



Data Interpretation of State Surveillance Systems/ Veterans Data:

The Role of Public Health Surveillance in Tobacco and Cannabis Monitoring and Program Development

Nikardi Hynes, MPH

October 23, 2025

Mission and Vision

Mission

The mission of the Prevention and Health Promotion Administration is to protect, promote and improve the health and well-being of all Marylanders.

Vision

The Prevention and Health Promotion Administration envisions a future in which all Marylanders have equitable opportunities to live, thrive, and be healthy.

Public Health Surveillance Awareness

- Who thinks public health surveillance is mainly about tracking diseases?
- Who thinks it also includes monitoring health behaviors, like tobacco use?
- Has your work ever used public health surveillance data—for example, from surveys, reports, or dashboards?
- Have you ever seen a campaign, program, or policy that seemed to be based on public health data?



Presentation Overview

01. OVERVIEW OF PUBLIC HEALTH SURVEILLANCE
02. KEY FINDINGS #1: MARYLAND BRFSS
03. KEY FINDINGS #2: MARYLAND YRBS/YTS
04. KEY FINDINGS #3: VETERANS ETHNOGRAPHY STUDY
05. DATA USE, FINAL THOUGHTS, AND RESOURCES

Overview of State Surveillance Systems

What is Public Health Surveillance?

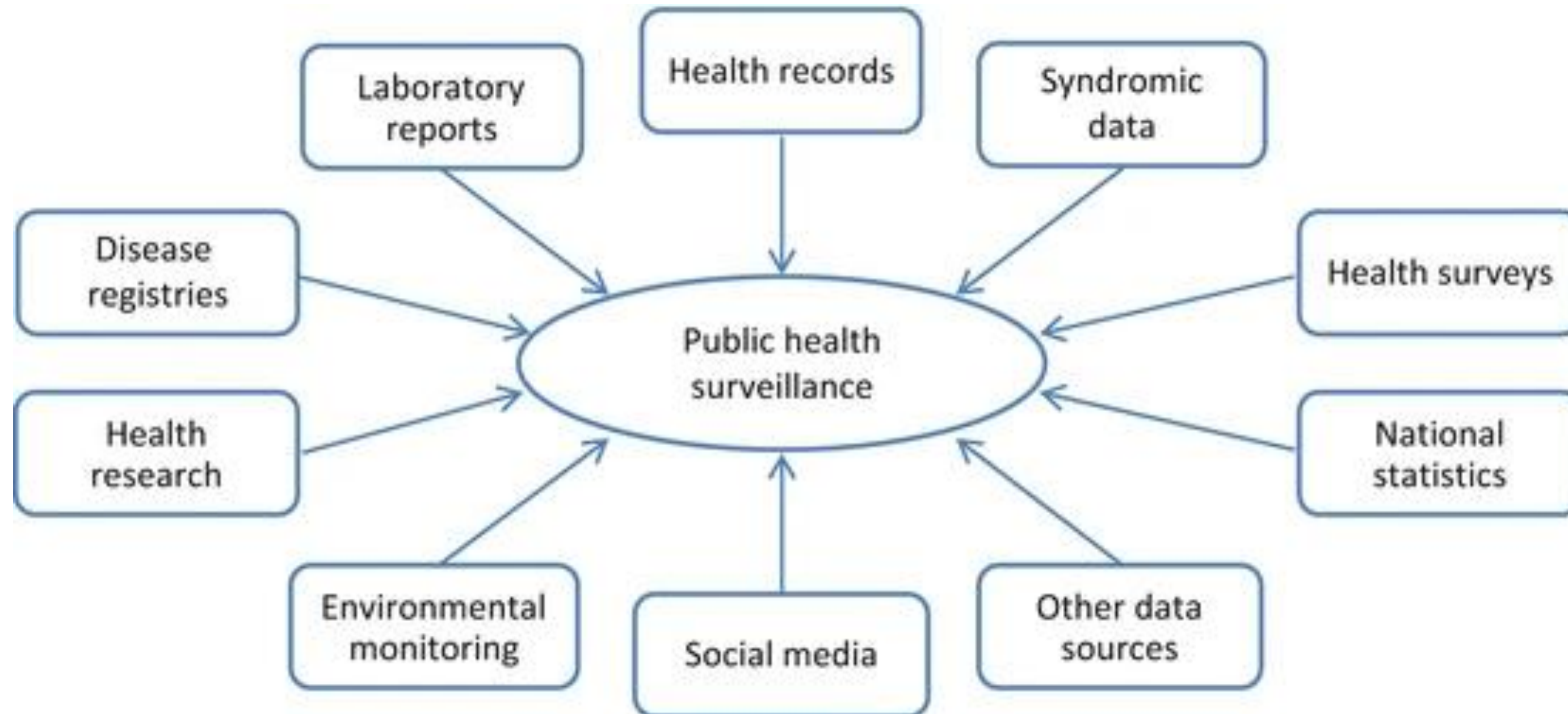
Public health surveillance is the ongoing collection, analysis, and interpretation of health data. It plays a critical role in guiding planning, action, and evaluation within public health. The information gathered is shared quickly with those who need it to make timely and effective decisions.

- Person: age, sex, race/ethnicity, other characteristics
- Place: where events occur
- Time: when events occur (days, months, years)

Why Conduct Public Health Surveillance?

- Track trends in health behaviors and practices
- Measure the scope of health problems
- Detect outbreaks and emerging health issues
- Understand how diseases and other poor health factors develop and progress
- Identify and address disparities geographically and by subpopulations
- Provide data to guide research
- Support efforts to advance health equity

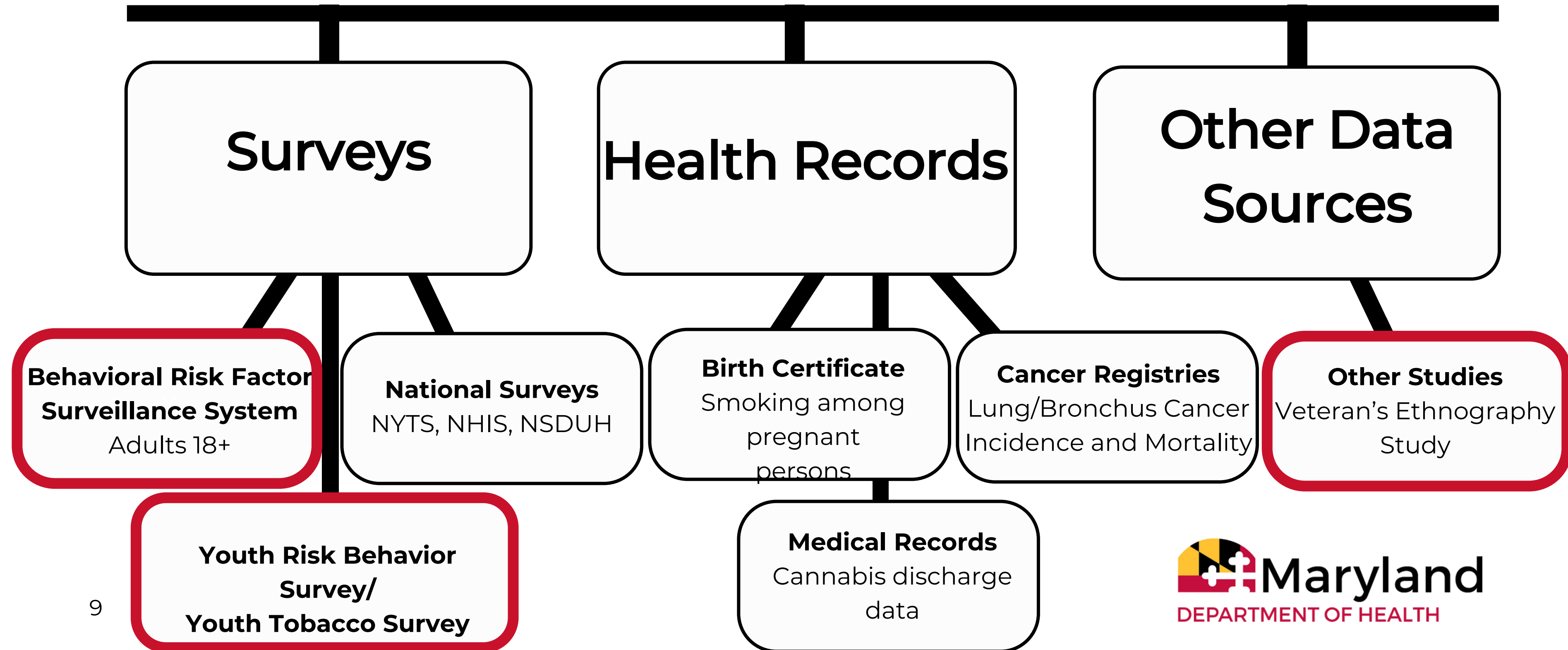
Types of Public Health Surveillance



Conceptual framework for public health surveillance

Gilbert, R., Cliffe, S.J. (2016). Public Health Surveillance. In: Regmi, K., Gee, I. (eds) Public Health Intelligence. Springer, Cham. https://doi.org/10.1007/978-3-319-28326-5_5

Tobacco Surveillance at CTPC



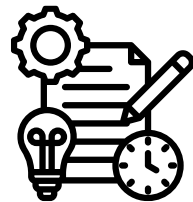
Key findings:

Statewide Behavioral Risk Factor Surveillance System
(BRFSS)

About the BRFSS



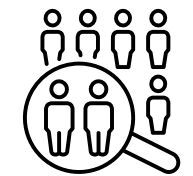
Purpose: Annual survey on adult behaviors and chronic conditions



Method: Household & cellphone interviews



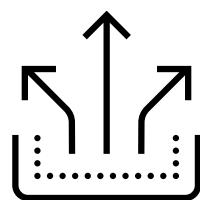
Population: Adults 18+ (non-institutionalized)



