

# Center *for* Mississippi Health Policy

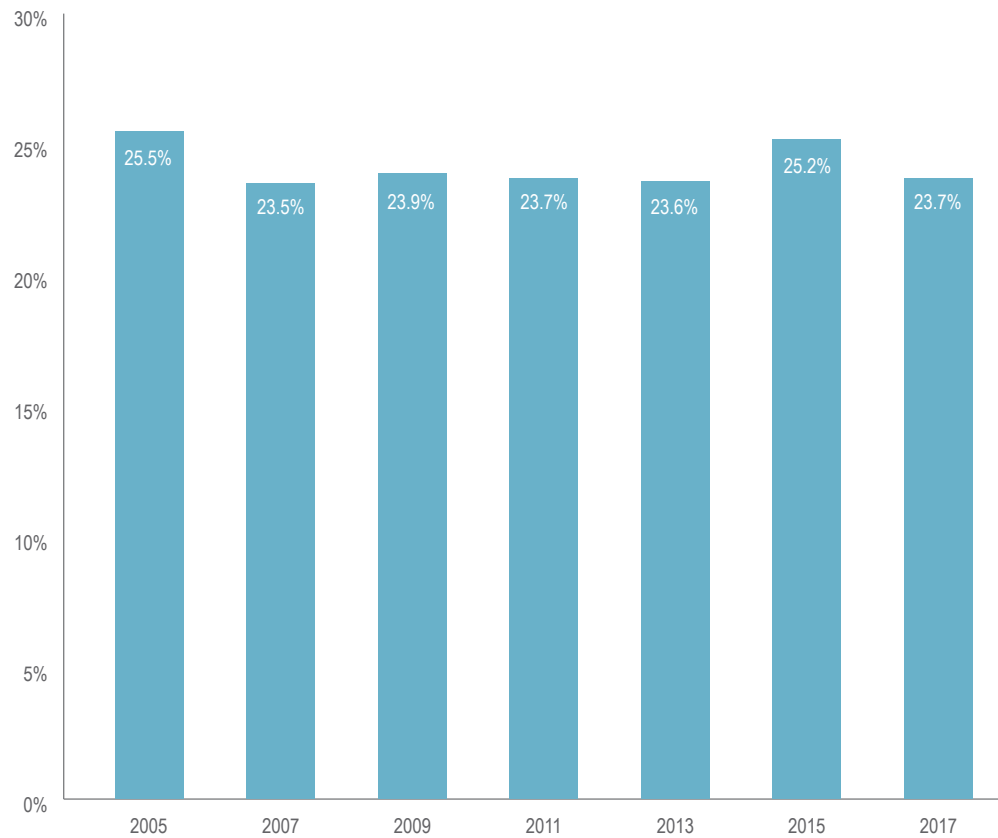
**CHART BOOK:**

**RESULTS OF THE MISSISSIPPI CHILD  
& YOUTH PREVALENCE OF OBESITY  
STUDY, 2005 - 2017**

*May 2019*

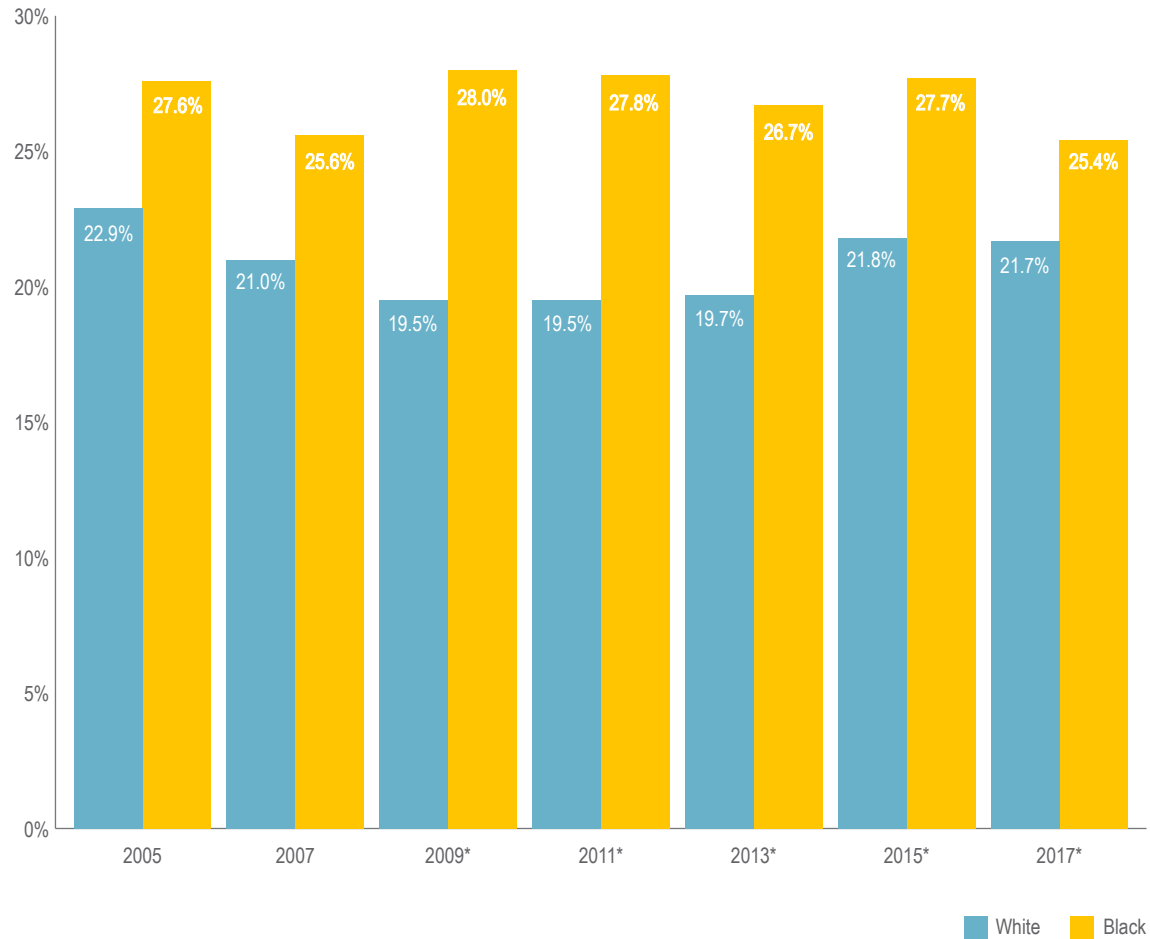
The data illustrated in these charts are from the Child and Youth Prevalence of Obesity Study (CAYPOS) conducted biennially since 2005 by researchers from the University of Southern Mississippi. The multi-year study uses school nurses to collect height and weight measurements on a representative sample of public school students statewide in grades K through 12 in order to determine the prevalence of obesity among public school students and examine trends. More details of the Study can be found on the web site for the Center for Mississippi Health Policy at <https://mshealthpolicy.com/childhood-obesity-trends-in-ms>.

