



**MISSISSIPPI STATE UNIVERSITY**™  
SOCIAL SCIENCE RESEARCH CENTER

# Nicotine & Mississippi

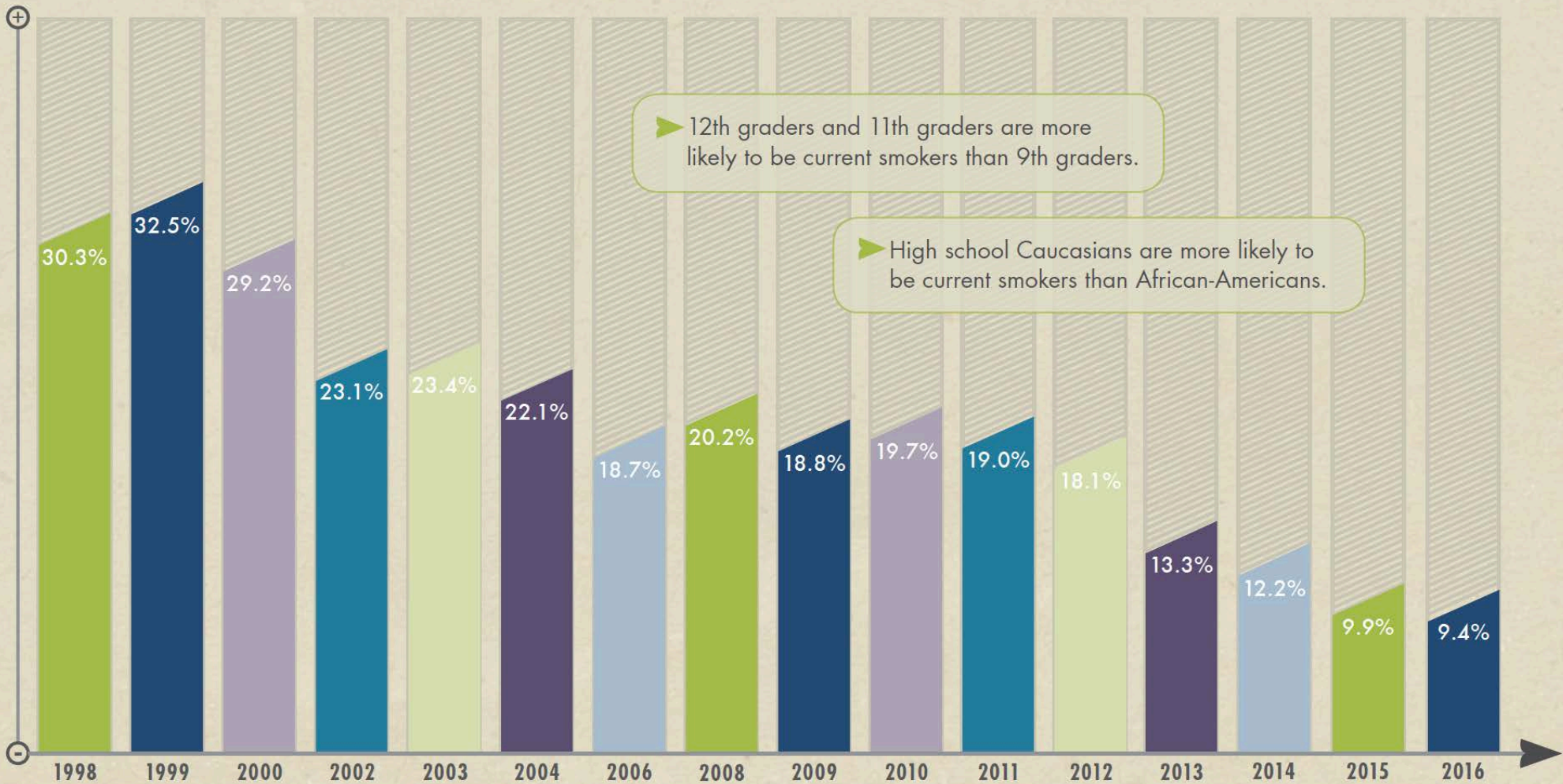
12 October, 2017



# Tobacco & Nicotine Use in Mississippi

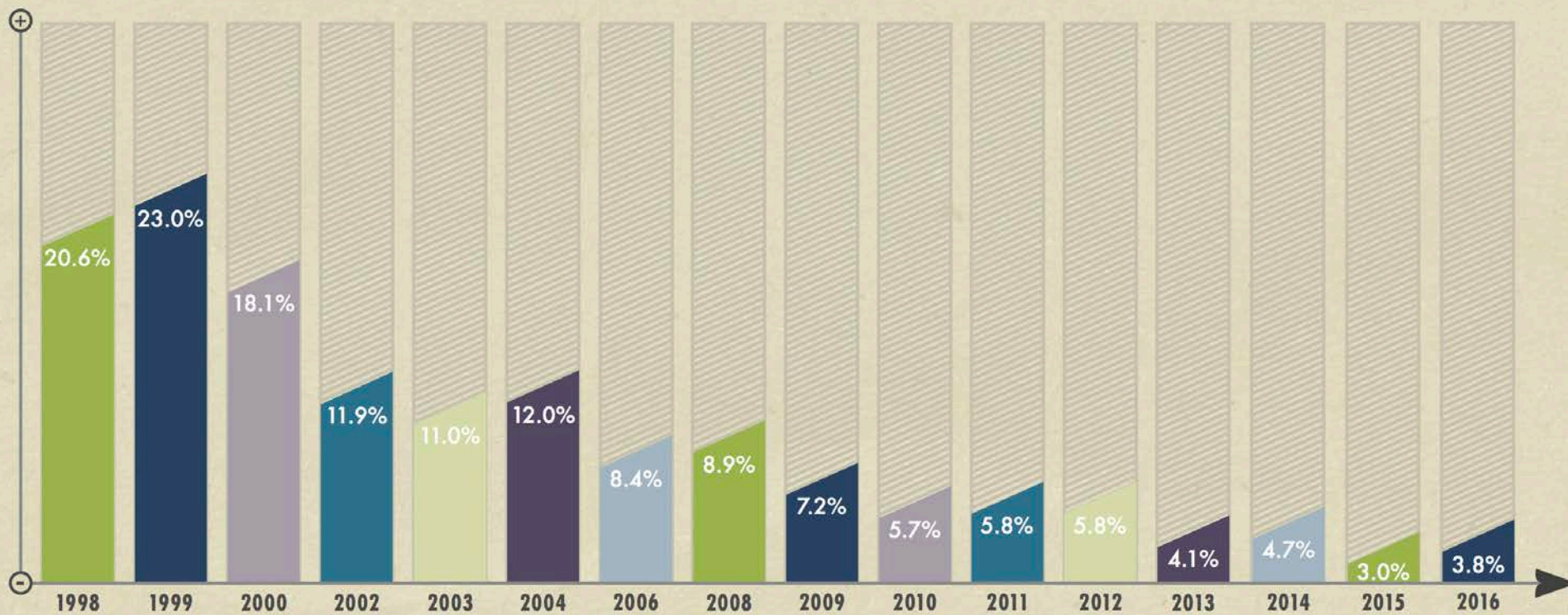
# current cigarette smoking

## MS PUBLIC HIGH SCHOOLS



# current cigarette smoking

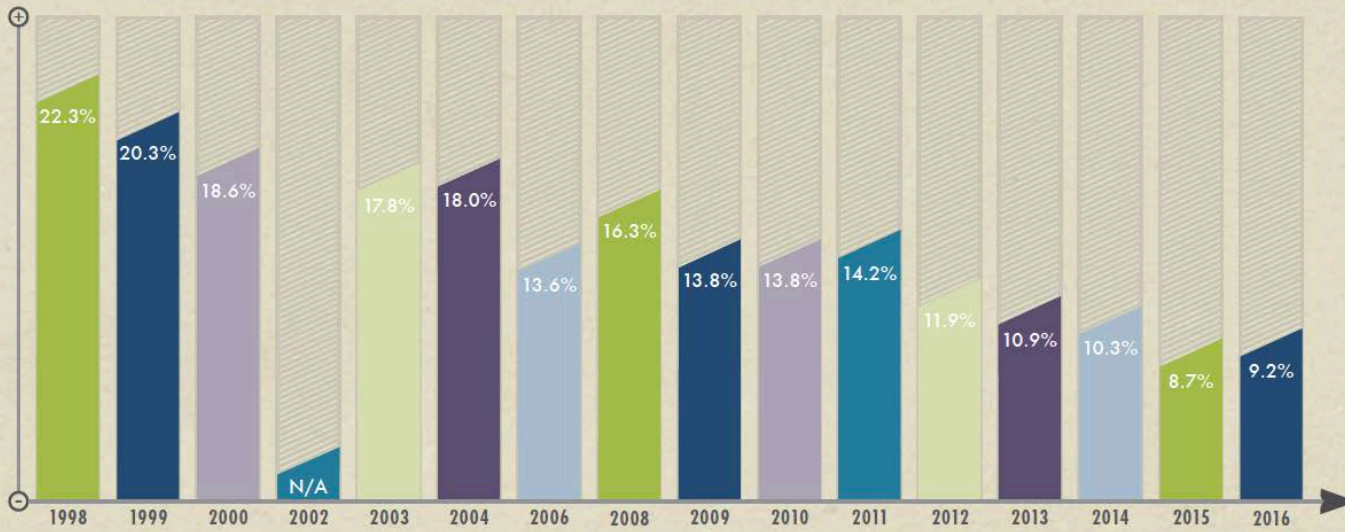
MS PUBLIC MIDDLE SCHOOLS



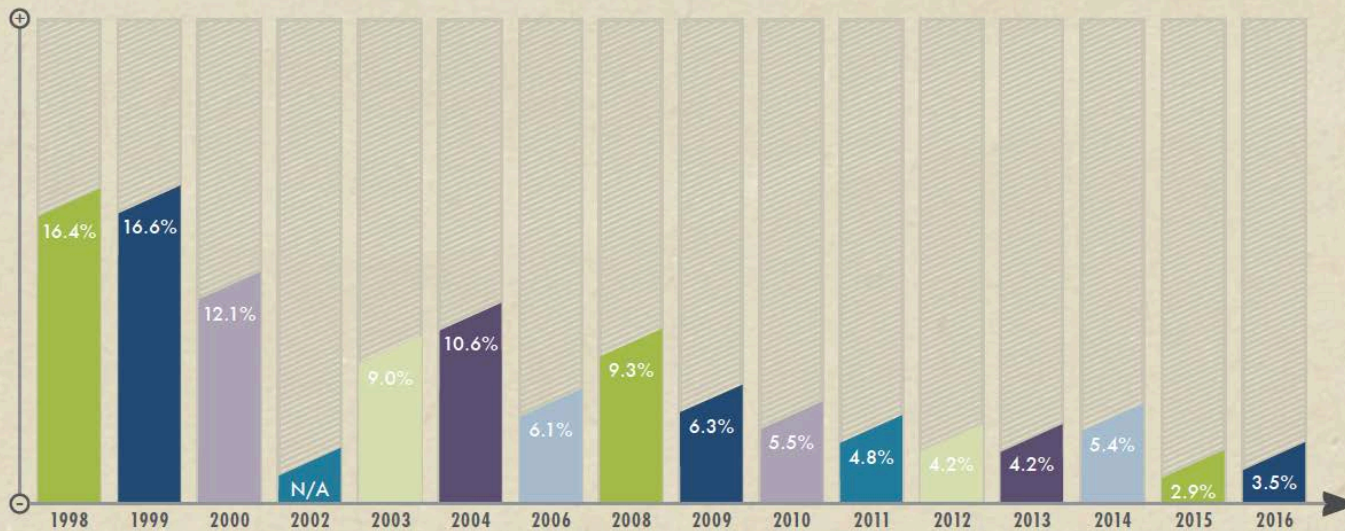
