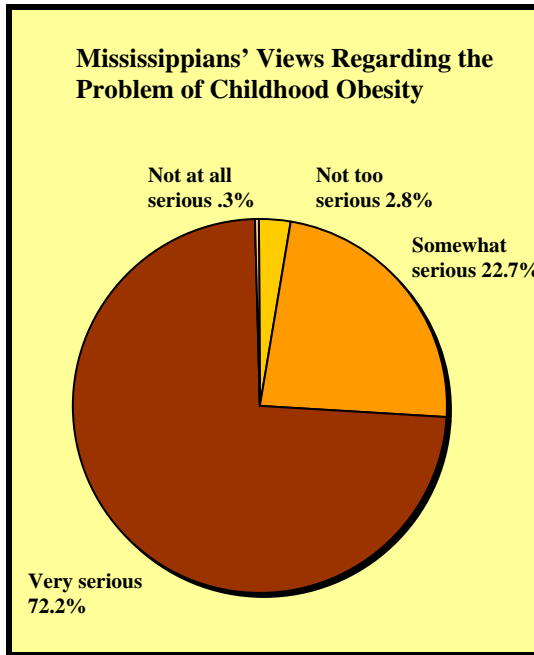


What do Mississippians think about childhood obesity?

Research Highlights



Understanding the public perception of childhood obesity in Mississippi is important for formulating new health policies related to obesity and selecting the best interventions and health promotion activities to curb the alarming rise in childhood obesity in the state. This document highlights results from the 2006 Mississippi Public Perception Childhood Obesity Survey. The survey was funded by The Center for Mississippi Health Policy and conducted by a multidisciplinary research team from the College of Health at The University of Southern Mississippi in October 2006. It is the desire of the funding agency and the research team that the findings from this study will stimulate dialogue and action to address the issue of childhood obesity in Mississippi.

This study surveyed a representative sample of adults in Mississippi in order to determine current attitudes about childhood obesity, and assess support for an array of child and adolescent prevention initiatives. This study also compared results to a recent national survey funded by the Robert Wood Johnson Foundation and conducted by Harvard School of Public Health.

SIGNIFICANCE

- Childhood obesity is of vital importance to the State of Mississippi, which has the highest rates of child obesity in the United States (NHANES, 2004).
- The prevalence of child obesity in Mississippi is well documented not only by NHANES (2004), but also by CAYPOS (Kolbo, et al, 2006), and by YRBSS data (2003), which show Mississippi children to be more overweight than ever rising national child obesity rates.
- The health consequences of child obesity include higher risks of developing type II diabetes, hypertension, high cholesterol, cancer, asthma, and orthopedic problems (National Institutes of Health).
- There are risks of developing potentially life-threatening psychological problems as well, such as depression, eating disorders, discrimination and stigmatization, negative self image, and passivity and withdrawal from peers.

Note: Child overweight is the term used by the Centers for Disease Control (CDC) but is also used interchangeably with child obesity, particularly among the public. Children are classified as Overweight if they are greater than or equal to the 95th percentile on the CDC Body Mass Index (BMI) for age chart, or at Risk for Overweight if they are between the 85th-94th percentiles on the CDC BMI for age chart.



