Executive Summary

Background: The Current Shape of the Nation and Why We Need Physical Education in Schools

The National Association for Sport and Physical Education (NASPE) believes that every child in the United States deserves a quality physical education and needs physical activity, whether that activity occurs within a formal program or is outside the classroom at recess, through intramurals or in recreational play.

Physical education is based on a sequence of learning. These formalized courses are taught by professionals and focus on the skills and knowledge needed to establish and sustain an active lifestyle. Physical education classes focus on physical activity—running, dancing and other movement but physical education also includes health, nutrition, social responsibility, and the value of fitness throughout one's life.

Why is this so important? The U.S. Department of Health and Human Services (HHS) has noted a direct correlation between regular physical activity and health among children and adolescents. For example, kids who are physically active have vigorous cardiopulmonary and respiratory systems: strong hearts and lungs. They have less body fat. And they have strong bones and muscles. All these factors, according to HHS not only make for a healthy childhood, they increase the chance of a healthy adulthood. Risk factors for chronic diseases such as heart disease, high blood pressure, type 2 diabetes, and osteoporosis can develop early in life, and regular physical activity can be a significant preventative measure.¹

Most health organizations, including NASPE, suggest that "regular physical activity" add up to about an hour per day, every day. If this sounds like a lot, remember that the activity is cumulative: a child does not need to be active for an hour straight, nor does he or she have to engage in many of the activities that adults consider to be exercise. In fact, kids should engage in activities appropriate for their age.¹ For example, unstructured play during recess or in the backyard counts toward that 60-minute total. Why? Running around wildly is both aerobic and bone-strengthening. Climbing a tree or navigating playground equipment such as monkey bars increases muscle strength by lifting and moving a child's own body weight or working against resistance.¹

Also, children tend to be active intermittently, alternating moderate or vigorous activity with brief periods of rest. They run around for awhile, then slow down a bit. This is true even as children grow into adolescents. Older kids can play more organized games, including sports, and thus sustain longer periods of activity. Regardless, say HHS guidelines, "No period of moderate- or vigorousintensity activity is too short to count" toward the recommended daily activity.¹

The reality, of course, is that children and adolescents in the United States are primarily sedentary. Most kids under age 18 spend the majority of their day sitting in classrooms, and a big part of their free time outside of school watching television, playing video games or surfing the Internet. A required physical education period assures that, at a minimum, they'll get at least a portion of the recommended activity in a day.²

But quality physical education goes far beyond that small role. "Physical activity is a behavior," writes one expert, "and physical education is a curricular area that helps students to develop physical and cognitive skills while engaging in physical activity. Providing time for unstructured physical activity is not the same as providing instructional time for meeting the goals of quality physical education."³ More than just getting our kids moving once a day, "meaningful and appropriate instruction"² provides opportunities to learn important life skills.

The most obvious lesson, of course, is the importance of being physically active throughout life. Research shows a real link between quality physical education and present and future physical activity participation.² One possible reason for this link is that youth "choose to par-

Critical Elements of a Quality Physical Education Program

- 1. Physical education is delivered by certified/licensed physical education teachers.
- 2. Adequate time (i.e., 150 minutes per week for elementary school students; 225 minutes per week for middle and high school students) is provided for physical education at every grade, K–12.
- 3. All states develop standards for student learning in physical education reflective of the National Standards for Physical Education.
- 4. All states set minimum standards for student achievement in physical education.
- 5. Successfully meeting minimum standards in physical education is a requirement for high school graduation.

ticipate in physical activities if they have skills that enable them to participate."² Through physical education courses—instruction and specific, constructive feedback from a certified teacher—students learn motor skills such as running, jumping, throwing or catching. If you've been taught the correct way to catch a baseball, throw a basketball through a hoop or perform a dance, you'll be more likely to go out and do them on your own, now and 10 years from now.

