

# **IMPROVING NUTRITION AND PHYSICAL ACTIVITY IN SCHOOLS: INTERNET RESOURCES**

## *Research and Practice Issue Brief*



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Research and Practice Issue Briefs are published by Yale University, School of the 21<sup>st</sup> Century (21C) program. They are designed to summarize and disseminate current research on topics of special interest to educators and policymakers as well as provide information to facilitate the application of research to practice. The goal is to provide concise, objective, and constructive information and explore the implications for the 21C program and other school reform efforts.

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# **IMPROVING NUTRITION AND PHYSICAL ACTIVITY IN SCHOOLS: INTERNET RESOURCES**

## **INTRODUCTION**

Obesity has become a public health epidemic, especially among increasingly younger children. It is a societal problem<sup>1</sup> that calls for government action<sup>2</sup> and widespread changes in schools, agencies, and corporations. Its impact, however, is felt by individual children and families. Some schools have taken steps to address the issue, in part by providing nutrition education, as well as advocating for physical fitness. Schools of the 21<sup>st</sup> Century (21C) in particular have worked to modify school food services, and many 21C schools include health and nutrition among the 21C components they implement. This Issue Brief, with its focus on internet resources on nutrition and physical fitness, is designed to help educators in 21C and other schools as they work with children and families to improve eating habits and increase physical activity.

Children—and adults for that matter—become overweight or obese when they consume more calories from food and beverages than they expend, hence the need for changes in both eating habits and increased physical activity. The factors that contribute to obesity and becoming overweight are numerous and include behavioral, environmental, and genetic aspects. None of these occur in isolation, but rather, influence each other.<sup>3</sup> Frequent snacking and reliance on sugary foods as major sources of calories,<sup>4</sup> known contributors to weight gain, are related to environmental factors: ready availability of these foods at home; extensive advertisements for these foods on television; and access to vending machines at school where such foods can be easily purchased. These factors affect eating behaviors and food preferences.<sup>5</sup> Since issues that contribute to weight gain are numerous, efforts to address the problem must be comprehensive and include actions by many agencies and organizations, including schools.

Schools, of course, have many responsibilities and undertaking yet another—preventing obesity—may appear to be beyond their scope of work. Besides the physical consequences associated with the problem, however, poor eating habits and physical inactivity affect children's psychological status, causing stress and low self-esteem, which in turn affect academic performance.<sup>6</sup> Researchers found that physically fit middle school students had higher grade point averages and consistently scored higher on standardized achievement tests than their counterparts who were not physically fit. At a Montana school, environmental modifications (replacing soda in vending machines with water and 100% juice, eliminating candy from the lunch menu, and increasing the overall nutritional content of food sold) led to a notable decrease in disciplinary reports issued after lunch, suggesting not only that changes in children's nutrition habits are possible, but also that they can make a difference.<sup>7</sup>

The obesity problem is national in scope and has become increasingly severe in recent years. The National Health and Nutrition Examination Survey (NHANES) has been

tracking physical measurements (weight and height) of children and teens since the 1960s. The survey reports that the number of overweight children and adolescents was relatively stable until 1980; since then, numbers have tripled.<sup>8</sup>

Weight gain is in part due to poor eating habits. The US Department of Agriculture reports that many children lack healthy diets. Only 2% eat the food group servings as recommended for optimal health, less than 20% of students eat recommended servings of fruit and vegetables daily, and more than 80% of children consume excessive amounts of fat, with 90 eating too much saturated fat.

Exacerbating the problem is the sedentary lives that many children lead. The National Association for Sports and Physical Education recommends 60 minutes of daily physical activity for school-aged children. In actuality, less than a quarter of our children exercise for 30 minutes or more per day, and 75% get less than 20 minutes per week.

Children who are overweight, inactive, and poorly nourished suffer psychological challenges and social and academic difficulties. Also, they are at a greater risk of developing a number of potentially serious health problems, including elevated blood pressure and blood cholesterol, gallbladder disease, osteoarthritis, asthma, Type II diabetes, depression, and anxiety.<sup>9</sup> In addition to the possibility of increased childhood health issues, the trend suggests a growing percent of overweight individuals—with all the associated health risks—in the upcoming generation of adults.<sup>10</sup>