## Obesity Rates by Year



The obesity prevalence for Mississippi public school students in K-12 varied from 25.5% in 2005 to 23.7% in 2017. This change, however, was not statistically significant ( $p=0.4895$ ).

## Obesity Rates by Race



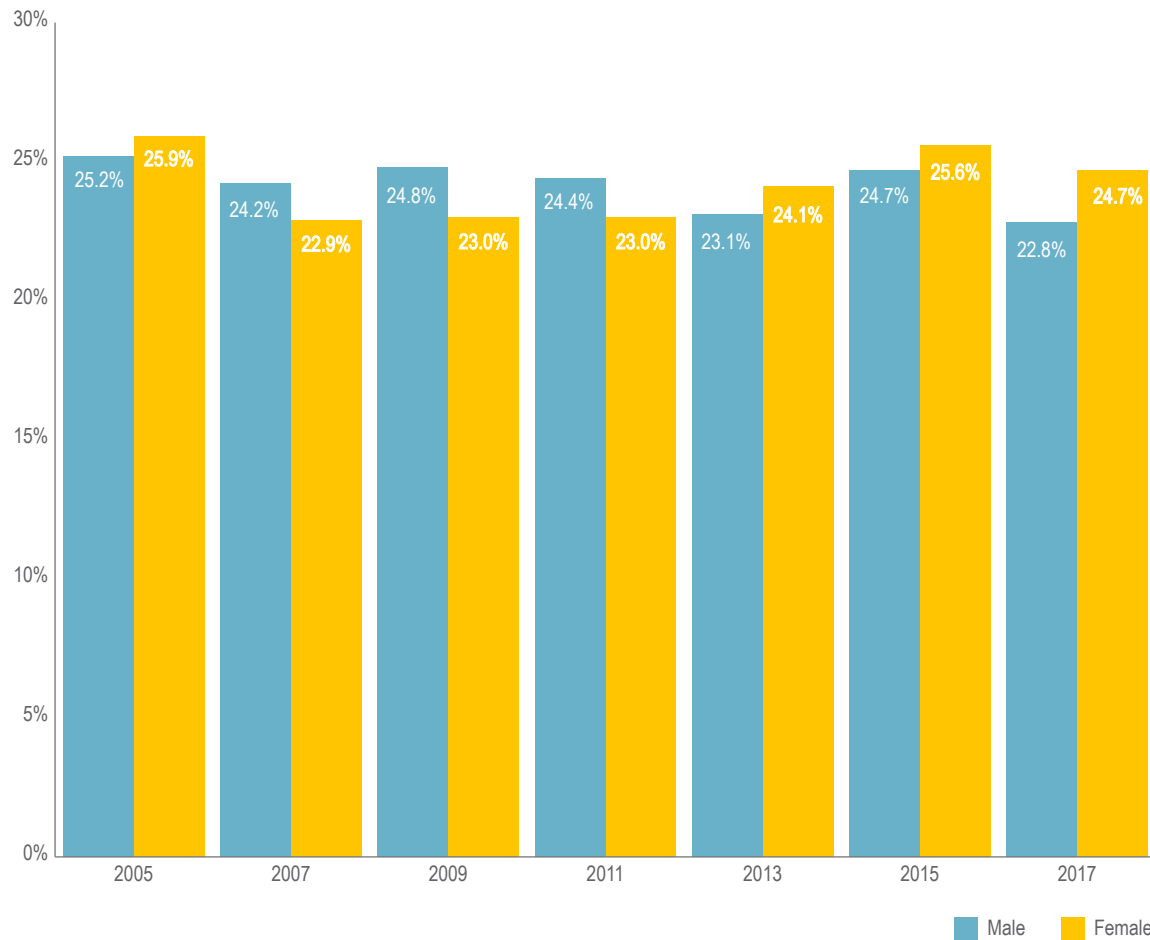
\*Statistically significant difference

The obesity prevalence for Mississippi public school white students in K-12 varied from 22.9% in 2005 to 21.7% in 2017. This change, however, was not statistically significant ( $p=0.5816$ ). The prevalence decreased annually from 2005 to 2009, but increased annually from 2011 to 2017. Neither the decrease nor the increase was statistically significant.

The obesity prevalence for Mississippi public school black students in K-12 varied from 27.6% in 2005 to 25.4% in 2017. This change, however, was not statistically significant ( $p=0.6400$ ).

In 2017, the obesity rate for black students was significantly higher than for white students ( $p=0.040$ ), as it has been since 2009. The racial disparity, however, in obesity rates continued to decline in 2017 from its peak in 2009 and reached the lowest level in the 12 years of measurement. The black rate was 43.6% higher than the white rate in 2009, and 17.0% higher in 2017.

