



**The 2005  
Arkansas  
Assessment of  
Childhood and  
Adolescent  
Obesity**

**Executive  
Summary**

**SEPTEMBER 2005**

## Overview

Childhood and adolescence is a period of growth and development. Overweight and obesity during this time of life used to be rare, but over the past 20 years childhood and adolescent obesity has become a national epidemic. Changes in diet and lack of physical activity are the main causes of the increased prevalence of obesity in young people. Overweight youth have an increased likelihood of becoming obese adults, and adult obesity increases the risk for health problems such as heart disease and diabetes.

*The Arkansas Assessment of Childhood and Adolescent Obesity*, published in September 2004 by the Arkansas Center for Health Improvement (ACHI), provided the first comprehensive analysis of the state's obesity epidemic among the public school population. This report—*Executive Summary: The 2005 Arkansas Assessment of Childhood and Adolescent Obesity*—continues to paint the picture of this epidemic in Arkansas, providing results from the second year of a statewide effort. A comprehensive state report, available on ACHI's web site at [www.achi.net](http://www.achi.net), provides a more detailed analysis of the process, participation, and findings from the 2005 assessment. The contents of the full online report are located on page 7 in this *Executive Summary*.

## INTRODUCTION

### School and Student Participation

This year, 98 percent (1,110) of Arkansas public schools participated in the statewide body mass index (BMI) assessments, an increase from the 93 percent participation rate last academic year. Data from 1,098 schools in 259 of 264 school districts are included in this report. BMI assessment forms were submitted for almost 445,000 of the state's nearly 456,000 public school students. Although not all data submitted could be used because of errors or incomplete information, individual and confidential Child Health Reports were generated for parents of more than 370,000 of the 445,000 students assessed—an increase of more than 25,000 students from last year.

### Significant Findings for 2005

Analyses of BMI assessments revealed that 38 percent of Arkansas public school students had a potential obesity problem. Specifically, 21 percent of the state's public school students met or exceeded the Centers for Disease Control and Prevention's criteria for being overweight, while 17 percent of the students were at risk for overweight.

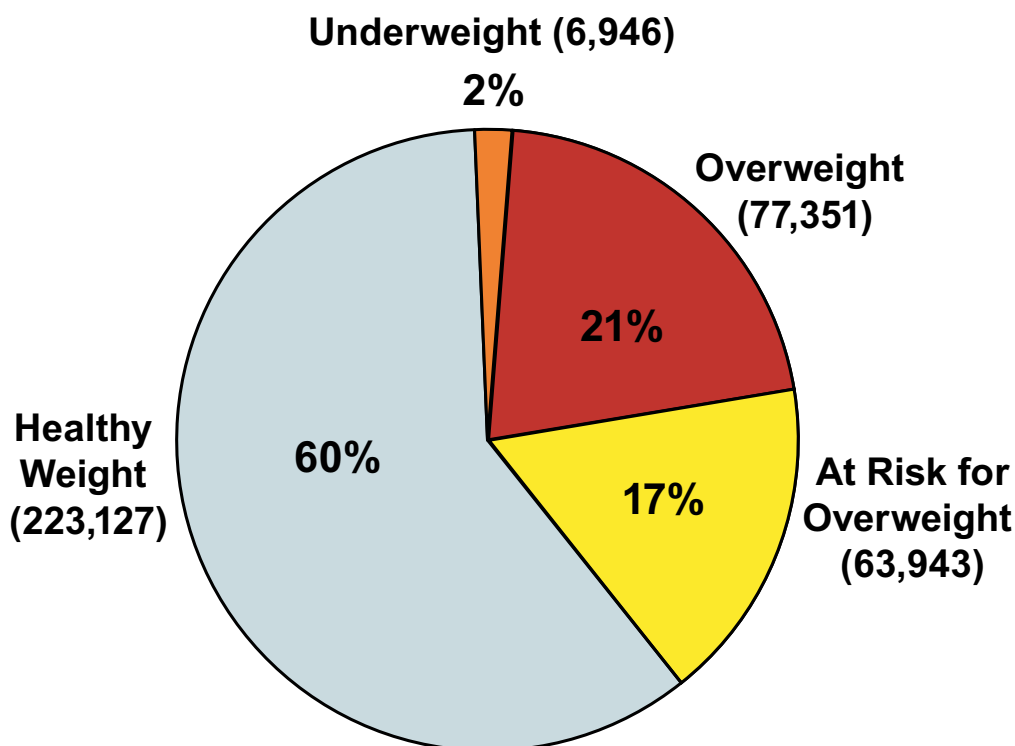
As shown in the charts presented in this report, more males (39 percent overall) than females (37 percent overall) were overweight or at risk for overweight and some differences existed between gender and ethnic subgroups. Variations among school districts were also noted when evaluating the percentage of students who were in the two highest risk categories (overweight or at risk for overweight). Percentages of the students in the highest risk categories ranged from 20–30 percent to more than 50 percent in some school districts.

