Establishing a Baseline to Evaluate

Act 1220 of 2003

An Act of the Arkansas General Assembly to Combat Childhood Obesity

UAMS
COLLEGE OF PUBLIC HEALTH
UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

COPH EVALUATION RESEARCH TEAM

James M. Raczynski, PhD

Martha Phillips, PhD, MPH, MBA

Zoran Bursac, PhD, MPH

LeaVonne Pulley, PhD, CHES

Delia West, PhD

Melany Birdsong

Victoria Evans

Heath Gauss

Matilda Louvring

Jada Walker

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Table of Contents

APPENDICES

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Executive Summary

In April 2003, Act 1220 of 2003 was passed by the Arkansas General Assembly and signed into law by the governor, creating a comprehensive program to combat childhood obesity in the state. The major provisons of the Act required the following:

- Annual body mass index (BMI) screenings for all public school students, with the results reported to parents;
- Restricted access to vending machines in public elementary schools;
- Disclosure of schools' contracts with food and beverage companies;
- Creation of district advisory committees made up of parents, teachers and local community leaders; and
- Creation of a Child Health Advisory Committee to recommend additional physical activity and nutrition standards for public schools.

With support from the Robert Wood Johnson Foundation, the UAMS College of Public Health will evaluate the implementation of Act 1220 of 2003. This report is the first component of the evaluation effort and includes the following:

- A historical narrative outlining the process that resulted in adoption of the Act;
- The results of baseline surveys and interviews of school superintendents and principals about the Act.
- The results of baseline surveys of parents and adolescents about the Act, their general knowledge about weight control, and health-related behavior patterns of Arkansas youth; and
- An outline of the next steps in the evaluation process.

The Appendices accompanying this report include a copy of Act 1220 of 2003, an executive summary of the Arkansas Assessment of Childhood and Adolescent Obesity, and an explanation of the methodology used to conduct interviews and surveys for this baseline report.

While it is still too early to tell how actions to date will affect or change patterns of healthy eating and physical activity among the state's children, the state has made considerable progress in establishing a baseline against which future progress can be measured. It also has taken precedent-setting action that has attracted national attention and inspired similar efforts in other states.

Key findings from the report include:

- Act 1220 of 2003 was the product of a remarkable confluence of political, private and institutional support that created an environment conducive to such a broad-based initiative. This environment was fostered in part by meetings held at both the national and state levels that allowed people from these sectors to engage in collaborative discussions about what goals the state should pursue and how those goals could best be achieved.

- Legislators felt the most effective way to address the obesity epidemic would be to focus on creating healthier environments for children through the involvement of schools, parents and communities.

- There was little, if any, debate or controversy during the conception, drafting, introduction and passage of the legislation. As implementation of the Act's components began, controversy emerged about the requirement that students' BMI be included on the academic report card. This controversy was addressed, in part, with an amendment to the Act, which required that the information be conveyed to parents in a confidential health report.

- The Arkansas Departments of Health and Education worked with the Arkansas Center for Health Improvement to establish protocols for accurate BMI measurements, train school personnel to measure height and weight accurately, design a useful form for the data, prepare a centralized database and data entry procedures, identify useful methods to calculate BMI levels for schools, and create a personal BMI report for parents. Pilot testing of the program allowed officials to fine tune the process to help ensure the integrity of information collected and to address community concerns.

- Fears about confidentiality of a child's BMI report largely subsided as the process unfolded. In the spring of 2004, as the BMI measurements were being taken, baseline surveys showed nearly three-fourths of parents and adolescents were aware of plans to measure BMI at school, and that 70 percent of parents and 63 percent of adolescents were comfortable with the idea of getting a BMI report from the school. Only one in five parents were very concerned about the child's friends, classmates or others finding out the BMI measurement.

- Results of the first statewide BMI assessment showed that 38 percent of the state's school-aged youth were either overweight or at risk for overweight. Reaction to these results, which were significantly higher than previous estimates based on self-reports rather than direct assessment, contributed substantially to developing a climate of awareness of childhood obesity in the state.

- Baseline surveys showed 85 percent of Arkansas public schools had vending machines, with 81 percent receiving $5000 or less in annual revenues from vending machine sales (although these figures did not consider payments made for signing pouring

Legislators felt the most effective way to address the obesity epidemic would be to focus on creating healthier environments for children through the involvement of schools, parents and communities.

While it is still too early to tell how actions to date will affect or change patterns of healthy eating and physical activity among children, the state has made considerable progress in establishing a baseline against which future progress can be measured.

contracts or other incentives provided to schools, such as scoreboards). Only 18 percent of the items available within school vending machines could be classified in the "healthier options" category.

- The data suggested that 90 percent of parents and 80 percent of adolescents were supportive of changes to vending machine contents.

- Nearly half (49%) of the parents and 20 percent of adolescents endorsed a belief that vending machines in schools should offer only healthy items (low-fat and low-sugar snacks, low-sugar and non-carbonated drinks). Another 41 percent of parents and 60 percent of adolescents indicated that machines should offer both healthy and less healthy snacks and drinks so that students could decide for themselves

- More than half (54%) of adolescents reported eating fast food at least once a week. More than one-third of adolescents (37%) reported purchasing drinks or snacks from school vending machines at least twice a week. More than half (55%) of adolescents reported eating evening meals in front of the television more than once a week.

- Baseline surveys showed parents frequently are unable to characterize accurately their child's weight status, particularly when the child is overweight. More than half (51%) of the parents of children who were overweight according to BMI-for-age percentiles incorrectly perceived the child to be of normal weight. Children with estimated BMI-for-age percentiles in

Next Steps in Implementation

The Child Health Advisory Committee's recommendations were delivered to the State Board of Education in June 2004. As of the writing of this report, decisions on the adoption of the recommendations are pending. Plans are under way to complete the second year of BMI assessmments in the spring of 2005.

District-level Nutrition and Physical Activity Advisory Committees are being formed. Information from the Arkansas Departments of Education and Health indicates that committees have been formed in most, but not all, school districts at the time of this report. Some committees are meeting regularly and are beginning to consider specific recommendations.

the normal-to-underweight category were more likely to be characterized correctly by their parents (93%) than were children in the overweight (31%) or at-risk-for-overweight (14%) categories.

- Baseline surveys showed that school districts are adopting policies to assure the inclusion of lifetime physical activities within physical education programs. Forty percent of superintendents said their districts had such policies for elementary school programs, 52 percent for middle and junior high school programs, and 56 percent for senior high school programs.

- Most schools (84%) reported that physical education classes are taught by certified physical education teachers. Only 26 percent of districts required that student fitness levels be measured on a regular basis.

- One in every 11 adolescents reported spending 5 to 6 hours per day playing video games or watching TV. Another 32 percent said they spend 3 to 4 hours per day in such activities

- Parents frequently indicated they did not know how much time their children spent in physical activity.

- Less than one-third of parents (31%) and adolescents (30%) were aware of then-current guidelines that recommended eating a minimum of five servings of fruits and vegetables per day.

- Principals and superintendents agreed, nearly unanimously, that there should be healthier nutrition standards for beverages and a la carte foods sold on school campuses outside of the reimbursable meal program or outside of the cafeteria food service. A majority said there would be little to no financial impact for the schools.

Next Steps in Evaluation

Over the next two years, the evaluation team will:

- Continue to monitor the implementation of Act 1220 of 2003, using interviews with legislators, members of the Child Health Advisory Committee, school nurses, community health promotion specialists, principals and district superintendents to capture and describe the processes of implementation;

- Repeat annually the surveys of school principals and district superintendents to monitor changes in school environments; and

- Complete annual interviews with samples of parents and adolescents to assess changes in knowledge, attitudes and beliefs concerning childhood weight control, as well as changes in behavior in the areas of nutrition and physical activity.

These activities, along with the continued monitoring of media coverage, Child Health Advisory Committee activities, and initiatives emerging from the Arkansas Departments of Health and Education, will allow us to assess the implementation and impact of Act 1220 of 2003 as it unfolds over the coming years.

The History of Act 1220 of 2003

The College of Public Health has compiled the following narrative history detailing the development, adoption and initial implementation of Act 1220 of 2003. This account is based upon interviews conducted between June and November of 2004 with 22 people who were either directly involved or represented groups that were involved in these efforts. The interviewees were selected on the basis of a review of public records, and some were identified in the course of interviews with other people. For more information on the interview process, see Appendix C: Methods.

