bridging the gap

Research Informing Policies & Practices for Healthy Youth

School District Wellness Policies: Evaluating Progress and Potential for Improving Children's Health Three Years After the Federal Mandate

VOLUME 2

2006-2007 2007-2008 2008-2009 SCHOOL YEARS

> nationwide evaluation results

August 2010

About Bridging the Gap

Bridging the Gap is a nationally recognized research program of the Robert Wood Johnson Foundation dedicated to improving the understanding of how policies and environmental factors affect diet, physical activity and obesity among youth, as well as youth tobacco use. The program identifies and tracks information at the state, community and school levels; measures change over time; and shares findings that will help advance effective solutions for reversing the childhood obesity epidemic and preventing young people from smoking. Bridging the Gap is a joint project of the University of Illinois at Chicago's Institute for Health Research and Policy and the University of Michigan's Institute for Social Research. For more information, visit www.bridgingthegapresearch.org.

bridging the gap

Research Informing Policies & Practices for Healthy Youth

University of Illinois at Chicago Institute for Health Research and Policy 1747 West Roosevelt Road, 5th floor (M/C 275) Chicago, IL 60608 (866) 757-4507 www.bridgingthegapresearch.org

This report was written by the Bridging the Gap program at the University of Illinois at Chicago with support from the Robert Wood Johnson Foundation. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the Foundation.

Suggested Citation

Chriqui JF, Schneider L, Chaloupka FJ, Gourdet C, Bruursema A, Ide K and Pugach O. School District Wellness Policies: Evaluating Progress and Potential for Improving Children's Health Three Years after the Federal Mandate. School Years 2006–07, 2007–08 and 2008–09. Vol. 2. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2010, www.bridgingthegapresearch.org.

About the Authors

Jamie Chriqui, Ph.D., M.H.S., directs all policy research for the Bridging the Gap program and is a research associate professor in Political Science and senior research scientist within the Health Policy Center in the Institute for Health Research and Policy at the University of Illinois at Chicago.

Linda Schneider, D.C., M.S., Camille Gourdet, J.D., M.A., Amy Bruursema, Kristen Ide and Oksana Pugach, M.S. are with the Bridging the Gap program located within the Health Policy Center in the Institute for Health Research and Policy at the University of Illinois at Chicago.

Frank Chaloupka, Ph.D., co-directs the Bridging the Gap program and is a distinguished professor of Economics and director of the Health Policy Center in the Institute for Health Research and Policy at the University of Illinois at Chicago.

This report, or part of, may be reproduced without prior permission provided the above citation is listed.

Copyright 2010 Bridging the Gap

For questions about the content of the report, contact:

Jamie F. Chriqui, Ph.D., M.H.S.
Bridging the Gap
Health Policy Center
Institute for Health Research and Policy
University of Illinois at Chicago
Tel.: (312) 996-6410
E-mail: jchriqui@uic.edu

Support for this publication was provided by the Robert Wood Johnson Foundation.

The Robert Wood Johnson Foundation focuses on the pressing health and health care issues facing our country. As the nation's largest philanthropy devoted exclusively to improving the health and health care of all Americans, the Foundation works with a diverse group of organizations and individuals to identify solutions and achieve comprehensive, meaningful and timely change. For more information, visit www.rwjf.org.



Table of Contents

Introduction —	——⊸ page 4
Report Overview	——⊸ page 5
Major Findings and Trends	——⊸ page 6
Summary of Key Findings	——⊸ page 9
Competitive Foods and Beverages —	——⊸ page 9
Access and Content Restrictions	——⊸ page 9
Vending Contracts and Marketing Practices ————————————————————————————————————	——⊸ page 10
School Meals —	——⊸ page 10
Nutrition Education —	——⊸ page 11
Physical Activity and Physical Education ————————————————————————————————————	——⊸ page 12
Requirements for Implementation and Evaluation of Wellness Policies ————————————————————————————————————	——⊸ page 13
Next Steps	——⊸ page 14
Wellness Policy Data	——⊸ page 15
Table 1: Percentage of Students in Districts Nationwide with Wellness	
Policy Provisions, School Years 2006–07, 2007–08 and 2008–09	
Competitive Food and Beverage Content Restriction Data	——⊸ page 22
Table 2: Percentage of Students in Districts Nationwide with Wellness Policies	
Addressing Competitive Food and Beverage Content Restrictions by	
Grade Level and Location of Sale, School Year 2008–09	
Study Methods —	——⊸ page 29
Acknowledgements —	——⊸ page 29
References —	——⊸ page 30

Introduction

In the United States, obesity rates among children of all ages are dramatically higher than they were a generation ago, and there are significant ethnic and racial disparities. Obese children are at increased risk for serious health problems, including heart disease, type 2 diabetes and asthma. Each year the United States spends \$14 billion in direct health expenses attributed to childhood obesity.

Schools play an important role in the lives of our children. Past research has shown that overweight and obese children tend to miss more school,⁴ which may affect academic performance.⁵ In contrast, strong evidence links healthy nutrition and physical activity behaviors with improved academic performance and classroom behavior.^{6,7} And there is growing evidence that school-based policies regulating foods and beverages and required levels and types of physical activity are significantly related to calories consumed and expended by school-age children, and to their weight and body mass index levels.⁸⁻¹¹

Federal Requirement for School District Wellness Policies

Schools serve as a fundamental setting for providing children and adolescents with a healthy environment where they can consume nutritious meals, snacks and beverages; get regular physical activity; and learn about the importance of lifelong healthy behaviors. Recognizing this, Congress included language in the Child Nutrition and WIC Reauthorization Act of

2004 (P.L. 108-265, Section 204) that required school districts^a participating in the National School Lunch Program (NSLP; [42 U.S.C.1751 et seq.]) or other child nutrition programs (42 U.S.C. 1771 et seq.), such as the School Breakfast Program, to adopt and implement a wellness policy by the first day of the 2006–07 school year.

According to the Act, the wellness policies were required to include:

- goals for nutrition education;
- an assurance that school meal nutrition guidelines meet the minimum federal school meal standards;
- guidelines for foods and beverages sold outside of school meal programs (i.e., "competitive foods and beverages");
- goals for physical activity and other school-based activities; and
- implementation plans.

Although the federal mandate did not authorize funding for school districts to implement these policies, it does have significant potential for improving school nutrition and physical activity environments for millions of students nationwide. For example, during school year 2008–09, more than 31 million students participated in the National School Lunch Program, and more than 10 million students participated in the School Breakfast Program. 14,15

4 Introduction

aln the United States, public schools are governed by local education agencies at the school-board, town or district level. Local education agencies adopt policies that apply to all schools within their jurisdiction.

Report Overview

This report provides updated results from the most comprehensive analysis of written wellness policies to date, and includes data from the first three years following the required adoption date for wellness policies. The major findings and trends presented in this report identify areas where progress has been made in strengthening the written policies, as well as opportunities for improvement.

The report also highlights key findings most critical for informing efforts to make the school environment healthier for students and to prevent childhood obesity. These data are especially relevant to the upcoming federal reauthorization of both the Child Nutrition Act and the Elementary and Secondary Education Act, and they provide specific guidance for recommendations included in the 2010 White House Task Force report on childhood obesity. ¹⁶

This report concludes with Table 1, which summarizes all data analyzed from the 2006–07, 2007–08 and 2008–09 school years, and Table 2, which provides details about competitive food and beverage content restrictions by location of sale for the 2008–09 school year.

Findings are based on nationally representative samples of school districts each year. A brief overview of the study methodology is included at the end of this report. More information, including complete data for the three years studied, is available at www.bridgingthegapresearch.org.

This report serves as an update to our first report on district wellness policies, which was released in July 2009.¹⁷ New data presented in this report:

- highlight district policies for competitive products by location of sale—and identify policy gaps that fail to restrict student's access to unhealthy foods and beverages during the school day.
- examine how closely district policies aligned with the Institute of Medicine's 2007 nutritional standards for competitive
 products sold in schools, which called for increasing the availability of fruits, vegetables and whole grains; decreasing
 saturated fat, trans fat, added sugars, salt and calories; prohibiting sugar-sweetened beverages; limiting milk to 1% or nonfat
 options; limiting the sugar and calorie content of flavored milk; and limiting caffeine content and beverage serving sizes.
- explore provisions that go beyond the current federal wellness policy requirements to specifically address physical education
 and other topics, such as joint use of school facilities, safe routes to school, and marketing of foods and beverages on campus.

For each policy provision analyzed in this study, data are presented on the percentage of students in a district with: 1) a strong policy; 2) a weak policy; or 3) no policy. We defined **STRONG POLICY PROVISIONS** as those that required action and specified an implementation plan or strategy. They included language such as *shall, must, will, require, comply* and *enforce.* **WEAK POLICY PROVISIONS** included vague terms, suggestions or recommendations, and some required action, but only for certain grade levels or times of day. They included language such as *should, might, encourage, some, make an effort to, partial* and *try.*

Major Findings and Trends

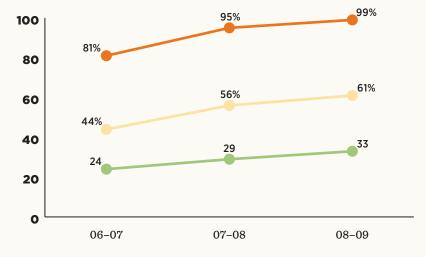
District wellness policy provisions generally have improved during the three years since the federal mandate went into effect, yet they remained weak overall and many did not align with national recommendations for nutrition or physical activity.

As Figure 1 indicates, virtually all students were enrolled in a district with a wellness policy and the majority of those policies complied with requirements of the Child Nutrition Act by the beginning of school year 2008–09. However, three years after the mandate, a sizeable percentage of students still had a policy that did not include all of the required provisions.

Many written policies included provisions that were not required by the Act, such as goals or guidelines for physical education, and some written policies exceeded federal requirements by including standards for school meals that were more stringent than those specified in the Act. Yet the average strength of the wellness policies was relatively low. Many policies included weak and vague language that suggested, but did not require, action. In fact, at the beginning of the 2008–09 school year, only one-third of the provisions evaluated for this study were strong provisions, defined as those that were clearly required by the wellness policy.

