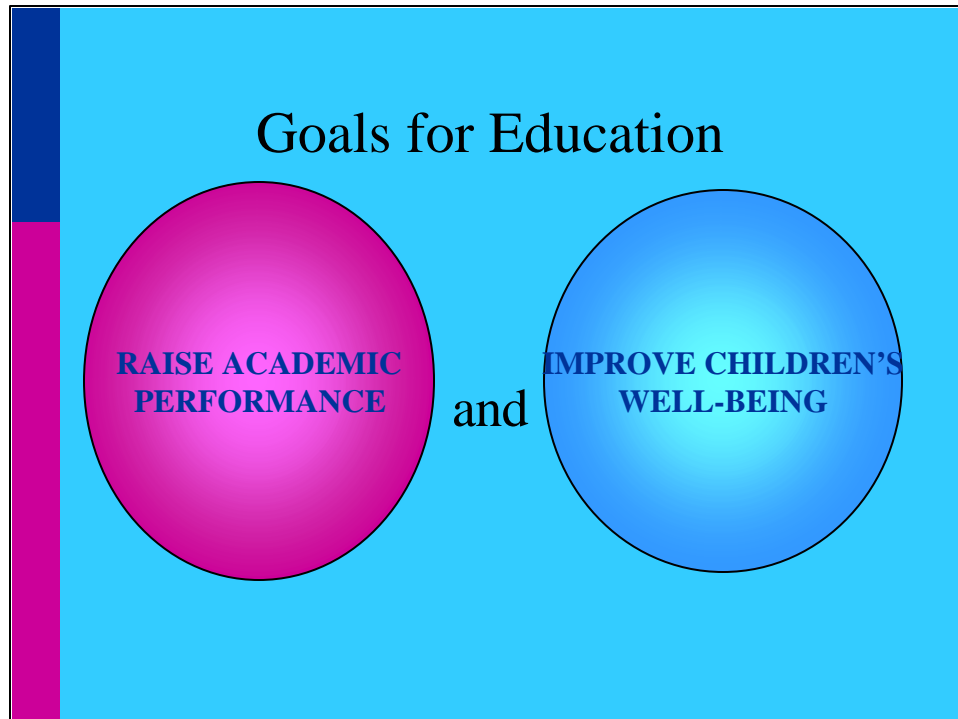


Health & Academics: *Making the Link*



- The link between academic performance and wellness makes sense.
- Many people have had the experience of not being able to concentrate or be productive when they are not emotionally or physically well. This also applies to children: if they are not socially, emotionally, or physically healthy they may not be able to complete their school work, pay attention to their teachers, or perform well on standardized tests.
- Research is available to support the connection between academic performance and health.
- This presentation will give you more information about the links between school performance and well-being, as well as suggest some steps that can be taken to improve the health of children and adolescents.
- Following this presentation, we'll be able to share ideas on how to advance the implementation of comprehensive school health education programs *at insert your school name or organization.*



The goals for education are:

- to raise academic performance and
- to produce happy, healthy, well-adjusted adults

It's not a question of "either/or."

These goals aren't on opposite ends of a continuum.



- In fact, the research shows that they are interdependent.
 - Research shows that increased social, emotional, and physical well-being can improve academic performance.
 - A common goal for Massachusetts' educators is to strengthen the link between health and academic performance.
-
- What are some of the obstacles in achieving these goals?

Research & Health Behavior

**Tobacco use
decreases
attention span
and
concentration.**

1998 U.S. Dept of Health
& Human Services

**14.5% of
Massachusetts
teens smoke
daily.**

1997 MYRBS

- Tobacco smoke contains nicotine, carbon monoxide, tar, and a variety of other carcinogens. Carbon monoxide replaces oxygen in red blood cells which reduces the amount of oxygen being delivered to brain. In addition, nicotine addiction reduces the ability to concentrate by altering the chemical balance of the brain. It is known that cognitive functioning (concentration and attention span) is impeded when the brain is deprived of nicotine.
- For example: If a student smokes daily and spends 15 minutes of the school day craving a cigarette, time on learning is reduced by 45 hours per year. This translates to the equivalent of missing nine weeks of a 50- minute calculus class.