Birth of a Bill

Act 1220 of 2003 was the product of a remarkable confluence of political, private and institutional support that created an environment conducive to a broad-based initiative to combat childhood obesity. The major provisions of the Act required the following:

- Annual body mass index (BMI) screenings for all public school students, with the results reported to parents;
- Restricted access to vending machines in public elementary schools;
- Disclosure of schools' contracts with food and beverage companies;
- Creation of district Nutrition and Physical Activity Advisory Committees made up of parents, teachers and local community leaders; and
- Creation of a Child Health Advisory Committee to recommend additional physical activity and nutrition standards for public schools.

The idea to create a state law that focused on reversing the childhood obesity epidemic in Arkansas emerged in early 2002 after key individuals involved in the creation of the law attended two conferences on health-related issues.

The National Conference of State Legislatures (NCSL), the National Governors Association (NGA) and the Association for State and Territorial Health Officials (ASTHO) held a conference in January 2002 dedicated to developing obesity-related legislation and policy. Delegates from five states participated in the conference, "Using Limited Health Dollars Wisely: What States Can Do to Create the Health System They Want."

Conference objectives included raising awareness of the health goals in each state, learning strategies to use funds more efficiently, promoting collaboration among health policy-makers and identifying the next steps for each state's health policies.

Participants from Arkansas included members of the Legislature, the governor's office, and representatives of The Arkansas Departments of Health, Insurance, and Human Services. Some of the Arkansas attendees agreed to pursue a goal of changing patterns of unhealthy behavior in the state, with a focus on children. This would include encouraging schools to promote better nutrition for children and assessing the current regulations requiring physical education in schools.

Arkansas participants credited this conference with planting the initial idea for finding a legislative solution to the growing problem of obesity in Arkansas. Interviews with attendees indicate that the conference was a "good opportunity to really talk and educate folks on what was going on" and that "ideas to promote better health and nutrition in schools" were sown in the minds of the legislators who attended.

Another conference instrumental in the development of the idea for Act 1220 of 2003 took place in March 2002. The University of Arkansas for Medical Sciences (UAMS) Preventive Nutrition Project and the Arkansas Department of Health Cardiovascular Health Program hosted The Arkansas Preventive Nutrition and Physical Activity Summit. It brought together faculty and staff from UAMS, state health department officials, state legislators and health policy-makers, who listened to the featured speakers and then broke into small groups to brainstorm policy ideas and recommendations for addressing the problem of childhood obesity in Arkansas. A total of 13 recommendations emerged, including:

- Creating a new state agency dedicated solely to the nutrition and physical activity of Arkansans;

- Developing a healthier school environment by encouraging a walk-to-school program; and, most radically,

- Placing individual body mass index (BMI) measurements of Arkansas school children on school report cards in an attempt to increase public awareness of the importance of nutrition and physical education.

Act 1220 of 2003 was the product of a remarkable confluence of political, private and institutional support

This summit inspired policy-makers to consider seriously a statewide approach to counter the growing problem of obesity and was the initial source for one of the more controversial portions of Act 1220 of 2003 – the mandatory BMI screening of all public school students.

Speaker of the House Herschel Cleveland attended the conference and became a leading proponent of a legislative approach to the problem. Cleveland's own health concerns led him to believe the obesity epidemic called for a serious solution. He encouraged leaders at the conference to take a comprehensive approach that would focus on the state's children, regardless of any political backlash that might result.

"Our philosophy… was that maybe it will be worth it if they don't have to have their feet and legs cut off when they are 35 [from diabetes]," Cleveland said later.

A series of planning meetings ensued, involving members of the Legislature and representatives of the Arkansas Department of Health. Participants decided that "we were going to make an effort to do something to help the obesity epidemic in Arkansas, and that something was going to come with a program to help school children." Rather than developing a legislative plan to affect all Arkansans, including adults, the group decided that a legislative plan that focused on children in Arkansas public schools would be the best long-term course of action.

Cleveland asked the Arkansas Department of Health to draft a bill to be introduced into the Arkansas Legislature during the regular session in January 2003. In the fall of 2002, the agency held focus groups, solicited input from health care providers and the Arkansas Department of Education, and reviewed legislation pending or being considered for introduction in other states on the issue. A small group then began drafting what would eventually become Act 1220 of 2003.

Legislative Intent

In drafting the bill, legislators and health department officials chose to focus on creating healthier environments for children and on increasing community involvement in policy-making related to public schools. They also felt they could achieve the greatest impact by investing in teaching children how to eat well and be physically active – skills they could use for a lifetime.

They were concerned about research indicating that overweight adolescents often grow up to be overweight or obese adults who have significant weight-related health problems.

Some legislators had seen research that demonstrated a clear link between obesity and the consumption of high-calorie/low-nutritional-value "junk" food and sodas, such as those available in vending machines. Prior to the development of Act 1220 of 2003, some legislators were exploring ways to change school environments to provide healthier options to students. The Act provided an opportunity to build on this interest by providing children with more nutritious options and nutrition education.

The bill's authors felt it was important to put procedures and measures in place for the state to determine a baseline prevalence of weight problems in Arkansas children. This would allow officials to assess the impact that policy changes might have over time on rates of obesity and overweight in the state.

They also wanted to employ public health workers in communities statewide to assist with implementation of policy changes to promote healthier school environments, increased physical education and activity, and better nutrition education in schools and neighborhoods.

The Arkansas Department of Health believed it was important to involve physicians and other local experts in the process of determining good nutrition and physical activity standards to be phased into the public schools.

For all of the above reasons, the architects of Act 1220 of 2003 set out to write legislation that was broad-based and multi-faceted, rather than relying upon any single approach to addressing childhood obesity.

Some of the officials interviewed noted that much thought was given to involving schools, parents and communities in the overall process of addressing obesity and to avoiding the imposition of unfunded mandates on schools. The short timeline required by the legislation was also a source of concern.

Approval and Enactment

After the key issues of importance to legislators were carefully considered and a final version of the bill drafted, it was introduced on February 18, 2003, by Rep. Jay Bradford and co-sponsored by Rep. Gary Biggs, House Speaker Herschel Cleveland, and Rep. Jim Milligan. House Bill 1583, as it was known at the time, was referred to the House Committee on Public Health, Welfare and Labor.

In the House Committee in March of 2003, several amendments were made to the bill, including the placing of a cap on the percentage of tobacco money that could be used for the program. Members of the state Senate also were added as co-sponsors, specifically, Sens. Dave Bisbee and Jim Argue, Jr.

On April 8, 2003, the House of Representatives passed the bill. The next day it passed in the Senate and was transmitted to the governor's office. On April 11, 2003, the bill was signed into law as Act 1220 of 2003. The conception, drafting, intro-

duction and passage of the legislation had all occurred with little debate and in an extraordinarily timely fashion.

The state Child Health Advisory Committee was formed as a requirement of the Act and began to meet monthly in August 2003.

Controversy and Change

As originally passed, the Act required that each child's BMI would be conveyed to parents through students' report cards, and this eventually became a source of controversy. The requirement received little media attention until the late summer of 2003, when local officials began to make preparations to implement the plan during the new school year. Some school superintendents said they would wait to receive specific guidelines before complying with the law, while others said they were determined to ignore the law because of concern about students' privacy.

Editorial writers and columnists soon became vocal about the issue. Some recounted stories of children giving up regular treats provided by grandparents because they were afraid of failing their "fat test." Many felt that the BMI measurement was none of the government's business. One especially creative columnist suggested that the "BMI rating placed somewhere

Legislators reassured the public that it was never their intent to embarrass children or parents.

on the report card" or "fat card" would have letter grades such as "A for Anorexia, … AN for Absolutely Normal, CC for Casually Chunky … ."

Meanwhile, the issue of including BMI measurements on Arkansas report cards was about to explode in the national media. On August 20, 2003, an article in the *Wall Street Journal* indicated that the state sought to "score" students on their weight. The article gave a brief overview of the law and Included negative reactions from parents and students in states with similar legislation. It included accounts of children in Michigan using extreme diets to lose weight after seeing their BMI numbers and of students in Florida comparing their BMI assessments.

Backers of Act 1220 of 2003 said the *Wall Street Journal* article had a noticeable impact and highlighted the fact that problems with the Act extended beyond those of privacy concerns. As one supporter put it, "Suddenly we in Arkansas were on the front page of the *Wall Street Journal* with no funding and no plan for how we were going to do the BMI assessment." Many parents expressed their concerns in letters and calls to legislators, newspaper editors, superintendents and principals. They primarily were concerned about how the BMI screenings would affect student privacy and mental health.

The outcry from some parents over placing the BMI measurements on report cards prompted the newly formed Child Health Advisory Committee and others to endorse changing the way BMI measurements were reported. At its September 2003 meeting, the Child Health Advisory Committee voted to adopt recommendations from the Arkansas Center for Health Improvement's BMI Task Force to keep the reports private and off academic report cards.

