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# In Pursuit of an Active Education

Policy Challenges and Opportunities for Improving  
Physical Education and Physical Activity in K-12 Schools



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## Executive Summary

Faced with the pressing need to discern how best to contain and reverse the childhood obesity epidemic, state and local policymakers and advocates have set their sights on K-12 school settings and the many opportunities they provide for changing norms about healthful living. Still, although virtually all relevant stakeholders view schools as prime settings for reaching children and youth, as well as parents, teachers, administrators, and community leaders, the push to enact school-based policies that will help students become more physically active and make healthier dietary choices throughout their lifetimes has proved difficult.

In recent decades, and particularly since the passage of *No Child Left Behind* in 2002, the nation's school districts have been under tremendous pressure to demonstrate substantial gains in student academic achievement at the same time that they have been dogged by increasingly severe budgetary constraints, declining enrollments, and aging buildings. Teachers and administrators have been challenged, too, by rapidly changing technologies and innovations in learning that show considerable potential for expanding educational opportunities, yet often require additional, specialized training and resources that stretch already tight budgets. Student bodies have become increasingly diverse, and many families in urban, suburban, and rural public schools are challenged by circumstances of poverty or near poverty. Students have become far more sedentary, often favoring screen-based entertainment over physically active play.

In this troubling environment, efforts to institute school-based policies to increase the quality, quantity, and scope of physical education and physical activity offerings in grades K-12 have taken a back seat to other *must-do* school system concerns. Traditional academic subjects have taken precedence over non-academic ones like physical education and health, for which no standards were established under *No Child Left Behind*. Now, though, in response to the rapid pace of the obesity epidemic and growing recognition of its health and cost implications, stakeholders at all levels of government are re-thinking educational priorities and moving toward a more holistic approach to K-12 education—one that is committed to instilling health and wellness as lifelong values through inclusion of evidence-based physical education and physical activity policies that offer 21<sup>st</sup> century solutions to what is truly a 21<sup>st</sup> century problem.

This policy brief reviews federal, state and local policies that address school-based physical education and physical activity, summarizes legislative trends among states, and analyzes policy considerations associated with six approaches that show particular promise:

1. Improving physical education curricula, teacher qualifications and accountability;
2. Integrating physical activity into the school day and maximizing recess opportunities;
3. Expanding outdoor environmental education opportunities;

4. Conducting, tracking, and reporting BMI or similar health screenings;
5. Partnering with communities on Safe Routes to Schools (SRTS) programs; and
6. Enhancing physical activity opportunities in school-based after school programs.

Substantial barriers to advancing recommended policy actions include:

- Reluctance among local and state policymakers to embrace physical education and activity policies as being central to the core mission of schools to prepare students for adulthood;
- Gaps among policymakers in understanding the health consequences, economic costs, and disparities associated with the obesity epidemic;
- Misconceptions among policymakers about the relationship between academic achievement and physical education or physical activity;
- Gaps in coordination of policy development and implementation within districts, between districts and surrounding communities, and at the state level; and
- Severe economic woes that favor inaction or no- or low-cost policy options.

In all topic areas, policy strategies should address the need to:

- Collaborate on developing and implementing comprehensive, coordinated policy approaches, working across government units and involving the private sector to ensure that school-based physical activity policies are woven into the policy fabric of local communities, make good use of public-private partnership potential, and demonstrate broad-based community support;
- Use targeted approaches that systematically invest in measures to reduce health disparities;
- Institute policies that demand accountability at all levels of governance within a state, including individual schools, school districts, and state agencies;
- Provide presentation, training, and ongoing professional development opportunities for teachers, administrators, school board members, and other community stakeholders to build a strong, community-wide culture of health and wellness and improve policymakers' understanding of the health impact of their decisions;
- Expand the use of existing and new policy tools, such as joint use agreements;
- Establish stable funding sources to support policy needs over time; and
- Use incremental strategies, including incentives, in addition to mandates.

The urgency of the childhood obesity epidemic and its health and cost implications demand immediate policy action, using the most promising evidence-based strategies. Aggressive, state level policies that advance a comprehensive, well-coordinated statewide approach are needed to reverse the epidemic.

## Introduction

The prevalence of obesity has escalated dramatically in the U.S. over the past three decades—doubling among adults and more than doubling among children between 1980 and 2004. Between 1999 and 2004 alone, the prevalence of being overweight increased substantially among children and youth. Approximately two thirds of U.S. adults and one fifth of U.S. children are now either obese or overweight.<sup>1</sup> The results of the 2007 Minnesota Student Survey—the most recent year for which statewide data is available—indicate that approximately 26 percent of 12<sup>th</sup> grade boys and 17 percent of 12<sup>th</sup> grade girls are overweight or obese.<sup>2</sup>

Being overweight or obese puts both adults and children at risk for chronic diseases, including heart disease, type 2 diabetes, multiple types of cancer, and other serious health conditions. For this reason, learning how to reverse the growing obesity epidemic—and successfully applying that knowledge—has become a matter of paramount concern for the nation, all fifty states, and local communities. The Centers for Disease Control and Prevention (CDC) has called for a well-coordinated and comprehensive approach to making policy and environmental changes that will dramatically alter community support for and promotion of the population's transition to norms of healthy eating, active living and healthy lifestyles.<sup>3</sup>

Policymakers have focused increasingly on the wide range of opportunities that exist in school-based environments to promote and increase physical activity (PA) among children and youth before, during, and after the school day. Schools are viewed as nearly ideal settings in which to engage children and youth in a wide variety of physical activities that can contribute to their current well-being, while also developing lifelong fitness skills and interests. That children and youth spend much of their days traveling to and from school, attending classes, and engaging in before- or after-school-related child care, academic, or extracurricular programs, points to the urgent need to institute systemic policy changes in school-based environments that will support a transition to healthier physical activity norms.

The CDC's recent report, *Recommended Community Strategies and Measurements to Prevent Obesity in the United States*, identifies four evidence-based strategies to encourage physical activity and limit sedentary activity among children and youth, three of which are school-based strategies:<sup>4</sup> (1) require physical education (PE) in all K-12 schools; (2) increase the amount of physical activity during PE

classes; and (3) increase opportunities for extracurricular PA outside of regular school hours (strategies 12-14).<sup>5</sup> These strategies correlate with the policy opportunities discussed in this report.

It is difficult to imagine a more opportune time to examine policy options to increase PA among children and youth in school settings. Nationally and regionally, many highly collaborative programs are underway to improve existing policies and develop and implement new initiatives. This policy brief provides an overview of current federal, state, and community-level school-based PE and PA policies and programs—those already in place, as well as emerging approaches—and examines policy trends that show particular promise.

## **Federal Programs and Policies**

In its historic push for health reform, the Obama administration has signaled a strong commitment to prevention and wellness as cornerstones of reform, including school-based and school-related measures that are designed to improve the health of students in grades K-12.<sup>6</sup> Such measures include allotting more time for physical activity during the school day, adding bike and pedestrian paths, especially in underserved areas, and improving the nutritional quality of foods and beverages served or otherwise made available to students. The U.S. Congress is deeply immersed in a bipartisan agenda that is focused largely on public health, including consideration of multiple legislative proposals on school-related physical activity, many of which are summarized in Appendix B of this report. The appointment of Senator Tom Harkin (D-IA) as chair of the Senate Health, Education, Labor and Pensions Committee, following the death of Sen. Edward Kennedy, bodes well for continued progress on federal childhood obesity legislation. Harkin is a longtime, ardent champion of children's health issues and has authored many key bills on topics germane to this report.

A coalition of U.S. health experts, including the American Diabetes Association, American Public Health Association, Partnership for Prevention, Trust for America's Health, the Food Trust, Center for Science in the Public Interest, and several prominent medical and academic researchers, recently penned a letter to President Obama, asking him to establish a *Presidential Commission on Healthy Weights, Healthy Lives* to lead the country in reversing the obesity epidemic, asserting that taking this step “could be one of the most powerful means of improving Americans' health and

reducing health care costs.” The coalition has recommended using the United Kingdom’s “broad and well-funded anti-obesity strategy” as a model for the U.S. effort.<sup>7</sup>

## Federal Agency Involvement

Several federal agencies and programs are involved in implementing childhood obesity policies and initiatives that focus on PE and PA in K-12 school settings.

### **Department of Health and Human Services (DHHS)**

DHHS participates in over 300 obesity-related programs in the U.S. through the activities of its agencies, which include the CDC and the National Institutes of Health.

#### *Centers for Disease Control and Prevention (CDC)*

The CDC’s National Center for Chronic Disease Prevention and Health Promotion operates several state and community grant programs through its Division of Adolescent and School Health (DASH), Division of Nutrition, Physical Activity, and Obesity (DNPAO), and Division of Adult and Community Health (DACH). In addition, the CDC’s National Center for Environmental Health studies relationships between the built environment (land use/urban planning/transportation) and health issues, including obesity.

The CDC awards grants to states on an annual basis to reduce or prevent obesity and related diseases. Minnesota began receiving obesity prevention funds from the CDC’s Division of Nutrition, Physical Activity, and Obesity (DNPAO) in July 2008. The DNPAO currently funds 25 states, including Minnesota, to address obesity and other chronic diseases through statewide efforts that are coordinated with multiple partners. The program focuses on the creation of nutrition- and physical activity-related policy and environmental changes that will improve health in American homes, schools, worksites, and recreational settings.

#### *The National Institutes of Health (NIH)*

The NIH’s obesity-related efforts are guided by a 2003 *Strategic Plan for NIH Obesity Research*, which focuses on research regarding medical approaches, the relationship between obesity and health, health disparities, the relationship between the built environment and obesity, and lifestyle modifications. There are about 27 institutes and centers within the NIH, and a number of them run separate national obesity public education campaigns.

*Office of the Surgeon General, Indian Health Service, Office of Women's Health & Administration on Aging*

Each of the above-named agencies, clustered within DHHS, develop and manage a variety of obesity-related public education campaigns. Other DHHS agencies also serve this function.

*Institute of Medicine (IOM)*

An IOM Report published in 2005, *Preventing Childhood Obesity: Health in the Balance*, recommended that local school districts and state educational authorities take steps to ensure that all children and adolescents participate in moderate- or vigorous-intensity PA for a minimum of 30 minutes per school day.<sup>8</sup>

*2008 Physical Activity Guidelines for Americans*

The 2008 Physical Guidelines for Americans constitute the first comprehensive guidelines on PA issued by the federal government, providing guidance for policymakers, PE teachers, health providers and the public on the amount, types, and intensity of physical activity needed to achieve health benefits across the life span. Recommendations are based on an extensive review of the scientific data regarding physical activity and health published since the 1996 Surgeon General's Report on Physical Activity and Health. The Guidelines recommend that children and adolescents engage in at least 60 minutes per day of age-appropriate, varied, and enjoyable PA, most of which should consist of moderate- or vigorous-intensity aerobic activities. Included within the 60+ minutes per day of PA, children and adolescents should engage in vigorous-intensity aerobic activity, muscle-strengthening activity, and bone strengthening activity at least three times a week.<sup>9</sup>

### **Department of Education (ED)**

The Department of Education's *Carol M. White Physical Education Program (PEP)*,<sup>10</sup> offers competitive grants to local school agencies and community programs—including after-school programs—to initiate, expand, and improve K-12 PE programs that enable students to participate more actively in PE activities and speed progress toward meeting state standards. Since its start in 2002, the program has awarded about \$555 million in grants. PEP grants support teacher and staff training, youth fitness education and assessments, and purchases of school and community program equipment and support.<sup>11</sup> According to the U.S. Office of Management and Budget program tracking website, *ExpectMore.gov*, this federal grant program is the only one that addresses youth physical fitness by specifically targeting school districts that have had difficulty meeting State standards for PE.<sup>12</sup> Because the program has not yet demonstrated results, the Department has

taken steps to provide technical assistance to grantees to improve data reporting and performance measures, identify any other needed improvements, and assess the program's overall effectiveness. For example, eligibility for PEP grant opportunities may be restricted to agencies and programs that are in compliance with national PE standards.<sup>13</sup> (Please see page 22 for a discussion of national PE standards.)

### **Department of Transportation (DOT)**

The DOT provides grants to state and local governments through the *National Safe Routes to School Program (SRTS)*, established in August 2005 as a part of federal transportation reauthorization legislation known as the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)*. The sum of \$612 million was dedicated to the program for years 2005-2009.<sup>14</sup> The *SAFETEA-LU* legislation is the driver for improvements to national programs that support public transportation, *complete streets*, and active transportation by foot, bicycle or other non-motorized mechanisms. Both *complete streets* initiatives and *SRTS* may be addressed and expanded in the reauthorization of *SAFETEA-LU*, scheduled for 2009. Expansion of the *SRTS* program has been recommended by the *Safe Routes to School National Partnership*<sup>15</sup> as part of the reauthorization.

The federal *SRTS* program provides each state with at least \$1 million annually; funding may fluctuate based on student enrollment. Federal *SRTS* funds have allowed *SRTS* activities to expand exponentially nationwide, rapidly fueling what had formerly been a small grassroots movement. More than 4,300 *SRTS* local initiatives are underway in all 50 states, a major advance from the program's formal beginning in 2000 as a Congressional pilot program in two communities, Marin County, CA and Boston, MA.<sup>16</sup> (A more detailed discussion of the *SRTS* program can be found in the Policy Considerations and Opportunities section of this brief.)

### **Environmental Protection Agency (EPA)**

The EPA has an initiative under the Brownfields Revitalization and Environmental Restoration Act of 2001<sup>17</sup> that focuses on cleaning up brownfields—former industrial or commercial sites contaminated with hazardous substances or pollutants. Many former brownfields are being redeveloped and converted into public spaces, some of which are being designed as recreational venues.

### **Food and Drug Administration (FDA)**

The FDA supports the Memorandum of Understanding between ED, DHHS, and USDA.

## **U.S. Department of Agriculture (USDA)**

The USDA's Food and Nutrition Service (FNS) promotes PA and health to schools through two programs, the *Team Nutrition* initiative and the *Eat Smart, Play Hard* campaign. FNS supports school participation in its programs by distributing materials, providing technical assistance and presentations, and developing core messages. FNS also provides training grants for education professionals, subject to availability of appropriations, and promotes and supports school gardens and *Ag in the Classroom* programs. In addition, FNS partners on initiatives with other federal agencies and NGOs. For example, FNS recently collaborated with the CDC and the *100 Black Men of America, Inc.*, to introduce a nutrition and PA curriculum component into a mentoring program that empowers African-American boys, aged 8-18, to act as change agents for healthier communities.<sup>18</sup>

## **Multi-Department Memoranda of Understanding**

*Memorandum of Understanding to Promote Public Health and Recreation.* The USDA, Department of Defense (DOD), Department of the Interior (DOI) and DHHS entered into a *Memorandum of Understanding* in 2007 to support the use of public lands and water resources for physical activity and recreation and draw attention to the critical role of outdoor recreation in developing and sustaining healthy and physically active lifestyles.<sup>19</sup> In addition, within the DOI, the National Park Service provides funds for the *Land and Water Conservation Fund*, a federal matching grant program that helps states and local communities acquire and develop outdoor public recreation areas and facilities.

*Memorandum of Understanding to Encourage Youth to Adopt Healthy Eating and Physical Activity Behaviors to Improve Health and Educational Attainment.* DHHS, ED, and USDA entered into a *Healthier Children and Youth Memorandum of Understanding* in 2002,<sup>20</sup> the purpose of which was to establish a framework for working together to improve the health status and educational attainment of children and youth through programs that encourage healthy eating and physical activity. DHHS, the lead agency in this initiative, has reached out to NGOs for support. In 2006-07, for example, *Action for Healthy Kids* helped the federal government launch the implementation of newly required local school district wellness policies by promoting the materials and programs of the three cooperating federal agencies and participating in collaborative presentations to professional audiences.

## **President's Council on Physical Fitness and Sports**

The President's Council on Physical Fitness and Sports, composed of 20 distinguished citizens who volunteer their service at the request of the President, operates three school-based or

youth-based physical education or activity programs. *The Physical Fitness Test* recognizes students who achieve set levels of physical fitness, as well as those who participate in the program yet fall short of achievement award thresholds. *The Active Lifestyle Program* encourages students, aged 6 to 17, to strive to meet an activity goal of 60 minutes per day, 5 or more times per week, for 6 weeks. Participants are encouraged to use pedometers to record their daily steps and to try to reach a goal of 11,000 or more steps per day for girls, and 13,000 or more steps per day for boys. *The Presidential Champions Program* challenges students to stay active by awarding them points based on the amount of energy they expend per activity, and focuses on outdoor activities that do not require equipment or teams.

## Federal Laws

### **Child Nutrition and WIC Reauthorization Act of 2004 (P.L. 108-265)**

Congress included language in the Child Nutrition and WIC Reauthorization Act of 2004, requiring all U.S. school districts that participate in school meal or other child nutrition programs to adopt and implement local school wellness policies by the start of the 2006-07 school year. The intent of this federal mandate is to improve nutrition, increase physical activity, and promote wellness as a life-long goal among K-12 students. Many policy experts view the federal mandate as an essential and potent lever for engagement and action among both state and local educational agencies and institutions;<sup>21</sup> however, thus far, implementation of local wellness policies has been uneven. Although virtually all U.S. school districts quickly achieved formal compliance with the law by timely adopting at least boilerplate policy language, many have failed to embrace the core principle of wellness embodied in the federal mandate and have done little to actively implement the nutrition and PA components of their local policies.

The federal mandate has no enforcement mechanism; consequently, limited involvement or lack of commitment among key school administrators, staff, parents, students, and community stakeholders in many local districts may hinder more meaningful implementation. At present, only one state, Kansas, has mandated ongoing monitoring of school wellness policies.<sup>22</sup> To help realize the law's full potential, many federal, state, and local agencies and programs are providing local school districts supplemental tools and resources to stimulate them to identify wellness as a core mission and take active steps to implement and strengthen local policies.

### **The Elementary and Secondary Education Act (*No Child Left Behind Act*)**

As of this writing, reauthorization of the Elementary and Secondary Education Act, commonly referred to as the *No Child Left Behind Act*,<sup>23</sup> is pending. Parts of this legislation could impact how PE and PA are addressed in K-12 school settings. For example, the *Fitness Integrated with Teaching Act of 2009 (Fit Kids Act)*, discussed in the attached Appendix B on proposed federal legislation, may be considered in this reauthorization.

### **The Children's Health Insurance Program (CHIP)**

The Children's Health Insurance Program (*CHIP*) was signed into law by President Barack Obama in February 2009.<sup>24</sup> While the main purpose of the program is to help states provide health insurance for low-income children, CHIP also authorized \$25 million for a *Childhood Obesity Demonstration Project* to fund community-based interventions aimed at reducing childhood obesity. Eligible grantees include cities, counties, tribal governments, universities, and other community-based organizations. Program funds may be used to establish after-school and weekend programs that promote PA, develop healthy lifestyle curricula to increase PA, and implement lifestyle classes for parents and guardians to improve their ability to model healthy lifestyle behaviors for their children. Although the demonstration project does not target school-day settings, it may present valuable opportunities to pursue complementary programming in after-school settings and network with school-based interventions.

### **American Recovery and Reinvestment Act of 2009 (ARRA)**

The American Recovery and Reinvestment Act of 2009 (*ARRA*), also signed into law in February 2009, includes \$1 billion for a Prevention and Wellness Fund, including \$650 million for evidence-based clinical and community-based prevention and wellness strategies that address physical activity, nutrition and tobacco use under a landmark initiative entitled *Communities Putting Prevention to Work*. The legislation contains accountability provisions that are intended to ensure funds will be used to improve the public's health as effectively as possible. Stimulus funds have also been awarded to multiple federal agencies, including DHHS, USDA, and DOT. The DOT received \$825 million for transportation enhancements, including pedestrian and bicycle infrastructure and safety programs and conversion of abandoned railroad beds to trails.<sup>25</sup> Worthy of note for this policy brief, more than \$30 billion has been made available under *ARRA* to help repair and renovate schools, including improvements to playgrounds and gymnasiums.<sup>26</sup>

## **Minnesota Laws, Initiatives and Legislative Workgroups**

Minnesota has an abundance of state and local government public health expertise, leadership, and resources, which is supplemented by a strong history of foundation support and public-private partnerships, and it currently operates several cutting-edge programs that are addressing, in an increasingly coordinated fashion, the state's childhood obesity epidemic. At present, though, Minnesota has no state-level childhood obesity legislation. Such legislation, if enacted, would provide a backbone and much-needed support for the highly innovative, critically important initiatives that are now underway and speed the state's progress toward reversing the obesity epidemic and the disparities evidenced within it. Below is a brief summary of the status of state-based laws, programs, and activities affecting physical education and activities in K-12 schools.

### **Requirements for Physical Education and Health Education**

Between 1959 and 2003, PE and health were compulsory subjects in grades K-12 in Minnesota, but neither subject has been a state graduation requirement in the state since 2003, at which time the Profile of Learning was repealed and both subjects were reclassified as elective standards. Current state law requires annual instruction in PE and health for all students in grades K-8 and the subject must be provided at least once in high school.<sup>27</sup> The duration and frequency of classes are not specified in law and are not enforced.

