

# The Status of Physical Fitness Among Kansas Youth

---

Progress through Coordinated School Health

Prepared by  
Kansas Department of Health and Environment  
December 2008

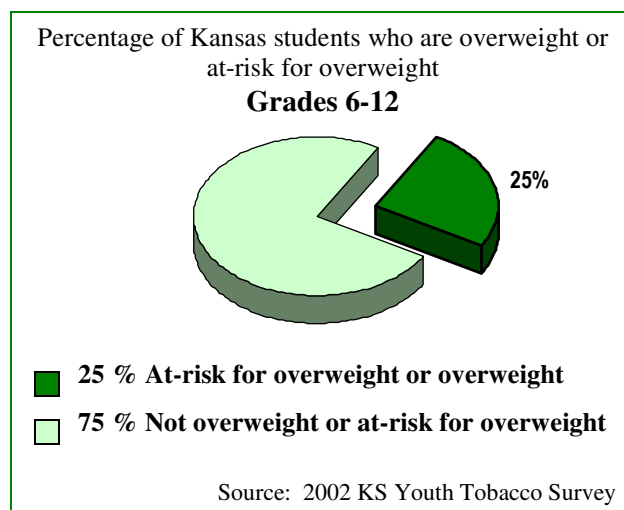
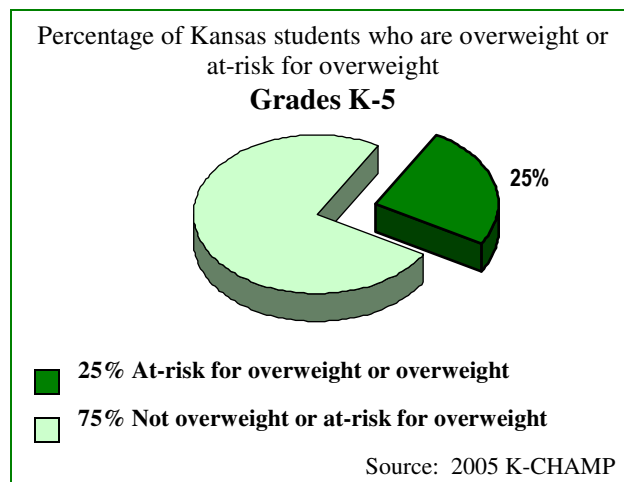


in response to a request for information by the  
Legislative Coordinating Council



State funds allocated in 2008 allowed KCSH to make substantial investments in health in over 40 school districts across the state. At a minimum, 77,000 students in 31 Kansas counties are being impacted. Minority students make up 30% of the grantee population, 13% are special education students and over 33,000 students in these districts are eligible for free or reduced lunch.<sup>8</sup>

Nearly 500,000 Kansas children spend as much as nine hours each day in the public school setting. This means that nearly 50% of daily energy expenditure among these children should occur while they are at school and close to one third of their total daily energy requirement should come from the lunch eaten at school.<sup>9</sup> Schools should promote and implement quality nutrition and physical education curricula to meet these recommendations. KCSH assists districts in these efforts.



## State & Federal Recommendations for Impacting Student Health

KCSH efforts to impact nutrition, nutrition education and physical activity are grounded in state and national recommendations developed through the Governor's Healthy Kansas initiative, Healthy People 2010 and the federal child nutrition program. With the intent of increasing quality and years of healthy life and eliminating health disparities, Healthy People was developed to serve as a roadmap for improving the health of all people in the United States. The most recent set of recommendations, Healthy People 2010 (HP2010), was released in 2000 and Kansas then adopted corresponding goals as Healthy Kansans 2010. Subsequently, the Governor's Healthy Kansas initiative focused efforts at the individual level to drive personal behaviors of Kansans to eat a healthier diet, move more and stop using tobacco. Both Healthy Kansas and Healthy Kansans 2010 benefited from a strong national push to address physical activity at all ages and included goals for increasing physical activity among both adults and adolescents.