Legislators responded by passing HB 1011 (later Act 29) in a special December 2003 session on education. The bill amended Act 1220 to require that student BMI assessments would be sent to parents in a separate child health report, instead of on a student's report card. Legislators reassured the public that it was never their intent to embarrass children or parents. One legislator said that the controversy over BMI measurements was helpful, noting that, had there not been the controversy over BMI reporting methods, "the bill would not have been nearly as effective."

As schools began to comply with the law and measure BMI, some parents and students began to consult physicians and health officials for information on how to live healthier lifestyles.

At the same time, Governor Mike Huckabee's personal journey to create a more healthful lifestyle brought additional local and national attention to the state's efforts to reverse the obesity trend. The release by the Arkansas Center for Health Improve-

ment of the findings from the first-year BMI assessments showed that 38 percent of the state's school-aged youth were either overweight or at risk for overweight. Because this number was greater than previous estimates for the state that were based on much smaller sample sizes and self-reports of height and weight rather than direct measurement, the release generated significant attention within the state and at the national level. (See Appendix B for an executive summary of the Arkansas Assessment of Childhood and Adolescent Obesity.)

The measurement of BMI also was seen as crucial to establishing a benchmark, or baseline, for data comparisons. Comprehensive, statewide, empirical data were needed to quantify the problem of obesity in the state and to measure changes over time.

Physicians who were involved in helping to inform the debate during the drafting of the legislation reported great alarm over recent increases in health problems in children, including sleep apnea, type 2 diabetes and hypertension. These physicians gave legislators credit for approving the Act. As one doctor told an interviewer, "It just happened to be that the legislators were interested in hearing about ways of improving child health and were willing to go along and kind of stick their neck out with a bill that was really different from anything that had been done in the rest of the United States."

"Kids will make healthy choices if they're given healthy options."

- Member of the Child Health Advisory Committee

While there were still some vocal dissenters, for the most part, those who were dissatisfied were concentrated in small areas around the state, and the need for policy, environmental, and behavioral change was broadly recognized.

One legislator stated that parents understood the purpose of the law was to promote health for Arkansas' children and adults and that the majority saw the law as a positive step.

Significance of BMI & Nutrition Standards

Interviews with people involved in creating and implementing Act 1220 of 2003 indicated that many viewed the legislation as a way to educate citizens about important health issues and to encourage Arkansans to begin a dialogue with their health care providers on the importance of physical activity and good nutrition to overall health and well-being. The assessment and reporting of each child's BMI was seen as an important component of that effort.

One legislator stated that "a lot of people didn't realize the severity of the problem" and that the BMI reports were seen as a way to make the problem more relevant to families in Arkansas. After the initial year of the Act's implementation, policy-makers viewed the BMI initiative as having been very successful in achieving these goals. They noted that a great deal of public discussion at the school, community, state and even national level had been generated by the statewide BMI screening initiative.

One legislator declared that the BMI screening requirement "says that we really meant business. If we can show that we are really making a difference and we are educating our children, our parents, our families and our educators on the importance of providing some guidance in nutrition and physical fitness … I think we can be leaders in something that is good in this country."

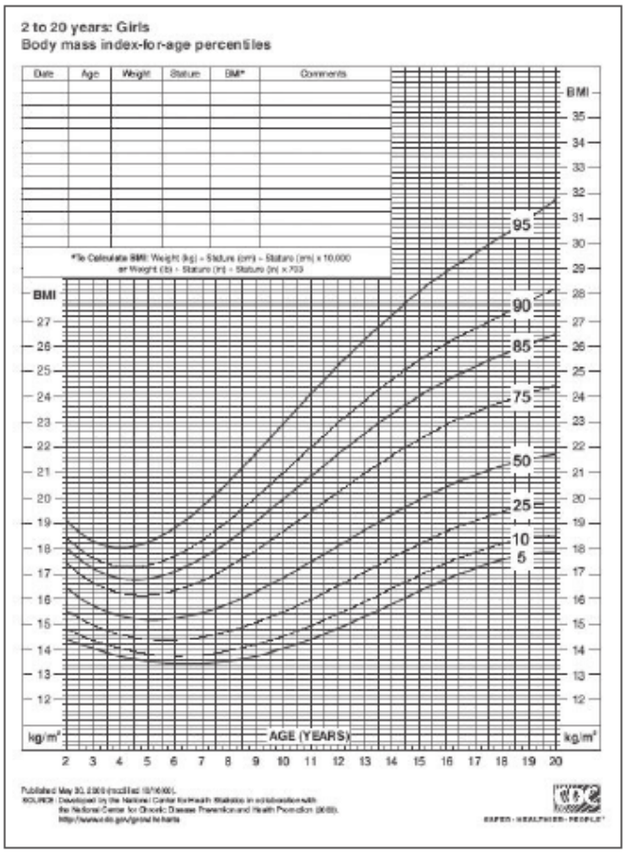
Striving for healthier nutrition standards and offering healthier food and drink options in schools were other important components of the law's overarching goal for encouraging healthier behavior among Arkansans. Physicians, nutritionists, dietitians and other public health professionals who helped draft portions of the legislation wanted to increase nutrition education in the schools and give students more healthy options in foods and beverages.

Most school and public health officials, health care providers and legislators who were interviewed shared the belief that unhealthy foods were too prevalent in the school setting. The decision to tackle nutritionally related health in Act 1220 of 2003 came down to a belief that, at the very least, "Schools should not be contributing to the problem."

The prevailing opinion evident in interviews was that public institutions have a responsibility to "provide the best choices for children, and non-nutritious foods are not the best choices for them." As one pediatrician said, "In order to help people make changes, we need to make it easier to do the healthy thing than to do the unhealthy thing."

These concerns led to the decision to restrict access to vending machines in elementary schools. While there was discussion about restricting access to vending machines entirely, at all schools levels, the legislation called only for the restriction of student access in elementary schools. The Child Health Advisory Committee was charged with making additional recommendations regarding vending machines in middle and high schools.

One interviewee said some people in the state have doubts that changes in vending machines will have an effect on BMI. Some people who were interviewed cited research indicating that revenue is not reduced when the nutritional quality of vending products is improved, but others were skeptical of that claim. There was a practical recognition that many schools currently have contracts with soft drink and food vendors that would take time to expire. There also was recognition that school districts would need to find ways to replace income from the contracts or to negotiate with vendors to replace unhealthy foods and drinks with healthier alternatives.



To accomplish the BMI screening of Arkansas public school students officials used growth charts developed by the CDC, such as the one shown above. The charts consist of a series of percentile curves that illustrate the distribution of selected body measurements in U.S. children according to age. They are used to judge whether an individual's weight is appropriate for his or her height.

Implementing the Act

Once Act 1220 of 2003 was passed and signed into law, the focus shifted to questions of what to implement first, how best to begin, what the initial timeframe should be and when to put into practice each key component of the Act. Funding was a major concern, both for the implementation of the Act and for the future of schools.

BMI Measurement – 2004

The BMI measurement was one of the first aspects of Act 1220 of 2003 to be implemented. In order to maximize the accuracy of BMI measurements and minimize the risk of embarrassment to students, the Arkansas Departments of Health and Education worked with the Arkansas Center for Health Improvement to establish protocols for accurate measurements, train nurses and other school personnel to accurately measure height and weight, design a form for recording data, create a centralized database and data entry procedures, identify methods to calculate BMI levels for schools, and create a personal BMI report to send to parents. While pilot testing these plans in a few schools, the Department of Health and the Arkansas Center for Health Improvement made a concerted effort to inform the schools and the public about exactly how each step would occur and why.

Fears about confidentiality of a child's BMI report also subsided after state officials made the decision to send the reports to parents through the U.S. Postal Service in the form of private letters. Each letter explained BMI in detail, gave the BMI percentile for the child, and explained whether the child fell into the overweight, at risk for overweight, normal weight, or underweight category. It suggested ways to encourage

healthy eating and physical activity, and it recommended that families contact their pediatricians or family doctors if they had additional questions.

All parents or guardians of participating children received a BMI letter by September 1, 2004. A full discussion of the procedures, safeguards, and findings of the BMI measurement process is presented in the report prepared by the Arkansas Center for Health Improvement, which can be found at www.achi.net. (An executive summary of the report is contained in Appendix B.)

A number of officials interviewed expressed concerns over whether schools would be able to continue to measure and report student BMI scores in future years. Concerns centered on the time involved in preparing for and completing assessments, as well as the cost of mailing letters to parents. They also said annual assessments will be important if data are to be used to inform decision-making and to evaluate programs.

