

Delaware Partners for Health, Physical Activity & Learning

October 9, 2009

Department of Education

University of DE

Center for Drug & Alcohol Studies

**Nemours Health & Prevention
Services**

**Al duPont Children's Hospital:
Risk Watch**

Planned Parenthood of DE



Overview of the Day

- Review the link between student health and measures of school success
- Share resources related to student health and academic achievement
- Provide an overview of student health-risk data
- Share ideas for expanding wellness policies
- Participate in sessions to consider using at your school

Academic Achievement is the Mission of Schools

- Outcomes
 - Grade point average (GPA), academic grades, graduation rates, standardized test scores, years of school completed, grade level retention
- Behaviors
 - Dropout, attendance, suspension, cheating, tardiness, behavior problems, classroom behavior, study time, school-related activities
- Attitudes
 - School connectedness, safety, education expectations, sense of belonging, effort, stress, satisfaction, perceived performance, confidence in graduation, peer comparison, feelings of safety, aspirations

Making the Connection Health and Student Achievement



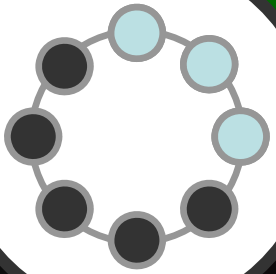
Updated by: The Society of
State Directors
of Health, Physical Education
and Recreation (SSDHPER)

www.thesociety.org



Association of State and
Territorial Health Officials (ASTHO)



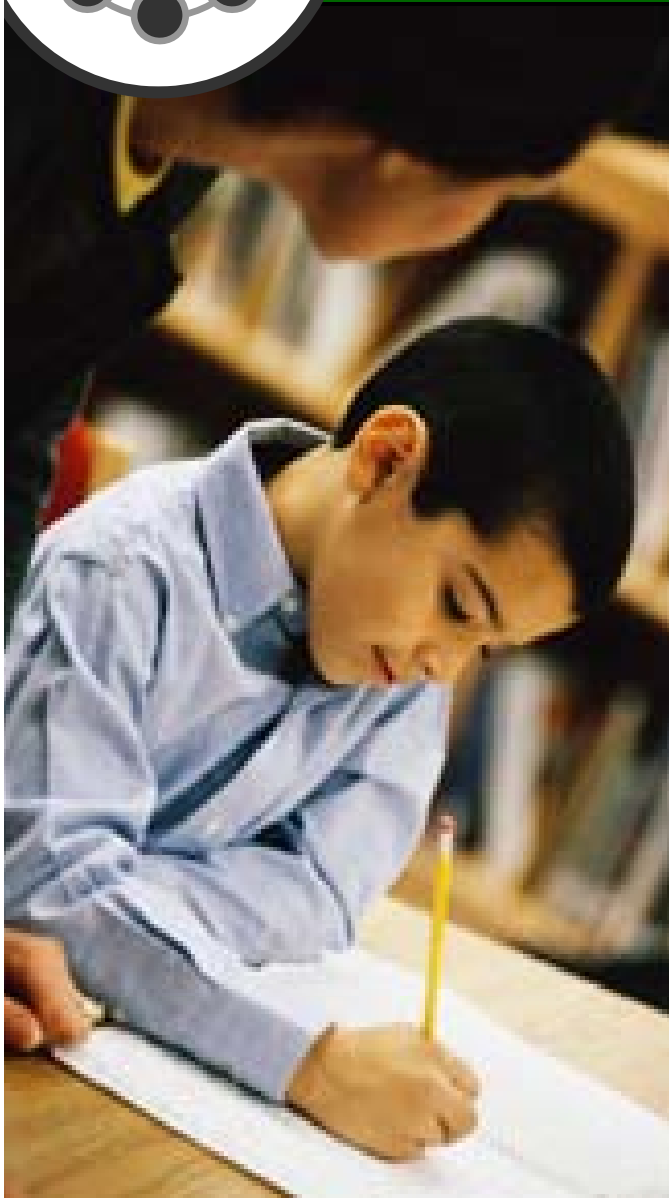


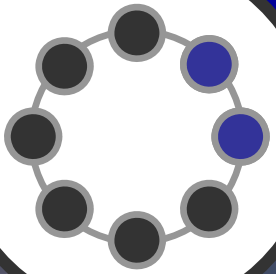
COMPREHENSIVE K-12 SCHOOL HEALTH EDUCATION

