



MISSOURI DEPARTMENT OF
**HEALTH &
SENIOR SERVICES**

Health Risk Behaviors Among Missouri High School Students

Maddison Geller, MPH

The 2023 Missouri Youth Risk Behavior Survey was conducted by the Missouri Department of Health and Senior Services with funding provided by a cooperative agreement between the U.S. Centers for Disease Control and Prevention and the Missouri Department of Elementary and Secondary Education

What is the YRBS?

Student demographics:

- Sex
- Sexual identity
- Race and ethnicity
- Grade

Health behaviors

- Sexual
- Injury and violence
- Bullying
- Diet and physical activity
- Obesity
- Mental health (including suicide)

Substance use:

- Electronic vapor product
- Tobacco product use
- Alcohol, and other drug use

Student experiences:

- Parental monitoring
- School connectivity
- Unstable housing
- Exposure to community violence

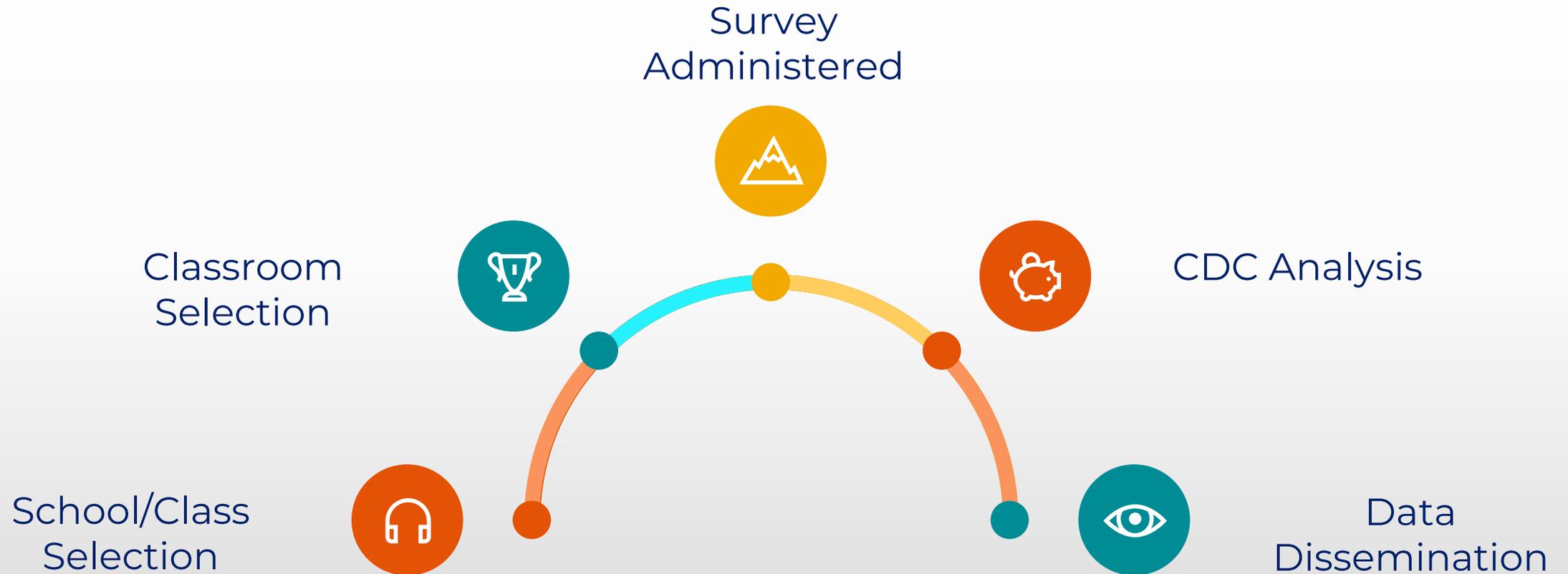
Why is the YRBS Conducted?

Monitor adolescent health behavior changes over time

Inform school, community programs, and communications campaigns

Monitor progress toward achieving the Healthy People Objectives

How is the YRBS conducted?



YRBS Quick FAQs



Students do not put their name nor any other identifying information (such as a school ID number) on the survey.

Are students' names used or linked to the survey?



Research indicates students' responses are reliable

Do students answer questions truthfully?



Possibly. In previous years CDC and DESE have agreed to provide financial grants.

Incentives for schools completing the survey?



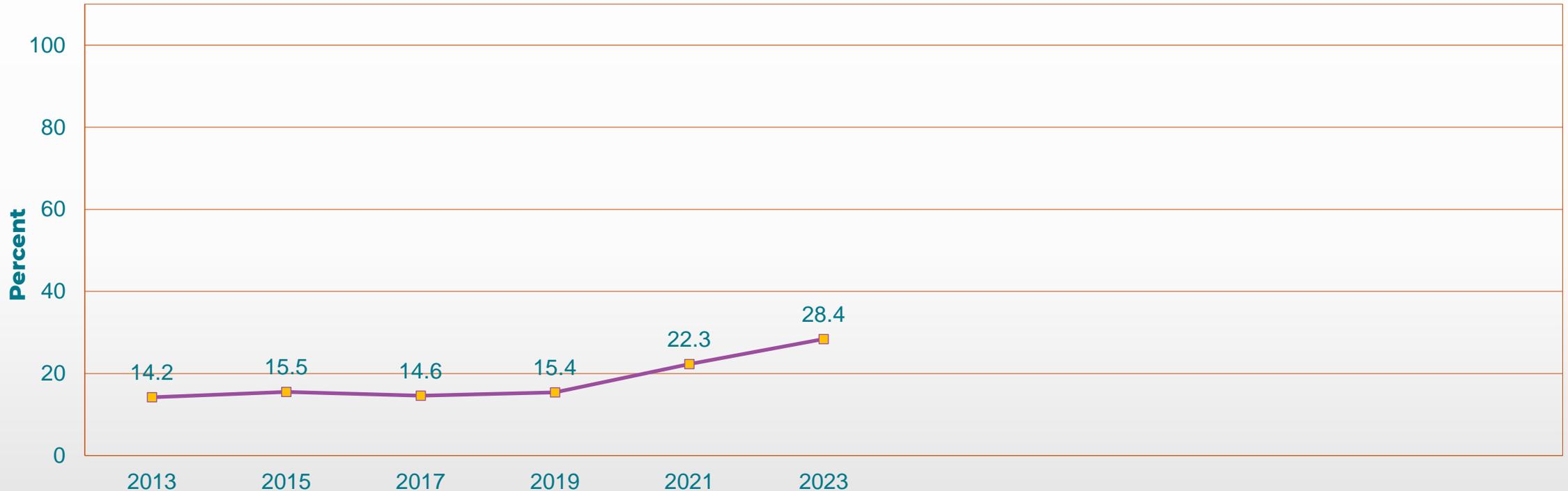
There is no evidence that asking these questions will lead to an increase in the likelihood that youth will practice risky behaviors.

Do survey questions increase the chance of risky behaviors?

Nutrition and Physical Activity



Percentage of High School Students Who Did Not Eat Breakfast,* 2013-2023[†]

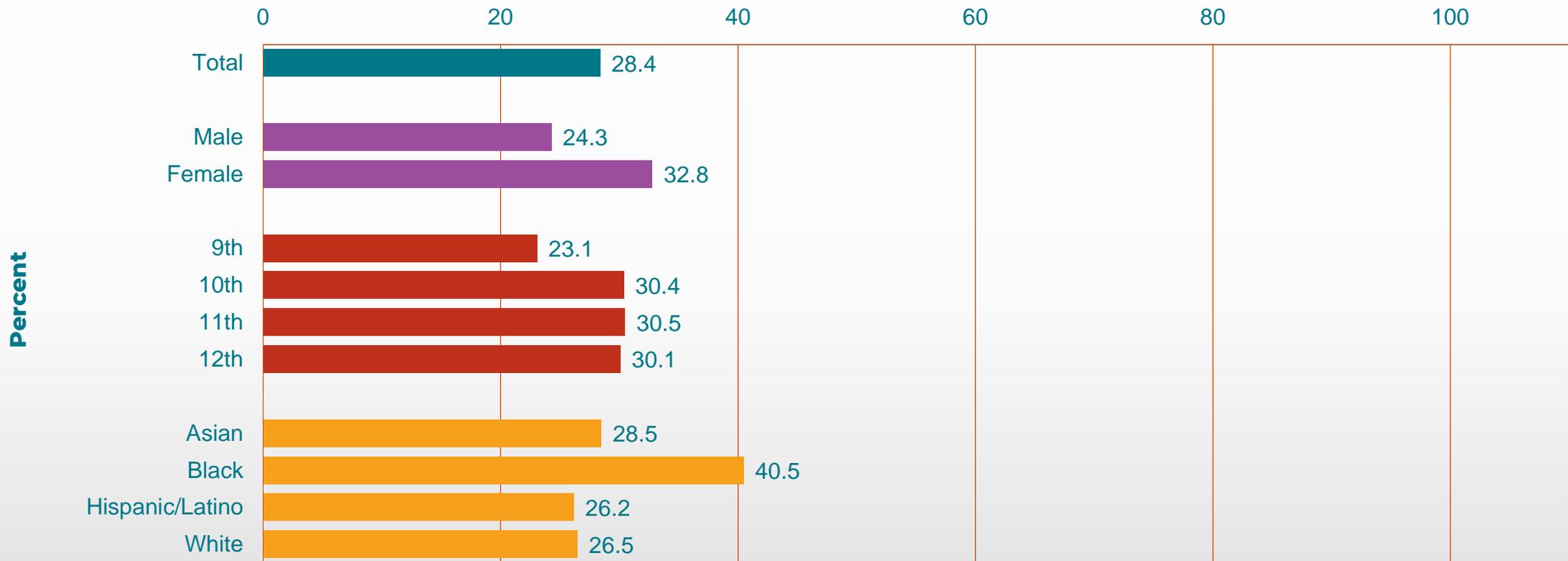


***During the 7 days before the survey**

[†]Increased 2013-2023, no change 2013-2019, increased 2019-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

This graph contains weighted results.

