

# Reducing Youth Health Disparities Requires K-12 Physical Education

## SOPHE-ASCD Expert Panel on Reducing Youth Health Disparities

In June 2010, the Society for Public Health Education (SOPHE) and ASCD convened 24 subject matter experts in health education, health care, public health and education to develop recommendations for eliminating health disparities among youth, based on best practices and policies. Recommendations from the Expert Panel include these five overarching areas:

- Cross-agency collaboration
- Using data for continuous improvement
- Health care access
- Supportive, Nurturing, and Healthy Learning Environment
- Promotion of health-enhancing behaviors through K-12 health education and physical education**

## OVERVIEW

Inadequate physical activity threatens both the current and future health status of youth. A root cause of health disparities is an individual's lifestyle. Lifestyle choices established in youth, including inadequate physical activity, poor dietary choices and tobacco use, lead to a range of chronic diseases such as heart disease, cancer and stroke as an adult.



Physical inactivity in youth and poor dietary choices are also associated with more immediate chronic diseases, including childhood obesity and type 2 diabetes.<sup>1</sup> Childhood obesity alone accounts for \$3 billion in annual health care costs.<sup>2</sup> Overweight adolescents have a 70% chance of becoming overweight or obese adults.<sup>3</sup>

Diabetes is the seventh leading cause of death for adults and accounts for \$174 billion in U.S. health care costs.<sup>4</sup> While type 2 diabetes, formerly known as adult onset diabetes, is the most common type of diabetes in obese adults,<sup>5</sup> there is an increasing diagnosis of type 2 diabetes in children. About 3% of all new cases of diabetes in youth in 1990 were type 2. However, by 2005, 45% of all new cases of diabetes in children were type 2.<sup>6</sup> This fact sheet examines the recommendation by the SOPHE-ASCD Expert Panel on Reducing Youth Health Disparities to ensure students choose a healthy lifestyle by receiving physical education K-12.

## MOST YOUTH DO NOT MEET THE RECOMMENDATION OF 60 MINUTES DAILY OF PHYSICAL ACTIVITY.

Among high school students across the United States:

- 71% of students did NOT routinely engage in physical activity 60 minutes daily<sup>7</sup>
- Only 12.2% of students met BOTH recommended levels for aerobic and muscle-strengthening activities<sup>7</sup>
- 56% of students said that they played on at least one sports team in their school or community<sup>8</sup>
- Although 41% of students walked or biked to school in 1969, only 13% of students walked or biked to school in 2011<sup>8</sup>

## PHYSICAL ACTIVITY PROMOTES PHYSICAL AND MENTAL HEALTH.

Regular physical activity reduces the risk of becoming overweight, improves bone health, as well as cardiovascular and muscular physical fitness, decreases levels of body fat, and reduces symptoms of depression<sup>9</sup>

### THERE IS SUBSTANTIAL EVIDENCE THAT PHYSICAL ACTIVITY AND PHYSICAL FITNESS ARE RELATED TO ACADEMIC ACHIEVEMENT.<sup>10</sup>

- Enhanced physical education classes in which students exerted greater intensity of activity in class was found to increase achievement in 11 of the 14 studies analyzed.<sup>10</sup>
- A 10-year review of classroom physical activity breaks for 5-10 minute several times a day, found that time-off-task was reduced (20.5%); reading, math, spelling and composite scores were improved ( $p < 0.01$ ); and students experienced higher physical activity levels.<sup>11</sup>
- Students in California who passed all tests within the FITNESSGRAM fitness tests nearly doubled their reading and mathematics scores in comparison to students who could pass only one of the five fitness tests in the FITNESSGRAM. As overall FITNESSGRAM scores increased, mean achievement scores also increased.<sup>12</sup> A study in West Virginia following students from 5<sup>th</sup> through 7<sup>th</sup> grade demonstrated that those students who did the best on standardized achievement tests were physically fit at the start and at the end of the study. Students who improved their fitness scores from the 5<sup>th</sup> to 7<sup>th</sup> grade had higher test scores than students who remained unfit throughout the three years or who were fit at the beginning, but not at the end of the study.<sup>13</sup>

### SCHOOL BASED, QUALITY PHYSICAL EDUCATION INSTRUCTION IS CRITICAL FOR CHILDREN LIVING IN POVERTY.

Rates of overweight and obesity are 3-4 times higher for children in households with low-income and low parental education.<sup>14</sup> Increased participation in activities collectively known as “screen time” reduces time available for physical activity. Poor children spend more time engaged in screen time activities. Thirty percent of students aged 6 to 14 years living in poverty viewed television, videos or played video games for more than 2 hours a day in 2007, as compared to only 13% of the most affluent students.<sup>15</sup> Poor urban minority youth have less access to safe recreational facilities.<sup>16</sup> Access to their schools’ physical activity resources after hours with supervision by school or community recreation staff could improve physical activity options for poor students. However, only 28.8% of the nation’s public and private schools provided access to their physical activity spaces and facilities outside of normal school hours in 2006.<sup>9</sup>

