

Research Brief

Overweight and Obesity

Question: Can schools realistically have an impact on the eating habits of students?

Summary of Findings: In this world of receiving immediate gratification, being over scheduled, and having access to a myriad of technology, poor nutrition and lack of daily physical activity are two of the results. “Obesity is a silent epidemic,” former U.S. Surgeon General David Satcher stated in 2002 (Healthy schools summit weighs in on obesity). Due to the demands of high stakes testing, many schools throughout the United States have placed an increased emphasis on reading and math skills, to the detriment of other academic areas such as health, nutrition, and physical education. In 1992, 42% of high school students had daily physical education classes, however, by 2002, that number was down to 25% (Fitness report cards part of ‘new PE’ movement). One survey of high school students’ eating habits reported that in 2003, 67% exceeded dietary guidelines for fat intake, 72% exceeded saturated fat intake, while only 22% ate the U.S.D.A.’s recommendation of five fruits and vegetables daily (Nutrition). A study from the Center for Disease Control reported that one in every three children born in 2000 will develop diabetes (Nutrition services). The number of overweight adolescents has more than tripled in the past 20 years and seems to be more prevalent among minority groups (Nutrition and the health of young people). It has been predicted that seven out of 10 adolescents who are overweight will have weight problems as adults and if at least one of their parents is overweight, the odds go up to 80% that weight will be an issue for them as adults (Healthy schools summit weighs in on obesity). By the 2006-2007 school year, according to the Reauthorized Child Nutrition Act, each school must have a wellness plan in action.

Major Findings and Conclusions:

Possible consequences of being overweight or obese:

- diabetes (now Type II-adult onset, is becoming more common among children and adolescents)
- high blood pressure
- high cholesterol
- asthma
- arthritis
- some cancers
- gallbladder disease
- sleep apnea
- poor muscle tone and body strength

- depression and anxiety
- cavities and other dental problems
- physical growth slowed down
- cognitive growth impaired

What schools can do:

- select a person to be the coordinator
- involve stakeholders (including students, parents, community, and staff)
- survey stakeholders about their knowledge of nutrition and physical activity programs and their expectations for viable programs
- identify strengths and weaknesses of the school's and if possible, district's nutrition and physical activity programs
- set nutrition standards for competitive foods that are healthy and serve appropriate portions
- do not sell foods with minimal nutritional value
- provide samples to the students of nutritionally rich foods then get and use their feedback
- improve quality of the food that is sold
- charge higher prices for non-healthy choices
- sell things other than non-nutritional foods for fund raisers (i.e. wrapping paper, magazines, etc.)
- instead of a candy cart, have a healthy snack cart
- cancel, non-renew, and/or renegotiate the vending machines contract (see articles in the references on the beverage industry)
- food and beverages in vending machines should be in heavy traffic areas with healthy choices at eye level and the cover should show adolescents being physically active
- require daily physical activities, such as physical education classes and/or sports participation
- educate parents and stakeholders through newsletters, presentations, and art work posted in businesses
- have students design programs, ads, etc. and help educate younger students as well as well as the stakeholders
- educate the full faculty and encourage them to be positive role models for healthy lifestyles
- include substantial and appropriate time in health classes on good nutrition, poor nutrition habits (i.e. eating disorders), and the importance of physical activity (according to one study done, high school teachers spend an average of five hours on the concept of nutrition and exercise)
- serve healthy breakfasts and lunches to students as regulated by the U.S.D.A. in the cafeteria, a la carte lines, and vending machines
- use non-food incentives for rewards

Online Resources:

- Beverage industry adopts voluntary limits on school sales
A description of the American Beverage Association's plan to change what it is they will sell to schools at all levels is given.
http://www.edweek.org/ew/articles/2005/08/17/1soda_web.h25.html?querystring=Beverage%20Industry%20Sets&print=1
- Beverage industry sets voluntary rules for soda vending in schools
A response from some health organizations to the American Beverage Association's new voluntary rule regarding the sale of soda in school vending machines is presented.
http://www.edweek.org/ew/articles/2005/08/17/1soda_web.h25.html?querystring=Beverage%20Industry%20Sets&print=1
- Bush signs school lunch reauthorization
A brief explanation of the expansion of pilot programs for free and reduced lunch and breakfast programs as well as description of the new requirements for the Child Nutrition Act are laid out in this article.
<http://www.edweek.org/ew/articles/2004/07/14/42lunch.h23.html?print=1>
- Childhood obesity
Basic statistics about the levels of obesity, including those for adolescents is provided.
<http://www.cdc.gov/HealthyYouth/obesity/index.htm>
- Effectiveness of school programs in preventing childhood obesity: A multilevel comparison
An overview of the results of a study done in 2003 of 5200 5th graders to ascertain the obesity and overweight rates at schools where there were and were not programs on good nutrition are described in this article.
<http://www.ajph.org/cgi/content/abstract/95/3/432>
- Efforts to halt obesity failing state children
This article provides an overview about the effects that being an obese youngster can have on them as adults as well as reasons to support a widespread healthy living awareness program.
<http://www.contracostatimes.com/mld/cctimes/living/health/12471278.htm>
- Fitness report cards part of 'new PE' movement

A brief account of the “Fitnessgram” program that includes an individual assessment on fitness levels that is sent to students and parents is provided.