Sample Size: ~15,000 participants/year

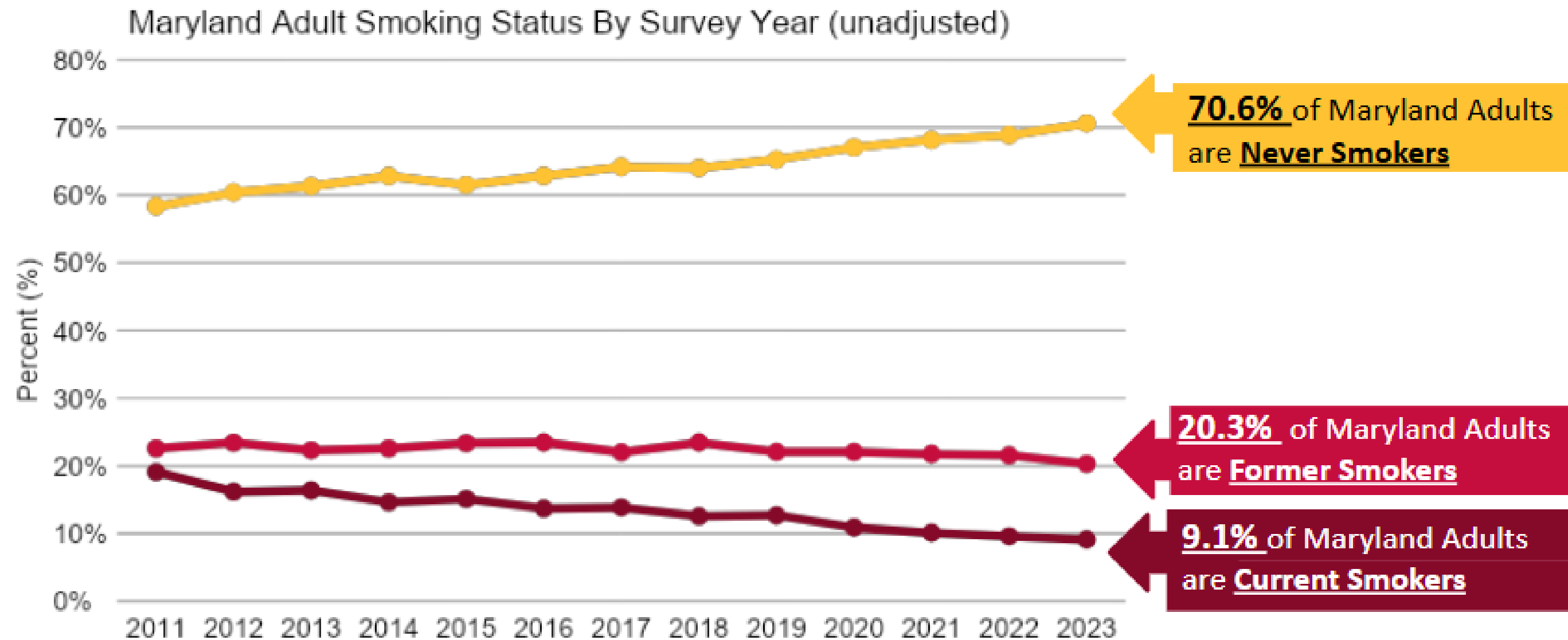


Content: Core + state-added modules

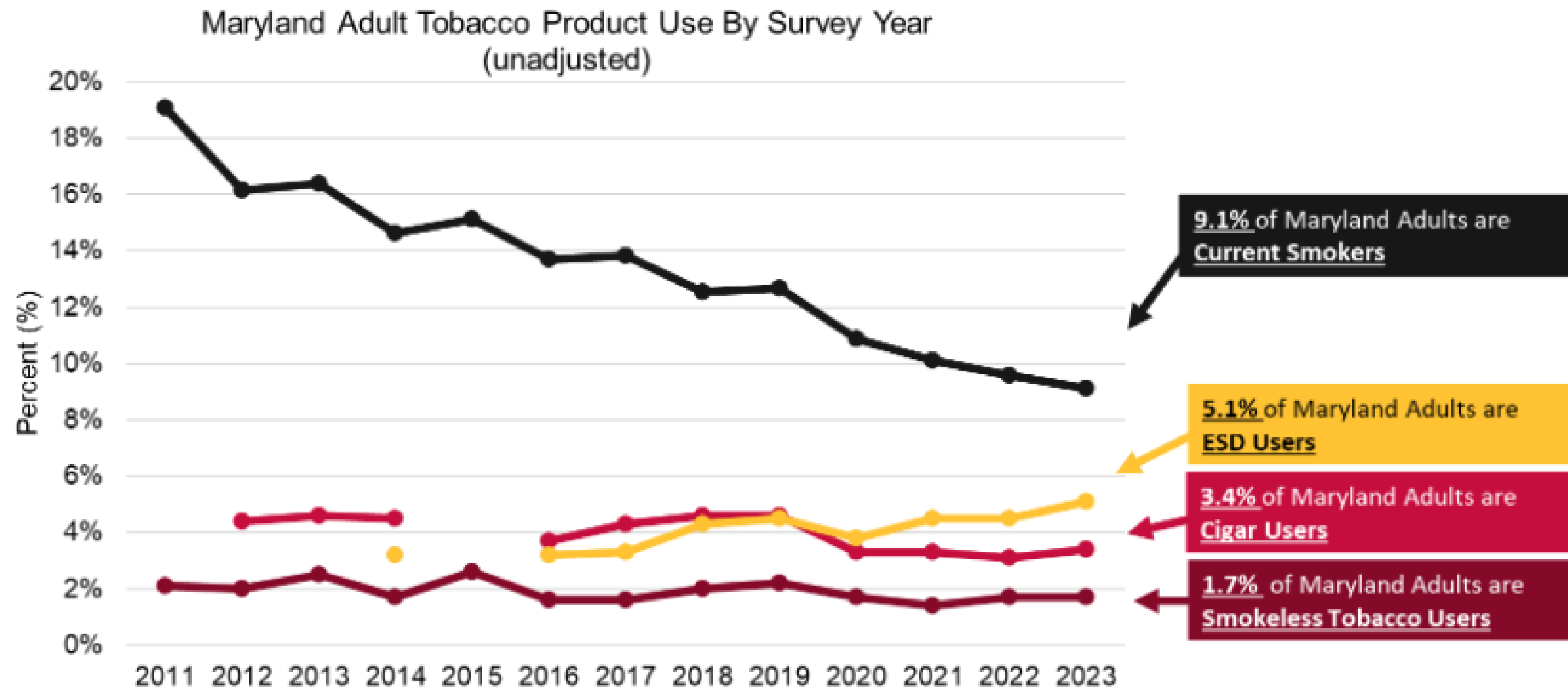


Outputs: Data on chronic conditions, risk factors, and preventive service use

Smoking Status Trends



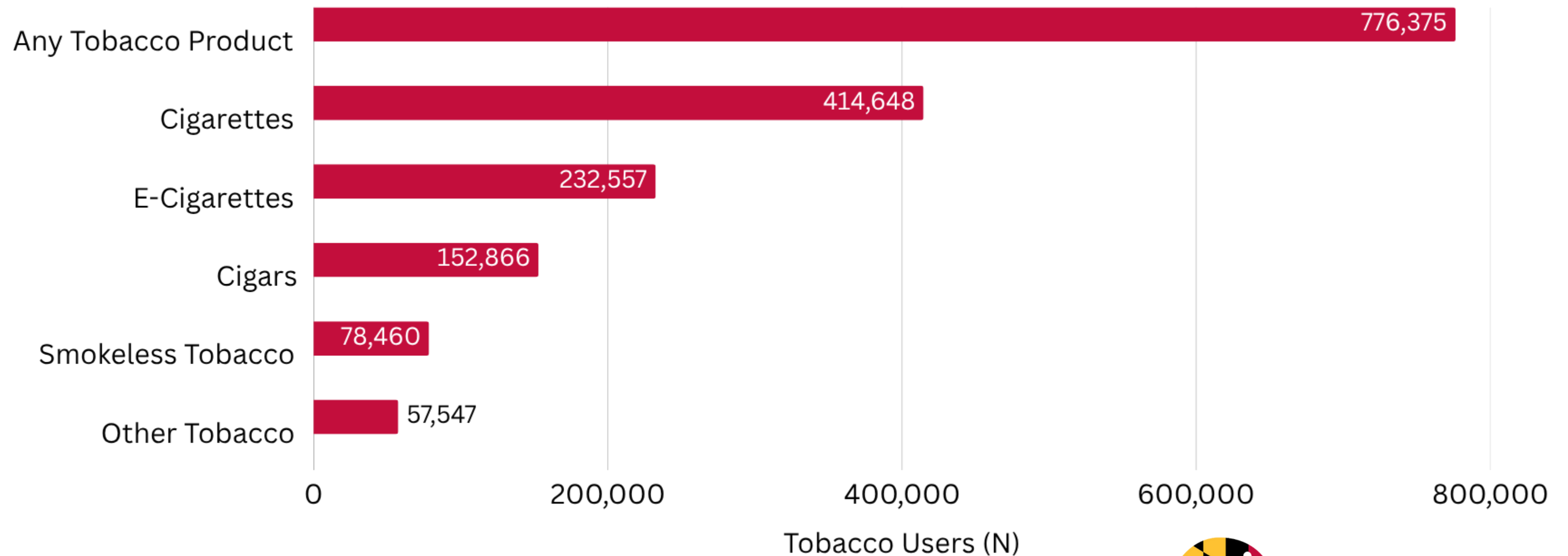
Tobacco Product Use Trends



Sneak Peak: 2024 Data!

- Cigarette Users: 7.8%
- ESD Users: 5.1%
- Cigar Users: 3.9%
- Smokeless Users: 1.6%

