The Importance of Physical Education

An Overview and Major Facts
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The Importance of Physical Education

- Every generation has a name.
- There was the “now” generation
- There was the “me” generation
- There was the “flower child” generation
- Now, in this generation, the youth are called the “O” generation
- The “O” stands for “Obese”
- We now have the “Obese generation, because of a high percentage of the population being obese due to lack of physical education and poor nutritional habits

The Importance of Physical Education Continued:

- With obesity reaching epidemic proportions, and health in a precarious situation due to the lack of physical exercise and poor nutritional habits, it is now more important than ever for physical education to be a very important part of the educational family
- We need the support of every discipline in the educational system to recognize the need for physical education if we are ever able to swing the tide of this “horrific” epidemic
Obesity* Trends Among U.S. Adults
BRFSS, 1985

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

Source: BRFSS, CDC.

Obesity* Trends Among U.S. Adults
BRFSS, 1986

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

Source: BRFSS, CDC.

Obesity* Trends Among U.S. Adults
BRFSS, 1987

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

Source: BRFSS, CDC.
Obesity* Trends Among U.S. Adults
BRFSS, 1988

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

No Data | <10% | 10%-14% | 15-19% | ≥ 20%

Source: BRFSS, CDC.

Obesity* Trends Among U.S. Adults
BRFSS, 1989

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

No Data | <10% | 10%-14% | 15-19% | ≥ 20%

Source: BRFSS, CDC.

Obesity* Trends Among U.S. Adults
BRFSS, 1990

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

No Data | <10% | 10%-14% | 15-19% | ≥ 20%

Source: BRFSS, CDC.
Obesity Trends Among U.S. Adults
BRFSS, 1994

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

Source: BRFSS, CDC.

No Data  <10%  10%-14%  15-19%  ≥20%

Obesity Trends Among U.S. Adults
BRFSS, 1995

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

Source: BRFSS, CDC.

No Data  <10%  10%-14%  15-19%  ≥20%

Obesity Trends Among U.S. Adults
BRFSS, 1996

(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)

Source: BRFSS, CDC.

No Data  <10%  10%-14%  15-19%  ≥20%
Obesity* Trends Among U.S. Adults
BRFSS, 1997
(*BMI ≥ 30, or ~ 30 lbs overweight for 5'4" person)

No Data < 10% 10%-14% 15-19% ≥ 20%

Source: BRFSS, CDC.

Obesity* Trends Among U.S. Adults
BRFSS, 1998
(*BMI ≥ 30, or ~ 30 lbs overweight for 5'4" person)

No Data < 10% 10%-14% 15-19% ≥ 20%

Source: BRFSS, CDC.

Obesity* Trends Among U.S. Adults
BRFSS, 1999
(*BMI ≥ 30, or ~ 30 lbs overweight for 5'4" person)

No Data < 10% 10%-14% 15-19% ≥ 20%

Source: BRFSS, CDC.
Obesity* Trends Among U.S. Adults  
BRFSS, 2000  
(*BMI ≥ 30, or ~ 30 lbs overweight for 5’4” person)  
Source: BRFSS, CDC.

The Importance of Physical Education Continued:

- It is more important than ever that educators from the other academic disciplines, students, lawmakers, and the population in general, recognize and give the same respect to physical education and health education that the other academic disciplines get.
- The other academic disciplines help students get the coursework needed to help them get into the profession(s) they desire.

The Importance of Physical Education Continued:

- But, Physical Education and Health Education give the coursework necessary to help the students stay alive so they can perform in their desired profession(s).
- The bottom line is: whether you are a superb athlete, a valedictorian, a student involved in many student activities, or just trying to make it through school – physical activity (and the education derived through it) is important to your mental and physical health.
The Importance of Physical Education Continued:

- If you don’t learn how to properly take care of your body, and you die from a heart attack at age 40, what good are you: to your family, your profession?
- Did the other academic areas help much if this occurs?
- Some of the adjectives that can be used in physical education would be: leadership, teamwork, physical wellness/hygiene, stress relief, time management, social interaction, and self-esteem

The Importance of Physical Education Continued:

- The last adjective: self-esteem
- Let’s look at this further. The April 8, 2003, edition of the Journal of the American Medical Association (JAMA) reported that young overweight and out-of-shape children viewed their quality of life as low as those children who were dying from a terminal illness, such as cancer
- Many reports show a very low self esteem in all out-of-shape and overweight children

The Importance of Physical Education Continued:

- Just based on the above information, we can see why it is so important to include Physical Education in every high school curriculum and to include Physical Education in all four years of high school
- It is also just as important, if not more so, to make Physical Education a requirement for a degree in the Community Colleges and Colleges and Universities.
The Importance of Physical Education Continued:

- Why? Because, while 69% of the 13 – 15 year olds (Physical Education is required the first two years of high school) exercise on a regular basis, the percentage of those who exercised on a regular basis dropped to 38% for college age students (18 – 21)

The Importance of Physical Education Continued:

- The reason for the drop? It is suspected that students got out of the habit of exercising in their junior and senior years in high school and continued in the same habit while attending college
- If this epidemic doesn’t stop, where is our nation headed?
- Look at the next slide and it will show you that we are already in a very sad state when it comes to overweight and obesity in the United States

The Importance of Physical Education Continued:

- The United States is the most obese nation in the world
- Latest statistics show that 65% of all adults are overweight in this nation
- 50% of these overweight individuals are considered obese
- Statistics also show that 34% of all children in our nation are overweight and have very low fitness levels
- According to Newsweek in February of 2003, this is up from 5% in the 1970’s
1 in 3 Born in 2000 Are Likely to Become Diabetic, CDC Estimates

- This report was from the Los Angeles Times, June 15, 2003
- If the prediction is borne out, about 45 million in U.S. could have the disease by 2050, an expert says
- One in 3 U.S. children born in 2000 will become diabetic unless many more people start eating less and exercising more, a scientist with the Centers for Disease Control and Prevention warns

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1 in 3 Born in 2000 Are Likely to Become Diabetic Continued:

- The odds are worse for black and Hispanic children: Nearly half of them are likely to develop the disease, said Dr. K.M. Venkat Narayan, a diabetes epidemiologist at the CDC
- “I think the fact that the diabetes epidemic has been raging has been well known to us for several years. But looking in these terms was very shocking to us,” Narayan said

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1 in 3 Born in 2000 Are Likely to Become Diabetic, Continued:

- The projected lifetime risk is about triple the American Diabetes Association’s current estimate
- The implications are frightening!
- Diabetes leads to a host of problems, including blindness, kidney failure, amputation and heart disease, and diabetics are getting younger and younger
1 in 3 Born in 2000 Are Likely to Become Diabetic, Continued:

- Including undiagnosed cases, authorities believe about 17 million Americans, nearly 6% of the U.S. population, have diabetes today.
- If the CDC predictions are accurate, 45 million to 50 million U.S. residents could have the disease by 2050, said Dr. Kevin McKinney, director of the adult clinical endocrinological unit at the University of Texas Medical Center in Galveston.

1 in 3 Born in 2000 Are Likely to Become Diabetic, Continued:

- “There is no way that the medical community could keep up with that,” he said.
- McKinney, who was not part of the study, said Narayan’s procedures are valid and the estimates, presented Saturday to the American Diabetes Association, are probably all too accurate.
- Diabetes, a disease caused largely by obesity and lack of exercise, has been an increasing worry for decades.

1 in 3 Born in 2000 Are Likely to Become Diabetic, Continued:

- From the mid-1960’s to the mid-1990’s, the number of cases tripled.
- The number of diagnosed cases rose by nearly half in just the last 10 years, hitting 11 million in 2000, and is expected to rise an additional 165% by 2050, an earlier CDC study by Narayan and others found.
- “These estimates I am giving you now are probably quite conservative,” Narayan said in an interview before the diabetes association’s annual scientific meeting.
1 in 3 Born in 2000 Are Likely to Become Diabetic, Continued:

- Narayan said it would be difficult to say whether undiagnosed cases would rise at the same rate.
- If they did, that could push the 2050 figure to way over the 45 million to 50 million mark.
- Doctors had known for some time that Type 2 diabetes – what used to be called adult-onset diabetes because it typically showed up in middle-aged people – is on the rise, and that patients are getting it younger.

Nobody else had crunched the numbers to look at current odds of getting the disease, Narayan said.

Overall, he said, 39% of the girls who now are healthy 2 ½ to 3-year-olds and 33% of the boys are likely to develop diabetes, he said.

For Hispanic children, the odds are closer to 1 in 2: 53% of the girls and 45% of the boys.

