

February 2009

Food for Thought, Health for Success:

Pursuing Policy that Supports Student Wellness and Achievement

As schools work to ensure that all students have the skills and competencies to succeed in work and life, and with growing expectations for success on standardized assessments at the federal, state and local levels, education leaders increasingly understand the importance of student wellness to achieving these goals. This report outlines why wellness is related to student success, and how Colorado can promote policies and practices that promote physical activity and nutrition for students.

Schools are tasked with preparing students with the skills and knowledge necessary to continue their education or to enter the workforce. The ability of schools to effectively accomplish this task depends upon a number of factors, not the least of which is the health and well-being of their students.

Children spend an average of 7.5 hours per school day on academic activities, either attending class or doing homework. That is second in number of hours only to the 8.1 they spend per day sleeping. The skills and knowledge needed for post secondary and workforce readiness, however, are many – and certainly are not limited to simply transferring words, numbers and processes. Social, emotional and physical abilities allow people to communicate, reason and perform the duties required in today's competitive workforce.

Schools face new challenges in preparing students for achievement. Children's home environments are changing; shifting economics and demographics illustrate the need for student supports that go beyond tutoring or extra homework. Kids are increasingly exposed to outside influences, including the media, which shape their attitudes and activities, and as child poverty rises in Colorado faster than anywhere else in the country, more and more children struggle to learn because they do not have their basic needs met. In fact, for many children, schools represent their only opportunity to eat a healthy meal or to engage in real physical activity. Research tells us that when students can achieve these primary experiences, they are better able to learn and control their behavior and to succeed. Schools that will be truly successful in serving their mission will have to adapt the way they support and prepare their students by including health and wellness in their scope of practice.

Because school is where kids spend so much of their waking day, and because of inconsistencies of many students' home supports, school is a sensible place to support students' health so that every child has the same opportunity to be strong enough to succeed academically. A 2000 report by the National Association of State Boards of Education found that schools play a critical role in helping students learn and practice healthy eating habits, and provide the knowledge, motivation and skills children need for lifelong physical activity.² With rising child obesity and diabetes rates, this role takes on a heightened level of importance.



Public Support for School Wellness is Strong

While a focus upon improving student wellness at school is a relatively recent trend, Coloradans already are supportive of this urgent public health priority. Recent survey data from Colorado confirms that parents and the general public strongly support better school efforts to ensure healthy eating and physical activity for all children. A September 2008 poll commissioned by the Colorado Health Foundation found that Colorado voters overwhelmingly want improved nutritional standards and more physical activity and physical education in schools. Those surveyed represented a wide variety of Coloradans by gender, age, party, ideology and parent status.

Specific findings included:

- 94 percent support efforts to increase nutritional standards of school lunches;
- 82 percent support efforts to remove unhealthful snacks from school vending machines and replace them with healthy snacks;
- 77 percent support efforts to reduce in-school access to high-sugar drinks;
- 61 percent said it is "very important" for schools in Colorado to limit the availability of high-fat and high-sugar foods; and
- 86 percent support requiring 30 minutes of physical education (P.E.) each day in Colorado schools, even if that means reducing time in other subjects.³

Healthy Students Learn Better

Recent research has shown that child nutrition has a strong impact on learning. Hunger has been shown to shorten attention spans and impede a child's concentration, making it difficult to learn. School breakfast programs, for example, report results for participants that range from decreased behavioral problems to reduced visits to the school nurse to better daily attendance.⁴

Food insecurity – the availability of food and a child's access to it – affects about one quarter of kids in Colorado.⁵ Because there is a high correlation between poverty and food insecurity and because Colorado is experiencing unrivaled growth in the number of children in poverty, the number of kids who go hungry each day can only be expected to rise. Many studies have linked malnutrition and poor nutrition with school failure, including lower test scores and grade repetition.⁶ A 2008 study published in the Journal of School Health revealed that children with healthy diets performed better in school than children with unhealthy diets.⁷

Additionally, there is a documented link between hunger and childhood obesity, another epidemic from which Colorado is not immune. Low income families, on average, consume greater amounts of high-calorie, low-nutrition food because it is less expensive than healthier options.

