YEAR ONE EVALUATION
WEST VIRGINIA HEALTHY LIFESTYLES ACT OF 2005
EXECUTIVE SUMMARY

West Virginia University / Robert C. Byrd Health Sciences Center / Health Research Center
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INTRODUCTION

In 2005, West Virginia Governor Joe Manchin III signed into law House Bill 2816—the Healthy Lifestyles Act—to help address the state's obesity epidemic. The law was passed in recognition of the burden that obesity and weight-related health problems, such as type 2 diabetes and heart disease, place on the state's health care infrastructure. The Healthy Lifestyles Act reflects the state's desire to promote healthy eating and regular physical activity through policy change and education. Implementation of the Act's school-based components, which provide policy direction for physical education, health education assessments, fitness assessments, body mass index (BMI) assessments and the availability of vended beverages on campus, began in August 2006.

OVERVIEW OF THE EVALUATION

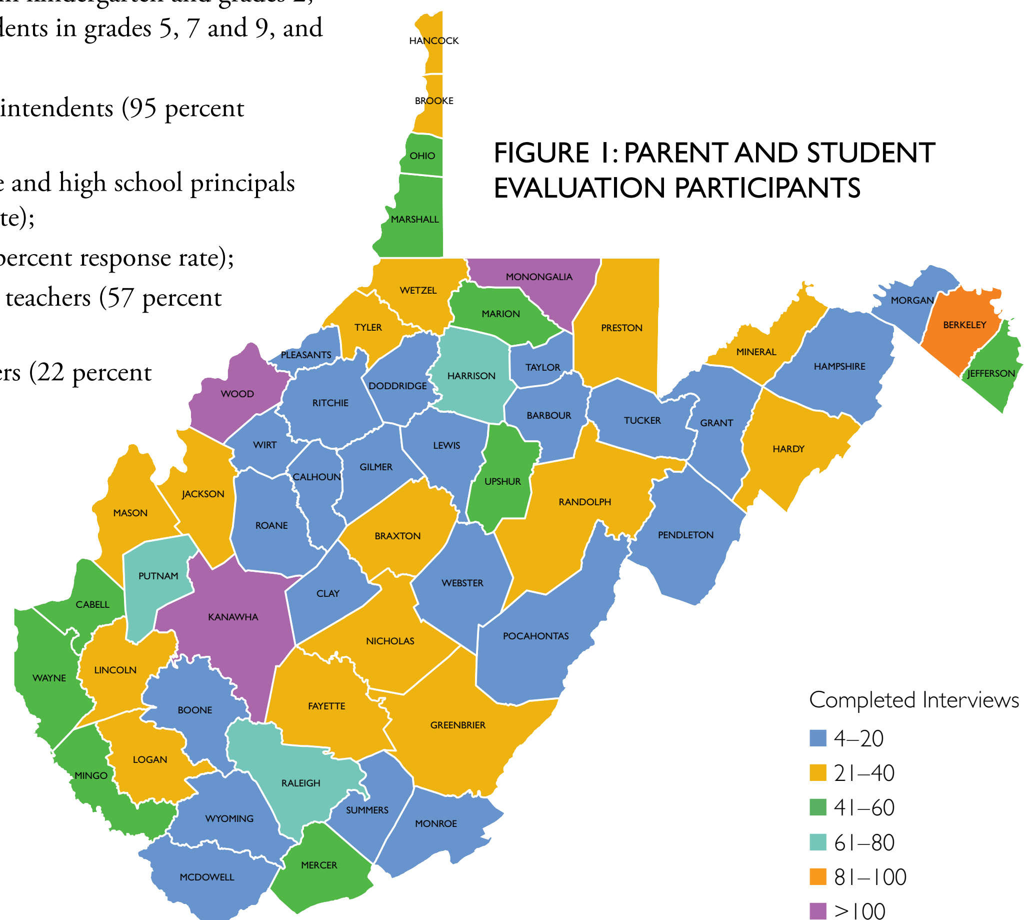
This executive summary highlights key findings from the first annual evaluation of efforts to implement the Healthy Lifestyles Act. The evaluation was conducted in 2007 by a team from West Virginia University Health Sciences Center and was supported by the Robert Wood Johnson Foundation. Staff from the West Virginia Office of Healthy Schools and the Office of Healthy Lifestyles assisted with the evaluation. Information regarding impressions of the Healthy Lifestyles Act, and knowledge, attitudes and behaviors about obesity, nutrition and physical activity, was obtained by phone interviews with 1,500 parents of students in kindergarten and grades 2, 4, 5, 7 and 9 and 420 students in grades 5, 7 and 9, and from surveys of:

- 53 county school superintendents (95 percent response rate);
- 586 elementary, middle and high school principals (84 percent response rate);
- 214 school nurses (89 percent response rate);
- 398 physical education teachers (57 percent response rate); and
- 124 health care providers (22 percent response rate).