If this nurturing environment doesn't sound like the physical education class from your youth, you're probably right. Gone are the days of calisthenics, mindless exercise and contests that favored the most athletic kids. The focus has shifted to a more equitable curriculum that stresses "performance and personal challenges, high levels of fitness that support good health and exposure to a variety of sport and fitness activities."³

"The new message that schools are giving kids about exercise is simple," says one article. "Physical activity comes in many forms, and there is something for everyone. Physical activity must be a regular part of everyday life, as commonplace and important for good health as brushing one's teeth. Quality physical education and health education programs provide the foundation for healthy, active lifestyles that support all learning and help ensure success in future pursuits."³

This more balanced approach not only makes physical education class a better experience for the less athletic student, it dramatically expands the skills that each participant gains: social, cooperative and problem-solving competencies⁴ and hands-on experience in making selfassessments, planning personal programs, setting goals, self-monitoring (through keeping physical activity diaries or logs), and making decisions.²

Finally, the benefits of physical education extend outside the gym or playing field and across a student's entire education experience. Research shows that daily physical education has a positive correlation with academic performance and attitude toward school.^{4.5} This may be simply because physically fit students have better school attendance records and fewer disciplinary referrals.⁶ But recent research indicates that physical activity might impact academic performance "through a variety of direct and indirect physiological, cognitive, emotional and learning mechanisms"⁵ that we have yet to fully understand.

The conclusion, however, is clear: quality physical education is an essential element in the formative growth of children and adolescents. At a minimum, it assures some degree of regular physical activity for most school-aged students. At its best, however, it creates a framework of life skills which shape the whole person, encouraging smart choices and influencing a healthy lifestyle. Physical education is, in short, the best hope for the shape of our nation.

Metrics

Key Guidelines for Children and Adolescents

U.S. Department of Health and Human Services Physical Activity Guidelines for Americans¹

- Children and adolescents should engage in 60 minutes (1 hour) or more of physical activity daily.
 - Aerobic: Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorousintensity physical activity at least 3 days a week.
 - Muscle-strengthening: As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity at least 3 days of the week.
 - Bone-strengthening: As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity at least 3 days of the week.
- It is important to encourage young people to participate in physical activities that are appropriate for their age, that are enjoyable and that offer variety.

In support of these guidelines, NASPE recommends that schools provide 150 minutes per week of instructional physical education for elementary school children, and 225 minutes per week for middle and high school students throughout the school year.

Physical Activity Participation by Young People

- In one study, 65% of high school students did not meet recommended levels of physical activity—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 5 or more of the previous 7 days.⁷
- 35% of high school students watch television 3 or more hours per day on an average school day.⁷
- 25% play video or computer games or use a computer for something that is not school work for 3 or more hours per day on an average school day.⁷
- Nationwide, fewer than one-third of all children ages 6 to 17 engage in vigorous activity, defined as participating in physical activity for at least 20 minutes that made the child sweat and breathe hard.⁸
- 48.4% of schools offer intramural activities or physical activity clubs to students, and 77.0% of middle schools and 91.3% of high schools offer students opportunities to participate in at least one interscholastic sport.⁸

Public Support for Physical Education

- The American Academy of Pediatrics, NASPE, the American Heart Association, the U.S. Department of Health and Human Services, the U.S. Department of Education, the President's Council on Physical Fitness and Sport and the Centers for Disease Control and Prevention (CDC) all are on record as supporting the need for physical activity for youth and for quality physical education in schools.²
- 31% of physical education teachers perceive increased interest and support from parents regarding students' physical activity; and 27% perceive increased interest/support from parents regarding students' physical education.⁹
- According to one survey, nearly all parents (95%) think that regular daily physical activity helps children do better academically and should be part of a school curriculum for all students in grades K-12.¹⁰
- Three out of four parents (76%) think that more school physical education could help control or prevent childhood obesity.¹⁰
- The majority of parents believe that physical education is at least as important as other academic subjects. The percentages range from 54% to 84%, depending on the subject being compared.¹⁰

Positive Physical Education Pledge (naspe, 2004)

As a highly qualified physical education teacher, I pledge to:

- Establish a positive, safe learning environment for all students;
- Teach a variety of physical activities that make physical education class fun and enjoyable;
- Create maximum opportunities for students of all abilities to be successful;
- Promote student honesty, integrity and good sportsmanship;
- Guide students toward becoming skillful and confident movers;
- Facilitate the development and maintenance of physical fitness;
- Assist students in setting and achieving personal goals;
- Provide specific, constructive feedback to help students master motor skills;
- Afford opportunities for students to succeed in cooperative and competitive situations; and
- Prepare and encourage students to practice skills and be active for a lifetime.
- A survey report from the Harvard Health Forum indicates that 91% of parents surveyed feel that there should be more physical education in schools, particularly for fighting obesity.¹¹

