

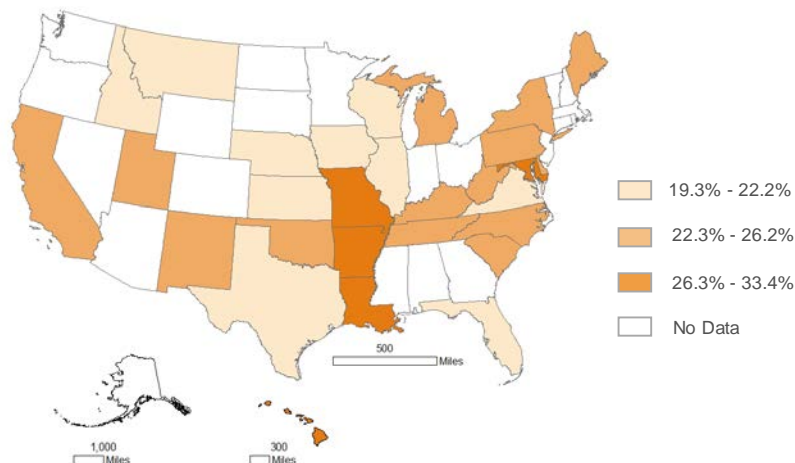
# Asthma in Michigan Youth

YRBS 2017

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 the 2017 Michigan YRBS.

## Lifetime Asthma Prevalence

Lifetime Asthma Prevalence among Youth in the United States, 2017

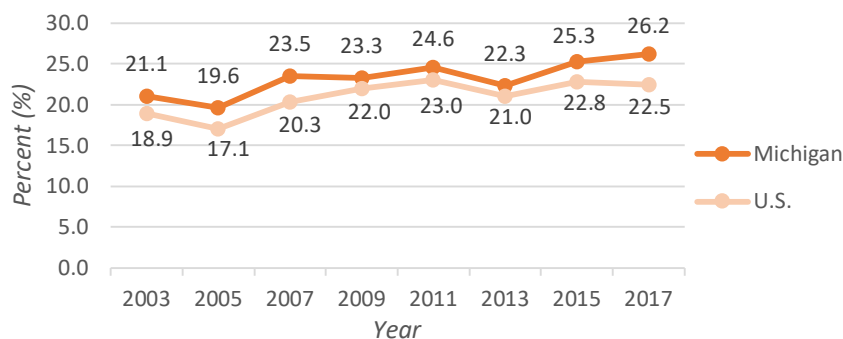


- The corresponding figure shows the lifetime (ever told) prevalence of asthma among youth in 2017 by state.
- The United States prevalence for youth who have ever been told they have asthma was 22.5%. Michigan's prevalence was 26.2%, seventh highest in the country.
- Arkansas had the highest prevalence at 33.4% and Idaho had the lowest prevalence at 19.3%.

Data source: United States, Youth Risk Behavior Survey 2017

## Trends in Lifetime Asthma Prevalence

Lifetime Asthma Prevalence among Michigan Youth Compared to the United States, 2003-2017

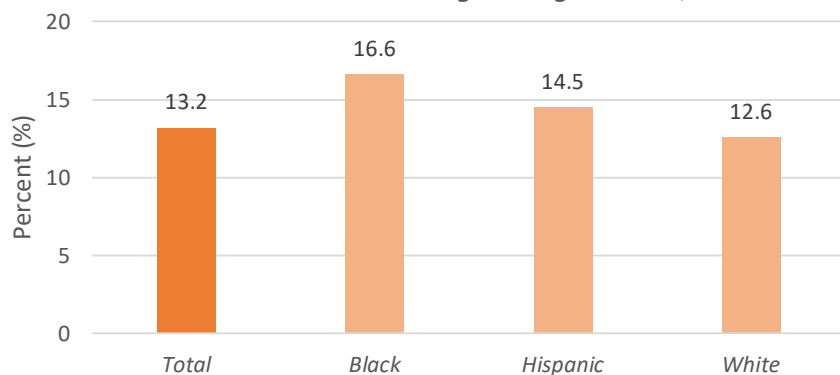


Data source: United States & Michigan Youth Risk Behavior Survey 2003 – 2017

- Michigan's lifetime asthma prevalence was significantly higher than the national rate from 2003 through 2007.
- Michigan's lifetime asthma prevalence increased by 5.1% between 2003 and 2017.