Figure 1 illustrates the county of residence for the parent and child participants. As illustrated, families from all 55 West Virginia counties participated in the interviews.

As part of the evaluation, the research team also conducted interviews with key informants and analyzed data collected by the West Virginia Department of Education regarding physical education, fitness assessments and health education assessments. Detailed information about the conduct of the evaluation, the findings and the recommendations are presented in the full evaluation report, available at: www.hsc.edu/som/hrc.

FIGURE 1: PARENT AND STUDENT EVALUATION PARTICIPANTS



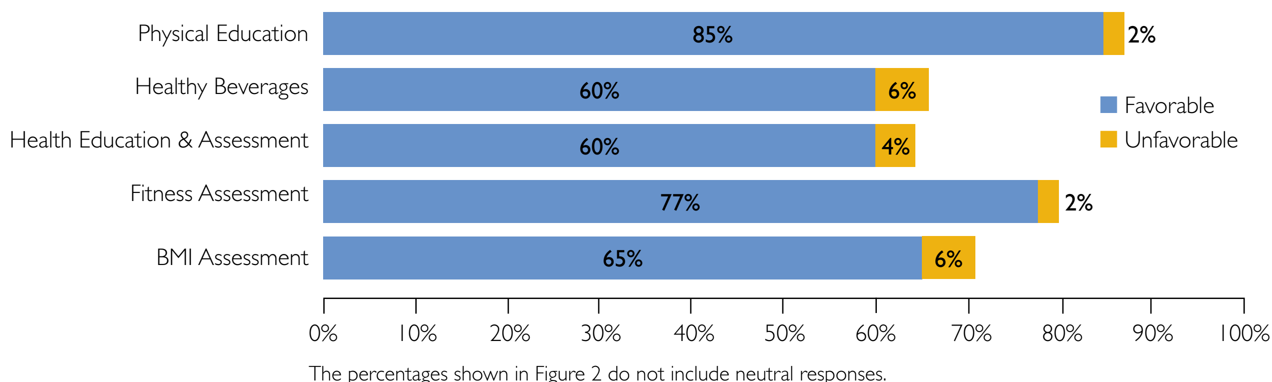
GENERAL IMPRESSIONS OF THE HEALTHY LIFESTYLES ACT

School personnel provided their impressions of the Healthy Lifestyles Act requirements and described the general impact of the law on school activities.

- The Act increased awareness of students' health status among school personnel and spurred the creation of new programs and efforts to increase physical activity and promote healthy eating among students and families.
- School personnel generally supported mandates of the Healthy Lifestyles Act. As illustrated in Figure 2, at least 60 percent of the principals gave a favorable rating to each mandate, and principals demonstrated the strongest support for the physical education time requirement.
- Forty-one percent of schools lacked the resources necessary to implement one or more of the Act's mandates. As shown in Figure 3, schools faced particular challenges meeting new requirements regarding physical education time, and assessments of health education and BMI status.

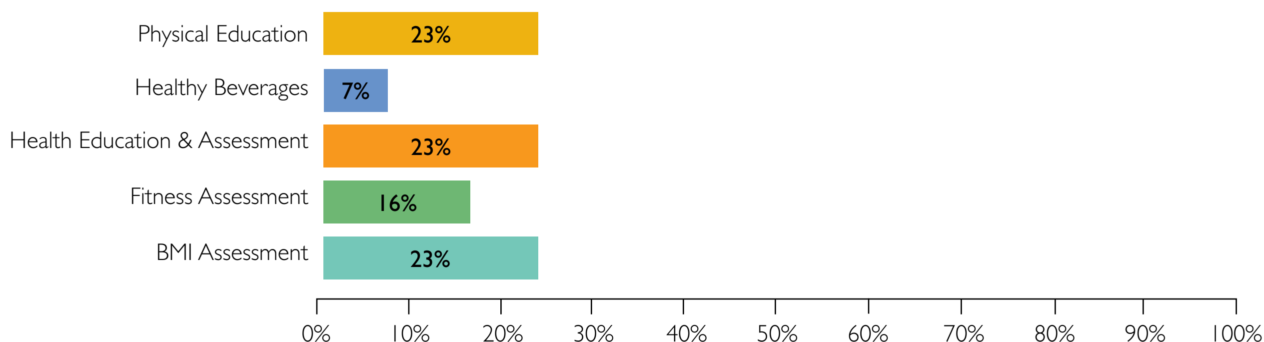
According to one county school superintendent, the Healthy Lifestyles Act "…has empowered concerned educators and administrators to implement higher standards regarding nutrition and physical activity in schools."