The numbers are about 49% and 40% for black girls and boys, and and 31% and 27% for white girls and boys.

Narayan used data from the annual National Health Interview Survey of about 360,000 people from 1984-2000, from the U.S. Census Bureau and from a previous study of diabetes as a cause of death.
1 in 3 Born in 2000 Are Likely to Become Diabetic, Continued:

- The World Health Organization has estimated that by 2025, the number of people with diabetes worldwide will more than double, from 140 million to 300 million
- It doesn't have to happen
- Type 2 diabetes can be prevented or delayed by losing weight, exercising and following a sensible diet

A study two years ago found that walking 30 minutes a day most days of the week and losing a little weight helped the people that were most likely to get it, to cut their risk by 58%

The Importance of Physical Education Continued:

- Dr. Kenneth Cooper, of the Cooper Institute in Dallas, Texas, did a research project that showed 5 and 6 year olds were already high blood pressure, have excessive body fat, and have very poor levels of fitness
- A California State study through the California Department of Education (CDE), (not the department of physical education), showed that there is a distinct relationship between academic achievement and physical education in California’s public schools students
Findings from the CDE showed that higher achievement was associated with higher levels of fitness at each of the three grade levels measured.

State Superintendent of Public Instruction Delaine Eastin announced on December 10, 2002 that the results of a recent study conducted by the California Department of Education (CDE) show a distinct relationship between academic achievement and the physical fitness of California’s public school students.

“The statewide study provides compelling evidence that the physical well-being has a direct impact on their ability to achieve academically,” said Eastin.

“We now have the proof we’ve been looking for: students achieve best when they are physically fit. Thousands of years ago, the Greeks understood the importance of improving spirit, mind, and body. The research presented here validates their philosophic approach with scientific validation,” she continued.

The newly completed research study individually matched scores from the spring 2001 administration of the Stanford Achievement Test, Ninth Edition (SAT-9), given as part of California’s Standardized Testing and Reporting Program, with results of the state-mandated physical fitness test, known as the Fitnessgram, given in 2001 to students in grades five, seven, and nine.
The Importance of Physical Education Continued:

- In the study, reading and mathematics scores were matched with fitness scores of 353,000 fifth graders, 322,000 seventh graders, and 279,000 ninth graders
- The bar graphs for each grade show a significant relationship between the two types of scores that were matched
- Key finds of the study are:
  1. Higher achievement was associated with higher levels of fitness at each of the three grade levels measured

The Importance of Physical Education Continued:

- Key finds of the study continued:
  2. The relationship between academic achievement and fitness was greater in mathematics than in reading, particularly at higher fitness levels
  3. Students who met minimum fitness levels in three or more physical fitness areas showed the greatest gains in academic achievement at all three grade levels

The Importance of Physical Education Continued:

- Eastin pointed to physical education as a primary source for promoting physical fitness
- "Every student in California should have quality physical education experiences from kindergarten through high school," Eastin said
- "The goal of these programs should be to provide students with the knowledge, skills and confidence to participate in health enhancing physical activity throughout their lives," she continued
The Importance of Physical Education Continued:

- The California Education Code mandates physical education for all students in grades one through nine, plus one additional year in high school.
- Students in grades one through six are required to have 200 minutes of physical education every 10 school days, and students in grades seven through twelve are required to have 400 minutes every 10 school days.

The Importance of Physical Education Continued:

- Health-related fitness assessment results can be used as a tool to help students understand, enjoy, improve, and maintain their physical health and well-being.
- In 2001, more than one million students participated in statewide physical performance testing mandated by Assembly Bill 265 in 1995.
- The law requires that school districts annually administer a physical fitness test designated by the State Board of Education to all fifth, seventh and ninth graders.

The Importance of Physical Education Continued:

- The Fitnessgram, developed by the Cooper Institute for Aerobics Research, assesses six major health-related areas of physical fitness including aerobic capacity (cardiovascular endurance), body composition (percentage of body fat), abdominal strength and endurance, trunk strength and flexibility, upper body strength and endurance, and overall flexibility.
- A score of 6 indicates that a student is in the health fitness zone in all six performance areas, and meets standards to be considered physically fit.
The Importance of Physical Education Continued:

- An important note: Fitnessgram results from the 2001 administration indicated that 23 percent of California’s fifth, seventh, and ninth graders tested could be considered physically fit.
- Twelve years after going from 4 years of required physical education to 2 years in the high schools in California, the average graduating senior is 12% higher in bodyfat (1% increase each year on average).

The Importance of Physical Education Continued:

- We are more sedentary now than ever in the history of the world. Not only are we more sedentary in our professions, young children are playing sedentary computer games instead of being involved in physical activities for their play.
- Using alcohol and other drugs to relieve emotional stress is at an all time high, with research showing that it is getting worse.

The Importance of Physical Education Continued:

- Instead of being physically active to improve health and relieve distress in their lives, they damage their bodies.
- Again, statistics show that physical activity is one of the best ways to decrease emotional stress and distress.
- I have been on a State Committee for Physical Education and Health (CPEHP) the past three years.
The Importance of Physical Education Continued:

- Because of the negative impact that reduced physical activity had on our students in the state, we were working hard to get physical education as a requirement for all four years back in the high schools.
- I want to shared with you a few personal anecdotes from Orange Coast College about the importance of Physical Education:
- I just received a letter in December from one of my students stating that I had saved her physical life.

The Importance of Physical Education Continued:

- Her statement was that the classes she had taken helped her to get through 12 years of anorexia.
- She has been clean from anorexia for the past 1 ½ years.
- This was just the last, not the first, of comments or letters I have received.
- I wish I had a dollar for every one of these letters or comments over the past 30 years I have been at Orange Coast College.

The Importance of Physical Education Continued:

- We have letters or comments from many who have been recovering from drug abuse, anorexia, bulimia, etc., commenting on how they have had their lives changed.
- By the way, I do not for a minute, feel that I am the one who saved their physical lives.
- I was only a vessel in the courses I taught.
- The past letter also mentioned two other physical educators at OCC that this person felt help "save her physical life".
The Importance of Physical Education Continued:

- How many other “classes” can talk about lives being helped like this?
- Many students have also told me that the experience in physical education is the “first” positive and “high” quality physical education instruction they have ever received
- In fact, due to their prior experience, none of them wanted to enroll in one of our classes, but because of the requirement at Orange Coast College to have a physical education requirement to get an A.A. degree, they had to participate

The Importance of Physical Education Continued:

- Because of the requirement, they now have “LIFETIME ACTIVITIES” THAT THEY WILL CONTINUE BECAUSE OF THE POSITIVE PHYSICAL EDUCATION CURRICULUM AT ORANGE COAST COLLEGE
- Last semester, as an example of only one of our programs, we had over 600 students in PE 107 (Fitness Programs)
- This semester (Spring 2003), we are already above where we were at the same period last fall

The Importance of Physical Education Continued:

- The importance of this is the fact than many of the students are repeats, (taking the class again), because of the progress they made the first time
- PE 107 can be taken 4 times
- Why am I telling you this?
- Because, the first time the students were taking the class, they were taking the class only because they had the physical education requirement
The Importance of Physical Education Continued:

- We don’t just teach a course on how to get a job
- We teach how to live better
- "It’s exercise, not that I might live longer. That might be an added benefit. It’s exercise that I might live life more fully now." (Leon Skeie)

The Importance of Physical Education Continued:

- Why is physical education so important in the Community College setting?
- 69% of young people 12-13 years of age exercised vigorously on at least 3 of the preceding 7 days in CDC’s research
- However, only 38% of those 18-21 years of age (community college age) exercised vigorously on at least 3 of the preceding 7 days in CDC’s research
- The percentage for those above 21 years of age who exercised vigorously is even lower

The Importance of Physical Education Continued:

- There is another saying that rings so true. It is:
  - "We spend our health in search of wealth. We sweat, we toil, we slave. Then we spend our health instead of health, and all we get is a grave."
- This is the way too many individuals who have not made exercise a priority live their lives
- All too sadly, they learn too late
- The reason for the statement above is this: It doesn’t matter if you have a PHD, if you are 36 and die of a heart attack, what good are you to anyone, your family, your profession?
The Importance of Physical Education Continued:

- America loves to think of itself as a youthful nation focused on fitness
- But, behind the vivid media images of robust runners, Olympic Dream Teams, and rugged mountain bikers is the troubling reality of a generation of young people that is, in large measure, inactive, unfit, and increasingly overweight

The Importance of Physical Education Continued:

- The consequences of the sedentary lifestyles lived by so many of our young people are grave.

