

Comparing Physical Education Curriculums in Public Schools to a Model Type

By

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### **Dedications**

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## **ABSTRACT**

### **Comparing physical education curriculums in public school's to a model type**

#### **Purpose:**

The purpose of this research is to address the growing epidemic of obesity in America. It looks closely at several key areas that have the potential to address and solve this problem. Since 1987 the National Association for Sport and Physical Education (NASPE) has been conducting the Shape of the Nation Report every few years to summarize information regarding the status of physical education throughout the nation's school system. One area key to correcting this obesity epidemic is physical education curriculums. School programs that promote regular physical activity among young people could be among the most effective strategies for producing well-rounded individuals (Crespo 2003, 1). Comprehensive physical education classes have the potential to slow the age-related increase in sedentary lifestyles, contribute to academic achievement, and encourage healthy lifestyles in students (U.S Department of Human Services, Healthy People 2010).

#### **Methodology:**

This research uses existing data that was retrieved from NASPE's most recent study. In 2001, NASPE sent a questionnaire to the physical education directors in all 50 state Departments of Education (SDE) and the District of Columbia. The survey requested information about each states requirement concerning their physical education curriculum.

**Findings:**

Although the federal government has been encouraging states to adopt physical education standards for the past 15 years, there is no federal law requiring state education boards to follow through on these guidelines (Borland 2002). The data revealed that, little has been done throughout the 50 states to address the problem of obesity through physical education curriculums. The information retrieved was used to develop a model type curriculum that would effectively address the growing epidemic of childhood obesity in America.

## **Chapter One**

### **Introduction**

#### **Introduction**

This research brings attention to the importance of quality, daily physical education programs for all school age children by providing information about the current status of physical education in each state and comparing it to the ideal curriculum. The status of physical education is particularly relevant at this time of growing concern about the reduced levels of physical activity and increased levels of obesity, diabetes and related health problems for all age groups. Achieving optimal health status is closely linked to success in all life domains, and a comprehensive education that addresses mental, emotional, spiritual and physical elements is essential. Physical education is a key component of such an education.

In addition, the most recent call for daily physical education came in November 2000 in the Report to the President: *Promoting Better Health for Young People through Physical Activity and Sports*. Health and Human Services Secretary Donna Shalala and Education Secretary Richard Riley wrote, “Our nation’s young people are, in large, inactive, unfit, and increasingly overweight. The *President’s Report* should stimulate action to make sure that daily physical activity for young people becomes the norm in out nation.”



## **Purpose**

The purpose of this research is threefold. The first purpose of this research is to examine elements of an ideal physical education program. These elements are:

1. mandate and availability for physical education programs at each level (elementary, middle, and high school)
2. qualifications for those teaching physical education
3. existence of curricular standards for physical education,
4. class size, and
5. accountability for teacher and student achievement.

The second purpose is to assess physical education programs in the fifty states using the perceptions of school administrators and the ideal characteristics. Finally, the purpose is to make recommendations for improving physical education curriculums in public schools.

The dramatic increase in overweight children in public schools, and the increase of chronic diseases related to childhood obesity, has raised tremendous concerns about the amount of physical activity our youth engage in and about the effectiveness of physical education curriculums in public schools. Today's society is filled with many distractions for children and adolescents, such as playing video games, watching television and surfing the Internet. These and many more have taken time and precedence; it seems, over physical activity. The difficulties surrounding the issue of childhood obesity is complex and can only be addressed by evaluating all factors associated with it. Physical activity in young adults has proven to play a major role in Healthy weight gain and has highlighted the need for the establishment of efficient and effective planned physical education curriculums, to mitigate the consequences of future

obese adults. Before problems can be solved however, they must be identified and understood.

## **Methodology**

During the spring of 2001 NASPE sent a questionnaire to the physical education directors/consultants in all 50 state Departments of Education (SDE) and the District of Columbia. The survey requested information about the mandate for physical education at the elementary, middle, and high school levels, state standards, assessment of student learning, acceptance of substitutions for physical education, time allocations, and licensing requirements for teachers of physical education, current issues and concerns. Follow up phone calls achieved complete response by all 50 states and the District of Columbia. Dr. Marian Kneer, a NASPE Past President, reviews and compiled the information provided. The summary information compiled for each state was returned to the respective SDE representatives for confirmation of content. Copies of this report and all appropriate findings were ordered and retrieved from NASPE/AAHPERD for this research.

## **Ideal Categories/Results**

### **1) Mandate and Availability for Physical Education**

As reported in NASPE's 1997 report, Illinois is still the only state that requires daily physical education for all students, K-12. However, in Illinois a waiver program has been passed allowing exemption from the mandate and there are not time or content guidelines for the mandate. Alabama requires daily physical education for all students K-8.

Only two states (Colorado and South Dakota) do not have some kind of mandate for physical education. However, in many states the legislated mandate requires only that

physical education be provided and local districts provide the content and format guidelines.

Even in Colorado (now a local control state) and South Dakota where no mandate exists, most districts provide for some physical education. Mississippi has expanded the requirements for physical education since the last survey and Oklahoma has shifted from specific time requirements to a standards based requirement.

## **2) Qualifications of Those Teaching Physical Education**

Delaware, Illinois, Michigan, and Missouri require that only certified physical education specialists teach elementary school physical education.

Only classroom teachers teach elementary school physical education in Hawaii.

In 45 states, certified physical education specialists are recommended but classroom teachers teach elementary school physical education.

In 38 states certified physical education specialist are required to teach physical education at the middle school level.

In 11 states (Alabama, Alaska, Arizona, Florida, Hawaii, Iowa, Louisiana, Nevada, New Jersey, Ohio, and South Dakota) teachers certified in other areas are allowed to teach middle school physical education.

Certified physical education specialist are required to teach physical education at the high school level in two states (Arizona and Hawaii)

Teachers with other or no certifications are permitted to teach physical education at the high school level in two states (Arizona and Hawaii).

Only six states (Arizona, Delaware, Hawaii, Louisiana, New Mexico, and New Jersey) do not require continuing education in order to maintain teacher licensure. In some states the individual school districts either set or may add to the state requirement for maintaining teacher certification. The majority of states require five or six hours every five or six years to maintain teacher certification in physical education or any other teacher licensure.

## **3) Existence of Curricular Standards**

Forty-four states indicate that there are or are in development state standards for physical education content. There are no specific state standards for physical education in seven states (Alaska, Idaho, Iowa, Nebraska, New Hampshire, Rhode Island, and Vermont). Of the states having standards for physical education, over 80 percent of them are based on NASPE's National Standards for Physical Education.

#### **4) Class Size**

Across all education levels it seems that nearly 80 percent of the states allow a teacher student ratio of 1:30 in physical education class. Class size for physical education should be the same as for any other subject (high school like ratio). Large classes put students at greater risk of injury as well as reduce learning and teacher feedback. Nearly 25 percent of the states report no regulations for class size.

#### **5) Accountability for Student Achievement**

Physical education is being assessed by state approved assessment in five states (Kentucky, Massachusetts, Minnesota, New York, and West Virginia) and the District of Columbia, and assessments are being developed and instituted in Maine, Missouri and South Carolina.

Physical fitness is being assessed in seven states (California, Connecticut, Kentucky, Missouri, New York, Ohio, and West Virginia) and the District of Columbia, and will be assessed in Maine, New Jersey, and South Carolina soon.

Fifteen years after Congress passed Resolution 97 encouraging state and local governments and local educational agencies to provide high quality daily physical education programs for all children in kindergarten through grade 12, and 10 years after Goals 2000 called for inclusion of physical education as an integral component of all school programs, little progress has been made. Most states are not living up to the recommendations of multiple reports and recommendations from the federal government and other national organizations including the Surgeon General's Report, *Physical Activity and Health*, Center for Disease Control and Prevention Guidelines for School's and Community Programs to Promote Lifelong Physical Activity Among Young People, American Academy of Pediatrics (AAP) and the National Education Association (NEA) to require physical education for all students in kindergarten through 12<sup>th</sup> grade.

## **Chapter Summary**

Several states expressed very positive signs of physical education improvement in their states. Others expressed concerns over the physical condition of their students and the fact that students can avoid physical education by participating in other courses, activities, etc. Most believed that teachers, parents, and policymakers need to get more involved at all levels to ensure positive physical education programs for all students in every state in the future.

## **Chapter Two**

### **Literature Review**

#### **Physical Education Curriculums: Why So Important?**

For more than a century, the nation has focused its attention on important public health issues. In the 1970s the U.S launched a national effort to educate Americans about the cardiovascular benefits of vigorous activity. In the 1980s and 1990s the U.S made breakthrough findings about the health benefits of moderate-intensity activities (DHHS, Physical Activity and Health 1996, 6). Close attention has been paid to the adverse effects of smoking, violence, and HIV/AIDS. The consequences of these have triggered a nationwide effort to prevent tobacco use and emphasize the importance of safe sex. But now, at the turn of the new millennium America faces yet another problem. In the face of a growing crisis with childhood obesity, Type II diabetes and the concern over increasing sedentary lifestyles, heightened awareness is being brought to the importance of physical education curriculums throughout the nation's public schools (DHHS, Physical Activity and Health 1996, 6).

