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Preventing Obesity through Schools

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This paper describes highlights from the *Weight of the Nation*TM 2012 Schools Track. Included is a summary of 16 presentations. Presenters shared key actions for obesity prevention through schools. The information provided at the *Weight of the Nation*TM can help school health practitioners access tools, apply evidence-based strategies, and model real-world examples to successfully start obesity prevention initiatives in their jurisdiction.

The Importance of the School Setting

“Strengthen schools as the heart of health.” (-*William Purcell, III, JD*)¹

With more than 95% of school-aged youth enrolled in schools for 6 hours per day for up to 13 years, schools offer a broad reach to obesity prevention initiatives.² Schools reach students of all races and ethnic backgrounds, income levels, and U.S. regions. Therefore, integrating health promotion activities into schools may equalize health disparities by providing access to a healthy environment for most of the nation’s youth, regardless of background.³ In addition, health behaviors, including physical activity (PA) and nutrition, are related to academic achievement.⁴

In 2010, one-third of school-aged youth (aged 6–19 years) were estimated to be overweight or obese.⁵ Obesity prevention initiatives at schools focus on both preventing and reducing the prevalence of overweight and obesity through education, policies, and environmental changes.⁶ Schools can create an environment for children to learn and practice healthy behaviors through physical education (PE) class, health education class, access to daily PA

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Note

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

opportunities, and healthy foods and beverages.⁷ All school districts that participate in the U.S. Department of Agriculture's (USDA's) school meal programs (i.e., National School Lunch Program, School Breakfast Program) are required to have a local school wellness policy that addresses health goals for nutrition education and promotion, PA, and nutrition standards for all foods available on school campuses.⁸ This policy may be used as an impetus to initiate and implement specific practices on improving the nutrition and PA environment in schools. Schools may coordinate obesity prevention initiatives across the school setting to pool resources, increase communication, and avoid redundancy. Coordinated school health provides a framework for integrating health initiatives throughout the school and reaches beyond just health and PE classes or nutrition services. Expanding and integrating health across the entire school environment offers consistent messaging and may motivate students to adopt healthy behaviors.⁹

Since the inaugural Weight of the Nation™ conference in 2009, a number of national initiatives have focused on schools as the setting for obesity prevention. *Healthy People 2020* recognizes the importance of schools and identifies 14 objectives for schools to improve healthy eating and PA.¹⁰ The Healthy, Hunger-Free Kids Act of 2010 was passed to strengthen local school wellness policies, require the USDA to strengthen the nutrition requirements for school meals, and establish nutrition standards for all foods sold on school campuses.¹¹ The First Lady established the *Let's Move!* campaign, which launched the following programs: *Let's Move Salad Bars in Schools*, *Chefs Move to Schools*, and *Let's Move Active Schools*. The intent of these initiatives, respectively, is to offer more fruits and vegetables to students, provide training to nutrition services staff, and promote active environments for all students to get moving.¹² The *U.S. National Physical Activity Plan* and the *Physical Activity Guidelines for Americans Mid-course Report: Strategies to Increase Physical Activity Among Youth* both identify schools as one of the key settings to increase PA among youth and recommend a multi-component approach, such as a comprehensive school PA program, with other policy and programmatic strategies.¹³

At the 2012 Weight of the Nation conference, the Institute of Medicine (IOM) released "*Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation*." The report identified 5 goals for the next 10 years, including a goal to make schools a national focal point for obesity prevention. The report recommends that federal, state, and local government and education authorities, as well as parents, teachers, the business community, and the private sector, support schools in preventing obesity. The three strategies proposed to achieve this recommendation are as follows:

- Require quality PE and opportunities for PA in schools.
- Ensure strong nutritional standards for all foods and beverages sold or provided through schools.
- Ensure food literacy, including skill development, in schools.¹⁴

