



Addressing Childhood Obesity Through Nutrition and Physical Activity

CDC's Division of Adolescent & School Health



Mission

To promote the health and well-being of children and adolescents so they become healthy and well-functioning adults.

Goal

To prevent and reduce childhood obesity by supporting school-based strategies to promote lifelong, healthy eating habits and physical activity among young people.

Strategies

- 1 Data collection and analysis.
- 2 Science-based guidance.
- 3 Funding to state departments of education and health and national nongovernmental organizations for program and policy development and implementation.
- 4 Evaluation.
- 5 Integration with other federal efforts.

1 Data Collection and Analysis

Youth Risk Behavior Surveillance System (YRBSS)

The YRBSS consists of national, state, and large urban school district surveys of representative samples of high school students. Conducted every 2 years, these surveys monitor health-risk behaviors among young people so that health and education agencies can more effectively target and improve programs. These behaviors, often established during childhood and early adolescence, include tobacco use; unhealthy dietary choices; inadequate physical activity; alcohol and other drug use; sexual behaviors that can lead to unintended pregnancy or sexually transmitted diseases, including HIV infection; and behaviors that contribute to unintentional injuries and violence.

Specific data related to obesity include:

- Self-reported height and weight and the percentage of students who were obese or overweight.
- Self-perception of body weight and weight-control behaviors.
- Consumption of milk, fruits, vegetables, and soft drinks.
- Participation in physical activity, physical education class, and sports teams.
- Time spent watching television, playing video or computer games, or using a computer.

www.cdc.gov/YRBS

School Health Policies and Programs Study (SHPPS)

Conducted every six years, SHPPS is the most comprehensive study of U.S. school health policies and programs. SHPPS assesses the characteristics of school health policies

Coordinated School Health Program (CSHP)

A CSHP consists of eight interrelated components: health education; physical education; health services; nutrition services; counseling, psychological, and social services; healthy and safe school environments; health promotion for staff members; and family and community involvement. CSHPs focus on improving the quality of each of these components and expanding collaboration among the people responsible for them. This coordination results in a planned, organized, and comprehensive set of courses, services, policies, and interventions that meet the health and safety needs of all students from kindergarten through grade 12. Effective CSHPs can increase the adoption of health-enhancing behaviors, improve student and staff health, and use resources more efficiently.

and programs at the state, district, school, and classroom levels nationwide across all eight school health program components: health education; physical education and activity; health services; mental health and social services; nutrition services; healthy and safe school environment; faculty and staff health promotion; and family and community involvement.

SHPPS monitors childhood obesity-related policies and practices, such as:

- Requiring health education on topics related to preventing obesity and other chronic diseases, including nutrition, dietary behavior, physical activity, fitness, and personal health and wellness.



- Providing healthy food and beverage options and restricting less healthy options at schools and school events.
- Providing opportunities for physical education and physical activity across the school day.
- Requiring school health screenings for student height and weight or body mass problems.
- Requiring the provision of health services to students related to weight management.

www.cdc.gov/SHPPS

School Health Profiles (Profiles)

Profiles, a biennial survey conducted by state and local education and health agencies, provides data on school health policies and practices in states and large urban school districts. It monitors and assesses characteristics of, and trends in, health and physical education and activity, tobacco-use prevention policies, nutrition-related policies and practices, health services, collaboration, and family and community involvement in school health programs. States and large urban school districts can use Profiles data to plan and allocate resources, guide professional development, advocate for policy improvement and resources, and describe the status of school health programs in their jurisdictions.

Data collected in Profiles include the percentages of schools in participating states and large urban school districts that:

- Include obesity prevention behavior topics in required health education courses (e.g., balancing food intake and physical activity, accepting body size differences, preventing eating disorders and unhealthy weight-control practices, and decreasing sedentary activities).
- Ensure that students have access to healthy snacks and beverages from vending machines or at school stores, canteens, or snack bars.
- Require students to take one or more physical education courses or allow exemptions from courses because of participation in school or community sports or other school activities.

www.cdc.gov/HealthyYouth/Profiles

2 Science-Based Guidance

Make a Difference at Your School—Key Strategies to Prevent Obesity

This resource describes 10 science-based strategies that schools can use to prevent obesity through physical activity and healthy eating. For each strategy, the resource identifies tools that can help schools put that strategy into action. Highlights of the strategies include:

- Addressing physical activity and nutrition through coordinated school health.
- Implementing a high-quality health promotion program for school staff.
- Implementing high-quality courses of study in health education and physical education.
- Increasing opportunities for students to engage in physical activity.
- Implementing a quality school meals program and ensuring that students have healthy food and beverage options throughout the school day and at school events.