The purpose of this literature is to develop an ideal Physical Education curriculum. The ideal curriculum is developed by reviewing state statues and policies concerning public school's physical education programs in K-12. Additional literature dealing with the health benefits of physical activity is used to build the ideal model. The status of physical education is particularly relevant at this time because of concerns about the reduced levels of physical activity and increased levels of obesity, diabetes and related health problems for all age groups (Kendall 2002). This literature review draws

attention to the importance of quality, daily physical education programs for all school age children by providing information about the current status of physical education in each state. Based on the literature available and the professional assessment of physical education curriculums performed throughout the nation, a model curriculum was developed. After evaluating the purpose and process needed to produce physically educated children and adolescents, five key areas were identified as needing improvement: 1) Mandate and Availability for Physical Education, 2) Qualifications of Those Teaching Physical Education, 3) Existence of Curricular Standards, 4) Class Size/Time, and 5) Accountability for Student Achievement.

In, 2000, the Physical Education for Progress (PEP) Act authorized a new program under the Elementary and Secondary Education Act, Title X, to provide federal funding for physical education. Under the PEP program, the U.S. Secretary of Education is authorized to award grants to help initiate, expand, and improve physical education programs for kindergarten through grade 12 students. Funds may be used to purchase equipment, develop curriculum, hire and train staff, and support other initiative designed to enable students to participate in physical education activities (DHHS, Physical Activity and Health 1996, 9). In 2002, the U.S. Congress appropriated \$50 million for PEP activities.

In December 2001, Congress directed the CDC to create a media campaign to encourage healthy activity among youth. The five-year, \$190 million “VERB; Its What You Do” campaign, is aimed at children ages 9 to 13. The goal is for kids to pick a favorite verb and do it. Advertising has appeared on billboards, radio, and television, in

print, and on tour with Nickelodeon (National Association for Sport and Physical Education, Shape of the Nation Report, 3).

The CDC also started promoting its “Kids Walk-to-School” campaign, to encourage kids to walks to school, if they live within a mile of their school. Currently, only 10% of trips to school, which are located within one mile of their home, are made by biking or riding. Regardless of distance, 50% of kids are driven to school via private vehicles (National Association for Sport and Physical Education, Shape of the Nation Report, 6).

Despite efforts made to emphasize the importance of physical educational and activity, little reform has taken place. There is no federal standard or education mandate for physical education, therefore state and local boards of education are free to decide on the extent an intensity of the physical education curriculum and standards in schools. As a result, there is great variation among state physical education requirements.

School programs that promote regular physical activity among young people could be among the most effective strategies for reducing the public health burden of chronic diseases associated with sedentary lifestyles (NASPE 2001). People begin to acquire and establish patterns of health-related behaviors during childhood and adolescence; thus, young people should be encouraged to engage in physical activity (National Alliance for Nutrition and Activity 2002). Even though many children are active, most are less physically active than recommended. Also, physical activity declines during adolescence, and enrollment in daily physical education has decreased (Surgeon General 1996). To date, there are no federal laws requiring physical education in public schools, nor any incentives for offering physical education programs (Borland 2002).



Many states set minimum requirements for physical education classes, but individual school districts provide specific direction. In addition, many states delegate the responsibility of content taught in schools to local school districts (NASPE, Shape of the Nation Report 2001).

## **Assessment of Physical Education Curriculums**

### **Present Trends in Physical Education Curriculums**

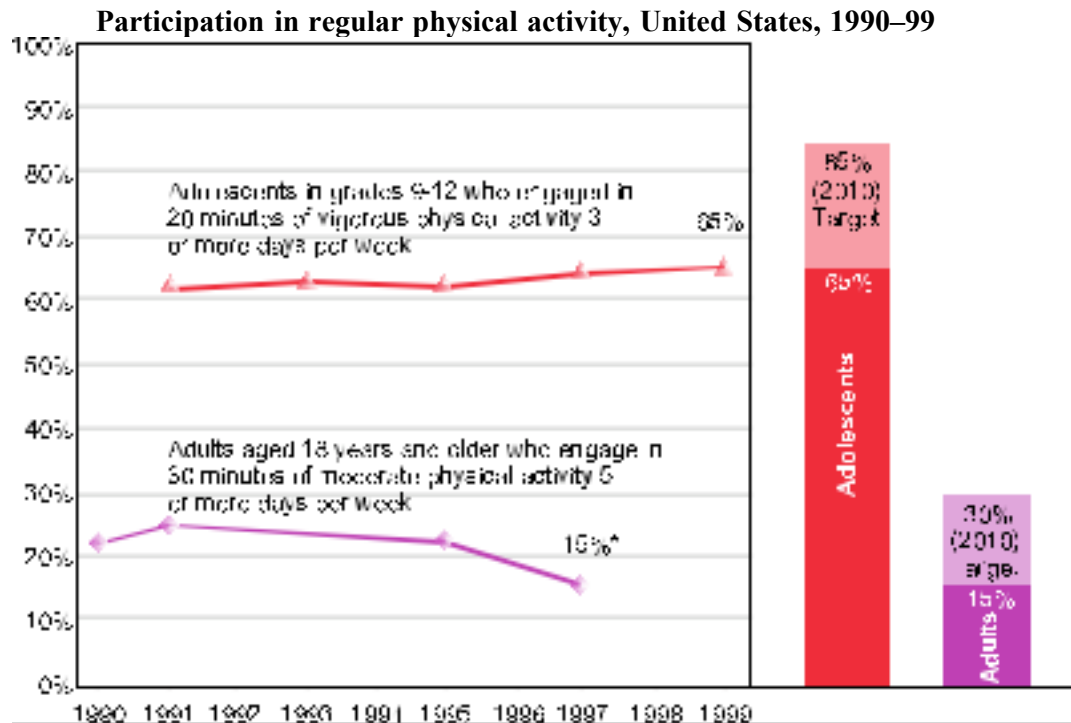
Childhood obesity is an epidemic in the U.S., and is threatening child health gains made over the past years. Physical education programs can play a significant role in containing and even preventing obesity in school age children. Today's society is filled with many distractions for children and adolescent, such as playing video games, watching television and surfing the internet. Coinciding with this problem, is the changing culture and budget cuts affecting school systems and challenges to mandate physical education that have turned into optional classes in many school districts.

There is no reason to believe conditions will improve because many schools have had to face budget shortfalls and cut PE classes in response (CDC, 10). Technological advancements are changing cultures. A child's everyday chores have changed. When a child once wanted to play outside at the play ground, now only want to engage in more sedentary activities such as playing video games. This in turn is promoting sedentary lifestyles among many Americans, more importantly our youth.

The attitude towards PE classes and exercise is reflected in public school's curriculums throughout the nation. Less attention is being given to PE classes and more

attention is being placed on subjects seen on standardized tests. It appears that schools that do enforce effective PE curriculums only do so at the elementary level. Enrollment in physical education declines at higher grades, and active time in physical education classes decreased from 1991 to 1995 among high school students. However, although most states (94%) and school districts (95%) require some physical education, only Illinois requires daily PE from kindergarten through 12th grade (NASPE 2001, 42). The minimum amount of physical education required for students is usually set by state law. Less than two thirds of high school students are enrolled in physical education classes, and only 25% take physical education daily (Kohl 1998, 232). The decline in high school enrollment in physical education curriculums is a more accurate reflection of the attitudes towards PE curriculums. Only 5.8% of senior high schools require daily PE or its equivalent for the entire school year for students in 9<sup>th</sup> through 12<sup>th</sup> grade (Burgeson, Physical education and activity). As evident in figure 2.1, the recommendations for daily physical activity are not being met at the adolescent level and these habits are reflected in adulthood.

**Figure 2.1**



**Sources:** Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System. 1991–97. Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey. 1990–99.

In December 2001, the Office of the U.S. Surgeon General issued a report entitled, “The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity”, addressing the negative effects of inactivity and the lack of physical activity on Americans’ body weight and health. The report contained findings by the Centers for Disease Control including the fact that more than 61 percent of adults are overweight and 27 percent of those are obese (Surgeon General 1996). Health problems arising from overweight and obesity include several cardiovascular diseases including: hypertension, high blood pressure, high cholesterol and diabetes. The economic cost of obesity in the United States was approximately \$117 billion in 2000, with 300,000 deaths attributed to obesity a year (National Institution for Health Care Management 2004).

According to the Surgeon General's report, only half of all adolescents regularly participate in vigorous physical activity: and one-fourth reports no vigorous physical activity at all (DHHS 1996, 8). While enrollment in physical education remained stagnant, daily attendance declined from 42 percent to 25 percent among high schools students (DHHS 1996). Regular physical activity is important for maintaining a healthy body, enhancing psychological well-being, and preventing premature death.

