

# changing tobacco trends

## IN MISSISSIPPI

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### {INTRODUCTION}

In 1994, then-Mississippi Attorney General Mike Moore filed a groundbreaking lawsuit with the Chancery Court of Jackson. The lawsuit alleged that the tobacco industry had conspired and fraudulently concealed the dangerous nature of tobacco, and the state requested monetary compensation for Medicaid expenses caused by tobacco products. In 1997, the tobacco industry and the state of Mississippi reached a settlement agreement. Based upon this agreement, the tobacco industry was to pay Mississippi \$170 million. In addition, beginning in January of 1998, calculated payments were to be made to Mississippi annually in perpetuity. Twenty million dollars of these funds were originally directed to a nonprofit corporation created by the chancery court. From 1998 to 2007, the Partnership for a Healthy Mississippi coordinated the state's comprehensive tobacco prevention programs. In 2008, following a year-long battle over the management of the funds, the legislature appropriated \$8 million for the Mississippi State Department of Health to create a state tobacco prevention and cessation program – the Office of Tobacco Control.

Mississippi has used the tobacco control settlement funds to implement statewide and community interventions, mass-reach health communication interventions, and cessation interventions to reduce youth tobacco. The state has passed 159 comprehensive smoke-free municipal ordinances that protect 35% of Mississippians. The state cigarette tax was raised from 18 cents to 68 cents in 2009 and has not been increased since that time. The average state cigarette tax in 2019 is \$1.81. Raising the tax decreased the number of packs of cigarettes sold in Mississippi by more than 30%, and tripled tax revenue from cigarette sales.

In light of Mississippi's history and its current social climate of tobacco control, this study examines trends in youth tobacco use and compares current prevalence rates for cigarettes, cigars, smokeless tobacco, and e-cigarettes.

### {METHODS}

The Mississippi Youth Tobacco Survey was administered to high school students via anonymous, self-administered questionnaires. A multi-stage sample design with public schools selected with a probability proportional to enrollment size was applied and we randomly selected classrooms within schools with all students in selected classes eligible for participation.

### {MEASURES}

Respondents were asked about their use of cigarettes, cigars, smokeless tobacco, and e-cigarettes during the past 30 days. Questions on e-cigarette use were added to the survey in 2010. Those who reported using a product on at least one of the past 30 days were categorized as current users of that product.