FIGURE 1 Wellness Policy Status, Compliance and Strength

- Policy status: % of students in a district with a wellness policy
- Policy compliance: % of students in a district with a fully compliant wellness policy
- Policy strength: average strength score for written policy components (out of 100)



Policy Status refers to whether a written wellness policy was adopted by the first day of the given school year. For purposes of this study, the day after Labor Day of each year was used as a proxy for the first day of the school year.

Policy Compliance refers to the extent to which the wellness policy included all of the federally required elements.

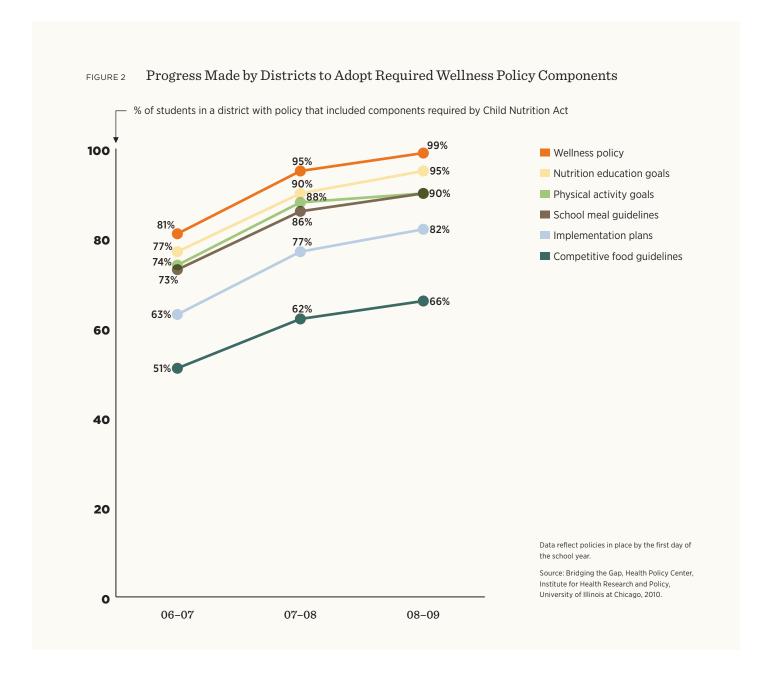
Policy Strength is based on a scale of 0 to 100 and reflects the average strength for written components related to federally required elements. We defined STRONG POLICY PROVISIONS as those that were definitively required.

Data reflect policies in place by the first day of the school year.

Source: Bridging the Gap, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2010.

Figure 2 details progress made by districts to adopt written wellness policy provisions that address each of the components required by the federal mandate. While there has been improvement over time to meet requirements for each of the six components, there continued to be a wide gap in compliance among the mandatory provisions. District wellness policy provisions related to nutrition education, school meals and physical activity were more likely to comply with the federal requirements than were provisions related to competitive foods and beverages and implementation

plans. Some of this gap may have been due to policies that excluded certain competitive products or venues, such as guidelines that only applied to either competitive foods or beverages but not both, or to vending machines and à la carte cafeteria lines, but not to other locations of sale. Further, some policies did not have guidelines for competitive products that applied to the entire school day. Policies regarding implementation plans also were lacking, with some failing to identify an entity responsible for implementation efforts.



The following section describes areas where major progress has been made to strengthen the written wellness policies as well as areas where improvement is still needed. Methods are described on page 29.

Nutrition

While districts have strengthened provisions for competitive products, school meals and nutrition education since the federal mandate took effect, policies remained weak overall, and many did not align with requirements of the federal mandate or with current nutritional recommendations. Major findings from the 2008–09 school year include:

- wellness policies did not address all requirements included in the federal mandate for competitive foods and beverages, primarily because the policies set guidelines for some, but not all, competitive products or venues on campus or because the guidelines applied only to certain times of day.
- although it was not required by the federal mandate, many wellness policies reflected some of the 2007 IOM nutritional standards for competitive foods and beverages,²⁰ but no district had a policy that met all of the IOM standards. Provisions regarding the availability of sugar-sweetened beverages, limits on sodium content of snacks and restrictions on items sold in some competitive venues were especially weak.
- provisions describing nutritional standards for competitive foods and beverages were markedly stronger in elementary schools than in middle or high schools.
- few wellness policies prohibited the marketing of unhealthy foods and beverages at school, which was not surprising given that it was not required by the mandate.
- progress has been made to strengthen nutritional guidelines for school meals, but many policies did not require school meals to meet the 2005 Dietary Guidelines,²¹ which are based on current nutrition science.
- nutrition education policies tended to be stronger in districts where state laws and curricula frameworks had stronger requirements for nutrition education.

Physical Activity

Overall, the provisions adopted to boost in-school and after-school levels of physical activity have improved since the Act took effect, yet many policies still did not comply with national recommendations for in-school physical activity levels. Major findings from the 2008–09 school year include:

- provisions related to physical activity were weaker and much less prominent in the written wellness policies than were provisions related to nutrition.
- most district policies addressed physical education, although it was not required by the federal mandate.
- physical education provisions generally were not aligned with evidence-based guidelines for time spent in physical education or recommendations for engaging students in moderate-to-vigorous physical activity.
- districts generally have not used the wellness policies to address community use of school facilities for physical activity (i.e., "joint use") or safe routes to school, which was likely because the federal mandate did not require districts to address these issues.

Wellness Policy Provisions for Implementation

Written provisions for wellness policy implementation have been strengthened since the federal mandate went into effect, yet they remained weak overall, and evaluation components were especially lacking. Major findings from the 2008–09 school year include:

- the vast majority of districts did not identify a source of funding to support implementation of wellness policy provisions.
- there was little emphasis on evaluating implementation efforts or reporting on schools' compliance with the district wellness policy.
- there was an increase in the percentage of districts that required ongoing health advisory councils to be established and responsible for wellness policy oversight and implementation efforts.

8 Major Findings and Trends

Summary of Key Findings

Competitive Foods and Beverages

The Child Nutrition and WIC Reauthorization Act of 2004 required wellness policies to include guidelines for competitive foods and beverages. The following key findings and policy opportunities highlight areas where districts' written policies exceeded federal requirements—by setting more stringent standards or addressing issues that were not required by the mandate—as well as areas where more progress is needed.

For example, the federal mandate did not require districts to align with the 2007 IOM nutritional standards for competitive foods and beverages, ²² yet some districts did incorporate various IOM standards into their written policies, and, consequently, exceeded the minimal guidelines required by the Act. Because of this, we expanded our evaluation for the 2008–09 school year to explore alignment between the wellness policies and the 2007 IOM standards for competitive foods and beverages. ²³ Detailed data on all provisions related to competitive foods and beverages that were examined in the study are available in Tables 1 and 2.

Competitive Food and Beverages: Access and Content Restrictions

Key Findings

By the beginning of the 2008–09 school year, the majority of students were in a district with a written wellness policy that included nutrition guidelines for competitive foods and beverages, but the scope of the guidelines varied greatly and they were markedly weaker for middle and high schools than they were for elementary schools. For example:

- no policies banned competitive foods and beverages at the middle or high school levels and only 7 percent banned such products at the elementary school level.
- nutritional content restrictions on vending machines, à la carte sales in the cafeteria and school

stores were more common than restrictions on in-school fundraisers or, at the elementary school level, classroom parties or the use of food as a reward.

Some districts had wellness policies that incorporated some of the 2007 IOM standards for competitive foods and beverages, ²⁴ although none met all of the standards. At the beginning of the 2008–09 school year:

- written wellness policy provisions for sugar-sweetened beverages were especially weak compared with IOM standards, and were markedly weaker for middle and high school students compared with elementary school students.
 - Fewer than 15 percent of middle school students and only 5 percent of high school students were in a district that either banned competitive beverage sales or banned the sale of regular soda and other sugar-sweetened beverages through vending machines, school stores or à la carte in the cafeteria.
 - More than three-quarters of all high school students were in a district that did not address many types of sugar-sweetened beverages (excluding regular sodas) in its wellness policy.
- · limits on sodium also were lacking.
 - With the exception of students in a district that banned competitive food sales, no students were in a district with a wellness policy that met the 2007 IOM standard for limiting the sodium content of snacks sold in competitive venues to ≤200 mg per portion.
- some wellness policies did include guidelines that aligned with the 2007 IOM standards for sugar, fat and calorie content; completely banned competitive foods and/or beverages; or prohibited competitive products from being sold in certain venues.
- few policies limited competitive products to healthy options.
 - Only1percent of elementary school students and no middle or high school students were enrolled in a district that suggested or required limiting competitive foods to fruits and vegetables and/ or whole grains, as recommended by the IOM in 2007.²⁵

Policy Opportunities

Update Nutritional Standards for Competitive Foods and Beverages Sold in Schools

Nutritional standards for competitive foods and beverages are weak and out of date. While some districts have set nutritional standards that align with some of the 2007 IOM standards for competitive foods and beverages, sales of competitive products are largely unregulated in many districts. Congress should give USDA the authority to update national nutrition standards for foods and beverages sold outside of the school meal programs and apply them to the entire campus for the full school day. States and school districts also have the opportunity to update nutrition standards to bring them into greater compliance with the 2007 IOM standards as they review and refine competitive food and beverage policies.

Competitive Foods and Beverages: Vending Contracts and Marketing Practices

Key Findings

Because the federal mandate did not address vending contracts or marketing practices for foods and beverages on campus, it is not surprising that relatively few districts included wellness policy provisions that focused on these issues. At the beginning of the 2008–09 school year:

- most district policies did not set strict nutritional guidelines for future vending contracts.
 - Only 22 percent of students were enrolled in a district that required competitive food and/or beverage contracts to comply with the district's nutrition standards upon renewal or renegotiation.
- district policies for marketing of foods and beverages varied greatly.
 - About 25 percent of students were enrolled in a district that discouraged or prohibited marketing of unhealthy foods and beverages in schools.
 - Few students were in a district that required healthy foods and beverages to be promoted on campus.