Obesity has steadily increased to the epidemic proportions seen across the state and the country today. As expected, the overall percentage of students in high-risk categories did not change dramatically in only one year. The causes of obesity are complex. Homes, schools, communities, government, and the media have roles to play in finding long-term solutions to the obesity problems faced by our youth.

## 2005 OVERALL STATEWIDE RESULTS

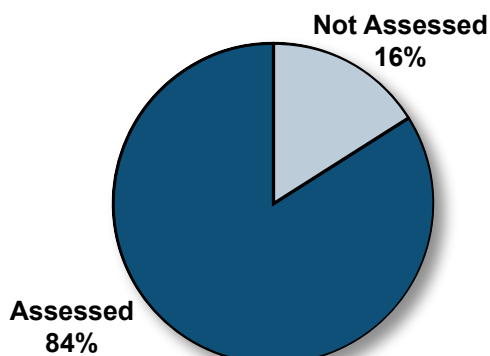
### Classifications for All Students

Among the public school students assessed in Arkansas, 21 percent met or exceeded the Centers for Disease Control and Prevention's (CDC) criteria for being overweight and 17 percent were at risk for overweight. Consequently, the BMI screening identified 38 percent of Arkansas children and adolescents as having a potential obesity problem. Less than two percent of children and adolescents were identified as being potentially underweight.



### Children and Adolescents Not Assessed

Among the almost 445,000 students for whom data forms were submitted, less than 16 percent (~70,000) could not be assessed for BMI.



