

# YOUTH RISK BEHAVIOR SURVEY

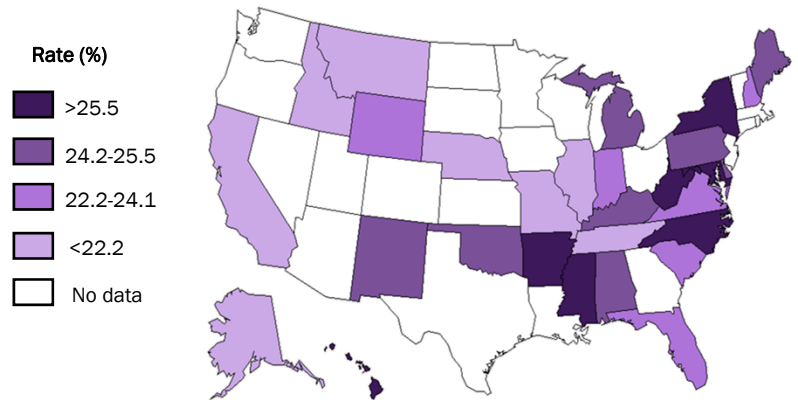
The Youth Risk Behavior Survey (YRBS) is an ongoing national school-based survey. YRBS is conducted every two years and uses a representative sample of 9th through 12th grade students. The purpose of the survey is to learn about various health-risk behaviors among youth. These behaviors include alcohol and tobacco use, dietary behavior, and physical activity. YRBS also measures the prevalence of asthma and obesity. This report shows the findings related to asthma from 2015.

## Asthma in Youth

### Lifetime Asthma

- The corresponding figure shows the lifetime (ever told) prevalence of asthma among youth in 2015 by state.
- The United States prevalence for youth who have ever been told they have asthma was 22.8%. Michigan's prevalence was 25.3%, tenth highest in the country.
- Hawaii had the highest prevalence at 31.3% and Idaho had the lowest prevalence at 19.3%.

Lifetime Asthma Prevalence Among Youth in the United States, 2015

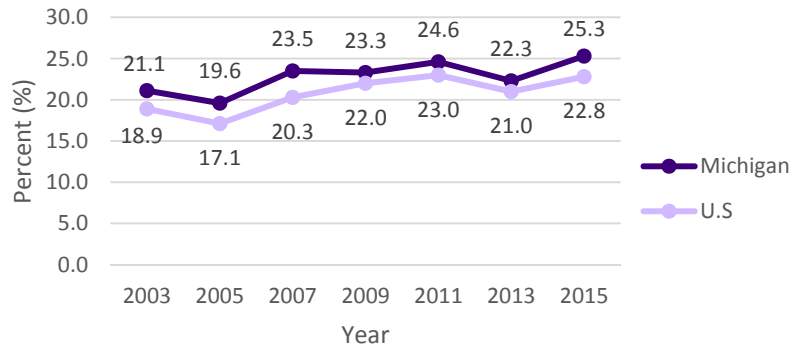


Data source: United States, Youth Risk Behavior Survey 2015

### Trends in Lifetime Asthma

- Michigan's lifetime asthma prevalence was significantly higher than the national rate from 2003 through 2007.
- Michigan's lifetime asthma prevalence increased by 4.2% between 2003 and 2015.
- In 2015, the Michigan prevalence of lifetime asthma among Black youth (30.8%) was significantly higher than in White youth (24.0%) (Data not shown).

Lifetime Asthma Prevalence among Youth Michigan and United States, 2003-2015

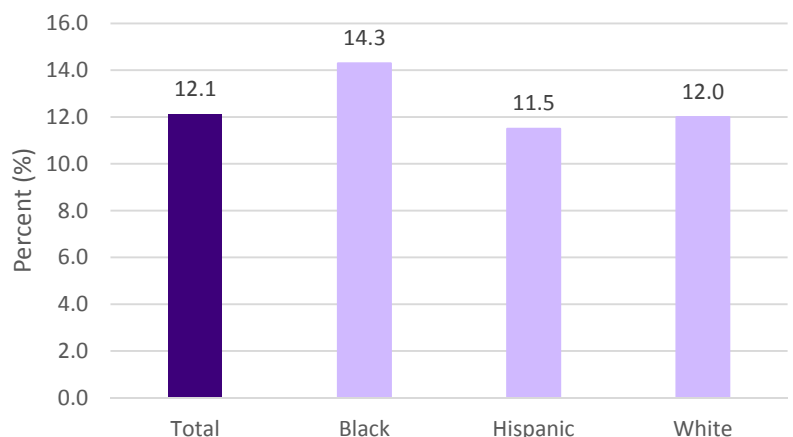


Data source: United States and Michigan Youth Risk Behavior Survey 2003- 2015

### Current Asthma

- In 2015, 12.1% of Michigan youth reported having current asthma. Black youth (14.3%) had a slightly higher prevalence rate compared to White and Hispanic youth, 12.0% and 11.5% respectively.
- 11.2% of male youth reported having current asthma compared to 13.0% of female youth (Data not shown).

