


Drug & Alcohol Awareness for Scouts





“To keep myself physically strong, mentally awake and morally straight.”

About me:

- **Primary Care PA, Kaiser Permanente 2013- present**
- **Graduated from University of Washington – 2013**
- **Seattle Met “Top Doc” 2016 & 2019**
- **Den Leader- Pack 564**
- **Eagle Scout- Troop 438**


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Ryan Buchan, PA-C

 Accepting New Patients

"My goal is to help patients better understand the circumstances surrounding their health, so that they can make informed decisions in a comfortable setting."

A still life composition on a rustic wooden surface. In the upper right, a glass of amber liquid sits next to a pack of cigarettes. Below the cigarettes, a syringe and several white pills are scattered. The text "What is the deadliest drug*?" is overlaid on the left side of the image.

What is the deadliest drug*?

*(responsible for the greatest number of deaths)

TOBACCO



TOBACCO

A dark silhouette of a person's head and shoulders in profile, facing right. They are holding a lit cigarette in their mouth, and a thick, billowing cloud of white smoke rises from the mouth, filling the left and center of the frame. The background is a dark, textured grey.

90% of daily tobacco users begin by age 18

Smoking damages blood vessels and can make them thicken and grow narrower. This makes your heart beat faster and your blood pressure go up. Smoking also predisposes you to developing dangerous blood clots.

With 480,000 deaths each year, cigarette smoking is the leading cause of preventable death in the United states.

Smoking increases risk of cardiovascular disease (like heart attack and stroke) by 2-4 times, and smokers are 12 to 13 times more likely to die from COPD

Lung diseases caused by smoking include COPD, which includes emphysema and chronic bronchitis.

Cigarette smoking causes 90% of all lung cancers, but that's not all...

TOBACCO

**Smoking can cause cancer almost
anywhere in your body.**



**You can quit.
For free help: 1-800-QUIT-NOW.**



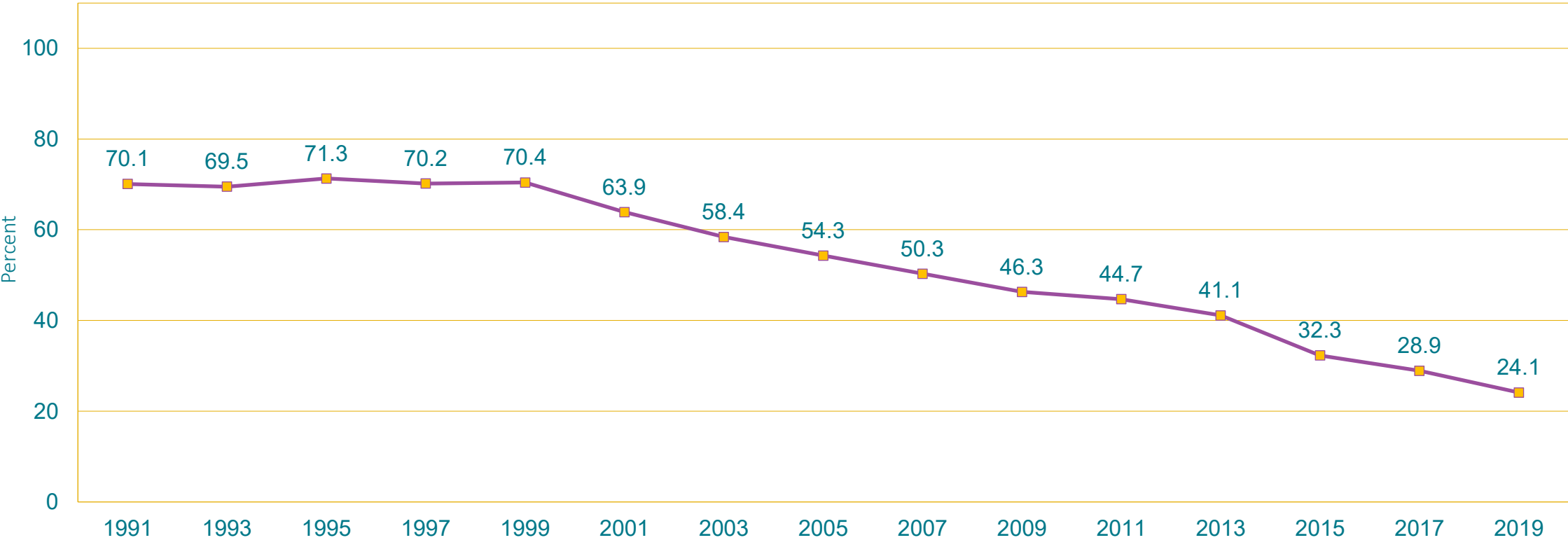
If nobody smoked, one of every three cancer deaths in the United States would not happen.

TOBACCO

WHAT KIND OF LUNGS DO YOU WANT?



Percentage of High School Students Who Ever Tried Cigarette Smoking,* 1991-2019†

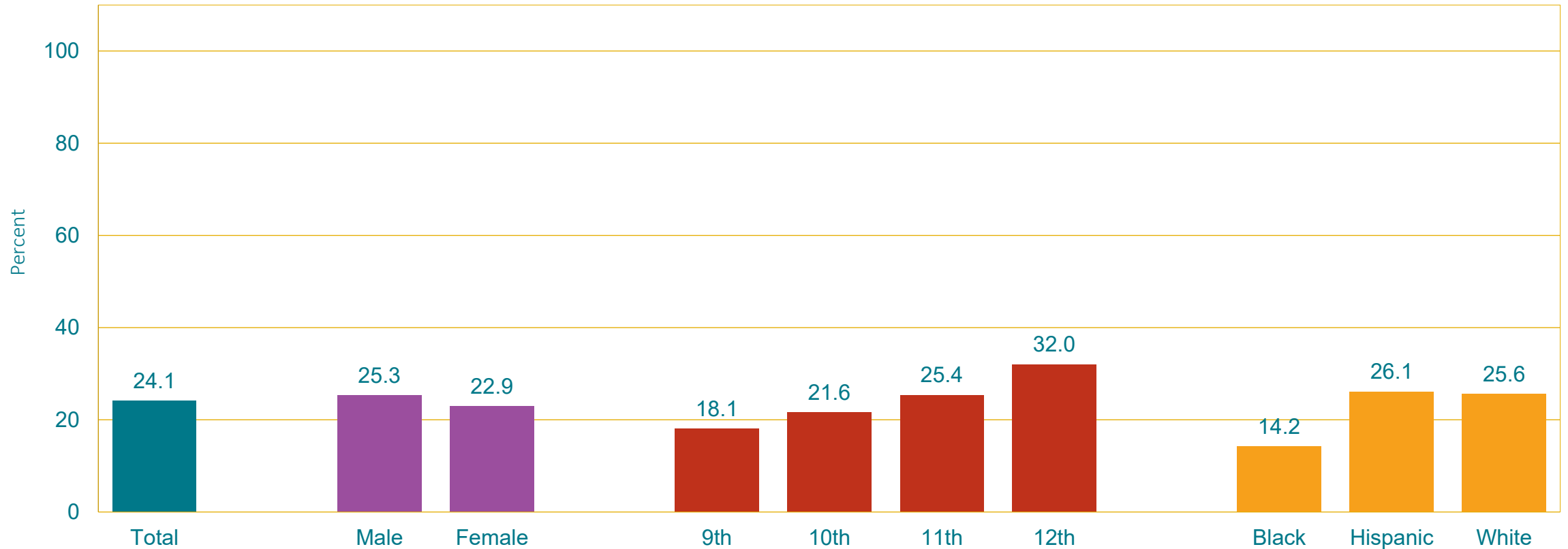


*Even one or two puffs

†Decreased 1991-2019, no change 1991-1999, decreased 1999-2019 [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 Ever Tried Cigarette Smoking,* by Sex, **Grade**,[†] and **Race/Ethnicity**,[†] 2019



*Even one or two puffs

[†]10th > 9th, 11th > 9th, 12th > 9th, 12th > 10th, 12th > 11th; H > B, W > B (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 Used an Electronic Vapor Product,* 2015-2019†

