The Honorable Larry Hogan
Governor
State of Maryland
Annapolis, MD 21401-1991

The Honorable Bill Ferguson
President of the Senate
H-107 State House
Annapolis, MD 21401-1991

The Honorable Adrienne Jones
Speaker of the House
H-101 State House
Annapolis, MD 21401-1991

Re: Health-General Article, §13-1004(d), FY 2020 Biennial Tobacco Study, Cigarette Restitution Fund – Tobacco Use Prevention and Cessation Program (MSAR #11906)

Dear Governor Hogan, President Ferguson, and Speaker Jones:

Pursuant to Health-General Article, §13-1004(d), Annotated Code of Maryland, the Maryland Department of Health (the Department) is directed to produce a biennial legislative report on the results of the Biennial Tobacco Study.

The enclosed legislative report summarizes trends related to tobacco use behaviors among all middle school and high school youth, regardless of age, and adults ages 18 and older since 2000. Included findings are derived from the results of the biennial Youth Tobacco Survey (YTS, 2000-2012) and the corresponding expanded Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS, 2013-2018). Findings on adult behaviors are derived from the results of the Behavioral Risk Factor Surveillance System (BRFSS, 2000-2018). Data are presented for Maryland, as well as individually for each county and Baltimore City. Significant findings include a continued reduction in conventional tobacco use behavior since the program's inception in Fiscal Year 2001. However, a significant increase in middle school and high school youth use of electronic smoking devices (ESDs) in the 2018-19 survey cycle indicate more can be done to prevent youth from accessing and becoming addicted to these products.

The Department appreciates your commitment to the progress being made in reducing tobacco use in Maryland. If you have questions about this report, please contact Heather Shek, Director of Governmental Affairs, at 410-767-5282 or heather.shek@maryland.gov.

Sincerely,

Dennis R. Schrader 

Secretary

CC: Heather Shek, JD, Director of Governmental Affairs
Jinlene Chan, MD, MPH, FAAP, Acting Deputy Secretary, Public Health Services
Donna Gugel, MHS, Director, Cigarette Restitution Fund and Prevention and Health Promotion Administration
Pamela R. Williams, MHA, Director, Cancer and Chronic Disease Bureau
Dawn Berkowitz, MPH, CHES, Director, Center for Tobacco Prevention and Control
Sarah Albert, Department of Legislative Services, 5 copies (MSAR #11906)

Monitoring Changing Tobacco Use Behaviors: Maryland 2000 - 2018

Maryland Department of Health

Cigarette Restitution Fund
Center for Tobacco Prevention and Control

State Fiscal Year 2020

Statutory Authority and Requirements

Maryland's Health-General Article, Title 13, Subtitle 10, requires the Maryland Department of Health to conduct a biennial tobacco study on the changing tobacco-use behaviors of youth and adults, and report specific findings to the Maryland Governor and the General Assembly. The appendices to this report provide detailed data for the required indicators.

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Table of Contents

SUGGESTED CITATION

Maryland Department of Health. Monitoring Changing Tobacco Use Behaviors: 2000-2018. Baltimore: Maryland Department of Health, Prevention and Health Promotion Administration, Cancer and Chronic Disease Bureau, Center for Tobacco Prevention and Control, August 2020.

KEY FINDINGS

Maryland's comprehensive tobacco prevention and cessation efforts have proven successful in decreasing the prevalence of conventional tobacco use (i.e., cigarettes, cigars, and smokeless tobacco) among both youth and adults, which hit an all-time low during this reporting period. In 2018, the prevalence of adult cigarette smoking was 12.5 percent, down from 19.1 percent just seven years prior in 2011. Currently, 64 percent of adults report never taking up smoking; the highest prevalence of never smokers ever reported. In the 2018-19 school year, the prevalence of high school youth cigarette smoking was 5.0 percent, down from 23.7 percent in 2000-01, and cigar use decreased from 13.0 percent in 2000-01 to 6.0 percent in 2018-19. High school youth tobacco use initiation also decreased, from 17.9 percent in 2012-13 to 6.5 percent in 2018-19. However, high school youth electronic smoking device (ESD) use, such as Juul, e-cigarettes, vapes, etc., increased dramatically from 13.3 percent in 2016-17 to 23.0 percent in 2018-19, a 73 percent increase.

Notwithstanding statewide success in preventing tobacco use initiation and reducing combustible tobacco use among Maryland residents, tobacco remains the number one cause of preventable death and disease in the United States. There are over 865,000 Maryland adults and over 65,000 Maryland high school youth who still use tobacco products, including ESDs. If trends continue, an estimated 1,600 youth will start smoking cigarettes each year and 288,900 youth who are now alive will become smokers in their lifetime.[1] Based on a model for predicting smoking-attributable mortality developed by the Surgeon General, 92,000 of the 288,900 youth who do become smokers will die prematurely from smoking.[2] Every year, 7,500 Maryland adults die from smoking and an estimated $2.71 billion is spent on smoking-related healthcare costs.[3] Although middle school and high school youth combustible tobacco use has decreased, the popularity of ESDs has produced a new generation addicted to nicotine.

Data from the 2018 Behavioral Risk Factor Surveillance System (BRFSS) and the 2018-19 Youth Risk Behavior Survey and Youth Tobacco Survey (YRBS/YTS) show Maryland adults continue to prefer cigarettes, while middle school and high school youth now prefer ESDs: high school youth use ESDs over five times more than adults (23 percent and 4.3 percent, respectively). High school youth also use ESDs about four times more than cigarettes, cigars, and smokeless tobacco, and are more likely to simultaneously use three or more tobacco and/or ESD products compared to adults (10.3 percent and 5.7 percent, respectively). Overall prevalence data for tobacco product use, including ESDs, for adults as well as public middle school (MS) and high school (HS) youth is detailed in Table 1.

Table 1: 2018 Adult and 2018-19 Youth Tobacco Product Use, Maryland 2018 BRFSS and Maryland 2018-19 YRBS/YTS

2018 ADULT TOBACCO PRODUCT USE	
Any Tobacco[i]	18.2%
Cigarettes	12.5%
Cigars	4.6%
Smokeless Tobacco	2.0%
ESDs	4.3%
Other Tobacco	1.4%

2018-19 YOUTH TOBACCO PRODUCT USE		
	MS	HS
Any Tobacco[ii]	9.0%	27.4%
Cigarettes	1.1%	5.0%
Cigars	1.8%	6.0%
Smokeless Tobacco	2.2%	4.6%
ESDs	5.9%	23.0%

Adult tobacco use trends in Maryland are detailed in Table 2. Due to changes in Behavioral Risk Factor Surveillance System (BRFSS) methodology, data from 2000-2010 are not comparable to data from 2011 forward. Changes in adult tobacco use in Maryland are evident in long-, intermediate-, and short-term outcomes. Surveillance of adult ESD use first began during the 2014 BRFSS survey cycle. The most recent data available for adult tobacco use behaviors is from the 2018 Maryland BRFSS.

Table 2: Adult Tobacco Use Trends

ADULT TOBACCO USE TRENDS					
	2012+	2016	2018	Overall % Change	Significance
Cigarettes	16.2%	13.7%	12.5%	-22.8%	▼
Cigars	4.4%	3.7%	4.6%	+4.5%	■
Smokeless Tobacco	2.0%	1.6%	2.0%	0.0%	■
ESDs	—	3.2%	4.3%	+34.4%	■
Any Tobacco (including ESDs)[iii]	—	17.9%	18.2%	+1.7%	■
Any Tobacco (without ESDs)	19.4%	16.6%	16.6%	-14.4%	▼

▲= Statistically significant upward trend (based on t-test analysis, $p<0.05$)
▼= Statistically significant downward trend (based on t-test analysis, $p<0.05$)
■ = No statistically significant change
+ESD use was not measured during the 2012 survey year

The tobacco marketplace continues to evolve. Many new products, notably ESDs, are attractive to youth due to colors, flavors, and price. These products are intended to entice youth to initiate tobacco use and keep them addicted to nicotine. The human brain is not fully developed until 25 to 26 years of age. Introducing nicotine can negatively impact brain development, including areas of the brain that control learning, mood, attention and impulse control.[4] Accordingly, in 2018 the US Surgeon General declared youth ESD use an epidemic.

[i] Adult "Any Tobacco" use includes cigarettes, cigars, smokeless tobacco, electronic smoking devices (ESDs) and/or other tobacco products (pipe, bidis, kretek, hookah, etc.)
[ii] Youth "Any Tobacco" use includes cigarettes, cigars, smokeless tobacco and/or electronic smoking devices (ESDs)
[iii] Id. fn i

Maryland public middle school and high school youth tobacco use trends are detailed in Tables 3 and 4. The most recent data available for all middle school and high school youth tobacco use behaviors are from the 2018-19 Maryland YRBS/YTS. Changes in middle school and high school youth tobacco use behaviors in Maryland are evident in long-, intermediate-, and short-term outcomes. Surveillance of youth ESD use began during the 2014-15 YRBS/YTS survey cycle.

Table 3: Middle School Youth Tobacco Use Trends

MIDDLE SCHOOL YOUTH TOBACCO USE TRENDS					
	2000-01[+]	2016-17	2018-19	Overall % Change	Significance
Cigarettes	7.3%	1.3%	1.1%	-84.9%	▼
Cigars	4.7%	2.5%	1.8%	-61.7%	▼
Smokeless Tobacco	2.2%	1.9%	2.2%	0.0%	■
ESDs	—	4.7%	5.9%	+25.5%	▲
Any Tobacco (including ESDs)[iv]	—	7.6%	9.0%	+18.4%	▲
Any Tobacco (without ESDs)	8.9%	4.1%	3.9%	-56.2%	▼

▲= Statistically significant upward trend (based on t-test analysis, $p<0.05$)
▼= Statistically significant downward trend (based on t-test analysis, $p<0.05$)
■ = No statistically significant change
[+]ESD use was not measured during the 2000-01 survey year

Involuntary exposure to secondhand smoke among Maryland adults, middle school and high school youth continues to decrease. These trends are largely due to the Clean Indoor Air Act of 2007 coupled with continued efforts to promote voluntary smoke-free homes. In addition, the US Department of Housing and Urban Development implemented a smoke-free public housing rule in 2018, which protects roughly two million US residents from involuntary exposure to secondhand smoke. Recent data from the Maryland 2018 BRFSS and 2018-19 YRBS/YTS indicate that 89.1 percent of Maryland adults and 82.1 percent of Maryland high school youth report that smoking is never allowed in their home.

[iv] Id. fn ii

Table 4: High School Youth Tobacco Use Trends

HIGH SCHOOL YOUTH TOBACCO USE TRENDS					
	2000-01[+]	2016-17	2018-19	Overall % Change	Significance
Cigarettes	23.7%	8.2%	5.0%	-78.9%	▼
Cigars	13.0%	9.0%	6.0%	-53.8%	▼
Smokeless Tobacco	5.0%	6.2%	4.6%	-8.0%	■
ESDs	—	13.3%	23.0%	+72.9%	▲
Any Tobacco (including ESDs)[v]	—	21.6%	27.4%	+26.9%	▲
Any Tobacco (without ESDs)	26.9%	14.4%	10.4%	-61.3%	▼

▲= Statistically significant upward trend (based on t-test analysis, p<0.05)
▼= Statistically significant downward trend (based on t-test analysis, p<0.05)
■ = No statistically significant change
[+]ESD use was not measured during the 2000-01 survey year

Future Challenges

In 2019, the outbreak of e-cigarette and vaping associated lung injury (EVALI) alarmed public health officials and policy makers due to the high percentage of youth using ESDs. To combat this, several localities and states proposed flavor bans on ESDs and other tobacco products including mint and menthol flavors, which are popular among youth. Continued attention must be focused on ESDs, particularly the availability of flavored products, ingredient disclosure and nicotine content, marketing and promotion cost, and both indoor and outdoor locations that permit use of ESDs.

A new law in Maryland that raises the minimum legal age for sale of tobacco products from 18 to 21 years of age, "Tobacco 21," took effect on October 1, 2019.

Despite the growing prevalence of ESD use, the risk still presented by conventional tobacco products such as cigarettes, cigars, and smokeless tobacco should not be overlooked. Data indicate that adults still prefer cigarettes to any other tobacco or ESD product. Each year, roughly 16 million Americans live with a serious illness caused by smoking, and nearly half a million die prematurely of smoking or exposure to secondhand smoke.[5]

Current high school youth perceptions of smoking show a dangerous trend, with Maryland high school youth increasingly reporting that smoking helps youth 'fit in' or 'look cool,' and that youth who smoke have more friends than nonsmokers. Of particular concern, the belief that smoking helps young people 'fit in' or 'look cool' increased by 86.7 percent from 2000-01 to 2018-19 among high school youth who do not smoke. The belief that smokers have more friends than nonsmokers also increased by 99.5 percent since 2000. The introduction of flavors and youth-targeted marketing practices by the industry coupled with intentionally

[v] Id. fn ii

downplaying the nicotine content of these products likely contributed to the skyrocketing popularity of ESDs as well as positive perceptions of tobacco use.

Finally, the tobacco landscape continues to change with the emergence of a new category of products called “heat-not-burn” devices. Like ESDs, these devices produce an aerosol that contains nicotine, additives, and flavorings – however this is generated by heating tobacco, not liquid nicotine. Although the FDA granted marketing authority for the IQOS brand of heat-not-burn devices, the agency emphasized this does not equate with FDA approval and reiterated that there is no safe tobacco product.

ABOUT THIS REPORT

Acronyms Found in this Report

ACEs	Adverse Childhood Experiences	**MHC**	Mental Health Condition
BRFSS	Behavioral Risk Factor Surveillance System	**MLSA**	Minimum Legal Sales Age
CDC	US Centers for Disease Control and Prevention	**MS**	Middle School
CTPC	Center for Tobacco Prevention and Control	**NH**	Non-Hispanic
EHR	Electronic Health Record	**OMS**	Outcomes Measurement System Datamart, Public Behavioral Health System
ENDS	Electronic Nicotine Delivery System	**SABG**	Synar Block Grant
ESD	Electronic Smoking Device	**SAMHSA**	US Substance Abuse and Mental Health Services Administration
EVALI	E-cigarette or Vaping product use Associated Lung Injury	**SES**	Socioeconomic Status

FDA	US Food and Drug Administration	**SHS**	Secondhand Smoke
FFY	Federal Fiscal Year	**SIDS**	Sudden Infant Death Syndrome
HS	High School	**SUD**	Substance Use Disorder
LGBT	Lesbian, Gay, Bisexual, Transgender	**YRBS/YTS**	Youth Risk Behavior Survey/Youth Tobacco Survey

Data Sources

Data in this report are derived from the 2018-19 Maryland Youth Risk Behavior Survey and Youth Tobacco Survey (YRBS/YTS) and the 2018 Maryland Behavioral Risk Factor Surveillance System (BRFSS). Throughout this report, there will be comparisons between the 2018-19 Maryland YRBS/YTS and 2018 Maryland BRFSS data to Maryland data collected in previous years, starting in 2000.

In 2013, the YTS merged with the YRBS. Data reported from this combined survey tool are reported as YRBS/YTS. More information can be found in the "Data Sources in this Report" section of this document.

Reporting Youth Data

When "youth" is used throughout this report to describe Maryland data, it refers to Maryland middle school and high school youth. The Maryland YRBS/YTS data, however, show high school youth use tobacco products significantly more than middle school youth. Therefore, this report focuses primarily on data from Maryland high school youth. Throughout the report, text has been added to define if the Maryland data refer to high school youth, middle school youth or both. High school youth data from the Maryland YRBS/YTS includes any student who was enrolled in high school at the time of the survey, regardless if they were under 18 years old or if they were 18 and older. Maryland defines "young adult" as those ages 18-24 years old and who responded to the BRFSS adult survey.

Comparability of Data

As the survey methodology utilized is comparable, middle school and high school youth data in this report may be compared year-to-year, jurisdiction-to-statewide, and jurisdiction-to-jurisdiction, as well as to data from other states and nation-wide. Most survey questions regarding current use of tobacco products have remained consistent. Middle school and high school youth data are suppressed when there are fewer than 100 total individuals in the denominator.

Adult data cannot be directly compared year-to-year. In 2011, the US Centers for Disease Control and Prevention (CDC) made a significant change to the way BRFSS survey data were weighted. Therefore, data reported from 2000 to 2010 can be compared, and data reported from 2011 to 2018 can be compared, however data reported from 2011 onward cannot be compared to previously reported data and vice versa. The BRFSS survey was primarily designed to produce statewide estimates, not jurisdiction-specific estimates. Jurisdiction-specific data should be used cautiously, and confidence intervals should be noted when attempting to compare data year-to-year, jurisdiction-to-jurisdiction, or jurisdiction-to-statewide. Adult data are suppressed when fewer than 50 individuals answered a question in the denominator and/or the relative standard error was greater than or equal to 30 percent.

Reporting Race and Ethnicity

In the YRBS/YTS, middle school and high school youth are asked, “Are you Hispanic or Latino?” If the response is "yes," the student is categorized as Hispanic/Latino regardless of other racial groups selected. If the response is “no,” the student is categorized as non-Hispanic (NH). Youth are also asked “What is your race?” and may select as many categories as necessary from among the five available options: American Indian/Alaskan Native; Asian; Black/African American; Native Hawaiian/Pacific Islander; or White. Youth who select only one race are categorized as being of that race. If they select multiple races, then they are categorized as multiracial.

In the BRFSS survey, adults are asked, “Are you Hispanic, Latino/a, or of Spanish origin?” If the response is "yes," then the respondent is categorized as Hispanic. They are then asked, “Which one or more of the following would you say is your race?” and are given the same response options as the youth survey. If one race is selected, then the respondent is categorized as being of that race. Unlike the YRBS/YTS, if multiple races are indicated, adults are then asked “Which of these groups would you say best represents your race?” If the respondent selects one race, then the respondent is categorized as being of that race. If the respondent is unable to select a single race, then the respondent is categorized as multiracial. Please note: throughout this report, ‘Other Race’ may be reported in youth and adult tables. ‘Other Race’ refers to all individuals who do not ascribe to the defined categories for that analysis; populations included in ‘Other Race’ can vary based on the analysis performed.

Changes in Reporting Tobacco Use

For this report, ‘tobacco use’ now includes ESDs. Previously, per statute, tobacco products were limited to cigarettes, cigars, smokeless tobacco and other tobacco products such as pipes, hookah, bidis and kreteks. However, effective October 1, 2019, Chapter 396 of the Acts of 2019 (“Tobacco 21”) raised the minimum legal sales age (MLSA) for tobacco products to 21 and broadened the definition of a tobacco product to include ESDs.

All tables and figures from prior reports that reference "tobacco use" have been re-analyzed beginning with 2014, as this was the point at which Maryland began collecting ESD data in the 2014 BRFSS and 2014-15 YRBS/YTS. Tables and charts are marked with a subscript plus sign ($^{+}$) to denote tobacco use rates that do not include ESD use. Middle school and high school youth tobacco use now includes cigarettes, cigars, smokeless tobacco, and ESD products. Adult tobacco use now includes: cigarettes, cigars, smokeless tobacco, other tobacco products- including pipe, hookah, bidis, kreteks, and dissolvable products- and ESDs.

