

Parent Youth and Policymaker Perspectives on the Mississippi Healthy Students Act of 2007: Year Two Findings

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EXECUTIVE SUMMARY AND KEY FINDINGS

The Mississippi Healthy Students Act of 2007 was enacted by the Mississippi Legislature to address the relationship between student inactivity and obesity. The goal of the Act is to improve the physical activity, nutrition and health education instruction for students in kindergarten through 12th grade.

Specifically, the Act seeks to:

- Improve physical education programs in Mississippi school districts;
- Improve school nutrition;
- Increase health education of K-12 student requirements

This report a) provides the second year data from parents, youth, as well as local, district and state level policymakers to assess the implementation status of the Mississippi Healthy Students Act of 2007 and b) serves to compare Year 2 (2010) to Year 1 (2009) data.¹

In 2010 (as in 2009), there is consensus among all groups interviewed and/or surveyed that childhood obesity continues to be a critical issue in Mississippi and while the state of Mississippi is making progress to combat childhood obesity, there is much more that can be done by families, schools and communities to also reverse childhood obesity. Each of these groups and a summary of key findings of the Year 2 (2010) results by each group are reported below.

Key Findings: Parents of Public School Students

Beginning late April through June 2010, telephone surveys were completed by 3,755 parents who had at least one child attending Mississippi public schools in academic year 2009-2010. Overwhelming parent support for various components of the Mississippi Healthy Students Act of 2007 was evident in the following areas:

- Parents were extremely supportive of physical education requirements for all students (96.% in 2010, compared to 96.6% in 2009)

- Parents were strongly supportive that schools offer only healthy foods to children and increase physical education (95.9% in 2010, compared to 95.6% in 2009)
- Parents of young children (age 5-6 years of age) were more likely to report their child as being obese, compared to parents of older aged children. In fact, 45% of parents reported their young child as being obese with an additional 13% noting that their child was overweight, based upon BMI calculations conducted by the research team, resulting in 58% of very young children being overweight or obese.
- Parents reported that among children described as mostly 'A' students, 54.3% were classified as normal weight and 20.5% were classified as obese. In contrast, among children described as 'F' students, 25% were classified as normal weight and 33.3% were classified as obese. These statistics suggest that children with lower grades are more likely to be obese.
- Parents reported that children in homes with a household income of \$20,000 or less, 47.8% were classified as normal weight and 26.8% were classified as obese. In contrast, among children in the most affluent households (household income of \$100,000 or more), 65.9% were classified as normal weight and 8.7% were classified as obese. These statistics suggest that children in more affluent households are less likely to be obese.

There was less awareness reported on other key components that promote healthy school environments, such as:

- Of the 3,755 parents responding in 2010, approximately one fifth (21.8%) stated that their child's school had a health committee, council or task force, compared to one fourth (25.6%) in 2009.

Within their home environments, parents reported the following:

- Eighty (80) percent respondents in 2010 stated that they or their families have tried to change their diet to a healthier eating pattern within the past year.
- Almost half (46.3%) of parents in 2010 reported serving sodas to their families 4-7 days per week compared to approximately one third (35.8%) in 2009 who reported that sodas were served 4-7 days per week.
- Parents reported that the level of decrease in physical activity decreased from 5.8% in 2009 to 4.3% in 2010

When asked about their support of *potential* new school policies, parents reported the following:

- The vast majority of parents continued to be supportive of schools collecting information on children's height and weight and giving the report to parents (82.1% in 2010 compared to 85.3% in 2009)
- Approximately forty percent (41.5%) of parents in 2010 reported that public school facilities are available for individuals within the community to use for physical activity outside the school hours, compared to 46.5% in 2009

Key Findings: Youth

During the same time frame that parents were interviewed (May 2010 through June 2010), telephone surveys were completed on 260 youth (age 14 and over) who attend public schools and whose parents gave permission to interview the youth. Although Year 2 (2010) reflects an increase in sample size compared to 2009, it remains too small to make generalizations; however, the adolescents' answers do give voice to several areas that impact child and youth obesity and as in 2009.

- Regarding health education in school, this finding remained high, with more than eighty percent (84.6%) of adolescents surveyed in 2010 reporting that they had learned the importance of healthy eating and physical activity in maintaining a healthy weight compared to 88.7% in 2009.
- Approximately 40% reported that sodas were served to their families 4-7 days per week in 2010, compared to 37.3% in 2009.

Key Findings: State and District Policymakers

In addition to parents and youth, policymakers at the state level and district levels are clearly important to the success of the Mississippi Healthy Students Act of 2007. For these groups of individuals, the primary methodology was a qualitative approach, although there were some questions that resulted in respondents providing quantitative responses. As in 2009, researchers in 2010 also employed a mixed-method of interviews (i.e., telephone, face-to-face and electronic responses) with the following groups of policy and decision-makers: Mississippi State Department of Education Board Members, Mississippi State Board of Health members, Mississippi State Department of Health district health officers and some Mississippi legislators. All of these groups continued to consistently rank the prevention of childhood obesity as a very important issue in Mississippi. While the interview guides were tailored to each group of policymakers to some degree, there was also considerable overlap among many items, in order to make valid comparisons among groups interviewed.

Key Findings: Mississippi State Department of Education Board Members

Of the nine State Board of Education members, six agreed to complete an interview, yielding a response rate of 66.6%. Some of the qualitative themes identified among this group of interviews included:

- Health education is the most important component of the Mississippi Healthy Students

Act of 2007 followed by improving school nutrition; Positive opinions about the Mississippi Healthy Students Act were held by Board of Education members, state school districts and educators;

- Members agreed the State Department of Education plays an important role on most, if not on all levels of obesity prevention;
- Members report that the most effective ways to measure the Act's success are reducing the number of Mississippi children who are obese and improving children's overall health over time;
- Board of education members understand the importance of having facilities available to exercise. Most of the board members felt that the local government as well as the schools should work together to make these facilities more readily available to the community. Board of Education members perceive reducing obesity as a collaborative endeavor of families, community leaders, and key providers of community services.

Among the quantitative findings from the interviews, the Mississippi State Board of Education members, as a group, had the following responses. (Note: For a full description of 2010 responses, as well as comparisons to 2009 responses, see Appendix B).

- On a scale of 1 – 5, with 5 being the most important, Mississippi Board of Education members, on average, reported that the prevention of childhood obesity was very important (.8). Mississippi Board of Education members responded that current policies could be more effective in addressing childhood obesity. On a scale of 1 to 5, with 5 being very effective, the average score was 3.5. Board of Education members were asked to rank target areas by level of importance with 5 being the most important and 1 being the least important. Each of the following three categories received the highest ranking of (4.5) increasing children's consumption of fruits and

vegetables, decreasing consumption of sugary beverages and decreasing consumption of sugary beverages , followed closely by increasing physical activity (4.3)

- Board of Education members ranked other variables that may have an impact on childhood obesity in Mississippi. A ranking of 5 meant that the factor has a very large impact on childhood obesity. A ranking of 1 meant that it has no impact on childhood obesity. The 4 variables that received the highest average rankings are as follows:

- Fat and trans fat restrictions (4.3)
- Child care centers (4.2)
- Media policy (restrictions on advertising, promoting positive messages (3.8)
- Built environments (3.5)

One hundred percent (100%) of Board of Education respondents believe that local government funds should be used to build and maintain places in the community where people can exercise.

- One hundred percent (100%) of Board of Education members surveyed reported that school facilities such as track, ball fields, and playgrounds should be made available to the community after school hours to promote physical activity.
- One hundred percent (100%) of the Board of Education members who responded were in favor of collecting information in order to determine students Body Mass Index (BMI). For those who were in favor of collecting the information, all were in favor of sending it to the students' parents.

Key Findings: Mississippi State Department of Health Board Members

Of the nine State Board of Health members, five agreed to complete an interview, yielding a response rate of 55%. Of these respondents, the Board of Health members reported:

- Very positive responses from individuals and health department district personnel regarding the Mississippi Healthy Students Act of 2007. Respondents emphasized that there is both positive response to the Act and an excitement and enthusiasm over the potential impact the Act will have on the physical well-being of Mississippi school children. Respondents noted that the positive responses to the Mississippi Healthy Students Act encompasses a community-wide base of support that includes educators, nurses, health department personnel, physicians, and school council members:
 - Perceived the State Health Department as playing a vital role in obesity prevention in the state. Specifically, respondents see the State Health Department as a key resource within communities and a clearinghouse for the dissemination of educational information on obesity and the importance of childhood nutrition
 - Recognized that improving the health of Mississippi school children and decreasing obesity is a long-term process that will require continued oversight and implementation of programs to enhance and support the overall goals of the Mississippi Healthy Students Act
 - Supported, overwhelmingly, the use of local government funds to build and maintain community exercise resources. These responses indicate that board members recognize the importance of making health, nutrition, and physical exercise a key component of healthy living
 - On a scale of 1 – 5, with 5 being the most important, Board of Health respondents, on average, reported that the prevention of childhood obesity was very important (5.0)
 - Board of Health members were asked to rank target areas by level of importance with 5 being the most important and 1 being the least important. Respondents noted that decreasing consumption of sugary beverages had the highest ranking (5.0), followed by increasing children’s consumption of fruits and vegetables had the next highest ranking at (4.8), closely followed by increasing children’s physical activity (4.7) and, encouraging breast feeding at 4.6.

- Board of Health members ranked other variables that may have an impact on childhood obesity in Mississippi. A ranking of 5 meant that the factor has a very large impact on childhood obesity. A ranking of 1 meant that it has no impact on childhood obesity. The highest average rankings were tied at 4.8 and included the following: Child care centers and built environments (sidewalks, parks, green space, and bike lanes). Also receiving high rankings were: media policy messages (restrictions on advertising and promoting positive messages), farmers' markets, BMI reporting of children's height and weights and fat & Trans fat restrictions (4.4).
- One hundred percent (100%) of Board of Health members surveyed believed that local government funds should be used to build and maintain places in the community where people can exercise

Key Findings: Mississippi State Department of Health District Health Officers

Each of the six State Department of Health district health officers agreed to complete an interview, yielding a response rate of 100%. Among qualitative findings, some of the themes that emerged are noted below:

- When asked to state reactions of individuals with whom they interact, respondents' answers were mixed, ranging from enthusiastically endorsing to minimal support or no knowledge of the Healthy Students Act of 2007.
- The overwhelming majority (83.3%) of the health officers see a distinct role for district and county health offices in obesity prevention programs.
- All interview respondents supported the use of government funds to build and maintain places in local communities that can be designated for exercise activities. The unanimity of responses

reflects the degree of importance placed on physical exercise as an integral component of overall health by respondents.

Among the quantitative findings from the interviews, the Mississippi State Department of Health district health officers, as a group, had the following responses.

- On a scale of 1 – 5, with 5 being the most important, Mississippi district health officers, on average, reported that the prevention of childhood obesity was very important (5.0)
- District health officers ranked target areas that can be addressed by public health, by level of importance, with 5 being the most important and 1 being least important. The four (4) variables that received the highest average rankings were:
 - Decreasing consumption of sugary beverages (5.0)
 - Increasing physical activity (4.8)
 - Increasing consumption of fruits and vegetables (4.2)
 - Encouraging breastfeeding (4.0)

Key Findings: State Legislators

Twelve of the twelve legislators (six senators and six representatives) contacted agreed to complete an interview, resulting in a response rate of 100%. Qualitative themes identified among this group of interviews included:

- Overall, Representatives and Senators identified improving nutrition as the most important component of the Mississippi Healthy Students Act of 2007, followed by increasing health education, and lastly, increasing physical education.

- Among Representatives, improving nutrition and increasing health education in public schools were identified as the most important components of the Mississippi Healthy Students Act;
- Among Senators, increasing physical education and improving nutrition were identified as the most important components.

When asked about their perceptions regarding the general consensus of the House and Senate, respectively, on maintaining improvements made by the Mississippi Healthy Students Act of 2007:

- Senators expressed positive sentiments about the Mississippi Healthy Students Act of 2007 and a majority expressed support for maintaining the program in the future.
- Representatives also expressed support for maintaining the Act and for assessing the success of the legislation before moving forward with additional funding.
- Overall, both Senators and Representatives who were interviewed felt the school districts they represent were responding positively to the Mississippi Healthy Students Act of 2007, although it is still too new and early to see the full effect of the legislation.
- Senators believe school policies on health education have been strengthened. In contrast, House members disagreed, stating more changes are needed. Both House and Senate members stated additional improvements to physical education are needed but were divided on how best to accomplish this goal.
- Overall, legislators expressed a sense of pride about the accomplishments of the Healthy Students Act of 2007 and believe time will be a powerful indicator of the Act's success in addressing

childhood obesity. Of the respondents, many noted that the focus should now be directed toward educating communities on the Mississippi Healthy Students Act and the importance of health. Among the quantitative findings from the interviews, the Mississippi legislators, as a group, had the following responses:

- On a scale of 1 – 5, with 5 being the most important, legislators, on average, reported that the prevention of childhood obesity was very important (4.5).
- On a scale of 1-5, with 5 being that the state of Mississippi is doing all it can and 1 being Mississippi has only enacted minimal policy to address childhood obesity, legislators, on average, reported 2.7.
- One hundred percent (100%) of legislators surveyed felt that schools should promote healthy lifestyles for students and 91.7% think it is important for staff to promote healthy lifestyles.
- Legislators, in general, feel that more should be done to strengthen school policies in the areas of physical education and health education, in particular, while a much lower percentage of legislators noted that more should be done in nutrition.

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During the same time frame that parents were interviewed (May 2010 through June 2010), telephone surveys were completed on 260 youth (age 14 and over) who attend public schools and whose parents gave permission to interview the youth. Although Year 2 (2010) reflects an increase in sample size compared to 2009, it remains too small to make generalizations; however, the adolescents' answers do give voice to several areas that impact child and youth obesity and as in 2009.

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- Approximately 40% reported that sodas were served to their families 4-7 days per week in 2010, compared to 37.3% in 2009.

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Of the nine State Board of Education members, six agreed to complete an interview, yielding a response rate of 66.6%. Some of the qualitative themes identified among this group of interviews included:

- Health education is the most important component of the Mississippi Healthy Students Act of 2007 followed by improving school nutrition; Positive opinions about the Mississippi Healthy Students Act were held by Board of Education members, state school districts and educators;
- Members agreed the State Department of Education plays an important role on most, if not on all levels of obesity prevention;
- Members report that the most effective ways to measure the Act's success are reducing the number of Mississippi children who are obese and improving children's overall health over time;

- Board of education members understand the importance of having facilities available to exercise. Most of the board members felt that the local government as well as the schools should work together to make these facilities more readily available to the community. Board of Education members perceive reducing obesity as a collaborative endeavor of families, community leaders, and key providers of community services.

Among the quantitative findings from the interviews, the Mississippi State Board of Education members, as a group, had the following responses. (Note: For a full description of 2010 responses, as well as comparisons to 2009 responses, see Appendix B).

- On a scale of 1 – 5, with 5 being the most important, Mississippi Board of Education members, on average, reported that the prevention of childhood obesity was very important (.8). Mississippi Board of Education members responded that current policies could be more effective in addressing childhood obesity. On a scale of 1 to 5, with 5 being very effective, the average score was 3.5. Board of Education members were asked to rank target areas by level of importance with 5 being the most important and 1 being the least important. Each of the following three categories received the highest ranking of (4.5) increasing children’s consumption of fruits and vegetables, decreasing consumption of sugary beverages and decreasing consumption of sugary beverages, followed closely by increasing physical activity (4.3)
- Board of Education members ranked other variables that may have an impact on childhood obesity in Mississippi. A ranking of 5 meant that the factor has a very large impact on childhood obesity. A ranking of 1 meant that it has no impact on childhood obesity. The 4 variables that received the highest average rankings are as follows:
 - Fat and trans fat restrictions (4.3)
 - Child care centers (4.2)

- Media policy (restrictions on advertising, promoting positive messages (3.8)

Built environments (3.5)

One hundred percent (100%) of Board of Education respondents believe that local government funds should be used to build and maintain places in the community where people can exercise.

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Of the nine State Board of Health members, five agreed to complete an interview, yielding a response rate of 55%. Of these respondents, the Board of Health members reported:

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- Perceived the State Health Department as playing a vital role in obesity prevention in the state. Specifically, respondents see the State Health Department as a key resource within communities and a clearinghouse for the dissemination of educational information on obesity and the importance of childhood nutrition

- Recognized that improving the health of Mississippi school children and decreasing obesity is a long-term process that will require continued oversight and implementation of programs to enhance and support the overall goals of the Mississippi Healthy Students Act
- Supported, overwhelmingly, the use of local government funds to build and maintain community exercise resources. These responses indicate that board members recognize the importance of making health, nutrition, and physical exercise a key component of healthy living
 - On a scale of 1 – 5, with 5 being the most important, Board of Health respondents, on average, reported that the prevention of childhood obesity was very important (5.0)
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 - Board of Health members ranked other variables that may have an impact on childhood obesity in Mississippi. A ranking of 5 meant that the factor has a very large impact on childhood obesity. A ranking of 1 meant that it has no impact on childhood obesity. The highest average rankings were tied at 4.8 and included the following: Child care centers and built environments (sidewalks, parks, green space, and bike lanes). Also receiving high rankings were: media policy messages (restrictions on advertising and promoting positive messages), farmers’ markets, BMI reporting of children’s height and weights and fat & trans fat restrictions (4.4).

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Key Findings: Mississippi State Department of Health District Health Officers

Each of the six State Department of Health district health officers agreed to complete an interview, yielding a response rate of 100%.

Among qualitative findings, some of the themes that emerged are noted below:

- When asked to state reactions of individuals with whom they interact, respondents' answers were mixed, ranging from enthusiastically endorsing to minimal support or no knowledge of the Healthy Students Act of 2007.
- The overwhelming majority (83.3%) of the health officers see a distinct role for district and county health offices in obesity prevention programs.
- All interview respondents supported the use of government funds to build and maintain places in local communities that can be designated for exercise activities. The unanimity of responses reflects the degree of importance placed on physical exercise as an integral component of overall health by respondents.

Among the quantitative findings from the interviews, the Mississippi State Department of Health district health officers, as a group, had the following responses.

- On a scale of 1 – 5, with 5 being the most important, Mississippi district health officers, on average, reported that the prevention of childhood obesity was very important (5.0)

- District health officers ranked target areas that can be addressed by public health, by level of importance, with 5 being the most important and 1 being least important. The four (4) variables that received the highest average rankings were:
 - Decreasing consumption of sugary beverages (5.0)
 - Increasing physical activity (4.8)
 - Increasing consumption of fruits and vegetables (4.2)
 - Encouraging breastfeeding (4.0)

Key Findings: State Legislators

Twelve of the twelve legislators (six senators and six representatives) contacted agreed to complete an interview, resulting in a response rate of 100%. Qualitative themes identified among this group of interviews included:

- Overall, Representatives and Senators identified improving nutrition as the most important component of the Mississippi Healthy Students Act of 2007, followed by increasing health education, and lastly, increasing physical education.
- Among Representatives, improving nutrition and increasing health education in public schools were identified as the most important components of the Mississippi Healthy Students Act;
- Among Senators, increasing physical education and improving nutrition were identified as the most important components.

When asked about their perceptions regarding the general consensus of the House and Senate, respectively, on maintaining improvements made by the Mississippi Healthy Students Act of 2007,

- Senators expressed positive sentiments about the Mississippi Healthy Students Act of 2007 and a majority expressed support for maintaining the program in the future.

- Representatives also expressed support for maintaining the Act and for assessing the success of the legislation before moving forward with additional funding.
- Overall, both Senators and Representatives who were interviewed felt the school districts they represent were responding positively to the Mississippi Healthy Students Act of 2007, although it is still too new and early to see the full effect of the legislation.
- Senators believe school policies on health education have been strengthened. In contrast, House members disagreed, stating more changes are needed. Both House and Senate members stated additional improvements to physical education are needed but were divided on how best to accomplish this goal.
- Overall, legislators expressed a sense of pride about the accomplishments of the Healthy Students Act of 2007 and believe time will be a powerful indicator of the Act's success in addressing childhood obesity. Of the respondents, many noted that the focus should now be directed toward educating communities on the Mississippi Healthy Students Act and the importance of health. Among the quantitative findings from the interviews, the Mississippi legislators, as a group, had the following responses:
 - On a scale of 1 – 5, with 5 being the most important, legislators, on average, reported that the prevention of childhood obesity was very important (4.5).
 - On a scale of 1-5, with 5 being that the state of Mississippi is doing all it can and 1 being Mississippi has only enacted minimal policy to address childhood obesity, legislators, on average, reported 2.7.

- One hundred percent (100%) of legislators surveyed felt that schools should promote healthy lifestyles for students and 91.7% think it is important for staff to promote healthy lifestyles.
- Legislators, in general, feel that more should be done to strengthen school policies in the areas of physical education and health education, in particular, while a much lower percentage of legislators noted that more should be done in nutrition.

Key Findings: District Superintendents of Education

Telephone surveys were conducted during July to late-August, 2010 with 104 completing surveys. Key findings included the following:

- School superintendents (92.3%) in 2010 reported that they were very satisfied or somewhat satisfied with the progress their school districts are making in creating a healthy school environment.
- Sixty four percent (64.4%) of superintendents in 2010 responded that there is a health council within each school in their district, reflecting a decrease of 14.76% compared to 2009, reflecting a statistically significant difference. School superintendents (31.7%) reported that their school districts have adopted a policy to prohibit the use of food or food coupons as a reward for good behavior or good academic performance. While not statistically significant from 2009 data, this does reflect an increase of 8.1% change over 2009.
- School superintendents (83.7%) reported that their communities were either very supportive or somewhat supportive of promoting physical education, nutrition and health education in their schools.

- School superintendents (66.3%) reported that there is a strong or very strong association between the implementation of the Coordinated School Health Programs and the students' academic performance.
- School superintendents (62.5%) noted that they are in favor of collecting BMIs on children, and 89.2 % of those superintendents are in favor of sending BMI results home to parents.
- School superintendents (61.5%) reported that their school districts conduct fitness testing and of those superintendents, 90.6% are in favor of sending the children's testing information to their parents.

Key Findings: Local School Board Members

Paper surveys were conducted during 2010, with 251 surveys returned.

- School board members reported (84.3%) that they are very satisfied or somewhat satisfied with the progress their school districts are making in creating a healthy school environment. Of school board members responding almost forty four percent (43.9%) reported that their district does have a health council within each school of their district, compared to 33.3% in 2009, and reflects a statistically significant increase.
- School board members (21.8 %).reported that their school districts have adopted a policy to prohibit the use of food or food coupons as a reward for good behavior or good academic performance with an additional 17.7% of school board members noting that they recommend against this.
- School board members (72.9%) report that the level of community support on promoting physical education, nutrition and health education within the schools as either very or somewhat supportive.

- School board members (58.8%) reported that there is a great deal or a fair amount of positive associations that exist between the implementation of Coordinated School Health Programs and the students' academic performance.
- School board members (63.6%) noted that they are in favor of collecting BMIs on children, and 78.8 % of those school board members are in favor of sending BMI results home to parents.
- School board members (90.6%) stated they are in favor of sending children's fitness testing information to their parents, although only one third (33.6%) of school board members noted that schools in their district conducted fitness testing.

In sum, there is a strong awareness of childhood obesity as an important problem in Mississippi as well as an increased recognition that both the antecedents and solutions to curbing and reversing childhood obesity are multi-faceted. Parents reported that they are trying to make healthy improvements within their households, yet the increase in servings of soft drinks within their households increased, reflecting a statistically significant increase between 2009 and 2010. Parents also believe that the school system is a key stakeholder in making improvements. Youth reported that parents had decreased the amount of screen time, particularly TV and video game time, although there was little change in computer screen time. Parents are supportive of nutritional changes in schools as well as increases in physical education requirements. There was also a lack of awareness by parents of the range of health and other concerns that are strongly associated with childhood overweight or obesity.

In addition, there is strong support for *both* fitness and BMI assessments to be conducted with reports being sent to parents. An increase in awareness of their child's school having a health council was noted.

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In addition, there is strong support for *both* fitness and BMI assessments to be conducted with reports being sent to parents. An increase in awareness of their child's school having a health council was noted.

INTRODUCTION AND BACKGROUND

Importance of the Study: Childhood/Adult Obesity Rates

The literature is clear that the causes of overweight and obesity in children and adults are multi-faceted. Given that Mississippi's rates of childhood and adult obesity continue to be the highest in the United States (i.e., 33.8 % for adults and 21.9% for children) ¹, it is of critical importance to measure determinants at the individual, family, community and policy levels. As described in the Parent, Youth and Policymakers Perspectives on the Mississippi Healthy Students Act of 2007 (Year 1 Report), the Center for Mississippi Health Policy was awarded Robert Wood Johnson Foundation funding (October, 2008) to facilitate the evaluation of the Mississippi Healthy Students Act of 2007. As part of this evaluation, Mississippi State University's (MSU) Social Science Research Center (SSRC) was awarded a subcontract to conduct parental and policymaker surveys as a part of the five year study. This is the 2nd year of the research study and, as in 2009; policymakers (key legislators, Mississippi State Board of Education members, Mississippi State Board of Health members, and Mississippi State Department of Health district health officers) were interviewed by SSRC researchers in person, by phone or electronic mail. At the local level, superintendents of education and school board members were surveyed.

Across the lifespan, evidence continues to mount, that by exercising regularly and making healthy food choices substantially increase favorable outcomes. While this is true for all age groups, it is of particular importance for children, whose early habits often set a trajectory of long-term outcomes. For children who are obese, the probability for asthma, type 2 diabetes and heart disease are much more likely than children who are not obese ². Indeed, an earlier study

published in *Pediatrics* noted that children as young as six to eight years of age who were obese had a tenfold increase of becoming obese as adults, compared to children who were not obese.³ More recent studies, specific to Mississippi, have also found strong associations between children's academic performance and their fitness level (i.e., children with higher academic performance were more likely to be physically fit compared to children who were not physically fit)⁴. The physical, educational and resultant emotional costs also yield increased economic costs. Clearly, any of the individual variables noted above decrease quality of life for the children and their families, but when taken together, the cumulative costs underscore the critical need for reversing the epidemic of childhood obesity.

The passage of the Mississippi Healthy Students Act of 2007 continues to provide a research base by which the important roles and opportunities school environments have in preventing, curbing, and reversing Mississippi's childhood obesity rates can be measured over time. This legislation centers on three primary areas associated with the prevention of obesity: increasing physical activity, promoting sound nutrition and providing solid health education within all school districts in the state.⁵

The research findings from the second year's evaluation of the Mississippi Healthy Students Act of 2007 provides an opportunity to determine ways by which specific components of children and adolescents' home and school environments influence their healthy choices compared to the baseline data collected in 2009. In each of the charts, graphs, and figures, significance levels are noted.

Overview of Evaluation: 2nd Year Findings and Comparison of Year 1 Findings

The second year of the evaluation began in January, 2010 and provides researchers an opportunity to not only report year 2 findings, but more importantly make a comparison between year 1 and year 2. For this report, we will note differences that are statistically significant as well as those that approach statistical significance (marginally significant), for readers to see changes. While only two years of point-in-time data do not equate to trends, it is important to see the direction of changes that are occurring since the implementation of the Healthy Students Act of 2007. It should also be noted that while many of the changes do not reflect statistical significance, it is important to view these findings in light of their practical significance.

Social Climate Approach

As in Year 1, the SSRC research team utilized a social climate approach in assessing parents, adolescents and policymaker's knowledge, beliefs and practices on a particular topic.

A social climate approach considers one particular topic and measures how the knowledge, attitudes and beliefs of an array of individuals and institutions, separately and collectively over time, influence the norms of a society that are related to that topic. The evaluation of school-related policies of the Mississippi Healthy Students Act of 2007 and associated rules and regulations lend itself to using a social climate approach. In order to examine the social climate of childhood obesity and school-related policies, the SSRC utilized a variety of methods to gauge social norms among the following groups: 1) parents of public school children and adolescents attending public schools and 2) local and state-level policymakers, including legislators, State Board of Health and State Board of Education members, superintendents, school board members, and district health officers.

PARENTS AND ADOLESCENTS

As in 2009, the 2010 parent survey was conducted to evaluate parental attitudes and changes in family environments and in children's health behaviors during the evaluation period. The overall purpose of the parent survey was to determine changes between baseline findings of 2009 and the current year (2010) in order to better understand how parents feel about and influence school health policies and to what extent family knowledge, attitudes, practices and constraints influence children's health and health behaviors, with special attention on variables influencing children and adolescents' weight. In addition, we sought to understand more about the potential change in their knowledge of the various components of the Mississippi Healthy Students Act of 2007, given that schools have now had approximately two years for implementation and continue to be important venues for conveying health information to the parents/families of school-aged children, as well as establishing and reinforcing health norms for children.

Goals of the Parent Surveys

In Year 2, we sought to not only determine parents' knowledge of and attitudes toward the Mississippi Healthy Students Act of 2007 and related policies that are being or have been implemented in Mississippi school systems, as we did in Year 1, but to also make comparisons between Year 1 & Year 2.