Number of Maryland Adults Who Currently Use a Tobacco Product



Source: 2023 Maryland
BRFSS

Maryland Adult Tobacco Disparities



Disability:
1.8X More
Likely



High school vs. College
Grad:
3X More Likely



Diagnosed Depressive
Disorder:
1.7X More Likely



>\$25,000 vs.
\$100,000:
2.2X More Likely



Rural vs. Large
Metro:
1.3X More Likely



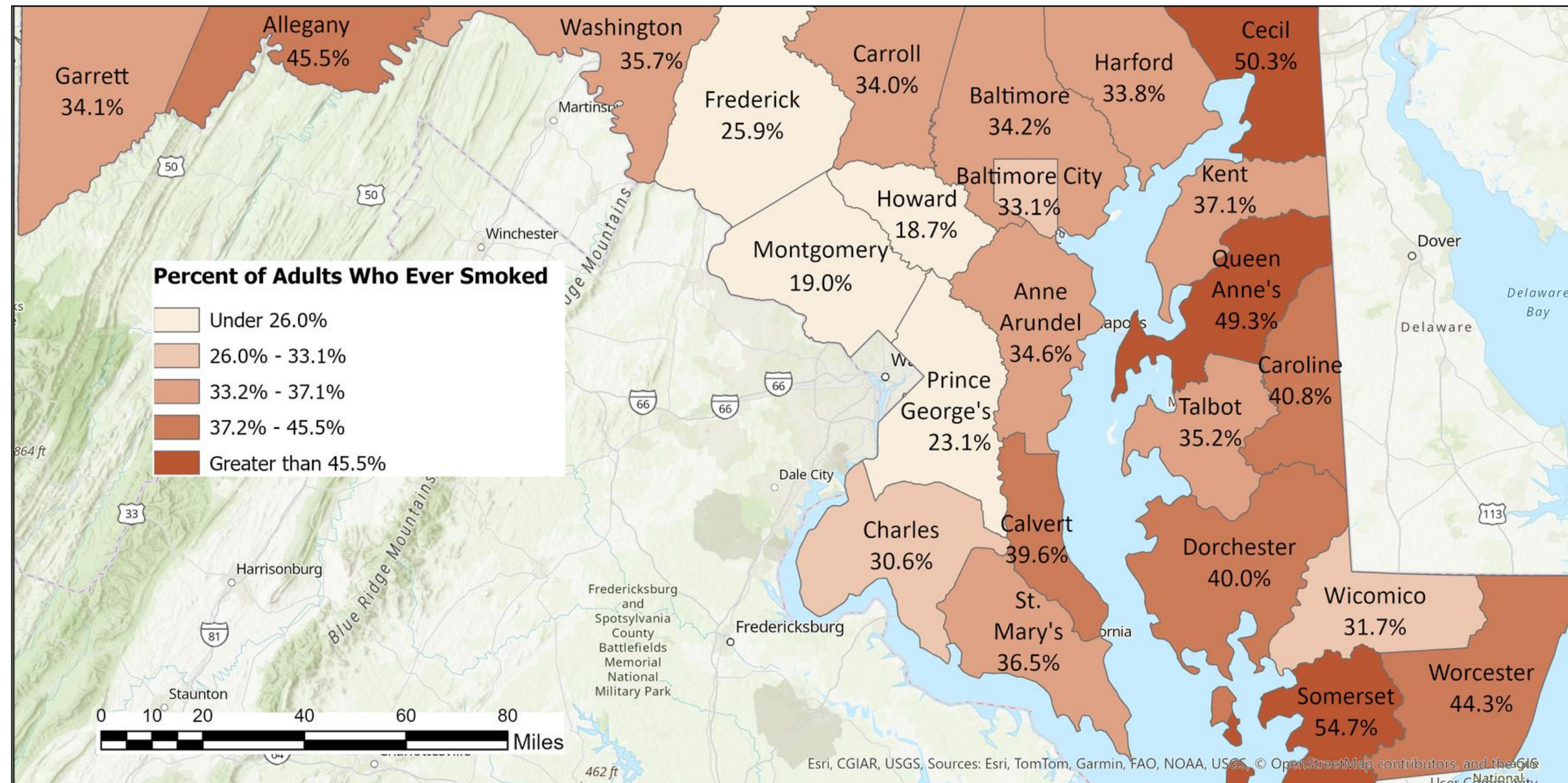
LGBTQ+:
1.4X More
Likely



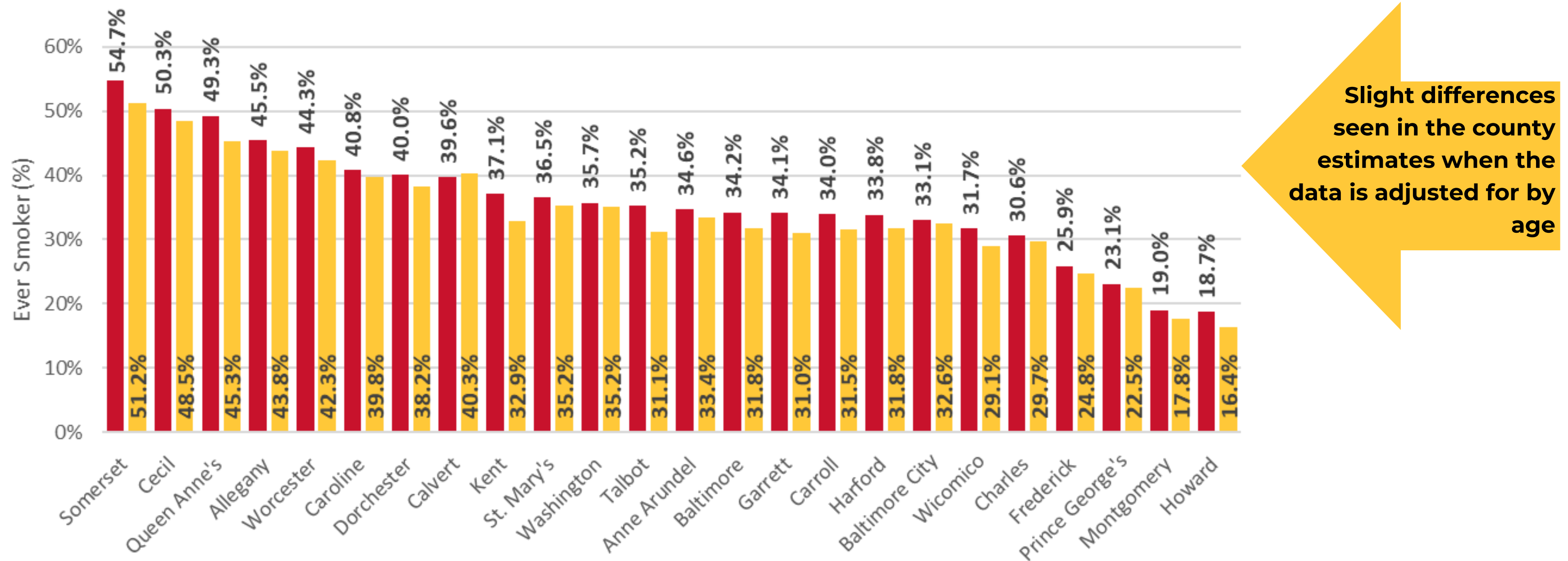
3+ ACEs vs. Zero
ACEs:
2.2X More Likely

**TO CURRENTLY USE TOBACCO
PRODUCTS**

Jurisdiction-Level Data



Age Adjustments on the BRFSS

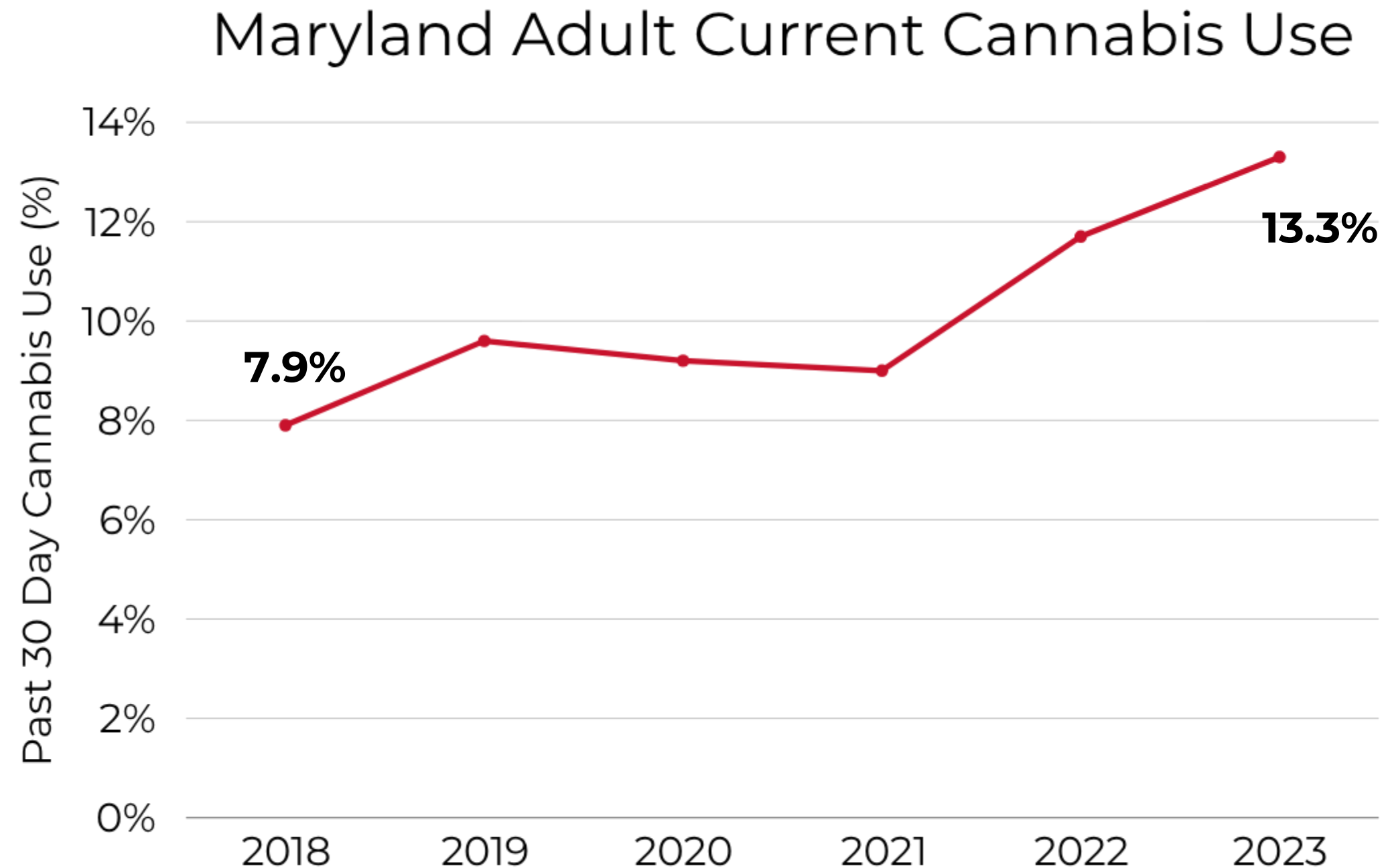


Source: 2023 Maryland BRFSS

■ Crude ■ Age Adjusted

Age adjustment is a method used in the BRFSS to make fair comparisons between groups with different age ranges. It helps remove age as a reason for differences in health outcomes when comparing geographies or looking at changes over time.

Maryland Adult Cannabis Use Trends



Cannabis Use among Maryland adults has increased 68% from **340,498** to **559,778** people between 2018 and 2023.