www.cdc.gov/HealthyYouth/keystrategies

Body Mass Index (BMI) Measurement in Schools

This resource summarizes the purposes of BMI surveillance and screening programs and includes information on current practices, reviews of research, and guidance related to BMI measurement programs. This BMI guidance document is based on existing research, the experiences of jurisdictions that have implemented BMI measurement programs, and recommendations from an expert panel convened by the Division of Adolescent and School Health (DASH).

www.cdc.gov/HealthyYouth/obesity/BMI

Guidelines for School and Community Programs to Promote Lifelong Healthy Eating Among Young People

Developed in collaboration with nutrition education experts across the

nation, these guidelines identify the most effective policies and practices schools can implement to help young people adopt and maintain healthy eating habits. Nutrition programs are most likely to be effective when schools adopt these guidelines, which are based on an extensive review of research, theory, and current practice in school-based nutrition education, dietary behaviors, health education, and public health.

www.cdc.gov/HealthyYouth/nutrition/guidelines

Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People

Developed in collaboration with physical activity experts across the nation, these guidelines identify the most effective policies and practices schools can implement to help young people adopt and maintain a physically active lifestyle. Physical activity programs are most likely to be effective when schools adopt these guidelines, which are based on an extensive review of research, theory, and current practice in physical education, exercise science, health education, and public health.

www.cdc.gov/HealthyYouth/physicalactivity/guidelines

School Health Index (SHI): A Self-Assessment and Planning Guide

The *SHI* helps schools implement evidence-based policies and practices that promote healthy eating and other healthy behaviors. The *SHI* provides the tools needed to assist stakeholders (e.g., teachers, parents, students, and community members) in assessing health policies and programs and in developing an improvement plan based on assessment results. Both print and interactive online versions of the *SHI* are available. www.cdc.gov/HealthyYouth/SHI

Wellness Policy Development Tool

To support the Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004, which requires school districts to develop

and implement a local wellness policy, DASH has partnered with the U.S. Department of Agriculture (USDA) and Action for Healthy Kids to provide an online searchable database of existing or model wellness policies. The database is designed to help local teams develop their own policies by using language from existing or model policies that have been compiled from states and districts around the country.

www.actionforhealthykids.org/resources_wp.php

Promising Practices in Chronic Disease Prevention and Control: A Public Health Framework for Action

This publication provides a framework to help public health officials establish comprehensive chronic disease prevention and control programs that target limited resources where they are most needed and can be most effective. The chapter on school health programs describes promising practices that states should consider when planning school-based policies and programs to help young people avoid behaviors that increase their risk for obesity and chronic disease, including inadequate physical activity. In addition, the nutrition and physical activity chapter describes proven, effective interventions that state and local public health officials and their partners can implement to address the problems of poor nutrition and physical inactivity on a state or community level.

www.cdc.gov/HealthyYouth/publications/pdf/pp-Ch9.pdf



3 Funding to State Departments of Education and Health and National Nongovernmental Organizations for Policy and Program Development

State Programs to Promote Nutrition, Physical Activity, and Physical Education

DASH supports efforts to promote healthy eating and increase physical activity through Coordinated School Health Programs (CSHPs) by providing technical assistance and financial support to state education and health agencies in 22 states and 1 tribal government. As a result of this assistance, states are able to:

- Implement effective nutrition, physical activity, and physical education policies, programs, curricula, and standards.
- Provide professional development, consultation, and technical assistance to schools and school districts.
- Implement strategies to reduce health disparities.
- Collaborate with local health and education departments, community planning groups, parents, students, and other groups or coalitions.

National Nongovernmental Organization (NGO) Programs to Promote Healthy Eating and Physical Activity

National NGOs support state and local health and education agencies in promoting healthy eating and physical activity among young people. NGOs can effectively reach target audiences with resources, guidance, training, and technical assistance to develop, implement, and promote healthy

eating programs, policies, and practices. Through extensive coordination and collaboration, NGOs promote better health for all students and put research findings into action to support healthier youth.

DASH funds national NGOs to:

- Assess needs for training, technical assistance, materials, and other resources.
- Build capacity of other funded partners or constituents through training and technical assistance efforts.
- Identify, develop, and disseminate model strategies, guidelines, program materials, and other resources.
- Assist constituents and other funded partners in developing partnerships.
- Encourage constituents and other funded partners to collaborate with state departments of education and health and community-based organizations.