Nutrition and physical activity go hand in hand. Physical activity has also been linked with higher academic performance, improved math, reading and writing scores; better grades; higher levels of self-esteem; reduced disruptive behaviors; lower drug use; and lower levels of anxiety and stress.⁸

Many studies have documented the link between mind and body, noting that the areas of the brain that are involved in each are closely enough connected that physical activity could preserve neural synapses, the location on a neuron at which information is exchanged in the brain. These synapses are affected by the health and vitality of the neuron. Research has shown that exercise increases the level of neurotrophins, the chemical responsible for neuron health, in the brain and spinal cord. Neurons regulate how kids learn and how they remember. 10

Additionally, physical activity increases heart rate, which stimulates increased blood flow and arousal to the brain. This nourishes the brain with oxygen, in effect, boosting its efficiency.¹¹

Other studies on brain activity show that the human brain runs in cycles, with predictable ebbs and flows of energy and activity. After some period of concentration, a break is needed for the brain to rest. Children learn better when information is processed over manageable periods of time with a distinct break in between sedentary learning sessions.¹²

In addition to links between academics and physical activity, there are connections between poor child health, including obesity, lack of physical education and nutrition. For example, a 2008 Temple University study found that Philadelphia public elementary schools that made healthy changes to drinks and foods available at the school experienced a reduction in obesity of their students.¹³

Children who are overweight have been found to be more likely to have abnormal scores on the Child Behavior Checklist (a commonly used measure of children's behavior problems) and are twice as likely to be placed in special education and remedial classes as kids who are not overweight. A variety of studies have tied poor nutrition to aggressive, disruptive and violent behavior among adolescents. To the extent that physical activity and good nutrition in schools can mitigate childhood overweight, obesity and poor behavior, steps should be taken to increase movement and healthy eating.

Results from California

A 2002 California Department of Education study sampled 954,000 students from grades five, seven and nine, individually matching each student's Stanford Achievement Test Ninth Edition (SAT-9) test scores with the student's results on the Fitnessgram, the state's mandatory school-administered fitness test. The Fitnessgram is a research-based tool used by schools to assess three health-related criteria: aerobic capacity, body composition and muscular strength, endurance and flexibility.

Results of the California study included a "statistical analysis indicating a distinct and linear correlation between students' academic achievement and fitness scores" in all three grades; higher academic performance was positively related to higher levels of fitness with the greatest academic gains in students who met three or more physical fitness standards.

"In addition to health concerns, the positive and distinct relationship between physical fitness and academic achievement provides yet another factor for our schools to consider when making decisions and designing programs for our students," State Superintendent of Public Instruction Jack O'Connell said. 16

Student Wellness Policies in Colorado

Over the past five years, Colorado state legislators have considered various bills to expand access to food, and improve the nutritional quality of foods and drinks available in public K-12 schools. Only last year, in 2008, the legislature enacted a requirement that foods available for sale within schools meet minimum nutritional standards, and only the year before, in 2007, did lawmakers begin to expand low-income students' access to school meals.

Proponents of school nutrition legislation have argued that as public entities that must make food and drinks available to children, schools have a responsibility to ensure the availability of healthy options. Research linkages of nutrition to students' learning, health and behavioral outcomes bolster this point. In addition, unhealthy school offerings undermine many parents' efforts to provide nutritional options for their children. Opponents of these laws in Colorado and other states have responded that foods and drinks in school is a local control issue to be determined by local school districts or left to parents. With federal standards applying almost entirely to meals, however, nutrition advocates contend that the state has a legitimate role to set standards for snacks and drinks in vending machines, school cafeterias (known as a la carte), and school stores, when school districts fail to do so. And in Colorado, only a handful of districts have adopted any required minimal nutrition standards for all drinks and snacks in schools.

School districts also express concern that improving the nutritional content of all school drinks and foods reduces their access to critical revenue derived from food sales because students will purchase these items at a nearby store instead. Proponents of nutritional standards argue that, besides the ethical need of a public entity to provide healthful offerings to children, examples across the country reveal that nutritional improvements in schools of all sizes typically show stable or even increased revenues, with a dip only in the first year of the change.¹⁷

Several Colorado school districts have shown leadership in making comprehensive nutrition changes:

- Denver Public Schools (DPS), Boulder Valley School District (BVSD), and Adams County School District 14 require nutritional standards for all snacks for all students;
- DPS formed a Commission on School Nutrition and Physical Activity several years ago that built improvements throughout the district;
- BVSD hired a national nutrition expert to revamp the quality of school food; and
- A variety of school districts have participated in the state's Coordinated School Health program.