The Importance of Physical Education Continued:

- In the long run, physical inactivity threatens to reverse the decades-long progress we have made in reducing death and suffering from cardiovascular diseases
- A physically inactive population is at increased risk for many chronic diseases, including heart disease, stroke, colon cancer, diabetes, and osteoporosis
- In addition to the toll taken by human suffering, surges in the prevalence of these diseases could lead to crippling increases in our national health care expenditures
The Importance of Physical Education Continued:

- Physical inactivity has contributed to an unprecedented epidemic of childhood obesity that is currently plaguing the United States.
- In the short run, physical inactivity has contributed to an unprecedented epidemic of childhood obesity that is currently plaguing the United States.
- The percentage of young people who are overweight has doubled since 1980.

The Importance of Physical Education Continued:

- Of the children aged 5 to 10 who are overweight, 61% have one or more cardiovascular disease risk factors, and 27% have two or more.
- The negative health consequences linked to the childhood obesity epidemic include the appearance in the past two decades of a new and frightening public health problem: type 2 diabetes among adolescents.
- Type 2 diabetes was previously so rarely seen in children or adolescents that it came to be called “adult-onset diabetes.”

The Importance of Physical Education Continued:

- Now, an increasing number of teenagers and preteens must be treated for diabetes and strive to ward off the life-threatening health complications that it can cause.
- Obesity in adolescence has been associated with poorer self-esteem and with obesity in adulthood.
- Among adults today, 25% of the women and 20% of the men are obese.
The Importance of Physical Education Continued:

- The total costs of diseases associated with obesity have been estimated at almost $100 billion per year, or approximately 8% of the national health care budget.
- In January 2000 the nation issued Healthy People 2010 included a set of leading health indicators – 10 high priority public health areas for enhanced public attention.
- The fact that the first leading health indicator is physical activity and the second is overweight and obesity speaks clearly to the national importance of these issues.

The Importance of Physical Education Continued:

- Enhancing efforts to promote participation in physical activity and sports among young people is a critical national priority.
- That is why, on June 23, 2000, President Clinton issued a directive to the Secretary of Health and Human Services and the Secretary of Education to work together to identify and report within 90 days on “strategies to promote better health for our nation’s youth through physical activity and fitness.”

The Importance of Physical Education Continued:

- The President instructed the Secretaries to include in this report strategies for:
  - Promoting the renewal of physical education in our schools and the expansion of after-school programs that offer physical activities and sports in addition to enhanced academics and cultural activities.
The Importance of Physical Education Continued:

- The landmark 1996 Surgeon General's report, *Physical Activity and Health*, identified substantial health benefits of regular participation in physical activity, including reducing the risks of dying prematurely; dying prematurely from heart disease; and developing diabetes, high blood pressure, or colon cancer.
- When physical inactivity is combined with poor diet, the impact on health is devastating, accounting for an estimated 300,000 deaths per year.

The Importance of Physical Education Continued:

- Tobacco use is the only behavior that kills more people.
- The Surgeon General's report made clear that the health benefits of physical activity are not limited to adults.
- Regular participation in physical activity during childhood and adolescence:
  1. Helps build and maintain health bones, muscles, and joints.
  2. Helps control weight, build lean muscle, and reduce fat.

The Importance of Physical Education Continued:

3. Prevents or delays the development of high blood pressure and helps reduce blood pressure in some adolescents with hypertension.
4. Reduces feelings of depression and anxiety.
5. Through its effects on mental health, physical activity may help increase students' capacity for learning (this was proven to be true in report by the California Department of Education, 2002).
The Importance of Physical Education Continued:

- One other study found that spending more time in physical education (participation in a 2-year health-related physical education program) had several significant favorable effects on academic achievement.
- Participation in physical activity and sports can promote social well-being, as well as physical and mental health, among young people.

The Importance of Physical Education Continued:

- Research has shown that students who participated in interscholastic sports are less likely to be regular and heavy smokers or use drugs, and are more likely to stay in school and have good conduct and high academic achievement.
- Sports and physical activity programs can introduce young people to skills such as teamwork, self-discipline, sportsmanship, leadership, and socialization.

The Importance of Physical Education Continued:

- Lack of recreational activity, on the other hand, may contribute to making young people more vulnerable to gangs, drugs, and violence.
- One of the major benefits of physical activity is that it helps people improve their physical fitness.
- Fitness is a state of well-being that allows people to perform daily activities with vigor, participate in a variety of physical activities, and reduce their risks for health problems.
The Importance of Physical Education Continued:

- Five basic components of fitness are important for good health:
  1. Cardiorespiratory endurance
  2. Muscular strength
  3. Muscular endurance
  4. Flexibility
  5. Body composition (percentage of body fat)

The Importance of Physical Education Continued:

- A second set of attributes, referred to as sport-or-skill-related physical fitness, includes:
  1. Power
  2. Speed
  3. Agility
  4. Balance
  5. Reaction time

The Importance of Physical Education Continued:

- Although skill-related fitness attributes are not essential for maintaining physical health, they are important for athletic performance or physically demanding jobs such as military service and emergency and rescue services
The Importance of Physical Education Continued:

- How much physical activity and fitness do young people need?
- The Surgeon General’s report on physical activity concluded that:
  1. People who are usually inactive can improve their health and well-being by becoming even moderately active on a regular basis
  2. Physical activity need not be strenuous to achieve health benefits

The Importance of Physical Education Continued:

- The Surgeon General’s report on physical activity concluded that:
  3. Greater health benefits can be achieved by increasing the amount (duration, frequency, or intensity) of physical activity
- Rigorous scientific reviews have led to two widely accepted sets of developmentally appropriate recommendations – one for adolescents, the other for elementary school-aged children – for how much and what kinds of physical activity young people need

The Importance of Physical Education Continued:

- The International Consensus Conference on Physical Activity Guidelines for Adolescents issued the following recommendations:
  1. All adolescents should be physically active daily, or nearly every day, as part of play, games, sports, work, transportation, recreation, physical education, or planned exercise, in the context of family, school, and community activities
The Importance of Physical Education Continued:

- Recommendations continued:
  2. Adolescents should engage in three or more session per week of activities that last 20 minutes or more at a time and that require moderate to vigorous levels of exertion
  - The developmental needs and abilities of younger children differ from those of adolescents and adults

The Importance of Physical Education Continued:

- The National Association for Sport and Physical Education (NASPE) has issued physical activity guidelines for elementary school-aged children that recommend the following:
  1. Elementary school-aged children should accumulate at least 30 to 60 minutes of age-appropriate and developmentally appropriate physical activity from a variety of activities on all, or most, days of the week

The Importance of Physical Education Continued:

- Recommendations for elementary school-aged children continued:
  2. An accumulation of more than 60 minutes, and up to several hours per day, of age-appropriate and developmentally appropriate activity is encouraged
  3. Some of the child’s activity each day should be in periods lasting 10 to 15 minutes or more and include moderate to vigorous activity with brief periods of rest and recovery
Recommendations for elementary school-aged continued:

4. Children should not have extended periods of inactivity

*Healthy People 2010*, the national initiative that established health objectives for the first decade of the century, includes objectives to increase levels of moderate and vigorous physical activity among adolescents, to increase the proportion of trips made by walking and bicycling, and to decrease the amount of time young people spend watching television.

Furthermore, *Healthy People 2010* includes participation in physical activity as one of the nation’s 10 leading health indicators. Or the two objectives that will be used to measure progress in meeting this indicator, one targets adolescents:

1. Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

In widespread research organizations, there is agreement that fitness tests should emphasize health-related fitness components and that standards for interpreting test results should be based on the relationship between physical activity and health rather than on the results of other students (i.e., norms). This will give all children and adolescents the opportunity to experience success, reinforce the link between fitness and health, and emphasize that one can be fit without being an elite athlete.
The Importance of Physical Education Continued:

- The importance of physical activity is reinforced in the 2000 version of the *Dietary Guidelines for Americans*, which forms the basis of all federal nutrition education and promotion activities.
- One of the guidelines advises Americans to "be physically active each day"; children and teens are advised to aim for at least 60 minutes of moderate physical activity most days of the week, preferably daily.

The Importance of Physical Education Continued:

- How active and Fit Are Our Children and Adolescents?
- Available data indicate that young children are among the most active of all segments of the population, but physical activity levels begin to decline as children approach their teenage years and continue to decline throughout adolescence.