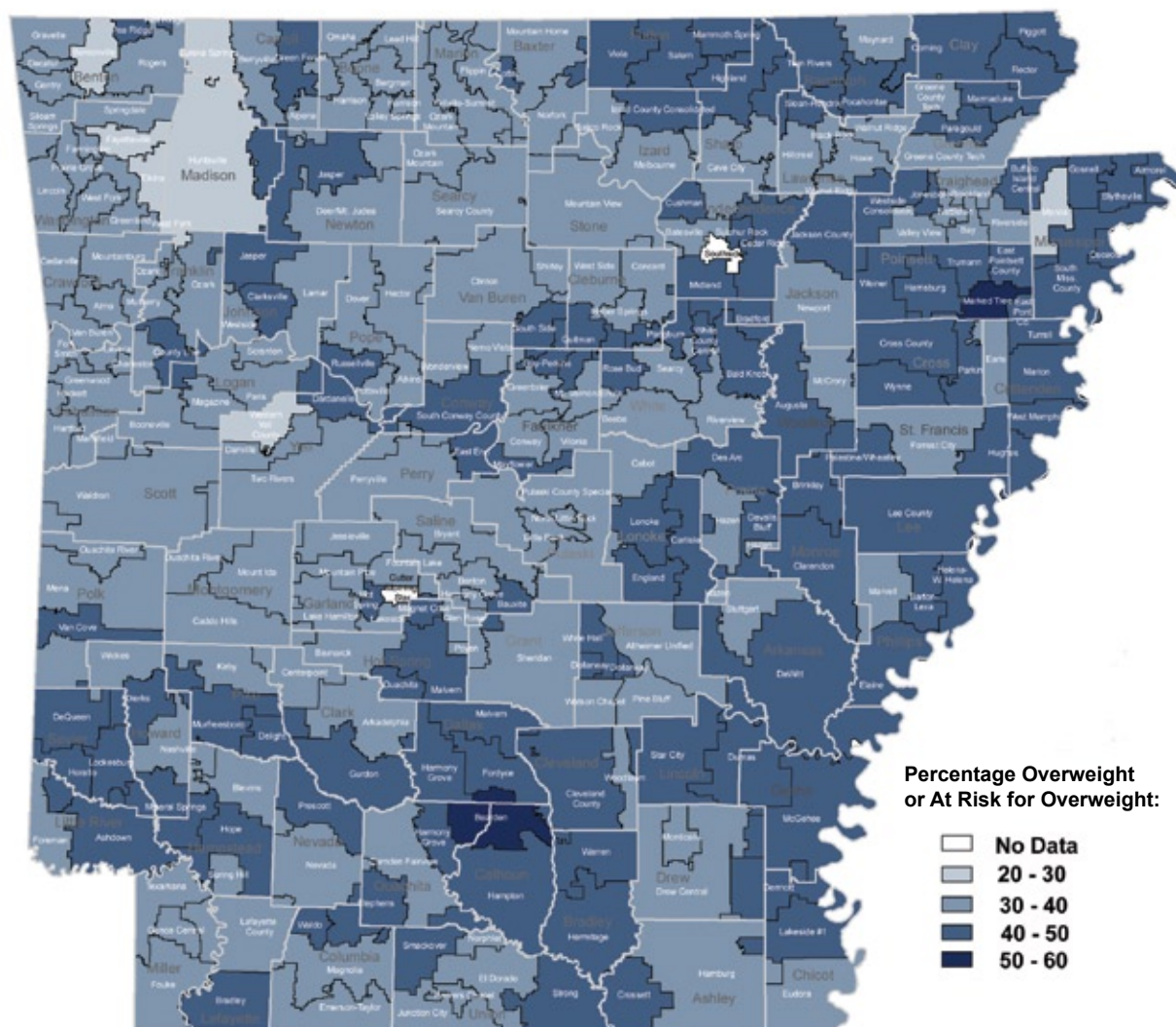
#### Reasons Students Could Not Be Assessed

Student was absent from school	34,156 (48%)
Parent refused student participation	14,444 (21%)
Student refused to participate	11,629 (17%)
Student was not attending that school	6,095 (9%)
Other reasons	2,778 (4%)
Student's disability prohibited measurement	972 (1%)
Student was pregnant	343 (<1%)



## School District Results

The percentage of students within a school district who were overweight or at risk for overweight varied across Arkansas. The map is shaded according to the magnitude of the percentage. The lightest shade represents the districts with the lowest percentage of students classified as overweight or at risk for overweight (20 percent–30 percent) and the darkest shade indicates those districts with the highest percentage of students in the two high-risk categories (50 percent–60 percent).



Source: Arkansas Center for Health Improvement, the Department of Education, and the Census 2002 TIGER Lines Files.

