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.

Most health organizations, including NASPE, suggest that “regular physical activity” add up to about an hour per day or more, every day. If this sounds like a lot, remember that the physical 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 variety and activities that are fun and appropriate for their age. 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.

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, according to HHS guidelines, no period of moderate- or vigorous intensity activity is too short to count toward the recommended daily activity.

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 sedentary 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 physical activity in a day. 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.” More than just getting our kids moving once a day, “meaningful and appropriate instruction” 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. One possible reason for this link is that youth “choose to par-
participate in physical activities if they have skills that enable them to participate.”3 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.”

“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.”

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 competencies and hands-on experience in making self assessments, planning personal programs, setting goals, self-monitoring (through keeping physical activity diaries or logs) and decision making.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 This may be simply because physically fit students have better school attendance records and fewer disciplinary referrals.5 But recent research indicates that physical activity might impact academic performance “through a variety of direct and indirect physiological, cognitive, emotional and learning mechanisms”6 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 (ages 6-17) should engage in 60 minutes or more of physical activity daily, including aerobic, muscle strengthening and bone strengthening exercises.
- Aerobic: Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous intensity physical activity at least three 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 three 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 three 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.7

**Physical Activity Participation by Young People**

The 2011 Youth Risk Behavior Survey8 indicates:

- 14% of students did not participate in at least 60 minutes of physical activity on any day during the seven days before the survey.
- 71% of students were physically active at least 60 minutes per day on less than seven days during the seven days before the survey.
- 48% of students did not attend physical education classes in an average week when they were in school.
- 69% of students did not attend physical education classes daily when they were in school.
- 32% of students watched television three or more hours per day on an average school day.
- 31% of students used computers three or more hours per day on an average school day.

**Public Support for Physical Education**
- The American Academy of Pediatrics, NASPE, the AHA, the U.S. Department of Health and Human Services (HHS), 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
- Some 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.¹¹
- 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.¹⁶
- 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.¹²

**Overweight Among Youths**
- In 2009-2010, 9.7% of infants and toddlers had a high weight-for-recumbent length.¹³
- In 2009-2010, 16.9% of children and adolescents from two through 19 years of age were obese.¹³
- There was a significant increase in BMI among adolescent males aged 12 through 19 years, but not among any other age group or among females.¹³
- Childhood obesity continues to increase in some countries while in other countries and U.S. demographic groups has apparently plateaued.¹³
- Some have suggested that the prevalence of obesity among children will reach 30% by 2030.¹⁴ However recent data presented herein suggest that the rapid increases in obesity prevalence seen in the 1980s and 1990s have not continued in this decade and may be leveling off.¹³
- During the past 20 years, there has been a dramatic increase in obesity in the United States and rates remain high. In 2010, no state had a prevalence of obesity less than 20%. Thirty-six states had a prevalence of 25% or more; 12 of these states (Alabama, Arkansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Oklahoma, South Carolina, Tennessee, Texas and West Virginia) had a prevalence of 30% or more.¹³

**Physical Fitness and Academic Performance**
- A 2010 CDC report analyzed 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 This report notes:
  - Eleven of 14 studies found one or more positive associations between physical education and indicators of cognitive skills and attitudes, academic behavior and/or academic achievement.
  - Overall, increased time in physical education appears to have a positive relationship, or no relationship, with academic achievement.
  - Increased time in physical education does not appear to have a negative relationship with academic achievement.

**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.
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.10

- "School budget" is the most-cited source for program funding (64%), followed by school district budget (38%), PTA/PTO (34%), and grant programs (28%).10

- It is estimated that obesity will cost the United States $344 billion in medical-related expenses by 2018, about 21% of our nation's health-care spending.17

References (background section)


Overview of 2012 Survey Results

The 2012 survey of physical education coordinators in all 50 state education agencies and the District of Columbia finds areas of both improvement and decline since the 2010 Shape of the Nation survey. The majority of states (74.5%) mandate physical education elementary, middle/high, and high school, but most do not require a specific amount of instructional time and more than 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, assessments and even teacher certification, vary widely among the states. Thus, most states can measure their progress only against their own past performance and not a standard benchmark.

Grade-level Mandates and Time Requirements

The majority of states mandate that students must take physical education of some kind. Physical education is mandated in elementary schools in 84.3% of states (43 of 51 responding to this question). This has not changed from 2010. In middle school/junior high schools 80.4% (41 of 51 that responded to this survey question) require physical education, up from 75.5%. There has been a drop in high schools mandating physical education, with 86.3% of states (44 of 51 states responding to this survey question) mandating PE, compared to 90.2% of states in the 2010 report.

Of those who mandate physical education for elementary school students, 72.3% (34 of 47 respondents) require physical education classes in kindergarten. At the elementary school level, only 31.4% (16 of 51 respondents to this survey question) specify a minimum “minutes per week” or “minutes per day” that students must participate in physical education; three states—New Jersey, Louisiana, and Florida—require the nationally-recommended 150+ minutes per week/30 minutes per day.

Further, only 17.6% (9 of 51 respondents to this question) require elementary schools to provide daily recess.

Forty-one of 51 respondents (80.4%) indicated there is a state mandate that middle schools/junior high schools must provide their students with physical education. At the middle school/junior high school level, only 35.3% (18 of 51 respondents to this question) specify a minimum “minutes per week” or “minutes per day” that students must participate in physical education. Three states—Montana, West Virginia and Utah—require the nationally-recommended 225+ minutes per week/30 minutes per day.

There is a state mandate in 86.3% of states (44 of 51 respondents to this question) that high schools must provide their students with physical education.

