

Dear School Board,

The recent decision to eliminate the Kinesiology (physical education) Program for the 2009-2010 school year (for our students) is a major disservice to our students and flies in the face of all current research findings and recommendations by the *Surgeon General's Report on Physical Activity and Health and the Centers for Disease Control and Prevention to improve the current and future health of our citizens*.

Too many students are engaged in high-risk behaviors, insufficient exercise, poor diet, unprotected sex, violence, etc. These behaviors will result in future illness, lead to increased medical expenses, and loss of productivity. We must not be shortsighted in thinking that less physical education will allow our students to achieve more academic success. *Healthy active kids learn better*. School **physical education programs** offer the best opportunity to provide physical activity to all children and to teach them the skills and knowledge needed to establish and sustain an active lifestyle. Physical education teachers assess student knowledge, motor and social skills, and provide instruction in a safe, supportive environment. Based on sequence of learning, physical education should not be compared to or confused with other physical activity experiences such as recess, intramurals, or recreational endeavors. A quality physical education program provides learning opportunities, appropriate instruction, meaningful and challenging content for all children.<sup>5</sup>

Therefore, NASPE recommends:

- All students K-12 receive quality, regular physical education.
- Elementary school children receive a minimum of 150 minutes per week of instructional physical education; middle and high school student receive a minimum of 225 minutes per week of instructional physical education.
- All states require comprehensive physical education as part of their core curriculum and set minimum standards of achievement for each grade level.
- Physical education programs should be designed to facilitate achievement of the National Standards for Physical Education.
- Physical education classes should contain similar numbers of students as other classrooms-about 25 students per class.
- K-12 physical education should be taught by teachers who have baccalaureate degrees that license them as physical education specialists.
- There should be adequate equipment and facilities so that physical education classes are not canceled because of inclement weather.

Research findings have established that physical activity reduces risk of diabetes, osteoporosis, cancer, heart disease, depression, and obesity. Quality physical education teaches students about physical activity – it is not play time; it is not a break; *it is directly related to the science, math and other learning that students need*. Please make sure our students are fit and healthy and that the physical education program provided for our students is high quality.

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<sup>5</sup> Ballard, K, Caldwell D, Dunn C, Hardison A, Newkirk, J, Sanderson M, Thaxton Vodicka S, Thomas C Move More, NC's Recommended Standards For Physical Activity In School. North Carolina DHHS, NC Division of Public Health, Raleigh, NC; 2005.

Background:

Americans are not getting the exercise they need. It is estimated that as many as 250,000 deaths per year in the U.S. are attributable to a lack of regular physical activity. Regular physical activity that is performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness and death in the U.S. (i.e. Reduces: heart disease, diabetes, high blood pressure, colon cancer, depression, and anxiety. Helps: control weight; build and maintain healthy bones, muscles, and joints; psychological well-being; older adults become stronger and better able to move about without falling.) Conclusion: Given the numerous health benefits of physical activity, the hazards of being inactive are clear. Physical inactivity is a serious, nationwide problem. Its scope poses a public health challenge for reducing the national burden of unnecessary illness and premature death. Number one on the reports list for ideas for improvement is: Well-designed programs in schools to increase physical activity in physical education classes have been shown to be effective. Preferably daily K-12 classes taught by physical education specialists. <sup>6</sup>

Most states are not living up to recommendations of the U.S. Surgeon General's Report on Physical Activity and Health and the Centers for Disease Control and Prevention to require daily, quality physical education for all students in K-12 grades. Letha Y. Griffin, MD, an orthopedic surgeon, warned that the lack of physical fitness could endanger the health of youths in the future. "It's not uncommon for youths to play games, surf the Internet or do homework on computers for hours every day. They are building the skills they'll need in a computer-oriented world, but they are becoming high-tech couch potatoes. They need physical activity in school and after school to prevent health problems later in life."<sup>7</sup>

California Department of Education (CDE) released a study that shows a distinct relationship between academic achievement and physical fitness. The newly completed research study individually matched scores from the spring 2001 administration of the Stanford Achievement Test, Ninth Edition (SAT-9), given as part of California's Standardized Testing and Reporting Program, with results of the state-mandated physical fitness test, known as the Fitnessgram, given in 2001 to students in grades five, seven, and nine. The Fitnessgram, developed by the Cooper Institute for Aerobics Research, assesses six major health-related areas of physical fitness including aerobic capacity (cardiovascular endurance), body composition (percentage of body fat), abdominal strength and endurance, trunk strength and flexibility, upper body strength and endurance, and overall flexibility. A score of 6 indicates that a student is in the healthy fitness zone in all six performance areas, and meets standards to be considered physically fit.