## THE SCHOOL OF THE 21<sup>ST</sup> CENTURY AT YALE UNIVERSITY

The School of the 21<sup>st</sup> Century (21C) is a school-based child care and family support program implemented in more than 1,300 schools. Health and nutrition is one of several 21C components. Our work here is necessarily broad, since there are several child nutrition problems. One such problem among children and adolescents is eating disorders, including anorexia nervosa and bulimia, which take their toll in terms of ill health and, in some cases, death. Another problem is hunger and food insecurity – not always being able to count on having a meal. Many children do not receive sufficient food to sustain normal growth and development. With limited income, some families skip meals or compromise on the quality and quantity of their food. Over time, not getting enough food and experiencing periods of hunger, along with other environmental factors associated with poverty, can permanently retard children's physical growth, brain development, and cognitive functioning, especially when it occurs at a young age. The longer a child's nutritional needs go unmet, the greater the likelihood of cognitive impairments. Some children in the United States suffer from milder forms of hunger (when compared to children in developing countries) and often only periodically, but even these children are at high risk for the negative effects of under-nutrition and many simply cannot concentrate on academic tasks. Several federal food programs, including school breakfast and lunch services, are often the only regular source of food for some children. Recent changes in the law now make it easier for schools to enroll children whose families are food stamp recipients in school food programs. Nevertheless, many children begin the day hungry. This is not an isolated problem; an estimated 35 million Americans live in households that do not get enough to eat. The personal burden to the children and families are unimaginable to many of us, but there are societal costs as well, calculated in billions of dollars associated with impaired educational outcomes and physical and mental illnesses.<sup>1</sup> J. Larry Brown, former director of the Tufts Nutrition Policy Center and now at Harvard, spoke at a School of the 21<sup>st</sup> Century National Conference and suggested that schools and child care centers provide foods such as cereal and milk in classrooms for all children to eat, if they want. Universal access to such foods not only addresses the needs of hungry children, but it also prevents embarrassment they may feel if they were the only ones allowed to partake of free foods. Many 21C schools have followed this advice. The third problem, which we focus on here, is at the other extreme of the continuum: children dealing with obesity, which is increasing, starting at a very young age, and resulting in various diseases that were once seen only among adults. To some degree, genetics may predispose individuals to obesity. However, excessive caloric intake, eating non-nutritious high-calorie foods, and inadequate physical activity play major roles in contributing to obesity and its associated concerns, suggesting that the problem is preventable.

*For information on school food services and competitive foods in school, see: FRAC.org and The National School Lunch Program. April 2005 Issue Brief, Mathematica Policy Research.*

<sup>1</sup> Brown, L.J. et al. (2007). *The Economic Cost of Domestic Hunger*. Cambridge, MA: Harvard School of Public Health.

### ***LEGISLATIVE ACTION***

Researchers at the University of Baltimore<sup>11</sup> assessed each state in relation to the steps that their governments are taking to combat obesity both for the population as a whole and for children. Their study, which began in 2004, indicates that, for the most part, state governments have had a delayed reaction to this health crisis but are finally starting to take action.

For the purpose of comparison, these researchers created a report card using a scale of A through F for each state, based on efforts to pass obesity control measures, using eight different types of legislation. In 2004, no state received an A for its efforts to control childhood obesity; Arkansas and Connecticut received a B. In 2005, only California received an A rating for childhood obesity control efforts, while 15 states, Arkansas among them, earned Bs in this category. By 2006, several states initiated some action toward addressing the problem of childhood obesity and lack of exercise among children, but still, only six states—California, Illinois, Oklahoma, Pennsylvania, Tennessee, and South Carolina—earned an A rating for legislation dealing with childhood obesity, while 21 scored a B.

### ***HEALTH AND NUTRITION IN THE SCHOOL OF THE 21<sup>ST</sup> CENTURY***

Although government action is an essential part of the solution to this problem, educators are aware of the issue and need not await legislation. With children spending a significant portion of their day in the classroom, schools are in a perfect position to impact the nutrition and physical activities of their students. As part of their health education and services component, 21C schools offer a range of services in collaboration with community-based health care providers. These include improving the nutritional quality of school meals and snacks (by reducing fat and increasing fruit and vegetables); providing nutrition education curriculum; enhancing parents' knowledge of nutrition and healthy snacks; providing opportunities for physical activity during school hours and in after-school programs; and hosting health fairs to emphasize the importance of health and nutrition to the community at large.