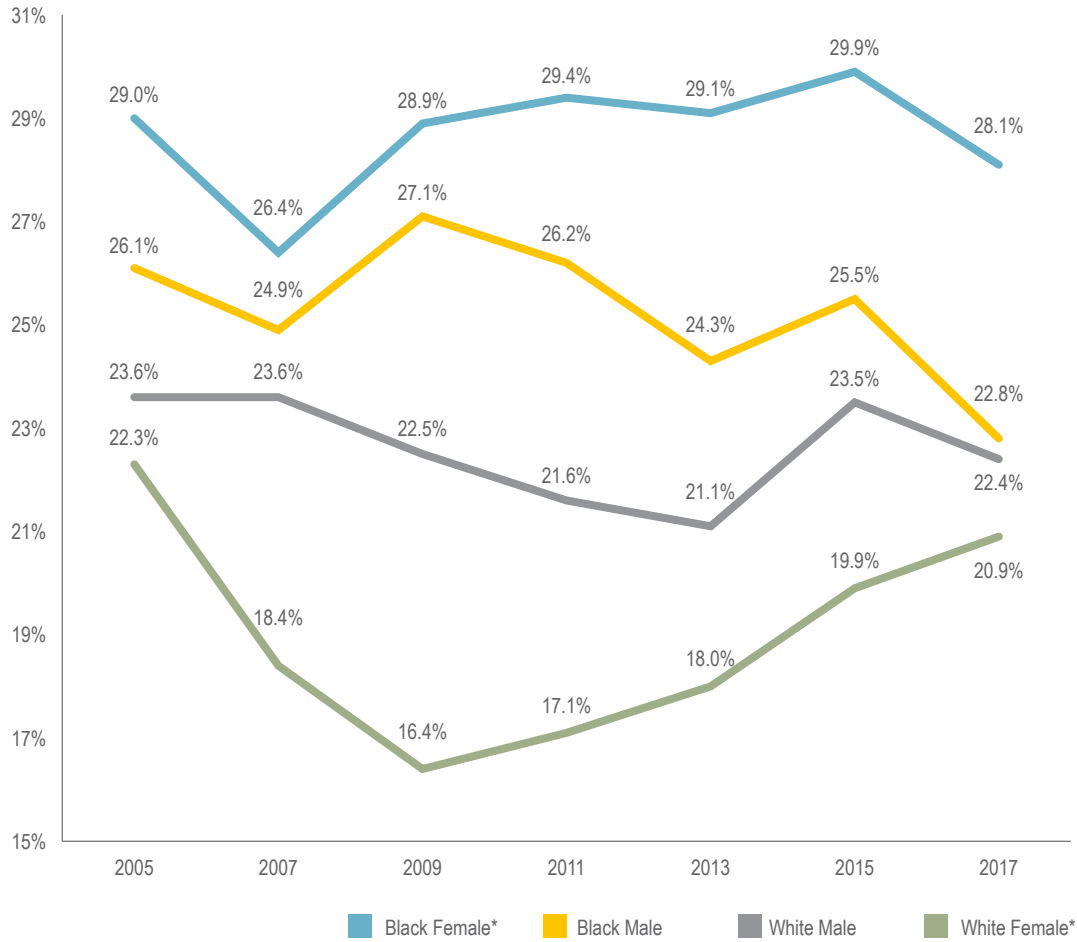
## Obesity Rates by Gender



The obesity prevalence for Mississippi public school male students in K-12 varied from 25.2% in 2005 to 22.8% in 2017. This change, however, was not statistically significant ( $p=0.1309$ ).

The obesity prevalence for Mississippi public school female students in K-12 varied from 25.9% in 2005 to 24.7% in 2017. This change, however, was not statistically significant ( $p=0.6826$ ).

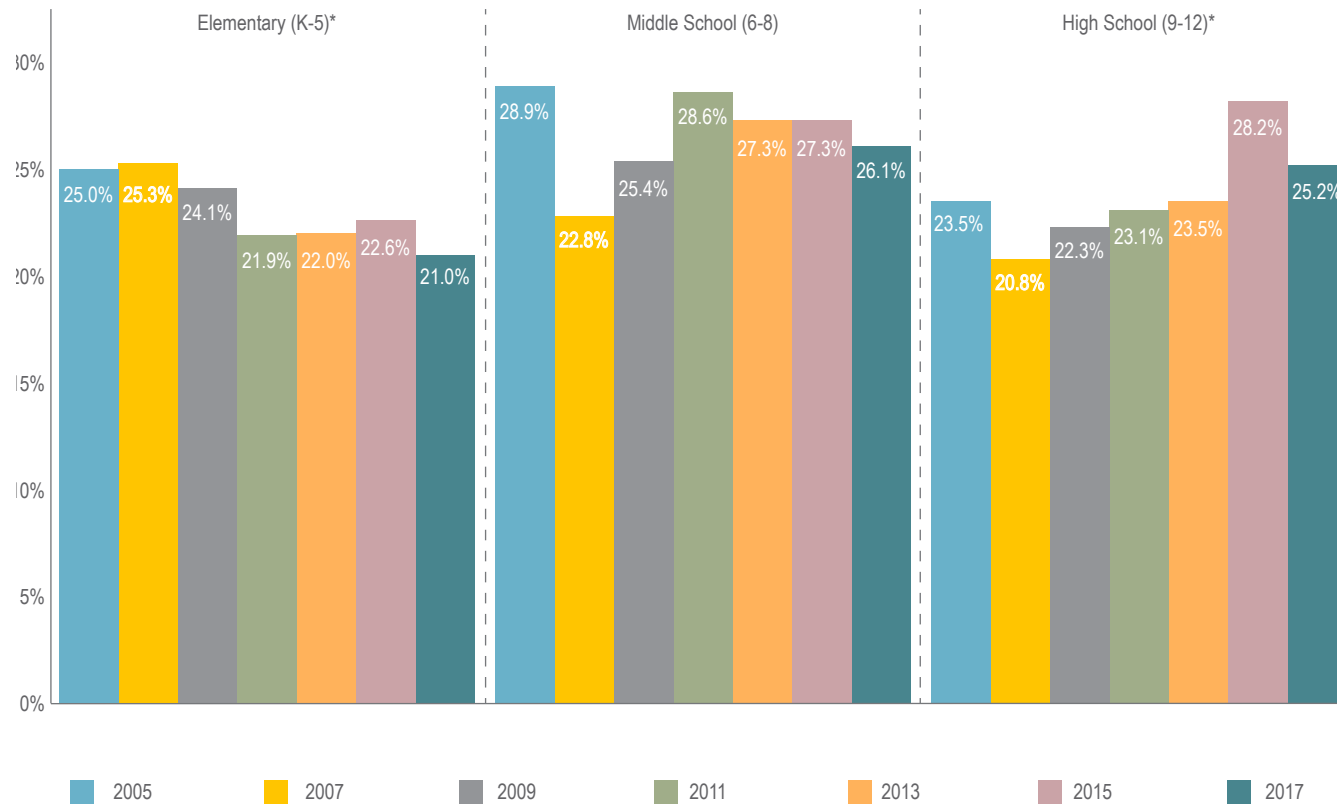
## Obesity Rates by Race & by Gender



The obesity rate differed significantly by gender and race ( $p=0.020$  for 2017). In 2017, Black female students had the highest obesity rate of 28.1%. White female students had the lowest obesity rate at 20.9%.