Sneak Peak: 2024 Data!
14.5% (608,751) Maryland Adults currently use cannabis

Maryland Adult Cannabis Disparities



Disability:
1.5X More Likely



**High school vs. College
Grad:**
1.8X More Likely



**Diagnosed Depressive
Disorder:**
2.5X More Likely



**Current Tobacco
User:**
3.7X More Likely



LGBTQ+:
2.6X More Likely



3+ ACEs vs. Zero ACEs:
3.7X More Likely

**TO CURRENTLY USE
CANNABIS**

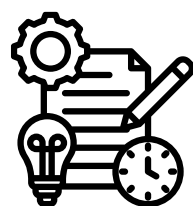
Key findings:

Statewide Youth Risk Behavior Survey/Youth Tobacco Survey
(YRBS/YTS)

About the YRBS/YTS



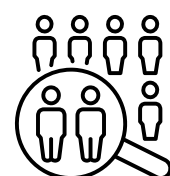
Purpose: Biennial public health surveys on risk behaviors in public schools



Method: Managed by the Maryland Department of Health and the State Department of Education w/ survey contractor in classrooms



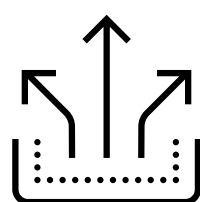
Population: Middle and High School Students



Sample Size: ~60,000

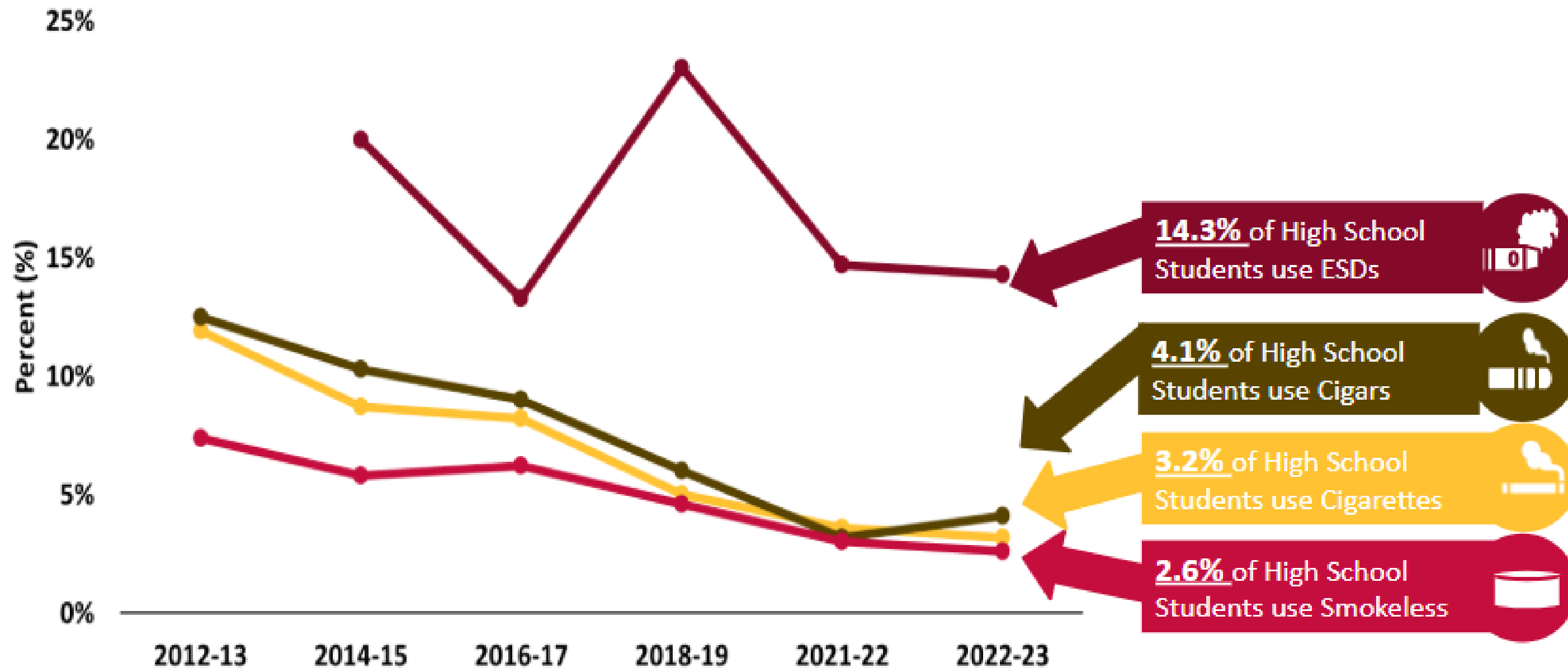


Content: $\frac{2}{3}$ of the standard survey and state-added questions

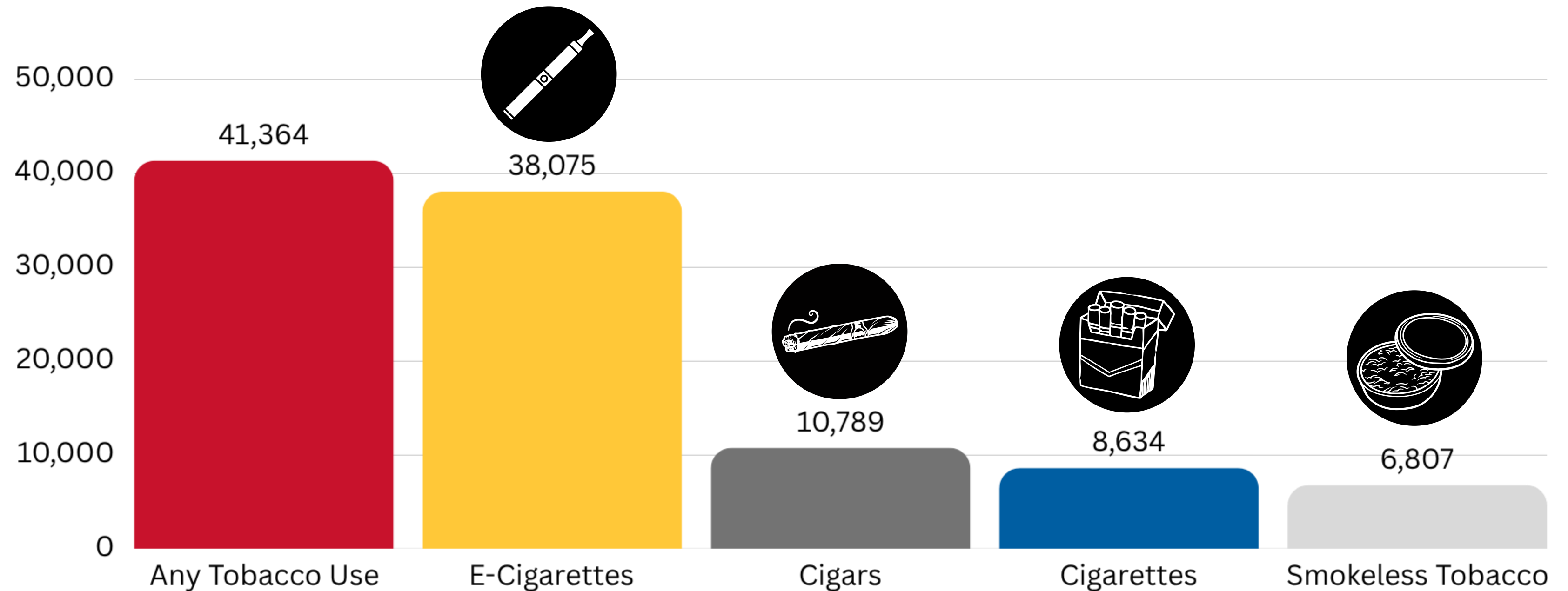


Output: Data on risk behaviors including mental health, injury and violence, tobacco use, other substance use, nutrition, sexual health, injury, and violence