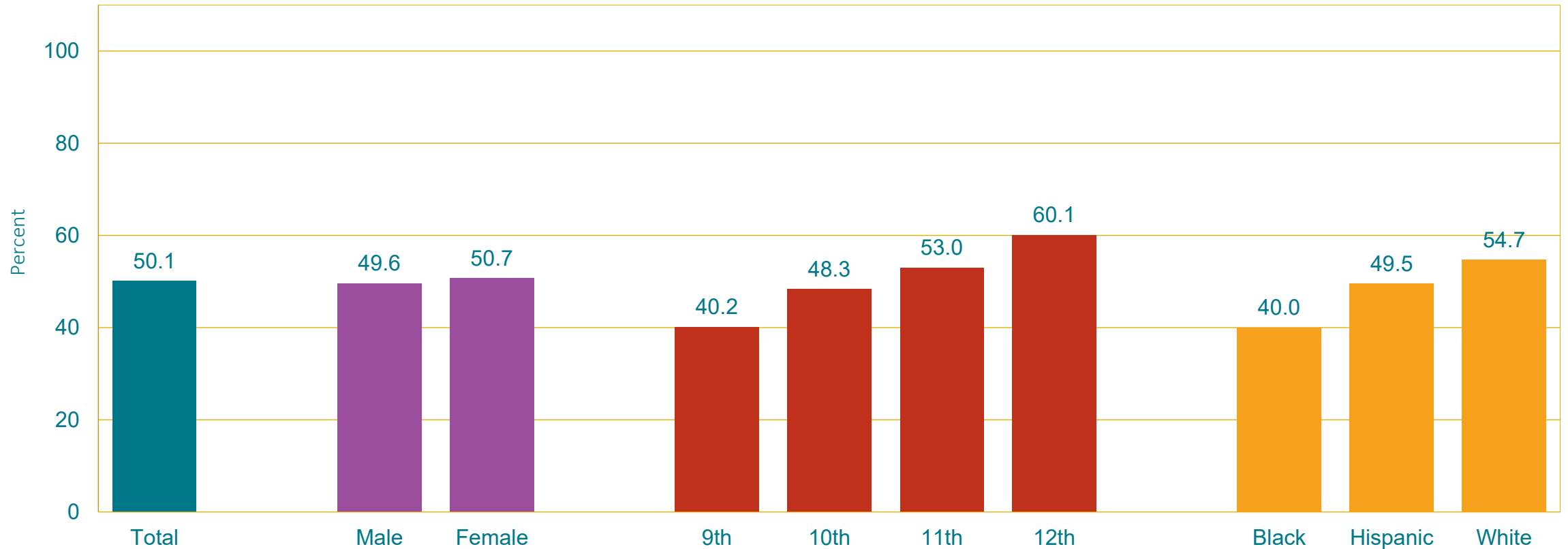


*Including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo]

†Increased 2015-2019 [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 Ever Used an Electronic Vapor Product,* by Sex, **Grade**,† and **Race/Ethnicity**,† 2019



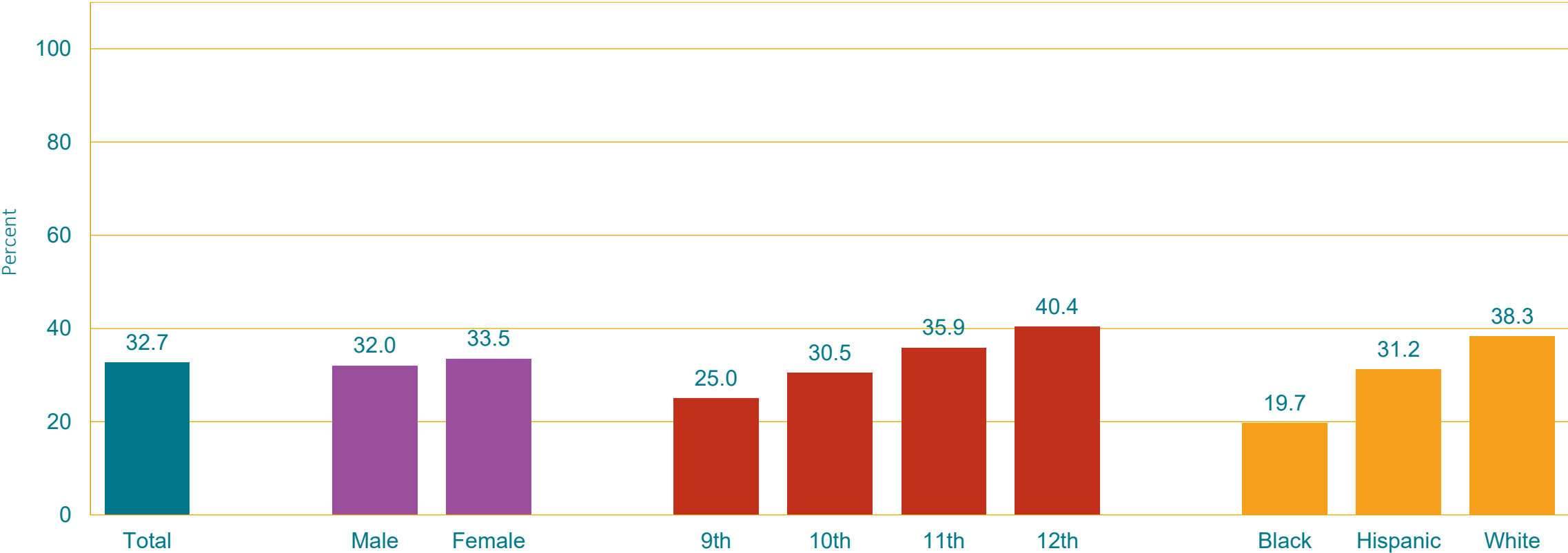
*Including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo]

†10th > 9th, 11th > 9th, 11th > 10th, 12th > 9th, 12th > 10th, 12th > 11th; H > B, W > B, 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.

Percentage of High School Students Who Currently Used an Electronic Vapor Product,* by Sex, Grade,† and Race/Ethnicity,† 2019



*Including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens [such as blu, NJOY, Vuse, MarkTen, Logic, Vapin Plus, eGo, and Halo], on at least 1 day during the 30 days before the survey

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

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VAPING

Generally accepted by the public as a safer alternative to smoking.

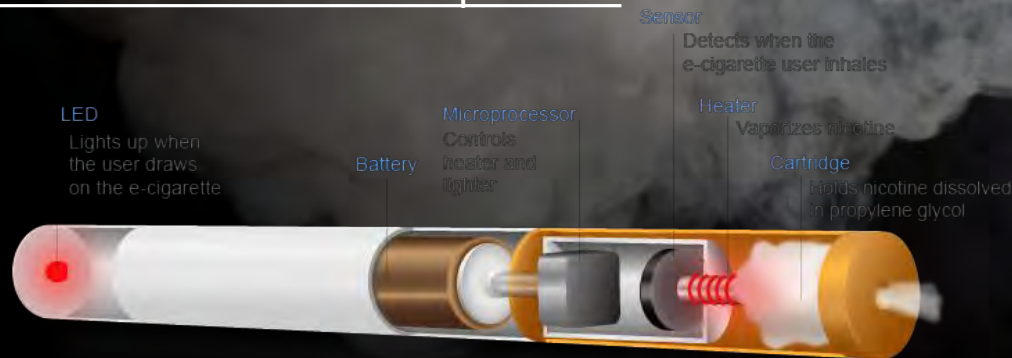
E-Cigarettes only became commercially available in the US in 2006

They are handheld battery-operated devices that heat liquids containing various ingredients such as nicotine and artificial flavorings. They can look like USB drives and are inconspicuous.

The biggest risk with E-Cigarettes is the lack of evidence...

8 out of 10 current youth users of e-cigarettes use flavored e-cigarettes, with fruit, mint, candy, and menthol flavors among the most commonly used.

Kids can order “e-juice” on the Internet. The legal age to buy is 18, but online stores don’t always ask for proof of age



It's healthy, until it's not...



NOW...Scientific Evidence on Effects of Smoking!

A MEDICAL SPECIALIST is making regular bi-monthly examinations of a group of people from various walks of life; 45 percent of this group have smoked Chesterfield for an average of over ten years.

After ten months, the medical specialist reports that he observed...

no adverse effects on the nose, throat and sinuses of the group from smoking Chesterfield.

MUCH Milder
CHESTERFIELD
IS BEST FOR YOU



20,679* Physicians
say "**LUCKIES**
are *less irritating*"

"It's toasted"

Your Throat Protection against irritation against cough

"...sound as a bell"

Wine doesn't.
Wine makes.
Tartarous youngsters.

Regular physical examinations plus all the methods developed to prevent or inhibit even the most casual diseases are now routine in American life.

The magnificent advance made in guarding health by lighting illness before it strikes is still another proud chapter in the history of the medical profession.