During the 2012-13 school year, the 'tobacco use' variable was coded differently than in the following school years. Respondents who did not answer the tobacco product use questions were coded as missing, however, during the following school year all students regardless of response were included in the calculation. The 2012-13 'tobacco use' variable is not comparable to other survey years.

Changes in Reporting Survey Years

For this report and all future reports, the Maryland YRBS/YTS will be identified by the school year during which the survey was conducted (i.e., 2018-19 Maryland YRBS/YTS), rather than a single calendar year (i.e., 2018 Maryland YRBS/YTS). This change was necessary to demonstrate how survey data are representative of a school year (i.e., 2018-19) not a calendar year (i.e., 2018).

Abridged Appendix Tables and Figures

As nearly two decades worth of Maryland YRBS/YTS data have been collected since the first reporting year, the appendix tables at the end of this report, as well as certain figures within this report, feature abbreviated survey years. The Department has removed survey years 2002-09 from most figures and all appendix tables. School survey year 2000-01 remains as a reference point to provide baseline data, prior to moving to 2010-11. Appendix tables with all survey years for the State and each jurisdiction remain available online at: https://phpa.health.maryland.gov/ohpetup/Pages/tob_reports.aspx.

Update to Naming Convention and Chapter Structure

The current biennial report lists Fiscal Year (FY) 2020 as its year of submission, while the last biennial report submitted was listed as FY 2017. This difference does not represent missing any report years; but rather aligns naming of the report with its statutory due date.

Additionally, the content of this report been written so that each chapter may be excerpted for "stand-alone" use as necessary. Accordingly, information throughout this report is frequently reiterated or repeated.

Youth Risk Behavior Survey/Youth Tobacco Survey Sample and Weighted Demographics

High School: 41,091 students from 184 Maryland public, charter and vocational high schools completed the survey during the 2018-19 school year. Results are representative of all Maryland students in grades 9-12.

Table 5: Weighted Demographics of the High School Sample

Sex		Grade Level		Race/Ethnicity	
Female	49.0%	**9th Grade**	27.4%	**NH Black/African American**	33.2%
Male	51.0%	**10th Grade**	26.0%	**Hispanic/Latino**	16.1%
		11th Grade	23.2%	**NH White**	39.1%
		12th Grade	23.0%	**NH Multiple Races**	4.2%
		Other[vi]	0.4%	**NH Other Races**	7.4%

Middle School: 27,299 students from 181 Maryland public and charter middle schools completed the survey during the 2018-19 school year. Results are representative of all Maryland students in grades 6-8.

Table 6: Weighted Demographics of the Middle School Sample

Sex		Grade Level		Race/Ethnicity	
Female	48.9%	**6th Grade**	32.7%	**NH Black/African American**	33.5%
Male	51.1%	**7th Grade**	33.5%	**Hispanic/Latino**	16.5%
		8th Grade	33.5%	**NH White**	37.9%
		Other[vii]	0.3%	**NH Multiple Races**	4.1%
				NH Other Races	8.0%

[vi] "Other" refers to students who selected "ungraded or other grade" when asked the question, "In what grade are you?"

[vii] "Other" refers to students who selected "ungraded or other grade" when asked the question, "In what grade are you?"

Behavioral Risk Factor Surveillance System Survey Sample and Weighted Demographics

Adult: 17,546 adults aged 18 years or older completed the Maryland BRFSS survey in 2018. Results are representative of the Maryland adult population.

Table 7: Weighted Demographics of the Adult Sample

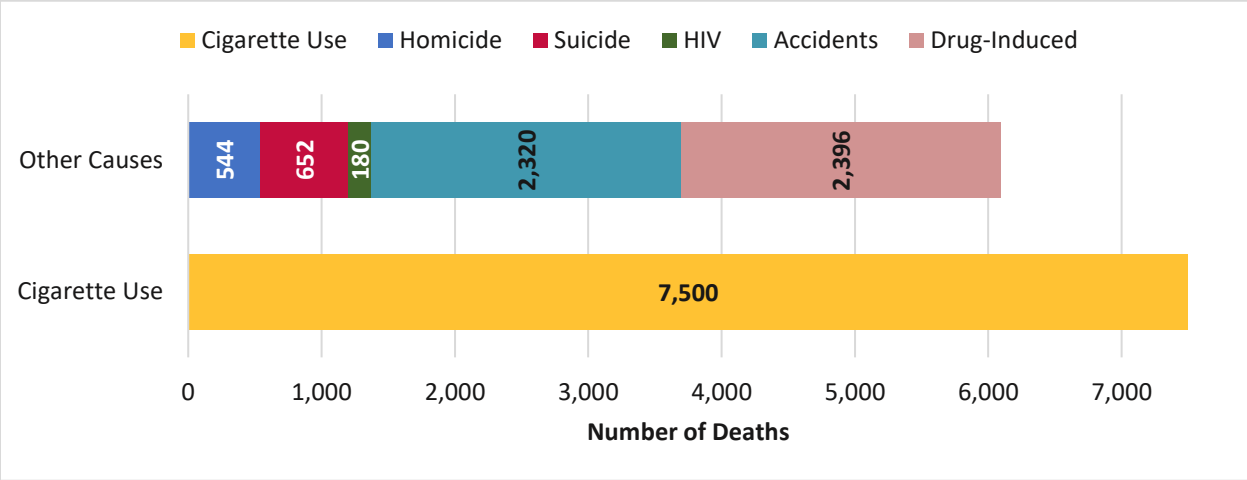
Sex		Age Group		Race/Ethnicity	
Female	52.2%	**Age 18-24**	12.1%	**NH Black/ African American**	29.1%
Male	47.8%	**Age 25-34**	17.7%	**Hispanic/Latino**	9.4%
		Age 35-44	16.5%	**NH White**	52.8%
		Age 45-54	16.5%	**NH Multiple Races**	1.2%
		Age 55-64	17.2%	**NH Other Races**	7.5%
		Age 65+	20.0%		

HEALTH CONSEQUENCES OF TOBACCO USE

Since the first 1964 Surgeon General's report on tobacco use, over 20 million Americans have died prematurely from smoking. Of those, nearly 2.5 million deaths were from exposure to secondhand smoke.[2] Cigarette smoke contains over 7,000 chemicals and toxins, including at least 69 known to cause cancer.[6] More than 480,000 Americans die each year due to smoking-related diseases.[2] In Maryland, approximately 7,500 adults die from tobacco smoking-related illnesses every year.[2] Smoking increases the risk of severe health outcomes including cancer, lung disease, diabetes, ectopic pregnancy, stroke, and cardiovascular diseases, such as atherosclerosis.[2]

Cigarette smoking continues to be the leading cause of preventable disease, disability, and premature death in the United States.[2] In comparison, there were an average of 6,092 deaths in Maryland in 2018 that resulted from unintentional injuries, suicide, homicide, drug overdose, and HIV combined (Figure 1).[7]

Figure 1: Mortality Causes in Maryland, Maryland Vital Statistics Annual Report 2018 and 2014 Surgeon General's Report

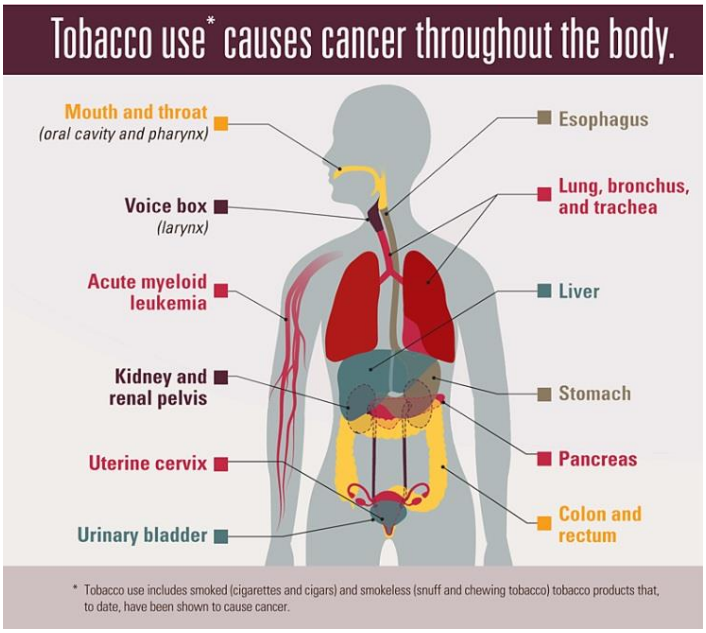


Currently, every adult who dies prematurely due to smoking is replaced by two young smokers, one of whom will also die prematurely. A 2014 report from the Surgeon General estimates that nearly 300,000 youth nationwide who are now alive will become smokers in their lifetime; the same report cited 2012 estimates that roughly 92,000 Maryland youth alive today will die prematurely as a result of cigarette smoking.[2] Since 2009, an estimated $2.71 billion dollars has been spent annually on smoking-related healthcare costs nationwide, and over $577 million in Medicaid dollars are spent annually on health expenses caused by smoking in Maryland.[3]

Tobacco-Related Cancers

Tobacco smoke and other tobacco products contain chemicals and substances that are recognized as carcinogens. Carcinogens are chemicals or substances that, when ingested or inhaled, may lead to the formation of cancer in the body. Tobacco users have an increased risk of various cancers due to the cancer-causing chemicals derived from tobacco products. Lung and bronchus cancer are primarily associated with tobacco use, however tobacco use can cause cancer in many areas of the body (Figure 2).[8] In the 2018 BRFSS, 18.7 percent of Maryland adults who were formerly tobacco users reported being diagnosed with cancer, about 51 percent higher than Maryland adults who were never smokers.

Figure 2: Tobacco-Related Cancers

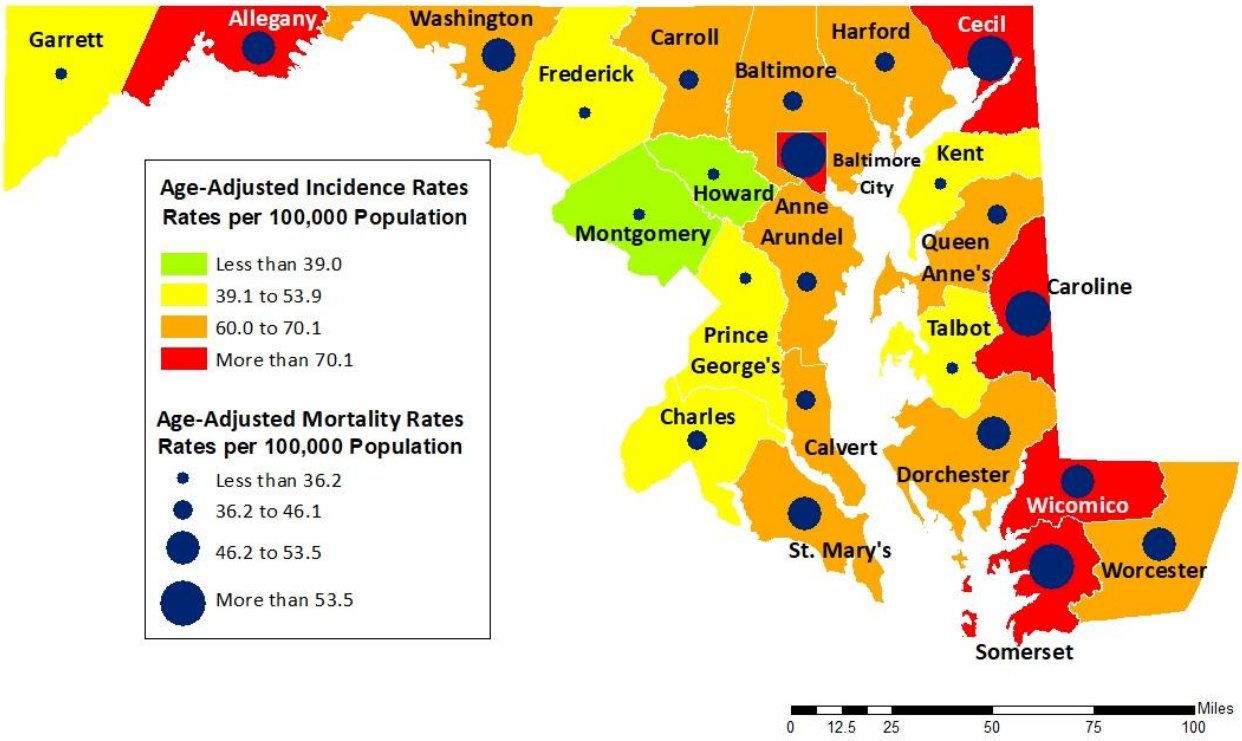


Lung and Bronchus Cancer Incidence and Mortality Rates

Nationally, 90 percent of lung and bronchus cancer cases are related to cigarette smoking, while approximately 90 percent of lung cancer deaths among men and 80 percent of lung cancer deaths among women are attributable to smoking.[9] Lung cancer continues to be the leading cause of cancer death among both men and women in Maryland.[10] Although smoking rates are declining, 24.2 percent of all 10,911 cancer deaths reported in Maryland in 2016 (the most recent data available) were caused by lung cancer.[10] The incidence of lung and bronchus cancer and the associated mortality from lung and bronchus cancer in Maryland has declined over time, possibly due to a reduction in cigarette smoking and tobacco use. Studies show lung cancer incidence or associated mortality decreases with each year added from the date of smoking cessation.[11] Figure 3 shows the age-adjusted incidence and mortality rates for lung and bronchus cancer in Maryland by jurisdiction, averaged over the years 2012 to 2016. Cecil County had the highest incidence of lung cancer in the State, closely followed by Somerset County (85.5 and 81.3 per 100,000 residents, respectively). Somerset County had the highest mortality rate of lung cancer in the State, closely followed by Cecil County (63.2 and 62.6 per 100,000 residents, respectively). Somerset and Cecil Counties also had a high prevalence of adult tobacco use (31.8 percent and 27.2 percent, respectively). Montgomery County had the lowest lung cancer incidence rate and lung cancer mortality rate (30.6 and 23.0 per 100,000

residents, respectively), and one of the lowest prevalence rates of adult tobacco use (11.6 percent).

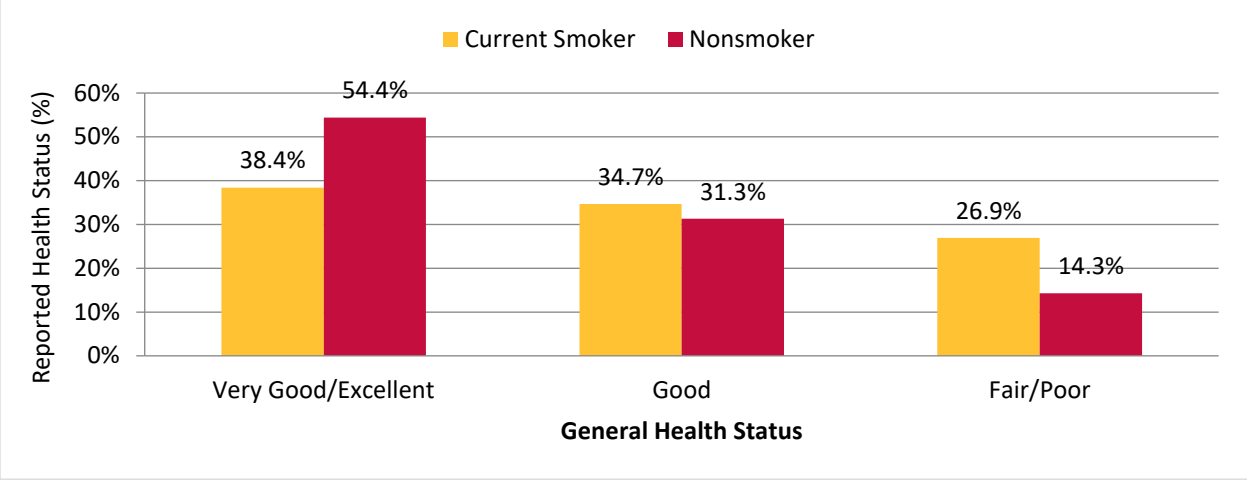
Figure 3: Maryland Lung and Bronchus Cancer Incidence and Mortality Rates by Jurisdiction 2012-2016, Maryland Cancer Registry



Other Health-Related Issues

In addition to the long-term health effects of cigarette smoke and tobacco use, short-term health effects are prevalent among smokers and those exposed to cigarette smoke. Chronic obstructive pulmonary disease (COPD) describes a collection of diseases, including emphysema and chronic bronchitis, that can cause issues with breathing, blockages in airflow, and progressive lung disease. Cigarette smoking is the leading cause of COPD in adults.[12] In the 2018 BRFSS, 14.7 percent of current smokers, 10.0 percent of former smokers and 2.5 percent of never smokers in Maryland were diagnosed with COPD, emphysema or chronic bronchitis. Additionally, current smokers are more likely to report their overall health as 'fair or poor' compared to nonsmokers, who are more likely to report their overall health as 'very good or excellent.' Figure 4 illustrates reported health status by smoking status for adults in Maryland.

Figure 4: Reported Health Status (Smokers vs. Nonsmokers), Maryland 2018 BRFSS



Chapter Conclusions:

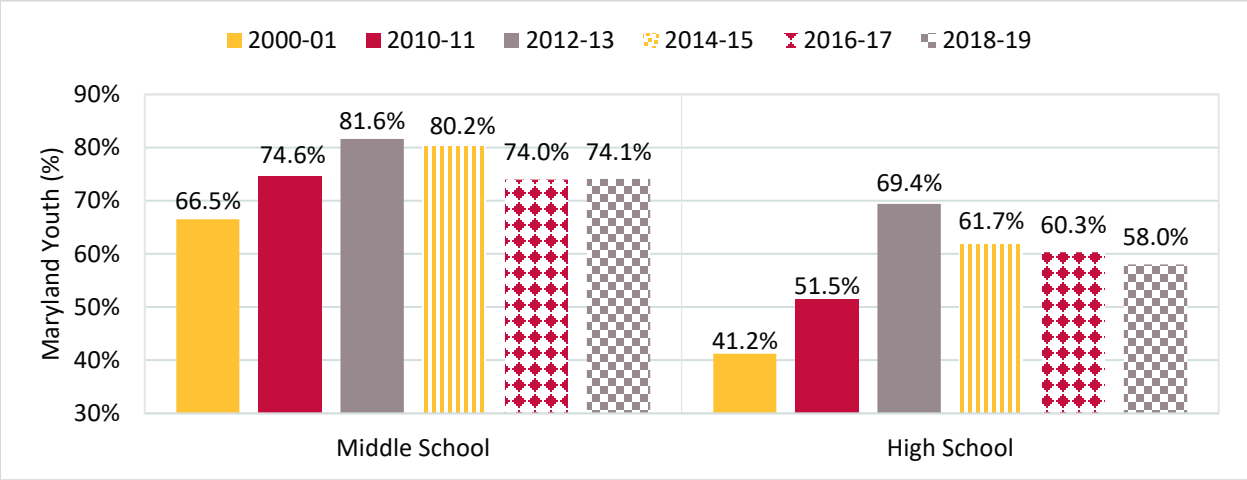
- In Maryland, approximately 7,500 adults die from tobacco smoking related illnesses every year.
- In a 2014 Surgeon General's report, the federal government estimated that about 92,000 Maryland youth alive today will die prematurely as a result of cigarette smoking.
- Since 2009, smoking related illnesses in Maryland have resulted in about $2.71 billion dollars in health-related costs, and over $577 million in Medicaid expenditures.
- There are more deaths from smoking on average than deaths resulting from unintentional injuries, suicide, homicide, drug overdose, and HIV combined.
- Tobacco users have an increased risk of various cancers due to the cancer-causing chemicals contained in tobacco products.
- Current smokers are more likely to report their overall health as "fair or poor" compared to nonsmokers, who are more likely to report their overall health as "very good or excellent."
- Lung cancer is the leading cause of cancer death among both men and women in Maryland, and 24.2 percent of all cancer deaths reported in Maryland in 2016 were attributable to lung cancer.