### **Obstacles for Physical Education Curriculums**

According to the National Center for Health Statistics, during the past 20 years, the percentage of overweight children has more than doubled. The percentage of obese children aged 6 to 11 has risen from 6.5 percent in 1980 to 15.3 percent in 2000 (CDC 2002). The overweight population for adolescents aged 12 to 19 tripled from 5 percent in 1980 to 15.5 percent in 2000. These statistics raise concerns as overweight children and adolescents are more likely to become overweight or obese adults who may experience a wider range of health problems.

Unfortunately, P.E classes are at the losing end because when schools become overwhelmed with budget problems, overcrowding, and the need for students to excel on results tests; schools cut back P.E. music, and art classes first (Blair 1996). Several states (California, Kentucky, Maine, Missouri, New York, South Carolina, and Vermont) are developing tests for physical education in order to address the increasing pressures for schools to demonstrate student achievement through standardized test results (Surgeon General Report 1996).

The lack of trained personnel is another barrier to implementing safe, organized, and effective physical education classes and programs for young people. Hiring certified instructors is often costly so most schools allow classroom teachers to instruct physical education classes. In 45 states, certified physical education specialists are recommended but classroom teachers teach elementary school physical education (NASPE 2001).

### **Benefits of Physical Education Curriculums**

#### **Physical Education Contributions to Academics**

Comprehensive physical education curriculums have the potential to increase a student's academic achievement as well as encourage healthy lifestyles (U.S Department of Human Services, Healthy People 2010). A study was done throughout California's school districts that found a distinct relationship between academic achievement and a student's level of fitness. There are numerous mitigating factors contributing to academic success and physical education is a major factor. The enactment of the No Child Left Behind Act of 2001 (NCLB) makes it unequivocally clear that the academic success of students and states will be assessed through annual student achievement tests (NCLB 2002). It will become increasingly critical that educators understand that there are multiple ways of meeting high academic standards. The results of the above study revealed that a "statistical analysis indicating a distinct and linear correlation between students' academic achievement and fitness scores" (California Dept. of Education 2002, pg 3) in all three grades: higher academic performance was positively related to higher levels of fitness with the greatest academic gains in students who met three or more physical fitness standards (California Dept. of Education 2002). "The test scores are not

better in fit students because they have bigger muscles, better cardiovascular systems or more flexibility, rather because they have better functioning brains” (California Dept. of Education 2002). Physically active people reported an increase in academic abilities, memory, retrieval, and cognitive abilities (Kendall 2002). “What makes us move is also what makes us think” John L. Boyer, President of NASPE. Evidence is mounting from global research and recent studies that each person’s ability to master new and remember old information is improved by biological changes in the brain brought on only by physical activity (Blair 1996). Further, it is evident that according to this study and the literature available that physical fitness contributes to academic achievement.

Regular aerobic exercise should be an important component of the student curriculum because it maximizes learning and academic performance. In 2001, the Maryland Physical Education Study Group reported a relationship between physical activity, brain development and cognitive performance. The study demonstrated that aerobic exercise could improve cognitive performance. Regular aerobic exercise produced an increase in the number of capillaries serving tissues and organs, including the brain. Increased capillary density in the brain results in greater capillary exchange of nutrients and waste products. More oxygen and glucose are delivered to the brain and more waste products such as carbon dioxide, are removed. Studies conducted in Sweden, Germany and Australia has supported the correlation between physically active children and improved cognitive abilities (Borland 2002).

## **Physical Educations Contributions to Health**

The results of an effective physical education curriculum have benefits for both adolescents and adults. For example, regular physical activity improves aerobic endurance and muscular strength (Borland 2002). Among healthy young people, physical activity and physical fitness may favorably affect risk factors for cardiovascular disease (e.g., body mass index, blood lipid profiles, and resting blood pressure) (U.S Department of Human Services, Healthy People 2010). Regular physical education and activity among children and adolescents with chronic disease risk factors is important. Physical activity decreases blood pressure in adolescents with borderline hypertension, increases physical fitness in obese children, and decreases the chances of being an overweight adult (NASPE, Shape of the Nation Report 2001). Physical activity among adolescents is consistently related to higher levels of self-esteem and self-concept and lower levels of anxiety and stress (Surgeon General Report 1996).

## **Physical Education Contributions to Public Health**

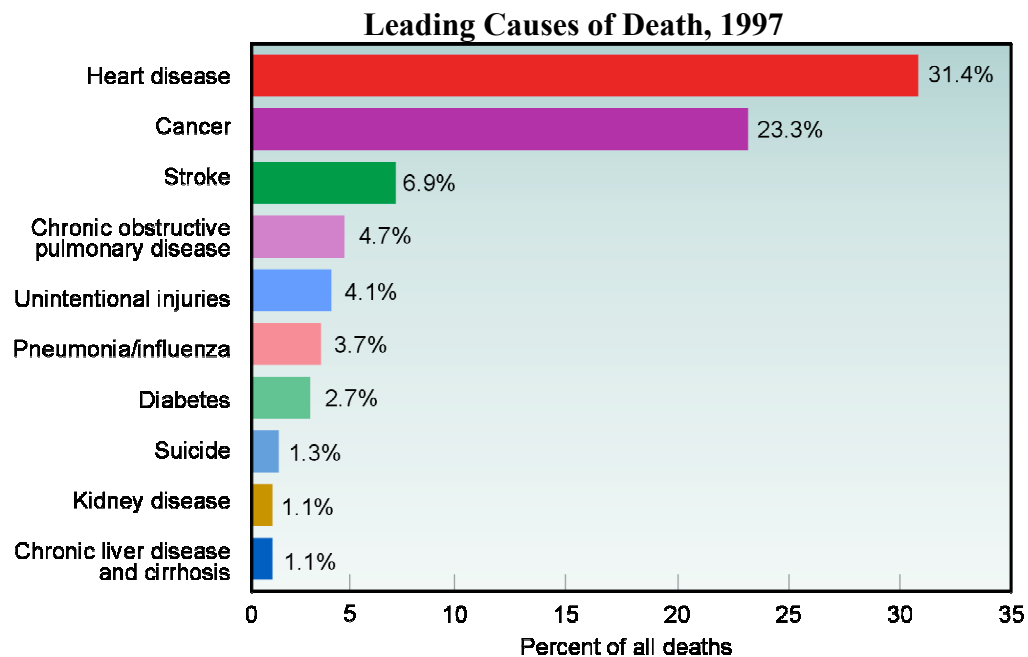
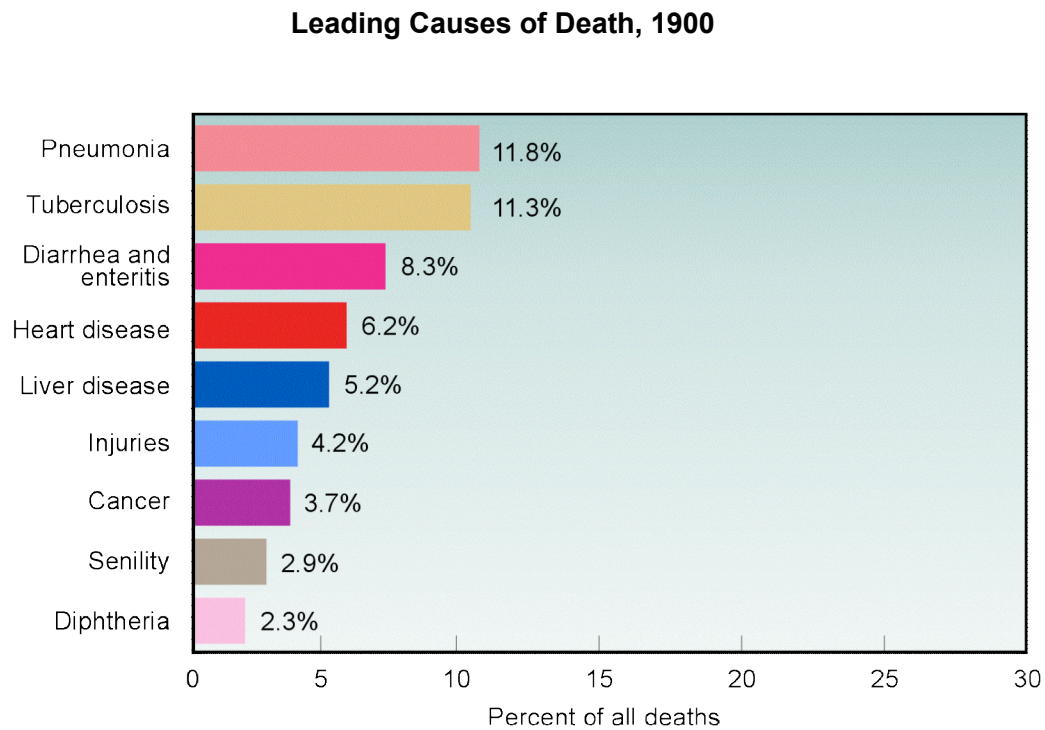
As reported in the January 2003 Journal of the American Medical Association issue, research conducted by CDC, found that the prevalence of obesity continued to rise between 2000 and 2001 (U.S Department of Human Services, Healthy People 2010). It is estimated that among the United States population, the rate of obesity has increased from 19.8 percent in 2000 to 20.9 percent in 2001. That translates to roughly 21.4 million obese men and 22.9 million obese women (Surgeon General Report 1996). Physical activity has the potential to decrease the chances of an obese person being overweight,

thus reducing their chances of developing chronic diseases associated with being overweight.