### {RESULTS}

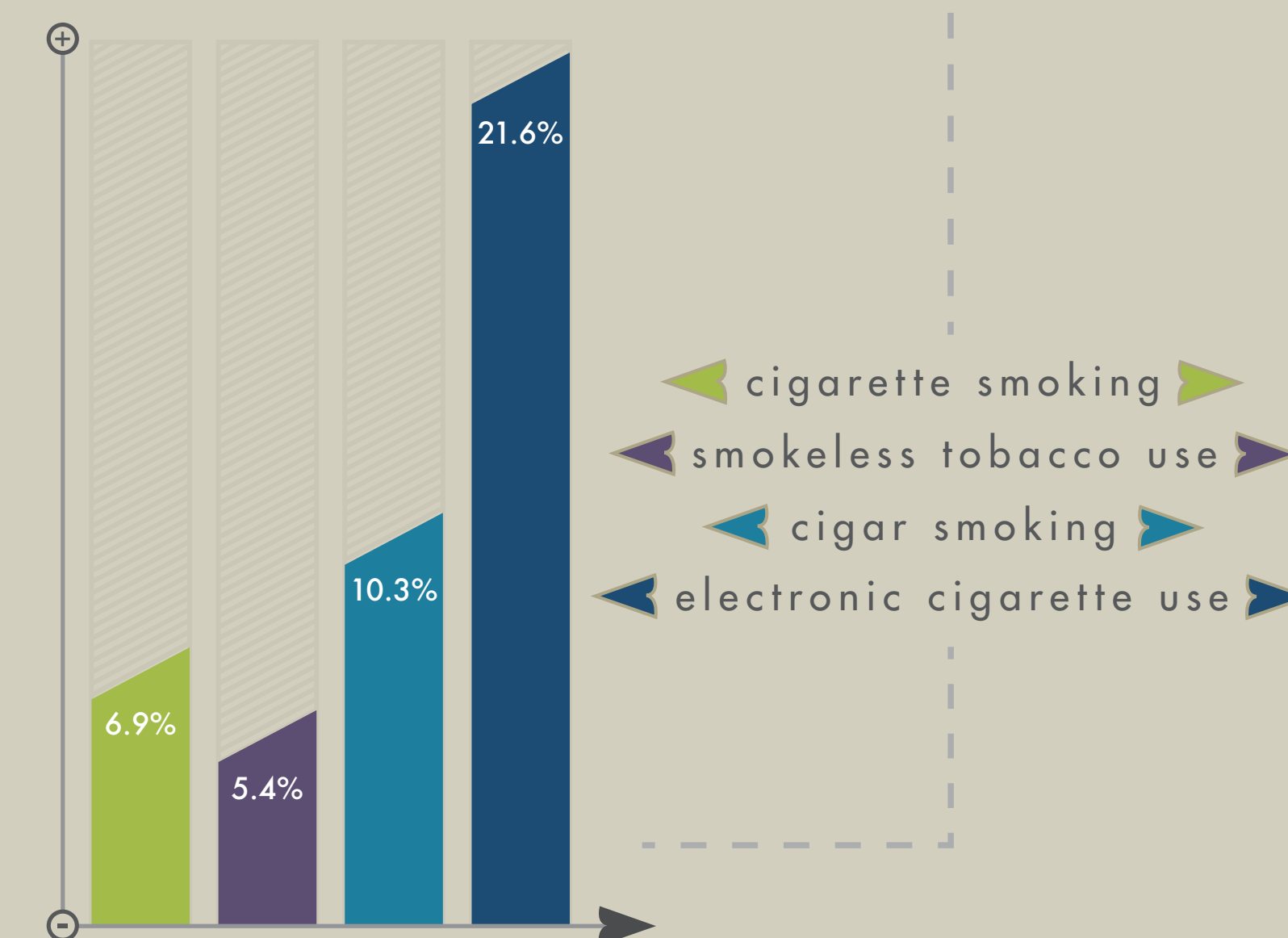
Overall response rates range from 60% to 77%. Sample characteristics for each year did not vary significantly across years.

For the first several years of our statewide programs, high school students were more likely to smoke cigarettes and cigars than to use smokeless tobacco. Cross-sectional analyses indicate that current cigarette and cigar smoking have substantially decreased since 1998. From 1998 to 2018 current smoking of cigarettes decreased from 30.3% to 6.9% ( $p < .001$ ), and current cigar smoking decreased from 22.3% to 10.3% ( $p < .001$ ). However, current use of smokeless tobacco did not significantly decrease (1998, 9.4% - 2018, 5.4%, ns).