Similar to Year 1, it was important to understand the attitudes, practices and constraints within family environments around healthy eating and exercise. This understanding was critical in knowing a) how receptive the parents/families may be toward school health policies, and in turn, how these families may influence the enforcement of local school policies and b) to what extent any emerging change (or lack thereof) in children's practices may be attributed, in part, to family factors. By documenting nutrition and physical activity patterns in the home environment,

correlates of changes in children's health can be more easily identified (e.g., it can be determined if changes, or a lack thereof, are likely due to nutrition and/or physical activity patterns, and to what degree any alterations occurred at school versus at home environment).

In order to make comparisons across the nine (9) Mississippi public health districts, a sample of 400 respondents per district was needed. The sample for year 2 consisted of 3,755 respondents, a very similar sample size to year 1 consisting of 3,710 respondents. Survey instruments were similar between 2009 and 2010, although there were some changes on particular items and on response categories.

Goals of the Adolescent Surveys

The goals of the adolescent survey in 2010 were consistent with the goals in 2009, that is, we sought to ascertain adolescents' knowledge of and attitudes toward the Mississippi Healthy Students Act of 2007 and related policies that are being or have been implemented in Mississippi school systems.

Understanding the attitudes, practices and constraints within the youths' familial environments *from the youths' perspective* around healthy eating and exercise was critical in understanding similarities and/or differences that exist between parental reporting and youth reporting of factors influencing youth overweight and obesity, while also making comparisons between 2009 and 2010.

Methodology

Please note: In each of the following sections, all methodologies were approved by Mississippi State University's Institutional Review Board for Human Subjects prior to the data collection and each member of the Research Team is trained in Human Subjects protection.

Telephone survey of parents and children

Surveys were conducted by the Wolfgang Frese Survey Research Laboratory of the Social Science Research Center at Mississippi State University. The Mississippi Department of Education provided the telephone numbers of all parents in the state of Mississippi who had at least one child enrolled in a public school during the 2009-2010 school year. From this database of approximately 491,084 telephone numbers, a random sample of 34,856 numbers was drawn. The data collection period spanned from late-April to late-June of 2010.

As in Year 1, adolescents surveyed in year 2 were 14 years of age or older and a parent had given permission for the survey to be conducted. In 2010, a total of 260 adolescents answered questions about nutrition standards and vending machines, physical education and physical activity, and health education and health knowledge, compared to 150 adolescents in 2009. The sampling error for the total dataset (binomial response option with 50/50 split) is no larger than + or – 3.5% with a 95% confidence interval. Telephone numbers were dialed a maximum of eight times. There was a cooperation rate of 67.6%.

Findings

Parents' awareness of school district policies

Of the 3,755 adults who answered the survey in 2010, there was a general awareness and support of school policies related to decreasing childhood obesity and overweight.

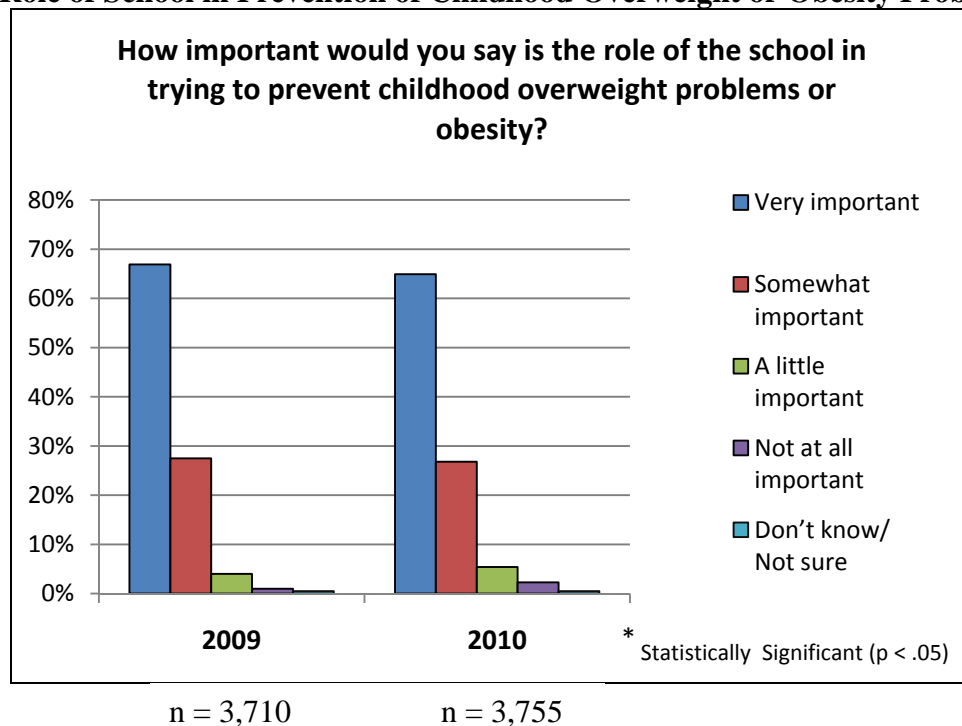
- Parents (96%) were still extremely supportive that schools should require physical education to all students, compared to 96.6% in 2009.
- Parents (95.9%) were strongly supportive that schools offer only healthy foods to children and to increase physical education compared to (95.6%) in 2009.

Table 1 Parents' opinion of schools requiring physical education for all students

Do you think the schools in your community should require physical education for all students?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	3,584	96.6	3,604	96	-0.60
No	100	2.7	118	3.1	-0.40
Don't know	25	.7	31	0.8	-6
Refuse	1	0.03	2	0.1	-1
Total	3,710	100	3,755	100	

State laws now require schools to offer only healthy foods to children and to increase physical education. Do you support this?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	3,546	95.6	3,576	95.9	-0.30
No	164	4.4	152	4.1	0.30
Total	3,710	100	3,728	100	

Figure 1. Role of School in Prevention of Childhood Overweight or Obesity Problem



When asked more about specific changes within the school environment in the following areas (all components of the Mississippi Healthy Students Act of 2007), parents reported the following:

Table 2

Are you aware of any changes in vending machines, school lunch choices, or physical exercise requirements at her school?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	1,634	44.0	1385	36.9	-7.1
No	1,959	52.8	2329	62.0	9.2
Not sure	114	3.1	41	1.0	-2.1
Refused	3	0.1	0	0.0	-0.1
Total	128	100	217	100	

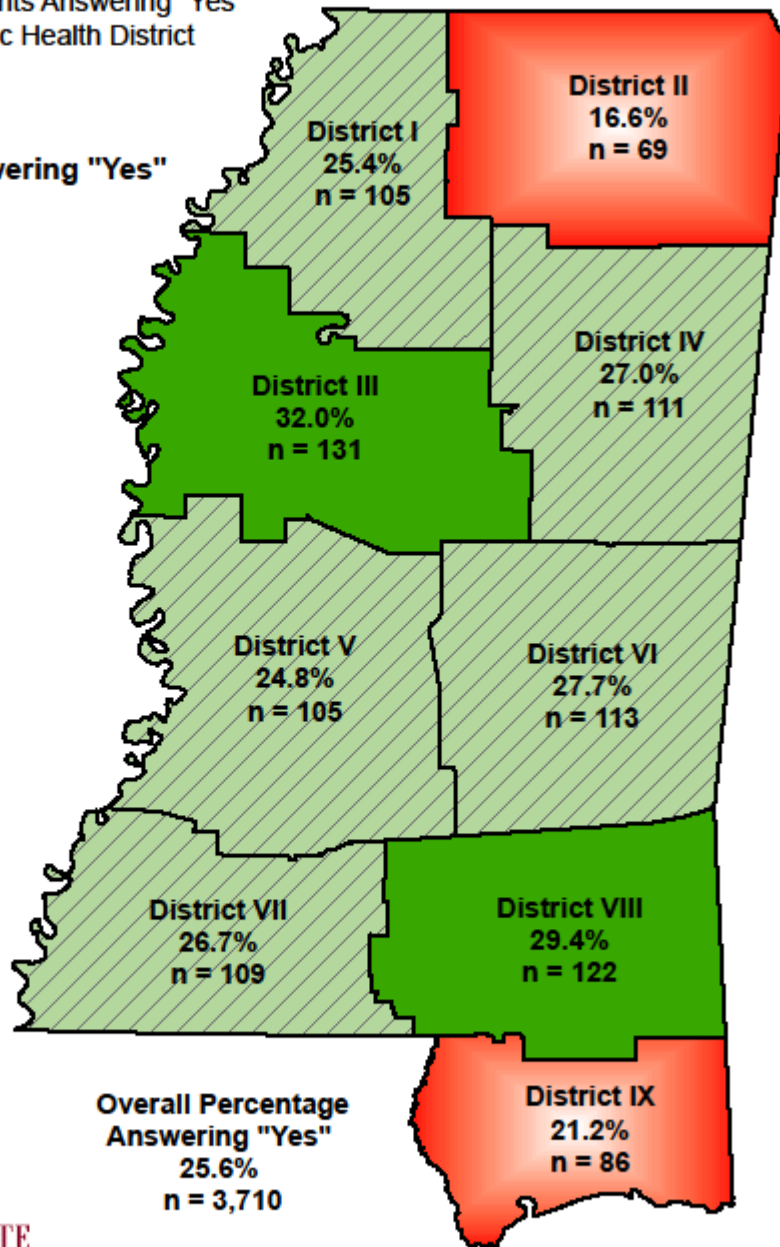
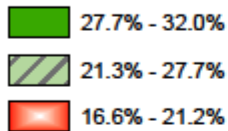
Does his/her school have a health committee, council or task force?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	951	25.6	831	21.7	-3.9
No	1401	37.8	1637	43.6	5.8
Not sure	1357	36.6	1305	34.8	-1.8
Refused	1	0.0	0	0.0	
Total	3,710	100	3,773	100	* YES

* Statistically Significant ($p < .05$)

**Figure 2. Does His/her School Have a Health Committee, Council or Task Force?
2009**

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

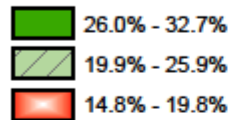
Percentage Answering "Yes"



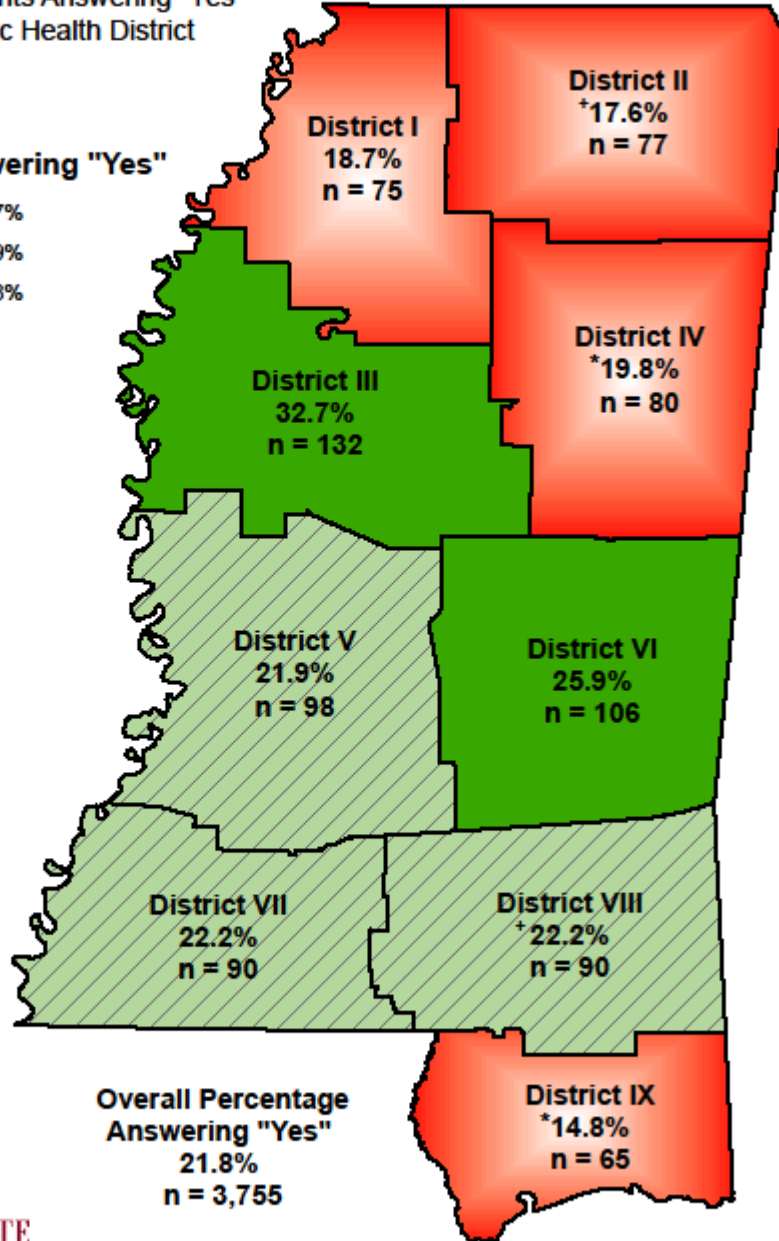
**Figure 3. Does His/her School Have a Health Committee, Council or Task Force?
2010**

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

Percentage Answering "Yes"



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**Overall Percentage
Answering "Yes"**
21.8%
n = 3,755

*Statistically Significant ($p < .05$)

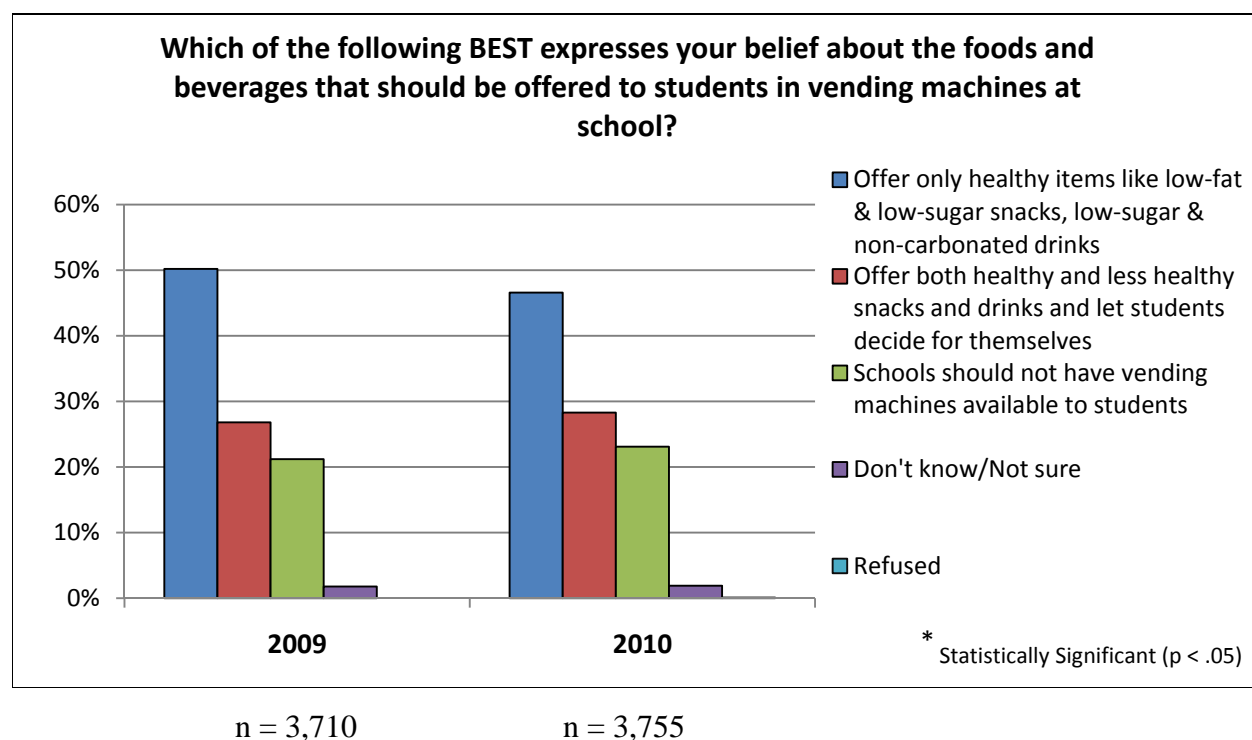
+ Marginally Significant ($p < .10$)

When comparing with 2009 data/map

Please note for each of the maps in this report: Three group ranges were chosen to geographically illustrate the survey results for nine Mississippi health districts. These ranges represent a relative high, medium and low percentage range for respondents answering "yes" to

each question. The classification method for determining the class intervals of these data is the Jenks' natural breaks method. This standard grouping method is part of ESRI's (Environmental Systems Research Institute) ArcMap® software. In general terms, the breaks in data are determined statistically by finding relatively large differences in adjacent values. Subsequently, each value is placed in one of the three categories.

Figure 4. Parents' beliefs about what should be offered to students in school vending machines



Family nutrition practices/knowledge

- Both parents (80%) and youth (74.2%) noted changes in trying to eat healthier within the past year
- The percentage of both parents and youth increased in those reporting that the number of days per week (4-7) their family drank soft drinks. Among parents this increase was statistically significant at the .05 level between Year 1 and Year 2

- When asked, “How many servings of fruits and vegetables should an individual eat, the vast majority of adults (74.1%) and youth (66.5%) reported 1-4 servings. The majority of parents (85.9 %) reported that their child regularly eats breakfast. Although an increase over 2009, less than one half (43.9% compared to 41.3%) of parents reported that they sit down to an evening meal together each night of the week

Figure 5:

2010

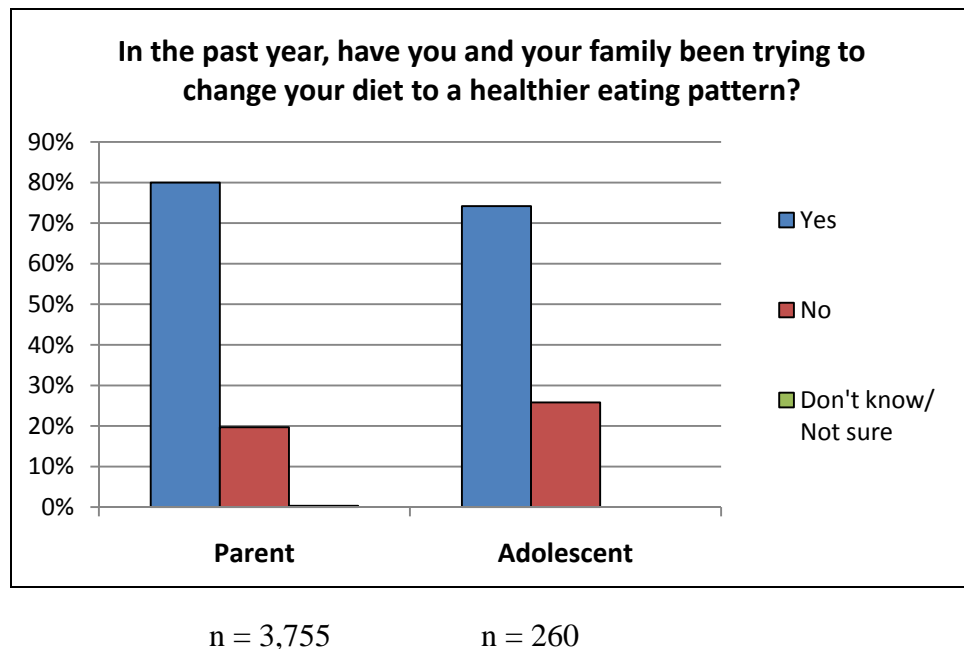


Figure 6. Number of Sodas Served within the Past Week

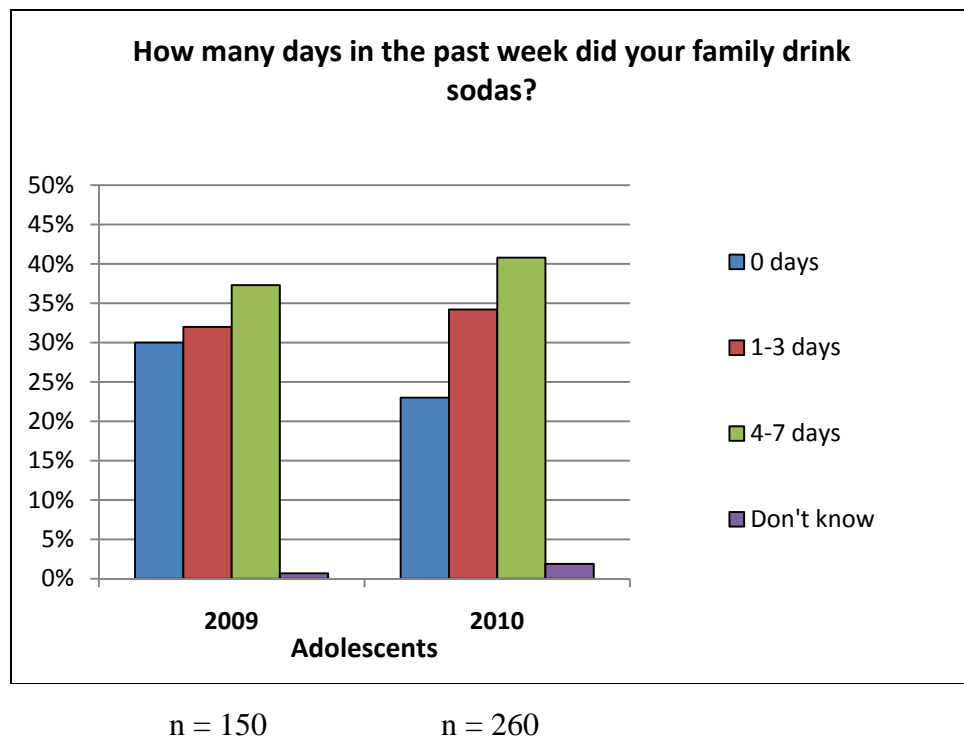
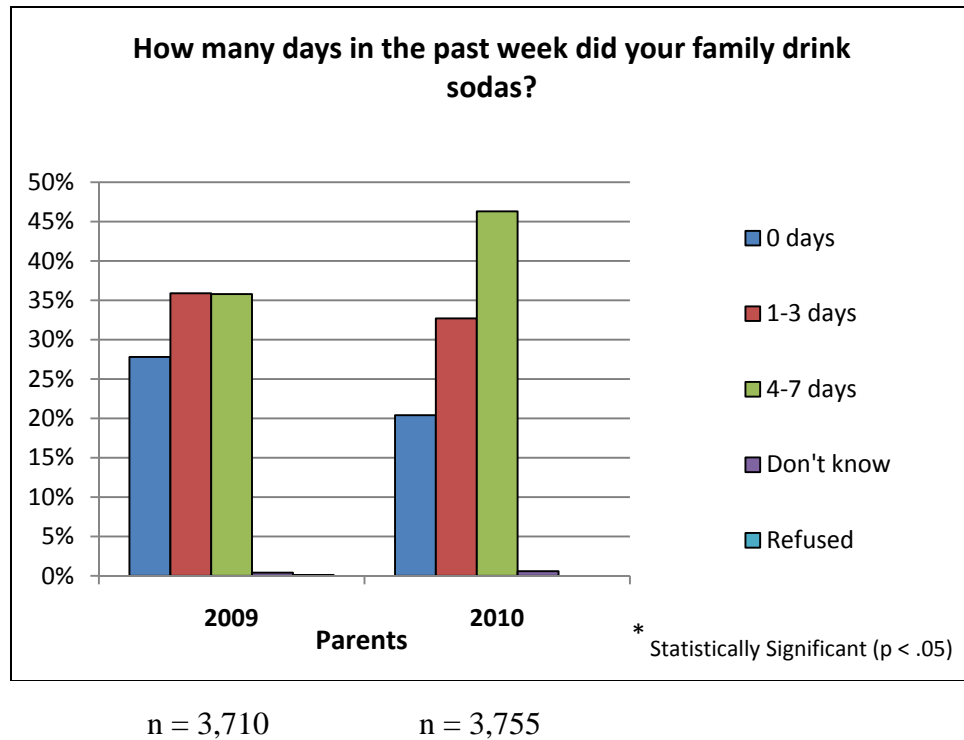


Figure 7

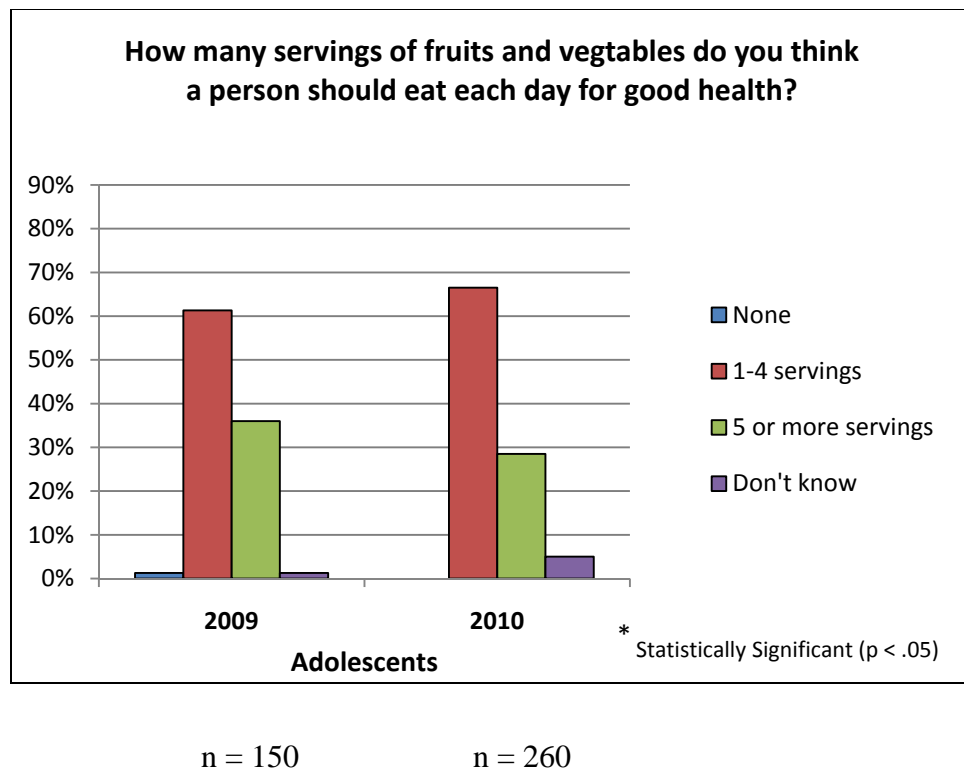
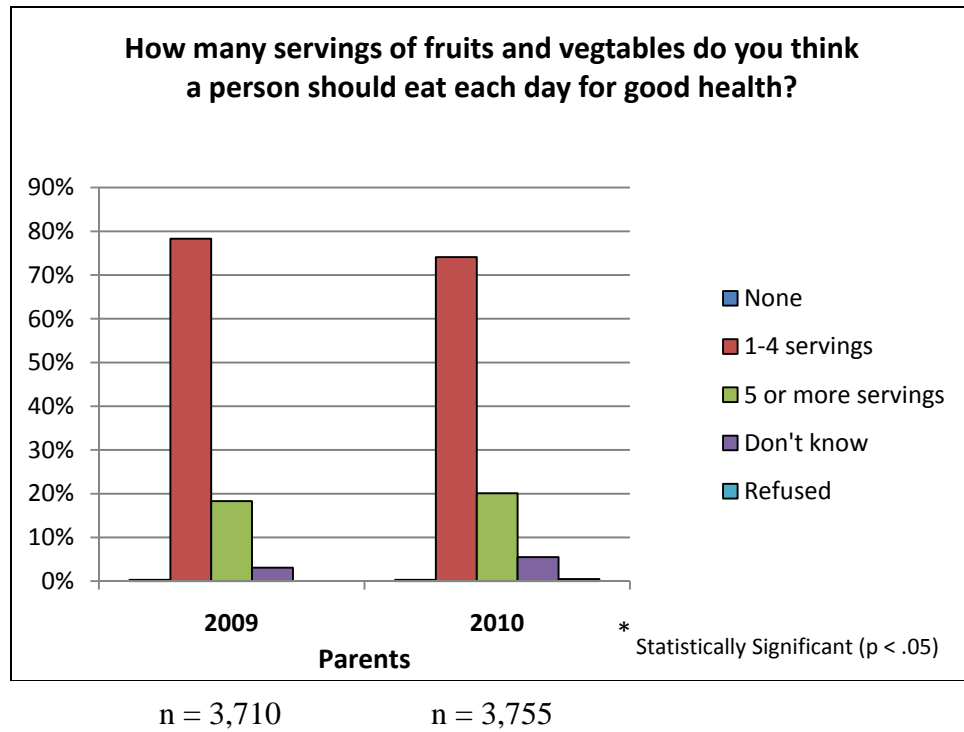