In the study, reading and mathematics scores were matched with fitness scores of 353,000 fifth graders, 322,000 seventh graders, and 279,000 ninth graders. Key findings of the study are:

- *Higher achievement* was associated with *higher levels of fitness* at each of the three grade levels measured.
- The relationship between academic achievement and fitness was greater in mathematics than in reading, particularly at higher fitness levels.

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<sup>6</sup> Surgeon General's Report in Physical Activity and Health 1996.

<sup>7</sup> Shape of the Nation Report; New York, Oct. 28, 1997

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- Students who met minimum fitness levels in three or more physical fitness areas showed the greatest gains in academic achievement at all three grade levels.
- Females demonstrated higher achievement than males, particularly at higher fitness levels.

According to State Superintendent of Public Instruction Delaine Eastin, "This statewide study provides compelling evidence that the physical well-being of students has a *direct impact on their ability to achieve academically*. We now have the proof we've been looking for: students achieve best when they are physically fit. Thousands of years ago, the Greeks understood the importance of improving spirit, mind, and body. The research presented here validates their philosophic approach with scientific validation."<sup>8</sup>

### Negative Factors:

- US Obesity-attributable medical expenditures in 2003: \$75 billion, approximately 10% of total US medical expenditures.
- The obesity epidemic also jeopardizes the future economic competitiveness and military security of our nation. In 2000, the total cost of obesity (including medical costs and the value of wages lost) in the United States was approximately \$117 billion.<sup>9</sup>
- Percent financed by taxpayers through Medicare and Medicaid was approximately 50%.
- 61.5% of children ages 9–13 do not participate in any organized physical activity during their nonschool hours.<sup>10</sup>
- Physical activity promotion in children and youth.<sup>11</sup>
- Children do not voluntarily engage in high intensity activity (60% of Max. H.R.).<sup>12</sup>
- Exercise is one of the most important health factors. It is required to maintain life.
- Rose identified the first signs of heart disease (atherosclerosis) appearing around age 2. The disease process is reversible until the age of 19.<sup>13</sup>
- Nearly 40% of children age five to eight have health conditions that significantly increase their risk of early heart disease.
- Nearly half of American youths aged 12–21 years are not vigorously active on a regular basis.
- About 14 percent of young people report no recent physical activity.
- Inactivity is more common among females (14%) than males (7%).
- Participation in all types of physical activity declines strikingly as age or grade in school increases.
- Only 19 percent of all high school students are physically active for 20 minutes or more, five days a week, in physical education classes.
- Daily enrollment in physical education classes dropped from 42 percent to 25 percent among high school students between 1991 and 1995.
- Inactivity during childhood and adolescence increases the likelihood of being inactive as an adult. Adults who are less active are at greater risk of dying of heart disease and developing diabetes, colon cancer, and high blood pressure.<sup>14</sup>

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4 California Department of Education (CDE).

5 U.S. Department of Health and Human Services [USDHHS], 2001.

6 Pate RR, Davis MG, Robinson TN, Stone EJ, McKenzie TL, Young JC.

7 *Circulation* 2006; 114:1214-1224.

8 Gilliam, et al 1982

9 Rose, 1973.

10 U.S. Department of Health and Human Services. *Physical activity guidelines advisory committee report*. Washington, DC: U.S. Department of Health and Human Services, 2008.

11 Ogden CL, Carroll MD, Flegal KM. High Body Mass Index for Age Among US Children and Adolescents, 2003-2006. *JAMA*. 2008; 299(20):2401-2405.

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- The prevalence of overweight among children aged 6-11 has more than doubled in the past 20 years, increasing from 7% in 1980 to 18.8% in 2004.<sup>11</sup>
- Children and adolescents who are overweight are more likely to be overweight or obese as adults; overweight adults are at increased risk for heart disease, high blood pressure, stroke, diabetes, some types of cancer, and gallbladder disease.<sup>15</sup>
- The percentage of overweight young people has more than doubled in the last 30 years.
- One out of four children do not attend any school physical education classes and only one of three get physical education activity every day.