### **INTERNET RESOURCES**

To assist 21C and other schools' work on health and nutrition, researchers at 21C and the Rudd Center for Food Policy and Obesity, both at Yale University, have reviewed resources from many web sites and are presenting here a compilation of the best of them for use by 21C schools. These resources are designed to provide educators with opportunities to learn about and implement programs that foster healthy lifestyles. Below is a list of 14 specific web resources on improving nutrition and physical activity in schools. This is followed by an additional seven comprehensive web resources on the topic.<sup>12</sup>

## THE RUDD CENTER FOR FOOD POLICY AND OBESITY AT YALE UNIVERSITY

The mission of the Rudd Center is to improve the world's diet, prevent obesity, and reduce weight stigma through creative connections between science and public policy, targeted research, frank dialogue among key constituents, and a commitment to real change. The Rudd Center assesses, critiques, and strives to improve practices and policies related to nutrition and obesity so as to inform and empower the public. It promotes objective, science-based approaches to policy and works to maximize the impact on public health.

### RECENT RELEVANT PUBLICATIONS

Lenny R. Vartanian, Marlene B. Schwartz, and Kelly D. Brownell  
**Effects of Soft Drink Consumption on Nutrition and Health: A Systematic Review and Meta-Analysis.** Am J Public Health, Apr 2007; 97: 667 - 675.

Marlene B. Schwartz and Kelly D. Brownell  
**Actions Necessary to Prevent Childhood Obesity: Creating the Climate for Change.** J. Law Med. Ethics, Mar 2007; 35: 78 - 89.

### 1. Action For Healthy Kids (AFHK)

**URL:** <http://www.afhk.org>

**Funding Source(s):** include National Dairy Council, National Football League, Robert Wood Johnson Foundation, Aetna Inc., Pfizer Animal Health, TPF of the Fidelity Charitable Gift Fund, Edelman, American Cancer Society of Vermont, Blue Cross Blue Shield, Mid-Atlantic Dairy Council, Nesquik, Project Bread, Takeda Pharmaceuticals of North America.

**Description of website:** The aim of AFHK is to improve children's eating habits and increase their physical activity in schools through national and state-level efforts. The website has a section on "Resources to Improve Schools," which contains a drop-down menu of many topics to help teachers, school administrators, and parents take action in implementing healthy school programs and policies. Topics include, but are not limited to, nutrition education, physical activity, vending/snacks, advertising in schools, fundraising, childhood obesity, community outreach, and after-school programs. Each topic contains multiple resources such as handouts, pamphlets, toolkits, brochures, reports, and documents, many of which are in PDF format and can be downloaded. There are also blueprints available for changing policies and evaluations and profiles of existing school-based programs.

#### **Tools Available:**

- Fact sheets
- Tools for Teachers
- Tools for Parents

- ☑ Action plans for making healthy changes in schools
- ☑ Tools for assessing interventions
- ☑ Legislative and policy materials
- ☑ Case examples of successful school interventions
- ☑ “How To” Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- ☑ Information on improving nutrition and food in schools
- ☑ Information on improving physical activity in schools
- ☑ Lists and/or links for additional resources
- ☑ Printable handouts, flyers, or leaflets
- ☑ Based on scientific evidence where applicable
- ☑ Appropriate resources for interventions in elementary schools
- ☑ Appropriate resources for interventions in high schools

**What this website does well:**

- Provides multiple resources on a range of relevant and up-to-date topics
- Offers information that is highly organized and comprehensive in scope
- Provides materials that are suitable for all stages of making healthy changes in schools (from initial planning to program evaluation)

**2. American Public Health Association (APHA): Toolkit for Obesity Prevention**

**URL:** <http://www.apha.org/programs/resources/obesity/proresobesitykit.htm>

**Funding Source(s):** Sponsors include American Dietetic Association, ILSI Center for Health Promotion, Association for American Medical Colleges, Pfizer, Research America, Robert Wood Johnson Foundation.

**Description of website:** This site represents a subsection of APHA’s home webpage, which focuses on obesity intervention, which was the theme of the 2003 National Public Health Week. As part of this 2003 initiative, APHA created a toolkit for obesity intervention that includes media and legislative advocacy materials, such as sample letters to public officials, talking points for meetings, and telephone or radio scripts. Visitors can download the toolkit at no cost. In addition, the website provides links to government resources and materials for parents and teachers, as well as links to fact sheets on obesity, nutrition, school foods, and meal programs. The website also outlines “tools for action” against overweight and obesity, which includes links to sample policies that encourage healthy eating and activity in schools, guides to community action, and list serves to promote healthy nutrition environments in schools.