Figure 8

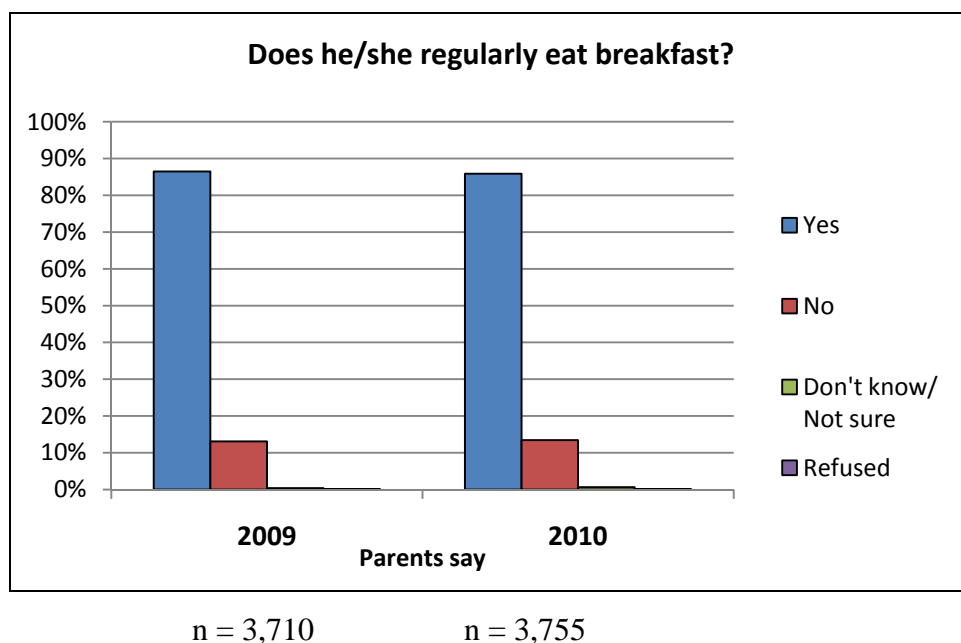
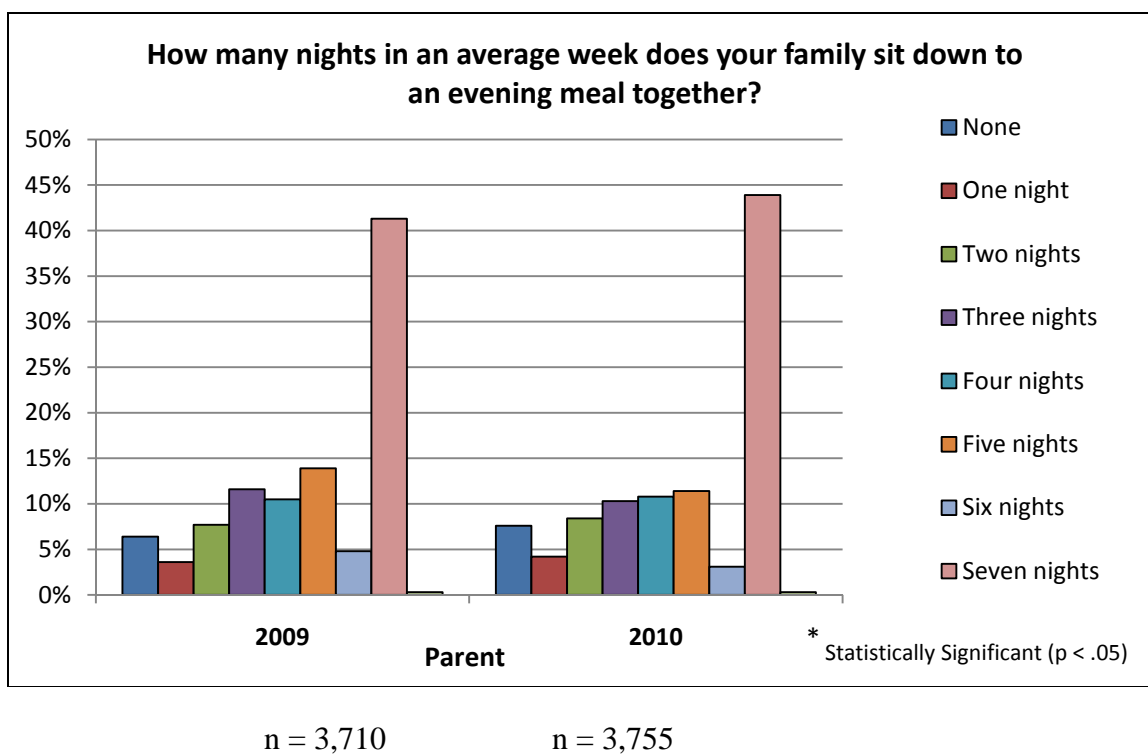


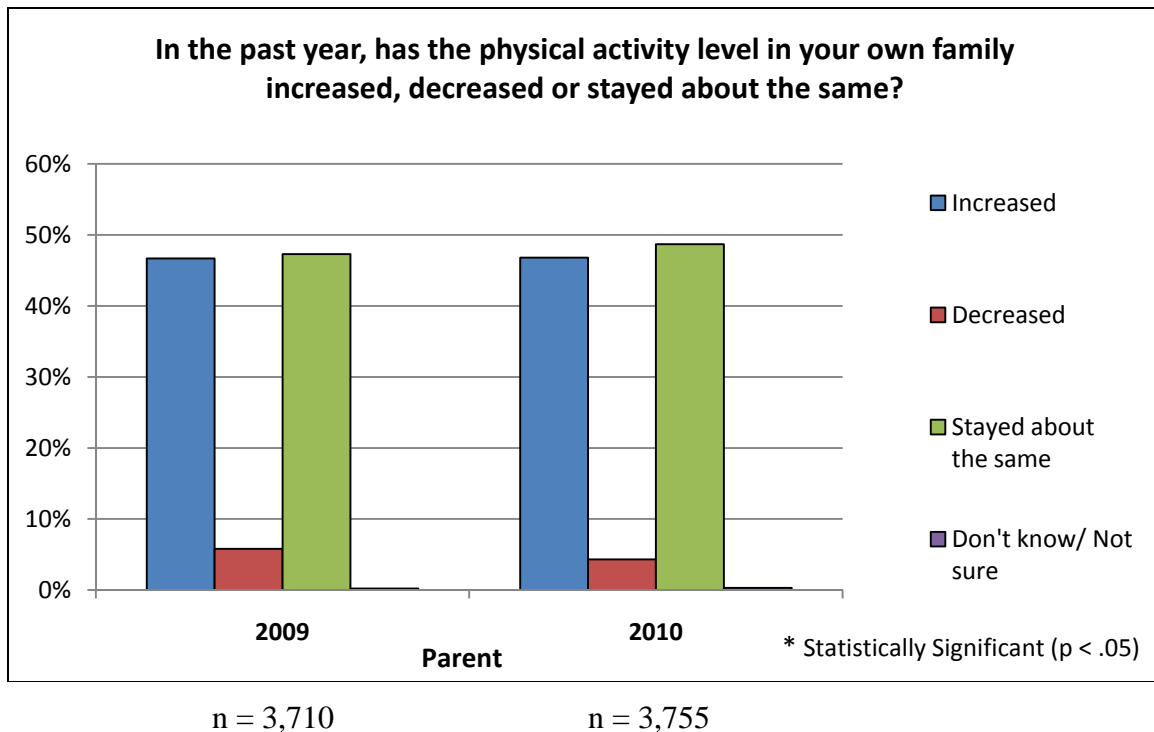
Figure 9



Family/child activity levels

In 2010, a higher percentage of parents (46.8%) reported that the physical activity level in their family increased compared to 46.7% in 2009, with a smaller percentage (4.3%) in 2010 noting that their family's physical activity level had decreased compared to 5.8% in 2009. This difference between years was statistically significant.

Figure 10



Compared to 2009 (34.7%), there was a substantial (although not statistically significant) increase in 2010 (42.7%), in the percentage of adolescents who reported that parents limited the amount of time that they spend watching TV or playing video games. This is an important finding given that a recent literature review found that “interventions aimed at reducing screen time had sufficient evidence of effectiveness for reducing measured screen time and improving weight-related outcomes.”⁶

Figure 11

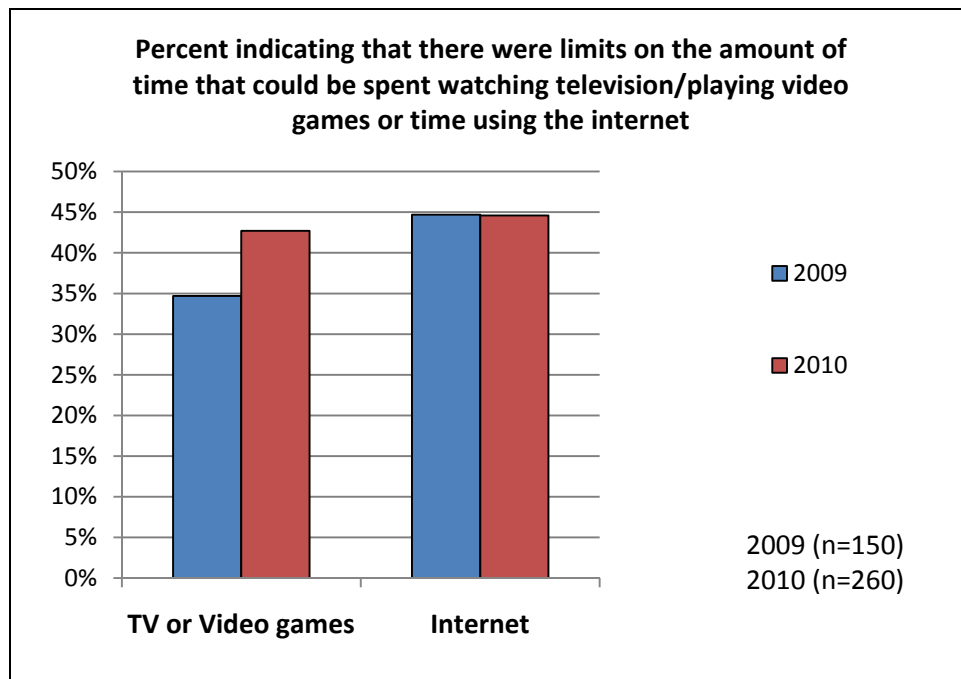
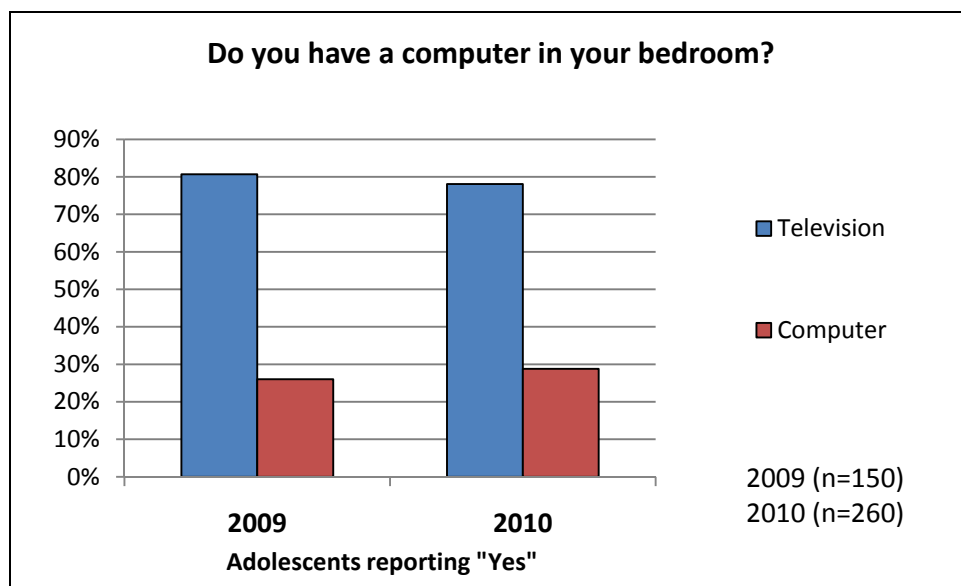
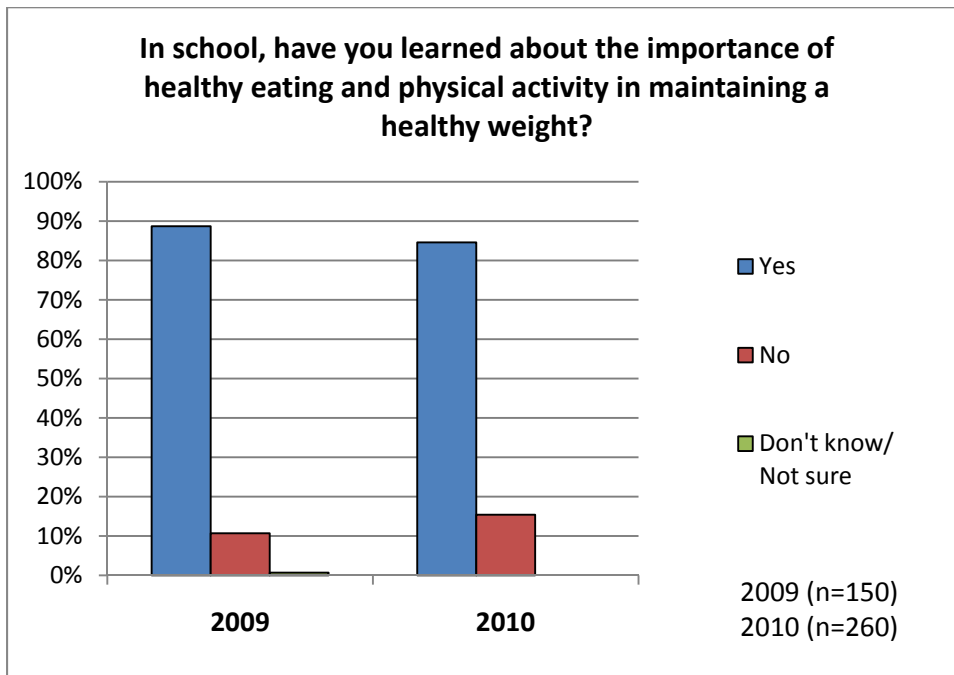


Figure 12



A high percentage of adolescents (84.6%) reported that they have learned in school the importance of healthy eating and physical activity in maintaining a healthy weight.

Figure 13

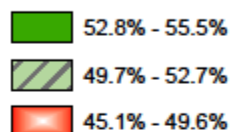


Overall in 2010, 43.7% of parents reported that they have increased their child's exercise within the past year, compared to 52% in 2009. However, in 2010, when asked about specific activities, almost two thirds (60.1%) stated they had signed their child up for sports or exercise class. Twenty five percent of parents stated that they have taken action to address their child's weight gain or weight loss.

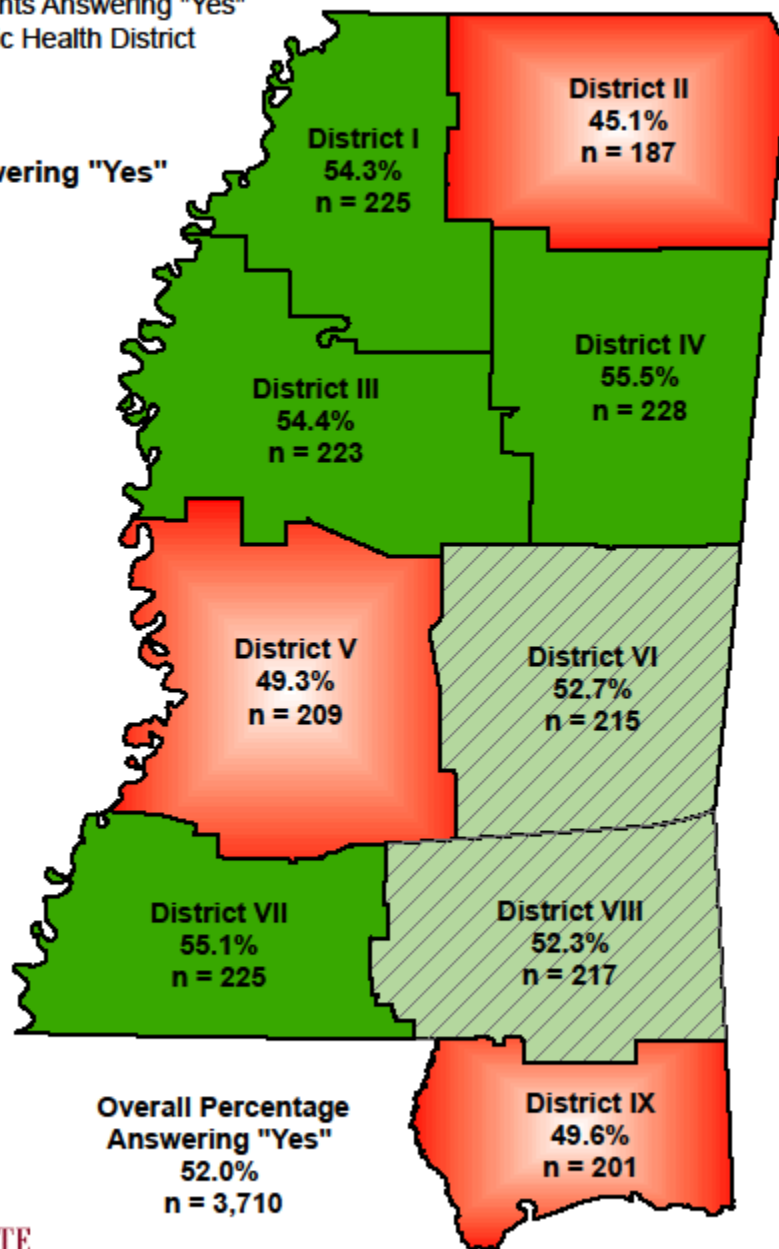
**Figure 14. In the Past Year, Have You Increased His/her Exercise or Physical Activity?
2009**

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

Percentage Answering "Yes"



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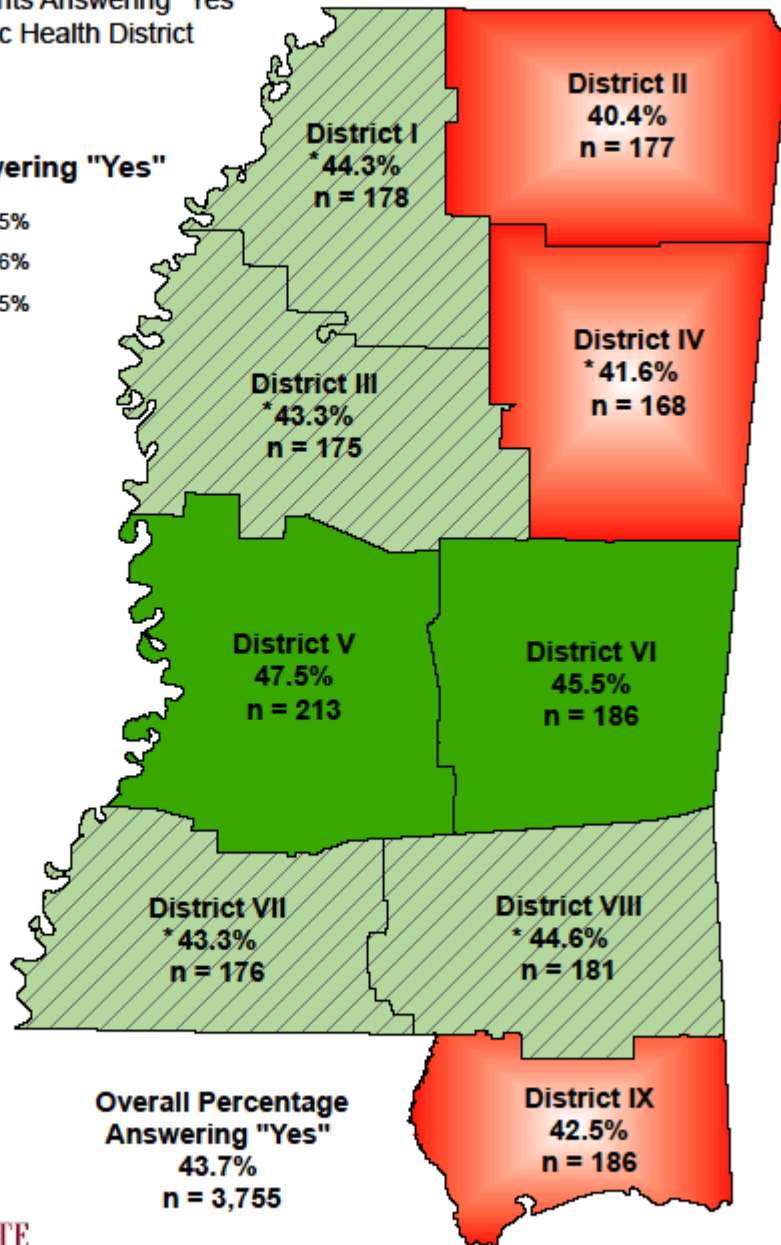
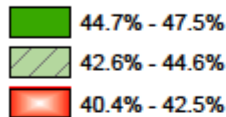


**Overall Percentage
Answering "Yes"**
52.0%
n = 3,710

**Figure 14. In the Past Year, Have You Increased His/her Exercise or Physical Activity?
2010**

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

Percentage Answering "Yes"



* Statistically Significant ($p < .05$) When comparing with 2009 data/map

Body Mass Index (BMI)

Parents in the telephone survey were asked “How tall are you without your shoes on?” (in inches) and also “How much do you weigh without shoes?” With this self-reported information, we calculated Body Mass Index.⁸ Body Mass Index (BMI) is the indicator used by the Centers for Disease Control for determining overweight and obesity among the general public. The calculation used by the CDC to determine BMI is the following:⁸

$$\text{weight (lb)} / [\text{height (in)}]^2 \times 703$$

After calculating the BMI, the interpretation of weight status is determined by using the following categories:⁸

BMI Categories	
BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and Above	Obese

Overall, the data show that the state as a whole is definitely overweight and could be at risk for being obese. The 2010 survey revealed that in 7 out of 9 (77.7%) Mississippi health districts, the average BMI shows a weight status of “Overweight” for adults. Two health districts (Districts III & VII) show average BMIs of 30.6 and 30.5 respectively, which is obese. Compared to 2009 District Data, only one public health district (District IV), had a slight decrease in parents’ reported BMI level, and this was statistically significant. However, overall, the average BMI for parents’ self report increased from 28.9 to 29.4 and is statistically significant. Among the most alarming finding in the 2010 (Year 2) survey is the young age of children who are reported as obese and overweight. Parents of young children (age 5-6 years of

age) were more likely to report their child as being obese, compared to parents of older aged children. In fact, 47.2% of parents reported their young child as being obese with an additional 13.6% noting that their child was overweight, based upon BMI calculations conducted by the research team, resulting in 60% of very young children being overweight or obese. Among children who were classified as normal weight, based upon the same BMI calculations as above, 58% of these children's grades (as described by their parents) were 'mostly A's & B's, compared to 20% of children who are obese.

Parents' support of future policies

Among parents, the following findings are of interest:

- Overwhelmingly support of schools collecting heights and weights and giving a report of that information to parents (82.1 in 2010, compared to 85.3% in 2009). The support ranged from a high of 88.6% in District III to 78.7% in District VII. The highest support in 2009 was also in District III, but the lowest support (even though still strong), for 2010 was in District II. Less than half (46.5%) of the parents surveyed reported that public school facilities are available to use for physical activity outside the regular school hours.

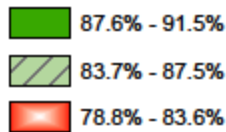
Among all respondents, in 2010, approximately two thirds (63%) reported having a park nearby for their child to play. This was approximately the same as in 2009. The range among the nine public health districts was from a low of 50.5% in District VII to a high of 72.2% in Districts I & V.

Figure 15. Some Schools Collect Information on Children's Height and Weight and give Parents a Report. Are You in Favor of This?

2009

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

Percentage Answering "Yes"



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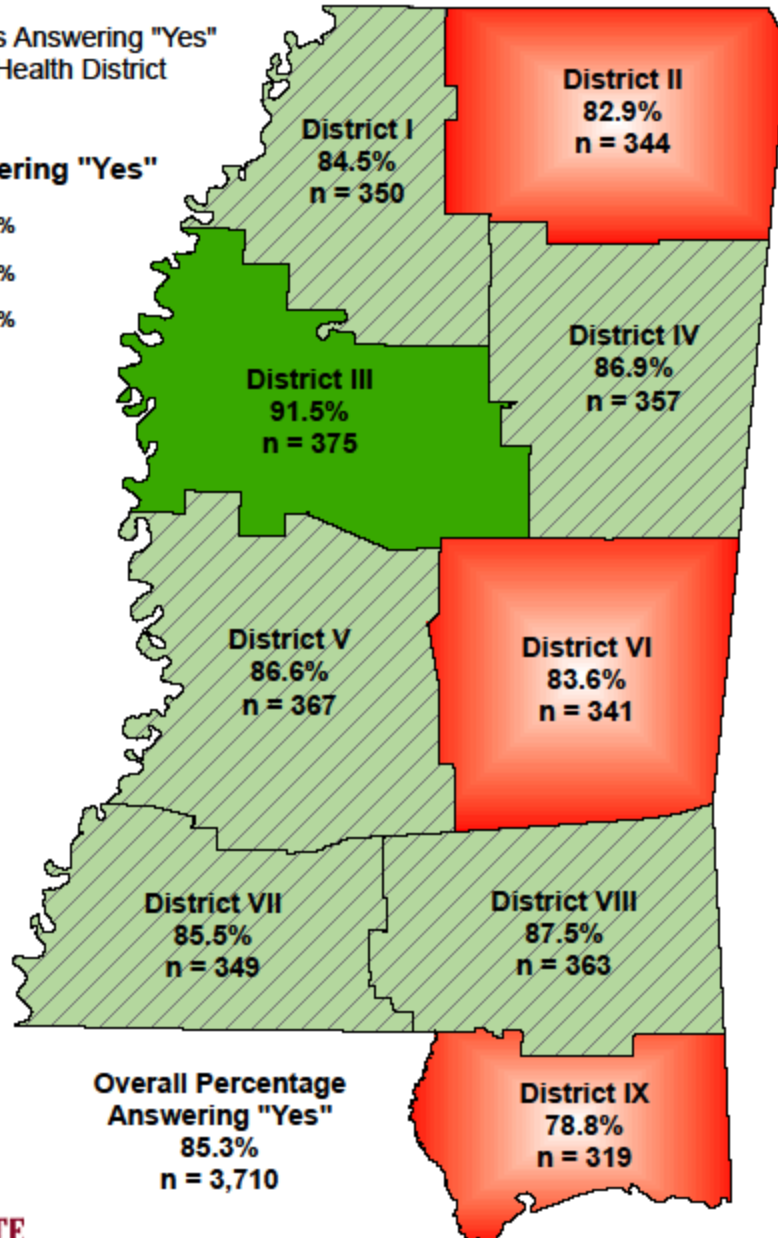
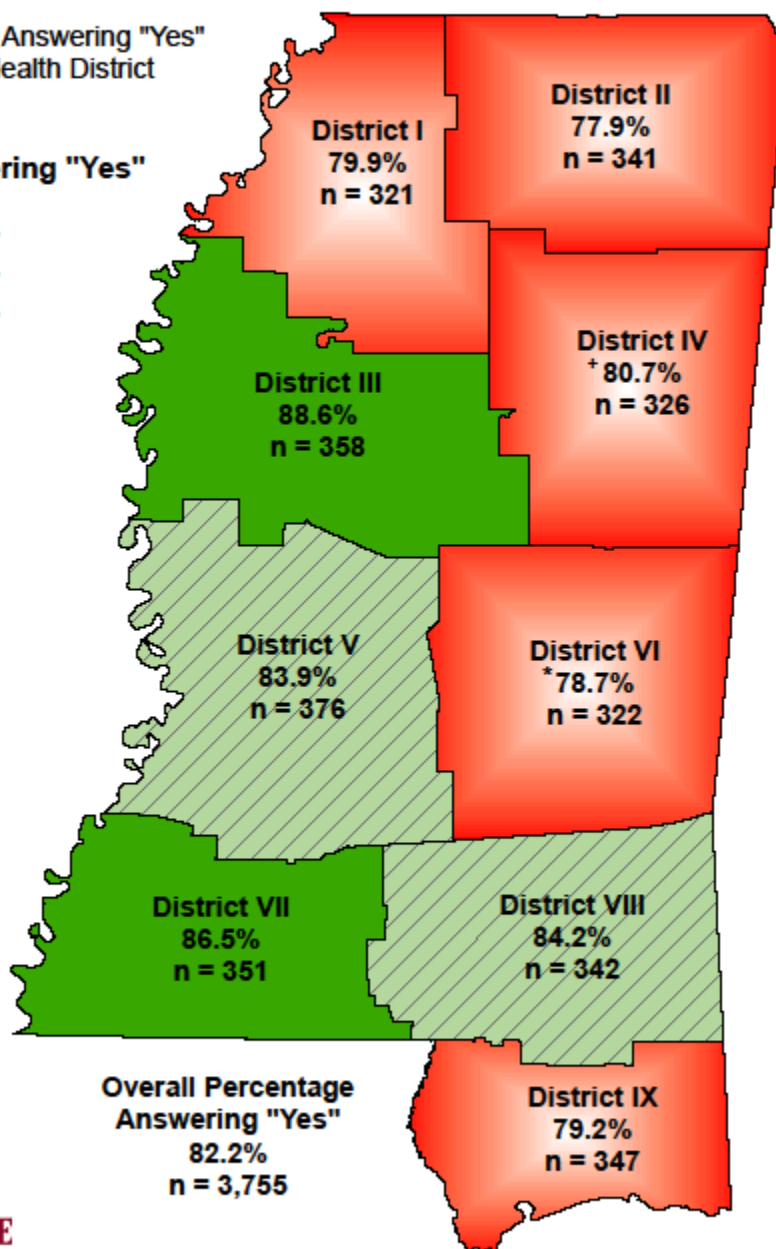
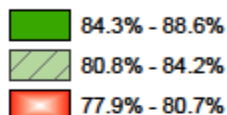