# current cigar smoking

## MISSISSIPPI PUBLIC SCHOOLS

HIGH SCHOOLS



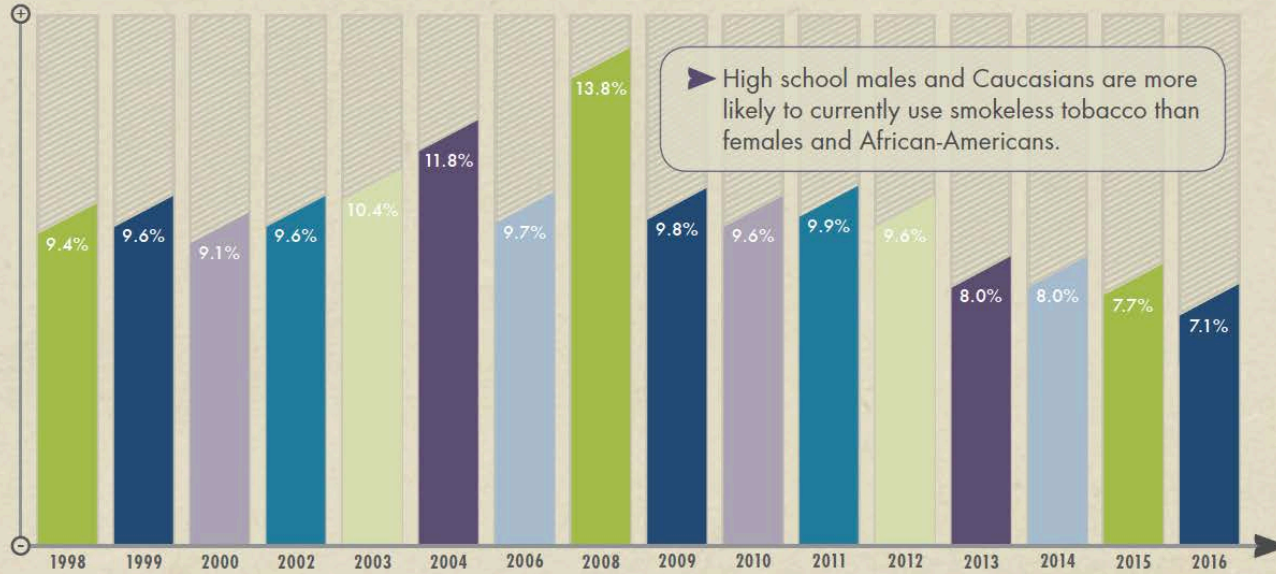
MIDDLE SCHOOLS



# current smokeless tobacco use

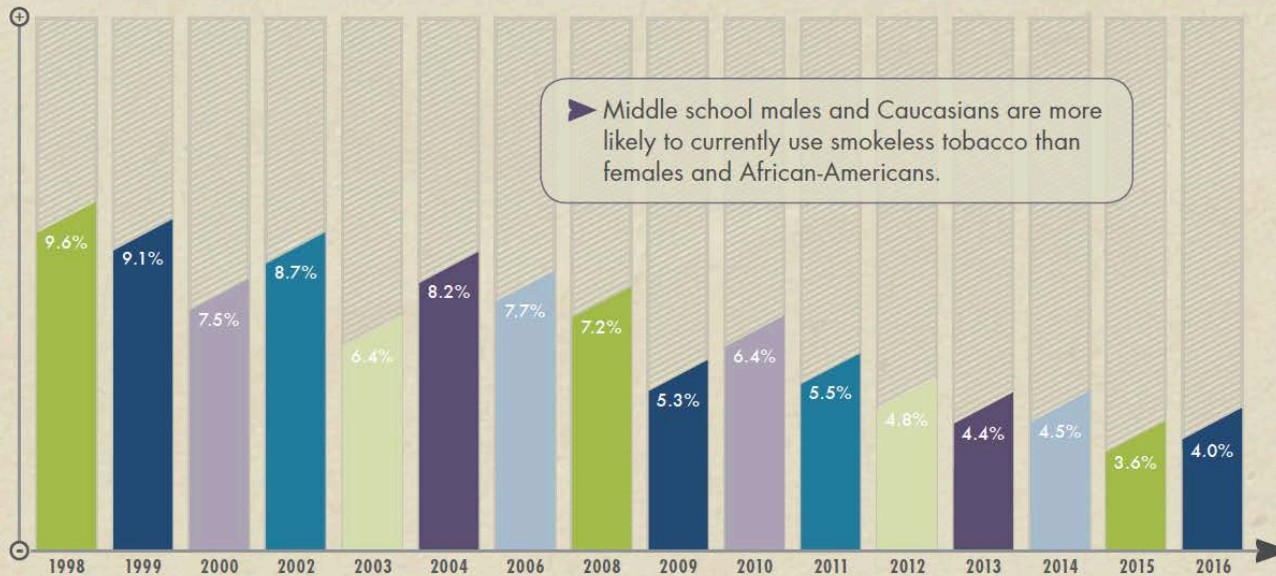
## MISSISSIPPI PUBLIC SCHOOLS

HIGH SCHOOLS



- \* In 2016, *9,536 Mississippi public high school students* were current SLT users.
- \* Since 1998, the prevalence of current SLT use *has not changed significantly*.