Percentage of High School Students Who Did Not Eat Breakfast,* by Sex, Grade, and Race/Ethnicity, 2023

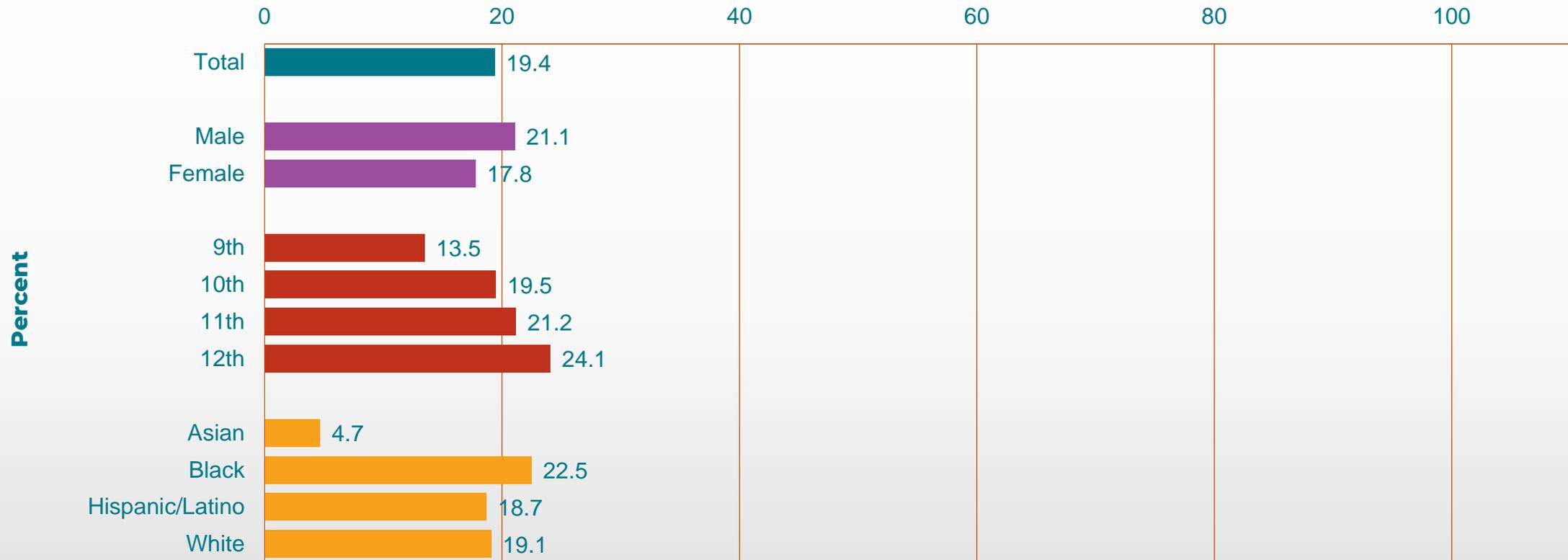


***During the 7 days before the survey**

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Drank a Can, Bottle, or Glass of Soda or Pop One or More Times Per Day,* by Sex, Grade, and Race/Ethnicity,† 2023



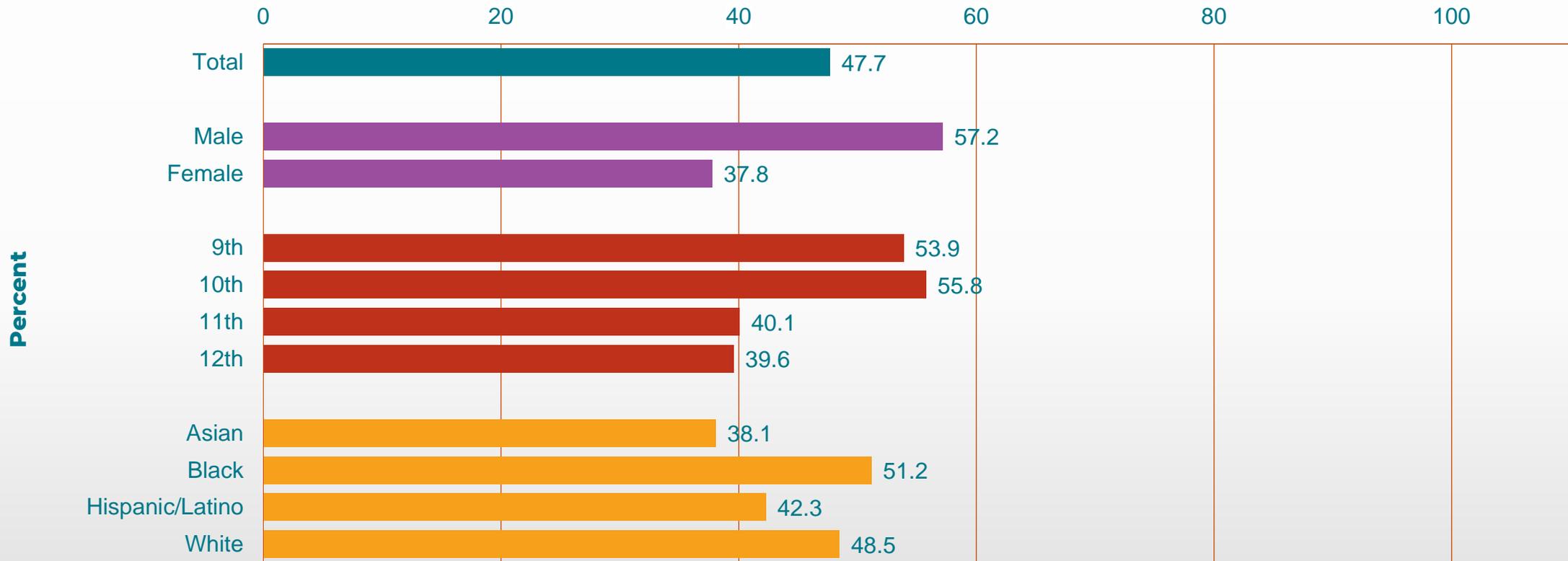
***Such as Coke, Pepsi, or Sprite, not counting diet soda or diet pop, during the 7 days before the survey**

†B > A, W > A (Based on t-test analysis, $p < 0.05$.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Were Physically Active at Least 60 Minutes Per Day on 5 or More Days,* by Sex,[†] Grade,[†] and Race/Ethnicity, 2023



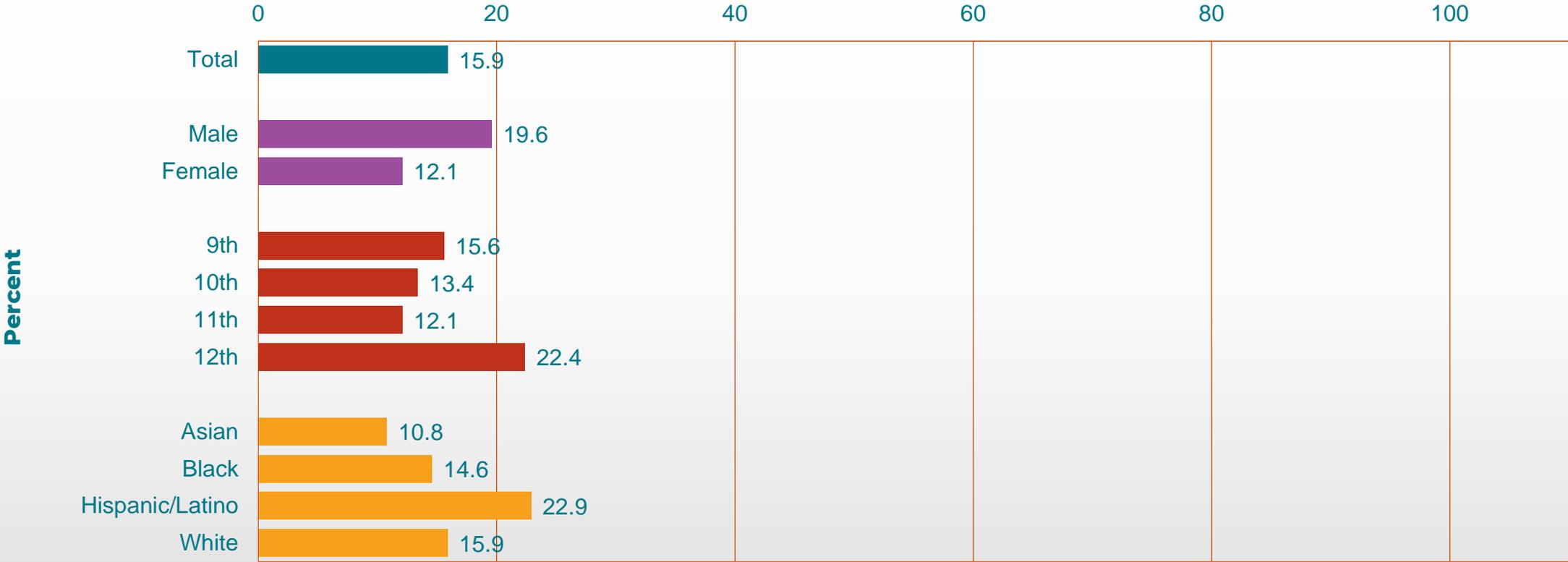
***In any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey**

[†]M > F; 10th > 11th (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Had Obesity,* by Sex, Grade, and Race/Ethnicity,† 2023



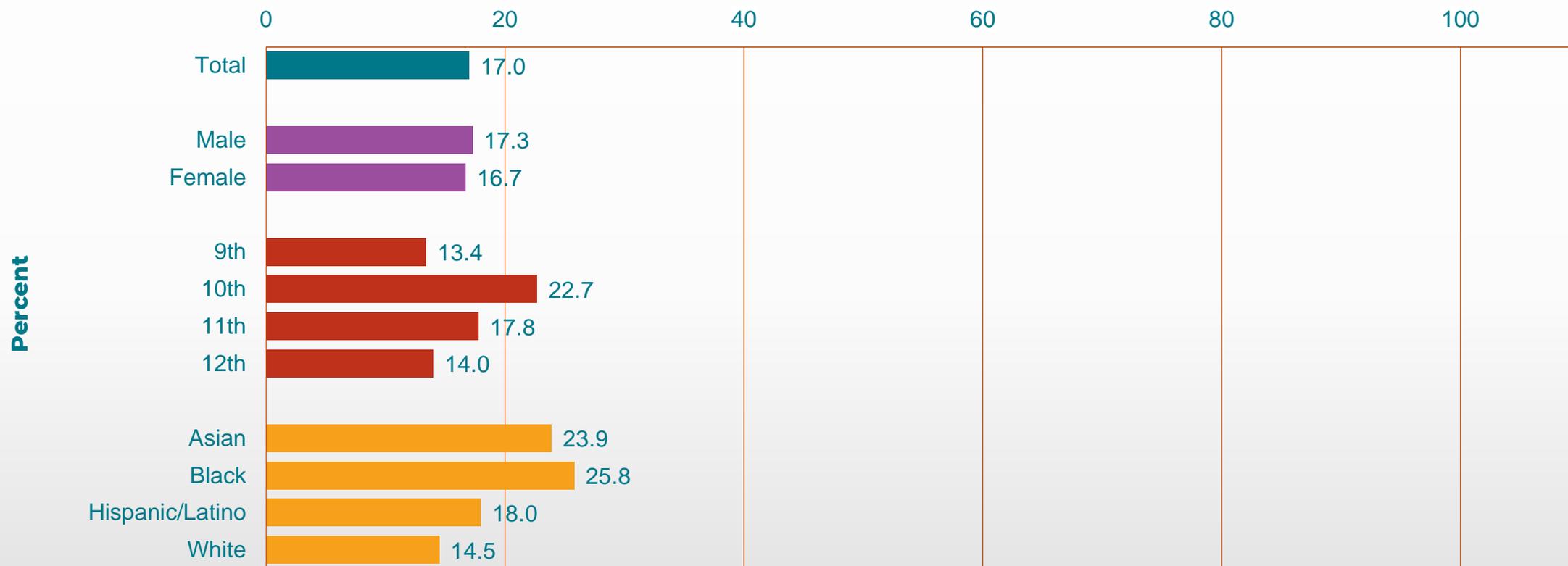
* ≥ 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts. In 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.

