

Top 10 Reasons for Quality Physical Education

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When they ask “why,” this is what you tell them.

When the clock struck midnight on December 31, 2000, we moved into the 21st century. Noted historian Roberta Park (1989) has suggested that the turn of the century marked the beginning of the second century for the profession of physical education. She also noted that it was time for physical education to move on from its status as a “second-class” profession to “first class” status, or as she put it, to “become the renaissance profession of the new millennium” (p. 1). During the 20th century, medicine emerged as the renaissance profession because of the development of a sound scientific base. Substantial scientific evidence supports the role of physical activity in disease prevention and healthy lifestyle promotion, and quality physical education represents our best opportunity to provide all children with physical activity experiences that promote physical activity now and for a lifetime.

The characteristics of quality physical education have been identified by the National Association for Sport and Physical Education (NASPE, 2004a). They appear in table 1.

The prevalence of daily physical education in America is low (Grunbaum et al., 2004) therefore, providing daily opportunities to learn in physical education is not always feasible. Advocating for a daily physical education policy is a complex, costly, and political process, but such advocacy has had success recently at the elementary level and middle school level (e.g., in North Carolina). A starting point for many schools is to obtain funding for qualified physical education specialists. Physical education specialists delivering meaningful content and appropriate instruction must become the norm in the educational system in order to provide children with positive physical activity experiences that will lead them to maintain physical activity throughout their lifetime.

In order to achieve “first class” status for their profession, physical education professionals must do a better job of documenting and studying the evidence of the link between quality physical education and present and future physical activity participation. To date, research has demonstrated that programs exhibiting the characteristics of quality physical education lead to increased physical activity levels (Dale, Corbin, & Dale, 2000; McKenzie et al., 2004; Pate et al., 2005; Sallis et al., 1997), improved self-concept (Goni & Zulaika, 2000), increased self-efficacy (Dishman et al., 2004), improved motor skills (Emmanouel, Zervas, & Vagenas, 1992), increased enjoyment (Dishman et al., 2005), increased motivation (Prusak, Treasure, Darst, & Pangrazi, 2004), reduced sedentary behaviors following graduation from high school (Dale & Corbin, 2000), and increased physical activity over the long-term in women (Trudeau, Laurencelle, Trembley, Rajic, & Shephard, 1998). In addition to the existing research (Trudeau & Shephard, 2005), large-scale interventions with significant physical education components are being conducted (e.g., the Trial of Activity for Adolescent Girls and Lifestyle Education for Activity Program) and will provide insights into physical education’s impact on youth physical activity (Pate et al., 2005).

The scientific evidence supporting physical activity’s role in health and well-being has been extensively documented, and there is little question that physical education plays an important role in public health because it reaches most children (Pate, Corbin, Simons-Morton, & Ross, 1987; Sallis & McKenzie, 1991). Moreover, because physical activity has been engineered out of most aspects of daily life, the relative contribution of physical education to daily physical activity becomes significant. The NASPE (2004a) definition of a physically educated person, which should result from a quality physical education program, explicitly identifies the importance of physical activity in the

Table 1. Characteristics of Quality Physical Education

1. Opportunity to Learn:

- a. Instructional periods totaling 150 minutes/week (elementary) and 225 minutes/week (middle and secondary school)
- b. Qualified physical education specialist providing a developmentally appropriate program
- c. Adequate equipment and facilities

2. Meaningful Content:

- a. Instruction in a variety of motor skills that are designed to enhance the physical, mental, and social/emotional development of every child
- b. Fitness education and assessment to help children understand, improve and/or maintain their physical well-being
- c. Development of cognitive concepts about motor skill and fitness
- d. Opportunities to improve their emerging social and cooperative skills and gain a multicultural perspective
- e. Promotion of regular amounts of appropriate physical activity now and throughout life

3. Appropriate Instruction:

- a. Full inclusion of all students
- b. Maximum practice opportunities for class activities
- c. Well-designed lessons that facilitate student learning
- d. Out-of-school assignments that support learning and practice
- e. No physical activity for punishment
- f. Use of regular assessment to monitor and reinforce student learning

Source: NASPE, 2004a, pp. 5-6

development and maintenance of good health.