### SCORE CARD: HOW ARE WE DOING IN THE UNITED STATES?

Schools do not provide sufficient in-school opportunities for physical activity and physical education. Many students lack opportunity for physical activity during the school day:<sup>9</sup>

- 3.8% of elementary schools, 7.9% of middle and junior high schools, and 2.1% of public and private high schools required daily physical education<sup>17</sup>
- 57% of school districts required regularly scheduled elementary school recess in 2006<sup>17</sup>
- 44% of elementary schools, 67% of middle schools and 22% of high schools had students participate regularly in 10-15 minute physical activity breaks in the classroom<sup>17</sup>

### THERE IS SUBSTANTIAL ROOM FOR IMPROVEMENT IN SCHOOL-BASED STUDENT FITNESS TESTING.

Physical activity among youth could be increased through annual fitness assessment, completion of an annual individualized fitness improvement plan and the engagement of family in supporting attainment of the fitness plan.

- Only 14 states require assessment of students’ physical fitness. Of those states requiring fitness assessments, only four states require parent notification.<sup>18</sup>
- Only 26% of teachers in middle and high school required at least one class in the school to develop individualized physical activity improvement plans. Of those requiring plans, 80% have students use their fitness test scores to help develop the plans.<sup>17</sup> The use of families as social support for the attainment of an individual fitness improvement plan nationwide is unknown.

### PHYSICAL EDUCATION IS NOT A CORE SUBJECT THAT IS TESTED PERIODICALLY. THEREFORE, IT IS OFTEN ELIMINATED TO MAKE ROOM FOR MORE TIME IN THE CORE SUBJECTS.

However, spending more time in physical education classes and less time on academic subjects is NOT associated with reduced achievement.<sup>10</sup>

## Expert Panel Policy Recommendations

To increase the amount of physical activity in youth, joint collaboration among public health agencies, schools, other community partners, and families is needed to ensure recommended levels of physical activity in youth are achieved and maintained.<sup>19</sup> The Expert Panel identified the following indicators as evidence of collaboration between the education and health sectors to ensure all students are physically active and physically fit:



### Community and School Level:

- Local education agencies increase the required frequency of developmentally appropriate physical education and physical activity for students K-12 to achieve recommended state and national standards. These activities should be tailored to the specific cultural make up of school population.
- All students receive a minimum of half of their daily physical activity in schools via 5-10 minute physical activity breaks in the classroom, recess, and/or physical education classes.
- Local education agencies annually assess students' fitness levels (using a tool such as the FITNESSGRAM), followed by the development of individualized student fitness improvement plan that involves family support in achieving student goals.
- Community agencies and schools negotiate partnerships that open the school's recreational facilities during out of school time.
- School and community programs dealing with student obesity prevention involve the family.



### State Level:

- State education agencies increase the required frequency of developmentally appropriate physical education and physical activity for students K-12 to achieve recommended state and national standards.
- State education agencies require students' fitness scores reported to the state as a mechanism to monitor continuous improvement in fitness and physical activity.
- State Health Departments and State Education agencies collaborate to share data (including physical fitness scores) and require the reporting of local health and educational data to the public.



### National Level:

- Health education and physical education are identified as core subjects in the re-authorization of the Elementary and Secondary Education Act (ESEA).
- Funding and accountability mechanisms that cut across health and education sectors ensure that the needs of the whole child are met from infancy through adolescence for all children, and particularly low income, minority and ethnic students.

#### About the SOPHE-ASCD Panel on Eliminating Youth Health Disparities

Convened in June 2010 in Washington, DC, the SOPHE-ASCD Panel on Eliminating Youth Health Disparities was a major first step in breaking down the silos between the education and public health leaders to address some of the most pressing problems facing poor children and youth. The summit promoted expert and innovative solutions for improved collaboration, programs and policies at the federal, state, district, community and school levels to reduce youth disparities and provide all children with a foundation for a healthy and productive future. For more information, see <http://www.sophe.org/SchoolHealth/Disparities.cfm>.

#### About the Expert Panel Sponsors

Founded in 1950, the **Society for Public Health Education** (SOPHE) provides global leadership to the profession of health education and health promotion and promotes the health of society. SOPHE's 4,000 National and chapter members work in schools, community-based organizations, health care settings, worksites and national/state/local government. For more information, see [www.sophe.org](http://www.sophe.org). Founded in 1943, **ASCD** (formerly the Association for Supervision and Curriculum Development) is an educational leadership organization dedicated to advancing best practices and policies for the success of each learner. ASCD's membership includes 150,000 professional educators from all levels and subject areas - superintendents, supervisors, principals, teachers, professors of education, and school board members - in more than 145 countries. For more information, see [www.ascd.org](http://www.ascd.org).

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