

# Issue Brief



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## One Piece of the Childhood Obesity Puzzle: *Kansas Public Schools*

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### Results in Brief

- A drop-off in physical education requirements during middle and high school corresponds with a dramatic increase in student exposure to vending machine items and a la carte foods for Kansas public school students.
- Approximately 59 percent of Kansas K-12 public school students have access to vending machines during the school day. Once public school students reach high school, more than 90 percent are reported to have access to vended foods and beverages.
- More than 80 percent of public school and school-district staffs favor collecting body mass index (BMI) data and sending it to parents to alert them to overweight and underweight children.
- Approximately one-quarter of responding public elementary schools have reduced recess time within the past three years to devote more time to preparing students for required state tests.
- Most Kansas K-12 public school officials recognize they should play a role in combating childhood obesity, but they believe any successful strategy must also involve parents, government and the media.
- Public school physical education professionals and administrators say lack of class time, staff cutbacks and inadequate facilities are hindering their ability to address the problem of overweight and obesity.

### More Information

Funding for this project was provided by the Sunflower Foundation: Health Care for Kansans, a Topeka-based philanthropic organization with the mission to serve as a catalyst for improving the health of Kansans.

For more information on this topic, visit [www.khi.org](http://www.khi.org).

### Background

The United States is in the midst of an obesity crisis. According to the Institute of Medicine, the rate of childhood obesity has more than tripled over the last 30 years for children 6 to 11 years of age and doubled for adolescents aged 12 to 19. Though the alarm has sounded, effective policies and practices to reverse this trend have been slow in developing.

This study examined nutrition, physical education and physical activity policies and practices in Kansas K-12 public schools to determine what they are and are not doing to address the obesity crisis and to gauge their capacity to do more. The results indicate that while school-level and school-district staffs believe they have a role to play in responding to the crisis, they are conflicted about their level of responsibility and what steps to take.

There were two main reasons for focusing this study on schools. First, most Kansas public school students eat at least one meal during the school day and about one in four eats two meals at school. Second, school physical education and health education provide opportunities to teach students about the health benefits of physical activity and a healthy diet. Research shows that habits developed early in life are likely to persist into adulthood, suggesting that if children are encouraged to be active they are more likely to maintain a healthy level of physical activity as they age.

Still, if changes are to be made in public school policies and practices to address the childhood obesity crisis, barriers to success must be understood. This study does that in part by surveying school staffs about expanding and competing demands for time and resources

among school nutrition, physical activity and physical education programs and academic curricula and programs aimed at preparing students for state standardized tests.

## The Study

**K**HI worked with the Kansas State Department of Education to design a set of three complementary and comprehensive surveys. Three topic areas were included in the study: 1) nutrition, including school meals, a la carte foods and vending machines; 2) physical education and 3) physical activity. KSDE sent the surveys early in 2006 to K-12 school food service administrators and managers, health and physical education teachers, and others with direct knowledge of their school or district policies and practices. Ninety-six percent of the 304 public school districts participated by completing at least one of the three surveys. The respondents are representative of the state by grade level, student body size, various levels of student eligibility for the free and reduced price lunch program and urban or rural location of their districts or schools.

### Survey Respondents Report of Current Public School Nutrition and Physical Activity Policies

Policy (Grades K-12 unless otherwise noted)	Percent of responding schools/districts
School has a policy that requires a minimum amount of time for eating breakfast and/or lunch once they are seated	45.2
District has an “open campus” where secondary students are able to leave the school premises during their lunch period	11.6
School food service program offers a la carte items	44.8
School has vending machines available for use by students	54.0
School allows advertising for vended beverages or foods on school grounds	15.0
School offers a physical education class that provides students with at least 25 percent of the class time for physical activity	93.4
School permits recess to be considered equivalent to a physical education class (K-5 only)	6.4
Students enrolled in physical education receive age-appropriate fitness testing at least once a year	85.7
Physical education program has a written, sequential curriculum that has been updated in the last five years	88.5
Physical education curriculum is based on national and/or state education standards	96.8
School provides students with regularly scheduled recess (K-5 only)	96.0
Students are provided with supervised, structured physical activities during recess (K-5 only)	14.7
School offers structured physical activities during the before-school or after-school program (among schools that have before- or after-school programs)	58.5
School provides an after-school intramural athletic program	24.0

## Findings: Current Policies

● Respondents were asked to provide information concerning 14 different nutrition, physical education and physical activity policies currently in place in their schools and districts. The results presented in the table to the left offer a baseline from which to view public school health environments and a way for Kansas to review and monitor change going forward.

