


**Creating healthy school environments:  
Supporting student health and academic success**

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Division of Population Health | School Health Branch



**Presenter Disclosures**

**Caitlin Merlo**

(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

**No relationships to disclose**

## Why Focus on Schools?

- Schools are an ideal setting to
  - Connect with youth
  - Teach students about health
  - Provide opportunities to learn about and practice healthy behaviors



## Whole School, Whole Community, Whole Child



[www.cdc.gov/healthyouth/wsc/index.htm](http://www.cdc.gov/healthyouth/wsc/index.htm)

## Success in School is More Than Just Academics

Schools must also consider other factors that affect academic achievement:

### Healthy Food Options



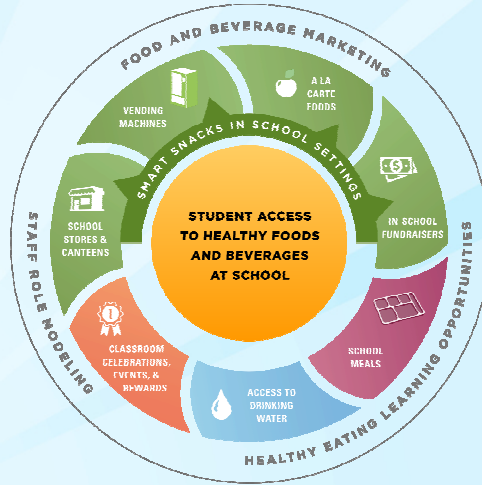
[http://www.cdc.gov/healthyschools/health\\_and\\_academics/pdf/health-academic-achievement.pdf](http://www.cdc.gov/healthyschools/health_and_academics/pdf/health-academic-achievement.pdf)

## Healthy Eating and Academic Achievement

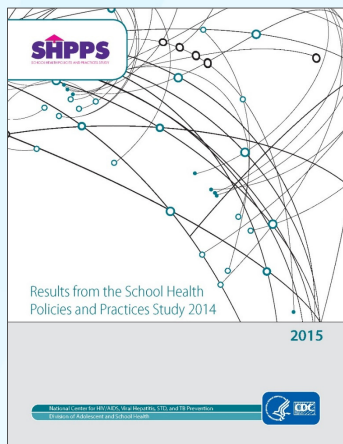
Dietary Behavior/Issue	Related Academic Achievement Outcomes
Participation in the School Breakfast Program (SBP)	<ul style="list-style-type: none"> <li>• Increased academic grades and standardized test scores</li> <li>• Reduced absenteeism</li> <li>• Improved cognitive performance</li> </ul>
Skipping breakfast	<ul style="list-style-type: none"> <li>• Decreased cognitive performance</li> </ul>
Lack of adequate consumption of specific foods	<ul style="list-style-type: none"> <li>• Lower grades</li> </ul>
Deficits in specific nutrients	<ul style="list-style-type: none"> <li>• Lower grades</li> <li>• Higher rates of absenteeism and tardiness</li> </ul>
Insufficient food intake	<ul style="list-style-type: none"> <li>• Lower grades</li> <li>• Higher rates of absenteeism</li> <li>• Repeating a grade</li> <li>• Inability to focus</li> </ul>

[http://www.cdc.gov/healthyschools/health\\_and\\_academics/pdf/health-academic-achievement.pdf](http://www.cdc.gov/healthyschools/health_and_academics/pdf/health-academic-achievement.pdf)

## What is the School Nutrition Environment?



## How are Schools Doing?



[www.cdc.gov/shpps](http://www.cdc.gov/shpps)

**School-Level Practices to Increase Availability of Fruits, Vegetables, and Whole Grains, and Reduce Sodium in School Meals — United States, 2000, 2006, and 2014**

*Colleen Maida, MPH<sup>1</sup>, Nancy Brown, PhD<sup>2</sup>, Laura Kates, PhD<sup>3</sup>, Tim M. Moore, MPH<sup>4</sup>, Diane Harris, PhD<sup>5</sup>, Kristy Magnus, MSN, MPH<sup>6</sup>*

Students consume up to half of their daily calories at school, often through the federal school meal program (eg, National School Lunch Program) administered by the U.S. Department of Agriculture (USDA) (1). In 2012, USDA published new national nutrition standards for school meals (2). These standards were the first major revision to the school meal program in 15 years and reflect current national dietary guidelines and findings of behavioral interventions to meet student nutrition needs (2,3). The standards require serving more fruits, vegetables, and whole grains and generally limiting sodium content over 10 years. It examines the prevalence of school-level practices related to implementation of the nutrition standards, CDC national data from the 2000, 2006, and 2014 School Health Policies and Practices Study (SHPPS) on school nutrition services related to fruits, vegetables, whole grains, and sodium, across all schools offering school meals each day for breakfast and lunch, and were offered one or more vegetables and fruit or more fruit each day for lunch. The percentage of schools implementing practices to increase availability of fruits and vegetables and decrease sodium content in school meals increased from 2000–2014. However, opportunities exist to increase the percentage of schools successfully implementing these practices.