Subsequent to the release of the HP2010 goals and recommendations, the federal government passed public law 108-265 reauthorizing the federal child nutrition program that includes school lunch and breakfast programs. This law also required local educational agencies to establish local “school wellness policies.” In 2005, the Kansas Legislature passed Senate Bill 154, which became Kansas statute 72-5128, supporting the federal requirement for developing local school wellness policies by directing the Kansas State Board of Education to “develop nutrition guidelines for all foods and beverages made available to students in Kansas public schools during the school day....”<sup>10</sup> In developing such guidelines, the state law required particular attention be directed to providing healthful foods and beverages, physical activities and wellness education with the goals of preventing and reducing childhood obesity.

The state law also required that “when establishing the wellness policy of the school district, the board of education of each district shall take into consideration the guidelines developed by the state board...” To assist schools in meeting the requirements set forth by the legislature, the Kansas State Department of Education teamed with KDHE, numerous content professionals and other state partners to develop the Kansas School Wellness Policy Model Guidelines.<sup>11</sup> These guidelines became the backbone of KCSH grants to schools.

**The guidelines required by KSA 72-5128 included a focus on:**

- Nutrition
- Nutrition Education
- Physical Activity

Trainings were conducted across the state for school district personnel on using the model guidelines to craft local district policies. School districts were encouraged to develop a school health council consisting of district staff, parents and community partners to help guide the development of the wellness policies. Each district was required to submit their local wellness policies by July of 2006. Thereafter, districts are required to annually report progress in implementing policies.

**Kansas Coordinated School Health:  
A Recognized National Leader**

---

- Kansas is recognized as the only state that has enacted ongoing monitoring of school wellness policies <sup>12</sup>
- Kansas leads the way in integrating state wellness policies with the coordinated school health model
- Kansas’ work to develop a more effective model in bringing together school, community and state partners has been showcased at the 2007 American School Health Association annual conference and the 2008 American Public Health Association annual conference

## 2008-2009 KCSH Physical Activity Guidelines\*

Basic Physical Education/Activity	Advanced Physical Education/Activity	Exemplary Physical Education/Activity
1. School district offers opportunities for 100-150 minutes of physical education (PE)/physical activity (PA) or equivalent per week	1. School district offers opportunities for 150-200 minutes of PE/PA or equivalent per week	1. School district offers opportunities for 200 + minutes of PE/PA or equivalent per week
2. School district offers 20 + minutes of recess per day for all elementary students	2. School district offers 15 + minute recess periods per day for all elementary students	2. School district offers two 15 + minute recess periods per day, with one prior to lunch, in each elementary school
3. School district will distribute educational material focused on PA to families of students at least 3 times per year	3. School district will distribute educational material focused on PA to families of students at least 3 times per year	3. School district will distribute educational materials focused on PA to families of students at least 3 times per year
4. School district will collect, record and send to the state the height and weight of all 4 <sup>th</sup> grade students	4. School district will provide extracurricular programs, clubs and intramurals that incorporate PA	4. School district will provide extracurricular programs, clubs and intramurals that incorporate PA
	5. School district will collect, record and send to the state the height and weight of all 4 <sup>th</sup> and 7 <sup>th</sup> grade students	5. School district are required to report how PA is being incorporated in other subject areas within the districts other than PE
	6. School district will collect, record and send to the state fitness level indicators related to aerobic capacity on all 4 <sup>th</sup> and 7 <sup>th</sup> grade students	6. School district will implement a walk and bike program at school
		7. School district will allow community access to activity facilities, resources/equipment to promote healthy behaviors of community residents
		8. School district will collect, record and send to the state the height and weight of all 4 <sup>th</sup> , 7 <sup>th</sup> and 9 <sup>th</sup> grade students

Developing wellness policies was a promising first step for school districts in their efforts to address student health in a comprehensive manner. Since that time, the challenge for school districts is moving from a basic level of implementation to an advanced or exemplary level. In the absence of funding to support a framework for implementing wellness strategies, school districts have experienced minimal advancement in physical activity policies.