The First Effort to Improve Quality: Vending Machine Legislation (2004-06)

Beginning in the late 1990's, school districts in Colorado and throughout the U.S. brought soda, other sugary drinks, and nutrient-empty snacks into the schools to boost revenue. Students of all age groups could purchase soda and other high-calorie, nutrient-poor drinks and foods in school vending machines and school stores.

By 2003, soda contracts were pervasive in most Colorado public school districts, and many were being considered for renewals, usually at five-year intervals. Eventually, the pervasive presence of unhealthy food options in public schools began to attract attention from the public. As the DPS Pepsi® contract was due for renewal in the spring of 2003, a group of concerned citizens, headed by two grandparents, protested the continued offering of high-sugar, high-calorie sodas in schools by pouring Pepsi® down a Denver sewer.

Shortly thereafter, a grassroots group called the Committee for Progress in School Nutrition (CPSN) was formed to develop state and local public policy solutions and awareness around the issue of school nutrition. One of the first activities of the group, comprised of activists, researchers and concerned parents, was to advocate for DPS to reject the Pepsi® contract renewal. Although the DPS school board passed the contract renewal on a 4-3 vote, the issue received much media and public attention, and laid the groundwork for broader school nutrition and wellness improvements at DPS.

Colorado, as with most other states at the time, had no statewide required minimal nutritional standards for school drinks and snacks, nor did most of Colorado's school districts. Throughout the state, other nutrient-poor foods and drinks sold in school vending machines continued to detract from school food service revenue as students filled up on chips, cookies and soda instead of buying school lunches. To address this problem, Colorado school food service directors (now known as the Colorado School Nutrition Association) teamed with CPSN to develop and advocate for legislation that would require that school vending machines have at least half of their products be healthful as defined in the legislation.

The bill (SB 103) was sponsored by Senator Paula Sandoval of Denver in the 2004 session and easily passed its first vote in the Senate Agriculture Committee, with support of the CPSN, the Colorado PTA, Colorado Education Association, American Heart Association, and the Colorado Association for Health, Physical Education and Dance. The bill faced a significant challenge, however, when then-Senate President John Andrews directed the bill to the Senate State Affairs Committee (which he chaired) and demanded that the bill only encourage, and not require, 50 percent of vending machine products to be healthy. To save the legislation, Senator Sandoval acceded, and SB 103 passed and was signed by Governor Bill Owens in its weakened form.

To aid the new law's implementation, staff at the Colorado Department of Education (CDE) and the Colorado Department of Public Health and Environment (CDPHE) teamed with district leaders, beverage industry representatives, and advocates to develop a guide for school districts to implement the new law, even though the standard was only "encouraged." Although the beverage industry withdrew from the final report, the guide helped districts with implementation issues. In addition, the Colorado Association of School Boards (CASB) wrote and disseminated to school boards across the state a sample policy to be adopted implementing the 50 percent vending machine language of SB 103.

In the two ensuing years, CPSN advocated to the legislature to change the language of the state vending machine law from "encouraged" to "required," but were blocked both times. In 2005, Senator Deanna Hanna sponsored the bill (SB 197) to make this change and it passed the Colorado Senate and the House Education Committee, but was defeated on the House floor. In 2006, House Majority Leader Alice Madden sponsored this same vending bill (HB 1056), which successfully passed both the full House and Senate, but was vetoed by Governor Owens because he viewed it as inappropriate state involvement in a local school district issue.

A Holistic Approach: Wellness Policies (2005-06)

At the end of 2004, Congress passed the reauthorization of the Child Nutrition Act, which included a requirement that all school districts establish a wellness policy as a condition of receiving federal meal reimbursement. These policies, which were to be adopted by June 2006, were permissive – allowing districts to have any standards, as long as the policy included school wellness goals for nutrition education and physical activity; a plan to measure implementation of the policy; involvement of parents, staff, students, district leaders and the community in developing the policy; and nutritional guidelines that could be voluntary.

Colorado enacted a conforming law in 2005 (SB 81) that encouraged districts to:

- Ensure healthful food choices in all school environments;
- Disseminate information to parents about nutritional content of school foods;
- Provide wellness instruction to students; and
- Provide physical activity to every student.