- \* In the past year, the prevalence of current SLT use *has not changed significantly*.

MIDDLE SCHOOLS



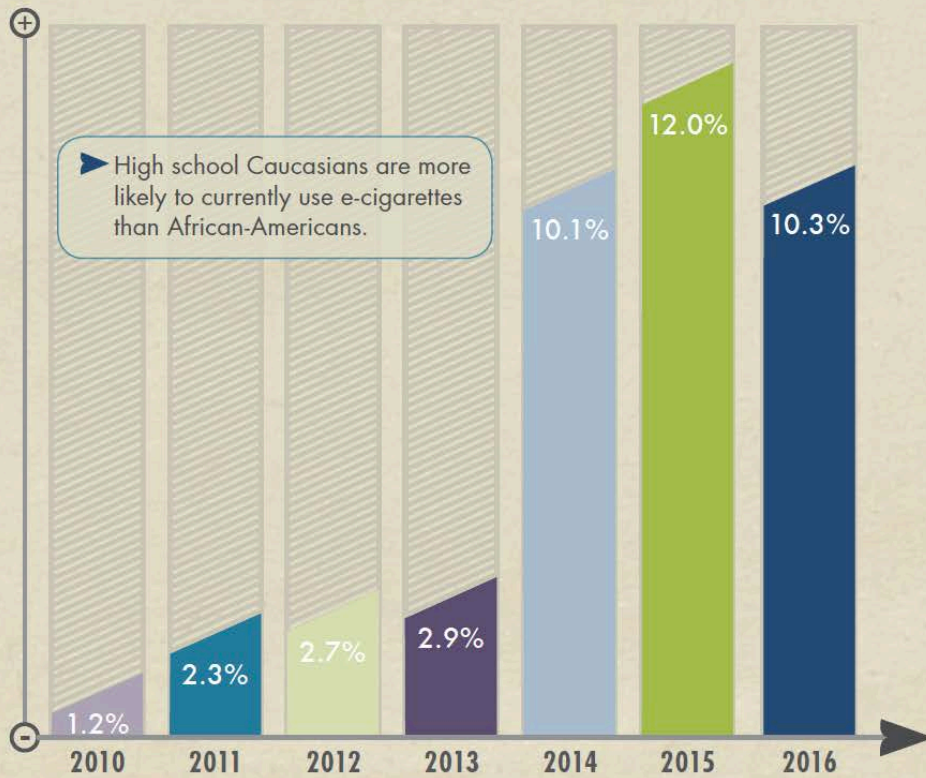
- \* In 2016, *4,286 Mississippi public middle school students* were current SLT users.
- \* The prevalence of current SLT use has *decreased by 58%* since 1998, leading to 6,001 fewer young SLT users.
- \* In the past year, the prevalence of current SLT use *has not changed significantly*.