Figure 15. Some Schools Collect Information on Children's Height and Weight and give Parents a Report. Are You in Favor of This?
2010

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

Percentage Answering "Yes"



*Statistically Significant ($p < .05$)

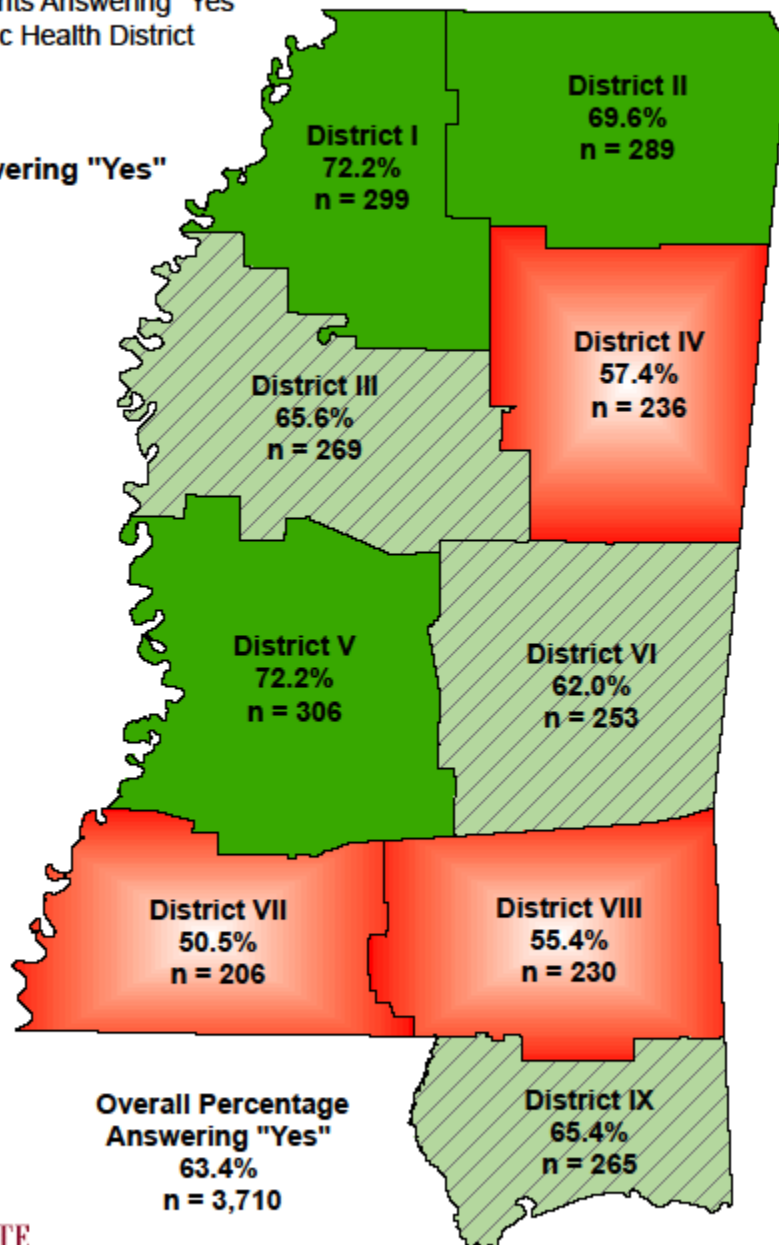
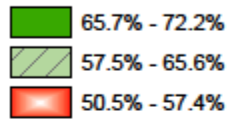
+ Marginally Significant ($p < .10$)

When comparing with 2009 data/map

**Figure 16. Do You Have a Park Nearby
Where Your Children Can Play?
2009**

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

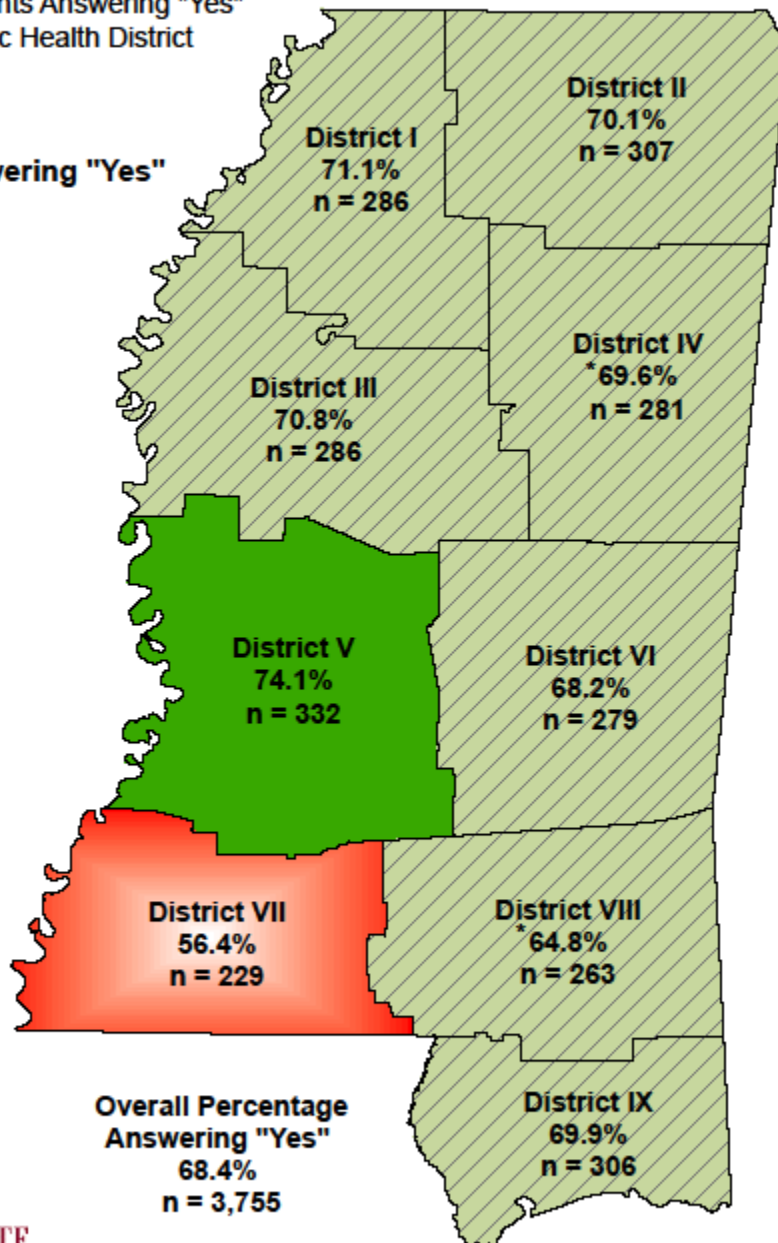
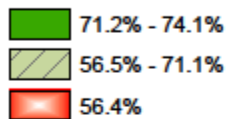
Percentage Answering "Yes"



**Figure 16. Do You Have a Park Nearby
Where Your Children Can Play?
2010**

Percentage of Parents Answering "Yes"
by Mississippi Public Health District

Percentage Answering "Yes"



* Statistically Significant ($p < .05$) When comparing with 2009 data/map

**POLICYMAKERS: STATE BOARD OF EDUCATION, STATE BOARD OF HEALTH,
MISSISSIPPI STATE DISTRICT HEALTH OFFICERS, AND STATE LEGISLATORS**

Overall Methodology

The 2010 interview guides were adapted from those used in 2009 and as in 2009, were developed in concert with staff from the Center for Mississippi Health Policy and the SSRC research team. The full interview guide is attached (see Appendix A). A mixed- method of telephone, written interviews via email, and face-to-face interviews were conducted from February 2010 to August 2010.

All telephone and face-to-face interviews were digitally recorded and were conducted by SSRC researchers. Key Mississippi policymakers, including members of the State Board of Education, State Board of Health, District Health Officers, and Mississippi legislators were asked about their perceptions and opinions regarding the Mississippi Healthy Students Act of 2007 (MHSA). Respondents were asked a series of open-ended questions concerning how the three major components (nutrition, health education, and physical education) should be prioritized, their views on the roles of various district offices as related to MHSA, perceptions of support by local constituents, opinions regarding how well the components of MHSA have been implemented, opinions regarding the need for additional policies to increase the health of Mississippi school children, and appropriate methods of measuring the success of MHSA. Interviews were transcribed and then analyzed by four research associates affiliated with the SSRC.

Researchers analyzed each transcript qualitatively to identify patterns and their underlying meanings within each group of key stakeholder interviews. Qualitative research methods are particularly useful for obtaining information about issues that cannot be directly observed. Specifically, this method of analysis is particularly appropriate for identifying and understanding perspectives, opinions, and experiences in exploratory research. For this evaluation, researchers were interested in the ideas, feedback, and perspectives from an array of policymakers regarding the implementation of the Mississippi Healthy Students Act of 2007.

Four members of the research team conducted the analysis of interview data. Working in teams of two, researchers were assigned two groups of stakeholder interviews. Researchers then independently reviewed each transcript within each group of interviews, noting key themes that emerged from the data. Themes were identified as a response topic that was mentioned by more than one respondent in the group and mentioned on one or more question. Researchers also identified key quotes that reflected the themes identified in the analyses. Once researchers completed their independent analyses of the groups, they exchanged their initial findings with the other researcher working on the same group. Researchers then compared analyses to identify theme consensus as well as any conflicting interpretations. Researchers again reviewed transcripts to identify themes they may have previously overlooked. In the end, at least two team members were able to reach consensus regarding themes and representative quotes.

The qualitative analysis component of this report includes analysis of 30 interviews comprised of six Board of Education members, five State Board of Health members, six District Health Officers, and 12 Mississippi legislators (six Representatives and six Senators). Each interview guide also had quantitative questions, and these responses were tabulated and when appropriate were compared to Year 1 (2009) findings as well.

State Board of Education Members

Methodology

The State Board of Education Members were asked primarily open-ended questions about their views on the role of the Mississippi Department of Education, feedback they have received from their constituents on the components of the Mississippi Healthy Students Act of 2007, as well as their views regarding additional legislation/policies needed. Interviews were conducted from May to August , 2010. Six of the nine Board of Education members were interviewed for a response rate of 66%. Please note in this section and subsequent policy maker section that all quotes from policy makers are in *italics*.

Findings

Major themes that emerged during the interviews include:

- Health education is the most important component of the Mississippi Healthy Students Act of 2007 followed by improvement of school nutrition.
- Improvement in school nutrition was specific to improving school lunches by reducing the fat content in the milk provided to children.

"We may need more improvements in school meals (i.e. no fat milk, etc?"

- Board of Education members, state school districts, and educators hold positive opinions about the Mississippi Healthy Students Act.
- Members agreed the State Department of Education plays an important role at most, if not on all levels of obesity prevention.
- Members report that the most effective ways to measure the Act's success are reducing the numbers of Mississippi children who are obese and improving children's overall health over time.
- One member emphasized a statewide improvement goal to move Mississippi from being #1 in terms of obesity.

“What you want is people in better health and of course I’d like to not be number one in obesity. I think that’s one way you could measure it.”

- Board of Education members understand the importance of having facilities available to exercise. Most of the board members felt that local governments as well as schools should work together to make these facilities more readily available to the community. Specifically, they feel that local governments should use government funding to build and maintain the facilities and those schools should share their already existing facilities with the public after school hours.
- Board of Education members perceive reducing obesity as a collaborative endeavor of families, community leaders, and key providers of community services. Specifically, participants identified the following programs and resources as important to reducing obesity:
 - Community Government
 - Elected officials
 - Recreation departments (walking and biking trails, summer camps)
 - Community Programs
 - YMCA
 - Boys and Girls Club programs
 - Community Resources
 - Medical community
 - Churches
 - Educators (schools, childcare centers)

“I think every facet of a community ought to encourage healthy activities and healthy foods. I think for us do this thing to improve health, it’s got to be everyone trying to do something toward educating each other or through conversations, and what have you...make certain that the availability of information is out there.”

- Overall members felt that the state of Mississippi has done enough or is currently doing enough to strengthen the school policies regarding nutrition and physical education. Many of the members briefly mentioned the need for the state to improve health education policies.
- Board of Education members report several primary sources of information they access to get information on obesity. The primary sources of information identified by Board of Education participants include the State Department of Education and various media outlets including television news and newspapers, and more formal sources of information such as research reports and publications.
- Obstacles that prevent Mississippi schools from meeting the physical education and nutrition standards outlined in the 2007 Act include: cost, funding, time constraints and traditional attitudes that privilege academics. One member suggested that academic achievement of students should be a higher priority than physical/health education. Another board member stated that the emphasis on physical education and nutrition represented a cultural shift that requires education and training of educators and staff.
- The majority of the members interviewed were supportive of policies prohibiting junk food in the schools except during parent/staff meetings and in concession stands..
- Respondents emphasized the importance of education in combating obesity. State policies and legislation can raise school physical education standards and school nutrition, but successful implementation requires buy-in from educators and parents.

Comparison of 2009 and 2010 Key Themes

In 2009 key themes identified by Board of Education members included:

- Obesity as a continuum of health concerns
- Economic cost of obesity to society
- Time constraints related to implementing obesity legislation
- Concerns about government and personal responsibility as it relates to the problem of obesity
- Importance of improving school nutrition
- Status of progress to date
- Importance of parental education and involvement in preventing childhood obesity
- Impact of health on academic achievement
- Importance of increasing public awareness about obesity
- Importance of role models for children
- Policy and implementation gaps
- Collaboration among state agencies as a strategy for preventing childhood obesity

The 2010 interviews with Board of Education members indicate an increasing focus on specific components of the Mississippi Healthy Students Act of 2007. Key themes include:

- Needed improvement of school nutrition and additional health education opportunities in Mississippi schools
- Reduction/elimination of junk food availability within schools
- Positive investment in the success of the Mississippi Healthy Students Act by educators and school districts
- Key facilitator role of the State Board of Education in the successful implementation of the Act
- Increased focus on outcome measurements as an appropriate way to assess success
- Needed increase in community involvement and integration regarding health education and activities
- Importance of educational outreach as a secondary component of increasing the health of school children
- Cost, funding, and time constraints as key obstacles to the successful implementation of the Mississippi Healthy Students Act
- Positive contributions of healthy lifestyles on academic achievement

State Board of Health Members

Methodology

The research team was successful in conducting interviews with five of the nine board members, yielding a 55% response rate. A mixed method of telephone, face-to-face and email interviews was used. These were conducted from May to August 2010. The State Board of

Health Members were asked open-ended questions about the roles of the State Department of Health (local and district), feedback from their constituents on the Mississippi Healthy Students Act of 2007, and feedback regarding additional legislation/policies needed. The full interview guide is attached (see Appendix A). Interviews were transcribed, and recognized qualitative analyses were used to determine major categories and themes.

Also included were some quantitative measures/rankings on physical education, school nutrition, and health education. Basic descriptive statistics were used to analyze the questions where respondents were asked to rank or score questions (see Appendix B).

Findings

Key themes emerging from the interviews included:

- Board members state increasing health education and physical education as the most important component of the Mississippi Healthy Students Act of 2007. Yet, board members also note the inter-relatedness of health education, physical education and nutrition for improving the health of Mississippi school children.

“I would really focus on the health education, but I don’t see how we can do that without focusing on more physical education and also on nutrition. I think they should really work hand in hand. I see them all as equally important.”

“Improving physical education, to me, is the most important. I think that increasing health education is next, because health education actually includes the other two components, physical education and nutrition.”

- Board of Health members report very positive responses from individuals and health department district personnel regarding the Mississippi Healthy Students Act of 2007. Respondents emphasize that there are both positive responses to the Act and an excitement and enthusiasm over the potential impact the Act will have on the physical well-being of Mississippi school children. Respondents note that the positive responses to the Mississippi Healthy Students Act encompass a community-wide base of support that includes educators, nurses, health department personnel, physicians, and school health council members

I have heard nothing but positive things from teachers, from nurses, school health nurses, from health department people, and even school officials, like principals and even school boards. It’s been a very positive reaction to what’s been done so far, and also a feeling among all those people, that this is just the beginning of where we need to go to start addressing these problems.

The reaction has been phenomenal—very excited we are finally getting noticed.

They are great! We love it. Have gotten good representation of health department people on school councils.

Mainly from the physician community—it's very important to them.

- Board members express a range of ideas regarding the best way to measure the success of the Mississippi Healthy Students Act. These ideas range from collecting baseline and follow up data on specific cohorts of students, collecting Body Mass Index (BMI) measurements over time for a comparative analysis, to evaluating each of the three components of the Act separately. The ideas expressed by Board members suggest that members recognize that the breadth of the Act allows for multiple methods of assessment which ultimately will strengthen the validity of outcome results.

I see a three-pronged approach, looking at all of these individually...

We need to get baseline data on what the average weight is for children coming into a specific grade level and [measure] over the years....that weight should go down if the program's a success;

[Collecting] BMI would be a nice measurement

Measure in terms of aggregate data on obesity; even if we have to use BMI...follow a class from pre-K through 8th grade or whatever

- All Board of Health members who participated in the interview perceive the State Health Department as playing a vital role in obesity prevention in the state. Specifically, respondents see the State Health Department as a key resource within communities and a clearinghouse for the dissemination of educational information on obesity and the importance of childhood nutrition.

It's the watchdog for prevention and preventive health in the state

It's a good place to hit...to see those children, emphasizing to the parent about proper nutrition and getting the child's weight under control

We can get so much information out the schools [through the State Health Department...can also work with families, parents at district offices, create workshops and seminars, show the need for good nutritional health.

- In a follow up question, board members unanimously state they see local and district health departments as key stakeholders in promoting the Mississippi Healthy Students Act of 2007. Specifically, as noted above, members note that local and district health departments play an integral role at the grassroots or community level through their interactions with clients and their roles as health advocates and educators.

They are the people who have direct access to the clients

It's what happens at the local level that's important

You've got to have people in every community that believe they can make a difference with obesity. That is where the rubber meets the road...in the local community

We do health fairs, some educational stuff, make presentations in classes, and hand out literature

- Although all Board of Health members express support for the Mississippi Healthy Students Act of 2007, they all state school policies regarding nutrition and health education should be strengthened. All but one respondent stated the policies on physical education also need to be improved. These responses highlight a recognition among board members that improving the health of Mississippi school children and decreasing obesity are a long-term process that will require continued oversight and implementation of programs to enhance and support the overall goals of the Mississippi Healthy Students Act.

We need health education at the lower grade levels and need more than one required course

[We need] recess requirements and actual physical activity [guidelines] not sports

It [physical education] could be mandated again, as it was years ago

We've got to promote health education as a formal curriculum (pre-K through 12) that's just as important as math, science, social studies, languages and so forth. Physical education should be as important as the other formal subjects and should be sequential and age appropriate from pre-K through the twelfth grade, instead of the minimal amount we have right now.

- Collectively, board members identify the need to strengthen existing school policies related to the Mississippi Healthy Students Act of 2007, rather than implementing new or additional policies. Members perceive the Act as a “first step” to improving the health of school children. As one member notes:

We should strengthen the ones we have before adding more. If we strengthen those three (improving nutrition, increasing health education, and increasing physical education), we'll make a difference

We haven't done enough but [we have] gotten off to a great start

- Members provided specific ideas regarding how best to strengthen existing policies:

We need to do things like eliminate sugared drinks in vending machines, modify food service policies and food served in school cafeterias

Food served in cafeterias quite often creates the problems: pizza, fries, things of that nature. We need to get back to more fruits and vegetables and real meats instead of pre-processed foods

Health education needs to be more comprehensive and coordinated. It should be taught pre-K through 12

We need more physical education, and it needs to be integrated into the regular curriculum

- Board members overwhelmingly support the use of local government funds to build and maintain community exercise resources. These responses indicate that board members recognize the importance of making health, nutrition, and physical exercise a key component of healthy living:

Yes. I emphasize the word “local.” Citizens in local areas and communities should make the decision about how their tax funds are spent. It should not be from the top down but from the bottom up

If there is some type of collaborative effort or partnership with local funds, it would be a good idea

It should be a primary responsibility—the well being of the populace—of government, whether local, state, or national

- Board members shared a variety of opinions and suggestions regarding childhood obesity and obesity legislation. Many of the reflections by board members reflect the changing nature of contemporary family life—today’s families must negotiate increasing time constraints and increasing work demands. These increasing demands make fast food more attractive and decrease the amount of time available for family exercise. Despite these constraints, board members recognize the need for action in order to combat childhood obesity:

We’ve got to lead by example. The problem is that employees in many health departments and clinics are obese. The leadership preaching the message [about obesity] should be following those rules themselves

When I was a child there may have been one or two people out of a class of 100 who were considered obese or fat. Why? We used to walk. The school served vegetables and a meat for lunch. Now people eat fast foods which are fattening. Fast food consumption drives our obesity problem

When I was a child, anybody that lived within a mile of school walked to school. Now if they live a block away we pick them up and take them to school

All future subdivisions should be built with an environment that’s conducive to the health of the populace by adding walking trails, sidewalks, bicycle paths and playgrounds

We should require restaurants to give nutritional information on the foods on their menus

Childhood obesity is a real problem. We have to do something about it early on—in early childhood and elementary school

I’m in favor of this being a statewide effort and a statewide collaboration of agencies

Comparison of 2009 and 2010 key themes identified:

In 2009, Board of Health members identified the following key themes:

- Obesity as a continuum of health concerns
- Cultural/Societal changes—technology and exercise
- Economic cost to society
- Importance of providing healthy school meals
- Progress to date
- Importance of parental education and involvement to prevent childhood obesity
- Gap between childhood obesity policies and implementation
- Collaboration among state agencies in the prevention of childhood obesity

The 2010 interviews with Board of Health members demonstrate shifting concerns related to the Mississippi Healthy Students Act of 2007. Key themes emerging from this year’s interviews include:

- Need for increase in health education and physical exercise

- Positive commitment of educators and health districts in the implementation and success of the Act
- Support for assessment measures to evaluate the success of the Act over time
- Support for strengthening existing policies rather than implementing additional policies to improve the health of Mississippi school children
- Need for community involvement and the use of local funds to support the initiatives enacted at the state level

Mississippi State District Health Officers

Methodology

There are six public health officers in Mississippi, supervising a total of nine public health districts. All of the six district health officers were interviewed from May 2010 to August 2010, reflecting a 100% response rate. The interviews were conducted using a mixed method face-to-face and telephone interviews. They were asked primarily open-ended questions about the roles of the State Department of Health (local and district), feedback from their constituents on the Mississippi Healthy Students Act of 2007, and feedback regarding additional legislation/policies needed. The full interview guide is attached (see Appendix A). Interviews were transcribed, and recognized qualitative analyses were used to determine major categories and themes. Also included were some quantitative measures/rankings on physical education, school nutrition, and health education. Basic descriptive statistics were used to analyze the quantitative items.

Findings

Key findings include:

- Half (three) of the District Health Officers identified improving school nutrition as the most important component of the Mississippi Healthy Students Act. One respondent stated that each of the components of the Act is equally important, one stated physical education is most important, and one respondent did not provide a response.

- Respondents stated reactions to the Mississippi Healthy Students Act of 2007 by individuals and health department district personnel with whom they interact are mixed. These responses range from enthusiastic support to minimal support to no knowledge of the Act:

They love it. We're into it

We've all been ecstatic about the law

Generally positive although limited familiarity with it

Don't think any of them know about it. I've never heard of it. They really don't know too much

Haven't heard of it, not a word.

The range of responses indicates gaps in the knowledge of the Mississippi Healthy Students Act by some District Health Officers. We are unable to determine the reasons for these apparent gaps.

- District Health Officers state the success of the Mississippi Healthy Students Act should be measured by the collection of empirical data ranging from:

BMI would be a nice measurement, but it's very controversial

By fitness testing and health education in schools; should include BMI on every child every year

Look at evidence-based programs that have already been done to see how others measure outcomes

In the number of schools that are successful in changing the type of food they serve and by measuring the physical activity we see students involved in

Ultimately, by results in student health, interval measure of student's knowledge, and changes in practice

Although District Health Officers do not express consensus in their perspectives on how best to measure the success of the Mississippi Healthy Students Act, their responses do indicate support for the collection of empirical data that can be used to establish baseline and follow-up health status information. This data could then be used to conduct a comparative analysis of changes in health outcomes of Mississippi school children.

- Five of six District Health Officers reported they see a role for district and county health offices in obesity prevention programs. Specifically, respondents stated:

As health leaders, one of the most important things we can do is make the public aware of the obesity problem and make them aware of the law and the need for change in our children

If you don't have them on board in a passionate way, you are doomed to fail

We need to get a script together, similar to what we have for tobacco. Great opportunities exist with the large numbers of people who come through the health department

In contrast, 17% of district health officers stated:

No. I think financially we are in the tank. They just can't do it because there's no skill level there

The majority of responses echo similar sentiments to those shared by other stakeholder groups. District and county health offices are “front line” organizations that touch the lives of large groups of people. They are key resources within communities with the capacity to inform and support lifestyle changes that improve health outcomes for children and adults alike.

- In response to a question concerning the degree of involvement district staff are involved in implementing or coordinating school health programs, half of the respondents stated their districts were involved in a limited way:

We have limited staff but we do health fairs, some educational stuff, including presentations, and we hand out literature

It would be nice but we are not very active at this point; we probably do more in immunizations than any other role

The district health educator is involved to a slight degree with some of the school nurses

Three respondents state their involvement with school health programs is minimal to no involvement.

The range of responses suggests that district staffs are not fully integrated in the implementation and coordination of school health programs. In some cases, this appears to be a consequence of staffing constraints. In other cases, the reasons for the lack of involvement are unclear.

- Three of six respondents stated they are unsure if the state has done enough to strengthen school policies on nutrition, health education, and physical exercise. Three officers reported the state has not done enough in these areas. Specific comments include:

We need health education at the lower grades and we need more than one required course

I don't know how well the intentions are being carried out by the schools

Physical education should be required in every grade through high school just as it was when I was in high school. I don't where it slipped away but it needs to be reinstituted

It's about research, requirements and actual physical activity, not sports

These responses suggest that respondents are unclear as to how the components of the Mississippi Healthy Students Act are being implemented in schools and how the program is being assessed. Several responses suggest a general wariness about the overall program and job security concerns as evidenced by the following comments:

People talk a lot but nobody actually does anything; you have to have somebody with a passion to do things and we don't have anybody like that

Some of us have almost lost our jobs over that [health education]

- In response to other policies respondents think are needed to promote the Mississippi Healthy Students Act, respondents voiced a broad range of ideas:

Physical education should be required in each grade through high school

Should have health education to teach kids what they should eat and why

Ought to have healthier options in cafeteria;

Provide more money to schools for combination ovens and healthier food choices

These suggestions focus on strengthening the implementation of the nutrition, health education, and physical education components of the Mississippi Healthy Students Act and coincide with the responses of other stakeholder groups who suggest that the current components are adequate and will make a difference in the health of school children in Mississippi given time.

Other responses focused on specific policy changes:

There are food deserts in Mississippi...where there's limited access to grocery stores and healthy foods. We need to make it easier to access healthy foods

Additional outreach to parents because parents make the majority of food decisions at home

Physical activity needs to be expanded outside school

These responses encompass a broad range of issues impacting many Mississippi families. Some of these issues (access to food supplies) relate to issues of inequality while others may be related to the resources available within specific communities (availability of physical activity areas) and suggest that resolutions to these problems may be local government issues rather than issues easily resolved through policy changes.

- All interview respondents supported the use of government funds to build and maintain places in local communities that can be designated for exercise activities. The unanimity of responses reflects the degree of importance placed on physical exercise as an integral component of overall health by respondents.
- Respondents report they rely on an array of medical resources for their information on childhood obesity in Mississippi. Three of six respondents identify the Centers for Disease Control (CDC) as a primary source of information. Other resources for health information include: state nutritionists, State Board of Health, Epidemiology Division of the Mississippi Department of Health, Center for Mississippi Health Policy, KIDS COUNT, and articles from professional journals.
- In conclusion, respondents were asked to share their ideas about childhood obesity legislation:

You can't legislate obesity out of existence, but you can put [enact] legislation to facilitate people staying fit and trim

Obesity is the #1 health issue, and it can lead to the chronic diseases we are trying to prevent

We must get the word out to parents as well as the school about how to choose and prepare healthy foods

Pleased that Mississippi passed this type of legislation. It's a start but there's more to be done. Starting with schools and children is the perfect place to start.

We know that an ounce of prevention saves a pound of cure so that these efforts at prevention are going to help our state be healthier as well as save our state money in the long run.

These responses suggest support for the Mississippi Healthy Students Act of 2007 and highlight the recognition by district health officers that the success of the legislation lies in creating an environment in which educators, health professionals, policymakers, and individuals are invested in creating a healthier Mississippi.