According to a recent *Nationwide survey*:

More Doctors Smoke Camel than any other Cigarette

The "T-Zone" T for Taste and Throat

Your "T-Zone" is a most critical "laboratory" when it comes to cigarettes. For this reason, the T-Zone of Camel's smooth tobacco on your throat, has been your throat's own best friend and ally.

Like you, doctors smoke for pleasure. The rich, full flavor and cool mildness of Camel's superb blend of smooth tobaccos are just as appealing to them as to you. Compare Camels—in your own "T-Zone."

*The makers of Camels take an understandable pride in the results of a nationwide survey among 11,000 doctors by three leading independent research organizations. When asked about the cigarette they themselves smoked, the cigarette named most by the doctors was—Camel. And these doctors represented every branch of medicine—general physicians, surgeons, diagnosticians, and specialists.

Like you, doctors smoke for pleasure. The rich, full flavor and cool mildness of Camel's superb blend of smooth tobaccos are just as appealing to them as to you. Compare Camels—in your own "T-Zone."

CAMELS *Coastal*
Tobacco

NICO TIME CIGARETTES

THE SMOOTH TASTE EXPECTANT MOTHERS CRAVE!

Guard Against Throat-Scratch

enjoy the smooth smoking of fine tobaccos

...smoke **PALL MALL**
the cigarette whose mildness you can measure

Gee, Dad, you always get the best of everything...even

Marlboro!

Yes, you need never feel over-smoked...that's the Miracle of Marlboro!

VAPING

A dark silhouette of a person's head and shoulders in profile, facing left. They are holding a vaping device in their mouth, and a large, billowing cloud of white vapor rises from the device, filling the left side of the frame. The background is dark and textured.

E-Vapor Associated Lung Injury (EVALI)

- As of February 18, 2020, a total of 2,807 hospitalized EVALI cases or deaths have been reported to CDC from all 50 states
- As of February 2020 there have been 68 confirmed deaths.
- Vitamin E acetate is strongly associated with EVALI, but other factors are involved.
- Pathophysiology is unknown, but it appears that vaping can cause sudden onset of inflammation in the lungs. Patients appear to have a severe pneumonia, but do not respond to antibiotics.

Patients who developed EVALI were primarily young males!

- 66% were male
- Median age was 24
- 15% were under 18 (youngest was 13 years old)
- 37% were 18-24
- 24% were 25-34
- 24% were >35

ALCOHOL



ALCOHOL

Alcohol *is* a drug! And it's the most widely used drug.

Excessive alcohol use leads to approximately 95,000 deaths per year

Violence, including homicide, suicide, sexual assault, and intimate partner violence.

Alters your judgement, thoughts, and decision-making.

Increases your risk of injury or death due to increased confidence despite loss of judgement and coordination (Auto accidents, drowning, falls, burns, or violence)

Alcohol poisoning, a medical emergency that results from high blood alcohol levels

Risky sexual behaviors that can result in unintended pregnancy or sexually transmitted diseases, including HIV.

Miscarriage and stillbirth or fetal alcohol spectrum disorders among pregnant women.

May aggravate depression , anxiety, or other mental health issues.

Worsens sleep quality, which makes it more difficult to deal with stress.

ALCOHOL



ALCOHOL

Long-term health consequences of alcohol:

High blood pressure, heart disease, stroke, liver disease, and digestive problems.

Learning and memory problems, including dementia and poor school performance.

Social problems, including lost productivity, family problems, and unemployment.

Cancer of the breast, mouth, throat, esophagus, liver, and colon.

Weakening of the immune system, increasing the chances of getting sick.

Mental health problems, including depression and anxiety.

Alcohol use disorders, or alcohol dependence

ALCOHOL

People who should not drink alcohol:

- Younger than age 21.
- Pregnant or may be pregnant.
- Driving, planning to drive, or participating in other activities requiring skill, coordination, and alertness.
- Taking certain over-the-counter or prescription medications.
- People with certain medical conditions or taking certain medications that can adversely interact with alcohol.
- People with history of alcoholism, strong family history of alcoholism, or are unable to control the amount they drink

ALCOHOL

Alcohol is one of the *few drugs* that can be fatal in withdrawal!

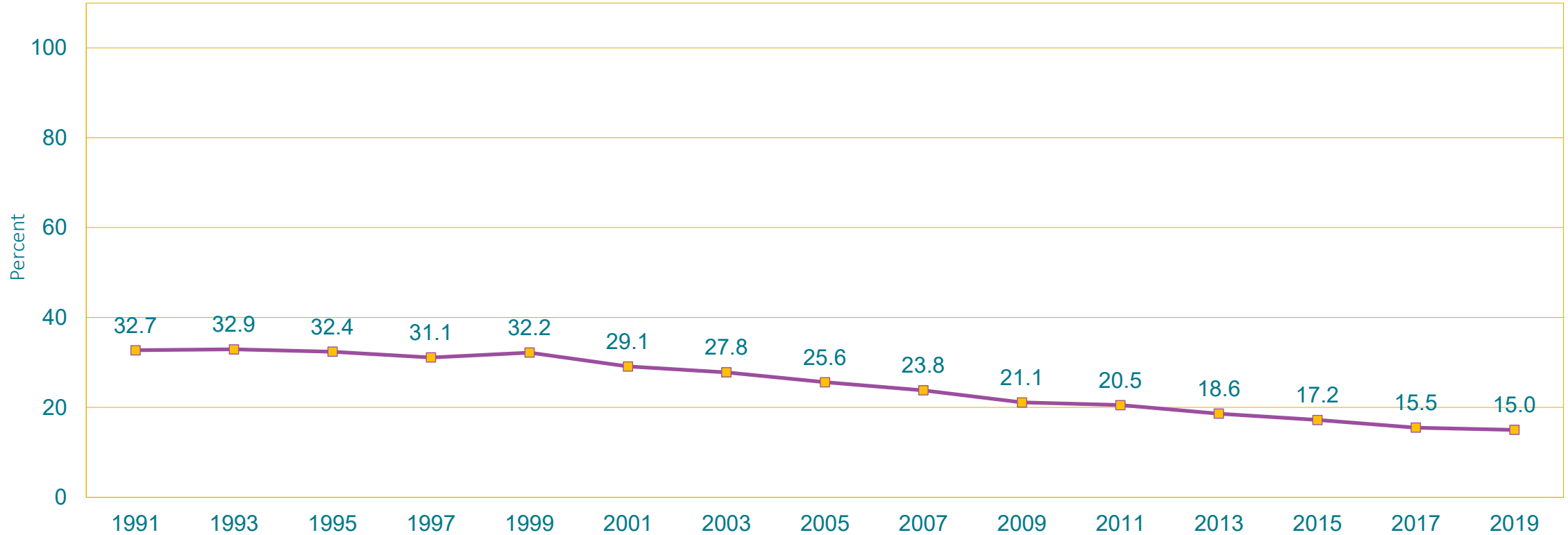
- With regular heavy drinking your body can form a physical dependency on the drug, in addition to a psychological one.
- Suddenly stopping drinking can be dangerous leading to sudden, dangerous increases in blood pressure, fast heart rate, agitation, confusion, shaking tremors, uncontrolled sweating, fever, seizures, tactile/ visual/ auditory hallucinations, and ultimately death in a number of cases.
- These symptoms indicate a condition call “Delirium Tremens” (DTs). DTs constitute a medical emergency that requires immediate medical attention.
- Patients will need hospitalization to reduce risk of death. Without medical treatment, 20% of patients with DTs will die as a result.

