

BMI Measurement in Arkansas Schools

FACT SHEET

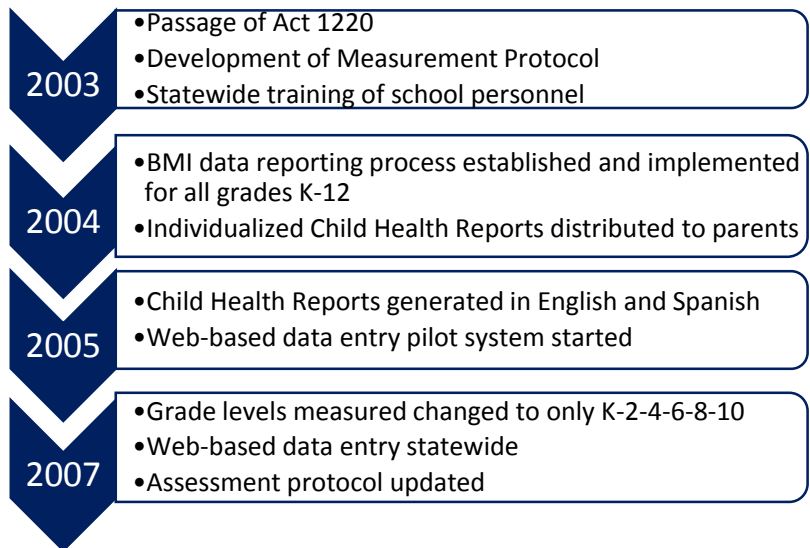
• April 2018

In 2003, Arkansas established the first statewide multifaceted strategy to combat the epidemic of childhood and adolescent obesity. One component of these strategies was the reporting of health risk information to each parent through an assessment of their child's height and weight using the body mass index (BMI) screening tool. This fact sheet summarizes the history of the BMI initiative, describes the measurement process, and provides examples of reporting and data applications.

BMI INITIATIVE

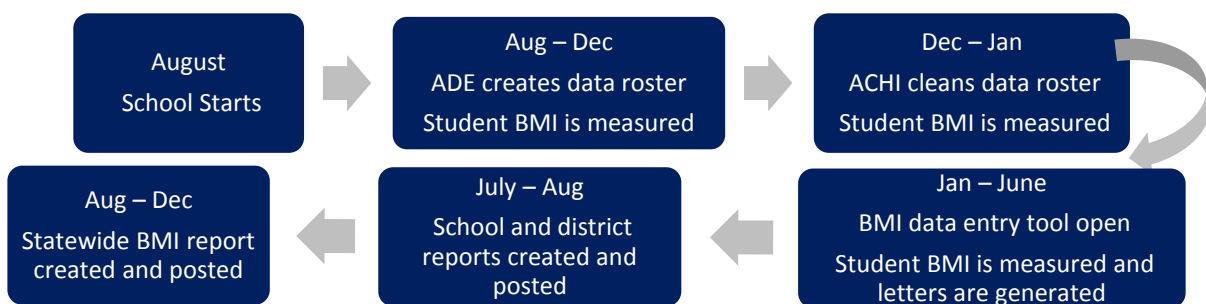
Recognizing the pressing obesity epidemic in the early 2000s—and that problems associated with obesity commonly begin in childhood—the Arkansas General Assembly passed Act 1220 of 2003,¹ requiring every public school student to have an annual body mass index (BMI) assessment performed and reported confidentially to their parents. The report also included an explanation of the possible negative health impact of a high BMI, as well as suggestions for healthy eating and physical activity.

In 2007, the periodicity for measurement was changed to include only grades K, 2, 4, 6, 8, and 10.