Comparison of 2009 and 2010 Key Themes

In 2009 interviews with District Health Officers identified the following key themes or concerns:

- Obesity as a continuum of health concerns
- Problems implementing current/future legislation
- Impact of health on academic achievement

In 2010, interviews indicate shifting themes and concerns:

- School nutrition as the primary component that should be emphasized in the implementation of the Mississippi Healthy Students Act of 2007;
- Improving knowledge of the Mississippi Healthy Students Act as related to health district personnel
- Improving integration of health district staff in the implementation and coordination of school health programs
- Improving communication about implementation status of the Act and assessment of the legislation's success
- Improving community support of the Mississippi Healthy Students Act and addressing issues related to disparities in healthy food access
 - Use of local funds to make exercise a part of community life
 - Educating the community about the importance of healthy nutrition
 - Facilitating an integrated approach to improving health
 - Improving access to grocery stores and healthy food items

State Legislators

Methodology

Interviews were conducted with 12 Mississippi state legislators in February, 2010. A purposive sample included six Representatives and six Senators, reflecting diversity in party affiliation and constituent demographics. Twelve were originally contacted, and 12 responded for a response rate of 100%. The interviews consisted of primarily open-ended questions about the roles of the Mississippi legislature, feedback from their constituents on the Mississippi Healthy Students Act of 2007, and feedback regarding additional legislation/policies needed. The

full interview guide is attached (see Appendix A). Also included were some quantitative measures/rankings on physical education, school nutrition, and health education. Basic descriptive statistics were used to analyze the questions where respondents were asked to rank or score questions. See Appendix B for tables and figures reflecting these rankings.

Findings

Key Findings:

- Overall, Representatives and Senators identified improving nutrition as the most important component of the Act, followed by increasing health education, and lastly, increasing physical education.
- Among Representatives, improving nutrition and increasing health education in public schools were identified as the most important components of the Mississippi Healthy Students Act.
- Among Senators, increasing physical education and improving nutrition were identified as the most important components.

Representatives and Senators were asked about their perceptions regarding the general consensus of the House and Senate on maintaining improvements made by the Mississippi Healthy Students Act of 2007.

- Senators expressed positive sentiments about the Mississippi Healthy Students Act of 2007, and a majority expressed support for maintaining the program in the future. Support for continued maintenance of the Act is tempered by the reality of budget constraints; however, these constraints are, according to one Senator, an opportunity for other agencies to step up their involvement in the program:

I think that, in general, the Senate would like to see us go at about the same pace that we've been going. I don't ever want us to get to the point where the number one function of schools is to call attention to children's weight. The number one function of schools is to help children learn. This is a part of the learning process so I think we need to continue in the direction we are going.

I would think that the Senate would be in favor of maintaining improvement.

I think that since we're in a budget crunch this year, obviously there's not a lot of money that we could put forth to that effort. We're hoping that the school system, along with the health department, will do what it can to impart health education and to ensure that we have physical activity occurring throughout the school system.

- Representatives also express support for maintaining the Act and for assessing the success of the legislation before moving forward with additional funding:

I think the House is committed, I think the legislature is committed to trying to have initiatives that would make our children and families healthy.

I think it's right up there at the top; I think the House has taken the lead on this, and we've been very involved in this. We continue to believe that it's very important.

I think the consensus is that we've done something, let's see how it works; it'll probably take about 5 years for us to know that.

- Overall, both Senators and Representatives who were interviewed felt the school districts they represent were responding positively to the Mississippi Healthy Students Act of 2007, although it is still too new and early to see the full effect of the legislation.

I think that most educators are aware of the obesity problem among children in the state of Mississippi and among adults and would like to do something to improve it.

I don't know that people are aware that it is an actual health act, other than there is more discussion, debate and focus on healthy lifestyles, healthy living, hopefully becoming more active. I think the overall impression is its just starting to be absorbed better.

I think that it's having a positive impact as they get more accustomed to its having a better impact.

I think all of the schools are receptive, where the ovens have gone in. I think there has been some proactive work done. I think they are receptive. The children were a little bit taken [aback] when the machines were taken out, but the parents understood it, they knew that that was the beginning of what we were trying to do. I think they are getting it, the parents are getting it.

- Both Representatives and Senators indicated assessment of the Act's effectiveness should be measured in improved health outcomes over time:

Obviously, the outcomes, which would be healthy children

Decreasing the obesity rate, decreasing childhood diabetes, and a decrease in the problems that are associated with obesity

I think ultimately the function of schools is to help children learn. That's measured in the percentage of children that graduate so I think this should be part of the overall goal of measuring the number of children that graduate, the number of children going to community colleges and on to 4 year degrees.

Well I tell you what I really believe that at some point – through the health department and through Medicaid, because they'll be able to tell by their visits and they'll be able to tell about patient outcomes we could start looking year by year to see if we are getting more or if we are seeing a bend in the curve. But given that our healthcare, for the people who are having the bad outcomes, tend to be poor people, and the insurance for poor people is provided by the state, then we have a database that we can look at that particular population.

- Overall both the House and Senate members agreed that it is important for schools to promote healthy lifestyle choices for students and staff, although one House member was unsure that promoting healthy lifestyles was a school responsibility.

It's the place where kids spend most of their time, if not at home. So, they're there to get educated; why not get educated about being as healthy and living as healthy as they can.

You know, the staff is the beacon of hope for the kids. They look to the adults as examples, and so we need to set good examples for our kids.

I think that the primary reason for the schools is to educate the students, and I'm not sure that that's their responsibility to do that for the staff.

- Legislators see their role in promoting healthy lifestyles relating to passing legislation that funds health education and physical education programs, which in turn, will address obesity-related issues.

I think our role is to put legislation in place that would, be, that would have the positive effects that we are hoping to gain from our goal of tackling this problem and making it a non-issue in several years.

Creating incentives for those who choose healthy lifestyles; Creating an infrastructure within our state that is conducive to people wishing to develop a healthy lifestyle

- Legislators identify a broad array of groups as potential conduits of information regarding the importance of health and healthy lifestyles. Specifically, respondents perceive obesity and health as community-wide problems that require the investment of both individuals and communities.

Everyone and all groups should be concerned about healthy children.

Parent/teacher associations, parent/teacher organizations, booster clubs and so forth, should also be working toward the goal of improving the activity level of the students, and healthy lifestyle: eating, nutrition, those kinds of things as well.

I quite frankly think everything from churches, businesses, to private sector and non-profits...

I think healthy lifestyles for children should be promoted first of all by the parents and if somehow if it is not going on at home, it needs to be going on at school, and if it's not going on at school, I don't see why churches can't help promote healthy lifestyles. I definitely like the idea when they have the health fair that the churches participate in. It's...our problem not just the child's problem, the schools' problem when we're not eating healthy or healthy lifestyle. It's not just the child's problem; it's all our problem [and] it's going to take all of us working together to make a difference;

- Legislators expressed a range of perceptions in response to whether the state has done enough to strengthen school policies on nutrition, health education, and physical exercise. Senate members stated they were basically comfortable with improvements to school nutrition but were not sure if the changes were enough. A majority of House members felt the changes that had been implemented were positive. They expressed interest in better evaluation of these changes. Still other members felt the changes were on target but somewhat lacking.

Things are missing, but it takes money to do those things...so we haven't done enough but it is for lack of money;

Senate members believe school policies on health education have been strengthened. In contrast, House members disagreed, stating more changes are needed. Both House and Senate members

stated additional improvements to physical education are needed but were divided on how best to accomplish this goal.

I'm not sure how much we've accomplished there. The main thing about that is a time constraint. It used to be that physical education was an integral part of everyday, and then they added so many other things onto the school day that something had to give somewhere, and I think that, unfortunately, is what is killing us; so we're going to have to just balance the time that's available, with all the mandates that have been placed on the schools.

We're demanding more from the [schools] academically. We're having more rigorous testing which means they got to spend more time in [the] classroom...The school, in my opinion, gets blamed for a lot of the ills of society that they are not responsible for. Very often, society dumps all of its problems at the school house door at 7:30 in the morning and says, "Fix it by 3."

- In response to whether or not additional school policies are needed to improve the health of Mississippi school children, Senators and Representatives expressed mixed opinions. Some legislators felt additional policies were not needed; instead the focus should be on reducing the costs associated with the policy changes already in effect. Other legislators suggested implementing more restrictive nutritional standards and increasing the enforcement of these standards. Still others suggested policies that would provide additional tools and resources to facilitate exercise and overall health.

In terms of physical education, we need to make sure that the school systems have physical places for kids to exercise and be healthy. We haven't provided any resources for the physical plants in the school system. I think that's the direction we need to go.

On nutrition: You know there are still school systems that serve, or allow to be sold, unhealthy snacks. If we're going to continue to do that, that needs to be taxed. If not, just pull those out altogether. You know, don't allow unhealthy snacks to be sold on school campuses.

Health education: I think there are other models across this country that has been enacted. We need to see what's out there and then pick the best for the state;

People say you can't legislate behavior, and I guess maybe that is true. But I do think everywhere we have oversight we ought to make sure we have some very strict nutrition standards.

- Legislators identified a number of programs external to school settings that should be integrated into efforts to reduce childhood obesity. Specifically, many legislators identified wellness programs offered by many health insurance companies as a viable strategy to reduce childhood obesity. Other suggestions included additional city park and recreational programs and improvements to the safety of existing outdoor physical programs and activities.
- Legislators utilize a variety of resources to educate themselves on childhood obesity. Specifically, members rely on legislative resources such as the National Council on State Legislators and the Southern Legislative Conferences, as well as the Annie E. Casey, Kellogg, and Robert Wood Johnson foundations. Other resources accessed by legislative members include state institutions of higher learning, medical association publications, and the State Department of Health.
- Legislators stated they heard from a range of constituents and fellow legislators regarding the issues addressed by the Mississippi Healthy Students Act of 2007.

Typically, I hear from people who want to participate in a program that will help them lose weight, or we have a family member who needs assistance in helping lose weight. I hear from constituents more than anybody else.

We hear a lot from the state department of health, which I think it's headed in the right direction in terms of helping us to implement programs within communities, to address obesity. Of course, we also hear from our state universities, and we appreciate that.

I hear from my peers in the legislature, who are very interested in it. I think that they're all very proud of what we're doing....we continue to have conversations about it and try to improve it.

- Overall, legislators feel pride about the accomplishments of the Mississippi Healthy Students Act of 2007 and believe time will be a powerful indicator of the Act's success in addressing childhood obesity. Many feel the focus should now be directed toward educating communities on the Mississippi Healthy Students Act and the importance of health.

All I would say is that this issue is like a number of other issues, in that the major thing that changes public policy is simply becoming aware of the problem...the first step is simply getting the issue before the public, and that seems, to me, the most difficult step.

I do think it's one of the most important things we've done, in the education side of healthcare in many, many years, and I think it's important that people have information, and have goals and have models and incentives to do what is in their best interest. And that's just what this legislation does. It also helps give teachers and administrators guideposts/guidelines. They've got so much on their, they've got so many responsibilities; it makes it very difficult to focus on things outside the classroom, that I think this is going to be helpful to them too.

A few legislators expressed varying degrees of skepticism, stating they feel it best to wait and see what type of changes come from the legislation:

I'm taking the wait and see approach, I think that what we have in place is good til this point, but it's going to take a few years to really see the results, if it's being what we think it is- if not, we may have to do some more.

Well, you know going into it I admit [to] a little bit of skepticism..., but I've been absolutely and totally astounded and completely proven wrong on the school nutrition program. It's just fabulous; I mean I just think that's been one more effort that has had phenomenal leadership in this state.

Still other legislators indicated they are willing to move forward with additional policy changes that will improve and strengthen nutritional and physical education requirements.

...I think it's important that people have information and have goals and models and incentives to do what it is in their best interest. And that's just what this legislation does. It also helps give teachers and administrators guidepost/guidelines.

Comparison of 2009 and 2010 Key Themes

In 2009, interviews with state legislators identified the following key themes:

- Data, statistics, and reports bring about interest/concern
- Obesity as a continuum of health concerns
- Cultural/societal changes—technology and exercise
- Cultural/societal changes—PE and/or Health Education in schools
- Economic cost to society
- Problems implementing current/future legislation—funding
- Problems implementing current/future legislation—personnel issues

- Problems implementing current/future legislation—time issues
- Government role vs. personal responsibility
- Importance of providing healthy meals in schools
- Status of progress to date
- Importance of parental education and involvement in preventing childhood obesity
- Impact of health on academic achievement
- Increased awareness/importance of making people aware of the problem
- Importance of role models for children
- Gap between childhood obesity and implementation
- Collaboration among state agencies/communities to prevent childhood obesity

In 2010, interviews with state legislators indicate shifting concerns in addressing childhood obesity. Key themes emerging from the interviews with Senators and Representatives include:

- Improving school nutrition, increasing health education, and increasing physical education as priorities
- Expressed support for the Mississippi Healthy Students Act
- Concern about budget constraints as these relate to the future of the legislation
- Strong support for assessment of the Act and interest in measuring success over time
- Belief that schools have a key role in promoting healthy lifestyles of both students and staff
- Commitment to funding health education and physical education programs as strategies to combat obesity-related issues
- Needed investment by individuals and communities in wellness incentive programs, funding of city parks and recreational venues, and safety improvements to existing programs and facilities
- Commitment to being informed state representatives on the issue of obesity through education
- Value of constituent feedback on the issue of obesity
- Commitment to communicating information regarding the Mississippi Healthy Students Act and the importance of health education to all Mississippians

POLICYMAKERS: DISTRICT SUPERINTENDENTS AND SCHOOL BOARD

MEMBERS

As noted in the Year 1 (2009) report, that without a systemic policy changes and implementation of the policies at the local school level, the Healthy Student Act of 2007, per se, will face great difficulties in changing the school environment. This section of our report focuses upon the school superintendents and school board members at the local level, providing insights into the findings of Year 2 (2010) by which local policymakers are implementing the Mississippi Healthy Students Act of 2007.

Methodology

Telephone survey of public school superintendents

The survey was conducted by the Wolfgang Frese Survey Research Laboratory of the Social Science Research Center at Mississippi State University. The population included 149 school superintendents. The data collection period spanned from late-July to late August, 2010. There were 104 superintendents who completed the survey for a response rate of 70 %. Given that this was not a random sample, margin of error must not be calculated. The data from this survey represent a census with a minimal non-response rate.

Survey of school board members

Researchers were given permission by Dr. Michael Waldrop, Executive Director of the Mississippi School Boards Association (MSBA), to distribute the surveys at their state-wide meeting of school board members on February 23, 2010. Surveys were included in the packet of each individual school board member, with a cover letter to: 1) explain the purpose of the survey and 2) provide a self-addressed envelope that individuals could insert the completed survey. A member of the research team was in attendance, to answer any questions and to collect the surveys at the end of the meeting. After collecting the surveys from the February, 2010 meeting, the response rate was less than optimal and plans were made to send out surveys to each of the public school district offices, requesting that any school board members who had not had the opportunity to complete the survey, be given the survey and a self-addressed, stamped envelope to return the completed survey to the SSRC research team. Again, the response rate was less than expected and written reminders were sent to school district offices, in an attempt to increase

the response rate. For a final appeal in 2010, two members of the research team attended the April, 2010 MS School Board Association meeting and requested that any school board members who were in attendance, but had not completed the surveys do so at this meeting. The final response rate was 33.94% for school board members (251/739). The multiple attempts resulted in an improvement over Year 1 (2009) response rate of 20.8%.

Findings

Implementing the Healthy Students' Act of 2007

School superintendents reported that their school districts are making substantial progress in this area, with more than forty percent (43.3%) noting that their progress was at the 75% level of implementation for Year 2. Also in year 2 (2010), 15.4% of school superintendents reported that their districts are at the 100% implementation level, up from 9.1% at the 100% level in 2009. There was less change between Year 1 & Year 2 when asked about the level of feedback that school superintendents and school board members had received from parents on implementing the Mississippi Healthy Students Act of 2007, the majority reported either “none” or “minimal.” In 2010, superintendents reported the combined categories of “none” or “minimal” as 67.3% as compared to 71.9% in 2009. Among school board members, the same two categories accounted for 64.4% in 2010, compared to 64.5% in 2009.

Figure 17. Progress on implementation of the Mississippi Healthy Students Act of 2007

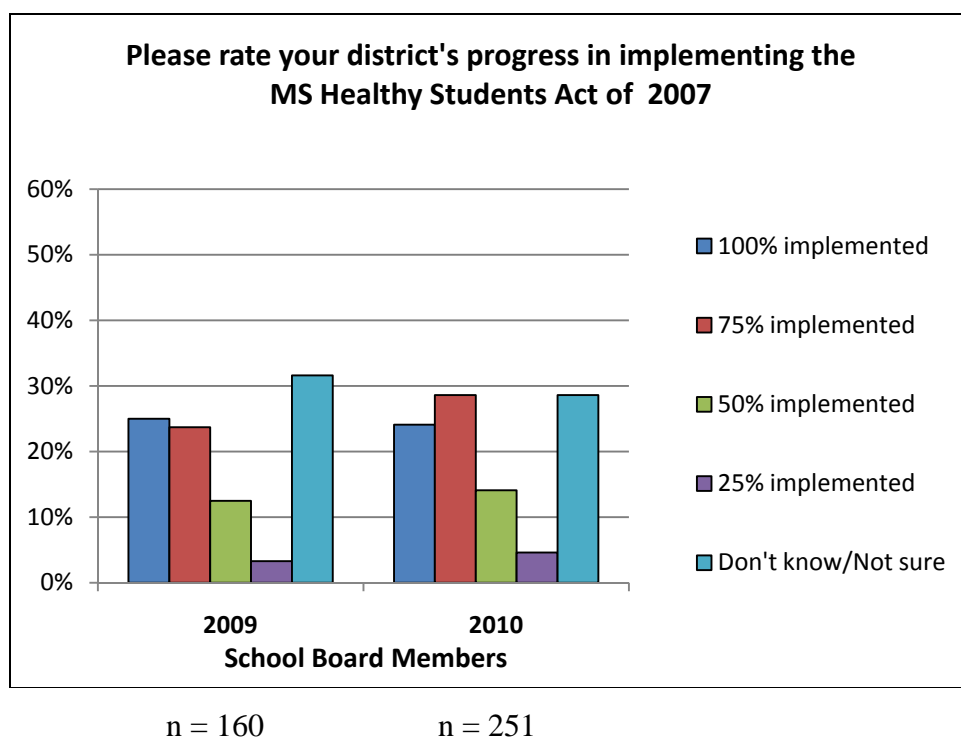
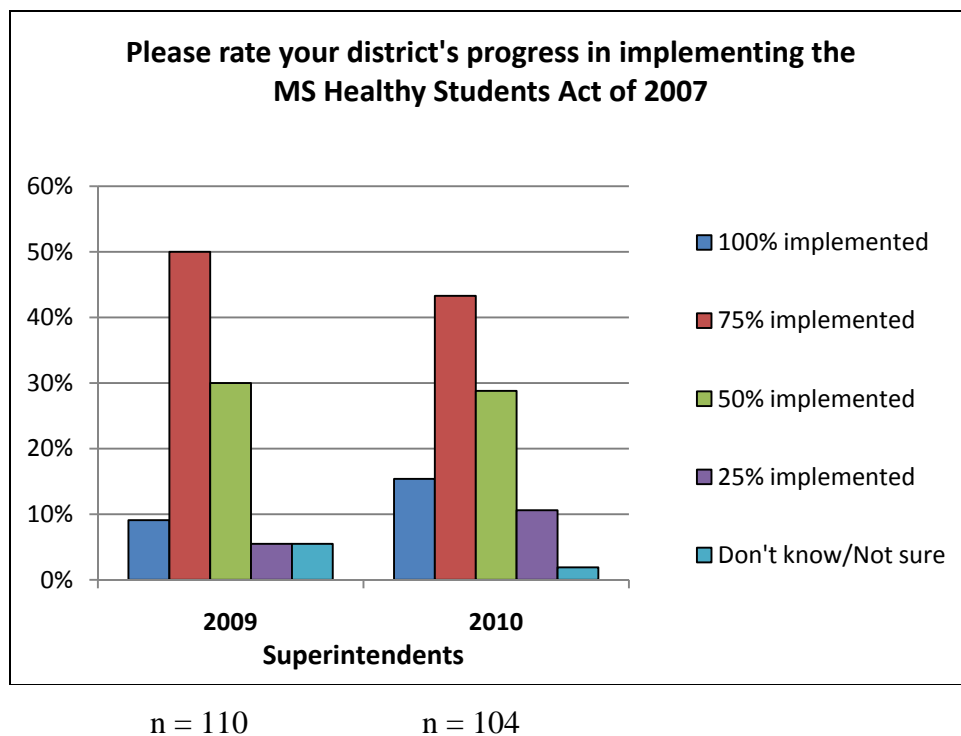


Figure 18. Parent feedback on implementing the Mississippi Healthy Students Act of 2007

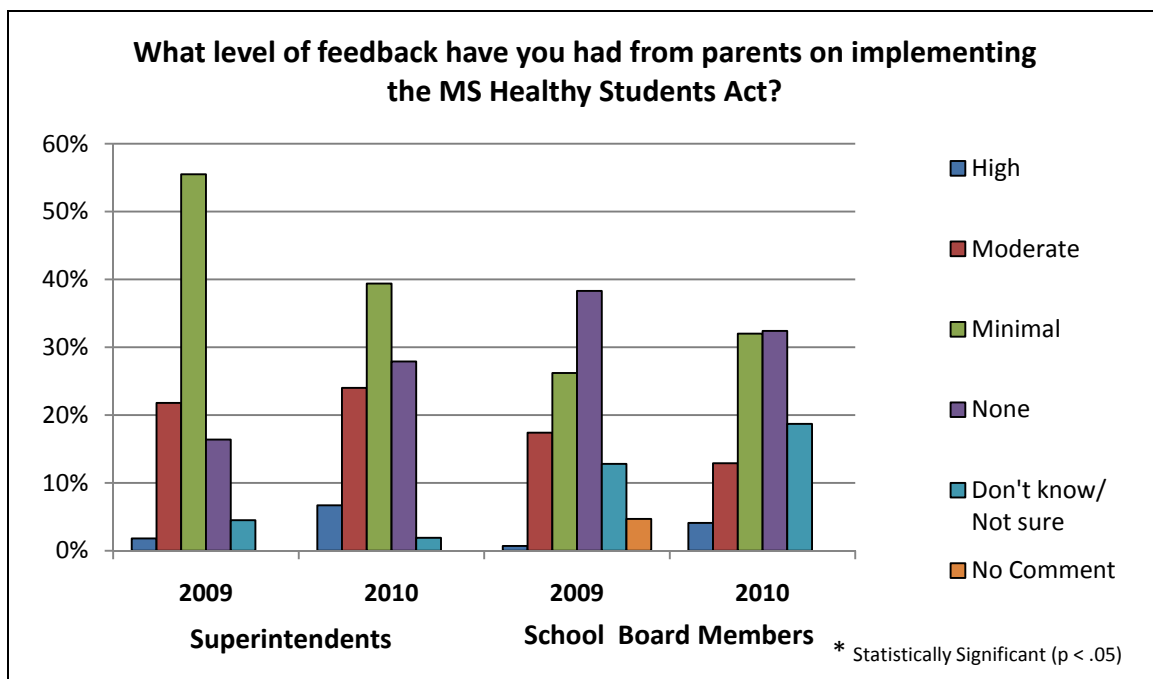
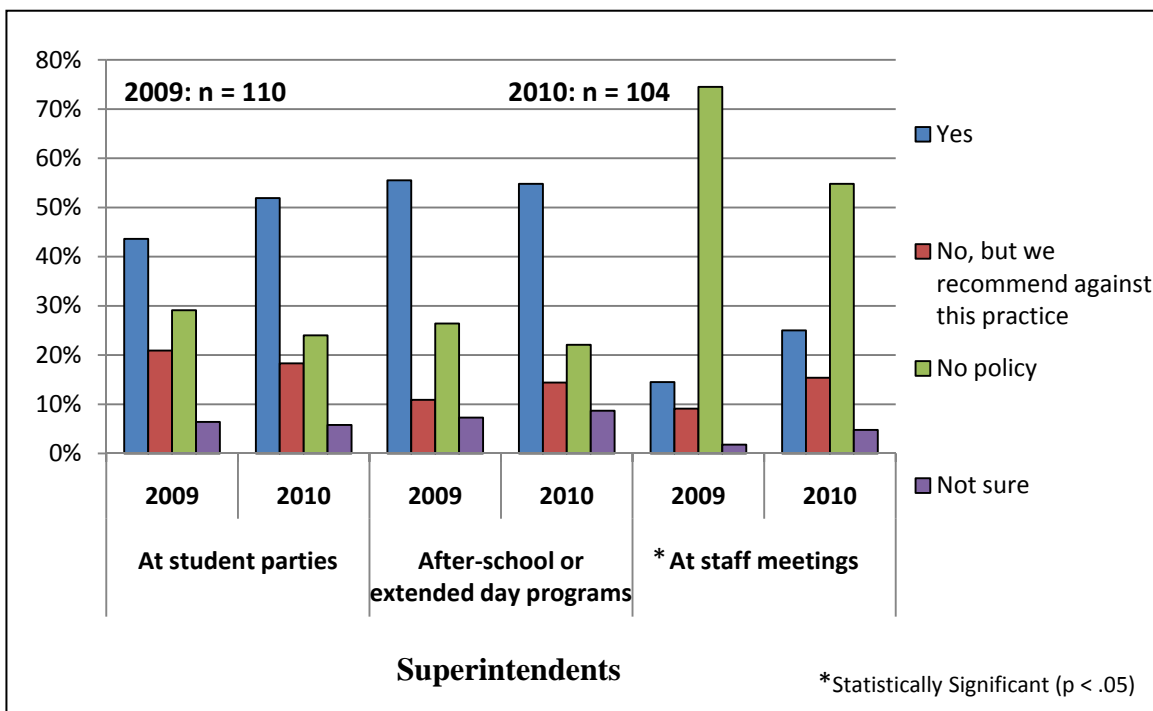
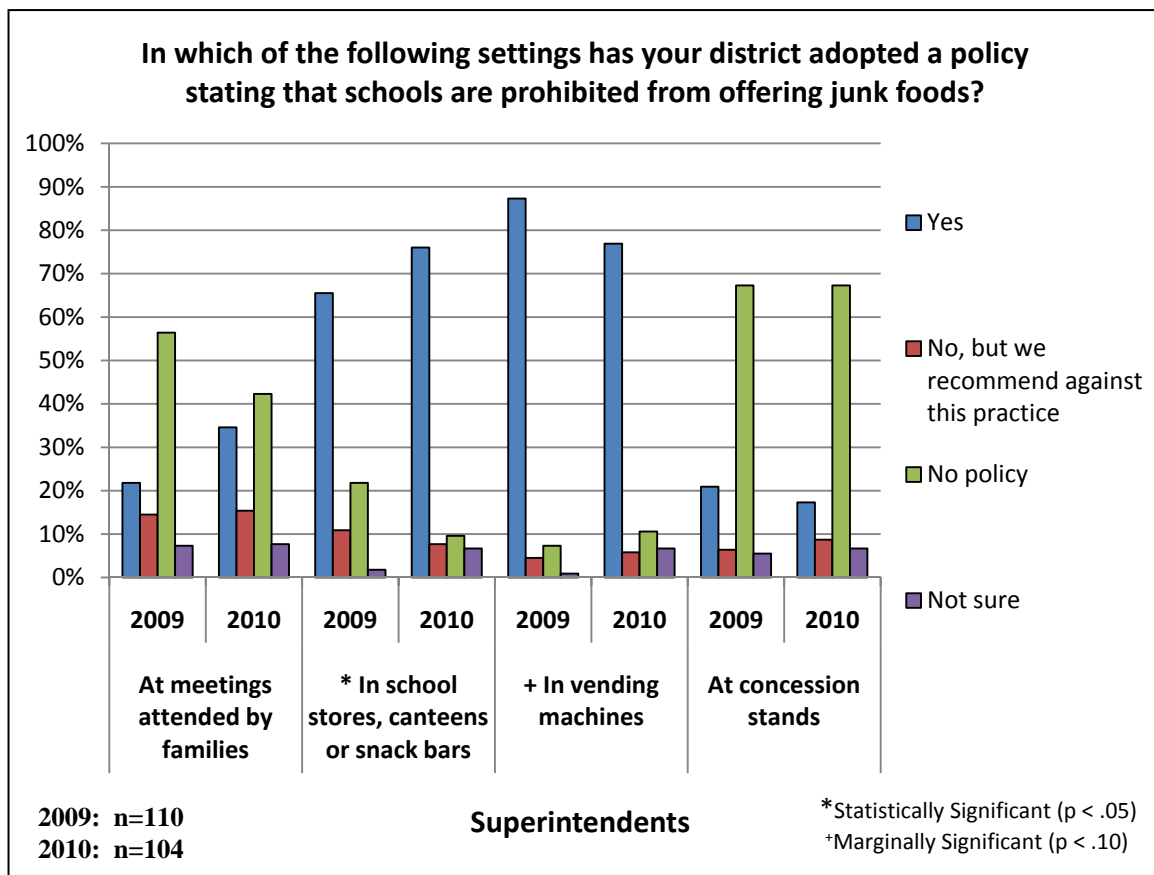


Figure 19. Adopted policies to prevent childhood obesity





School board policies: school nutrition and physical activity

Both school superintendents (92.3%) and school board members (84.3%) reported being either “somewhat satisfied” or “very satisfied” with the progress that their school district is making to create a healthier environment.