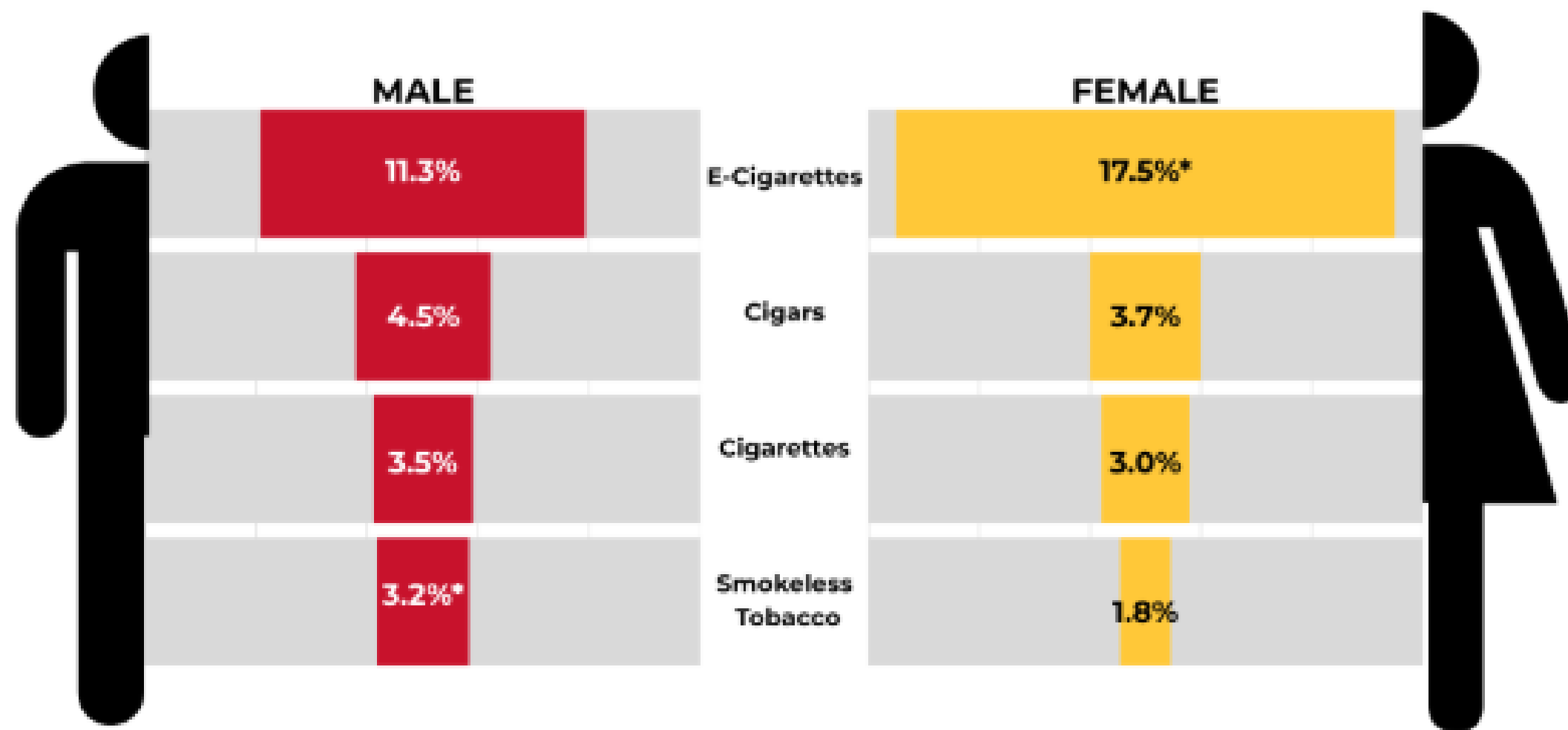
Tobacco Product Use Trends



Number of Tobacco Product Users

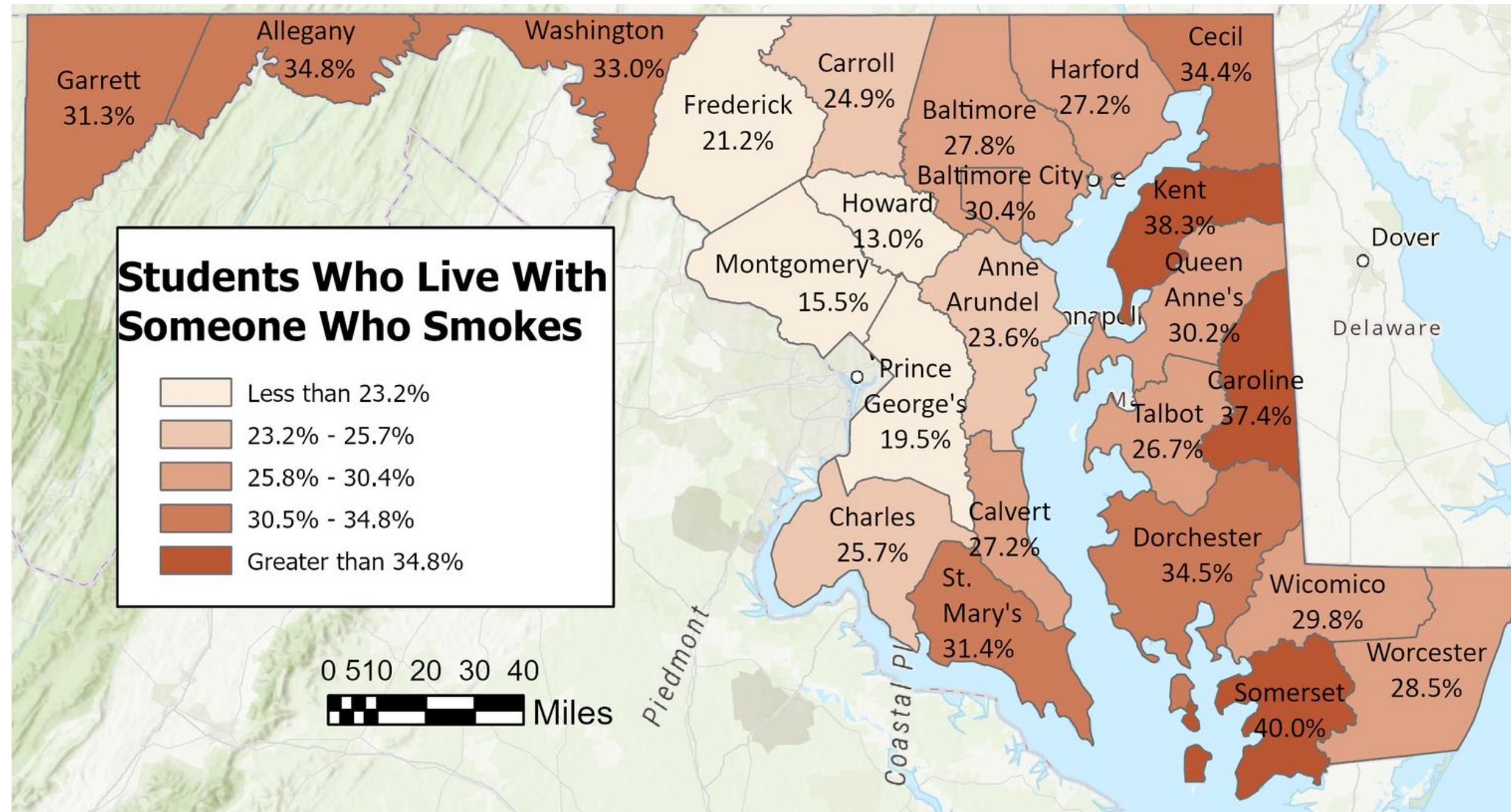


Tobacco Use by Sex

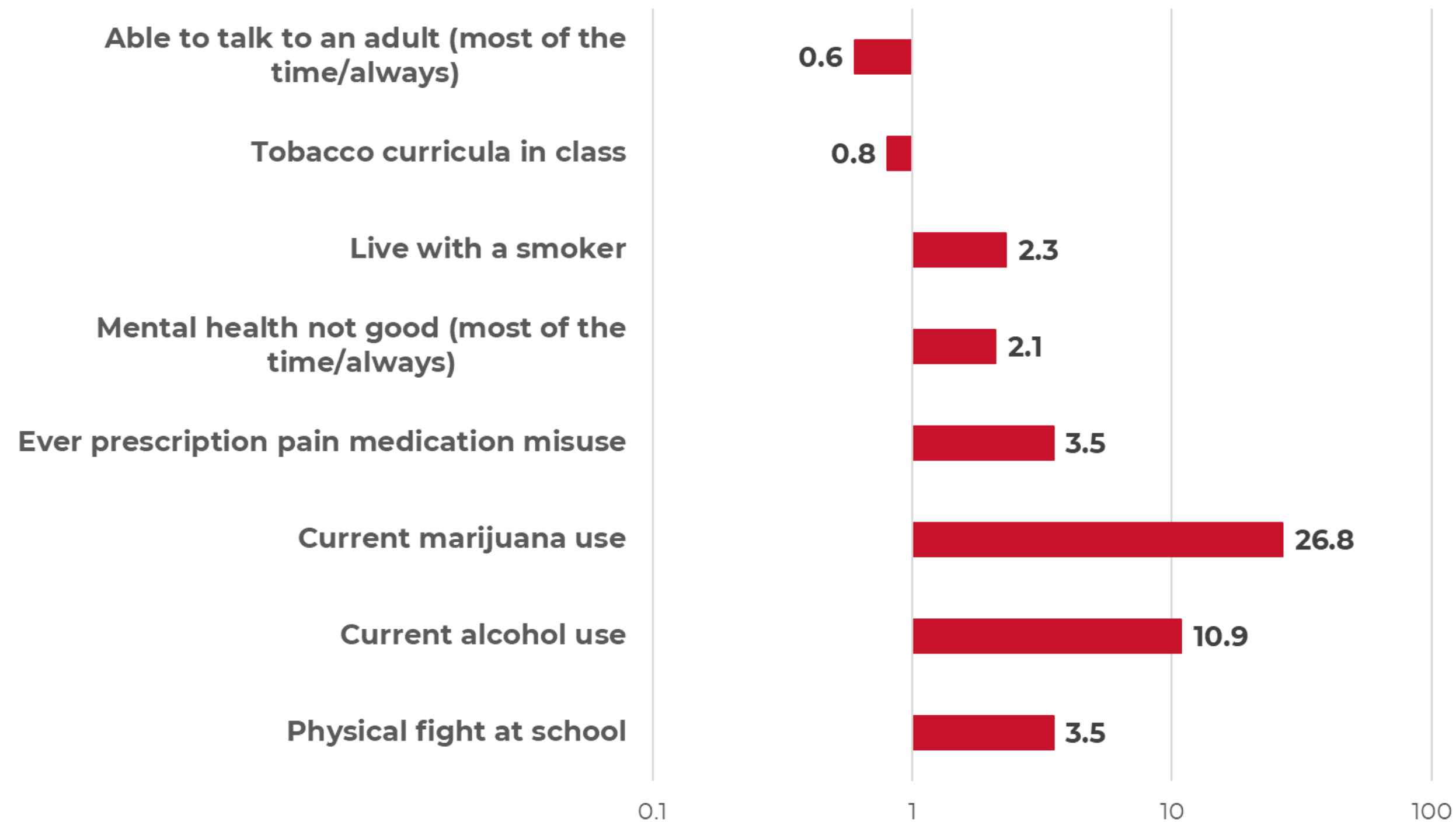


Most recent data show ***significant differences** between female and male students who use e-cigarettes and smokeless tobacco.

Jurisdiction-Level Data (Live With a Smoker)

