

**ASSESSMENT OF
CHILDHOOD AND ADOLESCENT OBESITY
IN ARKANSAS**

Year Four (Fall 2006 – Spring 2007)





Executive Summary

Over the past three decades, too many children have adopted unhealthy eating habits and become physically inactive. Consequently, the rate of obesity among children across the country is rising at an alarming rate. Childhood obesity is now one of the most urgent health threats facing our children and families. In Arkansas, nearly 38 percent of our young people are overweight or at risk for overweight. Reversing this epidemic requires the coordinated efforts of many key stakeholders, including policy-makers, food manufacturers, environmental developers, parents, educators, clinicians and employers.

Four years ago, leaders in Arkansas developed a unique and comprehensive approach to address childhood obesity in public schools and local communities. Among other provisions, Act 1220 of 2003 called for improved access to healthier foods and beverages in schools, the creation of local committees to promote physical activity and nutrition and confidential reporting of each student's body mass index (BMI) to his or her parents.

Over the past four years, public schools across the state have embraced the importance of working with families and communities to provide a healthy learning environment by improving nutrition and finding ways to increase physical activity. The following report

details statewide student weight classifications and BMI assessment participation rates for four consecutive years. It also highlights just a few of the many innovative programs educators across the state have implemented to ensure that the students in their care are not only well educated but are also learning and practicing healthy habits that will last them a lifetime.

Since 2003, the Arkansas Center for Health Improvement (ACHI) has worked with policy-makers and school personnel to help implement Act 1220 and evaluate its effectiveness. BMI data for the 2006–2007 school year show that together we have continued to halt the progression of childhood obesity statewide. Although our work in Arkansas has produced positive changes in schools and communities across the state, continued efforts are needed to improve the health of our children and families.

The Arkansas Center for Health Improvement (ACHI) is a nonpartisan, independent health policy center dedicated to improving the health of Arkansas. It is jointly supported by the University of Arkansas for Medical Sciences, the Arkansas Department of Human Services and Arkansas Blue Cross and Blue Shield.

Statewide Participation in BMI Assessments

	Year One ('03 –'04)		Year Two ('04 –'05)		Year Three ('05 –'06)		Year Four ('06 –'07)	
	Percent	Total	Percent	Total	Percent	Total	Percent	Total
Participation								
Public Schools	94.4% (1,060)	1,123	98.8% (1,115)	1,129	98.6% (1,090)	1,106	99.1% (1,070)	1,080
Students (K-12)	92.7% (425,372)	458,991	96.1% (443,632)	461,815	91.9% (431,981)	470,279	96.3% (472,558)	490,495
Student Data		425,372		443,632		431,981		472,558
Valid for Analysis	81.8% (347,753)		83.1% (368,871)		85.5% (369,416)		77.6% (366,801)	
Invalid	1.4% (5,798)		1.1% (4,678)		0.4% (1,539)		0.1% (647)	
Unable to Assess	16.9% (71,821)		15.8% (70,083)		14.1% (61,026)		22.2% (105,110)	

Results include all data available for years 1, 2 and 3 for grades K–12 and data received by June 6, 2007 for year 4. Some public schools and districts merged after year 2. The most common reason students were not assessed for BMI was absence from school (of total reporting 6.3 percent in year 1, 7.6 percent in year 2, 6.7 percent in year 3 and 8.1 percent in year 4). Annually up to 6 percent of students or their parents refuse to participate.

Participation in Statewide BMI Assessments

In the 2006–2007 school year, 99 percent (1,070 of 1,080) of Arkansas public schools, in 251 of 253 school districts, participated in the statewide BMI assessments. BMI assessment forms were submitted by June 2007 for 472,558 of the state's 490,495 public school students.

The number of BMI assessment forms valid for analysis increased each year over the first three years of reporting, reaching 85.5 percent in 2005–2006. This year the number decreased to 77.6 percent. The majority of invalid forms contained no measurement information for students. A contributing factor to the decrease in valid forms may have been the uncertainty surrounding the BMI assessment process that was created by proposed state legislation during the 2007 General Assembly. The uncertainty caused some schools to delay conducting their BMI measurements and these delays prevented some schools from completing their measurements before the end of the school year.