Policy Opportunities

Ensure That Competitive Food and/or Beverage Contracts Align with District Nutrition Standards

When renewing or renegotiating competitive food and beverage contracts, districts have an opportunity to ensure that their nutrition standards for competitive foods and beverages are consistently applied 1) to contracted items and 2) across all grade levels.

Restrict Food Marketing and Advertising

Wellness policies provide a vehicle for addressing marketing practices in schools to ensure promotion of healthy foods and beverages.

School Meals

The Child Nutrition and WIC Reauthorization Act of 2004 required wellness policies to include an assurance that school meal nutrition guidelines meet the minimum federal school meal standards. The following key findings and policy opportunities highlight areas where districts' written policies exceeded federal requirements—by setting more stringent standards or addressing issues that were not required by the mandate—as well as areas where more progress is needed. Detailed data on all provisions related to school meals that were examined in the study are available in Table 1.

Key Findings

While the vast majority of students were enrolled in a district that complied with the federal mandate and required school meals to meet the U.S. Department of Agriculture (USDA) standards, these standards are outdated and based on the 1995 Dietary Guidelines for Americans,²⁶ which do not reflect current nutrition science.²⁷ Because many policies were more stringent, we also assessed whether districts: 1) met or exceeded the 2005 Dietary Guidelines,²⁸ which are based on the most current nutrition science; or 2) met the school meal standards recommended in 2009 by the IOM,²⁹ such as increasing the availability of fruits, vegetables or whole grains and limiting milk to 1% or skim options.

10 Key Findings

During the first three years of the requirement, nutritional guidelines for school meals that were included in the written wellness policies improved, yet they remained relatively weak overall. For example:

- slightly more than one-half of students were enrolled in a district with a wellness policy that required nutritional guidelines for school meals to meet the 2005 Dietary Guidelines, which exceeds standards set by the federal mandate.
- from the 2006-07 to the 2008-09 school year, the
 percentage of students in a district with a wellness
 policy that required school meals to exceed the 2005
 Dietary Guidelines or meet the 2009 IOM standards increased from 10 percent to 20 percent at the
 elementary school level and from 10 percent to 17
 percent at the middle and high school levels.
- fewer than 15 percent of students were in a district with a wellness policy that required providing 20 minutes for lunch and 10 minutes for breakfast, which are recommended by the USDA as adequate for meal periods.³⁰

Policy Opportunities

Improve Nutritional Quality of School Meals

The USDA should expeditiously update school meal regulations to be consistent with the 2005 Dietary Guidelines and 2009 IOM nutritional standards for school meals. In addition, school districts should ensure that meals provided are consistent with both the most current Dietary Guidelines and the IOM standards.

Nutrition Education

The Child Nutrition and WIC Reauthorization Act of 2004 required wellness policies to include goals for nutrition education. The following key findings and policy opportunities highlight areas where districts' written policies exceeded federal requirements—by setting more stringent standards or addressing issues that were not required by the mandate—as well as areas where more progress is needed. Detailed data on all provisions related to nutrition education that were examined in the study are available in Table 1.

Key Findings

Three years after the wellness policy requirement went into effect, there was great inconsistency in how the policies addressed goals for nutrition education. At the beginning of the 2008–09 school year:

- nearly one-half of students were enrolled in a district with a wellness policy that only suggested a nutrition education curriculum or did not indicate whether nutrition education was a component of the school health education curriculum.
- nearly one-half of students were enrolled in a district with a wellness policy that did not address integrating nutrition education into core subjects.
- provisions for teaching behavior-focused nutrition skills, such as understanding food labels and caloric balance, were more suggestive than prescriptive.
 - More than three-quarters of students were enrolled in a district with a wellness policy that addressed teaching behavior-focused nutrition skills, yet about one-third of those students had a wellness policy that encouraged but did not require this.
- the vast majority of students were in a district with a wellness policy that did not require nutrition-related training for teachers or for food service staff.

Policy Opportunities

Ensure That Nutrition Education and Promotion are Core Components of a Comprehensive Health Education Program

The health education curricula for all students should include nutrition-specific elements that focus on teaching lifelong behavior-focused nutrition skills. School districts also should adopt a comprehensive nutrition education and promotion initiative as part of the health education curricula that reaches students in the classroom, the cafeteria and throughout the school.

Provide Training and Support for Food Service Staff

Districts should ensure that food service staff receive proper training and technical assistance on meal preparation and other nutrition-related issues.

Physical Activity and Physical Education

The Child Nutrition and WIC Reauthorization Act of 2004 required wellness policies to include goals for physical activity. The following key findings and policy opportunities highlight areas where districts' written policies exceeded federal requirements by setting more stringent standards or by addressing issues that were not required by the mandate, such as physical education, joint use or safe routes to school. Areas where more progress is needed also are described. Detailed data on all provisions related to physical activity and physical education that were examined in the study are available in Table 1.

Key Findings

While most students were in a district with a written wellness policy that included goals for physical activity, the strength of the provisions related to physical activity varied greatly. For example, three years after the wellness policy requirement took effect:

- the majority of students were enrolled in a district with a wellness policy that neither required physical activity opportunities outside of physical education nor required breaks throughout the school day, and only 20 percent of elementary school students were enrolled in a district that required daily recess.
- fewer than 15 percent of all students were in a district with a wellness policy that required making school facilities available for community use ("joint use") and fewer than 10 percent were in a district that required safe routes to school.
- most districts went beyond the requirements of the federal mandate to address physical education in their wellness policies, but very few met national standards for quality physical education programs as recommended by the National Alliance for Sport & Physical Education (NASPE) or the U.S. Department of Health and Human Services (USDHHS).
 - Fewer than 10 percent of students were enrolled in a district with a wellness policy that met the

- USDHHS *Healthy People 2010* recommendations for time devoted to moderate-to-vigorous physical activity (i.e., devoting at least 50% of physical education time to moderate-to-vigorous physical activity).³¹
- Only 6 percent of elementary school students and 2 percent of middle and high school students were in a district with a wellness policy that met NASPE recommendations for physical education (i.e., 150 minutes per week at the elementary school level and 225 minutes per week at the middle and high school levels).³²
- Evidence from two major studies indicates that the quantity and quality of physical education improves when classes were taught by certified physical education specialists or by classroom teachers trained in physical education. 33-35 Yet, the vast majority of students were enrolled in a district with a wellness policy that neither required physical education to be taught by a state-authorized physical educator nor required formal, physical education training to be provided for persons teaching physical education.

Policy Opportunities

Continue to Strengthen In-School Physical Activity Provisions

Districts should include additional strategies in their wellness policies to increase time spent in moderate-to-vigorous physical activity during the school day, either in physical education classes or in recess or brief physical activity breaks. Such changes could help more children meet the USDHHS recommendation for at least 60 minutes of daily physical activity.³⁶

Expand Policies to Address Physical Education

Congress, states and school districts should encourage and support efforts to ensure that active physical education remains a priority, and to establish specific goals that are more closely aligned with evidence-based guidelines, such as the minimum amount of physical education time during which students are engaged in moderate-to-vigorous physical activity.

12 Key Findings

Ensure that Physical Education is Taught by Trained Physical Educators

States and school districts should ensure that physical education is taught by trained physical educators—whether by state-authorized physical educators or by a broader subset of teachers with formal training in physical education skills and concepts.

Expand Wellness Policies to Address Joint Use and Safe Routes to School

Wellness policies provide an opportunity for school districts to express their commitment to joint-use agreements that would expand community access to school-based physical activity settings. Districts also may include wellness policy provisions that support safe routes to school and promote active commuting among students.

Requirements for Implementation and Evaluation of Wellness Policies

The Child Nutrition and WIC Reauthorization Act of 2004 required wellness policies to include implementation plans. The following key findings and policy opportunities highlight areas where districts' written policies exceeded federal requirements—by setting more stringent standards or addressing issues that were not required by the mandate—as well as areas where more progress is needed. Detailed data on all written policy provisions related to implementation that were examined in the study are available in Table 1.

Key Findings

As of the beginning of the 2008–09 school year, most districts included plans for implementation in their written wellness policies as required by the federal mandate, which was a marked improvement over previous years. However, requirements for reporting on policy compliance and/or implementation, evaluation plans, and funding were limited. For example, three years after the wellness policy requirement took effect:

- the vast majority of students were in a district that included implementation plans in its wellness policy.
- more than one-half of students were in a district that required an ongoing health advisory council or school wellness council to oversee implementation, compliance and reporting on wellness policy progress.
- fewer than 20 percent of students were in a district that required an evaluation of the implementation of its wellness policy.
- only one-third of students were in a district that required plans for continued policy review and revision and/or reporting on policy compliance or implementation.
- only 1 percent of students were in a district that definitively identified a source of funding to support implementation of its wellness policy.

Policy Opportunities

Provide Adequate Resources to Support Wellness Policy Implementation

Lack of resources, including funding, for wellness policy implementation, monitoring and evaluation has been widely cited as a barrier to wellness policy implementation. ^{37–39} Providing adequate resources to help school districts and schools implement and evaluate their wellness policies will continue to be a key issue for policy-makers at all levels of government.

Ensure That Implementation and Evaluation Are a High Priority for Districts and Schools

Evaluation and monitoring of wellness policy implementation by districts and schools will help inform Congress, states, districts and schools about the extent to which wellness policies are improving children's health, as well as opportunities for improving school-based nutrition and physical activity environments.

Next Steps

The Bridging the Gap team has been collecting nationally representative data on written district policies and on school practices in elementary, middle and high schools on an annual basis since the 2006–07 school year, which was the first year of the federal wellness policy mandate. Future district-level studies will examine changes to written policies that result from reauthorizations of federal child nutrition programs and the Elementary and Secondary Education Act. Data from future reports also will highlight progress and innovations at the state and district levels; identify opportunities for making wellness policy provisions stronger and more effective; and help document how districts address recommendations of the White House Task Force on Childhood Obesity. 40

Companion studies examine school-level implementation of the wellness policies, as well as other practices and school environments related to student health in U.S. elementary, middle and high schools. Future Bridging the Gap studies will examine the effects of district wellness policies and environments, and related community policies and environments, on secondary school students' self-reported diet, physical activity levels and body mass index. This research is critical for assessing the nation's progress in creating healthier school environments to help reverse the childhood obesity epidemic. More information about these studies and the companion reports are available at www.bridgingthegapresearch.org.