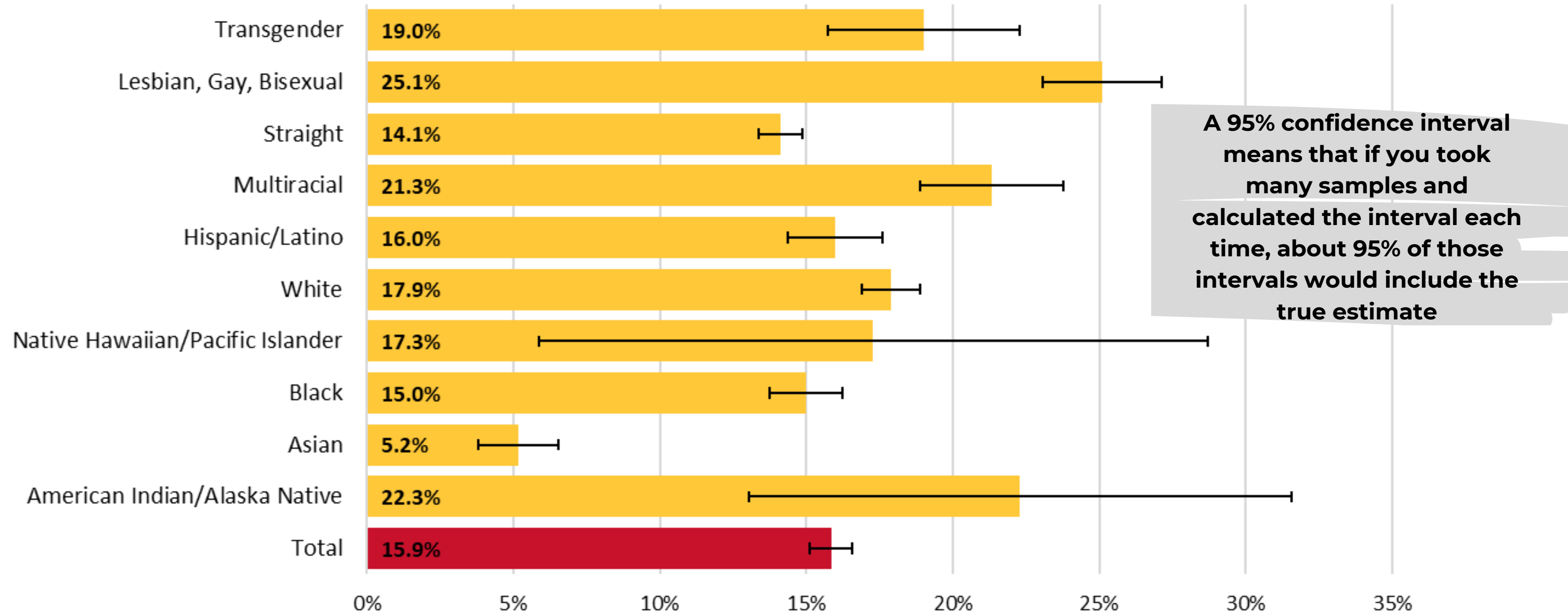


Odds of Tobacco Use



Source: 2022-23 Maryland High School YRBS/YTS

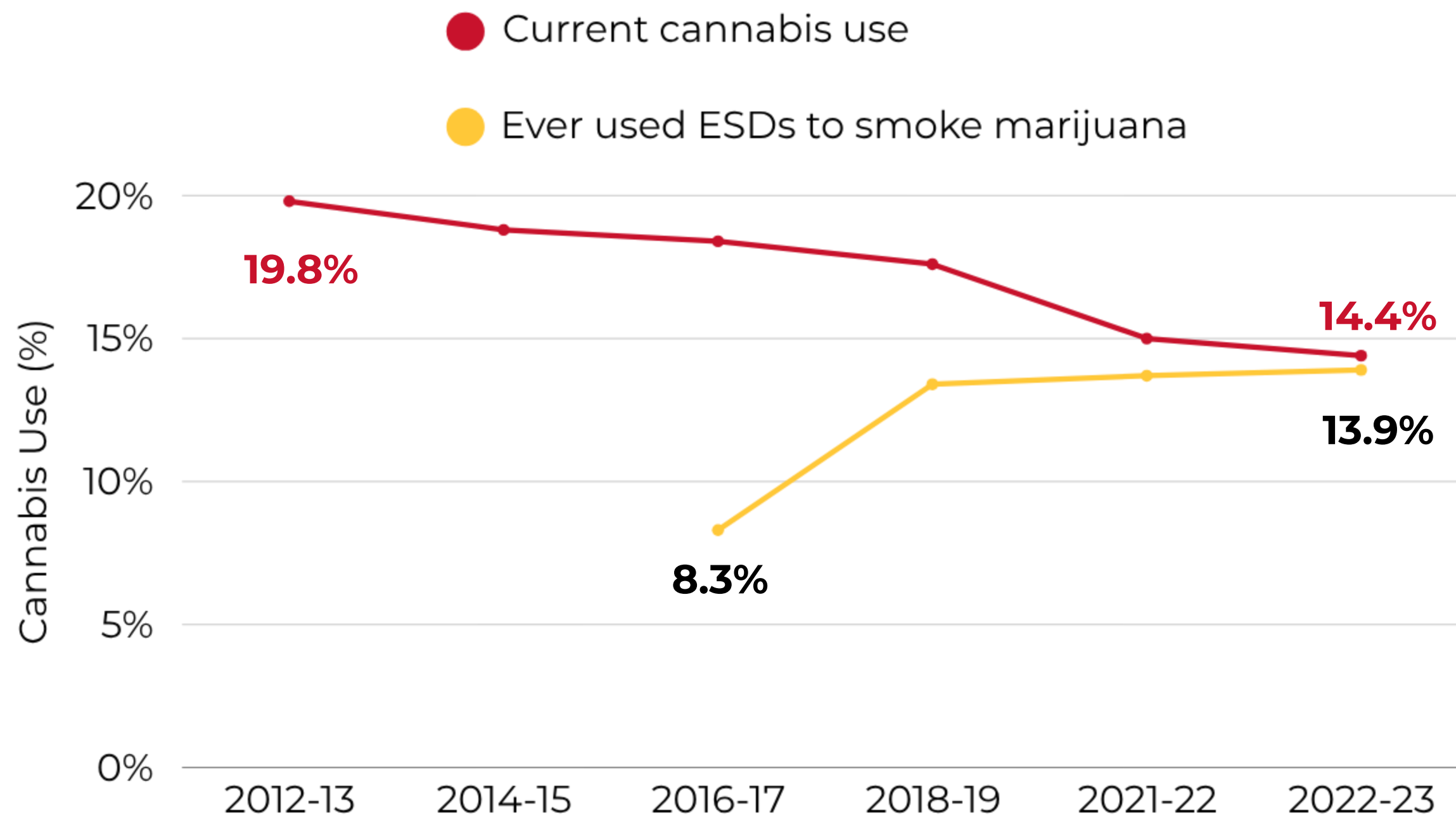
Determining Significant Differences



Tobacco Product Use by Subgroup
(Percent)

Source: 2022-23 Maryland High School
YRBS/YTS

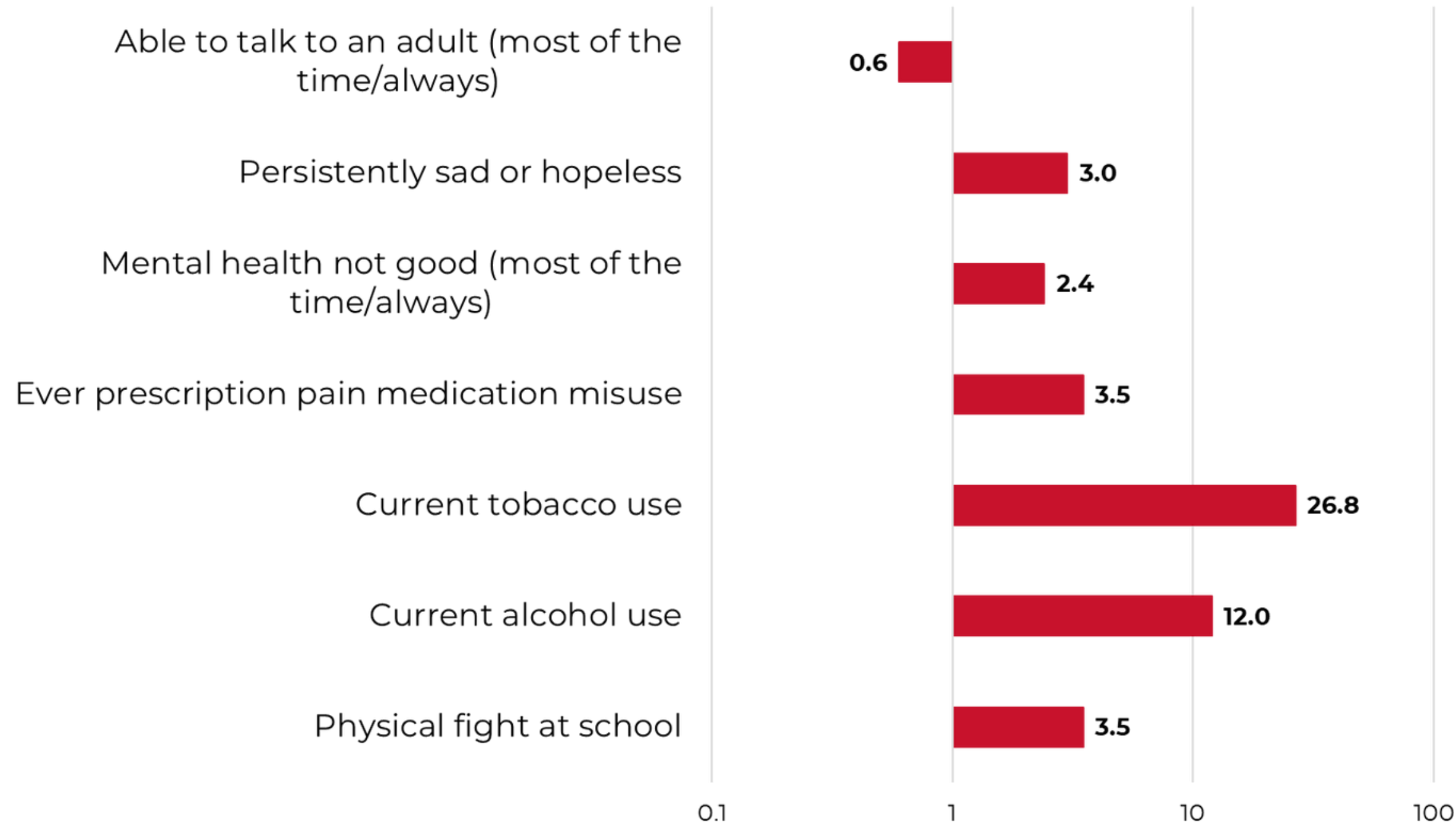
Youth Cannabis Use Trends



Cannabis Use among Maryland high school students has **DECREASED** between 2012-13 and 2022-23.

The number of students who reported ever using an ESD to smoke marijuana **INCREASED** between the 2016-17 and 2022-23 school years.

Odds of Cannabis Use

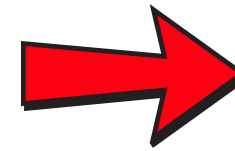


Source: 2022-23 Maryland High School YRBS/YTS

Determining Significance (Cannabis)

Percentage of students who currently used marijuana (one or more times during the 30 days before the survey)

	Percentage	Total 95% confidence interval	N
Age			
Total	14.4	(13.6 - 15.3)	36,625
15 or younger	10.4	(9.6 - 11.3)	18,250
16 or 17	17.7	(16.5 - 19.0)	16,591
18 or older	21.1	(18.0 - 24.6)	1,745
Grade			
9th	9.1	(8.1 - 10.4)	10,403
10th	12.6	(11.4 - 13.8)	10,364
11th	16.4	(15.0 - 17.8)	8,622
12th	21.4	(19.7 - 23.2)	6,993
Race/Ethnicity			
Asian*	3.5	(2.6 - 4.8)	1,620
Black*	17.0	(15.5 - 18.6)	7,952
Hispanic/Latino	12.2	(10.8 - 13.8)	5,937
Native American*	15.5	(8.7 - 25.9)	164
White*	14.6	(13.6 - 15.6)	17,848
All other races*	20.3	(8.7 - 40.6)	94
Multiple races*	20.6	(18.2 - 23.2)	2,746



	Percentage	Total 95% confidence interval	N
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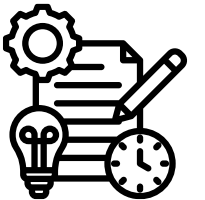
Key findings:

Statewide Ethnography Study

About the Valor View Survey



Purpose: Gain insight on populations where data is limited



Method: Managed by CTPC with contractor to administer digital survey at community events



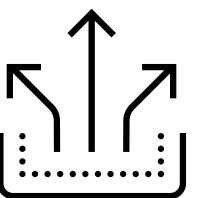
Population: U.S. Military Veterans who were current residents of Maryland