**Tools Available:**

- ☑ Fact sheets
- ☑ Tools for Teachers
- ☑ Tools for Parents
- ☑ Legislative and policy materials

- “How To” Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Information on improving nutrition and food in schools
- Information on improving physical activity in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets

**What this website does well:**

- Provides tangible steps and materials for obesity-related advocacy efforts
- Provides links to comprehensive web-based resources

**3. CDC Healthy Youth! Making it Happen: School Nutrition Success Stories**

**URL:** <http://www.cdc.gov/healthyyouth/nutrition/Making-It-Happen/> and <http://www.cdc.gov/healthyyouth/nutrition/index.htm>

**Funding Source(s):** Department of Health and Human Services, Centers for Disease Control and Prevention

**Description of website:** This website summarizes a range of approaches that schools have taken to improve student nutrition. Highlighted case studies show that students will buy and consume healthful foods and beverages and that schools can make money from these healthful options. The website outlines six approaches to improve student nutrition including: establishing nutrition standards for competitive foods, influencing food/beverage contracts, increasing the availability of healthy foods, adopting marketing techniques, limiting access to competitive foods, and school fundraising and rewards. Each approach is described in a report and includes case studies of school programs. The whole report, an executive summary, or selected approaches, can be downloaded in PDF format. The second website listed above provides information on childhood nutrition and obesity, and provides links to data and statistics, science-based strategies to improve nutrition, information on existing programs (including registries and program evaluation), and various publications and references, all of which can be downloaded.

**Tools Available:**

- Fact sheets
- Tools for Teachers
- Tools for Parents
- Case examples of successful school interventions
- Information on improving nutrition/food in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

**What this website does well:**

- Provides detailed summaries of successful case studies to improve school foods
- Outlines specific approaches to target healthy changes in foods and beverages

#### 4. CDC Healthy Youth! School Health Index

**URL:** <http://apps.nccd.cdc.gov/shi/>

**Funding Source(s):** Department of Health and Human Services, Centers for Disease Control and Prevention

**Description of website:** The School Health Index website provides a self-assessment tool and planning guide for elementary and high schools that allow you to identify the strengths and weaknesses of your schools' policies and programs for promoting health, develop an action plan for improving student health, and involve teachers, parents, students, and the community in improving school policies and programs. Different modules allow you to assess the extent to which your school implements the kinds of policies and practices recommended by the Centers for Disease Control and Prevention (CDC) in its research-based guidelines for nutrition services and physical education. Following this self-assessment are guidelines and instructions on implementing a School Health Improvement Plan. In addition, the website provides various resources on nutrition and physical activity including data and statistics, science-based strategies, information on national and state programs, publications, and references. Visitors can download or order the School Health Index materials at no cost.

#### **Tools Available:**

- Fact sheets
- Tools for Teachers
- Tools for Parents
- Action plans for making healthy changes in schools
- Tools for assessing interventions
- Legislative and policy materials (limited)
- Case examples of successful school interventions
- "How To" Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Information on improving nutrition and food in schools
- Information on improving physical activity in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

#### **What this website does well:**

- Provides a step-by-step guide on how to assess school programs and policies
- Outlines methods for implementing an action plan to improve school nutrition and physical activity and involving parents, teachers, and school administrators.



**5. Center for Health and Health Care in Schools**  
**(George Washington University School of Public Health & Health Sciences)**

**URL:** <http://www.healthinschools.org/sh/obesity.asp>

**Funding Source(s):** Robert Wood Johnson Foundation, Bureau of Primary Health Care, US Department of Health and Human Services.

**Description of website:** This website provides information on childhood obesity and school nutrition and physical activity, including links to reports, academic articles, policies and legislation, prevention strategies, and government documents. It also contains a selected bibliography of journal articles and other publications on childhood obesity, as well as fact sheets, and a parents' resource center with resources to encourage parental involvement in school nutrition. The website also offers news alerts and grant alerts and is in the stages of adding a section that summarizes model school programs and evaluated interventions.

**Tools Available:**

- Fact sheets
- Tools for Teachers
- Tools for Parents
- Legislative and policy materials
- Information on improving nutrition and food in schools
- Information on improving physical activity in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

**What this website does best:**

- Provides links to numerous web-based resources on childhood obesity, nutrition, and physical activity in schools
- Offers a thorough, up-to-date bibliography of academic and government documents (with websites)

**6. Center for Science in the Public Interest (CSPI)**

*School Foods Tool Kit: A Guide to Improving School Foods & Beverages*

**URL:** <http://www.cspinet.org/schoolfood/>

**Funding Source(s):** CSPI's primary funding comes from the 900,000 subscribers to its *Nutrition Action Healthletter* and individual donors. Private foundation grants make up approximately 5 to 10% of CSPI's annual revenue. CSPI accepts no corporate or government grants.