The purpose of this article is to document the need for quality physical education given the current trends of obesity and physical inactivity among youths and adults. The following ten reasons why all youths need quality physical education are intended for physical educators to use when communicating the profession's scientific base to the general public.

Reason 1: Regular Physical Activity Helps Prevent Disease

The Surgeon General's report on physical activity and health documented the importance of regular physical activity in reducing the risk of the major chronic diseases that plague our society (United States Department of Health and Human Services [USDHHS], 1996). A similar document (U.K. Department of Health, 2004), produced by Britain's Chief Medical Officer, supports the findings of the U.S. Surgeon General. It is now clear that the risks of major chronic diseases such as heart disease, high blood pressure, stroke, some forms of cancer, diabetes, and osteoporosis are increased by sedentary living. In addition there is evidence that regular physical activity can improve immune function and help relieve symptoms of arthritis, asthma, and fibromyalgia for some people (summarized in Corbin, Welk, Corbin, & Welk, 2006).

While it is true that these chronic conditions have a long incubation period and typically do not manifest themselves until later in life, recent evidence has shown that some diseases previously thought to be diseases of adulthood are becoming more prevalent among youths. For example, a 10-fold increase in type 2 diabetes among youths has occurred in recent years, prompting the 1997 name change

from adult onset diabetes (Ball & McCargar, 2003; Dietz, 1998; Molnar, 2004; Pohl, Greer, & Hasan, 1998). Like brushing your teeth early in life to prevent cavities later in life, engaging in regular physical activity early in life can lead to healthy activity habits later in life, thus reducing the risk of disease and improving the quality of life. Quality physical education has the opportunity to provide nearly all children with regular physical activity (Sallis & McKenzie, 1991), as well as the skills and knowledge to lead physically active lives (Trudeau, Laurencelle, & Shephard, 2004; Trudeau et al., 1998). In addition, quality physical education programs develop positive attitudes towards physical activity among children and facilitate the participation in regular physical activity now and later in life (Trudeau & Shephard, 2005).

Reason 2: Regular Physical Activity Promotes Lifetime Wellness

In the 1940s the World Health Organization declared that health was more than freedom from disease (Corbin & Pangrazi, 2001). Quality of life and a sense of well-being were considered to be equally important to good health. This positive component of good health is now referred to as wellness. In recent years, evidence has accumulated demonstrating that physical activity can promote wellness in adults as well as youths. Self-assessed health-related quality of life is significantly better among people who meet national activity guidelines than among those who do not (Brown et al., 2004), and active people are less likely to be anxious and depressed (Dunn, Trivedi, & O'Neal, 2001; Landers, 1999). Further, active people are less likely to miss work and more likely to be productive at work (Colditz, 1999; Gettman, 1999), are more likely to experience positive moods (Landers,

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1999), are more likely to have better self-esteem (Landers), are more likely to experience more restful sleep (Landers), and are more likely to function effectively in daily life than inactive people (Spirduso & Cronin, 2001).

Among children, positive relationships exist between self-esteem and physical activity and between self-concept and physical activity (Gruber, 1996; Strong et al., 2005). Well-planned activities dedicated to the national physical education standards (NASPE, 2004a, p. 11)—such as helping youths to exhibit “responsible personal and social behavior that respects self and others in physical activity settings” and valuing “physical activity for health, enjoyment, challenge, self-expression and/or social interaction”—have the potential to lead youths to positive wellness outcomes. Criteria for quality physical education include the provision of instruction in a variety of motor skills that are designed to enhance the physical, mental, and social/emotional development of every child, as well as the creation of an environment that supports the inclusion of all students.