Local school districts retain authority to determine the amount of instructional time and assessments for all grade levels. Although districts are required to develop local standards—and are provided a state-recommended resource, the Health and Physical Education Quality Teaching Network's Benchmark document—there is no state model of standards for PE or health.<sup>28</sup> Students may be excused for religious or medical reasons and local districts may exempt students for other reasons, as well. State law requires high school students to take a minimum of eight elective course credits, including at least one credit in the arts. Beyond this, local school districts have the latitude to determine whether and how to prescribe the remaining seven elective credits, such as deciding whether to impose a health or PE requirement for graduation. The Minnesota Department of Health (MDH) reports that, thus far, approximately 95 percent of Minnesota high schools have maintained PE as a graduation requirement. However, absent a state mandate, budgetary constraints and the severity of the recent economic downturn may lead local districts to drop their PE graduation requirement and make further cuts to high school PE programs.<sup>29</sup>

Several bills have been introduced in the Minnesota legislature in recent sessions to re-establish a state-mandated PE graduation requirement. The most recent bill, introduced in early 2009 and dropped in conference committee, would have mandated one-half credit (one semester) of PE as a pass-fail high school graduation requirement, allowed waivers for students participating in PA outside regular PE courses, and required local districts to adopt standards consistent with either the state-approved quality teaching network standards or national PE standards. In addition, the bill would have required local districts to post their wellness policies on their websites.<sup>30</sup> A similar bill passed during the 2008 session but was attached to other legislation that was vetoed by the Governor for unrelated reasons.<sup>31</sup>

### **School Wellness Policies**

As discussed in the section on federal laws and policies, local school districts have been required to have wellness policies in place since the start of the 2006-2007 school year, a required component of which is to establish and implement school-based PA goals. Minimal federal and state support mechanisms are available to assist local districts. To date, the federal wellness policy requirement remains essentially an unfunded mandate with no enforcement mechanism—there are no financial (or other) penalties for a school district’s failure to implement or enforce its policy.<sup>32</sup> The state’s ability to monitor and support implementation among districts is hampered by the fact that local school districts are neither required to post their wellness policies online, nor to submit copies of the policies to the state.

### **Surveillance and Quality Controls**

Minnesota has no state-mandated surveillance system in place to monitor implementation of PE and PA in K-12 schools. The Minnesota Department of Education recommends, but does not require, that districts adopt either the state-approved Quality Teaching Network benchmarks or national PE standards as district-wide standards. One of the few state-level measures in Minnesota that does address quality control is the requirement that PE instruction must be delivered by teachers who are state certified, licensed, or endorsed.<sup>33, 34</sup>

The Minnesota Student Survey, conducted every three years among 6<sup>th</sup>, 9<sup>th</sup> and 12<sup>th</sup> graders, provides a reliable source of students’ self-reported data about their health status as it relates to engagement in PA. Data from the 2007 Minnesota Student Survey show many Minnesota youth—especially girls—are failing to meet national PA recommendations. The percentage of 6<sup>th</sup> grade

students who reported being physically active at least 5 days per week for 30 or more minutes per day—the national standard for moderate PA—was 52 percent for boys and 43 percent for girls. The percentages climbed higher in 9<sup>th</sup> grade for boys (62%) and girls (49%), but by 12<sup>th</sup> grade dropped to 52 percent for boys and, precipitously, to 31 percent for girls. Notably, percentages for girls in all three grades levels never reached 50 percent.<sup>35</sup>

### **Minnesota Obesity Plan for 2008 – 2013**

The *Minnesota Plan to Reduce Obesity and Obesity-Related Chronic Diseases for 2008-2013* was developed by a statewide Childhood Obesity Steering Committee in response to the rising overweight and obesity rates and poor eating and physical activity behaviors of a majority of Minnesotans,<sup>36</sup> and was based on recommendations made in 2007 by the Minnesota Task Force on Childhood Obesity. The Plan’s vision is to ensure that: “People in Minnesota eat healthy, are physically active and maintain a healthy weight because they live in an environment designed to support healthy lifestyles across the lifespan.”<sup>37</sup> The Plan’s objectives and strategies are rooted in a socio-ecological model, which recognizes that environments, systems, policies, regulations, and laws impact a population’s behaviors and that approaches such as these are vital elements to promote, support, and reinforce healthy behaviors and reduce obesity. To achieve positive outcomes, the plan asserts that strategies are needed at all levels—individual, interpersonal, community, organizational, and public policy—and emphasizes that care must be given when strategies are implemented to ensure that they appropriately target regional (e.g., urban/rural) and multi-cultural needs.<sup>38</sup> The plan includes two school-based intermediate objectives: Advocate for quality K-12 mandated state PE standards based on national standards; and Support adequate funding to implement K-12 physical education in schools.<sup>39</sup>

### **Minnesota Nutrition, Physical Activity, and Obesity Program (NPAO)**

Minnesota began receiving NPAO funds from the CDC for obesity prevention activities in July 2008. The Minnesota NPAO program has provided extensive technical support, leadership, and financial resources to the state’s development and launch of the ground-breaking, highly innovative Statewide Health Improvement Program (SHIP), discussed below.<sup>40</sup>

### **Statewide Health Improvement Program Grants (SHIP)**

MDH recently received an appropriation of \$47 million from the Minnesota Legislature to launch SHIP, a highly ambitious program that is expected to garner much national attention. The

program aims to lower the prevalence of overweight, obesity, and tobacco use—and corresponding chronic diseases and associated costs—by creating and implementing sustainable, systemic policy changes that support healthy behaviors and lifestyles in four types of local community settings, including K-12 schools. In 2009, in its first round of funding, MDH awarded 39 grants to community health boards and tribal governments, representing 86 counties and eight tribal governments, and work is just getting underway.

Among grantees, a total of eight communities (Bloomington, Dakota County, Hennepin County, Kandiyohi County, Minneapolis, Olmsted County, Rice County, and St. Paul-Ramsey County) are engaged in interventions to implement policies and practices that create active schools by increasing opportunities for walking and bicycling to and from school and access to school recreation facilities. In addition, two communities (Minneapolis and St. Paul-Ramsey County) are pursuing interventions to implement policies and practices that support quality school-based PE. A summary of all 39 grants is available online at [www.health.state.mn.us/healthreform/ship](http://www.health.state.mn.us/healthreform/ship).

### **Legislative Workgroup on Outdoor Education**

In 2008, the Minnesota Legislature directed the Department of Natural Resources and the Department of Education to study and draft legislative recommendations by January 15, 2009, on the teaching and funding of outdoor education in grades 7-12.<sup>41</sup> The designated workgroup concluded that outdoor education is undervalued and that its benefits are poorly understood by administrators, teachers, parents, and policymakers. The workgroup recommended that the Minnesota Legislature: require schools to provide opportunities to meet standards through outdoor education, assisted by an online, standards-referenced, electronic curriculum and resource repository; support teachers through professional development, technical assistance, and financial incentives; establish and fund a staff team to implement the recommendations and provide technical assistance; create a dedicated fund to pay for school district-level outdoor activities, staff, curriculum development and transportation expenses (using the Permanent School Trust Fund as a source of revenue); authorize the Department of Natural Resources to make grants to schools; and establish a state-level advisory committee to increase understanding of the value of outdoor education, through promotion of outdoor education and development of a marketing campaign.<sup>42</sup> No action has been taken to date.

## Legislative Workgroup on Childhood Obesity

An informal, bipartisan legislative workgroup was established in 2009 to examine and make recommendations to the Minnesota Legislature on actions that would support community- and school-based strategies to significantly reduce childhood obesity. Legislators from the House and Senate, including members from education, early education, environment, health, and transportation committees, met with stakeholders and policy experts from both the public and private sectors. The workgroup scheduled four meetings, to conclude in January 2010, and planned a pre-legislative session joint hearing of key legislative committees to showcase the workgroup's legislative recommendations.

## Legislative Trends among States

Since 2003, the Trust for America's Health has monitored state-level childhood obesity-related legislation, and its annual report, *F as in Fat, How Obesity Policies are Failing in America*, has become a vital reference tool for those examining policy trends and activities among states. The most recent report, issued in July 2009, tracks several types of obesity-related legislation, including policies related to PE and PA in schools.<sup>43</sup> The report indicates that all 50 states and the District of Columbia have a PE requirement of some sort, 20 states collect BMI or other health information, 48 states, plus the District of Columbia, have a health education requirement, and 19 states have enacted farm-to-school legislation. Two states, California and Illinois, have policies requiring both BMI and non-invasive screening of children for diabetes.

Although almost every state has some type of PE requirement in place,<sup>44</sup> these requirements vary considerably from one state to another—many policies are very limited, of poor quality, and not enforced. In fact, only 13 states have adopted PE standards with enforceability language.<sup>45</sup> In 2007, specific legislation (or a resolution) on PE or PA in schools was proposed in at least 34 states, and legislation was enacted in 13 states;<sup>46</sup> in 2008, at least 23 states considered legislation or a resolution on these topics, and six states took action.<sup>47</sup>

At present, 43 states, plus the District of Columbia, have adopted statewide plans to lower the prevalence of overweight, obesity, and obesity-related chronic diseases.<sup>48</sup> In most, if not all, states, the statewide plans are based on a socio-ecological model that strives to involve people and

motivate behavioral changes at all levels of influence.<sup>49</sup> Unfortunately, relatively few states have identified secure funding sources for implementing their plans. One of the few states to accomplish this purpose is New Mexico, which links a funding source to each and every objective within its plan.<sup>50</sup> Many state plans have succeeded, though, in including surveillance and evaluation systems to track their programs and movement toward state-identified goals.

Below is a selected summary of recent state legislation that addresses school-based PE and PA requirements, BMI and related health assessments, wellness policies, and task forces.<sup>51</sup>

### **Improving Physical Activity and Physical Education in Schools**

The following examples illustrate recent actions some states have taken to strengthen the quality, duration, and enforceability of K-12 PE requirements and/or to increase opportunities for PA during the school day.

- *Alabama* requires one credit of PE for high school graduation. Daily PE is required in grades K-8, including minimum daily instruction of 30 minutes in grades K-6, for which recess cannot be substituted. PE content standards for grades K-12 are required to be based on the *National Standards for Physical Education*.<sup>52</sup>
- *Arkansas* mandates a minimum of 60 minutes of PE and 90 minutes of PA per week for students in grades K-6; 60 minutes of PE per week for students in grades 5-8; and 1.5 units of PE to meet graduation requirements for students in grades 9-12. Local districts may strengthen requirements.<sup>53</sup> Arkansas has also enacted legislation urging local districts to provide mid-morning and mid-afternoon recess sessions to all K-6 students for at least 10 minutes, per session.<sup>54</sup>
- *California* requires schools to submit an annual report detailing compliance with the state's minimum PE and fitness testing requirements. Two years of PE are required as a high school graduation requirement (although some exemptions apply, based on fitness); participating students must attend PE classes at least 400 minutes every 10 school days.<sup>55</sup>
- *Colorado* has enacted legislation creating incentives for local districts to require specific licensure for PE teachers by granting state funds for local wellness PE programs only to districts that have expanded their wellness programs and have licensed PE teachers.<sup>56</sup>
- *Florida*, concerned that schools were ignoring state requirements, recently enacted legislation to strengthen PA in schools and remove ambiguity about what types of activity meet the requirements. (Apparently, some schools were counting brief stretching exercises or students' walks to school cafeterias toward the PE requirements.) The new law requires school boards to adopt a policy that provides a detailed description of its PE programs, including anticipated program outcomes and benefits. Students in grades K-5 are required to engage in 150 minutes of PE per week, in blocks of at least 30 consecutive minutes, and students in grades 6-8 are required to take PE for the equivalent of one class period per day, one semester per year.<sup>57</sup> *Florida* also requires its Department of Education to post

prominently on its website links to an Internet-based clearinghouse for PE professional development.<sup>58</sup>

- *Illinois* requires daily involvement in PE classes for all students for “...such periods as are compatible with the optimum growth and developmental needs of individuals at the various age levels...”<sup>59</sup>
- *Mississippi* has enacted legislation that appropriates funds to employ a state-level PA coordinator to help local districts implement PE programs. The legislation establishes school district guidelines that require 150 minutes per week of PA-based instruction and 45 minutes per week of health education for students in grades K-8, and mandates one-half unit (one semester) of PE or PA in grades 9-12 as a graduation requirement. School wellness policies must require incorporation of PA, healthy eating, and lifestyle lessons into core subjects.<sup>60</sup>
- *New Mexico* recently mandated one unit of PE as a high school graduation requirement for all students entering 9<sup>th</sup> grade as of the 2009-10 school year.<sup>61</sup>
- *North Dakota* requires PE to be made available in high school.<sup>62</sup>
- *Oklahoma* has doubled its PE and activity requirement for full day K-5 from 60 to 120 minutes per week, at least 60 minutes per week of which must be for PE. Compliance is required for public school accreditation. Oklahoma Sen. Mary Easley (D), who introduced the legislation, credited the legislation’s success to her staff’s ability to work with “...a strong support system of advocates...” including the state superintendent, the state’s Board of Education, the state’s Education Association, the Institute for Child Advocacy, and PE teachers.<sup>63</sup>
- *Oregon* has required local districts to increase PE over the next ten years to at least 150 minutes per week for elementary schools and 210 minutes per week for middle schools, and appropriated funds to help local districts train PE teachers.<sup>64</sup>
- *South Carolina*, in 2005, enacted a strong, structured program for increasing PE and PA in public schools that gradually increases mandatory time requirements for PE classes and student/teacher ratios. The law also mandates performance accountability and adherence to requirements. Principals are required to report annual progress and results are reported to the state’s legislature. Other features include requiring elementary schools to designate a PE teacher as a PA director, establishing both district-level and elementary school-level coordinated school health advisory councils, mandating a PE assessment program for grades K-12, requiring placement of student assessments on school report cards, and providing professional development assistance for teachers in schools that receive unsatisfactory program effectiveness scores.<sup>65</sup>
- *Utah’s* Department of Transportation has developed software to help students map safe routes to school, called the Student Neighborhood Access Plan (SNAP). Utah law requires elementary and middle schools to create routing plans that inform students of the safest way to travel to and from school by foot or bike. The software is intended to help schools create the safe routes and share them with students and families.<sup>66</sup>
- A growing number of states have required school districts or schools to follow either national or state PE guidelines or standards. According to the 2006 School Health Policies and Programs Study (SHPPS)—a national survey conducted periodically by the CDC to assess school health policies and programs at the state, local district, school and classroom

levels—74.5% of states, and 79.3% of local school districts, had a requirement of this type in place.<sup>67</sup>

- According to the 2006 SHPPS, 13.7% of all states, and 42.6% of local school districts, require schools to assign someone, such as a lead teacher, the responsibility of overseeing or coordinating school health education.<sup>68</sup> *South Carolina*, as part of its legislation phasing in statewide PE standards, requires every elementary school to designate a PE teacher to serve as its PE activity director who must plan and coordinate additional physical activities for students that exceed designated weekly PE instruction times. Activities may include before-, during-, and after-school programs, such as dance instruction, fitness trails, intra-mural sports, biking or walking programs, recess, and other activities designed to promote in-class PA.<sup>69</sup>

## **BMI and Related Health Assessments**

Interest in legislation or other policies related to student body mass index (BMI) is relatively strong among states, despite existing gaps in knowledge about its effectiveness.

- *Alabama's* Department of Education requires schools to conduct annual physical fitness assessments of all K-12 students, using the *President's Challenge Physical Fitness Test*. Schools must report results to the Department every two years and must provide parents or guardians with an annual report that includes their child's BMI profile, as well as an explanation of possible health effects associated with BMI, nutrition and PA.<sup>70</sup>
- *Arkansas* requires BMI screenings every other year, beginning in kindergarten. Parents may elect not to have their children assessed by providing a written refusal. Students in grades 11-12 are exempted.
- *Georgia's* legislation requires local school systems to conduct annual fitness assessments for K-12 students as part of the PE curriculum.<sup>71</sup>
- *Oklahoma* recently passed legislation requiring development of a physical fitness software program to be customized for public schools and made available to them at no cost. The software will track 5 components of students' health-related physical fitness, including BMI, and create a confidential report for parents, including explanations of data.<sup>72</sup>
- *Texas* has enacted legislation for a risk assessment program, including BMI screenings in some regions of the state for students identified as being at risk for type 2 diabetes.<sup>73</sup>
- *Vermont's* legislature has directed its commissioner of health to develop a plan to promote measurement and tracking of BMI percentiles for children and youth.<sup>74</sup>

## **Wellness Policies**

Recent legislation in Colorado encourages, and, in Mississippi, requires, local school districts to strengthen specific components of wellness plans to increase students' opportunities for PA.<sup>75</sup>

## **Task Forces**

A few state task forces bear mention. California has established a task force to study ways to

provide summer enrichment and wellness programs for low-income children, including promotion of healthy eating and regular PA and exercise,<sup>76</sup> and Virginia has established a joint sub-committee to study the relationship between health and PE curricula in public schools.<sup>77</sup> Minnesota legislators have convened an informal workgroup, which includes the involvement of the public health community, to make legislative recommendations regarding school and community strategies to reduce childhood obesity. The recommendations will be presented at either a joint hearing of key legislative committees or a pre-legislative session symposium.

## **State and Local Policy Considerations and Opportunities**

### **School District Governance and the Significance of Local Control**

When examining state and local policy opportunities, it is particularly important to keep in mind the governmental relationship between local school districts and state and local governments. The nation has more than 14,000 local school districts, including approximately 342 in Minnesota. Needs of individual school districts vary markedly, depending on their location (urban/suburban/rural), size (large/medium/small), financial means, and population base. Generally, local school districts, including those in Minnesota, have primary jurisdiction for setting school policies. In other words, although states are empowered to enact legislation and establish policies that affect schools, local school districts typically retain considerable latitude and discretion—local control—regarding whether and how to implement policies. Public school systems are typically governed at the school district level, such that policies adopted by a district’s school board apply to all schools within the district. State and local governments often strive to engage local districts in policy change by offering incentives—particularly financial incentives—such as making a district’s eligibility for grant programs or other funds dependent upon adherence to defined policies and policy goals.<sup>78</sup>

Policy approaches that favor federal or state intrusion into areas perceived by local school districts to be within their purview—no matter how important the goals—remain a hard sell for local school district officials. The National School Boards Association (NSBA), for example, has urged Congress to refrain from enacting any additional legislation that would restrict the authority of local school districts to address childhood nutrition. Although the NSBA explicitly recognizes the severity of the childhood obesity epidemic, it firmly opposes expansion of the federal government’s role in regulating school nutrition policies beyond its current involvement in school meal programs,

arguing that such efforts are dismissive of the work of school district wellness committees and “usurp the jurisdiction of local districts to create a policy that reflects the values and financial capability of their communities.”<sup>79</sup> The NSBA’s general opposition to federal and state intrusion into local terrain is likely to elicit a similar reaction to K-12 PE and PA statewide policy initiatives.

A 2009 report by the National Conference of State Legislatures (NCSL) has concluded that the broad range of policy options being developed at the state level “will require strengthened relationships with the local governments and school districts that are responsible for implementing state policy.” The report suggests that “[r]esearch that can document ties between specific policy approaches and resulting health benefits—including reduced health care costs and academic achievement—can help support state and local action.”<sup>80</sup> This report, as well as the positions and patterns of school board governance of local school districts, suggest that considerable efforts may be needed to persuade school board and district leaders to embrace federal and state school mandates. A potential mechanism for educating school boards and district leaders about the issues at hand might be to explore requiring that they receive training on wellness policy issues, including PE and PA policy components, as part of their orientation to their positions and their ongoing professional training.

A valuable resource for identifying community strategies to improve PE and PA in K-12 settings—particularly those that involve collaborative approaches between state and local governments and school districts—is the *Action Strategies Toolkit: A Guide for Local and State Leaders Working to Create Healthy Communities and Prevent Childhood Obesity*, a Robert Wood Johnson Foundation (RWJ) publication.<sup>81</sup> Drawing on the collective wisdom of policy leaders from eleven key organizations that represent public officials from state and local governments, school board members, and district personnel, the toolkit presents evidence-based policy approaches identified by these leaders and RWJ’s Leadership for Healthy Communities as being among the best. Many ideas discussed in this policy brief are referenced in the *Toolkit*.

### Promising Policy Approaches in K-12 School Settings

This report profiles six school-based policy approaches. Each has been selected based on its prominence in the national dialogue, its potential for reaching large segments of the population, and scientific support. The discussion of each policy approach addresses rationales, scientific support, challenges and other considerations, and opportunities:

- *Improve PE curricula, teacher qualifications, and implementation accountability*
- *Integrate PA into the school day and increase recess opportunities*
- *Expand outdoor classroom and environmental education opportunities*
- *Conduct, track and report BMI screenings*
- *Partner with communities on Safe Routes To School (SRTS) programs*
- *Enhance PA opportunities in school-based after school programs*

### *Improve PE Curricula, Teacher Qualifications, and Implementation Accountability*

The goal of PE instruction in grades K-12 is to provide students with varied, enjoyable, and highly participatory opportunities to help them develop a combination of knowledge, motor skills, behavioral skills, motivation, and confidence that, in turn, will lead them to adopt and maintain life-long, physically active lifestyles. The unfortunate reality, however, is that PE has been sacrificed—reduced, if not eliminated, in many local school districts, especially in the upper grades—due to budgetary constraints and an entrenched, systemic emphasis on test scores as leading indicators of student achievement. Peer-reviewed research on the relationship between academic performance and PA demonstrates, though, that students who are physically fit and active tend to perform better academically and that eliminating or reducing PE classes does not boost academic performance.<sup>82</sup> In a California study analyzing data from over 700 fourth- and fifth-graders, researchers found that an intensive PE program—doubling or tripling class time—had no adverse affect on students’ scores on standardized academic achievement tests; in fact, on many test scores, the students who participated in the more intensive PE program out-performed students in the control groups.<sup>83</sup>

For school-based PE to become a central, successful component of efforts to reverse the childhood obesity epidemic, current shortcomings in the amount of time devoted to PE and the quality of PE classes in K-12 settings must be addressed. This can be accomplished by re-structuring existing policies and developing new ones to enhance curricula, teacher qualifications, and accountability measures.

### **Curricula Enhancements**

Almost all states provide statewide standards for PE; Minnesota is one of only three states that do not.<sup>84</sup> Adoption of statewide standards and reinstatement of a graduation requirement of a

minimum of one-half credit of PE, as proposed by the American Heart Association and others, would provide a uniform baseline for K-12 PE, enabling the state's educational system to emphasize PE as a critical adjunct to students' academic success and address the childhood obesity epidemic by teaching lifelong physical fitness skills and values.