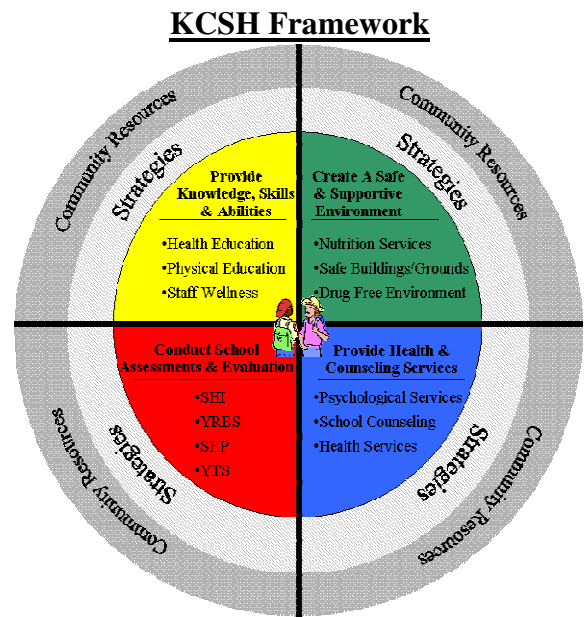
\*In addition to Physical activity, model guidelines have been written to address nutrition services, nutrition education and tobacco use prevention.

## Kansas Coordinated School Health

Starting in 2003, the Kansas Department of Health and Environment (KDHE) and the Kansas State Department of Education (KSDE) collaborated to implement Kansas Coordinated School Health (KCSH) with grant funding from the Centers for Disease Control and Prevention (CDC). KCSH was established to bring state and community partners together. Each of these partners must make inroads in their own environments to complement and sustain any change that may occur at the school level.

As schools completed development of wellness policies and recognized the need to address issues of physical activity, obesity, nutrition and associated health risks, they have subsequently embarked on efforts to improve outcomes, which include new opportunities for physical activity. For many districts these new efforts have been facilitated by guidance and technical assistance from KCSH.

KCSH utilizes the CDC 8-component model: health education, physical education, health services, nutrition services, counseling, healthy school environment, health promotion for staff and family and community involvement. Kansas has focused its efforts on the model's primary tenant of obesity prevention emphasizing increased physical activity and improved nutrition practices among students, school staff and parents.

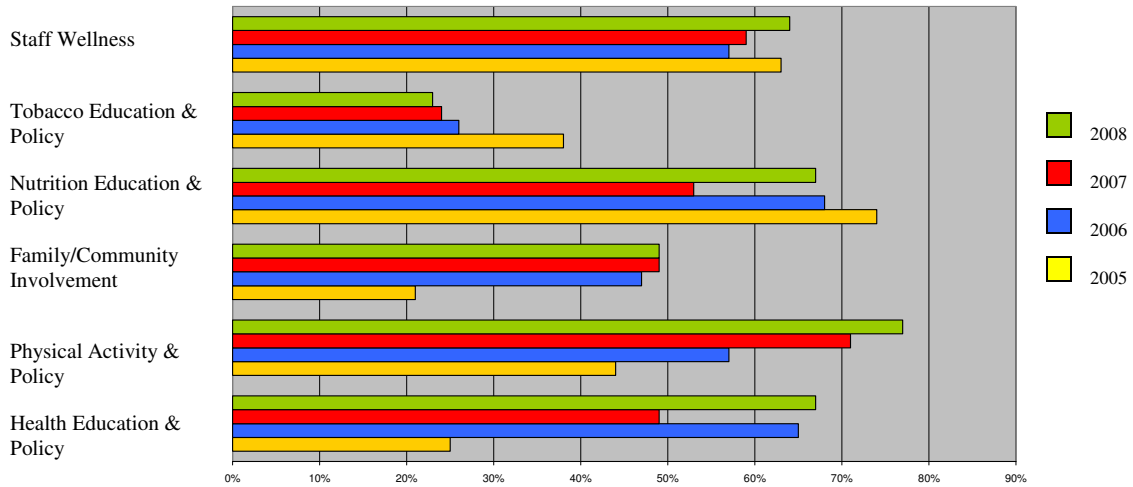


™Kansas Coordinated School Health

Schools continue to be a pivotal partner in every community where children can be reached with education, role-modeling and opportunities to develop the best possible knowledge, practice and attitudes about nutrition and physical activity. Continued investment in KCSH will provide the most comprehensive strategy for impacting the health of Kansas children.