SHPPS is a national survey developed and periodically conducted by CDC to assess school health policies and practices across, district, school, and classroom levels. This report was based on data from the 2000, 2006, and 2014 surveys. In each study year, all public, private, and non-administrative schools in the United States, containing any of grades kindergarten through grade 12, were eligible for the survey. A two-stage sample design was used to generate a nationally representative sample of elementary, middle, and high schools. Seven school-level questionnaires were administered in each study year; this report provides results from the questionnaire focused on school nutrition services. In each school, the principal or other school contact identified the most knowledgeable respondent for each questionnaire. Between February and June

of each study year, trained interviewers visited each school to conduct computer-assisted personal interviews. Across the 3 study years, the number of completed schools that completed the nutrition services questionnaire ranged from 214 in 2004, and the response rates ranged from 68% to 75%. The percentage of respondents to the nutrition services questionnaire that were food service managers ranged from 20% to 80%, and the percentage of respondents who were other school nutrition services staff ranged from 10% to 12%.

The data from each study were weighted to provide national estimates of school nutrition services practices related to fruits, vegetables, whole grains, and sodium; the national estimates used accounted for the complex sample design. For the 2014 data, prevalence estimates and 95% confidence intervals were reported for each practice, overall and by school level (elementary, middle, and high school). Differences in prevalence estimates by school level were assessed by a  $\chi^2$  test;  $p$  values <0.05 were considered statistically significant. The number of school nutrition services practices used in each school also was calculated. For each question that was included in the 2000, 2006, and 2014 studies, logistic regression analyses with all 3 years of data were used to detect overall trends over time.

During 2014, almost all schools offered whole grain foods each day for breakfast (97.2%) and lunch (94.4%) (Table 1). More schools offered more or more vegetables (78.4%) and more fruits (70.0%) each day for lunch. Approximately one-third (30.9%) of schools offered all core food items. Among the 53.0% of schools that prepared food at the school rather than in another location, such as a central kitchen, during the 30 days before the study, approximately half always always or almost used practices to reduce sodium, including using fresh or frozen vegetables instead of canned vegetables (54.1%), using low-sodium canned vegetables instead of regular canned vegetables (51.8%), using other seasonings instead of salt (65.1%), and reducing the amount of salt added to recipes or using low-sodium recipes (68.0%).

In the 2014 survey, 52.0% of schools were elementary schools, 27.0% were middle schools, and 21.0% were high schools. Additionally, 27.0% were public schools, 22.0% were private schools, and 51.0% were non-administrative schools.

MMWR / August 28, 2015 / 64(33) / 905-8

MMWR, 2015 Aug 28;64(33):905-8

### School Meals: Key Findings, 2014

- ❑ **Almost all schools offered whole grains each day**
  - 97.2% at breakfast
  - 94.4% at lunch
- ❑ **Most schools offered a variety of fruits and vegetables for lunch each day**
  - 79.4% offered  $\geq 2$  different vegetables
  - 78.0% offered  $\geq 2$  different fruits
- ❑ **1 in 3 (30.5%) schools offered self-serve salad bars**