The Centers for Disease Control and Prevention (CDC) published guidelines for schools to promote healthy eating and PA, which include actions to address the three IOM strategies (www.cdc.gov/HealthyYouth/npao/strategies.htm). The guidelines serve as a foundation for school-based obesity prevention initiatives and provide guidance to schools and education

agencies to develop, implement, and evaluate policies and practices. The guidelines are a series of evidence-based recommendations that address a coordinated approach to obesity prevention (Table 1). Each recommendation is supported by a comprehensive set of strategies, actions, and specific practices for implementation.¹⁵

Readiness for Implementing National Recommendations to Prevent Obesity

There is strong public support to implement the evidence-based guidelines for school-based obesity prevention initiatives. A 2009 national survey of 600 parents of children in grades K-12 found more than 92% of parents consider PE and health education as important as English, math, and science instruction.¹⁷ Most parents (98%) agree that schools should offer opportunities for PA throughout the day (e.g., PE, PA breaks, recess, and after-school programs), and 96% of parents agree that schools should limit access to unhealthy snacks and sugar-sweetened beverages. Furthermore, almost 80% of parents responded that they were ready to get involved to help create healthier environments in schools.¹⁸ A 2012 nationwide telephone survey of 1,010 registered voters found that 80% of both voters and public school parents support national nutritional standards for competitive foods sold in public schools. Respondent support for the standards was high across all regions of the country and among voters of all income levels.¹⁹

Many states have policies related to nutrition and physical activity in the school setting. During the past 10 years, there has been an increase in the number of states with policies that address competitive foods.²⁰ However, state policies for competitive foods vary in strength with respect to the nutritional quality of allowable foods and beverages, as well as the extent to which policies apply to different school levels (i.e., elementary, middle, high school), venues (e.g., vending machines, school stores, school fundraisers), and times of day (i.e., before, during, after school).²¹ Although, no federal law requires that schools offer PE, the majority of states (74.5%) mandate PE in elementary, middle, and high school. However, most states do not require a specific amount of instructional time, and more than half allow exemptions, waivers, or substitutions.²² Moreover, only 4% of elementary schools, 8% of middle schools, and 2% of high schools provide daily PE or the equivalent for the entire school year for all students in the school.²³ Since local school wellness policies were required in 2006,²⁴ almost all U.S. school districts have developed a wellness policy.²⁵ However, these policies vary in the strength of the requirements, the extent to which each goal is addressed, and the level of implementation at the school level.²⁶ To address these inconsistencies, the Healthy, Hunger-Free Kids Act of 2010 included additional requirements for school districts to monitor, evaluate, and report on the content and implementation of local school wellness policies.²⁷

To help policy makers, researchers, and other stakeholders better understand and evaluate PE and school nutrition policies across the United States, the National Cancer Institute (NCI) developed the Classification of Laws Associated with School Students (C.L.A.S.S.) database (<http://class.cancer.gov>). The C.L.A.S.S. database scores state-level codified laws for PE and school nutrition on the basis of national recommendations and standards. C.L.A.S.S. data, maps, and state profiles can be used to compare PE and school nutrition

laws in all 50 states and Washington, D.C. and allows users to assess differences across states and changes over time.²⁸

At the Weight of the Nation™ 2012, the CDC collaborated with NCI to provide an interactive, two-hour training to more than 200 school health practitioners, researchers, and decision makers about how to use national guidelines and policy data to achieve state- and school-level changes.²⁹ By using laptops at each table, NCI trained participants how to operate the C.L.A.S.S. database to monitor and analyze state nutrition and PE policies for schools. The CDC trained participants to navigate CDC's School Health Guidelines to Promote Healthy Eating and Physical Activity and apply the guidelines to local school wellness policies.³⁰ Two presenters shared their experiences in implementing physical activity and nutrition policies and practices at both the state- and local-levels.