► Significant Demographic Differences

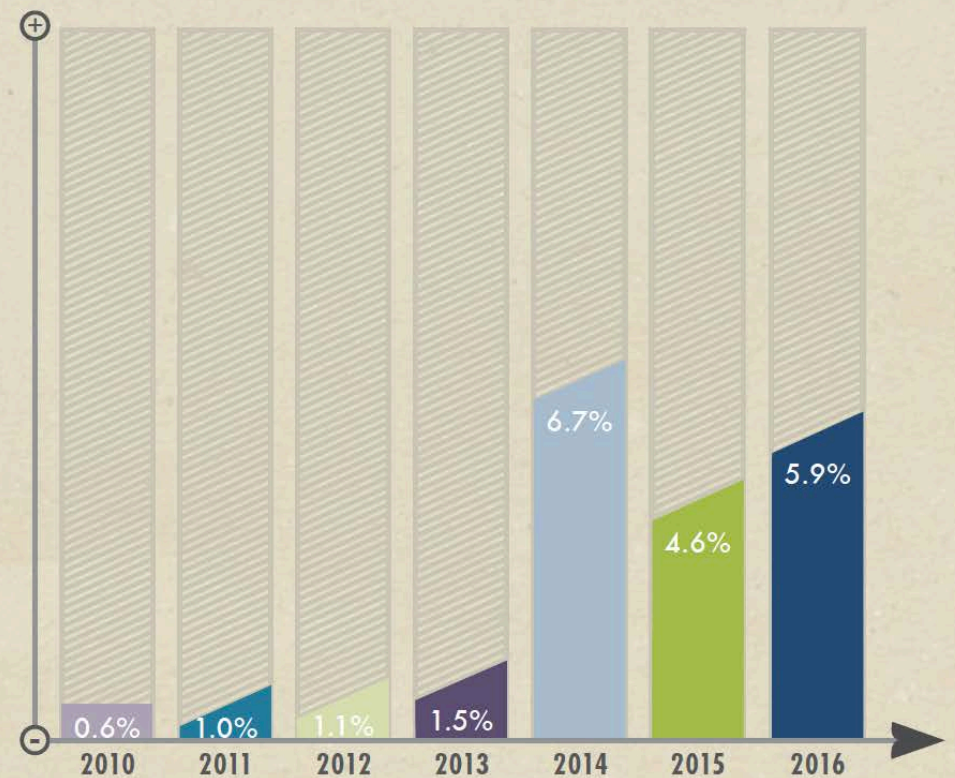
# current electronic cigarette use

## MISSISSIPPI PUBLIC SCHOOLS

### HIGH SCHOOLS {2010-2016}



### MIDDLE SCHOOLS {2010-2016}



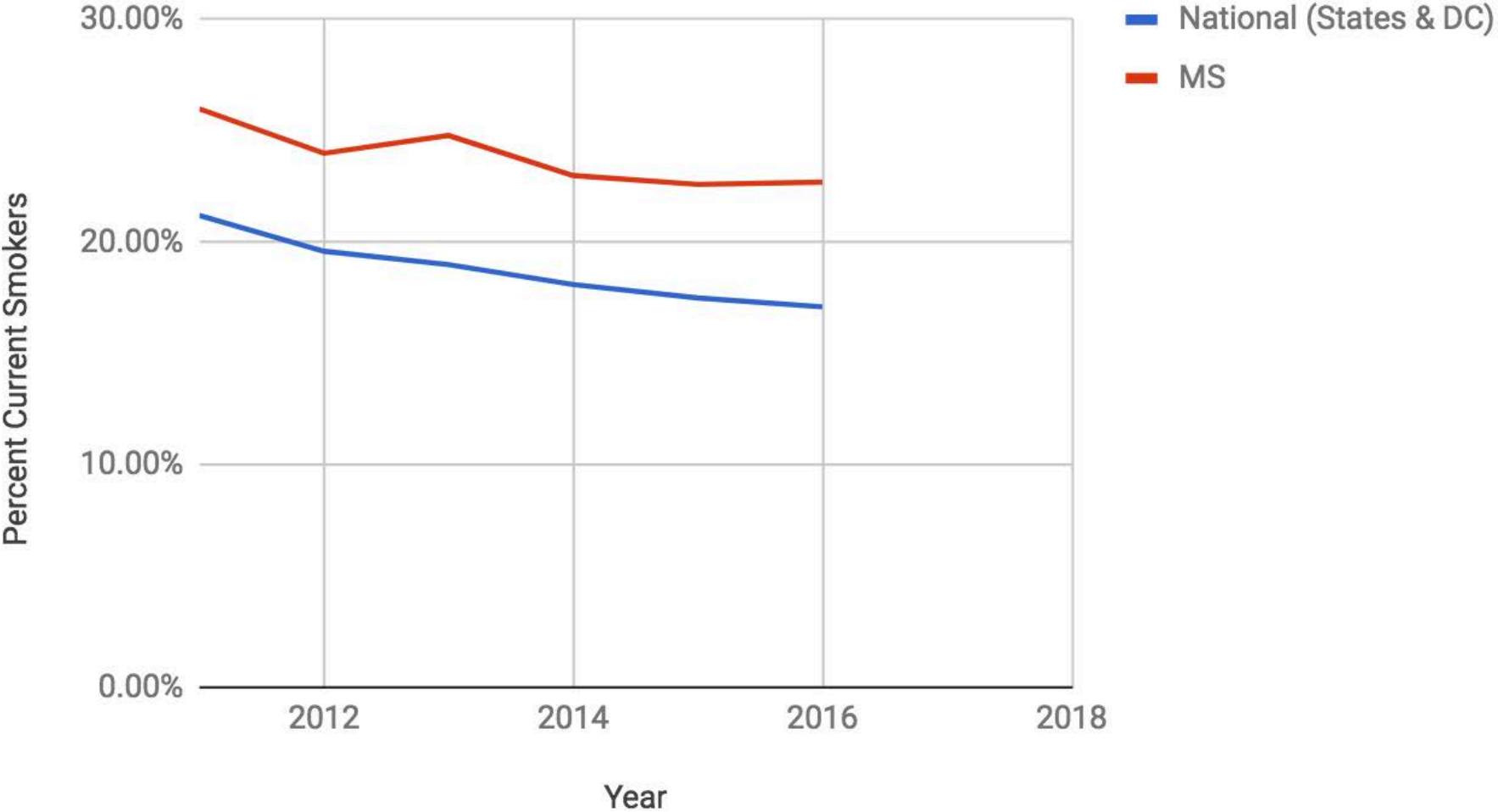
▶ Significant Demographic Differences

# Adult Cigarette Use

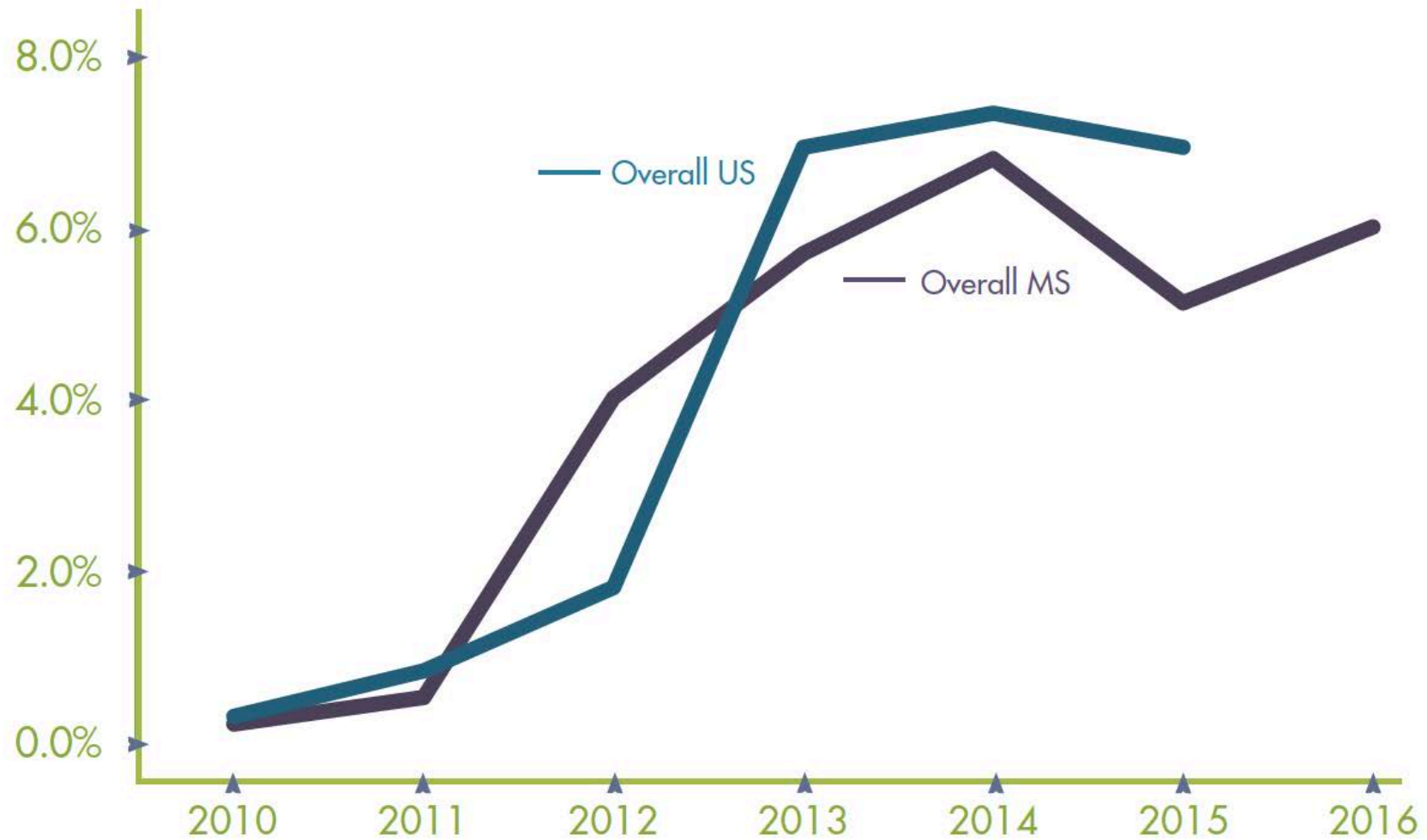
- Per capita consumption, 2016
  - Mississippi ranks 12<sup>th</sup>
  - 59.2 per capita
    - Down from 107.0 in 1998
- Prevalence of current cigarette smoking, Mississippi ranks 5<sup>th</sup>
  - 22.7%
    - Down from 25.9% in 2011



