Childhood Obesity: The Preventable Threat to America's Youth

The majority of American youth are sedentary and do not eat well. The resulting poor nutrition and lack of physical activity has created an epidemic of childhood obesity that is preventable, yet shows no sign of decreasing. Action for Healthy Kids helps schools make changes that will make their students healthier, which in turn will improve their achievement.

Prevalence and Trends

Overweight and obesity impairs or threatens the health of millions of Americans.

- Poor diet and inadequate physical activity are the second leading cause of death in the United States and together account for at least 300,000 deaths annually.¹
- Nine million American children are overweight, triple the number in 1980.²
- Childhood obesity among ages 2-5 has increased 35% in the past 10 years.³
- There is no indication that the incidence of overweight among children is decreasing.⁴

Minority Populations

Childhood obesity is more prevalent among minority populations.

- Of children ages 6-11, more Mexican American boys are overweight (26.5%) than non-Hispanic white (14%) and African American (17%) boys. More African American girls (22.8%) are overweight than non-Hispanic white girls (13.1%).⁵
- The incidence of childhood obesity in American Indian seven-year-olds is nearly 30%, twice that off all other American children at that age.⁶
- The prevalence of obesity among students in grades 9-12 is higher among Hispanic youth (21.7% males, 11.8% females) and African Americans (19.5% males, 15.6% females) than white students (16.2% males, 7.8% females).⁷

Contributing Factors

Poor eating habits and lack of physical activity are root causes of overweight and obesity.

- Only 2% of school-aged children consume the recommended daily number of servings from all five major food groups, and only 30% consume the suggested amount of milk.⁸
- More than 80% of children and adolescents eat too much fat (more than 30% of total calories from fat). More than 90% eat too much saturated fat.⁹
- Ninety-eight percent of 6-18 year olds report eating at least 3 snacks per day, and more than 50% report 5 or more snacks daily.¹⁰
- More than 38% of students watch television 3 or more hours per average school day.¹¹
- Fewer than 25% of American children get at least 30 minutes of any type of physical activity every day.¹²
**Health Consequences**

Childhood obesity is a medical concern, not a cosmetic issue.

- The vast majority (between 70 and 80%) of overweight children and adolescents continue to be overweight in adulthood or will become obese adults.  

- Childhood weight problems can lead to complications such as elevated blood pressure and cholesterol, joint problems, Type II diabetes, gallbladder disease, asthma, depression and anxiety.

- Severely overweight and obese children often suffer from depression, anxiety disorders, isolation from their peers, low self-esteem, and eating disorders.

- Of overweight 5 to 10 year-olds, 61% have at least one risk factor for heart disease.

**Academic Consequences**

Because multiple variables must be controlled when examining the relationship between weight and achievement, it is difficult to draw definitive conclusions. Further, a correlation between the two doesn’t necessarily imply causation. However, several studies have examined this link.

- Severely overweight children and adolescents (those above the 95th percentile for weight) were four times more likely to report “impaired school functioning”.

- Severely overweight inner city school children tended to have abnormal scores on the Child Behavior Checklist, and were twice as likely to be placed in special education or a remedial class setting.

- Overweight kindergartners had significantly lower math and reading test scores at the beginning of the year than did their non-overweight peers, and these lower scores continued into first grade.

**Economic Consequences**

- Severely overweight children miss four times as much school as normal-weight kids. If such health problems keep children out of school just one day per month, this could cost a large school district like Los Angeles about $15 million each year. An average size school district could likely forfeit $95,000 to $160,000 annually.


- National health expenditures related to adult obesity range from $98-$129 billion annually.
References

   a. Daily Physical Ed Requirements - Section 27-6 of the School Code [105 ILCS 5/27-6])
   b. Rules for Comprehensive Health Education – (23 Ill. Adm. Code 253) issued pursuant to the Critical Health Problems and Comprehensive Health Education Act [105 ILCS 110].
11. Minimum School Meals Requirements – section 9(f)(l), 17(a) of the Richard B. Russell National School Lunch Act (42 U.S.C. 1758(f)(l), 1766(a)0
12. Minimum School Meals Requirements - subsections (a) and (b) of section 10 of the Child Nutrition Act (42 U.S.C. 1779)