*NASPE Standards.* The National Association for Sport and Physical Education (NASPE) urges all schools—Pre-K through grade 12—to implement a comprehensive *School Physical Activity Program* that encompasses PA programming before, during, and after the school day. The essential components of a comprehensive, school-based physical activity program include quality PE curricula, which is the core component, plus school-based physical activity opportunities, employee wellness and participation, and family and community involvement.

*Quality PE* is defined by NASPE to include:

- Daily PE of at least 150 minutes per week for elementary students
- Daily PE of at least 225 minutes per week for middle and high school students
- A curriculum that meets the National Standards for Physical Education
- Student assessments that are aligned with instruction
- Certified instructors to provide meaningful content using standards-based instruction
- A student-teacher ratio equivalent to other (regular) classroom standards
- Adequate equipment to promote maximum practice time (individual involvement)

The NASPE recommendations contemplate that someone at each site—typically a PE teacher—will be designated to lead the entire school-based effort. The recommendations recognize that substantial improvements are needed not only in the availability and amount of time devoted to formal instruction, but also in what is being taught and how instruction is provided.<sup>85</sup>

*Improving Instruction.* Research shows that classroom enhancements, such as making changes to curricula, teaching practices, and policies, can increase students' activity and fitness levels and may also improve their knowledge and motivation.<sup>86</sup> Specific strategies for increasing activity levels during PE classes include making modifications to game rules (for example, in baseball, having many children run the bases together), enhancing teaching methods to ensure that all students in a class are participating actively, and increasing the length or frequency of classes.<sup>87</sup> Additional strategies, such as ensuring that PE teachers are able to get equipment set up in advance of class and have

adequate quantities of equipment for all students, can free up precious in-class time and increase PA opportunities for students.

Changes to curricula need not be costly. Class activities like yoga, for example, can be integrated into PE programming with little or no equipment, tailored to different ages, grades, and skill levels, and used flexibly for either warm-ups or classroom lessons. Teaching yoga or a similar activity has the added benefit of instilling lifelong skills, consistent with NASPE recommendations, by helping children and youth to focus on inner balance and achieve fitness in a non-competitive framework that can engage all students simultaneously.<sup>88</sup>

A study that surveyed college students about the content of their high school PE classes demonstrates the potential long-term value that offering high school students a diverse PE curriculum can provide. Asked to rank how much instruction they received in six PE content areas, including aquatics, individual activities, physical conditioning, outdoor adventure activities, rhythmic activities, and team activities, 69 percent of respondents cited team sports as the main content area of their high school PE classes. The content area emphasized least was outdoor adventure activities. College students who had participated in high school PE courses that offered a diverse curriculum, with a broad range of content areas, reported higher current levels of PA in cardiovascular endurance, muscular strength, flexibility, and sports activity.<sup>89</sup>

A growing body of research indicates that students tend to be more motivated and engaged in PE when class activities are perceived to be interesting, relevant, fun, and provide opportunities for success.<sup>90</sup> The authors of a recent article discourage classroom emphasis on monotonous calisthenics and organized team sports, arguing that these activities tend to favor students with the highest skill level; they contend, instead, that fitness activities engage students more effectively, particularly when disguised as highly organized games. An example of such an activity is conversational jogging, where students jog in pairs while their teacher holds up signs with conversation topics (such as movies, pets, etc.) for students to discuss while running laps.<sup>91</sup>

*Gender-based concerns.* Of particular concern are national and regional data and studies showing that PA levels gradually decline as youth progress from elementary school to middle and high school.<sup>92</sup> For girls, the drop in activity can be quite pronounced. This holds true in Minnesota, as indicated in the 2007 Minnesota Student Survey, which found that girls' activity levels decline far more dramatically than those of boys between grades 6 and 12.<sup>93</sup>

Multiple studies have examined how PE classes can be improved to help reverse this troubling trend, focusing, in particular, on the decline in PA among teen girls.<sup>94</sup> In one study (TAGG baseline), researchers assessed PA levels, lesson contexts, and teachers' in-class promotion of physical activity in middle-school PE classes and found that girls spent a substantial portion of their PE class-time being sedentary. The study found that girls engaged in vigorous physical activity and moderate-to-vigorous activity, on average, only 13.1 percent and 37.9 percent of the lesson time, respectively—far short of the *Healthy People 2010* objective of 50 percent.<sup>95</sup> Multiple opportunities for improvements in PE curricula and conduct were identified, including modifying content, allocating more lesson time for PA (such as fitness instruction), improving teachers' managerial efficiency, and increasing teachers' promotion of PA to girls.<sup>96</sup>

In another study, researchers examined associations between sixth-grade girls' enjoyment of PE classes and socio-demographic, personal, and perceived school environment factors. This study demonstrates the importance of providing a girl-friendly environment and a teacher-supportive climate in middle school PE classes as critical adjuncts to girls' enjoyment of PE classes. The findings suggest it is important to directly involve teachers in promoting physically active lifestyles, enhancing self-efficacy for leisure time PA among girls, ensuring boys are respectful of girls during physical activities, and promoting social norms of PA in girls. The findings also suggest that teen girls are more likely to enjoy PE classes when the classes meet their needs, in terms of relevant content, and provide an environment where they feel supported, comfortable, and are encouraged to be physically active in the presence of boys.<sup>97</sup>

*Socioeconomic disparities.* The California Endowment recently commissioned a review of the status of PE requirements, compliance and resources in California schools. The resulting policy brief, *Physical Education Matters*, identified several areas in which PE is lacking in California and provided guidance on evidence-based strategies for statewide improvement. The report stressed the need for policy changes at all levels—state, local districts, and schools. While California-specific, the policy brief has nationwide value. The Endowment's examination of disparities, for example, revealed that curricula deficiencies were most pronounced for less affluent students and racial and ethnic groups at high risk for overweight and obesity; in addition, personnel, facilities, and material resources were found inadequate to support quality PE instruction, particularly in schools in less affluent areas.<sup>98</sup> These problems are national in scope.

## **Teacher Qualifications**

*Teacher training.* Absolutely essential to achieving positive outcomes in the quality of K-12 PE classes is ensuring that teachers are properly qualified to teach grade-specific, evidence-based, active, quality PE. By examining existing training and continuing education requirements, identifying gaps in this area, and taking meaningful policy steps to make improvements, the state, local school districts, and schools can ensure that PE teachers for all grade levels receive proper instruction and ongoing guidance on how to teach quality, activity-based PE.

*Leadership skills.* The NASPE national recommendations envision that one PE teacher per school site will be designated to lead an all-school effort to include PA and quality PE as critical components of the overall school environment and the structure of the school day. To accomplish this purpose, which appears to be critical to either a bottom-up or top-down strategy to ensure that children and youth embrace active PA as a lifelong lifestyle/behavior, high quality leadership training opportunities must be made available to PE teachers. Leadership training opportunities would facilitate the ability of PE teachers to garner support among students, school teachers, support staff and administrators, as well as parents and other stakeholders in the community. Ideally, leadership training should be available to more than one teacher or other staff person per site to ensure continuity and provide back-up support. Interventions that seek to cultivate site-specific PE leadership in schools, involving representatives from several key stakeholder groups—teachers, administrators, students, parents, and community representatives—appear to be needed. The goal of realigning the structure of a typical school day to build in daily PE and PA components will likely require not only statewide mandates but also a team approach that accomplishes widespread buy-in.

Research findings on the decline in girls' PA as they move through their teen years, as well as research on disparities in curricula affecting less affluent students and areas, point to the need to include and stress these topics in PE teacher training, staff development sessions, and leadership training, to continually raise awareness and provide instruction on strategies found to be effective.

## **Implementation Accountability**

It is axiomatic that PE accountability measures and enforcement mechanisms must be put in place to track progress and ensure proper implementation within local districts. As a starting point—in keeping with the goals set forth in federally mandated wellness policies—it is incumbent upon local districts and schools to periodically review their current PE and PA policies and practices and

identify opportunities to strengthen them. Short, periodic surveys of teachers, students, and parents can help local districts and schools pinpoint the most pressing district-wide and site-specific PE and PA needs and shortcomings; such efforts may also suggest low-cost or no-cost programmatic adjustments that could improve implementation efforts.

Enforcement could be addressed at the state level, in part, by requiring all districts to submit an annual progress report on the implementation of the PE and PA components of their wellness policies and providing an incentive for them to do so, perhaps by denying non-compliant districts the opportunity to apply for certain program funds or receive technical assistance. Another mechanism to encourage implementation wellness policy PE and PA objectives might be to require all local school districts to maintain district-wide and site-specific wellness councils or committees that must address PE and PA policies. Here, too, eligibility for competitive funding opportunities or other financial incentives could be tied to a district's implementation of this requirement. State level enforcement policies that take a carrot-and-stick approach to encourage compliance with this unfunded federal mandate are needed to address gaps in policy implementation and accountability within and among local districts.

### **Policy Challenges**

Making strides in this policy area at the state and local level will depend, in large part, on the ability of advocates to convince policymakers and key stakeholder groups, including school board and district leaders and their respective professional organizations, that investing in PE is an essential component of the core mission of public schools to prepare students for their roles and responsibilities as adults, as well as a critical component of efforts to address the obesity epidemic. Some policymakers may lack critical knowledge on both fronts, and may benefit from learning, in particular, about how taking steps to strengthen and reinvigorate PE can help school districts achieve academic goals, given this predominating concern; others may fully understand the importance of the relationship between students' physical fitness, academic success, and short- and long-term health and well-being, yet remain hesitant to support school-based PE policies because of overriding concerns about costs or other perceived impacts.

It will take time for school policy norms to shift from the recent almost exclusive focus on academic achievement to a more balanced emphasis on teaching students to develop lifelong physical fitness skills and healthy eating habits as essential components of academic success. Legislation to address childhood obesity at all governmental levels is still relatively new, and studies

to identify factors that positively influence or inhibit passage of such legislation are just beginning to emerge.<sup>99, 100, 101, 102</sup>

A recent study by Dodson, et al., involving key informant interviews with legislators and staffers from 11 states in 2005-2006, found that three factors positively influenced passage of legislation: national media exposure; introduction of the policy by senior legislators; and strong support of a coalition of key players, including school boards and administrators, parents, coaches, teachers, and physicians. Key barriers included: powerful lobbyists; misconceptions among constituents, such as school personnel, about the impact of possible policies on schools; and concerns or misconceptions about costs associated with legislative proposals.<sup>103</sup> Additional research is needed to assess indicators of readiness for legislative policy development and implementation.

The severity of current budget constraints and staffing cutbacks may persuade state level policy advocates to concentrate for the immediate future on identifying low-cost and no-cost approaches that can gain a foothold in advancing broader PE policy goals. Certainly, proponents will need to satisfactorily address constituent or legislator concerns about costs and other policy implications. In addition, advocates will need to further prioritize PE policy needs and continue to encourage coordination, collaboration, and accountability across governmental units.

By seeking access to readily available presentation platforms, such as open forums at school board meetings, and pursuing other meaningful public and private presentation and training opportunities, policy advocates can educate and inform local and state policymakers and key stakeholders about the rationales and evidence-based support for PE policy changes; profile specific policy examples; respond to concerns about cost barriers; suggest opportunities for community or private partnerships; demonstrate broad-based public support; and ensure that policymakers understand the parameters of their authority and responsibility to take action.

## **Policy Opportunities**

In its report, *Physical Education Matters*, the California Endowment makes several specific recommendations that are relevant for all states to consider:

- Make improvements to the quantity and quality of PE classes at all grade levels and take steps to ensure proper monitoring and enforcement.
- Provide quality PE instruction that is activity-focused and evidence-based, encourages the continuation of public-private involvement and incentives, and emphasizes the need for public funding to sustain improvements for all students.

- Encourage school districts, schools, the state’s health and education departments, local public departments, and community organizations to partner more effectively to build advocacy and support for policies and funding required for improving school PE.<sup>104</sup>

Minnesota-specific policy opportunities, consistent with the above recommendations, include:

- Establish statewide K-12 PE curriculum standards that are specifically designed to instill lifelong physical activity and fitness habits (NASPE standards).
- Require a minimum number of minutes for PE classes per week at all grade levels—a minimum of 150 minutes per week of PE in elementary schools and a minimum of 225 minutes per week of PE in middle schools and high schools, as recommended by NASPE and the CDC.
- Mandate a minimum amount of time during which students must be physically active in K-12 PE classes—e.g., students must be active at least 50% of time spent in PE classes.
- Expand PE course offerings and fitness equipment in middle schools and high schools, taking into account girls’ needs and socio-economic disparities.
- Establish maximum student-teacher ratios for K-12 PE classes.
- Establish limits on PE class sizes.
- Mandate monitoring and enforcement of K-12 PE curricula and related requirements.
- Encourage, create incentives for, or mandate providing daily PE at all grade levels.
- Limit circumstances under which exemptions from high school PE will be granted.
- Require or encourage a comprehensive PE assessment test for graduation.
- Allocate funds for school renovations and equipment upgrades to improve the quality of PE, targeting schools and districts where these are most needed.
- Allocate professional development funds to increase/supplement PE teachers’ instruction skills for teaching active, quality PE methods in all grade levels.
- Encourage or require establishment and maintenance of wellness councils district-wide and at individual schools, involving all relevant stakeholder groups, including community and local government representatives (e.g., public health, planning, and transportation).
- Require, encourage, or create incentives for districts to designate a district-wide PE/PA policy coordinator.
- Encourage schools, communities, and state and local educational agencies to partner on policy initiatives and funding opportunities to improve PE opportunities, provide volunteer staffing, and acquire equipment or other resources.
- Require local school districts to report annually to the Department of Education regarding PE participation levels by district, school, grade, and class.
- Require the Department of Education to report periodically to the state legislature on progress being made toward statewide goals to increase the quantity and quality of PE and PA in K-12 schools.

## *Integrate Physical Activity into the School Day and Increase Recess Opportunities*

### **Integrating Physical Activity into Classrooms and Daily Lessons**

A new IOM report outlines goals, evidence-based justifications, and strategies for local government action to reduce childhood obesity, including relevant recommendations for increasing daily, routine physical activity in K-12 settings.<sup>105</sup> The report states that incorporating PA into the daily routines of institutions (such as schools) is an effective mechanism for increasing daily activity levels because participation in the daily activities becomes the default choice, thereby reaching individuals who are in need of physical activity but unlikely to pursue opportunities on their own.<sup>106</sup> Multiple researchers concur that to achieve widespread social norm changes regarding physical activity as a lifestyle choice, modifications must be made to institutional practices and the built environment that will structurally integrate physical activity into daily routines.<sup>107</sup>

According to a 2005 Henry J. Kaiser Foundation survey, *Generation M: Media in the Lives of 8-18 Year Olds*,<sup>108</sup> during daily leisure hours, 8- to 18-year-olds are spending an average of nearly four hours a day watching TV, videos, DVDs and pre-recorded shows, slightly over one hour on the computer, and nearly an hour playing video games; in addition, two-thirds of 8- to 18-year olds have TVs in their bedrooms and nearly one-third have computers in their bedrooms.<sup>109</sup> For children who reside in low-income neighborhoods or communities, more troubling issues exist—research shows that low-income communities have fewer recreational facilities where children and youth can play and that existing facilities may not be well-maintained, staffed or supervised by adults.<sup>110, 111</sup> Perceptions about lack of safety in low-income areas also tend to limit play opportunities for children and youth in those areas. Consequently, low-income children have fewer opportunities to play when out of school.<sup>112</sup> Findings such as these illustrate the critical importance of developing effective strategies to strengthen PE requirements and integrate PA into the daily routine of the school day.

Although schools are viewed by experts as a prime setting for instilling knowledge, values, and daily habits about routine physical exercise,<sup>113</sup> most children have little or no regular, routine physical activity built into their school days.<sup>114</sup> It is estimated that only 3.8 percent of the nation's elementary schools provide daily PE classes.<sup>115</sup> It is ironic that, at a time when the need for children to become more physically active on a daily basis has reached a crisis stage and a growing evidence base demonstrates that children who are more physically active and physically fit tend to perform better academically,<sup>116</sup> many schools are downsizing or eliminating PE classes and recess in response

to budgetary constraints and pressure to improve students' scores on standardized tests. Multiple studies have found that routine physical activity breaks during the elementary school day enhance both academic performance and classroom behavior; evidence also links higher levels of physical fitness with better attendance rates and fewer disciplinary problems in schools.<sup>117</sup>

Jack Olwell, a Farmington, Minnesota elementary school PE teacher, has generated national interest in a literacy PE study he designed and tested. Olwell's study demonstrates that routine, school-based PA can strongly benefit students' ability to learn. The study, which sought to have all fourth- and fifth-grade students read at or above grade level, targeted the school's struggling readers—those who scored below average on a standardized test. Reading classes were preceded by 15-minute physical education sessions that included vigorous games and aerobic activities embedded with reading components. Participants in the literacy PE program achieved gains that far exceeded the average gains of their non-participating peers on the Measures of Academic Performance reading test.<sup>118</sup>

Dr. John Ratey, a Harvard University expert on exercise and brain chemistry, cites the public school system in Naperville, Illinois as being among the first in the U.S. to incorporate vigorous daily PE district-wide. Naperville's efforts appear to have paid off. In 2008, 98 percent of the district's 19,000 students took Trends in Mathematics and Science Study standardized tests, which provide comparative global rankings, and placed first in the world in science and sixth in math. Ratey testified before the Minnesota House K-12 Education Policy and Oversight Committee in February 2009, informing legislators about research showing that well designed, school-based exercise programs can increase students' ability to focus on academics, reduce their behavioral problems, and boost their test scores. Ratey and Olwell, who testified along with Ratey, concur that student exercise programs achieve the best results when offered daily in morning sessions that emphasize aerobic fitness—activities in which all youth can participate—instead of ball sports.<sup>119</sup>

### **Preserving and Expanding Recess**

Typically available only in elementary school settings, recess provides substantial opportunities for students of *all* ages to engage in meaningful, vigorous exercise that can count toward the recommended activity level of at least 60 minutes per day. NASPE recommends that elementary school children be offered at least a 20-minute period of scheduled recess every school day. Policy experts agree that school disciplinary policies should prohibit withholding recess as a form of punishment and stress the need for enforcement and surveillance of policies.

Although most of the nation’s elementary schools offer recess of some sort, the amount of time allotted to recess has been shrinking. In its report, *Recess Rules*, RWJ describes recess as “the single biggest opportunity to raise the level of physical activity for children,” yet laments the fact that it is less likely to be funded than PE and after-school programs.<sup>120</sup>

The gradual decrease in recess time and limited allocation of financial resources for recess activities is particularly troubling with regard to the impact of these trends on socio-economic disparities.<sup>121, 122</sup> The results of a recent study indicate that urban schools serving large numbers of low-income students—those who are most at risk for childhood obesity and diabetes—are more likely to reduce recess time in order to devote additional time to math and English, core courses under *No Child Left Behind*.<sup>123</sup> Local practices or policies such as these are a matter of deep concern because they fly in the face of evidence that, in order for children to thrive academically and behaviorally, their brains (and bodies) need physical activity breaks, and that they *do* perform better when given PA opportunities during the school day.<sup>124</sup> The need to protect recess time allocations, especially in districts and schools that serve low-income students, is critical not only for the above reasons, but also because of evidence that low-income children and youth who reside in low-income areas have fewer options to engage in vigorous PA during off-school hours.<sup>125</sup>

For the elementary grades, structured recess has garnered strong support among policy experts.<sup>126</sup> In structured recess, an adult coach or supervisor organizes activities and games, such as four square, tag, capture the flag, or kickball, during scheduled recess periods. Structured recess has gained favor because of evidence that children derive many strong benefits from a structured approach, in that they tend to be more engaged, more physically active, and better behaved during recess, and more focused upon their return to the classroom.<sup>127</sup>

A RWJ-sponsored program, *Playworks* (known previously as Sports4Kids), has helped hundreds of schools in several large metropolitan areas, including Boston, Washington, D.C., and San Francisco, implement successful, safe and healthy structured recess programs by training recess coaches who are hired by schools to oversee recess, as well as other daily in-school and after-school PA activities. It appears that coaches are typically recruited from the *AmeriCorps* program, thus providing schools with a relatively low-cost staffing option to implement this valuable PA strategy. (Reports indicate that *Playworks* coaches earn in the vicinity of \$23,500 per year.) *Playworks* coaches work full-time; during the course of the school day, they teach children conflict resolution skills to prevent fights and keep games going, and help them learn about healthy nutrition and violence

prevention.<sup>128</sup> RWJ asserts that this particular model for investing in recess is allowing schools to “reclaim” substantial hours of teaching time that would otherwise be lost to classroom conflicts—schools partnering with *Playworks* are reclaiming a week of teaching time in every classroom, each year. Discipline referrals and violent incidents have declined in participating schools, as have classroom and playground conflicts. After recess, students return to their classes more focused and ready to learn.<sup>129</sup>

NASPE recommends that middle and high school students should also be offered PA breaks—such as during lunch or study hall—when they can participate in recess-like, supervised drop-in PA sessions. Activities might include using fitness equipment, volunteering in a school garden, or taking walks on the school’s campus. The need to develop policies that will stimulate daily recess-like activities among middle and high school students appears to be particularly important, given the evidence of a substantial decline in PA for youth, and especially girls, between grades 6 and 12.