*\*Differences in rates for these two groups are statistically significant for 2005-2017*

# Obesity Rates by Grade Level



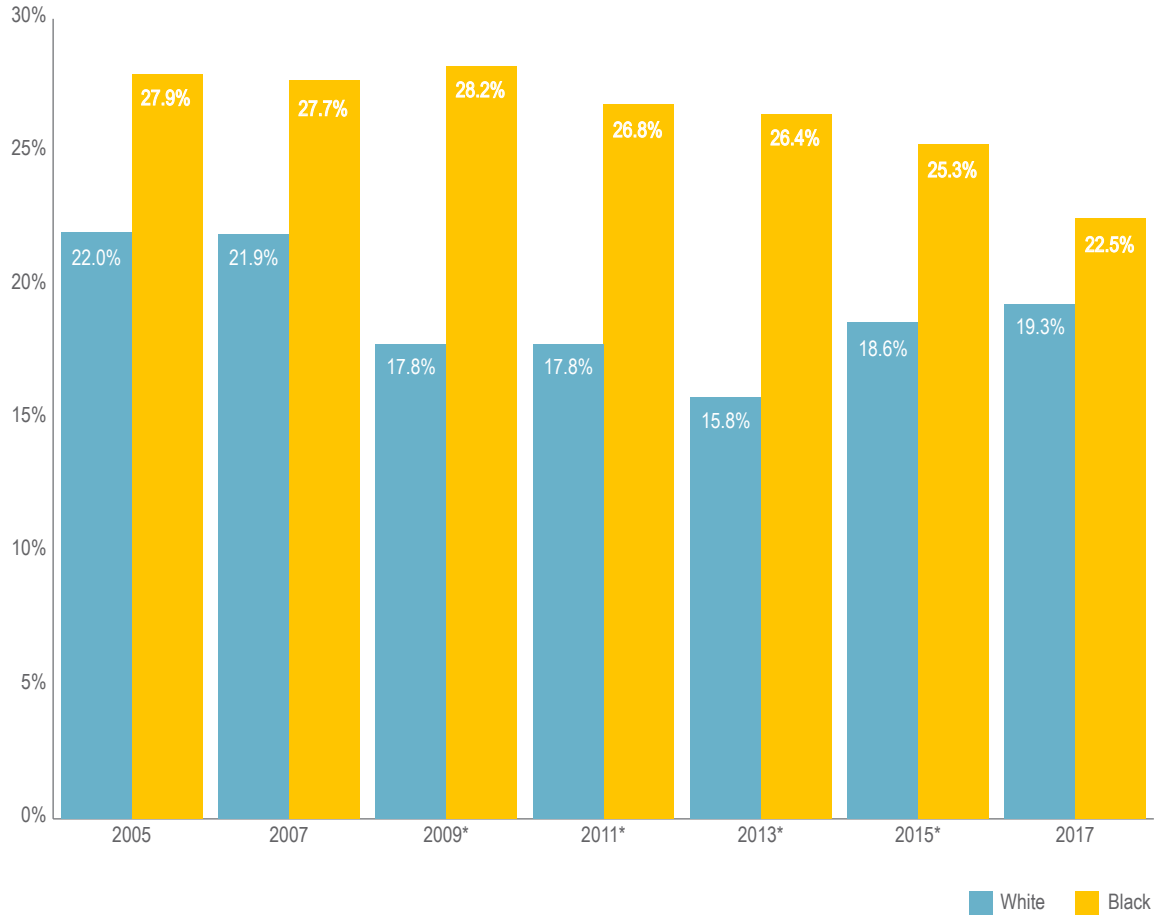
The obesity prevalence for Mississippi elementary school students (K-5) continued to decline in 2017. The rate decreased from 25.0% in 2005 to 21.0% in 2017. This change was statistically significant ( $p=0.00973$ ).

The obesity prevalence for Mississippi middle school students (grades 6-8) varied from 28.9% in 2005 to 26.1% in 2017. This change, however, was not statistically significant ( $p=0.96452$ ).

The obesity prevalence for Mississippi high school students (grades 9-12) increased from 23.5% in 2005 to 25.2% in 2017. This change was statistically significant ( $p=0.0137$ ).