ALCOHOL

DELIRIUM TREMENS



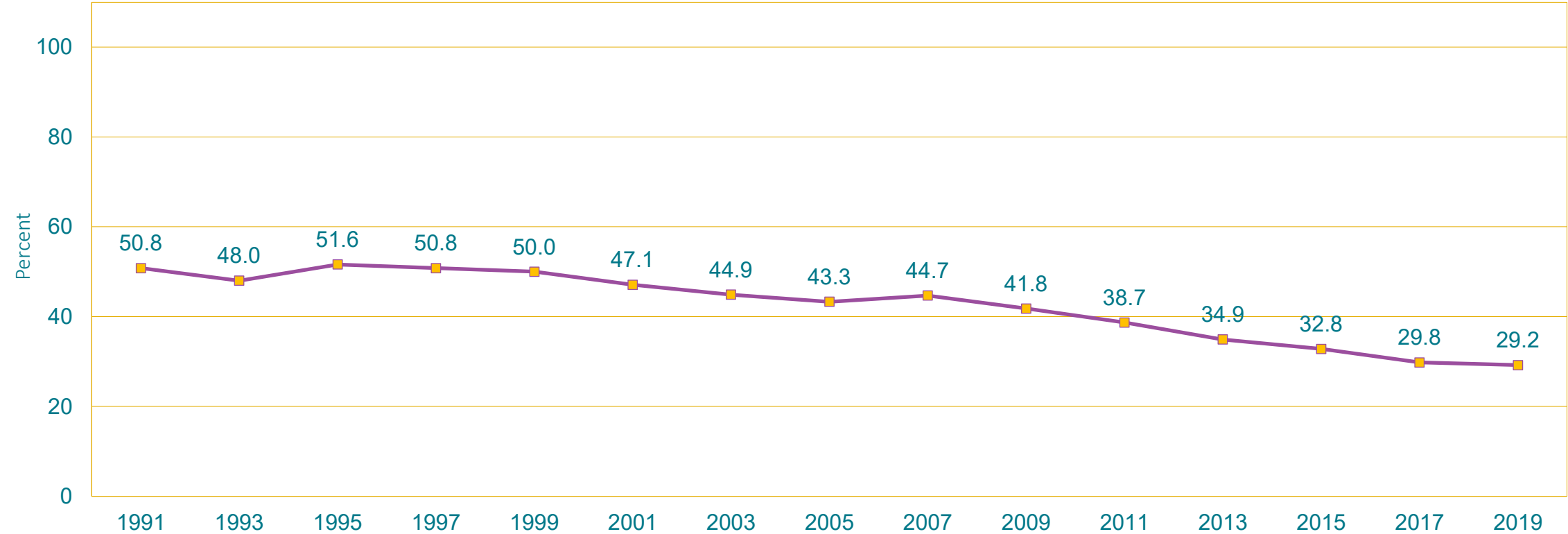
Percentage of High School Students Who Had Their First Drink of Alcohol Before Age 13 Years,* 1991-2019†



*Other than a few sips

†Decreased 1991-2019, no change 1991-1999, decreased 1999-2019 [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 Currently Drank Alcohol,* 1991-2019†

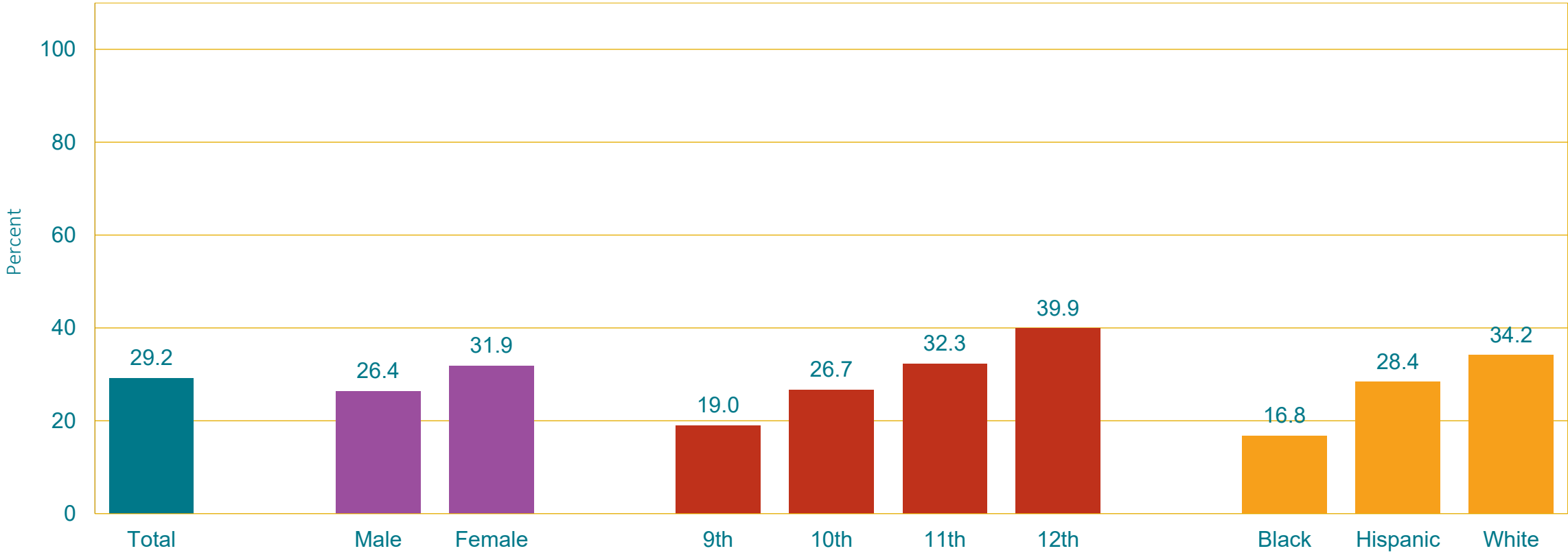


*At least one drink of alcohol, on at least 1 day during the 30 days before the survey

†Decreased 1991-2019, decreased 1991-2007, decreased 2007-2019 [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).]

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Percentage of High School Students Who Currently Drank Alcohol,* by Sex,† Grade,† and Race/Ethnicity,† 2019



*At least one drink of alcohol, on at least 1 day during the 30 days before the survey
†F > M; 10th > 9th, 11th > 9th, 11th > 10th, 12th > 9th, 12th > 10th, 12th > 11th; H > B, W > B, W > H (Based on t-test analysis, p < 0.05.)
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MARIJUANA



MARIJUANA

A close-up photograph of a person's hands using a dabber to apply a substance from a small glass container into a dab rig. The person has light-colored nail polish. The background is blurred, showing a person's face and a patterned shirt.

Marijuana is the dried leaves/ flowers/ oils from the cannabis plant. It contains a psychoactive hallucinogenic compound called THC.

Marijuana is the most commonly used psychotropic drug in the United States, after alcohol. Its use is widespread among young people. In 2018, more than 11.8 million young adults used marijuana in the past year.

With the growing popularity of vaping devices, teens have started vaping THC (the ingredient in marijuana that produces the high), with nearly 4% of 12th graders saying they vape THC daily. In addition, the number of young people who believe regular marijuana use is risky is decreasing.

MARIJUANA

Long term effects

Marijuana can be addictive.

Smoking/ Vaping leads to increased risk of lung damage, including COPD, lung infections (Pneumonia, Flu, Covid19), and lung cancer.

May cause hallucinations, delusions, or psychosis in high doses

Impairs memory, learning and cognition, Aggravates anxiety and causes mood changes, Impairs coordination

Intense nausea and vomiting. Regular, long-term marijuana use can lead to some people to develop *Cannabinoid Hyperemesis Syndrome*. This causes users to experience regular cycles of severe nausea, vomiting, and dehydration, sometimes requiring emergency medical attention.

Marijuana also affects brain development. When people begin using marijuana as teenagers, the drug may impair thinking, memory, and learning functions and affect how the brain builds connections between the areas necessary for these functions.

MARIJUANA

The Teen Brain

People who begin using marijuana before age 18 are 4-7 times more likely than adults to develop a marijuana use disorder.

What's worse, research shows that marijuana use can have permanent effects on the developing brain when use begins in adolescence, especially with regular or heavy use.

THC acts on specific brain cell receptors that ordinarily react to natural THC-like chemicals. These natural chemicals play a role in normal brain development and function.

A study from New Zealand conducted in part by researchers at Duke University showed that people who started smoking marijuana heavily in their teens and had an ongoing marijuana use disorder lost an average of 8 IQ points between ages 13 and 38.