14 Next Steps

Wellness Policy Data

The following table summarizes most of the data compiled for this study for school years 2006–07, 2007–08 and 2008–09. All data are weighted to reflect the percentage of elementary, middle and high school students nationwide who were enrolled in a district with a given policy provision. All data reflect policies in place by the first day of the given school year. More details, including data presented at the district level and for various subpopulations and geographic areas, are available at www.bridgingthegapresearch.org.

We defined **STRONG POLICY PROVISIONS** as those that required action and specified an implementation plan or strategy. They included language such as *shall, must, require, comply* and *enforce.* **WEAK POLICY PROVISIONS** offered suggestions or recommendations, and some required action, but only for certain grade levels or times of day. They included language such as *should, might, encourage, some, make an effort to, partial* and *try.*

Where applicable, significant change across the categories (no policy, weak policy and strong policy) over the three-year period is identified and was computed using chi-square statistics.

TABLE 1 Percentage of Students in Districts Nationwide with Wellness Policy Provisions, School Years 2006–07, 2007–08 and 2008–09

		% OF STUDENTS IN DISTRICTS NATIONWIDE										
Selected Policies for Competitive Foods	E	Elementary			Middle			High				
and Beverages [†]	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09			
Nutrition guidelines for competitive foods an	d beverages	‡ (Require	d wellness µ	oolicy elemen	nt)							
No policy	19%	6%	4%	22%	8%	4%	24%	11%	7%			
Weak policy	27%	28%	25%	28%	30%	29%	28%	30%	33%			
Strong policy	55%	65%	70%	50%	62%	67%	47%	59%	60%			
Significant change over 3-year period		— p<.001			— p<.001			— p<.001				
Nutrition guidelines apply to competitive foo	d and/or be	verage cor	ntracts									
No policy	82%	78%	68%	83%	79%	69%	84%	81%	70%			
Weak policy	3%	4%	10%	3%	4%	9%	3%	3%	89			
Strong policy	15%	18%	22%	14%	17%	22%	13%	16%	229			
Significant change over 3-year period		— p<.001			— p<.001			— p<.001				
Nutrition information for competitive foods a	nd/or bever	ages										
No policy	90%	84%	91%	92%	84%	90%	92%	82%	90%			
Weak policy	4%	5%	5%	4%	4%	5%	4%	5%	49			
Strong policy	6%	12%	5%	4%	12%	5%	4%	13%	6%			
Significant change over 3-year period		— p<.001			— p<.01			— p<.05				
ACCESS RESTRICTIONS												
Competitive food and/or beverage ban												
No policy	84%	82%	81%	97%	95%	96%	99%	98%	98%			
Weak policy	14%	16%	13%	3%	5%	4%	1%	2%	2%			
Strong policy	2%	3%	7%	0%	0%	0%	0%	0%	09			
Significant change over 3-year period		— p<.001										

[†]See table 2 for additional competitive food and beverage policy provisions.

 $^{^{\}ddagger}$ Data for school years 2006–07 and/or 2007–08 have been revised slightly from data originally reported. 41

TABLE 1, CONTINUED

			% UF	STUDENTS	M DISTRIC	TS NATION	WIDE		
Selected Policies for Competitive Foods	- I	Elementa	ry		Middle			High	
and Beverages† (continued)	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09
ACCESS RESTRICTIONS (CONTINUED)									
Vending machine restrictions during the scho	ol day [‡]								
No policy	30%	17%	11%	34%	19%	12%	36%	22%	16%
Weak policy	32%	34%	32%	50%	52%	50%	52%	55%	63%
Strong policy	39%	50%	56%	16%	29%	38%	12%	23%	21%
Significant change over 3-year period		— p<.001			— p<.001			- p<.001	
À la carte restrictions during meal times [‡]									
No policy	31%	19%	11%	35%	21%	11%	37%	24%	16%
Weak policy	43%	45%	41%	51%	51%	50%	52%	54%	60%
Strong policy	26%	36%	48%	14%	28% — p<.001	39%	11%	22%	25%
Significant change over 3-year period		— p<.001			— ρ<.001			- p<.001	
School store restrictions during the school da	-	250/	210/	410/	200/	270/	470/	700/	200
No policy	37%	25%	21%	41%	28%	23%	43%	30%	269
Weak policy	31% 32%	32% 42%	31% 47%	46% 14%	46% 26%	45% 33%	47% 10%	49% 21%	569 189
Strong policy Significant change over 3-year period	JZ/0	— p<.001		1470	— p<.001		10 /6	– p<.001	
	1	·		27 1 2007				p001	
Fundraisers during the school day (comparab No policy	ie data not a N/A	avaiiabie ro N/A	7 SY 2006-0 27%)/ and 200/- N/A	-08) N/A	27%	N/A	N/A	319
Weak policy	11/7	11//	37%	14/ 🖰	IN/A	48%	11/7	11//	56%
Strong policy			36%			24%			149
Policies governing classroom parties at the el	omontary s	chool level							
No policy	46%	35%	33%	N/A	N/A	N/A	N/A	N/A	N/A
Weak policy	53%	59%	65%	, , .	, / .	, / .	,	,, , .	, ,
Strong policy	1%	6%	2%						
Significant change over 3-year period		— p<.001							
Policies governing food as a reward at the ele	ementary sc	hool level							
No policy	68%	64%	61%	N/A	N/A	N/A	N/A	N/A	N/A
Weak policy	23%	28%	29%						
Strong policy	9%	8%	11%						
Significant change over 3-year period		— p<.05							
Policies governing evening and/or community	y events								
No policy	84%	83%	84%	86%	84%	85%	87%	85%	84%
Weak policy	15%	16%	16%	14%	15%	15%	12%	14%	15%
Strong policy	1%	1%	0%	1%	1%	0%	1%	1%	0%
Availability of free drinking water throughout	the school	day [‡]							
No policy	88%	87%	87%	89%	88%	88%	89%	89%	87%
Weak policy	3%	4%	4%	3%	4%	4%	3%	4%	4%
Strong policy	9%	9%	9%	8%	8%	9%	8%	8%	9%

16 Wellness Policy Data

 $^{^{\}dagger}\text{See}$ table 2 for additional competitive food and beverage policy provisions.

 $[\]ddagger$ Data for school years 2006–07 and/or 2007–08 have been revised slightly from data originally reported. 41

Due to rounding, some percentages may not sum exactly to 100. Exact numbers are available at www.bridgingthegapresearch.org. Source: Bridging the Gap, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2010.

TABLE 1, CONTINUED

		% OF STUDENTS IN DISTRICTS NATIONWIDE										
Selected Policies for Competitive Foods	E	lementa	ry		Middle			High				
and Beveragest (CONTINUED)	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09			
ADVERTISING AND MARKETING OF FOODS A	AND BEVER	AGES IN S	CHOOLS									
Promotion of healthy foods and beverages [‡]												
No policy	78%	76%	71%	78%	77%	70%	78%	77%	69%			
Weak policy	17%	19%	22%	16%	18%	23%	16%	18%	24%			
Strong policy	6%	5%	7%	6%	5%	7%	6%	5%	7%			
Significant change over 3-year period		— p<.05			— p<.01			— p<.01				
Restrictions on marketing of unhealthy foods	and bevera	ges										
No policy	81%	75%	75%	83%	75%	75%	84%	73%	78%			
Weak policy	8%	9%	10%	8%	8%	10%	9%	10%	9%			
Strong policy	10%	16%	15%	10%	17%	15%	7%	17%	13%			
Significant change over 3-year period		— p<.05										

			% OF	STUDENTS	IN DISTRIC	CTS NATION	IWIDE		
Policies Governing		Elementa	ry		Middle			High	
School Meals	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09
School meal nutrition guidelines must meet	the federal so	chool mea	l requireme	nts (Require	d wellness	policy elem	ent)		
No policy	24%	11%	9%	27%	12%	8%	28%	14%	9%
Weak policy	2%	2%	1%	2%	2%	1%	1%	2%	29
Strong policy	75%	87%	90%	72%	86%	90%	71%	84%	90%
Significant change over 3-year period		— p<.001			— p<.001			— p<.001	
Nutrition guidelines for school meals that m	et or exceede	ed the 200	5 Dietary G	uidelines					
No policy	57%	47%	46%	60%	48%	48%	59%	47%	489
Weak policy	32%	35%	34%	30%	33%	35%	31%	33%	359
Strong policy	10%	18%	20%	10%	19%	17%	10%	20%	179
Significant change over 3-year period		— p<.001			— p<.01			— p<.05	
Adequate time to eat meals (at least 20 min	utes for luncl	n; at least	10 minutes f	for breakfast	:)				
No policy	49%	37%	34%	51%	38%	35%	52%	39%	369
Weak policy	41%	51%	53%	40%	52%	53%	39%	52%	519
Strong policy	10%	11%	13%	9%	9%	12%	9%	9%	139
Significant change over 3-year period		— p<.001			— p<.001			— p<.001	
Nutrition information for school meals									
No policy	80%	72%	72%	81%	72%	72%	82%	72%	729
Weak policy	8%	9%	13%	8%	9%	13%	7%	8%	129
Strong policy	12%	19%	15%	11%	19%	15%	11%	20%	159
Significant change over 3-year period		— p<.001			— p<.05			— p<.05	
School Breakfast Program									
No policy	39%	28%	27%	42%	29%	27%	44%	31%	289
Weak policy	18%	19%	17%	17%	18%	17%	16%	16%	179
Strong policy	43%	53%	57%	40%	53%	57%	40%	52%	55%
Significant change over 3-year period		— p<.001			m<.001			— p<.001	

 $[\]ensuremath{^{\dagger}}\xspace$ See table 2 for additional competitive food and beverage policy provisions.