RESOURCES FOR POLICY DEVELOPMENT

- Fit, Healthy and Ready to Learn, National Association of State Boards of Education. 2000. www.nasbe.org/HealthSchools/index.html

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Resources


5 Ibid.


9 Food, Nutrition and Consumer Services/USDA 2001; National Center for Chronic Disease Prevention and Health Promotion.


11 USCDC 2004


13 USDHHS 2001

14 Ibid.


17 Schwimmer 2003


21 Schwimmer 2003.


Healthy Foods and Healthy Finances: How Schools Are Making Nutrition Changes That Make Financial Sense

Dozens of schools—large and small, urban and rural—have created more healthful school environments by improving food and beverage options in vending machines, à la carte lines, classroom activities and fundraisers.

Food and beverage contracts and sales have become a revenue source for discretionary spending for many school districts. Recently, schools throughout the U.S. have successfully implemented innovative solutions—maintaining or increasing revenue levels with more healthful options.

• Foodservice in the Folsom Cordova Unified School District in Sacramento, California, no longer operates in the red. It upgraded offerings with a focus on healthy eating and now has a $400,000 reserve; the annual budget increased 105% due to increased food services revenue.
• Iowa City, Iowa, schools partnered with Swiss Valley Farms to introduce milk in its water and sports drink vending machines, resulting in an increase in sales of 42% while soda sales dropped 58%. The district’s Nutrition Task Force also installed cheese and yogurt vending machines.
• The Vista (San Diego, California) Unified School District's Child Nutrition Services program consolidated the district's vending sales and began managing contracts. They offered bagels and cream cheese, yogurt, nuts, cheese and crackers, and fresh fruit. Sodas are offered in only 20% of vending slots compared to the previous 66% of vending slots. The majority of slots offered water, milk, 100% juice drinks and sports drinks. CNS controlled pricing and kept prices lower than local stores. During the first year of this arrangement, Vista High School generated $200,000 more in sales than in previous years.
• Jefferson County Schools in Louisville, Kentucky, are replacing soft drinks and non-nutritious snacks sold in vending machines with lower-fat foods and fruit drinks. They expect that by keeping healthier vending machines on all day the sales will offset any losses of the $1 million generated annually from vending.
• Madison, Wisconsin, was among the first school districts to sign an exclusive soda contract in 1997 and was also among the first to cancel it. They now maintain multiple vendors and offer a variety of 100% juice drinks and milk flavors. Now that the students have choices, school officials report that they struggle to keep up with the demand for milk sold in colorful and reseal able bottles.
• Whitefish Central School in Montana replaced junk foods and soda with fruit, bagels, 100% juice beverages, water and milk. According to Principal Kim Anderson, profits remained the same.
• Officials at North Community High School in Minneapolis, Minnesota, installed vending machines selling bottled water, juices and sports drinks, and limited soft drinks to just one machine. This arrangement resulted in lowered soda sales offset by growth in the sales of water and sports drinks with overall vending profits increasing by $4,000.
• When Fresno (California) Unified School District’s Sequoia Middle School eliminated junk food and sodas, sales increased because students were given a choice and were involved in the selection of replacement foods and drinks.
Success stories show that children will buy healthy foods.

- Students **will buy — and consume — healthful foods and beverages** when these options are tasty, easily accessible and priced right.
- School foodservice and vending programs **can continue to make money** while offering healthful food and beverage options to students.
- Some schools have actually **made more money from healthful options** than from their usual offerings.
- Students, parents and communities **support healthy school nutrition environments**, and are willing to get involved in making changes.
Building the Argument: Providing Health-Promoting Foods Throughout Our Schools

Given the growing epidemic of obesity in the U.S. and the link between nutrition and academic performance, we must work together to ensure that healthy foods are available throughout the school environment—in school meal programs, a la carte offerings, snack bars, vending machines and fundraising efforts.

Our children are getting fatter. They eat too little of the right foods, too much of the wrong foods.

- Poor diet and inadequate physical activity are the second leading cause of death in the United States and together account for at least 300,000 deaths and $100 billion in costs annually. Obesity and overweight have “reached epidemic proportions in the United States” [1].