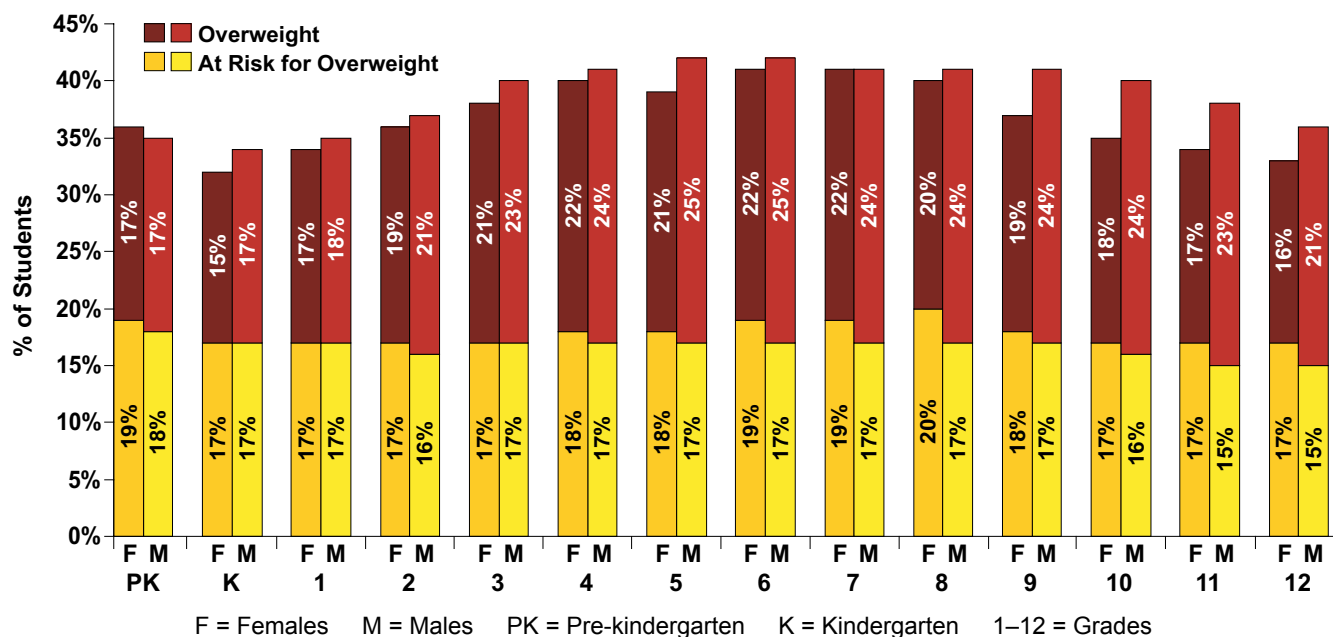
0 5 10 20 30  
Miles

*Note: Of the seven school districts that fall within the lowest range for percentage of students classified as overweight or at risk for overweight, Manila School District submitted BMI assessments for less than one-third of its students and Eureka Springs and Western Yell County each submitted assessments for approximately one-half of their students. The other four districts in the lowest range submitted BMI assessments for approximately two-thirds of their students. Therefore, the map may not reflect accurate results for these school districts.*

*Results are reported for 259 of 264 Arkansas school districts. On the map, two of the five districts that did not report data are shown in white. The other three districts either did not report data or had too few students in the district to allow inclusion in the display. Other school districts that have special classifications are not displayed on the map (e.g., Arkansas School for the Blind).*

## Classifications by Gender and Grade

Across most grades, males were classified as overweight or at risk for overweight more frequently than females. In middle school, the variance between male and female students identified as overweight or at risk for overweight is small; however, in high school, this difference becomes more apparent.



## Community-level Changes Guided by Local Nutrition and Physical Activity Advisory Committees

Act 1220 mandated that every school district create a school nutrition and physical activity advisory committee beginning with the 2004–2005 academic year. The purpose of the committees, which are composed of school personnel, parents, and community leaders, is to assist in the development of policies that address obesity issues at the local level.