Because the language of both the federal and state laws on local wellness policies was voluntary and unspecific, most school boards passed policies that were similarly non-specific and voluntary. CASB helpfully provided a sample policy that included specific ideas for wellness policy provisions, but accurately pointed out that these were not mandatory. Once the June 2006 deadline passed, it became clear through examination of local wellness policies that most school districts in Colorado continued not to require minimum nutritional standards for all drinks or foods.



Colorado's Next Step to Improved Quality: Statewide Beverage Standard (2008)

In the summer of 2006, the beverage industry, the American Heart Association (AHA) and the William J. Clinton Foundation formed a national agreement to reduce unhealthful beverages in public schools. The agreement included a memorandum of understanding that included voluntary guidelines for healthful drinks in schools, known as the Alliance for a Healthier Generation (AHG), that excluded all sugar-based sodas and other drinks from schools, and diet sodas from elementary and middle schools. Although the guidelines were voluntary, the major beverage companies entered into it, facilitating school district alignment with the guidelines, but still allowing districts to decide their own policies.

In the year following the AHG guidelines announcement, some states enacted statewide school beverage policies based on the agreement, and the AHA worked with local school districts to adopt and implement the standards. A year later, however, only about a third of Colorado's large school districts prohibited all soda and sugary drinks from public schools.¹⁸

Because only a few Colorado districts implemented the AHG standards or any required standards in their wellness policies, state school nutrition advocates – led by the AHA and the Colorado Children's Campaign and sponsored by Senator Dan Gibbs and Representative Jim Riesberg – developed legislation in 2008 to require all school districts to include the AHG standards at a minimum in their policies by the 2009-10 school year. In testimony, proponents (including the same organizations from the vending machine bills), also argued that about half of the other states had already enacted school beverage standards at least as strict as those proposed in SB 129. Most of these laws were enacted in the three previous years. ¹⁹

The legislature and governor enacted the bill (SB 129) in a form that directed the State Board of Education (SBE) to determine certain details, but maintained the AHG guidelines at a minimum. The SBE extended the diet soda prohibition to high schools.

AHA and the food industry have also worked out voluntary guidelines for school snacks, and although a smaller proportion of food companies have entered into the agreement, there are movements to advocate for these guidelines in legislation throughout the country, including in Colorado. By 2008, 23 states have statewide laws or policies that require minimum nutritional standards for school snacks in elementary, middle and/or high schools.²⁰

Improving Access: Free Lunch and Breakfast (2007-2008)

Beginning in 2007, Colorado legislators focused their attention on increasing low-income children's access to school meals. To that end, lawmakers that year enacted SB 59, sponsored by Senator Sandoval, which allowed the state to pay for school breakfasts for students from low-income families, specifically those that qualified for reduced-price lunch. These families, earning between 131 percent and 185 percent of the Federal Poverty Level (FPL) (or between \$27,052 and \$38,203 for a family of four), were paying 30 cents for every breakfast served. SB 59 eliminated the fee, making school breakfasts free to children from this low-income age group. To carry out the act, the legislature appropriated \$700,000 for school year 2007-08, and \$670,000 for school year 2008-09. The 2007 appropriation was to cover the more than 8,000 meals per day, a five to eight percent growth rate, and projected increases in program participation because of the elimination of the reduced-price fee.²¹

In 2008, Senator Sandoval again turned to the approach of supporting school meal access for low-income families' by sponsoring a bill (SB 123) to provide state funding for children in grades Kindergarten through 2 in the reduced-price lunch program. This law was funded at \$850,000 to pay for lunches for about 11,500 young children. In 2009, Senator Sandoval proposed a bill to pay for free lunches for an additional 43 full-day preschool students.



Tying it all Together: Coordinated School Health Expansion (2008)

In 2008, Colorado legislators passed a bill (HB 1224) that expanded the state's Coordinated School Health (CSH) program by including it as an allowable use of Comprehensive Health Education (CHE) funding. CSH helps schools coordinate all health-related programs and includes eight components: health education; physical education; health services; nutrition services; counseling, psychological and social services; healthy school environment; health promotion for staff; and family and community involvement.