†H > A (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Were Overweight,* by Sex, Grade,[†] and Race/Ethnicity, 2023



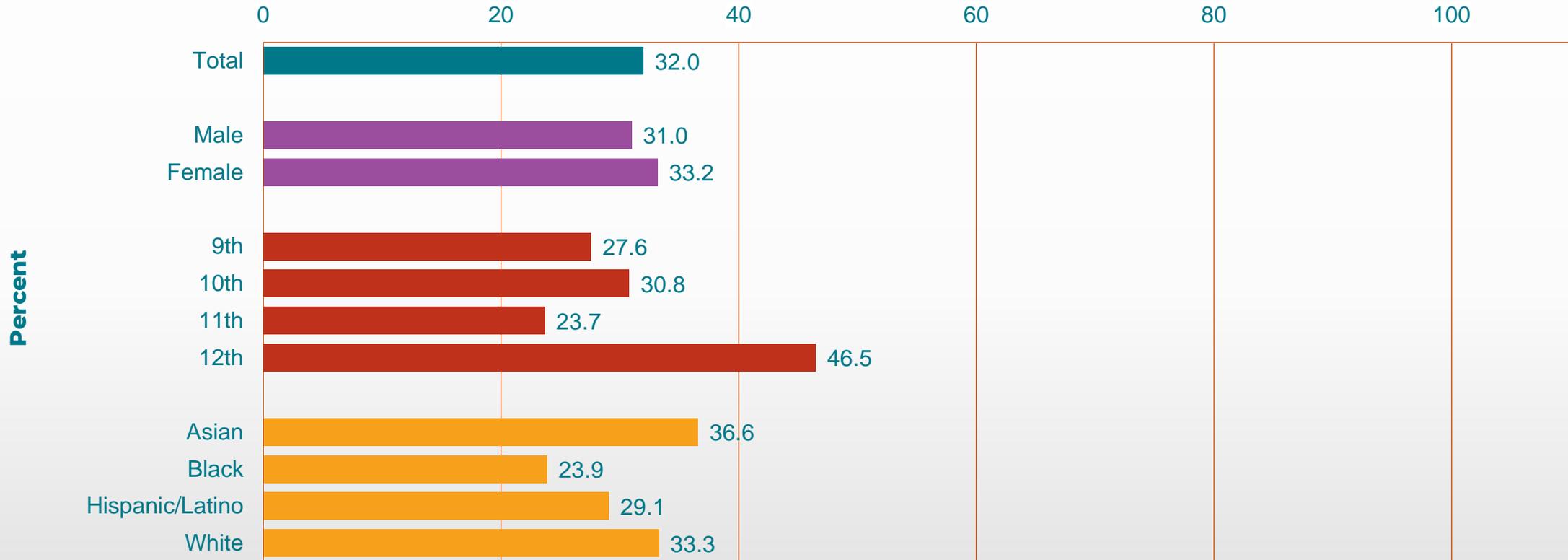
* \geq 85th percentile but $<$ 95th percentile for body mass index, based on sex- and age-specific reference data from the 2000 CDC growth charts. In 2017, new, slightly different ranges were used to calculate biologically implausible responses to height and weight questions.

[†]10th $>$ 9th (Based on t-test analysis, $p < 0.05$.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Described Themselves As Slightly or Very Overweight, by Sex, Grade,* and Race/Ethnicity, 2023

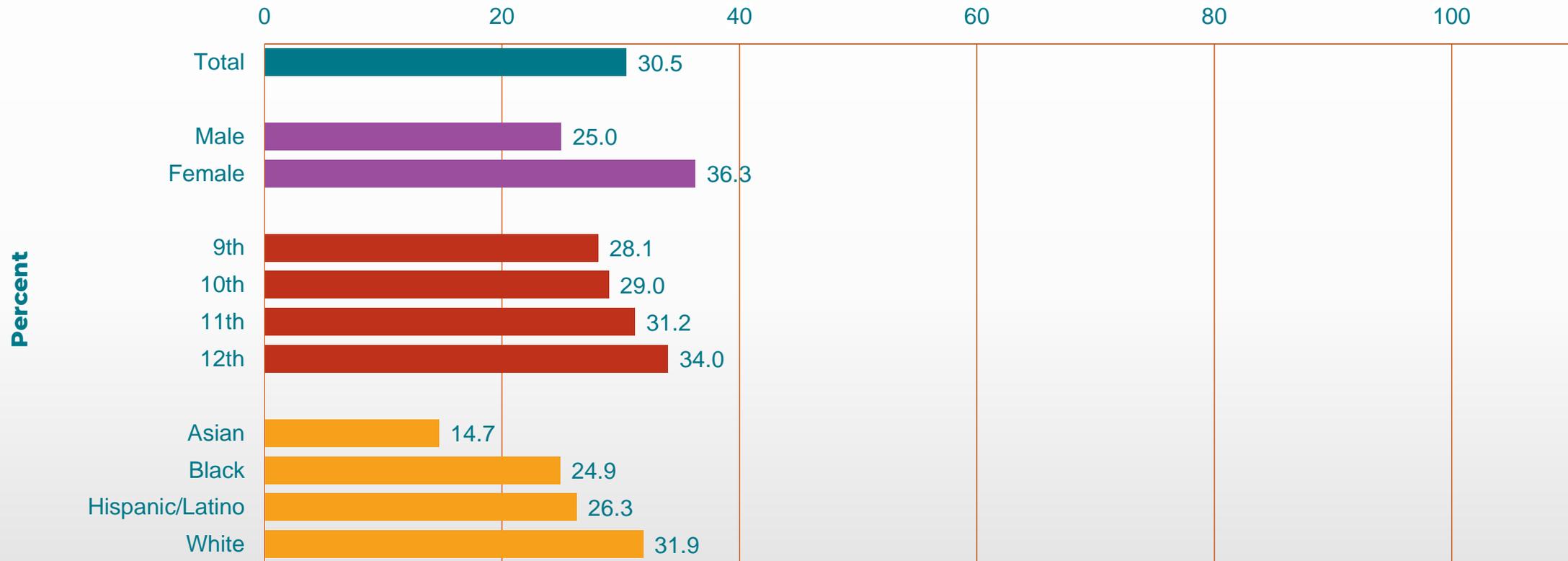


*12th > 9th, 12th > 10th, 12th > 11th (Based on t-test analysis, $p < 0.05$.)
 All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.
 This graph contains weighted results.

Mental Health



Percentage of High School Students Who Reported That Their Mental Health Was Most of the Time or Always Not Good,* by Sex,† Grade, and Race/Ethnicity,† 2023



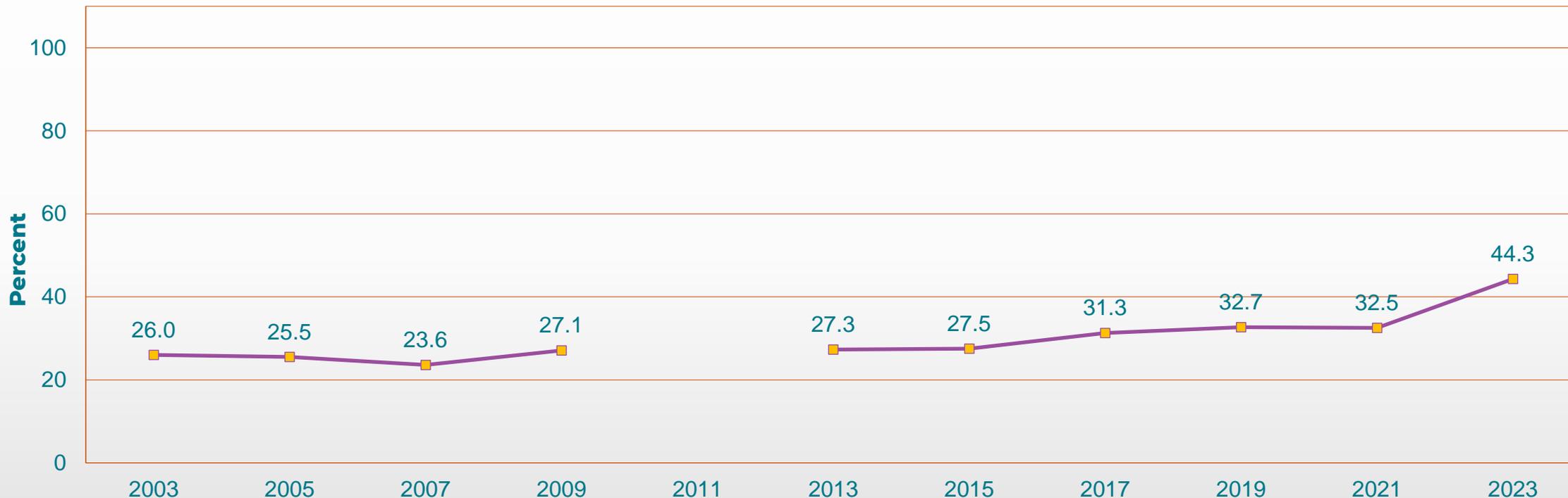
***Including stress, anxiety, and depression, during the 30 days before the survey**

†F > M; B > A, W > A (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Felt Sad or Hopeless,* 2003-2023[†]



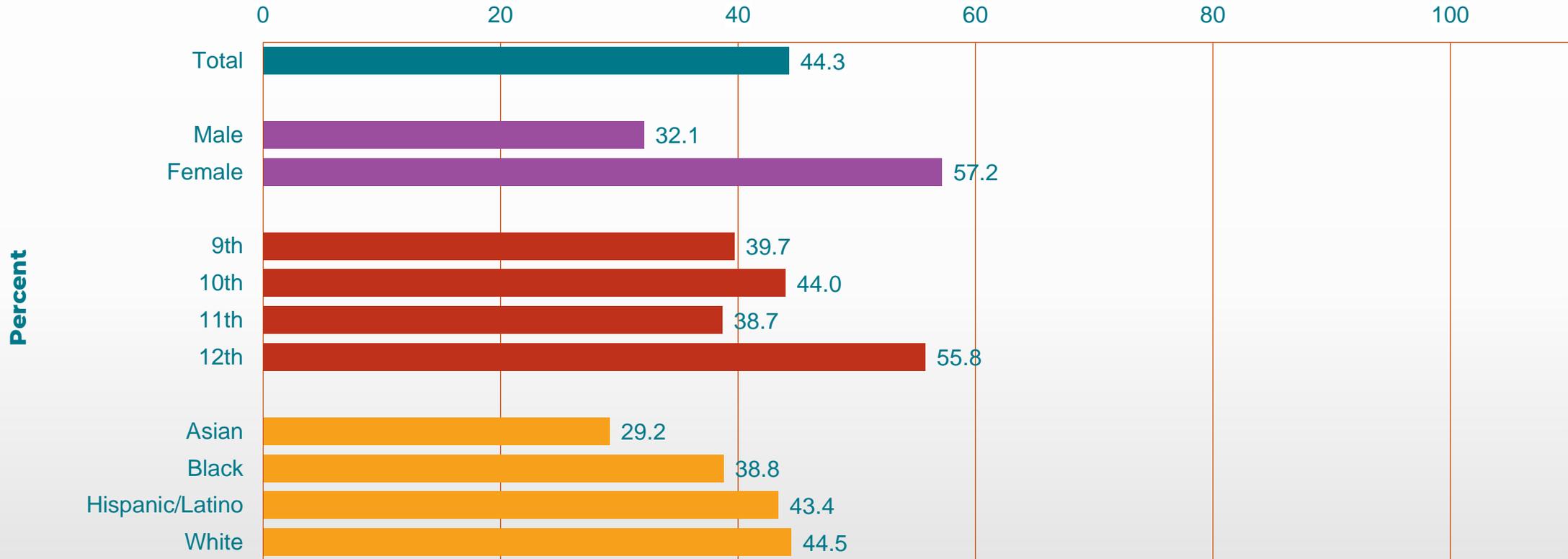
***Almost every day for ≥ 2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey**