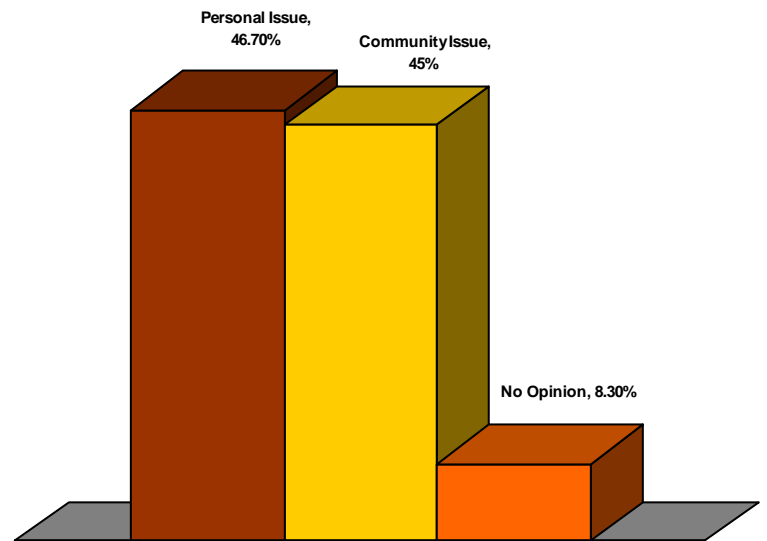
The Perception of Child Obesity in Mississippi and the Best Way to Address the Issue

■ About 95% of Mississippi adults surveyed consider childhood obesity to be a serious national problem (includes very serious and somewhat serious categories).

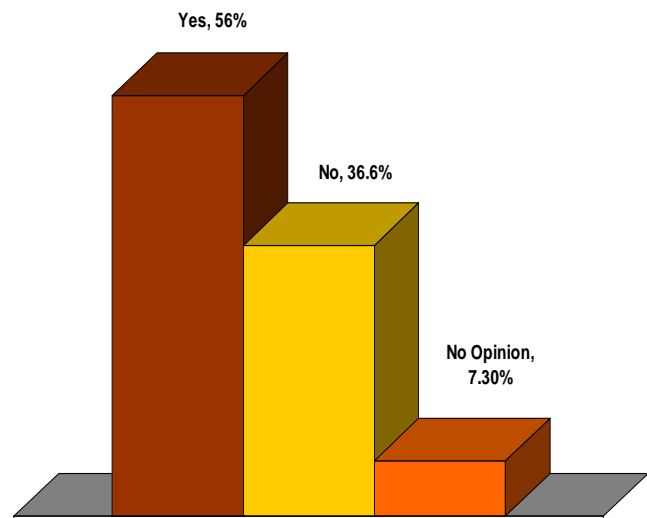
■ Mississippians were almost evenly divided on whether reducing childhood obesity was a personal issue (46.7%) that kids and their families should deal with on their own, or a community issue (45%) that needs to be addressed by the entire community, including schools and community groups. This one question had the highest number of “No Opinion” responses in the entire survey (8.3%). The almost evenly split responses and the number of “No opinions” suggests that there is not a consensus on this issue of personal responsibility, or the need for community action.

■ About 56% of Mississippians thought that government should play a significant role in reducing obesity, while about 36.6% were against this proposal. These findings indicate more agreement for a governmental response to childhood obesity, as opposed to a community or a personal issue orientation.

Is childhood obesity a personal issue or a community issue?



Should government play a significant role in reducing obesity?