Reason 3: Quality Physical Education Can Help Fight Obesity

The high incidence of obesity in our society has been characterized as an “obesity epidemic” by some experts (Lohman, Goings, & Metcalf, 2004; Mokdad et al., 1999). Among the American adult population, 66 percent are overweight and 32 percent are obese. Approximately 19 percent of children and 17 percent of adolescents are overweight, and 37 percent of children and 34 percent of teens are either overweight or at risk of being overweight. There has been a three-fold increase in overweight conditions among children and adolescents over the last two decades (Lohman et al., 2004; Ogden et al., 2006; Troiano, Flegal, Kuczmarski, Campbell, & Johnson, 1995). This is problematic because a higher incidence of disease (see reason 1) and absence of wellness (see reason 2) exists among overweight and obese children. For example, overweight children with central adiposity possess many of the cardiovascular risk factors seen in overweight and obese adults, such as hyperlipidemia, hypertension, and increased fasting insulin levels (Ball & McCargar, 2003; Dietz, 1998; Molnar, 2004; Pohl et al., 1998). As noted earlier, there has also been an increase in type 2 diabetes among youths (Reilly et al., 2003), especially among those who are overweight.

The problems of overweight and obesity among youths extend beyond the clinical and cosmetic. Overweight children are more likely to experience psychosocial and psychiatric problems than non-obese children (Langenberg, Hardy, Kuh, Brunner, & Wadsworth, 2003; Sargent & Blanchflower, 1994) and more likely to report a poorer physical quality of life compared to non-obese children and to experience adverse effects on their social and economic outcomes later in life

(Land, 2005). Childhood obesity has limited the improvement of childhood well-being over the past 30 years. A recent report (Land, 2005) suggests that childhood obesity has offset gains in youth well-being accrued through lower drug, alcohol, and tobacco use. Also, children who are overweight are more likely to be overweight and obese as adults (Centers for Disease Control and Prevention [CDC], 2005).

One probable cause of childhood overweight and obesity is decreased daily energy expenditure (Shephard, 2005). While there is no available, objective, physical activity data demonstrating that today’s children are less active than previous generations, inactivity among children has likely increased because of factors such as reliance on cars for transportation, increased screen time (e.g., television, videogames, Internet), and the constraints of the built environment (e.g., urban sprawl, lack of recreational facilities, neighborhood safety). Without education and intervention, the prevalence of overweight and obese adults will probably increase as a larger percentage of overweight youths and those at risk for overweight move into adulthood. Physical education has been identified as an excellent place to start these efforts because it reaches nearly all children (CDC, 2005; Pate et al., 1987; Sallis & McKenzie, 1991). Physical education in schools guarantees that children have opportunities to be active during the school day. Quality physical education goes beyond providing activity opportunities and promises to provide children with opportunities to learn through meaningful and appropriate instruction.

Reason 4: Quality Physical Education Can Help Promote Lifelong Physical Fitness

Physical fitness, as it relates to good health, has been categorized into five components (cardiovascular fitness, strength, muscular endurance, flexibility, and body composition) since the 1980s (Corbin & Pangrazi, 2000). “Health-related fitness” is the descriptor commonly used by health professionals (including physical educators). A strong body of evidence indicates that low cardiovascular fitness is related to higher risk of chronic disease and that high cardiovascular fitness has a protective effect for heart disease, high blood pressure, stroke, high blood lipid levels, diabetes and some forms of cancer (U.K. Department of Health, 2004; USDHHS, 1996). Strength and muscular endurance are associated with lower risk of osteoporosis and higher functional capacity (USDHHS, 1996, 2004). Youth fitness test batteries now have health-related standards for youths (AAHPERD, 1980; Meredith & Welk, 2003). Data on which the health-related standards were based, and more recent data from California (California Department of Education [CDE], 2003), indicate that a majority of youths meet minimum health standards for each of the individual fitness test items. However, not nearly as many

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youths meet the minimum standard for *all* health-related fitness test items. Accordingly many youths have need for improvement in one or more areas of fitness. Though many factors other than physical activity (e.g., heredity, maturation, age, sex) contribute to physical fitness among youths (Bouchard, 1993; Corbin & Pangrazi, 1992), physical activity, when performed regularly and correctly, can help most youths meet minimum health standards.