Boston Public Schools (BPS) shared their success in implementing a comprehensive school physical activity program (CSPAP) throughout the district.³¹ BPS used CDC's coordinated school health framework to align academic and health priorities and incorporate wellness goals and objectives into the Whole School Improvement Plan. BPS used results from their district's Youth Risk Behavior Survey and student body mass index screening program to identify needs related to PA and PE. By using CDC's School Health Guidelines to Promote Healthy Eating and Physical Activity as a reference,³² BPS then developed and adopted a policy requiring schools to implement a CSPAP, adding quality PE and other opportunities for students to be physically active throughout the school day.

The Massachusetts Department of Public Health (MDPH) described their process to adopt state nutrition standards for competitive foods in schools.³³ In July 2010, a state policy was passed that required MDPH to work with the Massachusetts (MA) Department of Elementary and Secondary Education to develop nutrition standards for competitive foods and beverages sold or provided in public schools during the school day.³⁴ An interagency workgroup, including partners from academic institutions, developed standards based on the IOM's *Nutrition Standards for Foods in Schools: Leading the Way Toward Healthier Youth*.³⁵ The interagency workgroup conducted focus groups to guide the development of the standards; the public also had the opportunity to submit oral testimony and written comments. In July 2011, the standards received unanimous approval by the MA Public Health Council, and implementation began with the 2012 school year. The interagency workgroup members collaborate to provide training and technical assistance on implementing the MA School Nutrition Standards for Competitive Foods and Beverages to various stakeholders, including school nutrition staff, principals, parents, community organizations, and student councils.

Summary of Presentation Highlights as Presented at *Weight of the Nation*™ 2012

The Weight of the Nation™ Schools Track theme was “Thriving in Schools: Healthy Children Learn and Live Better.” The three objectives for the track were to (1) understand how school-based nutrition and PA policies, systems, and environments support learning and health; (2) explore the opportunities and synergies among local, state, and federal efforts

as they relate to student health and learning; and (3) provide a vision for an optimal school environment that supports healthy eating and PA. Practitioners were encouraged to submit abstracts on topics related to, but not limited to the following: obesity prevention efforts in schools from the federal, state, or local perspective; working across settings and leveraging resources to support the integration of health and education; and using data to guide obesity prevention initiatives. The Schools Track planning subcommittee was interested in proposals describing innovative, school-based policy, system, and environmental approaches for obesity prevention, including successful and meaningful integration of health and learning, local school wellness policies (e.g., nutrition standards for competitive foods, joint use agreements, walking and bicycling to school), marketing healthy foods to students, quality PE, CSPAP, health services related to weight management, farm-to-school programs, after-school programs, and healthy vending. The Schools Track planning subcommittee received 118 proposals and created four concurrent sessions and one training session, for a total of 16 presentations.

Key Actions for Obesity Prevention Through Schools

The Weight of the Nation™ Schools Track was organized into four concurrent panel sessions: (1) Connecting Change in Schools to Even More Systematic Changes in the Community; (2) Innovative Strategies for Promoting PA and PE in Schools; (3) New Angles on Implementing a Healthy School Food/Nutrition Environment; and (4) Policy Implementation: The Next Frontier. The sessions focused on a variety of successful strategies from across the country for bringing about system-level change for school-based obesity prevention. This section includes a summary from each concurrent session in the Schools Track.

1. Connecting Change in Schools to Even More Systemic Changes in the Community

This panel described successful school-based nutrition and physical activity policies, and systems and environmental strategies at state, district, and community levels, by using a coordinated approach. The panelists presented results from (1) The Northeast Iowa Food and Fitness Initiative's program to support rural schools in promoting healthy living of children, family, and community members; (2) the Great Trays project to train school foodservice professionals in Minnesota; and (3) the WISE SNAC initiative to provide capacity building to three school districts in Pennsylvania.³⁶ Panelists recommended the following:

- Engage a wide range of stakeholders early in the planning and decision making process to ensure that diverse experiences, expertise, and perspectives are represented. For example, state-level stakeholders may include representatives from the education agency, health department, agriculture department, and professional organizations.
- Use the coordinated school health framework recommended by CDC to build partnerships to promote students' health and academic success. <http://www.cdc.gov/healthyyouth/cshp>
- Listen to stakeholders' experiences, perspectives, and needs to develop common goals and objectives.