FIGURE 2: PRINCIPAL PERCEPTIONS OF HEALTHY LIFESTYLES ACT MANDATES



The percentages shown in Figure 2 do not include neutral responses.

FIGURE 3: SCHOOLS LACKING RESOURCES NEEDED TO IMPLEMENT NEW REQUIREMENTS



KEY FINDINGS FROM SCHOOLS

School superintendents, principals, physical education teachers and school nurses were surveyed regarding their perceptions of the Healthy Lifestyles Act, its impact on schools and students, and current nutrition and physical activity policies. A summary of county- and school-level nutrition and physical activity policies is presented in Tables 1 and 2, respectively.

- Many county- and school-level policies do not reflect current best practices for student physical activity and nutrition. As illustrated in Tables 1 and 2, 45 percent of counties do not require recess for elementary students, and only 21 percent of middle and high schools require that healthy foods be sold at concession stands.
- Improved physical education facilities and increased staffing are needed to fully implement the physical education requirements of the Healthy Lifestyles Act. For example, among the 143 elementary schools that were unable to meet the Act's physical education mandates, 80 cited inadequate staffing as the reason for the shortfall, 55 cited inadequate staffing and facilities, and 8 cited inadequate facilities.
- Although new vended beverage restrictions created the potential for lost revenues to the schools, many principals reported revenues remained stable. For example, among the 431 principals who provided information about budget impact, more than 80 percent indicated there had been little or no change in revenues.
- Although the Healthy Lifestyles Act mandates collection of BMI, health education and fitness-related data to inform curricula development or new policies, school personnel and Local Wellness Policy Councils currently underutilize the available data. For example, only 13 of the 55 Local Wellness Policies used Health Education Assessment Project (HEAP) testing results, FITNESSGRAM® scores or BMI data to help evaluate their policy decisions.

One principal explained significant challenges to meeting the Act's requirements: "…we don't have a gym, we have to bus students to a local YMCA for PE. We do the best we can with the facility we have, but it limits us in what we can provide for PE and other action based programs."

TABLE 1: COUNTY-LEVEL NUTRITION AND PHYSICAL ACTIVITY POLICIES FOR SCHOOLS

Policy	Percent
Require recess for elementary students	55%
require > 20 minutes of recess	22%
Prohibit food or food coupons to be used as a reward	19%
Prohibit junk food for:	
parties	38%
after school programs	38%
school store	51%
vending	60%
concession	4%
staff meetings	2%
meetings attended by families	2%
Have a fundraising policy that includes nutrition guidelines	30%

TABLE 2: SCHOOL-LEVEL NUTRITION AND PHYSICAL ACTIVITY POLICIES

Policy	Percent
Prohibit the use of physical activity to punish students for misbehavior in PE	95%
Prohibit removing recess to punish students for misbehavior (elementary)	24%
Have serving size guidelines for vended foods	86%
Prohibit sales of food for fundraisers	18%
Have nutrition policy for foods served at school parties	64%
Have policy requiring the sale of healthy foods at concessions (middle/high)	21%
Prohibit food or food coupons to be used as a reward	38%
Prohibit advertising by food and beverage companies	45%

According to one principal, the vending changes have had "…little or no impact (on budget). Students come to school with varying amounts of disposable cash and will spend it on healthy snacks… if that is what is available."