**Description of website:** CSPI's School Foods Tool Kit is divided into three parts: The first section includes strategies for improving school foods and beverages, background materials, fact sheets on children's diets and health, school meal programs, and vending and other school food venues. Also included are techniques to implement changes in schools, with guidance and model materials for communicating with decision makers, the press, and other community members. The second section provides model legislation, sample letters, and a list of online resources. The third section provides examples of successful case studies of healthy school changes, including descriptions and contact information for individuals, organizations, and states working to improve the nutritional quality of school foods and beverages. Visitors can download this tool kit at no cost or order a hard copy for \$10.

**Tools Available:**

- Fact sheets
- Tools for Teachers
- Tools for Parents
- Action plans for making healthy changes in schools
- Tools for assessing interventions
- Legislative and policy materials
- Case examples of successful school interventions
- "How To" Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Information on improving nutrition and food in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

**What this website does well:**

- Provides a comprehensive manual for parents and teachers
- Outlines practical strategies for improving the nutritional quality of foods in schools
- Provides specific tips and guidelines for how to approach schools and government members to implement healthy changes in schools and communities

**7. Changing the Scene: Improving the School Nutrition Environment Tool Kit (USDA)**

**URL:** <http://www.fns.usda.gov/tn/Default.htm>

**Funding Source(s):** USDA

**Description of website:** The USDA developed a toolkit of materials to help parents and educators take action to improve their school nutrition environment. The kit includes a guide for making an action plan, criteria for evaluating success, support materials on assessment, as well as power point presentations, CD-Rom,

videos, brochures, reprints, flyers, and information sheets. The toolkit can be ordered online at no cost. The website also includes information on how to develop and implement local wellness policies and provides numerous resources such as handouts and information on nutrition education for children and parents, school and community resources, training materials for food service professionals, classroom curriculum materials and activities for teachers, and information specific to parents. The “Team Nutrition” schools database allows you to access and view descriptions of schools across the country where administrators have made successful changes in the school nutrition environment.

**Tools Available:**

- Fact sheets
- Tools for Teachers
- Tools for Parents
- Action plans for making healthy changes in schools
- Tools for assessing interventions
- Legislative / policy materials
- Case examples of successful school interventions
- “How To” Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Information on improving nutrition/food in schools
- Information on improving physical activity in schools
- Lists and/or links for additional resources
- Printable handouts / flyers / leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

**What this website does well:**

- Provides a comprehensive toolkit with supporting materials in multiple formats
- Gives access to an impressive range of resources for parents, teachers, and students

**8. Fit and Fun Families Employer Online Tool Kit**

**URL:** [http://www.cigna.com/our\\_plans/programs/healthy\\_kids.html](http://www.cigna.com/our_plans/programs/healthy_kids.html)

**Funding Source(s):** CIGNA

**Description of Website:** This website provides strategies for encouraging healthy eating and physical activity at home and in the workplace. Information is tailored specifically to employers, employees, parents, and kids. The principles of this toolkit are guided by recommendations of the American Academy of Pediatrics and the US Surgeon General and the National Center for Chronic Disease Prevention and Health Promotion. Information provided includes fact sheets with links to studies and supporting materials, flyers, posters, online resources, and social marketing strategies for the office environment. Parents can

download tip sheets and PDF files with strategies, ideas, and activities for improving nutrition and physical activity in the family. For children, the site offers activities and games promoting healthy lifestyle behaviors.

**Tools Available:**

- Fact sheets
- Tools for Parents
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable

**What this website does well:**

- Provides practical strategies for improving healthy lifestyle behaviors in workplace environments
- Outlines key health messages that promote healthy eating and physical activity that can be encouraged by parents and employers

**9. Healthy Eating Active Living Resource Toolkit (H.E.A.L.)**

**URL:** <http://www.cthanded.org/HEALRT/highlights.asp>

**Funding Source(s):** Connecticut Association of Directors of Health, Inc.

**Description of website:** H.E.A.L. aims to promote collaboration across community members to encourage healthy eating and active living in schools, worksite settings, health care environments, and the community at large. The website provides guidance and outlines specific steps to establish community teams, how to work effectively with the media, and how to initiate and evaluate community activities and interventions to promote nutrition and physical activity. The website also includes information on policies and environmental factors that influence nutrition and physical activity and lists tools that can be used to facilitate community efforts. Supporting materials include an assessment tool to determine how your community measures up with nutrition and physical activity, power point presentations, sample materials, educational resources, community strategies for healthy eating and active living, website links, and references.