Kansas schools that have adopted the KCSH framework have enhanced physical activity by developing PE and health curricula that align with state and national standards, tools and trainings to enhance physical activity in classrooms, and physical activity events that bring community members, families and students together, such as walking clubs and walking tracks on school grounds.

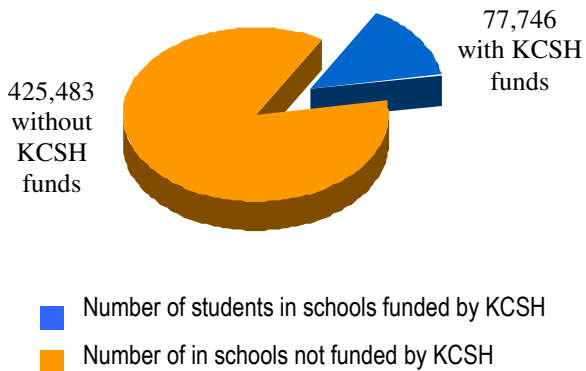
**Areas of Focus for Kansas Coordinated School Health Grantees  
SFY 2005-2008**



Source: 2008 KCSH Program

In SFY 2009, inadequate resources caused KCSH to deny funding requests from four school districts that were eager to join the program. Additionally, KCSH funding awards to many very qualified districts were reduced to stay within available resources. Currently, these KCSH districts are receiving an average of \$3.50 per student to develop and implement programs that have the potential to impact health and wellness behaviors of Kansas children.<sup>13</sup> In return, grantees commit to strengthening their district wellness policies in the areas of physical activity, nutrition and tobacco use prevention.

**Students impacted through  
Kansas Coordinated School Health in  
SFY 2009**



Source: 2008 KCSH Program

**KCSH funded school districts are  
making a difference in SFY 2009**

- Funded school districts offer an average of 9 hours of nutrition education per student.
- Over 77,000 families in funded districts will receive nutrition, physical activity and tobacco use prevention educational materials.
- Students in 65% of funded school districts will exceed the number of minutes of physical activity recommended during the school day.
- Height, weight and selected physical fitness indicators will be collected by KCSH funded school districts on over 10,000 students.
- 65% of funded school districts will protect students, staff and visitors with a comprehensive tobacco-free school grounds policy.

## Kansas Adolescent Health Data

KCSH draws from a wide range of data sources regarding obesity, physical activity and nutrition to help paint a picture of student health to assist in its planning and evaluation efforts. Data from student surveys, which are self-reported, such as the Kansas Youth Risk Behavior Survey (YRBS), the Kansas Youth Tobacco Survey (YTS) and special studies such as the Kansas Child Health Assessment Project (K-CHAMP) and the Kansas Nutrition, Physical Education and Physical Activity Policies and Practices project serve as baseline measures for adolescent health in Kansas.

The Kansas Nutrition, Physical Education, Physical Activity, Policies and Practices survey was administered in 2006 by the Kansas State Department of Education in partnership with the Kansas Health Institute as a result of Kansas Concurrent Resolution 1604.<sup>14</sup> The survey was conducted in an effort to better understand the health environment for Kansas youth by examining key policies and practices that affect public school children across the state.

### Key findings from the Kansas Nutrition, Physical Education and Physical Activity Policies and Practices Survey

1. Required physical education decreases at the same time vending machine items and a la carte offerings become increasingly common in school, between grades 6 and 9.
2. Physical education professionals think they need more time with children to do their jobs and instill healthy patterns of physical activity in every child.
3. Relatively few KS schools have instituted nationally recommended strategies to increase physical activity among students.