In December of 2008, the Colorado Department of Education awarded grants to five school districts - Englewood School District, Lamar RE-2 School District, Las Animas RE-1 School District, Northeast Board of Cooperative Educational Services (BOCES) and Poudre R-1 School District.

Each district will receive \$50,000 per year for the next three years to use the Coordinated School Health model to address their highest need areas and emphasize physical education and nutrition improvements.

During the first six months of implementation, schools will create a school health team and conduct a self assessment of their schools to determine how "healthy" they are. The districts will hire health coordinators to oversee the work.

Districts have already identified some of their needs:

- Englewood School District plans to improve physical education in grades 5, 8 and 10 using fitness-gram assessments. They will also improve health education programs in grades K-5.
- Lamar RE-2 School District will improve health education and physical education through curriculum expansion and improve implementation of the district wellness policy.
- Las Animas RE-I School District will evaluate the school lunch program to improve school meals and train food service staff. The district will also involve community and parents in promoting culturally appropriate healthy food choices. In addition, the district will increase physical activity in classrooms and improve the physical education program.
- Northeast BOCES will improve physical education and health education curriculum in 10 school districts through technology and student involvement for nutrition planning. Annual student fitness plans for each student will be created and physical activity during the school day and before and after school will be increased.
- Poudre R-I School District will improve the coordination between science, health education and physical education to emphasize student wellness. The district also plans to improve the physical education classes with individual student assessments.²²

CHE funding is among the "categorical" programs that Amendment 23, Colorado's constitution's school funding amendment, requires be funded at a rate that increases from year to year by an amount equal to the rate of inflation plus one percent through FY 2010-11 and by inflation thereafter. Although no one program has to increase by this amount, the CHE grants received a \$100,000 increase in 2008 to support CSH staffing, and are proposed to increase by \$400,000 in FY 2009-10. HB 1224 allows CDE to use these funds to provide technical assistance and grants to schools to assess their school environment, improve their CSH infrastructure, and build collaboration among their staff, students and administrators.

Other efforts

Bills to require minimum hours of physical education were also proposed several times during this era, but were either defeated or vetoed.



National Review: Other State Approaches

As Colorado policymakers consider future legislation on school nutrition and physical activity, it is helpful to examine other states' policy approaches to these issues. According to the Center for Science in the Public Interest (CSPI), only 12 states (24 percent) have comprehensive school food and beverage nutrition standards that apply to the whole campus and the whole school day at all grade levels. According to CSPI, "more often states have school nutrition standards that only apply to foods and beverages sold in the cafeteria during meal periods, or that apply only to foods and beverages sold up until the end of the last lunch period."

As of November 2007, CSPI reported that 27 states prohibited the sale of sugary soft drinks in schools in at least some grade levels, 26 states have laws limiting added sugars in school snacks, and 16 states limit saturated fat in school snacks. The CSPI publication *State School Report Card 2007*, lists the most common snacks sold in schools as sugary drinks, chips, candy, cookies, and snack cakes, which can harm children's health because many of these products are high in calories, added sugars and fat, and low in nutrients.²³

The Most Common Standard: Nutritional Limits

The most typical type of school nutrition standard, spelled out in state law or rule, requires specific limits on the calories and sugar in drinks, and on calories, fat and saturated fat in snacks sold to students. Some states also prohibit the sale of any food that contains trans-fats, a known contributor to heart disease. Although most of these requirements apply to vending machines, a la carte and school store sales, a few states add school fundraisers to this list.

Most states allow healthful foods that otherwise would not qualify under the standard, such as nuts and seeds, and certain cheeses and yogurts, which are also high in fat. Fruit juices are usually allowed because of their vitamin content, but some states limit their portion sizes because of their high-sugar content.

In addition to sugar, calorie and fat restrictions, some states also restrict or prohibit fried food, sodium and artificial sweeteners, and others require minimum amounts of fiber. Some state standards require non-dairy beverages to accommodate children who are lactose intolerant.

A handful of states apply the standards to only some grade levels (Georgia and South Carolina have standards for only elementary schools; Arizona, Illinois, Tennessee and Oklahoma have standard for only elementary and middle schools), but the other states' standards encompass all grade levels. Some states have stricter standards for younger grades.²⁴

Specific AHG snack and beverage guidelines may streamline and guide future state policies in this area. In addition, Congress in 2007-08 considered a bipartisan bill, sponsored by U.S. Senators Tom Harkin and Lisa Murkowski, to establish minimum federal nutritional standards for school foods and drinks in vending machines, a la carte and school stores. Although the U.S. Senate decided to not add this provision to the farm bill in 2008, it may be proposed again in 2009.