Child Health Advisory Committee

The Child Health Advisory Committee began to meet in August of 2003 as soon as members could be named by the participating agencies. In monthly meetings throughout 2003 and 2004, the committee considered recommendations concerning the public school environment, specifically related to physical activity and nutrition. The committee's recommendations presented an incremental approach to changing standards over a period of five years.

For 2004-05, the Child Health Advisory Committee offered organizational recommendations for the local Nutrition and Physical Activity Advisory Committees to ensure that communication existed between a committee and all schools in the district and that programs developed by the local committee would be age-appropriate for students.

The committee also recommended that elementary students should not have any access to foods of minimal nutritional value and that middle and high school students should have restricted access to such foods. Finally, the committee recommended that a physical education specialist position be created at the Department of Education to assist in coordinating statewide physical education standards.

For the 2005-06 school year, the Child Health Advisory Committee recommended that the local Nutrition and Physical Activity Advisory Committees ensure that student-to-adult ratios in physical education classes be 30-to-1 in grades K-6 and that the community be provided access to school physical activity facilities after hours.

"In order to help people make changes, we need to make it easier to do the healthy thing than to do the unhealthy thing."

- Arkansas pediatrician

The Child Health Advisory Committee recommended that grade-appropriate nutrition education be developed and gave specific guidelines for such education. It also recommended specific standards and portion sizes for competitive foods in schools, including recommendations regarding access to such foods.

For the 2006-2007 school year, the Child Health Advisory Committee recommended and outlined requirements for professional development for child nutrition personnel in Arkansas schools.

For the years following 2007, the committee listed recommendations related to physical education in schools, including required certification for physical education teachers and an increase in the required number of minutes of physical activity to 150 minutes per week for elementary students and 225 minutes per week for middle and high school students.

These recommendations and their underlying rationale were delivered to the State Board of Education in June 2004. As of the writing of this report, decisions on the adoption of the various recommendations are pending.

Arkansas Department of Health

Act 1220 of 2003 contained a requirement that the Arkansas Department of Health hire public health workers to assist public schools with raising nutrition standards, increasing student physical activity, and implementing more nutrition and health education in the schools. These individuals were hired in 2004 and currently are working with local Nutrition and Physical Activity Advisory Committees and Hometown Health Improvement coalitions throughout the state.

Local School District Nutrition and Physical Activity Advisory Committees

In addition to the state Child Health Advisory Committee, the legislation also called for the creation of district advisory committees made up of parents, teachers and local community leaders. Most of these committees had been formed by the end of 2004 and were beginning to address their own local needs to create a healthier environment for children.
There is a strongly held belief on the part of the Arkansas Department of Health and the Arkansas Legislature that these local participants know best what health issues are prevalent in their communities and how best to address them.

Community Participation: Perceived Roles

Schools are part of the community and thus were viewed by legislators and others as a partner with the rest of the community in addressing the complex issue of obesity. Key informants who were interviewed emphatically stated that all members of the community have responsibility for what children eat. They expressed the hope that health education in schools could be connected with good community programs and worksite wellness programs to create a culture that values health.

It was noted that the governor's "Healthy Arkansas" campaign is attempting to support some of these connections. The Arkansas Legislature's investment in the ambitious goals of Act 1220 of 2003 was recognized as a courageous move to try to connect many threads within communities to improve the lives of Arkansans.

Next Steps

After the initial implementation of the Act, key individuals began to formulate and discuss plans to create healthier school environments for students, encourage healthy communities outside of schools and improve the BMI measurement process. The future of the BMI measurements in schools after the first year was an area of concern for health policy-makers. Key concerns and suggestions included:

- Greater involvement of schools in devising BMI measurement plans;
- Greater efficiency in BMI measurement processes;
- Clear delineation of responsibility for future BMI measurements; and
- Identification of funding to pay for mailing health reports to parents.

Most policy-makers agreed that healthy nutrition standards should exist for Arkansas public schools. Suggestions included replacing foods in vending machines with healthier choices and not rewarding students with candy or food items. Policy-makers also felt that schools should be concerned about the overall health of students, not just weight. One legislator expressed the frustration of telling students to be healthy while limiting their resources to achieve health, saying, “We get all wound up about kids drinking non-diet [soda] out of a [soda] machine at school, and, at the same time, we are cutting funding for school health clinics.” Many policy-makers felt that, for real change to occur, programs had to be in place to encourage not only thinner Arkansas students, but students with improved overall health.

There were concerns that the cost of funding nutrition standards and the financial effect of limiting access to vending and soda machines would create a situation that schools, districts and the state would need to address in the immediate future. Some members of the Child Health Advisory Committee and legislators felt that removing machines would likely affect school income, while others felt that removing machines would have little to no effect at all on school finances. This suggests that there has been a lack of information about the resources generated from vending machines and pouring contracts and how the money is used.

One legislator stated that one of the most effective things the Legislature could do would be “to let the soft drink industry know that we’re not going to repeal this legislation, and they’re going to have to work with us” to change school environments. Most interviewees said that, if vending contracts with companies and vending machines in the building were not a part of the future of Arkansas schools, that any lost revenue would have to be made up from other sources.

Interviewees identified a number of barriers to change, including: 1) limited time within the existing school day to increase time for physical education or lunch periods, and 2) a preference for local initiatives for change, as opposed to change being mandated by a centralized body, such as the Arkansas Legislature or Department of Education.

Involvement from local communities was and is seen as imperative for developing effective standards for nutrition and physical activity.

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Members of the Child Health Advisory Committee stressed the importance of establishing efficient and empowered local Nutrition and Physical Activity Advisory Committees to study local needs and develop programs that would work best for the community. They said that membership should be reflective of the entire community and that the committees should consist of “good common sense folks who don’t have special interests.” They said parental involvement in the local committees and in developing programs that worked would be essential in creating healthier schools.

Response to Surveys: Principals and Superintendents, Parents and Adolescents

Between April and August of 2004, school superintendents, principals, parents and students were surveyed as an initial part of the effort to evaluate Act 1220 of 2003. Surveys were mailed to 1,127 principals and 350 superintendents. A total of 811 principals and 223 superintendents returned those surveys, which asked for information about school environments, policies and practices relating to physical activity, physical education and nutrition.

Meanwhile, telephone interviews were conducted with randomly selected families whose children attended Arkansas public schools in the spring of 2004. Students over the age of 13 and parents were asked about their knowledge of weight control, family and individual behavior patterns related to nutrition and physical activity, and their familiarity with and opinions about the provisions of the Act. A total of 1,551 parents and 202 adolescents were interviewed in this manner. (For more information on how the surveys were conducted, refer to Appendix C: Methods)

Vending Machines - Availability and Options

The vast majority of Arkansas public schools (85%) reported having vending machines. Virtually all of these schools had beverage machines, while 85 percent had food machines.

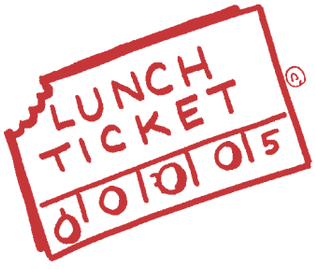
Machines were most commonly located in teachers' lounges, gymnasiums, cafeterias, and hallways or other common areas available to students.
Overall, machines were reported to be available to students at all times of the — most frequently during lunch periods (42%), after school (39%) and before school (28%). Machines were less frequently available in the afternoon after lunch (16%), during breaks (13%) or in the morning before lunch (10%).

On average, principals reported that only 18 percent of the items available within vending machines could be classified as "healthier options." The items most frequently available for purchase by students included: sodas, lemonade or sweet tea (49%), bottled water (49%), fruit-flavored drinks (46%), cookies or crackers (34%), 100-percent fruit juice (32%), chips (32%), candy (32%), chocolate (29%), and cakes or pastries (21%). Less than 10 percent of schools reported offering low-fat snack options.

Food and Nutrition Policies in Schools and School Districts

Almost two-thirds (62%) of schools allowed food to be sold by students to raise funds. The most common items sold were candy (74%) and cookies (57%). Fewer schools reported selling fruit (24%) or nuts (22%).

Fewer than 5 percent of schools and school districts reported having policies about the types of foods that could be served at school events or policies requiring that healthy options be offered at student parties, concession stands or meetings attended by families. Very few districts (2%) or schools (7%) reported having policies that prohibit the use of food or food coupons to reward students for good behavior or academic achievement.



About a third of schools (34%) reported having made recent changes to the foods or beverages sold within the school. In addition to altering access to vending machines to be compliant with Act 1220 of 2003 (40%), schools added healthier options to vending machines (22%) or cafeteria offerings (19%), limited access to specific foods (11%), and limited options for fundraising or rewards (4%).