ATTITUDES AND BELIEFS TOWARD TOBACCO

Comprehensive statewide strategies should include consistent mass reach media and social media messaging, tobacco retailer education, continued surveillance of youth tobacco use behaviors, enforcement of youth access laws, and school-based tobacco prevention curricula. Schools play an important role in preventing and reducing smoking and other tobacco product use among youth. Accordingly, schools should strive to create environments that promote being tobacco-free through policies and comprehensive tobacco prevention curricula.

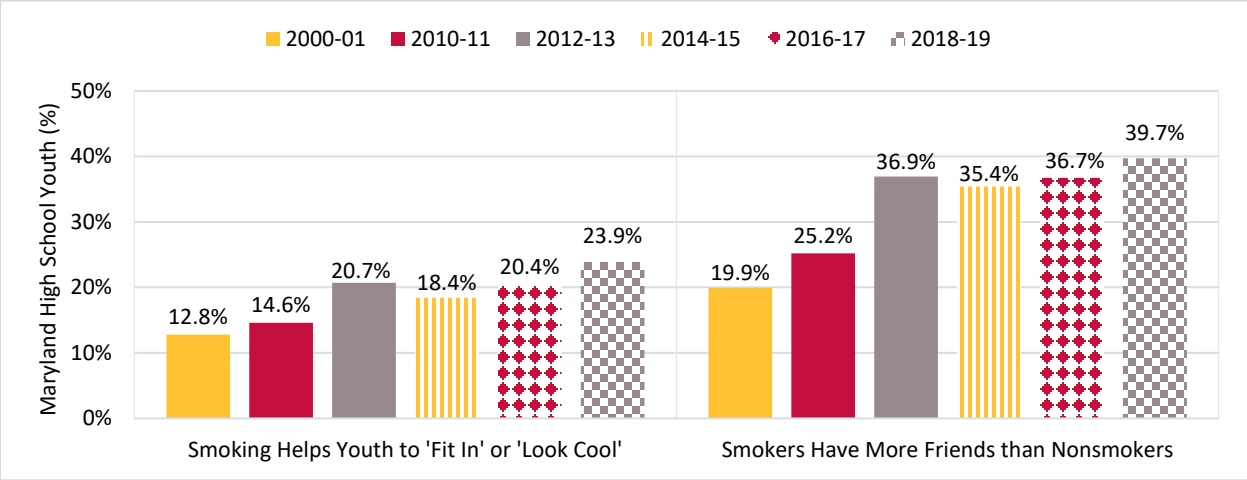
Figure 5 shows the percentage of students in Maryland that reported exposure to tobacco prevention curricula from 2000-2019. Between 2000 and 2013, tobacco prevention curricula increased by 22.7 percent for middle school and 68.4 percent for high school youth. However, since then, exposure to tobacco prevention curricula has decreased or stagnated for both middle school and high school youth. During the 2018-19 school year, 74.1 percent of middle school youth and 58.0 percent of high school youth reported exposure to tobacco prevention curricula, a 9.2 percent reduction among middle school youth and 16.4 percent reduction among high school youth since 2013.

Figure 5: Maryland Middle School and High School Youth Taught Dangers/Harmful Effects of Tobacco Use, Maryland YRBS/YTS



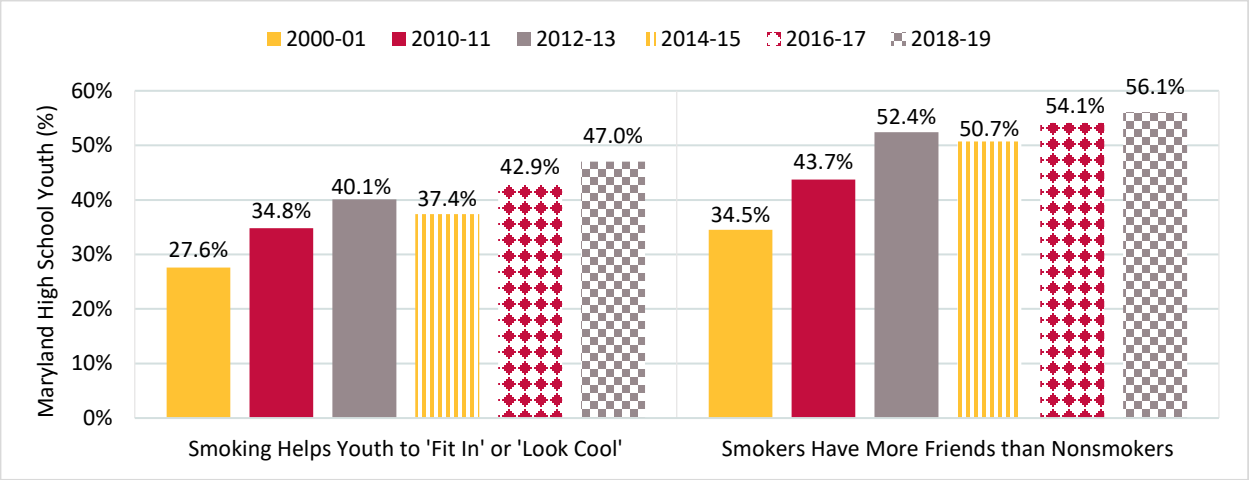
The Department measures middle school and high school youth attitudes toward tobacco use in its combined YRBS/YTS through two questions: “Do you think young people who smoke have more friends?” and “Do you think smoking makes young people ‘look cool’ or ‘fit in’?” Both questions have been tracked since 2000 and demonstrate an alarming trend, with Maryland high school youth increasingly answering “yes” to both. Since Maryland began collecting these data in 2000, positive perceptions associated with middle and high school youth smoking are the highest they have ever been. Among high school youth who do not smoke, the belief that smoking helps youth ‘fit in’ or ‘look cool’ has increased by 86.7 percent from 2000 to 2019, while the belief that smokers have more friends than nonsmokers has increased by 99.5 percent since 2000 (Figure 6).

Figure 6: Maryland High School Nonsmokers Belief that Smokers Have More Friends/Smoking Helps Youth to Fit In or Look Cool, Maryland YRBS/YTS



A similar trend has been revealed among high school youth who currently smoke; the belief that smoking helps youth 'fit in' or 'look cool' has increased by 70.3 percent in this population since 2000. Similarly, the belief that smokers have more friends than nonsmokers has increased by 62.6 percent since 2000 (Figure 7). In addition to the skyrocketing popularity of ESDs, positive perceptions of tobacco use may be due to the abundance of flavors available, sleek design, and youth-targeted marketing practices of the industry, coupled with the industry's downplaying of the nicotine content these products contain. This increase in positive perception highlights the need for increased exposure to tobacco prevention curricula alongside mass reach prevention media and enforcement of youth access policies.

Figure 7: Maryland High School Smokers Belief that Smokers Have More Friends/Smoking Helps Youth to Fit In, Maryland YRBS/YTS



Chapter Conclusions:

- High school youth perceptions of smoking among their peers are alarmingly positive and the highest they have ever been, likely due to the skyrocketing popularity of ESDs.
- Since 2012-13, exposure to tobacco prevention curricula has decreased or stayed stagnant for both middle and high school youth.
- High school youth increasingly believe that smokers have more friends than nonsmokers, and that tobacco use makes peers 'look cool.' In 2018-19, the belief that smoking helps youth "fit in" or "look cool" increased by 86.7 percent and the belief that smokers have more friends than nonsmokers increased by 99.5 percent among nonsmoking high school youth from 2000 to 2019.

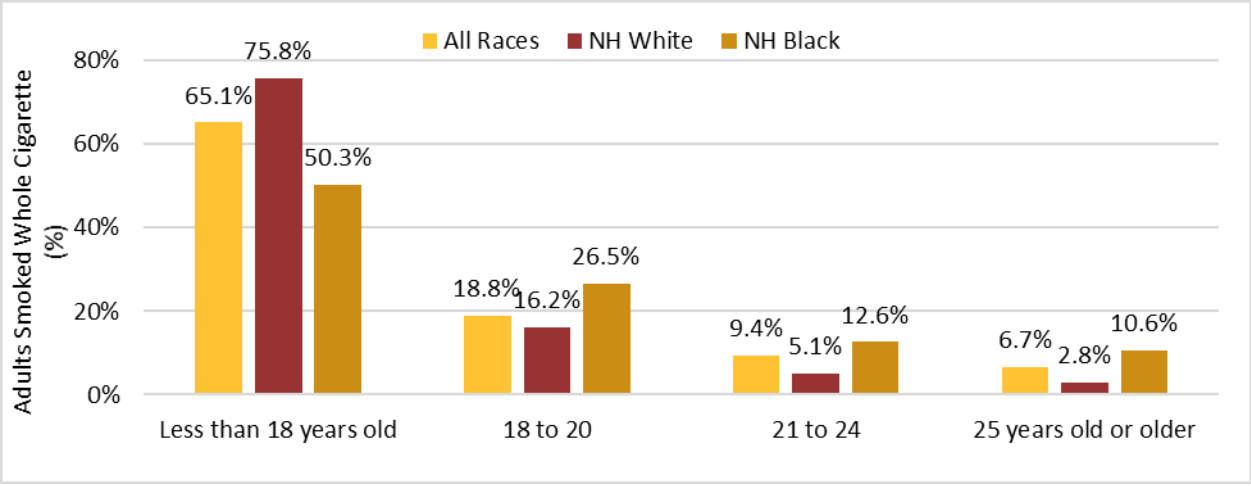
TOBACCO USE INITIATION

In 2012, the US Surgeon General published *Preventing Tobacco Use Among Youth and Young Adults,* which focused on the health consequences of tobacco use and nicotine addiction among both adolescents and adults. In this report, tobacco use was declared a "pediatric epidemic," and asserted that, "…given their developmental stage, youth and young adults are uniquely susceptible to social and environmental influences to use tobacco."[14] Maryland data continue to show tobacco use initiation begins in adolescence, and that preventing youth and young adults from accessing these products is effective in delaying the onset of nicotine consumption and addiction.

In the BRFSS survey, the CDC classifies "Current smokers" as individuals who have smoked 100 cigarettes in their lifetime in addition to reporting currently smoking "some days" or "every day." [13] "Former smokers" are those that smoked 100 cigarettes in their lifetime but currently report not smoking, while "never smokers" are those who have smoked under 100 cigarettes in their lifetime.

Findings from the Maryland 2018 BRFSS indicate that initiation of cigarette smoking predominately begins prior to age 21, and that among current cigarette smokers, 83.9 percent reported smoking their first whole cigarette prior to age 21. The age at which current adult cigarette smokers reported smoking their first whole cigarette is detailed by race/ethnicity in Figure 8. Non-Hispanic (NH) White adults were more likely to report cigarette smoking initiation before age 18 (75.8 percent), compared to NH Black/African American adults (50.3 percent).

Figure 8: Age Current Adult Smokers Say They Smoked First Whole Cigarette, By Race/Ethnicity, Maryland 2018 BRFSS



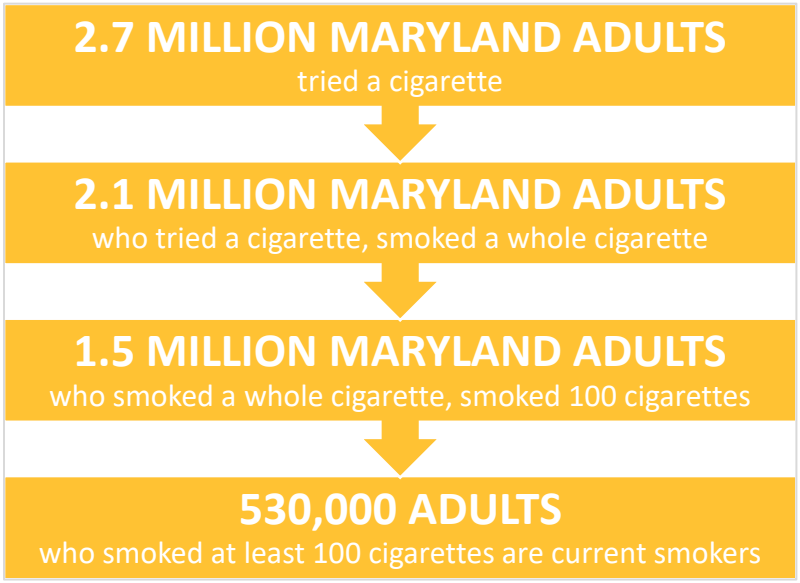
Nicotine Toxicity and Addiction

Nicotine is a highly addictive substance that contributes to smoking-related cancers, disease, and death.[14] Smokers are exposed to high nicotine levels because "cigarettes have been researched, designed, and manufactured to increase the likelihood that initiation will lead to dependence and difficulty achieving cessation."[14] The younger youth are when they start using tobacco, the stronger their likelihood of addiction will be. The 2016 U.S. Surgeon General's report reemphasized that youth are more vulnerable to nicotine than adults," and that addiction can occur in youth who begin experimenting with nicotine products.[15] Furthermore, the nicotine in tobacco products can harm the brain, which continues to develop until age 25.[4]

Adults

The 2010 US Surgeon General's report *How Tobacco Use Causes Disease* states, "the pharmacologic and behavioral processes that determine tobacco addiction are similar to those that determine addiction to drugs such as heroin and cocaine."[6] The prevalence of persons addicted to nicotine is higher than that of any other substance use disorder, including heroin and cocaine. Figure 9 maps how the progression can occur from one or two puffs of a cigarette to nicotine dependence among Maryland adults.

Figure 9: Adult Progression to Nicotine Dependence, Maryland 2018 BRFSS



About 2.7 million Maryland adults reported ever smoking at least one or two puffs of a cigarette. Of these 2.7 million adults, 2.1 million reported ever smoking a whole cigarette, while 1.5 million of the 2.7 million smoked at least 100 cigarettes. Over 530,000 Maryland adults who reported ever smoking one or two puffs of a cigarette are current 'every day' or 'some days' smokers.

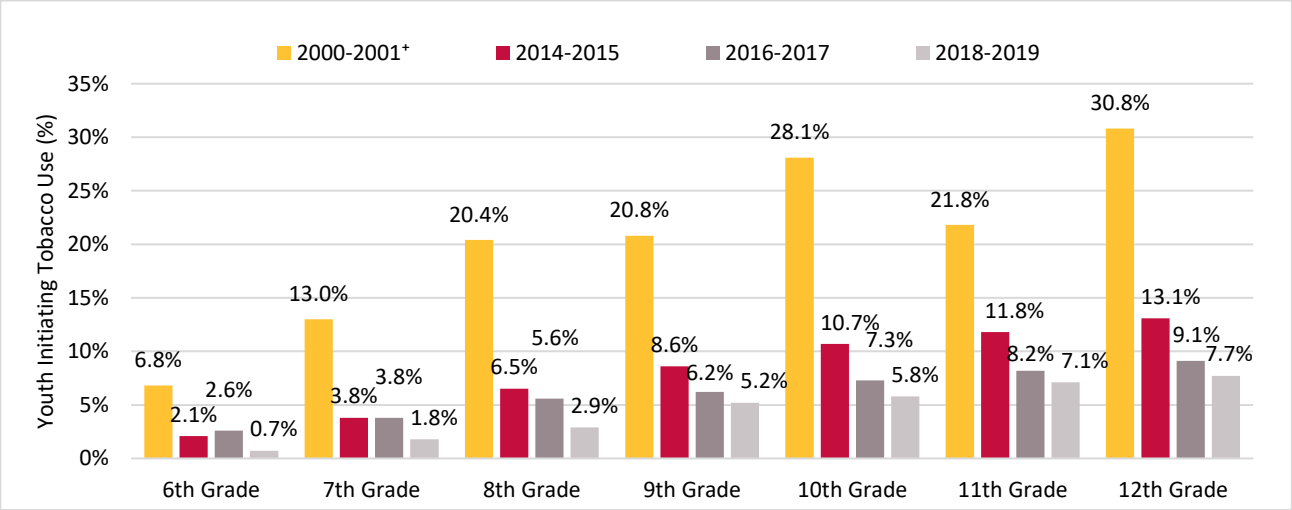
Nicotine dependence complicates efforts to reduce tobacco-related morbidity and mortality due to "persistent tobacco use" by addicted individuals.[6] Despite the complications associated with nicotine dependence, Maryland adults who reported never being a cigarette smoker increased from 58.3 percent in 2011 to 64.0 percent in 2018. In addition to this, only

0.9 percent of Maryland adults reported starting to smoke for the first time in the year prior in the 2018 BRFSS, indicating the State is having success with tobacco use prevention efforts directed at youth and young adults.

Youth

According to a 2012 US Surgeon General's Report, an estimated 80 percent of smokers began smoking in high school. One-half of those who continue smoking into adulthood will die roughly 13 years earlier than their peers who did not smoke. Cigarette experimentation in high school and middle school has the tendency to transition smokers from "experimentation to sustained smoking."[2] In the 2018-19 Maryland YRBS/YTS, 6.5 percent of high school and 1.8 percent of middle school youth reported trying or using tobacco products, including ESDs, for the first time during the 12 months prior. Past year initiation of tobacco products among middle school and high school youth has decreased significantly since 2000[+], as detailed in Figure 10. However, initiation continues to increase with progressive grade level. Past year initiation did not include ESDs during the 2000-01 Maryland YRBS/YTS.

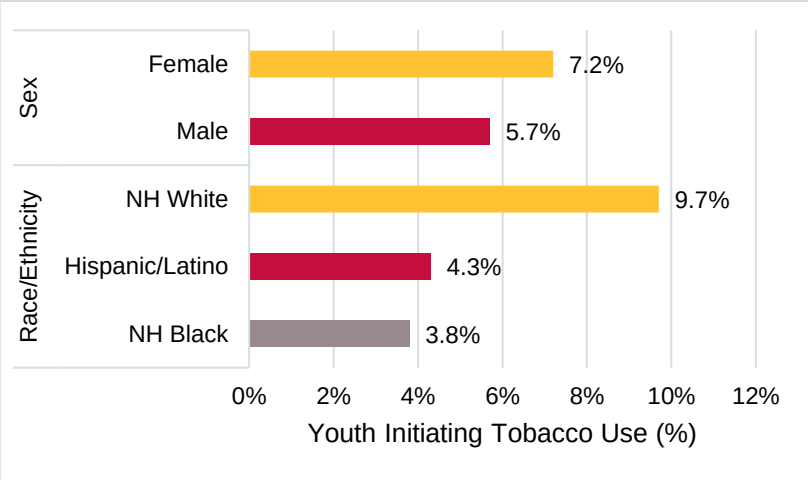
Figure 10: Maryland Middle School and High School Youth Initiating Tobacco Use in Past Year, By Grade, Maryland YRBS/YTS



In addition to the differences seen for initiation of tobacco products by grade level, initiation differs significantly by sex and race/ethnicity, as detailed in Figure 11. Female high

school youth (7.2 percent) are more likely to have initiated tobacco use for the first time in the past year than male high school youth (5.7 percent). In the 2016-17 YRBS/YTS, no significant differences were seen among males and females. NH White high school youth (9.7 percent) are also more likely to have initiated tobacco for the first time in the past year compared to Hispanic/Latino (4.3 percent) or NH Black/African American (3.8 percent) high school youth.