<table>
<thead>
<tr>
<th>Mandate for physical education</th>
<th>Number of states in 2012 (51 states responding)</th>
<th>Percentage in 2012</th>
<th>Number of states in 2010 (51 states responding)</th>
<th>Percentage in 2010</th>
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<tbody>
<tr>
<td>Elementary</td>
<td>43</td>
<td>84.3%</td>
<td>43</td>
<td>84.3%</td>
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<tr>
<td>Junior High</td>
<td>41</td>
<td>80.4%</td>
<td>40</td>
<td>78.4%</td>
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<tr>
<td>High School</td>
<td>44</td>
<td>86.3%</td>
<td>46</td>
<td>90.2%</td>
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Required minutes per week for elementary students (based on 16 survey respondents)

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<td>0-29 minutes</td>
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<td>30-59 minutes</td>
<td>4 (25.0% of responses)</td>
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<tr>
<td>60-89 minutes</td>
<td>3 (18.8% of responses)</td>
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<tr>
<td>90-119 minutes</td>
<td>5 (31.3% of responses)</td>
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<td>120-149 minutes</td>
<td>1 (6.3% of responses)</td>
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<tr>
<td>150 minutes or more</td>
<td>3 (18.8% of responses)</td>
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Required minutes per week for middle school/junior high school students (based on 14 survey respondents)

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<td>0-44 minutes</td>
<td>1 (7.1% of responses)</td>
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<td>45-89 minutes</td>
<td>4 (28.6% of responses)</td>
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<td>90-134 minutes</td>
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<td>180-224 minutes</td>
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<td>225 minutes or more</td>
<td>3 (21.4% of responses)</td>
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Required minutes per week for high school students (based on 10 survey respondents)

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<td>0-44 minutes</td>
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<td>45-89 minutes</td>
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<td>180-224 minutes</td>
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<td>225 minutes or more</td>
<td>3 (30% of responses)</td>
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Withholding physical activity, including recess, is prohibited in 11 of 51 states (21.6%) that responded to the survey. Additionally, 11 of 51 reporting states indicate that the state prohibits the use of physical activity as punishment for inappropriate behavior.

**Substitutions and Exemptions/Waivers**

More than half of all states (33 of 51 respondents) permit school districts or schools to substitute other activities for their required physical education credit. Among those states, common allowances include Junior Reserve Officer Training Corps (JROTC) (18), interscholastic sports (18), marching band (13), cheerleading (11), and community sports (4).

More than half of all states (28 of 51 survey respondents) allow schools or school districts to grant exemptions/waivers for physical education time or credit requirements—though these are not necessarily the same states that allow substitutions. Common reasons for exemptions include health, physical disability, religious beliefs or early graduation. Of the states allowing exemptions or waivers, all but six states leave the reasons for, and granting of, waivers to the local school or school district.

**Standards and Assessment**

Fifty of 51 survey respondents (98.0%) have adopted their own state standards for physical education, but only 76.0% (35 states of 46 survey respondents) require local districts to comply or align with these standards.

The six national standards for physical education are usually addressed within these state standards:

- 100% (46 survey respondents) address standard 1: development of motor/movement skills, standard 2: knowledge and application of movement concepts, standard 4: development and maintenance of physical activity, and standard 5: personal/social responsibility.
- 95.7% (44 of 46 respondents) address standard 3: regular participation in physical activity and standard 6: valuing physical activity.

Of 51 states responding, 37.3% (19) require some form of student assessment in physical education.

Among the states responding that they require assessment, 73.7% (14) require assessment of physical fitness, 52.6% (10) require assessment of knowledge of physical education content, 47.4% (9) require performance of motor/movement skills and personal and social responsibility in physical education, 42.1% (8) require assessment of participation in physical activity outside PE class, and 36.8% (7) assess valuing physical activity.

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<th>Number of states in 2012</th>
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<tr>
<td>Substitutions</td>
<td>33</td>
<td>64.7%</td>
<td>32</td>
<td>62.7%</td>
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<tr>
<td>Waivers</td>
<td>28</td>
<td>54.9%</td>
<td>30</td>
<td>58.8%</td>
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**Online Physical Education**

Currently, 59.0% of states (30) allow required physical education credits to be earned through online physical education courses. Only 17 out of the 30 states that allow online courses require that they be taught only by state-certified physical education teachers.

**Accountability**

Of 49 states responding 53.1% (26) require physical education grades to be included in a student’s grade point average (GPA).

**Body Mass Index (BMI) Collection**

Nine states (17.6%) of 51 states responding to the survey question require schools to measure Body Mass Index (BMI) for each student and 23.5% (12) require height and weight measurement for each student. The District of Columbia, Georgia, and Pennsylvania are the only states which require this collection in every grade.

Seven (53.8%) of 13 states responding indicated that congregate BMI data for the school district are sent to the state department of health. Individual student results are sent to the parents of that student in 38.5% (5 of 13 responses) of states.

**Teacher Certification/Licensure**

The majority of states require that physical education teachers have some sort of licensure or certification. Licensure is required at the elementary school level in 78.4% of states reporting (40 of 51), although 68.6% (35 of 51 states reporting) allow elementary classroom teachers (generalists) to teach required elementary school physical education classes. Certification or licensure of middle school/junior high physical education teachers is required in 82.4% of states (42 of 51 states reporting).
Of 51 states reporting, 60.8% (31) of states actively support physical education teachers going through the National Board Certification process.

Six of 50 reporting states (12.0%) provide partial funding for cost only if the teacher receives board certification. Four of 50 states reporting (8.0%) provide partial funding regardless of whether the teacher receives certification. Four 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; three provide one or more forms of non-monetary recognition for national board certified teachers.

Only New York requires 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 instruction 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 curriculum, physical education programs increase the physical competence, health-related fitness, self-responsibility, and enjoyment of physical activity for all students so that they 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 the following:
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.
3. 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 child'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.