The Importance of Physical Education Continued:

- Even among children and adolescents, however, a substantial proportion of the population does not meet recommended levels of participation in physical activity.
The Importance of Physical Education Continued:

- The Centers for Disease Control and Prevention’s (CDC’s) Youth Risk Behavior Surveillance System collects data on participation in physical activity from a nationally representative sample of students in grades 9-12.
- The data shows that, among high school students:
  1. More than one in three (35%) do not participate regularly in vigorous physical activity.

The Importance of Physical Education Continued:

- The data shows that, among high school students continued:
  2. Regular participation in vigorous physical activity drops from 73% of 9th grade students to 61% of 12th grade students.
  3. Nearly half (45%) do not play on any sports teams during the year.
  4. Nearly half (44%) are not even enrolled in a physical education class; enrollment in physical education drops from 79% in 9th grade to 37% in the 12th grade.

The Importance of Physical Education Continued:

- The data shows that, among high school students continued:
  5. Only 29% attend daily physical education classes, a dramatic decline from 1991, when 42% of high school students did so.
- As was previously stated, national transportation surveys have found that walking and bicycling by children aged 5-15 dropped 40% between 1977 and 1995.
The Importance of Physical Education Continued:

- More than one-third of all trips to school are made from one mile away or less, but 31% of these trips are made by walking.
- Although an estimated 38 million young people participate in youth sports programs, participation declines as children progress through adolescence.
- One study found that attrition from youth sports programs was occurring among 10 year olds and peaked among 14-15 year olds.

The Importance of Physical Education

- One factor contributing to low levels of physical activity among young people might be the many hours that they spend doing sedentary activities, most notably using electronic media.
- A 1999 national survey found that young people aged 2-18 spend, on average, over 4 hours a day watching television, watching videotapes, playing video games or using a computer.

The Importance of Physical Education Continued:

- Most of this time – 2 hours and 46 minutes per day, on average – is spent watching television.
- One-third of children and adolescents watch television for more than 3 hours a day, and nearly one-fifth (17%) watch more than 5 hours of television a day.
- Physical inactivity has contributed to the 100% increase in the prevalence of childhood obesity in the United States since 1980.
The Importance of Physical Education Continued:

- According to the National Health and Nutrition Examination Survey (NHANES), between 1976-1980 and 1988-1994, the percentage of U.S. adolescents (aged 12-19) who were overweight increased from 5.4% to 9.7% of girls and 4.5% to 11.3% of boys.
- The changes among young children (ages 6-11) in the same period were similar, rising from 6.4% to 11.0% of girls and from 5.5% to 11.8% of boys (adding all of the percentages up, the increase was from 21.8% to 43.8% for all 6-19 year olds from 1976 –1994).
The Importance of Physical Education Continued:

- The last nationally representative study of youth fitness was conducted in the mid-1980’s, but it did not classify students based on whether or not they met health-related fitness standards.
- However, fitness tests administered throughout California in 1999 found that only about one in five students in the fifth, seventh, and ninth grades met the standards for all health-related fitness components and that more than 40% did not meet the minimum fitness standard for cardiorespiratory endurance.

The Importance of Physical Education Continued:

- How Our Society Discourages Physical Activity:
  - Behavior is shaped, in large measure, by one’s environment.
  - Our young people live in a social and physical environment that makes it easy to be sedentary and inconvenient to be active.
The Importance of Physical Education Continued:

- Developments in our culture and society over the past few decades that have discouraged youth physical activity include the following:
  1. Community design centered around the automobile has discouraged walking and bicycling and has made it more difficult for children to get together to play
  2. Increased concerns about safety have limited the time and areas in which children are allowed to play outside

The Importance of Physical Education Continued:

- Developments in our culture and society over the past few decades that have discouraged youth physical activity include the following continued:
  3. New technology has conditioned our people to be less active, while new electronic media (e.g., video and computer games, cable and satellite television) have made sedentary activities more appealing

The Importance of Physical Education Continued:

- Developments in our culture and society over the past few decades that have discouraged youth physical activity include the following continued:
  4. States and school districts have reduced the amount of time students are required to spend in physical education classes, and many of those classes have so many students that teachers cannot give students the individual attention they need
The Importance of Physical Education Continued:

- Developments in our culture and society over the past few decades that have discouraged youth physical activity include the following continued:
  5. Communities have failed to invest adequately in close-to-home physical activity facilities (e.g., parks, recreation centers)

The Importance of Physical Education Continued:

- Children and adolescents in the United States cannot become more physically active and fit if they don’t have a wide range of accessible, safe, and affordable opportunities to be active.
- However, opportunities alone are not enough: In the 21st century America, physical activity is, for the most part, a voluntary behavior.
- Our young people, therefore will not increase their levels of physical activity and fitness unless they are sufficiently motivated to do so.

The Importance of Physical Education Continued:

- Their motivation to be active will depend on the degree to which they find their physical activity experiences to be enjoyable.
- Enjoyment of physical activity, in turn, will be influenced by the extent to which young people:
  1. Can choose to engage in sports and physical activities that are most appealing to them.
  2. Are taught necessary skills.
  3. Develop confidence in their physical abilities.
The Importance of Physical Education Continued:

- Enjoyment of physical activity, in turn, will be influenced by the extent to which young people continued:
  4. Are guided by competent, knowledgeable, and supportive adults
  5. Are supported by cultural norms that make participation in physical activity desirable

The Importance of Physical Education Continued:

- To obtain the opportunities and motivation that will enable them to increase their levels of physical activity and fitness, young people can benefit from:
  1. **School programs**: including quality, daily physical education; health education; recess; and extracurricular activities – that help students develop the knowledge, attitudes, skills, behaviors, and confidence to adopt and maintain physically active lifestyles, while providing opportunities for enjoyable physical activity

The Importance of Physical Education Continued:

- **Families**: who model and support participation in enjoyable physical activity
- **After-school care programs**: that provide regular opportunities for active, physical play
- **Youth sports and recreational programs**: that offer a range of developmentally appropriate activities that are attractive to all young people
The Importance of Physical Education Continued:

5. **A community structural environment:** that makes it easy and safe for young people to walk, ride bicycles, and use close-to-home physical activity facilities

6. **Media campaigns:** that increase the motivation of young people to be physically active
   - The strategies presented in this report are all designed to promote lifelong participation in enjoyable and safe physical activity

The Importance of Physical Education Continued:

- Special efforts must be made to ensure that programs are responsive to those in greatest need, including girls and racial/ethnic minorities
- Girls are significantly less likely than boys to participate regularly in vigorous physical activity and on sports teams
- Among high school students in 1999, 57% of girls participated regularly in vigorous physical activity compared with 72% of boys, and 49% of girls played on a sports team compared with 62% of boys

The Importance of Physical Education Continued:

- Despite the tremendous gains girls have made in sports participation during the last 30 years — no doubt due, in large measure, to the 1972 Title IX legislation that prohibited sex discrimination in school athletics — the ratio of female to male participants in interscholastic sports is still only 3:5
- Girls join organized sports programs at later ages than boys and drop out at younger ages
In its 1997 report, *Physical Activity and Sport in the Lives of Girls*, the President’s Council on Physical Fitness and Sports (PCPFS) concluded that physical activity has an increasingly important role in the lives of girls, because of both its physical and emotional health benefits.

Strategies to increase the amount of physical activity for boys and girls will need to be different, because girls tend to prefer different types of physical activity and pursue it for different reasons than do boys.

Since girls are more likely to have lower self-esteem related to their physical capabilities, programs that serve girls should provide instruction and experiences that increase their confidence, offer ample opportunities for participation, and establish social environments that support involvement in a range of physical activities.

Resources must be invested in creative, culturally sensitive, linguistically appropriate programs to give all young Americans the opportunities and motivation they need to become more active.

Among high school students in 1999, whites were significantly more likely than blacks to report regular participation in physical activity (67% vs. 56%) and more likely than Hispanics to play on sports teams in and out of school (57% vs. 51%).

Establishing a physically active lifestyle in adolescence is particularly important for African-Americans and Hispanics, because African-American and Hispanic adults are at increased risk for physical inactivity, obesity and diabetes.
African-American adults also are at increased risk for death from heart disease. Resources must be invested in creative, culturally sensitive, linguistically appropriate programs to give all young Americans the opportunities and motivation they need to become more active.

The Importance of Physical Education Continued:

**Implementation:**
Implementing strategies to promote physical activity and sports participation will require the commitment of resources from federal, state, and local governments and the private sector, as close collaboration among health, education, and youth-serving organizations.