- School administrators and teachers believe BMI assessments are an important activity for schools—94 percent of superintendents indicated it was important for schools to conduct the assessments.
- Seventy-four percent of physical education teachers utilized FITNESSGRAM® results in planning their lessons, but written testing results were only provided by 33 percent of the teachers.
- Seventy-seven percent of physical education teachers were satisfied with the FITNESSGRAM® program, but some voiced concerns about whether the tests were sufficiently challenging for students.
- HEAP assessments have not been fully implemented by schools, and there is inconsistent use of HEAP data in health education planning. Thirty-four percent of eligible students participated in the HEAP, and 43 percent of county superintendents reported that they had reviewed HEAP data from their schools.
- The state-level proportions of healthy weight, overweight and obese 5th grade students collected by CARDIAC were not significantly different from a cluster sample of students measured for comparison. This finding confirms that even though CARDIAC's 5th grade BMI assessment program required active consent from parents, the 5th grade CARDIAC results accurately reflected the state's rates of childhood obesity for that age group.[1]

COLLECTING DATA TO MEET HEALTHY LIFESTYLES ACT REQUIREMENTS

Health education, fitness and BMI assessments are mandated by the Healthy Lifestyles Act. During the 2007-08 school year, the following assessment programs were used to collect data:

- Health education assessment data were collected using the Health Education Assessment Project (HEAP). Students in grades 6 and 8 and in the high school health education class participated in HEAP's online assessment, which includes questions regarding nutrition, physical activity, growth and development, alcohol and other drugs and tobacco. HEAP data are analyzed by the Office of Healthy Schools staff, and reports are sent to county superintendents.
- Fitness-related data were collected through the FITNESSGRAM® program. FITNESSGRAM® is a health-related fitness assessment package that determines students' fitness levels based on what is considered optimal for good health. Students in grades 4 through 8 and those in the required high school course participated in the FITNESSGRAM® program.
- Coronary Artery Risk Detection in Appalachian Communities (CARDIAC) is a school-based public health program that includes educational initiatives, health awareness programs and health screenings. CARDIAC conducted statewide BMI assessments with students in kindergarten and grades 2 and 5, and provided reports to parents about their child's weight status.

1. County- and school-level proportions could not be reliably assessed due to the small numbers of students in some schools and the small number of students participating in some counties.

KEY FINDINGS FROM PARENTS AND STUDENTS

Interviews revealed that most parents support school policies that are consistent with the Healthy Lifestyles Act.

- Ninety-six percent of parents believe schools play an important role in addressing the childhood obesity epidemic.
- Fifty-six percent of parents believe students need physical education five days per week.
- When asked about vending machine contents, 61 percent of parents believe that only healthy beverages should be sold in schools, and 52 percent believe that only healthy snacks should be sold in schools.

Parents and students were interviewed about the school-based BMI assessments that were conducted with students in kindergarten and grades 2 and 5, and parents were asked about the BMI reporting process.

- Fifty-seven percent of parents were very satisfied with the way BMI assessments were conducted at school.
- Comparisons of knowledge, attitudes and behaviors between parents of children who participated in BMI assessments and parents of children who did not participate in BMI assessments revealed no differences. This evaluation will continue to monitor these data over time.
- Fifteen percent of students who participated in the BMI assessments were embarrassed about the process, and 17 percent of participating students were at least somewhat concerned about the privacy of their results.

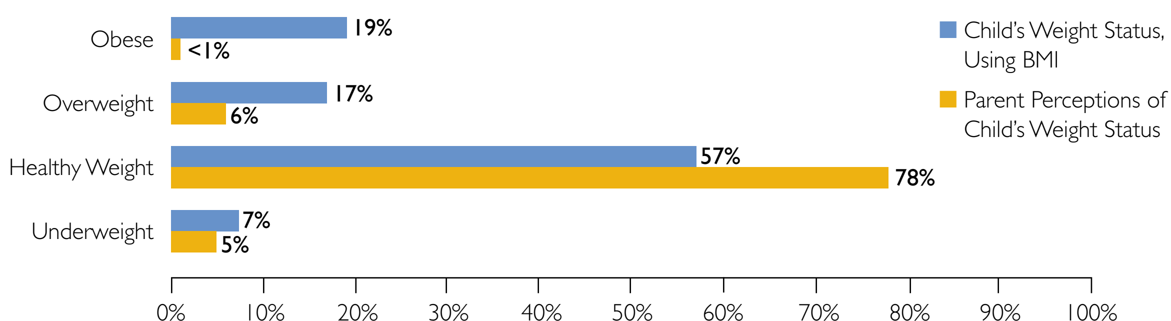
Parents were interviewed about their child's weight status and about childhood obesity in general.