Figure 11: Maryland High School Youth Initiating Tobacco Use In Past Year, By Race/Ethnicity and Sex, Maryland 2018-19 YRBS/YTS

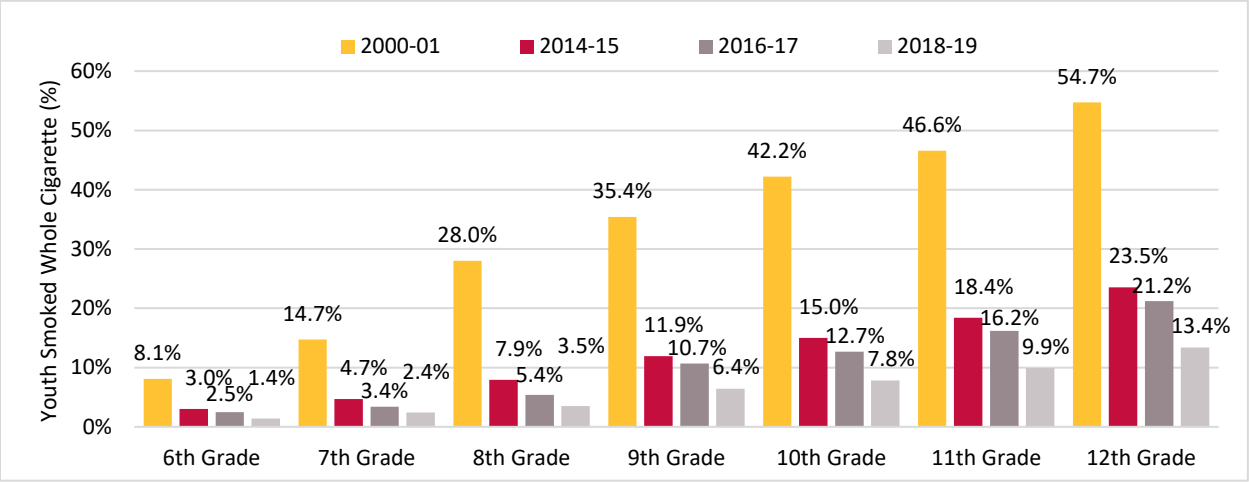


Another measure for the initiation of tobacco products is the change over time in the proportion of high school youth who have ever smoked a whole cigarette. In the 2018-19 Maryland YRBS/YTS, 7.9 percent of high school youth reported trying one or two puffs of their first cigarette before age 13.[viii] Additionally, 4.1 percent of Maryland high school youth reported smoking a whole cigarette before age 13, a 48.8 percent decrease from 8.0 percent in the 2012-13 survey.

Differences exist among Maryland middle school and high school youth who reported ever smoking a whole cigarette by grade level, as detailed in Figure 12. The proportion of high school youth who ever smoked a whole cigarette has declined significantly since 2000, which decreases the likelihood of high school youth transitioning from experimentation with cigarettes to nicotine dependence.

[viii] This question was asked for the first time on the 2018-19 Maryland YRBS/YTS

Figure 12: Maryland Middle and High School Youth Who Ever Smoked a Whole Cigarette, by Grade, Maryland YRBS/YTS



Notwithstanding the reduction in high school youth tobacco use initiation since 2000, 87.9 percent of high school youth who first tried a tobacco product, including ESDs, within the past year are now current tobacco users.[ix] More must be done to prevent youth from initiating tobacco use and becoming regular tobacco users.

Chapter Conclusions:

- Among current Maryland adult cigarette smokers, nearly 84 percent reported smoking their first whole cigarette prior to age 21.
- Cigarette smoking initiation among current Maryland adult smokers differs by race. Nearly 76 percent of NH White adult smokers started smoking before age 18, compared to nearly 50 percent of NH Black/African American adult smokers.
- Tobacco use initiation among middle school and high school youth has decreased significantly since 2000. However, initiation continues to increase with increasing grade level.
- Nearly 88 percent of high school youth who first tried a tobacco product within the past year are now current tobacco users.

[ix] A regular tobacco user is a person who reported using a product in the 30 days prior to the survey

TOBACCO PRODUCT USE

Tobacco product use is the leading cause of preventable disease and death in the US, annually claiming roughly 480,000 lives nationwide and 7,500 lives in Maryland.[2] There are many categories of tobacco products, such as cigarettes, cigars, smokeless tobacco (including snuff and chew), pipe tobacco (including hookah), and ESDs (including Juul). Although both adult and high school youth use of cigarettes have declined significantly over the last 20 years, adult cigar and smokeless tobacco use has remained the same while high school youth ESD use has increased significantly. Similar to high school youth cigarette use, high school youth cigar use has also decreased significantly, whereas smokeless tobacco use has remained the same. Among Maryland adults, cigarettes remain the most popular tobacco product, followed by cigars and then smokeless tobacco. Among Maryland high school youth, ESDs are the most popular tobacco product by a significant margin.

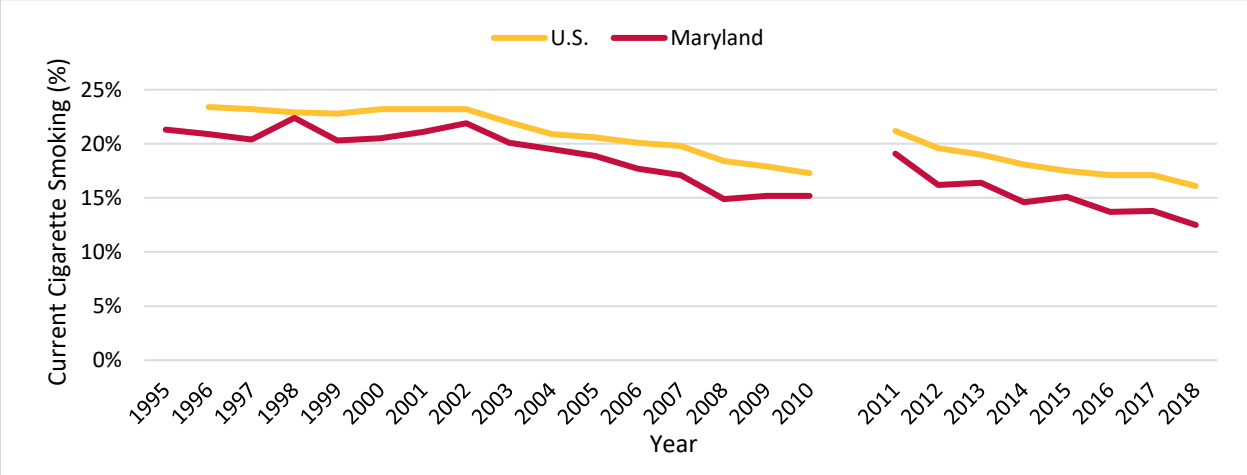
Use of multiple tobacco products is becoming increasingly common among both high school youth and adults. In doing so, users of multiple products place themselves at risk by increasing exposure to nicotine and other chemicals found in tobacco products.

National Comparison – Current Cigarette Smoking

Adult Smoking Rates

The CDC defines current adult cigarette smoking as "adults aged 18 or older who have smoked at least 100 cigarettes in their lifetime and who currently smoke cigarettes 'every day' or 'some days.'" Since 1996, Maryland adults continue to smoke cigarettes at less than the national rate. Since 2011, a 34.6 percent reduction in adult current smoking was observed in Maryland, compared to a 24.1 percent reduction nationally (Figure 13).

Figure 13: National and Maryland Current Cigarette Smoking Among Adults, by Year, BRFSS

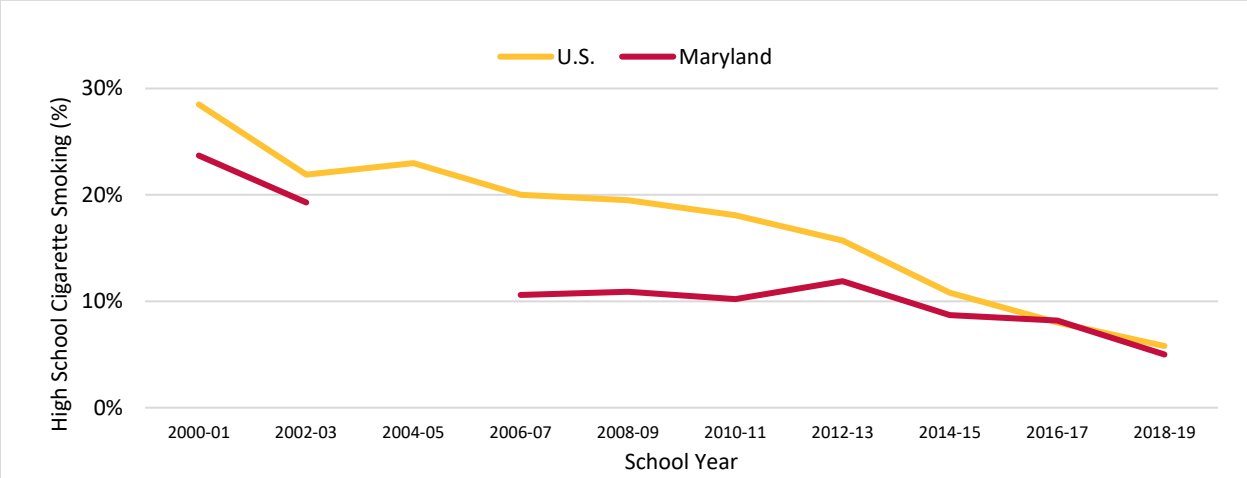


Youth Smoking Rates

The CDC defines current smoking among youth as "students who smoked a cigarette at least one day during the past 30 days."[16] The Maryland high school youth smoking rate was consistently lower than the national rate until the 2016-17 school year, when the national rate fell slightly lower than the rate in Maryland (8.0 percent and 8.2 percent, respectively). The high school youth smoking rate in Maryland remained relatively constant between the 2006-07 and 2016-17 school years, before dropping significantly in the 2018-19 school year, likely due to the introduction of ESDs. In the 2018-19 school year, Maryland's high school youth smoking rate was 5.0 percent. In Maryland, a 78.9 percent decrease in high school youth smoking was reported between the 2000-01 and 2018-19 school years. Figure 14 compares national and Maryland high school youth smoking estimates.

Figure 14: Current Cigarette Smoking Among High School Youth, by School Year

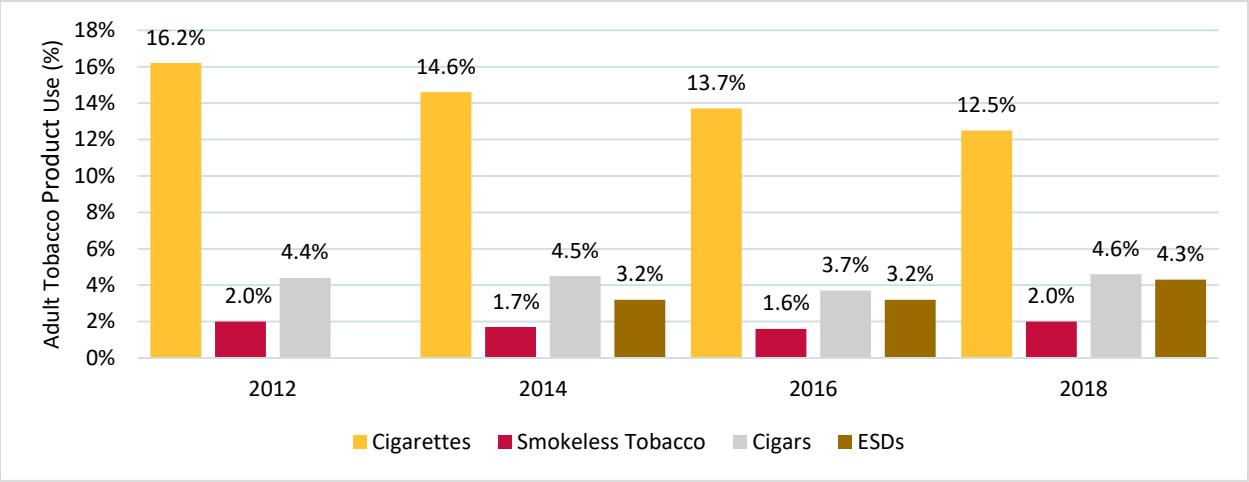
*Surveys were not conducted in Maryland between survey years 2002-03 and 2006-07



Adult Use of Tobacco Products

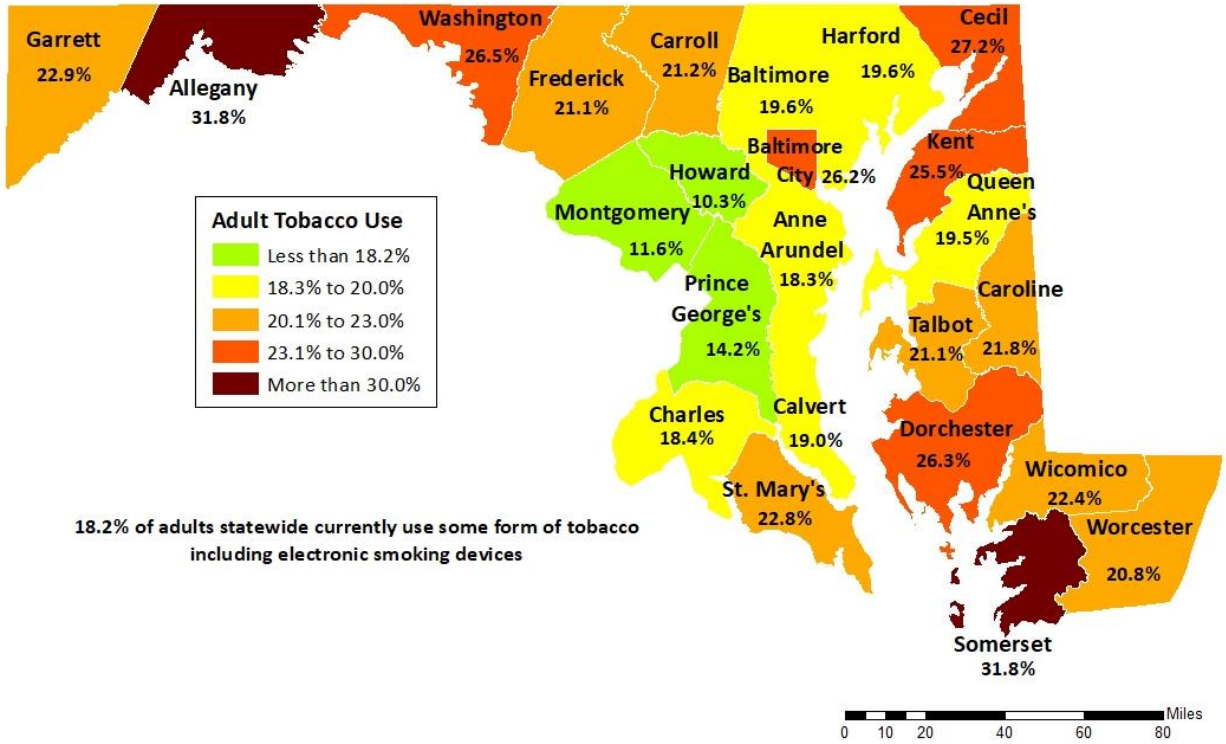
In the Maryland BRFSS it shows, over 865,000 Maryland adults used tobacco products in 2018, including: cigarettes (12.5 percent), cigars (4.6 percent), smokeless tobacco (2.0 percent), other tobacco products such as pipe, bidis, kreteks, and hookah (1.4 percent), and ESDs (4.3 percent). Between the years of 2012 to 2018, a 22.8 percent decline in adult cigarette smoking was observed in Maryland, as indicated in Figure 15. There has been no statistically significant change among cigar and tobacco use in Maryland since 2012. ESD use was collected for the first time in the 2014 Maryland BRFSS; from 2014 to 2018 there was no significant difference in adult ESD use.

Figure 15: Adult Use of Cigarettes, Cigars, Smokeless Tobacco, and Electronic Smoking Devices, Maryland 2011-2018 BRFSS



As illustrated on Figure 16, 18.2 percent of Maryland adults currently use a tobacco product. There are significant differences in adult tobacco use by jurisdiction, which ranges from 10.3 percent in Howard County to 31.8 percent in Allegany and Somerset counties. The larger, more populous jurisdictions in Maryland have the lowest tobacco use rates, whereas the rural, less populous regions have among the highest tobacco use rates. Baltimore City is the exception, as it is both a highly populated region with high tobacco use rates.

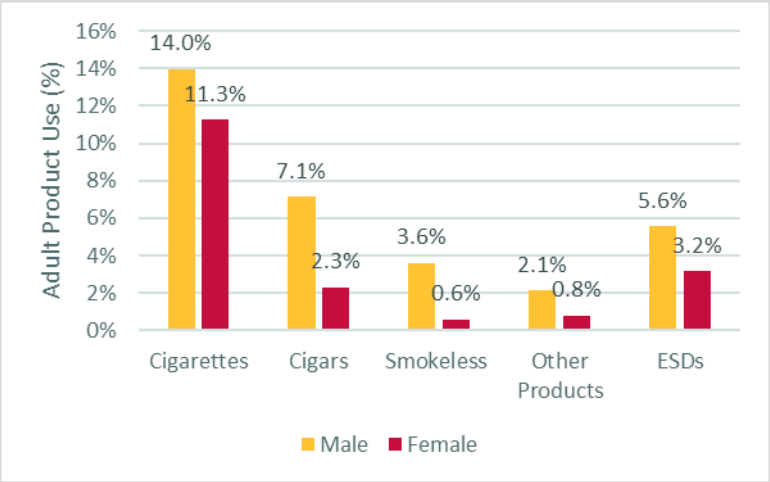
Figure 16: Adult Tobacco Use in Maryland By Jurisdiction, Maryland 2018 BRFSS



There are distinct differences in tobacco use behaviors between men and women. Men use all tobacco products at a higher rate than women, with some products at considerably higher rates. Accordingly, the tobacco industry targets women and men differently, frequently promoting 'weight loss' and 'autonomy' for females while men are often targeted with imagery on 'masculinity' and 'power.'[17]

Figure 17 illustrates the differences in male and female tobacco use for different products. Notably, men are six times more likely than women to use smokeless tobacco (3.6 versus 0.6 percent, respectively) and three times more likely to use cigars (7.1 versus 2.3 percent respectively).