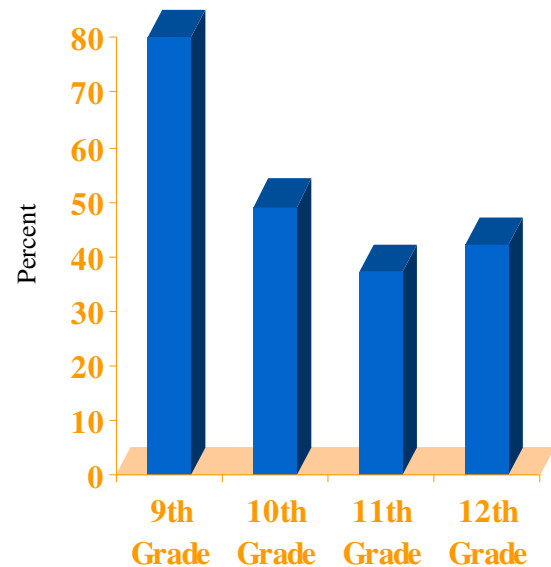
Source: Kansas Health Institute

The K-CHAMP project was conducted from 2003-2008. This project represented the most comprehensive collection of clinical height and weight data ever conducted in Kansas. KCSH utilizes the height and weight collection protocol developed for K-CHAMP. In addition to collecting height and weight data, K-CHAMP surveyed students' physical activity and nutrition habits. Student data from the survey was then correlated with appropriate height and weight data to produce a snapshot of health. The final phase of the project involved 15 focus groups conducted with parents, guardians, school administrators, teachers, youth service organizations and medical providers from across Kansas on the issue of childhood obesity.<sup>15</sup> Preliminary analysis of the data suggests that focus group participants recognize childhood obesity as a serious health problem and feel the school setting should play a significant role in the solution. Additionally, parents supported schools' efforts to collect height and weight information as long as the information was used to guide needed change to the school environment. These findings are consistent with results from the 2005 Kansas Behavioral Risk Factor Surveillance Survey (BRFSS), a survey of Kansas adults, which indicated that nearly 75% favored collecting height and weight measurements in Kansas schools.

## Current Requirements and National Physical Activity Recommendations

Kansas does not have a statewide physical education requirement for all public school students, nor does the state require a minimum number of minutes of physical activity during school. Current requirements apply to elementary students in grades K-5, do not cover students in grades 6, 7 and 8 and mandate only one unit of physical education for grades 9-12, of which one-half unit may include health education. Data collected through KCSH indicates that the majority of students in grades 9-12 fulfill the requirement during the 9<sup>th</sup> grade year, meaning the percent of students participating in physical education class in grades 10, 11 and 12 is greatly reduced.<sup>16, 17</sup> In an effort to fortify physical education in Kansas schools, in 1998, a Kansas physical education curriculum guide was developed based upon the National Association for Sport and Physical Education (NASPE) National Standards for Physical Education.<sup>18</sup>

Percentage of students attending physical education (PE) classes on one or more days per week when in school



Source: 2007 Kansas Youth Risk Behavior Survey- self reported

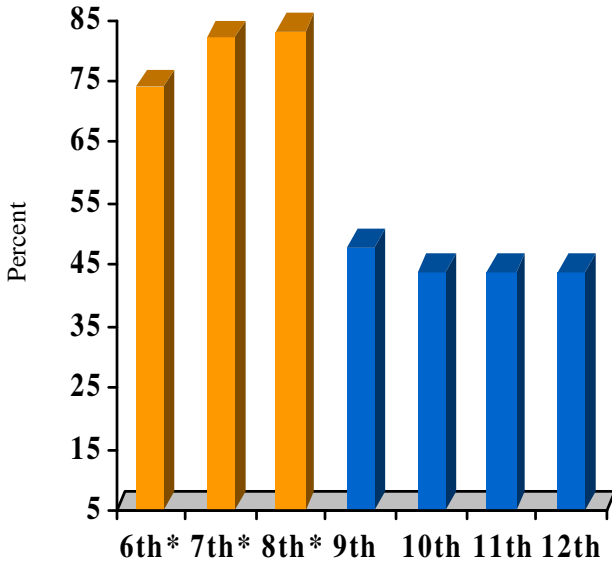
In 2008 the U.S. Department of Health and Human Services released physical activity guidelines for Americans that recommend children and adolescents engage in at least 60 minutes of moderate to vigorous aerobic physical activity daily. Because students spend nearly half of their day in school, to meet this recommendation, students should be physically active for at least 300 minutes during a five day school week or 30 minutes per day while in school.<sup>19</sup> Guidelines developed by KCSH require schools to implement programs that will provide each student the opportunity to meet this recommendation.