State Example: Iowa's Nutrition Standards

After lowa's Department of Public Health data in 2006 showed one in five 5th graders to be overweight, representing increases over several years, and adult overweight rates up about eight percent over the previous decade, the state legislature took action. In 2008, lawmakers joined an increasing number of other states in passing a law to set minimum nutritional standards in schools. The statute required a state panel of health and education officials to recommend school nutrition standards for the lowa State Board of Education to adopt.

In February 2009, the state board is considered the proposed new rules to remove soda, french fries and other unhealthful foods from public schools. As with other state-approved standards, these rules would eliminate sugary drinks and limit calories, fat and sugar in snacks in vending machines and a la carte offerings.

State Examples: Increased Meal Reimbursement as Incentives

Two states, Connecticut and Pennsylvania, enacted laws recently to encourage schools to adopt stronger nutritional standards with the incentive of higher school meal reimbursement rates. Connecticut provides a 10 cent increase in the meal reimbursement and Pennsylvania provides a 1 to 3 cent increase to school districts that adhere to stricter standards. Both states have experienced widespread participation as more than half of school districts in Connecticut and about two-thirds of Pennsylvania's school districts meet the higher standard and gain the increased meal reimbursement. In both states, most schools in these districts participate.²⁵

State Example: Physical Activity / Physical Education (P.E.)

In June of 2007, Governor Rick Perry of Texas signed Senate Bill 530 into law, making it mandatory for all kids in Texas schools to have a minimum amount of physical activity every day. The law defines the level of daily activity, requiring moderate to vigorous activity, defined by the U.S. Centers for Disease Control as 5-6 and 6-7, respectively, on a 1-10 scale relative to an individual's personal capacity. A requirement for kindergarten through 5th graders to engage in physical activity for 30 minutes during P.E. or structured recess was phased in the first year; and in 2008, students in grades 6-8 will be required to participate in moderate or vigorous daily physical activity for at least 30 minutes a day for at least four semesters.

Additional components include:

- As an alternative, where a district uses block scheduling, a student may participate in 225 minutes of moderate
 or vigorous physical activity (MVPA) during each period of two school weeks;
- School district must provide for exemptions for students with illness or disabilities;
- Exemptions must be provided for students participating in extracurricular (or private league, if proof is provided) activities with a moderate or vigorous physical activity component.

As part of the bill, four million 3rd through 12th grade students in 8,000 public and private schools will undergo yearly tests – with the first creating a baseline of data for comparison. The tests will measure physical performance and the effect it has on student academic achievement levels, attendance levels, obesity, disciplinary problems and school meal program participation.

State Example: Coordinated School Health

The U.S. Centers for Disease Control emphasizes the need for schools to coordinate their health programs in an effort to reinforce messages, maximize resources and create an overall school climate focused on health and wellness.

The Coordinated School Health (CSH) program includes eight components: health education; physical education; health services; nutrition services; counseling, psychological and social services; healthy school environment; health promotion for staff; and family and community involvement.

Over the past 10 years, CDC has provided grants to 23 states, including Colorado, to fund Coordinated School Health Programs and 18 states, including Colorado, have created a state infrastructure to fund local school districts to coordinate all health and prevention-related programs. New Mexico is one state with a well-developed CSH program and is one of a handful of states that requires their schools to have such a program.

In practice, CSH is less of a program than an approach to doing business within a school. It can be adapted to the specific needs of an area or population. A school can choose to focus on mental health supports or strengthen their physical education programs or any of the eight components as they relate to student health and wellness.

The 2008 enacted Colorado legislation (HB 1224) mentioned on page 9 enhanced and funded improvements to the state's Coordinated School Health program.

Recommendations for 2009 and Beyond

Although Colorado has made important strides in improving physical activity and nutritional standards in public schools, there is much work still to be done. The last section of this report highlights some specific strategies that Colorado could implement to continue to support student wellness.