\*Statistically significant change

## Obesity Rates by Race - Elementary Students

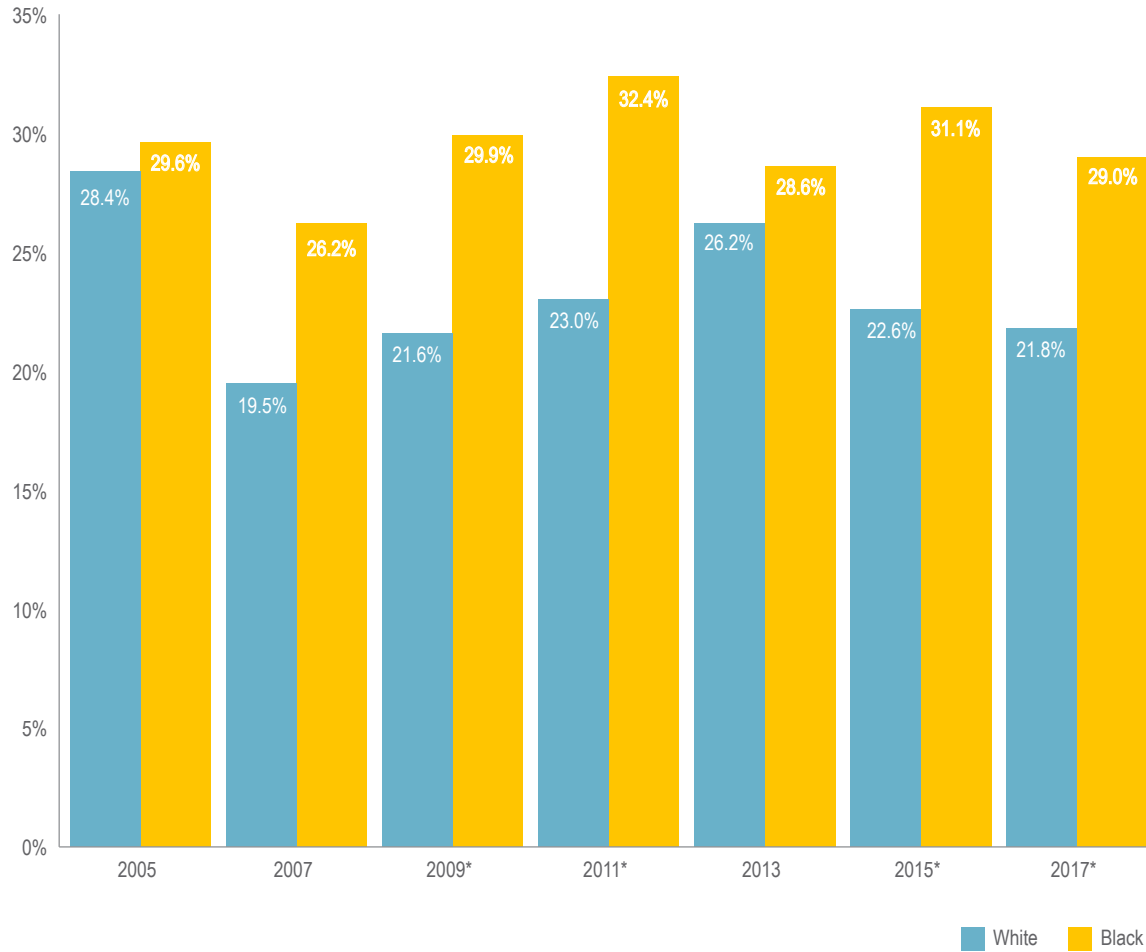


Racial disparities have decreased among elementary students (grades K-5). In a change from 2009 - 2015, the obesity prevalence in 2017 did not differ significantly by race among elementary students ( $p=0.168$ ).

\*Statistically significant difference



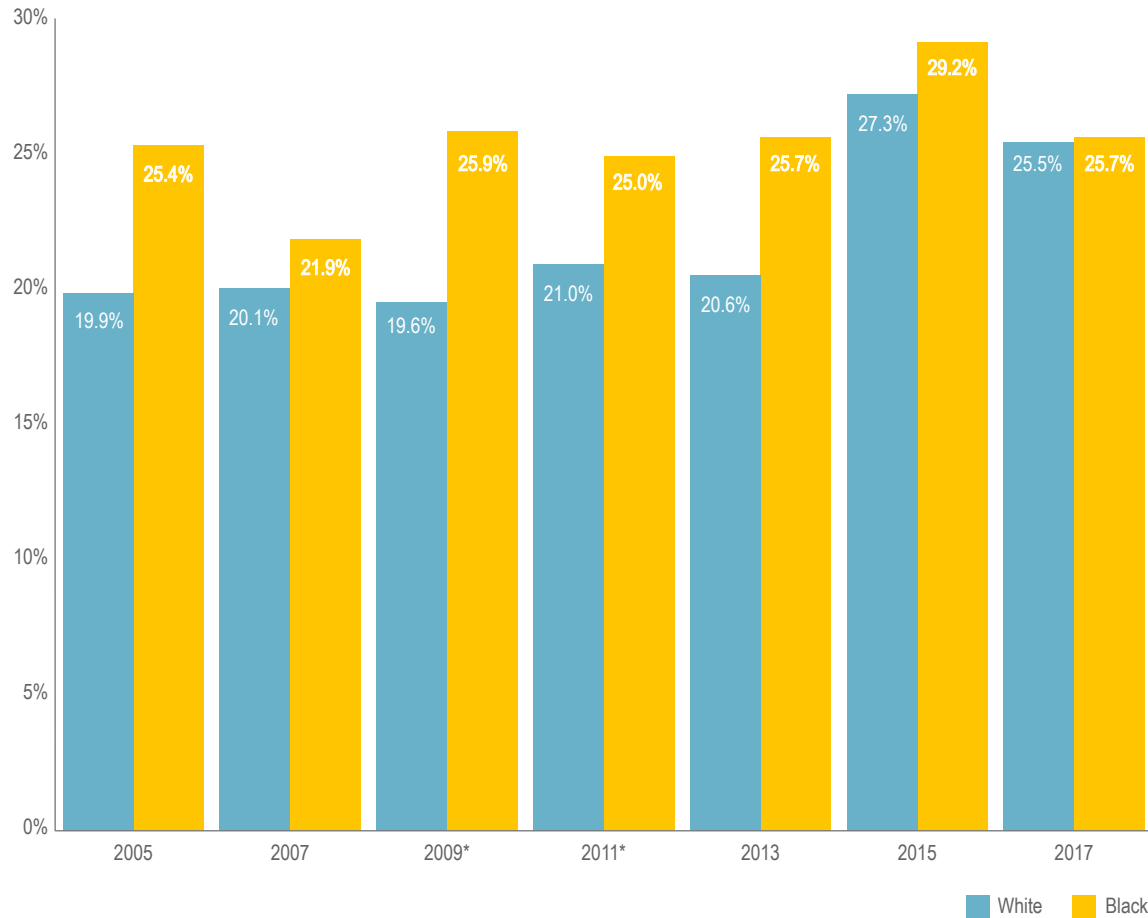
## Obesity Rates by Race - Middle School Students



The obesity prevalence for Mississippi middle school students (grades 6-8) differed significantly by race in 2017 ( $p=0.004$ ).