- Reading and math scores of third and fourth grade students who received comprehensive health education were significantly higher than those who did not receive comprehensive health education

- Schoener, Guerrero, and Whitney, 1988

Delaware requires health education
EVERY school year (HE Reg. 851)

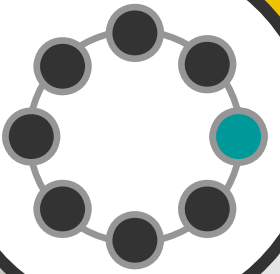




PHYSICAL EDUCATION



- In Delaware, Schools conduct “Fitnessgram/Activitygram” for all students in grades 4, 7, 9/10 to assess progress
- Physical activity is positively associated with academic performance
 - Dwyer, Blizzard, and Dean, 1996

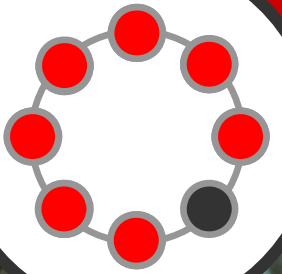


SCHOOL HEALTH SERVICES



- Early childhood and school aged intervention programs that provide parental support and health services, especially on-site, are associated with improved school performance and academic achievement
- Early intervention may also improve high school completion rates and lower juvenile crime

• Reynolds, Temple, Robertson, and Mann, 2001

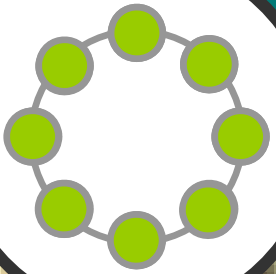


COUNSELING, PSYCHOLOGICAL, & SOCIAL SERVICES



- A school-based social services program targeting students at risk for dropping out of school produced the following results:
 - Grade point average increased across all classes
 - School bonding increased
 - Self-esteem improved

– Eggert, Thompson, Herting, Nicholas, and Dicker, 1994

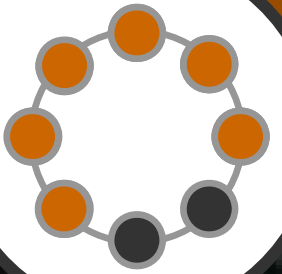


NUTRITION SERVICES



- School breakfast programs provide a healthy start for the day:
 - increase learning and academic achievement
 - improve student attention to academic tasks
 - reduce visits to the school nurse
 - decrease behavioral problems

Murphy, Pagano, Nachmani, Sperling,
Kane, and Kleinman, 1998

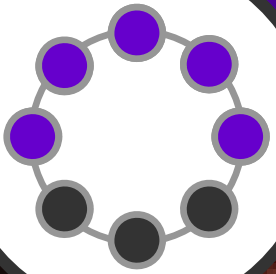


HEALTHY SCHOOL ENVIRONMENT



- Students who develop a positive affiliation or social bonding with school are:
 - More likely to remain academically engaged
 - Less likely to be involved with misconduct at school

– Simons-Morton, Crump, Haynie, and Saylor, 1999



STAFF WELLNESS

- Students benefit from having healthy teachers because:
 - Teachers are more energetic
 - Teachers are absent less often
 - The school climate is more optimistic

Symons, Cummings, and
Olds, 1994

What's Happening in Health & Physical Education?