School nutrition

Approximately one fifth of school board members (22%) and one third of school superintendents (31.7%) reported that their school districts have adopted a policy to prohibit the use of food or food coupons as a reward for good behavior or good academic performance.

When asked if their school districts were doing enough to strengthen policies on nutrition, 68.3% of school superintendents answered affirmatively, compared to 48.2% of school board members.

Table 7. School district policy on prohibiting using food as a reward

Does your school district have a policy that prohibits the use of food or food coupons as a reward for good behavior or good academic performance?					
RESPONSE	2009	%	2010	%	Percent Change
Yes, we prohibit	26	23.6	33	31.7	8.1
We recommend against	30	27.3	23	22.1	-5.2
We do not have a policy	48	43.6	42	40.4	-3.3
Don't know/ Not sure	6	5.5	6	5.8	0.3
Total	110	100	104	100	

Has your school board adopted a policy stating that schools are prohibited from using food or food coupons as a reward for good behavior or good academic performance?					
RESPONSE	2009	%	2010	%	Percent Change
Yes, we prohibit	28	20.1	53	22.0	1.8
We recommend against	20	14.4	43	17.8	3.5
We do not have a policy	52	37.4	75	31.1	-6.3
Don't know/ Not sure	6	4.3	0	0.0	-4.3
No comment	33	23.7	70	29.0	5.3
Total	139	100	241	100	* YES

* Statistically Significant ($p < .05$)

⁺ Marginally Significant ($p < .10$)

Table 8. School has a district-wide fundraising policy

Do you think the STATE OF MISSISSIPPI has done enough to strengthen school policies on nutrition?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	78	70.9	69	66.3	-4.6
No	25	22.7	24	23.1	0.3
Undecided	4	3.6	10	9.6	6.0
Don't know / Not sure	3	2.7	1	1.0	-1.8
Total	110	100	104	100	

Do you think the STATE OF MISSISSIPPI has done enough to strengthen school policies on nutrition?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	46	32.6	79	32.1	-0.5
No	60	42.6	107	43.5	0.9
No comment	2	1.4	0	0.0	-1.4
Undecided	24	17.0	44	17.9	0.9
Don't know / Not sure	9	6.4	16	6.5	0.1
Total	141	100	246	100	

When asked, “How important do you think prevention of childhood obesity is for the state of Mississippi?”, with 1 being least important and 5 being most important, 85.2% of school board compared to 92.3% of school superintendents who answered either 4 or 5.

Figure 20

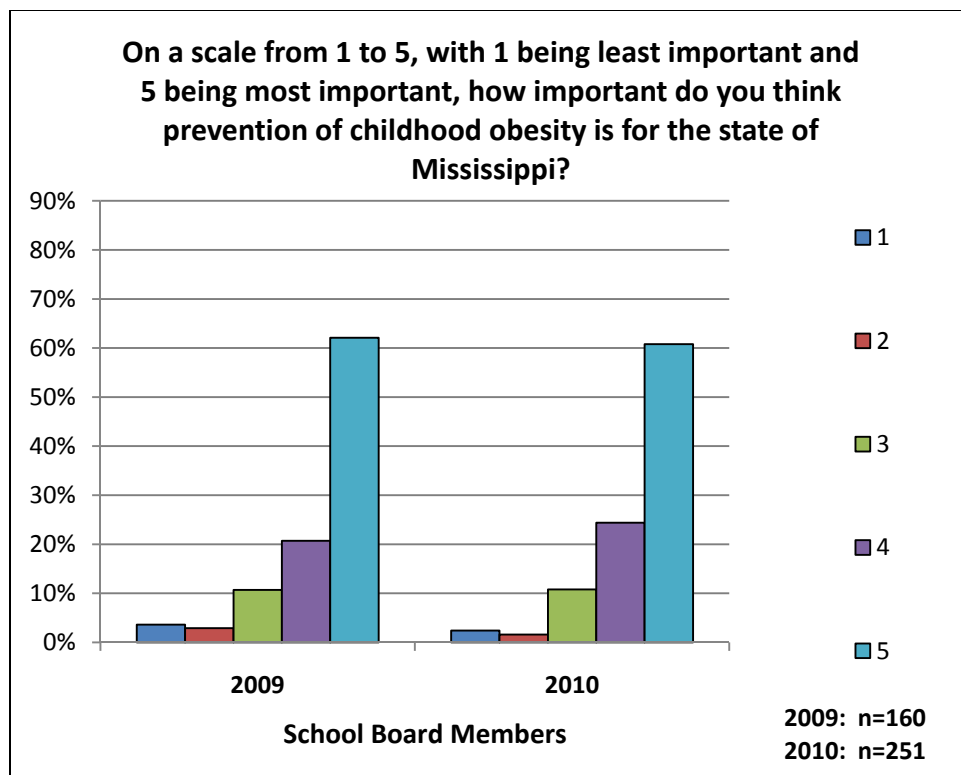
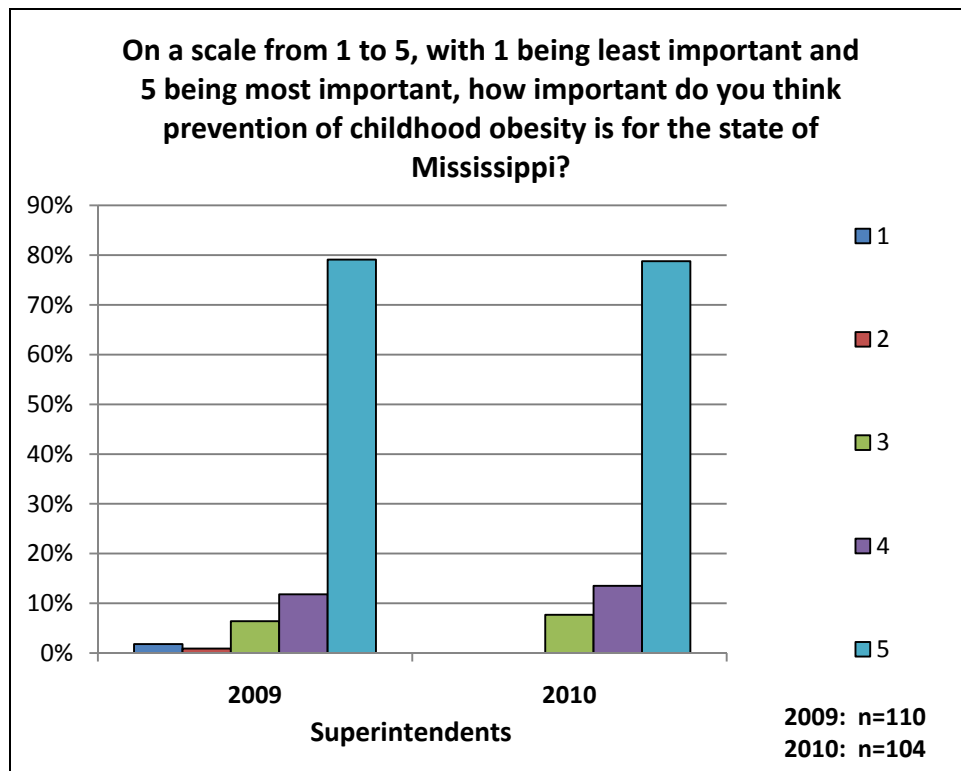
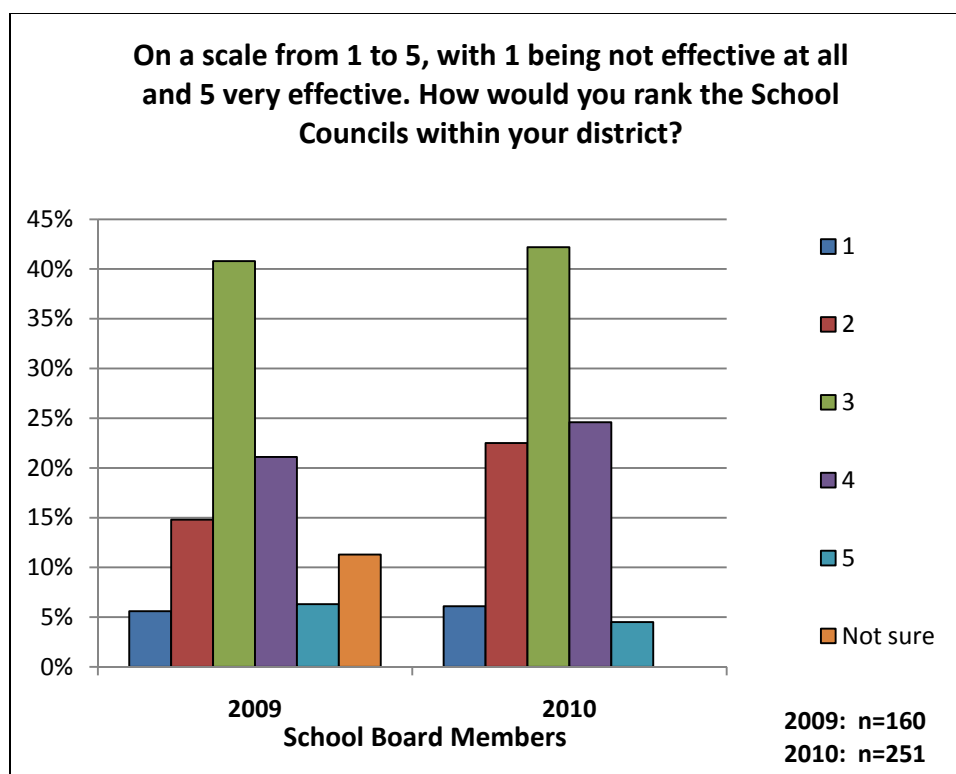
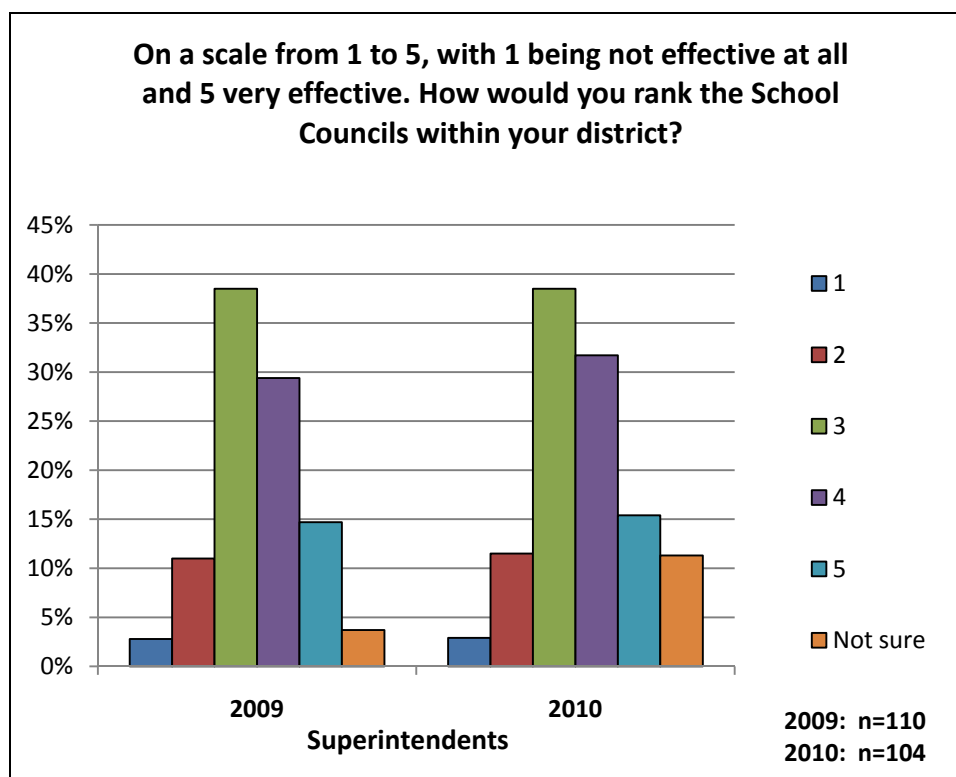


Figure 21. How Mississippi ranks on addressing childhood obesity



Physical activity

When asked if their school district has done enough to strengthen school policies on physical education, 65.4% of school superintendents and 42.8% of school board members responded affirmatively.

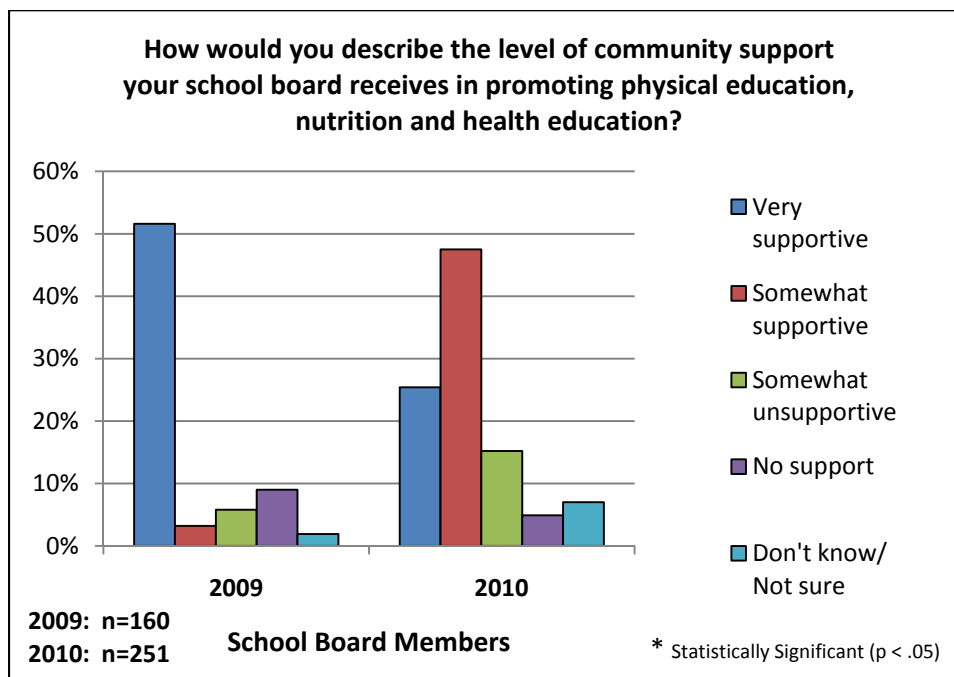
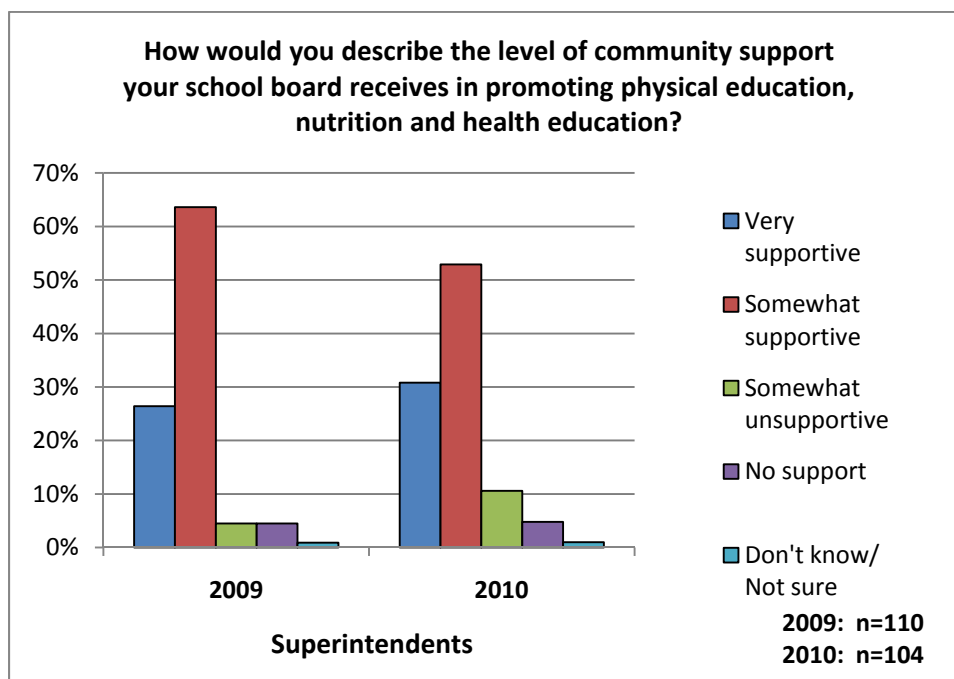
Table 10. Policies adopted in the past year to increase student physical activity

In the past year, has your school district adopted any new policies to increase the students' physical activity?					
Superintendents	2009		2010		
Response	n	%	n	%	Percent Change
Yes	68	61.8	19	18.3	-43.5
No	38	34.5	79	76	41.4
Don't know/Not sure	4	3.6	6	5.8	2.1
Total	110	100	104	100	* YES

Level of community support

Both school board members and district superintendents of education noted their communities were either very supportive or somewhat supportive of promoting physical education, nutrition and health education in their schools. Specifically, 83.7% of school superintendents, while school board members reported 72.9% of communities were either somewhat supportive or very supportive.

Figure 22. Community support for promoting physical education, nutrition, and health education



How would you describe the level of community support your school board receives in promoting physical education, nutrition and health education?					
RESPONSE	2009	%	2010	%	Percent Change
Very supportive	29	26.4	32	30.8	4.4
Somewhat supportive	70	63.6	55	52.9	-10.8
Somewhat unsupportive	5	4.5	11	10.6	6.0
No support	5	4.5	5	4.8	0.3
Don't know/Not sure	1	0.9	1	1.0	0.1
Total	110	100	104	100	

SBM

How would you describe the level of community support your school board receives on promoting physical education, nutrition and health education?					
RESPONSE	2009	%	2010	%	Percent Change
Don't know/Not sure	13	9.5	17	7.0	-2.5
No comment	3	2.2	0	0.0	-2.2
No support	8	5.8	12	4.9	-0.9
Somewhat unsupportive	5	3.6	37	15.2	11.5
Somewhat supportive	71	51.5	116	47.5	-4.3
Very supportive	37	27.0	62	25.4	-1.6
Total	137	100	244	100	*YES

Fitness testing and informing parents

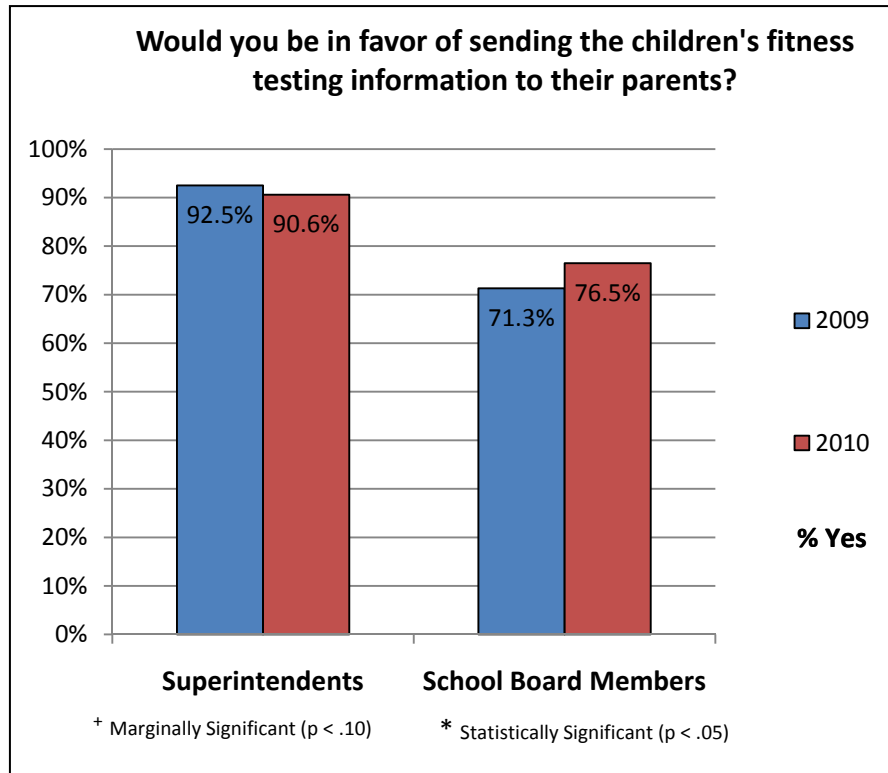
In 2010, almost two thirds (61.5%) of superintendents reported that schools in their district conduct fitness testing, compared to 72.7% in 2009. Among school board members, in 2010, just over one third (33.6%) reported that their district conducts fitness testing compared to about one third (35%) who stated that their districts conduct fitness testing in 2009. Both school board members and superintendents stated they are in favor of sending this [fitness testing results] to children's parents, namely 90.6% of superintendents and 76.5% of school board members.

Table 11. Fitness testing at school

Do schools in your district conduct fitness testing?					
Superintendents	2009		2010		
Response	n	%	n	%	Percent Change
Yes	80	72.7	64	61.5	-11.2
No	21	19.1	30	28.8	9.8
Don't know/Not sure	9	8.2	10	9.6	1.4
Total	110	100	104	100	

Do schools in your district conduct fitness testing?					
School Board Members	2009		2010		
Response	n	%	n	%	Percent Change
Yes	55	35.0	82	33.6	-1.4
No	32	20.4	63	25.8	5.4
Don't know/Not sure	68	43.3	99	40.6	-2.7
No comment	2	1.3	0	0.0	-1.3
Total	157	100	244	100	

Figure 23. Approve of sending fitness testing results to parents



Body Mass Index (BMI) testing and informing parents

In 2010, the majority of both superintendents (62.5%) and school board members (63.6%) noted that they are in favor of collecting BMIs on children, and 89% of superintendents and 78.8% of school board members are in favor of sending BMI results home to parents.

Figure 24. Approve of BMI collection

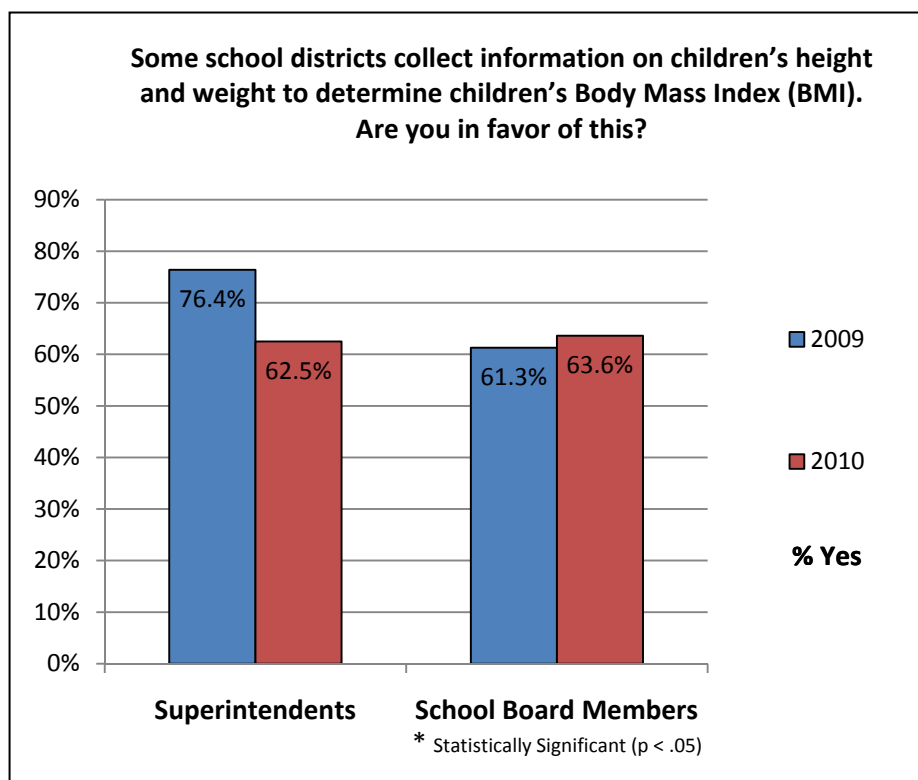


Table 12. Approve of BMI collection

Some school districts collect information on children's height and weight to determine children's Body Mass Index (BMI). Are you in favor of this?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	84	76.4	65	62.5	-13.9
No	23	20.9	31	29.8	8.9
Don't know/ Not sure	3	2.7	7	6.7	4.0
Refused	0	0.0	1	1.0	1.0
Total	110	100	104	100	

Some school districts collect information on children's height and weight to determine children's Body Mass Index (BMI). Are you in favor of this?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	95	61.3	157	63.6	2.3
No	25	16.1	40	16.2	0.1
No comment	6	3.9	0	0.0	-3.9
Don't know/Not sure	29	18.7	50	20.2	1.5
Total	155	100	247	100	* YES

Staff wellness programs

When asked their opinion of the importance of providing staff wellness programs in their schools, 88.7% of school board members responded either very important or moderately important, and 87.8% of superintendents responded either very important or moderately important.

Table 13. Importance of staff wellness programs

In your opinion, how important is it to provide staff wellness program(s)?					
RESPONSE	2009	%	2010	%	Percent Change
Very important	71	64.5	55	52.9	-11.7
Moderately important	35	31.8	41	39.4	7.6
Not important at all	4	3.6	6	5.8	2.1
Don't know	0	0.0	2	1.9	1.9
Total	110	100	104	100	

In your opinion, how important is it to provide staff wellness program(s)?					
RESPONSE	2009	%	2010	%	Percent Change
Very important	88	58.7	150	62.8	4.1
Moderately important	46	30.7	62	25.9	-4.7
Not important at all	2	1.3	7	2.9	1.6
No comment	6	4.0	0	0.0	-4.0
Don't know/Not sure	8	5.3	20	8.4	3.0
Total	150	100	239	100	* YES

For a more detailed breakdown of each of the responses and response categories by both school board members and superintendents reported in this section, please see Appendix C.

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Appendix A

State Board of Education Interview Guide

Introduction—1st Telephone Contact:

Hello. My name is _____. I am from Mississippi State University, and am calling regarding a project that is designed to evaluate the Mississippi Healthy Students Act of 2007. As you may recall, this research is sponsored by the Center for Mississippi Health Policy and funded by the Robert Wood Johnson Foundation.

As a part of this research, we would like to interview _____, regarding his/her opinions about childhood obesity policies.

Any information we gather will only be released as group information and will not be attributed to any individual board member. Is there a time when I may speak with _____ for about 20 minutes in the next two (2) weeks?

Objectives (if asked to describe the study/project in more detail):

1. To learn State Board of Education members perspectives on the passage and implementation of the Mississippi Healthy Students Act of 2007.
2. To understand State Board of Education members knowledge, attitudes and support for ways to prevent obesity among Mississippi's children.

Interview Script/Guide:

Name: _____

Hello, Dr/Mr/Ms _____. Thank you for agreeing to participate in this interview. We appreciate your time last year and are interested in following up to learn your opinions on the childhood obesity legislation of the Mississippi Healthy Students Act of 2007. **[If the Board Member is new, the sentence above will read as follows: “We are interested in learning your opinions on the childhood obesity legislation of the Mississippi Healthy Students Act of 2007:”]** As you know, this legislation affected physical education, nutrition and health education in the schools. We are also interested in your perspectives on additional policies that could assist in the prevention of obesity among Mississippi's children. We believe that the results of our research will be helpful to improve programs throughout the state of Mississippi.

We would like to have your permission to tape this interview. Any information we gather from this research will be kept confidential and will not be attributed to any individual board member. That is, the responses from all Board of Education members will be grouped together. Quotes may be used, but they will not be attributed to any individual board member. The tape will be used only to help with the transcription of the interview, and there will be no identifying information on the tape. Your name will not be used.

Your participation in this interview is completely voluntary, and you do not have to answer any question that you choose not to. Should you have further questions or need more information, please feel free to contact Ms. Dorris Baggett at (662) 325-7127 or Ms. Anne Buffington at (662) 325-1590. [We will also give them a business card w/ our contact information]

Do I have your permission to record this interview?

(Note to interviewer: If yes, proceed. If no, use longer form with spaces for notes.)

May I begin?

1. How familiar are you with the requirements of the MS Healthy Students Act of 2007?

- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Somewhat unfamiliar
- ☐ Very unfamiliar
- ☐ Don't know / Not sure

2. As you may recall, there are three (3) major components of the Mississippi Healthy Students Act of 2007,

- Improving physical education
- Improving school nutrition and
- Increasing health education

Of these components, which do you see as most important? As next important?

- Improving physical education
- Improving school nutrition and
- Increasing health education

3. Are you aware that the Center for Mississippi Health Policy is conducting a 5-year evaluation of the Mississippi Healthy Students Act of 2007?