 $[\]ddagger$ Data for school years 2006–07 and/or 2007–08 have been revised slightly from data originally reported. 41

TABLE 1, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE										
Policies Governing	E	lementa	ry		Middle		High				
School Meals (CONTINUED)	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09		
Farm-to-school and/or farm-to-cafeteria prog	ıram										
No policy	94%	92%	91%	94%	92%	91%	95%	93%	91%		
Weak policy	6%	7%	8%	5%	7%	8%	5%	6%	8%		
Strong policy	1%	1%	1%	1%	1%	0%	1%	1%	1%		
Significant change over 3-year period								— p<.05			
Nutrition-related training for food service sta	ff										
No policy	76%	67%	63%	77%	65%	63%	76%	64%	64%		
Weak policy	18%	22%	27%	18%	21%	28%	18%	20%	28%		
Strong policy	6%	12%	9%	5%	13%	9%	6%	16%	8%		
Significant change over 3-year period		— p<.001			— p<.01			— p<.01			
Recess before lunch for elementary school str	udents (adde	ed in SY 20	008-09)								
No policy	N/A	N/A	77%	N/A	N/A	N/A	N/A	N/A	N/A		
Weak policy			19%								
Strong policy			3%								

	% OF STUDENTS IN DISTRICTS NATIONWIDE										
Policies Governing		lementar	· y		Middle		High				
Nutrition Education	06-07	07-08		06-07	07-08		06-07	07-08			
Nutrition education goals (Required wellness po	licy eleme	nt)									
No policy	19%	6%	2%	22%	7%	2%	22%	9%	3%		
Weak policy	2%	2%	2%	2%	3%	2%	2%	2%	2%		
Strong policy	79%	92%	95%	76%	90%	95%	76%	89%	95%		
Significant change over 3-year period		− p<.001			- p<.001			— p<.001			
Nutrition education curriculum for all grades [‡]											
No policy	35%	28%	20%	37%	32%	20%	38%	34%	22%		
Weak policy	31%	34%	39%	30%	33%	39%	31%	32%	41%		
Strong policy	35%	38%	41%	33%	36%	42%	32%	34%	38%		
Significant change over 3-year period		— p<.001			- p<.001			— p<.001			
Nutrition education integrated into other subject	cts										
No policy	54%	50%	46%	56%	52%	46%	58%	53%	47%		
Weak policy	19%	22%	20%	18%	21%	20%	17%	20%	20%		
Strong policy	27%	28%	34%	26%	27%	34%	25%	27%	33%		
Significant change over 3-year period		— p<.01			— p<.01			— p<.05			
Nutrition education teaches behavior-focused s	kills										
No policy	34%	23%	18%	36%	24%	17%	37%	24%	179		
Weak policy	22%	30%	25%	21%	31%	25%	20%	31%	279		
Strong policy	44%	47%	57%	43%	45%	57%	42%	45%	56%		
Significant change over 3-year period		- p<.001			- p<.001			— p<.001			
School gardens (added in SY 2008-09)											
No policy	N/A	N/A	88%	N/A	N/A	88%	N/A	N/A	88%		
Weak policy			12%			12%			12%		
Strong policy			0%			0%			0%		

 $[\]ddagger$ Data for school years 2006–07 and/or 2007–08 have been revised slightly from data originally reported. 41

18 Wellness Policy Data

Due to rounding, some percentages may not sum exactly to 100. Exact numbers are available at www.bridgingthegapresearch.org. Source: Bridging the Gap, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2010.

TABLE 1, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE									
Policies Governing Nutrition Education		lementa	ry		Middle			High		
	06-07	07-08		06-07	07-08		06-07	07-08		
Nutrition education training for teachers										
No policy	67%	60%	58%	68%	59%	58%	70%	59%	58%	
Weak policy	25%	32%	30%	24%	33%	31%	23%	33%	30%	
Strong policy	8%	8%	12%	8%	8%	12%	7%	8%	12%	
Significant change over 3-year period		— p<.001			— p<.01			— p<.01		

		% OF STUDENTS IN DISTRICTS NATIONWIDE										
Policies Governing Physical Activity and		Elementa	ry		Middle			High				
Physical Education	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09			
PHYSICAL ACTIVITY POLICIES												
Physical activity goals (Required wellness poli	icy element)											
No goal/policy	21%	9%	5%	24%	10%	7%	26%	12%	9%			
Weak policy	2%	2%	2%	2%	2%	2%	2%	2%	29			
Strong policy	76%	89%	92%	73%	88%	90%	72%	86%	89%			
Significant change over 3-year period		— p<.001			— p<.001			— p<.001				
Physical activity opportunities outside of phy	sical educat	ion for eve	ery grade le	vel								
No policy/provision	41%	35%	28%	46%	40%	33%	49%	45%	36%			
Weak policy	27%	28%	26%	25%	26%	26%	23%	24%	26%			
Strong policy	33%	37%	45%	30%	34%	40%	27%	31%	389			
Significant change over 3-year period		— p<.01			— p<.01			— p<.01				
Physical activity opportunities (e.g., breaks) t	hroughout t	he school	day									
No policy/provision	54%	44%	44%	57%	45%	48%	59%	46%	489			
Weak policy	37%	45%	42%	36%	46%	40%	34%	45%	39%			
Strong policy	9%	10%	13%	7%	9%	12%	7%	8%	139			
Significant change over 3-year period		— p<.001			— p<.01			— p<.001				
Amount of time specified for physical activity	during the	school day	(added in	SY 2008-09))							
No policy/provision	N/A	N/A	83%	N/A	N/A	88%	N/A	N/A	919			
Weak policy			5%			4%			49			
Strong policy			13%			7%			49			
Prohibited use of (e.g., running laps) or withh	olding phys	ical activit	y (e.g., rece	ss) as punis	hment							
No policy/provision	75%	64%	60%	79%	67%	65%	80%	68%	66%			
Weak policy	10%	20%	19%	8%	19%	16%	7%	18%	179			
Strong policy	15%	16%	21%	13%	14%	19%	13%	14%	189			
Significant change over 3-year period		— p<.001			— p<.001			— p<.01				
Daily recess requirements for elementary sch	ool students	5										
No policy/provision	70%	60%	62%	N/A	N/A	N/A	N/A	N/A	N/A			
Weak policy	15%	22%	18%									
Strong policy	15%	18%	20%									
Significant change over 3-year period		— p<.01										
Recess requirements for elementary school st	tudents (les	s than dail	y) (added in	SY 2008-09	9)							
No policy/provision	N/A	N/A	81%	N/A	N/A	N/A	N/A	N/A	N/A			
Weak policy			11%									
Strong policy			8%									

TABLE 1, CONTINUED

Policies Governing												
Physical Activity and Physical Education	1	Elementa	ry		Middle			High				
(CONTINUED)	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09			
PHYSICAL ACTIVITY POLICIES (CONTINUED)												
Community use of school facilities for physica	al activity											
No policy/provision	81%	74%	73%	82%	73%	73%	83%	73%	729			
Weak policy	8%	9%	16%	8%	9%	16%	7%	7%	169			
Strong policy	11%	16%	11%	10%	19%	11%	10%	19%	129			
Significant change over 3-year period		— p<.001			— p<.01			— p<.01				
Safe active routes to school												
No policy/provision	89%	88%	83%	90%	89%	85%	91%	91%	859			
Weak policy	4%	5%	9%	4%	4%	8%	3%	4%	89			
Strong policy	7%	7%	8%	7%	7%	8%	5%	5%	79			
Significant change over 3-year period		— p<.001			— p<.01			— p<.01				
PHYSICAL EDUCATION POLICIES												
Physical education provisions												
Not mentioned	24%	11%	7%	27%	11%	7%	28%	13%	99			
Definitively addressed	76%	89%	93%	73%	89%	93%	72%	87%	919			
Significant change over 3-year period		— p<.001			— p<.001			— p<.001				
Physical education requirements: at least 150	mins/week	(ES); at le	ast 225 min	s/week (MS,	/HS)							
No policy/provision	71%	61%	59%	76%	66%	65%	85%	73%	789			
Weak policy	26%	35%	35%	22%	31%	33%	11%	23%	209			
Strong policy	3%	4%	6%	3%	3%	2%	4%	4%	29			
Significant change over 3-year period		— p<.001			— p<.01			— p<.05				
Physical education required to teach about a	physically a	ctive lifest	yle									
No policy/provision	43%	31%	28%	44%	31%	27%	43%	31%	289			
Weak policy	11%	12%	9%	9%	9%	7%	8%	7%	89			
Strong policy	46%	57%	63%	47%	60%	66%	49%	62%	649			
Significant change over 3-year period		— p<.001			— p<.001			— p<.001				
Physical education time devoted to moderate	e-to-vigorou	ıs physical	activity (i.e.	., minimum	of 50% of	class time)						
No policy/provision	72%	64%	54%	74%	65%	59%	75%	65%	619			
Weak policy	22%	28%	37%	20%	28%	32%	20%	29%	319			
Strong policy	6%	7%	8%	6%	7%	9%	5%	6%	89			
Significant change over 3-year period		— p<.001			— p<.01			— p<.05				
Required physical education to be taught by	a state-auth	orized phy	sical educa	tor								
No policy/provision	69%	59%	52%	70%	59%	54%	70%	58%	569			
Weak policy	13%	17%	13%	11%	18%	11%	10%	18%	109			
Strong policy	19%	24%	35%	19%	23%	34%	20%	24%	349			
Significant change over 3-year period		— p<.001			— p<.001			— p<.01				
Required physical education teachers to be to	rained in ph	ysical educ	cation skills									
No policy/provision	81%	78%	74%	82%	80%	75%	81%	79%	779			
Weak policy	9%	12%	7%	9%	11%	7%	10%	13%	79			
Strong policy	10%	10%	18%	10%	10%	18%	9%	9%	169			
Significant change over 3-year period		— p<.001			— p<.001			— p<.001				