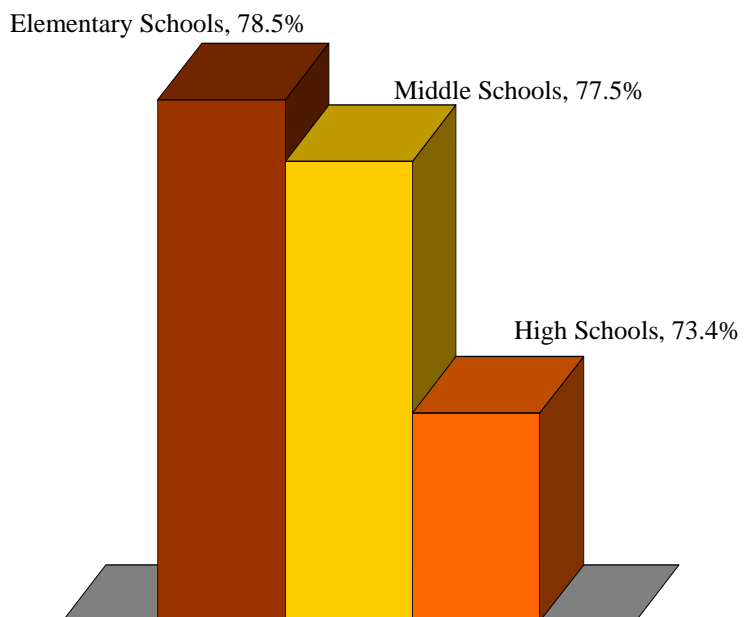


Vending Machines in Mississippi Schools

■ About 78.5%, 77.5%, and 73.4% of Mississippi adults favored passing a law to convert vending machines from carrying high-sugar, high-fat food to carrying healthy snacks and beverages in elementary, middle, and high schools respectively.



Should there be a law limiting vending machines in schools?

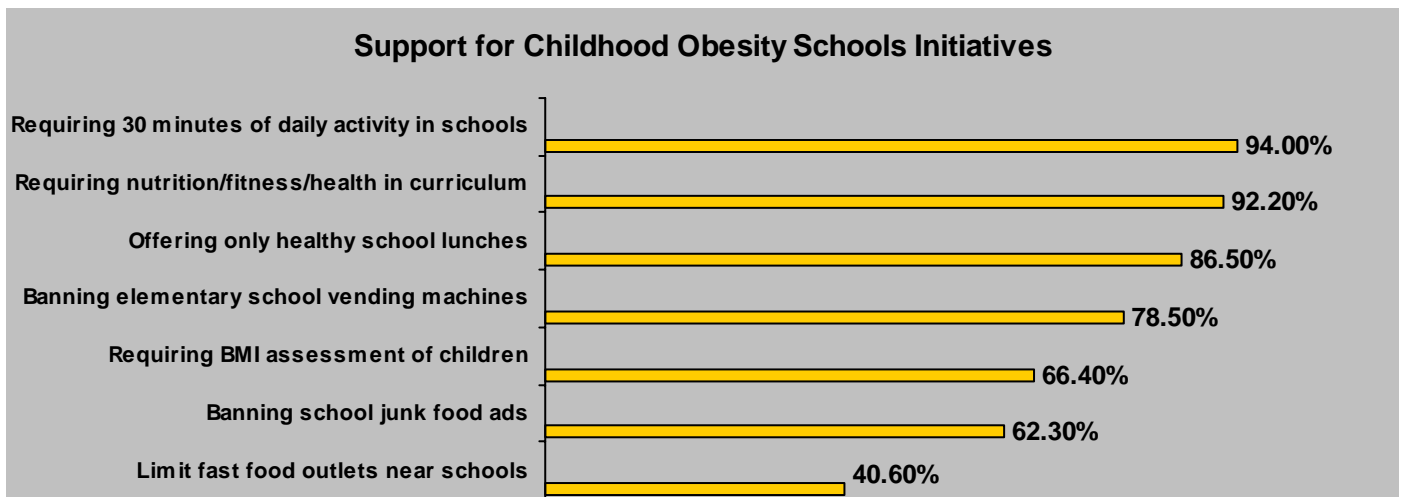


School and Government Initiatives on Fighting Childhood Obesity in Mississippi

■ Respondents were asked whether they would favor or oppose a variety of laws to fight obesity in children. More than half of the respondents would favor 9 of the 11 initiatives. The majority of Mississippians indicated that they would *oppose 2 initiatives: “prohibiting television from running advertisements for food and drinks like candy, chips, and soda during children’s programming” and “setting a limit on the number of fast food restaurants located near schools”.*