## Current Asthma

Current Asthma among Michigan Youth, 2017



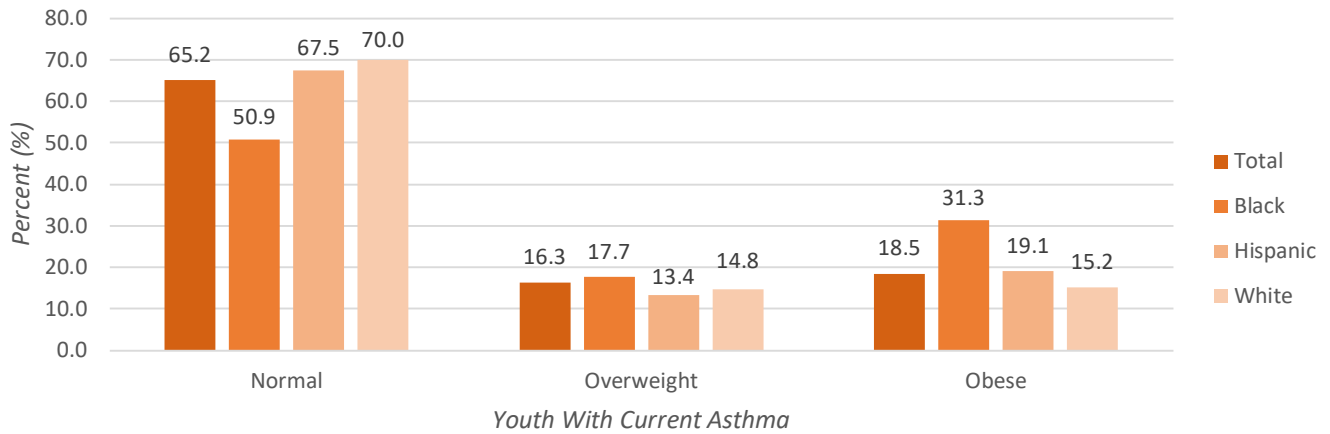
- In 2017, 13.2% of Michigan youth reported having current asthma. Black youth (16.6%) and Hispanic youth (14.5%) have slightly higher prevalence rates compared to White youth (12.6%).
- In 2017, 11.8% of male youth reported having current asthma compared to 14.7% of female youth [Data not shown].

Data source: Michigan Youth Risk Behavior Survey 2017

## Obesity and Asthma among Michigan Youth

- In 2017, 16.3% of youth with asthma were classified as overweight. Prevalence varied by race: Black (17.7%), Hispanic (13.4%), and White (14.8%).
- In 2017, 18.5% of youth with asthma were classified as obese. Prevalence varied by race: Black (31.3%), Hispanic (19.1%), and White (15.2%).
- The prevalence of obesity among Black youth with asthma (31.1%) was higher compared to those without asthma (23.9%) [Data not shown].

*Weight Status among Michigan Youth with Current Asthma, 2017*

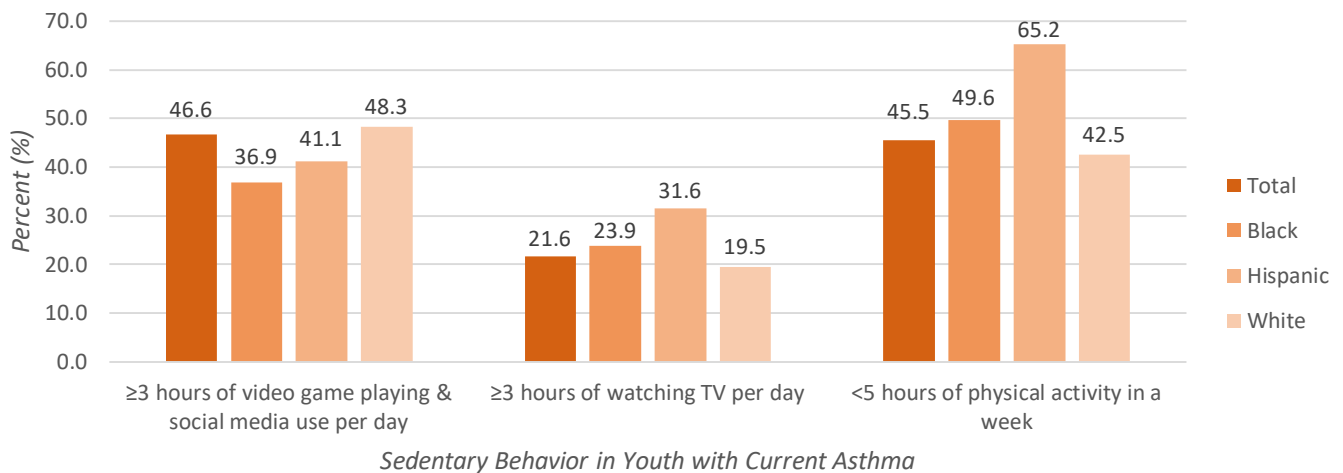


Data source: Michigan Youth Risk Behavior Survey 2017

## Sedentary Behavior among Youth with Current Asthma

- In 2017, 46.6% of youth with asthma reported that they spend three or more hours playing video games or using social media per day.
- Among those with asthma, Hispanic youth (31.6%) reported a higher prevalence of watching TV for three or more hours per day compared to White (19.5%) and Black youth (23.9%).
- Hispanic youth (65.2%) with asthma reported a higher prevalence of doing physical activity for less than five hours a week compared to White (42.5%) and Black youth (49.6%) with asthma.