\*Statistically significant difference

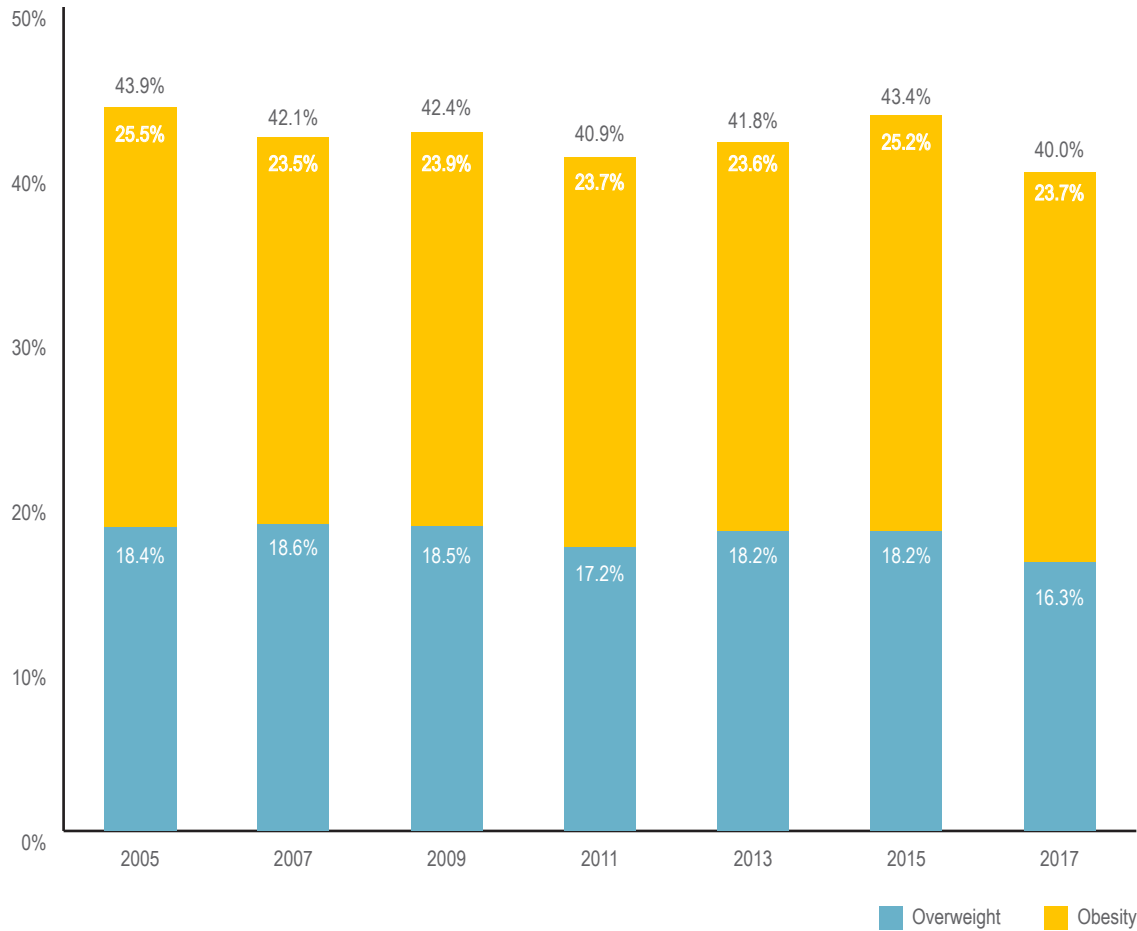
## Obesity Rates by Race - High School Students



Racial disparities also declined among high school students (grades 9-12). Obesity prevalence among high school students did not differ significantly by race in 2017 ( $p=0.944$ ).

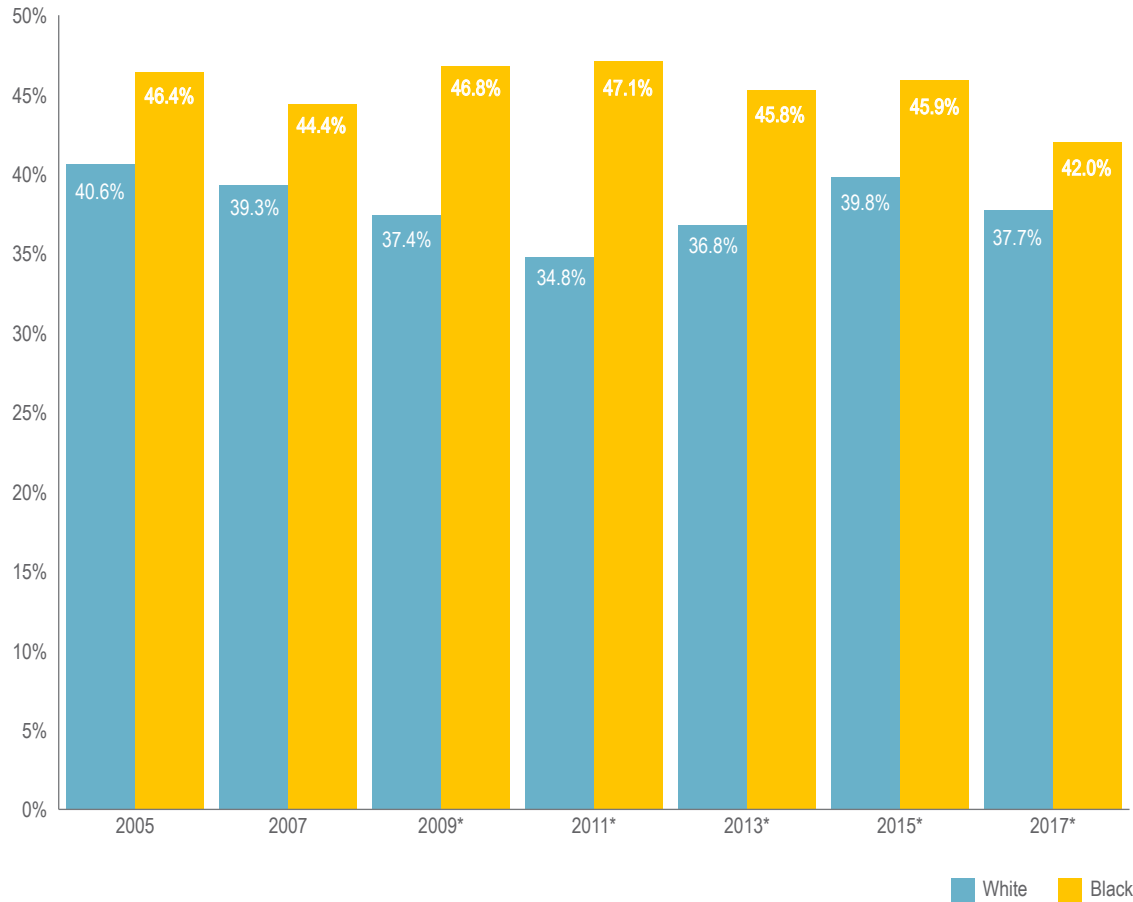
*\*Statistically significant difference*

## Overweight & Obesity Rates by Year



The combined prevalence of overweight and obesity for Mississippi public school students in K-12 decreased from 43.9% in 2005 to 40.0% in 2017. This decline was statistically significant ( $p=0.0395$ ).