Vending Machines - Revenues and Expenditures

Act 1220 of 2003 mandated that schools report revenues and expenditures from pouring contracts in their annual reports to the community. These reports are not yet available for the majority of schools.

Within our surveys, 80 percent of the school districts reported having a contract with a soft drink bottler, giving the company exclusive rights to sell soft drinks at schools in the district.

The majority of schools (81%) reported that they realized $5000 or less in annual revenues from vending machine sales. Another 13 percent reported annual revenues between $5,000 and $15,000. Only 6 percent reported revenues of $15,000 or more.

Revenues from vending sales frequently were reported to be used to support academic programs (54%) and extracurricular fine arts or academic programs (29%). With less frequency, revenues were reported to support physical education or physical activity programs (19%), art or music instructional programs (19%) and extracurricular sports activities (18%). Only 5 percent of schools reported using vending revenues to support food service programs.

Physical Activity Policies in Schools and School Districts

Most schools (84%) reported that physical education classes are taught by certified physical education teachers. Physical education is also taught by non-certified physical education teachers (14%), regular classroom teachers (13%) and health education teachers (8%).

Fully 87 percent of schools reported that they require that newly hired physical education teachers be state-certified in physical education. School districts also reported policies requiring newly hired staff who teach physical education be state-certified in physical education: 69 percent at the elementary level, 87 percent at the middle or junior high school level, and 88 percent at the high school level.

School districts were adopting policies to assure the inclusion of lifetime physical activities — including walking, jogging, bicycling, tennis and golf — within physical education programs and particularly at the secondary level. Forty percent of superintendents noted that their districts had such policies for elementary school programs, 52 percent for middle and junior high school programs, and 56 percent for senior high school programs

Only one-fourth (26%) of districts require that student fitness levels be measured on a regular basis.

Roughly one-fourth and one-third of districts, respectively, had policies prohibiting the use of physical activity to punish students for bad behavior in physical education class (24%) or in other classes (32%).

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Physical Activity Programs Offered Outside of the School Day

Schools often serve as the center of the community, and a number allow their facilities to be used outside of school hours for physical activity programs for youth. The most common programs offered were basketball (offered at 59% of schools), baseball or softball (47%), running or jogging (37%), football (31%) and walking (30%). Other programs offered for youth included: volleyball (22%), weight training (21%), cardiovascular fitness (19%), soccer (17%), golf (17%), tennis (13%), dance (12%) and aerobics (11%). Fewer schools reported programs directed toward community adults. The most frequently noted adult physical activity programs included: basketball (17%), walking (15%), baseball or softball (14%), and running or jogging (10%). Overall, 15 percent of schools reported that school facilities are not used after hours for physical activity programs.

Awareness of Healthy Eating Guidelines

Parents and adolescents showed limited awareness of dietary guidelines that were in place at the time of the surveys and that recommended eating a minimum of five servings of fruits and vegetables per day.

When asked how many servings of fruits and vegetables a person should eat each day for good health, less than a third of parents (31%) and their adolescents (30%) answered five or more servings per day. More than two-thirds (69%) of parents were unaware of the national recommendation for five or more servings of fruits and vegetables per day for health.

Most adolescents (80%) said they believed that eating more fruits and vegetables would make them stronger, give them more energy and help them think better in class.

Similar percentages indicated that their families believed eating fruits and vegetables is important, but only 17 percent indicated that their peers held those beliefs.

When asked to identify healthy snacks for children, parents most frequently mentioned low-fat salty snacks, such as crackers, pretzels or popcorn (6%), peanut butter (4%), bread or grain items (3%), and cheese (2%). Very few parents (less than 1%) suggested that fruits and vegetables would make good snacks for children.

Current Eating and Physical Activity Patterns

Arkansas families reported a number of current practices that may not be helpful in establishing and maintaining healthy weights.

One in every 11 adolescents reported spending 5 to 6 hours per day playing video games or watching TV. Another 32 percent reported spending 3 to 4 hours per day in such activities.

Almost one-third (30%) of adolescents reported eating fast food at least once a week.

More than half (55%) of adolescents reported eating evening meals in front of the television more than once a week.

More than one-third of adolescents (37%) reported purchasing drinks or snacks from school vending machines frequently (at least twice a week). Four of every 10 adolescents reported making vending machine purchases less than once a week.

Adolescents frequently reported lifestyle activities, such as walking the dog, doing yard work and playing with friends. Interestingly, parents frequently indicated that they did not know how much time their children spent engaged in such activities.

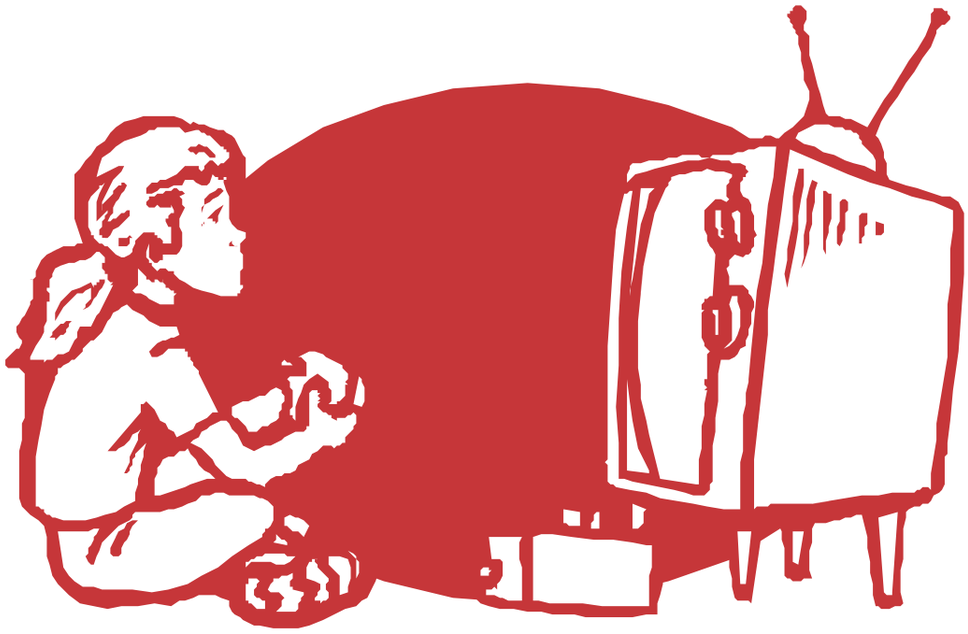
Efforts to Change Behavior

A majority of parents and adolescents reported efforts to establish and maintain healthy eating patterns. Three-fourths (76%) of parents reported that they were attempting to limit the amount of chips, soda or sweets eaten by family members.

Of the adolescents interviewed, more than half (58%) said that their parents were trying to limit the adolescent's intake of snack foods, while two-thirds (66%) said they, themselves, were making efforts to eat more healthy foods.

Nearly two-thirds (63%) of parents indicated that they were trying to change the family diet to a healthier one. The most common reasons given for making these efforts included a recent health event in the family (26%), a need to manage weight (13%), a recent visit to the doctor (9%) and a desire to become healthier (5%). Not unexpectedly, as most parents were interviewed prior to receiving the BMI report, only 2 percent indicated that the BMI report was an impetus for change.

Nearly three-fourths (72%) of parents said they tried to limit the number of hours their children spend watching TV, playing video games or using the Internet.

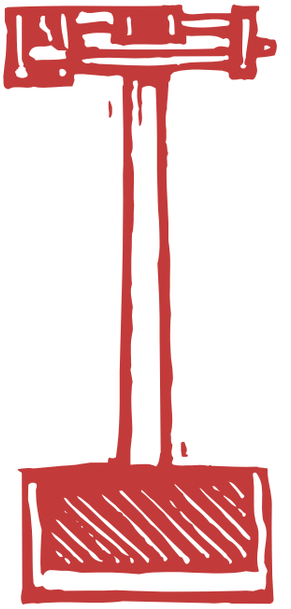


Knowledge and Opinions about BMI Reporting

Because parent and adolescent interviews were completed after plans to measure and report students' BMI were made public but before the actual reports had been distributed to parents, questions addressed only parental and student awareness of and concerns about the plans.

A large majority of parents and adolescents were aware (74% and 70%, respectively) of plans to measure BMI at school and comfortable (70% and 63%, respectively) with the idea of getting a BMI report from the school Most parents were comfortable with the confidentiality associated with the planned processes. Only one in five (20%) were very concerned about the child's friends, classmates or others finding out the BMI measurement.