- Create a dialogue among stakeholders that allows for exchanging ideas, trying innovative strategies, and learning from mistakes.
- Ask stakeholders the types of trainings, tools, and resources they need to increase healthy eating and physical activity in schools, and then respond to these needs.
- Build the capacity of school staff, such as cafeteria staff, PE teachers, and classroom teachers, to implement and sustain healthy eating and physical activity policies, systems, and environmental strategies.
- Use schools as a hub to promote health and wellness in the community.
- Reach out to community partners, such as health care professionals, grocery stores, and community-based after-school programs, to leverage resources and expertise, encourage sustainability, and create consistent messages.
- Form and support active school wellness committees to coordinate and lead local school wellness policy implementation efforts.

2. Innovative Strategies for Promoting Physical Activity and Physical Education in Schools

This panel described innovative strategies that states implemented to promote PA and PE. In addition, panelists highlighted successes that were accomplished because of the innovative strategies. Panelists presented results from (1) a project to establish a surveillance system to monitor the fitness levels of Kansas students; (2) professional development trainings to physical educators in Kansas on how to implement a CSPAP; (3) a study to evaluate adding an adult chaperone to walk-to-school programs in Oklahoma schools; and (4) an evaluation of Wisconsin schools implementing programmatic and environmental changes to increase student opportunities for PA.³⁷ The panelists identified the following strategies and successes:

- Building a strong partnership between the state education agency and state health department led to new PA and PE programs and sustained existing programs. Such a partnership can be built and strengthened to address PA and PE in schools.
- Using or establishing statewide surveillance and other data collection systems (e.g., fitness test results from samples of students in a state) can help identify PA and PE needs among school districts and schools and can provide input on state policy or legislation.
- Translating the research on school-based PA and academic performance for decision makers within states and school districts creates more buy-in and support for PA in schools.
- Providing PE teachers with a variety of professional development opportunities can train teachers to effectively implement evidence-based strategies in PE and expand their leadership expertise.
- Engaging college or university faculty by working with them to integrate quality PE and activity concepts into PE teacher preparation programs builds the knowledge and expertise of incoming PE teachers.

- Encouraging adults to chaperone students in a walk-to-school program, such as the walking school bus, can increase the rates of students walking to school and reduce obesity, even in areas with lower walkability scores, and this strategy can be implemented at very low cost.
- Providing funding, technical assistance, and professional development for PE teachers, classroom teachers, school administrators, and others can support sustainability of evidence-based strategies for PA and PE.

3. New Angles on Implementing a Healthy School Food/Nutrition Environment

This panel shared innovative strategies to facilitate change in school food and nutrition programs. The panelists presented results from (1) LiveWell Colorado's training and technical assistance program for district food service staff in Colorado; (2) case studies of schools successfully implementing strong nutritional standards without breaking the bank; and (3) an evaluation of the San Diego County Childhood Obesity Initiative's Youth Engagement and Action for Health! (YEAH!).³⁸ Panelists shared the following key findings:

- Conducting a needs assessment allows schools to identify opportunities and barriers to preparing and serving healthy foods and guides the development of a feasible plan for change.
- Making changes in the school setting requires buy-in from multiple stakeholders, including students, parents, teachers, principals, and the community.
- Changing the school food environment should be a comprehensive effort that includes nutrition education for students, parents, and school staff; meaningful and relevant trainings for school nutrition staff; engaging students in the decision-making process; and collaborating with other school health and wellness initiatives.
- Building capacity of school nutrition staff to prepare and serve healthful foods can help to engage them in promoting health and wellness at school.
- Small changes can have an important effect. For example, reorganizing the order that items are presented in the cafeteria allows students to fill their trays with healthful foods before they get to less healthful à la carte options.
- Offering variety in the cafeteria encourages students to continue to participate in the school meal programs.
- Encouraging school staff to model healthy habits helps ensure that students receive consistent messages about healthy eating.
- Engaging youth to become advocates may lead to PA and nutrition policy changes.