The leading causes of death are used frequently to describe the health status of the nation. In recent years, the Nation has seen a great deal of change in the leading causes of death (see Figure 2.2). At the beginning of the 1900s, infectious diseases such as pneumonia, influenza, and pulmonary diseases ran rampant in the United States and worldwide topping the leading causes of death list (CDC, National Center for Health Statistics 2002). A century later, with the control of many infectious agents and the increasing age of the population, chronic diseases top the list. The chronic diseases pointed out in figure 2 such as: heart disease, cancer, stroke, obstructive pulmonary disease, pneumonia, influenza, diabetes, kidney disease, and liver disease are all chronic diseases known to be associated with sedentary lifestyles.



**Figure 2.2**



**Sources:** Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System. 1991–97. Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey. 1990–99.

Most Americans would be surprised at the extent and strength of the evidence linking physical activity to numerous health improvements. Physical education early in life results in many health benefits for adults (Crespo 2003). For example, it improves cardio respiratory endurance, flexibility, and muscular strength and endurance (U.S Department of Human Services, Healthy People 2010). Physical activity also reduces obesity, alleviates depression and anxiety and builds bone mass density. Regular physical education early in life is associated with immediate and long-term health benefits (e.g., weight control, lower blood pressure, improved cardio respiratory function, and enhanced psychological well-being) (U.S Department of Human Services, Healthy People 2010).

Active children are more likely to become active adults. Research shows that physically active and educated adults are less likely than sedentary adults to develop the chronic diseases that cause most of the morbidity and mortality in the United States: cardiovascular disease, hypertension, non-insulin-dependent diabetes mellitus, and cancer of the colon (NASPE, Shape of the Nation Report 2001). Most significantly, regular and effective physical education classes and activity can greatly reduce the risk of coronary heart disease, the leading cause of death in the United States (CDC, National Center for Health Statistics). Physical education classes also have the ability to reduce the risks of developing diabetes, hypertension, and colon cancer through education. These classes also have the potential to enhance mental health; help foster healthy muscles, bones, and joints in student, and help preserve students' independence when they become older adults (Kohl 1998, 82).

According to Healthy People 2010, there are three national objectives, (objectives no. 22-6, 22-7, and 22-11) aiming to increase levels of physical education and reduce sedentary behavior among children and adolescents (Healthy People 2010). Insufficient physical education and activity is a risk factor for persons being overweight or obese and for many chronic diseases.

According to the literature available, a model has been developed to improve physical education curriculums throughout the nation's school system. The model identifies five key areas (**Table 2.1**) that need to be improved in order to have effective physical education curriculums: 1) Mandate and Availability for Physical Education, 2) Qualifications of Those Teaching Physical Education, 3) Existence of Curricular Standards, 4) Class Size/Time, and 5) Accountability for Student Achievement.

### **1) Mandate and Availability of Physical Education**

**Daily physical education from kindergarten through 12<sup>th</sup> grade** is recommended by the American Heart Association and the National Association for Sport and Education and was also a national health objective for the year of 2000. The Surgeon General released a study recommending that students engage in physical education classes everyday. But much of the literature on physical education classes indicate that only one state (Illinois) requires daily physical education classes for all students in K- 12 (NASPE 2001). However, the **minimum amount of physical education** required for students is usually set by state law (Kendall 2002). In most states, it is only required that physical education be provided and local districts provide the content and format guidelines. The substitution of PE classes should not be allowed and only forty-two

percent of the states (21 states) do not allow any substitutions for instructional physical education. However, the other fifty-eight percent of the states (37 states) allow substitutions for high school physical education (NASPE 2001). The justification of substitutions or preferences is not given to those who will be obese late on in life, so therefore no preference should be given to students, only in extreme cases that fall under ADA mandates (Ball & Cohen 1999).

Only sixty percent of the states (29 states) plus the District of Columbia give an actual **grade for physical education** and include it in the student's grade point average. This produces a negative attitude towards physical education classes because students do not take it as serious as their other classes. Furthermore, Georgia, New Hampshire, and Kansas do not include the physical education grade in the grade point average at all. In the remainder of the states local school districts determine if grades are included in the students' grade point average (NASPE 2001).

States should also have clearly written policies. Policies provide formal and informal rules that guide schools in planning, implementing, and evaluating physical activity programs for young people. School policies related to physical activity should comply with state and local laws and with recommendations and standards provided by national, state, and local agencies and organizations (NASPE 2002). These policies should be included in a written document that incorporates input from administrators, teachers, parents, students, health-care providers, and should address the following requirements. Policies should address teacher student ratios and graduation requirements. They should require comprehensive, daily physical education for students in kindergarten

through grade 12 with no substitutions (DHHS 1996). Require a maximum class size for physical education courses. Require that students receive a letter grade for all physical education curriculums ( NASPE 2001). .

Further, to ensure an effective and efficient physical education curriculum the substitution of PE classes should not be allowed. Substitution of these programs reduces students' opportunities to develop knowledge, attitudes, motor skills, behavioral skills, and confidence related to physical activity. Schools should be required to provide modified physical education and health education for students with disabilities (Borland 2002). Children and adolescents who are obese or who have physical or cognitive disabilities, chronic health conditions (e.g., diabetes, heart disease, or asthma), or low levels of fitness need instruction and programs in which they can develop motor skills, improve fitness, and experience enjoyment and success. By modifying physical education programs, schools can help these young people acquire the physical, mental, and social benefits of physical activity (National Institution for Health Care Management 2004). The justification of substitution may be due to: medical reasons, religious, participation in varsity athletics, ROTC and marching band or other special activities but this should not be so. There are no substitutions or preferences given to those who will be obese later on in life, so therefore no preference should be given to students, only in extreme cases that fall under ADA mandates. Sports and other extracurricular activities are an adjunct of all physical education programs, but are not or should not be a substitute for them (Blair 1996, 71).

Further, actual **letter grades** should be assigned for every PE class. The goal of physical education curriculums should be to provide students with the knowledge, skills,

and confidence to participate in health enhancing physical activity throughout their lives (California Dept. of Education 2002).

## **2) Qualifications for Those Teaching Physical Education**

Hiring **certified physical education teachers** should have the same certification requirements as all other core curriculum course instructors (Ball & Cohen 1999).

Physical education specialists teach longer lessons, spend more time on developing skills, impart more knowledge, and provide more moderate and vigorous physical activity than do classroom teachers. It is for this reason that public schools must ensure that physical education instructors have the knowledge content and certification necessary to instruct meaningful and effective physical education classes. Ensuring that students receive the best education requires the teacher to have a good knowledge of the material being taught. One study revealed that the attitude towards physical education classes is given less attention than other subjects. Only Delaware, Illinois, Michigan, and Missouri require certified physical education teachers in elementary schools (NASPE 2001).

Classroom teachers were also found to teach approximately 80 percent of the elementary school physical education classes (NASPE 2001). Teachers with other or no certification are permitted in some states to teach elementary, middle, and high school PE classes.

The majority of states require five or six credit hours every five to six years to maintain teacher certification but some states do not require continuing education to maintain physical education licensure: Arizona, Delaware, Hawaii, Louisiana, New Mexico, and New Jersey , while other states have no specific state standards for physical education at all (NASPE 2001). Pre-service training and certified physical education teachers can

implement physical education programs that meet a range of students' needs and interest. The lack of trained personnel is a barrier to implementing safe, organized, and effective physical activity instruction and programs for young people.

Concerning the qualifications for physical education instructors, it is advised that they be certified in the content area they are teaching. Knowledgeable instructors prove to teach longer classes and impart more knowledge to the students. Physical education specialist use active learning strategies needed to develop students' knowledge about, attitudes toward, skills in, and confidence in engaging in physical activity. Hiring certified physical education teachers should have the same certification requirements as all other core curriculum course instructors (Ball and Cohen 1999). In this model, all physical education curriculums should be taught by certified PE instructors. Physical education specialists teach longer lessons, spend more time on developing skills, impart more knowledge, and provide more moderate and vigorous physical activity than do classroom teachers (NASPE 2001). Quality physical education programs taught by well-trained physical education specialists play a significant role in promoting the health of children and, ultimately, adults. Knowledgeable physical education instructors will deliver planned and sequential physical education curricula that emphasizes knowledge about the benefits of physical activity and the recommended amounts and types of physical activity needed to promote health (Bryant 2002).

The qualifications required to teach physical education vary across all school levels and states. According to NASPE teacher guidelines, it is through course work, learning experiences, and fieldwork that teachers can demonstrate competency at the

level necessary to teach a good PE class. NASPE also defines a qualified physical education instructor as one who “understands physical education content and disciplinary concepts related to the development of a physically educated person” (NASPE 2001).