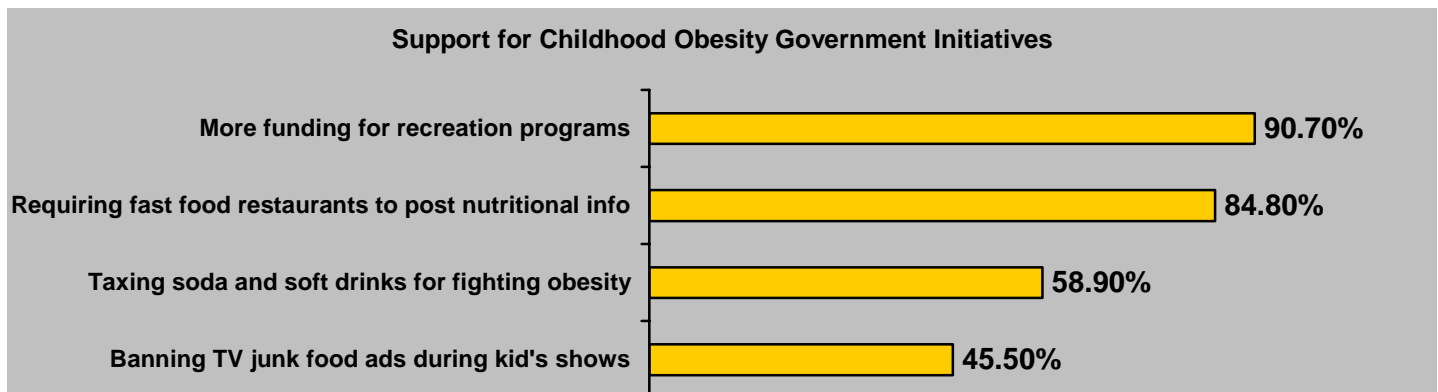
■ **The most popular school initiatives included:**

- ◆ Requiring 30 minutes of daily physical activity for grades K-12 (94.0%)
- ◆ Including nutrition/fitness/health in school curricula (92.2%)
- ◆ Offering only healthy lunches in school (86.5%)



■ **The most popular government initiatives included:**

- ◆ Funding recreation programs for children and teens (90.7%)
- ◆ Including nutritional information on fast food menus (84.8%)



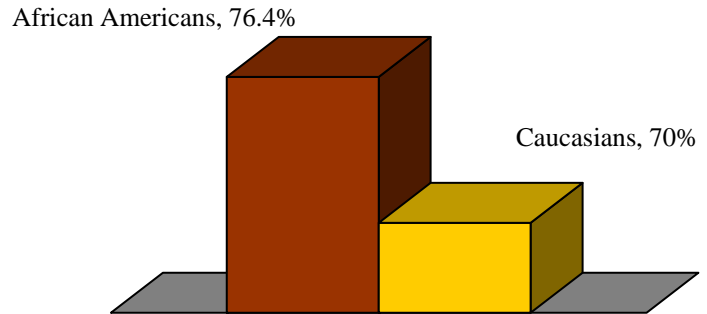
Perceptions of Child Obesity in Mississippians by Race, Gender, and Age

■ More African Americans (76.4%) view childhood overweight as a very serious problem than Caucasians (70%) by a difference of almost 6%. About 17.8% of African Americans view this as somewhat serious compared to 25.5% of Caucasians.

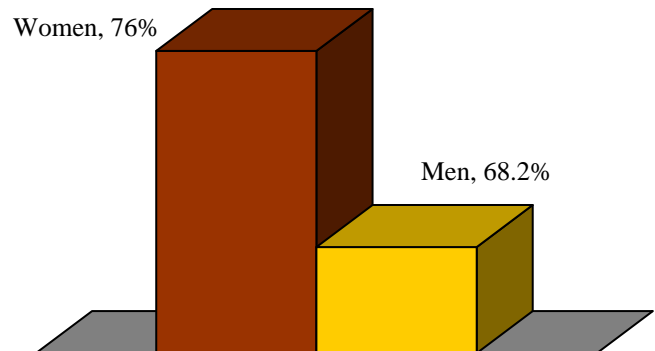
■ More women (76%) view childhood overweight as a very serious problem than men (68.2%) by a difference of almost 8%. This difference was statistically significant ($p = 0.005$). However, when those who consider childhood overweight as somewhat of a problem are combined with those who believe it to be a very serious problem, the percentages of women (98%) and men (97%) indicate overwhelming and equal agreement that it is a problem. About 20.7% of females view this as somewhat serious compared to 24.7% of males.