- Statewide committees- SHAC
- Backwards Design Process
- Data-driven Curricular Decisions
- Clarification Documents
- Standards & Grade Cluster Expectations
- Assessments & Transfer Tasks
- District Alignment
- Model Units
- Fitnessgram & Activitygram

Check out the DRC Website

(Delaware Recommended Curriculum)

Standards & Model Units

Legislation

Grade Cluster Expectations

Sample Scope & Sequence

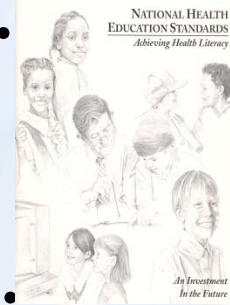
Student Health and Academic Achievement

Resources:

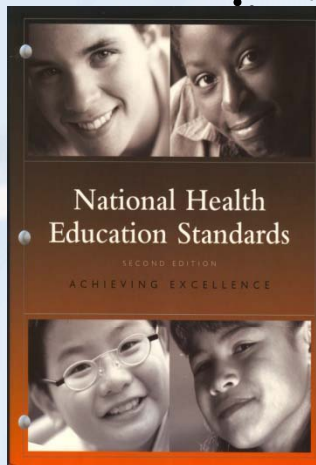
www.doe.k12.de.us/infosuites/staff/ci/default.shtml