Overweight Among Youths

- Among children ages 6-11, 33% are overweight and 17% are obese.¹²
- 34% of adolescents and teens ages 12-19 are overweight and 17.6% are obese. These rates have roughly doubled since 1980.¹²
- Eight of the 10 states with the highest rates of obese and overweight children are in the South, as are nine of the 10 states with the highest rates of poverty.⁸

Physical Fitness and Academic Performance

 A 2004 California Department of Education study, using data from a standardized health-related fitness testing protocol and the California Standards Tests, showed a significant positive relationship between physical fitness and academic achievement.¹⁴

- A 2007-08 study of more than 2.4 million Texas students found that students who were physically fit were more likely to do well on the state's standardized tests than students who were not physically fit.⁶
- In 2009, the New York City Health Department and Department of Education reported that physical fitness was associated with higher academic achievement among their public school students.⁶
- A 2010 CDC report analyzes a large body of evidence linking physical education and school-based physical activity with academic performance, including cognitive skills and attitudes, academic behaviors and academic achievement.¹⁶

Expenditures on Physical Education ...

- The median physical education budget for schools in the United States is only \$764 per school year (\$460 for elementary, \$900 for middle, and \$1,370 for high schools), and 61% of physical education teachers report an annual budget of under \$1,000. Only 15% report funding of \$2,000 or more.⁹
- "School budget" is the most-cited source for program funding (64%), followed by school district budget (38%), PTA/PTO (34%), and grant programs (28%).⁹

... and the Cost of Doing Without It

It is estimated that obesity will cost the United States \$344 billion in medical-related expenses by 2018, about 21% of the nation's health-care spending.¹⁵

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Overview of 2010 Survey Results

This 2010 survey of physical education coordinators in all 50 state education agencies and the District of Columbia (counted as a "state" for the purpose of this report) finds an incremental—but slight—improvement since the *2006 Shape of the Nation* survey. The majority of states mandate physical education throughout all grade levels, but most do not require a specific amount of instructional time, and about half allow exemptions, waivers, and/or substitutions. These "loopholes" continue to reduce the effectiveness of the mandate.

Another pattern with differential impact on physical education is local control of education. Some states establish standards or very broad guidelines for curriculum content but defer specific decisions regarding time, class size and student assessment to local school districts or even schools. This results in very diverse patterns of delivery for physical education within states.

Other results, including accountability, testing, assessment and even teacher certification, vary widely among the states. Thus, most states can measure their progress only against their own past performance and not against a standard benchmark.

Grade-Level Mandates and Time Requirements

The majority of states mandate that students must take physical education. Just more than 84% of states (43) mandate physical education for elementary school students, 78% of states (40) mandate it for middle/junior high school students and 90% (46) mandate it for high school students.

Of those states that mandate physical education for elementary school students, 86% (36) require classes in kindergarten, 93% (39) require physical education in grades 1 through 5, and 71% require physical education in grade 6. This discrepancy for grade 6 is due to many schools' structuring elementary as grades K-5, with grade 6 as part of middle school or junior high. At the elementary school level, only 35% (18) specify a minimum "minutes per week" or "minutes per day" that students must participate in physical education; three states— Alabama, Florida and Louisiana—require the nationally recommended 150+ minutes per week. Additionally, only 18% of states (9) require elementary schools to provide daily recess.

Of those states that mandate physical education for middle/junior high school students, 61% (31) require it in 7th grade, and 59% require it in 8th grade. At the middle/junior high school level, only 31% (16) specify a minimum "minutes per week" or "minutes per day" that students must participate in physical education; three states—Alabama, Montana and Utah—require the nationally recommended 225+ minutes per week.

State mandates for physical education for high school students tend to specify a number of credits rather than specific grade levels required to take physical education courses. Of the 45 states requiring high school physical education, nearly 75% (38) dictate a specific number of credits required for graduation: 12 states require 0.5 credit, 15 states require 1 credit, three state require 1.5 credits and seven states require 2 credits. New Jersey has the highest credit requirements, with 3.75 credits per year of attendance, equal to 15 credits for a traditional four-year program. Nine states also require a health or

wellness course (usually 0.5 credit) to graduate.

Only five states in the country—Illinois, Iowa, Massachusetts, New Mexico and Vermont—require physical education in every grade K-12. New Jersey and Rhode Island require physical education in grades 1-12.