### **3) Existence of Curricular Standards**

Physical education should be a **planned instructional program** with specific objectives (National Alliance for Nutrition and Activity 2002). It should be an essential part of the total curriculum. It is through physical education programs that children increase their physical competence, improve health-related fitness, acquire self-responsibility and establish physical activity as a natural part of everyday life (NASPE 2001). An idea physical education instructor is one who has content knowledge and is licensed or certified in physical education.

The National Association for Sport and Physical Education (NASPE) appointed an Outcomes Committee to answer the question, of “What a physically educated student should know and be able to do?” The result of the Outcomes Project was a definition that includes five major focus areas, specifying what a physically educated person knows. They define this as someone who has learned skills necessary to perform a variety of physical activities, is physically fit, participates regularly in physical activity, knows the implications of and the benefits from involvement in physical activities, and values physical activity and its contribution to a healthful lifestyle (NASPE 2001). The National Physical Education Standards provide a framework for structuring programs that will develop physically educated children and provides guidelines for effective physical education curriculums.



#### **4) Class Size/Time Requirements**

States should have requirements for all class sizes. Nearly 25 percent of states reported no regulations for class size. Teacher-student ratios of more than 1 to 30 in physical education classes detracts from learning and teacher feedback to students and increases the risk of injury to students (NASPE 2002). Physical education should help students develop the attitudes, motor skills, behavioral skills, and confidence they need to engage in lifelong physical activity. Physical education should emphasize skills for lifetime physical activities (e.g., dance, strength training, and jogging, swimming, bicycling, cross-country skiing, walking, and hiking) rather than those for competitive sports (DHHS 1999). Certified physical education instructors deliver these effective types of curricula to students throughout public schools.

Permitting local control of decisions regarding class time requirements, class size, and teacher qualifications results in a wide variation in the way programs are delivered (NASPE 2002). It is for this reason that the standards recommended by professional organizations, such as NASPE and the Surgeon General, should be set and regulated by states mandates. According to this model approach, state mandates should address and require: daily participation in physical education classes from kindergarten through 12<sup>th</sup> grade, set class time requirements based on national and federal recommendations, and require that only physical education specialists or certified instructors in the field teach physical education classes.

Concerning daily participation, it appears that activity programs that are limited to infrequent or irregular sessions are not in the best interest of school children (Kendall

2002). Young people that are subject to inadequate physical education experiences tend to develop negative attitudes towards exercise (Blair 1996). Concerning time allocations, several recommendations by national organizations have suggested that students participate in physical education classes for set amounts of time to ensure maximum benefits. Based on the literature, this research recommends a minimum of 150 minutes a week of physical education instruction for elementary school children and a minimum of 225 minutes a week for middle and high school students (DHHS1996).

## **5) Accountability for Student Achievement**

With the same purpose of other academic standardized tests, **standardized physical education tests** should be implemented to assess student's knowledge. The lack of concern for physical education classes is a direct result of the increased pressure on schools to demonstrate academic achievement on standardized tests in academic areas particularly reading and math (Kendall 2002). Most states develop standardized tests to hold schools and students accountable, and the content that is not tested becomes a lower priority (PE). Schools are under a lot of pressure to ensure their students make certain scores on standardized tests and also exit exams to graduate and . However, P.E classes should not be put on the back burner to do so. According to Blair, the lack of concern for physical education classes is a direct result of the increased pressure placed on schools to demonstrate academic achievement on standardized tests in academic areas, particularly reading and math (Blair & Connelly 1996). In order to produce well-rounded students for the world, schools must provide a well-rounded curriculum and PE is part of that

(Blair 1996). Some states have requested standards for learning in physical education, but do not hold students or schools accountable for achievement of the standards. The literature reveals patterns of greater emphasis on standards-based on reform. Henceforth, according to professional suggestions, this model approach recommends standardized testing for physical education curriculums.

This model approach emphasizes the need for standardized physical education tests as a necessity. Physical education and fitness testing must be integrated into the curriculum and emphasize health-related components of physical fitness (e.g., cardio respiratory endurance, muscular strength and endurance, flexibility, and body composition) (Kohl 1998, 67). The tests must be administered only after students are well oriented to the testing procedures. Testing should be a mechanism for teaching students how to apply behavioral skills (e.g., self-assessment, goal setting, and self-monitoring) to physical fitness development and for providing feedback to students and parents about students' physical fitness. The results of actual physical fitness tests should not be used to assign report card grades for students, but the progress or lack thereof must be reported in school's annual report cards. This model recommends that standardized testing be administered to students upon completion of physical education curriculums. Most states develop standardized tests to hold schools and students accountable, and the content that is not tested becomes a lower priority. Testing will enable more states to establish standards to hold schools, teachers, and students accountable for achievement of those standards.

While several states have requested standards for learning in physical education, they do not hold students or schools **accountable for achievement of the standards**. California is the only school district currently establishing standardized tests for physical education classes and is begin held accountable for the results. All California schools are requires to include physical fitness test results in their School Accountability Report Card (Senate Bill 1632). In order to hold teachers accountable and to ensure that students are learning, standardized testing of physical education should be implemented. Programs that are held accountable for their results will take extra measures to ensure that classes are being taught by knowledgeable instructors and ensure that students are learning and comprehending the materials being taught.

## A Model Physical Education Curriculum

**Table 2.3**

*Linkage of Idea Type Physical Education Categories to Literature Sources*

| IDEAL TYPE CATEGORIES   | LITERATURE SOURCES  |
|---|---|
| <b>1) Mandate and Availability for Physical Education</b> <ul style="list-style-type: none"> <li>• Daily Physical Education</li> <li>• Exemption Requirements</li> <li>• Required from K-12<sup>th</sup> Grade</li> <li>• Graduation Requirements (letter grade)</li> </ul> | <ul style="list-style-type: none"> <li>• California Dept. of Education</li> <li>• Surgeon General Report, 1996</li> <li>• Kohl, 1998</li> <li>• Crespo, 2003</li> </ul>                                     |
| <b>2) Qualifications for Those Teaching Physical Education</b> <ul style="list-style-type: none"> <li>• Certification Requirements</li> <li>• Continuing Education</li> </ul>   | <ul style="list-style-type: none"> <li>• Borland, 2002</li> <li>• NASPE, Shape of the Nation Report, 2001</li> <li>• NASPE, Standards for Initial Programs, 2001</li> <li>• Borland, 2003</li> </ul>        |
| <b>3) Existence of Curricular Standards</b> <ul style="list-style-type: none"> <li>• Organization of Physical Education Content</li> </ul>  | <ul style="list-style-type: none"> <li>• President's Council on Physical Activity and Sports, 1999</li> <li>• Borland, 2002</li> <li>• NASPE, Standards for Initial Programs, 2001</li> </ul>               |
| <b>4) Class Size/Time Requirements</b> <ul style="list-style-type: none"> <li>• Teacher Student Ratio</li> <li>• Time Requirements</li> </ul>   | <ul style="list-style-type: none"> <li>• California Dept. of Education</li> <li>• NASPE, Standards for Initial Programs, 2001</li> <li>• Bryant, 2002</li> <li>• American Family Physician, 1994</li> </ul> |
| <b>5) Accountability for Student Achievement</b> <ul style="list-style-type: none"> <li>• Standardized Testing</li> </ul>   | <ul style="list-style-type: none"> <li>• NASPE, Standards for Initial Programs, 2001</li> <li>• Borland, 2003</li> </ul>  |

## **Conclusion**

The literature revealed a continued need for improvements in K-12 physical education programs across the country. According to the literature, NASPE, the Surgeon General, and several other professional organizations recommends a minimum of 150 minutes a week of physical education instruction for elementary school children and a minimum of 225 minutes a week for middle and high school students (Surgeon General Report 1996), state standards for physical education that reflect national standards; minimum standards be met prior to graduation; and no substitution of other courses or activities for instructional physical education instruction at all levels.

A coordinated, multilevel approach involving schools and policy makers is needed to increase participation in daily PE among all students (CDC 2000). This might be particularly important for high school students, as physical activity levels tend to decline substantially during adolescence (Surgeon General Report, Call to Action to Prevent and Decrease Overweight and Obesity). Schools and communities should ensure that PE programs have sufficient resources to deliver quality instruction, consistent with national standards, in safe, attractive, and well-maintained facilities. Policies should require that PE instruction be provided by credentialed PE teachers in classes with teacher-to-student ratios comparable with those in other subjects. Teachers should use methods that allow students to be actively engaged during most of the class time. Curricula should emphasize participation in physical activities for all students and help students gain the knowledge, attitudes, motor skills, behavioral skills, and confidence they will need to adopt and maintain physically active lifestyles (NASPE 2001).

## **CHAPTER THREE**

### **Methodology**

#### **Purpose**

The purpose of this chapter is to describe the methodology used to assess the effectiveness of physical education curriculums throughout the nation. The assessment is based on the model (Practical Ideal Type) developed in Chapter Two. The assessment mechanisms use an existing survey to determine how close physical education curriculums are to an ideal.