National efforts to implement and sustain activities to promote youth participation in physical activity and sports would benefit from the establishment or enhancement of a coordinating mechanism such as a national coalition. To measure the progress of a national initiative and guide its management, national systems should be supported to monitor youth physical activity and fitness and programs designed to promote youth physical activity.
The Importance of Physical Education Continued:

- To help inform policymakers about the importance of this issue, researchers need to document the effects of participation in physical activity and sports on desired public health and social outcomes, particularly improved academic performance and reductions in youth violence.

The Importance of Physical Education Continued:

- A Call to Action
  - Full implementation of strategies recommended in this report will require the commitment of resources, hard work, and creative thinking from many partners in federal, state, and local governments; nongovernmental organizations; and the private sector.
  - Only through extensive collaboration and coordination can resources be maximized, strategies integrated, and messages reinforced.

The Importance of Physical Education Continued:

- The following actions should be taken to facilitate the process of implementing the 10 strategies identified in this report:
  1. The federal government will convene a working group to develop a detailed implementation plan to promote physical activity among young people. The Secretary of Health and Human Services, in collaboration with the Secretary of Education, will bring together key players from national, state, and local levels and from the public and the private sectors to work together to achieve the strategies recommended in this report.
The Importance of Physical Education Continued:

2. National non-governmental organizations and the private sector should work together to develop or expand a national coalition to promote physical activity and a foundation to support its efforts.

3. National, state, and local leaders should encourage concerned citizens to work together to establish state and local councils or coalitions to promote physical activity among young people.

The Importance of Physical Education Continued:

4. The President, the Secretary of Health and Human Services, the Secretary of Education, and the nation’s governors and mayors should educate the American public in general, and educational policymakers in particular, about the importance of having all children participate in quality, daily physical education.

   - The Secretary of Health and Human Services and the Secretary of Education can facilitate progress in efforts to promote youth physical activity by providing annual reports to the President on actions taken to implement the strategies identified in this report.

The Importance of Physical Education Continued:

- Development or expansion of a broad, national coalition to promote better health through physical activity and sports is an important first step toward collaboration and coordination.

- An effective national coalition will draw public attention to the need for action, educate the public and policymakers about the strategies recommended in this report, and develop coordinated initiatives to implement the strategies.
A number of national coalitions currently exist to promote physical activity or fitness, and a merger of these, or an intensive expansion of participation in one of these, would initiate a national coordinating mechanism. Among the organizations that should be added to such a national coalition are the USOC and the professional sports leagues. A foundation to support promotion of physical activity could complement the work of the coalition and play a critical role in obtaining the resources needed to help our young people become physically active and fit.

Physical activity is crucial to our health, happiness, and well-being. The staggering consequences of decreases in physical activity are clear:
1. Soaring rates of obesity and diabetes
2. Potential future increases in heart disease
3. Devastating increases in health care costs.

We now have the opportunity to reshape our sedentary society into one that facilitates and promotes participation in physical activity during childhood, throughout adolescence, and into adulthood. Strategies and the process for facilitating their implementation described in this report provide the foundation for our children to rediscover the joys of physical activity and to incorporate physical activity as a fundamental building-block of their present and future lives.
The Importance of Physical Education Continued:

- Regular physical activity is linked to enhanced health and to reduced risk for all-cause mortality and the development of many chronic diseases in adults
- However, many U.S. adults are either sedentary or less physically active than recommended
- Children and adolescents are more physically fit than adults, but participation in physical activity declines in adolescence

The Importance of Physical Education Continued:

- School and community programs have the potential to help children and adolescents establish lifelong, healthy physical activity patterns
- The CDC (Centers for Disease Control and Prevention) report summarizes recommendations for encouraging physical activity among young people so that they will continue to engage in physical activity in adulthood and obtain the benefits of physical activity throughout life

The Importance of Physical Education Continued:

- These guidelines were developed by CDC in collaboration with experts from universities and from national, federal, and voluntary agencies and organizations
- They are based on an in-depth review of research, theory, and current practice in physical education, exercise science, health education, and public health
The Importance of Physical Education Continued:

- The guidelines include recommendations about 10 aspects of school and community programs to promote lifelong physical activity among young people; policies that promote enjoyable, lifelong physical activity; physical and social environments that encourage and enable physical activity; physical education curricula and instruction; health education curricula and instruction; extracurricular physical activity activity programs that meet the needs and interests of students

The Importance of Physical Education Continued:

- Included also in the recommendations and guidelines are:
  - Involvement of parents and guardians in physical activity instruction and programs for young people; personnel training; health services for children and adolescents; developmentally appropriate community sports and recreation programs that are attractive to young people; and regular evaluation of physical activity instruction, programs, and facilities

The Importance of Physical Education Continued:

- In recent years the public health benefits of reducing sedentary lifestyles and promoting physical activity have become increasingly apparent
- The Surgeon General’s report on physical activity and health emphasizes that regular participation in moderate physical activity is an essential component of a health lifestyle
The Importance of Physical Education Continued:

- Although regular physical activity enhances health and reduces the risk for all-cause mortality, and the development of many chronic diseases among adults, many adults remain sedentary.
- Although young people are more active than adults are, many young people do not engage in recommended levels of physical activity.
- In addition, physical activity declines precipitously with age among adolescents.

The Importance of Physical Education Continued:

- Comprehensive school health programs have the potential to slow this age-related decline in physical activity and help students establish lifelong, healthy physical activity patterns.
- This report is one in a series of CDC documents that provide guidelines for school health programs to promote healthy behavior among children and adolescents.

The Importance of Physical Education Continued:

- These physical activity guidelines address school instructional programs, school psychosocial and physical environments, and various services schools provide.
- Because the physical activity of children and adolescents is affected by many factors beyond the school setting, these guidelines also address parental involvement, community health services, and community sports and recreation programs for young people.
The Importance of Physical Education Continued:

- The guidelines are written for professionals who design and deliver physical activity programs for young people.
- At the local level, teachers and other school personnel, community sports and recreation program personnel, health service providers, community leaders, and parents may use the guidelines to promote enjoyable, lifelong physical activity among children and adolescents.

The Importance of Physical Education Continued:

- Policymakers and local, state, and national health and education agencies and organizations may use them to develop initiatives that promote physical activity among young people.
- In addition, personnel at postsecondary institutions may use these guidelines to train professionals in education, public health, sports and recreation, and medicine.

The Importance of Physical Education Continued:

- CDC developed these guidelines by reviewing published research; considering the recommendations in national policy documents; convening experts in physical activity; and consulting with national, federal, and voluntary agencies and organizations.
- When possible, these guidelines are based on research; however, many are based on behavioral theory and standards for exemplary practice in physical education, exercise science, health education, and public health.
The Importance of Physical Education Continued:

- Physical Activity, Exercise, and Physical Fitness:
  - Distinctions between physical activity, exercise, and physical fitness are useful in understanding health research
  - Physical activity is “any bodily movement produced by skeletal muscles that results in energy expenditure…Exercise is a subset of physical activity that is planned, structured, and repetitive” and is done to improve or maintain physical fitness

- Physical Fitness is “a set of attributes that are either health or skill-related.”
  - Health-related fitness includes cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition
  - Skill-related fitness includes balance, agility, power, reaction time, speed, and coordination

- Specific forms of physical activity and exercise in which young people might participate include walking, bicycling, playing actively (i.e., unstructured physical activity), participating in organized sports, dancing, doing active household chores, and working at a job that has physical demands
  - The places or settings in which young people can engage in physical activity and exercise include the home, school, playgrounds, public parks and recreation centers, private clubs and sports facilities, bicycling and jogging trails, summer camps, dance centers, and religious facilities
The Importance of Physical Education Continued:

- Health Benefits of Physical Activity and Physical Fitness:
  - Regular moderate physical activity results in many health benefits for adults
  - For example, it improves cardiorespiratory endurance, flexibility, and muscular strength and endurance
  - Physical activity can also reduce obesity, alleviate depression and anxiety, and build bone mass density

The Importance of Physical Education Continued:

- Physically active and physically fit 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
- All-cause mortality rates are lower among physically active than sedentary people

The Importance of Physical Education Continued:

- Recommended Physical Activity for Young People:
  - Increased awareness of the health benefits of physical activity has lead to increased recognition of the need for initiatives to reduce sedentary lifestyles
The Importance of Physical Education Continued:

- The International Consensus Conference on Physical Activity Guidelines for Adolescents recommends that “all adolescents… be physically active daily, or nearly every day, as part of physical education, play, games, sports, work, transportation, recreation, or planned exercise, in the context of family, school, and community activities” and that “adolescents engage in three or more sessions per week of activities that last 20 minutes or more at a time and that require moderate to vigorous levels of exertion”.