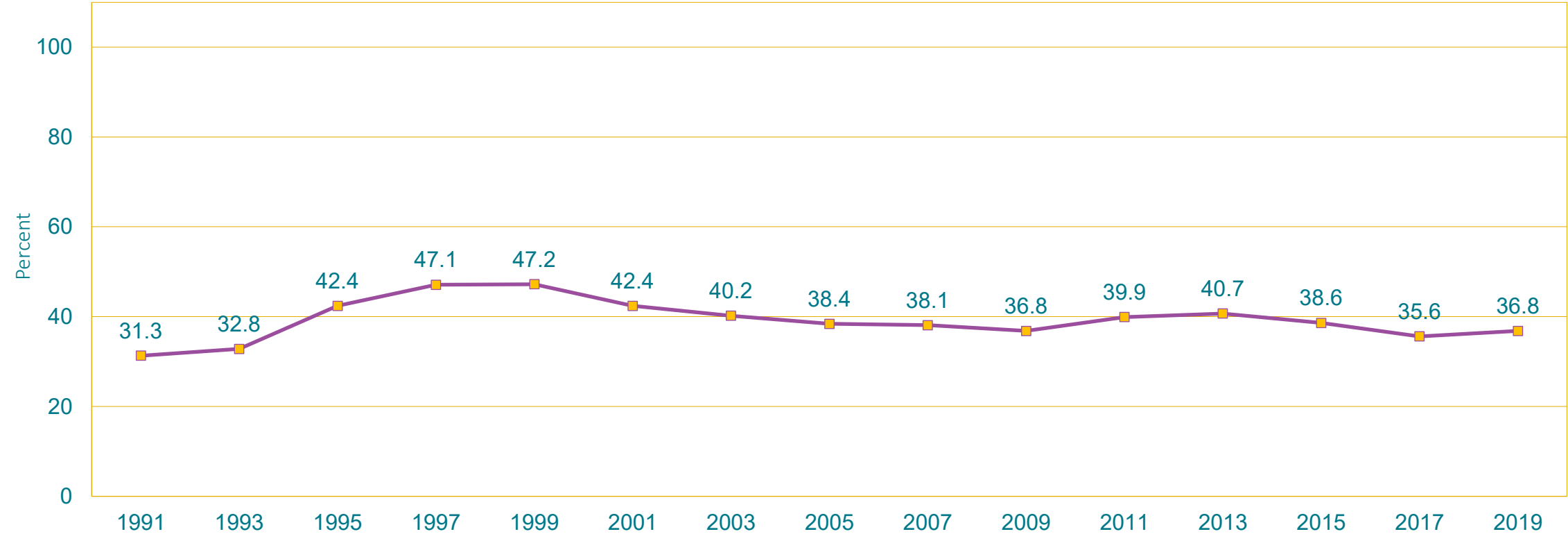
The lost mental abilities didn't fully return in those who quit marijuana as adults. Those who started smoking marijuana as adults didn't show notable IQ declines.

MARIJUANA

The Teen Brain



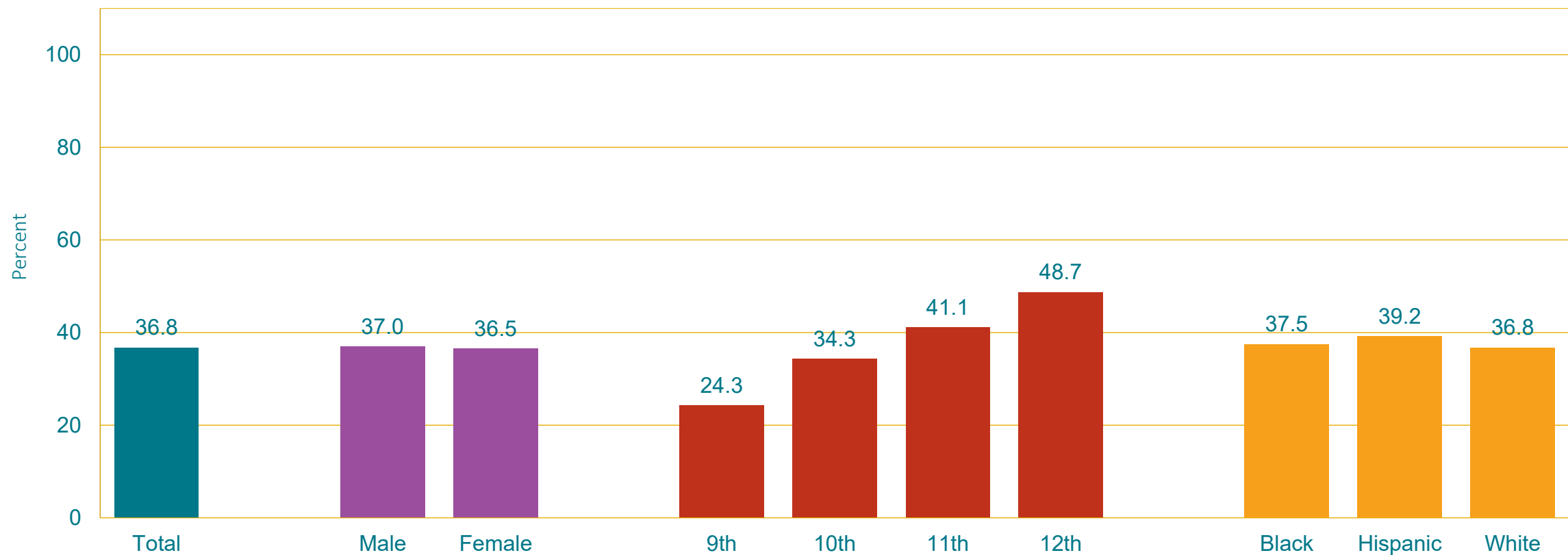
Percentage of High School Students Who Ever Used Marijuana,* 1991-2019†



*One or more times during their life

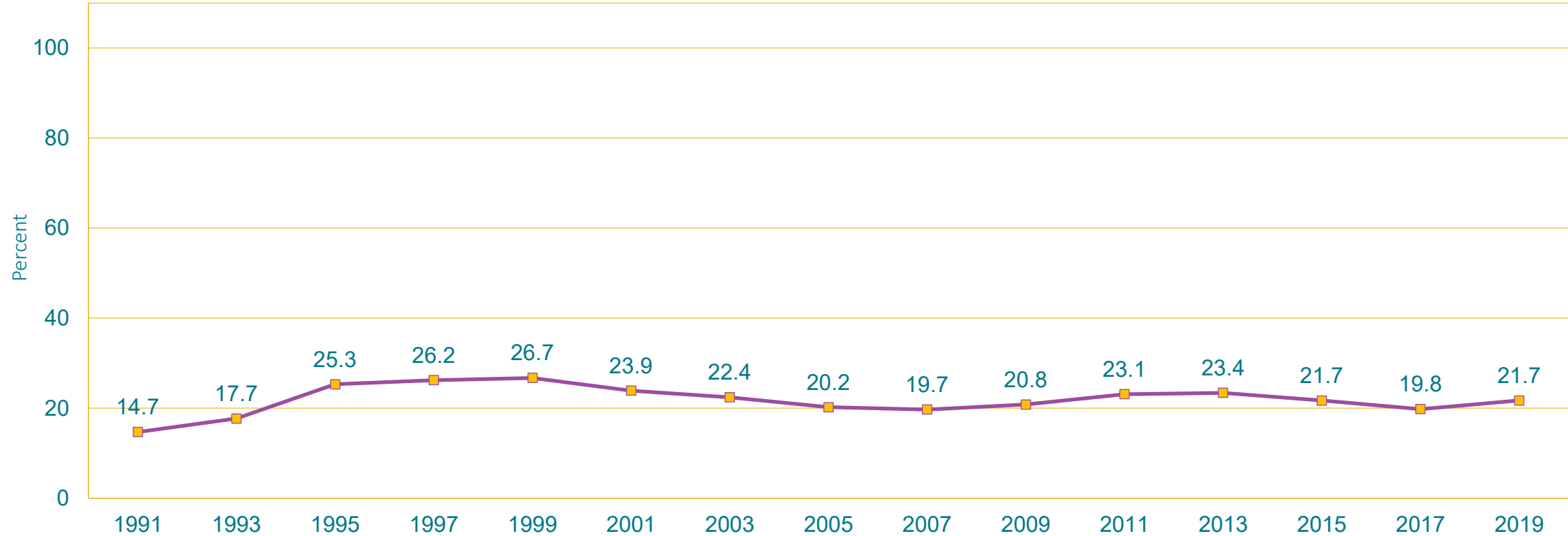
†Increased, 1991-1997, decreased, 1997-2019 [Based on linear and quadratic trend analyses using logistic regression models controlling for sex, race/ethnicity, and grade ($p < 0.05$). Significant linear trends (if present) across all available years are described first followed by linear changes in each segment of significant quadratic trends (if present).] This graph contains weighted results.