4. Policy Implementation: The Next Frontier

This panel explored how policies may be critical levers in changing the school environment and improving student health. Panelists described the process to adopt, implement, and monitor policies. Panelists presented findings from (1) the Kansas State Department of Education's system for collecting and evaluating local school wellness policies across the state; (2) a research study to make drinking water available to students in New York City

public schools; and (3) the evaluation of Mississippi's Healthy Students Act on childhood obesity.³⁹ Panelists shared the following lessons-learned:

- Implementing a comprehensive, statewide legislation about childhood obesity in Mississippi led to positive, immediate, widespread changes in the school environment.
- Providing guidance for a comprehensive, model, local school wellness policy can enable local education agencies (i.e., school district) to confidently adopt a policy that is supported by evidence and endorsed by the state.
- Developing a tiered approach to local school wellness policy implementation (e.g., basic, advance, exemplary) offers school districts options according to their level of readiness.
- Establishing a system to monitor yearly school districts on the status of achieving each goal within their local school wellness policy, and making the information publically available can routinely inform and engage stakeholders. The responsibility of reporting the status of policy implementation should be shared by a variety of stakeholders across the school district.
- Providing access to free drinking water in the cafeteria to students during school meals and creating an advertising campaign to promote water consumption can elevate student awareness about water as a healthy beverage option available to them.
- Regularly communicating to school officials and policy makers, and supplying data reinforces the message that health affects academic performance.
- Involving a variety of key stakeholders in policy implementation, including the school nurse, food service director, other school staff, community members, such as parents and physicians, an elected board member, and a local representative of the state children's health insurance agency is an important strategy to gain ongoing buy-in and support.
- Building on existing networks is critical when disseminating new information and obtaining buy-in of policies.

Conclusion

Across the United States, school health practitioners and researchers have been successful in implementing obesity prevention initiatives in schools. The presenters featured in the Weight of the Nation™ Schools Track demonstrated that a variety of approaches can result in changes in schools that create healthier environments for students. A consistent theme across all sessions highlighted the importance of active collaboration across multiple entities interested in the health of children. The national climate is ripe for initiating widespread change in schools, and it is supported by many national initiatives. The information provided at the Weight of the Nation™ can help school health practitioners access tools, apply evidence-based strategies, and model real-world examples to successfully start obesity prevention initiatives in their jurisdiction.

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Table 1**Summary of CDC's School Health Guidelines to Promote Healthy Eating and Physical Activity.¹⁶**

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1. Use a coordinated approach to develop, implement, and evaluate healthy eating and physical activity policies and practices.
 2. Establish school environments that support healthy eating and physical activity.
 3. Provide a quality school meal program and ensure that students have only appealing, healthy food and beverage choices offered outside of the school meal program.
 4. Implement a comprehensive physical activity program with quality physical education as the cornerstone.
 5. Implement health education that provides students with the knowledge, attitudes, skills, and experiences needed for healthy eating and physical activity.
 6. Provide students with health, mental health, and social services to address healthy eating, physical activity, and related chronic disease prevention.
 7. Partner with families and community members in the development and implementation of healthy eating and physical activity policies, practices, and programs.
 8. Provide a school employee wellness program that includes healthy eating and physical activity services for all school staff members.
 9. Employ qualified persons, and provide professional development opportunities for PE, health education, nutrition services, and health, mental health, and social services staff members, as well as staff members who supervise recess, cafeteria time, and out-of-school-time programs.
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