#### Facts & Quotes:

"However, behavior change programs without physical education components do not seem effective in increasing physical activity or fitness in elementary school students."<sup>13</sup>

School budget cuts have taken a toll on Physical Education classes in American schools. The cuts are occurring at a time when, according to several studies, obesity rates among the young are increasing more rapidly than in the ever-chunky American public as a whole. Health experts tracking the expanding girth of the nation's children say that the budget-cutting trend, which tends to affect programs like physical education, is dangerous.<sup>14</sup>

HAWAII ALL YEARS PERCENTAGE OF STUDENTS WHO WERE PHYSICALLY ACTIVE, DOING ANY KIND OF PHYSICAL ACTIVITY THAT INCREASED THEIR HEART RATE AND MADE THEM BREATHE HARD SOME OF THE TIME, FOR A TOTAL OF AT LEAST 60 MINUTES PER DAY ON FIVE OR MORE OF THE 7 DAYS BEFORE THE SURVEY YOUTH RISK BEHAVIOR SURVEY				
	Sex	T	F	M
Year				
<b>2005</b>		30.2 (27.2–33.5)	22.7 (18.4–27.8)	37.2 (34.0–40.4)
<b>2007</b>		34.3 (29.6–39.4)	27.6 (23.6–32.2)	40.6 (34.0–47.6)
<b>Legend:</b> Sex T=Total F=Female M=Male				

#### Literacy and Academic Pursuits:

- Kinesiology Programs have a direct impact on learning/have been proven to increase academic standings and standardized test scores.
- Benefits extend beyond health improvements. Several studies have shown a link between increased physical fitness and academic performance.<sup>15</sup>
- Robert Sylwester, the foremost authority on brain research and its connection to education. He is an avid advocate for Physical Education and the implications of daily movement facilitating

<sup>15</sup> U.S. Department of Health and Human Services. *The Surgeon General's call to action to prevent and decrease overweight and obesity*. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001]. Available from: U.S. GPO, Washington.

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cognition. He has recently written an article specifically addressing Physical Education and the vital role it plays in "whole child" education.

- Moderate to vigorous physical activity favorably enhances skill performance in classroom functions such as arithmetic, reading, memorization, and categorization.<sup>16</sup>
- Even when more time is devoted to physical education, academic performance has been found not to suffer.<sup>17</sup>
- Gains in academic performance (in comparison with control group students) were statistically significant in grades 2, 3, 5, and 6. The more active students received higher grades in French, Mathematics, English, and Science, despite a 13% reduction in the time available for academic instruction.<sup>18</sup>
- 1970's, 500 Canadian children: Students who spent an extra hour each day in gym class--an hour that reduced the amount of time for academics--performed notably better on exams than less active children.
- "When a substantially proportion of curricular time (14-26%) is allocated to physical activity, learning seems to proceed more rapidly so that academic performance matches, and may even exceed, that of control students."<sup>19</sup>
- "In a study of more than 500 Canadian children, students who spend an extra hour each day in physical education class performed notably better on exams than less active children."<sup>20</sup>
- According to First Lessons: A Report on Elementary Education in America, researchers in France, Australia, Israel, and the United States have all found that youngsters who partake in structured programs of vigorous exercise possess greater mental acuity and stronger interest in learning than those who do not. First Lessons emphasized that physical education programs belong in the elementary schools, "not only because they promote health and well-being, but because they contribute tangibly to academic achievement."<sup>21</sup>
- Physical activity also helps children with developmental problems like increasing the completion rate of written tasks and reducing the degree of off task behavior.
- A 1974 study of 538 sixth graders in Texas showed that those who performed tasks geared toward motor-sensory development scored better on a standardized academic test than their peers.
- Study of 500 Canadian children found that those who spent an hour a day in physical education class academically outperformed those who did no structured exercises.
- The way people learn, remember, and anchor ideas is through movement. About every 20 minutes kids need to be up and moving.
- Aerobic activity can "... increase vigor and promote clear thinking; involvement in physical activity can positively affect grade scores of students in primary schools. Regular physical activity also makes children more alert and energetic, which improves their capacity to learn."<sup>22</sup>

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<sup>13</sup> Sallis and McKenzie, 1991, p. 130.

<sup>14</sup> New York Times article by Jacques Steinberg.

<sup>15</sup> California School Boards Association Governance and Policy Services Policy Briefs. Physical Education and California Schools. [http://www.cahperd.org/images/pdf\\_docs/CA%20PE%20fitness%20academic%20CSBA%2006](http://www.cahperd.org/images/pdf_docs/CA%20PE%20fitness%20academic%20CSBA%2006). accessed October, 2006.

<sup>16</sup> Keays, 1993.

<sup>17</sup> Maynard, Coonan, Worsly, Dwyer and Baghurst, 1987.