For K-12 students of all ages, the design of recess or recess-like PA opportunities should strive to stimulate the participation of the highest possible proportion of students. This can be accomplished by offering PA opportunities at multiple times of day and providing a wide range of activity options, including non-competitive, fitness-oriented activities.<sup>130</sup>

### **Policy Challenges**

Legislators in many states have experienced difficulty building support for school-based legislation to increase students’ PA levels. A Vermont state legislator, Rep. Robert Dostis (D), has attributed the failure of such legislation to the current focus of federal, state, and local governments on issues deemed to be far more pressing.<sup>131</sup> Despite such challenges, legislators in some states, including Texas and South Carolina, have been successful in establishing minimum requirements for PA standards and mandating adherence to the requirements. South Carolina’s 2007-08 progress report on its PE and PA implementation efforts in grades K-5 indicates that 92% of the schools reporting were in compliance with the state’s minimum PA requirements; the report lists recess, walking clubs/programs, special events, video or morning exercises, PE classes, and jump rope as among the top opportunities for providing daily PA for all students.<sup>132</sup> Ohio and Texas have incorporated PA into curricula through structured programs that discourage students from engaging in sedentary activities, such as playing video games. The structured programs, instead, promote

exploration of the outdoors, and help children and youth gain an appreciation for the natural environment and instill life-long interests.<sup>133</sup>

Local initiatives can inspire meaningful—and widespread—policy changes. More than ten years ago, a single school, Browns Mill Elementary School in Lithonia, Georgia, implemented a morning PA program that has since been replicated by at least 17 other schools in the state. The schools start each day with an hour of PA that ranges from exercising to dancing. In addition, students are served a nutritious breakfast. Since 1998, the Browns Mill Elementary School has seen improvements in students’ test scores, truancy rates, and counselor referrals.<sup>134</sup>

Making substantial strides in these policy areas will require undoing the logjam that has resulted, in large part, from concerns about the cost implications of policy proposals and a short-sighted emphasis on academic testing as the sole, critical measurement of student achievement and preparation for adulthood. It is essential that key stakeholders and policymakers gain a foothold on understanding the evidence-base for investing in recess and integrating PA into standard classes and that policy options address and resolve concerns about cost factors. At the federal level, the Obama administration’s strong commitment to educational reform and investment in prevention as a central component of health care reform bodes well for state and local policy change. Several federal proposals are summarized in Appendix B, any one of which, if enacted, would positively impact state and local level efforts to integrate PA into the school day. As outlined below, there are numerous ways that policy change can be advanced at the state and local levels at low cost and with potentially enormous gains.

## **Policy Opportunities**

- Encourage, create incentives for, or require incorporation of PA into academic curricula.
- Promote school-based policies that build structured PA into daily school routines: Encourage, create incentives for, or require minimum standards for number of minutes of daily moderate to vigorous PA in all grade levels at the state, district, and school level, consistent with current national NASPE standards that children should engage in 60 minutes of moderate activity most days of the week (half of which—30 minutes per day— should be achieved during school on days when school is in session).<sup>135</sup>
- Encourage, create incentives for, or require schools to provide students in all grades with at least 20 minutes per day of supervised recess during which schools must encourage moderate to vigorous physical activity. (For middle and high school students, this could be defined to mean providing the means to be physically active, e.g., intramurals, equipment, etc.).<sup>136</sup>

- Encourage or create incentive for school districts and schools, particularly those in geographic areas with populations at high risk for obesity and diabetes, to provide staffing to lead and supervise recess and integrate PA into the main school day.
- Require school districts to report annually to the State Department of Education on PE and PA policy implementation, enforcement, and outcomes regarding the number of minutes of active PE and additional PA students receive daily and weekly per school and grade level within each district; require the State Department of Education to prepare an annual summary for the state legislature.
- Provide technical assistance and financial resources for policy development and implementation for poorly performing schools and schools in geographic areas with populations at high risk for obesity and diabetes, using existing state- and district-level technical assistance mechanisms.

### *Expand Outdoor Classroom and Environmental Education Opportunities*

#### **Outdoor Education and Learning**

Research suggests that getting children outdoors and actively involved in outdoor play opportunities is beneficial to their physical fitness levels and that children who play outdoors are more active and physically fit than those who do not. For example, research has demonstrated that play activity increases as the environment and opportunities for play become more complex and that children play more vigorously outdoors than indoors.<sup>137</sup> The results of a recent study point to the natural landscape as an influential factor in children’s physical activity play and motor development.<sup>138</sup>

Since the late 1970s, children have lost free time at an average of 12 hours per week, including a 50 percent decrease in unstructured outdoor activity. In the three decades since then, children’s lives have become increasingly structured and scheduled, leading to a 25 percent reduction in free playtime between 1981 and 1997.<sup>139</sup> The free time remaining to children and youth is being absorbed rapidly by sedentary pursuits, which include excessive amounts of screen time—unhealthy doses of television, video games, computer games and other online pursuits such as social networks—rather than physically active play time. Recent research supports improving access to high-quality play space as a way to reduce children’s sedentary behavior patterns and strengthen their physical, emotional, social and cognitive development. The IOM and the American Academy of Pediatrics both recommend that efforts to address child obesity should include providing children and youth with increased opportunities for free play and access to play environments.<sup>140</sup>

The relationship between outdoor education and obesity prevention warrants further study; however, research suggests an important link. A recent study in Denmark, for example, measured the PA levels of nine- and ten-year old schoolchildren, comparing measurements of the students' activity levels during outdoor learning days with measurements of their activity on traditional school days (including traditional school days that involved PE classes), and found mean activity levels were more than twice as high on the outdoor learning days than on traditional school days.<sup>141</sup> The study demonstrates that a significantly higher level of PA can be achieved when indoor and outdoor learning contexts are combined and suggests that outdoor learning can provide valuable learning opportunities for promoting and improving physical health.<sup>142</sup>

Environment education provides physically active, hands-on, experiential, and multi-disciplinary learning opportunities. It is a proven strategy for connecting children to nature and has been shown to improve academic performance and heighten students' interest in science and math; studies also show that integrated environmental education programs increase children's critical thinking skills, self-confidence, and academic motivation.<sup>143</sup> Its potential for closing gaps in underserved populations and communities is particularly compelling. Assessment of environmental literacy conducted by the National Environmental Education Foundation in 2005 found that "environment-based education appears to be a kind of educational equalizer, improving reading, science achievement, and critical thinking across ethnic and racial groups and across socioeconomic levels."<sup>144</sup> Research findings suggest that environmental education programs offer promising opportunities for achieving school-based PE and PA goals in K-12 school settings, and schools in virtually all locations have the potential to incorporate environmental education or experiential learning into the standard school day.

At present, environmental education is most common in elementary school settings. Although about 88 percent of elementary school teachers provide some form of environmental education, only 44 percent of high school educators do so.<sup>145</sup> Four main types of outdoor education programs connect children with nature: (1) investigational approaches that involve traditional environmental problem-solving in a community; (2) physically active outdoor learning programs, like *Outward Bound* or the *National Outdoor Leadership Schools* that promote environmental stewardship and build lifelong skills and interests; (3) place-based learning that connects a school and students to their immediate environment; and (4) community service learning approaches that advance

responsible environmental conduct among children and teach students to support local green spaces.

Legislation to expand environmental education appears to be increasing in popularity, as demonstrated by the (re)introduction of the No Child Left Inside Act of 2009 in the U.S. Congress (*see* Appendix B). Among states, multiple programs are noteworthy.

In 2007, legislators in New Mexico voted to allocate \$270,000 to launch a statewide outdoor environmental education program. The pilot phase of the program has provided funds for transportation, and is designed to increase partnerships with schools, train teachers in outdoor education, create learning materials for students, and develop more park-based and public land-based educational programs geared to New Mexico's diverse ecological zones. New Mexico's state parks are also working closely with a variety of educational stakeholders, related state and federal agencies, and private outdoor education experts, to refine, implement, and assess the program.<sup>146</sup> Finding a stable source of ongoing funds for environmental education programs is a challenge. A related bill, which sought to fund New Mexico's environmental education projects by taxing television and video game purchases, failed in 2008.<sup>147</sup>

Legislators in Pennsylvania enacted the Environmental Education Act of 1993 to increase environmental education opportunities in schools. A key component of the legislation was the establishment of an Environmental Education Fund, which obtains funds from five percent of the environmental pollution fines and penalties collected by the state each year. The Pennsylvania Department of Environmental Protection and the Office of Parks and Forestry, Program Planning and Development are empowered to distribute grants from the Environmental Education Fund to school districts (as well as others) to develop new or expand current environmental education programming. The grant program is set up as a reimbursement program, with a 20 percent matching funds component, with certain exceptions. To date, the Department has awarded over \$40 million in grants. The legislation also empowers the Department of Education to distribute curriculum materials and evaluate school programs. Within the Department of Department of Education, the Office of Environment Ecology is responsible for meeting the goal of a quality education: "Each student shall understand the environment and the student's ecological relationship with it in order to recognize the importance of the quality of life in a healthy and balanced environment." A planned course in Environment and Ecology is required for all students in the elementary grades, and a

planned course in Environment and Ecology must be provided at least once during both middle school and high school. The planned courses may be integrated into other subject areas.<sup>148</sup>

In Minnesota, a state that boasts abundant lakes, rivers, 66 state parks, 6 state recreation areas, and 11 state trails, plentiful city and county parks and trails, and many non-profit- or government-run environmental learning programs (including national park ranger youth education programs), substantial opportunities exist for expanding environmental education in K-12 public schools throughout the state. The legislative workgroup recommendations made in 2008 by the Department of Natural Resources and Department of Education provide a strong springboard for state level policy action.

### **Policy Challenges**

Proponents of this policy approach may find it challenging to convince policymakers of the merits of investing in outdoor education programs as a mechanism for advancing physical fitness and addressing obesity among students. Although the link between outdoor education and school-based PE and PA would benefit from further study, the public health community encourages the use of promising strategies (such as this one), based on research to date, while continuing to build the evidence base.<sup>149</sup> Reducing screen time, identified by the CDC and other policy experts as one of the most important strategies for reducing obesity among children, speaks to the importance of pursuing approaches to PE and PA in home and school settings that get *all* students up and moving—active—as far removed from being sedentary as possible. Discussions about reducing screen time typically go hand-in-hand with discussions about getting children and youth to play outdoors, and logically extend to support for outdoor education.

### **Policy Opportunities**

- Improve alignment of environmental education with state standards, by requiring schools to meet standards through outdoor education, supported by an online, standards-referenced electronic curriculum, as recommended in the 2008 Outdoor Education Legislative Report.
- Fund professional development, technical assistance, and offer financial incentives for teachers and schools to implement outdoor education programs.
- Coordinate school day outdoor education/environmental education curricula with school-based or school-sponsored after school environmental learning programs by requiring or encouraging school districts to address these topics in local school wellness policies.

## **BMI Surveillance and Screening Programs**

Body mass index (BMI) is a descriptor for the ratio of weight to height squared. Its use among states as a school-based screening and surveillance tool, though controversial,<sup>150</sup> has increased steadily in recent years. In large part, this is because it is a relatively quick and easy measurement that can provide policymakers, public health leaders, and school officials with useful information about school district populations at risk for overweight and obesity—data which can be used to support effective state, district- and school-level policy responses to the growing obesity epidemic and help shift school-based and family-based norms about healthy eating and PA.

School-based BMI measurement programs are conducted for two basic reasons. *BMI surveillance programs* assess the weight status of selected populations—such as all students within a school district or a state—to estimate the percentage of students who may be at risk for overweight- or obesity-related health problems. Surveillance data tend to be anonymous and are used to map population trends and monitor intervention outcomes. *BMI screening programs*, on the other hand, assess each individual student’s weight status to identify at-risk children and youth and provide parents with information to help them to address this concern in the home environment. Assessment of children’s weight status involves a two step process, which involves calculating BMI and then plotting it on age and sex-specific growth charts. The assessment results in a BMI-by-age percentile for each child, and accounts for growth from year to year, as well as gender-based differences in growth.

Arkansas was one of the first states to pass comprehensive legislation to fight childhood obesity, by its passage of Arkansas Act 1220 of 2003, and was the first state to mandate BMI screening in schools. Consequently, its legislation is one of the most studied. Two separate, complementary studies of the process, impact, and outcomes of Arkansas’ legislation have been undertaken. One study evaluated the state’s BMI surveillance data, based on required BMI screenings of the state’s youth. Although the legislation initially sparked debate, including concerns about invasion of privacy, negative social and emotional consequences for students (such as teasing), and perceived excessive demands on health care, the evaluation data indicate few adverse effects. Instead, the evidence shows that Arkansas’ school environments have improved in conjunction with the state’s implementation of new policies and programs promoting healthy behaviors. Data indicate that BMI levels have not increased since 2004, when the law was implemented. Arkansas’ experience

may inform efforts in other states to consider BMI policy approaches as part of an overall effort to curb childhood obesity.<sup>151</sup>

The results of the second study, a five-year evaluation of the law, demonstrate that since the law's passage, parents have become more aware of the association between overweight and heart disease, type 2 diabetes, and other serious health issues. While this increased knowledge has not yet translated into nutrition-related behavior changes among families, the results show that parents have become more likely to encourage their children to be physically active, for example, by limiting TV or computer time and making PE a priority. Another promising finding is that certain problematic behaviors among students, such as unhealthy dieting and weight-based teasing, have not increased since the passage of the law.<sup>152</sup>

The State of Arkansas is working closely with five other states, including Delaware, Mississippi, New York, Texas and West Virginia, all of which are funded by RWJ to study implementation, outcomes, and responses to policy changes established under their respective childhood obesity-related state-level policies, including assessments of similarities and differences. The results of this coordinated evaluation effort are expected to produce information that will be of considerable value to the rest of the nation.<sup>153</sup>

Another approach for collecting BMI measurements that is gaining momentum is to use existing public health surveillance systems, like immunization information systems, to record and collect BMI data in clinical settings.<sup>154</sup> Immunization information systems or registries (IIS) are confidential computerized registries that collect vaccination immunization information about children within specific geographic areas. Children are typically entered into such registries either at birth or at their initial contact with a health care system. Because existing registries are already compliant with federal patient privacy laws and tend to have high rates of health care provider participation, the registries can be expanded to include BMI surveillance data by simply adding data fields for height and weight. BMI data collected in this manner would provide state and local public health agencies, families, health care providers, and community advocates with valuable information for addressing childhood obesity. This approach is being taken in Michigan, where the Governor and the Department of Community Health have agreed to adopt rules to add BMI collection to Michigan's existing vaccination registry of virtually all children born within the state. Health systems research experts have suggested that a portion of the approximately \$20 billion included in the ARRA for health information technology be used to develop similar systems in other states.<sup>155</sup>

## ***FitnessGram* Assessments**

An alternative health assessment tool being used by some states and localities is the *FitnessGram*, developed by the Cooper Institute in Dallas, Texas. The *FitnessGram* assessment collects the age, height, and weight of children and measures their individual physical fitness levels on an annual basis by documenting students' counts on sit-ups and push-ups and measuring their overall flexibility. Families can track their children's progress electronically and compare individual fitness levels with national performance standards. BMI can be documented using *FitnessGram* data, if desired. The *FitnessGram* assessment tool allows states, local governments, and school districts to track the collected data over the entire course of a student's enrollment, thereby providing rich opportunities to study links between students' PA levels and academic achievement.<sup>156</sup>

In California, school districts are required to administer the *FitnessGram* in grades 5, 7, and 9 (gathering data from a total of about 1.4 million students). Results are reported to schools and parents by the California Department of Education. Individual outcomes are tied to curriculum requirements for grades 10 through 12, in that students who do not pass the grade 9 test cannot obtain a two-year PE exemption, which is otherwise allowed by most school districts for those grades.<sup>157</sup>

## **Policy Challenges**

In 2005, the IOM asked the federal government to develop guidelines for school-based BMI measurement programs.<sup>158</sup> The CDC's resulting 2007 report, *Body Mass Index Measurement in Schools*,<sup>159</sup> outlines the purpose of BMI programs, reviews existing research, examines current practices, summarizes experts' recommendations, discusses concerns about school-based programs, and provides guidance, including a list of recommended safeguards. The report acknowledges: "Little is known about the outcomes of BMI measurement programs, including effects on weight-related knowledge, attitudes, and behaviors of youth and their families. As a result, no consensus exists on the utility of BMI screening programs for young people."<sup>160</sup>

Several concerns about school-based BMI screening programs are identified in the 2005 IOM report, perhaps chief among them that they may stigmatize at-risk students and thereby lead to harmful behaviors, such as unhealthy dieting. Another concern is that BMI screening programs, if ineffective, may waste precious health promotion resources and subvert other, possibly more promising, school-based preventive measures that promote healthy eating and PA. The report calls

for further evaluation to determine whether BMI screening programs are truly a promising approach for addressing obesity among children and youth and to address other concerns, such as invasion of privacy. The report raises fewer questions about BMI surveillance programs, viewing them as less controversial, in that they do not require communication of sensitive information to parents and do not involve follow-up for students found to be at risk.

As discussed in its 2007 report, the CDC's current posture is that there is insufficient evidence to recommend for or against school-based BMI measurement programs as an effective strategy for reducing or preventing childhood obesity and that too little research has been done, to date, on the impact of this approach in reducing or preventing obesity. The CDC recommends that decision makers carefully weigh the pros and cons of implementing BMI programs, keeping in mind that this is just one of many approaches for addressing childhood obesity, and evaluate what effect this approach—alone or in combination with others—might have on students' and families' knowledge, attitudes, and behaviors about weight gain, healthy eating and physical activity. As a starting point, policymakers should consider the relative merits of using BMI measurement for surveillance purposes, screening purposes, or both; they should also consider whether this approach might negatively impact students or hamper other school-based efforts and whether it is cost-effective. If BMI screenings are implemented, they should be part of a comprehensive approach to address obesity, including physical activity and healthy eating policies and programs.<sup>161</sup>

To minimize the risk of harm to students when implementing BMI screenings, the CDC report strongly urges school-based programs to adopt the following specific safeguards: ensure that the schools provide a safe and supportive environment for students of all body sizes; have in place a multi-pronged, comprehensive set of evidence-based strategies to promote physical activity and healthy eating; obtain parental consent in conjunction with the program's introduction; train staff to administer the program and seek an appropriate program leader, such as a school nurse; establish safeguards to protect student privacy; select reliable measurement equipment; ensure efficient collection and accurate calculation and interpretation of data; ensure that BMI results are not used to evaluate student or staff performance; ensure that parents receive clear and respectful communications about BMI results and appropriate follow-up actions (and that adequate resources are available for safe and effective follow-up); and regularly evaluate the program, including its outcomes, as well as its unintended consequences.<sup>162</sup>

## Policy Opportunities

- Investigate BMI screening and surveillance measurement options, as well as alternative school-based fitness measurement options, such as the *FitnessGram* assessment tool, and consider selection of the most appropriate and practical measurement identified.
- Consider statewide policy options for BMI or an alternative fitness measurement collection, including consideration of approaches that are not school-based, such as adding BMI collection to a state's existing vaccination registry (as in Michigan).

### *Partner with Communities on Safe Routes to Schools (SRTS) Programs*

#### Overview of Safe Routes to School Programs

Safe Routes to School (SRTS) programs have become increasingly popular since 2006, when the federal SRTS program was established under the Safe, Accountable, Flexible, Efficient Transportation Act – a Legacy for Users (SAFETEA-LU), enacted in August 2005. All 50 states, plus the District of Columbia, have state SRTS coordinators in place, and 47 states are contributing program information to a national SRTS database.<sup>163</sup>

The federal Safe Routes to Schools (SRTS) supports the establishment of safe, efficient, and enjoyable opportunities for children to walk or bicycle to and from school, with the goal of helping children become more physically active on a daily basis. The program came into being as a response to concerns about childhood obesity and the search for meaningful environmental policy solutions. Local SRTS programs build community support for selected strategies. Federal funds are granted to state and local governments to support SRTS infrastructure improvements, such as increasing the number or quality of sidewalks, crosswalks, bicycle lanes, and traffic-calming mechanisms; these funds also support local communities' non-infrastructure SRTS needs, such as increasing educational awareness among key stakeholders. In addition, federal SRTS funds can be used to increase enforcement of traffic laws near school sites and to educate the general community about the benefits of all forms of active transport to and from school.<sup>164</sup>

Studies have demonstrated that elementary and middle school children who walk to and from school are more physically active than those who don't, and that children who walk to school most days of the week achieve higher levels of moderate-to-vigorous activity than those who walk less frequently or are transported in vehicles. A study of children and youth in Denmark found that those who bicycled to school had superior cardio-respiratory fitness than those who walked or

traveled by motor vehicles.<sup>165</sup> Research has also shown that children who get exercise on the way to school attain higher academic achievement.<sup>166</sup>

One of the strongest factors influencing whether children and youth walk or bicycle to school is the distance between their home and school—the further the distance, the smaller the number of families that can reasonably choose these options. Whereas forty years ago, about 55 percent of children traveled greater than one mile to school, by 2001, nearly 75 percent did so.<sup>167</sup> A recent California study of elementary schools found that students who lived under a mile of school were three times more likely to travel to school on foot than by car.<sup>168</sup> Other factors that support walking and biking to school include: the presence of sidewalks; parents' perception that a neighborhood is safe and walkable (i.e., a neighborhood where residents can walk conveniently from home to destinations such as schools, workplaces, shopping and entertainment); the presence of many locations for walking, biking, hiking, or other physical activity; and, parents' own history of walking and values about the importance of physical activity.

Proponents of SRTS strongly support investing in neighborhood-based schools because these school locations encourage active transport. Support for investing in neighborhood-based schools has also gained favor among advocates and policymakers because these schools have tremendous potential for serving as community hubs during non-school hours. Adults and children can engage in physical activity and healthy lifestyle programs through the application of joint use agreements, under which schools and local governments agree to open recreational facilities for community use.