#### **Study Population**

The unit of analysis and population for the study is the Department of Education in each state and state administrators. The main source of evidence for this research will be document analysis. The relationship between obesity in adolescents and the effectiveness of public schools physical education curriculums is studied using existing data. Thus, this study uses secondary analysis or analysis of existing data. Babbie (2001, 269) defines secondary analysis as a form of research in which the data collected and processed by one researcher are reanalyzed – often for a different purpose –by another. Babbie (2001, 270) adds that secondary research is advantageous because it is cheaper and faster than doing original surveys that involve questionnaire construction, sample selection, and data collection through either interviewing or self administered questionnaires. Secondary analysis allows for collection of a large amount of data in a short period, which specifically addresses the exploratory issues and measures the variables analyzed, thus, satisfying the research purposes.

During the spring of 2001 NASPE sent a questionnaire to the physical education directors/consultants in all 50 state Departments of Education (SDE) and the District of Columbia. The survey requested information about the mandate for physical education at the elementary, middle, and high school levels, state standards, assessment of student learning, acceptance of substitutions for physical education, time allocations, and licensing requirements for teachers of physical education, current issues and concerns. Copies of this report and all appropriate findings were ordered and retrieved from NASPE/AAHPERD for this research.

Although secondary analysis is advantageous, there are key problems associated with its validity. Babbie (2001, 270) explains that when one researcher collects data for one particular purpose, there is no assurance that those data will be appropriate for others research interest. Some of the weaknesses evident in document analysis are retrievability, biased selectivity, reporting bias, and access (Yin 1994, 80).

### **Operalization of the Ideal Model**

**Questionnaires** and existing data was gathered and reviewed for this research (**Appendix A**). Data retrieved was from NASPE's Shape of the Nation Report. The surveys were produced by School Health Policies and Programs Study (SHPPS) 2000 and Youth Risk Behavior Surveillance (1999). The surveys requested information about the mandate for physical education at the elementary, middle and high school levels, state standards, and assessment of student learning, acceptance of substitutions for physical education, time allocations, and licensing requirements for physical education teachers.



The following questions were asked and serve as the basis for the categories in this ideal model:

Concerning **mandatory PE** in public schools, administrators were asked:

2. Does your state have a policy encouraging districts or schools to follow any national or state physical education standards or guidelines? This information is important because determines whether or not states are adhering to the recommendations set forth by professional organizations concerning physical activity. Do these goals or objectives school physical education specifically address each of the following student outcomes?

Concerning **time allocations** in public schools, administrators were asked:

8. Based on policies adopted by your state, how much physical education (excluding recess) are students required to receive while in school?

9. Based on policies adopted by your state, can students be exempted from physical education requirements for one grading period or longer for each of the following reasons?

17. Based on policies adopted by your state, how much physical education are students required to receive while in school?

18. Has your state adopted a policy stating that middle/junior high schools will include lifetime physical activities in their physical education program?

Concerning PE in **grades kindergarten through 12<sup>th</sup> grade**, administrators were asked:

24. Has your state adopted a policy stating that senior high schools will teach physical education?

Concerning **teacher certification and license** requirements for physical education instructors, administrators were asked:

54. Has your state adopted a policy stating that newly-hired staffs who teach physical education at each of the following levels will have undergraduate or graduate training in physical education or a related field?

55. Has your state adopted a policy stating that newly-hired staff who teaches physical education at each of the following levels will be certified, licensed, or endorsed by the state to teach physical education?

56. Has your state adopted a policy stating that teachers will earn continuing education credits on physical education topics to maintain state certification, licensure, or endorsement to teach physical education?

Concerning **student and school accountability** for the effectiveness of physical education curriculums, administrators were asked:

14. Has your state adopted goals, objectives, or expected outcomes for physical education curricula?

31. Does your state education agency require or recommend that schools give each of the following types of tests?

32. Does your state education agency require or recommend that schools test students' fitness levels?

33. Does your state education agency require or recommend that schools use each of the following fitness tests?

61. During the past 2 years, have the following aspects of your state physical education program been evaluated?

**\*All questions were retrieved from The Centers for Disease Control: School Health Policies and Program Studies (SHPPS), 2000**

### **Response Rates**

The summary information compiled for each state was returned to the respective SDE representatives for confirmation of content. After the questionnaires were sent out, follow up phone calls achieved complete responses by all 50 states and the District of Columbia. Dr. Marian Kneer, a NASPE Past President, reviews and compiled the information provided.

### **Conceptual Framework**

The conceptual framework for this research is the practical ideal type.

**Table 3.1** conceptualizes the ideal type categories and the questionnaire items. The ideal type categories are organized to create a physical education curriculum that will produce

well-rounded students capable of establishing and maintaining healthy lifestyles throughout life if present in physical education curriculums.

**Table 3.1** *Operationalizing the Conceptual Framework*

| Ideal Type Categories   | Secondary Analysis (Survey Questions)  |
|---|--|
| <b>1) Mandate and Availability for Physical Education</b> <ul style="list-style-type: none"> <li>• Daily Physical Education</li> <li>• Exemption Requirements</li> <li>• Required from K-12<sup>th</sup> Grade</li> <li>• Graduation Requirements (letter grade)</li> </ul> | <p>18. Has your state adopted a policy stating that middle/junior high schools will include lifetime physical activities in their physical education program?</p> <p>24. Has your state adopted a policy stating that senior high schools will teach physical education?</p>   |
| <b>2) Qualifications for Those Teaching Physical Education</b> <ul style="list-style-type: none"> <li>• Certification Requirements</li> <li>• Continuing Education</li> </ul>   | <p>52. Has your state adopted a policy stating that newly-hired staffs who teach physical education at each of the following levels will have undergraduate or graduate training in physical education or a related field?</p> <p>55. Has your state adopted a policy stating that newly-hired staffs who teaches physical education at each of the following levels will be certified, licensed, or endorsed by the state to teach physical education?</p> <p>56. Has your state adopted a policy stating that teachers will earn continuing education credits on physical education topics to maintain state certification, licensure, or endorsement to teach physical education?</p> |
| <b>3) Existence of Curricular Standards</b> <ul style="list-style-type: none"> <li>• Organization of Physical Education Content</li> </ul>  | <p>2. Does your state have you state a policy encouraging districts or schools to follow any national or state physical education standards or guidelines?</p>   |
| <b>4) Class Size/Time Requirements</b>  | <p>8. Based on policies adopted by your state, how much physical education (excluding recess) are students required to receive while in school?</p>  |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Teacher Student Ratio</li> <li>• Time Requirements</li> </ul>                           | <p>while in school?</p> <p>9. Based on policies adopted by your state, can students be exempted from physical education requirements for one grading period or longer for each of the following reasons?</p> <p>17. Based on policies adopted by your state, how much physical education are students required to receive while in school?</p>   |
| <p><b>5) Accountability for Student Achievement</b></p> <ul style="list-style-type: none"> <li>• Standardized Testing</li> </ul> | <p>14. Has you state adopted goals, objectives, or expected outcomes for physical education curricula?</p> <p>31. Does your state education agency require or recommend that schools give each of the following types of tests?</p> <p>32. Does your state education agency require or recommend that schools tests students' fitness levels?</p> <p>33. Does your state education agency require or recommend that schools use each of the following fitness tests?</p> <p>61. During the past 2 years, have the following aspects of your state physical education program been evaluated?</p> |

**Centers for Disease Control: School Health Policies and Program Studies (SHPPS), 2000**

## CHAPTER FOUR

### Results

#### Introduction

There is no federal standard or education mandate for physical education, therefore state and local boards of education are free to decide on the extent and intensity of the physical education curriculum and standards in schools. As a result, there is great variation among state physical education requirements.

**Table 4.1**

#### **Mandate and Availability for Physical Education**

| <b>Question N=51</b>  | <b>YES</b> |
|---|------------|
| Has your state adopted a policy stating that middle/junior high schools will include <b>lifetime physical activities</b> in their physical education program? | <b>25%</b> |
| Has your state adopted a policy stating that senior <b>high schools</b> will teach <b>physical education</b> ?  | <b>36%</b> |
| Based on policies adopted by your state, can students be <b>exempted from physical education</b> requirements for one grading period or longer?               | <b>59%</b> |

Based on the percentages in table 4.1, it is clear that most schools are still not requiring students to engage in some type of daily physical education curriculum. Despite the recommendations from the Surgeon General and several other national organizations, the minimum amount of physical activity is still not being met. Majority of the schools throughout the 50 states, including the District of Columbia, are still allowing students to eliminate physical education as a requirement for graduation.