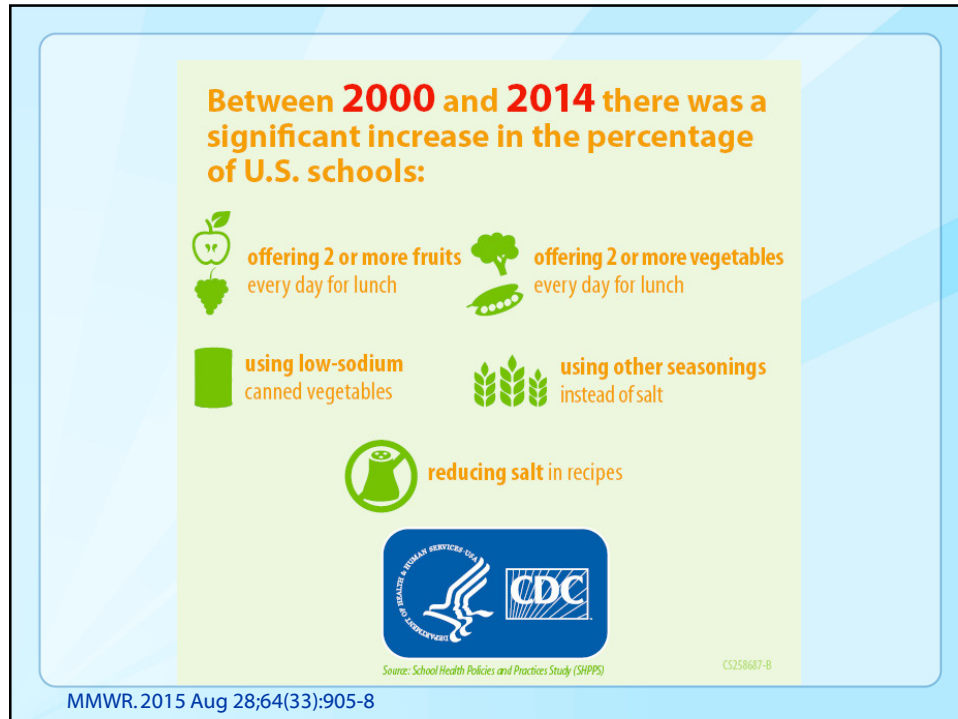
MMWR. 2015 Aug 28;64(33):905-8

Photo credit: Metro Nashville Public Schools via School Lunches that Rock


### School Meals: Key Findings, 2014

- ❑ **Among schools that prepared food at the school used practices to reduce salt content**
  - 54.1% used fresh/frozen vegetables instead of canned
  - 51.8% used low salt, canned vegetables instead of regular canned vegetables
  - 65.1% used other seasonings instead of salt
  - 68.0% used low-salt recipes

MMWR. 2015 Aug 28;64(33):905-8



## Competitive Foods: Key Findings, 2014



**Doing a good job:**

- 17.9% of schools have vending machines, school stores, or snack bars that sell cookies or other baked goods that are not low in fat.
- 80.0% of schools sell fruit a la carte in the cafeteria and 63.7% sell vegetables with low-fat dip a la carte in the cafeteria.

**Needs improvement:**

- 6.0% of schools have vending machines, school stores, or snack bars that sell fruits or vegetables.
- 36.9% of schools hold fundraiser nights at fast food restaurants where a portion of the sales made on a particular night benefit the school.

[www.cdc.gov/shpps](http://www.cdc.gov/shpps)

## Access to Drinking Water: Key Findings, 2014

### Doing a good job:

- ❑ 88.3% of schools offer a free source of drinking water in the cafeteria during meal times.
- ❑ 74.1% of schools permit students to carry a water bottle in all locations during the school day.
- ❑ 18.4% of schools permit students to carry a water bottle in some locations during the school day.



[www.cdc.gov/shpps](http://www.cdc.gov/shpps)

## Marketing and Promotion: Key Findings, 2014

### Doing a good job:

- ❑ 5.8% of schools allows advertisements for junk food or fast food restaurants on school property.
- ❑ 4% of schools use educational materials that feature junk food, fast food restaurants, or soft drinks, including their logos or characters.
- ❑ 3.7% of schools promote junk food, fast food restaurants, or soft drinks through the distribution of products (e.g., t-shirts, hats, and book covers) to students.

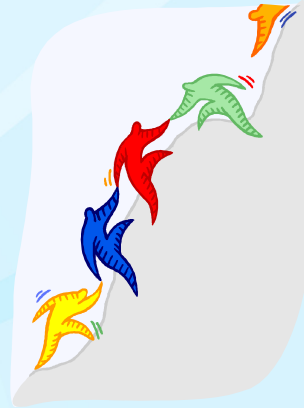
### Needs improvement:

- ❑ 22.2% of schools allow soft drink companies to advertise soft drinks on vending machines.