NOTE: For more information, please refer to the literature review page two.

MYRBS is the Massachusetts Youth Risk Behavior Survey.

Research & Health Behavior

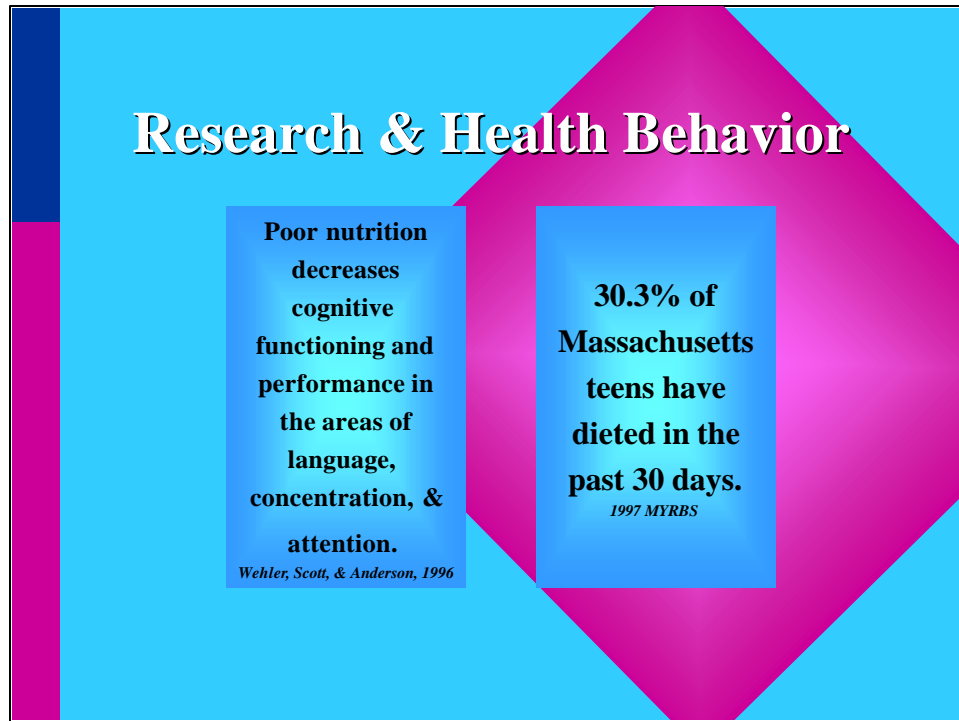
Alcohol & drug use impair the brain's ability to process information, form memories, and recall information.

Jaffe, 1980.

53.5% of teens drink alcohol on a monthly basis. 30.9% of teens smoke marijuana on a monthly basis.

1997 MYRBS

- Alcohol and drugs disrupt the brain's chemical balance. The particular effect is dependent on the individual substance used. For example, alcohol is a depressant and marijuana affects short-term memory.
- Research suggests that at least two students in a class of thirty are chemically dependent or addicted (Anderson, 1993).
- The MYRBS data reports that over half of teens drink on a monthly basis or more and that over 30% smoke marijuana on a monthly basis.



- Research has shown that chronic poor nutrition decreases cognitive functioning and performance in the areas of language, concentration, and attention.
- According to the MYRBS data about 30% of Massachusetts teens have dieted in the past 30 days. Teens commonly diet through starvation or skipping meals, resulting in poor nutrition.
- In addition to students voluntarily dieting, research has shown that students who are considered hungry or at risk for hunger are twice as likely to have impaired functioning.

NOTE: For more information, please refer to the literature review, page four.

Research & Health Behavior

Exposure to violence has negative psychological and physiological consequences that can have detrimental effects on school performance.

Prothrow-Stith & Quaday, 1995

36% of teens have been in a physical fight within the past year.