Sample Size: 125 Veterans

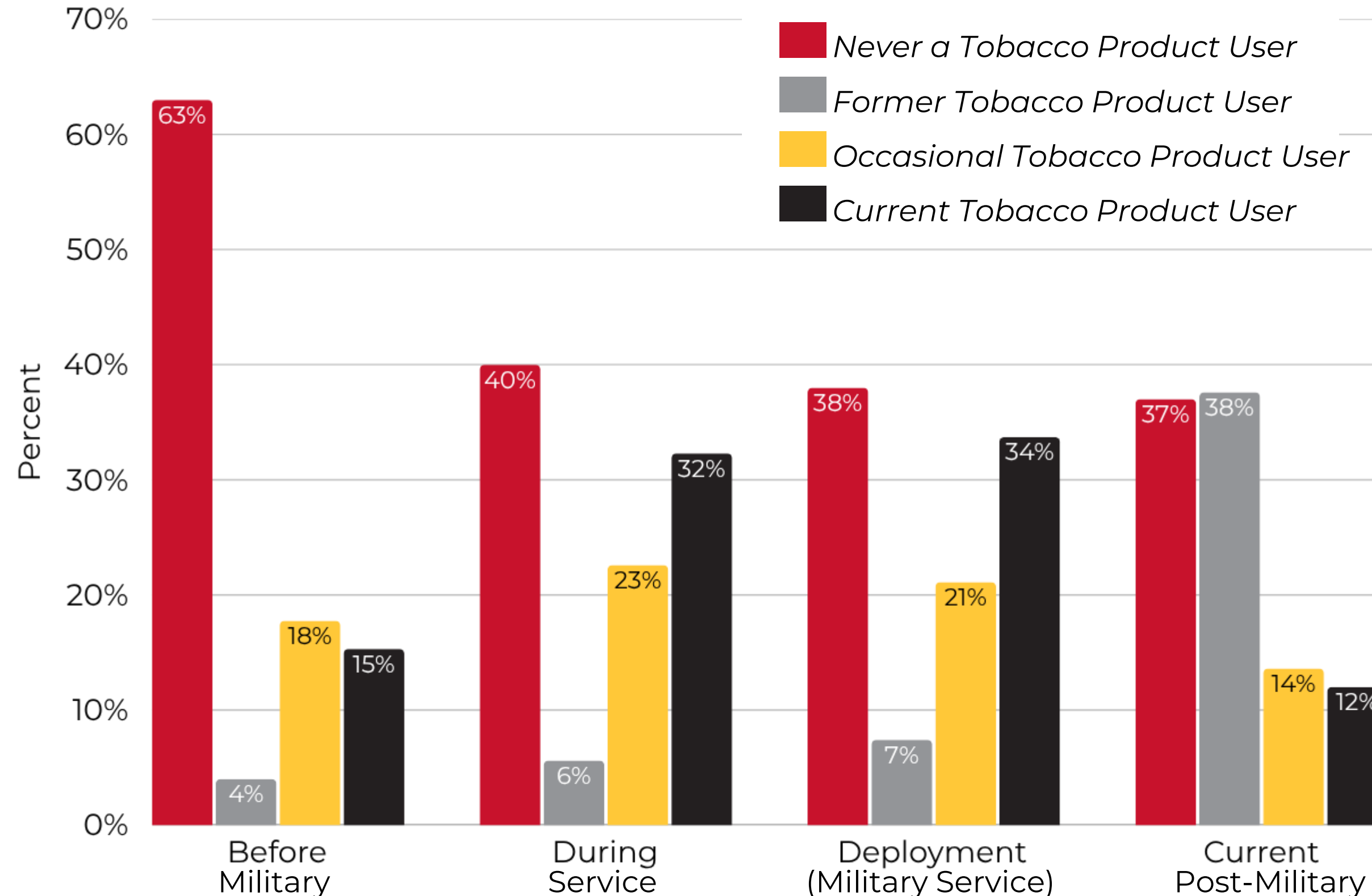


Content: Incorporated questions from Department of Defense's Health Related Behaviors Survey and the Behavioral Risk Factor Surveillance System (BRFSS)



Output: Data on tobacco product use pre-, during, and post-military service, service-specific factors (deployment, social norms, mental health) that may contribute to tobacco-related disparities, and cessation efforts

Changes to Overall Tobacco Product Use

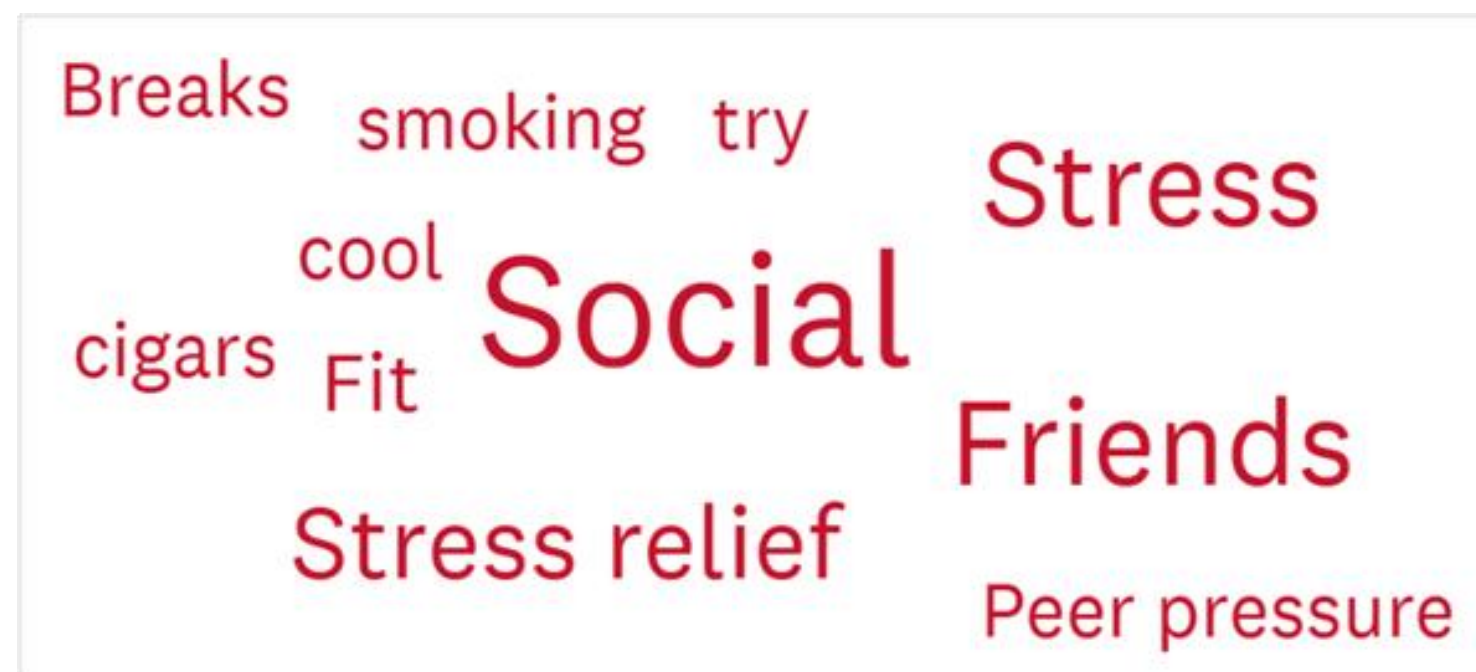


- More Veterans used tobacco (Occasional and Current use) **During Service and During Deployment.**
- The percentage of **Current tobacco users decreased Post-Service.**
- The percentage of **Former tobacco users increased Post-Service.**

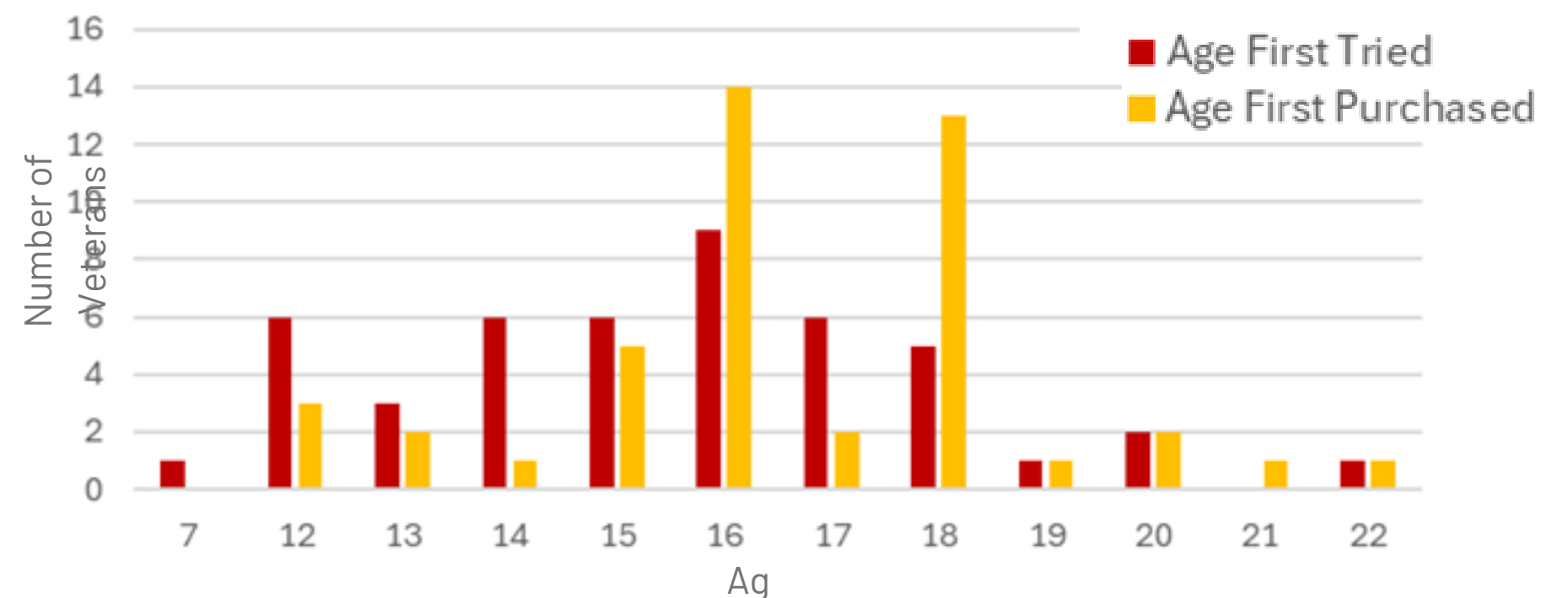
Veteran Tobacco Product Use

Reasons for Tobacco Use Initiation

- Social influence
- Peer pressure to fit in
- Stress relief
- Routine and environmental Factors
- Alertness and enhancing performance