# Current Cigarette Smoking - BRFSS US vs. MS

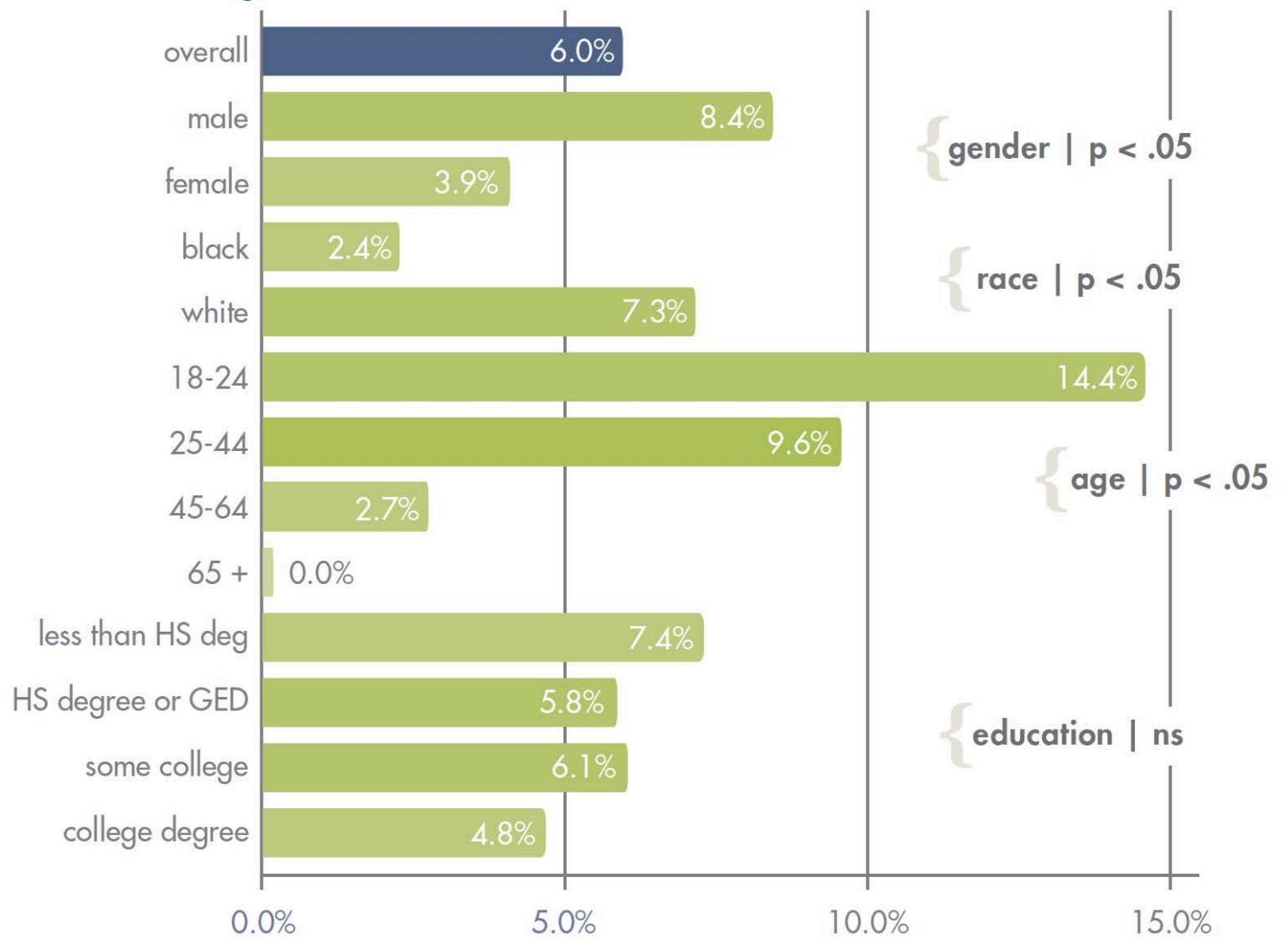


## Current E-Cigarette Use



Sources: *National and Mississippi Social Climate Survey of Tobacco Control*

## current e-cigarette use



Source: 2016 Mississippi Social Climate Survey of Tobacco Control

# Tobacco Control Policies

# Raising <sup>the</sup> age of sale <sup>of</sup> for tobacco **to 21** in mississippi

**75%** of Mississippi Adults support this policy

**21**



Cities and states across the United States have raised or are considering raising the age of purchase for tobacco to 21.

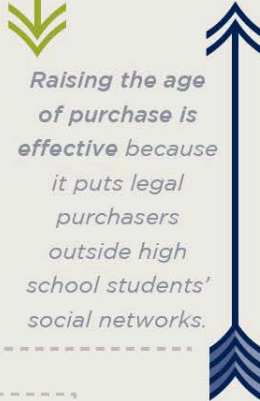
## Public Support among MS Adults {for Raising Age of Purchase to 21}



This study demonstrates broad public support for raising the sales age of tobacco to 21 among Mississippi adults.



*This policy decreases teen smoking by making it harder to get tobacco products for minors.*



*Raising the age of purchase is effective because it puts legal purchasers outside high school students' social networks.*

2017 • mississippi tobacco data

# Tobacco21

(as of 29 Sept 2017)

- 260 municipalities have done this
  - Across 18 states and the District of Columbia
- California
- Hawaii
- Applies to 22% of US population

# State Tobacco Taxes

- Cigarettes
  - \$0.68 per pack, national average is \$1.71, Mississippi ranks 39th
- Cigars: 15% of manufacturer price
- Smokeless Tobacco: 15% of manufacturer price
- E-Cigarettes & Hookah:
  - No tax