Current Asthma among Michigan Youth, 2015



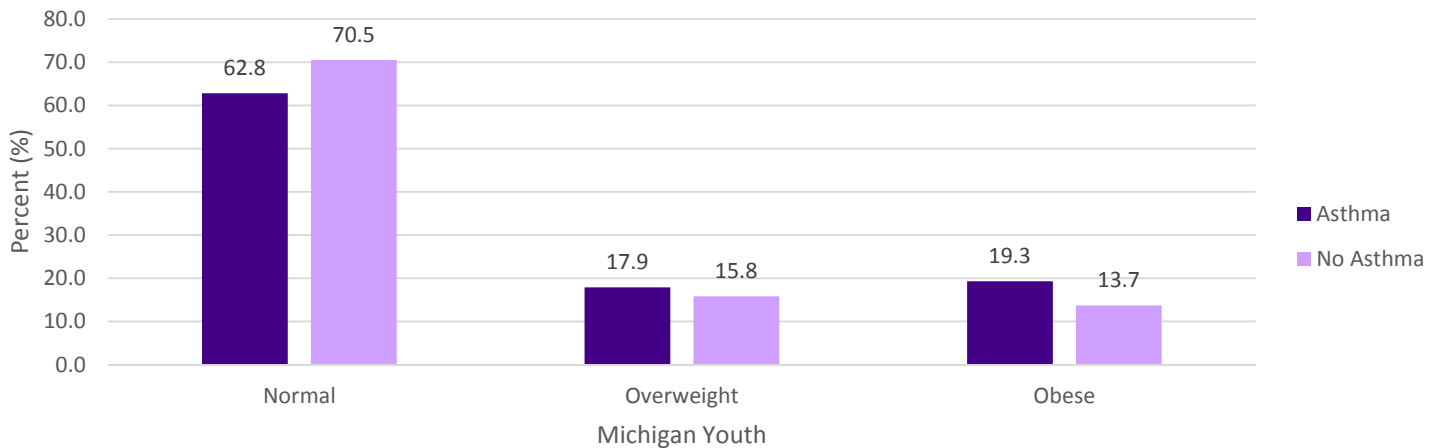
Data source: Michigan Youth Risk Behavior Survey 2015

# Obesity and Asthma among Michigan Youth

## Risk of Obesity

- Over 70.5% of youth without asthma were at a normal body mass index (BMI) compared to 62.8% among youth with asthma.
- 19.3% of youth with asthma reported a BMI that was categorized as obese compared to 13.7% of youth without asthma.
- The odds of having current asthma were significantly higher among youth who were obese compared to those who were a normal weight (adjusted OR=1.6).