Percentage of High School Students Who Ever Used Marijuana,* by Sex, **Grade,**[†] and Race/Ethnicity, 2019



*One or more times during their life
[†]10th > 9th, 11th > 9th, 11th > 10th, 12th > 9th, 12th > 10th, 12th > 11th (Based on t-test analysis, p < 0.05.)
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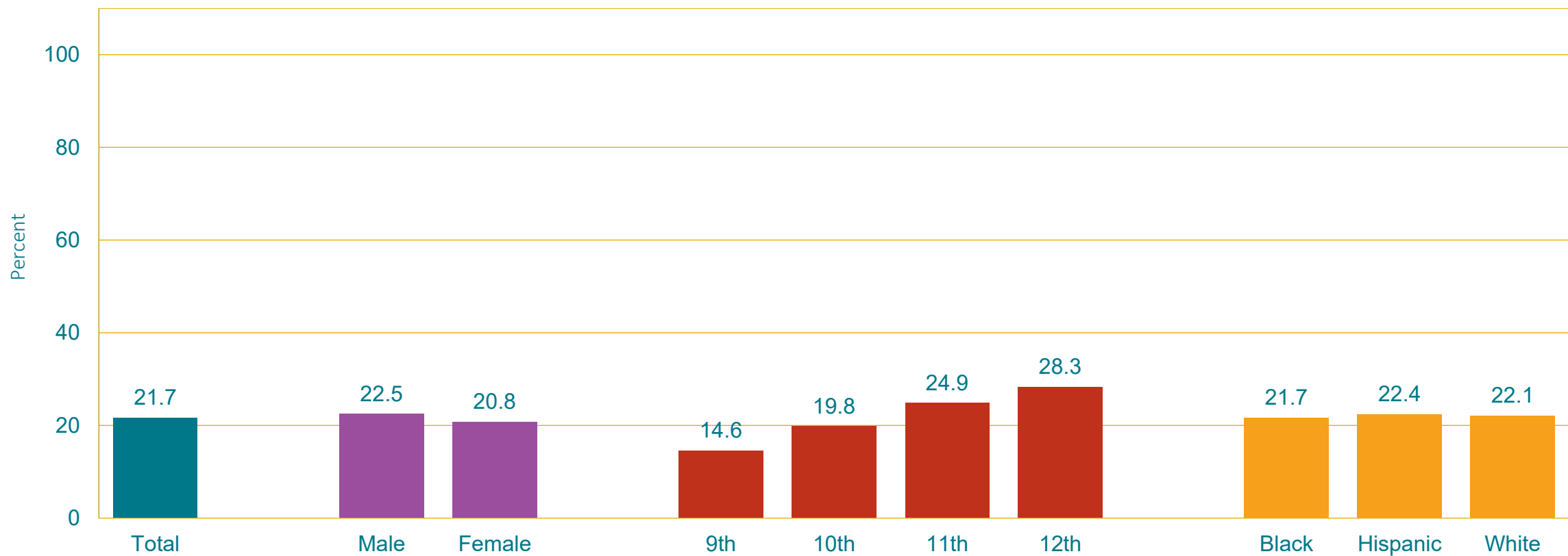
Percentage of High School Students Who Currently Used Marijuana,* 1991-2019†



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

†Increased, 1991-1995, decreased, 1995-2019 [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 Currently Used Marijuana,* by Sex, Grade,† and Race/Ethnicity, 2019



*One or more times during the 30 days before the survey
†10th > 9th, 11th > 9th, 11th > 10th, 12th > 9th, 12th > 10th, 12th > 11th (Based on t-test analysis, p < 0.05.)
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COCAINE





COCAINE

Cocaine is a powerfully addictive stimulant drug made from the leaves of the coca plant native to South America.

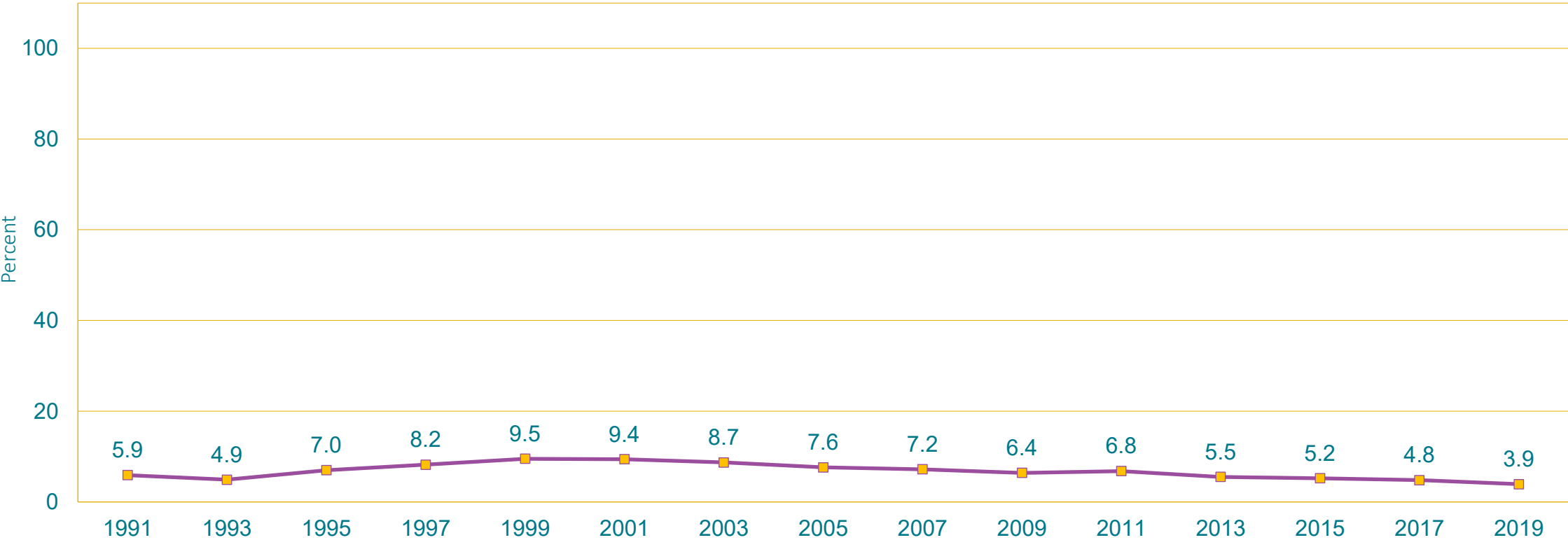
Cocaine is typically snorted into the nose, but can be smoked or injected.

Cocaine use can cause a host of health issues, including increased blood pressure, rapid pulse, increased body temperature, headache, abdominal pain, nausea, loss of smell, nosebleeds, nasal damage and trouble swallowing from snorting; infection and death of bowel tissue from decreased blood flow; poor nutrition and weight loss; lung damage from smoking. insomnia, restlessness, anxiety, erratic and violent behavior, panic attacks, paranoia, psychosis, heart rhythm problems, heart attack, stroke, seizure, coma.

The biggest risk with cocaine use is heart attack and death.

Source: <https://www.drugabuse.gov/drug-topics/commonly-used-drugs-charts#cocaine>

Percentage of High School Students Who Ever Used Cocaine,* 1991-2019†

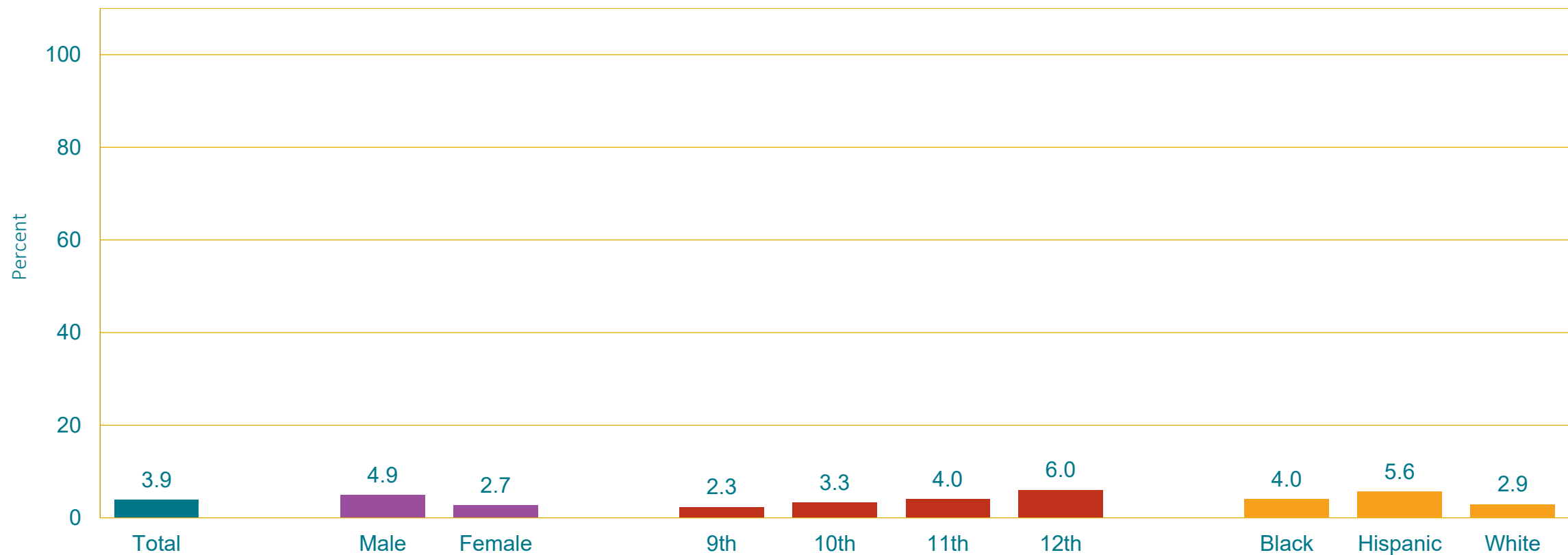


*Any form of cocaine, including powder, crack, or freebase, one or more times during their life