**Table 4.2**

**Qualifications of Those Teaching Physical Education**

| <b>Question N=51</b>  | <b>YES</b> |
|---|------------|
| Has your state adopted a policy stating that <b>newly-hired staffs</b> who teach physical education at each of the following levels will have <b>undergraduate or graduate training in physical education</b> or a related field? | <b>90%</b> |
| Has your state adopted a policy stating that <b>a newly-hired staff who teaches</b> physical education at each of the following levels will be <b>certified, licensed, or endorsed by the state to teach physical education</b> ? | <b>8%</b>  |
| Has your state adopted a policy stating that teachers will earn <b>continuing education credits</b> on physical education topics to <b>maintain state certification, licensure, or endorsement</b> to teach physical education?   | <b>12%</b> |

According to these findings, it is clear that states are only requiring their teachers to have some type of degree to teach PE classes. This is problematic because as discussed earlier in the literature, certified and trained PE teachers teach better and longer classes instilling better knowledge and healthy lifestyle habits within the students. Further, it is evident that PE classes are still not receiving the necessary attention. The majority of teachers are not required to possess any specific certification in the field and are not required to stay up to date with recent information and new findings pertaining to their profession through continuing education.

**Table 4.3**

**Existence of Curricular Standards**

| <b>Question N=51</b>  | <b>YES</b> |
|---|------------|
| Does your state have you state a policy encouraging districts or schools to <b>follow any national or state physical education standards or guidelines?</b> * | <b>30%</b> |

Less than half percent of all the states are abiding by the recommendations put forth by professional organizations concerning physical education. Only 30 percent of the states actually design their policies and requirements according to the advice given by professionals in the field.

**Table 4.4**

**Class Size/Time**

| <b>Question N=51</b>   | <b>YES</b> |
|--|------------|
| Based on policies adopted by your state, <b>how much physical education</b> (cluding recess) are students required to receive while in school? | <b>25%</b> |
| Based on policies adopted by your state, is there a <b>student to teacher ratio</b> restriction for physical education classes?                | <b>41%</b> |

Despite NASPE's guidelines and requirements, most states are not establishing a minimum amount of time for physical education. Further, less than half of the states are not setting restrictions on the number of students allowed to participate in PE class instructed by one teacher. This is of great concerning, seeing that effective physical education classes are those that allow for safety.

**Table 4.5**

**Accountability for Student Achievement**

| <b>Question N=51</b>  | <b>YES</b> |
|---|------------|
| Has you state adopted goals, objectives, or <b>expected outcomes</b> for physical education curricula?                  | <b>41%</b> |
| Does your state education agency require or recommend that schools give each of the following types of <b>tests</b> ? * | <b>12%</b> |
| Does your state education agency require or recommend that schools <b>tests students' fitness levels</b> ?              | <b>12%</b> |
| During the past 2 years, have the following aspects of your state physical education program been <b>evaluated</b> ?    | <b>22%</b> |

**Centers for Disease Control: School Health Policies and Program Studies (SHPPS), 2000**

**\* See Appendix A for entire question and response choices.**

The questionnaires used in this research reveal that most states are still not concerned with evaluating the effectiveness of their schools physical education curriculums through the use of outcomes testing.

**Community/ Corporate Action**

Since the responses were reported in this research were returned, several organizations have taken action trying to address the obesity epidemic among young people. The Physical Education (PEP) Act authorized a new program under the Elementary and Secondary Education Act, Title X, to provide federal funding for physical education. Under the PEP program, the U.S. Secretary of Education is authorized to award grants to help initiate, expand and improve physical education programs for kindergarten through 12<sup>th</sup> grade students. The grants are allocated to local educational agencies ad community-based organizations that provide equipment and support that enable students to actively participate in physical education activities.



Further, Congress recently directed the CDC to create a medial campaign to encourage healthy activity among youth. The five-year \$190 million “VERB: Its What You Do” campaign, that began in 2002 is aimed at children ages 9 to 13. The goal is for kids to pick a favorite verb and do it. Advertising has appeared on billboards, radio, and television, in print and on tour with Nickelodeon.

The CDC also started promoting its “Kids Walk-to-School” campaign, to encourage kids to walk to school, if they live within a mile of their school. Currently only 10 percent of trips to school, which are located more than a mile away, are made by biking or walking. Of school trips one mile or less, only 31 percent are made by walking. Regardless of the distance, 50 percent of kids are driven to school via private vehicles. This information was published by the CDC in its annual guide in 2003, which helps people organize a walking program in their neighborhood and provides safety tips for children and families.

Healthy People 2010 is another initiative that has begun in response to addressing the concern for obesity. It is an initiative sponsored by the Office of Disease Prevention and Health Promotion, U.S Department of Health and Human Services. Healthy People 2010 are a set of health objectives for the Nation to achieve over the first decade of the new century. It can be used by many different people, states, communities, professional organizations, and others to help them develop programs to improve health. There are two goals directed at physical education in schools: increase the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active.

Further, two years after the questionnaires were completed, the CDC sponsored six states—California, Connecticut, Massachusetts, North Carolina, Rhode Island and Texas- as part of a program initiated by the Division of Nutrition and Physical Activity to develop and implement nutrition and physical activity goals in an effort to percent chronic diseases, especially obesity. Just last year, Congress appropriated \$16.2 million to the CDC to fund six additional states- Colorado, Florida, Michigan, Montana, Pennsylvania, and Washington- as part of the cooperative agreement with the CDC to develop state specific strategies to reduce obesity.

## **CHAPTER SUMMARY**

The Surgeon General released a landmark study on physical activity and health in public schools, and recommended that public schools require daily participation in physical education classes for all students in kindergarten through 12<sup>th</sup> grade (NASPE 2001). Recent surveys sent out in 2002 revealed that most states are not living up to recommendations provided by several national organizations and the Surgeon General's Report (Surgeon General's Report 1996). The results definitely indicate that most states, in the face of the growing crisis in childhood obesity, Type II diabetes and the concern for increasing sedentary lifestyles, have taken no action to provide meaningful education about the importance of physical fitness and education in public schools.

## **CHAPTER FIVE**

### **Summaries and Conclusions**

#### **Summary**

This research examines state/legislative statutes and policies concerning physical education programs in levels k-12 throughout the 50 states. Coinciding with our changing culture are budget cuts affecting schools systems and challenges to mandated physical education that have turned into optional classes in many school districts. Health problems arising from overweight and obesity are evident throughout the nation and most begin in childhood. Based on the literature available, this research suggests that school administrators develop and implement a comprehensive plan that encourages physical activity by including the following: 1) Mandate and Availability for Physical Education, 2) Qualifications of Those Teaching Physical Education, 3) Existence of Curricular Standards, 4) Class Size/Time, and 5) Accountability for Student Achievement.

Regular physical activity throughout life is important for maintaining a healthy body, enhancing psychological well-being, and preventing premature death. In NASPE's 2000 physical education study, questionnaires revealed that schools in the US are not encouraging its students to be active. Based on the research and the questionnaires 65% of adolescents are not engaging in the recommended amount of physical activity in school. It is evident that physical education programs in the US need major revisions to address the pressing issues of obesity and obesity related diseases. However, little is being done to correct this epidemic through out our school system. Schools play a major

role in addressing this problem seeing that 53 million students are enrolled in K-12<sup>th</sup> grade. It is obvious that the schools inherent infrastructure is the best vehicle to reach our nations children. Life style habits are established early in life and the school system plays a major role in this area.

| Categories   | Secondary Analysis (Survey Questions)   | YES        |
|--|---|------------|
| <b>1) Mandate and Availability for Physical Education</b>      | 18. Has your state adopted a policy stating that middle/junior high schools will include lifetime physical activities in their physical education program?  | <b>25%</b> |
|  | 24. Has your state adopted a policy stating that senior high schools will teach physical education?   | <b>36%</b> |
| <b>2) Qualifications for Those Teaching Physical Education</b> | 52. Has your state adopted a policy stating that newly-hired staffs who teach physical education at each of the following levels will have undergraduate or graduate training in physical education or a related field? | <b>90%</b> |
|  | 55. Has your state adopted a policy stating that newly-hired staffs who teaches physical education at each of the following levels will be certified, licensed, or endorsed by the state to teach physical education?   | <b>8%</b>  |
|  | 56. Has your state adopted a policy stating that teachers will earn continuing education credits on physical education topics to maintain state certification, licensure, or endorsement to teach physical education?   | <b>12%</b> |
| <b>3) Existence of Curricular Standards</b>                    | 2. Does your state have you state a policy encouraging districts or schools to follow any national or state physical education standards or guidelines?   | <b>30%</b> |
| <b>4) Class Size/Time Requirements</b>                         | 8. Based on policies adopted by your state, how much physical education (excluding recess) are students required to receive while in school?  | <b>25%</b> |
|  | 9. Based on policies adopted by your state, can students be exempted from physical education requirements for one grading period or longer for each of the following reasons?   | <b>41%</b> |
|  | 17. Based on policies adopted by your state, how much physical education are students required to receive while in school?*   | <b>12%</b> |
| <b>5) Accountability for Student Achievement</b>               | 14. Has you state adopted goals, objectives, or expected outcomes for physical education curricula?   | <b>41%</b> |
|  | 31. Does your state education agency require or recommend that schools give each of the following types of tests?   | <b>12%</b> |
|  | 32. Does your state education agency require or recommend that schools tests students' fitness levels?  | <b>12%</b> |
|  | 33. Does your state education agency require or recommend that schools use each of the following fitness tests?   | <b>22%</b> |
|  | 61. During the past 2 years, have the following aspects of your state physical education program been evaluated?  | <b>22%</b> |

However, knowing that childhood obesity is on a rise is not enough. States and school districts are not taking the necessary steps to ensure our children grow up to be well-rounded citizens mentally and physically. The questionnaires used in this research revealed that only 25% of states require physical education for graduation. It also revealed that students are able to be exempted from physical education in 59% of the states. This goes to show that despite national recommendations and recommendations made by The Surgeon General, The American Heart Association, The President's Council, and Healthy People 2010, states are still ignoring professional advice.