Low fitness predisposes both youths and adults to health problems, and low fitness is associated with increased risk of obesity among youths (Kim et al., 2005). More important, those youths who are low in fitness when they are young are more likely to be low in fitness as adults. Tracking studies (i.e., longitudinal studies) on children provide strong evidence that low fit, inactive, and overweight children become low fit, inactive, overweight adults (CDC, 2005; Kelder, Perry, Klepp, & Lytle, 1994; Magarey, Daniels, Boulton, & Cockington, 2003; Pate et al., 1999; Twisk, Kemper, van Mechelen, & Post, 1997). Consequently, “untracking” low fitness, inactivity, and obesity has become a major challenge for public health professionals and quality physical educators (Corbin, 2001). Physical education is an excellent place to provide enjoyable, developmentally appropriate, health-enhancing doses of physical activity to children.

Reason 5: Quality Physical Education Provides Unique Opportunities for Activity

As outlined in the previous four reasons, physical activity is a common denominator for health. The scientific evidence for providing youths with physical activity for healthy growth and development is unequivocal (Fletcher et al., 1992; Pate et al., 1995; USDHHS, 1996). Physical activity helps reduce the risk of disease, promotes wellness, contributes to energy balance and maintenance of healthy body composition, and promotes fitness development. Most adults fail to meet the standards for minimum physical activity (i.e., 30 minutes of moderate activity on most if not all days of the week) established by the Surgeon General, and approximately one-third of adults report no regular physical activity (CDC, 2003; USDHHS, 1996). Activity standards for teens (Sallis Patrick, & Long, 1994) suggest 30 minutes of moderate activity daily, vigorous activity at least three days a week, and bouts of muscle fitness and flexibility exercises several days a week. Many more teens are active than adults, but as teens move through school their activity levels decline (Corbin, Pangrazi, & Le Masurier, 2004; Le Masurier et al., 2005; Trost et al., 2002). For example, ninth-grade teens are much more likely to be active than 12th-grade teens. Providing physical education at all grade levels could reduce this decline in physical activity and may even prompt relatively inactive adolescents to maintain participation in physical activity as

they transition into adulthood.

Activity standards for children (5-12) were first developed in 1998 (NASPE, 1998) and were revised in 2004 (NASPE, 2004b). The current guidelines call for 60 minutes to several hours a day of intermittent activity, with several bouts of 15 minutes of more each day. A variety of activities are encouraged, and periods of inactivity lasting two or more hours are discouraged. Recently the CDC approved a similar set of activity standards for youths (Strong et al., 2005), and the American Heart Association (2005) has prepared standards for physical activity for youths as well. Evidence suggests that children are more active than adolescents and adults. Still, as outlined in an earlier section, many factors reduce opportunities for youths, and many children are at risk of failing to meet activity standards.

In recent years, physical education and recess have been reduced in many schools, resulting in long periods of inactivity during the school day. Without opportunities for physical activity in school, many children will fail to meet minimal activity requirements. Physical education provides youths with meaningful amounts of daily physical activity (Fairclough & Stratton, 2005; Flohr & Todd, 2003; Tudor-Locke, Lee, Morgan, Beighle, & Pangrazi, 2004), and youths spend more time in moderate-to-vigorous physical activity when physical education is taught by physical education specialists (McKenzie et al., 1996; McKenzie, Sallis, Kolody, & Faucette, 1997; McKenzie et al., 2004; Sallis et al., 1997). Further, research suggests that youths who are active in physical education are more likely to be active in non-school settings (Dale, Corbin, & Dale, 2000). The combined evidence suggests that expanded enrollment of students in physical education, taught by physical education specialists, will increase the physical activity levels of American youths.

