All children should be able to look forward to healthy and productive lives. Accomplishing this goal depends, in part, on our success in addressing unacceptably high levels of physical inactivity among our nation’s children. Regular physical activity is good for children’s fitness and overall health, and it improves their academic performance.¹,² Yet, far too many children today are not as active as they should be—compromising their health, well-being, and academic potential.

Current U.S. guidelines recommend that children and adolescents engage in at least one hour of physical activity each day, but most do not. In California, only 19% of adolescents met recommendations in 2007.³ Levels of physical fitness among children and adolescents are alarmingly low; according to 2012-2013 fitness test data, nearly three quarters of California fifth-graders failed to score in the “Healthy Fitness Zone” in all tested areas combined.⁴

These deficits in physical activity and fitness have real implications for children’s health and well-being. During 2010, 38% of California children in the 5th, 7th and 9th grades were overweight or obese,⁵ and during the 2012-2013 school year approximately 40% of children in these grades were classified as needing improvement in key measures of body composition.⁶
What steps can we take to ensure that all children reach their full potential?

A substantial body of research indicates that physical education policies and interventions can increase children’s physical activity levels and favorably affect physical fitness. Studies have also linked physical fitness with academic performance; based on both short- and longer-term measures, physically fit children performed better academically than their physically unfit peers. Despite this evidence and existing California law requiring schools to provide students in grades one through six with a minimum of 200 minutes of physical education every ten days, physical education receives low priority in too many of our schools.

Recent research has examined how compliance—or failure to comply—with state physical education laws might influence children’s fitness levels. Using fitness testing and compliance monitoring data from the California Department of Education, we studied 91,236 California fifth-graders attending 1,028 schools in 55 districts statewide during two academic years (2004-2006) and observed the following:

**KEY RESEARCH FINDINGS**

**Compliance with California physical education mandates**

- Half of the school districts studied failed to provide at least 200 minutes of physical education every ten school days for elementary school students, as mandated by California state law.

- Of the 91,236 fifth-graders studied statewide, the vast majority (82%) attended schools in districts that failed to provide the mandated minimum level of physical education (Figure 1).

- Latino and African American fifth-graders and those eligible for free or reduced priced meals were more likely than their White and non-eligible counterparts to attend schools in non-compliant districts.

**Physical fitness levels**

- Overall, only 58% of fifth-graders were classified as physically fit, based on their performance in a one-mile walk or run. *  

* Physical fitness was defined based on a student’s performance in the one-mile run or walk test, adjusted for age and gender. Using standards for healthy fitness zones created by The Cooper Institute and consistent with the state’s Department of Education classifications, we categorized students either as “physically fit” (i.e., meeting or exceeding the desired performance goal) or as needing improvement.
Fifth-graders in districts that provide mandated levels of physical education were significantly more likely to be physically fit compared with their counterparts in non-compliant districts: in compliant districts, on average, 64% of fifth graders were classified as meeting or exceeding fitness standards, while 36% needed improvement. In non-compliant districts however, 57% of the fifth-graders met or exceeded fitness standards, and 43% needed improvement (Figure 2). The findings took into account differences in student age, gender, and race/ethnicity, as well as school characteristics including total enrollment, proportion of students eligible for free or reduced priced meals, and income and education levels in the school’s surrounding neighborhood.

How can we ensure that more children participate in recommended levels of physical education?

Health and education experts, practitioners, and policy makers at all levels need to work together to make physical education a high priority in all schools. We recommend the following:

- **Recognize physical education as a pathway to academic achievement.** State policy makers should ensure that the Academic Performance Index includes students’ aerobic fitness scores from Fitnessgram as well as school compliance with physical education standards. A State Board of Education requirement to this effect will send a strong signal about the importance of physical education for promoting children’s academic achievement and health, and will encourage schools to give high priority to physical education as part of their overall objectives for student education.

- **Ensure that all schools follow the state’s physical education laws.** State mandates for physical education are important, but more attention must also be given to documenting whether schools are actually implementing those mandates. The State Department of Education should ensure that all schools follow California’s physical education law by requiring adequate data reporting, and by creating and funding mechanisms for compliance monitoring. Data should be collected from a more complete and representative sample of students and schools, including information about provision of physical education not only at the district level but at individual schools. Funded programs to monitor compliance would enhance the state’s ability to evaluate the impact of physical education policies on children’s health and academic achievement.
- **Fully fund physical education in all schools.** State and local policy makers should allocate funding to improve physical education in all schools. Children from socially and economically disadvantaged families are generally at highest risk for inactivity, least likely to be physically fit, and most likely to live in neighborhoods with limited opportunities for active living; for these children, schools may be their only venue for physical activity. As local districts make decisions regarding disbursement of supplemental and concentration grants, additional investments should be considered to ensure that the most socioeconomically vulnerable students fully benefit from physical education policies. Targeted taxes, such as soda taxes or fees, which are meant to promote children’s health by preventing obesity, may be a particularly appropriate revenue source for improving compliance with physical education mandates.

- **Physical fitness data should be gathered using annual Fitnessgram testing.** Fitnessgram is the only source of information on fitness and obesity among children and adolescents attending public schools in California. Schools should ensure that Fitnessgram is administered by trained personnel who understand the purposes of each test component to ensure proper administration, accurate scoring and the health and safety of children being tested.

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**References**

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