At the local level, SRTS programs help build strong, synergistic partnerships with schools, school districts, local community governments, and non-profit organizations. Effective partnerships among these entities can lead to dramatic increases in the number of children walking to school and substantial reductions in traffic congestion in areas surrounding schools.<sup>169</sup> Effective SRTS partnerships between cities and school districts can also yield significant savings in student transportation costs by reducing the number of school buses needed.<sup>170</sup> Even communities that have significant geographic challenges—such as Duluth, with its many steep hills—have been shown to benefit from committed, multi-jurisdictional SRTS partnerships. For example, the introduction of a new bike safety curriculum led to increased cooperation among the cities of Duluth, Minnesota and Superior, Wisconsin, school district administrators, and PE teachers, and strengthened overall SRTS

implementation efforts, including the repeal of a school district policy that had discouraged students from bicycling to school because of safety concerns.<sup>171</sup>

The City of Minneapolis and the Minneapolis Public Schools have complementary projects underway. Working across jurisdictions, the school district's SRTS project has been integrated with Minneapolis' separate, federally-funded, community-wide Non-Motorized Transportation Project (NTP); the latter project aims to increase the number of walking and bicycling trips within the city by people of all ages. The combined leadership of the school district and Minneapolis officials, including the Department of Public Works, has facilitated the development of plans for new bike routes and pedestrian improvements that take into account the needs of students' routes to schools. Minneapolis' experience is being touted as a national model for innovative ways to integrate school district and community-wide goals.<sup>172</sup>

To integrate SRTS principles into successful messaging and policy initiatives within the Minneapolis school district and the city, a SRTS Task Force has recommended that children walk short distances (up to four long blocks) to school bus stops.<sup>173</sup> As additional measures to successfully influence policy, support schools, and facilitate community involvement, the Task Force has recommended: staffing one full-time SRTS position, to be shared by the school district and the city; establishing a city-wide SRTS advisory committee; supporting training for SRTS champions at schools; and expanding the duties of school transportation coordinators to include oversight of bicycling and walking to and from school.<sup>174</sup> A Minneapolis SRTS pilot project, undertaken in 2009, is mapping school routes in neighborhoods where crime and personal safety are major issues and distributing the SRTS maps in the community. Designated routes will be enhanced, using signage and pavement markings and increased traffic enforcement by police.<sup>175</sup>

Because SRTS programs require committed, effective intergovernmental partnerships that often involve substantial work across jurisdictions, a key indicator of programmatic success is the ability to provide training that will enable well-intentioned partners from many different settings to "build a common understanding of the issues" and work together to achieve agreed-upon solutions.<sup>176</sup> To this end, the National Center for Safe Routes to Schools was established under SAFETEA-LU to provide technical support to states. The National Center provides training and maintains a national network of trained instructors. In addition, to track the progress of SRTS programs across the nation, the National Center has established a data reporting system, a program-tracking database, and a research program to help states and local communities evaluate the impact

of their local programs. Each quarter, the National Center issues a tracking brief, which summarizes the most recent information reported by each state's SRTS coordinator and provides a quick snapshot of national activity.

A National SRTS Task Force was also created under the federal SAFETEA-LU legislation. Charged with developing a national strategy, the Task Force has recommended that the national SRTS program become a permanent feature of federal transportation legislation.<sup>177</sup>

### **Policy Challenges**

In its 2008 report, the National SRTS Task Force addressed two main barriers to parental support for SRTS programs—traffic safety concerns and fears about crime and personal safety—and cited the effective implementation of multi-jurisdictional approaches as being critical to program success. The Task Force emphasized the need for local SRTS programs to actively involve school administrators, engineers, police officers, parents, etc., in addressing parents' concerns about traffic and personal safety by tackling the root problems that feed their fears (inadequate lighting, vacant lots, vacant buildings, traffic congestion, unsafe or unsigned crosswalks). The Task Force has recommended that SRTS programs address these issues through what is known as *the 5 Es*: *Engineering solutions* that tackle infrastructure issues; *Education* that teaches safe walking, biking, and personal security skills; *Enforcement* strategies; *Encouragement*, via activities that motivate participation; and *Evaluation*.<sup>178</sup>

School administrators, who are responsible for overseeing many aspects of SRTS programs, have raised concerns about potential legal liability. While school districts must always be mindful of transportation-related liability issues, these concerns, as they relate to SRTS programs, are not insurmountable and can be addressed successfully through careful planning. Materials, technical assistance, and case law are readily available to provide guidance.<sup>179</sup>

Another critically important and not to be overlooked consideration for policymakers is what, if any, negative impact SRTS programs might have on a school district's desegregation efforts. SRTS programs appear to favor a neighborhood school model, which may be at odds with integration principles and practices and interfere with existing magnet school structures. SRTS planning teams should seek input on policy options from school district authorities, parents, children, and community members, and carefully consider SRTS program choices to ensure that they have broad community support and preserve school integration.

Despite the immense popularity of the federal SRTS program, only a small fraction of U.S. schools have been able to participate to date. It is estimated that only one out of every three applicants has received funding and many schools have received only a portion of what they have needed to establish a strong program.<sup>180</sup> Projects are typically small, in comparison with other transportation projects commonly funded through federal aid programs, sometimes resulting in administrative burdens that are out of proportion with the small amounts funded. In addition, because the federal SRTS program does not have its own obligation authority or limitation, a state may choose to fully fund other types of transportation projects, such as road construction projects, and only partially fund a SRTS program.

Somewhat surprisingly, the federal SAFETEA-LU legislation prohibits state or local matches for SRTS projects. On this point, the National Task Force has asserted that federal SRTS funds could be used more effectively to leverage state and local spending if matches were allowed. An additional challenge—one that is important to recognize and respond to—is that, as of now, eligibility for local SRTS programs is limited to schools serving grades K-8. Expanding eligibility to cover grades K-12 would likely result in more effective programs that address the much-recognized need to increase physical activity levels among middle- and high-school students. Also problematic is that SRTS funds may not be used to improve students' walking routes to bus stops. Finally, because SRTS is designed as a reimbursement-based program, it can have a crippling effect on disadvantaged schools and communities that cannot afford to raise capital up front to get a program started.<sup>181</sup>

### **Policy Opportunities**

Because the SRTS program is essentially a federally funded program, many policy options for addressing its shortcomings, such as remedying the insufficiency of current funding levels to meet local demands, simplifying the regulatory process to enable more communities to undertake SRTS projects, and expanding the program to apply to high schools, will be addressed at the federal level. Still, there are many policy opportunities at the state and local level.

- New amendments to Minnesota education law, Minn. Stat. § 123B.71, subd. 1, which took effect July 1, 2009, eliminate the state's minimum acreage requirements for new school sites and remove a corresponding bias against renovating existing, neighborhood-based schools, giving communities more local control over decisions about the location of school sites, although consultation with the Commissioner of Health is required for projects estimated to cost over \$500,000. Minn. Stat. § 123B.71, subd. 9 (5) requires school construction projects estimated to cost more than \$500,00—including either new construction or renovations—to describe to the commissioner the planned walking, bicycling, and transit opportunities for

student transportation to and from school, as well as how construction plans will maximize opportunities for cooperative use of existing parks, recreation, and other public facilities. These changes in Minnesota law will likely expand opportunities for local school districts to apply funds toward preservation and modernization of existing school structures to retain neighborhood-based school sites that advance SRTS goals.

- Integrate SRTS strategies into school district and individual school wellness policies.
- Encourage the formation and maintenance of wellness councils at the school district and school level to advance SRTS goals and support successful, ongoing implementation.
- Explore opportunities for state-wide coordination and expansion of SRTS technical assistance to provide maximum efficiencies and consistency among local programs.
- Explore whether any other state or local safety and health allocations might be applied to SRTS programs.
- Increase traffic fines in school zones and designate a percentage of revenue toward SRTS programs.

### *Enhance Physical Activity Opportunities in School-Based After School Programs*

#### **Rationale for Integrating School Day and After School Programs**

Although after school programs are not a panacea for reversing the childhood obesity epidemic, they have considerable potential for expanding the reach of relevant health promotion policies and strategies to children and youth, including students most at risk for becoming overweight, among these, minorities and low-income children.<sup>182</sup> In mid-2009, the CDC formally recommended that communities should increase opportunities for extracurricular PA, including through after school programs, as one of three school-based strategies for increasing children's level of physical activity and improving other obesity-related outcomes.<sup>183</sup> The CDC recommends that extracurricular PA, such as that offered through after school programs to complement formal PE, should focus on non-competitive PA opportunities such as games and dance classes and avoid team sports or sports clubs, which typically require tryouts and are not open to all students.<sup>184</sup> After school programs have emerged, then, as very important—albeit underutilized—adjuncts to school day-based PA and PE.

After school programs generally provide safe, supportive settings that lend themselves to broadening healthy eating and physical activity opportunities for children and youth and reinforcing lessons and behaviors modeled during the standard school day. Programs typically extend from 3 to 6 p.m.—a time of day when children and youth are likely to be sedentary (e.g., watch TV, play video/computer games, chat online) if not supervised. After school programs typically provide

children and youth with PA options and reach students at particularly vulnerable ages when they are forming lifestyle behavior patterns that can extend into adulthood. Notably, although research shows that regular exercise and participation in sports help children maintain a healthy body weight, enhance self-confidence and offer valuable guidance,<sup>185</sup> a quarter of youth reported in 2002 that they engaged in *no* PA during their free time.<sup>186</sup>

After school programs can vary considerably in content and quality. While many focus on academic enrichment, others are designed to nurture art, drama, music, sports, or a combination of subjects and activities. Irrespective of the focus of specific programs, all after school programs have the capacity to include strong healthy eating and physical activity components and conduct outreach to parents and guardians about healthy lifestyle choices.

After school program staff members are trained, generally, to make learning fun and serve as role models for children and youth. Because they typically interact with parents multiple times per week, they can be important liaisons to parents for messaging about physical activity and healthy eating. During program hours, staff can involve students in the preparation of healthy snacks and meals and lead them in both structured and unstructured physical activities, tailoring activities to complement a program's content and design and build on school day PE and PA approaches.

### **After School Program Examples**

There are many excellent examples of effective after school programming that combine PA and healthy eating goals. The *Edible Schoolyard* at Martin Luther King, Jr. Middle School in Berkeley, California, is a much-heralded program that has not only established school gardens and after school cooking classes, but has fully integrated them into the school's regular curriculum. Using a *seed to table* approach, the school's middle school students participate in all phases of food production, including preparation of plant beds, planting seeds or seedlings, tending crops, and harvesting produce. The program teaches youth about ecology and nutrition and, in doing so, helps them develop an appreciation of gratifying, physically active work and fresh "homegrown" food.<sup>187</sup> A similar program in Oakland, California, *School Yard Initiative*, connects after school programming with school-site access for the community during non-school hours, including farmers markets and after school cooking classes.<sup>188</sup>

Another example of effective after school programming that combines lessons in physical activity and nutrition is *ReCharge!*, a program for students in grades 2-6, developed through a

partnership between Action for Healthy Kids and the National Football League. *ReCharge!* uses *energy in* and *energy out* concepts to teach children about physical activity and nutrition by showing them how to balance their caloric intakes and expenditures. Lessons and games emphasize goal-setting and teamwork. The program was created by subject matter and after school experts and promotes national standards for physical activity, nutrition, health education, and parental involvement. Through generous support from the National Football League, program kits and resources have been made available free of charge and staff training to enhance program implementation has been made available at a low cost.<sup>189</sup>

In addition, numerous after school programs help children and youth cultivate PA skills while teaching them important lessons about community engagement and environmental stewardship.<sup>190</sup> Environmental education, in particular, has been successfully incorporated into after school programs in several states. In New Jersey, the State's Environmental Education Commission and its Department of Environmental Protection have undertaken a multi-year initiative that connects children and nature by building connections between after school programs and communities while teaching children to become stewards of the environment. A related program, undertaken by the New Jersey School Age Care Coalition, has launched a campaign to promote connections between after school programs and environmentally conscious activities in surrounding communities, including planting gardens and designing playgrounds, thereby broadening partnerships between communities and after school programs.<sup>191</sup>

In Massachusetts, *Seeds of Solidarity* links school day and after school programs, teaching students lessons about energy conservation and preservation of the natural environment. In addition to learning to garden and cultivate food, students address pollution and gain hands-on experience addressing alternative energy and fuel issues. One study of the program found that students reported feeling calm, safe, happy and relaxed in the school garden;<sup>192</sup> another study found that third, fourth, and fifth graders who participated in school garden activities scored significantly higher on science achievement tests than students who did not participate in these activities.<sup>193</sup>

*Earth Force*, a national, non-profit educational organization that helps provide children with hands-on experience to learn about civic responsibility and acquire lifelong environmental knowledge and leadership skills, has partnered with a Florida after school program to tackle projects that benefit the school, the community, and the planet. The program's first project involved restoring the school's dilapidated nature trail. Ecosystems experts visited with students to teach

them about the importance planting native species to attract wildlife. Students then planted native plants, hung feeders to attract a variety of birds, cleared the trail, and created a map to encourage the student body and the community-at-large to use the trail.<sup>194</sup>

The *Heritage Project*, a rural after school program in Woodlake, California, provides PA opportunities for students in grades K-12 in a school district where 85 percent of students qualify for free or reduced meals. This program combines environmental learning with high doses of recreational exercise. Students learn about river ecology while learning to raft and kayak rivers and hike around a local lake; in meetings with park rangers in nearby Sequoia and Kings Canyon National Parks, they learn about cycles of forest fires and how animals adapt to habitats. Nearly 75 percent of the district's students participate in the program. Participants have demonstrated increased test scores in language and math and decreased behavioral problems in school day classes, and parents have increased their engagement with the school.<sup>195</sup>

### **Minnesota Landscape**

The Afterschool Alliance, a national organization that supports making after school programs available to all children, recently surveyed Minnesota parents about their children's after school care arrangements.<sup>196</sup> Results showed that 12 percent of school-aged children participate in after school programs an average of six hours per week and attend three days per week, trailing the national average of 15 percent of children in after school programs.<sup>197</sup> Significantly, approximately 32 percent of Minnesota children in grades K-12 care for themselves after school, spending an average of seven hours per week unsupervised. Another 14 percent of Minnesota school children are cared after school by siblings. Among respondents, 94 percent of parents whose children participated in after school programs expressed satisfaction with the programs in which their children were enrolled. Eighty-six percent of parents and guardians agreed that there should be "some type of organized activity or place for children or teens to go after school every day that provides opportunities to learn" and 76 percent supported public funding for after school programs.

Survey respondents indicated that children and youth benefit the most from programs that are fun, safe, increase their physical activity, improve their overall health, allow them to take advantage of community service opportunities, and build their workforce skills. Results also indicated that the parents of about 33 percent of the state's children who are *not* currently enrolled in after school programs would likely enroll their children if suitable programs were available in their community.<sup>198</sup> Barriers to participation included cost (economic challenges that affect a family's

ability to seek after school opportunities for their children) and transportation (e.g., typically, school buses are not available to transport children home following after school programs).

Understandably, cost and transportation barriers to program participation tend to have a much greater impact on children and youth of low-income families. According to the National Center for Children in Poverty, 31 percent of Minnesota families with children are low-income.<sup>199</sup> (Minnesota also has one of the highest percentages of working parents with school-aged children in the country. As of 2007, 197,774 two-parent families in Minnesota had both parents in the labor force and 89,374 parents in single-parent families were in the labor force. Looking solely at women with children under the age of 18, 353,500 married women and 108,271 single women were in the labor force in 2007.<sup>200</sup>)

Several organizations, partnerships, and initiatives are involved in local and state level policy efforts to develop and sustain quality after school programming that will meet the needs of Minnesota school children and youth, particularly those of low-income families. Among these are: the Minnesota Out-of-School Time Partnership; the Minnesota Association for the Education of Young Children; the Minnesota School Age Care Alliance; the Minnesota Alliance with Youth; the University of Minnesota Extension's Center for Youth Development; Youth Community Connections, and others.<sup>201</sup> These programs and partnerships maintain close contact with local, state, and federal agencies, foundations, networks, and technical assistance advisors, including the Afterschool Investments project of the U.S. Department of Health and Human Services, the National Association of Child Care Resources & Referral Agencies (NACCRRA), the National AfterSchool Association (NAA) and the National Institute on Out-of-School Time. While none of these organizations appear to be active partners in statewide efforts to address childhood obesity, they show promise as potential partners.

### **Policy Challenges**

Although school-based after school programs show great promise for addressing PA needs of children and youth, they need support and guidance to do so. Advancing this purpose will require improvements in incorporating PA into after school program activities, building staff capacity, leadership and policy acumen, and accessing resources to sustain program objectives. To do this, it is essential that after school program leaders become integral stakeholders in PE and PA policy planning efforts within school systems and communities-at-large.

At present, Minnesota school-based after school programs are exempt from state level child care licensing requirements for school age children under Minn. Stat. § 245A.03, subd. 2(5). Instead, these programs come within the jurisdiction of local school districts. Under their general powers, local districts have the authority to determine such things as whether to offer the programs, where to locate them, how to staff them, how to address children’s transportation needs, and what amounts to allocate for general program operations and equipment. School districts also have the authority to address the health and wellness needs of the school-based after school programs in local wellness policies, and should do so to make certain that school day and after school PE and PA policies are consistent and complementary. For the same reasons, district and site-based wellness councils, or other planning efforts, should include school-based after school program leaders as active participants.

Local districts should also involve community-based after school programs and program partners in district-wide PE and PA policy efforts in order to increase public-private partnership opportunities and achieve the highest possible level of community-wide coordination and collaboration in meeting PE and PA goals. After school transportation access issues and joint use issues, for example, would benefit from a coordinated approach that brings key community-based and local government policy leaders to the table.

A closely related challenge is determining how best to interject school day PE and PA program content and objectives into after school programs. Accomplishing this purpose would improve the capacity of schools to help students accumulate 60 minutes of moderate-to-vigorous PA per day (e.g., half during the school and half in after school), by providing them with supervised, structured and unstructured opportunities to practice and acquire confidence in PE and PA skills in a relaxed, non-competitive environment. To achieve high level coordination, school districts should consider designating a PE/PA coordinator whose role would be to unify all school day and after school strands of PE and PA policies throughout the district, including transportation, facility, and equipment access issues. Site-specific coordinators are also needed. As discussed in the section on expanding recess opportunities, the RWJ-sponsored *Playworks* program has the capacity to provide cost-effective guidance on both strategies, which school districts of all sizes may find instrumental in achieving noticeable PA gains.

Another related challenge involves addressing how to provide after school staff members with high quality training to model PE and PA skills and have access to school facilities, play fields,

and equipment. The general push for quality improvements in after school program settings calls for, at a minimum, voluntary, statewide baseline standards regarding quality care, including regulations or standards for professional training and development. Policymakers in the childhood obesity area may want to consider seeking a requirement that PA-based standards be included within the quality care improvement framework (e.g., regarding staff qualifications, core competencies, curricula, ongoing professional development). Having district-wide or multi-district PE/PA coordinators in place would also advance local and state level efforts to address these needs.

### **Policy Opportunities**

Among states, California is recognized as a leader in allocating resources for after school programming and is ahead of many other states in program implementation, as well. The state recently published a valuable resource, *California After School Physical Activity Guidelines*,<sup>202</sup> which was designed for policymakers and after school providers in California to guide the incorporation of PA into their programs. California's Education Code, Section 8484.8,<sup>203</sup> required the California Department of Education to develop the voluntary guidelines for all state- and federally-funded after school programs.<sup>204</sup>

The *Guidelines* provides an excellent overview of critical considerations that all after school PA programs and policy experts should take into account when trying to implement high-quality programs. Primary among these is the importance of collaborating and building partnerships not only with regular school-day staff, parents, students, but also government agencies and community and private-sector organizations. By building effective community partnerships, after school programs can substantially improve their ability to secure funds, obtain equipment and access to facilities, gain assistance from PA specialists, and acquire other much-needed resources. Partners can also help to implement and evaluate the physical activity program components and corresponding policies.<sup>205</sup>

There are ten guidelines altogether, each of which is accompanied by a clear rationale.<sup>206</sup> In combination, the guidelines emphasize the importance of developing high-quality after school PA programs that provide all students with appropriate amounts of PA (a minimum of 30 to 60 minutes of moderate-to-vigorous PA per day) and support or reinforce school day PE and PA content and goals. Below are summaries of three guidelines that focus on policy development, implementation, evaluation, and related needs.

- Guideline No. 2 calls for developing and implementing the following after school PA policies: limit screen-time; specify minimum time requirements for daily PA; address safety concerns, evaluation, staff training, program content and inclusion of children with special needs; provide for the joint use of facilities; encourage or require staff to participate in school wellness policy development and implementation; limit student/staff ratios to one trained staff person for every 20 students engaged in PA; and provide liability protection.
- Guideline No. 4 calls for building and maintaining a strong program infrastructure, e.g., by addressing joint-use policies, safety concerns, transportation access, acquisition of equipment, and implementation of a sustainability plan.
- Guideline No. 5 calls for mandating or encouraging (local or state) policies that require PA training and leadership opportunities for after school program directors and staff to increase their support for and promotion of PA.

There appears to be considerable untapped potential for childhood obesity policy leaders to collaborate or partner with after school program policy leaders to advance school-based PE and PA policy aims. A beginning step might be to conduct outreach to large multi-jurisdiction, public-private networks, perhaps starting with the Minnesota Out-of-School Time Partnership. Doing so would provide opportunities for policy leaders on childhood obesity issues to highlight the importance of PA as a central component of after school programs, explore partnership potential, and possibly expand the roster of obesity policy coalition partners and supporters.

## **Conclusion**

This report demonstrates that at all levels of government—from federal and state laws and regulations to local school district and school policies—there are many innovative, evidence-based policy options for improving the content, amount, and quality of physical education and physical activity opportunities for children and youth in grades K-12. State level policies, in particular, have tremendous potential for spearheading a statewide coordinated policy approach, which the CDC sees as essential for altering community norms and successfully reversing the obesity epidemic. Aggressive, comprehensive, and well-coordinated policy steps taken now will yield short-and long-term improvements in the health and well-being of our children and youth, who are our future, and reap benefits for the state as well, by reducing long-term health care costs associated with obesity.