**By 2010, increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion to**

**85%**

Source: Healthy People 2010

**Percentage of Kansas students who were physically active for a total of at least 60 minutes per day on five or more of the past seven days**

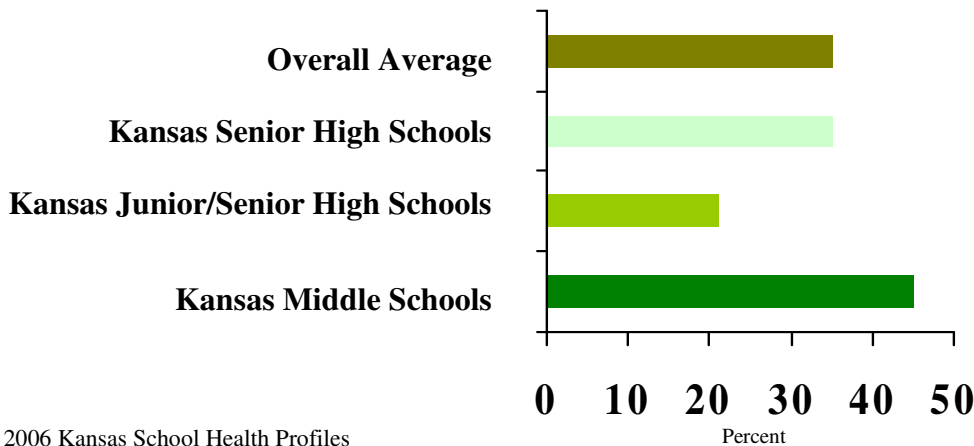


Source\*: 2008 Kansas Youth Tobacco Survey- self-reported

Source: 2007 Kansas Youth Risk Behavior Survey- self-reported

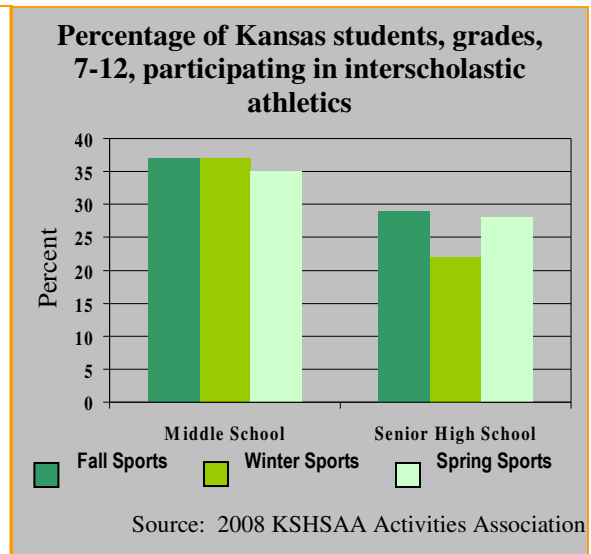
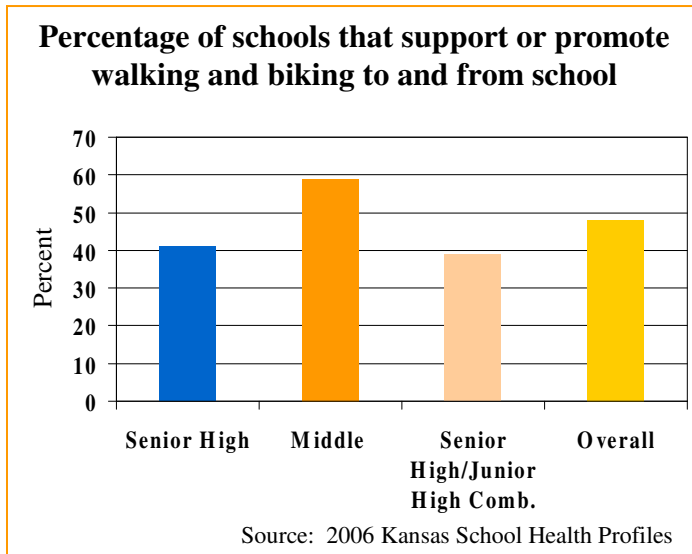
Kansas students in grades 7 and 8 come closest to meeting the Healthy People 2010 recommendation for adolescent physical activity. There are a number of possible reasons why a higher percentage of this age group tends to be more active. In Kansas, 7<sup>th</sup> grade marks the first year a student can participate in interscholastic athletics. According to data collected by KCSH, Kansas middle schools tend to offer more opportunities for their students to participate in intramural activities, physical activity clubs and programs that promote walking and biking to school. KCSH provides a framework for implementing similar programs and activities such as designating safe routes or preferred routes to school, and by providing onsite storage facilities for bicycles and helmets.