■ About 79.6% of respondents who were 55 years old or above view childhood overweight as a very serious problem compared to 69.1% of those younger than 55 years. This difference was statistically significant ($p = 0.018$). About 14.4% of older respondents (55+) view this as somewhat serious compared to 26.0% of younger respondents (< 55).

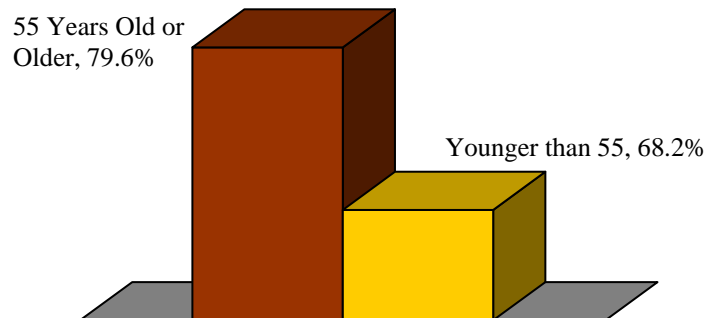
Perception of Child Obesity as a Very Serious Problem by Race



Perception of Child Obesity as a Very Serious Problem by Gender



Perception of Child Obesity as a Very Serious Problem by Age



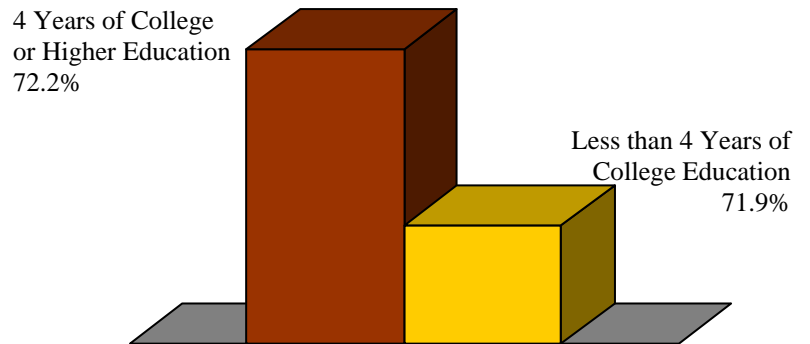
Perceptions of Child Obesity in Mississippians by Educational Status and BMI

■ Those of different educational levels have similar opinions about the seriousness of childhood overweight as a problem. About 72.2% of respondents with 4 years of college or higher education view childhood overweight as a very serious problem, and 71.9% of those with lower levels of education (some college, high school graduates, and those with less than a high school diploma). About 25.3% of respondents with 4 years of college or higher education view this as somewhat serious compared to 21.9% of respondents with lower education.

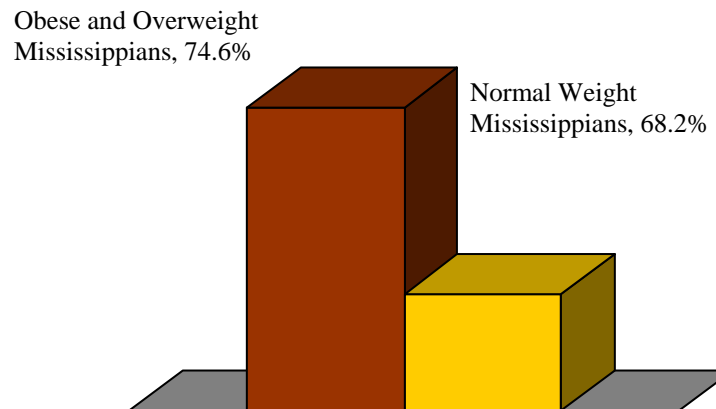
■ More obese (74.6%) and overweight (72.7%) Mississippians view childhood overweight as a very serious problem than respondents who have a normal weight (68.2%). Interestingly, those who were categorized as underweight had the highest belief that childhood overweight was a very serious problem (81.3%). About 20.8% of obese respondents view this as somewhat serious compared to 27.4% of respondents with normal weight.