## Endnotes

<sup>1</sup> CDC, *Recommended Community Strategies and Measurements to Prevent Obesity in the United States*, MORBIDITY & MORTALITY WKLY. REP., July 24, 2009, 1, at 1 [hereinafter *Community Strategies*].

<sup>2</sup> MINN. DEP'T OF HEALTH FACT SHEET, IMPORTANCE OF SCHOOL PHYSICAL EDUCATION 2 (Sept. 2008) [hereinafter MINN. P.E. FACT SHEET], available at <http://www.health.state.mn.us/cdrr/physicalactivity/docspdfs/factsheetimportanceofschoolpe.pdf> (citing Minn. Dep't of Educ., Health, Human Services and Public Safety, 2007 Minnesota Student Survey, <http://www.health.state.mn.us/divs/chs/mss> (survey results are based on self-reported height and weight)). The Minnesota Student Survey is administered every three years to public school students in grades 6, 9, and 12.

<sup>3</sup> *Community Strategies*, *supra* note 1, at 1-2.

<sup>4</sup> *Id.* at 14-16.

<sup>5</sup> *Id.* The fourth strategy aims to reduce the amount of time children spend watching television and using computers in licensed child care facilities (strategy 15).

<sup>6</sup> Robert Wood Johnson Found., *Obama Administration Endorses Efforts to Help Americans Lead Healthier Lives*, June 11, 2009, [http://www.rwjf.org/childhoodobesity/digest.jsp?id=11096&cid=xrs\\_rss-nd](http://www.rwjf.org/childhoodobesity/digest.jsp?id=11096&cid=xrs_rss-nd) (citing Carrie Budoff Brown, *Barack Obama Says Shape Up Now*, POLITICO, June 10, 2009, available at <http://www.politico.com/news/stories/0609/23559.html>).

<sup>7</sup> Press Release, Robert Wood Johnson Foundation, Health Experts Call for a Presidential Commission to Address Obesity (June 23, 2009) (referring to a Letter to President Barack Obama, June 22, 2009, available at <http://www.cspinet.org/new/pdf/obesity-letter-obama.pdf>). The United Kingdom's strategy includes components that go beyond standards being proposed in the U.S., including a requirement that all 11-14 year-old school children be taught to cook.

<sup>8</sup> INST. OF MED., PREVENTING CHILDHOOD OBESITY: HEALTH IN THE BALANCE (2005).

<sup>9</sup> U.S. DEP'T OF HEALTH AND HUMAN SERVS., 2008 PHYSICAL ACTIVITY GUIDELINES FOR AMERICANS (2008).

<sup>10</sup> Carol M. White Physical Education Program, 20 U.S.C. § 7261-7261f (2009) (amending Elementary and Secondary Education Act of 1965 (ESEA), Title v, Part D, §§ 5501-5507).

<sup>11</sup> U.S. Dep't of Educ. Website, Carol M. White Physical Education Program, <http://www2.ed.gov/programs/whitephised/index.html> (last visited Sept. 11, 2009). *See also* TRUST FOR AMERICA'S HEALTH, F AS IN FAT 2009: HOW OBESITY POLICIES ARE FAILING IN AMERICA 58 (2009) [hereinafter F AS IN FAT], available at <http://healthyamericans.org/reports/obesity2009/Obesity2009Report.pdf>; Carol M. White Physical Education Program, 20 U.S.C. § 7261-7261f (2009).

<sup>12</sup> ExpectMore.gov: Physical Education Program, <http://www.whitehouse.gov/omb/expectmore/summary/10003313.2005.html> (last visited Oct. 28, 2009).

<sup>13</sup> *See* ExpectMore.gov, Detailed Information on the Physical Education Program Assessment, <http://www.whitehouse.gov/omb/expectmore/detail/10003313.2005.html> (last visited Oct. 28, 2009).

<sup>14</sup> Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59, § 1404, 119 Stat. 1228 (2005) (codified as amended in scattered sections of 26 U.S.C. (amended 2008)).

<sup>15</sup> *See* Safe Routes to School National Partnership Website, <http://www.saferoutespartnership.org/> (last visited Sept. 13, 2009).

<sup>16</sup> F AS IN FAT, *supra* note 11, at 58 n.318.

<sup>17</sup> Brownfields Revitalization and Environmental Restoration Act of 2001, 42 U.S.C. §§ 9601 (39) (C), 9604(k) (2009).

<sup>18</sup> United States Department of Agriculture Website, Partnerships, <http://www.fns.usda.gov/nutritionlink/Partnerships/FederalandNGO.html> (last visited Sept. 16, 2009).

<sup>19</sup> F AS IN FAT, *supra* note 11, at 58 n.318 (citing Memorandum of

Understanding between Dep't of Health & Human Services, Dep't of Agric., Dep't of the Interior, Dep't of the Army & Dep't of Transp. to Promote Pub. Health & Recreation (Nov. 24, 2008), available at [http://www.fhwa.dot.gov/environment/rectrails/mou\\_pubhealth08.htm](http://www.fhwa.dot.gov/environment/rectrails/mou_pubhealth08.htm)).

<sup>20</sup> Memorandum of Understanding between the Dep't of Educ., Dep't of Health and Human Services & the Dep't of Agric. on Healthier Children and Youth (June 20, 2005), available at <http://www.fda.gov/AboutFDA/PartnershipsCollaborations/MemorandaofUnderstandingMOUs/DomesticMOUs/ucm117572.htm>.

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- <sup>21</sup> ACTION FOR HEALTHY KIDS, PROGRESS OR PROMISES?: WHAT'S WORKING FOR AND AGAINST HEALTHY SCHOOLS 20 (2008) [hereinafter PROGRESS OR PROMISES], *available at* <http://www.actionforhealthykids.org/pdf/Progress%20or%20Promises.pdf>.
- <sup>22</sup> *Id.* at 22.
- <sup>23</sup> No Child Left Behind Act of 2001, 20 U.S.C. §§ 6301–7941 (2009).
- <sup>24</sup> Children's Health Insurance Program Reauthorization Act of 2009, Pub. L. No. 111-3, 123 Stat. 8 (2009); *see also* F AS IN FAT, *supra* note 11, at 62.
- <sup>25</sup> F AS IN FAT, *supra* note 11, at 64.
- <sup>26</sup> *Id.* at 69.
- <sup>27</sup> MINN. STAT. § 120A.22 subd. 9 (2009).
- <sup>28</sup> MINN. DEP'T OF HEALTH, CHRONIC DISEASE REDUCTION UNIT, PRELIMINARY ENVIRONMENTAL SCAN OF OBESITY PREVENTION REPORT 33 (2008).
- <sup>29</sup> MINN. DEP'T OF HEALTH, MINNESOTA PLAN TO REDUCE OBESITY AND OBESITY-RELATED CHRONIC DISEASES: PROMOTING HEALTHY EATING, PHYSICAL ACTIVITY AND HEALTHY WEIGHT 25 (2008) [hereinafter MINNESOTA PLAN], *available at* <http://www.health.state.mn.us/divs/hpcd/chp/cdr/obesity/pdffdocs/obesityplan20090112.pdf>.
- <sup>30</sup> H.F. 2, 2009-2010 Leg., 86th Sess. (Minn. 2009); S.F. 1328, 2009-2010 Leg., 86th Sess. (Minn. 2009).
- <sup>31</sup> H.F., 2007-2008 Leg., 85th Sess. (Minn. 2008); S.F. 3001, 2007-2008 Leg., 85th Sess. (Minn. 2008).
- <sup>32</sup> MINN. DEP'T OF HEALTH, CHRONIC DISEASE REDUCTION UNIT, PRELIMINARY ENVIRONMENTAL SCAN OF OBESITY PREVENTION REPORT 33 (2008).
- <sup>33</sup> MINN. P.E. FACT SHEET, *supra* note 2.
- <sup>34</sup> MINN. STAT. § 120A.22 subd. 11 (2009); Minn. Dep't of Educ., *Must Health and Physical Education Be Taught in Minnesota Schools?*, March 31, 2004, *available at* [mary.thissen-milder@state.mn.us](mailto:mary.thissen-milder@state.mn.us).
- <sup>35</sup> MINN. P.E. FACT SHEET, *supra* note 2, at 2 (citing Minn. Dep't of Educ., Health, Human Services & Public Safety, 2007 Minnesota Student Survey, *available at* <http://www.health.state.mn.us/divs/chs/mss>).
- <sup>36</sup> MINNESOTA PLAN, *supra* note 29, at 8.
- <sup>37</sup> *Id.*
- <sup>38</sup> *Id.* at 28.
- <sup>39</sup> *Id.* at 46.
- <sup>40</sup> CDC, Division of Nutrition, Physical Activity and Obesity, Overweight and Obesity Webpage for Minnesota, <http://www.cdc.gov/obesity/stateprograms/fundedstates/minnesota.html> (last visited Nov. 4, 2009).
- <sup>41</sup> Act of May 23, 2008, ch. 368, § 80, 2008 Minn. Laws 2362-63 (2008).
- <sup>42</sup> MINN. DEP'T OF EDUC. & MINN. DEP'T OF NATURAL RESOURCES, OUTDOOR EDUCATION LEGISLATIVE REPORT (2009), *available at* [http://files.dnr.state.mn.us/aboutdnr/reports/legislative/outdoor\\_ed.pdf](http://files.dnr.state.mn.us/aboutdnr/reports/legislative/outdoor_ed.pdf).
- <sup>43</sup> F AS IN FAT, *supra* note 11, at 32.
- <sup>44</sup> Colorado is the only state that does not require physical education in schools. NAT'L CONFERENCE STATE LEGISLATURES, PROMOTING HEALTHY COMMUNITIES AND REDUCING CHILDHOOD OBESITY: LEGISLATIVE OPTIONS 23 (2009) [hereinafter LEGISLATIVE OPTIONS].
- <sup>45</sup> F AS IN FAT, *supra* note 11, at 37.
- <sup>46</sup> NAT'L CONFERENCE STATE LEGISLATURES, 2007 UPDATE OF LEGISLATIVE POLICY OPTIONS (2007), *available at* <http://www.ncsl.org/Default.aspx?TabId=14398>.
- <sup>47</sup> *Id.*
- <sup>48</sup> F AS IN FAT, *supra* note 11, at 53.
- <sup>49</sup> *Id.* at n.313; *see generally* ROBERT WOOD JOHNSON FOUND., ACTION STRATEGIES TOOLKIT: A GUIDE FOR LOCAL & STATE LEADERS WORKING TO CREATE HEALTHY COMMUNITIES & PREVENT CHILDHOOD OBESITY (2009) [hereinafter STRATEGIES TOOLKIT].
- <sup>50</sup> F AS IN FAT, *supra* note 11, at 53.

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- <sup>51</sup> Trends in state level farm-to-school legislation are addressed in Appendix C of this report.
- <sup>52</sup> ALA. ADMIN. CODE r. 290-3-1-.02 (1998).
- <sup>53</sup> LEGISLATIVE OPTIONS, *supra* note 44, at 23; Act of Mar. 3, 2007, no. 317, 2007 ARK. ACTS. 317 (2007).
- <sup>54</sup> *Id.* at 24; H.R. 1023, 86th Gen. Assem., Reg. Sess. (Ark. 2007).
- <sup>55</sup> *Id.* at 24; S.B. 601, 2007-2008 Leg., Reg. Sess. (Cal. 2007).
- <sup>56</sup> ROBERT WOOD JOHNSON FOUND., BALANCE: A REPORT ON STATE ACTION TO PROMOTE NUTRITION, INCREASE PHYSICAL ACTIVITY, AND PREVENT OBESITY 65 (2008) [hereinafter BALANCE 2008], *available at* <http://www.rwjf.org/files/research/30792.balancefall2008.pdf>; H.B. 1224, 66th Gen. Assem., Reg. Sess. (Colo. 2008). HB 1224 (2008).
- <sup>57</sup> *Id.* at 64; LEGISLATIVE OPTIONS, *supra* note 44, at 24; FLA. STAT. § 1003.455 (2009).
- <sup>58</sup> H.B. 967, 2007 Leg. (Fla. 2007); LEGISLATIVE OPTIONS, *supra* note 44, at 24.
- <sup>59</sup> 105 ILL. COMP. STAT. 5/27-6 (1995).
- <sup>60</sup> S.B. 2369, 2007 Leg., Reg. Sess. (Miss. 2007); LEGISLATIVE OPTIONS, *supra* note 44, at 25.
- <sup>61</sup> S.B. 460, 48th Leg., Reg. Sess. (N.M. 2008); F AS IN FAT, *supra* note 11, at 37; LEGISLATIVE OPTIONS, *supra* note 44, at 25.
- <sup>62</sup> S.B. 2354, 16th Gen. Assem., Reg. Sess. (N.D. 2007); LEGISLATIVE OPTIONS, *supra* note 44, at 25.
- <sup>63</sup> S.B. 1186, 51st Leg., 2d Reg. Sess. (Okla. 2008); BALANCE 2008, *supra* note 56, at 65.
- <sup>64</sup> H.B. 3141, 74th Leg., Reg. Sess. (Or. 2007); LEGISLATIVE OPTIONS, *supra* note 44, at 26.
- <sup>65</sup> S.C. CODE § 59-10-10 to 5-10-320; *see* SOUTH CAROLINA DEP'T OF EDU. & JIM REX, REPORT FOR THE IMPLEMENTATION OF PHYSICAL EDUCATION AND PHYSICAL ACTIVITY MINUTES FOR STUDENTS IN GRADES KINDERGARTEN THROUGH FIVE AS REQUIRED BY THE STUDENTS HEALTH & FITNESS ACT OF 2005: SCHOOL YEAR 2007-2008 (2008) (showing year-to-year improvements in local districts' and schools' compliance with requirements).
- <sup>66</sup> STRATEGIES TOOLKIT, *supra* note 49, at 50 (citing Utah Department of Transportation Website, <http://www.udot.utah.gov/kids/parent.php> (last visited Sept. 23, 2009)).
- <sup>67</sup> F AS IN FAT, *supra* note 11, at 37, citing U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION, SCHOOL HEALTH POLICIES & PROGRAM STUDY 2006: OVERVIEW (2006), *available at* [http://www.cdc.gov/healthyyouth/shpps/2006/factsheet/pdf/FS\\_Overview\\_SHPPS2006.pdf](http://www.cdc.gov/healthyyouth/shpps/2006/factsheet/pdf/FS_Overview_SHPPS2006.pdf) (last visited May 21, 2009)).
- <sup>68</sup> F AS IN FAT, *supra* note 11, at 37.
- <sup>69</sup> S.C. CODE §§ 59-10-10 to 59-10-320 (2009).
- <sup>70</sup> Alabama Department of Education Website, <http://www.alsde.edu/html/sections/faqs.asp?footer=sections&section=54&sort=1> (last visited Sept. 24, 2009).
- <sup>71</sup> GA. CODE § 20-2-776 (2009); F AS IN FAT, *supra* note 11, at 37.
- <sup>72</sup> OKLA. STAT. tit. 70, § 24-100c (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 19.
- <sup>73</sup> TEX. HEALTH & SAFETY CODE § 95.002 (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 19.
- <sup>74</sup> H.B. 887, 2007-2008 Leg., Reg. Sess. (VT 2008); LEGISLATIVE OPTIONS, *supra* note 44, at 19.
- <sup>75</sup> H.B. 1224, 66th Gen. Assem., Reg. Sess. (CO 2008); Mississippi Healthy Students Act, MISS. CODE ANN. § 37-13-134 (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 22.
- <sup>76</sup> A.C.R. 134, 2007-08 Leg., Reg. Sess. (CA 2008); LEGISLATIVE OPTIONS, *supra* note 44, at 28.
- <sup>77</sup> H.J.R. 637, 2007 Leg., Reg. Sess. (VA 2007); LEGISLATIVE OPTIONS, *supra* note 44, at 30.
- <sup>78</sup> F AS IN FAT, *supra* note 11, at 31.
- <sup>79</sup> Issue Brief, Nat'l Sch. Bds. Ass'n, School Nutrition 2 (2009), *available at* <http://www.nsba.org/MainMenu/Advocacy/FederalLaws/SchoolNutrition/NSBAsIssueBriefonSchoolNutrition.aspx>.
- <sup>80</sup> LEGISLATIVE OPTIONS, *supra* note 44, at 49.
- <sup>81</sup> STRATEGIES TOOLKIT, *supra* note 49.

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<sup>82</sup> ACTIVE LIVING RESEARCH & ROBERT WOOD JOHNSON FOUND., ACTIVE EDUCATION: PHYSICAL EDUCATION, PHYSICAL ACTIVITY AND ACADEMIC PERFORMANCE 2 (2009) [hereinafter ACTIVE EDUCATION], available at <http://www.rwjf.org/files/research/20090925alractiveeducation.pdf>.

<sup>83</sup> *Id.* at 2 n.14.

<sup>84</sup> NAT'L ASS'N FOR SPORT & PHYSICAL EDUC., 2006 SHAPE OF THE NATION REPORT, available at <http://www.aahperd.org/naspe/publications/upload/ShapeOfTheNation.pdf>.

<sup>85</sup> NAT'L ASS'N FOR SPORT & PHYSICAL EDUC., COMPREHENSIVE SCHOOL PHYSICAL ACTIVITY PROGRAM 2008, available at <http://www.aahperd.org/naspe/standards/upload/Comprehensive-School-Physical-Activity-Programs2-2008.pdf>.

<sup>86</sup> PARTNERSHIP FOR PREVENTION & CDC, SCHOOL-BASED PE: WORKING WITH SCHOOLS TO INCREASE PA IN PE CLASSES, AN ACTION GUIDE (Updated 2009), available at <http://www.prevent.org/actionguides/SchoolPE.pdf>.

<sup>87</sup> *Id.*

<sup>88</sup> Lisa Toscano & Fran Clemente, *Dogs, Cats and Kids: Integrating Yoga Into Elementary Physical Education*, 21 STRATEGIES: AM. J. PHYSICAL & SPORTS EDUCATORS March/April 2008, at 15.

<sup>89</sup> Derrick Mears, *Curriculum Diversity and Young Adult Physical Activity: Reflections from High School Physical Education*, PHYSICAL EDUCATOR 195 (2008).

<sup>90</sup> E.g. Neil F. Williams & Jenna Germain, *Fitness in Disguise: Fitness Activities Can Actually Be Enjoyed Rather Than Endured*, 79 JOPERD 35 (Sept. 2008); Murray Mitchell, *Content Development: Using Application Tasks to Celebrate and Calibrate*, 80 JOPERD May/June 2009 ("Making tasks relevant for students increases their enjoyment of physical education.").

<sup>91</sup> Neil F. Williams & Jenna Germain, *Fitness in Disguise: Fitness Activities Can Actually Be Enjoyed Rather Than Endured*, 79 J. PHYSICAL EDUC. RECREATION & DANCE 35 (2008).

<sup>92</sup> Mathieu Belanger et al., *When Adolescents Drop the Ball: Sustainability of Physical Activity in Youth*, 37 AM. J. PREVENTATIVE MED. 41 (2009).

<sup>93</sup> MINN. P.E. FACT SHEET, *supra* note 2.

<sup>94</sup> Thomas L. McKenzie, Diane J. Catellier, Terry Conway, Leslie A. Lytle, Mira Grieser, Larry A. Webber, Charlotte A. Pratt, & John P. Elder, *Girls' Activity Levels and Lesson Contexts in Middle School PE: TAAG Baseline*, 38 MED. & SCI. SPORTS & EXERCISE 1229 (2006) [hereinafter TAAG Baseline]; Catherine D. Ennis, *Creating a Culturally Relevant Curriculum for Disengaged Girls*, 4 SPORT EDU. & SOC'Y 31 (1999).

<sup>95</sup> TAAG Baseline, *supra* note 94.

<sup>96</sup> *Id.*

<sup>97</sup> Deheia J. Barr-Anderson, Dianne Neumark-Sztainer, Kathryn H. Schmitz, Dianne S. Ward, Terry L. Conway, Charlotte Pratt, Chris D. Baggett, Leslie Lytle & Russell R. Pate, *But I Like PE: Factors Associated With Enjoyment of Physical Education Class in Middle School Girls*, 79 RES. Q. EXERCISE & SPORT 18 (2008).

<sup>98</sup> THE CAL. ENDOWMENT, PHYSICAL EDUCATION MATTERS (2007), available at [http://www.calendow.org/uploadedFiles/physical\\_education\\_matters.pdf](http://www.calendow.org/uploadedFiles/physical_education_matters.pdf) (last visited Sept. 10, 2009).

<sup>99</sup> Tegan K. Boehmer, Ross C. Brownson, Debra Haire-Joshu & Mariah L. Dreisinger, *Patterns of Childhood Obesity Prevention Legislation in the United States*, 1, 4 PREV CHRONIC DIS. [serial online] (2007), available at [http://www.cdc.gov/pcd/issues/2007/jul/06\\_0082.htm](http://www.cdc.gov/pcd/issues/2007/jul/06_0082.htm).

<sup>100</sup> John Cawley & Fen Liu, *Correlates of State Legislative Action to Prevent Childhood Obesity*, 16 OBESITY 162-167 (2008) ("The socioeconomic conditions of the state and its political climate strongly predict legislative action to address childhood obesity.").

<sup>101</sup> Tegan K. Boehmer, Douglas A. Luke, Debra L. Haire-Joshu, Hannalori S. Bates & Ross C. Brownson, *Preventing Childhood Obesity through State Policy: Predictors of Bill Enactment*, 34 AM J PREV MED 333-340 (2008).

<sup>102</sup> Elizabeth A. Dodson, Chris Fleming, Tegan K. Boehmer, Debra Haire-Joshu, Douglas A. Luke & Ross C. Brownson, *Preventing Childhood Obesity through State Policy: Qualitative Assessment of Enablers and Barriers*, 30 J. PUB. HEALTH POL'Y S161-S176 (2009).

