

Tracking Progress:

The Third Annual Arkansas Assessment of Childhood and Adolescent Obesity



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Childhood obesity is a leading public health threat in the United States. More than 9 million children over the age of six are affected by the obesity epidemic, with minorities and children living in low-income communities facing the greatest risk. If the epidemic grows unchecked, obesity-related illnesses may cause today's young people to become the first generation in U.S. history to have a lower life expectancy than their parents.

The epidemic is particularly severe in Arkansas, where obesity rates have grown steadily over the past decade and have consistently ranked above the national average. Today, almost 38 percent of Arkansas children and adolescents are overweight or at risk for overweight. These children face an increased risk of developing hypertension, diabetes, heart disease, and other life-threatening illnesses as they age.

To their credit, Arkansas leaders recognized the danger of the obesity epidemic and took aggressive action long before many states had focused on the problem. Three years ago, Arkansas passed Act 1220 of 2003, a uniquely comprehensive approach to combating childhood obesity in public schools and local communities. Among other provisions, the Act called for improved access to healthier foods in schools, 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.

To help implement Act 1220 and gauge its effectiveness over time, the Arkansas Center for Health Improvement (ACHI) worked with Arkansas policymakers and school personnel to develop a system for weighing and measuring students, calculating BMI levels, and collecting and analyzing data on a school, school district, and

statewide basis. As a result of its size and methodological rigor, ACHI's BMI database provides the broadest and most accurate single-state profile of the childhood obesity epidemic in the nation.

After reviewing three consecutive years of data, ACHI concludes that Arkansas has halted the increase in rates of childhood obesity just three years after the passage of Act 1220. Although obesity among children and adolescents remains a major public health threat, it's clear that Arkansas' efforts are yielding positive results for the state's children and families.

Halting an Epidemic

Analysis of the BMI assessments of public school students reveals that the progression of the childhood obesity epidemic has been halted in Arkansas. Despite these results, almost 38 percent of children and adolescents in the state continue to face an obesity problem and associated health risks.



Key Provisions of Arkansas Act 1220

Act 1220 requires that Arkansas public schools:

- Annually report each student's BMI to his or her parents and provide families with information about the importance of nutrition and physical activity
- Bar student access to food and beverage vending machines in elementary schools
- Create local school-district level advisory committees to raise awareness about physical activity and nutrition and develop school-based policies that create a healthier learning environment
- Disclose food and beverage contract agreements, including revenues and expenditures

In addition, Act 1220 created a Child Health Advisory Committee (CHAC) to make recommendations to the State Boards of Education and Health on promoting nutrition and physical activity in schools. Based on CHAC guidance, the Arkansas Department of Education subsequently required that schools:

- Improve access to healthy foods in cafeterias
- Limit access to competitive foods (such as vended snacks and beverages) and ensure that products offered meet strict nutrition standards
- Promote professional development for food service staff
- Work toward achieving 30 minutes of physical activity each day in grades K-12
- Ensure that school personnel teaching physical education courses are appropriately trained and qualified

ACHI gratefully acknowledges the Robert Wood Johnson Foundation for its support of the BMI data analysis and the production of this report.

For the last two years, an investigative team at the College of Public Health at the University of Arkansas for Medical Sciences (COPH) has published an evaluation of Act 1220 activities—the third-year evaluation is expected in early 2007. The second-year report indicates that parents and adolescents are generally comfortable with the BMI assessment and reporting process. The evaluation also noted that no negative outcomes were found to be associated with the BMI assessment and reporting process.

(Year Two Evaluation: Arkansas Act 1220 of 2003 to Combat Childhood Obesity. Little Rock, AR: Fay W. Boozman College of Public Health, University of Arkansas for Medical Sciences, January 2006. Available at www.uams.edu/coph/reports.)