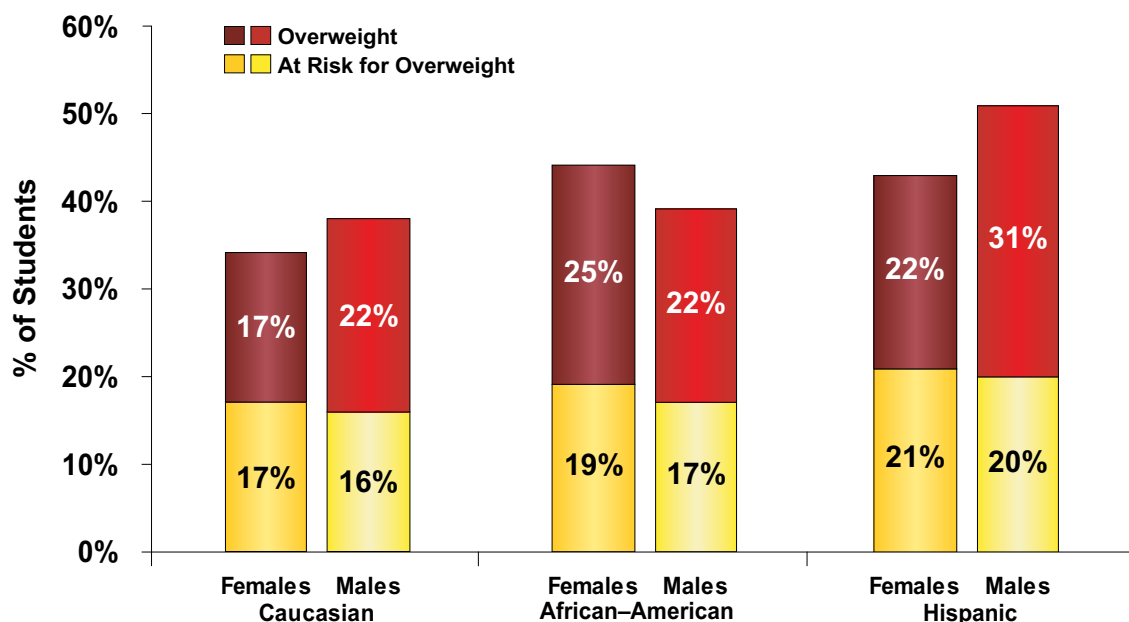
Many of the committees recommended nutritional changes in school food services. Ashdown School District changed its milk provider and now provides students with low-fat vanilla, strawberry, chocolate and plain milk. According to school officials, milk consumption has increased dramatically. The Valley Springs School District removed deep fryers from the cafeteria's kitchen, Pangburn schools offered more baked food options, and Cabot schools added more fresh fruits to its lunch menu.

School districts implemented physical activity recommendations made by the advisory committees. The Murfreesboro School District opened a weight room accessible to all students, not just athletes. It also introduced Pilates, dancing and yoga classes. The Searcy County School District formed a walking club for students and parents. The Flippin School District received a grant to construct a walking trail on campus for students and the public. In addition, the school district kept its gym open for the public two to three nights a week.

Community Health Nurses and Health Promotion Specialists provided training and technical assistance to schools on how to complete the School Health Index. These collaborations have the potential to make a positive impact in successfully fighting the obesity epidemic facing the state's youth.

## Classifications by Gender and Ethnic Group

Hispanic male and African-American female students had the highest obesity risks when comparing results by race and gender. More than half (51 percent) of Hispanic males were overweight or at risk for overweight and 44 percent of African-American females were overweight or at risk for overweight. There was virtually no difference between Caucasian and African-American males, and Hispanic females were similar to African-American females.



Governor Mike Huckabee presented Wendy and the other winners in the 2005 Arkansas Action for Healthy Kids Essay Contest with certificates and posed for photos with the students and their parents.

## Crossett Student Wins Essay Writing Contest

Wendy Gibson, a Norman Jr. High student, won first place in the 7<sup>th</sup> to 9<sup>th</sup> grade category for her submission to the 2005 Arkansas Action for Healthy Kids Essay Contest. In her essay, Wendy revealed that “I did not know the difference between a ‘BMI’ and a ‘BMW.’” After talking with her parents about the Child Health Report they received last year, Wendy decided to make changes in her diet and level of activity. Among the changes Wendy incorporated into her new lifestyle were replacing “soda drinks with water” and choosing “low-fat milk with my lunch tray at school.” She also started walking and riding a bike. “Some afternoons Dad joins me. I love spending time with my dad and getting exercise too.”