**Percentage of Kansas middle, junior/senior highs and high schools that offer students opportunities to participate in intramural activities or physical activity clubs**



Source: 2006 Kansas School Health Profiles

Due to limitations that exist in collecting routine and representative data at the elementary level, far less information is available to describe the elementary school environment. We do know that elementary schools operate in a more prescribed environment than middle schools and senior high schools. For example, almost all elementary students participate in physical education class and few elementary schools allow students access to vending machines. While these elements potentially lead to a healthier environment, there is still room for improvement in areas of nutrition curriculum development, increased exposure to nutrition and physical education, and height, weight and fitness indicator data collection.



## Improving Students' Lifetime Health

The list of adverse health conditions that threaten Kansas children cannot be ignored. It's well documented that inactivity and poor nutritional choices contribute to obesity, diabetes, and other chronic conditions including cancer and cardiovascular disease.<sup>20</sup> Physical activity and dietary behavior patterns learned and established during childhood pay off by reducing the complications associated with these conditions. Limiting adverse health outcomes not only optimizes quality of life, but also contributes to reducing health care expenditures. Currently, Kansas spends \$12 billion on chronic disease in a single year.<sup>21</sup> Obesity alone costs Kansans more than \$650 million per year on direct medical costs, of which \$143 million is paid by Medicaid.<sup>22</sup>

**"I think the greatest influence KCSH has had is the mindset that we, as a school district, can help our community members live healthier lives through instruction, support, example, resources, and just taking the lead in the journey towards healthy living."**

*Debbie Clawson, USD 247, Cherokee, KS*

To address those contributing factors, schools, communities, and local and state governments must work together. Kansas has taken an important first step by adopting guidelines to encourage change in the school setting by advancing implementation of wellness policies. Evidence shows that school-based healthy eating and physical activity programs can be effective in preventing childhood obesity.<sup>22</sup> Continued investment in Kansas Coordinated School Health, which provides an evidenced-based framework for action, assures that funds and technical assistance is available to school districts to facilitate progress toward achieving improved nutrition and increased physical activity goals. With adequate state commitment to implement the Coordinated School Health model, any school in Kansas can use the CSH framework as a tool to assist in accomplishing movement from "basic" to "exemplary" on the Wellness Guideline. With the infrastructure and support provided by the Kansas Coordinated School Health program, this is a reasonable and highly achievable goal.