## Findings: Vending Machines and a la Carte Foods

● Physical education requirements decrease in middle and high school at the same time that students’ access to vending machine snacks and a la carte foods increases. The confluence of these trends, as illustrated in the graph on the next page, occurs between grades 6 to 9.

● The five most common items available to students from vending machines are carbonated beverages (89 percent), water (89 percent), juice (77 percent), chips and snack foods (74 percent) and candy (71 percent).

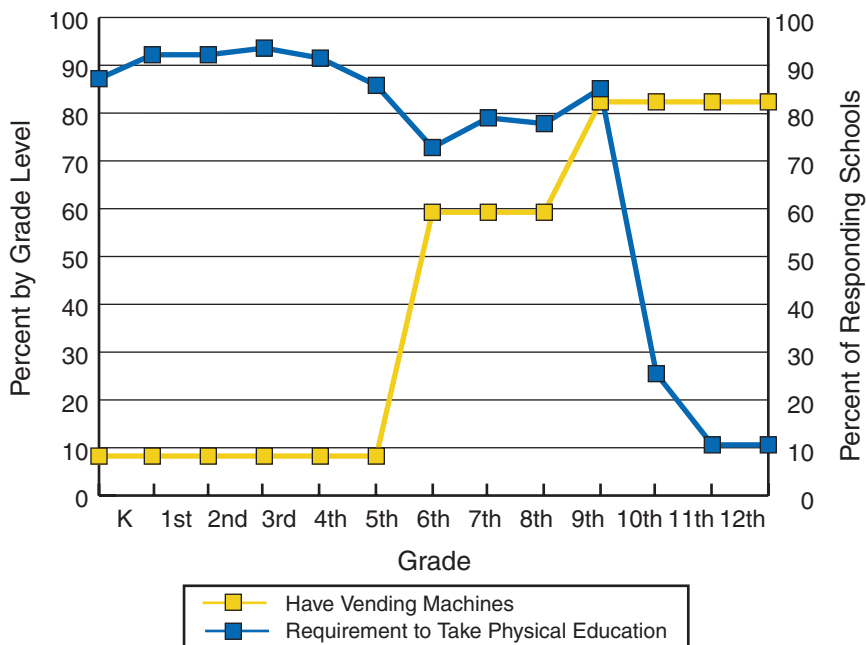
● A la carte foods are most commonly available to students during lunch periods. In addition to milk, juice and water, the most frequently offered items include chips and snack foods (71 percent), ice cream (68 percent) and an additional entrée (56 percent) from the school lunch.

- Approximately 59 percent of Kansas K-12 public school students — about 269,000 children and adolescents — are reported to have access to vending machines during the school day. Once public school students reach high school, more than 90 percent of them are reported to have access to vended foods and beverages.
- Vending machines are more common in rural (78 percent) than urban (55 percent) schools. A la carte foods are more common in urban schools (65 percent) than rural schools (30 percent).
- Among schools that have vending machines, each school has an average of about 5 machines — 3.7 provide beverages and 1.6 provide food and snacks.
- Money collected from vending machines is most often used for sports teams or clubs to pay for things such as travel and uniforms (57 percent). Vending machine revenue also is used for student incentives that may include proms, parties or special events (46 percent). Urban schools more commonly report using these funds for teacher/staff incentives (21 percent) and facility improvements (16 percent) than do rural schools.

### Findings: Physical Education and Physical Activity

- Though physical education is offered at 93 percent of responding Kansas public K-12 schools, some middle and even fewer high schools in our sample require students to participate (see the graph on this page).
- Approximately one-quarter of Kansas public elementary schools have reduced recess in the past three years to devote more time to preparing students for required state tests, according to survey respondents.
- Fewer than one in four respondents report that their schools or districts have implemented nationally recommended strategies to increase the physical activity of students. Recommendations include encouraging students to walk or bike to school, increasing physical education class time or increasing the frequency or duration of recess.
- Almost all Kansas public K-5 schools in this study (98 percent) start their elementary grade students with weekly physical education (PE). By grades 7 – 9, less than one in four students are reported by those surveyed to participate in weekly PE. By sophomore year, fewer than 12 percent of Kansas public

Requirement for Physical Education by Grade and Presence of Vending Machines by School



high school students are reported by those surveyed to participate in weekly PE.