Percentage of Students by Weight Classifications

Among public school students in Arkansas, 20.6 percent met the U.S. Centers for Disease Control and Prevention criteria for being overweight and 17.2 percent were at risk for overweight. Although the progression of childhood obesity during the last four years has been stopped, 37.8 percent of children and adolescents statewide are still overweight or at risk for overweight and face the related health risks.

Note: Pre-kindergarten data has been excluded from this report as annual increases in funding for pre-kindergarten classes have created an inconsistent measurable population in public schools. A future special report on the pre-kindergarten population may be warranted.

Percentage of Students (K–12) by Weight Classifications

	Year One ('03 –'04)	Year Two ('04 –'05)	Year Three ('05 –'06)	Year Four ('06 –'07)
Overweight	20.9% (72,617)	20.8% (76,775)	20.5% (75,596)	20.6% (75,544)
At Risk for Overweight	17.2% (59,784)	17.2% (63,495)	17.1% (63,315)	17.2% (63,059)
Healthy Weight	60.1% (209,122)	60.1% (221,703)	60.5% (223,642)	60.4% (221,513)
Underweight	1.8% (6,230)	1.9% (6,898)	1.9% (6,863)	1.8% (6,685)
Total Student Assessed	347,753	368,871	369,416	366,801

Results include all data available for years 1, 2 and 3 for grades K–12 and data received by June 6, 2007 for year 4.

It's Good for Them, But Will They Eat It?

Elementary school menus in Searcy are taste-tested and kid-approved.



The taste-test panel at Sidney Deener Elementary receives instructions from Searcy Food Service Director, Charlotte Davis.

How do you get children to eat those nutritious, healthy meals served in the school cafeteria? Charlotte Davis, Food Service Director for the Searcy School District, has the answer. She enlists the help of a Nutrition Council to serve as a taste-testing panel.

Each of Searcy's three elementary schools has a panel made up of two children selected from each of the fourth grade classes. The panel meets once a year to conduct an official tasting of items under consideration for school menus.

This year, 16 healthy, low-fat, whole-grain items including apple-filled pancakes, pizza bagels, lasagna and boneless chicken drumsticks, were tested by the fourth graders.

The young taste-testers sampled each item and completed a score card rating the food as:

- ✓ Excellent (I love it!)
- ✓ Good, Average (It's OK)
- ✓ Poor (I hate it!)

The items that receive high marks from the testers are then included on the cafeteria menus.

By providing menus that are not only healthy, but that also include foods the kids like and will eat, Davis has raised the school lunch participation rate to more than 80 percent. The total lunch program participation average for the state was 69 percent last year.

In addition to taste-testing potential menu items, the Nutrition Council receives menu planning training which they use to help their classmates plan a special cafeteria menu for National Nutrition month each March.

Classes compete to serve the highest number of meals by marketing their menus with posters and other creative promotions. The winning class is rewarded with an extra hour of recess and sport items, complete with a positive nutrition message such as, "5-a-day for fruits and vegetables."



A fourth grade taste-tester contemplates the flavor of a chicken "snack-a-tizer" being considered for the Searcy School District menu.

Adjusting to Change

More fruits and vegetables are gaining popularity in Bismarck — and students don't miss the fried foods.

Food service directors throughout the state, like Bismarck's Vicki Hill, take their jobs seriously when it comes to providing students with healthy, nutritious meals in school cafeterias.



Bismarck elementary school student enjoys homemade vegetable soup, cornbread, fresh orange slices and low-fat chocolate milk.

Making changes in the cafeteria isn't always popular. Vicki took over the Bismarck School District food service at the same time new requirements mandated by Act 1220 were to be implemented. At the time, she received complaints from students and parents about her "more fresh fruits and vegetables, less fried food approach." Students wouldn't eat the vegetables and parents complained

their children weren't getting enough to eat.

That was the first year. Two years later, Vicki reports that she often has to prepare more fruits and vegetables

Kids in Motion

Batesville's Eagle Mountain Magnet Elementary finishes an active year with Olympic-style Games Day.

Batesville's Eagle Mountain Magnet School held its Games III event on May 4, 2007. The entire elementary school participated in a day of Olympic-style fun, including a torch procession, athletic competition and medals.