■ Only 32.5% of parents with children under age 18 were very concerned about their children being or becoming obese or seriously overweight. This finding suggests that parents are less concerned about overweight in their own children.

Perception of Child Obesity as a Very Serious Problem by Education



Perception of Child Obesity as a Very Serious Problem by BMI



MISSISSIPPIANS WITH AND WITHOUT CHILDREN UNDER 18 IN THE HOME

- Mississippians with children under age 18 years in the home and those without agreed almost equally in high proportions on the following survey questions:
 - ◆ Child overweight is a serious problem (with children 95.5%, without 94.2%)
 - ◆ Requiring 30 minutes of exercise in schools (with children 94.2%, without 93.9%)
 - ◆ Requiring nutrition, fitness and health education in schools (with children 92.7%, without 92.2%)

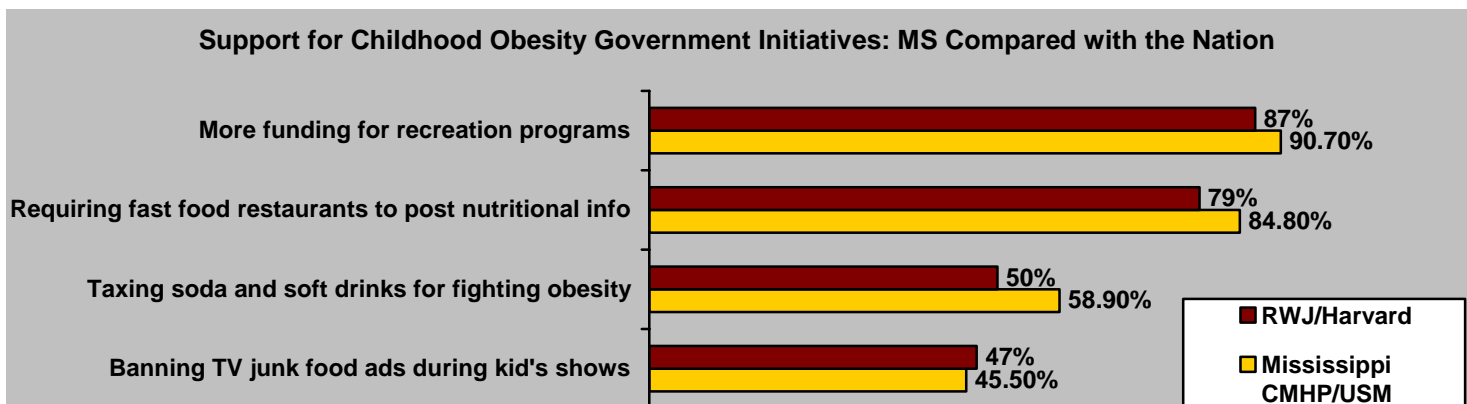
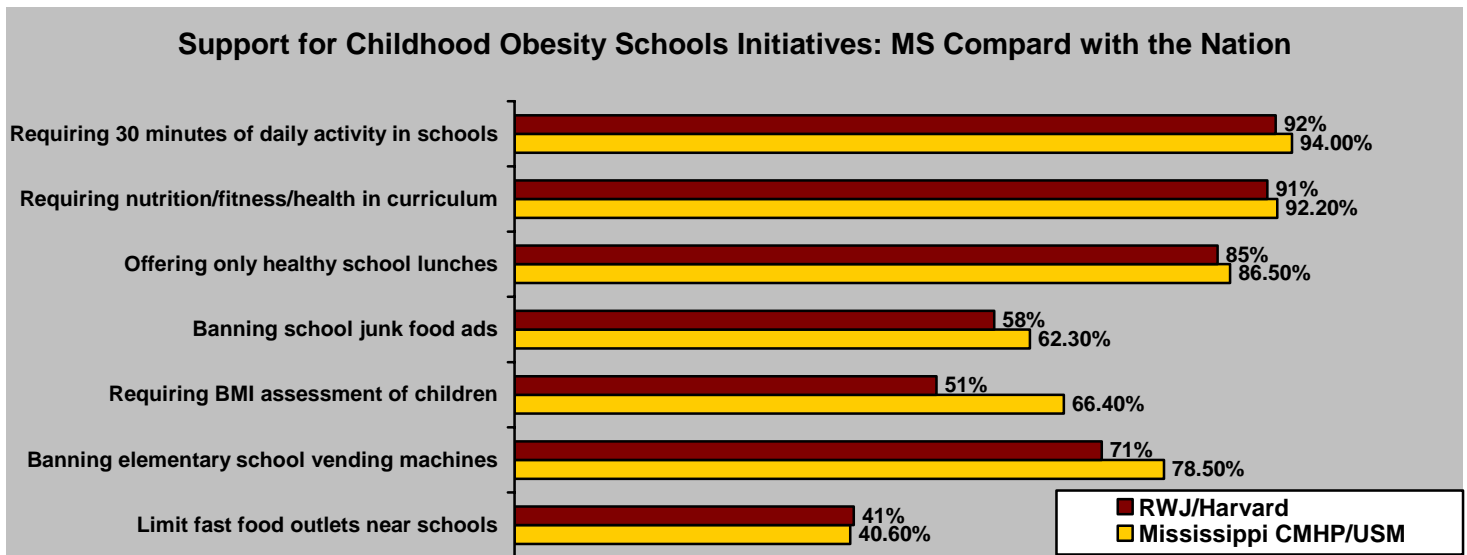
- Comparisons also showed that more adults with children than without children in the home agreed with the following questions:
 - ◆ Reducing overweight is a community issue versus a personal issue (with children 46.7%, without 43.8%)
 - ◆ Government should play a significant role in reducing overweight (with children 58.6%, without 53.8%)
 - ◆ A tax on soft drinks to fund overweight reduction (with children 66.0%, without 52.5%)
 - ◆ More funding for children's recreation programs (with children 93.7%, without 88.1%)
 - ◆ Requiring fast food establishments to post nutrition information (with children 87.1%, without 82.7%)