[†]Increased 2003-2023, increased 2003-2019, increased 2019-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Felt Sad or Hopeless,* by Sex,† Grade,† and Race/Ethnicity, 2023



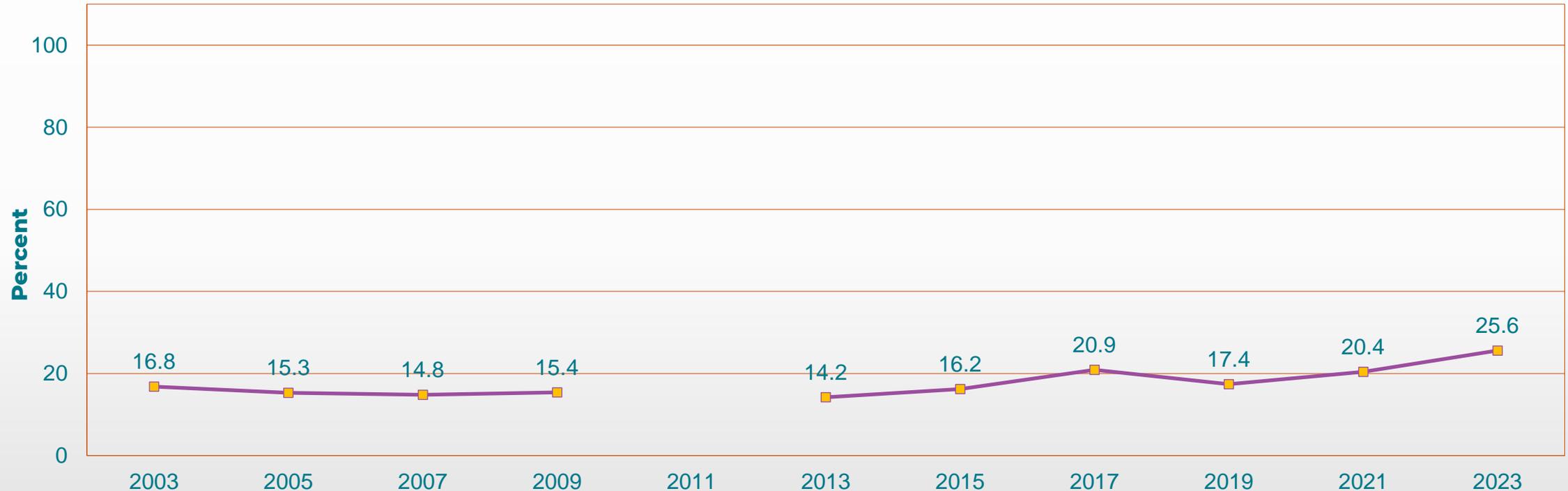
***Almost every day for ≥ 2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey**

†F > M; 12th > 11th (Based on t-test analysis, $p < 0.05$.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Seriously Considered Attempting Suicide,* 2003-2023[†]



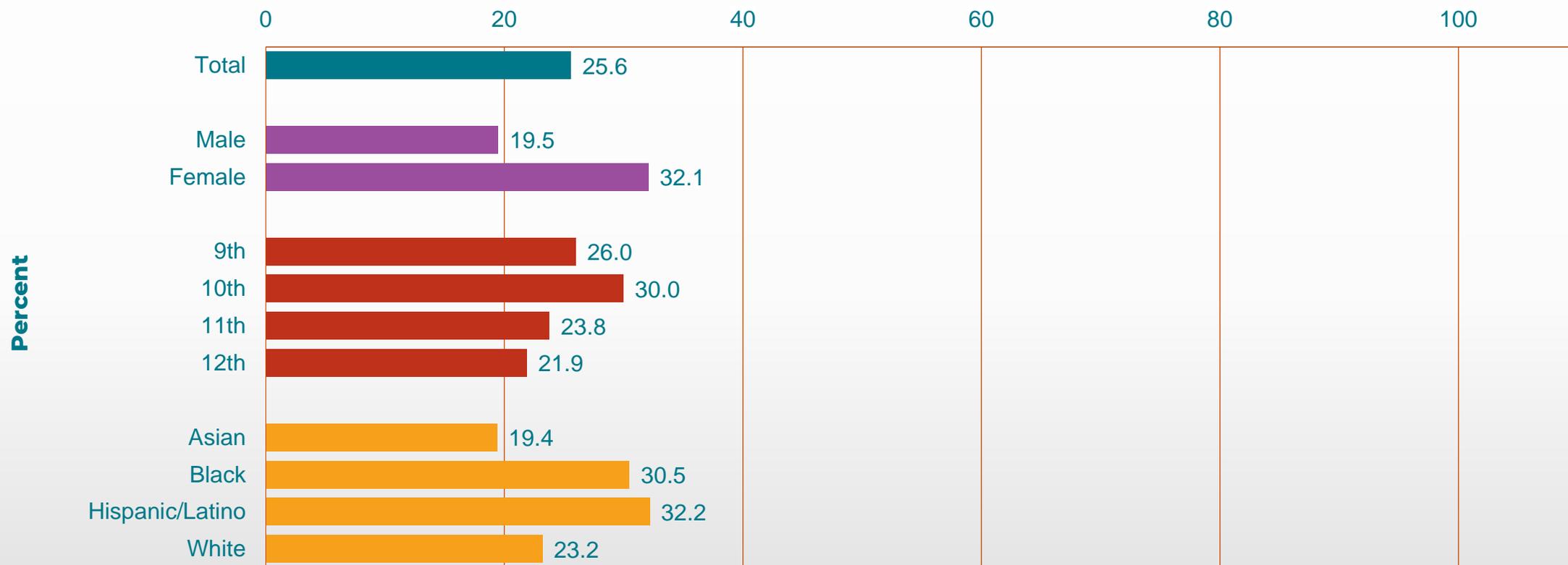
***During the 12 months before the survey**

[†]Increased 2003-2023, no change 2003-2013, increased 2013-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Seriously Considered Attempting Suicide,* by Sex,† Grade,† and Race/Ethnicity, 2023



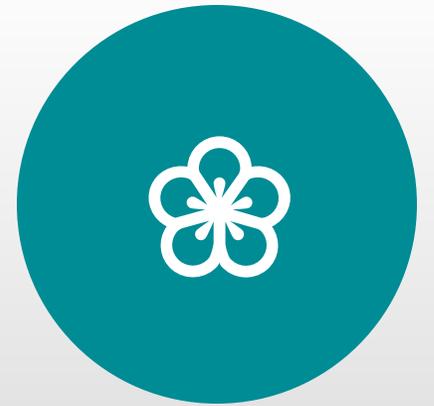
***During the 12 months before the survey**

†F > M; 10th > 11th (Based on t-test analysis, $p < 0.05$.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Social Media

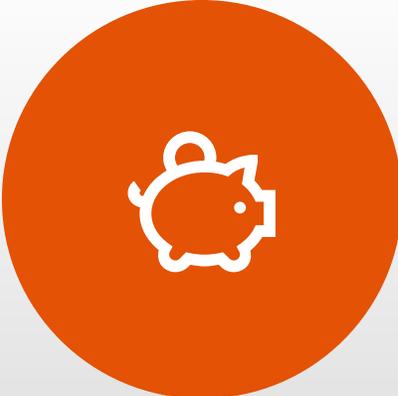


Percentage of High School Students Who Used Social Media Several Times a Day, by Sex,* Grade, and Race/Ethnicity,* 2023

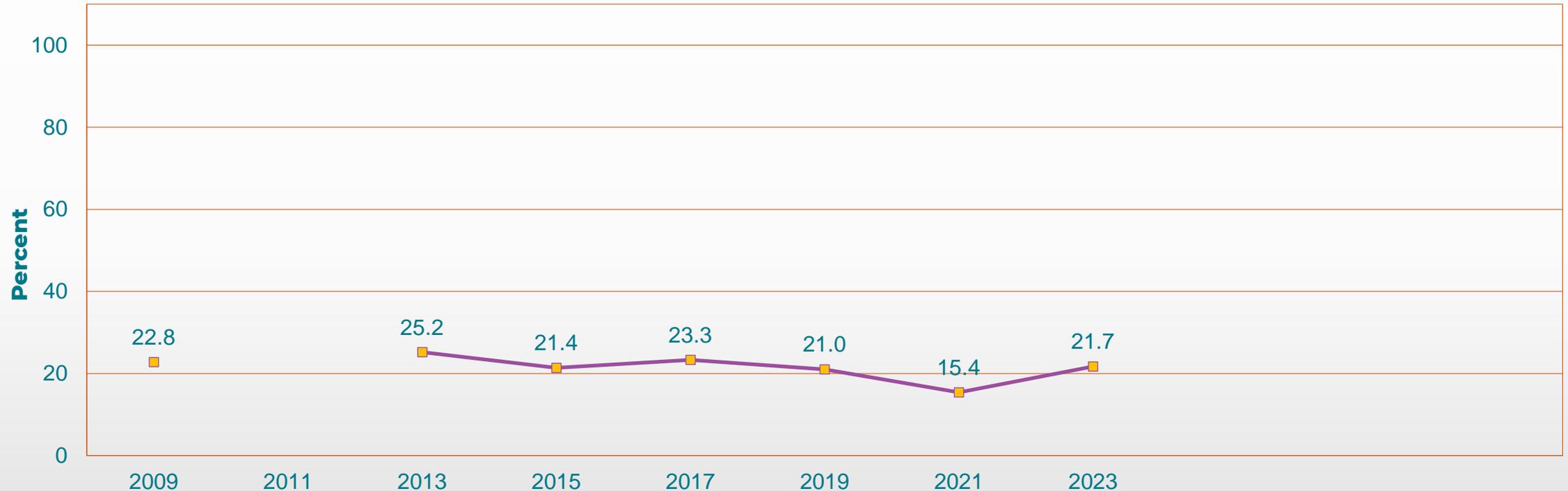


*F > M; A > H, B > H, W > H (Based on t-test analysis, p < 0.05.)
 All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.
 This graph contains weighted results.

