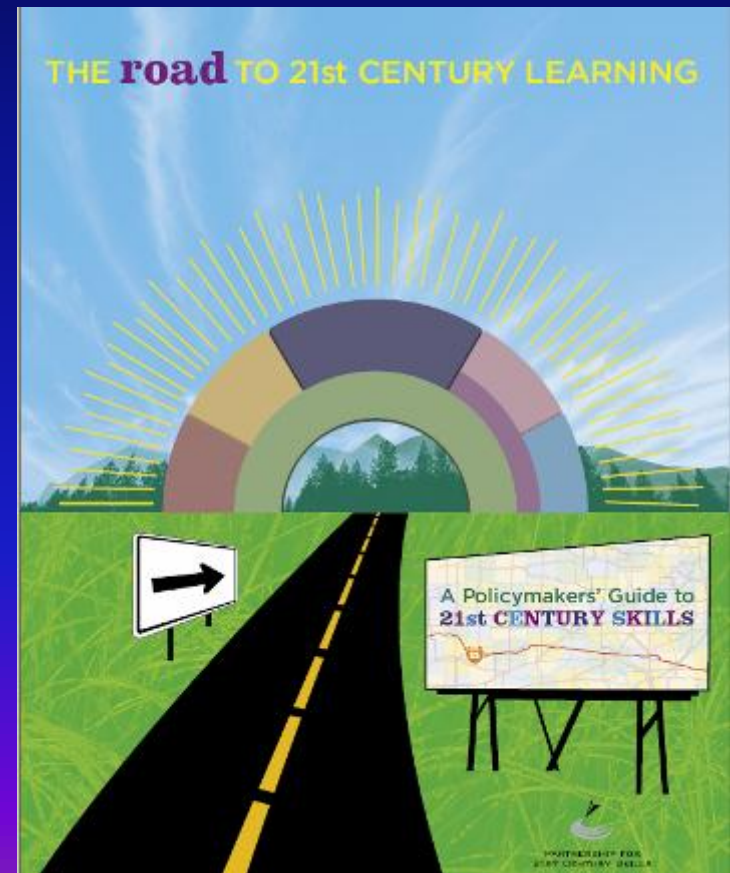
- Cost: \$16,403
- Future savings: \$327,140
- Cost savings: \$19.94 / \$1 spent

Partnership for 21st Century Skills

“The success of U.S. education in the 21st century depends upon student acquisition of 21st century skills, the skills students need to succeed in work, school, and life.”

Members include:

- Apple
- AT & T Foundation
- Cisco Systems
- Dell
- Ford Motor Company Fund
- Intel Corporation
- Microsoft Corporation
- National Education Association
- Texas Instruments
- Verizon



21st Century Skills

- Core academic subjects
- 21st century content:
 - global awareness
 - economic literacy
 - civic literacy
 - **health and wellness** awareness
- Learning and thinking skills
- **Life skills**
- Information and communications technology literacy

Source: Partnership for 21st Century Skills

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”)

ARE THEY REALLY READY TO WORK?

Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce





SAFER • HEALTHIER • PEOPLE™



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CENTERS FOR DISEASE CONTROL AND PREVENTION



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