

Education Policy Studies Division

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Improving Academic Performance By Meeting Student Health Needs

Summary

States have made considerable progress in public education reform by developing standards, assessments, and accountability systems and by improving teacher quality. States continue to build on these reforms by using multiple policy strategies to improve academic performance.

For many students, test performance will improve over time with the implementation of new standards, assessments, and curriculum and the introduction of better-trained teachers and new teaching techniques. For other students, performance may be lower than expected because they are not prepared to learn when they arrive at school. Policymakers need to focus on eliminating the barriers that affect these low-performing students' readiness to learn. Among these barriers are physical and mental health conditions that impact students' school attendance and their ability to pay attention in class, control their anger, and restrain self-destructive impulses.

To assist schools in ensuring that students come to school ready to learn, policymakers can review the burgeoning research linking student health with student achievement and design data-driven programs. They can also provide technical assistance to help schools incorporate health into their curricula and increase interagency partnerships between the health and education communities. Many of the programs profiled in this *Issue Brief* use these strategies to meet student health needs and improve student academic performance.

The Role of Student Health in Standards-Based Reform

Many states have made tremendous strides in developing higher standards for their education system. Despite this progress, some states are struggling to improve student achievement. In these states, students continue to perform poorly on state assessments. Researchers identify several reasons for low student performance, including poor-quality teachers, a misalignment between standards and assessments, and students coming to school unprepared to learn.

Students' health and its impact on their ability to perform well academically are receiving more attention. Recent research is examining how incorporating school health into the curriculum can improve academic performance.

- In a two-year longitudinal study of children receiving a substance use intervention curriculum, five years after the program, participants had higher overall academic achievement scores on the Comprehensive Test of Basic Skills than their national peers.¹
- In a study of 259 high-risk youth in grades 9 through 12 in the Pacific Northwest, participants in a life-skills class showed increased grade point averages (GPAs) across all classes while the GPAs of the control group stayed essentially the same.²

- In a study of two parochial schools, class time for academics was reduced by 240 minutes per week in the experimental group to enable increased physical activity exposure. Yet mathematics test scores were consistently higher for this group than for a group that did not have increased time for physical activity.³
- Schools that offer intense physical activity programs see positive effects on academic achievement, including increased concentration; improved mathematics, reading, and writing test scores; and reduced disruptive behavior, even when time for physical education reduces the time for academics.⁴
- Schools that enhance child skill development through health education, parenting classes, and teacher training see increases in student achievement.⁵
- Schools that offer breakfast programs see increases in academic test scores, daily attendance, and class participation.⁶

Coordinated School Health

“Coordinated school health” engages all centers of activity—in and out of school—that relate to health and success in school. The goals are to identify the health problems in a community, build community consensus on what services are needed, integrate funding from various existing sources to meet those needs, and develop a coordinated and comprehensive service approach to improve children’s health. A school health program is deemed coordinated and comprehensive when it:

- focuses on the key risks to health and learning;
- receives support from students, family, friends, and adults within the school and community;
- draws on the thoughts and efforts of many disciplines, community groups, and agencies;
- has multiple strategies or components; and
- uses an inclusive and broad-based program planning process.⁷

Uncoordinated School Health—Lack of coordination is so widespread that many educators accept fragmentation, duplication, and inconsistency as the status quo. Consider the following true examples.

- While the health educator teaches about the food pyramid, the cafeteria manager prepares a lunch of pizza and french fries, the school business manager counts the proceeds from the soft drink machine, and the social studies teacher rewards a student with candy for correctly answering a question in class.
- A teacher emphasizes the importance of students washing their hands. Yet only one of the eight faucets in the girls’ lavatory works, and the maintenance department cannot schedule plumbing renovations for another two years.
- A school requires students to be immunized. Yet the local clinic only conducts immunizations on Mondays and Thursdays during business hours, and many people cannot take a day off work or cannot get to the clinic because it is not on a bus route.

Model State School Health Programs

The most common approach to incorporating health into a school’s curricula is a semester-long or year-long course on health. This approach does not enable policymakers to connect students’ current health status with their academic performance. The National Governors’ Association Center for Best Practices has identified several programs through which states are improving the health of students and, as a result, their ability to learn.

California’s Healthy Start

California’s Healthy Start Support Services for Children Act was passed in 1991. Under Healthy Start, the superintendent of public instruction awards planning and operational grants to local education agencies and their collaborative partners. Healthy Start grantees receive seed funding to

embark on long-term change initiatives to enhance student achievement and improve the well-being of young people, families, and communities.