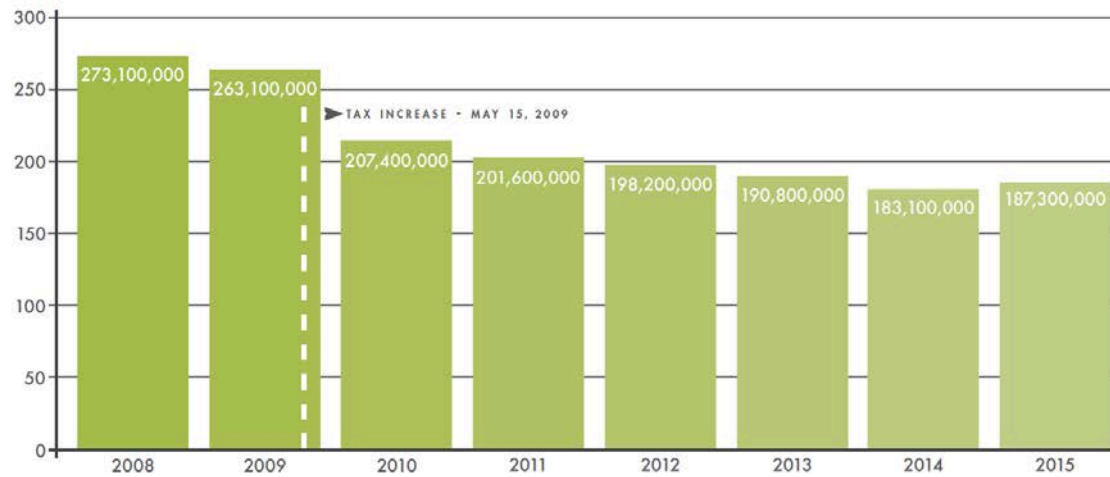
# The Mississippi (Tax) Experience

→ July 2016

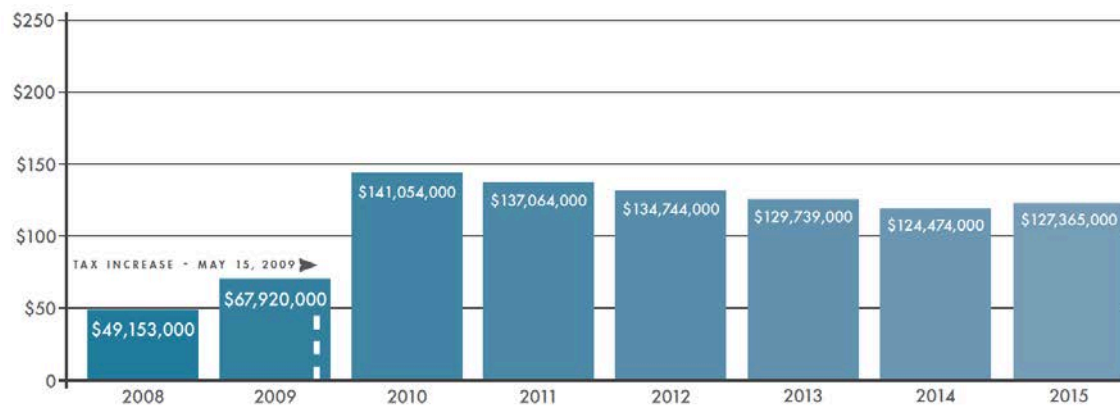
→ The Mississippi Legislature increased the state cigarette tax from 18 cents to 68 cents on May 15, 2009.

→ The average state cigarette tax is currently \$1.63 and Mississippi's tax ranks 39th.

## Packs Sold | 2008-2015



## Revenues Collected | 2008-2015



■ These data from tax records clearly demonstrate that following the 2009 increase in the state cigarette tax, the number of packs of cigarettes sold in Mississippi decreased by more than 30%, while tax revenue from cigarette sales almost tripled.



# What if Mississippi Raised the State Cigarette Tax by \$1.50?

- \$166.8 million in new revenue
- 4,700 fewer young adult smokers
- 26,500 adult smokers would quit
- \$33.8 million in new revenue if the state also raised other tobacco product tax rates to parallel new levels

# 100% Smoke-free COMMUNITIES in Mississippi

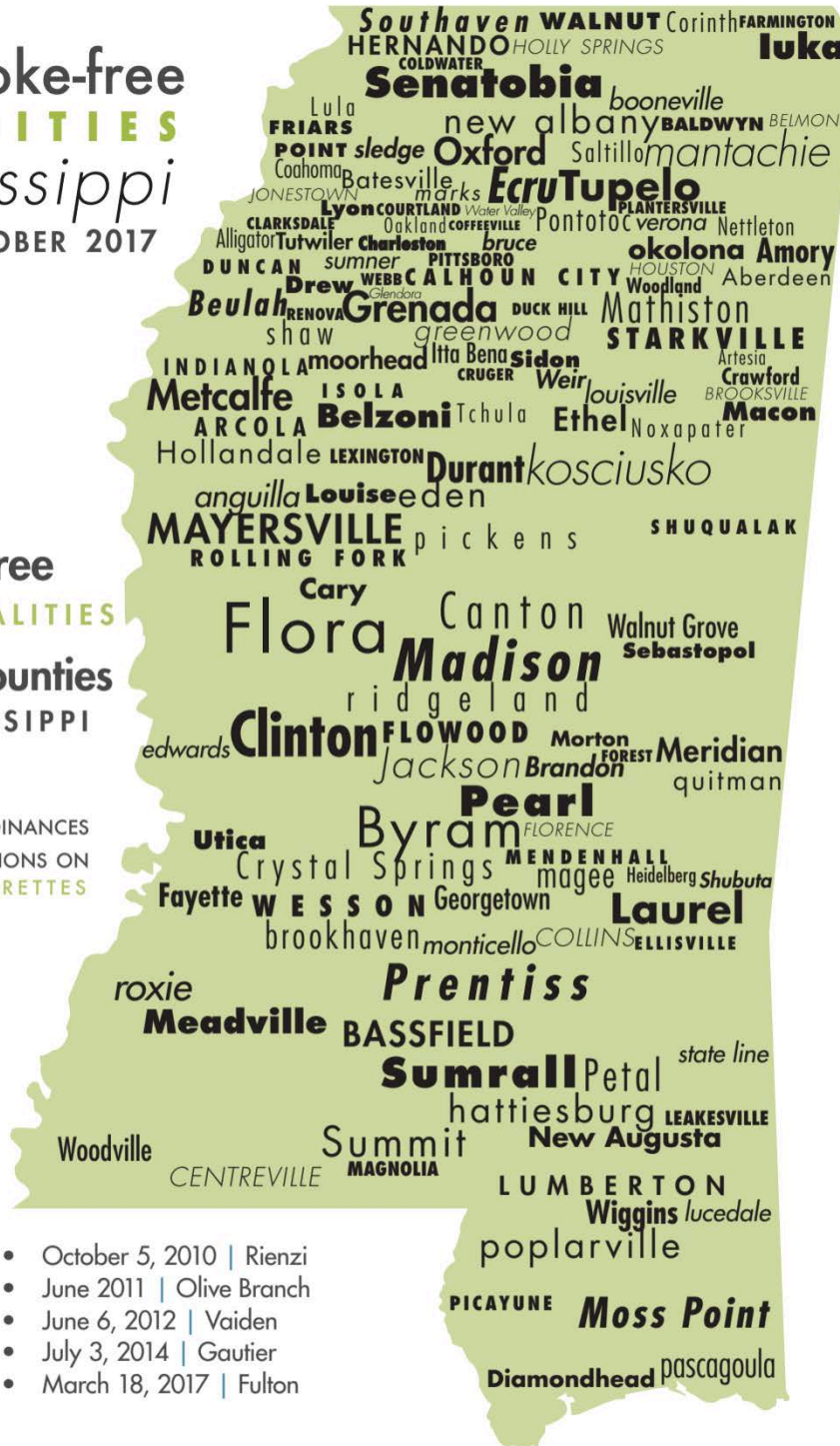
UPDATED | OCTOBER 2017

There Are **143** Smoke-Free MUNICIPALITIES  
and **(3)** Smoke-Free Counties  
IN MISSISSIPPI