Mandate for physical education	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006	
Elementary	43	84%	36	70%	
Junior High	40	76%	33	65%	
High School	46	90%	42	83%	
All averages and percentages in this summary section count the					

All averages and percentages in this summary section count the District of Columbia as a "state," for a total of 51 (not 50) states

Exemptions/Waivers and Substitutions

More than half of all states (32) permit school districts or schools to allow students to substitute other activities for their required physical education credit. Among those states, common allowances include JROTC (18), interscholastic sports (15), marching band (10) and cheerleading (10).

More than half of all states (30) allow schools or school districts to grant exemptions/waivers for physical education time or credit requirements, although they are not necessarily the same states that allow substitutions. Common reasons for exemptions include health issues, physical disability, religious beliefs and early graduation. Of the states allowing exemptions or waivers, all but five leave the reasons for, and granting of, waivers to the local school or school district.

	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006
Substitutions	32	63%	27	53%
Waivers	30	59%	18	35%

Standards and Assessment

Forty-eight states (92%) have their own state standards for physical education, but only 67% (34 states) require local districts to comply or align with these standards. The six national standards for physical education are usually addressed within these state standards: 98% (46 states) address development of motor/movement skills, knowledge and application of movement concepts, and personal/social responsibility; 94% (44) address regular participation in physical activity and development and maintenance of physical fitness; and 85% (40 states) address valuing physical activity.

Only 37% of states (19) require some form of student assessment in physical education. Among the states that do require assessment, 74% (14) require assessment of physical fitness, 37% (7) require assessment of knowledge of physical education content, 26% (5) require assessment of participation in physical activity outside of physical education class, and 32% (6) require assessment of personal/social responsibility in physical education.

Just 10% (5 states) send this assessment information to the state department of education as congregate data for each school, and only 8% (4 states) note that these data are sent from the schools to the students' parents or guardians.

Five states—New Hampshire, New Mexico, New York, Vermont and Virginia—require assessment in every grade.

	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006
Assessments	19	37%	15	29%

Online Physical Education

Currently, 43% of states (22) allow required physical education credits to be earned through online physical education courses. Of these 22 states, 27% (6) offer comprehensive physical education, defined as addressing all state or national standards; 41% (9) offer a course in personal fitness and wellness; 14% (3) offer some type of sports, such as golf; and 18% (4) offer weight training online.

Seven states allow all students to take the courses, and three states allow students who request permission and are approved. All others leave eligibility decisions to the local districts. Only 20% (10 states) require that online courses be taught only by state-certified physical education teachers.

	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006
State allows online physica education	22 al	43%	12	24%

Accountability

Down slightly from 2006, just 27% of states (14) require physical education grades to be included in a student's grade point average (GPA). Eighteen states have a required comprehensive assessment test for graduation, but only five include physical education achievement in the test. The majority of states (78%, or 40) have an education "report card" for each school; only five states include physical education as one of the academic areas on the annual report from schools to the state.

	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006
PE grades included in GPA	14	27%	22	43%
Comprehensiv test for graduation	/e 18	35%	16	31%
PE included in this test	5	10%	0	0%
Education report card for school	41	80%	45	89%
PE included in this school report card	5	10%	3	6%

Body Mass Index (BMI) Collection

Thirteen states (25%) require schools to measure BMI and/or height and weight for each student. New Jersey and Pennsylvania are the only two that require this collection in every grade, 1-12.

Two states require that aggregate BMI data be sent to them from each school; four states require that data be sent from each school district. Five states require that individual student results are sent to students' parents, and one state reports using the data in a research study.

	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006
BMI collected	13	25%	3	5%

Teacher Certification/Licensure

The majority of states require that physical education teachers have some sort of licensure or certification. Eighty-two percent (42 states) require licensure at the elementary school level, although 57% of states (29) allow elementary classroom teachers (generalists) to teach required elementary school physical education classes. Certification or licensure of junior high physical education teachers is mandated in 90% of states (46), and certification or licensure of high school physical education teachers is mandated in 98% of states (50).

Thirty-six states (71%) require those who desire to teach physical education to take and pass a certificate/licensure exam [in 26 states, this is the PRAX-IS or PRAXIS II exam]. This exam is also required to renew or maintain the teacher certification/licensure.