A limited number of parents (14%) reported that their child experienced weight-based teasing. Twenty-two percent reported that their child was teased for reasons other than weight. Similarly, 12 percent of adolescents reported weight-based teasing, while 21 percent reported teasing for other reasons.



Knowledge of and Concerns about Weight

Parents were asked as part of the survey to report their child's height and weight, from which an estimated BMI was calculated and BMI-for-age percentiles were generated. Parents also were asked to characterize their child's weight as "overweight, at risk for overweight, a healthy weight or underweight."

Comparisons of the two sets of categories indicate that parents are frequently unable to characterize accurately their child's weight status, particularly when the child is overweight. Roughly half (51%) of the parents of children who were overweight according to BMI-for-age percentiles incorrectly perceived their children as being of normal weight. Children with estimated BMI-for-age percentiles in the normal-to-underweight category were more likely to be characterized correctly by their parents (93%) than were children in the overweight (31%) or at-risk-for-overweight (14%) categories. Two-thirds of the parents (65%) indicated that they had no concerns about their child's weight, but 15 percent were very concerned.

Roughly two-thirds of parents (67%) said they believed that overweight children are very likely to develop health problems. A similar percentage (60%) recognized diabetes as a potential health problem for overweight children, and 15 percent cited hypertension as a possible problem. Only 4 percent recognized asthma as an associated problem.

As a rule, most adolescents (90%) reported that they did not know their own BMI. However, two-thirds (67%) reported that they perceived themselves to be at a healthy weight. Only 11 percent reported themselves to be overweight.

Parental and Adolescent Beliefs about Vending Machine Change

Baseline data suggest that a majority of parents (90%) and adolescents (80%) are supportive of changes to vending machine contents.

Nearly half (49%) of the parents and 20 percent of adolescents said vending machines in schools should offer only healthy items (low-fat and low-sugar snacks, low-sugar and non-carbonated drinks). Another 41 percent of parents and 60 percent of adolescents indicated that machines should offer both healthy and less healthy snacks and drinks so that students could decide for themselves. Only 6 percent of parents and 20 percent of adolescents said no changes should be made.

More than half (54%) of parents said vending machines should not be available to students in middle or high schools.

On The Front Line: Interviews With Principals and Superintendents

To gather more information, the evaluation team conducted interviews with 19 school principals and 21 superintendents from across the state of Arkansas. Stratified, random sampling was used to select principals and superintendents from different regions. The selection process ensured that interviewees represented all regions and that principals represented all levels of schools. The principals and superintendents were encouraged to speak freely and anonymously about their own responses to Act 1220 of 2003, the implementation of the law in their schools, their views on healthy nutrition standards and physical activity requirements, and the possible ramifications of making such changes in the schools.

The majority of those interviewed felt that assessing BMI for all students was a "terrible" idea. Act 1220 of 2003 was typically viewed as just another burdensome mandate from the government. As one school official said, schools "are even being considered to be the main culprit or the one at fault for this [obesity] happening to our youth."

In contrast, a few principals and superintendents felt that the Act was a necessary and even positive step in the right direction. One principal said the Act showed parents that "we're looking to help our students any way possible."

Principals and superintendents reported that they received both positive and negative responses from the community and, in one case, no response. One superintendent reported receiving only a few phone calls, and still another said, "I heard almost nothing from the community."

Principals and superintendents said they frequently heard from parents, teachers and community members who felt there was no need to calculate the BMI of students, because they believed parents who have overweight kids already know it. Principals said teachers and administrators also were concerned about the actual process of taking the measurements and the amount of time it would take out of the school day. It also was suggested that, to increase the length of physical Education or lunch periods, the school day would have to be increased or other courses would need to be cut.

Changing Nutrition in Schools and Districts

Principals and superintendents agreed, nearly unanimously, that there should be healthier nutrition standards for beverages and a la carte foods sold on school campuses outside of the reimbursable meal program or outside of the cafeteria food service.

When asked why they supported such changes, one principal said, “Anything we can do to make our students healthier is great for me.” Another said that schools just need healthier food.

One principal said vending machines needed to be completely removed from junior high and high schools, while several mentioned that the machines should be filled with healthier foods. Another thought students should have fewer, not more, food and beverage choices because “kids will eat what is there.”

One superintendent mentioned the importance of the newly formed Nutrition and Physical Activity Advisory Committees in helping schools create healthier nutrition standards, saying their local committee has been formed and already has come up with good ideas.

Regarding the financial impact of replacing a la carte foods and beverages sold on campuses — a concern raised by many of the other people talked to by evaluators, as well as by the media — a majority of principals and superintendents said there would be little to no financial impact for the schools. One principal noted that beverage companies produce water, fruit juices and sports drinks, and said those options could be placed in soda machines. Another expressed the belief that students would be accepting of change, as long as schools offered a variety of healthy options. Another superintendent agreed, saying, “I don’t think kids are going to boycott the machines just because you put something more nutritious in there.”

To promote changes in the beverages and foods that are sold in schools, principals and superintendents agreed that it is important to educate students and to get parents involved. They expected that the benefit of such education would increase over time because “once we get the mind-set changed … they will pass that on to the next generation and the next.” Most agreed that students needed to be approached in a thoughtful way — not in an authoritarian manner, but in an informative and positive way that would encourage them to make healthy choices on their own.

When asked how changes might affect participation in reimbursable meal programs, principals and superintendents had varied responses. Some worried about the survival of the meal programs. Others felt that, without a vending machine option, students would participate in the cafeteria food program. Many felt that there would be no change in the reimbursable meal program if healthier nutrition standards were implemented.

Most principals and superintendents said they believed students were receiving sufficient nutrition education. Students receive such education within their science, health or physical education classes, depending on the grade level. Some principals and superintendents felt that more needed to be done, but they expressed concerns for what that might mean for schools. One superintendent asked, “It might be wonderful to offer more health or require more health education, but at what expense?”

Changing Physical Activity in Schools, School Districts and Beyond

When asked what they would do to change physical activity policies in their school or district, principals and superintendents offered a variety of suggestions, including increasing physical activity among students and allowing recess time to count towards required minutes of physical activity.

One superintendent noted that taxpayers and legislators need to be aware that, if physical education requirements were to be increased, there would be costs in terms of new staff, programs, equipment and facilities. However, he said such changes ultimately would create fewer problems than taxpayers otherwise would have to pay for through higher insurance premiums.

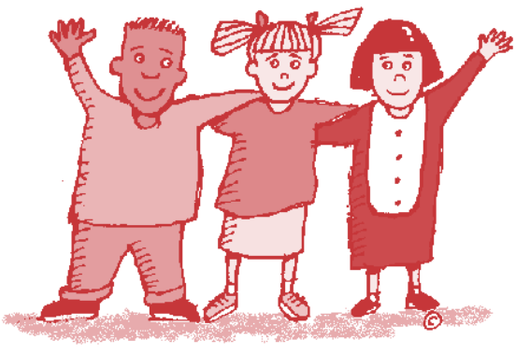
Future Directions

Having established a baseline against which future data can be compared, the evaluation team believes it is essential to continue the assessment of how Act 1220 of 2003 affects Arkansas students, families and public schools. The COPH has received funding from the Robert Wood Johnson Foundation for at least two additional years of evaluation activity.

During this time the evaluation team plans to:

- Complete interviews with members of the Child Health Advisory Committee, legislators, physcians, school nurses, community health promotion specialists and members of the local Nutrition and Physical Activity Advisory Committees;
- Repeat annually the surveys of school principals and district superintendents; and
- Complete interviews with additional samples of parents and adolescents.

These activities, along with continued monitoring of media coverage, Child Health Advisory Committee activities, and initiatives emerging from the Arkansas Departments of Health and Education, will allow the assessment of implementation and impact of Act 1220 of 2003 as it unfolds over the coming years.



APPENDICES

APPENDIX A: ACT 1220 OF 2003

State of Arkansas
84th General Assembly
Regular Session, 2003

As Engrossed: H3/3/03 H3/10/03 H3/12/03 S4/1/03

A Bill

Act 1220 of 2003
HOUSE BILL 1583

By: Representatives Bradford, Biggs, Cleveland, MilliganBy: Senators Bisbee, Argue

For An Act To Be Entitled

AN ACT TO CREATE A CHILD HEALTH ADVISORY COMMITTEE; TO COORDINATE STATEWIDE EFFORTS TO COMBAT CHILDHOOD OBESITY AND RELATED ILLNESSES; TO IMPROVE THE HEALTH OF THE NEXT GENERATION OF ARKANSANS; AND FOR OTHER PURPOSES.