The Importance of Physical Education Continued:

- Prevalence of Physical Activity Among Young People:
  - Although children and adolescents are more physically active than adults, many young people do not engage in moderate or vigorous physical activity at least 3 days a week.
  - For example, among high school students, only 52% of girls and 74% of boys reported that they exercised vigorously on at least 3 of the previous 7 days.

The Importance of Physical Education Continued:

- Physical activity among both girls and boys tends to decline steadily during adolescence.
  - For example, 69% of young people 12-13 years of age but only 38% of those 18-21 years of age exercised vigorously on at least 3 of the preceding 7 days, and 72% of 9th grade students but only 55% of 12th grade students engaged in this level of physical activity.
The Importance of Physical Education Continued:

Factors Influencing Physical Activity:
- Demographic, individual, interpersonal, and environmental factors are associated with physical activity among children and adolescents
- Demographic factors include sex, age, and race or ethnicity
- Girls are less active than boys, older children and adolescents are less active than younger children and adolescents, and among girls, blacks are less active than whites

The Importance of Physical Education Continued:

Individual factors positively associated with physical activity among young people include confidence in one’s ability to engage in exercise (i.e., self-efficacy), perceptions of physical or sport competence, having positive attitudes toward physical education, and enjoying physical activity
- Perceiving benefits from engaging in physical activity or being involved in sports is positively associated with increased physical activity among young people

The Importance of Physical Education Continued:

These perceived benefits include excitement and having fun; learning and improving skills; staying in shape; improving appearance; and increasing strength, endurance, and flexibility
- Conversely, perceiving barriers to physical activity, particularly lack of time, is negatively associated with physical activity among adolescents
In addition, a person’s stage of change (i.e., readiness to begin being physically active) influences physical activity among adults and may also influence physical activity among young people. Interpersonal and environmental factors positively associated with physical activity among young people include peers’ or friends’ support for and participation in physical activity.

Among older children and adolescents, physical activity is positively associated with that of siblings, and research generally reveals a positive relationship between the physical activity level of parents and that of their children, particularly adolescents. Parental support for physical activity is correlated with active lifestyles among adolescents.

Parents:
- “Bring up a child in the way he shall go, and when he is old, he will not depart from it” — Psalm
- One of the things we can do is teach young people through the way we live, how to live
- If we live our lives in a physically active, and good nutritional way, the likelihood of our children doing the same thing is good
Physical activity among young people is also positively correlated with having access to convenient play spaces, sports equipment, and transportation to sports fitness programs.

Objectives For Physical Activity Among People:

The following national health promotion and disease prevention objectives for the year 2000 are related to physical activity and fitness among children and adolescents:

1. Reduce overweight to a prevalence of < 20% among people aged ≥ 20 years and < 15% among adolescents aged 12-19 years
2. Increase to ≥ 30% the proportion of people aged ≥ 6 years who engage regularly, preferably daily, in light to moderate physical activity for ≥ 30 minutes per day
3. Increase to ≥ 20% the proportion of people aged ≥ 18 years and to ≥ 75% the proportion of children and adolescents aged 6-17 who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness ≥ 3 days per week for ≥ 20 minutes per occasion
4. Reduce to < 15% the proportion of people aged ≥ 6 years who engage in no leisure-time physical activity
The Importance of Physical Education

5. Increase to ≥ 40% the proportion of people aged ≥ 6 years who regularly perform physical activities that enhance and maintain muscular strength, muscular endurance, and flexibility

6. Increase to ≥ 50% the proportion of overweight people ≥ 12 years who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight

The Importance of Physical Education Continued:

7. Increase to ≥ 50% the proportion of children and adolescents in 1st through 12th grade who participate in daily school physical education

8. Increase to ≥ 50% the proportion of school physical education class time that students spend being physically active, preferably engaged in lifetime physical activities

The Importance of Physical Education Continued:

9. Increase community availability and accessibility of physical activity and fitness facilities

10. Increase to ≥ 50% the proportion of primary care providers who routinely assess and counsel their patients regarding the frequency, duration, type, and intensity of each patient’s activity practices
The Importance of Physical Education Continued:

- Rationale for School and Community Efforts to Promote Physical Activity Among Young People:
  - Schools and communities should promote physical activity among children and adolescents because many young people already have risk factors for chronic diseases associated with adult morbidity and mortality
  - For example, the prevalence of overweight is at an all-time high among children and adolescents

- In addition, physical activity has a beneficial effect on the physical and mental health of young people
  - 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
  - However, many children are less physically active than recommended

- Physical activity declines during adolescence, and enrollment in daily physical education has decreased
  - Schools and communities have the potential to improve the health of young people by providing instruction, programs, and services that promote enjoyable, lifelong physical activity
  - Schools are an efficient vehicle for providing physical activity instruction and programs because they reach most children and adolescents
The Importance of Physical Education Continued:

- Communities are essential because most physical activity among young people occurs outside the school setting.
- Schools and communities should coordinate their efforts to make the best use of their resources in promoting physical activity among young people.
- School personnel, students, families, community organizations, and businesses should collaborate to develop, implement, and evaluate physical activity instruction and programs for young people.

The Importance of Physical Education Continued:

- One way to achieve this collaboration is to form a coalition.
- National, state, and local resources that might be useful in promoting physical activity among young people are available to schools and community groups.

The Importance of Physical Education Continued:

- Within the school, efforts to promote physical activity among students should be part of a coordinated, comprehensive school health program, which is an integrated set of planned, sequential, and schools-affiliated strategies, activities, and services designed to promote the optimal physical, emotional, social, and educational development of students.
The Importance of Physical Education Continued:

- The program involves and is supportive of families and is determined by the local community based on community needs, resources, standards, and requirements.
- It is coordinated by a multidisciplinary team and accountable to the community for program quality and effectiveness.

The Importance of Physical Education Continued:

- This coordinated program should include physical education; health education; health services; school counseling and social services; nutrition services; the psychosocial and biophysical environment; faculty and staff health promotion; and integrated efforts of schools, families, and communities.
- These programs have the potential to improve both the health and the educational prospects of students.

The Importance of Physical Education Continued:

- Some school health programs have implemented educational and environmental interventions to promote physical activity among students.
- These programs have been effective in enhancing students’ physical activity-related knowledge, attitudes, and behavior and their physical fitness.
- Programs that seem to be most effective focus on social factors that influence physical activity (e.g., peer’s support for physical activity).
The Importance of Physical Education Continued:

Recommendations for School and Community Programs Promoting Physical Activity Among Young People:

Listed below are 10 broad recommendations for school and community programs to promote physical activity among young people:

Following this list, each recommendation is described in detail.

1. **Policy:** Establish policies that promote enjoyable, lifelong physical activity among young people

2. **Environment:** Provide physical and social environments that encourage and enable safe and enjoyable physical activity

3. **Physical Education:** Implement physical education curricula and instruction that emphasize enjoyable participation in physical activity and that help students develop the knowledge, attitudes, motor skills, and confidence needed to adopt and maintain physically active lifestyles
The Importance of Physical Education Continued:

4. **Health Education**: Implement health education curricula and instruction that help students develop the knowledge, attitudes, behavioral skills, and confidence needed to adopt and maintain physically active lifestyles.

5. **Extracurricular activities**: Provide extracurricular physical activity programs that meet the needs and interests of all students.

The Importance of Physical Education Continued:

6. **Parental involvement**: Include parents and guardians in physical activity instruction and in extracurricular and community physical activity programs, and encourage them to support their children’s participation in enjoyable physical activities.

7. **Personnel training**: Provide training for education, coaching, recreation, healthcare, and other school and community personnel that imparts the knowledge and skills needed to effectively promote enjoyable, lifelong physical activity among the young.

The Importance of Physical Education Continued:

8. **Health services**: Assess physical activity patterns among young people, counsel them about physical activity, refer them to appropriate programs, and advocate for physical activity instruction and programs for young people.