Most states (90% or 46 states) have a requirement for professional development/continuing education hours/credits for a physical education teacher to maintain or renew his or her certification. More than a third (37%, or 19) require professional development for physical education teachers on physical education topics, comparable to other curricular areas. However, only 12% (6) provide any funding for professional development specifically for physical education teachers.

Twenty-nine states (57%) grant temporary/emergency certificates to teach middle/junior high school, and 28 (55%) grant temporary/emergency certificates to teach high school physical education; 26 states (51%) do so for elementary school physical education. Of the 25 states that have a minimum requirement for receiving a temporary/emergency certificate, eight require a bachelor's degree in teaching (but not in physical education), and 13 require a bachelor's degree in any area. In 15 states, the temporary/emergency certificate is valid for one year; it's valid for two years in four states; and valid for three years in three states.

Temporary Certification	Number of states in 2010	Percentage in 2010	Number of states in 2006	Percentage in 2006
Elementary	26	51%	31	69%
Junior High	29	57%	35	69%
High School	28	55%	35	61%

Sixty-one percent of states (31) actively support physical education teachers going through the certification process by the National Board for Professional Teaching Standards (NBPTS). Twenty-two of those states actively promote National Board Certification and encourage teachers to register, and 9 states provide mentoring for teachers going through the process.

Nine states provide partial funding for the NBC process if the teacher receives board certification; three states provide partial funding regardless of whether the teacher receives certification; and four states provide full funding regardless of whether the teacher receives certification. Six states give a one-time monetary bonus if the teacher receives board certification; seven states provide an ongoing higher level of pay to all teachers who are National Board certified; five provide one or more forms of non-monetary recognition for National Board certified teachers.

Only Missouri, New York and Virginia require each school district to have a licensed physical educator serving as a PE coordinator.

Recommendations for Action

NASPE and AHA know that physically active, healthy kids learn better. School-age youths need at least 60 minutes of moderate-to-vigorous physical activity every day.

To achieve that level of activity, NASPE and AHA recommend that schools across the country make physical education the cornerstone of a comprehensive school physical activity program that also includes health education, elementary school recess, after-school physical activity clubs and intramurals, high school interscholastic athletics, walk/bike-to-school programs, and staff wellness programs. It is particularly important that voluntary programs (i.e., after-school physical activity clubs, intramurals) are designed to attract all students, especially those not interested in traditional athletic programs.

Physical education is a planned instructional program with specific objectives. An essential part of the total cur-riculum, physical education programs increase the physi-cal competence, health-related fitness, self-responsibility and enjoyment of physical activity so that students can establish physical activity as a natural part of everyday life.

For elementary school students, recess provides an opportunity for needed physical activity. Children learn how to make decisions, cooperate, compete constructively, assume leader/follower roles and resolve conflicts by interacting in play. Play is an essential element of children's physical and social development.

NASPE and AHA recommend that schools and communities work together to offer a variety of physical activities as part of before- and after-school child care and recreation programs. Child care providers, recreation staff and coaches need training to provide developmentally appropriate, safe and enjoyable activities.

Parents need to be proactive and effective advocates for quality physical education and school physical activity programs, and communities need to develop and promote the use of safe, well-maintained and close-to-home sidewalks, bike paths, trails and facilities for physical activity and sport participation. Most of all, parents and other adult role models need to set a good example by being active themselves.

In summary, NASPE and AHA recommend:

- 1. Quality physical education is provided to all students as an integral part of K-12 education.
- 2. Physical education is delivered by certified/licensed physical education teachers.
- Adequate time (i.e., 150 minutes per week for elementary school students; 225 minutes per week for middle and high school students) is provided for physical education at every grade, K-12.

- 4. All states develop standards for student learning in physical education reflective of the National Standards.
- 5. All states set minimum standards for student achievement in physical education.
- 6. Successfully meeting minimum standards in physical education is a requirement for high school graduation.
- 7. Other courses and activities that include physical activity should not be substituted for instructional physical education.
- 8. Physical activity is incorporated into the school day, in addition to physical education, through elementary school recess, physical activity breaks, physical activity clubs, special events, etc.
- 9. Parents monitor and support their children's physical education progress and regular participation in physical activity.
- 10. Communities provide and promote the use of safe, well-maintained and close-to-home sidewalks, bike paths, trails and recreation facilities.