- The epidemic has hit our children particularly hard: “today there are nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980” [1].

- Only 2% of school-aged children meet the Food Guide Pyramid serving recommendations for all five major food groups [2]. Approximately only 1 in 5 kids gets “5 a Day” of fruits and vegetables [3].

- Less than a third of school children consume the recommended milk group servings on any given day. Teenagers drink twice as much carbonated soda as milk [4].

- Children’s diets are high in added sugars. For all children, added sugars contribute an average of 20% of total food energy [2]. Nearly half of 8th- and 10th-grade kids eat three or more snacks daily, with most of these snacks high in sugar, sodium, and fat [5].

Government agencies and health and education organizations are working together to call for a wider range of healthy foods throughout our schools.

- The U.S. Surgeon General, the CDC, the USDA, and the U.S. Department of Health and Human Services have all called on schools to provide a variety of health-promoting foods in our nation's schools [6], [7].

- According to the National Conference of State Legislatures, two dozen states introduced legislation this year to regulate school vending machines or set new nutrition standards.

- More than 35 national education, health, fitness, and nutrition organizations and government agencies are Action for Healthy Kids collaborating partners and support improved child nutrition and physical activity in schools.

Many school environments reinforce poor eating habits.

- More students are choosing to purchase foods from “competitive” sources such as a la carte and vending, which, unlike the National School Lunch Program, have no federal nutrition guidelines [8].
• Although the federal government bans public schools from selling “foods of minimum nutritional value” in the food service areas during the school meal periods, “regulation of competitive foods in other contexts is left to the states and school districts” [9].

• The amount of milk purchased by school districts fell by nearly 30% from 1985 to 1997. Districts bought 1100% more soft drinks during the same period [10].

• According to the CDC, “43% of elementary, 74% of middle/junior high, and 98% of senior high schools have either a vending machine or a school store, canteen, or snack bar where students can purchase food or beverages” [8].

By supporting healthy eating and expanding access to health-promoting foods and beverages, schools can still meet their revenue goals.

• Innovative programs in many states and school districts demonstrate that kids will make positive choices—when healthful options are tasty, convenient and competitively priced [11], [12], [13], [14], [15].

• Many school districts are transforming their vending machines and a la carte items, offering more health-promoting foods and beverages such as fruit, bagels, string cheese, yogurt, and salad, as well as milk, water and 100% juice drinks. Many schools are now using programmed vending machines so students can’t buy low-nutrient items at meal times or until the end of the school day. School administrators across the country report sustained or increased profits from the switch to health-promoting foods and drinks [16], [17].

• A number of schools, districts, and states are exploring “healthy” fund-raisers, including the sale of non-food items such as candles, sunscreen, wrapping paper, and T-shirts [16].

References

To learn more about ways to support child nutrition and physical activity, visit the Action for Healthy Kids website: www.ActionforHealthyKids.org.
Building the Argument: The Need for Physical Education and Physical Activity in Our Schools

Study after study proves what educators have long believed to be true: when children’s exercise and fitness needs are met, they have the cognitive energy to learn and achieve. Given the growing epidemic of obesity and the link between physical activity and academic performance, we must work together to make quality daily physical education a priority in our schools and to give our children more opportunities to be physically active throughout the school day.

Our children are getting fatter and are developing “adult” diseases.

- Poor diet and inadequate physical activity are the second leading cause of death in the United States and together account for at least 300,000 deaths annually. Obesity and overweight have “reached epidemic proportions in the United States” [1].
- The epidemic has hit our children particularly hard: “today there are nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980” [1]. In 2000, 15% of children aged 6 to 11 were overweight and nearly 16% of adolescents were overweight [2].
- The CDC warns that one in three U.S. children born in 2000 will become diabetic unless many more people start eating less and exercising more [3]. Type 2 diabetes in adolescents increased ten-fold between 1982 and 1994 [4].
- Prevention, says U.S. Secretary of Health and Human Services Tommy Thompson, is the key to fighting cardiovascular disease, cancer, Type 2 diabetes, and other chronic diseases—and helping students increase physical activity is one way to put prevention into action [5], [6].