## References

- <sup>1</sup> Cynthia Ogden, Margaret Carroll, Katherine Flegal, "High Body Mass Index for Age Among US Children and Adolescents, 2003—2006," *JAMA*. 2008;299(20):2401—2405.
- <sup>2</sup> Cara Ebbeling, Dorota B Pawlak, David S Ludwig, "Childhood Obesity: Public-health Crisis, Common Sense Cure," *Lancet* 360 (August 10, 2002): 473 – 482.
- <sup>3</sup> "Millions of Hispanics at Increased Risk for Type 2 Diabetes," *NIH News*, 29 June, 2004, [<http://www.nih.gov/news/pr/jun2004/niddk-29.htm>] (Accessed December 4, 2008.)
- <sup>4</sup> Emily Cox et al., "Trends in the Prevalence of Chronic Medication Use in Children: 2002-2005," *Pediatrics* (November, 2008: 1053-1061.
- <sup>5</sup> Pam Belluck, "Child Obesity Seen as Warning of Heart Disease", *The New York Times*, November 12, 2008 [Retrieved December 8, 2008 from <http://www.nytimes.com/2008/11/12/health>]
- <sup>6</sup> "KSDE's Model School Wellness Policy Guidelines" 2005. [retrieved December, 2008 from: [http://www.kn-eat.org/SNP/SNPShell/snp\\_home\\_page.htm](http://www.kn-eat.org/SNP/SNPShell/snp_home_page.htm)]
- <sup>7</sup> Kansas Statute 72-5128 *Food Service Program*, retrieved from <http://www.kslegislature.org/legsrv-statutes/getStatuteFile.do?number=72-5128.html>
- <sup>8</sup> 2008 Kansas Coordinated School Health grants, Data unpublished, Kansas State Department of Education and Kansas Department of Health and Environment.
- <sup>9</sup> "National School Lunch Program," USDA, 2004a. <http://www.fns.usda.gov/cnd/lunch/AboutLunch/NSLPFactSheet.htm>. (Accessed December 4, 2008.)
- <sup>10</sup> Kansas Statute 72-5128 *Food Service Program*, 2005.
- <sup>11</sup> "KSDE's Model School Wellness Policy Guidelines" 2005.
- <sup>12</sup> "Progress or Promises? What's Working For and Against Healthy Schools," Action for Healthy Kids, Fall 2008, pg 5. [From: <http://www.actionforhealthykids.org/newsroom.php>]
- <sup>13</sup> 2008 Kansas Coordinated School Health grants, Data unpublished.
- <sup>14</sup> Kim Kimminau, Kimberlee Murphy, and Cheng-Chung Huang, *Kansas Public School Health: Nutrition, Physical Education and Physical Activity Policies and Practices*, 62 – 70, [<http://www.khi.org/resources/Other/331-SchoolNutritionReport.pdf>], December 2006.
- <sup>15</sup> K-CHAMP 2006, Data unpublished, Kansas Department of Health and Environment.
- <sup>16</sup> Kansas Statute 72-1101 *School Attendance, Curriculum and Attendance*, retrieved from <http://www.kslegislature.org/legsrv-statutes/getStatuteFile.do?number=72-1101.html>
- <sup>17</sup> Kimminau, et al. *Kansas Public School Health*, 62 – 70, December 2006.
- <sup>18</sup> "Kansas Model Curriculum Standards for Physical Education, 2005" [retrieved December, 2008 from: [http://kshealthykids.org/CSHP/KSCH\\_Docs/Standards/PE%20Standards/PEStandardst.pdf](http://kshealthykids.org/CSHP/KSCH_Docs/Standards/PE%20Standards/PEStandardst.pdf)]
- <sup>19</sup> "2008 Physical Activity Guidelines for Americans," U.S. Department of Health and Human Services. [Retrieved December 9, 2008 from <http://www.health.gov/paguidelines/pdf/paguide.pdf>]

<sup>20</sup> Cara Ebbeling, et al, "Childhood Obesity: Public-health Crisis, Common Sense Cure," *Lancet* 360 (August 10, 2002): 473 – 482.

<sup>21</sup> Ross DeVol, et al, "An Unhealthy America: Economic Burden of Chronic Disease", Milken Institute. [Retrieved December 4, 2008 from: <http://www.chronicdiseaseimpact.com/ebcd.taf?cat=state&state=KS>]

<sup>22</sup> E.A. Finkelstein, et al. "State-level estimates of annual medical expenditures attributable to obesity. *Obesity Research* 2004; 12(1): 18-24.

<sup>23</sup> Paul J.Veugeliers, Angela L..Fitzgerald, "Effectiveness of School Programs in Preventing Childhood Obesity: A Multilevel Comparison," *American Journal of Public Health* 95 (March 2005): 432 -435.