## Overweight & Obesity Combined Rates by Race



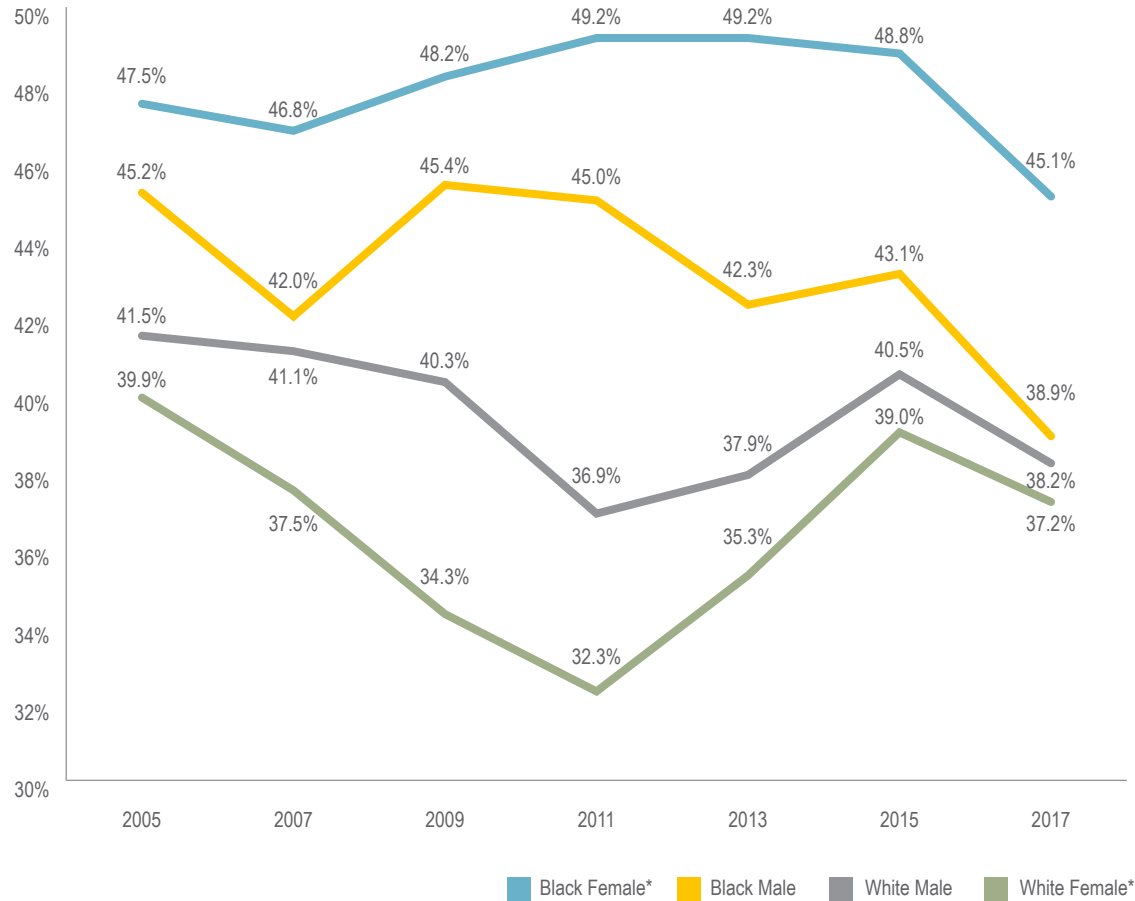
The combined prevalence of overweight and obesity for Mississippi public school white students in K-12 varied from 40.6% in 2005 to 37.7% in 2017. This change was not statistically significant ( $p=0.16069$ ).

The combined prevalence of overweight and obesity for Mississippi public school black students in K-12 varied from 46.4% in 2005 to 42.0% in 2017. This change was not statistically significant ( $p=0.13511$ ).

In 2017, the combined prevalence of overweight and obesity for black students was significantly higher than for white students ( $p=0.019$ ), as it has been since 2009.

*\*Statistically significant difference*

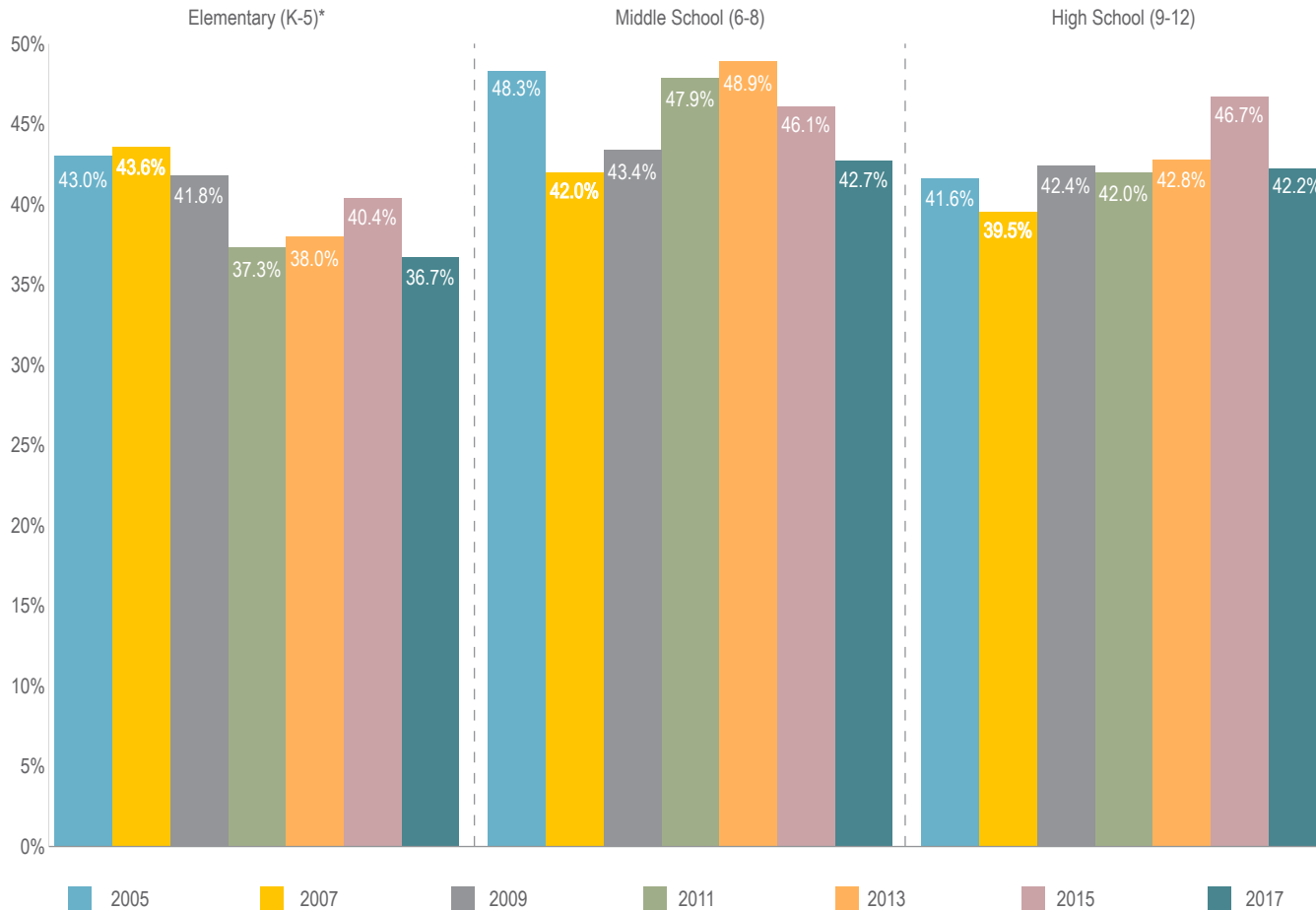
## Overweight & Obesity Combined Rates by Race & Gender