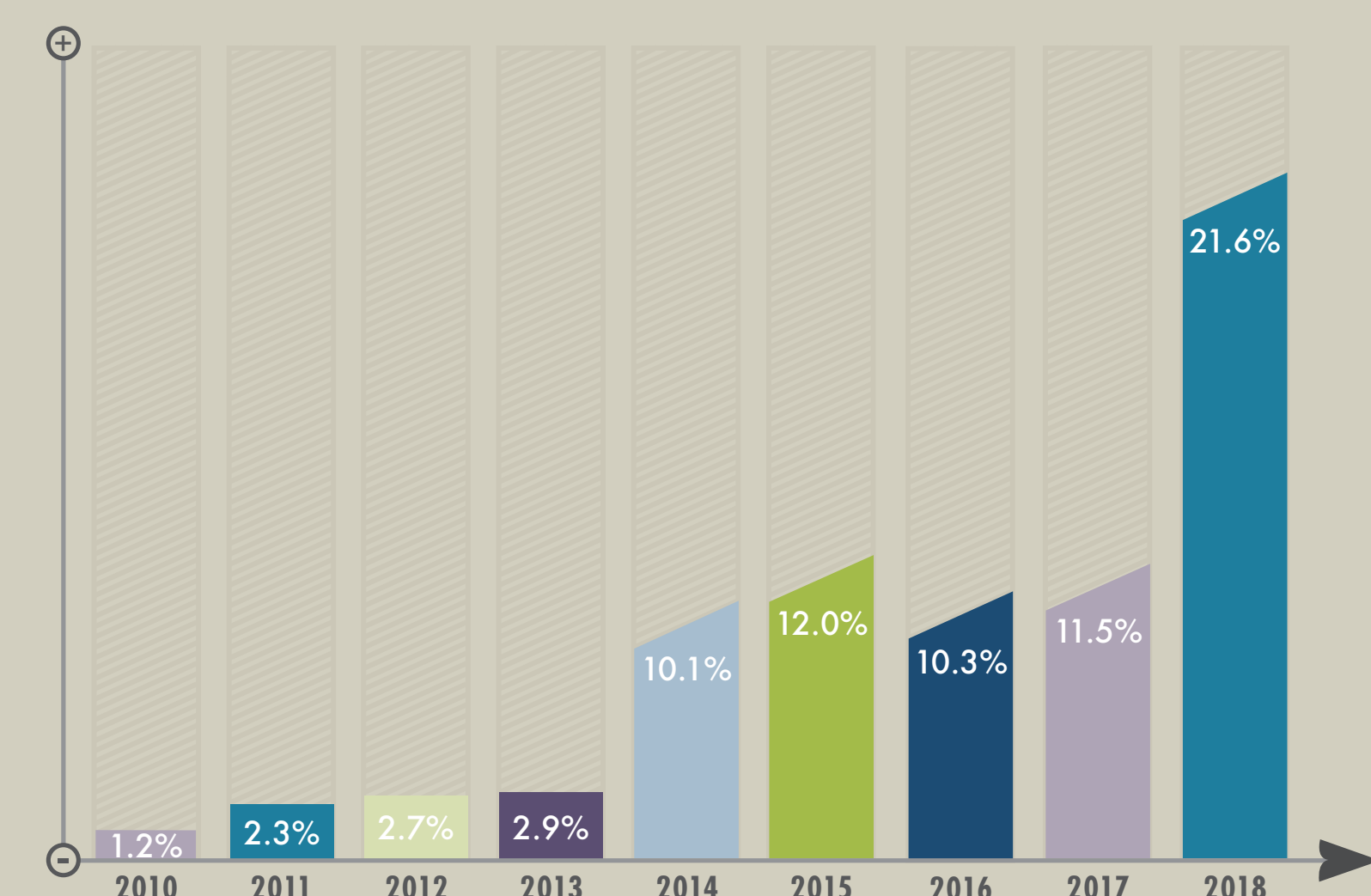
E-cigarettes entered the U.S. market in 2007, and we first assessed e-cigarette use in 2010. Initially current use was low (1.2%), and grew slowly from 2001 to 2013 before jumping to 10.1% in 2013. Current use remained at about 10% through 2017. E-cigarette usage is now considered an epidemic among youth. In 2018, 21.6% of high school students reported past 30-day e-cigarette use.