**Tools Available:**

- Fact sheets (limited – provides links to fact sheets)
- Tools for Teachers (limited – not directly aimed at teachers)
- Tools for Parents (limited – not directly aimed at parents)
- Action plans for making healthy changes in schools
- Tools for assessing interventions
- Legislative and policy materials
- “How To” Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets

- ☑ Based on scientific evidence where applicable
- ☑ Appropriate resources for interventions in elementary schools
- ☑ Appropriate resources for interventions in high schools

**What this website does well:**

- Outlines step-by-step process to mobilize individuals and organizations to form a community-wide coalition to improve nutrition and physical activity
- Offers supporting materials that are useful and practical at all stages of this process
- Provides assessment tools that allow you to measure and evaluate progress

**10. Massachusetts Public Health Association (MPHA)**

**URL:** [http://www.mphaweb.org/issues\\_childobesity.htm](http://www.mphaweb.org/issues_childobesity.htm)

**Funding Source(s):** For full list of financial contributors to MPHA, please visit [http://www.mphaweb.org/about\\_partners.htm](http://www.mphaweb.org/about_partners.htm)

**Description of website:** The MPHA has identified childhood nutrition and obesity as one of its policy priorities. As a result, this organization has devoted a section of its website to information that can help school districts improve nutrition policies. Information provided includes fact sheets about childhood weight and nutrition, access to newsletters and research reports, and a list of web-based resources. What is most impressive, however, is MPHA’s toolkit for “Community Action to Change School Food Policy” which can be downloaded at no cost at the website listed above. This 70-page manual outlines a detailed, step-by-step process of how to form committees, raise awareness, conduct research on the food environment in your local school(s), write policy materials, prepare testimonies, present policies to schools, publicize policies, and implement and follow-up on school food policy changes. It specifically focuses on policy that covers foods and beverages sold in vending machines, school stores, a la carte menus, and fundraisers. The manual includes fact sheets, talking points, assessment tools, rebuttals to common arguments, sample model legislation and school policies, and numerous citations and references to the scientific literature.

**Tools Available:**

- ☑ Fact sheets
- ☑ Tools for Teachers
- ☑ Tools for Parents
- ☑ Action plans for making healthy changes in schools
- ☑ Tools for assessing interventions
- ☑ Legislative and policy materials
- ☑ Case examples of successful school interventions
- ☑ “How To” Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- ☑ Information on improving nutrition and food in schools
- ☑ Lists and/or links for additional resources
- ☑ Printable handouts, flyers, or leaflets

- ☑ Based on scientific evidence where applicable
- ☑ Appropriate resources for interventions in elementary schools
- ☑ Appropriate resources for interventions in high schools

**What this website does best:**

- Provides an extremely comprehensive, detailed manual that can be used by school administrators, teachers, parents, or other community groups who want to improve school nutrition policies
- Applies to all stages of the policy-change process and makes good use of references to the scientific literature to support its materials

## 11. Montana Team Nutrition Program

**URL:** <http://www.opi.state.mt.us/schoolfood/L&CFitness.html>

**Funding Source(s):** Federal Team Nutrition, USDA

**Description of Website:** Although this online toolkit was specifically developed for teachers working with 4<sup>th</sup> and 5<sup>th</sup> grade students in Montana, it serves as a creative model and guide for teachers and schools to use in developing their own nutrition and physical activity educational program. This toolkit includes lesson plans on nutrition and physical activity, information sheets on nutrition and fitness, and strategies to integrate nutrition and physical activity across the curriculum. There are also handouts for school staff, parents, and students, as well as promotional materials and supporting resources.

**Tools Available:**

- ☑ Fact sheets
- ☑ Tools for Teachers
- ☑ Information on improving nutrition and food in schools
- ☑ Information on improving physical activity in schools
- ☑ Lists and/or links for additional resources
- ☑ Printable handouts, flyers, or leaflets
- ☑ Based on scientific evidence where applicable
- ☑ Appropriate resources for interventions in elementary schools (limited)

**What this website does well:**

- Provides lesson plans for 8- and 16-week educational program to encourage nutrition and fitness
- Serves as a model for teachers and schools who wish to create their own curriculum to improve nutrition and physical activity

## 12. Shaping America's Youth (SAY)

**URL:** <http://www.shapingamericasyouth.com/Default.aspx>

**Funding Source(s):** Sponsors include Campbell Soup Company, McNeil Nutritionals, and NIKE, Inc.

**Description of website:** This website aims to provide current and comprehensive information on programs and community efforts across the United States directed at increasing physical activity and improving nutrition in children. This website also provides information on current news, meetings and events, funding opportunities, publications, and other resources related to childhood obesity. The website provides an extensive summary report of its national survey of more than 1,100 programs addressing childhood nutrition and physical activity. There is also an online registry that provides access to information on these individual programs. Additional materials available on this website include articles, publications, and reports that can be downloaded, as well as a list of online resources addressing childhood obesity, physical activity, the built environment, and funding opportunities in these areas.