### Findings: Attitudes of School Staff

- Most school staffs (ranging from 83 percent of responding administrators to 93 percent of responding physical education teachers) support collecting body mass index (BMI) data on students and sending it to their parents.
- Food service professionals are conflicted about providing students the foods they want and dealing with the financial pressures placed on their programs by competition from vending machine sales, school stores and open campus policies, which allow students to leave school for lunch. Thirty-five percent of food service professionals agree or strongly agree that students should be considered customers and given the food choices they want. By contrast, 12 percent of school administrators agree or strongly agree with this statement.
- Physical education professionals (92 percent) who responded to the survey say the lack of a state requirement for a minimum number of physical education minutes per week is hindering their ability to teach healthy patterns of physical activity. School administrators add that staff cutbacks and inadequate facilities are also barriers to dealing with providing physical education to students.

## DEFINITIONS

### a la carte:

food and beverage items sold by the school food service program in addition to the school breakfast and lunch meals

### body mass index (BMI):

a number, calculated from a person's weight and height, that provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems



The Kansas Health Institute is an independent, nonprofit health policy and research organization based in Topeka, Kansas. Established in 1995 with a multi-year grant from the Kansas Health Foundation, the Kansas Health Institute conducts research and policy analysis on issues that affect the health of Kansans.

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## Recommendations

### ● Kansas needs to develop a comprehensive, statewide strategy for addressing student health, including childhood and adolescent overweight.

State policymakers should develop a comprehensive, statewide strategy for addressing childhood obesity. The best research available says only a comprehensive effort — one that involves schools, government at all levels, public health, the business community, providers and families — can be successful. Evidence-based interventions that are evaluated for their effectiveness coupled with partnerships that stretch across the entire community must be encouraged if Kansas is going to address the current crisis and help its children lead healthier lives.

### ● Progress and improvement using the school wellness policy guidelines should be required in all Kansas public K-12 schools.

The school wellness policy model guidelines were established by KSDE and were used by local wellness committees in all of the state's school districts to comply by July 2006 with federal requirements. The model guidelines were developed for nutrition, nutrition education and physical activity, and each includes specific goals, from "basic" (minimum requirements) to "advanced" and "exemplary" levels.

Currently, schools are only required to review their wellness guidelines annually. Schools and school districts should be required to demonstrate improvement using the school wellness policy model guidelines, and state resources should be committed to ensure that progress is tracked at the state level.

### ● As recommended by the Institute of Medicine, all food and beverages sold or served to students in school should be healthful and meet an accepted nutritional content standard.

Vending machine items and other foods available to students in public school should be reviewed for nutritional content. Wherever appropriate, an explicit effort consistent with the school wellness policy guidelines should be made to increase healthy food and beverage options.

### ● This study suggests that an in-depth review be conducted of how the school lunch program is financed at the local level.

The results of this study indicate that in some Kansas public K-12 schools, the school lunch program is in direct competition for student purchase with vended products and/or a la carte offerings. This puts the nutritionally balanced school lunch at odds with foods that don't contain the recommended amounts of protein, vitamins and other essential nutrients for children. Food and beverage items that are sold primarily to support student activities need to be reviewed in terms of their financial impact on schools and, specifically, the lunch program.

### ● State policymakers should institute more comprehensive physical education requirements in Kansas public middle and high schools.

Currently, there is an emphasis on physical activity in Kansas public schools from kindergarten through grade 5. To encourage a lifelong pursuit of physical activity and health, this emphasis should be extended through grade 12.

### ● Kansas lacks basic information on the level of overweight and obesity among children. A place to begin to address this problem is to collect height and weight data to calculate the body mass index (BMI) of public school students.

Prevention and intervention efforts to improve student health by reducing the risks associated with overweight and obesity depend on knowing the prevalence of these conditions in the population. Currently, there is no reliable, routinely available source of information concerning the levels of overweight among school-age children. To know if interventions we introduce are improving the health of children, we need to be able to monitor BMI as an indicator over time. A logical place to collect that information and to share it with respect for privacy is through the public school system.