## Mississippi Public High Schools

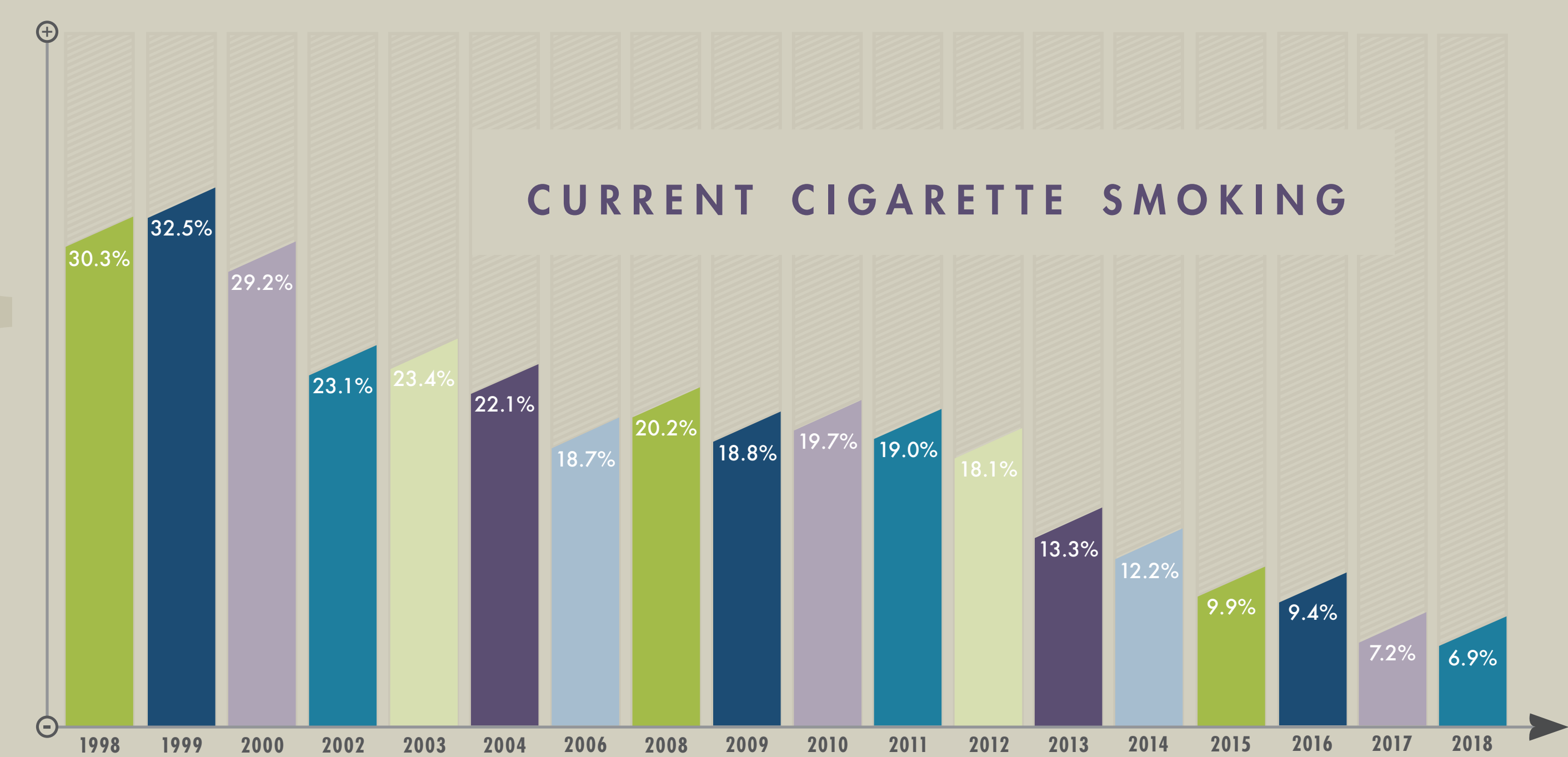
### 2018 CURRENT PREVALENCE



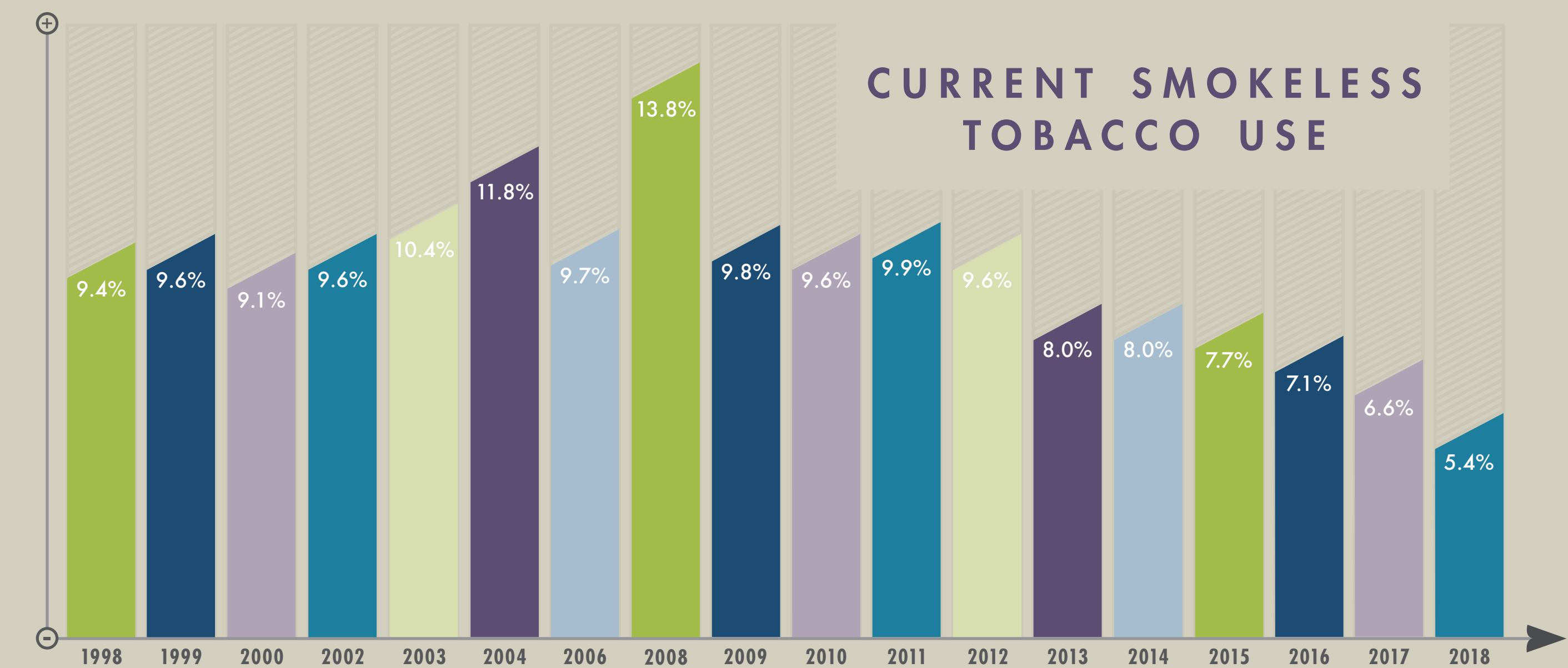
### CURRENT ELECTRONIC CIGARETTE USE



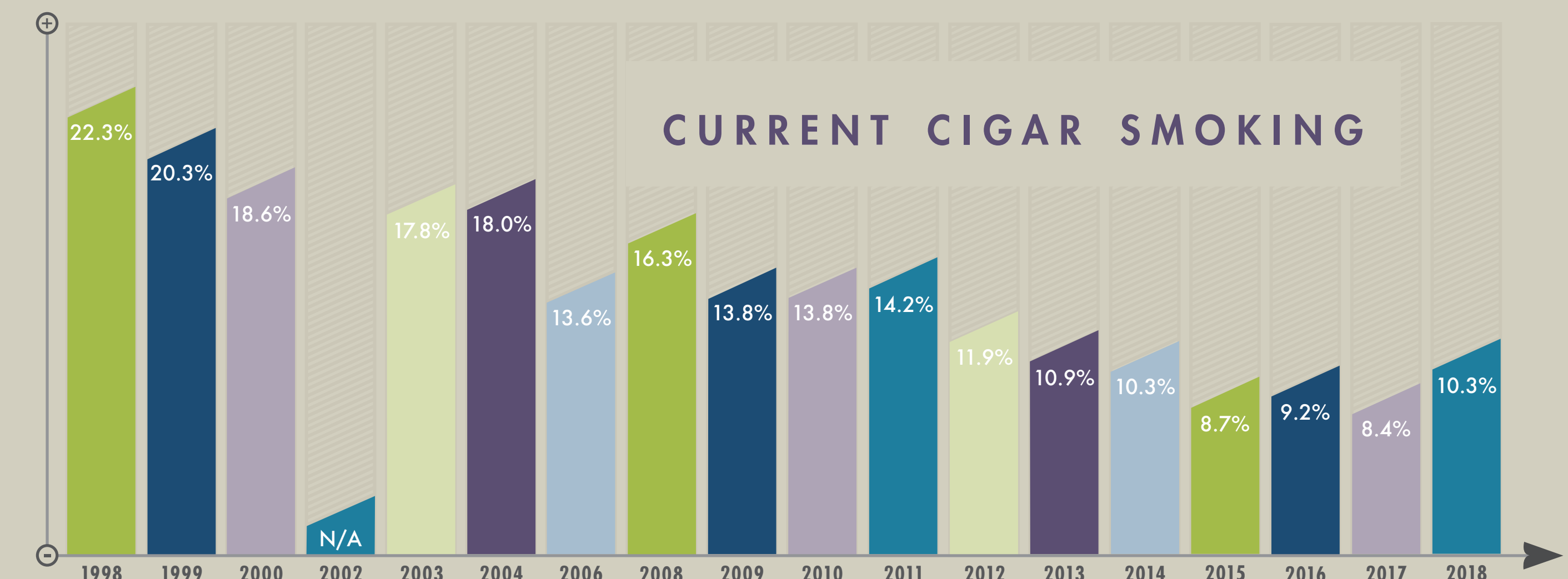
### CURRENT CIGARETTE SMOKING



### CURRENT SMOKELESS TOBACCO USE



### CURRENT CIGAR SMOKING



### {DISCUSSION}

The social climate of tobacco control in Mississippi experienced several important changes over the past 20 years. Despite reduced funding, statewide tobacco prevention programs have educated Mississippi youth about the harms of tobacco and prepared them to resist tobacco use. The state cigarette tax has raised the cost of a pack of cigarettes, and smokefree ordinances at the municipal level deter youth initiation of tobacco use. Previous research strongly links each of these strategies to reductions in youth smoking.

Despite advances in local and state-wide policies, the landscape continues to present some challenges. The introduction and aggressive marketing of lightly-regulated e-cigarettes has added another factor to the social climate. Continuing regulatory action to prohibit e-cigarette use in places where smoking is not allowed and eliminating flavors and marketing that target youth are needed to curb the growth of e-cigarette use among youth. E-cigarettes are not subject to a state tobacco tax, while smokeless tobacco and cigars have a much lower tax burden than cigarettes. Equalizing the tax on each of these products could reduce the appeal of the less expensive products to youth.

As demonstrated by our YTS results, Mississippi has had remarkable success in decreasing cigarette and cigar smoking. However, smokeless tobacco use has not changed and e-cigarette use is at record high levels. Currently, Mississippi youth are at a much greater risk to be current users of e-cigarettes than cigarettes, cigars, smokeless tobacco. A shift in strategy is now desired and needed in order to focus tobacco control campaigns to current usage patterns. Tobacco prevention efforts, clinician counseling, and policies should address each of these products, especially e-cigarettes, rather than focus primarily on cigarettes.