**Tools Available:**

- Fact sheets
- Case examples of successful school interventions
- "How To" Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Information on improving nutrition and food in schools
- Information on improving physical activity in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

**What this website does well:**

- Provides an extensive, searchable data base of existing programs on childhood nutrition and physical activity
- Summarizes results from more than 1,100 programs across the country
- Provides a comprehensive source of news, funding opportunities, and meeting and event information related to childhood obesity.

**13. University of Texas School of Public Health at Houston, Human Nutrition Center, Coordinated Approach to Child Health (CATCH)**

**URL:** <http://www.sph.uth.tmc.edu/catch/>

**Funding Source(s):** Funding for various studies comes from the Texas Department of Health

**Description of website:** The Human Nutrition center at the University of Texas is conducting several large-scale research studies to improve childhood nutrition and physical activity. One project highlighted is CATCH (Child & Adolescent Trial for Cardiovascular Health), which provides curriculum materials, school level and individual evaluation methods, CATCH publications, information for educators and families, handouts, and additional references.

**Tools Available:**

- Fact sheets (limited)
- Tools for Teachers
- Tools for Parents
- Action plans for making healthy changes in schools
- Tools for assessing interventions
- Information on improving nutrition and food in schools
- Information on improving physical activity in schools
- Lists and/or links for additional resources
- Printable handouts, flyers, or leaflets
- Based on scientific evidence where applicable
- Appropriate resources for interventions in elementary schools
- Appropriate resources for interventions in high schools

**What this website does well:**

- Provides access to empirical research and assessment tools that can be used for evaluating school interventions
- Provides information of particular interest to researcher interested in testing school nutrition and physical activity interventions

**14. We Can! Ways to Enhance Children's Activity and Nutrition**

**URL:** <http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/>

**Funding Source(s):** Department of Health & Human Services, National Institutes of Health. Supporting organizations include the American College of Sports Medicine, Produce for Better Health Foundation, University of Michigan Health System.

**Description of website:** *We Can!* is a national education program designed for parents and caregivers to help children 8 to 13 years old stay at a healthy weight, with goals of improving food choices, increasing physical activity, and reducing TV viewing time. This website is not geared to addressing school interventions, but it provides a range of materials to help local groups and parents implement healthy changes in their communities. Resources include a 200-page toolkit for community action with planning tools, curricula, and activities; a parent handbook; booklets on increasing healthy behaviors; research information on childhood obesity; bilingual fact sheets on nutrition; physical activity and heart health; quizzes; posters; banners; healthy recipes; and tips for improving family nutrition and physical activity.

**Tools Available:**

- Fact sheets
- Tools for Parents
- "How To" Guides (e.g., how to approach schools, talk with decision makers, work for policy level change)
- Lists and/or links for additional resources



- ☑ Printable handouts, flyers, or leaflets
- ☑ Based on scientific evidence where applicable
- ☑ Appropriate resources for interventions in elementary schools
- ☑ Appropriate resources for interventions in high schools

**What this website does well:**

- Provides information on ways to prevent obesity using science-based literature
- Outlines practical strategies and tools for parents to encourage healthy eating and physical activity in children

**ADDITIONAL COMPREHENSIVE WEB RESOURCES ON IMPROVING NUTRITION AND PHYSICAL ACTIVITY IN SCHOOLS**

**5 A Day: The Color Way (Produce for Better Health Foundation)**

<http://www.5aday.com/> or <http://www.dole5aday.com/>

This website contains a number of resources for educators, school food services, retailers, parents, and children to increase fruit and vegetable consumption. Materials for educators include free nutrition education curricula, lesson plans, teaching tools, classroom resources, activity sheets, healthy fundraising and vending options, and research and policy information. For parents there are fact sheets, references, recipes, and family games to promote fruit and vegetable consumption. Materials for children include activity sheets, coloring pages, trivia quizzes, and games.

**California Project Lean**

<http://www.caprojectlean.org/>

This website aims to increase healthy eating and physical activity in teenagers. In addition to providing healthy eating strategies, information on food and nutrition, and games and activities designed to promote healthy behaviors, the site also includes examples of how teens in California have made a difference in their schools to encourage nutrition and physical activity. There is also a small toolkit that teens can use to pursue nutrition and physical activity policies in their school with the help of a teacher or advisor. Included with this kit is a “Policy Game” which teaches teenagers about the policy change process.