<sup>103</sup> *Id.*

<sup>104</sup> *Id.*

<sup>105</sup> Lynn Parker, Annina Catherine Burns & Eduardo Sanchez, Eds., Institute of Medicine and National Research Council, *Local Government Actions to Prevent Childhood Obesity*, 5-8 (forthcoming 2009) (prepublication copy at 5-8, on file with author (citing Yancey (2007)), [hereinafter LOCAL GOVERNMENT ACTIONS].

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- 109 *Id.* (citing Roberts et al. (2005)).
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- 113 *E.g.*, *Community Strategies*, *supra* note 1, at 14.
- 114 Press Release, Robert Wood Johnson Found., New Evidence Strengthens Case for Increasing School-based Physical Activity (Sept. 25, 2009), *available at* <http://www.rwjf.org/pr/product.jsp?id=48968>.
- 115 ACTIVE EDUCATION, *supra* note 82, at 3.
- 116 *Id.*
- 117 *Id.* at 3-6.
- 118 Kris Berggren, *At Issue: Getting Kids to Move*, 26 SESSION WKLY. 16 (2009), *available at* [http://www.house.leg.state.mn.us/sessionweekly/art.aspx?ls\\_year=86&issucid\\_=45&storyid=891&year\\_=2009](http://www.house.leg.state.mn.us/sessionweekly/art.aspx?ls_year=86&issucid_=45&storyid=891&year_=2009).
- 119 *Id.*
- 120 RECESS RULES, *supra* note 112, at 13.
- 121 *Id.*
- 122 Patte Barth, The Center for Public Education Website, Time Out: Is Recess in Danger?, [http://www.centerforpubliceducation.org/site/apps/nlnet/content3.aspx?c=lvIXIiN0\]wE&b=5130137&content\\_id={4B336731-43C2-464B-98EB-5DE60B878ADE}&notoc=1](http://www.centerforpubliceducation.org/site/apps/nlnet/content3.aspx?c=lvIXIiN0]wE&b=5130137&content_id={4B336731-43C2-464B-98EB-5DE60B878ADE}&notoc=1) (last visited Nov. 4, 2009).
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- 130 Position Statement, Nat'l Ass'n for Sport & Physical Educ., Comprehensive School Physical Activity Program (2008).
- 131 BALANCE 2008, *supra* note 56, at 65.
- 132 S.C. DEP'T OF EDU., REPORT FOR THE IMPLEMENTATION OF PHYSICAL EDUCATION AND PHYSICAL ACTIVITY MINUTES FOR STUDENTS IN GRADES KINDERGARTEN THROUGH FIVE AS REQUIRED BY THE STUDENTS HEALTH AND FITNESS ACT OF 2005, SCHOOL YEAR 2007-08 (2008).
- 133 BALANCE 2008, *supra* note 56, at 66.
- 134 F AS IN FAT, *supra* note 11, at 56 n.317.
- 135 INST. OF MED., PREVENTING CHILDHOOD OBESITY: HEALTH IN THE BALANCE (2005), [hereinafter HEALTH IN THE BALANCE].

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<sup>136</sup> This recommendation is consistent with the policy approach being taken in the State of Hawaii, which requires all public schools, by the 2010-2011 school year, to provide students in all grades with at least 20 minutes per day of supervised recess, during which moderate to vigorous physical activity must be encouraged. Hawaii Bd. Of Educ. Health, Safety & Wellness Policy 1110-6 (2006).

<sup>137</sup> Ingunn Fjortoft, *Landscape as Playscape: The Effects of Natural Environments on Children's Play and Motor Development*, 14 CHILDREN, YOUTH AND ENVIRONMENT 21, 22 (2004), available at <http://www.colorado.edu/journals/cye/>, [hereinafter LANDSCAPE AS PLAYSCAPE]. See LOCAL GOVERNMENT ACTIONS, *supra* note 105, at 5-2. The built environment's influence childhood obesity is determined, in part, by its effect on children's physical activity levels. Various elements of the built environment, such as neighborhood design, can promote or deter physical activity and outdoor play. Children are likely to engage in more physical activity when the built environment promotes physical activity by providing safe, appealing places to walk, bicycle or play outdoors. Access to parks, for example, is associated with more frequent outdoor play (citing Davison and Lawson, 2006; Mota et al., 2005). *Id.* See PLAY MATTERS, *supra* note 111, at 17 n.28. "Many studies associate physical activity with time spent outdoors and proximity to parks and recreational facilities. There are some studies that associate *neighborhood greenness* with lower body mass index in children." *Id.*

<sup>138</sup> LANDSCAPE AS PLAYSCAPE, *supra* note 137.

<sup>139</sup> PLAY MATTERS, *supra* note 111, at 15 n.14.

<sup>140</sup> *Id.* at 17.

<sup>141</sup> Erik Mygind, *A Comparison Between Children's Physical Activity Levels at School and Learning in an Outdoor Environment*, 7 J. ADVENTURE EDUC. AND OUTDOOR LEARNING 161 (2007).

<sup>142</sup> *Id.*

<sup>143</sup> HEATHER WHITE & NAT'L WILDLIFE FED'N, CONNECTING TODAY'S KIDS WITH NATURE: A POLICY ACTION PLAN 16-17, nn.93-101 (2008). Results of a case study showed that students at the School of Environmental Studies in Apple Valley, MN, for example, scored higher than their peers in schools at the district, state, and national levels on college admission ACT tests. *Id.* at 16.

<sup>144</sup> *Id.* at 17 n.98, referencing n.79.

<sup>145</sup> *Id.*

<sup>146</sup> Erica Asmus-Otero, *State Parks Announces Major Thrust on Outdoor Classroom Initiative in NM, Doña Ana County 5<sup>th</sup> Graders Specifically to Benefit; Teachers, School Districts Applaud Program and Legislative Efforts*, New Mexico State Parks Division, Apr. 24, 2007 <http://www.emnrd.state.nm.us/PRD/OutdoorEdLasCruces.htm> (last visited Nov. 4, 2009).

<sup>147</sup> Staci Matlock, *No Child Left Indoors: Bill Aims to Cut Kids' TV Time: Groups Propose 'Sin Tax' to Fund Outdoor Education*, THE NEW MEXICAN, Jan. 14 (2008), available at [http://www.santafenewmexican.com/SantaFeNorthernNM/No\\_child\\_left\\_indoors\\_Bill\\_aims\\_to\\_cut\\_kids\\_TV\\_time](http://www.santafenewmexican.com/SantaFeNorthernNM/No_child_left_indoors_Bill_aims_to_cut_kids_TV_time). (referring to H.B. 1232 (N.M. 2008)).

<sup>148</sup> Pennsylvania Environmental Education Act, Act 24 of 1993, P.L. 105.

<sup>149</sup> James F. Sallis & Karen Glanz, *Physical Activity and Food Environments: Solutions to the Obesity Epidemic*, 87 MILLBANK Q. 123, 142 (2009).

<sup>150</sup> F AS IN FAT, *supra* note 11, at 11. Some experts question the use of BMI as the primary measure for obesity on the grounds that BMI does not distinguish between fat and muscle and can therefore yield misleading results. For example, persons with significant amounts of lean muscle will score higher BMIs even though they do not have unhealthy levels of fat; in addition, persons of certain ethnicities and races have less body fat and leaner muscle mass and others have weight-related health problems despite having healthy BMIs, which suggests that adjustments to BMI baseline might need to be tailored, accordingly. Alternative measurements, such as a waist-to-height ratio (waist circumference should be less than half one's height), may prove to be as good, if not better, indicators of health.

<sup>151</sup> James M. Raczynski, Joseph W. Thompson, Martha M. Phillips, Kevin W. Ryan & Herschil W. Cleveland, *Arkansas Act 1220 of 2003 to Reduce Childhood Obesity: Its Implementation and Impact on Child and Adolescent Body Mass Index*, 30 J. PUB. HEALTH POL'Y S124-S140 (2009).

<sup>152</sup> UNIV. OF ARK., FAY W. BOOZMAN COLL. OF PUB. HEALTH, FIVE YEAR EVALUATION: ARKANSAS ACT 1220 OF 2003 TO COMBAT CHILDHOOD OBESITY (2008).

<sup>153</sup> *Id.*

<sup>154</sup> F AS IN FAT, *supra* note 11, at 42 n.254.

<sup>155</sup> *Id.* at 42.

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- <sup>156</sup> JOYAL MULHERON, KARA VONASEK, NGA CTR. FOR BEST PRACTICES HEALTH DIVISION, SHAPING A HEALTHIER GENERATION: SUCCESSFUL STATE STRATEGIES TO PREVENT CHILDHOOD OBESITY 28 (2009), *available at* <http://www.nga.org/Files/pdf/0909HEALTHIERGENERATION.PDF>.
- <sup>157</sup> *Id.*
- <sup>158</sup> HEALTH IN THE BALANCE, *supra* note 135.
- <sup>159</sup> A. J. Nihiser et al., *Body Mass Index Measurement in Schools*, 77 J. SCH. HEALTH 651 (2007), [hereinafter BODY MASS INDEX].
- <sup>160</sup> CDC, BODY MASS INDEX MEASUREMENT IN SCHOOLS: EXECUTIVE SUMMARY 2 (2007), *available at* [http://www.cdc.gov/healthyyouth/obesity/BMI/pdf/BMI\\_execsumm.pdf](http://www.cdc.gov/healthyyouth/obesity/BMI/pdf/BMI_execsumm.pdf).
- <sup>161</sup> BODY MASS INDEX, *supra* note 159, at 667.
- <sup>162</sup> *Id.* at 4, n.19, n.26.
- <sup>163</sup> NAT'L CTR. FOR SAFE ROUTES TO SCH., MANY STEPS... ONE TOMORROW (2009) [hereinafter MANY STEPS], *available at* [http://www.saferoutesinfo.org/resources/collateral/status\\_report/SRTS\\_3-year\\_report.pdf](http://www.saferoutesinfo.org/resources/collateral/status_report/SRTS_3-year_report.pdf).
- <sup>164</sup> ACTIVE LIVING RESEARCH & ROBERT WOOD JOHNSON FOUND., WALKING AND BIKING TO SCHOOL, PHYSICAL ACTIVITY AND HEALTH OUTCOMES (2009) [hereinafter WALKING & BIKING], *available at* [http://www.activelivingresearch.org/files/ALR\\_Brief\\_ActiveTransport.pdf](http://www.activelivingresearch.org/files/ALR_Brief_ActiveTransport.pdf).
- <sup>165</sup> *Id.* at 2, nn.12-17.
- <sup>166</sup> ACTIVE LIVING RESEARCH & ROBERT WOOD JOHNSON FOUND., PHYSICAL EDUCATION, PHYSICAL ACTIVITY & ACADEMIC PERFORMANCE (2007), APPENDIX I.
- <sup>167</sup> NAT'L SAFE ROUTES TO SCH. TASKFORCE, SAFE ROUTES TO SCHOOL: A TRANSPORTATION LEGACY 30 (2008) [hereinafter NSRTS LEGACY].
- <sup>168</sup> WALKING & BIKING, *supra* note 164, at 2, n.30.
- <sup>169</sup> MANY STEPS, *supra* note 163, at 6-7. The percentage of students walking and biking to Bear Creek Elementary School in Boulder, Colorado increased from 41 percent to 70 percent, through partnerships among the school, district, city, and state SRTS program, and car and other traffic congestion near the school was reduced by 30 percent.
- <sup>170</sup> *Id.* at 10. A school in the Auburn, Washington School District saved the district \$220,000 in annual transportation costs as a result of its SRTS program.
- <sup>171</sup> *Id.* at 15.
- <sup>172</sup> CITY OF MINNEAPOLIS, DEP'T. OF HEALTH & FAMILY SUPPORT, MINNEAPOLIS SAFE ROUTES TO SCHOOLS, STRATEGIC PLAN, *available at* <http://www.ci.minneapolis.mn.us/dhfs/saferoutes.pdf>.
- <sup>173</sup> *Id.* at 2, n. 2. The Minneapolis School District estimates it could save \$2 million to \$4 million per year by having children walk up to four long blocks to catch school buses.
- <sup>174</sup> *Id.* at 2.
- <sup>175</sup> 2009 Safe Routes to School Projects by District, <http://www.arrowheadplanning.org/documents/Ely%20SRTS/Appendix%20F%20-%20SRTS%20Rankings.pdf> (last visited Nov. 4, 2009).
- <sup>176</sup> MANY STEPS, *supra* note 163, at 18-19.
- <sup>177</sup> NSRTS LEGACY, *supra* note 167, at 3.
- <sup>178</sup> *Id.* at 17.
- <sup>179</sup> Tip sheet, Nat'l Center for Safe Routes to Sch., 10 Tips for Safe Routes to School Programs & Liability, *available at* <http://www.saferoutesinfo.org/resources/collateral/liabilitytipsheet.pdf>; ORANGE COUNTY DEP'T OF EDUC., DISTRICT LIABILITY (2005), *available at* [http://www.ocde.k12.ca.us/downloads/legal/District\\_Liability-0705.pdf](http://www.ocde.k12.ca.us/downloads/legal/District_Liability-0705.pdf); Joyce v. Simi Valley Unified School Dist., 110 Cal. App. 4th 292, 1 Cal. Rptr. 3d 712 (2003).
- <sup>180</sup> MANY STEPS, *supra* note 163, at 32.
- <sup>181</sup> NSRTS LEGACY, *supra* note 167, at 28-30.
- <sup>182</sup> U.S. DEP'T. OF HEALTH & HUMAN SERVICES, ADMIN. FOR CHILDREN & FAMILIES CHILD CARE BUREAU, AFTERSCHOOL INVESTMENTS PROJECT, PROMOTING PHYSICAL ACTIVITY AND HEALTH NUTRITION IN AFTERSCHOOL SETTINGS: STRATEGIES FOR

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PROGRAM LEADERS AND POLICY MAKERS 9 (2006) [hereinafter PROMOTING PHYSICAL ACTIVITY], *available at* [http://nccic.acf.hhs.gov/AFTERSCHOOL/FITNESS\\_NUTRITION.HTML](http://nccic.acf.hhs.gov/AFTERSCHOOL/FITNESS_NUTRITION.HTML).

<sup>183</sup> *Community Strategies*, *supra* note 1, at 15.

<sup>184</sup> *Community Strategies*, *supra* note 1, at 15.

<sup>185</sup> *Id.* at 10, n. 12.

<sup>186</sup> Centers for Disease Control & Prevention, *Physical Activity Levels Among Children aged 9-13 years, United States*, 52 MORBIDITY & MORTALITY WKLY. REPORT 785-788 (2002).

<sup>187</sup> PROMOTING PHYSICAL ACTIVITY, *supra* note 182, at 13. For program information, see <http://www.edibleschoolyard.org> (last visited Nov. 18, 2009).

<sup>188</sup> HEALTHY EATING, ACTIVE COMMUNITIES (HEAC), CALI. ADOLESCENT NUTRITION & FITNESS (CANFIT), P'SHIP FOR THE PUBLIC'S HEALTH/PUBLIC HEALTH INST., SAMUELS & ASSOCS., PROMOTING HEALTHIER AFTER SCHOOL ENVIRONMENTS: OPPORTUNITIES AND CHALLENGES 3 (2009), *available at* [http://www.healthyeatingactivecommunities.org/downloads/Promoting\\_Healthier\\_After\\_School\\_Environments.pdf](http://www.healthyeatingactivecommunities.org/downloads/Promoting_Healthier_After_School_Environments.pdf).

<sup>189</sup> *Id.* at 13. For program information, see <http://www.actionforhealthykids.org/recharge/about/>

<sup>190</sup> *Id.* at 3. Several interesting and informative examples of youth-based after school program activities are profiled here, including peer-to-peer youth advocacy with younger children, taking photographs of PA environments in the community, and creating postcards to use in youth-based advocacy work with city councils, etc.

<sup>191</sup> Afterschool Alliance, *Afterschool and the Environment: A Natural Fit*, Issue Brief No. 35, 3 (2009), *available at* [http://www.afterschoolalliance.org/ISSUE\\_BRIEFS/ISSUE\\_ENVIRONMENT\\_35.PDF](http://www.afterschoolalliance.org/ISSUE_BRIEFS/ISSUE_ENVIRONMENT_35.PDF).

<sup>192</sup> *Id.* at 4, n.xiii.

<sup>193</sup> *Id.* at 4, n.xiv.

<sup>194</sup> *Id.* at 4, n.xv.

<sup>195</sup> *Id.* at 3, n.xii.

<sup>196</sup> AFTERSCHOOL ALLIANCE, AMERICA AFTER 3 PM: A HOUSEHOLD SURVEY ON AFTERSCHOOL IN AMERICA, MINNESOTA AFTER 3 PM (2009), [hereinafter, AFTERSCHOOL ALLIANCE], *available at* [http://www.afterschoolalliance.org/documents/AA3PM\\_2009/AA3\\_Factsheet\\_MN\\_2009.pdf](http://www.afterschoolalliance.org/documents/AA3PM_2009/AA3_Factsheet_MN_2009.pdf).

<sup>197</sup> *Id.*

<sup>198</sup> *Id.*

<sup>199</sup> NAT'L CTR. FOR CHILDREN IN POVERTY, MINNESOTA FAMILY ECONOMIC SECURITY PROFILE (2009), *available at* [http://www.nccp.org/profiles/pdf/profile\\_fes\\_MN.pdf](http://www.nccp.org/profiles/pdf/profile_fes_MN.pdf). "Low-income" is defined as income below twice the federal poverty level. This profile indicates that only 30 percent of adults in Minnesota have a bachelor's degree and that, among children whose parents only have a high school diploma, 57 percent are low-income.

<sup>200</sup> Fact Sheet, NACCRRRA and Minn. Child Care Resource & Referral Network, 2009 Child Care in the State of: Minnesota (2009), *available at* <http://www.naccrra.org/randd/data/docs/MN.pdf>.

<sup>201</sup> U.S. DEP'T. OF HEALTH & HUMAN SERVICES, ADMIN. FOR CHILDREN & FAMILIES, AFTERSCHOOL INVESTMENTS PROJECT, STATE AFTERSCHOOL PROFILES, MINNESOTA (2009), *available at* <http://nccic.acf.hhs.gov/afterschool/mn.html>. Additional information can be accessed at each organization's website.

<sup>202</sup> CALI. DEP'T OF EDU., CALIFORNIA AFTER SCHOOL PHYSICAL ACTIVITY GUIDELINES (2009), [hereinafter, GUIDELINES], *available at* <http://www.cde.ca.gov/ls/ba/as/documents/paguidelines.pdf>.

<sup>203</sup> CAL. EDUC. CODE § 8484.8 (2008).

<sup>204</sup> GUIDELINES, *supra* note 202, at 1.

<sup>205</sup> GUIDELINES, *supra* note 202, at 4.

<sup>206</sup> *Id.* at 11-39. A summary of the 10 guidelines, minus the rationale and detailed descriptions, is at 5-8.

## APPENDIX A

### Glossary of Acronyms

ARRA – The American Recovery and Reinvestment Act of 2009

BMI – *Body Mass Index*, a descriptor for the ratio of weight to height squared

CHIP – *The Children’s Health Insurance Program*

DHHS – U.S. Department of Health and Human Services

- CDC – Centers for Disease Control and Prevention
  - *NPAO – Nutrition, Physical Activity and Obesity grants to states*
  - *SHPPS – School Health Policies and Programs Study, a national survey conducted periodically by the CDC*
- DACH – Division of Adult and Community Health
- DASH – Division of Adolescent and School Health
- DNPAO – Division of Nutrition, Physical Activity and Obesity
- IOM – Institutes of Medicine
- NIH – National Institutes of Health

DOD – U.S. Department of Defense

DOI – U.S. Department of the Interior

DOT – U.S. Department of Transportation

- *SRTS – National Safe Routes to School Program*
- *SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act*

ED – U.S. Department of Education

- *PEP – Carol M. White Physical Education Program*

EPA – U.S. Environmental Protection Agency

FDA – U.S. Food and Drug Administration

MDH – Minnesota Department of Health

NAA – National AfterSchool Association

NACCRRRA – National Association of Child Care Resources & Referral Agencies

NASPE – National Association for Sport and Physical Education

NCSL – National Conference of State Legislators

NGO – Non-government organization

NSBA – National School Board Association

*NTP – Non-Motorized Transportation Project*, a Minneapolis federally funded project

PA – Physical Activity

PE – Physical Education

RWJ – Robert Wood Johnson Foundation

*SNAP – Student Neighborhood Access Plan*, a SRTS software program used by the Utah Department of Transportation

*SHIP – Minnesota’s Statewide Health Improvement Program*

USDA – U.S. Department of Agriculture

- FNS – Food and Nutrition Service

WIC – Women, Infants & Children (*Child Nutrition and WIC Reauthorization Act of 2004*)

## APPENDIX B

### Pending Federal Legislation

Below are summaries of five federal legislative proposals that demonstrate the breadth of congressional activity on childhood obesity issues during the 111<sup>th</sup> Congress.

#### **Fitness Integrated with Teaching Kids Act, or *Fit Kids Act*, S. 634, Sen. Tom Harkin (D-IA), H.R. 1585, Rep. Ron Kind (D-WI-3)**

Introduced by Senator Tom Harkin in March 2009, the *Fit Kids Act*<sup>A</sup> would amend the Elementary and Secondary Education Act of 1965 (*ESEA*) by mandating a number of systemic changes to improve physical education and physical activity in K-12 school settings. Local and state educational agencies would be required to file annual report cards to track specific indicators of the quantity and quality of physical education and school health programs, including: the amount of time students spend in required physical education; the percentage of local educational agencies within a state that require an age-appropriate physical education curriculum for all K-12 students; the percentage of K-12 physical education teachers who are state-licensed or state-certified as such; the percentage of schools with a School Health Council that meets monthly and includes parents, students, school food authority representatives, school board representatives, school administrators and members of the public; and a measurement of indoor and outdoor facilities used primarily for physical education and physical activity.