In 2017, the combined prevalence of overweight and obesity differed significantly by gender and race ( $p=0.014$ ). Black female students had the highest rate of 45.1%, and white female students had the lowest rate at 37.2%.

*\*Differences in rates for these two groups are statistically significant for 2005-2017*

## Overweight & Obesity Combined Rates by Grade Level



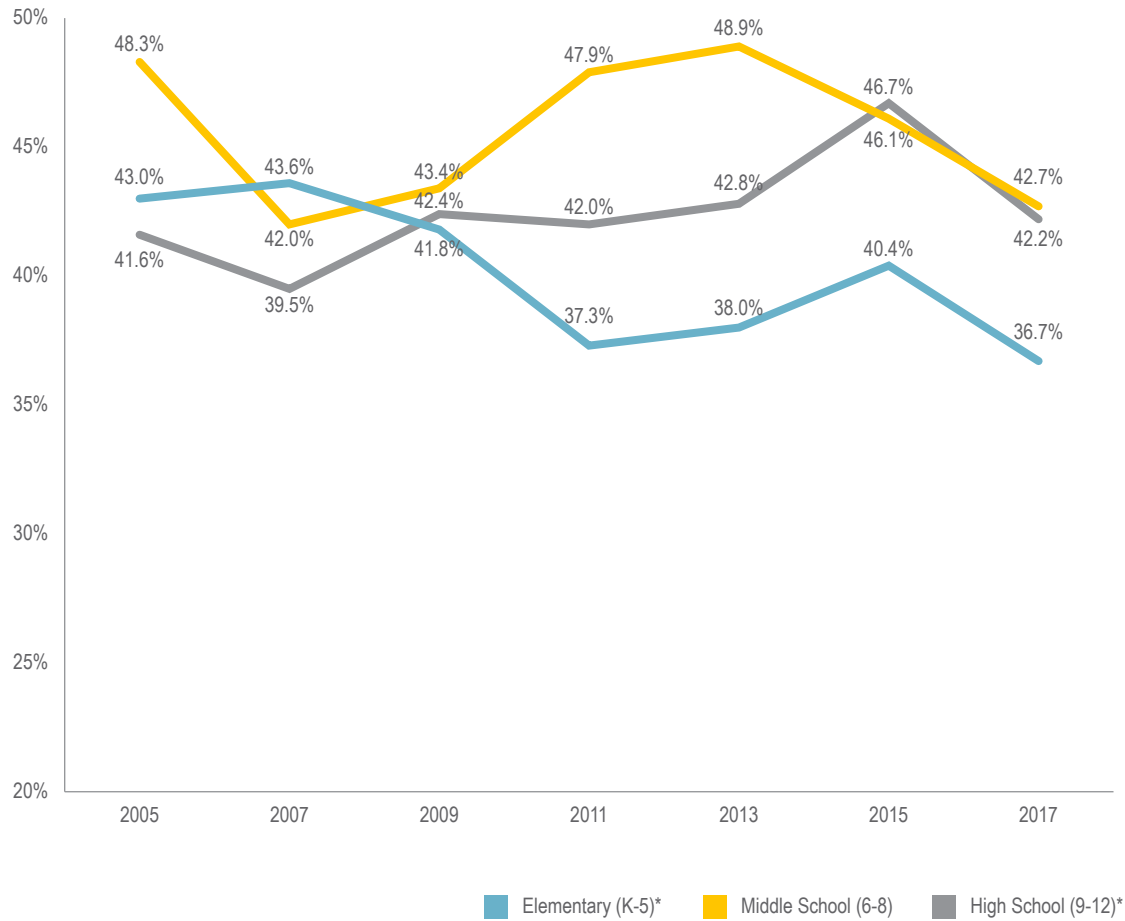
\*Statistically significant change.

The combined prevalence of overweight and obesity for Mississippi elementary school students (K-5) continued to decline in 2017. It decreased from 43.0% in 2005 to 36.7% in 2017. This change was statistically significant ( $p=0.00065$ ).

The combined prevalence of overweight and obesity for Mississippi middle school students (grades 6-8) varied from 48.3% in 2005 to 42.7% in 2017. This change, however, was not statistically significant ( $p=0.7230$ ).

The combined prevalence of overweight and obesity for Mississippi high school students (grades 9-12) varied from 41.6% in 2005 to 42.2% in 2017. This change was not statistically significant ( $p=0.06217$ ).

## Overweight & Obesity Combined Rates by Grade Level



Changes in the combined prevalence of overweight and obesity by grade level are influenced not only by changes in weight status among students, but also by the movement of age cohorts through the school system.

CHART BOOK

# CHILD & YOUTH PREVALENCE OF OBESITY STUDY, 2005 - 2017

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