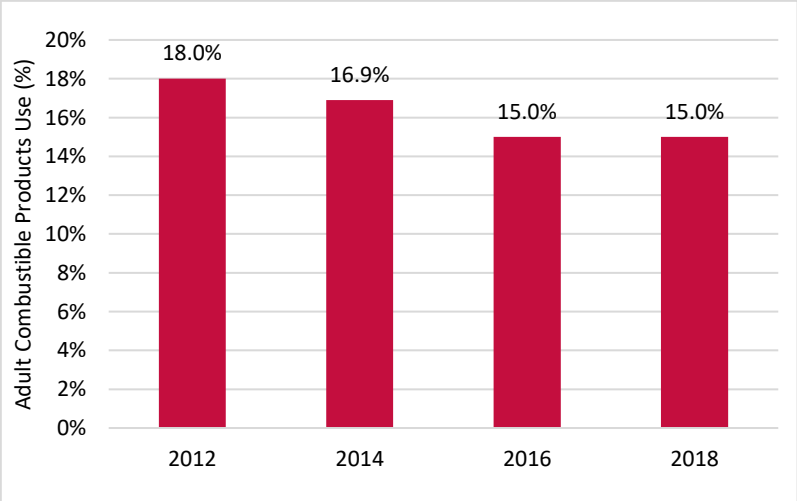
Figure 17: Adult Tobacco Product Use by Sex, Maryland 2018 BRFSS



Adult Use of Combustible Tobacco Products

The burden of tobacco-related death and disease is overwhelmingly caused by cigarette and other combustible tobacco product use, which are defined as tobacco products that are intended to be smoked. [2]

Figure 18: Adult Tobacco Combustible Product Use, Cigarettes and Cigars, Maryland 2012-2018 BRFSS



Combustible tobacco products typically contain higher levels of toxins and nicotine compared to non-combustible products.[18] Most Maryland adult tobacco users use combustible tobacco products, specifically cigarettes and cigars. Although use of these products has decreased from 2012 to 2018 (18.0 to 15.0 percent, respectively), no change was measured between 2016 and 2018, as detailed in Figure 18.

In the 2014 US Surgeon General's report, the reduction of nicotine levels in cigarettes and other combustible tobacco products to non-addictive levels was named as one of the

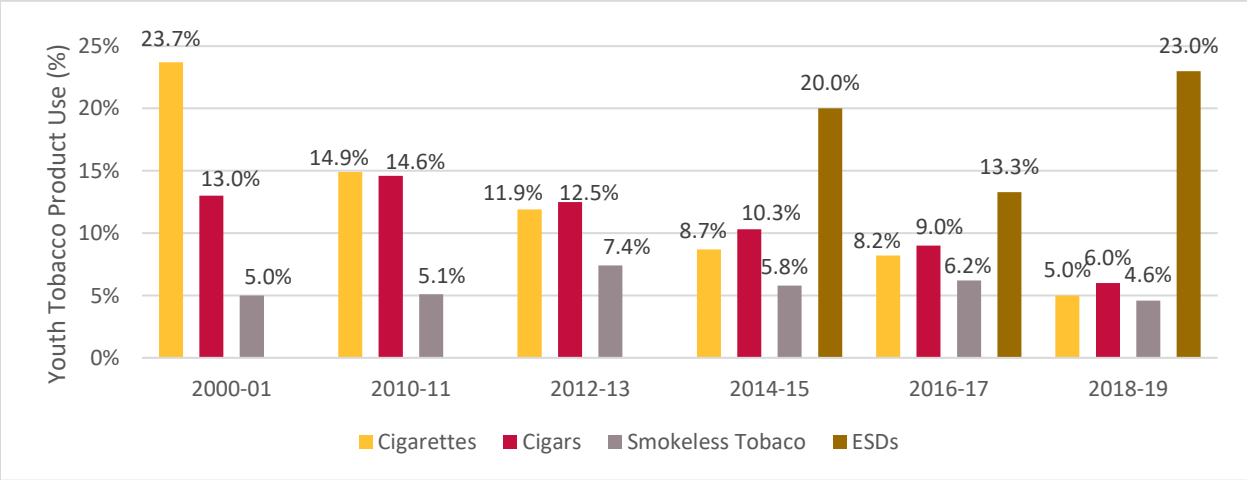
strategies to reduce the burden of death and disease caused by such products.[2] In July 2017, the FDA proposed writing new rules that would limit nicotine levels for cigarettes.[19] The CDC conducted a web-based panel in 2018 to assess attitudes among US adults toward lowering nicotine levels to non-addictive levels in cigarettes. The panel found that 81 percent of those participating in the survey, including non-smokers, former smokers, and current smokers, favored requiring cigarette makers to lower nicotine levels in cigarettes.[20] This information contributes to the evidence base required by the FDA to make a final ruling. To date, however, the FDA has yet to provide guidance, and continues to collect public input and evidence to weigh all options for regulating nicotine levels in combustible products.

Youth Use of Tobacco Products

In the 2018-19 school year, over 65,000 Maryland high school youth used tobacco products, including: cigarettes (5.0 percent), cigars (6.0 percent), smokeless tobacco (4.6 percent), and ESDs (23.0 percent). This amounts to 27.4 percent of high school youth reporting current tobacco use during the 2018-19 school year.

Unlike adults, high school youth were more likely to use ESDs than any other tobacco product, as their preference for ESDs far outweighs use of any other tobacco product. Figure 19 details high school youth tobacco product use since the 2000-01 school year, which has seen a 78.9 percent decrease in cigarette use, 53.8 percent decrease in cigar use, and 8.0 percent decrease in smokeless tobacco use. High school youth ESD use was first measured in the 2014-15 school year. From 2014-15 to 2018-19, high school youth ESD use fluctuated significantly – decreasing significantly between 2014-15 and 2016-17 (by 33.5 percent), then increasing significantly between 2016-17 and 2018-19 (by 72.9 percent).

Figure 19: High School Youth Use of Cigarettes, Cigars, Smokeless Tobacco, and Electronic Smoking Devices, Maryland YRBS/YTS



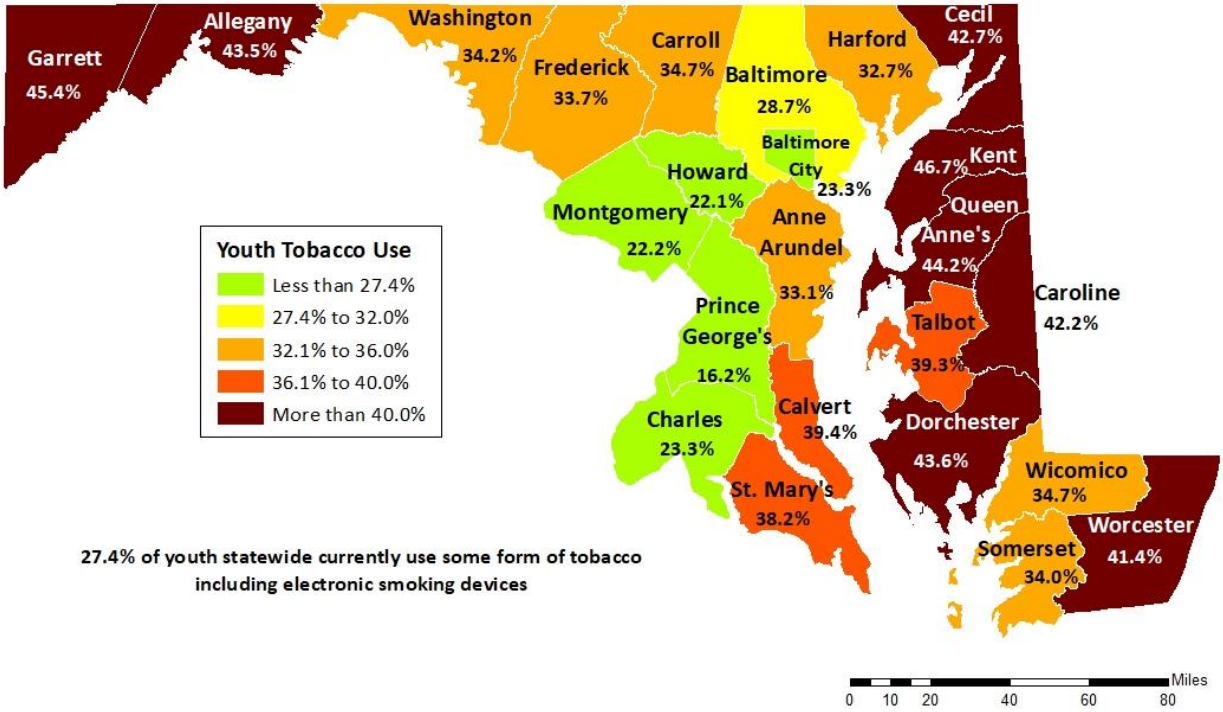
High school youth preference for ESDs could be due to a variety of factors, including the availability of flavored options that appeal to them. ESDs can contain flavors such as candy, fruit, mint, and menthol that may lead youth to believe that ESDs are harmless and less addictive than cigarettes. However, some ESDs contain as much nicotine as 20 cigarettes. Further information regarding ESDs is included in the next chapter.

Cigars and cigarillos are the second most preferred tobacco product among high school youth. Like ESDs, cigars and cigarillos are also available in a variety of flavors. They can be sold in singles, two-packs, three-packs, or five-packs, and are typically inexpensive when compared to cigarettes. High school youth tobacco preference shifted from cigarettes to cigars during the 2008-09 school year, which coincided with an increased tax on cigarettes from $1 to $2 a pack. Although the excise tax on non-premium cigars and cigarillos later increased from 15 percent to 70 percent of wholesale price in 2012, cigars and cigarillos are often still less expensive than cigarettes because of their smaller pack sizes.

Smokeless tobacco products, although used by high school youth the least often (4.6 percent), are also available in a variety of flavors and types sometimes called dip, chew, snuff, dissolvable, and snus. In the 2018-19 YRBS/YTS survey, over half (53.3 percent) of high school youth who reported using smokeless tobacco or cigars used a flavored tobacco product other than menthol cigarettes.

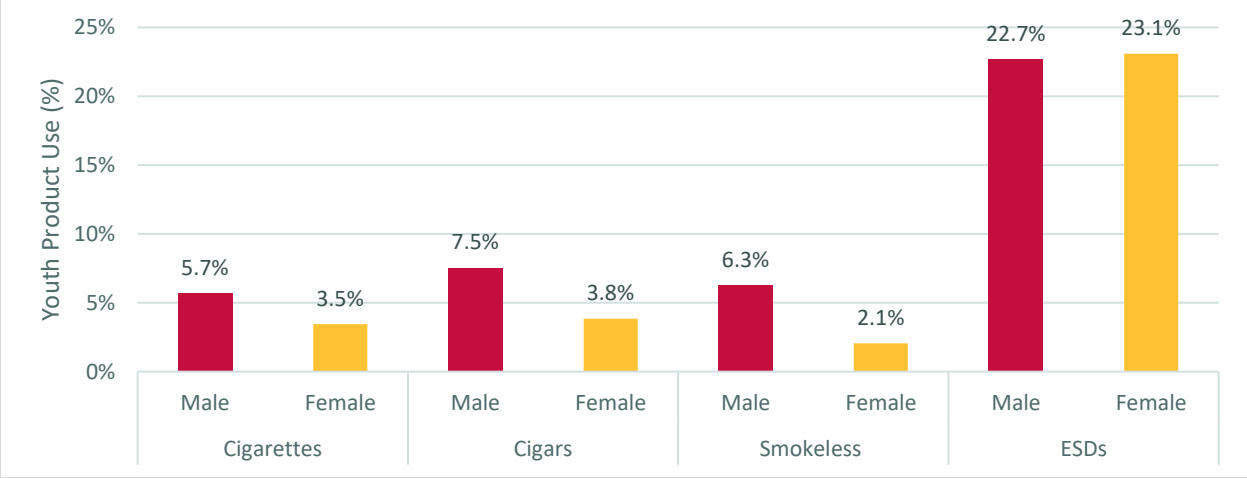
As illustrated in Figure 20, 27.4 percent of Maryland high school youth currently use some kind of tobacco product. There are significant differences in high school youth tobacco use by jurisdiction, which ranges from 16.2 percent in Prince George's County to 46.7 percent in Kent County. Similar to the adult population in Maryland, the larger, more populous jurisdictions in Maryland have the lowest high school youth tobacco use rates, whereas the rural, less populous regions have some of the highest high school youth tobacco use rates.

Figure 20: High School Youth Tobacco Use in Maryland By Jurisdiction, Maryland 2018-19 YRBS/YTS



Among high school youth, females use tobacco products at similar rate to males (26.0 and 27.9 percent, respectively). However, like male adults, male high school youth are more likely to use smokeless tobacco. Male and female high school youth use ESDs at similar rates (22.7 and 23.1 percent, respectively). Figure 21 shows high school youth tobacco product use by sex.

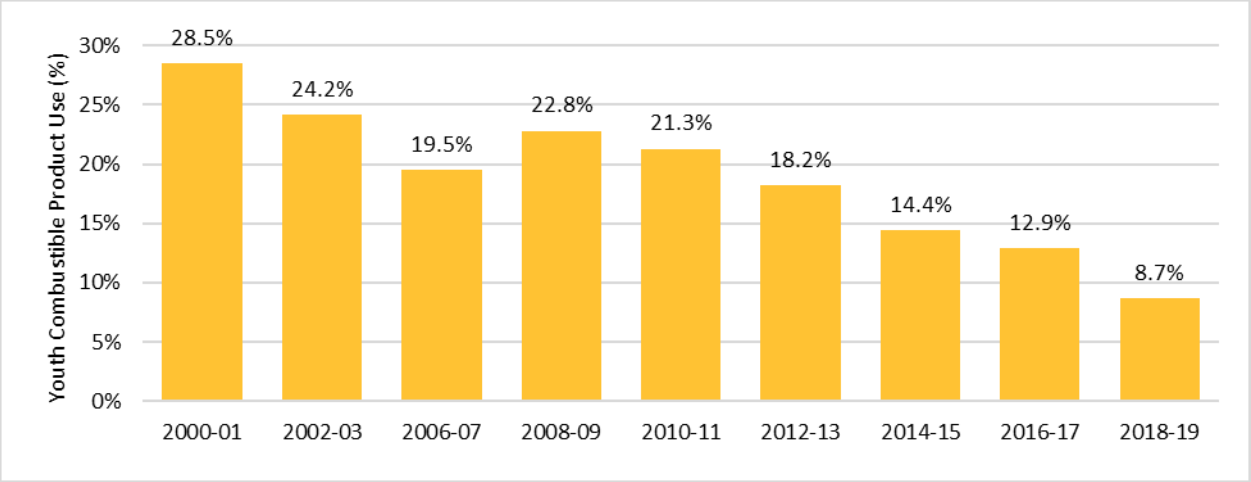
Figure 21: High School Youth Tobacco Product Use by Sex, Maryland 2018-19 YRBS/YTS



Youth Use of Combustible Tobacco Products

Flavors added to combustible tobacco products are particularly problematic, as such additives can reduce the harshness and bitterness of the product, which may lead youth to believe that flavored tobacco products are less addictive and/or harmful than non-flavored products. While menthol is the only flavor allowable for cigarettes, cigars can contain candy and fruit flavors, as well as other sweet flavors such as vanilla, rum, cotton candy, or chocolate. Some states and localities are introducing flavor bans that would eliminate all flavors from all tobacco products, including cigarettes and cigars. High school youth use of combustible tobacco products has decreased by 69.5 percent since the 2000-01 school year. Figure 22 illustrates the significant drop in high school youth combustible tobacco use from 2000-01 (28.5 percent) to 2018-19 (8.7 percent).

Figure 22: High School Youth Combustible Tobacco Product Use, Cigarettes and Cigars, Maryland YRBS/YTS



High School Youth Cigarette Smoking and Other Risk Behaviors

High school youth cigarette smoking is highly associated with alcohol, marijuana, and other drug use. Tobacco products are known as “gateway drugs” for youth progression from cigarette smoking to more illicit drug use.[21] Youth who are nicotine dependent are more likely to become addicted to such substances.[22] Table 8 highlights data from the Maryland 2018-19 YRBS/YTS showing the association of cigarette smoking with other risk behaviors.

Table 8: Relative Risk of Alcohol, Marijuana, and Other Drug Use Among High School Youth, by Smoking Status, Maryland 2018-19 YRBS/YTS

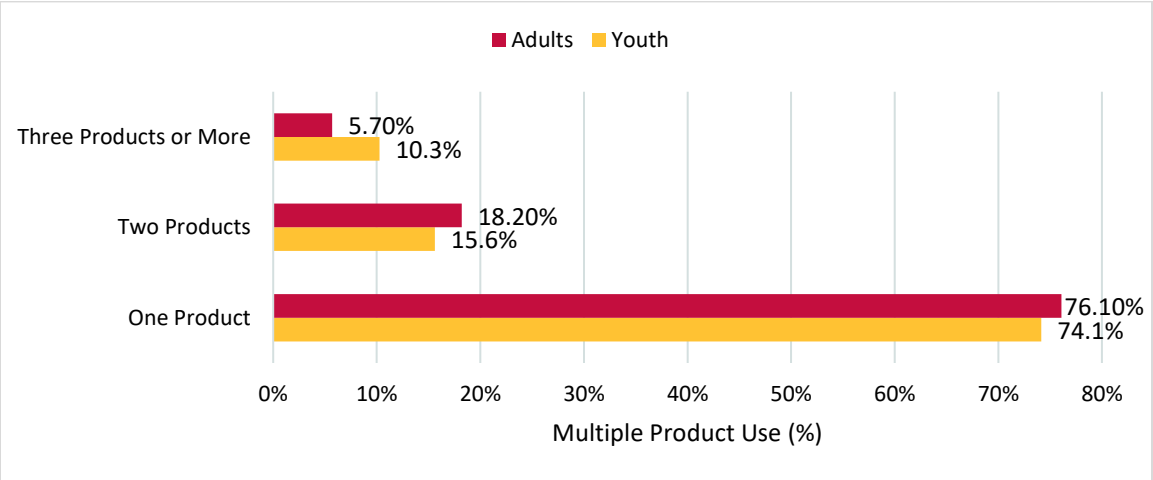
Smoking Status	Currently Drank Alcohol	Currently Used Marijuana	Ever Abused Prescription Drugs	Ever Used Injection Drugs	Ever Used Heroin
Cigarette Smoker	79.1%	63.0%	52.5%	27.9%	33.1%
Nonsmoker	21.6%	15.5%	12.3%	2.6%	1.8%
Increased Likelihood of Engaging in Other Risk Behaviors	**3.7x**	**4.1x**	**4.3x**	**10.7x**	**18.4x**

Maryland high school youth who currently smoke cigarettes are 3.7 times more likely to currently drink alcohol, 4.1 times more likely to currently use marijuana, 4.3 times more likely to have ever abused prescription drugs, 10.7 times more likely to have ever injected illicit drugs, and 18.4 times more likely to have ever used heroin than nonsmokers. Interventions for youth tobacco use, opioid use, and use of the other addictive products should be offered simultaneously to help youth recover from these harmful substances.