20 Wellness Policy Data

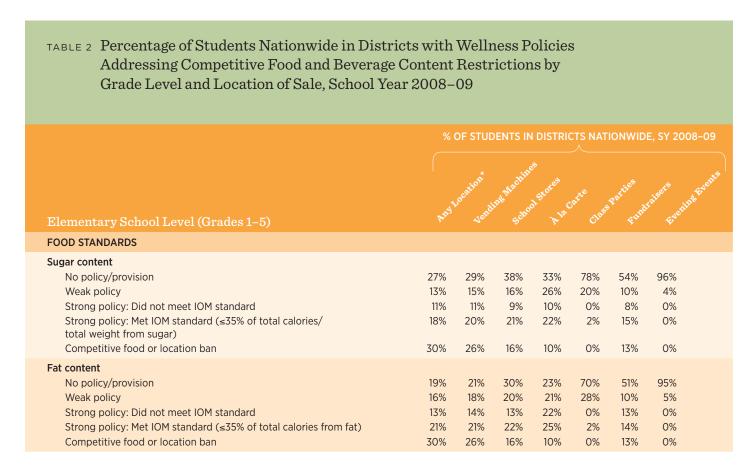
TABLE 1, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE											
Requirements for Wellness Policy Implementation	E	Elementai	: y		Middle			High				
and Evaluation	06-07	07-08	08-09	06-07	07-08	08-09	06-07	07-08	08-09			
Plans for implementation (Required wellness po	licy eleme	nt)										
No policy/provision	28%	15%	12%	31%	15%	12%	32%	18%	139			
Weak policy	6%	7%	6%	6%	7%	6%	7%	7%	69			
Strong policy	65%	78%	82%	63%	78%	83%	61%	75%	819			
Significant change over 3-year period		— p<.001			— p<.001			- p<.001				
Health advisory committee												
No policy/provision	51%	37%	34%	53%	37%	35%	54%	38%	339			
Weak policy	11%	14%	13%	11%	13%	12%	10%	12%	129			
Strong policy	38%	49%	53%	36%	50%	53%	36%	50%	55%			
Significant change over 3-year period		— p<.001			— p<.001			- p<.001				
Plans for evaluation												
No policy/provision	57%	45%	36%	58%	44%	36%	60%	46%	369			
Weak policy	35%	44%	47%	34%	46%	47%	33%	44%	479			
Strong policy	9%	10%	17%	8%	10%	17%	8%	10%	179			
Significant change over 3-year period		— p<.001			— p<.001			- p<.001				
Body mass index (BMI) screening												
No policy/provision	83%	73%	61%	83%	73%	62%	83%	73%	639			
Weak policy	16%	26%	38%	16%	26%	37%	16%	26%	369			
Strong policy: BMI required, no reporting	0%	1%	2%	0%	0%	2%	0%	0%	19			
Strong policy: BMI required with reporting	0%	0%	0%	1%	1%	0%	0%	0%	09			
Significant change over 3-year period		— p<.001			— p<.001			- p<.001				
Reporting on policy compliance and/or implem	entation											
No policy/provision	53%	43%	42%	55%	43%	42%	57%	44%	439			
Weak policy	20%	26%	24%	19%	28%	24%	20%	28%	249			
Strong policy	26%	31%	34%	25%	29%	34%	24%	28%	329			
Significant change over 3-year period	-	— p<.001		-	— p<.01		-	— p<.05				
Plan for policy revision												
No policy/provision	68%	62%	56%	69%	63%	56%	69%	65%	579			
Weak policy	9%	8%	10%	9%	8%	11%	9%	7%	99			
Strong policy	24%	30%	33%	23%	29%	34%	22%	28%	349			
Significant change over 3-year period	_	— p<.001		_	— p<.001			- p<.001				
Funding for policy implementation												
No policy/provision	93%	94%	94%	93%	94%	93%	94%	95%	939			
Weak policy	5%	4%	5%	5%	5%	6%	5%	4%	69			
Strong policy	2%	1%	1%	2%	1%	1%	1%	1%	19			

Competitive Food and Beverage Content Restriction Data

The following table summarizes restrictions on competitive foods and/or beverages for school year 2008–09, including limits on sugar, fat, sodium, calories, and caffeine, as well as restrictions on sugar-sweetened beverages. New to this year's report, we have analyzed the food and beverage restrictions by each location of sale. All data are weighted to reflect the percentage of elementary, middle and high school students nationwide who were enrolled in a district with a given policy provision. All data reflect policies in place by the first day of the given school year. More details and data presented at the district level and for various subpopulations and geographic areas are available at www.bridgingthegapresearch.org.

We defined **STRONG POLICY PROVISIONS** as those that required action and specified an implementation plan or strategy. For all provisions except for other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, there are two categories for strong policies to differentiate those that: 1) met the 2007 IOM competitive food and beverage standards; or 2) had a weaker requirement that did not meet the IOM standards. For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, there is only one strong policy category for those that met the IOM standard. In either case, strong policy provisions included language such as *shall*, *must*, *require*, *comply* and *enforce*. **WEAK POLICY PROVISIONS** offered suggestions or recommendations, and some required action, but only for certain grade levels or times of day. They included language such as *should*, *might*, *encourage*, *some*, *make an effort to*, *partial* and *try*.



^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

Due to rounding, some percentages may not sum to exactly 100. Exact numbers are available at www.bridgingthegapresearch.org. Source: Bridging the Gap, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2010

TABLE 2, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE, S								
Elementary School Level (Grades 1-5) (CONTINUED)	Arris	poestion*	ing Machine	s Astores	jarte chase	Partie [‡]	raisers		
FOOD STANDARDS (CONTINUED)									
Trans fats									
No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (trans fat free or no more than	51% 10% 7% 2%	54% 10% 8% 2%	64% 12% 7% 2%	57% 20% 11% 1%	91% 7% 1% 1%	70% 10% 6% 0%	98% 2% 0% 0%		
0.5g trans fat) Competitive food or location ban	30%	26%	16%	10%	0%	13%	0%		
No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (<200mg sodium/portion) Competitive food or location ban	43% 16% 11% 0% 30%	47% 15% 11% 0% 26%	57% 16% 11% 0% 16%	61% 17% 12% 0% 10%	81% 19% 0% 0%	70% 7% 9% 0% 13%	97% 3% 0% 0% 0%		
Calorie content									
No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (≤200 calories/serving) Competitive food or location ban	48% 3% 4% 14% 30%	52% 3% 4% 15% 26%	63% 3% 3% 16% 17%	65% 5% 5% 14% 9%	91% 8% 0% 1% 0%	71% 2% 4% 10% 13%	99% 1% 0% 0% 0%		
BEVERAGE STANDARDS									
Regular soda No policy/provision Weak policy Strong policy: Did not meet IOM standard (bans regular soda but not all sugar-sweetened beverages) Strong policy: Met IOM standard (beverages with added caloric sweeteners prohibited) Competitive beverage or location ban	18% 5% 35% 16%	22% 9% 32% 16%	31% 10% 31% 13%	21% 6% 48% 16%	76% 15% 8% 1%	51% 8% 20% 9%	96% 3% 0% 0%		
Other sugar-sweetened beverages (SSBs)**									
No policy/provision Weak policy Strong policy: Met IOM standard (beverages with added caloric sweeteners prohibited) Competitive beverage or location ban	38% 21% 16% 25%	42% 21% 16% 21%	50% 21% 13%	43% 32% 16% 9%	86% 13% 1% 0%	62% 16% 9%	98% 2% 0%		
Sugar/calorie content of flavored milk No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (≤22g of total sugars/8 oz portion) Competitive beverage or location ban	55% 4% 14% 2% 25%	59% 4% 14% 2% 21%	66% 4% 12% 2% 16%	63% 4% 23% 2% 8%	90% 9% 1% 0% 0%	73% 2% 11% 2% 12%	99% 1% 0% 0% 0%		

^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

^{**}For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, the only strong policy category was the IOM standard.

TABLE 2, CONTINUED

Elementary School Level (Grades 1–5) (continued)							E, SY 2008-	
BEVERAGE STANDARDS (CONTINUED)								
Fat content of milk** No policy/provision Weak policy Strong policy: Met IOM standard (only low-fat (1%) or non-fat/ skim milk allowed) Competitive beverage or location ban	39% 23% 13% 25%	43% 24% 12% 21%	50% 24% 11%	52% 26% 13%	84% 15% 1% 0%	62% 19% 6%	98% 2% 0%	
Serving size limit for beverages No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (milk: 8 oz; 100% juice: 4 oz) Competitive beverage or location ban	49% 15% 11% 0% 25%	55% 14% 10% 0% 21%	60% 17% 7% 0% 16%	55% 27% 10% 0% 8%	91% 8% 0% 0% 0%	73% 9% 5% 0% 12%	98% 2% 0% 0% 0%	
Caffeine content of beverages** No policy/provision Weak policy Strong policy: Met IOM standard (beverages with added caffeine prohibited) Competitive beverage or location ban	36% 5% 34% 25%	41% 6% 32% 21%	48% 9% 28%	41% 9% 42%	85% 13% 2%	58% 6% 23%	97% 3% 0%	

Middle School Level (Grades 6-8)	% l	OF STUE	DENTS IN			IONWID	E, SY 2008-0
FOOD STANDARDS							
Sugar content							
No policy/provision	34%	37%	43%	39%	78%	56%	96%
Weak policy	21%	22%	22%	25%	20%	16%	3%
Strong policy: Did not meet IOM standard	13%	13%	10%	10%	0%	9%	0%
Strong policy: Met IOM standard (≤35% of total calories/ total weight from sugar)	22%	23%	22%	24%	2%	16%	0%
Competitive food or location ban	11%	6%	3%	3%	0%	2%	0%
Fat content							
No policy/provision	22%	25%	31%	26%	70%	51%	95%
Weak policy	22%	23%	24%	27%	27%	13%	4%
Strong policy: Did not meet IOM standard	29%	31%	28%	28%	1%	28%	0%
Strong policy: Met IOM standard (≤35% of total calories from fat)	16%	15%	15%	16%	2%	7%	0%
Competitive food or location ban	11%	6%	3%	3%	0%	2%	0%

^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

^{**}For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, the only strong policy category was the IOM standard.