# HISTORY AND PROCESS

## **History—Combating the Obesity Epidemic in Arkansas**

Act 1220 of 2003 made Arkansas the first state in the country to promote comprehensive measures to address the epidemic of childhood and adolescent obesity. The goals of Act 1220 are to:

- change the environment within which children go to school and learn health habits everyday,
- engage the community to support parents and build a system that encourages health, and
- enhance awareness of child and adolescent obesity to mobilize resources and establish support structures.

The act also requires public schools to screen all students for obesity by annually assessing their BMIs. Schools then report these results to parents to inform them of their children's health risks. Since the 2003–2004 school year, ACHI has supported schools in completing these activities.

To complement these efforts and help schools and school districts understand the scope of health risks associated with obesity among their students, ACHI created individual school and school district reports on child and adolescent obesity, as well as a comprehensive statewide report.

## **2004–2005 Assessment Process and Accomplishments**

During the 2004–2005 academic year, ACHI helped state schools complete the BMI assessment process. In year two, several improvements were made to streamline the BMI assessment and reporting process.

- ACHI continued to support school personnel through web-based communication and assessment tools.
- ACHI incorporated Spanish language versions of the Child Health Reports to reach the increasing number of Hispanic families in Arkansas.
- Child Health Reports, school reports and school district reports were generated and provided to schools through both password-protected CDs and a secure-access web site.
- A web-based technology program was piloted in 11 schools in two districts. Using a laptop computer or a PDA, school personnel measured students' heights and weights, calculated BMIs, and generated Child Health Reports on site. The pilot program was so successful that ACHI will expand the BMI Technology Project during the 2005–2006 academic year to 10 school districts that contain more than 100 schools.



The following is a list of the tables, maps, data and other information included in the online version of *The 2005 Arkansas Assessment of Childhood and Adolescent Obesity*. The state report can be viewed and downloaded at [www.achi.net](http://www.achi.net).

## **Table of Contents**

### **List of Charts and Maps**

### **Acknowledgments**

### **Executive Summary**

### **Introduction**

### **BMI Data Collection Efforts**

- Process
- Definition of Body Mass Index
- Student and School Participation in the BMI Initiative

### **BMI Reports**

- Child Health Reports
- School Reports
- School District Reports
- Statewide Report

### **Statewide Results**

- Overall Statewide Results
- School District Results
- County Results

### **Appendix A**

- Resources

### **Appendix B**

- Student Participation in BMI Assessments

### **Appendix C**

- Sample Child Health Reports

### **Appendix D**

- BMI Classifications by Arkansas School and School District

### **Appendix E**

- BMI Classifications by Arkansas County

### **Charts Showing Overall BMI Classifications of Arkansas Students for:**

- All Students
- Females
- Males
- Ethnic Groups
- Males and Females by Ethnic Group
- Grades (Pre-K–12)
- Males and Females by Grade
- Gender, Grade and Ethnic Group

### **School District Maps Showing Percentage of Students Overweight or At Risk for Overweight for:**

- All Students
- Females
- Males
- Caucasians
- African–Americans
- Hispanics

### **County Maps for:**

- Percentage of All Students Overweight or At Risk for Overweight
- Estimated Number of All Students Overweight or At Risk for Overweight

# **CONTENTS OF 2005 REPORT**



***The Arkansas Center for Health Improvement is a non-partisan, independent health policy center whose mission is to serve as a catalyst for improving the health of Arkansans through evidence-based research, public issue advocacy and collaborative program development.***



For questions about the BMI data collection process or reports, please call ACHI's BMI Hotline at 501-526-2267.

Copyright © 2005 by the Arkansas Center for Health Improvement. All rights reserved. Copying and/or duplication of this report or of any material contained therein without the express, written, and prior permission of the Arkansas Center for Health Improvement is strictly prohibited.



1401 West Capitol Avenue  
Suite 300, Victory Building  
Little Rock, Arkansas 72201  
(501) 526-ACHI (2244)  
(501) 526-2252 (Fax)

[www.achi.net](http://www.achi.net)