**Healthy School Nutrition Environment Resource List**

[http://www.sde.ct.gov/sde/lib/sde/pdf/deps/Nutrition/hsne\\_resource\\_list.pdf](http://www.sde.ct.gov/sde/lib/sde/pdf/deps/Nutrition/hsne_resource_list.pdf)

This online PDF document lists numerous online resources to assist schools to promote nutrition and physical activity in children. It covers a range of categories including competitive foods in schools, healthy eating and physical activity handouts for parents, healthy school meals, nutrition education, nutrition information, physical activity, promoting healthy weight in children, school policies, and nutrition and physical activity legislation. This list is updated regularly and offers current links that will be of interest to educators, school officials, and parents.

**Kansas Coordinated School Health**

[http://www.kshealthykids.org/docs/PAN%20Resources\\_.pdf](http://www.kshealthykids.org/docs/PAN%20Resources_.pdf)

This website provides a variety of nutrition and physical non-curricular websites, tools, and resources for schools, parents and youth. Each website listed has a brief description of its content, which ranges from activities to promote eating healthy and fitness for children, to parental strategies to promote nutrition at home, to online resources for school administrators and curriculum ideas for teachers.

### **Keys to Excellence in School Food and Nutrition Evaluation Tool**

<http://www.asfsa.org/keys/>

This online resource developed by the School Nutrition Association is a self-assessment tool that allows you to evaluate your school nutrition program in four "key" areas, including administration, communications and marketing, nutrition, and operations. This tool may be most useful for individuals who are overseeing a district's foodservice program. Completing the assessment will help to benchmark your school nutrition program's quality, and develop a plan to strengthen your program. A multi-disciplinary committee of foodservice district directors, foodservice managers, federal and state agency representatives, university instructors, and SNA/Child Nutrition Foundation staff members developed the assessment tool. The website also provides a database of school nutrition programs that demonstrate excellence providing nutritious food and a healthy educational environment for students.

### **NY State Department of Health – Active8 Kids! Childhood Overweight and Obesity Resources**

[http://www.health.state.ny.us/prevention/obesity/activ8kids/further\\_information.htm](http://www.health.state.ny.us/prevention/obesity/activ8kids/further_information.htm)

This site contains numerous links to online resources on issues pertaining to childhood obesity. Links are categorized according to issues relevant to children and teens, parents, teachers, school administrators, and professionals and providers. The site covers topics, such as nutrition, healthy eating, and physical activity, with a range of materials, including toolkits, policy documents, and fact sheets.

### **Obesity Prevention Resources**

<http://www.fort-stockton.lib.tx.us/health/resources.html>

This website provides many helpful online links for resources and serves as a comprehensive reference guide for communities interested in obesity prevention programs that promote nutrition and physical activity. Topics covered include nutrition, physical activity, school resources, health and wellness resources, and other reports and documents.

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#### **CITATIONS**

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<sup>3</sup> Farooqi, I. & O'Rahilly, S. (2000). Recent advances in the genetics of obesity, *Arch Dis Child*, 83, 31-34.

<sup>4</sup> Institute of Medicine (2005). *Preventing childhood obesity*, Washington, DC: National Academies Press.

<sup>5</sup> Sherry, B. (2005). Food behaviors and other strategies to prevent and treat pediatric overweight *International Journal of Obesity*, 29, 116-126.

<sup>6</sup> Swartz, M.B. & Puhl, R. (2003). Childhood obesity: A societal problem to solve. *Obesity Reviews*, 4(1), 57-71.

<sup>7</sup> Action for Healthy Kids, an organization led by former Surgeon General David Satcher, has published a document, *The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our*

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*Schools*, which provides descriptions of research studies that we reference. Accessed 06/22/2007,  
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<sup>8</sup> National Center for Health Statistics. Prevalence of Overweight Among Children and Adolescents: United States, 1999-2002. Accessed 06/22/07:

<http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm>

<sup>9</sup> Data to support these three items – poor eating habits, sedentary lives, and potential health issues – are cited in *The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools*. Accessed 06/22/2007.

[http://www.actionforhealthykids.org/devel/pdf/LC\\_Color\\_120204\\_final.pdf](http://www.actionforhealthykids.org/devel/pdf/LC_Color_120204_final.pdf)

<sup>10</sup> [http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght\\_child\\_03.htm](http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght_child_03.htm)

<sup>11</sup> Cotten, A., Stanton, K.R., & Acs, Z.J. The UB Obesity Report Card™: An Overview. Accessed 06/22/07.

<http://www.ubalt.edu/experts/obesity/index.html>

<sup>12</sup> All URLs were verified as of June 26, 2007.