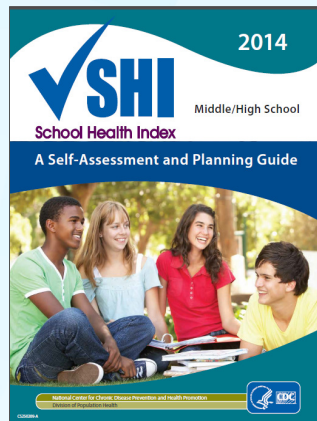
[www.cdc.gov/shpps](http://www.cdc.gov/shpps)

## How Can Schools Continue to Create a Healthy School Nutrition Environment?

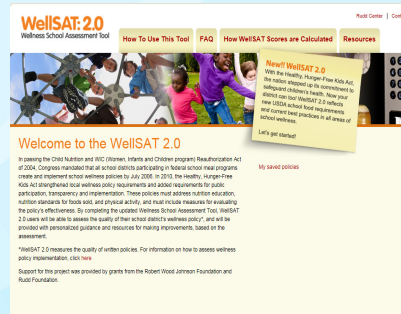
- ✓ Assess current policies and practices
- ✓ Establish evidence-based policies and practices in schools through local school wellness policies
- ✓ Build support for change with school staff, families, and students



## Assess current policies and practices



[www.cdc.gov/healthyschools/shi](http://www.cdc.gov/healthyschools/shi)

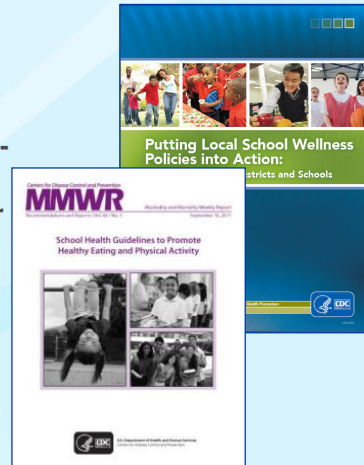


[www.wellsat.org](http://www.wellsat.org)



## Establish Evidence-based Policies and Practices in Schools through Local School Wellness Policies

- ❑ District wellness policies address nutrition and physical activity
- ❑ Schools should ensure their policies and practices are evidence-based
- ❑ CDC's School Health Guidelines for Promoting Healthy Eating and Physical Activity
  - 9 evidence-based guidelines
  - 33 evidence-based strategies



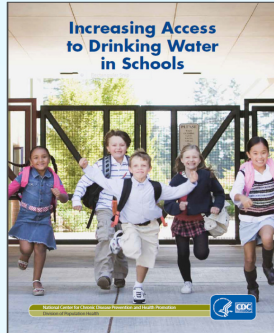
<http://www.cdc.gov/healthyouth/npao/wellness.htm>  
 MMWR 2011;60(RR-5):1-76

## Local School Wellness Policy Research Briefs

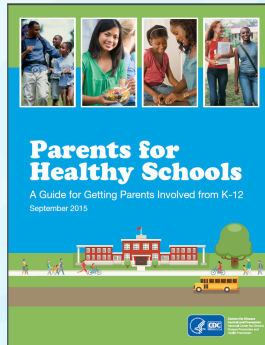


[www.cdc.gov/healthyschools/npao/wellness.htm](http://www.cdc.gov/healthyschools/npao/wellness.htm)

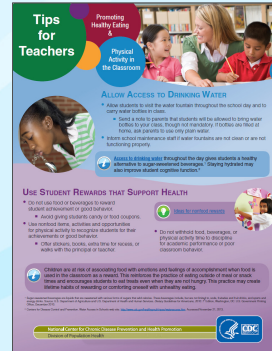
# Build support for changes among school staff, families, and students



[www.cdc.gov/healthyschools/npao/wateraccess](http://www.cdc.gov/healthyschools/npao/wateraccess)



[www.cdc.gov/healthyschools/parent\\_engagement/parent\\_engagement](http://www.cdc.gov/healthyschools/parent_engagement/parent_engagement)



[www.cdc.gov/healthyyouth/npao/pdf/Tips\\_for\\_Teachers\\_TAG508.pdf](http://www.cdc.gov/healthyyouth/npao/pdf/Tips_for_Teachers_TAG508.pdf)

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Healthy Schools

**CDC Healthy Schools**  
 Healthy Students, Ready to Learn

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<b>Nutrition Environment</b> 	<b>Physical Activity</b> 	<b>Obesity Prevention</b> 	<b>Chronic Conditions</b> 
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[www.cdc.gov/healthyschools](http://www.cdc.gov/healthyschools)

**Thank you!**

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**For more information please contact Centers for Disease Control and Prevention**

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

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