Schools and their collaborative partners coordinate and integrate services—including health screening, counseling, and dental and vision care—across different child- and family-serving systems to make services more accessible. Services at or near the school site promote the health and educational and social development of children. The initiative is based on the philosophy that educational success, physical health, emotional support, and family strength are interdependent.

An evaluation based on data collected by Healthy Start collaboratives in 1997 found that student academic achievement increased significantly. Test scores for schools in the lowest quartile improved substantially, with reading scores for the lowest-performing elementary schools increasing by 25 percent and math scores increasing by 50 percent. Students in the lowest quartile showed similar improvements. Middle and high school students who were most in need improved their grade point averages by 50 percent, adding between 0.8 and 1.2 to their GPA.⁸

In Glendale Unified School District, a senior honors student was referred to Healthy Start after his teacher observed a drastic change in his attendance and grades. A staff member discovered that the boy's brother was killed in an accident and that he was still grieving. The staff member connected the entire family to grief counseling and conferred with the boy's teachers to make adjustments in his academic life. The student eventually returned to school and was able to complete all the missed work. Thanks to Healthy Start, he dropped only one class but was successful with the others. Ultimately, he graduated with a 3.78 GPA.

Contact: Pat Rainey, Healthy Start and After-school Partnership Office, California Department of Education, 916/657-3558.

Florida's CSHP Pilot Schools

McIntosh Middle School noticed that students were coming to school hungry and unprepared to learn. It decided to provide reduced-cost breakfasts for students in the cafeteria, but none bought them. In discussing the problem with the student body, the school learned that students felt stigmatized by getting their breakfast in the cafeteria. The school used its seed money to purchase a food cart to sell breakfast items where students spend time in the morning, the school bus drop-off zone. The results have been less class disruptions and improved student performance.

In 1998 the Florida Department of Education's Coordinated School Health Program (CSHP) sought applications from schools seeking intensive technical assistance and training to promote student health and academic achievement. Eight schools received funding. They used the money to incorporate the eight components of coordinated school health programs into their activities to enhance student health and

promote the achievement of Florida's Sunshine State Standards. The eight components are health education, physical education, health services, nutrition services, counseling and psychological services, a healthy school environment, staff wellness, and family and community involvement.

The state provides technical assistance for three years to help grantees incorporate health into the school curricula. The technical assistance includes a four-day intensive training session.

Following the implementation of CSHP, two middle schools receiving technical assistance reported that their Florida Comprehensive Assessment Test (FCAT) math scores improved by an average of 11.5 points and their FCAT reading scores by an average of 15 points. Student attendance also increased at each school.⁹

Contact: Lynda Kinard, Coordinated School Health Programs, Florida Department of Education, 850/488-7835.

Mississippi's Comprehensive School Nursing Pilot Project

In 1998 legislators appropriated a portion of the state's tobacco settlement agreement funds to the Mississippi Department of Education to provide school nurses in school-based health clinics (SBHCs). The education department awarded three \$150,000 grants for a three-year trial period to provide incentives for school districts, or entities working with school districts, to implement comprehensive and coordinated school health programs in elementary schools. In all of the SBHC grantees—the Nettleton, McComb, and Jackson Public School Districts—registered nurses will:

- coordinate health services and work closely with school faculty to incorporate the teaching phase of the program into the classroom;
- counsel children, parents, and staff, as needed; and
- collaborate with available health personnel to provide referral, screening, and follow-up treatment for health, dental health, and mental health problems.

Each school district receiving a SBHC grant developed a plan to evaluate the pilot project's effect on dropout rates, suspensions, expulsions, attendance, and test scores. Preliminary results will soon be available. If successful, the state will consider expanding the pilot project.

Contact: Joyce Vaughn, Comprehensive School Health, Clinics, and Nurses, Mississippi Department of Education, 601/359-3499.

Vermont's Use of Youth Risk Behavior Survey

The Centers for Disease Control and Prevention conducts the Youth Risk Behavior Survey (YRBS), a biennial, national, school-based survey used to monitor six categories of priority health-risk behaviors among youth and young adults. Since 1985, Vermont has administered the survey to measure the prevalence of behaviors that contribute to the leading causes of death, disease, and injury among youth in the state. The data are used to monitor trends in health and risk behaviors, including physical activity, diet, and alcohol and tobacco use; facilitate comparisons of state and national trends; and improve community and school programs aimed at preventing health problems and promoting healthy behaviors. In the 1997 and 1999 YRBS, Vermont amended the survey to include questions about student achievement. The results showed a negative correlation between risk behaviors and academic performance.