- Many parents do not correctly perceive their child's weight status and are unaware of the health consequences associated with overweight and obesity. For example, as shown in Figure 4, 19 percent of children were classified as obese based on their BMI score, yet less than 1 percent of the parents identified their child as obese. As shown in Figure 5, fewer than one-third of parents associated childhood obesity with an increased risk of hypertension, high cholesterol or asthma.
- Only 26 percent of parents reported that their child's health care provider had discussed their child's weight status in the past two years.

Family nutrition and physical activity practices at home also were assessed.

- Eighty-six percent of students and 89 percent of parents eat less than the recommended amounts of fruits and vegetables, while 73 percent of students and 50 percent of parents engage in less than the recommended amounts of physical activity.
- Fifty-two percent of parents reported trying to improve the family diet to make it healthier.

FIGURE 4: CHILD'S WEIGHT STATUS COMPARED TO PARENT PERCEPTIONS



KEY FINDINGS FROM HEALTH CARE PROVIDERS

Health care providers throughout the state were surveyed about routine weight-related practices in their clinical work with children and families, and about the impact of the Healthy Lifestyles Act on their practice.

- Health care providers indicated parents were becoming more aware of their children's weight status and increasing their requests for guidance on child nutrition and exercise. As shown in Figure 6, 27 percent of providers noted an increase in parental concern about overweight and obesity, and 17 percent noted an increase in questions from parents about children's diets.
- Only 27 percent of health care providers reported calculating BMI percentiles when they measured children's height and weight, and 41 percent provided weight counseling to overweight or obese children during every visit.
- Barriers to providing weight counseling to families include limited reimbursement, time and limited access to referral sources. For example, 79 percent of providers would provide more weight counseling if the service was reimbursed.

When asked about the impact of the Act, one health care provider explained, "We have begun to incorporate more concrete guidelines for parents to use in helping their children with healthy diets and activity levels into the well child visits to augment these (school-based) efforts."

FIGURE 5: PARENT KNOWLEDGE OF HEALTH RISKS ASSOCIATED WITH CHILDHOOD OBESITY

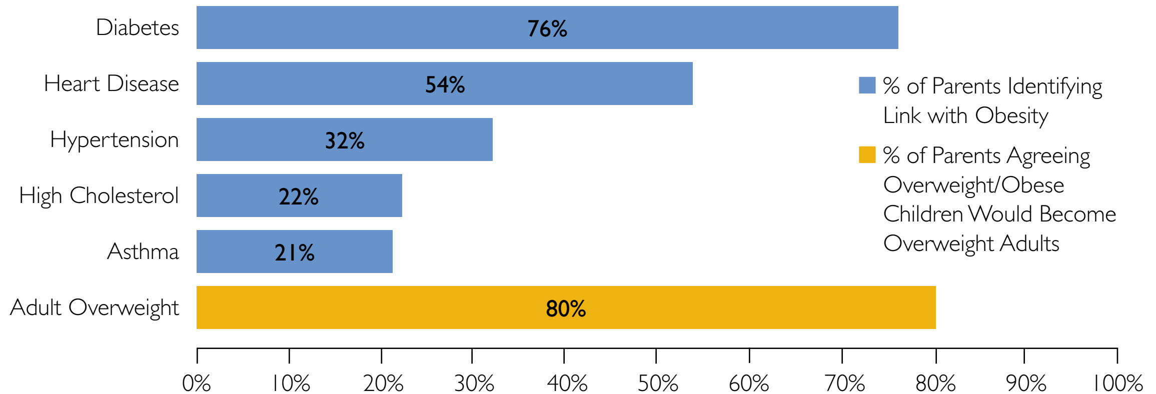
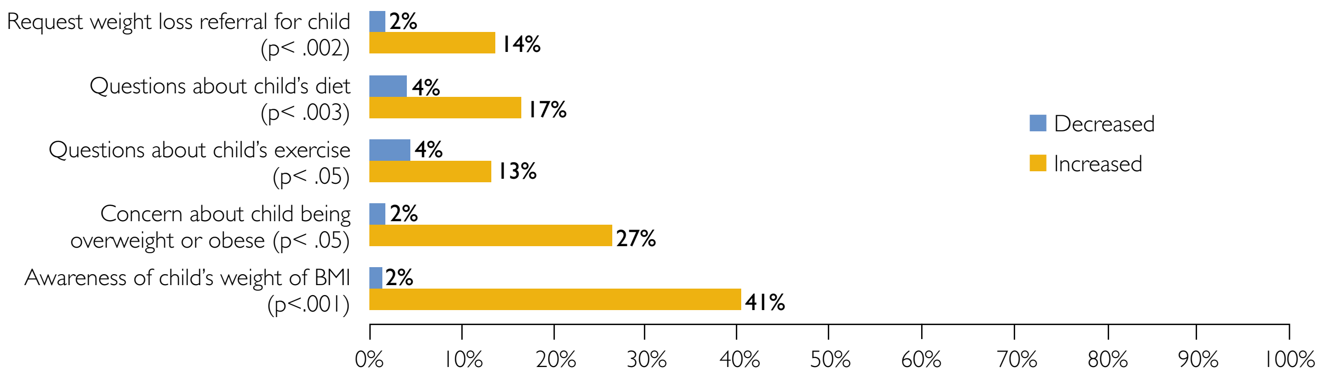