The *Fit Kids Act* would require all ESEA grant programs—which support school counseling, smaller learning communities, parental involvement, and community learning centers—to include promotion of healthy, active student lifestyles. The Act would also mandate revision of state professional development programs for teachers and principals, including training programs for health and physical education teachers.

The *Fit Kids Act* would also direct the Secretary of Education to work with the National Academy of Sciences (NAS) to study how health, physical education, and physical activity affect students' ability to learn and make recommendations for improving, and measuring improvements in health, physical education, and physical activity in K-12 schools. The recommendations would

address innovative ways that physical activity can be incorporated into K-12 schools, Head Start, childcare, and before- and after-school programs.

*Status:* The House bill has been referred to the Subcommittee on Early Childhood, Elementary, and Secondary Education; the Senate bill has been referred to the Committee on Health, Education, Labor, and Pensions.

**Improved Nutrition and Physical Activity Act, or *IMPACT Act*, S. 1503, Sen. Kirsten E. Gillibrand (D-NY), H.R. 2276, Rep. Mary Bono Mack (R-CA-45)**

The *IMPACT Act*,<sup>B</sup> introduced in the House by Representative Mary Bono Mack in May 2009, would amend the Public Health Services Act (42 U.S.C. 280<sup>th</sup> et seq.) by establishing a grants program in which the Secretary of Health and Human Services—acting with the Director of the CDC, in coordination with the Health Resources and Services Administration, Indian Health Service, Department of Education, Department of Agriculture, Department of the Interior, National Institutes of Health, and the Office of Women’s Health—would award competitive, community-based grants to increase physical activity, improve nutrition, and promote emotional wellness and healthy eating behaviors. The grant program would target at-risk populations, including youth, adolescent girls, and health disparity populations. Local and state educational agencies, and other entities, would be eligible to apply for grants, which would extend for no more than four years. DHHS would give priority to entities that provide matching funds.

Grantees would be expected to coordinate with local and state authorities and community-based organizations to develop community-based activities, such as planning or transportation initiatives aimed at increasing the use of walking and bicycling as modes of transportation to and from school; form joint-use partnerships between schools, faith-based or community-based organizations and others, to create programs using their facilities or resources for after-school, weekend, and summer community activities that involve physical activity and promote emotional and social wellness; form partnerships with daycare and after-school entities to establish programs that promote healthy eating and physical activity and address health holistically; form partnerships with parents and caregivers to develop programs that educate adults about how to teach their children self-esteem and healthy eating and exercise habits; implement state and local park and recreation programs that provide opportunities for daily physical activity; and combat issues, such as

bullying and relational aggression, that may trigger physical inactivity. The sum of \$60 million would be appropriated for FY 2010. Additional allocations would be made, as necessary, through 2014.

Grantees would be expected to carry out age-appropriate school-based activities, such as developing and testing curricula and intervention programs designed to promote healthy eating and physical activity among youth. Examples might include after-school physical activity programs or interventions that emphasize building self-esteem, learning life skills (e.g., literacy, communication, stress management, problem-solving, decision-making skills), and consideration of cultural and developmental issues and the roles of family, school and community.

The *IMPACT Act* would also enable the Secretary of DHHS to collect data on student fitness levels, physical activity, and nutritional behaviors in grades K-12, collect and analyze data on the connection between children's and youth's physical and emotional health, and analyze data collected as part of the National Health and Nutrition Examination Survey. States would be permitted to use preventive health block grants for activities and community education programs to promote healthy eating, exercise, and associated behaviors and issues. On or before the six-year mark following its enactment, the CDC would be required to report to the public on the grants awarded, including descriptions of model curricula, best practices, lessons learned, and recommendations for next steps.

*Status:* The House bill has been referred to the House Committee on Energy and Commerce; the Senate bill has been referred to the Senate Committee on Health, Education, Labor and Pensions.

### **Stop Obesity in Schools Act of 2009, H.R. 2044, Representative Nita M. Lowey (D-NY-18)**

The *Stop Obesity in Schools Act of 2009*,<sup>C</sup> introduced in the House by Representative Nita Lowey in April 2009, would require the Secretary of Health and Human Services to develop a national strategy to reduce childhood obesity rates by 10 percent by 2013, address short- and long-term solutions, and identify how the federal government can work effectively with other entities to implement this strategy.

The CDC would be required to make matching grants to local educational agencies to reduce childhood obesity through adoption of wellness policies and anti-obesity initiatives, and would be required to evaluate a wide variety of current programs to determine their effectiveness, including

factors that contribute to program effectiveness and the feasibility of replicating programs. The CDC would also be enabled to make matching grants to state and local governments and consortia of local governments, with the goal of reducing childhood obesity by establishing or expanding healthy living and wellness coordinating councils, charged with reducing obesity in K-12 schools.

*Status:* The House bill has been referred to the House Committee on Energy and Commerce and the Committee on Education and Labor. There is no companion proposal in the Senate. Similar unsuccessful proposals were introduced in the House in 2006 and 2007.<sup>D</sup>

**No Child Left Inside Act of 2009, S. 866, Sen. Jack Reed (D-RI) H.R. 2054, Rep. John P. Sarbanes (D-MD-3)**

The *No Child Left Inside Act of 2009*<sup>E</sup> was introduced in the Senate by Sen. Jack Reed, and in the House by Rep. John P. Sarbanes, in April. Both bills have numerous co-sponsors. The proposed legislation would amend the Elementary and Secondary Education Act of 1965 to require states to develop environmental literacy plans for pre-K through grade 12, including environmental education standards and teacher training. State environmental literacy plans would require the Secretary of Education's approval, and the development of an approved environmental literacy plan would be a prerequisite to a state's receipt of an implementation grant.

If enacted, this legislation would direct the Secretary to award environmental education professional development grants to states; states would then award competitive grants to partnerships between schools and related institutions, such as park and recreation departments, or natural resource and environmental agencies. The *No Child Left Inside Act* is designed to stimulate the provision of high quality environmental instruction in elementary and secondary schools, as well as outdoor learning activities in other settings, such as environmental education centers. The law would also address content and achievement standards, contribute to research efforts, and support the development and dissemination of innovations and model programs. The legislation would provide \$500 million over five years to schools with approved environmental literacy plans.

*Status:* The Senate bill has been read twice and referred to the Committee on Health, Education, Labor and Pensions. The House bill has been referred to the Committee on Education and Labor, Subcommittee on Early Childhood, Elementary, and Secondary Education.

## **Obesity Prevention, Treatment and Research Act of 2009, S. 1060, Sen. Jeff Bingaman (D-NM)**

The Obesity Prevention, Treatment and Research Act of 2009,<sup>F</sup> reintroduced by Sen. Jeff Bingaman in May 2009, aims to reduce the U.S. obesity epidemic by fostering collaborative efforts among federal agencies, private entities, and communities. The bill would establish a United States Council on Overweight and Obesity Prevention (USCO-OP), which would be charged with developing a comprehensive, national strategy to reduce and prevent the epidemic. USCO-OP would work to update federal guidelines, identify best practices, survey and monitor existing federal programs, and update daily physical activity requirements for schools. The legislation would also create grant programs to support school-based overweight- and obesity-related initiatives.

*Status:* The Senate bill has been referred to the Committee on Health, Education, Labor and Pensions. There is no companion proposal in the House.

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<sup>A</sup> S. 634, 111th Cong. (2009); H.R. 1585, 111th Cong. (2009).

<sup>B</sup> S. 1503, 111th Cong. (2009); H.R. 2276, 111th Cong. (2009).

<sup>C</sup> H.R. 2044, 111th Cong. (2009).

<sup>D</sup> H.R. 5938, 109th Cong. (2006); H.R. 1163, 110th Cong. (2007).

<sup>E</sup> S. 866, 111th Cong. (2009); H.R. 2054 (2009).

<sup>F</sup> S. 1060, 111th Cong. (2009).

## APPENDIX C

### Farm-to-School Legislation

In the last two years alone, 14 states have enacted farm-to-school legislation.

- *Washington*. Of the 17 states that now have legislation in place, Washington's comprehensive provisions, enacted in 2008, stand out. Washington has created a farm-to-school program within the state's Department of Agriculture. The program is designed to ease schools' purchases of Washington-grown produce and other foods by linking local school districts with local producers and by integrating curricula and programs to teach students about the benefits of local food. A Washington-Grown Fresh Fruit and Vegetable Grant program in the office of the superintendent of public instruction will facilitate consumption of Washington-grown produce in school snacks and expand the market for locally grown fresh produce. Among its many features, the legislation requires revision of food procurement and food contract procedures to maximize purchasing of locally grown foods by state and other agencies and institutions, including school districts, and authorizes school districts to operate school gardens or farms to grow produce for educational purposes. The Office of Financial Management is charged with developing measures to report purchasing changes and trends by state agencies and other affected institutions, including schools.<sup>i</sup>
- *Iowa*,<sup>ii</sup> *Maryland*,<sup>iii</sup> *Michigan*,<sup>iv</sup> *Oregon*,<sup>v</sup> *Tennessee*,<sup>vi</sup> and *Vermont*<sup>vii</sup> have enacted policies to encourage local school districts to purchase locally grown foods for use in school meals and snacks. Tennessee sets preferences for use of products from each local district's county or geographic region and allows flexible bidding processes to help farmers bid competitively on parts of local districts' nutrition plans. Legislation in Maryland, Oregon and Vermont includes provisions that promote farm- and garden-based experiential education and/or related classroom activities. Vermont's policy allows local school districts to apply for grants of up to \$15,000 to help schools build relationships with local farmers and producers, purchase equipment, materials, and resources to increase use of local foods in school meal and snack programs, and buy local farm products for nutrition lessons in classrooms.

### Farm-to-school and School Garden Programs

In addition to offering tremendous potential for advancing students' nutritional awareness and increasing their consumption of fruits and vegetables,<sup>viii</sup> farm-to-school and school garden programs often (but not always) provide meaningful opportunities for students to participate in physically active, outdoor experiential learning. School gardens, composting, and farming programs offer students abundant opportunities to engage in lessons involving hands-on PA, even in cold-climate states like Minnesota. Through these activities, students gain skills and knowledge that can translate into lifelong interests and activities, a vital goal of all school-based PA programs and efforts.

Many school sites have seldom-used portions of their grounds that could be designated for school gardens or natural habitats, and there is great potential for such programs to partner with community parks, local governments, non-profit organizations, and citizens in surrounding neighborhoods and communities. In Cleveland, Ohio, for example, the CDC's Steps Program (now known as the Healthy Communities Program), in partnership with the Ohio State University's Extension Community Gardening Program, has established more than 30 gardens at schools and community recreation centers, working with multiple community and social service agencies to obtain garden tools and resources.<sup>ix</sup>

Farm-to-school programs continue to be immensely popular. Just five years ago, New York was the only state that had enacted a law to establish a program. Today, nineteen states have farm-to-school programs, including six that implemented new regulations between mid-2008 and mid-2009. Impressive work is also being done at the local level. In Baltimore, the public school system's new food director, Tony Geraci, recently opened a 33-acre farm that includes three greenhouses, a three-acre garden, an orchard, and small farm animals (chickens, pigs, goats). Geraci plans to involve students in all aspects of the agricultural process, including planting, harvesting, selling produce, and managing district-owned restaurants, and he hopes to establish school gardens at all of the city's public schools.<sup>x</sup>

### **Policy opportunity**

- Encourage and create incentives for school districts and schools to create and maintain school gardens where possible, and integrate garden activities into school day curricula and before- and after-school programs.

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<sup>i</sup> S.B. 6483, 60th Leg., Reg. Sess. (Wash. 2008); LEGISLATIVE OPTIONS, *supra* note 44, at 42.

<sup>ii</sup> IOWA CODE § 190A (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 40.

<sup>iii</sup> MD. CODE AGRIC. § 10-1601 (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 40.

<sup>iv</sup> MICH. COMP. LAWS § 388.841-44 (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 41.

<sup>v</sup> H.B. 3601, 74th Leg., Spec. Sess. (Or. 2008); LEGISLATIVE OPTIONS, *supra* note 44, at 41.

<sup>vi</sup> TENN. CODE § 49-6-2303 (2009); LEGISLATIVE OPTIONS, *supra* note 44, at 42.

<sup>vii</sup> H.B. 91, 2007-2008 Leg., Reg. Sess. (VT 2007); LEGISLATIVE OPTIONS, *supra* note 44, at 42.

<sup>viii</sup> F AS IN FAT, *supra* note 11, at 43 nn.260-262.

<sup>ix</sup> F AS IN FAT, *supra* note 11, at 55.

<sup>x</sup> F AS IN FAT, *supra* note 11, at 43.

## APPENDIX D

### Resources

#### PE and PA Policy Tools

*Action Strategies Toolkit: A Guide for Local and State Leaders Working to Create Healthy Communities and Prevent Childhood Obesity*, Leadership for Healthy Communities, Robert Wood Johnson Foundation (5/2009), available at

<http://www.rwjf.org/files/research/20090508lhcactionstrategiestoolkit.pdf>

- See Part 1, Active Living and the Built Environment, Quality Physical Activity In and Near Schools, pages 38-51. The toolkit provides policy rationales and recommendations, accompanied by suggested action steps, resources, and potential stakeholders.

*Local Government Actions to Prevent Childhood Obesity*, Institute of Medicine and National Research Council (2009), available at

<http://www.iom.edu/~media/Files/Report%20Files/2009/ChildhoodObesityPreventionLocalGovernments/local%20govts%20obesity%20report%20brief%20FINAL%20for%20web.ashx>

- The report outlines specific strategies for increasing PA in school and other community environments and highlights the most promising action steps.

*School-Based Physical Education, Working with Schools to Increase Physical Activity Among Children and Adolescents in Physical Education Classes: An Action Guide*, Partnership for Prevention (updated 4/2009), available at <http://www.prevent.org/actionguides/SchoolPE.pdf>

- See Action Steps on conducting outreach (Steps 3-9), training and staff development (Step 18), and encouraging school boards to pass policies requiring schools within districts to implement more active PE classes (Step 19).

*Recommendations to Increase Physical Activity in Communities*, CDC Task Force on Community Preventive Services, 22 (4S) Am. J. Preventive Med. 67 (2002), available at

<http://www.thecommunityguide.org/pa/pa-ajpm-recs.pdf>

#### National School Boards Association (NSBA)

- The NSBA maintains a searchable database with abstracts of about 2,000 documents, including “101” packets on selected topic, such as Physical Activity, available at <http://www.nsba.org/MainMenu/SchoolHealth/101Packets/PA-101.aspx>. The database contains sample policies, articles, and research summaries on school health issues, including resources to inform decision-making by school policymakers; Emphasis is on subject matter funded by the Centers for Disease Control and Prevention and Leadership for Healthy Communities, a national program of the Robert Wood Johnson Foundation.

## PE and PA Policy Tools (continued)

National Clearinghouse for Educational Facilities

- The Clearinghouse provides links to resources on different types of joint-use agreements between schools and communities (e.g., opening up school yards and gymnasiums for public use), available at [http://www.edfacilities.org/rl/joint\\_use.cfm](http://www.edfacilities.org/rl/joint_use.cfm)

National Policy and Legal Analysis Network to Prevent Childhood Obesity (NPLAN)

- NPLAN provides legal tools to help communities advance policy objectives. See [Joint-Use Legal Tools](http://nplanonline.org/files/JointUse_checklist_FINAL_web_090319_1.pdf), available at [http://nplanonline.org/files/JointUse\\_checklist\\_FINAL\\_web\\_090319\\_1.pdf](http://nplanonline.org/files/JointUse_checklist_FINAL_web_090319_1.pdf)

National Governors Association, NGA Center for Best Practices

- *Preventing Obesity in Youth through School-Based Efforts*, Issue Brief (2/2003), available at <http://www.nga.org/Files/pdf/022603PREVENTING.pdf>

## Guidance on PE Curricula (including after school curricula)

- CATCH PE: <http://www.catchinfo.org/index.asp>
- Harvard University's Planet Health: <http://www.planet-health.org/>
- SPARK: <http://www.sparkpe.org/>
- *Physical Education Curriculum Analysis Tool (PECAT)*, CDC (2006), available at <http://www.cdc.gov/HealthyYouth/PECAT/pdf/PECAT.pdf>
- *Quality Physical Education Programs*, National Association for Sports and Physical Education (NASPE), available at <http://www.aahperd.org/naspe/publications/teachingTools/QualityPE.cfm>
- *National Physical Education Guidelines*, National Association for Sports and Physical Education (NASPE), available at <http://www.aahperd.org/naspe/standards/nationalGuidelines/PEguidelines.cfm>

## Teacher Training

American Alliance for Health, Physical Education, Recreation and Dance (AAPHERD)

- AAPHERD is the largest umbrella organization of professionals supporting and assisting those involved in PE, leisure fitness, dance health promotion, education and other healthy lifestyle specialties. They provide policymakers with standards, guidelines and tools. See <http://www.aahperd.org/>.
- The National Association for Sport and Physical Education (NASPE) is one of the organizations affiliated with AAPHERD. NASPE offers a wide variety of standards-based professional development workshops, conferences and consultation services for K-12 educators. See <http://www.aahperd.org/naspe/professionaldevelopment/>

## Guidance on Accountability

National School Boards Association (NSBA)

- The NSBA website contains materials on school governance issues, including accountability, community collaboration and engagement, and standards:  
<http://www.nsba.org/MainMenu/Governance/KeyWork.aspx>

## Outdoor Classrooms and Environmental Education

*Play Matters: A Study of Best Practices to Inform Local Policy and Process in Support of Children's Play*, Kaboom! National Campaign for Play (2009), available at [http://kaboom.org/docs/documents/pdf/playmatters/Play\\_Matters\\_Case\\_Summaries.pdf](http://kaboom.org/docs/documents/pdf/playmatters/Play_Matters_Case_Summaries.pdf)

*Connecting Today's Kids with Nature, A Policy Action Plan*, National Wildlife Federation (5/2008), available at [http://www.nwf.org/kidsoutside/pdf/CKN\\_full\\_optimized.pdf](http://www.nwf.org/kidsoutside/pdf/CKN_full_optimized.pdf)

Children and Nature Network

- The Children & Nature Network (C&NN) was created to encourage and support the people and organizations working worldwide to reconnect children with nature. C&NN provides access to the latest news and research in the field and a peer-to-peer network of researchers and individuals, educators and organizations dedicated to children's health and well-being. See <http://www.childrenandnature.org/>

Nature Explore

- This research-based program provides resources to help educators, families, and others working to connect children with nature. The program constructs outdoor education classrooms (Nature Explore Classrooms) at schools, child care centers, parks, zoos, nature centers, etc.—wherever a traditional playground exists or might be built. See <http://www.arborday.org/explore/>

## Recess

Playworks (formerly Sports4Kids)

- Playworks is a national nonprofit organization that supports learning by providing safe, healthy and inclusive play and PA to schools at recess and throughout the school day. Playworks sends trained, full-time coaches to low-income, urban schools to make recess and play a positive experience that helps students and teachers maximize learning opportunities during the entire day. Coaches become part of the school community and work full-time to provide organized play and PA. They organize recess games and activities, provide individual class game times, and run a leadership development program during school hours. They also run tutoring and physical activity programs and developmental sports leagues during after school hours. See <http://playworksusa.org/>

## SRTS

### National Center for Safe Routes to Schools

- The National Center for Safe Routes to School assists communities in enabling and encouraging children to safely walk and bike to school by striving to equip Safe Routes to School programs with knowledge and technical information to implement safe and successful strategies. The program is maintained by the University of North Carolina Highway Safety Research Center with funding from the U.S. Department of Transportation Federal Highway Administration. See <http://www.saferoutesinfo.org/>
- *10 Tips for SRTS Programs and Liability*, available at <http://www.saferoutesinfo.org/resources/collateral/liabilitytipsheet.pdf>
- *School Bicycling and Walking Policies: Addressing Policies that Hinder and Implementing Policies that Help (Tipsheet)*, available at [http://www.saferoutesinfo.org/resources/collateral/barrier\\_policy\\_tip\\_sheet.pdf](http://www.saferoutesinfo.org/resources/collateral/barrier_policy_tip_sheet.pdf)
- *SRTS Guide: Enforcement*, available at <http://www.saferoutesinfo.org/guide/enforcement/index.cfm>

### School-based After School Programs

*Promoting Healthier After School Environments: Opportunities and Challenges*, Healthy Eating, Active Communities (HEAC), California Endowment available at [http://www.calendow.org/uploadedFiles/Publications/By\\_Topic/Disparities/Obesity and Diabetes/90077\\_CAE\\_HealthierAfterSchool\\_7.pdf](http://www.calendow.org/uploadedFiles/Publications/By_Topic/Disparities/Obesity_and_Diabetes/90077_CAE_HealthierAfterSchool_7.pdf)

*Promoting Physical Activity and Healthy Nutrition in Afterschool Settings: Strategies for Program Leaders and Policy Makers*, DHHS, Afterschool Investments (8/2006), available at [http://nccic.acf.hhs.gov/afterschool/fitness\\_nutrition.pdf](http://nccic.acf.hhs.gov/afterschool/fitness_nutrition.pdf)

### Tracking Legislation

#### National Conference of State Legislatures

- The National Conference of State Legislatures (NCSL) is a bipartisan organization founded to improve the quality and effectiveness of state legislatures, promote policy innovation and communication among state legislatures, and ensure state legislatures a strong, cohesive voice in the federal system.

NCSL has abundant materials on childhood obesity legislation and issues, including physical activity and physical education in schools. Its most recent summary on obesity-related legislation, *Healthy Communities: Food Systems, Healthy Eating and Physical Activity* (updated 12/2009), provides easy access to the combined resources of NCSL and other organizations. Available at <http://www.ncsl.org/default.aspx?tabid=14511>.