Bullying



Percentage of High School Students Who Were Bullied on School Property,* 2009-2023[†]



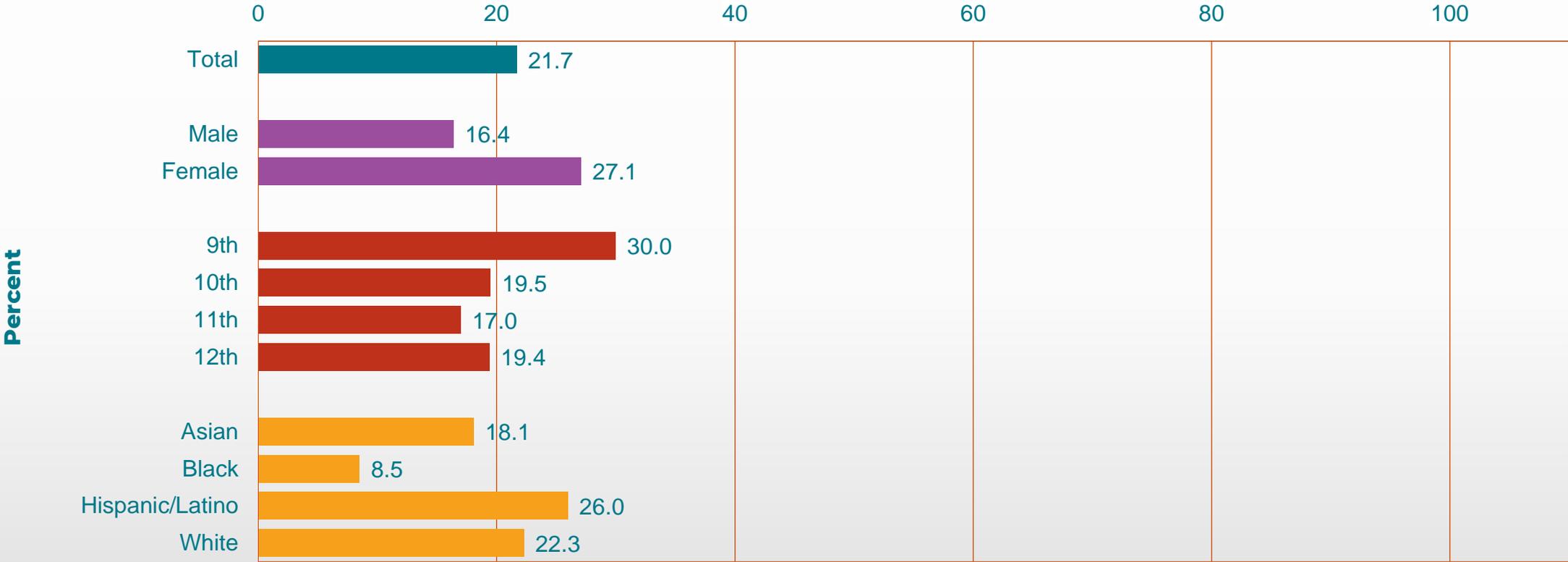
***Ever during the 12 months before the survey**

[†]No change 2009-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Were Bullied on School Property,* by Sex,† Grade,† and Race/Ethnicity, 2023



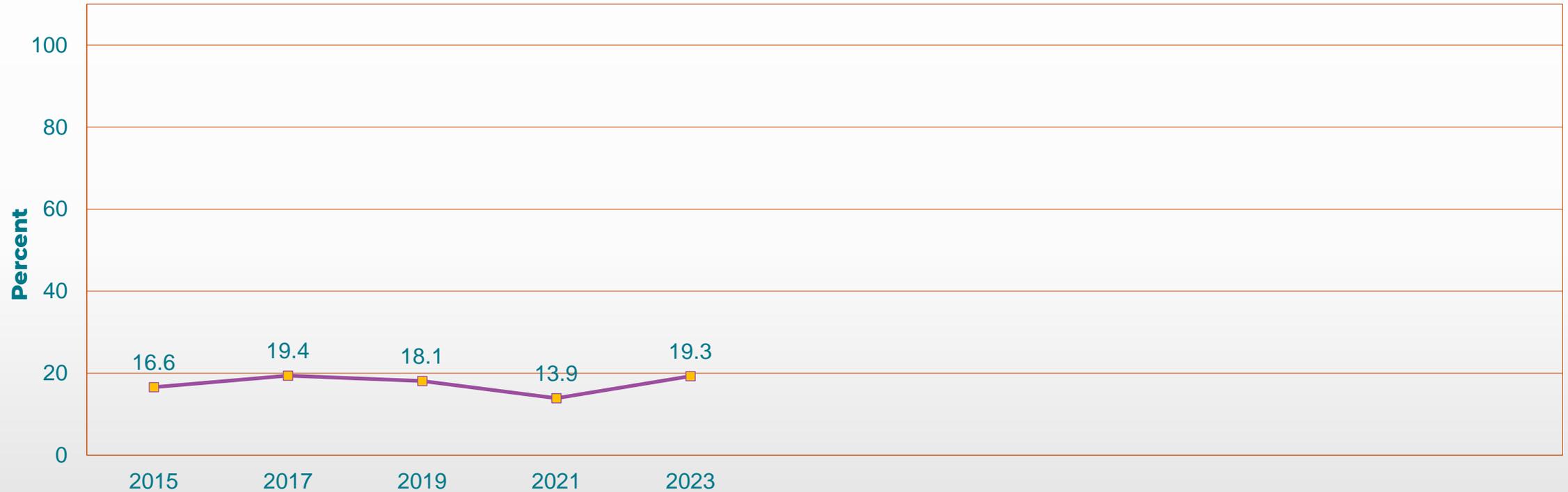
***Ever during the 12 months before the survey**

†F > M; 9th > 11th (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Were Electronically Bullied,* 2015-2023†

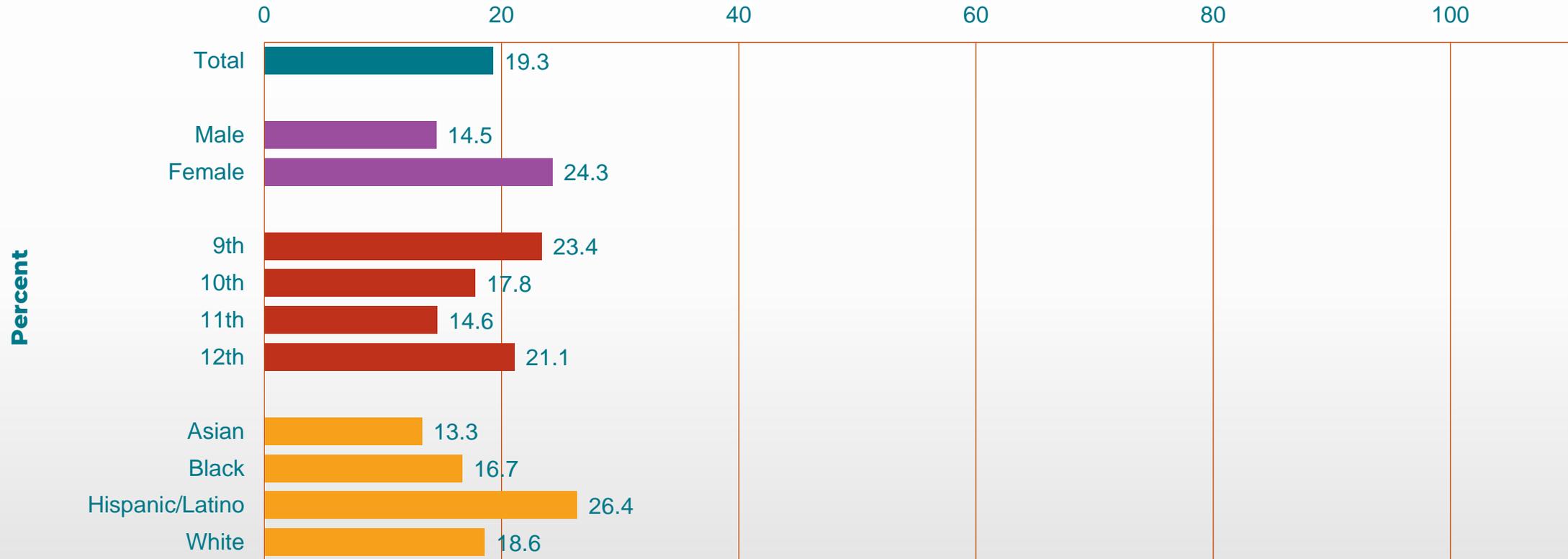


***Counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey**

†No change 2015-2023 [Based on linear trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$).]

This graph contains weighted results.

Percentage of High School Students Who Were Electronically Bullied,* by Sex,[†] Grade, and Race/Ethnicity, 2023



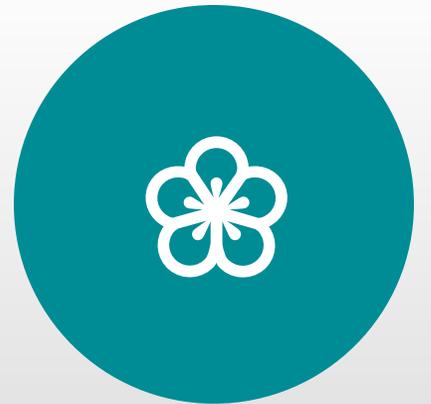
***Counting being bullied through texting, Instagram, Facebook, or other social media, ever during the 12 months before the survey**

[†]F > M (Based on t-test analysis, p < 0.05.)

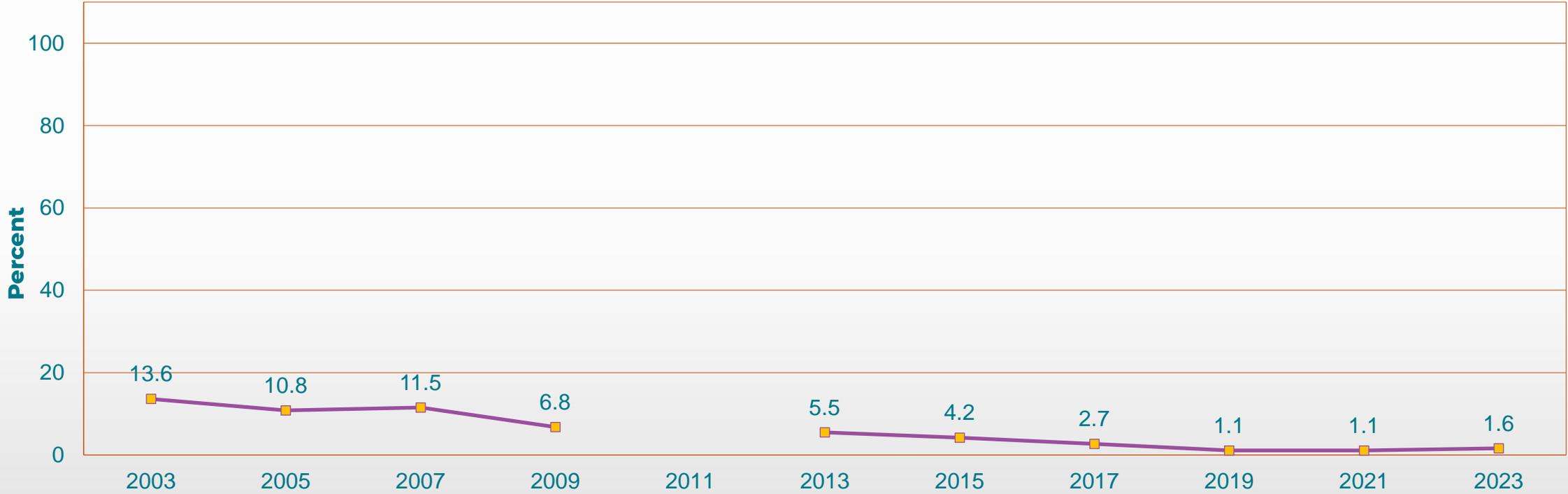
All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Alcohol, Nicotine, and Illicit Drug Use



Percentage of High School Students Who Currently Smoked Cigarettes Frequently,* 2003-2023†