\*103 OF WHICH HAVE ORDINANCES  
THAT INCLUDE RESTRICTIONS ON  
ELECTRONIC CIGARETTES

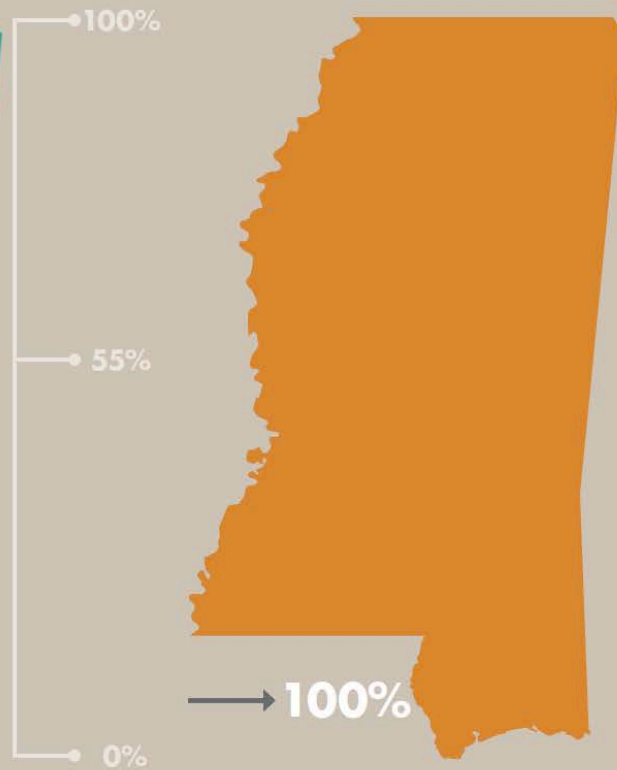
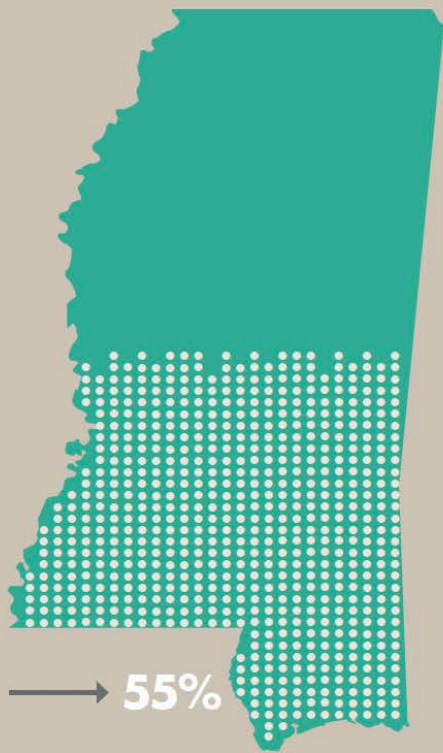
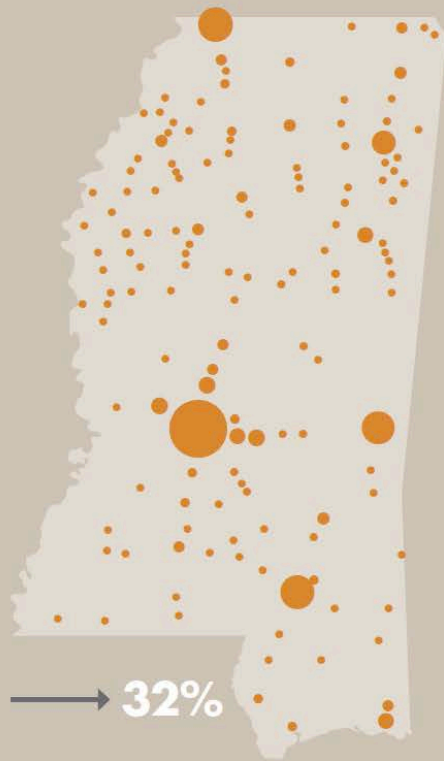
## Partial Smoke-free COMMUNITIES in Mississippi

- August 6, 1996 | West
- October 2007 | Greenville
- November 15, 2007 | McComb
- May 1, 2008 | Gulfport
- July 31, 2008 | Walls
- January 6, 2010 | Columbus
- June 3, 2010 | Goodman
- October 5, 2010 | Rienzi
- June 2011 | Olive Branch
- June 6, 2012 | Vaiden
- July 3, 2014 | Gautier
- March 18, 2017 | Fulton



# A PATH → TO 100% PROTECTED

← July 2017



As of July 1, 2017, 138 municipalities in Mississippi have implemented comprehensive, smoke-free ordinances. These ordinances **protect 32%** of Mississippi.

If every Mississippi municipality passed a comprehensive smoke-free ordinance, **only 55%** of Mississippians would be protected. The rest live in rural areas outside of municipalities.

The only way to protect all Mississippians is to pass a **state-wide comprehensive smoke-free law.**



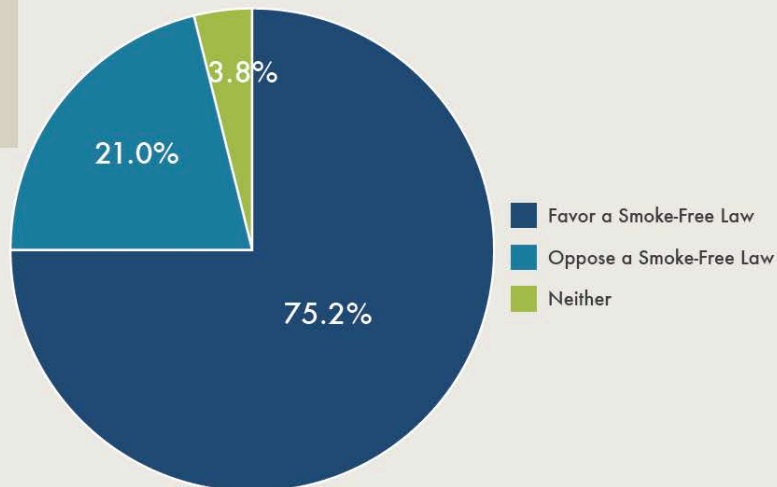
# 2016 Mississippi Social Climate Survey of Tobacco Control

SUPPORT FOR SMOKEFREE AIR | MARCH 2017

Results from the most recent Social Climate Survey demonstrate **strong support** for smoke-free air in Mississippi.

- More than three-quarters of Mississippi adults (75.2%) favor a state law prohibiting smoking in most indoor places, including workplaces, public buildings, offices, restaurants, & bars.
- Only 21.0% of Mississippi adults oppose a state law.
- 52.1% of smokers support a state law compared to only 42.9% who are opposed.
- Republicans (79.5%) and Democrats (75.5%) are equally supportive of a state law.

Would you favor or oppose a law in Mississippi prohibiting smoking in most public places, including workplaces, offices, restaurants, and bars?