Multi-Tobacco Product Use

Dual and multiple tobacco product users may have a higher tendency for nicotine dependency due to increased nicotine exposure across different types of products.[23] About three out of every four adult and high school youth tobacco users are single product users, as shown in Figure 23. High school youth tobacco users are almost twice as likely to use three or more tobacco products (10.3 percent) than adult tobacco users (5.7 percent). Youth concurrent use of multiple tobacco products may increase the likelihood of engaging in other risk behaviors like alcohol, marijuana, and other drug use.[24] Youth tobacco use prevention messages should address the risks associated with simultaneous use of multiple tobacco products. Between 2016-17 and 2018-19 there has been a decrease in multiple product use among high school youth, from 46.5 percent to 25.9 percent. This is perhaps due to the rise in popularity of ESDs and decline of conventional tobacco product use among high school youth.

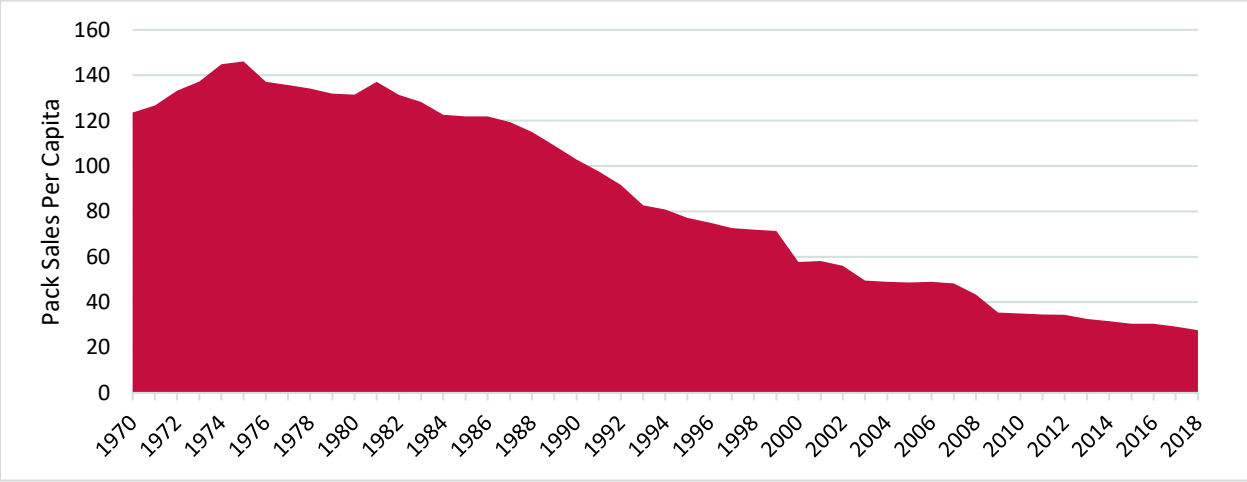
Figure 23: High School Youth and Adult Multiple Product Use, Maryland 2018 BRFSS and Maryland 2018-19 YRBS/YTS



Maryland Cigarette Consumption

The number of cigarettes smoked annually in Maryland has declined significantly since the mid-1970s, as the State has implemented many effective tobacco prevention and control strategies that have led to the decline of cigarette consumption (Figure 24). Efforts to continue the progress made over the last 50 years should include strategies that address tobacco cessation and treatment, smoking-related disparities, and increasing the price of tobacco products. Continuing prevention efforts could drive down cigarette consumption in Maryland, which in turn could improve the health and wellness of all Marylanders.

Figure 24: Maryland Cigarette Consumption (Pack Sales Per Capita), 1970-2018[25]



Chapter Conclusions:

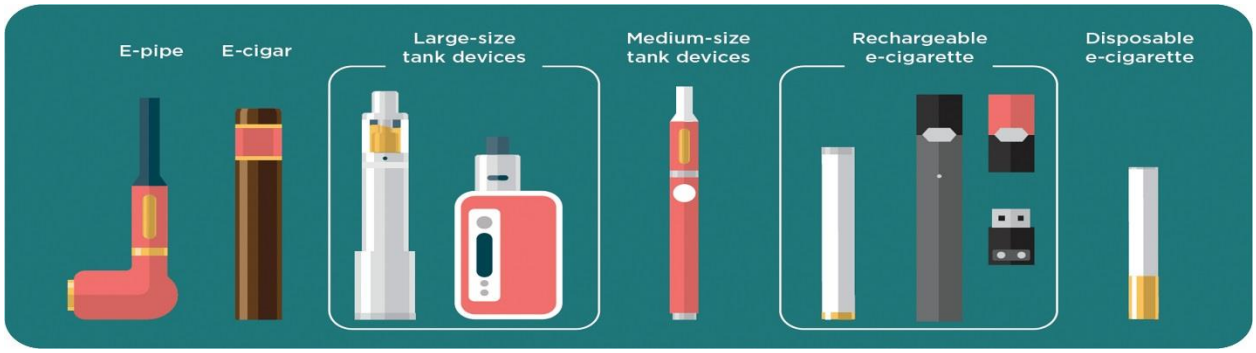
- Smoking is the leading cause of preventable disease and death in the US, annually claiming about 480,000 lives nationwide and 7,500 lives in Maryland.
- Maryland adults prefer cigarettes as their tobacco product of choice, while Maryland high school youth prefer ESDs.
- Youth preference for ESDs and cigars is likely due to the availability of attractive flavors, which may lead youth to believe that these products are less harmful and addictive than cigarettes.
- In Maryland, larger, more populous jurisdictions have the lowest tobacco use rates, whereas rural, less populous regions have among the highest tobacco use rates.
- High school youth are roughly two times more likely to use three or more tobacco products compared to adults.
- Nicotine addiction and dependency may be higher among dual and multiple tobacco product users.
- Effective tobacco control and prevention strategies have led to the rapid decline of cigarette consumption in Maryland.

ELECTRONIC SMOKING DEVICE USE

As the tobacco landscape has evolved with the introduction of widely available non-combustible devices, ESDs have become the most popular tobacco product among middle school and high school youth. The National Youth Tobacco Survey measured a significant increase of 78 percent in high school ESD use from 2017 to 2018.[26] Youth ESD use is a particular public health concern due to the adverse health effects of nicotine on adolescent brain development, lung development, and addiction. Accordingly, on December 18, 2018 the US Surgeon General declared youth ESD use an epidemic.[27]

ESDs refer to a diverse group of tobacco products, including: e-cigarettes, vapes, vape pens, tanks, e-cigars, and e-hookahs, sold under brand names including Juul, Vuse, MarkTen, Suorin, blu, and most recently, Puff Bar (Figure 25).[28] In recent years, targeted mass media advertising by ESD manufacturers and the availability of these products in over 15,500 candy and fruit flavors has contributed to their popularity among youth.[29] These products were not widely available or marketed in 2000, when Maryland's Cigarette Restitution Fund (CRF) Program was launched.

Figure 25: Types of Electronic Smoking Device (ESD) Products, CDC

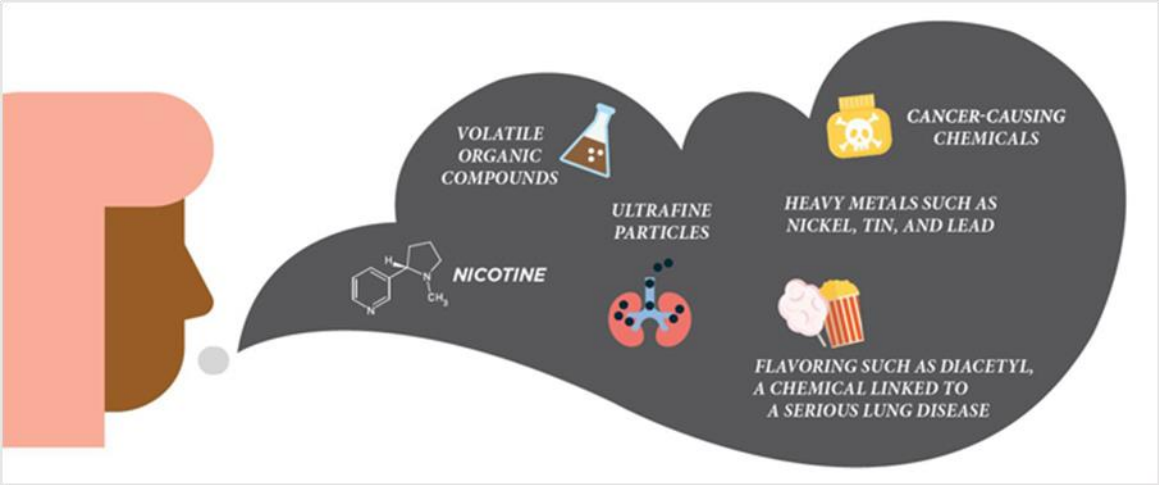


ESDs function by heating a liquid substance, usually containing nicotine, flavorings, and other ingredients, and emitting an aerosol cloud. Although some chemical flavorings have been approved by the FDA in small quantities for ingestion, they have not been approved for inhalation, which could have negative health effects associated with inhaling these additives.[30] The act of using ESD products is often called 'vaping' or 'juuling,' the latter term based off the ESD brand name, "Juul."

The visible emissions from an ESD resemble smoke but are commonly referred to as 'vapor' both in advertising and by users, implying these products produce harmless water vapor. However, the emissions, which can be inhaled by the user and those around them, are not water vapor, but an aerosol: a compilation of very small particles of solid or liquid droplets.[2] Aerosols emitted by ESDs contain small droplets of liquid nicotine, liquid chemical flavorings,

and liquid chemicals formed in the heating process, including benzene, formaldehyde, carcinogens, liquid propylene glycol, and liquid glycerin (Figure 26).[31]

Figure 26: Electronic Smoking Device (ESD) Aerosol Components, CDC



Although there is a gap in research regarding the long-term health effects of ESDs, these products are not safe for youth, young adults or adults who are not currently using a tobacco product. The nicotine in ESDs can harm the brain, which continues to develop until age 25.[4] Additionally, the aerosolized particles in ESD emissions can enter the lungs and cause short-term adverse health effects, including cough and shortness of breath.[4]

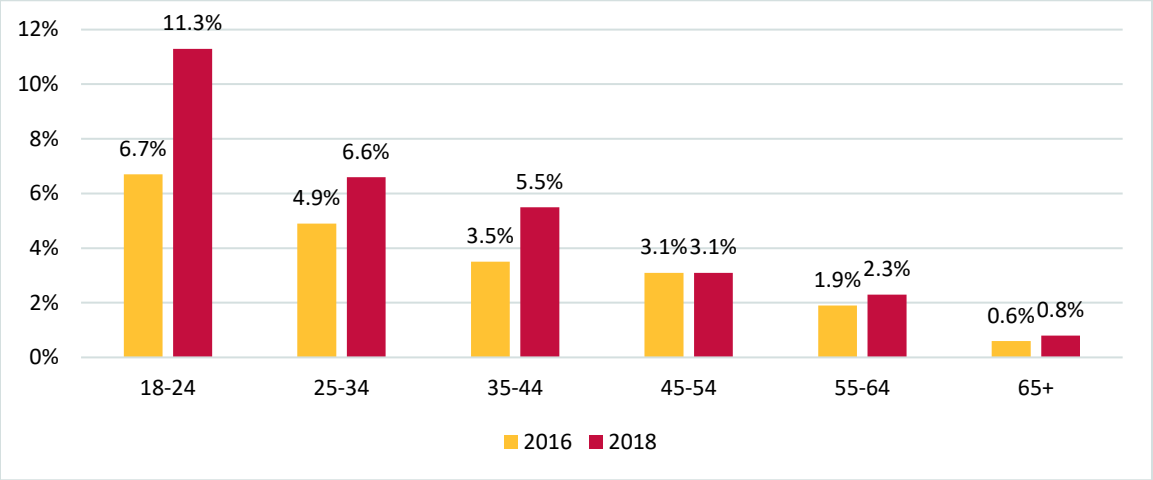
On August 2, 2019, the CDC was notified of a potential outbreak of a e-cigarette or vaping associated lung illness (EVALI). As of January 2020, over 2,700 cases of hospitalization and 60 EVALI-related deaths were reported across 50 states, Washington DC, Puerto Rico, and the US Virgin Islands. All EVALI cases reported using an ESD or vaping product, with most cases reporting use of a tetrahydrocannabinol (THC) oil/hash oil or THC wax vaping product. To date, the primary cause of EVALI is not known, however, most cases used a THC-containing product and a vitamin E derivative was found to be present in most collected e-liquid samples. About 76 percent of EVALI cases surveyed had used a vaping product containing THC (41 percent reported exclusive THC-containing product use) and 57 percent of cases had used a vaping product containing nicotine (23 percent reported exclusive nicotine product use).[32] CDC recommendations maintain that youth, young adults, adults, and pregnant women should refrain from using ESD products, especially those containing THC.

Adult Electronic Smoking Device Use

Over 185,000 adults in Maryland currently use ESDs, representing 4.3 percent of Maryland's total adult population. Unlike youth preference, ESDs are not the product of choice for adults, who still prefer cigarettes over ESDs. Current Maryland adult ESD use by age group

for survey years 2016 and 2018 is detailed in Figure 27. Young adults (18 to 24 years of age) have the highest proportion of ESD use compared to the other age groups, and a linear decrease by age is evident. In 2018, young adults were 14 times more likely than adults 65 years of age or older to be current ESD users.

Figure 27: Current Adult Use of Electronic Smoking Devices, Maryland 2016-2018 BRFSS



Adult ESD use varies by race/ethnicity, as detailed in Table 9. White adults (5.5 percent) use ESDs significantly more than Black/African American adults (2.4 percent). Data on ESD use among other races/ethnicities are suppressed due to limited sample sizes and/or high standard errors.

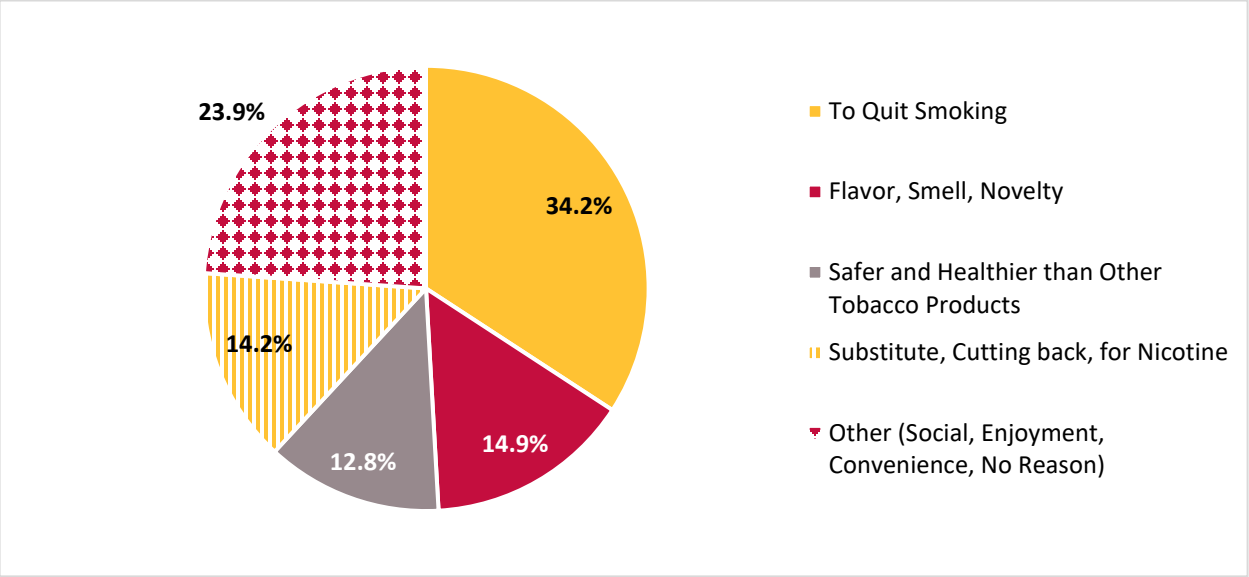
Table 9: Current Adult Use of Electronic Smoking Devices, 2018 Maryland BRFSS

Demographic	N	%	95% Confidence Interval
Overall	185,728	4.3%	(3.7%-4.9%)
Race/Ethnicity			
White	125,833	5.5%	(4.7%-6.4%)
Black/African American	29,585	2.4%	(1.5%-3.2%)

Reasons for Electronic Smoking Device Use

In 2017, 34.2 percent of adult ESD users reported the main reason they used ESDs was to quit smoking cigarettes, as detailed in Figure 28. Other reasons for adult ESD use included product novelty (14.9 percent), substitution for other nicotine products (14.2 percent), and the feeling that ESDs are 'safer' or 'healthier' than other tobacco products (12.8 percent).

Figure 28: Adult Reasons for Electronic Smoking Devise (ESD) Use, Maryland 2017 BRFSS

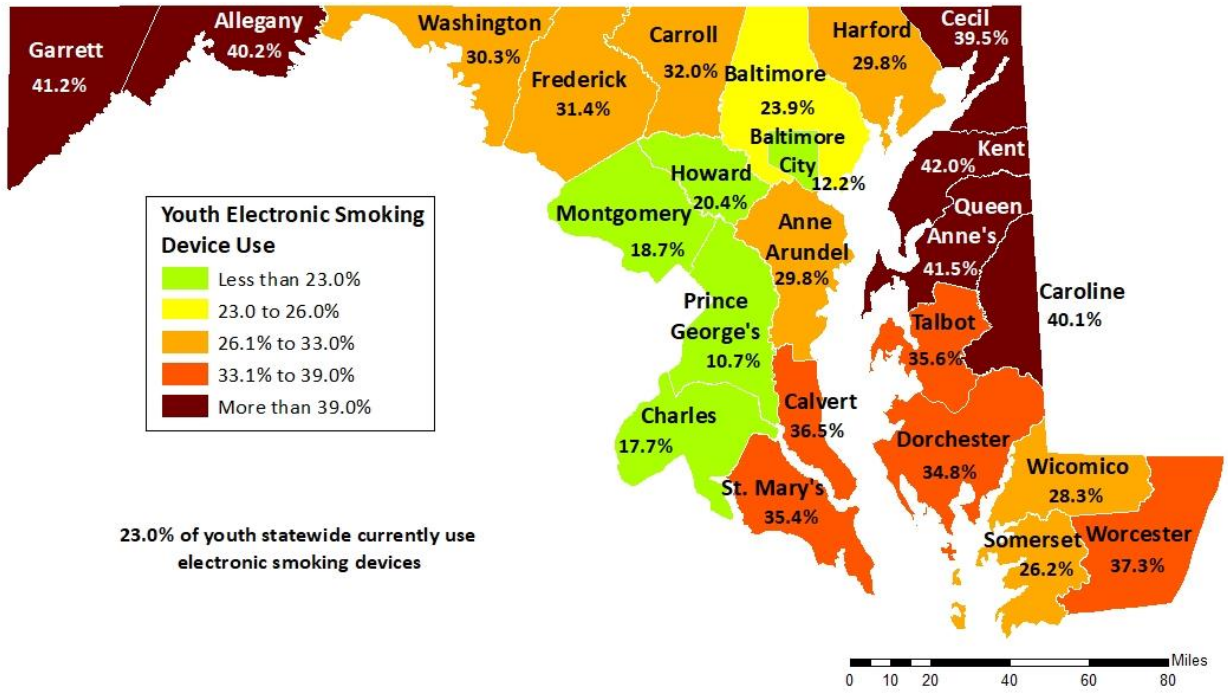


Youth Electronic Smoking Device Use

Data on youth ESD use were first collected in the 2014-15 Maryland YRBS/YTS and again in the 2016-17 and 2018-19 school years. In 2014-15, 20.0 percent of high school youth used ESDs. In 2016-17, this number decreased to 13.3 percent; a 33.5 percent decrease in ESD use among high school youth. In 2018-19, the proportion of high school youth using ESDs increased by 72.9 percent, translating into 23.0 percent of Maryland high school youth currently using ESDs. The fluctuation in high school youth ESD use may be due to a variety of factors, perhaps most notably the exclusion of brand name products – such as Juul, blu, halo and NJOY – from the survey instrument until the 2018-19 questionnaire. Though high school youth may have previously been using these products, they may not have self-identified as "e-cigarette" users, which may have also resulted in under-reporting. (2) Additionally, the popularity of the brand Juul had not yet climaxed when the YRBS/YTS implementation began in the fall of 2016. As noted previously, ESD use skyrocketed nationally between 2017 and 2018, increasing from 11.7 percent to 20.8 percent.[33] Maryland 2018-19 data correlates with the national high school youth ESD use rate.