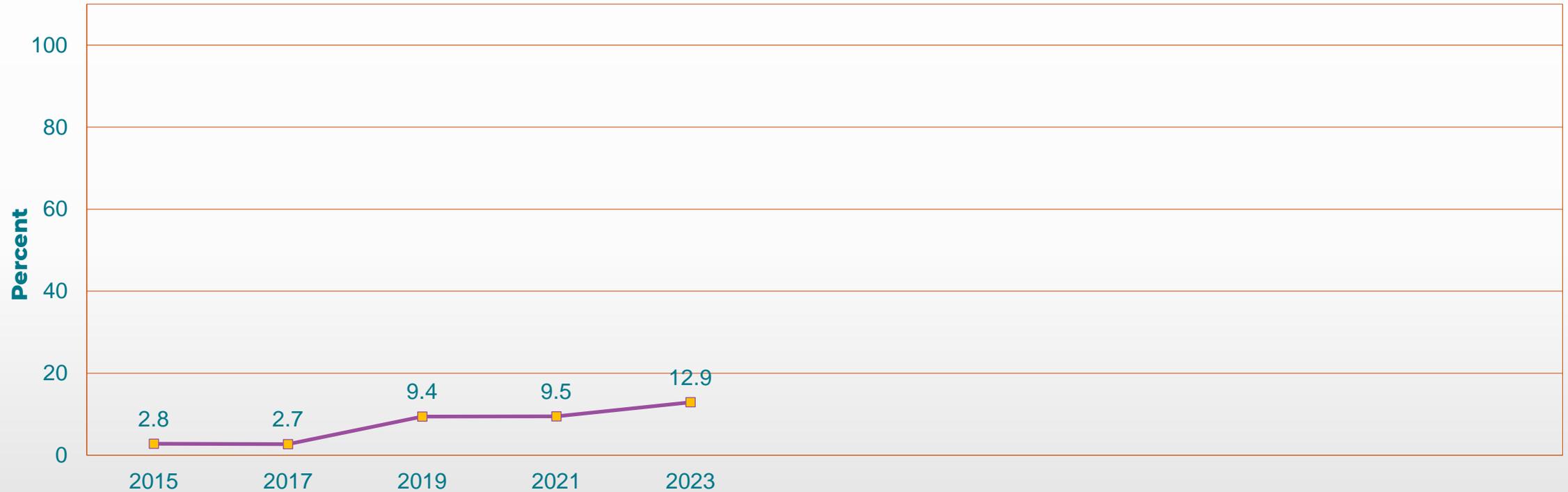
***On 20 or more days during the 30 days before the survey**

†Decreased 2003-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Currently Used Electronic Vapor Products Frequently,* 2015-2023†

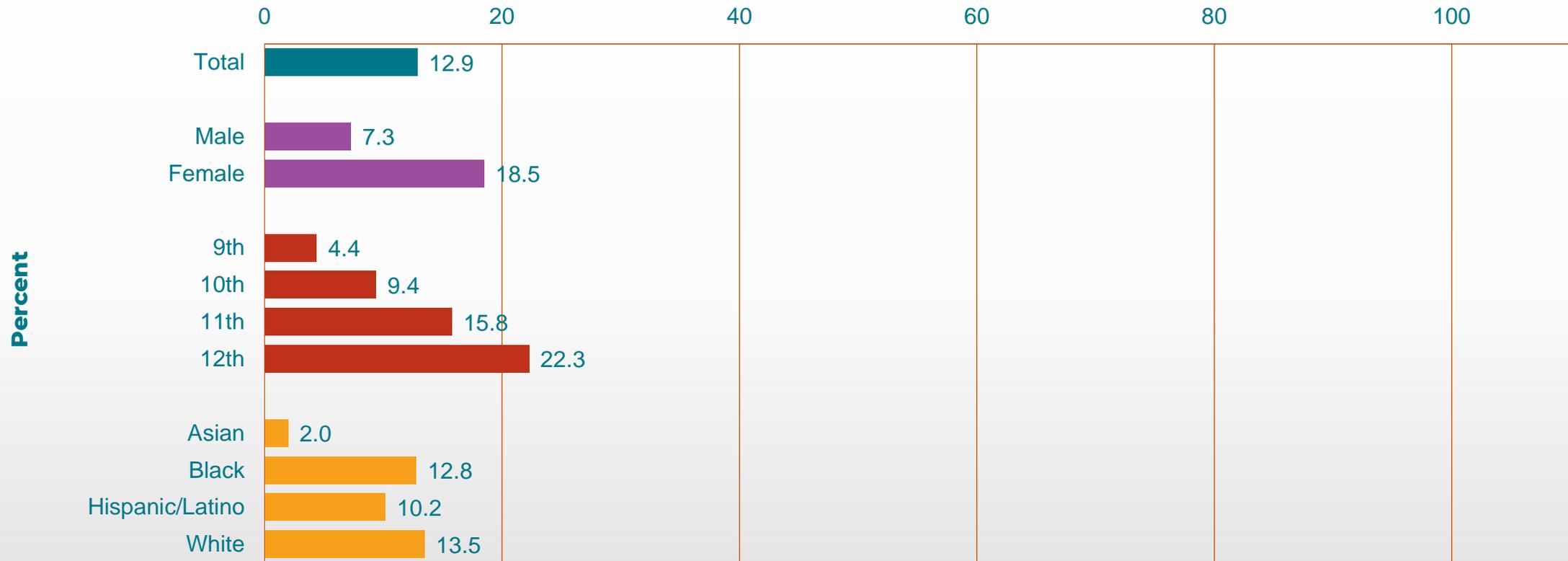


***On 20 or more days during the 30 days before the survey**

†Increased 2015-2023 [Based on linear trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$).]

This graph contains weighted results.

Percentage of High School Students Who Currently Used Electronic Vapor Products Frequently,* by Sex,† Grade,† and Race/Ethnicity,† 2023



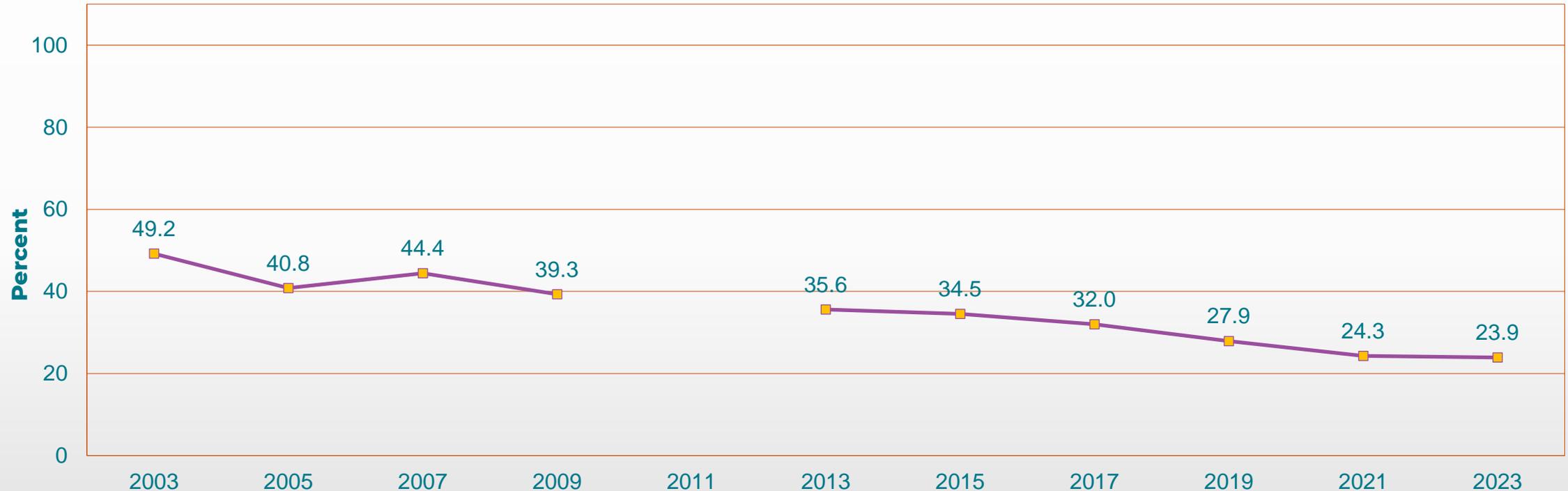
***On 20 or more days during the 30 days before the survey**

†F > M; 11th > 9th; W > A (Based on t-test analysis, p < 0.05.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Currently Drank Alcohol,* 2003-2023†



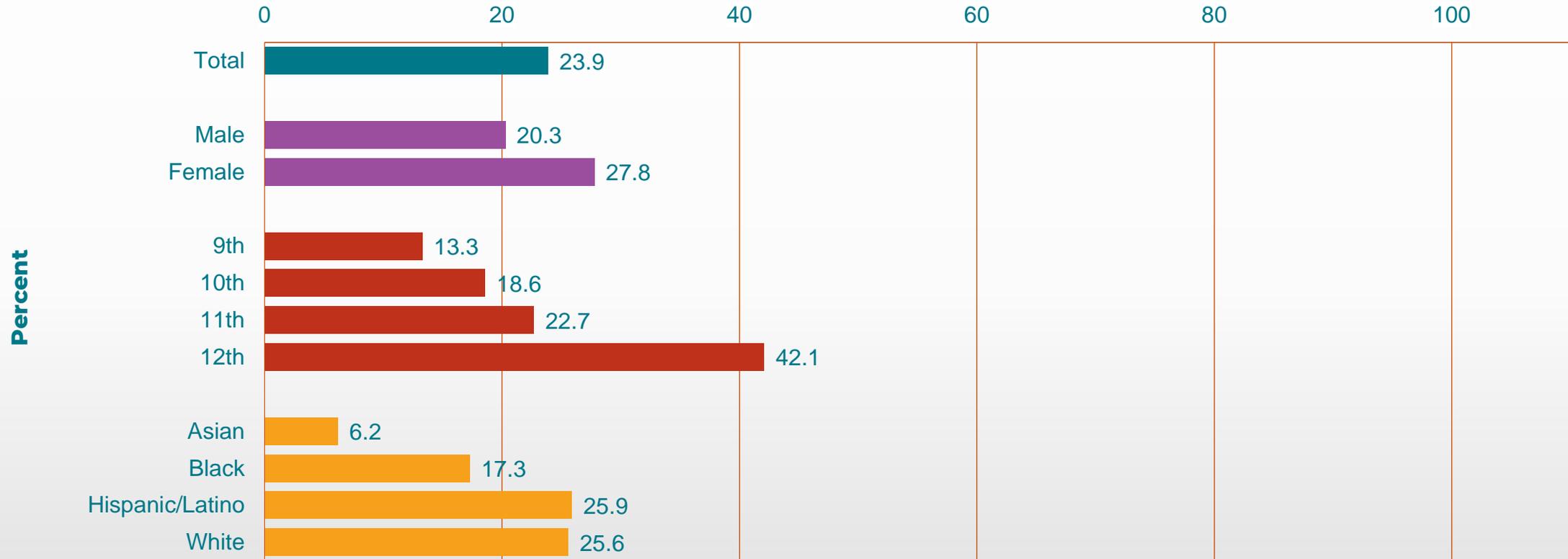
***At least one drink of alcohol, on at least 1 day during the 30 days before the survey**

†Decreased 2003-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Currently Drank Alcohol,* by Sex, Grade,† and Race/Ethnicity,† 2023