It has also been advised that physical education instructors possess some form of training or certification in the area, as teachers knowledgeable in the area teach more effective classes. However, once again, the questionnaires revealed that states have not considered this recommendation either. While 90% of the states require their physical education instructors to have a undergraduate degree of some sort, only 8% of the states require their instructors to have a licensure or certification in the area. Needless to say only 12% of the states actually require their physical education instructors to maintaining a certain amount of continuing education credits per year.

“Every student in our nation's schools, from kindergarten through grade 12, should have the opportunity to participate in quality physical education. It is the unique role of quality physical education programs to develop the health-related fitness, physical competence and cognitive understanding about physical activity for all students so that students can adopt healthy and physically active lifestyles”. This statement from the Physical Education for Progress Act of 2001 (PEP), this appears to be a clear vote of support by the federal government for school-based physical education. So, the question

we must ask ourselves is why then are the majority of our nation's kids still suffering from a significant lack of physical activity? It is not enough to know that the lack of physical activity among our nations youth is a problem if no one is willing to step up and do something about it. As a nation, we can pick our brains on ways to cut healthcare cost and ways to prevent premature death but until we recognize the common denominator we are wasting our time.

### **Comments**

Several states expressed very positive signs of physical education improvement in their states. Others expressed concerns over the physical condition of their students and the fact that students can avoid physical education by participating in other courses, activities, etc. One state expressed concern that the requirement for physical education may be dropped. Most believed that teachers, parents and policy makers need to get more involved at all levels to ensure positive physical education programs for all students in every state in the future.

### **Recommendations**

To achieve the level of activity outlined in this research, it is advised that schools abide by the recommendations of national organizations, such as NASPE. NASPE recommends that schools across the county make physical education instruction the cornerstone of a systematic physical activity promotion. It is also recommended, based on the findings in this research, that physical education courses be planned instructional programs 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.

## **Conclusion**

Based on the questionnaires used in this research, methods of impacting schools increase quality physical education programs should adhere to the recommendations given by experts in the field. Schools should be required to teach physical education from K-12<sup>th</sup> grade, have written curriculums and testing materials, and should only employ certified specialists in physical education at all levels. Implementing these and other recommended changes will help improve the quality of physical education programs. It was once stated that “a child’s mind is a terrible thing to waste.” This is true, but neglecting a child’s body will indirectly destroy his mind!

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# APPENDIX A

# APPENDIX B

**STATE RESPONSES 2000 NASPE QUESTIONNAIRE**

|                | Category 1 |     |    | Category 2 |     |     | Category 3 | Category 4 |      | Category 5 |     |     |     |
|----------------|------------|-----|----|------------|-----|-----|------------|------------|------|------------|-----|-----|-----|
| States         | Q18        | Q24 | Q9 | Q52        | Q55 | Q56 | Q2         | Q14        | QY17 | Q14        | Q31 | Q32 | Q61 |
| Alabama        | Y          |     | Y  | Y          | Y   |     |            | Y          | Y    |            |     | Y   | Y   |
| Alaska         |            | Y   | Y  |            | Y   |     | Y          |            |      |            |     |     | Y   |
| Arizona        | Y          | Y   |    |            | Y   |     |            | Y          | Y    | Y          |     |     | Y   |
| Arkansas       | Y          | Y   | Y  |            | Y   | Y   |            | Y          | Y    |            |     |     |     |
| California     | Y          |     | Y  |            | Y   |     | Y          | Y          |      | Y          |     |     |     |
| Colorado       | Y          |     |    |            | Y   |     |            | Y          |      | Y          | Y   |     | Y   |
| Connecticut    |            | Y   | Y  |            | Y   |     |            | Y          |      | Y          |     |     | Y   |
| Delaware       |            |     | Y  |            | Y   | Y   |            | Y          |      |            |     |     |     |
| Florida        |            |     | Y  |            | Y   |     |            |            |      |            |     |     |     |
| Georgia        |            |     | Y  |            | Y   |     |            |            |      |            |     | Y   |     |
| Hawaii         |            | Y   | Y  |            | Y   |     |            | Y          |      | Y          |     | Y   |     |
| Idaho          |            |     | Y  |            | Y   |     |            | Y          |      | Y          |     |     |     |
| Illinois       | Y          |     | Y  |            |     | Y   |            |            | Y    |            |     |     |     |
| Indiana        | Y          |     |    |            | Y   | Y   |            |            | Y    |            |     |     |     |
| Iowa           | Y          |     | Y  |            | Y   |     | Y          |            |      |            |     |     | Y   |
| Kansas         |            |     |    |            | Y   |     | Y          |            |      |            |     |     |     |
| Kentucky       |            | Y   |    |            | Y   |     | Y          |            |      |            |     |     |     |
| Louisiana      |            | Y   | Y  |            | Y   |     |            |            |      | Y          |     |     |     |
| Maine          |            | Y   | Y  |            |     |     |            |            |      | Y          |     |     |     |
| Maryland       |            | Y   | Y  |            | Y   |     |            |            |      | Y          |     |     | Y   |
| Massachusetts  | Y          |     | Y  |            | Y   |     |            |            |      | Y          |     |     |     |
| Michigan       | Y          | Y   |    |            | Y   |     |            |            | Y    |            | Y   |     |     |
| Minnesota      |            | Y   |    |            |     |     |            |            |      |            |     |     |     |
| Mississippi    | Y          | Y   |    |            | Y   |     |            |            |      |            |     |     |     |
| Missouri       | Y          |     |    |            | Y   |     |            |            | Y    | Y          |     |     |     |
| Montana        |            |     | Y  |            | Y   |     |            | Y          | Y    | Y          | Y   |     |     |
| Nebraska       |            |     | Y  |            | Y   |     |            | Y          | Y    |            |     |     |     |
| Nevada         |            |     | Y  |            | Y   |     | Y          |            | Y    |            |     |     |     |
| New Hampshire  | Y          |     | Y  |            | Y   | Y   | Y          |            |      |            |     |     | Y   |
| New Jersey     | Y          |     |    |            | Y   |     |            |            |      | Y          |     | Y   |     |
| New Mexico     |            | Y   |    |            | Y   |     |            |            |      | Y          |     |     |     |
| New York       |            |     | Y  |            | Y   |     |            |            |      | Y          |     |     |     |
| North Carolina |            | Y   | Y  |            | Y   |     |            |            | Y    | Y          | Y   |     |     |
| North Dakota   |            |     | Y  |            | Y   |     |            |            | Y    |            |     |     |     |
| Ohio           |            | Y   | Y  |            | Y   |     | Y          |            |      |            |     | Y   | Y   |
| Oklahoma       | Y          | Y   | Y  |            | Y   |     | Y          |            | Y    |            |     |     |     |
| Pennsylvania   |            | Y   | Y  |            | Y   |     | Y          |            | Y    |            | Y   |     |     |
| Rhode Island   |            |     | Y  |            |     |     |            |            | Y    | Y          |     |     |     |
| South          |            |     | Y  |            | Y   |     |            | Y          |      | Y          |     |     |     |

|                             |   |  |   |  |   |   |   |  |   |   |   |   |   |
|-----------------------------|---|--|---|--|---|---|---|--|---|---|---|---|---|
| <b>Carolina</b>             |   |  |   |  |   |   |   |  |   |   |   |   |   |
| <b>South Dakota</b>         |   |  |   |  | Y |   |   |  |   |   |   |   | Y |
| <b>Tennessee</b>            | Y |  | Y |  | Y |   |   |  | Y | Y |   |   |   |
| <b>Texas</b>                |   |  | Y |  | Y |   | Y |  |   |   |   |   |   |
| <b>Utah</b>                 |   |  | Y |  | Y |   | Y |  | Y | Y |   |   | Y |
| <b>Vermont</b>              |   |  |   |  | Y | Y |   |  |   | Y |   |   | Y |
| <b>Virginia</b>             |   |  |   |  | Y |   | Y |  |   |   | Y | Y |   |
| <b>Washington</b>           |   |  |   |  | Y |   | Y |  |   |   |   |   |   |
| <b>West Virginia</b>        |   |  |   |  | Y |   | Y |  | Y |   |   |   |   |
| <b>Wisconsin</b>            |   |  |   |  |   |   |   |  | Y | Y |   |   |   |
| <b>Wyoming</b>              |   |  |   |  | Y |   |   |  | Y |   |   |   |   |
| <b>District of Columbia</b> |   |  |   |  | Y |   |   |  | Y |   |   |   |   |