Reason 6: Quality Physical Education Teaches Self-Management and Motor Skills

The goals of English and mathematics are to provide students with necessary skills they will apply in the “real world.” Quality physical education provides students with many real-world skills in addition to providing regular physical activity in the school day. Among the most important of these skills are self-management skills that help youths adopt healthy living practices and manage their day-to-day activities. Self-management skills are an especially important part of a quality secondary physical education. As youths make the transition to adulthood, they require skills that will aid them in making self-assessments, planning personal programs, setting goals, keeping physical activity diaries or logs (self-monitoring), making decisions, and solving problems. Self-assessment skills include the skills necessary to self-assess health-related fitness and their levels of regular physical

Taking time from physical education does *not* result in more learning in other areas.



activity. Self-assessment skills need to be experienced and practiced. Planning personalized physical-activity programs, setting goals, and logging physical activity need to be practiced if they are going to be used. Problem-solving skills that help students to overcome barriers to being physically active and help them become knowledgeable consumers are positive outcomes of a quality physical education program. Programs that have provided these skills to adolescents have reduced the prevalence of sedentary behavior among adolescent girls in the short term (Dale, Corbin, & Cuddihy, 1998) and have reduced sedentary behavior long after graduation from high school (Dale & Corbin, 2000) compared to traditional physical education programs.

Another important goal of quality physical education is to provide students with motor skills (NASPE, 2004a) that will enable students to participate in a variety of physical activities now and for a lifetime. Youths are more likely to choose to participate in physical activities if they have skills that enable them to participate (Sherwood & Jeffery, 2000). Research has demonstrated that fundamental movement skills (e.g., running, jumping, throwing, catching) are associated with higher levels of physical activity in young children (Fisher et al., 2005) and adolescents (Okely, Booth, & Patterson, 2001). Physical educators who incorporate the key components of quality physical education (i.e., learning opportunities, meaningful instruction, and appropriate instruction) increase the chances for all students to develop motor skills that facilitate increased physical activity participation.

Reason 7: Physical Activity and Physical Education Promote Learning

The principal reasons for the reductions in physical education programs over the past 20 years include scarcity of resources and lack of time. When budget constraints become problematic in schools, physical education programs (and physical education teachers) are often among the first to go. With recent efforts to improve scores on “high stakes” testing in areas such as reading, English, math, and science, competition for time during the school day has become intense. Again, time for physical education is often reduced based on the notion that youths will do better on “academic” tests if time is diverted from physical education and recess to other areas. However, research does not support this contention.

Taking time from physical education does *not* result in more learning in other areas, but it does detract from accomplishing important physical education goals (including the academics of physical education) outlined in this article. Trudeau et al (1998) and Trudeau and Shephard (2005) have demonstrated that quality physical education produces important physical education benefits (e.g., increased activity and fitness) while having no ill effect on “academic” learning. Research also indicates that increased time spent in physical

education either enhances “academic” performance (Sallis et al., 1999; Shephard, Lavalley, Volle, LaBarre, & Beaucage, 1994, 1997) or has no effect on “academic” performance (Dwyer, Coonan, Leitch, Hetzel, & Baghurst, 1983; Sallis et al., 1999). In addition, research has demonstrated that even short bouts of physical activity (e.g., 30-minute physical education periods) can affect cognitive functioning in children (McNaughten & Gabbard, 1993) and bouts of 20 minutes in college students increased cognitive performance (Sibley, Etnier, Pangrazi, & Le Masurier, in press). Longer bouts of 50 minutes during the school day led to significant improvements in math performance (Gabbard & Barton, 1979). Essentially, all studies examining physical education, physical activity, and cognitive performance have shown either a positive or neutral effect (Dwyer, Sallis, Blizzard, Lazarus, & Dean, 2001; Field, Diego, & Sanders, 2001; Pate, Baranowski, Dowda, & Trost, 1996; Sibley & Etnier, 2003). Even neutral effects document that taking time for physical education does *not* diminish academic learning in other areas such as math, reading, and science.

In a recent large-scale study looking at the relationship between physical fitness and academic achievement (i.e., performance on standardized academic tests) in California, it was found that higher achievement on standardized tests was associated with higher levels of physical fitness (CDE, 2003). Results indicated a consistent positive relationship between overall fitness and academic achievement (Grissom, 2005). The relationship between fitness and achievement appeared to be stronger for females than males and stronger for higher socioeconomic status (SES) than lower SES students. Again, the results should be interpreted with caution. It cannot be inferred from these data that physical fitness causes academic achievement to improve. Taken together, the research examining physical activity, physical fitness, and academic achievement suggest that physical education can benefit America’s youths.