1997 MYRBS

- Psychological problems associated with trauma and violence may interfere with the learning process. Trauma can have an effect on memory and the ability to incorporate and transfer skills. Children may become more apathetic about the future, and may have behavioral problems.
- School performance problems that have been linked to violent behavior also include poor verbal skills, difficulty with attention, and antisocial behavior and problems (Prothrow-Stith & Quaday 1995). Exposure to violence and violent behavior can have a profound negative effect on students and many aspects of their ability to learn.

Some Other Interesting Facts:

- **Students with poor nutrition & low levels of physical fitness are more likely to be absent and tardy.** Murphy, 1998
- **Students who are threatened with physical violence may avoid school.** Massachusetts Youth Risk Behavior Survey, 1997
- **Substance using or pregnant students are more likely to drop out of school.** Bempechat, 1989

• Research has shown that health issues affect students' ability to learn in the classroom. In addition, health issues can affect school attendance.

• A violent school environment may lead to increased absenteeism due to avoidance and/or suspension/expulsion. The MYRBS data shows that at least 5% of students avoid school when faced with physical violence.



**How do we create an academic
environment that is
challenging and rigorous
while nurturing the student's
well-being?**

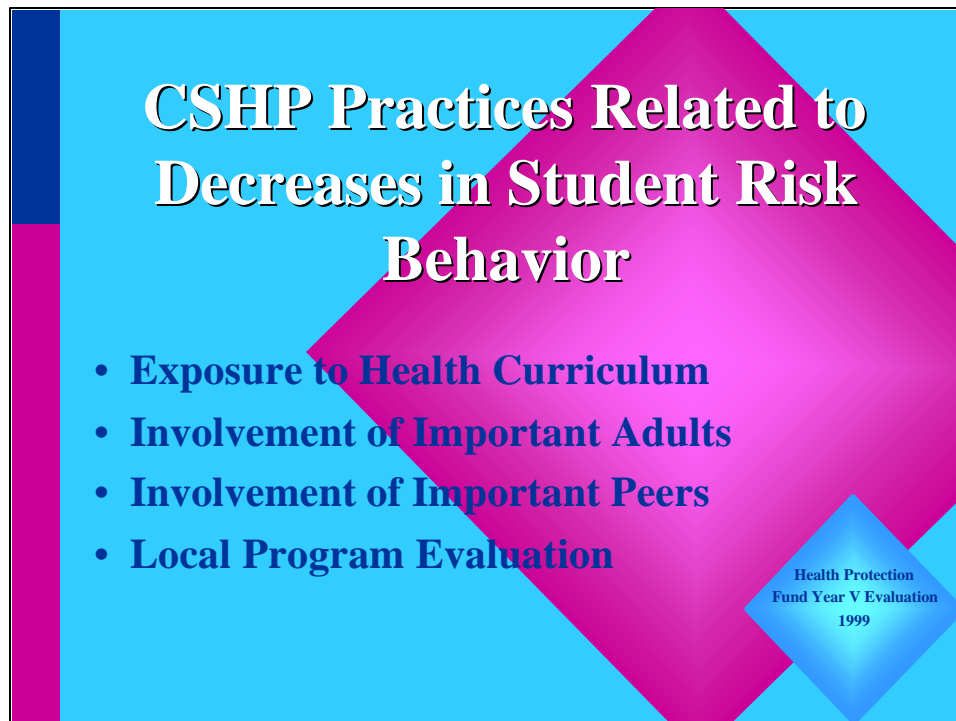


It has been shown through research that the implementation of comprehensive school health education programs (CSHEP) can contribute to this goal. The Massachusetts Comprehensive School Health Program model includes all of these areas with a goal of improving educational, social, emotional and physical outcomes for all students:

- Health Education**
- Physical Education**
- Family & Consumer Sciences**
- Health Services**
- Nutrition & Food Services**
- Counseling & Psychological Services**
- Healthy School Environment**
- Health Promotion for Staff**
- Family & Community Involvement**

•Curriculum is strengthened through collaboration and partnerships among all components of the comprehensive school health program including classroom based education as well as components that are support or service oriented.