- More Mississippians without children than with children in the home agreed with the following questions:
 - ◆ Requiring BMI assessments in schools (without children 67.2%, with 64.5%)
 - ◆ Schools should be required to schools to offer only healthy lunches (without children 88.5%, with 84.32%)

Mississippi Compared with the Nation

■ Mississippians' responses on the survey questions agreed in direction with many of the responses from the national survey, however some opinions differed in strength of belief from those in the national survey. Mississippians tended to respond more favorably towards many of the initiatives presented. For example, Mississippians were more favorable:

- ◆ To the government playing a significant role in reducing child obesity (56%) than the nation (38%).
- ◆ To laws to limit vending machines in elementary, middle and high schools (78.5%, 77.5%, 73.4%) than the nation (71%, 67%, 59%).
- ◆ To a law requiring BMI assessments for children in schools (66.4%) than the nation (51%).
- ◆ To a law to tax soft drinks and use the money to fight child obesity (58.9%) than the nation (50%).
- ◆ To a law requiring fast food restaurants to post nutritional information (84.8%) than the nation (79%).



METHODOLOGY

The survey questions were modeled after questions in a representative national survey done in October 2005 by the Robert Wood Johnson Foundation (RWJF) and the Harvard School of Public Health so that comparisons can be made between Mississippi and national data. The survey was conducted by telephone using Computer-assisted Telephone Interviewing (CATI) methods. The sampling frame was purchased from Survey Sampling, International, and included 16,000 telephone numbers. The sample was randomly selected using Random-Digit Dialing (RDD) technique.