Since 1998, state teams have provided each low-performing school district in the state with technical assistance to develop a strategic plan to improve student achievement. In 1999 state teams received data correlating risk behavior with low academic performance and encouraged each school to consider improving the school health curriculum as a means to improve student achievement.

Contact: Nancy Emberly, Vermont Department of Education, 802/828-5151.

What to Consider in Developing School Health Programs

States have made considerable progress in reforming elements of public education, such as developing standards, assessments, and accountability systems as well as improving training for new teachers. This progress can be sustained by eliminating barriers that prevent students from coming to school ready to learn. To address this issue, policymakers may want to consider some of the strategies and philosophies evident in the model school health programs highlighted in this *Issue Brief*.

- **Raise awareness of the connections between student health and student achievement.** State leaders could review the burgeoning research linking student health and student achievement and assist schools in using this research to incorporate health into their curricula.¹⁰
- **Ensure success by having data-driven programs.** States can help ensure success by requiring data and evaluations that tie program implementation to improved academic performance.

- **Provide technical assistance to programs.** For school health programs to be successful, schools need more than grant money. They also need assistance from facilitators to help them think about how to incorporate health into the curricula.
- **Increase interagency partnerships between the health and education communities.** Policymakers need to help educators understand that locating health services in schools improves program effectiveness, and service providers need to incorporate the school's mission of educating students into their work.

The National Governors Association (NGA) Center for Best Practices can provide resources for policymakers seeking to address the link between student health and achievement. With support from the Centers for Disease Control and Prevention, the Center will continue to identify health-related issues to which policymakers should respond to improve academic performance.¹¹

¹ Elias, M.J., M.A. Gara, T.F. Schuyler, L.R. Branden-Muller, and M.A. Sayette. "The Promotion of Social Competence: A Longitudinal Study of a Preventive School-Based Program." *American Journal of Orthopsychiatry* 61, no. 3 (1991): 409–17.

² Eggert, L.L., E.A. Thompson, J.R. Herting et al. "Preventing Adolescent Drug Abuse and High School Dropout through an Intensive School-Based Network Development Program." *American Journal of Health Promotion* 8, no. 3 (1994): 202–15.

³ Shephard, R.J., M. Volle, H. Lavallee, R. LaBarre, J.C. Jequier, and M. Rajic. "Required Physical Activity and Academic Grades: A Controlled Longitudinal Study." In *Children and Sport*, ed. Lmarinen and Valimaki. Berlin: Springer Verlag, 1984, 58–63.

⁴ Symons, Cynthia Wolford. "Bridging Student Health Risks and Academic Achievement through Comprehensive School Health Programs." *Journal of School Health*, vol. 67, no. 6 (August 1997), 224.

⁵ Hawkins, J.D. et al. "Preventing Adolescent Health-Risk Behaviors by Strengthening Protection During Childhood." *Archives of Pediatrics and Adolescent Medicine*, 153(3) (1999): 226–34.

⁶ Powell, C.A. et al. "Nutrition and Education: A Randomized Trial of the Effects of Breakfast in Rural Primary School Children." *American Journal of Clinical Nutrition* 68(4) (1998): 873–79.

⁷ Allensworth, D. "The Comprehensive School Health Program: Essential Elements." Unpublished, 1995.

⁸ California Department of Education. *Healthy Start Works—Evaluation Report: A Statewide Profile of Healthy Start Sites*. Sacramento, March 1999. Available at <<http://www.cde.ca.gov/cyfsbranch/lsp/eval/evalworks.htm>>.

⁹ Florida Department of Education. *Living and Learning Healthy—Florida's Coordinated School Health Program*. Tallahassee, 1999.

¹⁰ The U.S. Department of Agriculture is beginning a three-year longitudinal study of the impact of school breakfast on academic performance in three cities. The Centers for Disease Control and Prevention is focusing more attention on student physical activity, nutrition, and tobacco use. The Association of State and Territorial Health Officials, in conjunction with the Society of State Directors of Health, Physical Education, and Recreation, is conducting a literature review on research connecting student health and academic achievement.

¹¹ The National Governors Association Center for Best Practices released an *Issue Brief* in January 2000 on extra learning opportunities and health. "Extra Learning Opportunities that Encourage Healthy Lifestyles" is available at <http://www.nga.org/Pubs/IssueBriefs/2000/Sum000125ELO.asp>. Policymakers seeking more information on this topic should contact Liam Goldrick at lgoldrick@nga.org or 202/624-5359.