Our children are becoming increasingly less physically active.

- Fewer than 1 in 4 children get 20 minutes of vigorous physical activity per day, and less than 1 in 4 get at least 30 minutes of physical activity per day [7].
- Participation in all types of physical activity declines as age or grade in school increases. By the time they reach their teens, nearly half of America’s youth are not vigorously active on a regular basis, and over one-third aged 12 to 17 are physically active less than 3 out of 7 days a week [8].

Many of our children are sedentary at school.

- The vast majority of children (85%) travel to school by car or bus—only 13% of children walk or bike to school [9].
- Since 1989, many school systems have abolished recess, with only “4.1% of states requiring and 22.4% of states recommending that elementary schools provide students with regularly scheduled recess” [10].
- In grade 9, 72% of students get regular physical activity, but by the time they reach grade 12, only 55% of them are physically active [8]. Nearly 10% of students in grades 9-12 participate in no vigorous or moderate physical activity on a weekly basis [10].

Emphasis on physical education in the public school system has markedly declined.
• Between 1991 and 1999, the percentage of students who took physical education on a daily basis dropped from 42% to 29% [11].

• Although most states have some mandate for physical education (78.4% at the elementary school level, 85.7% at the middle school level, and 82.4% at the senior high school level [10]), most states require only that physical education be provided. Local districts have control over content and format [12].

• No federal law requires physical education to be included in public schools, and Illinois is the only state to enforce daily physical education requirements in grades K-12 [12].

• While a majority of secondary school principal leaders agree that students’ level of physical activity is important, for most the issue is a low priority compared to other concerns such as student achievement, teacher quality, school safety, alcohol and drug prevention, and school budgets. [27]

When children are active, their academic performance improves.

• “Nearly 200 studies on the effect of exercise on cognitive functioning suggest that physical activity supports learning” [13].

• Two studies demonstrated that providing more time for physical activity (by reducing class time) can lead to increased test scores, particularly in the area of mathematics [14], [15], and another study linked physical activity programs to stronger academic achievement, increased concentration, and improved math, reading, and writing test scores [16].

• The California correlation of the SAT-9 with the Fitnessgram, says California State Superintendent of Public Instruction Delaine Eastin, “provides compelling evidence that the physical well-being of students has a direct impact on their ability to achieve academically. 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” [17].

• Children with daily physical education exhibit better attendance, a more positive attitude to school, and superior academic performance [18].

• From the Comprehensive School Health Program in McComb, Mississippi, to the SPARK Program founded at San Diego State University, school administrators and education researchers are demonstrating again and again that physical education and physical activity may strengthen academic achievement, self-esteem, and mental health—all leading to stronger student performance [19], [20], [21], [22].

• “Evidence suggests,” says the President’s Council on Physical Fitness and Sports, “that time spent in physical education does not decrease learning in other subjects. Youth who spend less time in other subjects to allow for regular physical education have been shown to do equally well or better in academic classes” [23].

Our students and their parents join the U.S. Surgeon General, NASPE, and the CDC in calling for more opportunities for physical activity and physical education.

• A majority of student leaders (72%) feel schools should make physical activity for all students a priority, with 81% calling for more students to get involved in physical activity and 56% stressing the importance of having more physical education classes [24].

• The vast majority of parents (95%) think “physical education should be part of a school curriculum for all students in grades K-12” [25].

• David Satcher, the former U.S. Surgeon General and chair of the Action for Healthy Kids Initiative, calls for all students to receive quality physical education on a daily basis [26].

• The National Association for Sport and Physical Education (NASPE) calls for all students to receive quality physical education as an integral part of K-12 education. All states, says NASPE, should set minimum standards of achievement in physical education and should develop standards for physical education based on the National Standards for Physical Education [12].

• The Centers for Disease Control (CDC) calls for sequential physical education that helps students develop the skills and knowledge to enjoy and maintain a lifelong physically active lifestyle [8].

http://www.ActionForHealthyKids.org © 2003 Action for Healthy Kids
References
Better Nutrition and More Physical Activity Can Boost Achievement and Schools’ Bottom Line

The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools documents how the excessive rise in poor nutrition, inactivity and weight problems adversely affect academic achievement and possibly cost schools millions of dollars each year. The report calls on schools to work with partners to address the issue, and points to current best practices in schools.