TABLE 2, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE, SY 200								
Middle School Level (Grades 6-8) (CONTINUED)							riisers		
FOOD STANDARDS (CONTINUED)									
Trans fats									
No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (trans fat free or no more than 0.5g trans fat) Competitive food or location ban	60% 18% 10% 2%	63% 18% 11% 2%	68% 18% 8% 2%	66% 19% 11% 2%	91% 7% 1% 1%	72% 17% 9% 0%	98% 2% 0% 0%		
Sodium content No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (≤200mg sodium/portion) Competitive food or location ban	58% 18% 13% 0% 11%	64% 16% 14% 0% 6%	68% 16% 13% 0% 3%	65% 18% 14% 0% 3%	80% 19% 0% 0% 0%	81% 6% 10% 0% 2%	97% 2% 0% 0% 0%		
Calorie content No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (≤200 calories/serving) Competitive food or location ban	63% 5% 16% 6% 11%	66% 6% 17% 5% 6%	75% 3% 13% 6% 3%	74% 2% 16% 5% 3%	91% 7% 1% 0% 0%	81% 1% 14% 1% 2%	99% 1% 0% 0% 0%		
BEVERAGE STANDARDS									
Regular soda No policy/provision Weak policy Strong policy: Did not meet IOM standard (bans regular soda but not all SSBs) Strong policy: Met IOM standard (beverages with added caloric sweeteners prohibited) Competitive beverage or location ban	19% 5% 58% 10%	26% 12% 49% 10%	33% 12% 44% 9% 2%	21% 6% 62% 9% 2%	77% 14% 8% 1%	52% 8% 33% 5% 2%	97% 3% 0% 0%		
Other sugar-sweetened beverages (SSBs)** No policy/provision Weak policy Strong policy: Met IOM standard (beverages with added caloric sweeteners prohibited) Competitive beverage or location ban	64% 18% 10%	67% 20% 10%	73% 16% 9%	71% 18% 9%	93% 6% 1%	80% 13% 5%	99% 1% 0%		
Sugar/calorie content of flavored milk No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (≤22g of total sugars/8 oz portion) Competitive beverage or location ban	65% 4% 22% 2% 8%	68% 4% 22% 2% 4%	72% 3% 20% 2% 2%	70% 4% 22% 2% 2%	91% 8% 1% 0%	76% 1% 19% 2% 2%	99% 1% 0% 0% 0%		

^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

^{**}For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, the only strong policy category was the IOM standard.

TABLE 2, CONTINUED

Middle School Level (Grades 6-8) (CONTINUED)			DENTS IN				E, SY 200	
BEVERAGE STANDARDS (CONTINUED)								
Fat content of milk** No policy/provision Weak policy Strong policy: Met IOM standard (only low-fat (1%) or non-fat/ skim milk allowed) Competitive beverage or location ban	52% 26% 14%	55% 28% 13% 4%	60% 25% 13%	58% 28% 13%	85% 14% 1%	71% 20% 7% 2%	98% 2% 0%	
Serving size limit for beverages No policy/provision Weak policy Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (milk: 8 oz; 100% juice: 4 oz) Competitive beverage or location ban	52% 30% 11% 0% 8%	55% 31% 11% 0% 4%	61% 29% 9% 0% 2%	58% 28% 11% 0% 2%	89% 10% 1% 0%	71% 20% 6% 0% 2%	97% 2% 0% 0% 0%	
Caffeine content of beverages** No policy/provision Weak policy Strong policy: Met IOM standard (beverages with added caffeine prohibited) Competitive beverage or location ban	53% 21% 19% 8%	57% 21% 18%	62% 20% 16%	59% 21% 18%	86% 13% 1%	69% 16% 13%	97% 2% 0%	

High School Level (Grades 9–12)			منزيرة				E, SY 2008-0
FOOD STANDARDS							
Sugar content							
No policy/provision	42%	44%	49%	47%	79%	61%	96%
Weak policy	23%	24%	23%	25%	19%	16%	3%
Strong policy: Did not meet IOM standard	12%	12%	11%	9%	1%	8%	0%
Strong policy: Met IOM standard (≤35% of total calories/ total weight from sugar)	17%	18%	15%	17%	1%	13%	0%
Competitive food or location ban	7%	2%	1%	2%	0%	2%	0%
Fat content							
No policy/provision	27%	30%	36%	32%	71%	55%	95%
Weak policy	26%	27%	25%	29%	26%	13%	4%
Strong policy: Did not meet IOM standard	27%	28%	26%	25%	0%	25%	0%
Strong policy: Met IOM standard (≤35% of total calories from fat)	13%	13%	11%	12%	2%	5%	0%
Competitive food or location ban	7%	2%	1%	2%	0%	2%	0%

^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

^{**}For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, the only strong policy category was the IOM standard.

TABLE 2, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE, SY 2008-								
High School Level (Grades 9-12) (CONTINUED)	Arri		geho	al Stores	jarie chass	Parties Fund		Ing En	
FOOD STANDARDS (CONTINUED)									
Trans fats									
No policy/provision	64%	70%	70%	68%	91%	74%	97%		
Weak policy	19%	19%	19%	19%	8%	17%	2%		
Strong policy: Did not meet IOM standard	8%	10%	8%	10%	1%	7%	0%		
Strong policy: Met IOM standard (trans fat free or no more than 0.5g trans fat)	2%	2%	1%	1%	0%	0%	0%		
Competitive food or location ban	7%	2%	1%	2%	0%	2%	0%		
Sodium content									
No policy/provision	61%	68%	70%	69%	79%	84%	97%		
Weak policy	21%	18%	17%	18%	20%	7%	3%		
Strong policy: Did not meet IOM standard	11%	12%	11%	11%	0%	7%	0%		
Strong policy: Met IOM standard (≤200mg sodium/portion)	0% 7%	0% 2%	0% 1%	0% 2%	0% 0%	0% 2%	0% 0%		
Competitive food or location ban	7 70	270	170	270	0%	Z70	0%		
Calorie content	700/	750/	010/	000/	0.40/	050/	10.00/		
No policy/provision	72%	75% 7%	81%	80%	94%	85%	100%		
Weak policy Strong policy: Did not meet IOM standard	6% 14%	7% 14%	3% 13%	2% 14%	5% 0%	1% 11%	0% 0%		
Strong policy: Met IOM standard (<200 calories/serving)	3%	2%	2%	2%	1%	1%	0%		
Competitive food or location ban	7%	2%	1%	2%	0%	2%	0%		
BEVERAGE STANDARDS									
Regular soda									
No policy/provision	25%	35%	42%	28%	80%	57%	97%		
Weak policy	7%	28%	24%	7%	12%	22%	3%		
Strong policy: Did not meet IOM standard (bans regular soda but not all SSBs)	58%	31%	29%	60%	7%	18%	0%		
Strong policy: Met IOM standard (beverages with added caloric	4%	4%	4%	4%	1%	2%	0%		
sweeteners prohibited)									
Competitive beverage or location ban	6%	1%	1%	1%	0%	2%	9%		
Other sugar-sweetened beverages (SSBs)**									
No policy/provision	71%	75%	77%	76%	95%	84%	99%		
Weak policy Strong policy: Met IOM standard (hoverages with added caloris	19%	20%	18%	18%	5% 10/	12%	1%		
Strong policy: Met IOM standard (beverages with added caloric sweeteners prohibited)	4%	4%	4%	4%	1%	2%	0%		
Competitive beverage or location ban	6%	1%	1%	1%	0%	2%	0%		
Sugar/calorie content of flavored milk									
No policy/provision	71%	74%	75%	74%	94%	80%	99%		
Weak policy	4%	4%	4%	4%	6%	1%	1%		
Strong policy: Did not meet IOM standard	18%	19%	18%	19%	0%	15%	0%		
Strong policy: Met IOM standard (≤22g of total sugars/8 oz portion)	2%	2%	2%	2%	0%	2%	0%		
Competitive beverage or location ban	6%	1%	1%	1%	0%	2%	0%		

^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

^{**}For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, the only strong policy category was the IOM standard.

TABLE 2, CONTINUED

	% OF STUDENTS IN DISTRICTS NATIONWIDE, SY 2008-09								
High School Level (Grades 9-12) (CONTINUED)	Arty	rocation*	ing Machine	s A stores	garte Class	Parties	kakert		
BEVERAGE STANDARDS (CONTINUED)									
Fat content of milk** No policy/provision Weak policy Strong policy: Met IOM standard (only low-fat (1%) or non-fat/skim milk allowed) Competitive beverage or location ban Serving size limit for beverages No policy/provision Weak policy	57% 24% 13% 6% 56% 33%	60% 26% 13% 1% 59% 34%	64% 23% 12% 1% 63% 31%	62% 24% 13% 1% 62% 31%	87% 12% 1% 0% 89%	75% 16% 7% 2% 75% 20%	98% 2% 0% 0% 97% 2%		
Strong policy: Did not meet IOM standard Strong policy: Met IOM standard (milk: 8 oz; 100% juice: 8 oz) Competitive beverage or location ban	6% 0% 6%	5% 0% 1%	5% 0% 1%	6% 0% 1%	0% 0% 0%	3% 0% 2%	0% 0% 0%		
Caffeine content of beverages** No policy/provision Weak policy Strong policy: Met IOM standard (beverages with added caffeine prohibited) Competitive beverage or location ban	62% 19% 13%	66% 21% 11%	69% 19% 11%	67% 19% 13%	90% 9% 1%	75% 15% 9% 2%	97% 2% 0%		

^{*&}quot;Any Location" means the extent to which the policy provisions apply to at least one of the competitive food/beverage locations examined for this study: vending machines, school stores, à la carte, class parties, fundraisers, and/or evening/community events.

^{**}For other sugar-sweetened beverages, fat content of milk and caffeine content of beverages, the only strong policy category was the IOM standard.