Subtitle

AN ACT TO CREATE A CHILD HEALTH ADVISORY COMMITTEE.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:

SECTION 1. Arkansas Code Title 20, Chapter 7, Subchapter 1 is amended to add three (3) additional sections to read as follows:

6-7-117. Committee - Creation.

(a) There is created a Child Health Advisory Committee to consist of fifteen (15) members.

(b)(1) The Director of the Department of Health shall appoint:

(A) One (1) member to represent the Department of Health;

(B) One (1) member to represent the Arkansas Dietetic Association;

(C) One (1) member to represent the Arkansas Academy of Pediatrics;

(D) One (1) member to represent the Arkansas Academy of Family Practice;

(E) One (1) member to represent the Arkansas Association for Health, Physical Education, Recreation, and Dance;

(F) One (1) member to represent jointly the Arkansas Heart Association, the American Cancer Society, and the American Lung Association;

(G) One (1) member to represent the Arkansas School of Public Health of the University of Arkansas fo Medical Sciences;

(H) One (1) member to represent the Arkansas Center for Health Improvement;

(I) One (1) member to represent the Arkansas Advocates for Children and Family; and

(J) One (1) member to represent the University of Arkansas Cooperative Extension Service.

(2) The Director of the Department of Education shall appoint:

(A) One (1) member to represent the Department of Education;

(B) One (1) member to represent the Arkansas School Food Service Association;

(C) One (1) member to represent the Arkansas School Nurses Association;

(D) One (1) member to represent the Arkansas Association of Education Administrators; and

(E) One (1) member to represent the Arkansas Parent Teacher Association.

(c) Terms of committee members shall be three (3) years except for the initial members whose terms shall be determined by lot so as to stagger terms to equalize as nearly as possible the number of members to be appointed each year.

(d) If a vacancy occurs, the officer who made the original appointment shall appoint a person who represents the same constituency as the member being replaced.

(e) The committee shall elect one (1) of its members to act as chair for a term of one (1) year.

(f) A majority of the members shall constitute a quorum for the transaction of business.

(g) The committee shall meet at least monthly.

(h) The Department of Health shall provide office space and staff for the committee.

(i) Members of the committee shall serve without pay but may receive expense reimbursement in accordance with § 25-16-902, if funds are available.

6-7-118. Powers and duties.

(a) The Child Health Advisory Committee shall meet at least once per month and make recommendations to the State Board of Education and the State Board of Health consistent with the intent and purpose of §§ 6-7-117 through 6-7-119.

(b) The Committee shall develop nutrition and physical activity standards and policy recommendations with consideration of the following:

(1) Foods sold individually in school cafeterias but outside the regulated National School Lunch Program;

(2) Competitive foods as defined by the United States Department of Agriculture, as in existence on January 1, 2003, and offered at schools typically through vending machines, student stores, school fundraisers, food carts, or food concessions;

(3) The continuing professional development of food service staff;

(4) The expenditure of funds derived from competitive food and beverage contracts;

(5) Physical education and activity;

(6) Systems to ensure the implementation of nutrition and physical activity standards; and

(7) The monitoring and evaluating or results and reporting of outcomes.

6-17-119. Nutrition and physical activity standards - Implementation.

(a) The State Board of Education, after having consulted the committee and the State Board of Health, shall promulgate appropriate rules and regulations to ensure that nutrition and physical activity standards are implemented to provide students with the skills, opportunities, and encouragement to adopt healthy lifestyles.

(b) Beginning with the 2003-2004 school year, the Department of Health, in consultation with the Department of Education, shall:

(1) Employ one (1) qualified community health promotion professional, with training, experience, or both, in nutrition, chronic disease, or another related field to be housed within the Department of Health to plan, develop, implement, and evaluate pilot or model programs to support schools and communities, if funds are available;

(2) Employ one (1) statewide health promotion consultant to be housed within the Department of Education, if funds are available;

(3) Employ one (1) person as a community health promotion specialist to support implementation of pilot or model programs in schools and communities in nutrition and physical activity in several distinct geographical areas of the state, if funds are available; and

(4) Not use more than five percent (5%) of the annual Department of Health Master Settlement Agreement funds for the salaries or programs created under this subsection (b).

(c) Beginning with the 2003-2004 school year, every school district shall:

(1) Prohibit, for elementary school students, in-school access to vending machines offering food and beverages;

(2) Require schools to include as part of the annual report to parents and the community the amounts and specific sources of funds received and expenditures made from competitive food and beverage contracts;

(3) Require school to include as part of the student report card to parents an annual body mass index percentile by age for each student; and

(4) Require schools to annually provide parents with an explanation of the possible health effects of body mass index, nutrition and physical activity.

(d) Beginning with the 2004-2005 school year, the Department of Education shall:

(1) Begin the implementation of standards developed by the committee and approved by the Department of Education; and

(2) Annually monitor and evaluate the implementation and effectiveness of the nutrition and physical education standards.

(e) Beginning with the 2004-2005 school year, every school district shall:

(1) Convene a school nutrition and physical activity advisory committee that shall include members from school district governing boards, school administrators, food service personnel, teacher organizations, parents, students, and professional groups such as nurses and community members, to:

(A) Help raise awareness of the importance of nutrition and physical activity; and

(B) Assist in the development of local policies that address issues and goals, including, but not limited to, the following:

(i) Assisting with the implementation of nutrition and physical activity standards developed by the committee with the approval of the Department of Education and the State Board of Health;

(ii) Integrating nutrition and physical activity into the overall curriculum;

(iii) Ensuring that professional development for staff includes nutrition and physical activity issues;

(iv) Ensuring that students receive nutrition education and engage in healthful levels of vigorous physical activity;

(v) Improving the quality of physical education curricula and increasing training of physical education teachers;

(vi) Enforcing existing physical education requirements; and

(vii) Pursuing contracts that both encourage healthy eating by students and reduce school dependence on profits from the sale of foods of minimal nutritional value;

(2) Begin the implementation of standards developed by the committee with the approval of the Department of Education and the State Board of Health; and

(3) Require that goals and objectives for nutrition and physical activity be incorporated into the annual school planning and reporting process.

(f) The Department of Education and the Department of Health shall report annually on progress in implementing nutrition and physical education standards to the cochairs of the House and Senate Interim Committees on Public Health, Welfare, and Labor.

/s/ Bradford APPROVED: 4/10/2003

APPENDIX B: ACHI EXECUTIVE SUMMARY - THE ARKANSAS ASSESSMENT OF CHILDHOOD AND ADOLESCENT OBESITY

THE ARKANSAS ASSESSMENT OF CHILDHOOD AND ADOLESCENT OBESITY

Executive Summary

NOTE: The document below was produced by the Arkansas Center for Health Improvement, and is not a product of the COPH Assessment of Act 1220 of 2003.

Arkansas and the US are experiencing unprecedented increases in the number of overweight children causing what many consider to be an obesity epidemic. Nationally, more than 30% of high school students were estimated by the Centers for Disease Control and Prevention (CDC) to be overweight or at risk for overweight in 2002. Overweight adolescents also have a 70% chance of becoming overweight or obese adults, which will lead to higher risks in adulthood of type 2 diabetes, heart disease, cancer, stroke, hypertension, and other medical problems.

Recognizing the pressing epidemic of obesity in general and that problems associated with obesity commonly begin in childhood, the State of Arkansas passed Act 1220 of 2003. This landmark legislation was implemented to "coordinate statewide efforts to combat childhood obesity and related illnesses to improve the health of the next generation of Arkansans." This Act represents the first statewide multifaceted approach to combat childhood obesity in the US. Included in Act 1220 are multiple strategies to engage, inform, and activate parents, schools, and community leaders. Specifically, to address overweight children in the state's public school system, Act 1220 required that, beginning with the 2003–2004 school year, every Arkansas public school student have an annual body mass index (BMI)-for-age assessment performed and reported confidentially to parents. Schools were also required to provide parents with an explanation of the possible health effects of BMI-for-age, nutrition, and physical inactivity.

Upon request by the Arkansas Departments of Education and Health, the Arkansas Center for Health Improvement (ACHI) led statewide efforts in 2003–2004 to collect data on approximately 440,000 school children and adolescents and to create and disseminate reports to parents and communities. More than 93% of schools reported data on 94% of Arkansas public school students in pre-kindergarten through 12th grade. Analyses of data collected by ACHI show childhood obesity to be even more serious than expected. Based on BMI assessments, 38% of school children in Arkansas were classified as overweight or at risk for overweight in 2003–2004—a figure more than one-fourth higher than the national estimates for this population. This large-scale screening of school-age children in Arkansas may herald a more rapid evolution of the obesity epidemic than originally anticipated.