Highlights of 2006 Findings

Analysis of the third consecutive year of statewide BMI assessments of public school students reveals that the progression of the childhood obesity epidemic has been halted in Arkansas. Among public school students, 20.4 percent met the Centers for Disease Control and Prevention's criteria for being overweight, and 17.1 percent were at risk for overweight. While these findings represent a slight decline in the percentage of students who are overweight or at risk for overweight, 37.5 percent of children and adolescents statewide still have a potential obesity problem and face health risks associated with being overweight.

Percentage of Students by Weight Classifications

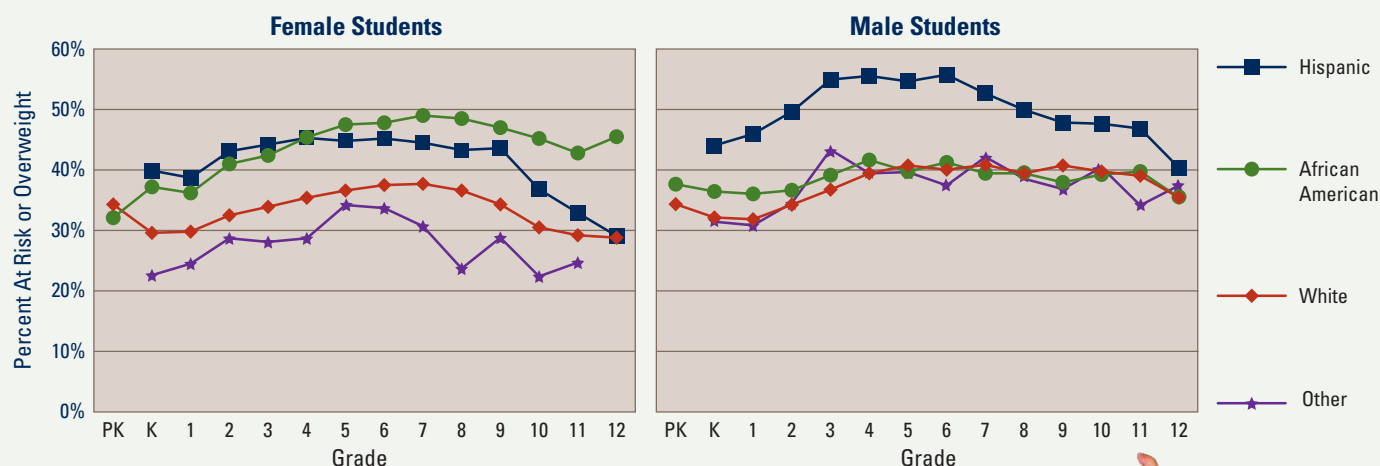
Category	Year 1 (2003–4)	Year 2 (2004–5)	Year 3 (2005–6)
Overweight	20.9%	20.8%	20.4%
At risk for overweight	17.2%	17.2%	17.1%
Healthy weight	60.1%	60.1%	60.6%
Underweight	1.8%	1.9%	1.9%
Total students assessed*	348,710	372,369	371,082

**Results presented include all data available for years 1 and 2 and data received by June 14, 2006 for year 3 analysis.*

BMI Classification by Gender, Ethnicity, and Grade

Analysis of the BMI assessments shows that some groups face a heightened risk for childhood obesity. The highest obesity rates were found among Hispanic males and African-American females. More than half (53 percent to 56 percent) of Hispanic males in grades 3 through 7 were classified as overweight or at risk for overweight, and nearly half (47 percent to 49 percent) of African-American females in grades 5 through 9 were overweight or at risk for overweight. The lowest obesity rates for females were found among high school students classified as white or other. For males, the lowest rates were among elementary students classified as white or other.

Percentage of Students Classified as Overweight or At Risk for Overweight by Gender, Ethnicity, and Grade (2005–2006)*



*Gender/ethnicity/grade subgroups with fewer than 50 students are not shown.