FIGURE 6: HEALTH CARE PROVIDER REPORTS OF PARENTAL CHANGES OVER THE PAST YEAR



RECOMMENDATIONS

Following are key recommendations based on the findings highlighted in this report. While state-level policy-makers are the primary audience for these recommendations, individual schools, local wellness councils, county school boards and health care providers also may consider implementing or developing similar policies in their respective settings to help support a healthier environment for children.

1. Increase physical activity for all students, with an emphasis on moderate to vigorous physical activity. According to the Institute of Medicine[2], students should achieve at least half of their recommended 60 minutes of daily moderate to vigorous physical activity while at school.
2. Expand opportunities for students and parents to learn about and participate in programs related to healthy eating, regular physical activity and obesity prevention.
3. Promote the use of available data and evidence-based decision-making for curriculum planning and policy development that will lead to greater use of best practices.
4. Identify strategies to promote practices by health care providers that include:
   - routine calculation of children's BMI percentiles;
   - educating and encouraging healthy lifestyle behaviors; and
   - regular and ongoing weight counseling for families and children.

   These recommendations are consistent with those provided by the American Academy of Pediatrics[3] and an expert committee that was convened by the American Medical Association and the Centers for Disease Control and Prevention in 2005.[4]
5. Identify and address the barriers that are preventing the full implementation of the Health Education Assessment Project and create strategies to increase utilization of HEAP data as part of the curriculum planning process.

2. Institute of Medicine. *Preventing childhood obesity: Health in the balance.* Washington, DC: The National Academies Press; 2005.
3. American Academy of Pediatrics. Bright Futures Guidelines: Promoting Healthy Weight. Available at www.aap.org/obesity/HealthCareProviders.htm.
4. Barlow, SE and the Expert Committee. Expert Committee Recommendations Regarding the Prevention, Assessment and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. *Pediatrics.* 2007; 120. S164-192.

CONCLUSION

This initial evaluation of efforts to implement the Healthy Lifestyles Act suggests that there is an increased awareness of student health status among school personnel, overall support for the school-based mandates and concern that insufficient resources are impeding progress. More time is needed to assess the full impact of the new policies on students, parents and schools across the state, and given the challenges schools face in implementing the Act's mandates, other measures likely will be needed to reverse West Virginia's childhood obesity epidemic. The new policies mandated by the Healthy Lifestyles Act and the evaluation of efforts to implement the new legislation serve as an important starting point. The continued evolution of both the policies and the evaluation will be necessary to achieve the goal of a healthier West Virginia.

The evaluation of efforts to implement the Healthy Lifestyles Act is funded through the 2008-09 school year, and will continue beyond Year 2 if additional funding is secured. In addition to collecting data from school personnel, health care providers, parents and students, the evaluation will be broadened to include health education teachers. In Year 2 evaluation plans also include:

- assessing changes in the efforts to implement the Healthy Lifestyles Act and in the impact of the Act between Years 1 and 2;
- evaluating the impact of the new West Virginia Standards for School Nutrition;
- reviewing and evaluating revised Local Wellness Policies; and
- assessing the impact of changes in CARDIAC screening procedures on parental knowledge, attitudes, behaviors and satisfaction with BMI assessment.

In addition to these activities, the West Virginia evaluation team will continue to work with teams from five other states—Arkansas, Delaware, Mississippi, New York and Texas—that also are funded by the Robert Wood Johnson Foundation to evaluate their statewide childhood obesity policies. These collaborative efforts to assess and report on comprehensive policy initiatives to reduce childhood obesity will help inform local, state and national policy-makers and advocates who are working to improve health outcomes for children.

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