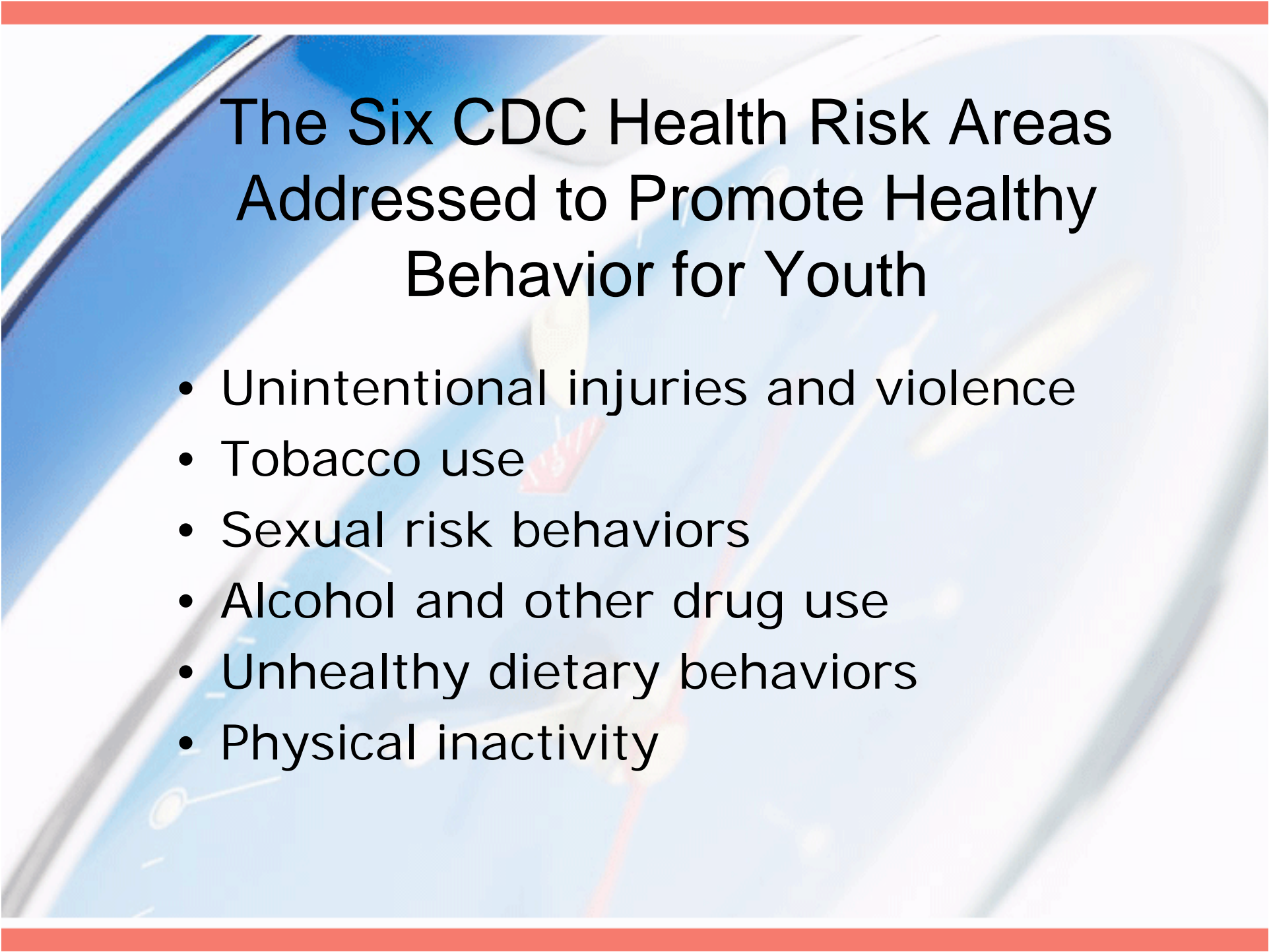
Focus on Priority Risk Behaviors

**Health
Literacy**



**Healthy
Behaviors**



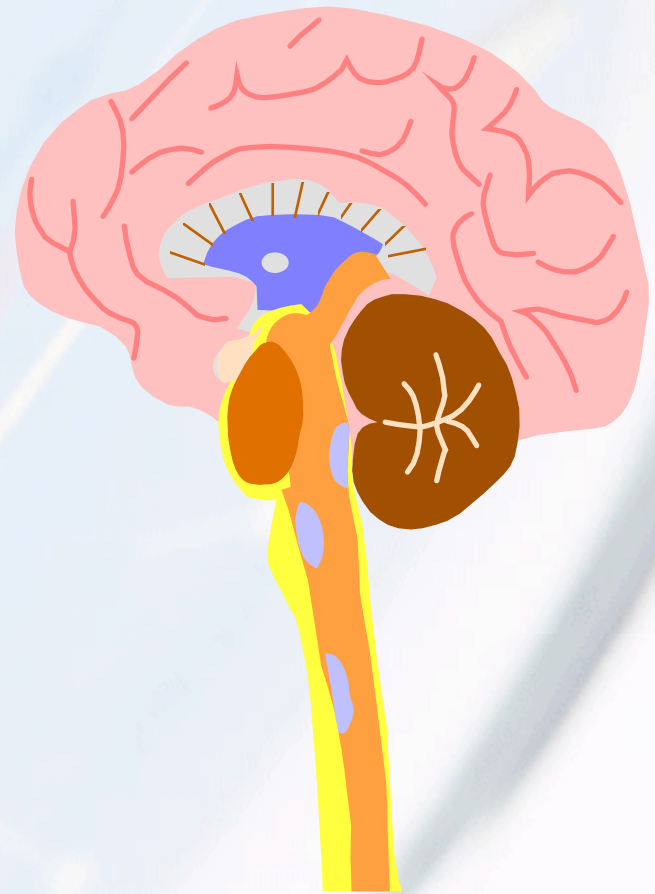


The Six CDC Health Risk Areas Addressed to Promote Healthy Behavior for Youth

- Unintentional injuries and violence
- Tobacco use
- Sexual risk behaviors
- Alcohol and other drug use
- Unhealthy dietary behaviors
- Physical inactivity

Brain Research Supports PE/PA

- Learning new physical skills causes dendrite proliferation and creates a larger, heavier brain
- Aerobic activity increases the blood and glucose supply and causes greater brain activity
- Cerebellum found to have a role in decision making and cognitive performance



Dale's Cone of Experience: How We Retain Information

People generally remember:

10% of what they **read**

Read

20% of what they **hear**

Hear Words

30% of what they **see**

Watch still picture

Watch moving picture

50% of what they **hear and see**

Watch exhibit

Watch demonstration

70% of what they **say and write**

Do a site visit

Do a dramatic presentation

90% of what they **say and do**

Simulate a real experience

Do the real thing



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National Center for Chronic Disease Prevention and Health Promotion

Healthy Youth!