DATA COLLECTION TIMELINE

The data collection timeline starts when schools begin classes in August. Measurement protocol and data-entry training is provided to school personnel by Arkansas Department of Health staff. Schools provide their student registration data to the Arkansas Department of Education (ADE). From there, ADE provides a student roster to the Arkansas Center for Health Improvement, which is uploaded into the data entry tool. The tool is then opened for school personnel to enter the students' heights and weights. As soon as a student's data has been entered, BMI is calculated, and a report is generated for the school to share with that student's parents. The parent report letter encourages eating healthy snacks such as fruit and vegetables; decreasing soda and increasing water and low fat milk; limiting television and video time to two hours a day; and participating in family walks, bicycle rides, runs, and other exercise.



During the summer, school and district reports are created and made available for schools to use for their health improvement plans. The annual statewide report is written and posted by the end of the year.

CHILD HEALTH REPORTS AND DATA USE EXAMPLES

Parents were surveyed after the first year BMI reports were provided. While parents said there was no significant increase in family physical activity, there was a substantial increase in the proportion of families reporting that they ate evening meals together.² In subsequent years, parents indicated they were more likely to associate health problems with childhood obesity, although the initial improvement in food habits was modest.³

School district and school aggregate data have been used in the preparation of grant applications and other funding requests to secure support for a variety of interventions.

- North Little Rock School District hosted a summer camp program for middle school girls and the EAST lab created a community garden.
- Bentonville worked with Walmart to buy bicycles for physical education classes.
- Jasper and Little Rock school districts received Fuel Up to Play 60 grants to expand their school breakfast programs through marketing and implementing Breakfast in the Classroom.
- Little Rock also developed their “Love Your School” program that included school vegetable gardens, on-campus walking trails, nutrition education and cooking classes.
- UAMS Northwest reviewed Springdale and Rogers schools’ statistics for their CDC REACH grant.
- UAMS, in conjunction with ADE and four school districts, teamed up for a school telemedicine grant from the Department of Health and Human Services.

Additionally, Arkansas funders have included BMI information as part of their application forms. Two grant opportunities through ADE—joint use agreements and school-based health centers—require the inclusion of the school’s BMI data. Healthy Active Arkansas included BMI as part of the school demographic component of the grant application for water bottle filling stations.

Along with requiring BMI data for grant proposals, ADE has requested schools include BMI in their School Improvement Plans for planning and evaluation.

Further, use of the BMI data has extended into student projects, such as learning how to apply geographic information system (GIS) mapping to illustrate the location and scope of Arkansas health issues.

Finally, BMI data has been used to evaluate the environmental impact of food sources and type on students’ weight. Researchers at the University of Arkansas, Fayetteville, found that USDA’s Fresh Fruit and Vegetable Program reduced student BMI,⁴ while the presence of fast-food restaurants near schools increased student BMI.⁵

REFERENCES

¹ “Act 1220 of 2003. An Act to Create a Child Health Advisory Committee.” *Arkansas 84th General Assembly*, April 10, 2003. <http://www.arkleg.state.ar.us/assembly/2003/R/Acts/Act1220.pdf>

² University of Arkansas for Medical Sciences, “Year Two Evaluation of Arkansas Act 1220 of 2003 to Combat Childhood Obesity.” 2005. <https://publichealth.uams.edu/wp-content/uploads/sites/3/2012/06/2005Act1220Y2Eval.pdf>

³ University of Arkansas for Medical Sciences, “Year Seven Evaluation of Arkansas Act 1220 of 2003 to Combat Childhood Obesity.” 2011. <https://publichealth.uams.edu/wp-content/uploads/sites/3/2012/06/COPH-Year-7-Report-Sept-2011.pdf>

⁴ Qian, Y. Nayga, RM. Thomsen, MR. Rouse, HL. “The Effect of the Fresh Fruit and Vegetable Program on Childhood Obesity,” *Applied Economic Perspectives and Policy* 2016;38(2):260-275.

⁵ Alviola, PA, et al. “The Effect of Fast-Food Restaurants on Childhood Obesity: A School Level Analysis,” *Economics & Human Biology* 2014;12:110-119.