Weight Status among Michigan Youth, 2015

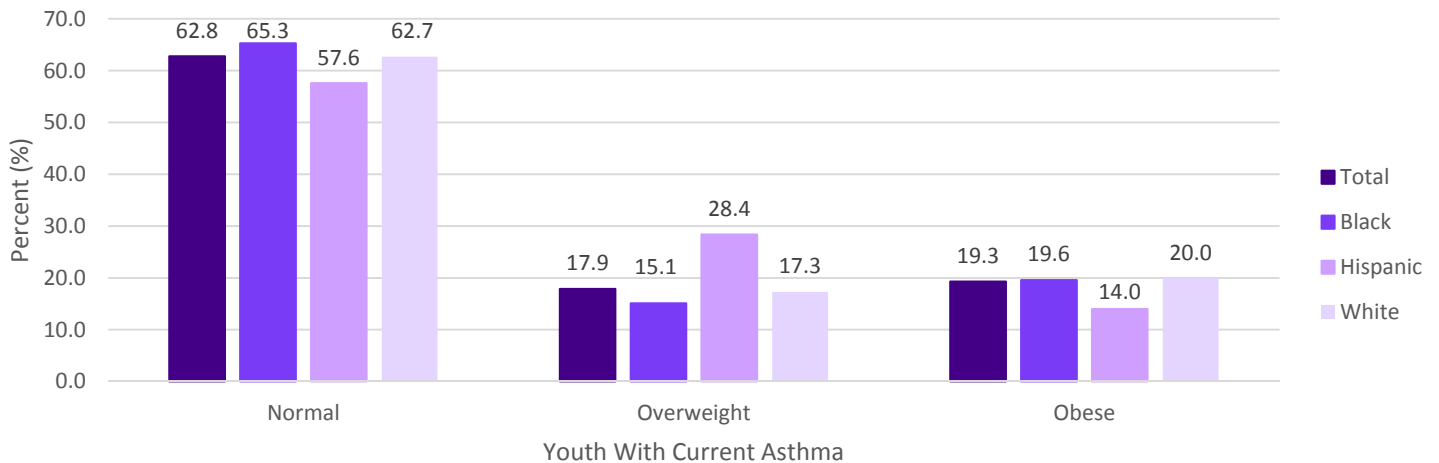


Data source: Michigan Youth Risk Behavior Survey 2015

## Obesity by Race

- In total, 17.9% of youth with asthma were classified as overweight. This varied by race: Black (15.1%), Hispanic (28.4%), and White (17.3%).
- In total, 19.3% of youth with asthma were classified as obese. This varied by race: Black (19.6%), Hispanic (14.0%), and White (20.0%).
- The prevalence of obesity among White youth with asthma (20.0%) was higher compared to those without asthma (12.7%) (Data not shown).

Weight Status among Michigan Youth with Current Asthma, 2015



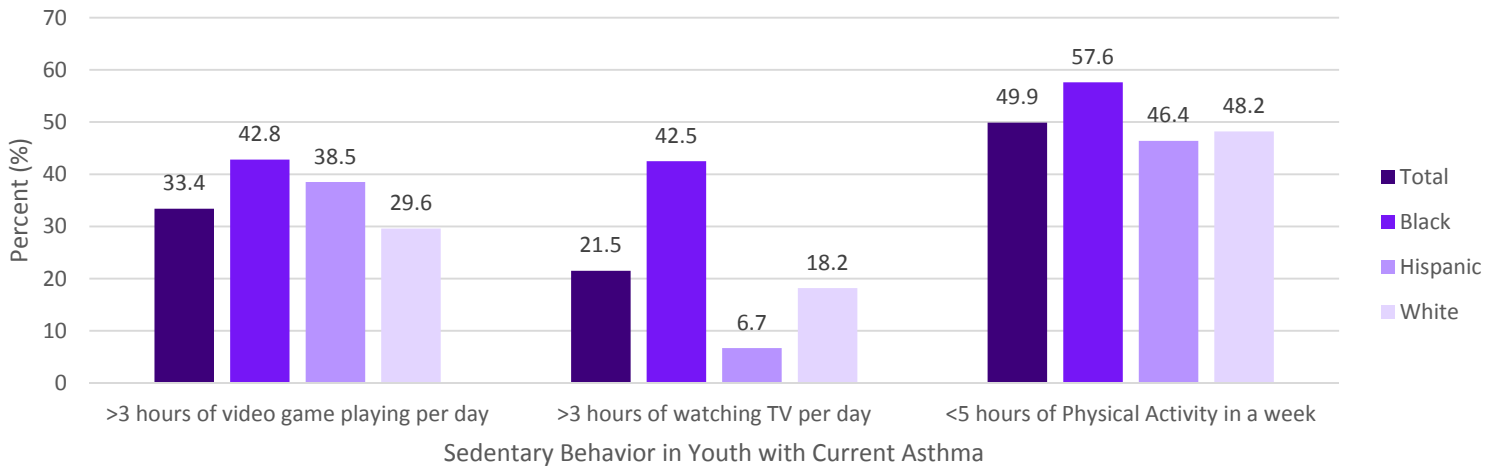
Data source: Michigan Youth Risk Behavior Survey 2015

# Unhealthy Behaviors among Youth with Current Asthma

## Physical Activity and Sedentary Behaviors

- 33.4% of youth with asthma reported they spend three or more hours playing video games per day.
- Among those with asthma, a greater percent of Black youth (42.5%) reported watching TV for three or more hours per day compared to White youth (18.2%) and Hispanic youth (6.7%), which were significantly different.
- Among those with asthma, Black youth (57.6%) reported a higher prevalence of doing a physical activity for less than five hours a week compared to White (48.2%) and Hispanic youth (46.4%).

