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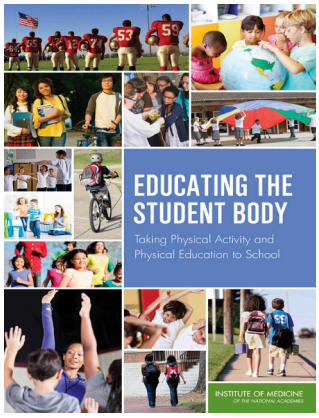
Educating the Student Body

Taking Physical Activity and Physical Education to School



Like most of the population of the United States, children and adolescents have grown accustomed to a sedentary lifestyle. Estimates show that only about half of youth meet the current *Physical Activity Guidelines for Americans'* recommendation of at least 60 minutes of daily vigorous or moderate-intensity physical activity. It may not be surprising, then, that children and adolescents face growing health risks—perhaps none more important than increased obesity—that can jeopardize their well-being not only today but throughout their lifespans.

Since young people spend much of their time in school, this environment is often viewed as key in encouraging and providing opportunities for them to be active. In this light, the Robert Wood Johnson Foundation asked the Institute of Medicine (IOM) to examine the status of physical activity and physical education efforts in schools, how physical activity and fitness affect health outcomes, and what can be done to help schools get students to become more active.

Educating the Student Body: Taking Physical Activity and Physical Education to School presents the study committee's findings and recommendations.

Estimates show that only about half of youth meet the current *Physical Activity Guidelines for Americans'* recommendation of at least 60 minutes of daily vigorous or moderate-intensity physical activity.

Evidence of positive health and academic benefits

Extensive scientific evidence demonstrates that regular physical activity promotes growth and development in youth and has multiple benefits for physical, mental, and cognitive health. Physical activity is related to lower body fat, greater muscular strength, stronger bones, and improvements in cardiovascular and metabolic health, as well as to improvements in mental health by reducing and preventing conditions such as anxiety and depression and enhancing self-esteem.

A growing body of evidence also suggests a relationship between vigorous and moderate-intensity physical activity and the structure and functioning of the brain. Children who are more active show greater attention, have faster cognitive processing speed, and perform better on standardized academic tests than children who are less active. Of course, academic performance is influenced by other factors as well, such as parental involvement and socioeconomic status. Nevertheless, ensuring that children and adolescents achieve at least the recommended amount of vigorous or moderate-intensity physical activity may well improve overall academic performance.

On the other side of the equation, there is sound evidence that quality physical education with appropriate instruction and assessments is effective in increasing students' physical activity. Quality physical education provides students the opportunity to learn meaningful content and skills—what students should "know and be able to do" relative to physical activity.

Surveying the activity landscape

Schools traditionally have used physical education as their primary means of promoting physical activity. But they face challenges in continuing to deliver it both equitably and effectively. Fiscal pressures, resulting in teacher layoffs or reassignments and a lack of equipment and other resources, inhibit the offering of quality physical education in some schools and districts. Safety concerns associated with allowing children to play sometimes pose barriers. Policy pressures, such as a demand for raising standardized test scores through increased classroom contact time, further challenge schools to spend time providing physical activity for youth. Also, even under the best of circumstances, physical education classes are likely to provide only 10-20 minutes of vigorous or moderate-intensity physical activity per session.

Some schools also use intramural and extramural sports as on option for physical activity, but for various reasons—many of them financial—sports are unavailable to a sizable proportion of youth. In younger grades, recess has traditionally provided time for spirited bouts of free play, but here, too, financial and academic pressures are limiting the time and space available for such activities.

Improvements needed throughout the entire school

Given the breadth of the challenges and the existing scientific evidence, the committee concludes that a "whole-of-school" approach is needed to obtain maximum benefits for students. This approach requires participation from all people who take part in the day-to-day functioning of the school, including teachers, principals, school administrators, superintendents, students, and parents. It also will involve a host of resources: school buildings, outdoor grounds and playgrounds, indoor and outdoor equipment, and streets and pathways in the surrounding neighborhood that can encourage—or hinder—efforts to help students get physically active.

To set the tone, schools—backed up by district policies and supported by administrators and parents—should provide access to at least 60 minutes per day of vigorous or moderate-intensity physical activity, more than half of which should be accomplished during regular school hours. In particular, schools can implement high-quality physical education classes in which students spend at least half of the time in vigorous or moderate-intensity physical activity. The committee recommends that elementary school students spend an average of 30 minutes per day in physical education class, and middle and high school students should spend an average of 45 minutes per day in physical education class.

In addition, students should engage in vigorous or moderate-intensity physical activity throughout the school day, such as through recess and classroom time dedicated to physical activity. For example, teachers could prepare active lessons that require students to stand, move around the room, and integrate movement into learning. Addi-

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tional opportunities for physical activity should be provided before and after school. Opportunities to promote physical activity outside of school itself, including walking or biking to and from school and participating in intramural and extramural sports, should be made accessible to all students. Importantly, using these guidelines, schools can choose how and when to provide opportunities for physical activity and what types of activities to offer.

Policies and programs to support physical education

Schools will need backup to implement these recommendations. The federal government can help by including physical education among the nationally mandated core subjects. States currently vary greatly in their mandates with respect to time allocated for and access to physical education. Nearly half of school administrators report having cut significant time from physical education and recess to increase time devoted to reading and mathematics since passage of the No Child Left Behind Act in 2001.

The committee finds that physical education should be designated as a core subject because it has commensurate values that are foundational for learning and therefore essential. Physically active students are likely to be healthy and mentally sharp—attributes critical to being truly "present" during the school day.

Government at all levels, from federal to local, also should take steps to ensure that programs and policies address disparities in physical activity and that all students at all schools have equal access to appropriate facilities and opportunities for physical activity and quality physical education. In addition, the committee recommends that education and public health agencies at all levels develop and systematically deploy data systems to monitor policies and performance pertaining to physical activity and physical education in the school setting. As with measuring progress in mathematics and language skills, such information will help in developing strategies for accountability to strengthen physical activity and physical education in schools.

Beyond government action, colleges and universities and continuing education programs should provide preservice training for those planning to become teachers, and ongoing professional development opportunities for K-12 classroom and physical education teachers to enable them to embrace and promote physical activity across the curriculum.

There also is need for continued research to fill current gaps in knowledge about physical activity and physical education in the school environment, and about the effects of physical activity on youth health.

Conclusion

Schools historically have been central in supporting the well-being of youth by providing health screenings, immunizations, and nutrition programs, and also by training them for lifelong learn-

ing. It follows, then, that schools can and should play a major role in efforts to make children and adolescents more active—putting them on a track toward better health and improved performance in their classes and beyond.

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