For example, the National Association of State Boards of Education (NASBE) developed *Fit, Healthy, and Ready to Learn: A School Health Policy Guide* to provide science-based information to help state, local, and territorial education agencies develop and implement the policies needed to ensure support for school health. Chapters on nutrition and physical activity describe how to develop a comprehensive, integrated policy that promotes lifelong healthy eating and physical activity among school students and staff.

<http://nasbe.org/index.php/shs/53-shs-resources/396-fit-healthy-and-ready-to-learn-a-school-health-policy-guide>

NASBE also provides technical assistance to DASH-funded partners and state boards of education to help school districts establish, maintain, and evaluate healthy school nutrition environments. NASBE, in collaboration with **Action for Healthy Kids**, conducts an annual policy symposium to determine how states can help districts with improving students' food choices.

The **National Association for Sport and Physical Education (NASPE)** provides technical assistance and professional development to the 22 funded CSHP states and 1 tribal government to implement quality

physical education. NASPE integrates NASPE and CDC tools and resources into the technical assistance and trainings it provides directly to school districts and schools. NASPE also provides content expertise and support for the CDC-sponsored *Physical Education Curriculum Analysis Tool (PECAT)* workshops held in numerous states and regions of the country. www.aahperd.org/naspe

4 Evaluation

Technical Assistance

DASH provides evaluation support to its funded partners through individual technical assistance and professional development. Technical assistance increases the capacity of funded partners to evaluate and improve their programs by describing their programs using a logic model, developing SMART objectives, and documenting what happened in their programs by maintaining accurate and organized records on program activities and designating a person responsible for process evaluation data.

Program Evaluation

To help identify effective new approaches for promoting the health of young people, DASH provides technical assistance to state and local agencies to evaluate innovative policies and programs. For example:

- In Rhode Island, DASH is working with the state Department of Education to examine the impact of changes in school policies on the nutritional quality of foods and beverages available in school vending machines.
- In Mississippi, DASH completed a pilot study of dietary attitudes and intake of free fruits and vegetables among all students in 5 of the 25 Mississippi schools competitively selected to participate in USDA's Fresh Fruit and Vegetable Pilot Program. This project was conducted

in partnership with the Mississippi Department of Education and with assistance from USDA and CDC's Division of Nutrition, Physical Activity, and Obesity (DNPAO). www.cdc.gov/MMWR/preview/mmwrhtml/mm5535a1.htm

- In Colorado, DASH provided technical assistance to evaluate the impact of a pricing strategy for foods sold in competition with school meals at high schools within one school district during the 2006–2007 academic year.
- The Michigan Department of Education received assistance from DASH to evaluate whether the Exemplary Physical Education Curriculum increases motor skills and physical fitness among 4th and 5th grade students.

Evaluation Research

DASH conducted an economic analysis of an obesity prevention intervention called *Planet Health* that was developed by the Harvard Prevention Research Center. Students in schools that implemented *Planet Health* demonstrated improved physical activity and nutrition behaviors, reduced television watching, and lower obesity prevalence among girls. DASH's economic analysis determined that *Planet Health* was cost-effective and cost-saving. The results of the study were published in the journal *Obesity Research*. www.obesityresearch.org/cgi/contentabstract/11/11/1313

5 Integration with Other Federal Efforts

DASH collaborates closely with DNPAO, other CDC partners, and other federal agencies to address child and adolescent obesity. Activities include the following:

- Working with DNPAO to establish science-based guidance regarding healthy eating, physical activity,

and obesity among children and adolescents.

- Collaborating with CDC's Healthy Communities Program staff to provide technical assistance to communities that receive funding to support evidence-based school interventions addressing nutrition, physical activity, obesity, diabetes, asthma, and tobacco use.
- Working with the National Institutes of Health's "We Can!", a national education program to prevent childhood obesity in youth ages 8–13.
- Sponsoring the Institute of Medicine's report recommending nutrition standards for foods in schools, with particular emphasis on foods sold outside of school meals. www.iom.edu/CMS/3788/30181/42502.aspx
- DASH works collaboratively with other agencies in the U.S. Department of Health and Human Services and with the Departments of Agriculture and Education on a number of activities, including:
 - Local wellness policies.
 - Healthier Children and Youth Memorandum of Understanding Work Group.
 - Healthy People work groups related to nutrition and physical activity.
 - Carol M. White Physical Education for Progress (PEP) grant program.
 - National Collaborative on Childhood Obesity Research.
 - *2008 Physical Activity Guidelines for Americans*.
 - National Coordinating Committee on School Health and Safety.

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