Colorado and the rest of the nation are currently in the grips of an economic recession, limiting the financial resources of the state and local governments. State policy recommendations included in this section that require increased funding will likely have to wait until the recession has lifted unless there is available funding from the pending federal economic stimulus. There are, however, other critical ways that the state can make a positive difference in this area.

Snack Standard - The state should pass legislation that requires school districts to set a minimum standard for snacks sold in vending machines, a la carte and in school stores, as was done by 2008 beverage standard law. A proposal to do so has been introduced in the 2009 session – SB 46, sponsored by Senator Sandoval. Reports indicate that the federal snack and beverage standard proposal may be again introduced in Congress, particularly as the Child Nutrition Act is up for reauthorization.

Meal Flexibility for Charter Schools - Because charter schools often lack adequate facilities for food storage and preparation, they need an alternative way to provide healthy school meals for their students. And although charter schools conduct many of their programs distinct from the district that has authorized them, Colorado rule requires any charter school meal program to be delivered by whatever vendor the district chooses. Other states, such as California, allow much greater flexibility among charter schools to choose their own school meal provider. In 2008, school nutrition advocates and CDE staff began to explore how to make this happen in Colorado through a change in rule and/or law.

Nutritional Access - Following on Colorado's free lunch and breakfast expansions of 2007 and 2008, school nutrition advocates are looking at extending free lunch to other grades. A proposed bill in 2009 (SB 33, sponsored by Senator Sandoval) would remove the fee from reduced-price school lunches for eligible parents of preschool children. Other initiatives, such as expansions of the state's summer food program and farm-to-school programs, also could support good nutrition for poor children, but absent federal aid, the state is not in a fiscal position to make these changes this year.

Physical Activity Requirement - With the pressures of No Child Left Behind and standardized test scores, students' time for physical activity and physical education have been reduced. To ensure that these important opportunities are maintained, the state should set a minimum number of hours for physical activity in schools. This could be accomplished through existing physical activity classes, fitness breaks, recess or physical activity integrated into academic classes. In this way, physical activity is not limited to only physical education classes, but rather encompasses a broader view of incorporating physical movement and activity into academic and non-academic portions of the school day.

Wellness Policy Implementation - District policies should reflect the priorities and practices of local communities. By requiring that local school districts adopt wellness policies, school districts make concrete commitments to strengthening student nutrition, physical activity and health education. To ensure that districts comply with and implement these policies, it is imperative that the wellness councils or committees encouraged by federal and state law are living, active entities. A state requirement that continues these councils' existence and specifies their duties would promote student wellness at the local levels.

Increase Funding for Comprehensive Health Education (CHE) for Coordinated School Health - Because CHE is included in the Amendment 23 categorical programs, it is among a small group of programs that are, when taken together, immune from the state budget downturns. By increasing state funding for this program, the state will be able to provide more resources to wellness education and the number of coordinated health services in schools. For the 2009-10 Colorado budget, the state Office of Planning and Budget has requested that the legislature increase the CHE program by \$400,000, which would raise the program to an overall funding level of just over \$1 million.

Clearly, many challenges and opportunities exist as schools work to ensure they are healthy places for children, but research and experience show the commitment to this effort pays off not only in children's physical well-being, but in their success in school and life.