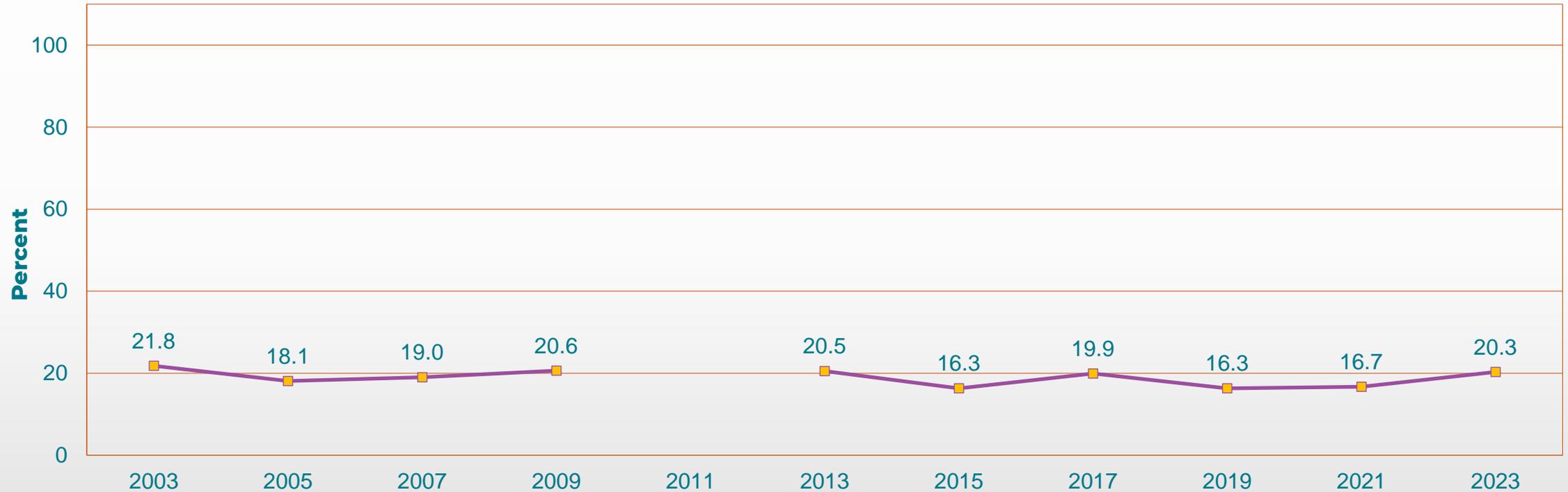
***At least one drink of alcohol, on at least 1 day during the 30 days before the survey**

†11th > 9th, 12th > 9th; W > A (Based on t-test analysis, $p < 0.05$.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Currently Used Marijuana,* 2003-2023†



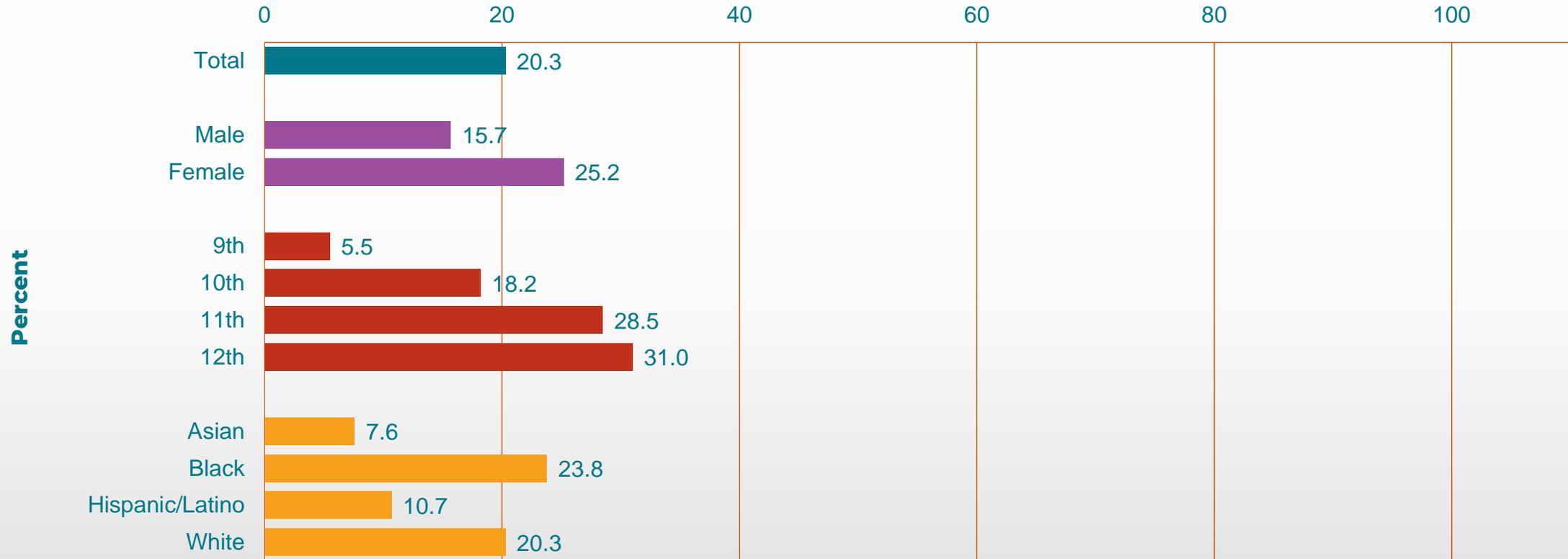
***One or more times during the 30 days before the survey**

†No change 2003-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Currently Used Marijuana,* by Sex, Grade,† and Race/Ethnicity,† 2023



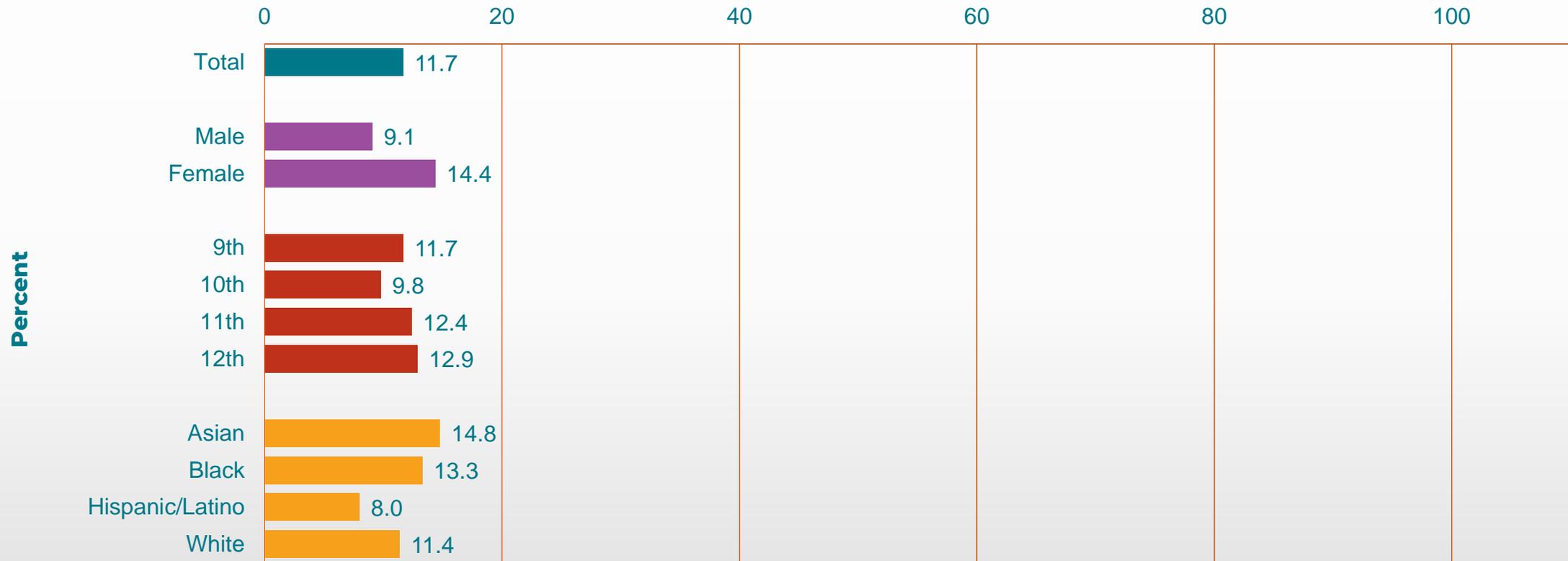
***One or more times during the 30 days before the survey**

†10th > 9th, 11th > 9th, 12th > 9th; B > A (Based on t-test analysis, $p < 0.05$.)

All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Percentage of High School Students Who Ever Took Prescription Pain Medicine Without a Doctor's Prescription or Differently Than How a Doctor Told Them to Use It,* by Sex, Grade, and Race/Ethnicity, 2023



***Counting drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet, one or more times during their life**

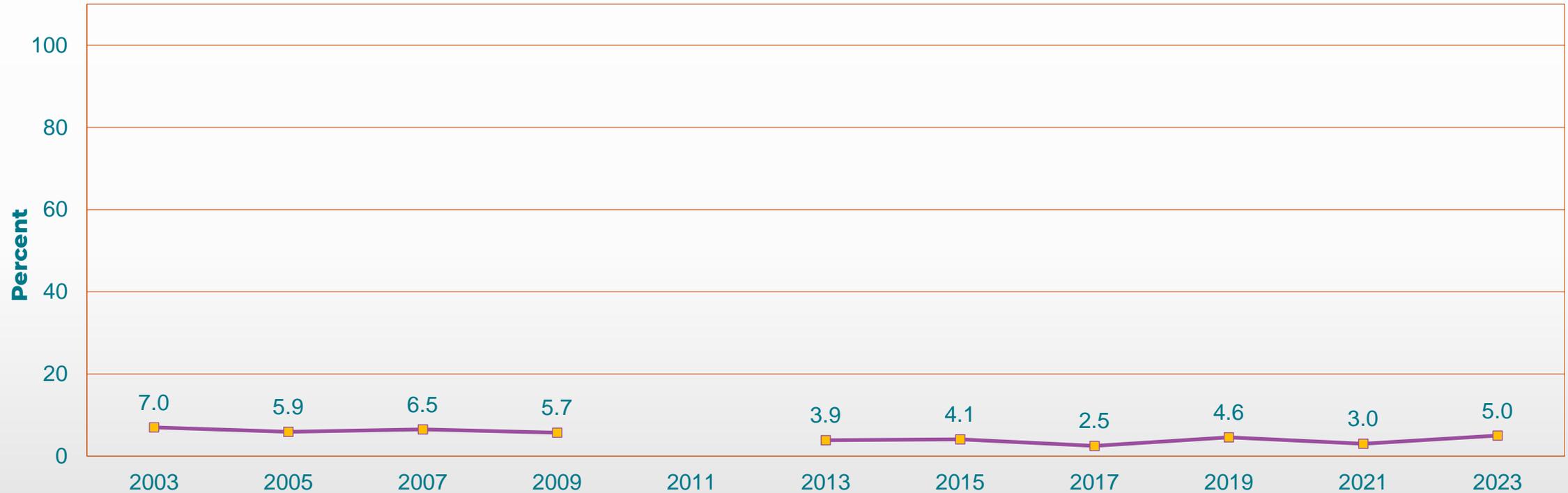
All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.

This graph contains weighted results.