Evaluation of individual school and school district results and analyses of subpopulations most affected by the obesity epidemic reveal that no area of the state, type of school, or demographic group of children is spared the risk of this epidemic. All parents should take steps to be aware if their child already is overweight or is at risk for overweight.

In an unprecedented way, the State of Arkansas can now accurately detail the obesity epidemic. As children start kindergarten and elementary school, approximately one-third of children enter school either overweight (15%) or at risk for overweight (17%). The obesity epidemic slowly increases until the middle school years—5th–7th grades—where 42% of children are in one of the two high-risk categories (23.3% overweight, 18.4% at risk for overweight in the 6th grade). Through the high school years, the proportion of adolescents in one of the two high-risk categories decreases largely due to the reduction in number of females in the heaviest risk group. However, almost 40% of graduating males remain in one of the two high-risk groups.

Across the state, all schools should take steps to combat the epidemic, but some schools and their communities should take immediate action. While the state average is 38% of children in the two high-risk groups, 41% of the school districts have more than 40% of their students in the overweight or at risk for overweight categories. These findings represent a major risk for the children; an educational opportunity for schools and communities; and a critical need for the families to prevent the diabetes, heart disease, and high blood pressure that these children will predictably develop. These schools are in every region, are both urban and rural, and include all ethnic groups.

Ethnic differences in susceptibility to the obesity epidemic reflect national estimates but again suggest that a larger proportion of these subgroups are affected than previously estimated. While 37% of Caucasian youth are in a high-risk category, 41% of African–American youth and 46% of Hispanic youth are in a high-risk category. Examination of gender differences within ethnic groups reveals even more alarming results: 44% of African-American females and 49% of Hispanic males are in a high-risk category.

Finally, the reporting of health risk information to parents based upon the BMI information is a nationally recommended screening test for every child. Parents in Arkansas are the first to benefit from a statewide effort to raise awareness and identify risks. Early reports indicate that many parents were not aware of their child's health risk and the child had not been previously identified by a doctor as having a health risk. Combined with efforts to support parents and families through other components within Act 1220, this new information promises to stimulate discussion; engage parents, educators, and clinicians; and support change.

In conclusion, through a broad-based collaboration at the local and state levels, including the health and education communities, parents now have new and critically important health information about their children. With school and school district reports, school boards and the new School Nutrition and Physical Activity Advisory Committees will have real information to deliberate and inform local school policy decisions. State and national leaders will have a better portrait of the obesity epidemic. Targeted interventions can be developed and deployed to provide needed support to families with children at risk.

No parent would knowingly place his or her child at risk. Through the Child Health Reports, parents are now aware of the problem. Through summary reports to schools, Arkansas's teachers, schools, doctors, nurses, and communities are now aware of the problem. The next step is to mobilize resources to support these families and reverse the childhood and adolescent obesity epidemic. We must help parents eliminate risks to their children and help the state's children become healthy and productive adults.

APPENDIX C: METHODS

METHODS

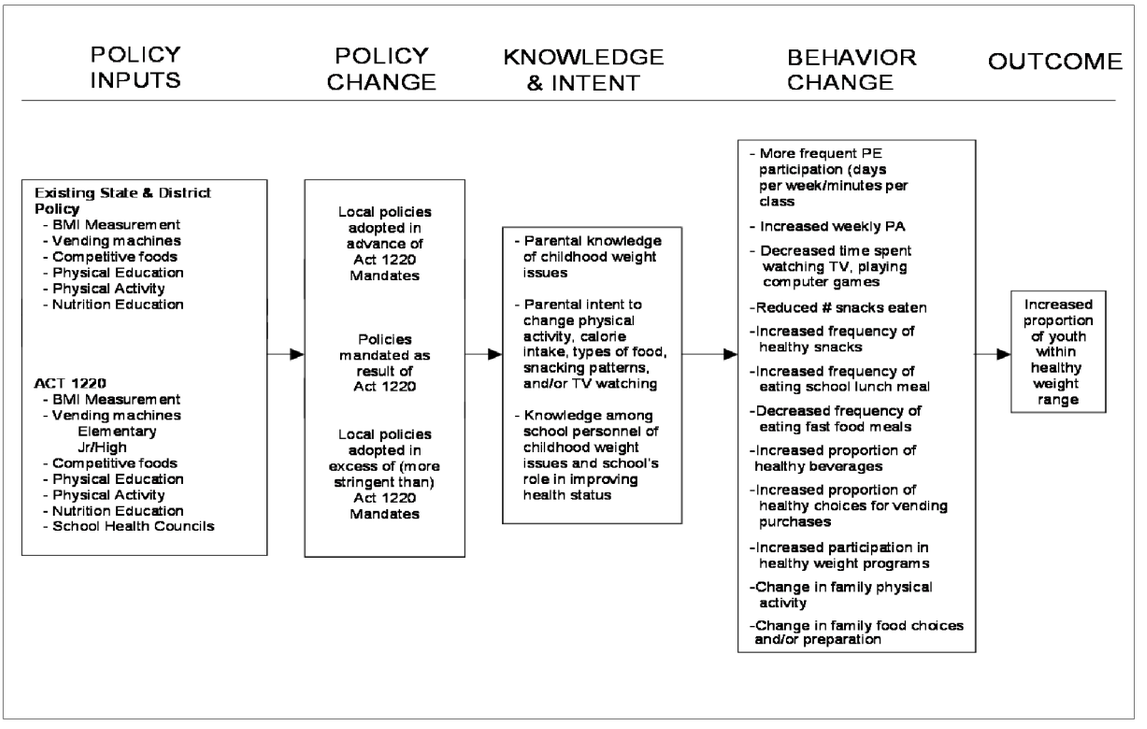
The University of Arkansas for Medical Sciences College of Public Health (COPH) secured funding in February 2004 from the Robert Wood Johnson Foundation to support efforts to evaluate the implementation of Act 1220 of 2003.

Using these funds, a team of COPH investigators, led by Drs. Jim Raczynski and Martha Phillips, have completed the initial portion of a three-year evaluation of the implementation of the Act and the effects it may have on school environments, knowledge concerning weight control, and family nutrition and physical activity behavior patterns experienced by Arkansas students. The weight status of Arkansas students also will be monitored using the annual BMI assessments mandated by Act 1220 of 2003.

The evaluation is designed to assess the impact of the full range of Act 1220 components. Annual evaluation activities will provide snapshots of policies and procedures and also allow us to see change over time. The evaluation is based on a conceptual model that proposes that existing environments will be changed by the implementation of state and local policies, which will in turn change the knowledge, attitudes, beliefs, and behaviors of families and students. Those behavior changes should ultimately affect the weight status (as measured by the BMI) of Arkansas students, although we do not expect to see significant changes in weight status in the three years of the evaluation.

The information presented in this report has been gathered over the past year through a series of activities.

- Interviews were completed with a total of 22 individuals who were either involved in or represented groups involved in the development, passage and implementation of Act 1220 of 2003. These individuals were identified as a result of a review of public records, as well as referrals from other people who were interviewed.
- Interviews were completed by telephone, audio-taped for accuracy, and transcribed to protect informant confidentiality. Discussions were focused by semi-structured interview guides.
- Interviews were conducted with 19 principals and 21 superintendents. Each of these school leaders was randomly selected using a stratified selection procedure that ensured representation from each of the geographic regions of the state, as well as from each school level (primary, middle, high school). Telephone interviews were completed using the same methods explained above. Interviews of principals and superintendents focused on their experiences with and reactions to particular components of Act 1220 (i.e., vending machine changes, BMI measurements).
- Surveys were mailed to each principal and school district superintendent in the state, accompanied by a stamped, self-addressed envelope for use in returning the survey to the evaluation team.
- Those who failed to respond were sent a second survey and return envelope. Those who failed to respond to the second request received a reminder call. A total of 811 principals and 223 superintendents returned surveys. The return rate was just over 70% for each group.
- Telephone interviews were conducted with families whose children attend Arkansas public schools. A total of 110 schools were selected using a stratified random selection procedure that ensured the inclusion of families in all areas of the state and with students attending schools of all grade levels and enrollment sizes. Households within the attendance zones for those schools were contacted by phone and, if the family had a child attending the selected school and agreed to the interview, the parent was interviewed. If the eligible child was over the age of 13 and the parent and adolescent gave consent, the adolescent was interviewed as well. Data from these parents and adolescents were weighted so that the results presented in this report can be considered representative of the state overall.



UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES
College of Public Health

4301 W. MARKHAM
LITTLE ROCK, ARKANSAS 72205

501-526-6600