Student Health and Academic Achievement

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The academic success of America's youth is strongly linked with their health.

Health-related factors such as hunger, physical and emotional abuse, and chronic illness can lead to poor school performance.¹ Health-risk behaviors such as substance use, violence, and physical inactivity are consistently linked to academic failure, and often affect students' school attendance, grades, test scores, and ability to pay attention in class.²⁻⁸

In turn, academic success is an excellent indicator for the overall well-being of youth and a primary predictor and determinant of adult health outcomes.⁹⁻¹³ Leading national education organizations recognize the close relationship between health and education, as well as the need to embed health into the educational environment for all students.¹⁴⁻¹⁹

Health and Education Programs

Promoting academic achievement is one of the four fundamental outcomes of modern school health programs. Scientific reviews have documented that school health programs can have positive impacts on educational outcomes, as well as on health risk behaviors and health outcomes.²⁰⁻²⁸ Programs that are primarily designed to improve academic performance are increasingly being recognized as important public health interventions.²⁹⁻³¹

The *Healthy People 2010* objective calls upon the nation to increase high school completion rates to 90 percent because "dropping out of school is associated with delayed employment opportunities, poverty, and multiple social and health problems, including substance abuse, delinquency, intentional and unintentional injury, and unintended pregnancy."³² Educational interventions, such as reduced class size, are associated with improved health outcomes, as well as improved educational outcomes.³¹

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[Physical Education and Academic Achievement in Elementary School*](#)



[Coordinated School Health Programs and Academic Achievement*](#) [pdf 279K]

Physical Education and Academic Achievement in Elementary School: Data From the Early Childhood Longitudinal Study

Susan A. Carlson, MPH, Janet E. Fulton, PhD, Sarah M. Lee, PhD, L. Michele Maynard, PhD, David R. Brown, PhD, Harold W. Kohl III, PhD, and William H. Dietz, MD, PhD

Physically active youth may be less likely than physically inactive youth to experience chronic disease risk factors¹ and to become obese,² and they may be more likely to remain active throughout adolescence³ and possibly into adulthood.⁴ Physical activity also has beneficial influences on behavior and cognitive functioning that may result in improving students' academic achievement.⁵⁻⁷ Direct indicators of academic achievement include grade-point averages, scores on standardized tests, and grades in

Objectives. We examined the association between time spent in physical education and academic achievement in a longitudinal study of students in kindergarten through fifth grade.

Methods. We used data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998 to 1999, which employed a multistage probability design to select a nationally representative sample of students in kindergarten (analytic sample=5316). Time spent in physical education (minutes per week) was collected from classroom teachers, and academic achievement (mathematics and reading) was scored on an item response theory scale.

Results. A small but significant benefit for academic achievement in mathematics and reading was observed for girls enrolled in higher amounts (70-300 minutes per week) of physical education (referent: 0-35 minutes per week). Higher amounts of

Health and Schools: A Win-Win Situation

Healthy eating and physical activity can influence all of these indicators in positive ways:

- Academic Performance
- Attendance
- Discipline
- Parent Engagement



Local Wellness Policies

The Child Nutrition and WIC Reauthorization Act of 2004 requires each district to convene a wellness council and develop a local wellness policy.

These policies must cover:

- Guidelines for foods sold on school campus
- Nutrition education
- Physical activity/physical education
- Evaluation/monitoring



Local Wellness Policies

- All Delaware School Districts adopted wellness policies by the July 1, 2006 deadline
- Most of the policies focused on child nutrition
- This was unfunded mandate by the federal government
- In the districts that included physical education and physical activity, most had no real expectation of implementation



Local Wellness Policies Opportunity?

- To look at and think about children's health more holistically
- To address children's health issues from a school perspective
- To bring physical education and children's physical health to the forefront of education leaders



Local Wellness Policies Opportunity?

- FitnessGram data
- Powerful links between physical health and academic performance
- National focus on healthcare and specifically disease prevention
- Availability of resources PEP grant



Thank You!