Participation in BMI Assessments

In the 2005–2006 school year, 99 percent (1,090 of 1,106) of Arkansas public schools in 257 of 261 school districts participated in BMI assessments. Schools submitted BMI assessment forms for 90 percent (433,808) of students enrolled in Arkansas public schools. Among students for whom data was reported, 86 percent (371,082) had appropriate data to allow BMI calculation. One in seven students could not be assessed, with the most common reason being that the student was absent on the day of assessment. Other reasons students were classified as “unable to assess” include physical disability, student or parent refusal to participate, and inability to obtain accurate measurements. Confidential Child Health Reports were made available to the parents of the 371,082 students who were able to be assessed. The reports explained why Arkansas is assessing students’ BMI levels, described the BMI screening process, educated parents about potential obesity-related health risks facing their children, and provided simple suggestions to help families improve nutrition and increase physical activity.

Statewide Participation in BMI Assessments

Category	Year 1 (2003–4)		Year 2 (2004–5)		Year 3 (2005–6)	
	Percent	Total	Percent	Total	Percent	Total
Participation*						
Public schools	94.3%	1,060	98.7%	1,115	98.6%	1,090
Students (PK–12)	92.6%	426,555	95.1%	447,712	90.2%	433,808
Student Data						
Valid for analysis	81.8%	348,710	83.2%	372,369	85.5%	371,082
Invalid	1.4%	5,937	1.1%	4,784	0.4%	1,568
Unable to assess [†]	16.9%	71,908	15.8%	70,559	14.1%	61,158

*Results include all data available for years 1 and 2 and data received by June 14, 2006 for year 3 analysis. Some public schools and districts merged after year 1 and after year 2. [†]The most common reason students were not assessed for BMI was absence from school (of total reporting, 6.3% in year 1, 7.7% in year 2, and 6.7% in year 3). Annually, only 5%–6% of students could not be assessed because they or their parents refused to participate.



Developing a Solution to Health Problems in Arkansas

The Arkansas Center for Health Improvement (ACHI) was formed in 1998 as an innovative solution to the health crisis faced by Arkansas. Data show that Arkansans consistently fall well below national health standards—they have low rates of health insurance, lack access to quality health care, and face racial health disparities. Many adults and children also have unhealthy lifestyles and behaviors that significantly contribute to the crisis.

ACHI believes that Arkansans' poor health status will not improve until root causes are addressed and health policies and initiatives that alter behaviors and measurably improve health are established statewide. Working with public- and private-sector partners, ACHI is a catalyst for improving the health of Arkansans through evidence-based research, public issue advocacy, and collaborative program development.

Acting as an independent nonpartisan organization, ACHI has become a trusted health policy leader, receiving both state and national recognition for its efforts to continue debate, dialogue, and development of strategies that advance the health and productivity of Arkansas residents.



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Future Steps for Arkansas BMI Assessments

ACHI continues to explore results from the annual census of BMI information on Arkansas school children. Early next year, ACHI plans to complete a longitudinal analysis that tracks individual students across each year of assessment. This study will allow ACHI to better understand changes in BMI classifications, differences between sub-populations, and the potential long-term impact of Act 1220. Further studies are under way to identify the disease burden associated with childhood obesity and assess the financial cost of obesity in the Arkansas Medicaid program. In addition, ACHI's analysis of fourth-year BMI data is expected to be released in autumn 2007.

Comprehensive Efforts Yield Results

The Arkansas experience shows that a comprehensive and collaborative effort by legislators, state health officials, educators, clinicians, parents and community members can make a meaningful difference. It also highlights the value of BMI reporting as part of a statewide program to promote awareness of the obesity crisis, the related health problems, and the importance of nutrition and physical activity. ACHI hopes these conclusions will inform future policy efforts in Arkansas and throughout the nation.

While halting the rise of childhood and adolescent obesity is a tremendous achievement, ACHI recognizes that reversing the epidemic will require the continued intervention of state leaders. ACHI hopes to continue to track progress in ways that will help Arkansas and states across the nation refine their efforts to reverse the epidemic and improve the health of our children and families.