Sexual Activity



Percentage of High School Students Who Had Sexual Intercourse for the First Time Before Age 13 Years, 2003-2023*

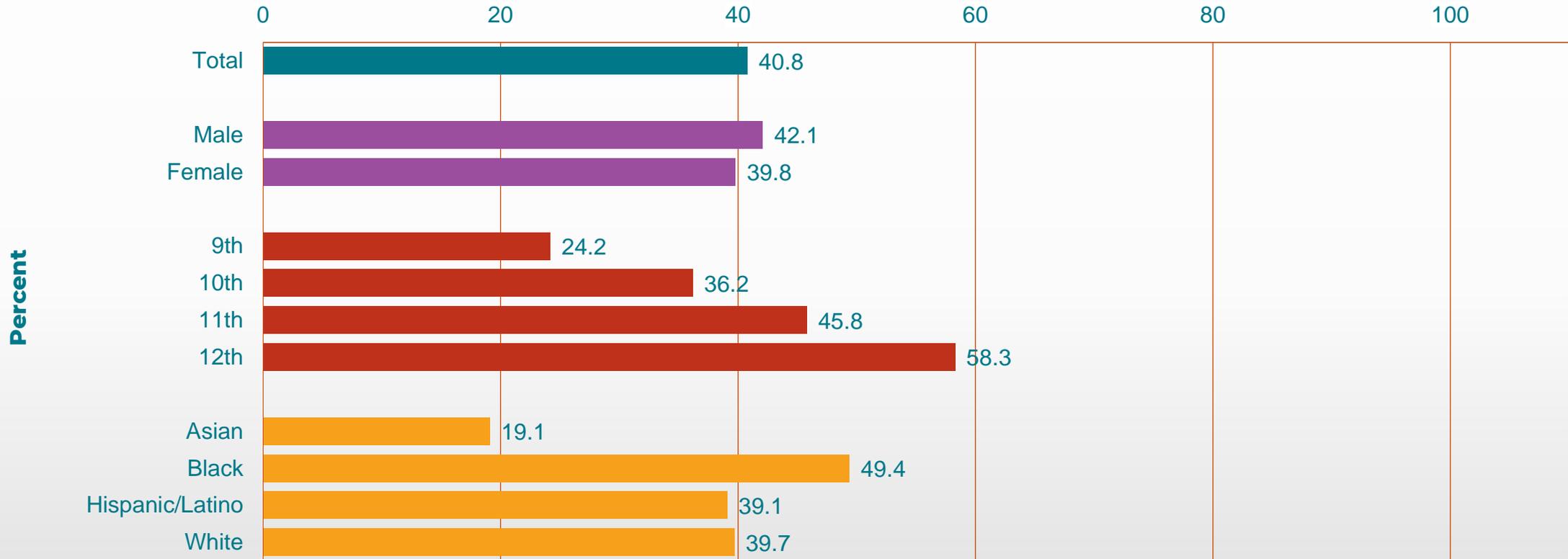


*Decreased 2003-2023 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).]

Data not available for 2011.

This graph contains weighted results.

Percentage of High School Students Who Ever Had Sexual Intercourse, by Sex, Grade,* and Race/Ethnicity,* 2023



*10th > 9th, 11th > 9th, 12th > 9th; B > A, W > A (Based on t-test analysis, $p < 0.05$.)
 All Hispanic students are included in the Hispanic category. All other races are non-Hispanic.
 This graph contains weighted results.

YRBS in a Nutshell

1. Monitor

2. Inform

3. Process

4. Data Dissemination



MISSOURI DEPARTMENT OF
**HEALTH &
SENIOR SERVICES**

QUESTIONS?

Missouri Department of Health and Senior Services: Youth Risk Behavior Surveillance System (YRBSS)

<https://health.mo.gov/data/yrbss/>

Missouri Department of Elementary and Secondary Education

<https://dese.mo.gov/>

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573-751-8497

Anthony Belenchia:



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Build a report using Missouri YRBS data at <https://mohealthdata.org>

The screenshot shows the homepage of the Missouri Health & Senior Services data portal. At the top, there is a navigation bar with links for Home, Map Room, Health Data Reports, About, and Support. The main header features the Missouri Health & Senior Services logo and a large banner image of a lake with the text "Visualize Health Data Across Missouri". Below the banner are two buttons: "Build a report" and "Make a map".

The central section is titled "Data + Tools for Public Health" and contains three main tool cards:

- Missouri Adult Health Data Report:** Includes a description of the report and a "Create Adult Report" button.
- Missouri Youth Health Data Report:** Includes a description of the report and a "Create Youth Report" button.
- Missouri Map Room:** Includes a description of the tool and a "Make a map" button.

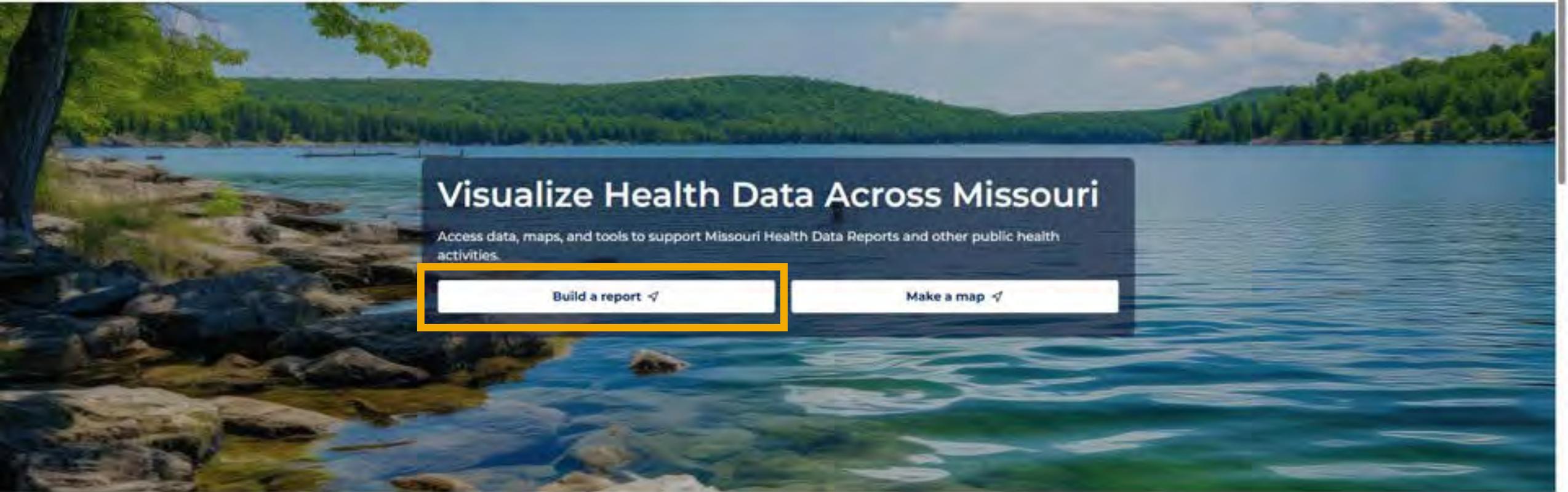
Below these cards is a "Support and FAQs" section with a "Find support" button. At the bottom, there is a section titled "Connect To Social Drivers of Health" with a "View the Missouri Adult Health Data Report" button. The footer includes logos for CARES (University of Missouri Extension) and Missouri Health & Senior Services.

The screenshot displays the "Missouri Youth Health Data Report" interface. It features a top navigation bar with the "HEALTH & SENIOR SERVICES" logo and user account options. The main content area is titled "Missouri Youth Health Data Report" and includes a "Location" dropdown menu.

The interface contains several data visualization components:

- A bar chart showing two categories with values represented by blue and yellow bars.
- A horizontal bar chart with multiple bars in shades of blue and yellow.
- A line chart showing trends over time with multiple lines in various colors.
- A table with columns for "Year" and "Value", displaying numerical data points.

The bottom of the page features logos for CARES and Missouri Health & Senior Services.



Visualize Health Data Across Missouri

Access data, maps, and tools to support Missouri Health Data Reports and other public health activities.

Build a report ↗

Make a map ↗



Data + Tools for Public Health

Click either the **Build a report** button or the **Health Data Reports** link to proceed to creating a youth health data report.



Choose A Report to Get Started



Missouri Adult Health Data Report

Create a report to find data and trends about the health of adults in communities across Missouri. Data are from the Missouri Behavioral Risk Factor Surveillance System (BRFSS) and the Missouri County Level Study (CLS) and available for the Missouri **counties** and **regions** and by **demographic groups**.

[Create an Adult Health Report](#)



Missouri Youth Health Data Report

Create a report to find data and trends on the status of youth health behaviors in Missouri. Data are from the Missouri Youth Risk Behavior Survey (YRBS) and available for the **state** of Missouri and by **demographic groups**.

[Create a Youth Health Report](#)

Powered by:



Brought to you by:



Click the Create a Youth Health Report button to be taken to the report creation page where you will select the location and data indicators of interest.

Missouri Youth Health Data Report

1. Location

2. Data Indicators

3. Reports

State List

Missouri

Missouri

Assessment Location

Report Location

X Missouri

Data indicators >

1. Select "Missouri" under the State List column for it to populate in the Assessment Location column.
2. Click the Data Indicators button to proceed.

Missouri Youth Health Data Report

1. Location

2. Data Indicators

3. Reports

Data Indicators

Select all indicators

Alcohol, Tobacco, and Substance Use

Safety and Violence

Mental Health

Sexual Behavior

Nutrition, Physical Health and Weight

General Health



[← Location](#) [Reports →](#)

Select indicators of interest.

Checking the box next to a category will select all indicators within a category.

Clicking the grey arrow on the right side to trigger a dropdown menu to select specific indicators.

Missouri Youth Health Data Report

1. Location

2. Data Indicators

3. Reports

Data Indicators

Select all indicators

Alcohol, Tobacco, and Substance Use

Currently Drank Alcohol

Had Their First Drink Of Alcohol Before Age 13 Years

Currently Were Binge Drinking

Usually Got The Alcohol They Drink By Someone Giving It To Them

Ever Smoked A Cigarette

Currently Smoked Cigarettes

Ever Used An Electronic Vapor Product

Currently Used An Electronic Vapor Product

Currently Smoked Cigarettes Or Used Electronic Vapor Products

Currently Smoked Cigars

Currently Used Smokeless Tobacco

Tried To Quit Using All Tobacco Products

Ever Used Marijuana

Currently Used Marijuana

Ever Took Prescription Pain Medicine Without A Doctor's Prescription Or Differently Than How A Doctor Told Them To Use It

Currently Misused Prescription Drugs

Ever Used Cocaine

Ever Used Inhalants

Ever Used Heroin

Ever Used Methamphetamines

Ever Used Ecstasy

Ever Used Hallucinogenic Drugs

Ever Used Select Illicit Drugs

Safety and Violence

Mental Health

Sexual Behavior

Nutrition, Physical Health and Weight

General Health

< Location

Reports >

Select the Reports button to view the comprehensive report for all selected indicators.

Missouri Youth Health Data Report

1. Location

2. Data Indicators

3. Reports

[Download As](#) [Report Options](#) [Share](#) [Print](#)

Missouri Youth Risk Behavior Survey Report

Location

Missouri

Missouri Youth Risk Behavior Survey Report

Location

Missouri

- Show county data
- Show state data
- Show supplemental data
- Show maps
- Comprehensive report
- Quick facts
- Source & methodology

Currently Drank Alcohol

In Missouri, the estimated percentage of high school students who reported that they currently drank alcohol is 23.87%. Data for this indicator are derived from the question: "During the past 30 days, on how many days did you have at least one drink of alcohol?"

Report Area	Number of Surveys	Currently Drank Alcohol, Estimated Count	Currently Drank Alcohol, Estimated Percent	US Comparison
Missouri	614	61,018	23.87%	Not Significant
United States	19,202	No data	22.10%	-

Note: This indicator is compared to national average.

Data Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System. Additional analysis by Missouri DHSS, 2023. [Show more details](#)

The report can be downloaded, shared, or printed. There are also options to view the comprehensive report (default option), quick facts about the selected indicators, and information about YRBS methodology.