Reason 8: Regular Physical Activity Participation Makes Economic Sense

In the ten years from 1990 to 2000, there was a 29 percent decrease in the number of schools requiring high school physical education (Grunbaum et al., 2004; Grunbaum et al., 2002). While many public school educators struggle with large class sizes, insufficient equipment, and limited facilities, physical educators endure the additional stress of having to continually defend the importance of their program and fight for its survival. As noted in the previous section, one major reason for cutting physical education in recent years is budget constraints. The evidence suggests that cutting physical education to save money is shortsighted. In fact, over the long haul, cutting physical education can be quite costly.

Two large-scale surveys indicate that a great majority of parents support the need for physical education in the schools.

What is the evidence? Tobacco is the cause of most lung cancer and many other chronic diseases. However, public health officials indicate that physical inactivity and poor nutrition are the second leading cause of “actual death” in our society (Flegal, Williamson, Pamuk, & Rosenberg, 2004; Flegal, Graubard, Williamson, & Gail, 2005; Mokdad, Marks, Stroup, & Gerberding, 2004). Actual causes of death (inactivity and poor nutrition) are the factors that lead to chronic diseases that are listed on death certificates. Inactivity and poor nutrition are the actual cause of many chronic diseases such as those discussed in earlier sections of this paper. Obviously physical inactivity and poor nutrition are principal contributors to the obesity epidemic, and the costs of obesity are also high (Chenoweth & Leutzinger, 2006). The most recent estimate of the direct and indirect annual cost of sedentary living was \$150 billion (Pratt, Macera, & Wang, 2000), a figure that has no doubt increased. There is little doubt that, in the years ahead, health care costs (e.g., medical care, worker’s compensation, increased health premiums, lost employee productivity) will increase if we do not do something to reduce sedentary living and other unhealthy lifestyles (Booth & Chakravarthy, 2002).

In attempting to “Leave No Child Behind” in selected academic areas, we leave many children and future adults behind by failing to educate them about healthy lifestyles including physical activity. Cutting physical education can lead to enormous costs for our nation, and the costs will do nothing but increase if we do not help people to adjust their lifestyles in the future. We are all familiar with the saying, “An ounce of prevention is worth a pound of cure.” Physical education is one method of disease prevention.

Reason 9: Physical Education Is Widely Endorsed

Given the fact that physical education programs are sometimes cut because of economic reasons, one might think that public support for physical education is weak. In fact, support from parents, professional groups, and some government departments is quite strong. Our national health goals reflect the priority given to physical activity promotion for youths and the need for quality physical education in the schools. Health goals for the year 2010 (USDHHS, 2000a) include: (1) increasing the proportion of the nation’s public and private schools that require daily physical education for all students, (2) increasing the proportion of adolescents who participate in daily school physical education, and (3) increasing the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active. Moreover, the American Academy of Pediatrics (2000), NASPE (2004a, 2004b), the American Heart Association (2005), the U.S. Department of Health and Human Services, the U.S.

Department of Education, the President’s Council on Physical Fitness and Sports (USDHHS, 2000b), and the CDC (1997) are all on record as supporting the need for physical activity for youths and for quality physical education in the schools. A recent statement supporting physical activity and physical education for youths is endorsed by more than 20 different professional, governmental, and private foundation groups, including the American College of Sports Medicine, the American Cancer Society, the American Academy of Kinesiology and Physical Education, and the President’s Council on Physical Fitness and Sports (Strong et al., 2005).

Perhaps more important, two large-scale surveys indicate that a great majority of parents support the need for physical education in the schools. A survey report from the Harvard Health Forum (Harvard School of Public Health, 2003) indicated that 91 percent of parents feel that there should be more physical education in schools, particularly for fighting obesity. In addition, a survey by NASPE (2003) found the following:

- “Nearly all parents (95%) think regular daily physical activity helps children do better academically” (p. 3).
- “The vast majority...(95%) think physical education should be part of a school curriculum for all students in grades K-12” (p. 3).
- “Three in four parents (76%) think more school physical education could help control or prevent childhood obesity” (p. 4).
- The majority of parents believe physical education is “at least as important as” other academic subjects. The percentages range from 54 percent to 84 percent, depending on the subject being compared (p. 4).