High school youth ESD use in Maryland varies significantly by jurisdiction, as detailed in Figure 29. Prince George's County has the lowest proportion of high school youth ESD users (10.7 percent) while Kent County contains the highest proportion of high school youth ESD users (42.0 percent).

Figure 29: High School Youth Electronic Smoking Device Use, Maryland 2018-19 YRBS/YTS



High school youth ESD use also varies by race/ethnicity, as detailed in Table 10. High school youth who identify as White or Native Hawaiian/Pacific Islander use ESDs significantly more than Black/African American, Asian, Hispanic/Latino, or American Indian/Alaska Native high school youth. White high school youth are the most populous in the state, while Native Hawaiian/Pacific Islander high school youth are the least populous, yet both racial/ethnic groups have significantly higher ESD usage rates when compared to the Statewide prevalence (33.0 percent and 35.8 percent, respectively). Black/African American (13.4 percent) and Asian (12.9 percent) high school youth have significantly lower ESD usage rates when compared to the State (23.0 percent).

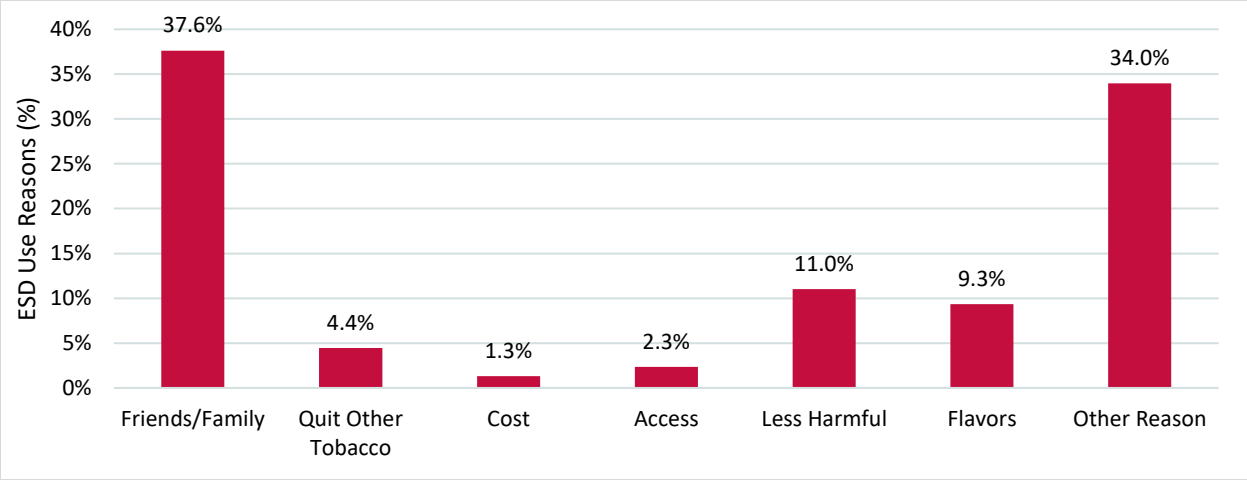
Table 10: Current High School Youth Electronic Smoking Device (ESD) Use By Race/Ethnicity, Maryland 2018-19 YRBS/YTS

Demographic	N	%	95% Confidence Interval
Overall	53,920	23.0%	(21.9%-24.1%)
Race/Ethnicity			
White	30,069	33.0%	(31.5%-34.6%)
Black/African American	9,842	13.4%	(12.0%-14.8%)
Asian	1,907	12.9%	(10.3%-15.4%)
Hispanic/Latino	7,032	19.8%	(17.7%-21.9%)
American Indian/Alaska Native	240	17.9%	(13.1%-22.7%)
Native Hawaiian/Pacific Islander	335	35.8%	(25.7%-45.8%)
Multiracial NH	2,465	25.8%	(22.7%-29.0%)

Reasons for Electronic Smoking Device Use

According to the 2018-19 Maryland YRBS/YTS, the most common reasons for high school youth ESD use included use of these products by friends or family (37.6 percent), the belief that these products were less harmful than other tobacco products (11.0 percent), and the variety of ESD flavors available (9.3 percent). In the 2018-19 Maryland YRBS/YTS, 95.6 percent of high school youth who had ever used an ESD reported usually using a flavor other than tobacco, with the majority of high school youth preferring fruit flavors (56.9 percent); followed by menthol, mint, or wintergreen flavor (18.6 percent). These flavors attract youth to ESD products, and once youth are nicotine dependent, may serve as a gateway to other flavored tobacco products like cigars or smokeless tobacco. Many youth report using ESDs to 'fit in' when in a social setting or to self-medicate from anxiety and/or depression.[34] ESD manufacturers have marketed ESD products as less harmful or a 'safe' alternative to smoking cigarettes, misleading youth to believe that these products are safe. Only 4.4 percent of Maryland high school youth report using ESDs to quit other tobacco products (Figure 30), reinforcing the notion that these products are not a harm-reduction product for youth, but rather the initiation of tobacco use.

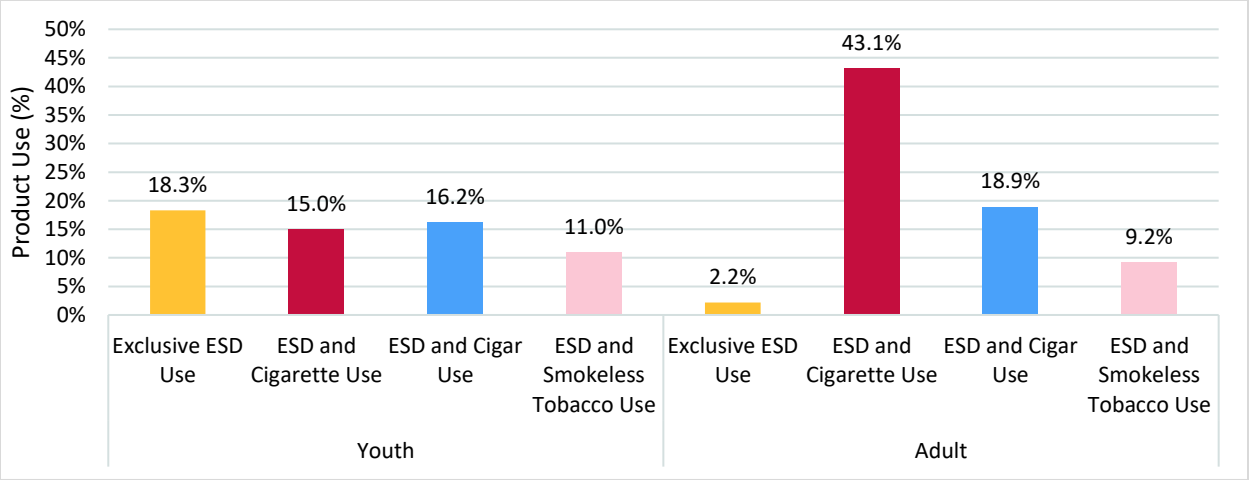
Figure 30: High School Youth Reasons for Electronic Smoking Device Use, Maryland 2018-19 YRBS/YTS



Concurrent Use of Electronic Smoking Devices and Other Conventional Tobacco Products

Dual use of ESDs and other tobacco products is common among both Maryland adults and high school youth. Data from the 2018 BRFSS and the 2018-19 YRBS/YTS show 58.0 percent of current adult ESD users and 27.7 percent of current high school youth ESD users also currently use other tobacco products. High school youth exclusively use ESDs over eight times more than adults (18.3 percent of high school youth and 2.2 percent of adults, respectively), although adult ESD users are most likely to concurrently use ESDs and cigarettes (43.1 percent) as compared to other products (Figure 31). Concurrent ESD and other tobacco product use among high school youth has decreased due to a rapid increase in high school youth preference for ESDs and decline in use of other tobacco products, although ESD use could lead to initiation of other tobacco products.[35] The differences seen among high school youth and adults regarding exclusive use of ESDs confirms high school youth appeal of these products.

Figure 31: Exclusive and Dual Use of Electronic Smoking Devices and Other Tobacco Products Among High School and Adult ESD Users, Maryland 2018-19 YRBS/YTS and Maryland 2018 BRFSS



The Dangers of E-Juices and E-Liquids

Instances of poisoning through ingesting, breathing, or absorbing e-liquid nicotine or vapor through the skin and eyes have been reported in children, youth, and adults. The Poison Help Hotline, 1-800-222-1222, began receiving calls related to ESDs and liquid nicotine exposure in 2011.[36] Since then, the national hotline has received over 22,000 calls regarding these products.

The e-juices and e-liquids used in these products are not 'harmless,' and in fact may contain various chemicals linked to several diseases in addition to causing poisoning. The Vape Experiment (www.TheVapeExperiment.com) — a youth-focused ESD prevention campaign — was created by the Department to expose the common myths and misconceptions about ESDs.

Use of Electronic Smoking Devices and Marijuana

There is an association between ESD use and future marijuana use.[37] Both high school youth and adults are using ESDs to vaporize marijuana in the form of THC oil/hash oil or THC wax, a concentrated form of marijuana. Some nicotine ESDs can also be modified or altered to 'vape' marijuana. In the 2018-19 YRBS/YTS, 13.4 percent of all high school youth reported ever using an ESD to 'vape' marijuana, THC/hash oil, or THC wax, a 61.4 percent increase since the 2016-17 school year. Additionally, 47.5 percent of current high school youth ESD users report ever vaping marijuana. In the 2018 BRFSS, 10.2 percent of Maryland adult marijuana users reported 'vaping' marijuana most often during the past 30 days. As ESDs rise in popularity, vaping marijuana may also become more prevalent among Maryland high school youth and adults.

Chapter Conclusions:

- The emissions from ESDs, inhaled by the user and those around them, are not water vapor but an aerosol, which contains harmful chemicals and toxins.
- ESDs are not safe for youth, young adults, and adults not currently using a tobacco product.
- High school youth ESD use increased by 72.9 percent between survey years 2016-17 to 2018-19 (13.3 percent to 23.0 percent, respectively).
- White high school youth and Native Hawaiian/Pacific Islander high school youth use ESDs at higher rates than the State average (33.0 percent and 35.8 percent, respectively).
- Most high school youth who had ever used an ESD (95.6 percent) reported usually using a flavor other than tobacco.
- Adult ESD users report the main reason for using ESDs was to quit smoking conventional cigarettes. High school youth ESD users report that main reason for using ESDs was that friends or family used ESD products.
- 13.4 percent of all high school youth report ever using an ESD to smoke marijuana, THC or hash oil, or THC wax, a 61.4 percent increase since the 2016-17 survey.
- Between July 2019 and January 2020, 2,700 cases of hospitalization and 60 deaths associated with e-cigarette or vaping associated lung injury (EVALI) were reported across 50 states, Washington DC, Puerto Rico, and the US Virgin Islands.

TOBACCO-RELATED HEALTH DISPARITIES

Although Maryland has been successful in reducing overall tobacco initiation and use, specific geographic areas and population groups in Maryland remain disproportionately affected by tobacco use, and experience significant tobacco-related health disparities.

Tobacco-related health disparities are broadly defined as differences that exist among populations with regard to: patterns, prevention and treatment of tobacco use; the risk, incidence, morbidity, mortality, and burden of tobacco-related illness; capacity, infrastructure and access to resources; and secondhand smoke exposure.[38] Factors influencing tobacco-related disparities include social determinants of health, which refer to the conditions into which people are born, live, work, and age, tobacco industry influence, lack of comprehensive policies addressing the disparities, and the changing US population.[38]

Populations in Maryland who experience tobacco-related health disparities include residents in rural communities, racial and ethnic minorities, residents with mental health or substance use disorders, residents of lower socioeconomic status (SES), residents with disabilities, residents identifying as lesbian, gay, bisexual, or transgender (LGBT), and residents who have experienced adverse childhood experiences (ACEs).

Geography

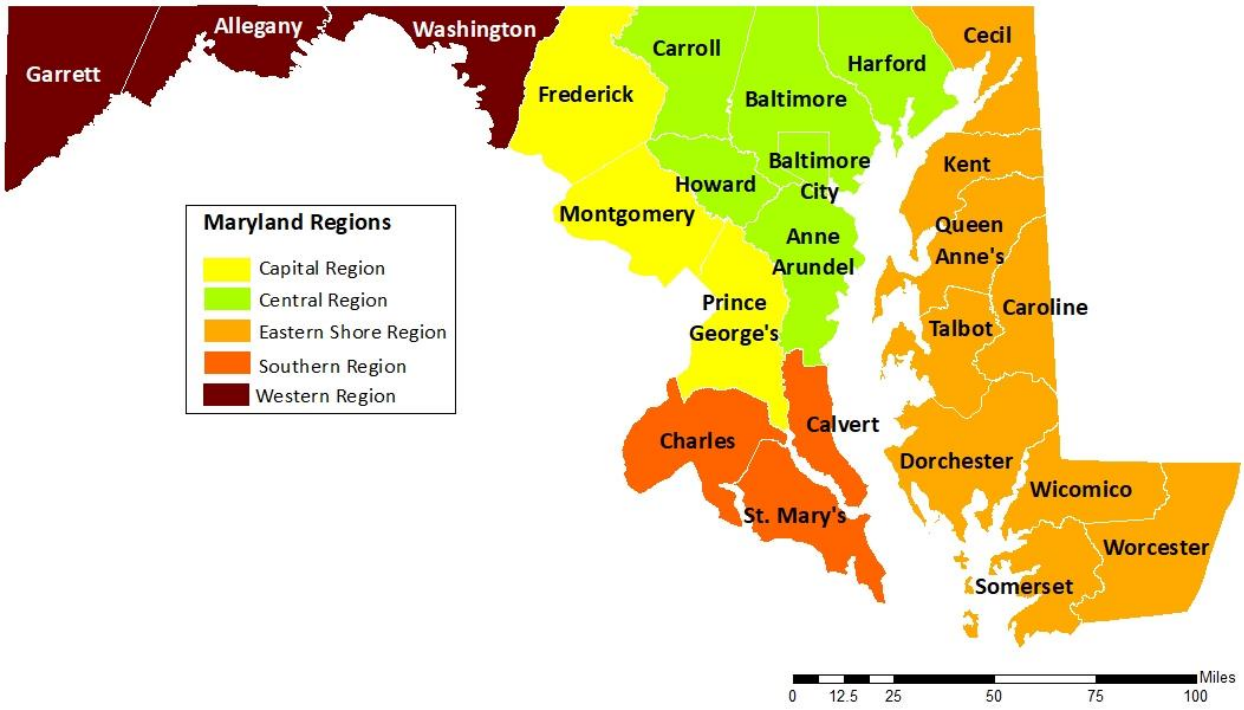
Maryland is subdivided into five geographical regions: the Capital, Central, Eastern Shore, Southern, and Western regions (Figure 32). The Capital and Central regions represent more urban jurisdictions while the Eastern Shore, Southern, and Western regions represent more rural jurisdictions in Maryland.[x]

Overall, tobacco use is lower in the Central region of Maryland, which is more populous, and higher in the Eastern and Western regions, which are more rural. For both high school

Figure 32: Maryland Regions

youth and adults, tobacco use is higher in rural areas of the State, particularly Garrett, Allegany, and Dorchester Counties. Residents living in rural communities are more likely to initiate tobacco use at a younger age, use tobacco products at a higher frequency, and have disproportionately higher rates of tobacco-related disease and death.[39]

[x] The term 'jurisdiction' is sometimes used interchangeably with county; however, Baltimore City is governed separately from the county system, so jurisdiction better captures the Maryland landscape. Together, Maryland has 24 jurisdictions



By tobacco product type, adult cigar use was similar across the five regions while cigarette use was almost two times greater among adults in the Eastern Shore and Western regions compared to the Capital region. Current use of smokeless tobacco was four times higher among residents in the Western region, compared to the Capital region. Figures 33 and 34 illustrate the prevalence of each tobacco product across the five regions in Maryland for both high school youth and adults.