†Decreased 1991-2019, increased 1991-2001, decreased 2001-2019 [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 Ever Used Cocaine,* by Sex,† Grade,† and Race/Ethnicity,† 2019



*Any form of cocaine, including powder, crack, or freebase, one or more times during their life
†M > F; 11th > 9th, 12th > 9th, 12th > 10th, 12th > 11th; H > W (Based on t-test analysis, p < 0.05.)
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OPIATES



OPIATES

Opioids are a class of drugs that include the illegal drug heroin, synthetic opioids such as fentanyl, and pain relievers available legally by prescription, such as oxycodone (OxyContin®), hydrocodone (Vicodin®), codeine, morphine, and many others.

Opioids are often prescribed by doctors for pain relief, but we have to closely monitor our patients to keep them safe with it. Despite this, prescription opioids are still commonly abused.

OPIATES

Opioids are highly addictive, but the biggest concern with opioids is how easily it is for people to overdose with them, especially when using them with other drugs like alcohol, stimulants or antianxiety medications.

Although opioids are prescribed for pain relief, they ironically can actually *increase* a person's sensitivity to pain over time, leading to higher doses.

Overdoses are deadly, opioids will slow a person's heart rate and respiratory rate, causing them to stop breathing. This can occur with any opioid, but lately it's been occurring more often with fentanyl which is a newer, more potent opioid.

Naltrexone is a medication that you can get from the pharmacy to save someone from an overdose.

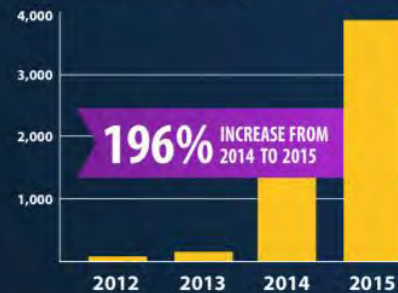
OPIATES

FENTANYL: Overdoses On The Rise

Fentanyl is a synthetic opioid approved for treating severe pain, such as advanced cancer pain. Illicitly manufactured fentanyl is the main driver of recent increases in synthetic opioid deaths.



Ohio Drug Submissions Testing Positive for Illicitly Manufactured Fentanyl



SYNTHETIC OPIOID DEATHS ACROSS THE U.S.



ILICITLY MANUFACTURED FENTANYL

Although **prescription rates** have fallen, **overdoses associated with fentanyl** have risen dramatically, contributing to a sharp spike in synthetic opioid deaths.



OPIATES

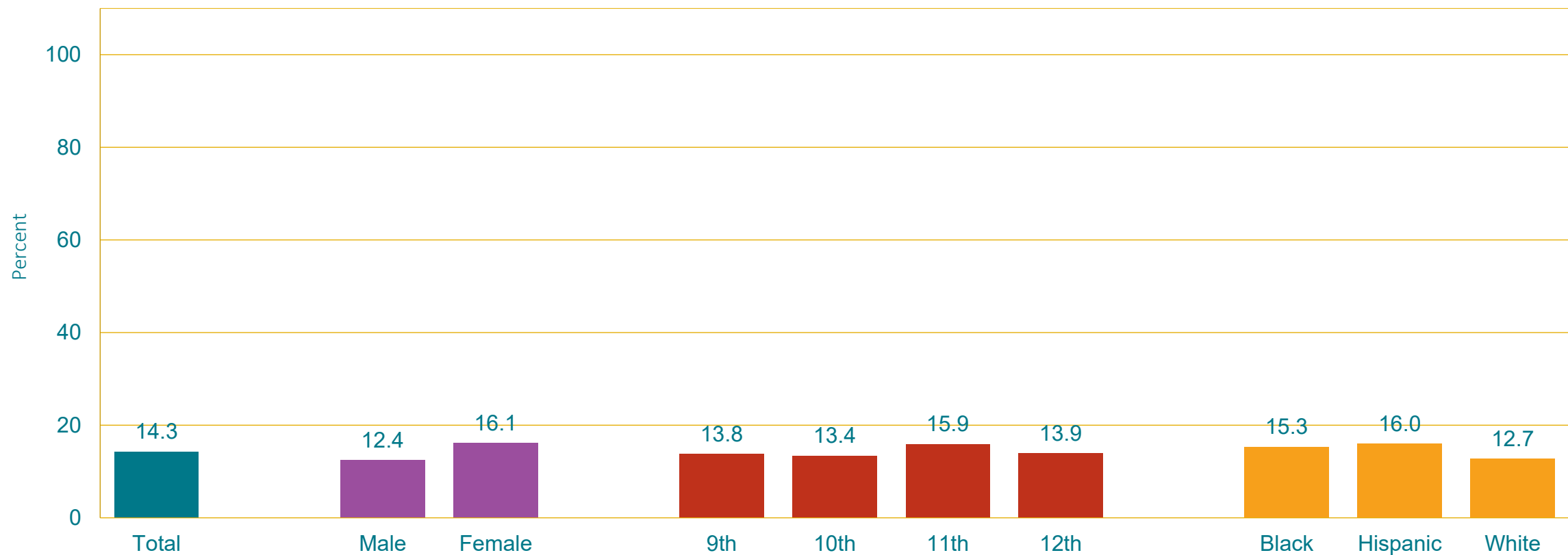


This is your brain
on fentanyl

OPIATES



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, 2019**



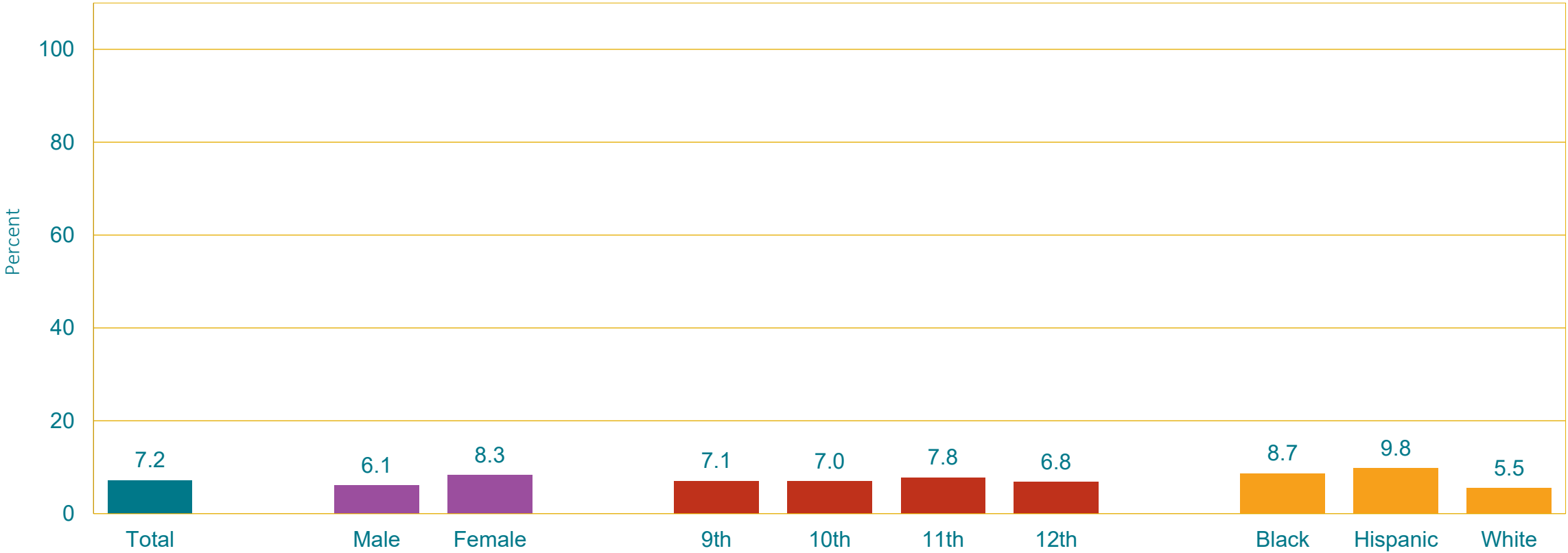
*Counting drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet, one or more times during their life

†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.