NOTE: For more specific definitions of each component, please refer to the Massachusetts Department of Education Health Framework



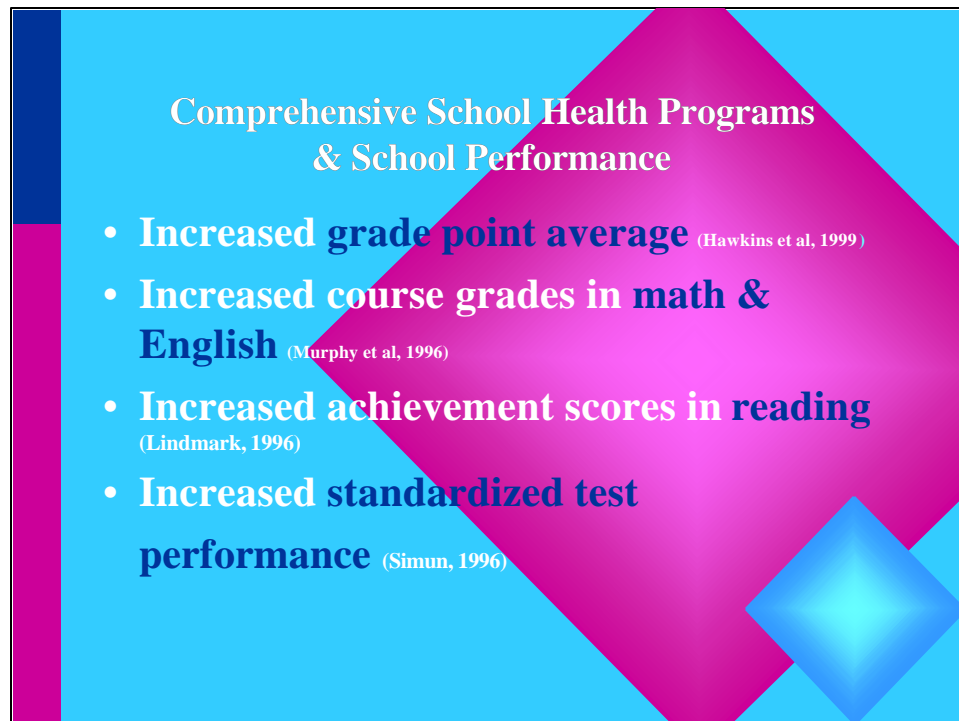
•The Year V evaluation of the Health Protection Fund shows many significant relationships between reductions in student risk behaviors and CSHEP program practices. Some of the most compelling findings were around hours of health education, parent/peer/community involvement, and local evaluation of program goals and objectives. This reflects balanced programs and a theme of protective factors for students from within the individual, family, community, and school.

- Health curriculum includes hours of instruction, topic specific education, and the practice of health skills (alternative solutions and media literacy).
- Involvement of adults includes interdisciplinary instruction, parent involvement in curriculum development, health advisory councils and homework; and the participation of community members in the advisory council.
- Involvement of peers includes peer education, peer mediation, and student representation on advisory councils.
- Local program evaluation includes articulation of CSHEP goals and objectives incorporated within district improvement plans, evaluation of curriculum and policy; and evaluation of staff development programs.

An example...

- **Students who have been taught about AIDS/HIV infection in school were significantly more likely to report ever having talked with their parents and family about HIV/AIDS than those who had not. (58% vs.38%)**
- **Students who have been taught about AIDS/HIV in school are less likely than their peers to have had sexual intercourse in their lifetime. (47% vs. 56%)**

1997 Massachusetts
Youth Risk Behavior
Survey



- Comprehensive School Health Education Programs can facilitate healthy behaviors of students through positively changing health-related knowledge, skills, attitudes, and behaviors. This, in turn, can play a vital part in improving school and academic performance.
- Schools that have implemented comprehensive school health education programs have seen:
 - ⇒ increased grade point averages
 - ⇒ increased course grades in math & English
 - ⇒ increased achievement scores in reading
 - ⇒ increased standardized test performance

NOTE: For more information, please refer to the literature review page ten.