9. **Community programs**: Provide a range of developmentally appropriate community sports and recreation programs that are attractive to all young people.
The Importance of Physical Education Continued:

10. **Evaluation:** Regularly evaluate school and community physical activity instruction, programs, and facilities

The Importance of Physical Education Continued:

- Young people can build healthy bodies and establish lifestyles by including physical activity in their daily lives
- However, many young people are not physically active on a regular basis, and physical activity declines dramatically during adolescence
- School physical education can help young people get active and stay active

The Importance of Physical Education Continued:

- Benefits of Physical Activity:
  - Regular physical activity in childhood and adolescence:
    1. Improves strength and endurance
    2. Helps build healthy bones and muscles
    3. Helps control weight
    4. Reduces anxiety and stress
    5. Increases self-esteem
    6. May improve blood pressure
    7. May improve cholesterol levels
The Importance of Physical Education Continued:

- Additionally, physical education can:
  1. Be fun
  2. Help them learn skills
  3. Stay in shape
  4. Look better
  5. Be done socially

The Importance of Physical Education Continued:

- The consequences of Physical Inactivity:
  1. The percentage of young people who are overweight has almost doubled in the past 20 years
  2. Inactivity and poor diet cause at least 300,000 deaths a year in the United States. Only tobacco use causes more preventable deaths
  3. Adults who are less active are at greater risk of dying of heart disease and developing diabetes, colon cancer, and high blood pressure

The Importance of Physical Education Continued:

- Physical activity programs are most likely to be effective when they:
  1. Emphasize enjoyable participation in physical activities that are easily done throughout life
  2. Offer a diverse range of noncompetitive and competitive activities appropriate for different ages and abilities
  3. Give young people the skills and confidence they need to be physically active
The Importance of Physical Education Continued:

- Physical activity programs are most likely to be effective when they:
  4. Promote physical activity through all components of a coordinated school health program and develop links between schools and community programs
- Everyone can make a difference in young people’s lives by helping them include physical activity in their daily routines

The Importance of Physical Education Continued:

- Steps we can take to promote physical education:
  1. Advocate for convenient, safe, and adequate places for young people to play and take part in physical activity programs
  2. Encourage school administrators and board members to support daily physical education and other school programs that promote lifelong physical activity, not just competitive sports

The Importance of Physical Education Continued:

- Steps continued:
  3. Set a good example by being physically active, making healthy eating choices, and not smoking
  4. Tell young people about sports and recreation programs in their community
  5. Discourage the use of physical activity as a punishment
The Importance of Physical Education Continued:

Parents or Guardians can:
1. Encourage your children to be physically active
2. Learn what your children want from physical activity programs and help them choose appropriate activities
3. Volunteer to help your children’s sports teams and recreation programs
4. Play and be physically active with your children

The Importance of Physical Education Continued:

5. Teach your children safety rules and make sure that they have the clothing and equipment needed to participate safely in physical activity

Students can:
1. Set goals for increasing their physical activity and monitor your progress
2. Encourage friends and family members to be physically active
3. Use protective clothing and proper equipment to prevent injuries and illnesses

The Importance of Physical Education Continued:

Students can continued:
4. Encourage the student council to advocate for physical education classes and after-school programs that are attractive to all students
5. Take elective courses in health and physical education
The Importance of Physical Education Continued:

- Teachers and Coaches can:
  1. Use curricula that follow CDC's Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People and the national standards for physical education and health education
  2. Keep students moving during physical education classes
  3. Ensure that young people know safety rules and use appropriate protective clothing and equipment

- The Importance of Physical Education Continued:
  4. Emphasize activity and enjoyment over competition
  5. Help students become competent in many motor and behavioral skills
  6. Involve families and community organizations in physical activity programs
  7. Refrain from using physical activity, such as doing push-ups or running laps as punishment

- School Administrators and Board Members Can:
  1. Require daily physical education and health education for students in all grades k-12
  2. Ensure that physical education and extracurricular programs offer lifelong activities, such as walking and dancing
  3. Provide time during the day, such as recess, for unstructured physical activity, such as walking or jumping rope
The Importance of Physical Education Continued:

School Administrators and Board Members Can continued:
4. Hire qualified physical educators and coaches
5. Ensure that school facilities are clean, safe, and open to students during non-school hours and vacation
6. Provide health promotion programs for faculty and staff
7. Provide teachers with in-service training in physical activity promotion

The Importance of Physical Education Continued:

Community Sports and Recreation Program Coordinators Can:
1. Provide a mix of competitive team sports and noncompetitive, lifelong fitness and recreation activities
2. Increase the availability of parks, public swimming pools, hiking and biking trails, and other places for physical activity
3. Ensure that physical facilities meet or exceed safety standards

Community Sports and Recreation Program Coordinators Can continued:
4. Ensure that coaches have appropriate coaching competencies
5. Work with schools, businesses, and community groups to ensure that low income young people have transportation and appropriate equipment for physical activity programs
The Importance of Physical Education Continued:

- Our nation's young people are, in large measure, inactive, unfit, and increasingly overweight.
- In the long run, this physical inactivity threatens to reverse the decades-long progress we have made in reducing death from cardiovascular diseases and to devastate our national health care budget.

The Importance of Physical Education Continued:

- In the short run, physical inactivity has contributed to an unprecedented epidemic of childhood obesity that is currently plaguing the United States.
  - The Percentage of young people who are overweight has doubled since 1980.
  - Enhancing efforts to promote participation in physical activity and sports among young people is a critical national priority.
The Importance of Physical Education Continued:

- Although well-intentioned, many proposals for school reform re-emphasize the same old approaches
- For instance, more tests of superficial learning and more courses taught by the textbook
- These misguided approaches validate the premise put forth by social theorist George Leonard, winner of 12 national awards for education writing: Whenever we're not getting something right, we try more advanced versions of the same thing
- The only thing we try to change is to drop or reduce the very thing we need the most: physical education (physical activity)

The Importance of Physical Education Continued:

- No wonder our students suffer from disinterest, manifested through misbehavior, drugs, alcohol, and violence
- We have numbed their minds, neglected their bodies, and drained their spirit
- Everyone says that kids are natural learners.
- If kids are natural learners but are not excited about school, then something is fundamentally wrong with how we go about educating the students

The Importance of Physical Education Continued:

- Excitement comes from good attitudes
- The very disciplines that help bring forth good attitudes are those that have a physical component: sport, music, dance and theater are disciplines that involve the body
The Importance of Physical Education Continued:

- Yet, California children are getting shortchanged in physical education and oversupplied with snack foods, putting them at risk of obesity and a host of related medical problems, a new statewide survey shows.
- The comprehensive study of children 9 to 11 years old found more than half are not getting enough daily exercise and nearly one-third are overweight or at risk of becoming overweight.

The Importance of Physical Education Continued:

- The survey paints a particularly troublesome picture of public schools, some of which do not meet state requirements for physical education, fail to provide nutrition education, and/or offer students too many opportunities to snack on chips, sodas, and candy.
- It also provides fuel for recent legislative efforts to limit the sale of sodas and high-fat snacks at schools, boost funds for school lunches and require that state laws mandating physical education are followed.

The Importance of Physical Education Continued:

- “You can’t have kids smart and well prepared if they aren’t also physically fit,” said Dr. Carmen Nevarez, medical director at the Public Health Institute, which conducted the survey with funding from the California Endowment.
- In the 1999 survey, 32 percent of the children were overweight and at risk, said Gil Sisneros, physical activity coordinator for the state Department of Health Services.
The Importance of Physical Education Continued:

- He also said only 30 percent of the school districts are complying with a 1999 state law mandating fitness tests for fifth, seventh, and ninth graders.
- In the districts that did comply last year, he said, nearly 80 percent failed to meet the basic fitness standard.
- That means just six children out of 100 in those grades demonstrated they can pass the test.

The Importance of Physical Education Continued:

- “The basic requirements are not being met,” Sisneros said. “The natural outcome is you're going to get children who are unhealthy.”

- Although many school officials say they are working to reverse trends in childhood obesity and inactivity, the battle of the bulge is an uphill one.

- A lack of funds, staff, equipment and time combine with competing demands to undermine efforts to keep kids healthy, they say.

The Importance of Physical Education Continued:

- Although many elementary schools strictly limit food sales outside of the lunch program, the survey found that 8 percent of the children had access to vending machines stocked with snacks and 16 percent cold buy soda.

- An additional 24 percent said their cafeteria served fast food like McDonald's, Burger King, and Taco Bell.
The Importance of Physical Education Continued:

- “We have 70 cents per lunch (to spend) on food,” said Nancy MagaOa-Alexander, nutrition supervisor for the Sacramento City Unified School District.
- “So many school districts, whether right or wrong, have gone to bolstering their à la carte or snack bar programs because they keep us afloat. That’s the bottom line.”
- School and health officials were encouraged by findings that what kids consume at school (both in calories and in knowledge) can make a positive difference in their overall health.

The Importance of Physical Education Continued:

- Fourth and fifth graders who learned about nutrition in classes ate more fruits and vegetables and were more likely to meet the federal guidelines for physical activity.