It is critical that as schools search for solutions to meet performance outcomes and minimize budget cuts, schools do not further aggravate problems of poor nutrition and inactive lifestyles - in turn it may undermine schools overall goal to provide high-quality education for all students.

The Learning Connection reveals costs to schools due to problems associated with poor nutrition and physical activity – the root causes of obesity.

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<th>Costs in Achievement</th>
<th>Costs in Dollars</th>
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<td>• Schools with high percentages of students who did not routinely engage in physical activity or eat well had smaller gains in test scores than other schools.</td>
<td>• In states that use attendance to help determine state funding, a single-day absence by just one student can cost a school district anywhere from $9 to $20.</td>
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<td>• Well-nourished students who skip breakfast perform worse on tests and have poor concentration.</td>
<td>• If children miss just one day per month, this could cost a large school district like New York about <strong>$28 million each year</strong>, while Chicago would forfeit about <strong>$9 million each year</strong> in state funds.</td>
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<td>• Children not getting adequate nutrients have lower test scores; even transient hunger from missing a meal affects performance.</td>
<td>• This type of absentee rate is highly probable, and could cost an average size school district from $95,000 to $160,000 annually in important state aid.</td>
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<td>• Physical activity programs are linked to stronger academic achievement.</td>
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<td>• Students participating in daily physical education exhibit better attendance and achievement.</td>
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The Hidden Costs

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<th>What can schools do?</th>
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<td>• Form a school health advisory council and involve students, parents, teachers, health professionals and other community leaders.</td>
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<td>• Develop a comprehensive wellness policy that includes recommendations for increasing physical activity and improving the nutrition environment.</td>
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<td>• Offer more after-school programs that provide nutritious snacks, physical activity and nutrition education.</td>
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<td>• Encourage staff to model healthy lifestyles.</td>
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<td>• Integrate physical activity and nutrition education into the regular school day.</td>
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*The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools* is available at [www.ActionForHealthyKids.org](http://www.ActionForHealthyKids.org)

This work has been supported by an unrestricted grant from the National Football League.
Local Wellness Policy Resources for Illinois Schools

The following websites and resources may assist school districts in developing a local wellness policy. Resources with a P may be particularly useful to policy development teams.

**Team Nutrition**, www.fns.usda.gov/tn
Select “Healthy Schools” on the home page for resources on the local wellness policy, and the HealthierUS School Challenge for elementary schools. Find information on federal legislative requirements, an action plan, funding opportunities and implementation tools and resources including:

P Making it Happen! School Nutrition Success Stories

**Action for Healthy Kids**, www.actionforhealthykids.org
Find tips, fact sheets, information on state teams, a wellness policy database, a policy development tool and other resources including:

P The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools

**Centers for Disease Control**, www.cdc.gov
Find a school health environment assessment tool and guidelines for school health programs.

P School Health Index: A Self-Assessment & Planning Guide
P Guidelines for School Health Programs to Promote Lifelong Healthy Eating
P Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People

**Illinois Nutrition Education & Training Program**, www.kidseatwell.org
Download a model wellness policy created by an Illinois consensus group to use as a template and a Local Wellness Policy Toolkit on the website. Select “Local Wellness Policy Resources” on the home page. Access over 800 health education resources in the Illinois NET Loan Library at 800-455-5843 or online. Request free technical assistance and training including the following workshops by calling 800-466-7998.

P Local Wellness Policy – Provides an overview of legislative requirements for local wellness policies, criteria for effective nutrition and physical education and the rationale for change. Participants receive a step-by-step action plan and key resources for wellness policy development and implementation.

P Nutrition Education that Works: An Integrated Approach – An online workshop that provides K-5 educators with the information and skills needed to successfully integrate nutrition education into existing curriculum to meet nutrition education goals in wellness policies. (Coming January 2006)

P How to Build a Healthier A la Carte Program - Provides school food providers skills-based training and marketing resources to shape nutritionally and fiscally sound a la carte programs that meet wellness policy standards. (Coming Spring 2006)