Percentage of High School Students Who Currently 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,[†]**
2019



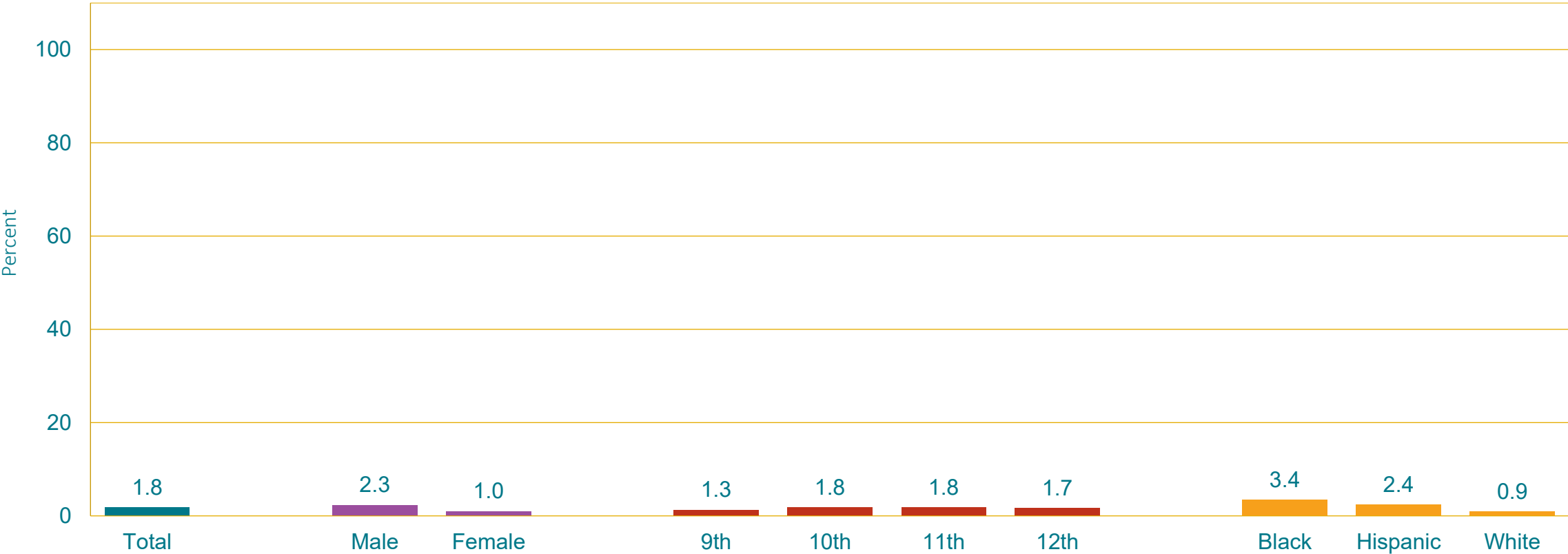
*One or more times during the 30 days before the survey

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

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This graph contains weighted results.

Percentage of High School Students Who Ever Used Heroin,* by Sex,† **Grade**, and **Race/Ethnicity**,† 2019



*Also called "smack," "junk," or "China White," one or more times during their life
†M > F; B > W, H > W (Based on t-test analysis, p < 0.05.)
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INHALANTS



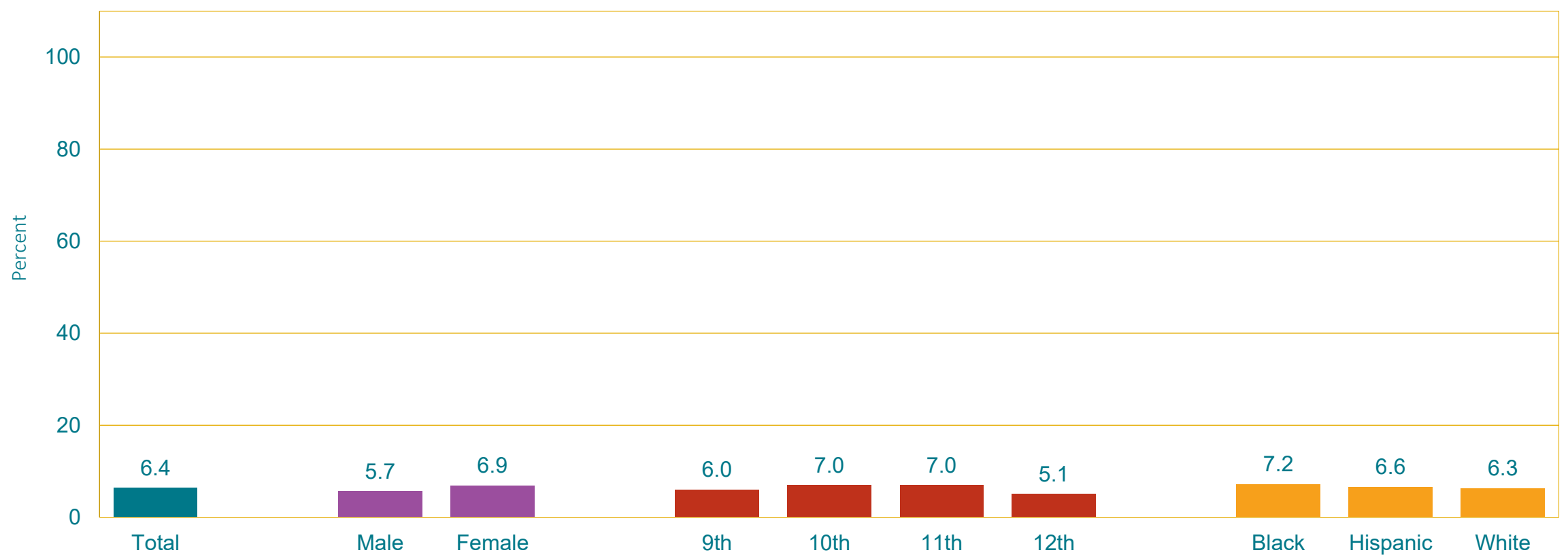
INHALANTS

Not all drugs look like drugs.

Paint thinners, degreasers, dry-cleaning fluids, gasoline, lighter fluids, correction fluids, permanent markers, electronics cleaners, glue, spray paint, hair or deodorant sprays, fabric protector sprays, aerosol computer cleaning products, vegetable oil sprays, butane lighters, propane tanks, whipped cream aerosol containers, refrigerant gases, ether, chloroform, halothane, nitrous oxide.

Confusion; nausea; slurred speech; lack of coordination; euphoria; dizziness; drowsiness; disinhibition, lightheadedness, hallucinations/delusions; headaches; sudden sniffing death due to heart failure (from butane, propane, and other chemicals in aerosols); death from asphyxiation, suffocation, convulsions or seizures, coma, or choking.

Percentage of High School Students Who Ever Used Inhalants,* by Sex, Grade,† and Race/Ethnicity, 2019



*Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high, one or more times during their life
†10th > 12th, 11th > 12th (Based on t-test analysis, p < 0.05.)
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This graph contains weighted results.

LEARN MORE

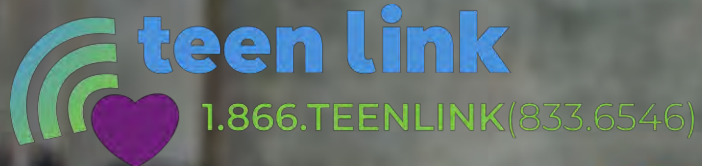


healthychildren.org
Powered by pediatricians. Trusted by parents.
from the American Academy of Pediatrics

<https://healthychildren.org/English/ages-stages/teen/substance-abuse/Pages/default.aspx>

<https://teens.drugabuse.gov/teens>

<https://drugfree.org/>



Questions?