The Eagle Mountain Magnet Games were a finale to a school year focused on physical activity. Coach Susan Parker, named Physical Educator of the Year by the Governor's Council on Fitness, keeps her first- through fifth-grade students in motion with more than 20 activities taking place before, after and during the school day.

Each school day starts with "Morning Movement," a guided physical activity announced over the intercom. Students are led through a variety of motion adventures including, "Travel the World with Blue Ann Ewe" and Friday morning "Musical Movement." In addition,



Bismarck Food Service Director, Vicki Hill.

than expected because the middle and high school students who serve themselves are filling their plates. Once the students tried the more nutritious offerings and discovered they enjoyed them, the complaints turned to praise.

Not only has Ms. Hill helped students develop healthier eating habits, she finished each year with a profit, proving that nutritious meals don't have to be more expensive than less wholesome ones.

Efforts to create a healthier environment in Bismarck schools are reinforced by limiting on-campus vending machines to bottled water. Prior to Act 1220, the Bismarck cafeteria and high school had both soft drink and snack machines. Students would often use their lunch money to purchase unhealthy snacks instead of buying a school lunch.



Students in grades 1-5 participated in the Eagle Mountain Games and everyone took home a medal.



basketball, yoga, a jump rope team, a dance academy and gymnastics are just a few of the many extracurricular activities offered before and after school.

The "Mile-a-Morning Club" is also offered to students, parents and other community members who want to run, walk or jog a mile on the school campus. Students are encouraged to "walk around the world" and all students who accumulate 60 miles in six weeks receive a Presidential Healthy Lifestyle award. Students interested in pursuing the challenge may add five extra minutes to their recess by joining the "Feeling Good Mileage Club" that meets during the lunch period. This year 100 percent of students accumulated the 60 miles—up from 55 percent last year.

Parents are informed of their child's fitness level through reports sent home at the beginning and end of each year. Reports include BMI measurement and health-related fitness scores for the sit and reach test, partial curl-ups, push-ups and fitness and shuttle running.



Coach Susan Parker, Physical Educator of the Year, oversees an eventful, Olympic-style Games Day at Eagle Mountain Magnet School in Batesville.



Moving Forward

Following a successful pilot program in 2005–2006, all schools were able to report student BMI data via a paperless, web-based system for the 2006–2007 school year. Use of the system included the capacity to immediately generate confidential Child Health Reports for parents. The web-based system will continue to be improved and used in up-coming years.

related illnesses, along with information to help them promote healthy eating behaviors and regular physical activity at home.

A study is currently underway to identify the most effective means of relaying child BMI assessment information to parents and clinicians. The study includes focus groups with parents and key informant interviews with doctors across the state.

Insight gained from this work will be used to make the Child Health Report as comprehensive and useful

Along with increased physical activity and better nutrition, confidential reporting of student BMI assessments to parents is an important part of addressing childhood obesity. As mandated by Act 1220, parents receive a Child Health Report, which includes information concerning their child's health status and risk for obesity-

to parents as possible. Improvements under consideration include providing information from each year the child has been assessed, progressively, on one report, allowing parents to track their child's risk for obesity over time. Incorporating BMI, hearing, vision and other school health screenings into one annual confidential Child Health Report for parents is also under consideration.

In 2007, new state legislation mandated a change in BMI assessment frequency, requiring that assessments be done and results reported to parents beginning with kindergarten and then in even numbered grades through the tenth grade. For the past four school years, BMI assessments were conducted and reported each year from kindergarten through grade 12.

The same legislation requires improved oversight of BMI assessment protocols. The Arkansas Board of Education has promulgated rules and regulations in accordance with the legislation. In order to ensure that measurements are as accurate as possible and confidentiality is strictly maintained, the Arkansas Department of Education will revise and update the BMI Screening Training Manual to include "train-the-trainer" modules. New training is being developed and will be implemented by October 2007 along with a certification and re-certification component for school personnel conducting assessments.

Acknowledgements

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For more information about Arkansas's childhood obesity initiatives, including the BMI assessment program, contact us at (501) 526-2244, or (501) 526-2249 for media inquiries.

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