The Importance of Physical Education Continued:

- All human beings have an ability and a desire to move and be active throughout their lives in order to live a healthy lifestyle. Therefore, a program of physical education should provide students with developmentally appropriate activities and use a variety of teaching methods based on each student’s individual needs.
The Importance of Physical Education Continued:

- Physical Education Standards:
  - Movement skills and movement knowledge:
    - Standard 1: The student will be competent in many movement activities
    - Standard 2: The student will understand how and why one moves in a variety of situations and will use this information to enhance his or her skills
    - Standard 3: The student will achieve and maintain a health-enhancing level of fitness

- Self-Image and Personal Development:
  - Standard 4: The student will exhibit a physically active life-style and will understand that physical activity provides opportunities for enjoyment, challenge, and self-expression
  - Standard 5: The student will demonstrate responsible personal behavior while participation in movement activities

- Social Development:
  - Standard 6: The student will demonstrate responsible social behavior while participating in movement activities. The student will understand the importance of respect for all others
  - Standard 7: The student will understand the interrelationship between history and culture and games, sports, play, and dance
The Importance of Physical Education Continued:

The Physical Education Framework is based on the premise that the quality and productivity of each individual’s life can be enhanced through participation in a comprehensive, sequential physical education system that promotes physical, mental, emotional, and social well-being. Education implies a focus on the whole person as opposed to a narrow range of skills and abilities. It means teaching children how to apply new knowledge and to become lifelong learners. The concept of lifelong learning is as relevant to physical education as it is to other areas.

The Importance of Physical Education Continued:

A physically educated person is one who has mastered the necessary movement skills to participate confidently in many different forms of physical activity, values physical fitness, and understands that both are intimately related to health and well-being.

The Importance of Physical Education Continued:

The Goals of Physical Education:

- A comprehensive, articulated physical education system helps children and youths accomplish three goals.
- Within each goal appropriate disciplines are addressed to support the knowledge, skills, and attitudes desired for every student.
- The three goals are equally important; each interacts continually with others in a well-planned program.
The Importance of Physical Education Continued:

The Goals of Physical Education Continued:

Goal: Movement Skills and Movement Knowledge

Disciplines:
1. Motor Learning
2. Biomechanics
3. Exercise Physiology and Health-related Physical Fitness

The Importance of Physical Education Continued:

The Goals of Physical Education Continued:

Goal: Self-Image and Personal Development

Disciplines:
1. Human Growth and Development
2. Psychology
3. Aesthetics

The Importance of Physical Education Continued:

The Goals of Physical Education Continued:

Goal: Social Development

Disciplines:
1. Sociology
2. Historical Perspectives
The California Children’s Healthy Eating and Exercise Practices Survey (CalCHEEPS) was conducted for the first time from April 21 to June 28, 1999 with 9 to 11 year-old children. CalCHEEPS findings on dietary intake and physical activity have potentially serious health repercussions and urgent policy implications. Nearly one-third of the children surveyed were overweight or at-risk for overweight.

African-American, Latino, and Asian/other children were more likely than white children to meet this criterion. Healthy eating and sufficient physical activity are cornerstones of obesity prevention. Compared to children who were not at risk, children who were overweight/at-risk continued:

1. Ate fewer servings of fruits and vegetables (2.8 vs. 3.1/day)
2. Drank more servings of soda/fruit drinks (1.4 vs. 1.1/day)
3. Were more likely to have eaten high-fat snacks on a survey day (87 vs. 79 percent)

Compared to children who were not at risk, children who were overweight/at-risk continued:

4. Ate fast food more (1.4 vs. 1.1 times/week)
5. Were more likely to attend a school with a vending machine stocked with chips and candy (12 vs. 6 percent)
6. Spent 20 minutes longer per school day watching TV or playing computer and video games (averaging 101 vs. 81 minutes)
The Importance of Physical Education Continued:

- Compared to children who were not at risk, children who were overweight/at-risk continued:
  1. Were less likely to play sports outside of school gym class (48 vs. 60 percent)
  2. Were less likely to have taken part in lessons on nutrition (50 percent vs. 64 percent)

The Importance of Physical Education Continued:

- Physical Education:
  - The positive benefits of daily exercise include reducing stress, learning social skills, and improving classroom attentiveness
  - Yet, California children are falling short of both the national physical activity recommendations specified in the State Physical Education (PE) mandate for elementary schools, namely:
    1. 60 minutes or more of daily physical activity, and
    2. 200 minutes or more of PE every 10 school days, respectively

The Importance of Physical Education Continued:

- Findings:
  - Physical activity recommendation
    - Less than half of California children surveyed (46 percent) met the physical activity recommendation of 60 minutes or more of moderate and/or vigorous exercise each day for good health
  - Physical Education (PE) in schools
    - Seventeen (17) percent of children reported that they do not receive any physical education or gym classes at school
The Importance of Physical Education Continued:

- Physical Education (PE) in schools continued:
- During a typical school week, only 18 percent reported getting physical education 5 times, 20 percent reported 3-4 times, and the majority reported attending PE classes 1-2 times
- On average, the number of PE classes per week was 2.3, with a length of 33 minutes per class. This is almost an hour short of the mandated 200 minutes of exercise every 10 days

The Importance of Physical Education Continued:

- New Study (April 8, 2003):
- Children who are overweight and out of shape view their quality of life just as low as children who are dying of cancer do

The Importance of Physical Education Continued:

- What does it take to do well in academics?
  1. Concentration
  2. Self-confidence
  3. Low anxiety
  4. Willingness to take risks (courage to take courses they don't feel they can do well in)
- The following article shows that being involved in athletic competition helps an individual succeed in academics and in professions after school. This holds true for physical education students as well.
The Importance of Physical Education Continued:

- Attitude Gives Athletes An Edge in Competition by Joan Magruder
  
- While rigorous training, good coaching, and lucky genes are all factors in reaching the top in sports competition, the right mental attitude appears to be what gives world-class athletes a winning edged over their competitors, says UCSB sports psychologist Michael J. Mahoney.

The Importance of Physical Education Continued:

- Comparing "elite" athletes-those who have placed fourth or above in recent national or world competition-with less successful collegiate athletes in 23 sports, he has identified significant differences in the way the two groups think about themselves and their sports.

The Importance of Physical Education Continued:

- On questionnaires completed by 713 mean and women nationwide, elite athletes report having greater success in concentrating, higher levels of self-confidence, and fewer problems with performance anxiety during competition than "non-elite" competitors
  
- "Peak performers seem to have exceptional concentration abilities appropriate to their sports," Mahoney says
The Importance of Physical Education Continued:

- "For example, many elite respondents report that they are so absorbed in the demands of the competition that they are completely oblivious to the spectators present."
- Moreover, top competitors state that they are less likely to be distracted or distressed by mistakes in their performance than non-elite athletes
- Concentration skills may also play a central role in an experience called "flow" adds Mahoney

The Importance of Physical Education Continued:

- "Flow is an altered state of consciousness during competition in which an unusual body-brain integration is achieved," he explains
- "Typically, there is a sense of timelessness and effortlessness described by some athletes as similar to being on 'automatic pilot.'"
- Superior athletes also report a higher level of self-confidence than the less successful group, which is not "a simple absence of self-doubt," according to Mahoney

The Importance of Physical Education Continued:

- "On the contrary, interviews with world champions across a wide range of sports suggest that the confidence of a superior athlete is closely akin to the concept of courage—a willingness to take risks," he says
- Both elite and non-elite athletes report that they suffer from anxiety before competing, but the groups differ markedly in how they handle those feelings
The Importance of Physical Education Continued:

- "Peak performers are less likely to consider their anxiety as a negative experience. Elite athletes tend to view their anxiety as, at worst, a nuisance and, at best, an ally in their performance," Mahoney says.
- Superior athletes relate that they try to use their anxiety to improve their performance.
- They report that their anxiety tends to peak in the final stages of preparation and to stabilize or decline once competition begins.

The Importance of Physical Education Continued:

- On the other hand, less successful athletes let anxiety rule them, he says.
- They are vulnerable to "anxiety-induced anxiety."
- That is, they panic because they feel anxious.
- Finally, the study indicates that elite athletes rely more on last-minute, internally-focused "psyching" or "centering" strategies than their non-elite counterparts.

The Importance of Physical Education Continued:

- "It appears that many exceptional athletes employ a 'whole body' form of mental practice, rehearsing not only what they might 'see' during a performance but what they will feel, as well as the sounds and smells of competition," Mahoney says.
- Personality and home environment may be factors in the way elite athletes thin, but there is also evidence that some of their special skills can be learned by repeated practice, he concludes.