Overview of Study Methods

This study examined written policies from districts in 47 of the 48 contiguous states, and included nationally representative samples of 579, 641, and 593 districts with wellness policies in place by the first day of the 2006–07, 2007–08 and 2008–09 school years, respectively. The day after Labor Day of each year was used as a proxy for the first day of the school year. All of the written policies were collected between April 2007 and June 2008 for school years 2006–07 and 2007–08 and between September 2008 and March 2009 for school year 2008–09. A 94 percent response rate was achieved for school years 2006–07 and 2007–08; and a 97 percent response rate was achieved for school year 2008–09.

For purposes of this study, **WELLNESS POLICY** was defined to include: 1) the actual district wellness policy; 2) the associated administrative policies, including implementation regulations, rules, procedures or administrative guidelines; and 3) any district, state or model policies that were referenced within the wellness policy or administrative documents.

All policies were analyzed by two trained analysts using an adaptation of a wellness policy coding scheme developed by Schwartz et al.⁴³ and originally presented in Chriqui et al.⁴⁴ A detailed explanation of the coding methodology can be found in the Appendix included in Chriqui et al.⁴⁵ For each policy provision described, data are presented on the percentage of students in a district with: 1) a strong policy; 2) a weak policy; or 3) no policy. We defined **STRONG POLICY PROVISIONS** as those that were definitely required and specified an implementation plan or strategy. Strong policy provisions included language such as *shall, must, will, require, comply* and *enforce*. For Table 2, we also differentiated strong policies that were required and either: 1) met the 2007 IOM competitive food and/or beverage standards;⁴⁶ or 2) had a weaker requirement that did not meet the IOM standards. We defined **WEAK POLICY PROVISIONS** as those that included vague terms, suggestions or recommendations, as well as those that required action, but noted exceptions for certain grade levels or certain times of day. Weak policy provisions included language such as *should, might, encourage, some, make an effort to, partial* and *try*.

Data are presented on the weighted percentages of students nationwide who were enrolled in districts with each policy provision discussed. Data are presented on the percentage of students nationwide to provide readers with a sense of the relative reach of the policies. Findings presented in this report are based on analyses of wellness policy data representing approximately 41.7 million students for the 2006–07 school year, 45.3 million students for the 2007–08 school year, and approximately 42.4 million students for the 2008–09 school year.

Acknowledgements

The authors would like to gratefully thank a number of people for their contributions to this work:

Marlene Schwartz, Ph.D., and her team at the Rudd Center for Food Policy and Obesity at Yale University for their guidance and insight into their original coding tool they developed for analyzing wellness policy data.

Tracy Fox, for her assistance in expanding our coding scheme to account for the Institute of Medicine's recommendations for competitive foods and beverages as well as her continued support and guidance on all nutrition-related policy issues.

Steven Horvath of the Bridging the Gap program for his data entry assistance.

Lloyd Johnston, **Ph.D.**, from the University of Michigan, and **Lindsey Turner**, **Ph.D.**, from the University of Illinois at Chicago, who direct two related companion studies that examine school nutrition and physical activity-related policies and practices.

The Survey Research Center in the Institute for Social Research at the University of Michigan for developing the sample frame and weights for the study.

From the Robert Wood Johnson Foundation: C. Tracy Orleans, Ph.D., Laura Leviton, Ph.D., Kathryn Thomas and Joan Barlow; and from Burness Communications: Laurie Lennon, Elizabeth Wenk, Matt Gruenburg and Chuck Alexander.

References

- Flegal KM, Carroll MD, Ogden CL, et al. "Prevalence and Trends in U.S. Children and Adolescents, 2007–2008." *Journal of the American Medical Association*, 303(3): 242–249, 2010.
- Overweight and Obesity, Health Consequences. Centers for Disease Control and Prevention, 2009, www.cdc.gov/obesity/causes/ health.html (accessed June 2010).
- Marder W and Chang S. "Childhood Obesity: Costs, Treatment Patterns, Disparities in Care, and Prevalent Medical Conditions." Thomson Medstat Research Brief. 2005.
- 4. Geier A, Foster G, Womble L, et al. "The Relationship Between Relative Weight and School Attendance Among Elementary School Children." *Obesity*, 15(8): 2157–2161, 2007.
- Story M, Kaphingst K and French S. "The Role of Schools in Obesity Prevention." The Future of Children, 16(1): 109–142, 2006.
- 6. ibid
- Active Education: Physical Education, Physical Activity and Academic Performance. Active Living Research, 2009, http://activelivingresearch.org/files/Active_Ed_Summer2009.pdf (accessed April 2010).
- 8. ibid
- School Foods Sold Outside of Meals (Competitive Foods). Healthy
 Eating Research, 2007, www.healthyeatingresearch.org/images/
 stories/her_research_briefs/hercompetfoodsresearchbrief.pdf
 (accessed June 2010).
- Crepinsek M, Gordon A, McKinney P, et al. "Meals Offered and Served in U.S. Public Schools: Do They Meet Nutrition Standards?" *Journal of the American Dietetic Association*, 109
 Supplement 1):S31–S43, 2009.
- Condon E, Crepinsek M and Fox M. "School Meals: Types of Foods
 Offered to and Consumed by Children at Lunch and Breakfast."
 Journal of the American Dietetic Association, 109
 (2. Supplement 1):S67–S78, 2008.
- Institute of Medicine. Progress in Preventing Childhood Obesity.
 Washington, DC: National Academies Press, 2007.
- Institute of Medicine. Preventing Childhood Obesity: Health in the Balance. Washington, DC: National Academies Press, 2005.
- National School Lunch Program. Food Research Assistance Center, 2009, www.frac.org/html/federal_food_programs/programs/ nslp.html (accessed April 2010).
- School Breakfast Program. Food Research Assistance Center, 2009, www.frac.org/html/federal_food_programs/programs/sbp.html (accessed April 2010).
- Solving the Problem of Childhood Obesity Within a Generation: Report to the President. Washington, DC: White House Task Force on Childhood Obesity, 2010.
- Chriqui JF, Schneider L, Chaloupka FJ, et al. Local Wellness Policies:
 Assessing School District Strategies for Improving Children's Health.
 School Years 2006–07 and 2007–08. Chicago, IL: Bridging the
 Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2009,
 www.bridgingthegapresearch.org.

- Institute of Medicine. Nutrition Standards for Food in Schools:
 Leading the Way Toward Healthier Youth. Washington, DC: National Academies Press, 2007.
- Chriqui JF, Schneider L, Chaloupka FJ, et al. Executive Summary— Local Wellness Policies: Assessing School District Strategies for Improving Children's Health. School Years 2006–07 and 2007–08.
 Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2009, www.bridgingthegapresearch.org.
- 20. Institute of Medicine. Nutrition Standards for Food in Schools, 2007.
- Dietary Guidelines for Americans, 2005. Washington, DC: U.S.
 Department of Health and Human Services and U.S. Department of Agriculture, 2005.
- 22. Institute of Medicine. Nutrition Standards for Food in Schools, 2007.
- 23. ibid.
- 24. ibid.
- 25. ibid.
- Nutrition and Your Health: Dietary Guidelines for Americans, 1995.
 Washington, DC: U.S. Department of Health and Human Services, 1995.
- Institute of Medicine. School Meals: Building Blocks for Healthier Children. Washington, DC: National Academies Press, 2009.
- 28. Dietary Guidelines for Americans, 2005.
- 29. Institute of Medicine. School Meals: Building Blocks for Healthier Children.
- 30. Changing the Scene: Improving the School Nutrition Environment—
 A Guide to Local Action. Washington, DC: U.S. Department of
 Agriculture, Food and Nutrition Service, 2000.
- U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Washington, DC: Government Printing Office, 2000.
- Moving Into the Future: National Standards for Physical Education.
 2nd Edition. Reston, VA: National Association for Sport & Physical Education.
 2004.
- Sallis JF, McKenzie TI, Alcaraz JE, et al. "The Effects of a 2-year Physical Education Program (SPARK) on Physical Activity and Fitness in Elementary School Students." *American Journal of Public Health*, 87(8): 1328–1334, 1997.
- McKenzie TL, Sallis JF, Kolody B, et al. "Long-term Effects of a Physical Education Curriculum and Staff Development Program: SPARK." Research Quarterly on Exercise & Sport, 68: 280–291, 1997.
- McKenzie TL, Stone EJ, Feldman HA, et al. "Effects of the CATCH Physical Education Intervention: Teacher Type and Lesson Location." American Journal of Preventive Medicine. 21:101–109, 2001.
- 2008 Physical Activity Guidelines for Americans. Washington, DC:
 U.S. Department of Health and Human Services, Office of Disease
 Prevention and Health Promotion, 2008.
- 37. Longley C and Sneed J. "Effects of Federal Legislation on Wellness Policy Formation in School Districts in the United States." *Journal of the American Dietetic Association*, 190(1): 95–101, 2009.

30 References

- 38. From Cupcakes to Carrots: Local Wellness Policies One Year Later.
 Alexandria, VA: School Nutrition Association, 2007.
- 39. Local Wellness Policies One Year Later: Showing Improvements in School Nutrition and Physical Activity. Skokie, IL: Action for Healthy Kids, 2007.
- 40. Solving the Problem of Childhood Obesity Within a Generation:
 Report to the President. Washington, DC: White House Task Force
 on Childhood Obesity, 2010.
- 41. Chriqui JF, Schneider L, Chaloupka FJ, et al. *Local Wellness Policies:*Assessing School District Strategies for Improving Children's Health.
 School Years 2006–07 and 2007–08, 2009.
- 42. ibid.
- 43. Schwartz M, Lund A, Grow H, et al. "A Comprehensive Coding System to Measure the Quality of School Wellness Policies." *Journal of the American Dietetic Association*, 109(7): 1256–1262, 2009.
- 44. Chriqui JF, Schneider L, Chaloupka FJ, et al. *Local Wellness Policies:*Assessing School District Strategies for Improving Children's Health.
 School Years 2006-07 and 2007-08, 2009.
- 45. ibid.
- 46. Institute of Medicine. Nutrition Standards for Food in Schools, 2007.

bridging the gap Research Informing Policies & Practices for Healthy Youth www.bridgingthegapresearch.org