Age of First Tobacco Product Use vs.
Age of First Tobacco Product Purchase



Reasons for Tobacco Product Use

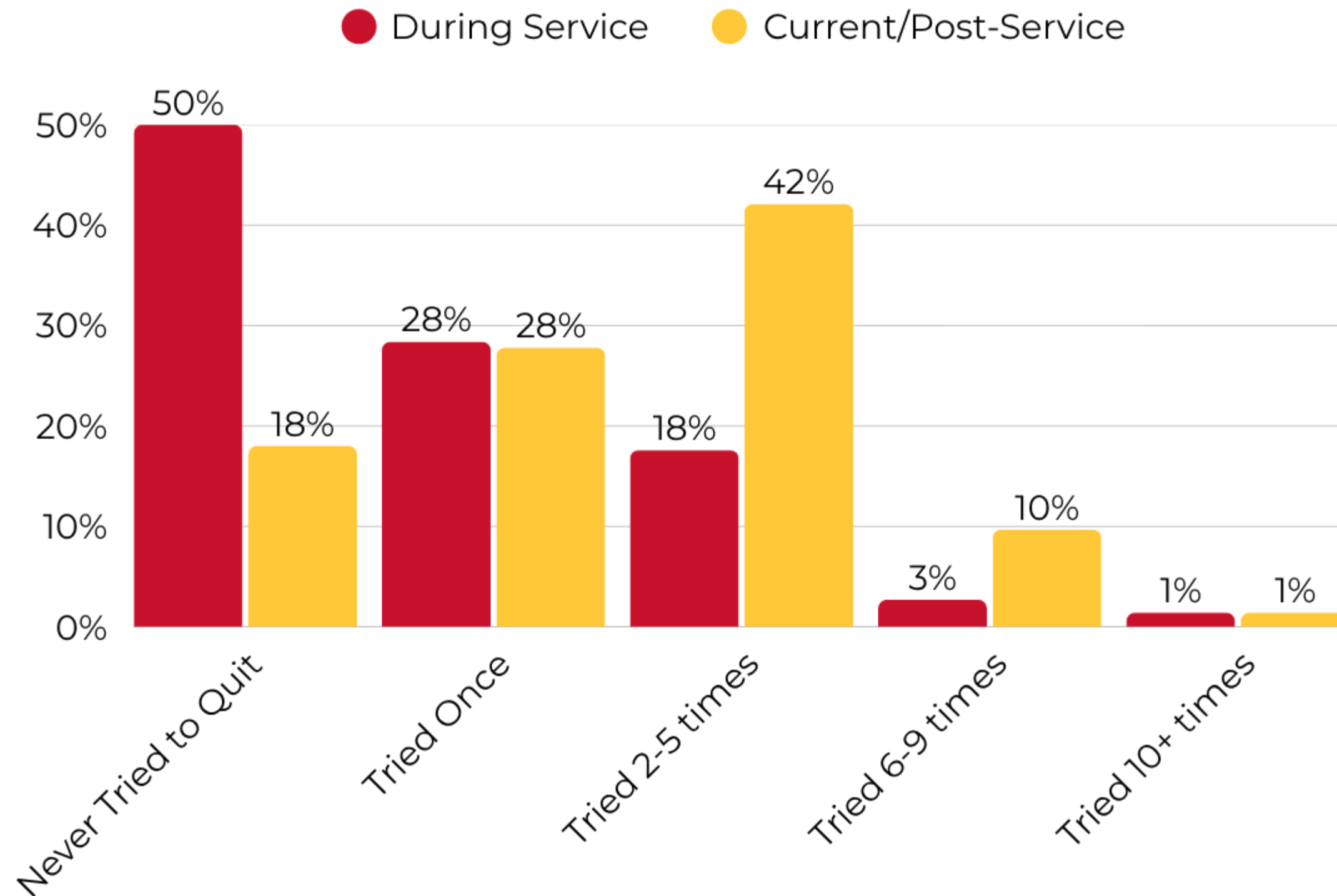
Among tobacco product users

- Stress relief
- Coping mechanism

Among non-tobacco users

- Social factors
- Camaraderie

Cessation Efforts



- 50% attempted to quit one or more times During Service.
- **“Cold turkey” was the most commonly used cessation method.** “Tapering” and nicotine patches were also used.
- **Most Veterans did not seek cessation support.** Only 7% sought support During Service and 24% sought support Post-Service.

Data Usage

State Surveillance, Special Projects, and More

Data Usage



Final Thoughts

- Public health surveillance is essential for tracking health behaviors, informing programs, and guiding equity-focused decisions.
- Data from systems like BRFSS, YRBS/YTS, and special studies (e.g., Veterans Ethnography) reveal tobacco-related disparities and emerging trends.
- Partners can use this data to inform strategic planning, policy development, and community outreach.
- Training on key data concepts—like significance and age adjustment—enhances confidence in interpreting surveillance data.
- Sharing data publicly via reports and presentations boosts transparency and impact.
- **The ultimate goal:** use surveillance insights to advance health equity and reduce tobacco initiation, increase tobacco cessation, and reduce youth cannabis use among Marylanders.

Resources

BRFSS Webpage

Additional Maryland BRFSS resources:



Maryland BRFSS data tables:



Maryland BRFSS surveillance briefs:



Maryland BRFSS infographics:



Maryland BRFSS webinars:



Maryland BRFSS questionnaires:



**2024 Data Set to Be Released Publicly Early
2026!**

YRBS/YTS Webpage



Data Products

Explore the Maryland YRBS/YTS data results from 2013 to the present.

[View More >](#)



Current and Past Questionnaires

Please review this page for current and past questionnaires and rationale for questions.

[View More >](#)



Frequently Asked Questions (FAQs)

Find answers to frequently asked questions about the survey.

[View More >](#)



Instructional Videos

Three videos were created: survey overview, teacher roles, and school contact roles.

[View More >](#)



Parental/Guardian Opt-Out Forms

Complete this form only if a parent/guardian declines their child's survey participation.

[View More >](#)



Methodology and Sample Description

This report offers an overview of the CDC's Youth Risk Behavioral Surveillance System.

[View More >](#)



2024-2025 School Year Data Set to Be Released Spring 2026!

Indicator Based Information System

BRFSS Questions Configuration Selection

Overview

Overview

Select Annual BRFSS data by clicking on a gray bar, below.

The MD-IBIS BRFSS data are maintained by the Maryland Department of Health.

2023 BRFSS Indicators

2022 BRFSS Indicators

2021 BRFSS Indicators

2020 BRFSS Indicators

2019 BRFSS Indicators

2018 BRFSS Indicators

2017 BRFSS Indicators

2016 BRFSS Indicators

2015 BRFSS Indicators

2014 BRFSS Indicators

2013 BRFSS Indicators

2012 BRFSS Indicators

2011 BRFSS Indicators

YRBS/YTS Questions Configuration Selection

Overview

Overview

Select YRBS/YTS data by clicking on a gray bar, below.

The MD-IBIS YRBS/YTS data are maintained by the Maryland Department of Health.

To view state-/county-level Maryland YRBS/YTS data tables and figures please visit: [Main.aspx](#)

To learn more about the Maryland YRBS/YTS please visit: <https://phpa.health.maryland.gov/>

High School Indicators

+ Injury and Violence

+ Tobacco Use

+ Alcohol and Other Drug Use

+ Sexual Behaviors

+ Weight Management and Dietary Behaviors

+ Physical Activity

+ Other

Middle School Indicators

Step 1: GEOGRAPHIC AREA:

(Maryland, Overall)

Step 2: PERIOD: Select School Year

(2022-2023)

Step 3: POPULATION: Select youth age

Step 4: POPULATION: School Grade

Step 5: POPULATION: Select sex

Step 6: POPULATION: Select Race/Ethnicity

Step 7: Select another YRBS / YTS indicator

(Felt sad or hopeless)

Step 8: How to display the data

(Grouped By: Selected YRBS / YTS Indicator x Currently use any tobacco product. Chart: Horizontal Bar. Map: Default)

Display By (category)



Selected YRBS / YTS Indicator

Group By (series)



Currently use any tobacco product

Chart



Horizontal Bar

Map



Default

IBIS To Be Replaced by MDAT (Maryland Data and Analytics Tool) This Year!



CTPC Reports Page

Center for Tobacco Prevention and Control Reports

Tobacco Program Biennial Reports	+
Special Populations and Health Disparities Tobacco Reports	+
Tobacco Program Special Reports	+
Youth Pandemic Behavior Survey (YPBS)	+
Synar Reports	+
Additional Prevention and Public Health Administration (PHPA) Reports	+
Maryland Behavioral Risk Factor Surveillance System (BRFSS)	+
Maryland Veteran Tobacco Product Use	+



Questions? Comments.



Contact Me!

Nikardi Hynes, MPH

Nikardi.Hynes@maryland.gov

Resources: Youth & Young Adult Cessation Resources



Live Vape Free Young Adult

Free. Text for confidential, interactive free texts and videos. Access to NRT if you are 18 years or older

<https://livevapefree.org/quit-vaping/>



Truth Initiative, EX Program

Youth and young adult focused program for quitting;
Teens and young adults can join for free by texting
DITCHVAPE to 88709

Resources: Substance Use



The Maryland Tobacco Quitline offers free help to quit tobacco for ages 13+.

- Call: 1-800-QUIT-NOW
- Text: 'READY' to 34191

smokingstopshere.com

BeCannabisSmart

BeCannabisSmart is a resource created by the Maryland Cannabis Administration for adults 21 and older who currently use—or are thinking about using—cannabis under Maryland's adult-use cannabis laws. It aims to promote informed decisions, responsible use, and safer consumption practices.

<https://cannabis.maryland.gov/>

Resources: Youth & Young Adult Tobacco Educational Resources



The Center for Tobacco Prevention and Control Online Resources

View Maryland tobacco and vaping statistics and additional local and federal resources available here:

health.maryland.gov/tobacco-prevention-control



**Information and resources for tobacco
and vape use among the Black, Latino/a/x
and LGBTQ+ communities**

Live-in-color.org

Resources: General Health



[Visit your local health department website to discover youth programs and community resources designed to support well-being.](https://health.maryland.gov/pages/departments.aspx)

<https://health.maryland.gov/pages/departments.aspx>



211 Maryland connects you to health and human services.

Call 211,
Text your zip code to
898-211 (TXT-211),
or visit

211md.org