**Comprehensive School Health Programs
& School Performance**

- **Increased cognitive development & awareness** (U.S. Senate, 1993)
- **Increased attendance** (U.S. Senate, 1993)
- **Increased graduation rates** (Pitway Charitable Foundation, 1992)
- **Increased goal setting, problem identification, decision making, & communication** (Mohai, 1991)

•Comprehensive School Health Education Programs may reduce risk behaviors.

We have seen an association between the following positive outcomes and the implementation of Comprehensive School Health Education Programs:

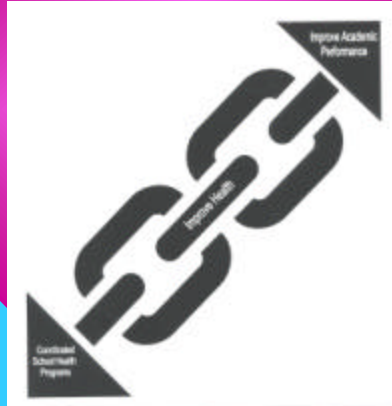
⇒Cognitive development & awareness (U.S. Senate, 1993)

⇒Increased attendance (U.S. Senate, 1993)

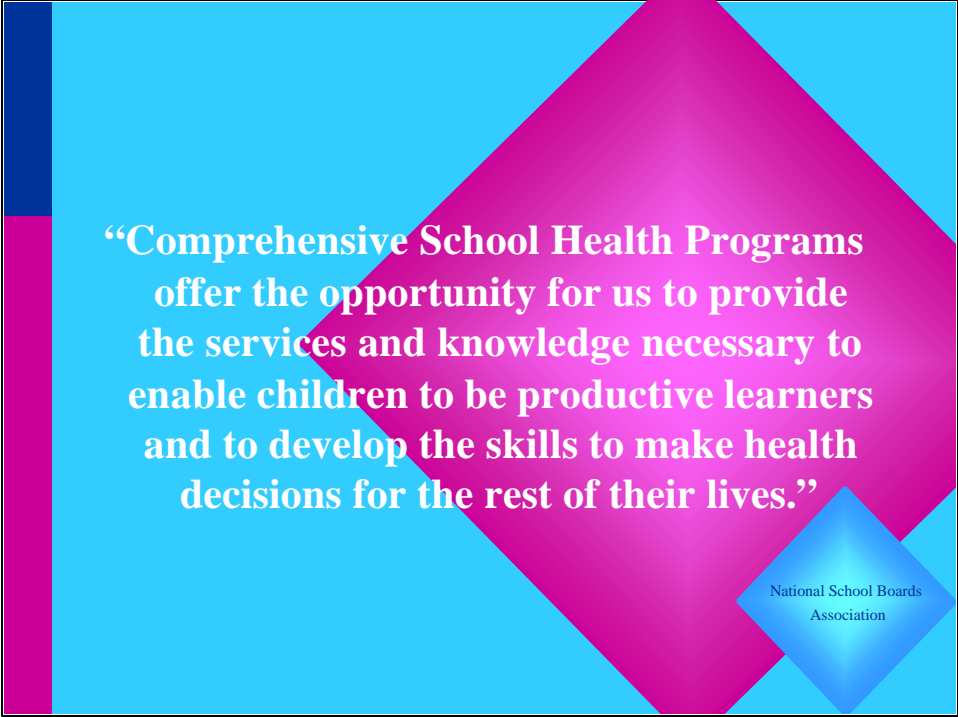
⇒Increased graduation rates (Pitway Charitable Foundation, 1992)

⇒Increased goal setting, problem identification, decision making, & communication (Mohai, 1991)

Health & Academics: Making the Link



- The implementation of comprehensive school health education programs can improve health.
- Improved health can lead to improved academic performance.



**“Comprehensive School Health Programs
offer the opportunity for us to provide
the services and knowledge necessary to
enable children to be productive learners
and to develop the skills to make health
decisions for the rest of their lives.”**

National School Boards
Association

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