The research team surveyed a total of 1,427 Mississippians. Among those, 44 respondents used non-residential lines for the interview and 12 respondents refused to tell which type of phone lines they were using for the survey. Further, there were 5 respondents who were less than 18 years of age. There were 4 respondents who did not report their gender and age; hence the appropriate weights could not be assigned based on the post-stratification of data to approximate Mississippi's population distribution. As a result, a total of 75 respondents did not meet the selection criteria and were excluded from the analysis.

Analyses were performed using frequencies, percentages and cross tabulations. The analysis was based on a total of 1,362 respondents. Among those there were 28% men and 72% women. This gender distribution is significantly different from the distribution of men and women in Mississippi's population. Also, respondents with ages 65 or above accounted for 26.5% of the sample while only 12.0% of that age group in the population. To compensate for these biases, sample data were weighted based on the 2005 Census Bureau Population Estimates by Age Group, Race and Sex, Mississippi. The survey weights were calculated and assigned to the respondents in data analyses.

To further analyze the data, respondents' weight status using Body Mass Index (BMI) was calculated. BMI is a measure of body weight for a specified height and was computed for each respondent based on height (in meters) and weight (in kilograms). The height in feet and inches is first converted to height in meters using the formula: Height (in m) = [(feet × 12) + inches] × 0.0254 m/in. The weight in pounds was then converted to weight in kilograms using the following formula: Weight (in kg) = Weight (in lbs) × 0.4536 kg/lb. In this study, BMI was divided into the following categories: (1) underweight (BMI < 18.5), (2) normal weight (18.5 ≤ BMI ≤ 25), (3) overweight (25 < BMI < 30), and (4) obese (BMI ≥ 30).



SUMMARY

- Results indicate that there is widespread recognition that there is a problem with childhood overweight in Mississippi.
- Mississippians have varying levels of concern and interest in how to address the problem.
- The data show variation in Mississippian's opinions by ethnicity, gender, age and family composition, therefore sensitivity to these disparities is warranted.
- Findings also indicate that Mississippians are in agreement with national opinions, just more so.
- Mississippians tended to be more favorable than the nation to many of the suggested initiatives related to reducing child overweight. For example, there was approximately a 15% (66.40%, MS and 58%, national) difference for the support of requiring BMI assessment. Also there was approximately a 9% difference (58.9%, MS and 50% national) for the support of taxing soda and soft drinks for fighting obesity.
- When comparing Mississippian's attitudes by homes with or without children, there was generally agreement between opinions. However, differences were noted in that those homes with children less than 18 years old were more favorable to external initiatives such as taxes, and community and governmental involvement.
- Reducing child overweight will require steadfast commitments to data driven, fully funded, comprehensive and broad based initiatives. To inform initiatives, Mississippians need more research data on the problem itself, as well as on the associated problems of overweight. While more research is desperately needed, initiatives and practices to address overweight do exist and can be used in Mississippi. To accomplish these initiatives will require the development of long-term strategies and interventions based on solid evidence and best practices. Intervention based on data and best practices must then be evaluated, using indicators such as changes in prevalence data, and those results should be used to further improve the interventions and initiatives in Mississippi.

THE RESEARCH TEAM

Jerome R. Kolbo, PhD, ACSW, Professor of Social Work, The University of Southern Mississippi

Bonnie Harbaugh, PhD, RN, Associate Professor of Nursing, The University of Southern Mississippi

Charkarra Anderson-Lewis, PhD, MPH, CHES, Assistant Professor of Community Health Sciences, The University of Southern Mississippi

Lei Zhang, PhD, MSc, MBA, Adjunct Assistant Professor of Community Health Sciences, The University of Southern Mississippi

Jacquelyn Lee, LMSW, Graduate Assistant, The University of Southern Mississippi

Terri Sasser, MPH, Manager CREATEs, The University of Southern Mississippi