<sup>18</sup> Shepard, 1984a.

<sup>19</sup> Shepard, in the May 1997 edition of Pediatric Exercise Science.

<sup>20</sup> Hannaford, Carla. Smart Moves, 1995, p. 101.

<sup>21</sup> First Lessons: A Report on Elementary Education in America, by U.S. Secretary of Education, William J. Bennett, Department of Education, Washington DC, 1986.

<sup>22</sup> Diane Ruby and Val Kohlman, St. Vrain Valley School District.

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- Reinforces knowledge learned across the curriculum. Serves as a lab for application of content in science, math, and social studies.

### Program vs. recess or sports

- According to one study comparing Physical Education Specialists and classroom teachers, who had not received special training in physical education, Specialists provided more and better quality instruction spending, over 3 times more class time on instruction in fitness activities, and over twice as much time on skill drills. In addition, students of trained teachers were twice as likely to be very active.<sup>23</sup>
- Those students who want to pursue sport will find a way; few students or their parents will find a way or take the initiative to learn the skills to be active for good health--emotional, physical, social, intellectual health.
- Certainly there are no priorities higher than physical health; without health, one is not capable of being a productive human being.<sup>24</sup>
- Play and Physical Education are not synonymous. Sport and Physical Education are not synonymous.
- Physical Education is a necessity--not a luxury--for the health and well-being of every child.
- Competition is not for all kids, but physical activity is good for virtually everyone.
- Workplace 2000 & Future, and the skills needed to survive listed the top 3 skills as: 1. Teamwork, 2. Problem solving, and 3. Interpersonal Skills, all of which are primary goals in physical education classes grades K-12.<sup>25</sup>
- A required physical education program reaches the student who would not otherwise experience physical activity.
- As one educator has written, exempting students from physical education because of their extracurricular activities is like exempting students from language arts requirements because they're on the debate team or from science requirements because they're in the astronomy club. Students should not be exempted from physical education courses because they participate in an extracurricular program.
- The purpose of physical education is for all students to learn and develop fundamental movement skills, become physically fit, participate regularly in physical activity, know the implications of and the benefits from involvement in physical activities, and appreciate the value of physical activity and its contributions to a healthy lifestyle. In contrast, athletic programs are essentially designed for students who desire to specialize in one or more sports and refine their talents in order to compete with others of similar interests and abilities.
- Developmentally appropriate physical education programs are designed for every child from the physically gifted to the physically challenged. The intent is to provide students of all abilities and interests with a foundation of movement experiences that will eventually lead to active and healthy lifestyles.

### Value of Program:

- Wellness involves more than just being "physically fit."

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<sup>23</sup> McKenzie, Sallis, Faucette, Roby, and Kolody, 1993.

<sup>24</sup> Why P.E.

<sup>25</sup> Fortune 500 Companies; SCANS report for America 2000 prepared by the U.S. Dept. of Labor; Workplace 2000; the Conference Board of Canada.

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- Physical education is a necessity--not a luxury--for the health and well-being of every child.
- Develops motor skills, which allow for safe, successful, and satisfying participation in physical activities.
- Quality physical education can influence moral development and improve judgment. Students have the opportunity to assume leadership, cooperate with others; question actions and regulations and accept responsibility for their own behavior.
- The program which we have begun at KCS, is designed to do: ***Guide youngsters in the process of becoming physically active and healthy for a lifetime.***

### Solutions:

Form a committee with stakeholders to develop a strategic plan to determine ways in which to solicit funding through private monies, scholarships, and grants.

Various state and local health departments offer mini-grants to schools that complete the School Health Index and implement changes.

### Conclusion:

"Physical activities integrate many different kinds of knowledge with skilled muscular coordination--knowledge about space and time and human dynamics like teamwork, motivation, and goal seeking. Educators should not lose sight of their values. Physical education and arts are not frills. They constitute powerful ways of thinking and skilled ways of communicating with the world. They deserve a greater not lesser portion of school time and budgets."<sup>26</sup>

Physical education is an integral part of the educational process. As a result of physical education, students are more likely to be better prepared as productive students, workers, and contributors to their communities and organizations within society. As physical educators, we take pride in the physical education curriculum and programs currently being developed.

Thomas Jefferson's sage advice: **"Exercise and recreation are as necessary as reading. I will say rather more necessary because health is worth more than learning."**

Sincerely,

Kelly E. Duell, M.A., NBCT

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<sup>26</sup> Smart Moves by Carla Hannaford 1995, pg. 88.