*Sedentary Behaviors among Michigan Youth with Current Asthma, 2017*

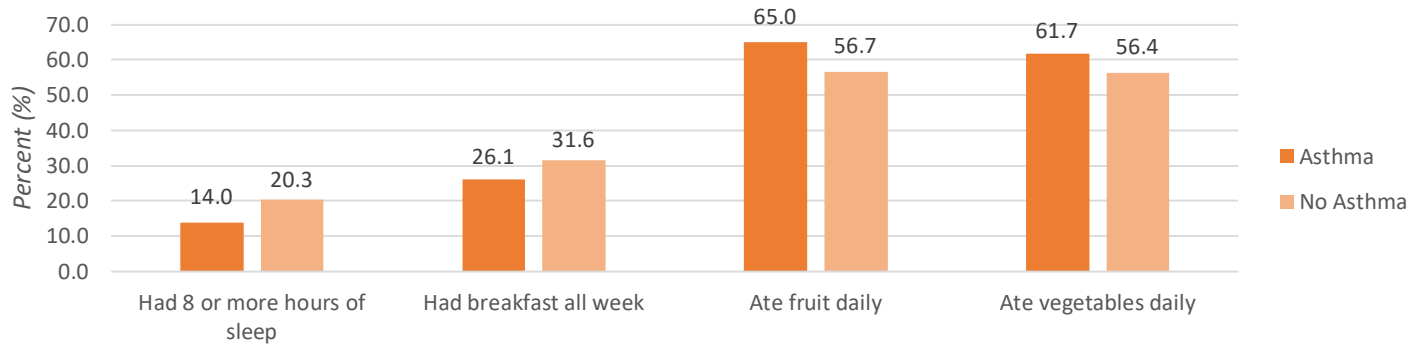


Data source: Michigan Youth Risk Behavior Survey 2017

## Healthy Behaviors among Michigan Youth

- In, 2017, 14.0% of youth with asthma reported getting eight or more hours of sleep compared to youth without asthma (20.3%).
- In 2017, 26.1% of youth with asthma reported that they had eaten breakfast every day in the past seven days compared to youth without asthma (31.6%).
- Youth with asthma reported a higher prevalence of eating fruit and vegetables, 65.0% and 61.7% respectively, than youth without asthma, 56.7% and 56.4% respectively.

Healthy Behaviors in Youth by Asthma Status

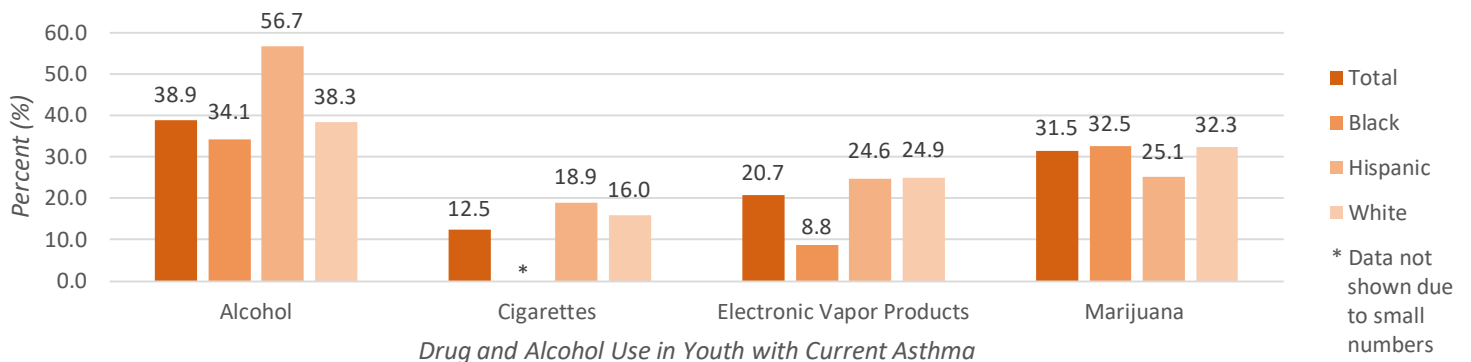


Data source: Michigan Youth Risk Behavior Survey 2017

## Drug and Alcohol Use among Youth with Current Asthma

- Hispanic (56.7%) youth with asthma reported a higher rate of consuming alcohol at least once in the past month compared to Black (34.1%) and White (38.3%) youth with asthma.
- In 2017, 12.5% of youth with asthma reported smoking cigarettes at least once in the past month.
- The odds of having current asthma were significantly higher among youth who reported smoking electronic vapor products compared to those who did not (adjusted OR=2.05) [Data not shown]. Electronic vapor products include e-cigarettes, hookah and vaping pens.
- White (24.9%) and Hispanic (24.6%) youth with asthma reported a higher prevalence of electronic vapor product use compared to Black youth with asthma (8.8%).
- In 2017, 31.5% of youth with asthma reported using Marijuana at least once in the past month. Marijuana prevalence rates were similar among youth with asthma irrespective of race/ethnicity.

Current Drug and Alcohol Use among Michigan Youth with Current Asthma, 2017



Data source: Michigan Youth Risk Behavior Survey 2017

## 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.
- Overweight was defined 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). *1991-2017 High School Youth Risk Behavior Survey Data*. Available at <http://nccd.cdc.gov/youthonline/>. Accessed on [6.14.18].
- Michigan Youth Risk Behavior Survey 2017. 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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