<http://www.edweek.org/ew/articles/2002/06/19/41gym.h21.html?print=1>

- Foods and beverages sold outside of the school meal programs
Results from a 2001 survey about the types of food available for sale in K-12 schools is charted in this article.
http://www.cdc.gov/HealthyYouth/shpps/factsheets/pdf/outside_food.pdf
- Health movement has school cafeterias in a food fight
A description of what some schools are doing to promote healthy eating is laid out.
http://www.usatoday.com/printedition/news/20050822/1a_cover22.art.htm
- Healthy schools summit weighs in on obesity
A summary of a summit on healthy eating that was held in 2002 is provided.
<http://www.edweek.org/ew/articles/2002/10/16/07healthy.h22.html?print=1>
- Healthy Youth: Nutrition
A one paragraph description of research results about adolescent eating habits is given.
<http://www.cdc.gov/HealthyYouth/nutrition/index.htm>
- Healthy Youth: Making it happen
An account of the Making It Happen! Program that provides examples of different school’s programs that have made the switch to nutritionally healthy programs is provided.
<http://www.cdc.gov/HealthyYouth/nutrition/Making-It-Happen/pdf/exec.pdf>
- Healthy Youth: Success stories
A description of what five schools throughout the U.S. are doing to support healthy eating is provided in this article.
<http://www.cdc.gov/HealthyYouth/nutrition/Making-It-Happen/success.htm>
- Obesity may lead to decrease in children’s life expectancy
A brief article on reasons why the life expectancy of children who are overweight is explained.
<http://www.edweek.org/ew/articles/2005/03/23/28health-2.h24.html?querystring=Obesity%20may%20lead%20to%20decrease>
- Nutrition and the health of young people
Statistics are provided on different aspects of the nutritional habits of adolescents.
<http://www.cdc.gov/HealthyYouth/nutrition/pdf/facts.pdf>

- Nutrition services
A basic fact sheet regarding the status of health education, food service, professional preparation and foods and beverages sold in schools are provided in this piece.
<http://www.cdc.gov/HealthyYouth/shpps/factsheets/pdf/nutrition.pdf>
- Overweight and Obesity: A vision for the future
This is a list of ideas on things that can be done to increase the nation's awareness of the importance of good nutrition and physical activity.
http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_vision.htm
- Overweight and Obesity: Contributing factors
This article provides a definition for "energy imbalance" aka overweight and gives examples of reasons for it.
http://www.cdc.gov/nccdphp/dnpa/obesity/contributing_factors.htm
- Overweight and Obesity: Defining overweight and obesity
Definitions for and examples of overweight and obesity are provided in this article.
<http://www.cdc.gov/nccdphp/dnpa/obesity/defining.htm>
- Overweight and Obesity: Economic consequences
The estimated amounts spent by Medicare and Medicaid state-by-state on overweight and obesity issues from 1998-2000, are presented in chart form.
http://www.cdc.gov/nccdphp/dnpa/obesity/economic_consequences.htm
- Overweight and Obesity: Health consequences
A brief list of some of the health issues that can be faced by those who are overweight or obese is given.
<http://www.cdc.gov/nccdphp/dnpa/obesity/consequences.htm>
- Physical activity and the health of young people
A list of problems associated with lack of physical activity in adolescents is provided.
<http://www.cdc.gov/HealthyYouth/physicalactivity/pdf/facts.pdf>
- Prevalence of overweight and obesity among adults: 1999-2002
This is presented in a tables format of the trends of overweight and obesity in adults for a 4-year period.
<http://www.cdc.gov/nchs/products/pubs/pubd/hestats/obese/obse99.htm>
- School Lunch Program. Efforts needed to improve nutrition and encourage healthy eating
This is an extensive article on different school lunch programs and programs implemented to support healthy eating.
<http://www.gao.gov/new.items/d03506.pdf>

- Schools – The Surgeon General’s call to action to prevent and decrease overweight and obesity
This lists ideas of and suggestions for ways schools can educate and follow through on this through communication with community, staff, and parents.
http://www.surgeongeneral.gov/topics/obesity/calltoaction/2_2_2.htm
- Some schools start ‘dieting’ ahead of U.S. rules
This provides a brief description of the Child Nutrition Act.
<http://www.edweek.org/ew/articles/2005/01/05/16wellness.h24.html?querystring=Nutrition&print=1>
- Study finds fast-food choices encroach on Chicago schools
A summary of research conducted on the number of locations of fast food restaurants located near Chicago schools is presented in this article.
http://www.boston.com/news/education/k_12/articles/2005/08/24/study_finds_fast_food_choices_encroach_on_chicago_schools?mode=PF
- Texas schools launch ‘virtual’ cafeteria
This article describes a virtual cafeteria in a Texas district, where students and parents can go online to make meal choices and get its nutritional value, prior to the student’s school day.
<http://www.miami.com/mld/miamiherald/news/12465858.htm?template=contentModules/printstory.jsp>
- The problem of overweight in children and adolescents
This provides a listing of the causes of being overweight and ways in which students and parents can work together to get healthier.
http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_adolescents.htm

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