- If yes, go to question 4
- If no, go to question 5

4. Have you seen a copy of the evaluation report for year 1? (show them a copy of the report)

5. On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?

Least important

1

2

3

4

Most important

5

6. How would you rate where the state of Mississippi is on addressing childhood obesity policies, with 1 being Mississippi's policies are not at all effective in addressing childhood obesity and 5 being Mississippi's policies are very effective in addressing childhood obesity?

5

- 98

on physical education?

12. If No to any of these in Q#11, then go to 12A

12A. What other policies need to be enacted?

If yes to all questions, then go to Q # 13.

13. Do you think that students are receiving enough education in each of the following areas?

Nutrition?

Health?

Physical education?

14. Do you think it is important for schools to promote healthy lifestyles for the following groups?

▪ Students?

▪ Staff?

15. To what extent do you think the schools in the state are implementing the minimum requirements of Coordinated School Health Programs?, with 1 being they are not doing a very good job and 5 being they are doing a good job.

Not doing a very good job

Doing a good job

1 2 3 4 5

16. Many things can have an impact on the prevention of childhood obesity. Please rate the following things that exist outside of the school setting, with a rating of 1 meaning that it has no impact and a rating of 5 meaning that it has a very large impact.

	No impact			Very large impact	
Child care centers	1	2	3	4	5
Nutrition labeling	1	2	3	4	5
Media policy (restrictions on advertising, promoting positive messages)	1	2	3	4	5
Farmers' markets	1	2	3	4	5
Body Mass Index (BMI) (measuring children's height and weight) reporting	1	2	3	4	5
Built environment (sidewalks, parks, green space, bike lanes)	1	2	3	4	5
Fat and trans fat restrictions	1	2	3	4	5

Location of Supermarkets
(proximity to where residents live) 1 2 3 4 5

17. Do you think local government funds should be spent to build and maintain places in your community where people can exercise?

Yes

No

Don't know/Not sure

18. Do you think schools should make school facilities, such as gym tracks, ball fields, or playgrounds, available to the community after school hours to promote physical activity/education programs?

Yes

No

Don't know/Not sure

19. Besides schools, what other places or groups/organizations if any, do you think have an important role in decreasing childhood overweight and/or obesity in Mississippi?

20. Who do you rely upon to get information on childhood obesity in Mississippi?

21. Some school districts collect information on children's *height and weight* to determine children's Body Mass Index (BMI). Are you in favor of this?

Yes

No

Don't know/Not sure

22. If yes, are you in favor of sending this information to children's parents?

Yes

No

Don't know/Not sure

23. School districts are required to conduct fitness testing in certain grades. Are you in favor of sending the results of this testing to students' parents?

Yes

No

Don't know/Not sure

24. Some school districts have adopted policies stating that schools are prohibited from offering "junk" foods (foods which provide calories primarily through fats or added sugars and have minimal amounts of vitamins and minerals) in the following settings:

What are your thoughts on each of the following?

	Prohibit	Recommend Against	No Policy	Not Sure/No Comment
At student parties				
In after-school or extended day programs				
At staff meetings				
At meetings attended by families				
In school stores, canteens or snack bars				
In vending machines				
At concession stands				

25. Generally speaking, what if anything, makes it most difficult for the schools in Mississippi to meet Physical Education and Nutrition requirements?

26. To what extent do you believe there is a positive association between implementation of Coordinated School Health Programs in the school district and the academic performance of the students?

- Not at all
- Somewhat
- A fair amount
- A great deal
- Don't know/not sure

27. In your opinion, how important is it to provide staff wellness program(s)?

- Very important
- Moderately important
- Not important at all
- Don't know/not sure

28. Generally speaking, how would you rate the effectiveness of School Health Councils with 1 being not effective at all and 5 being very effective, h?

Not effective at all Very effective
1 2 3 4 5

29. Is there anything else you would like to share about your experience and knowledge regarding childhood obesity legislation and state policies? (Probe/Follow-up if needed: How is this an education concern)?

Thank you so much for your time. We know how busy you are, and we are pleased that you made time to share this important information.

Would you like a copy of the report or to be put on a mailing list for the report? (if so, obtain email or mailing address).

Mississippi State Board of Health Members' Interview Guide

Introduction: 1st Telephone Contact:

Hello. My name is _____. I am from Mississippi State University and am calling regarding a project that is designed to evaluate the Mississippi Healthy Students Act of 2007. This research is sponsored by the Center for Mississippi Health Policy and funded by the Robert Wood Johnson Foundation.

As a part of this research, we would like to interview _____, regarding his/her opinions about childhood obesity policies.

Any information we gather will only be released as group information and will not be attributed to any individual board member. Is there a time when I may speak with _____ for about 20 minutes in the next two (2) weeks?

Objectives (if asked to describe the study/project in more detail):

1. To learn (State Board of Health Member's) perspectives on the passage and implementation of the Mississippi Healthy Students Act of 2007.
2. To understand (State Board of Health Member's) knowledge, attitudes and support for ways to prevent obesity among Mississippi's children.

Interview Script/Guide:

Name: _____

Dr/Mr/Ms _____, thank you for agreeing to participate in this interview. We appreciate your time last year and are interested in following up to learn your opinions on the childhood obesity legislation of the Mississippi Healthy Students Act of 2007. **[If Board member is new, the sentence above will read as follows: "We are interested in learning your opinions on the childhood obesity legislation of the Mississippi Healthy Students Act of 2007."]** As you know, this legislation affected physical education, nutrition and health education in the schools. We are also interested in your perspectives on additional policies to assist in the prevention of obesity among Mississippi's children. We believe that results of our research will be helpful to improve programs throughout the state of Mississippi.

We would like to have your permission to tape this interview. Any information we gather from this research will be kept confidential and will not be attributed to any individual board member. That is, the responses from all Board of Health members will be grouped together. Quotes may be used, but they will not be attributed to any individual board member. The tape will be used only to help with the transcription of the interview and no identifying information will be on the tape. Your name will not be used. Your participation in this interview is completely voluntary, and you do not have to answer any question that you choose not to. Should you have further questions or need more

information, please feel free to contact Ms. Dorris Baggett at (662) 325-7127 or Ms. Anne Buffington at (662) 325-1590. [We will also provide them with a business card with our contact information]

Do I have your permission to record this interview?

Note to interviewer

If yes, proceed.

If no....use longer form with spaces (for notes)

May I begin?

30. How familiar are you with the requirements of the MS Healthy Students Act of 2007?

- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Somewhat unfamiliar
- ☐ Very unfamiliar
- ☐ Don't know / Not sure

31. As you may recall, there are three (3) major components of the Mississippi Healthy Students Act of 2007,

Improving physical education
Improving school nutrition and
Increasing health education

Of these components, which do you see as most important? As next important?

- Improving physical education
- Improving school nutrition and
- Increasing health education

32. Are you aware that the Center for Mississippi Health Policy is conducting a 5-year evaluation of the Mississippi Healthy Students Act of 2007?

If yes, go to question 4

If no, go to question 5

33. Have you seen a copy of the evaluation report for year 1? (show a copy of the report)

34. On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?

Least important

1

2

3

4

Most important

5

35. How would you rate where the state of Mississippi is on addressing childhood obesity policies, with 1 being Mississippi's policies are not at all effective in

addressing childhood obesity and 5 being Mississippi's policies are very effective in addressing childhood obesity?

Not at all effective
1 2 3 4 5
Very effective

36. Among individuals and health department districts with whom you interact, what has been your impression of their reaction to the MS Healthy Students Act of 2007?

(Probe/follow-up, if needed)

For example, have you heard anything from school personnel? physicians, school nurses?

37. How do you think we should measure success of this legislation?

(Probe/follow-up, if needed)

For example, fitness testing, decrease in % of children who are obese more 'fit' workforce (economic dev issue)

38. Do you see a role for the State Department of Health in obesity prevention?

- Yes
- No

If yes, go to question #10. If no, go to question #11.

39. Please rate the following target areas that can be addressed by public health, by level of importance, with 1 being not at all important and 5 being very important:

	Not at all important				Very important Increasing	
	1	2	3	4	5	
physical activity						
Increasing consumption of fruits & vegetables		1	2	3	4	5
Decreasing consumption of high calorie, dense foods		1	2	3	4	5
Decreasing children's screen time (TV viewing, computer time)		1	2	3	4	5
Encouraging breastfeeding		1	2	3	4	5
Decreasing consumption of sugary beverages		1	2	3	4	5

40. Do you see a role for the local and/or district Health Departments in promoting the MS Healthy Students Act of 2007?

41. Do you think that the state of Mississippi has done enough to strengthen the school policies

on nutrition?

on health education?

on physical education?

42. If NO to any of these on Q#12, then what other policies need to be enacted?

43. Many things can have an impact on the prevention of childhood obesity. Please rate the following things that exist outside of the school setting, with a rating of 1 meaning that it has no impact and a rating of 5 meaning that it has a very large impact.

	No impact			Very large impact	
	1	2	3	4	5
Child care centers					
Nutrition labeling					
Media policy (restrictions on advertising, promoting positive messages)					
Farmers' markets					
Body Mass Index (measuring children's height and weight) reporting					
Built environment (sidewalks, parks, green space, bike lanes)					
Fat and Trans fat restrictions					
Location of Supermarkets (proximity to where residents live)					

44. Do you think local government funds should be spent to build and maintain places in your community where people can exercise?

Yes

No

Don't know/Not sure

45. Is there anything else you would like to share about your experience and knowledge regarding childhood obesity legislation?

Thank you so much for your time. We know how busy you are, and we are pleased that you made time to share this important information.

Would you like a copy of the report or to be put on a mailing list for the report? (if so, obtain email or mailing address).

District Health Officers Interview Guide

Introduction: 1st Telephone Contact:

Hello. My name is _____. I am from Mississippi State University, and am calling regarding a project that is designed to evaluate the Mississippi Healthy Students Act of 2007. This research is sponsored by the Center for Mississippi Health Policy and funded by the Robert Wood Johnson Foundation.

As a part of this research, we would like to interview _____, regarding his/her opinions about childhood obesity legislation.

Any information we gather will only be released as group information and will not be attributed to any individual person. Is there a time when I may speak with _____ for about 15 minutes in the next two (2) weeks?

Objectives (if asked to describe the study/project in more detail):

1. To learn District Health Officers' perspectives on the passage and implementation of the Mississippi Healthy Students Act of 2007.
2. To understand District Health Officers knowledge, attitudes and support for ways to prevent obesity among Mississippi's children.

Interview Script/Guide:

Name: _____

Dr. _____, thank you for agreeing to participate in this interview. We appreciate your time last year and are interested in following up to learn your opinions on the childhood obesity legislation of the Mississippi Healthy Students Act of 2007. **[If Officer is new, the sentence above will read as follows: "We are interested in learning your opinions on the childhood obesity legislation of the Mississippi Healthy Students Act of 2007."]** As you know, this legislation affected physical education, nutrition and health education in the schools. We are also interested in your perspectives on additional policies to assist in the prevention of obesity among Mississippi's children. We believe that results of our research will be helpful to improve programs throughout the state of Mississippi.

We would like to have your permission to tape this interview. Any information we gather from this research will be kept confidential and will not be attributed to any individual person. That is, the responses from all District Health Officers will be grouped together. Quotes may be used, but they will not be attributed to any individual health officer. The tape will be used only to help with the transcription of the interview, and there will be no identifying information on the tape. Your name will not be used. Your participation in this interview is completely voluntary, and you do not have to answer any question that you choose not to. Should you have further questions or need more information, please feel free to contact Ms. Dorris Baggett at (662) 325-7127 or Ms. Anne Buffington at

(662) 325-1590. [We will also provide them with a business card with our contact information]

Do I have your permission to record this interview?

Note to interviewer

If yes, proceed.

If no....use longer form with spaces (for notes)

May I begin?

1. How familiar are you with the requirements of the MS Healthy Students Act of 2007?

- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Somewhat unfamiliar
- ☐ Very unfamiliar
- ☐ Don't know / Not sure

2. As you may recall, there are three (3) major components of the Mississippi Healthy Students Act of 2007,

- Improving physical education
- Improving school nutrition and
- Increasing health education

Of these components, which do you see as most important? As next important?

- Improving physical education
- Improving school nutrition and
- Increasing health education

3. Are you aware that the Center for Mississippi Health Policy is conducting a 5-year evaluation of the Mississippi Healthy Students Act of 2007?

If yes, go to question 4

If no, go to question 5

4. Have you seen a copy of the evaluation report for year 1?

5. On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?

Least important

1

2

3

4

Most important

5

6. How would you rate where the state of Mississippi is on addressing childhood obesity policies, with 1 being Mississippi's policies are not at all effective in addressing childhood obesity and 5 being Mississippi's policies are very effective in addressing childhood obesity?

Not at all effective Very effective
 1 2 3 4 5

7. Among individuals and health department districts with whom you interact, what has been your impression of their reaction to the MS Healthy Students Act of 2007

(Probe/follow-up, if needed: For example, have you heard anything from the district administrators? County nurses? Physicians, school nurses, parents?)

8. How do you think we should measure success of this legislation?

(Probe/follow-up, if needed)

For example, fitness testing, decrease in % of children who are obese
 more 'fit' workforce (economic dev issue)

9. Do you see a role for District and County Health Offices in obesity prevention?

- Yes
- No

If yes, go to question #10. If no, go to question #11.

10. Please rate the following target areas that can be addressed by public health, by level of importance, with 1 being not at all important and 5 being very important.

	Not at all important			Very important	
	1	2	3	4	5
Increasing physical activity	1	2	3	4	5
Increasing consumption of fruits & vegetables	1	2	3	4	5
Decreasing consumption of high calorie, dense foods	1	2	3	4	5
Decreasing children's screen time (TV viewing, computer time)	1	2	3	4	5
Encouraging breastfeeding	1	2	3	4	5
Decreasing consumption of sugary beverages	1	2	3	4	5

11. Do you see a role for the district or county health offices in promoting the MS Healthy Students Act of 2007?

12. How involved is the staff in your district in assisting the schools in implementing coordinated school health programs? Please list any initiatives that you are aware of.

13. Do you think Mississippi has done enough to strengthen the school policies
on nutrition?
on health education?
on physical education?

14. If no to any of these on Q#13, then what other policies need to be enacted?

15. Many things can have an impact on the prevention of childhood obesity. Please rate the following things that exist outside of the school setting, with a rating of 1 meaning that it has no impact and a rating of 5 meaning that it has a very large impact.

	No impact			Very large impact	
	1	2	3	4	5
Child care centers					
Nutrition labeling					
Media policy (restrictions on advertising, promoting positive messages)					
Farmers' markets					
Body Mass Index (measuring children's height and weight) reporting					
Built environment (sidewalks, parks, green space, bike lanes)					
Fat and trans fat restrictions					
Location of Supermarkets (proximity to where residents live)					

16. Do you think local government funds should be spent to build and maintain places in your community where people can exercise?

Yes

No

Don't know/Not sure

17. Who do you rely upon to get information on childhood obesity in Mississippi?

18. Is there anything else you would like to share about your experience and knowledge regarding childhood obesity legislation? (Probe/follow up if needed: How is this a public health concern?)

Thank you so much for your time. We know how busy you are, and we are pleased that you made time to share this important information.

Would you like a copy of the report or to be put on a mailing list for the report? (if so, obtain email or mailing address)

Mississippi Key Legislators' Interview Guide (2010)

Introduction: 1st Telephone Contact:

Hello. My name is _____. I am from Mississippi State University and am calling regarding a project to evaluate the Mississippi Healthy Students Act of 2007, the Act passed for improving nutrition and physical education in the schools. This research is sponsored by the Center for Mississippi Health Policy and funded by the Robert Wood Johnson Foundation.

As a part of this research, we would like to interview Senator/Representative _____, regarding his/her opinions regarding childhood obesity legislation.

Any information we gather would only be released as group information and would not be attributed to any individual lawmaker. Is there a time when I may speak with _____ for about 20 minutes in the next two (2) weeks?

Objectives (if asked to describe the study/project in more detail):

1. To learn Sen/Rep____ perspectives on the passage and implementation of the Mississippi Healthy Students Act of 2007.

2. To understand Sen/Rep____ knowledge, attitudes and support for ways to prevent obesity of Mississippi's children.

Interview Script/Guide:

Name: _____

Senator/Representative _____, thank you for agreeing to participate in this interview. We appreciate your time last year and are interested in following-up to learn your opinions on the childhood obesity legislation of the Mississippi Healthy Students' Act of 2007. As you know, this legislation improved physical education, nutrition and health education in the schools. We are also interested in your perspectives on additional policies to assist in the prevention of obesity among Mississippi's children. We believe that results of our research will be helpful to improve programs throughout the state of Mississippi.

We would like to have your permission to tape this interview. Any information we gather from this research will be kept confidential and will not be attributed to any individual lawmaker. The tape will be used only to help with the transcriptions of the interviews and no identifying information will be on the tapes. Your name will not be used. Your participation in this interview is completely voluntary and you do not have to answer any of the questions that you choose not to. Should you have further questions or need more information, please feel free to contact Ms. Dorris Baggett at (662) 325-7127 or Ms. Anne Buffington at (662) 325-1590..

Do I have your permission to record this interview?

Note to interviewer

If yes, proceed.

If no....use longer form with spaces (for notes)

May I begin?

1. As you will recall, there are three (3) major components of the legislation,

- Improving physical education
- Improving school nutrition and
- Increasing health education

Of these components, which do you see as most important? As next important?

- Improving physical education
- Improving school nutrition and
- Increasing health education

2. Are you aware that the Center for Mississippi Health Policy is conducting a 5-year evaluation of the Healthy Students' Act of 2007?

If yes, go to question 3

If no, go to question 4

3. Have you seen a copy of the evaluation report for year 1?

4. On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?

5. How would you rank where the State of Mississippi is on addressing childhood obesity policies, with 1 being Mississippi's policies are not at all effective in addressing childhood obesity and 5 being Mississippi's policies are very effective in addressing childhood obesity?

1 2 3 4 5

6. IF Representative---Ask

What do you think is the general consensus of the House on maintaining improvements made by the Mississippi Healthy Students Act of 2007?

OR

IF Senator---Ask

What do you think is the general consensus of the Senate on maintaining improvements made by the Mississippi Healthy Students Act of 2007?

7. Among individuals and school districts whom you represent, what has been your impression of their reaction to the Mississippi Healthy Students Act of 2007? (Probe/follow-up, if needed)

For example, have you heard anything from the school personnel? physicians, school nurses, parents?

8. How do you think we should measure success of this legislation?
(Probe/follow-up, if needed)
For example, fitness testing, decrease in % of children who are obese
more 'fit' workforce(economic dev) issue
 9. Do you think it is important for schools to promote healthy lifestyles
for students?
for staff?
 10. What do you think is the role of the Mississippi legislature in promoting
healthy lifestyles through state policy?
 11. What is the role of other groups in promoting healthy lifestyles for children?
(Probe/follow-up, if needed) For example, health care providers, public health
departments, school nurses, et a.l)
 12. Do you think that the state of Mississippi has done enough to strengthen the
school policies
On nutrition?
On health education?
On physical education?
- If no, then ask:
13. What other policies need to be enacted?
 14. What about policies outside of the school settings that can be used to
prevent childhood obesity?
(Probes: child care; media; after-school programs)
 15. Who do you rely upon to get information on childhood obesity in Mississippi?

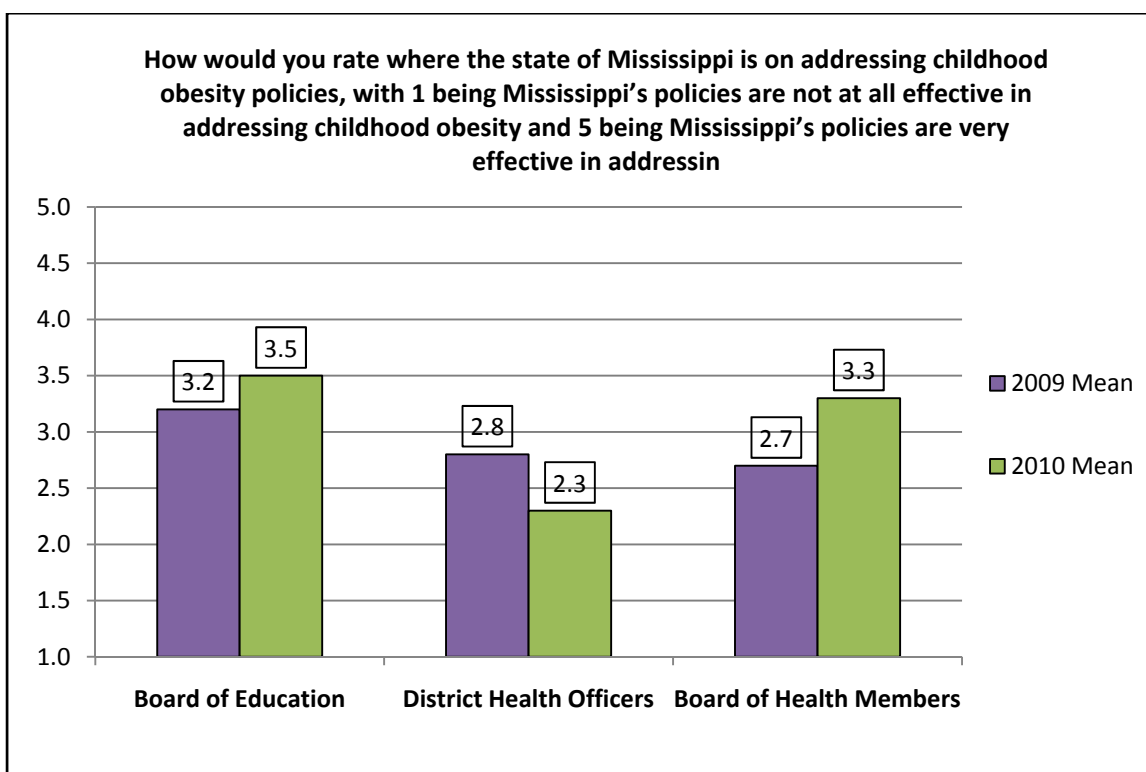
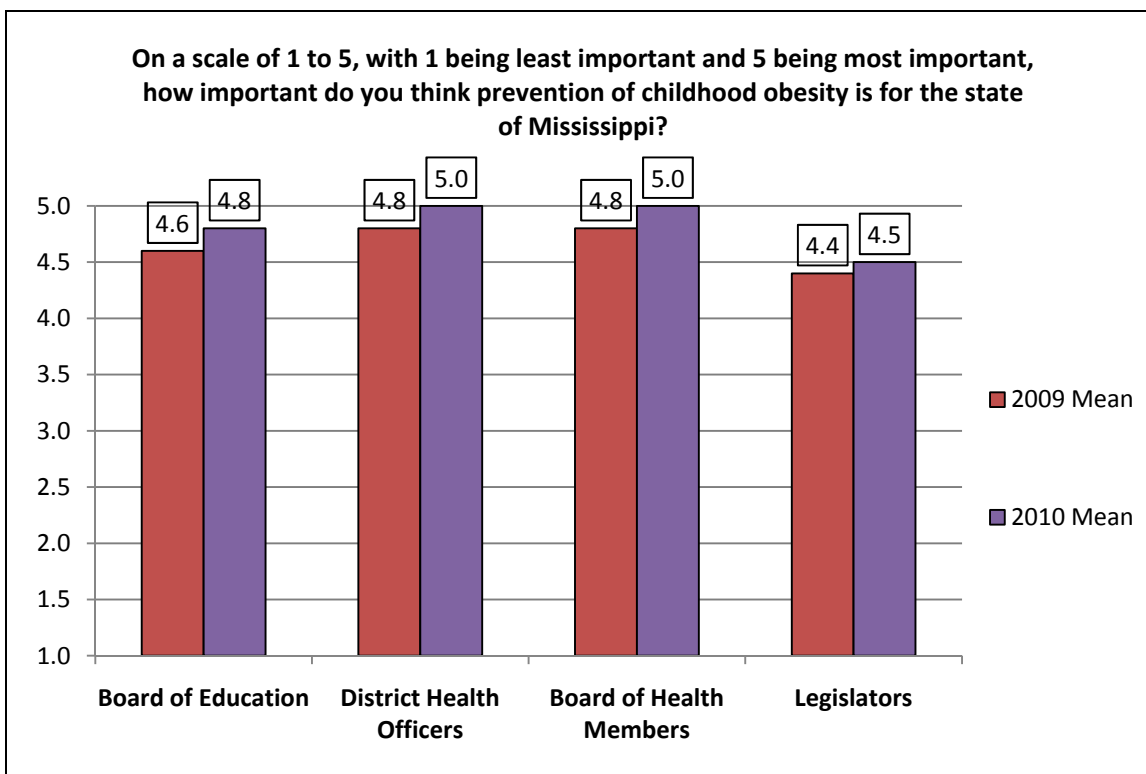
Follow-up with
 16. Who else do you hear from about these policies?
(Probe/follow-up): Do you hear from lobbyists and interest groups?
Who do they represent?
 17. Is there anything else you would like to share about your experience and
knowledge regarding childhood obesity legislation?

Thank you so much for your time. We know how busy you are, but are pleased that you made time to speak with us and share important information.

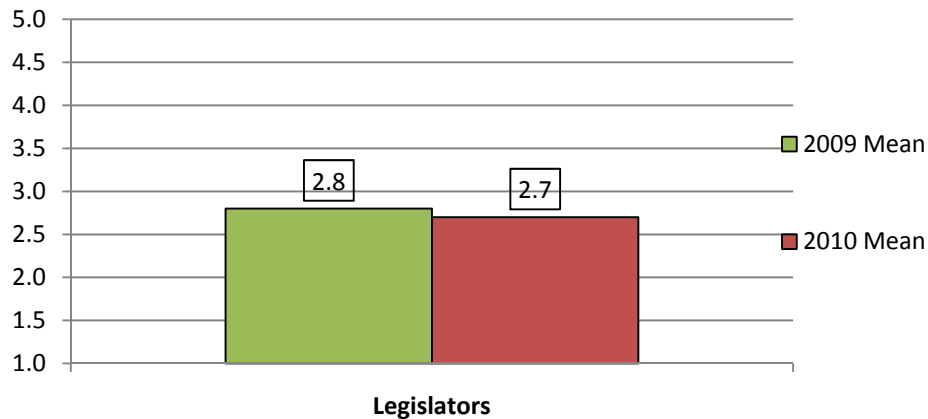
Would you like a copy of the report or be put on a mailing list for the report?

Thanks again!