Sedentary Behaviors among Michigan Youth with Current Asthma, 2015

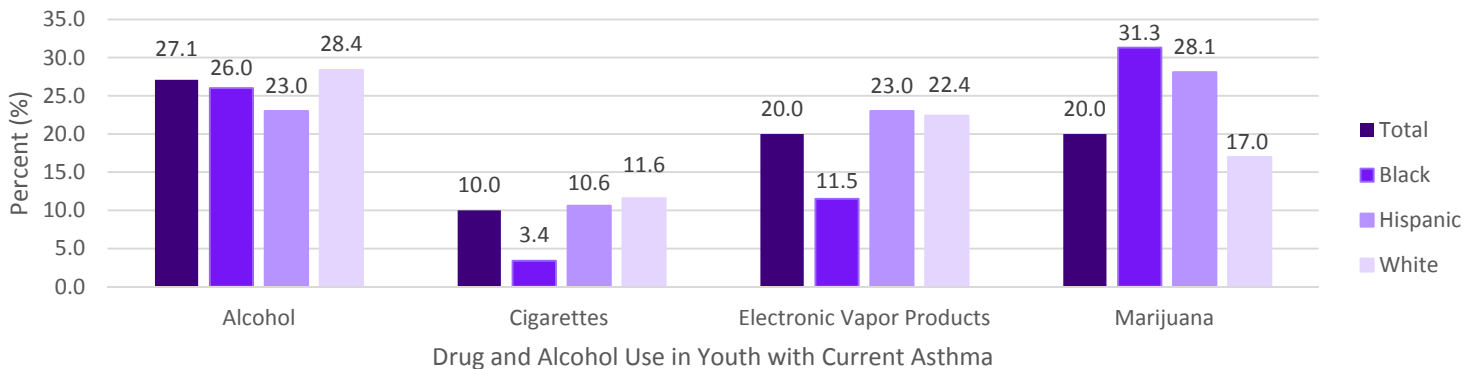


Data source: Michigan Youth Risk Behavior Survey 2015

## Drug and Alcohol Use

- 27.1% of youth with asthma reported consuming alcohol at least once in the past month.
- White (11.6%) and Hispanic (10.6%) youth with asthma reported a higher rate of cigarette use compared to Black youth with asthma (3.4%).
- White (22.4%) and Hispanic (23.0%) youth with asthma reported a higher prevalence of electronic vapor product use compared to Black youth with asthma (11.5%). Electronic vapor products include e-cigarettes, hookah and vaping pens.
- Marijuana prevalence rates were significantly higher among Black (31.3%) and Hispanic (28.1%) youth with asthma compared to White youth (17.0%).

Current Drug and Alcohol Use among Michigan Youth with Current Asthma, 2015



Data source: Michigan Youth Risk Behavior Survey 2015

## Notes

### Definitions:

- Lifetime asthma is defined as a “yes” response to “Have you ever been told by a doctor or other health professional that you have asthma?”.
- Current asthma is defined as a “yes” response to both of the following questions: “Have you ever been told by a doctor or other health professional that you have asthma?” and “Do you still have asthma?”.
- To determine significance between the National rate and the state rate for lifetime asthma, the national rate was compared to the 95% confidence interval calculated for Michigan. If the national rate was lower than the 95% confidence interval, Michigan was considered to be significantly higher.
- To determine significance between the percent of Black students with lifetime asthma compared to White students with lifetime asthma. The rate for White students was compared to the 95% confidence interval for Black students with asthma. If the percent of White students with asthma was less than the 95% confidence interval, Black students with asthma were considered to be significantly higher.
- Overweight was define as having a BMI greater than the 85th percentile but less than 95th percentile, based on sex and age.
- Obese was defined as having a BMI in the 95th percentile or higher based on sex and age.

### Methods:

Each state and local school-based YRBS employs a two-stage, cluster sample design to produce representative samples of students in grades 9–12 in their jurisdiction. Samples are selected by using PCSample. All except a few state and local samples include only public schools, and each local sample includes only schools in the funded school district (e.g., San Diego Unified School District) rather than in the entire city (e.g., greater San Diego area). In the first sampling stage in all except a few states and districts, schools are selected with probability proportional to school enrollment size. In the second sampling stage, intact classes of a required subject or intact classes during a required period (e.g., second period) are selected randomly. All students in sampled classes are eligible to participate.

Local procedures for obtaining parental permission are followed before administering YRBS in any school. Certain schools use active permission, in which parents must send back to the school a signed form indicating their approval before their child can participate. Other schools use passive permission, in which parents send back a signed form only if they do not want their child to participate in the survey. Students complete the self-administered questionnaire during one class period and record their responses directly in a computer-scannable booklet or on an answer sheet.

### Data Sources:

- Centers for Disease Control and Prevention (CDC). *1991-2015 High School Youth Risk Behavior Survey Data*. Available at <http://nccd.cdc.gov/youthonline/>. Accessed on [8.17/16].
- Michigan Youth Risk Behavior Survey 2015. Michigan Department of Education.

## For More Information:

Visit [www.michigan.gov/asthma](http://www.michigan.gov/asthma) or [www.michigan.gov/asthmaepi](http://www.michigan.gov/asthmaepi) to view information on asthma, and to see additional data and reports.

Visit [www.michigan.gov/yrbs](http://www.michigan.gov/yrbs) to view more information on the Michigan Youth Risk Behavior Survey.

Visit [nccd.cdc.gov/youthonline](http://nccd.cdc.gov/youthonline) to see more information on the national Youth Risk Behavior Survey.

## Suggested Citation:

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