Clearly support for physical activity and physical education for young people is strong among parents and professionals. In order to continue to garner support from the community, physical educators must provide quality physical education.

Reason 10: Quality Physical Education Helps to Educate the Total Child

Empty heads devoid of bodies do not come to school to be filled. Nor is school a place where we build bodies at the expense of the head. A central tenant of a sound educational philosophy is to educate the whole child. The famous quote, *mens sana in corpore sana*, attributed to an early Roman poet, is often translated from Latin as “a sound mind in a sound body.” A more literal translation suggests that the phrase means, “to pray for a healthy mind in a healthy body.” However translated, most educators agree with the sentiment of the quote and support the notion that educating the total person is a worthy primary goal. President John F. Kennedy summarized the need to develop the total person when he said,

The relationship between the soundness of the body and the activity of the mind is subtle and complex. Much is not yet understood, but we know what the Greeks knew: that intelligence and skill can only function at the peak of their capacity when the body is healthy and strong, and that hardy spirits and tough minds usually inhabit sound bodies. Physical fitness is the basis of all activities in our society; if our bodies grow soft and inactive, if we fail to encourage physical development and prowess, we will undermine our capacity for thought, for work, and for the uses of those skills vital to an expanding and complex America. (Kennedy, 1960, p. 15)

Physical education is the only subject in school in which children have the opportunity to learn the motor skills and acquire the knowledge to participate in a variety of physical activities (Sallis & McKenzie, 1991). It is the only subject in which physical activity is a primary means of accomplishing educational objectives. Additionally, quality physical education is unique in providing adolescents with self-management skills to become independently physically active as adults. Physical education is critical to the education of the total person and requires a quality program taught by physical education specialists.

Concluding Comments

Ask a parent what is important. Perhaps more than anything, they would wish for good health for their children and their loved ones. This is no doubt one reason why support for physical education is so strong. However, this support is not always reflected when critical decisions about children's education are made. Physical education programs, like many other programs (e.g., music, art), face increased scrutiny and the potential for elimination when budgets are tight. In order to survive, physical educators must accept the responsibility of promoting their quality physical education programs to children, parents, colleagues, administrators, and the general public.

The accumulated evidence presented in this article can serve as a resource for helping physical educators make a stronger case for the importance of quality physical education. It is important for all physical education professionals and researchers to help public and school policy decision-makers to become aware of the facts presented in this article. Finally, professionals and researchers must work together to establish physical education as a "first class" profession in the 21st century.

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resonate throughout their lives. A major factor associated with a positive service-learning experience is the student's degree of interest in the subject matter. This allows the student to view education as a learn-

ing experience, rather than as just the memorization of rote knowledge (Astin, Vogelgesang, Ikeda, & Yee, 2000).

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Editorial

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the triad to hide in the shadow of popular obesity issues. It is important for those working with

young females, including parents, physical educators, and coaches, to be trained about energy needs during intense workouts and to understand the nutritional requirements for normal growth and development during adolescence (Golden, 2002). It also is important that physical education teachers and coaches deemphasize the association between a lean body shape and performance and focus on educating females about sound nutritional principles for enhancing overall health (Beals, 2000). Similarly, it is important to teach females to work towards enhancing personal health and well-being (e.g., stress management, making good food choices, eating regular meals and healthy snacks) instead of focusing on an arbitrary weight goal set by the sport, a coach, parent, or friend (Manore, 2002). Females can tell if they are making progress by measuring positive changes in their energy levels and performance, noting a decrease in injuries and illnesses, the return of normal menstruation, and general well-being (Manore). Overall, it is essential to ensure that young, active females consume a healthy diet and maintain the energy needed in order to maintain a regular menstrual cycle for optimal health and performance.

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