

# Differences by Weight Status

*One of Eight Brief Reports*

YEAR 5 EVALUATION OF ARKANSAS ACT 1220 OF 2003 TO COMBAT CHILDHOOD OBESITY

## INTRODUCTION

Obesity is recognized as one of the most pressing health threats facing families and communities in Arkansas and in the nation overall. Arkansas Act 1220 of 2003, which mandated statewide policy changes aimed at preventing childhood obesity, included school-based policies that promote the sale of healthier foods and beverages, support physical activity and require annual body mass index (BMI) screenings with results provided to parents in a confidential report.

The key findings presented in this brief report reflect Year 5 data gathered from 323 adolescent students about their attitudes and behaviors concerning their own weight status. The research team also surveyed 2,264 parents with children in Arkansas public schools regarding their attitudes and behaviors concerning their child's weight status. Data were analyzed by student weight status to assess the impact of Act 1220 components on overweight students and their families.

As in previous years, our research team at the Fay W. Boozman College of Public Health at the University of Arkansas for Medical Sciences conducted the evaluation with support from the Robert Wood Johnson Foundation. More details from the Year 5 evaluation and complete evaluation reports for Years 1-4 are available at: [www.uams.edu/coph/reports/#Obesity](http://www.uams.edu/coph/reports/#Obesity).

## KEY FINDINGS: DIFFERENCES BY WEIGHT STATUS

### Student Behavior Changes From Year 1 to Year 5 Compared by Student Weight Status

Year 5 data showed no significant behavior differences between adolescent students who were and were not overweight. However, there are considerable behavior differences within each weight category over time.

- Since the passage of Act 1220, the percentage of overweight students who reported no purchases from a beverage vending machine within the past 30 days has more than tripled, up from 14 percent in Year 1 to 46 percent in Year 5.
- The percentage of non-overweight students who reported no beverage vending purchases within the past 30 days increased, from 24 percent in Year 1 to 37 percent in Year 5.
- There also has been an increase in the percentage of overweight students who reported no purchases from a snack vending machine within the past 30 days, from 32 percent in Year 1 to 48 percent in Year 5.



- The percentage of non-overweight students who reported purchasing no vended snack foods nearly doubled, up from 28 percent in Year 1 to 55 percent in Year 5.
- The percentage of parents of younger children who reported that their child(ren) consumed no sodas within the past 24 hours increased at approximately the same rate in both weight groups.

### Attitudes and Behaviors of Students Compared by Student Weight Status

Overall, Year 5 data suggested that adolescent students who were overweight responded to obesity-prevention initiatives to a greater extent than did adolescent students who were not overweight.

- In Year 5, 42 percent of overweight students expressed concern about their weight, compared with only 16 percent of students who were not overweight.

- Compared to non-overweight students, overweight students were significantly more likely to report that they were trying to change to a healthier diet, and that they had started a diet within the past six months.
- In Year 5, 46 percent of students who were overweight reported that they had not purchased any beverages from a vending machine at school within the past 30 days, compared with 37 percent of non-overweight students.
- Interestingly, there was no significant difference in the percentage of students who were embarrassed by the BMI measures, regardless of weight status.
- In Year 5, 41 percent of overweight students reported that they did not consume any sodas on the previous day, up from 28 percent in Year 4.

#### CHANGES IN BEHAVIOR OVER TIME, BY WEIGHT GROUP

	2004	2008
No purchases from beverage vending machine in past 30 days		
Overweight	14%	46%
Not overweight	24%	37%
No purchases from snack vending machines in past 30 days		
Overweight	32%	48%
Not overweight	28%	55%
No sodas consumed within past 24 hours (children younger than 14 years—parent proxy)		
Overweight	47%	51%
Not overweight	47%	49%

No statistically significant differences between weight categories.

#### ADOLESCENT ATTITUDES AND BEHAVIORS COMPARED BY STUDENT WEIGHT STATUS IN YEAR 5

Knowledge/behavior	Student not overweight		Student overweight	
	2007	2008	2007	2008
Concerned about weight****	60%	16%	80%	42%
Embarrassed by BMI measurements	5%	9%	19%	12%
Trying to change to healthier diet***	60%	55%	80%	82%
Started a diet within the past 6 months*	19%	13%	46%	32%
Increased exercise within past six months	66%	57%	87%	62%
Purchased from a beverage vending machine in school within past 30 days				
Never	26%	37%	46%	46%
At least once	74%	63%	54%	54%
Drank sodas yesterday				
None	43%	38%	28%	41%
At least one	57%	61%	71%	59%
Parent discussed BMI report with student	28%	31%	34%	35%
Physician discussed BMI report with student	10%	15%	24%	16%

\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001; \*\*\*\*p ≤ .0001

Note: P-levels indicate significant differences between students who were not overweight and students who were overweight in 2008.

## Attitudes and Behaviors of Parents Compared by Student Weight Status

Year 5 data indicated significant differences between parents of overweight and non-overweight students in three areas of comparison.

- In Year 5, parents of overweight children were significantly more likely to be concerned about their child’s weight and to be concerned about the confidentiality of BMI measurements than were parents of students who were not overweight.
- In Year 5, 84 percent of parents of overweight children reported that they were trying to limit ‘junk foods’ eaten by the family, while 79 percent of parents with children who were not overweight reported the same.
- Almost all parents—regardless of their child’s weight status—reported that they were aware of the health problems faced by overweight children, and they believed overweight children were more likely to develop health problems and become overweight adults.

PARENTAL ATTITUDES AND BEHAVIORS BY STUDENT WEIGHT STATUS, YEARS 4 AND 5

Knowledge/behavior	Student not overweight		Student overweight	
	2007	2008	2007	2008
Concerned about student weight****	14%	16%	38%	45%
Comfortable with receiving child health report	63%	66%	57%	61%
Concerned about confidentiality of BMI measurement****	24%	20%	39%	34%
Perceived child health report as helpful	47%	50%	48%	45%
Trying to change to healthier family diet	65%	63%	71%	69%
Trying to limit “junk foods” eaten by family*	83%	79%	85%	84%
Younger child (≤13 years of age) drank no sodas yesterday	60%	49%	47%	51%
Limiting TV time for student	73%	71%	74%	76%
Require student to stay inside after school	10%	7%	7%	8%
Aware of health problems faced by overweight children	97%	97%	95%	97%
Believe overweight children more likely to develop health problems	98%	98%	97%	97%
Believe overweight children more likely to become overweight adults	98%	99%	97%	96%

\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001; \*\*\*\*p ≤ .0001