ENDNOTES

- ¹ Colorado Children's Campaign 2008 KidsCount in Colorado!, p.#5.
- ² Bogden, J.F. Fit, Healthy, and Ready to Learn: A School Health Policy Guide. Alexandria, VA: National Association of State Boards of Education, 2000.
- ³ "Colorado Voters Overwhelmingly Support Improving Nutrition, Removing High-Sugar Beverages, High-Sugar Foods and High Fat Foods from Colorado's Schools," *American Viewpoint*, October 2008.
- ⁴ Minnesota Department of Children, Families and Learning. School Breakfast Programs Energizing the Classroom, 1998; U.S. Department of Health and Human Services: "Guidelines for School Health Programs to Promote Lifelong Healthy Eating." Morbidity and Mortality Weekly Report Recommendations and Report, 1996, June 14; 45:RR-9.
- ⁵ Colorado Department of Public Health and Environment 2007 Child Health Survey: http://www.cdphe.state.co.us/hs/yrbs/chs2007PUB.pdf, accessed on December 19, 2008.
- ⁶Brown, L. and Pollitt, E. "Malnutrition, Poverty and Intellectual Development." Scientific American, 1996;274(2):38-43; Alaimo, K., Olson, C.M., Frongillo Jr., E.A. "Food Insufficiency and American School-Aged Children's Cognitive, Academic, and Psychosocial Development." Pediatrics, July 2001;108(1):44-53; Center on Hunger, Poverty, and Nutrition Policy. Statement on the Link between Nutrition and Cognitive Development in Children. Medford, MA: Tufts University School of Nutrition, 1995; Pollitt, E., Leibel, R., Greenfield, D. "Brief Fasting, Stress, and Cognition in Children." American Journal of Clinical Nutrition, 1991;34 (August):1526-1533; Quendler, S. Link Between Nutrition, Physical Activity, and Academic Achievement. Literature Review, 2002.
- ⁷ Florence, M.D., Asbridge, M., Veugelers, P. "Diet Quality and Academic Performance" Journal of School Health, April 2008; 78,(4).
- ⁸ Coe, D. P., et al. (2006). "Effect of Physical Education and Activity Levels on Academic Achievement in Children." Medicine & Science in Sports & Exercise, 2006; 38(8),1515–1519; California Department of Education "The Relationship Between Physical Fitness and Academic Achievement," 2001 PFT/SAT-9 Study, Sacramento, CA., 2002; Sallis, J.F., et al., "Effects of Health-Related Physical Education on Academic Achievement" Project SPARK Research Quarterly for Exercise and Sport, 1999; 70(2), 127-134; Field T. Diego M. Sanders C.E. "Exercise is Positively Related to Adolescents' Relationships and Academics." Adolescence, 2001;36:105-110.
- ⁹ Massachusetts General Hospital, www.mindmoodandmemory.com February 2007.
- 10 http://www.news-medical.net/?id=2144.
- 11 Medina, J. http://www.brainrules.net/exercise, 2008.
- ¹²Toppino, T. C., Kasserman, J. E. and Mracek, W.A. "The Effect of Spacing Repetitions on the Recognition Memory of Young Children and Adults." *Journal of Experimental Child Psychology*, 51(1): 123-38.
- ¹³ Pediatrics, April 2008, 121(4) e794-e802 (doi:10.1542/peds.2007-1365), A Policy-Based School Intervention to Prevent Overweight and Obesity, Foster, G.D., Sherman, S., et al. "A Policy-Based School Intervention to Prevent Overweight and Obesity," Pediatrics
- ¹⁴ Schwimmer, J. B., Burwinkle, T. M. and Varni, J.W. "Health-Related Quality of Life of Severely Obese Children and Adolescents," *Journal of the American Medical Association* 2003, 289, no. 14 (2003): 1813–19; Tershakovec, A. M., Weller, S. C. and Gallagher, P. R. "Obesity, School Performance and Behaviour of Black, Urban Elementary School Children," *International Journal of Obesity & Related Metabolic Disorders* 1994 18, no. 5 323–27.
- ¹⁵ Health Research Institute "Bibliography for Aggressive and Violent Behavior" http://www.hriptc.org/bib_avb.htm.
- ¹⁶ http://www.education.ca.gov/nr/ne/yr03/yr03rel07.asp?print=yes.
- ¹⁷ Center for Science in the Public Interest http://www.cspinet.org/nutritionpolicy/improved school foods without losing revenue2.pdf.
- ¹⁸ Colorado Children's Campaign Sampling of Major School Districts' Wellness Policies, August 2007.
- ¹⁹ Center for Science in the Public Interest State Schools Food Report Card 2007.
- ²⁰ Ibid.
- ²¹ SB 07-59 Fiscal Note; SB 08-123 Fiscal Note.
- ²² http://www.cde.state.co.us/communications/download/PDF/20081217statewellnessKCedits.pdf.
- ²³ Center for Science in the Public Interest State Schools Food Report Card 2007, p. 6-7.
- ²⁴ Ibid.
- ²⁵ Fekete, V. Pennsylvania Department of Education January 3, 2008 phone conversation; Fiore, S. Connecticut Department of Education January 9, 2008, phone conversation.



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Acknowledgements

The authors would like to thank the staff of the Colorado Children's Campaign for help in writing, revising and producing this report, including Nina Lopez, Chris Watney, Rob Sherow and Josephine Canales.

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