2017 • mississippi tobacco data

# Hospital Admissions, 2013-2016

## Principal Diagnosis

### Tobacco Related Diseases

- Acute Coronary  
Events
- Stroke
- Asthma
- COPD
- Pneumonia

### Control Diseases

- Appendicitis
- Bowel  
Obstruction
- Acute  
Cholecystitis

# Analyses

- Unit of analysis: County
- Predictor Variable: Does the county seat have a smoke-free ordinance?
- Outcome Variable: Rate of hospital admissions per 10,000 county residents

# Hospital Admissions, 2016

## Tobacco Related Admissions

- 173.1 per 10,000 adults in counties without a smoke-free ordinance in the county seat
- 151.2 per 10,000 adults in counties with a smoke-free ordinance in the county seat,  $p=.05$

# Control Variables

- Percent of county that has health insurance, ns
- Percent of county adults who smoke cigarettes, ns
- Ratio of primary care providers, ns
- Percent of county residents who graduated college,  $p < .05$
- Median income,  $p < .05$
- Percent of the county that is African American, ns



# Hospital Admissions, 2013-2016

## Control Admissions

- 17.9 per 10,000 adults in counties without a smoke-free ordinance in the county seat
- 16.4 per 10,000 adults in counties with a smoke-free ordinance in the county seat, ns

# Control Variables

- Percent of county that has health insurance, ns
- Percent of county adults who smoke cigarettes, ns
- Ratio of primary care providers, ns
- Percent of county residents who graduated college,  $p < .05$
- Median income, ns
- Percent of the county that is African American, ns

# Emerging Issues

- E-cigarette regulations (or lack thereof)
- Heat-not-burn products

# eCigs, Vapes, ENDS, & ANDS



# Advanced Personal Vaporizers





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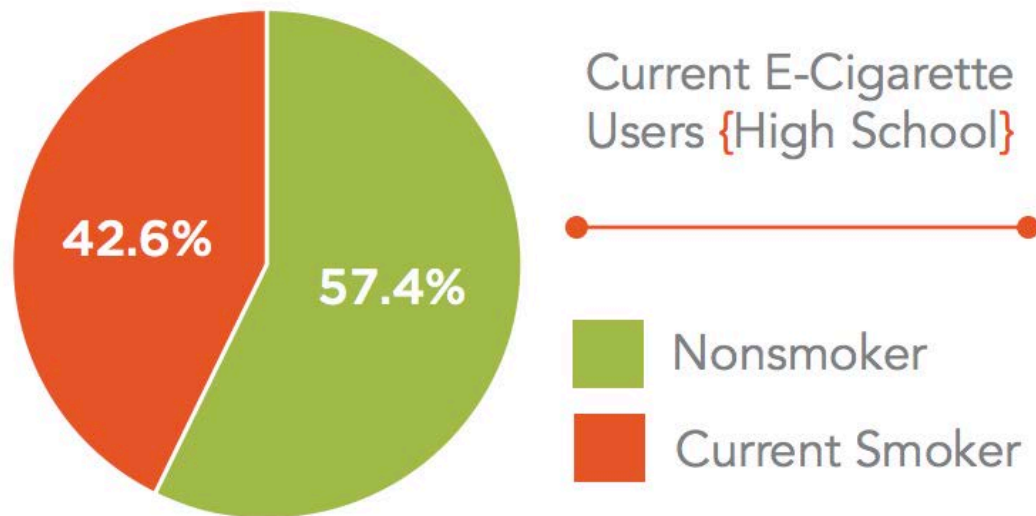






# mississippi youth and e-cigarettes

{August 2016}



# Association Between Initial Use of e-Cigarettes and Subsequent Cigarette Smoking Among Adolescents and Young Adults

## JAMA Pediatrics (Soneji et al, 2017)

- Odds ratio for subsequent cigarette smoking initiation was 3.62 (95% CI, 2.42-5.41) for ever vs never e-cigarette users
- Odds ratio for past 30-day cigarette smoking at follow-up was 4.28 (95% CI, 2.52-7.27) for past 30-day e-cigarette vs non-past 30-day e-cigarette users at baseline

# IQOS IQOS

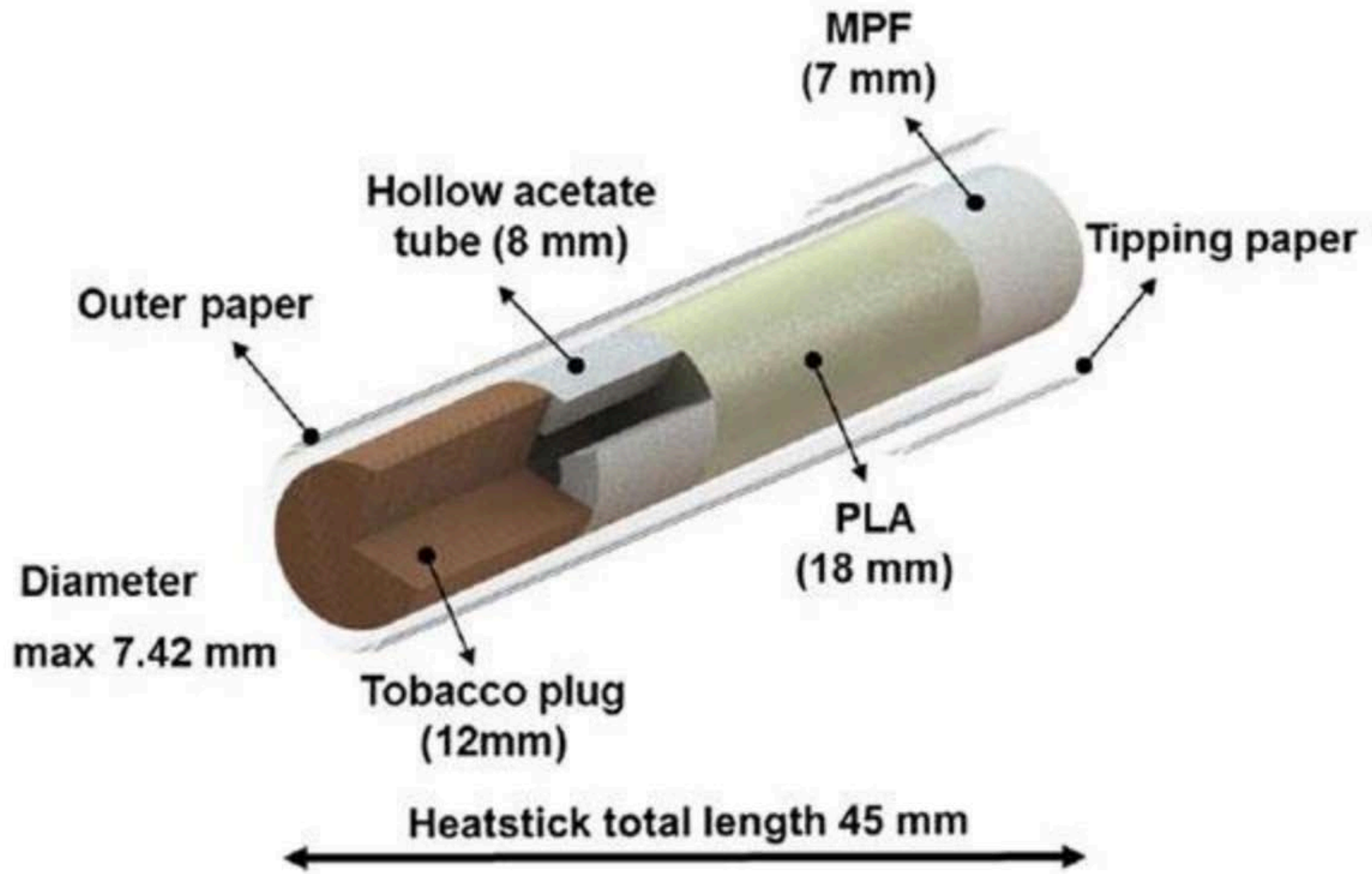
THIS CHANGES EVERYTHING

*heat not burn technology.*



  
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TOBACCO DATA





**Figure 3** Cross Section of a Tobacco Stick

HELLO

NO FIRE, NO ASH



CLEAN

LESS LINGERING SMELL

IQOS

THIS CHANGES EVERYTHING

H E A L T H   W A R N I N G   T O   B E   P L A C E D   H E R E

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# For More Information

- Visit [mstobacodata.org](http://mstobacodata.org)