Appendix B



How would you rank where the State of Mississippi is on addressing childhood obesity policies, with 1 being Mississippi's policies are not at all effective in addressing childhood obesity and 5 being Mississippi's policies are very effective in addressing



State Board of Health Members	2009		2010	
Question	Valid n	Mean	Valid n	Mean
On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?	8	4.8	5	5.0
Please rate the following target areas that can be addressed by public health, by level of importance, with 1 being not at all important and 5 being very important:				
- Increasing physical activity	8	4.4	5	4.7
- Increasing consumption of fruits & vegetables	8	4.4	5	4.8
- Decreasing consumption of high calorie, dense foods			5	4.4
- Encouraging breast feeding	7	4.1	5	4.6
- Decreasing consumption of sugary beverages	7	4.4	5	5.0
Many things can have an impact on the prevention of childhood obesity. Please rate the following things that exist outside of the school setting, with a rating of 1 meaning that it has no impact and a rating of 5 meaning that it has a very large impact.				
- Child care centers	7	3.7	5	*4.8
- Nutrition labeling	8	3.2	5	4.0
- Media policy (restrictions on advertising, promoting positive messages)	8	4.2	5	4.4
- Farmers' markets	8	3.6	5	4.4
- Body Mass Index (BMI) (measuring children's height and weight) reporting	8	3.9	5	4.4
- Built environment (sidewalks, parks, green space, bike lanes)	8	4.0	5	4.8
- Fat and trans fat restrictions	8	3.6	5	4.4
- Location of Supermarkets (proximity to where residents live)	7	3.1	5	4
* Statistically Significant (p < .05)				* YES

State Board of Education Members	2009		2010	
Question	Valid n	Mean	Valid n	Mean
On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?	7	4.6	6	4.8
On a scale of 1 to 5, with 5 being very EFFECTIVE and 1 being very INEFFECTIVE, how would you rank Mississippi's current policies on childhood obesity?	6	3.2	6	3.5
Please rate the following target areas that can be addressed by public health, by level of importance, with 1 being not at all important and 5 being very important:				
- Increasing physical activity	7	4.7	6	4.3
- Increasing consumption of fruits & vegetables	7	4.6	6	4.5
- Decreasing consumption of high calorie, dense foods	7	4.4	6	4.5
- Decreasing children's screen time	7	3.6	5	3.4
- Decreasing consumption of sugary beverages	7	4.6	6	4.5
To what extent do you think the schools in the state are implementing the minimum requirements of Coordinated school Health Programs?	5	3.8	5	3.8
Many things can have an impact on the prevention of childhood obesity. Please rate the following things that exist outside of the school setting, with a rating of 1 meaning that it has no impact and a rating of 5 meaning that it has a very large impact.				
- Child care centers	7	3.9	6	4.2
- Nutrition labeling	7	3.7	6	3.2
- Media policy (restrictions on advertising, promoting positive messages)	7	3.4	5	3.8
- Farmers' markets	7	3.1	6	2.8
- Body Mass Index (BMI) (measuring children's height and weight) reporting	7	3.0	5	3.2
- Built environment (sidewalks, parks, green space, bike lanes)	7	3.7	6	3.5
- Fat and trans fat restrictions	7	3.6	6	4.3
- Location of Supermarkets (proximity to where residents live)	7	2.6	5	2.8
Generally speaking, how would you rank the effectiveness of School Councils, with 5 being very EFFECTIVE and 1 being very INEFFECTIVE?	5	3.6	5	⁺ 3.1
⁺ Marginally Significant (p < .10)				⁺ YES

State Board of Health Members	2009	2010
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Question	Valid n	n Yes	% Yes	Valid n	n Yes	% Yes
Do you think local government funds should be spent to build and maintain places in your community where people can exercise?	8	7	87.5	4	4	100
Do you see a role for the State Department of Health in obesity prevention?	8	8	100	5	5	100
Do you see a role for the local and/or district Health Departments to promote the MS Healthy Students Act of 2007?	8	8	100	5	5	100
Do you think that the state of Mississippi has done enough to strengthen the school policies:						
- on nutrition?	8	1	12.5	5	0	0.0
- on health education?	8	1	12.5	5	0	0.0
- on physical education?	7	0	0.0	5	1	20.0

Legislators	2009		2010	
Question	valid n	Mean	valid n	Mean
On a scale of 1 to 5, with 1 being least important and 5 being most important, how important do you think prevention of childhood obesity is for the state of Mississippi?	12	4.4	12	4.5
How would you rank where the State of Mississippi is on addressing childhood obesity policies, with 1 being Mississippi's policies are not at all effective in addressing childhood obesity and 5 being Mississippi's policies are very effective in addressing childhood obesity?	11	2.8	12	2.7

Legislators	2009			2010			
Question	Valid n	n Yes	% Yes	Valid n	n Yes	% Yes	Percent Change
Do you think it is important for schools to promote healthy lifestyles for:							
- for students?	11	10	90.9	12	12	100	9.1
- for staff?	12	11	91.7	12	11	91.7	0.0
Do you think that the state of Mississippi has done enough to strengthen the school policies for:							
- on nutrition?	12	3	25.0	12	8	66.7	⁺ 41.7
- on health education?	12	3	25.0	12	4	33.3	8.3
- on physical education?	12	3	25.0	12	3	25.0	0.0
⁺ Marginally Significant (p < .10)							

Appendix C

Which of the following would best describe your school district's progress in implementing the Mississippi Healthy Students Act?					
RESPONSE	2009	%	2010	%	Percent Change
25% or less progress	6	5.5	11	10.6	5.1
50% progress	33	30.0	30	28.8	-1.2
75% progress	55	50.0	45	43.3	-6.7
100% progress	10	9.1	16	15.4	6.3
Don't know/Not sure	6	5.5	2	1.9	-3.5
Total	110	100	104	100	
Percentages reported in the year 1 report for the 2009 data do not match those reported here because the category of 'no comment' was not included in the 2010 survey instrument. Because of this difference in the response choices, we treated 'no comment' responses from the 2009 survey as missing for the purposes of this report so the results for the 2009 and 2010 survey could be compared.					

SBM

Please rate your district's progress in implementing the MS Healthy Students Act of 2007.					
RESPONSE	2009	%	2010	%	Percent Change
25% or less progress	5	3.4	11	4.6	1.1
50% progress	19	13.0	34	14.1	1.1
75% progress	36	24.7	69	28.6	4.0
100% progress	38	26.0	58	24.1	-2.0
Don't know/Not sure	48	32.9	69	28.6	-4.2
Total	146	100	241	100	

What level of feedback have you had from parents on implementing the Mississippi Healthy Students Act?					
RESPONSE	2009	%	2010	%	Percent Change
None	18	16.4	29	27.9	11.5
Minimal	61	55.5	41	39.4	-16.0
Moderate	24	21.8	25	24.0	2.2
High	2	1.8	7	6.7	4.9
Don't know	5	4.5	2	1.9	-2.6
Total	110	100	104	100	* YES

SBM

What level of feedback have you had from parents on implementing the MS Healthy Students Act?					
RESPONSE	2009	%	2010	%	Percent Change
None	57	38.3	78	32.4	-5.9
Minimal	39	26.2	77	32.0	5.8
Moderate	26	17.4	31	12.9	-4.6
High	1	0.7	10	4.1	3.5
No comment	7	4.7	0	0.0	-4.7
Don't know/Not sure	19	12.8	45	18.7	5.9
Total	149	100	241	100	* YES

Supers

Does each school in your district have a health council?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	87	79.1	67	64.4	-14.7
No	18	16.4	32	30.8	14.4
Don't know/ Not sure	5	4.5	5	4.8	0.3
Total	110	100	104	100	* YES

SBM

Does each school within your district have a school health council?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	53	35.3	107	43.9	8.5
No	36	24.0	54	22.1	-1.9
No comment	4	2.7	0	0.0	-2.7
Don't know/ Not sure	57	38.0	83	34.0	-4.0
Total	150	100	244	100	* YES

Supers

Does your school district have a policy that prohibits the use of food or food coupons as a reward for good behavior or good academic performance?					
RESPONSE	2009	%	2010	%	Percent Change
Yes, we prohibit	26	23.6	33	31.7	8.1
We recommend against	30	27.3	23	22.1	-5.2
We do not have a policy	48	43.6	42	40.4	-3.3
Don't know/ Not sure	6	5.5	6	5.8	0.3
Total	110	100	104	100	

Has your school board adopted a policy stating that schools are prohibited from using food or food coupons as a reward for good behavior or good academic performance?					
RESPONSE	2009	%	2010	%	Percent Change
Yes, we prohibit	34	21.7	53	21.8	0.2
We recommend against	27	17.2	43	17.7	0.5
We do not have a policy	56	35.7	75	30.9	-4.8
Don't know/ Not sure	34	21.7	70	28.8	7.2
No comment	6	3.8	2	0.8	-3.0
Total	157	100	243	100	

Supers

In the past year, has your school district adopted any new policies to increase the students' physical activity?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	68	61.8	19	18.3	-43.5
No	38	34.5	79	76.0	41.4
Don't know/ Not sure	4	3.6	6	5.8	2.1
Refused	0	0.0	0	0.0	0.0
Total	110	100	104	100	* YES

Supers

How would you describe the level of community support your school board receives in promoting physical education, nutrition and health education?					
RESPONSE	2009	%	2010	%	Percent Change
Very supportive	29	26.4	32	30.8	4.4
Somewhat supportive	70	63.6	55	52.9	-10.8
Somewhat unsupportive	5	4.5	11	10.6	6.0
No support	5	4.5	5	4.8	0.3
Don't know/Not sure	1	0.9	1	1.0	0.1
Total	110	100	104	100	

How would you describe the level of community support your school board receives on promoting physical education, nutrition and health education?					
RESPONSE	2009	%	2010	%	Percent Change
Don't know/Not sure	14	9.0	17	7.0	-2.1
No comment	3	1.9	0	0.0	-1.9
No support	9	5.8	12	4.9	-0.9
Somewhat supportive	80	51.6	116	47.5	-4.1
Somewhat unsupportive	5	3.2	37	15.2	11.9
Very supportive	44	28.4	62	25.4	-3.0
Total	155	100	244	100	* YES

Supers

Do schools in your district conduct fitness testing?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	80	72.7	64	61.5	-11.2
No	21	19.1	30	28.8	9.8
Don't know/ Not sure	9	8.2	10	9.6	1.4
Total	110	100	104	100	

SBM

Do schools in your district conduct fitness testing?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	55	35.0	82	33.6	-1.4
No	32	20.4	63	25.8	5.4
Don't know/ Not sure	68	43.3	99	40.6	-2.7
No comment	2	1.3	0	0.0	-1.3
Total	157	100	244	100	

Supers

Would you be in favor of sending the children's fitness testing information to their parents?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	74	92.5	58	90.6	-0.2
No	1	1.3	5	7.8	4.0
Don't know/ Not sure	5	6.3	1	1.6	-0.8
Total	80	100	64	100	+ YES

SBM

If yes, are you in favor of sending this information to children's parents?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	92	71.3	130	76.5	5.2
No	6	4.7	1	0.6	-4.1
No comment	18	14.0	0	0.0	-14.0
Don't know/ Not sure	13	10.1	39	22.9	12.9
Total	129	100	170	100	* YES

Supers

Some school districts collect information on children's height and weight to determine children's Body Mass Index (BMI). Are you in favor of this?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	84	76.4	65	62.5	-13.9
No	23	20.9	31	29.8	8.9
Don't know/ Not sure	3	2.7	7	6.7	4.0
Refused	0	0.0	1	1.0	1.0
Total	110	100	104	100	

SBM

Some school districts collect information on children's height and weight to determine children's Body Mass Index (BMI). Are you in favor of this?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	95	61.3	157	63.6	2.3
No	25	16.1	40	16.2	0.1
No comment	6	3.9	0	0.0	-3.9
Don't know/Not sure	29	18.7	50	20.2	1.5
Total	155	100	247	100	* YES

Supers

Would you be in favor of sending the children's Body Mass Index (BMI) information to their parents? If yes, are you in favor of sending this information to children's parents?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	80	95.2	58	89.2	-6.0
No	1	1.2	5	7.7	6.5
Don't Know/ Not Sure	3	3.6	2	3.1	-0.5
Total	84	100	65	100	

SBM

Would you be in favor of sending the children's Body Mass Index (BMI) information to their parents? If yes, are you in favor of sending this information to children's parents?					
RESPONSE	2009	%	2010	%	Percent Change
Yes	106	79.7	175	78.8	-0.9
No	13	9.8	17	7.7	-2.1
Don't know/ Not sure	14	10.5	30	13.5	3.0
Total	133	100	222	100	

Supers

In your opinion, how important is it to provide staff wellness program(s)?					
RESPONSE	2009	%	2010	%	Percent Change
Very important	71	64.5	55	52.9	-11.7
Moderately important	35	31.8	41	39.4	7.6
Not important at all	4	3.6	6	5.8	2.1
Don't know	0	0.0	2	1.9	1.9
Total	110	100	104	100	

SBM

In your opinion, how important is it to provide staff wellness program(s)?					
RESPONSE	2009	%	2010	%	Percent Change
Very important	88	58.7	150	62.8	4.1
Moderately important	46	30.7	62	25.9	-4.7
Not important at all	2	1.3	7	2.9	1.6
No comment	6	4.0	0	0.0	-4.0
Don't know/Not sure	8	5.3	20	8.4	3.0
Total	150	100	239	100	* YES

Appendix D

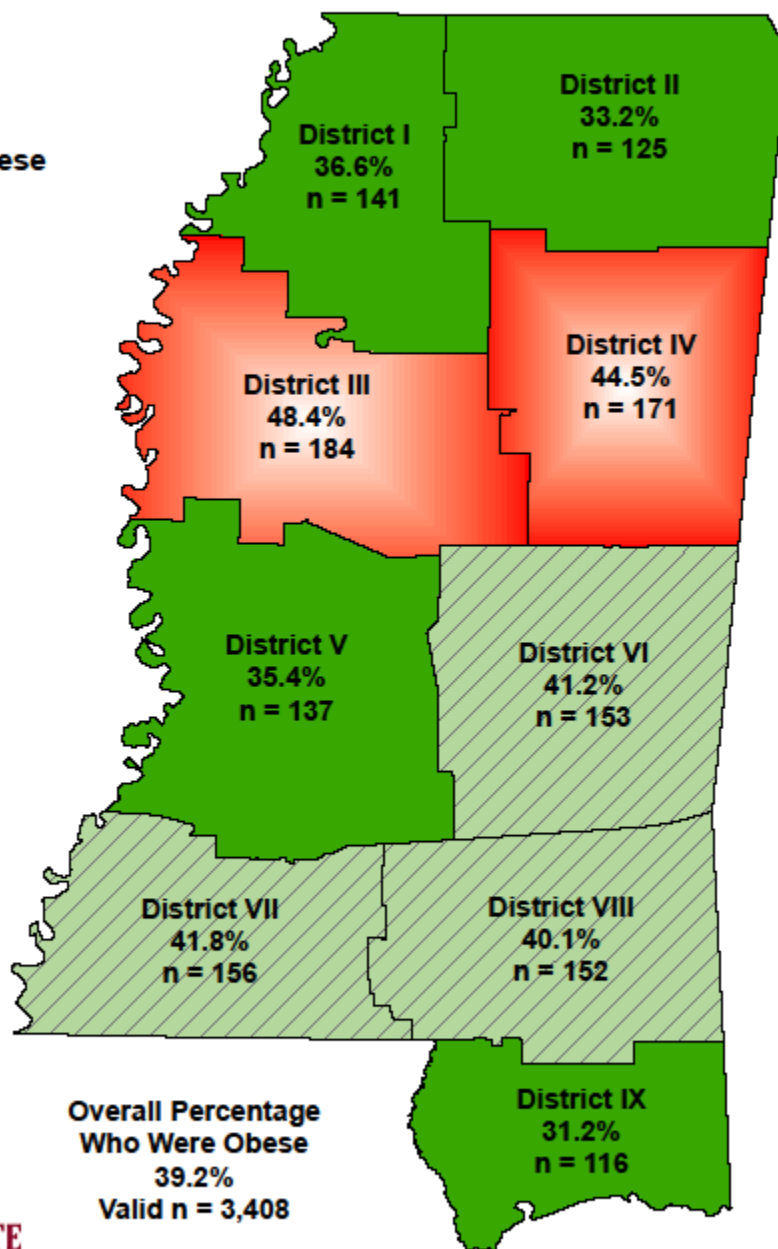
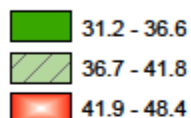
Weight status categories for school-aged
children in Mississippi and their parents

What would you say best describes your own weight?					
Parent responses	2009		2010		
	Parents		Parents		Percent Change
	n	%	n	%	
Underweight	108	2.9	83	2.2	-0.7
Healthy weight	1307	35.2	1,302	34.7	-0.5
Overweight	2,092	56.4	2,107	56.1	-0.3
Obese	157	4.2	226	6	1.8
Don't know/Not sure	29	0.8	15	0.4	-0.4
Refused	17	0.5	22	0.6	0.1
Total	3,710	100	3,755	100	
* Statistically Significant (p < .05)					* YES

What would you say best describes his/her weight?					
Parent responses	2009		2010		
	Children		Children		Percent Change
	n	%	n	%	
Underweight	260	7	252	6.7	-0.3
Healthy weight	2,783	75	2,902	77.3	2.3
Overweight	304	8.2	540	14.4	6.2
Obese	344	9.3	47	1.3	-8.0
Don't know/Not sure	19	0.5	11	0.3	-0.2
Refused	0	0	3	0.1	0.1
Total	3,710	100	3,755	100	
* Statistically Significant (p < .05)					* YES

Percentage of Parents Who Were Obese 2009

Percentage Obese

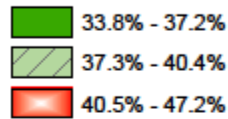


**Overall Percentage
Who Were Obese**
39.2%
Valid n = 3,408

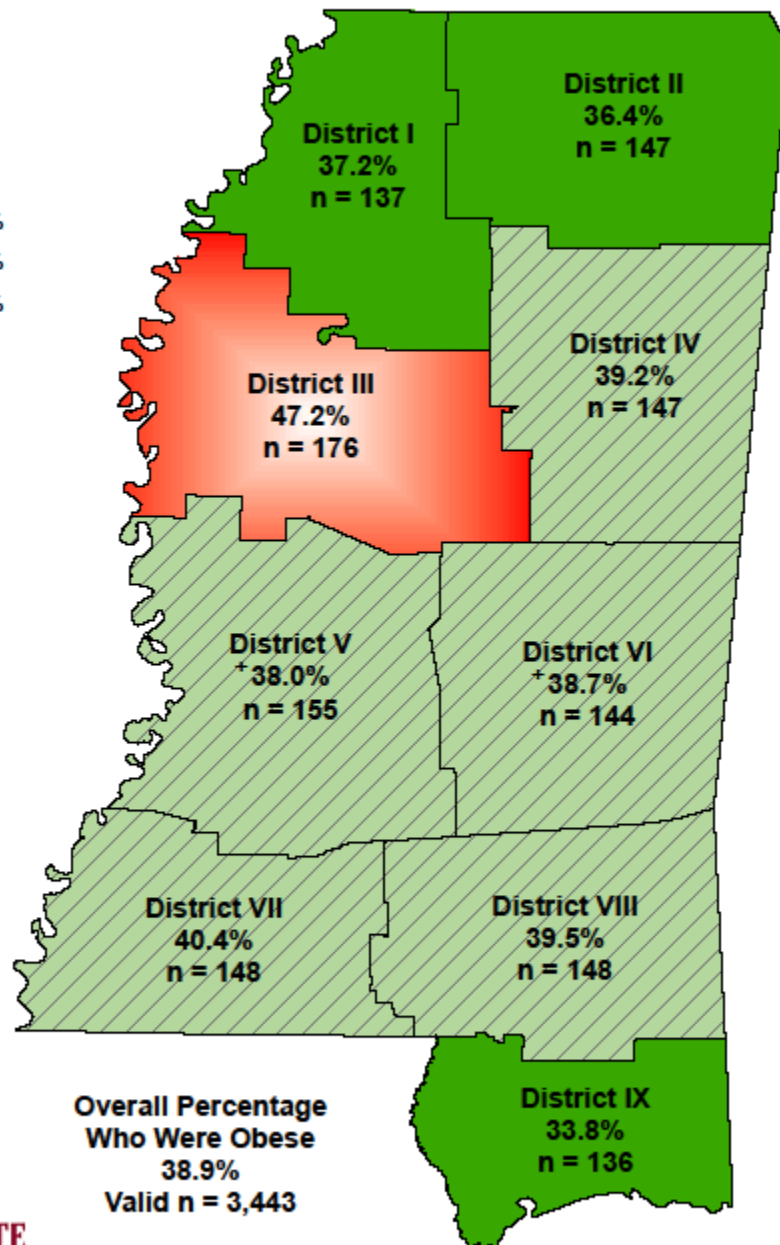
* Self-report data

Percentage of Parents Who Were Obese 2010

Percentage Obese



MISSISSIPPI STATE
UNIVERSITY



* Self-report data

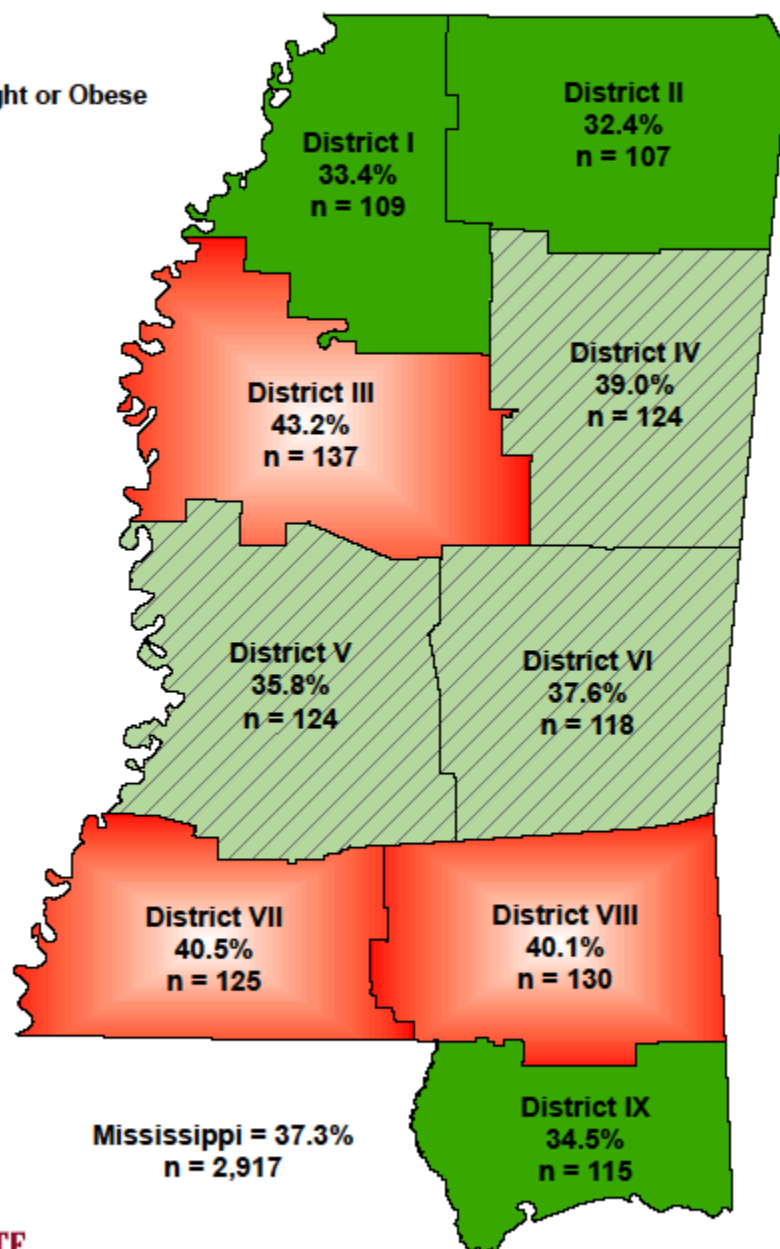
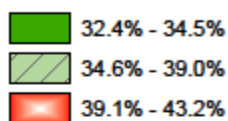
+ Marginally Significant ($p < .10$)

Body Mass Index of Adults by Public Health District 2009					
District	n	Mean	Median	Minimum	Maximum
District I	385	28.5	27	17	58
District II	377	28.1	27	16	67
District III	380	30.5	29	14	62
District IV	384	29.7	29	16	65
District V	387	28.5	27	16	59
District VI	371	28.7	28	16	56
District VII	373	29.6	28	17	56
District VIII	379	29.2	28	18	68
District IX	372	27.6	27	17	50
Total	3,408	28.9	28	14	68

Body Mass Index of Adults by Public Health District 2010					
District	n	Mean	Median	Minimum	Maximum
District I	368	29.0	28	16	57
District II	404	29.3	27	14	59
District III	373	30.6	30	17	54
District IV	375	29.3	28	13	57
District V	408	29.2	28	17	58
District VI	372	29.4	28	15	67
District VII	366	30.4	29	12	71
District VIII	375	29.5	28	16	62
District IX	402	28.3	27	16	51
Total	3,443	29.4	28	12	71
* Statistical Significance (p < .05)			* YES		

Percentage of school-aged children (Kindergarten - 12th graders) who were overweight or obese 2009

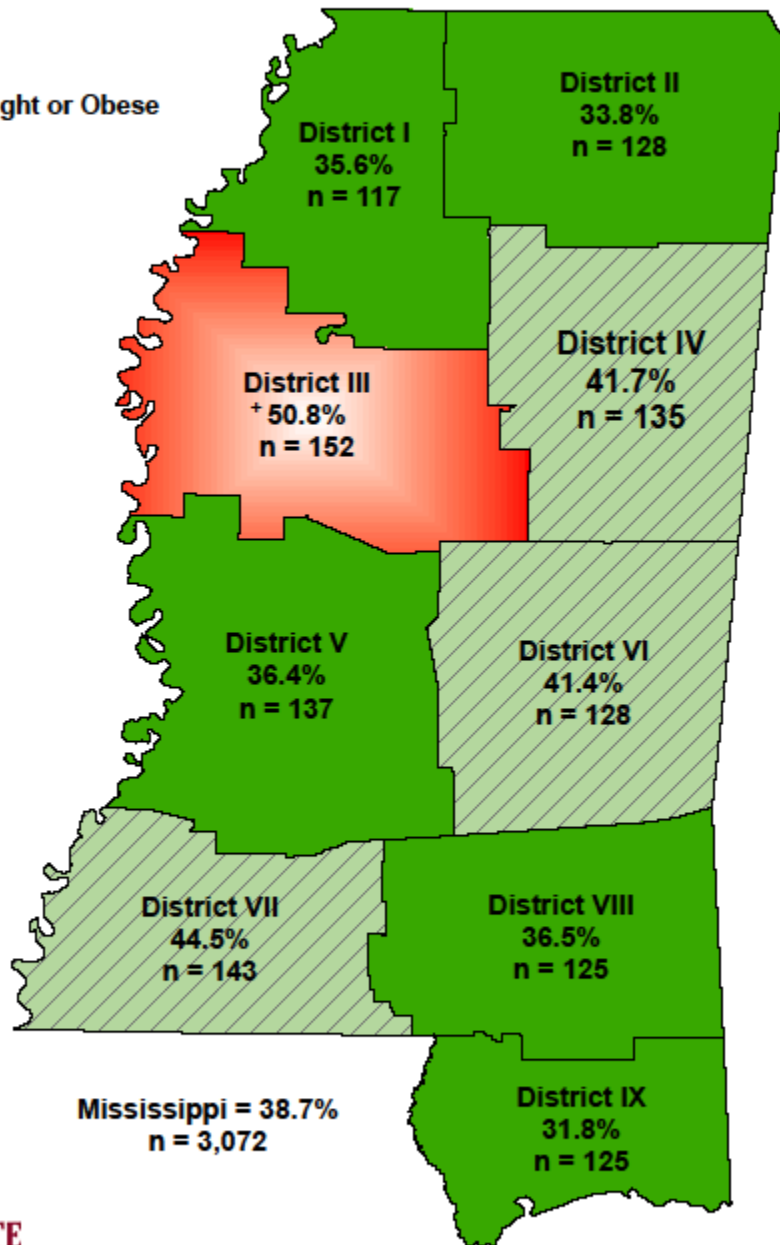
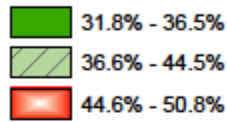
Percentage Overweight or Obese



* Self-report data by parents

Percentage of school-aged children (Kindergarten - 12th graders) who were overweight or obese 2010

Percentage Overweight or Obese

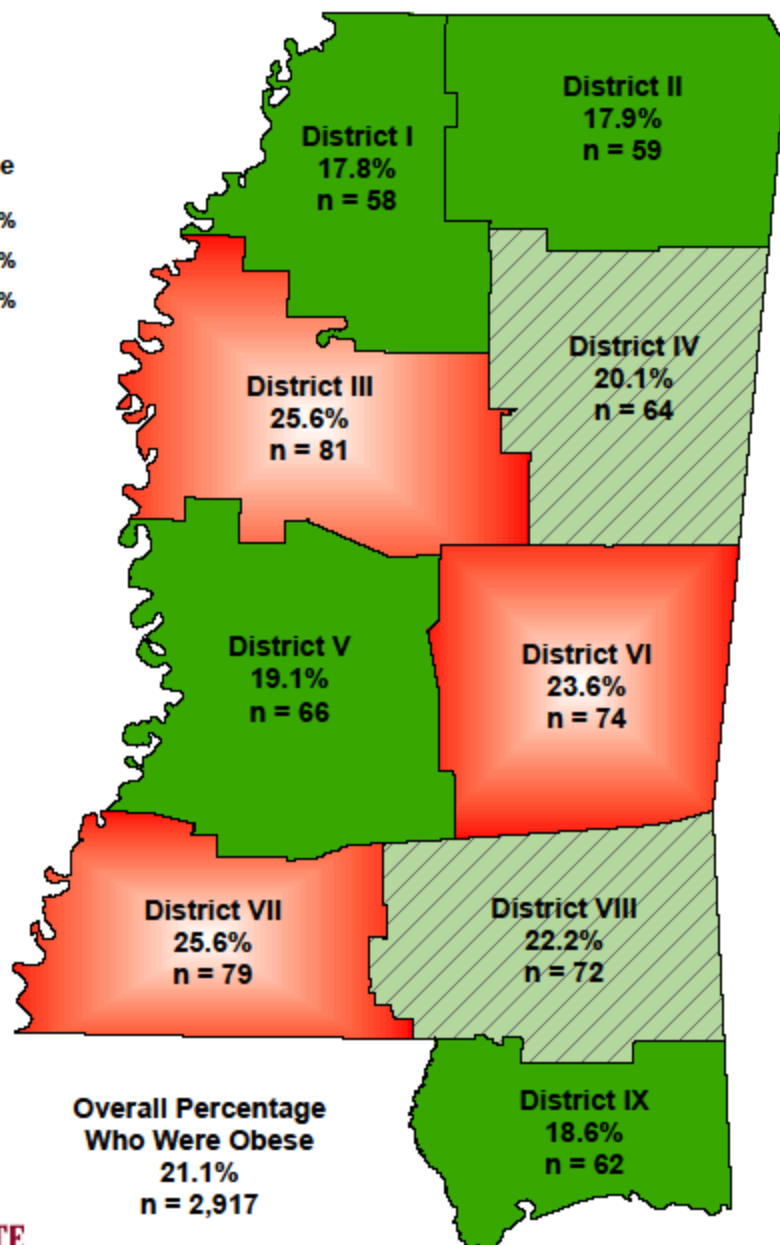
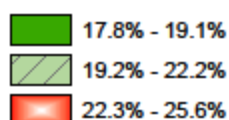


Self-report data by parents

+ Marginally Significant ($p < .10$)

Percentage of Obese Children 2009

Percentage Obese



* Self-report data by parents