Figure 33: Adult Tobacco Product Use by Region, Maryland 2018 BRFSS

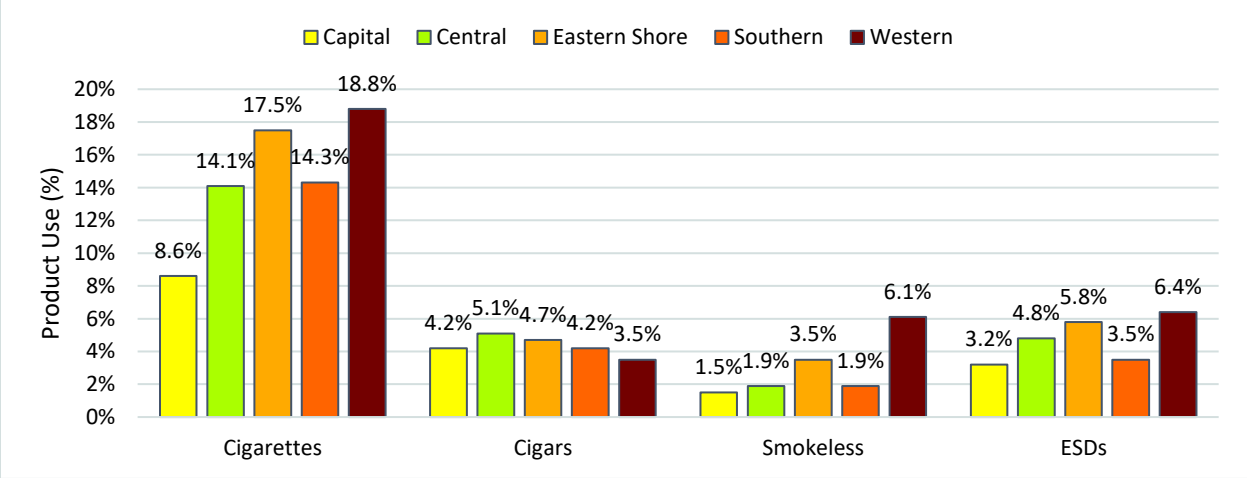
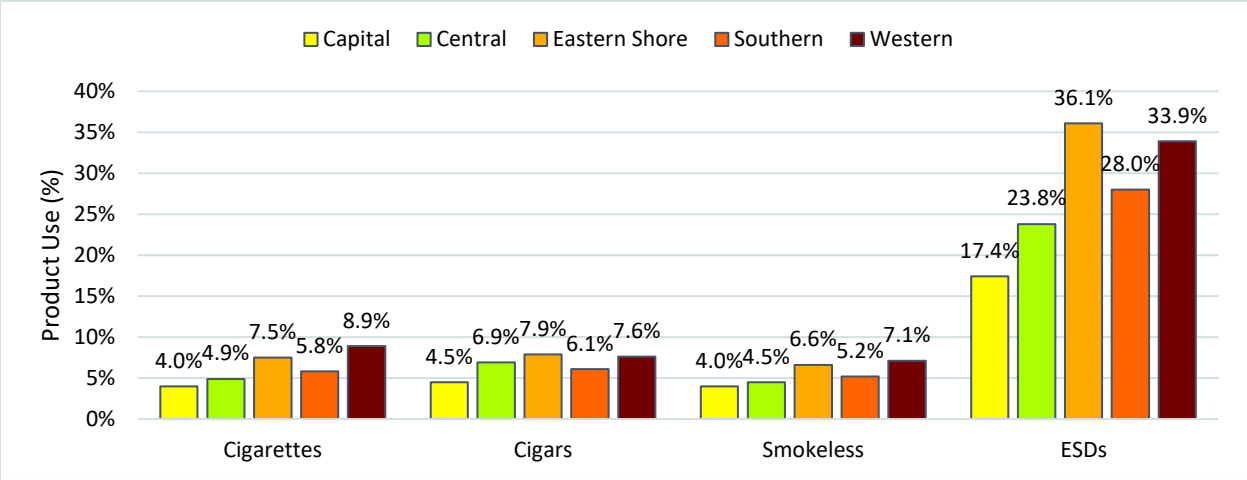


Figure 34: High School Youth Tobacco Product Use by Region, Maryland 2018-19 YRBS/YTS



By tobacco product type, high school youth residing in the Eastern Shore and Western regions use cigarettes and smokeless tobacco significantly more than high school youth living in the Capital and Central regions. ESD use was two times higher for high school youth residing in the Eastern Shore region (36.1 percent) when compared to high school youth residing in the Capital region (17.4 percent).

Race/Ethnicity

Maryland has marked differences in tobacco use by race and ethnicity. Despite lower population size among certain racial and ethnic minorities, such as American Indian/Alaska Natives and Native Hawaiian/Pacific Islanders, tobacco use by these groups is higher. Tobacco use rates are also high among adults who identify as 'Other Race'. Historically, racial and ethnic communities have been heavily targeted by the tobacco industry, with both advertising as well as industry sponsorship of community activities and events.[40] Nationally and in Maryland, Black/African American residents have higher cancer mortality rates when compared to White residents, despite using tobacco products less than/similarly to White residents.[10]

Adults

White and Black/African American adults have the highest population size in Maryland (52.8 percent and 29.1 percent respectively) in addition to a high proportion of tobacco use. However, White and Black/African American adult tobacco use is similar to that of American Indian/Alaska Natives, despite the significantly lower population size of American Indian/Alaska Natives. (18.9 percent, 20.2 percent, and 20.2 percent, respectively). The 'Other Race' category, which includes Native Hawaiian/Pacific Islanders, has the highest prevalence of tobacco use at 24.6 percent. The lowest tobacco use rates are found among Hispanic/Latino and NH Asian adults (12.7 and 10.2 percent, respectively). Table 11 shows adult tobacco use in Maryland by

racial and ethnic groups. In 2018, adult tobacco use rates by race and ethnicity differed from high school youth due to lower usage of ESDs, with adults using tobacco products at a lower rate than high school youth.

Table 11: Adult Tobacco Use by Race/Ethnicity, Maryland 2018 BRFSS

DEMOGRAPHIC	ADULTS			
	% Population	*Number*	*%*	*95% CI*
Overall	100	865,325	18.2	(17.3-19.2)
White, NH	52.8	467,068	18.9	(17.7-20.1)
Black/African American, NH	29.1	275,274	20.2	(18.2-22.3)
Hispanic/Latino	9.4	55,505	12.7	(9.3-16.0)
Asian, NH	6.5	32,457	10.2	(6.5-14.0)
American Indian/Alaska Native, NH	0.3	3,748	20.2	(12.3-28.1)
Other Race	1.9	23,182	24.6	(19.2-30.1)

Youth

In the 2018-19 YRBS/YTS, racial and ethnic groups with a larger population size, such as White high school youth (37.3 percent), had a high proportion of tobacco use (35.3 percent). High tobacco use rates among White high school youth are driven by high rates of ESD use. Despite a much lower population size (0.5 percent), Native Hawaiian/Pacific Islander high school youth also have high rates of tobacco use (41.9 percent). Though the Native Hawaiian/Pacific Islander population are the least populous in the State, their use of tobacco products is significantly higher than other racial and ethnic groups, indicating a significant tobacco-related disparity. The lowest tobacco use rates are found in Non-Hispanic (NH) Asian high school youth. Table 12 shows high school youth tobacco use by racial and ethnic groups.

Table 12: High School Youth Tobacco Use by Race/Ethnicity, Maryland 2018-19 YRBS/YTS

DEMOGRAPHIC	HIGH SCHOOL YOUTH			
	% Population	*Number*	*%*	*95% CI*
Overall	100	65,038	27.4	(26.2-28.6)
White, NH	37.3	32,281	35.3	(33.6-36.9)
Black/African American, NH	33.2	14,239	19.2	(17.4-21.1)
Hispanic/Latino	16.1	9,292	25.7	(23.2-28.2)
Asian, NH	6.4	2,127	14.3	(11.4-17.3)
American Indian/Alaska Native, NH	0.6	374	28.2	(21.6-34.8)
Native Hawaiian/Pacific Islander, NH	0.5	408	41.9	(31.7-52.0)
Multiracial, NH	4.2	2,773	28.7	(25.4-32.1)

Socioeconomic Status

Maryland residents of a lower socioeconomic status (SES) — including those who have received less education, are at or below the federal poverty level, have a lower income, or are unemployed or unable to work — have higher rates of tobacco use compared to residents of higher SES. Tobacco use also disproportionately affects the health outcomes of individuals with a lower SES, including increased risk of lung cancer and other tobacco-related health consequences.[41] Lower income neighborhoods and communities are burdened by limited access to healthcare, increased secondhand smoke exposure, a higher density of tobacco retailers, and more tobacco industry targeted marketing within their communities.[38]

Figure 35 and 36 displays the proportion of Maryland adults that currently use a tobacco product by education level, income level, residence status, marital status, and employment status. As education level and household income increases, Maryland adults are less likely to currently use tobacco products. Data from 2018 show adults without a high school diploma are more likely to currently use a tobacco product compared to adults who graduated from college (28.4 versus 8.9 percent, respectively). The same is true for adults making less than $15,000 compared to adults making more than $75,000 (29.4 versus 14.2 percent respectively), signaling that the lower a persons' income, the more likely they are to be a current tobacco user. Additionally, a quarter of adults that rent their home report being a current tobacco user, compared with 15.1 percent of adults that report owning their home. Adults who are married are also less likely to report being current tobacco users (13.2 percent) when compared to adults who are divorced or separated (24.9 and 24.6 percent, respectively). One-in-three adults who report being unable to work are current tobacco users. When viewed as a whole, these data clearly illustrate the relationship between lower SES and increased likelihood of current tobacco use.

Figure 35: Current Maryland Adult Tobacco Use by Educational Attainment and Household Income, Maryland 2016-2018 BRFSS

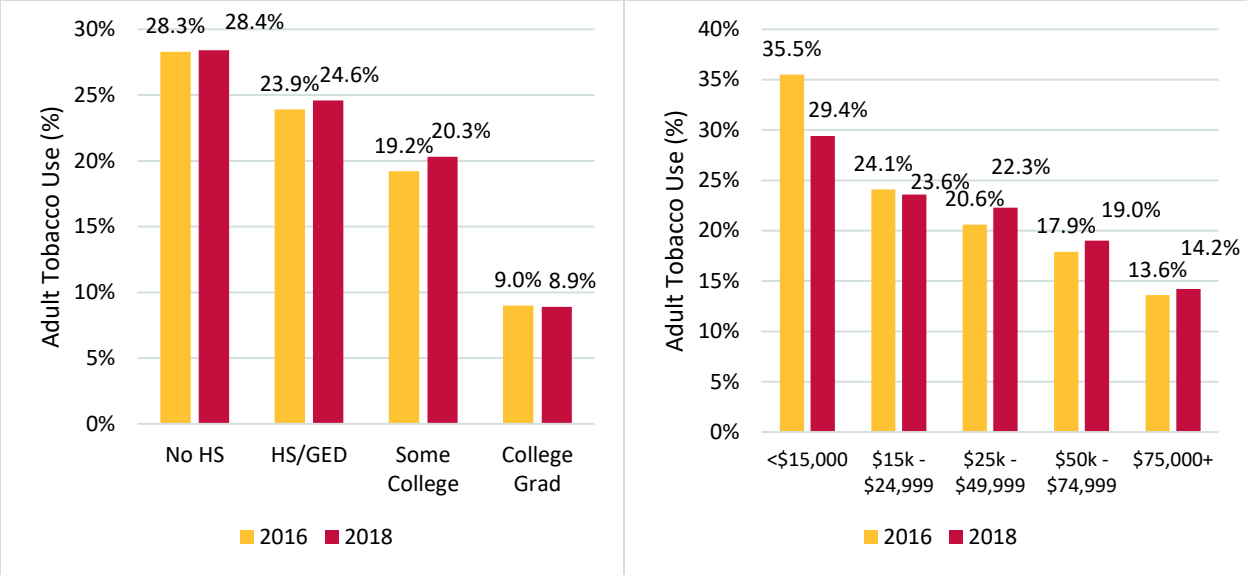
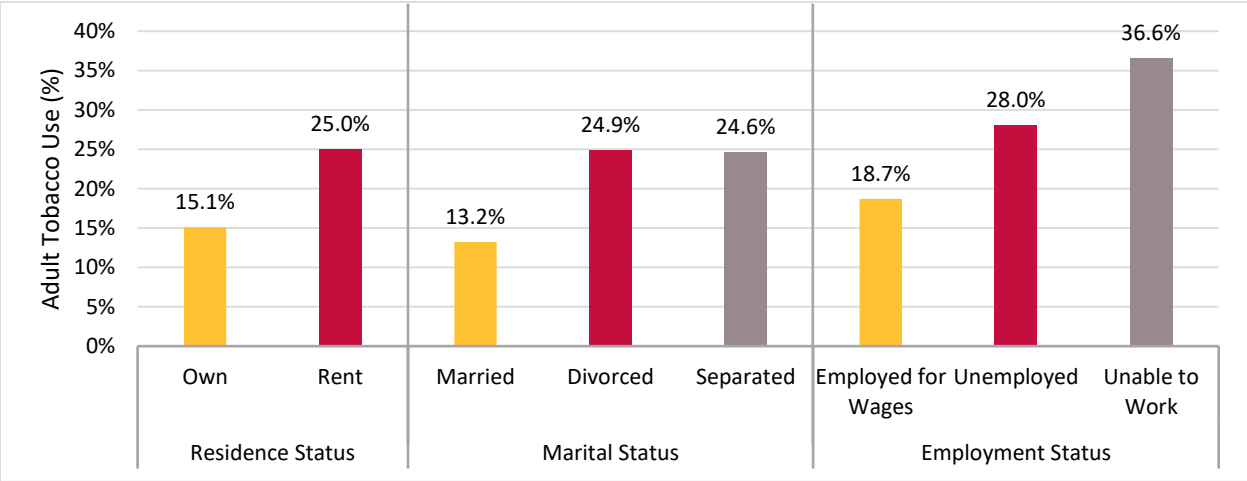
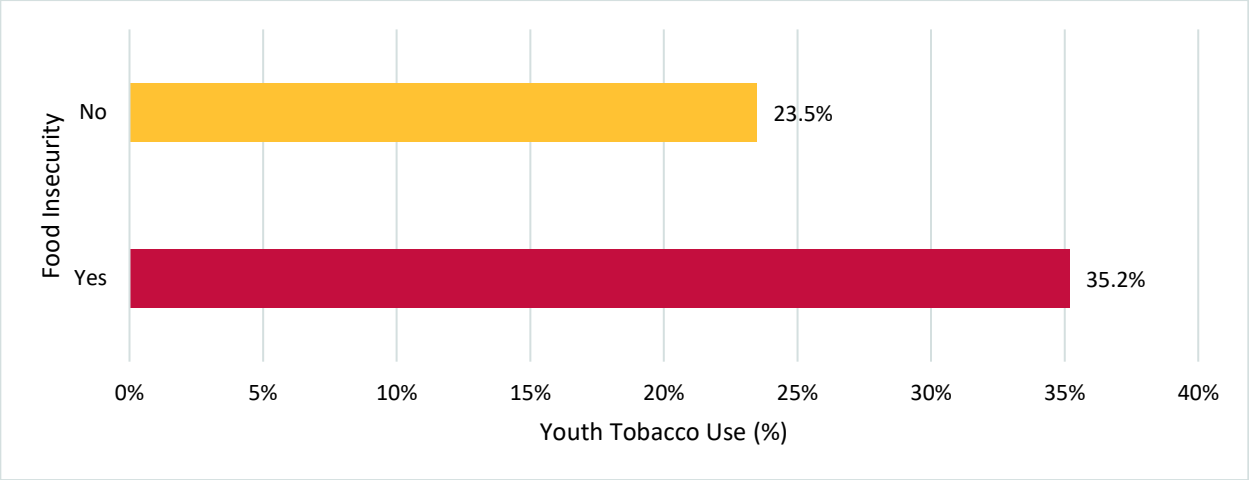


Figure 36: Current Maryland Adult Tobacco Use by Selected Categories, Maryland 2018 BRFSS



National data suggest that youth of a lower SES are more likely to engage in adverse health behaviors such as smoking and tobacco product use.[42] In 2018-19, two questions on the Maryland YRBS/YTS assessed SES using food insecurity as a proxy measure. High school youth were identified as food insecure if they often or sometimes worried their family's ability to purchase food was in jeopardy or if the family ran out of food before they had money to buy more food. High school youth who were food insecure were more likely to currently use tobacco products compared to high school youth who were food secure (35.2 versus 23.5 percent, respectively) (Figure 37).

Figure 37: High School Youth Any Tobacco Use by Food Insecurity, Maryland 2018-19 YRBS/YTS



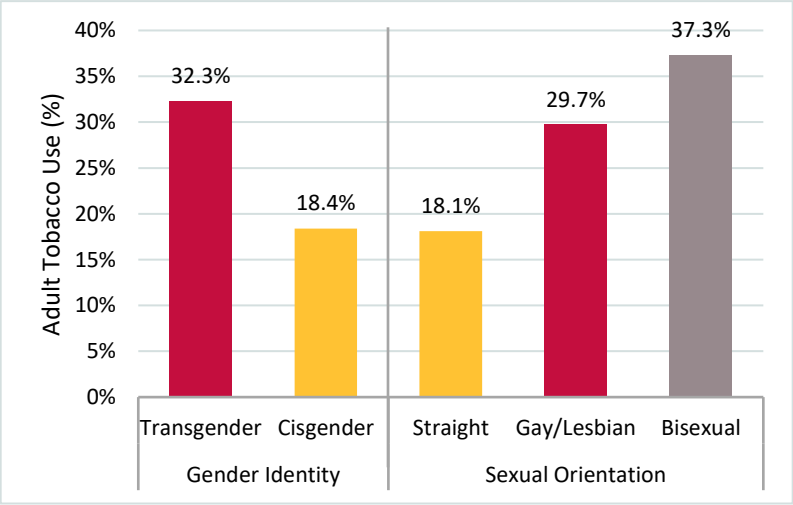
Gender Identity and Sexual Orientation

Individuals who are lesbian, gay, bisexual or transgender (LGBT) make up about 4.5 percent of the total US population.[43] Individuals who are lesbian or gay are attracted to individuals of their same gender, while individuals who are bisexual are attracted to both genders. Individuals who are transgender identify with a different gender than the one they were assigned at birth based on their biological sex, while individuals whose gender identity aligns with the sex assigned at birth are cisgender. Tobacco product use among LGBT individuals is higher when compared to those who are heterosexual/straight or cisgender. Higher smoking prevalence in these population groups can be attributed to higher rates of discrimination, depression, stress, and stigma.[44] The tobacco industry also heavily targets LGBT social environments with aggressive tobacco product marketing.

Adults

In Maryland, 4.8 percent of adults are lesbian, gay or bisexual, and 0.6 percent of adults are transgender. Figure 38 displays tobacco use by gender identity and sexual orientation. One-in-three (32.3 percent) adults who are transgender currently use a tobacco product — almost twice the rate of those who are cisgender (18.4 percent). There is a similar disparity in tobacco use by sexual

Figure 38: Adult Tobacco Use by Gender Identity and Sexual Orientation, Maryland 2018 BRFSS

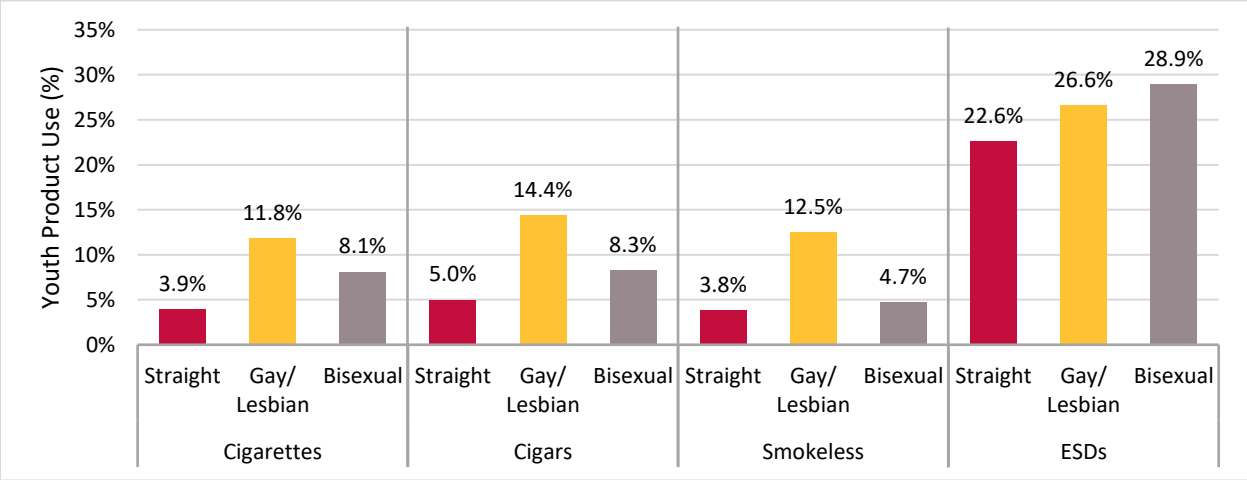


orientation. Adults who are bisexual or gay/lesbian (37.3 and 29.7 percent) are more likely to be current tobacco product users, compared to heterosexual adults (18.1 percent).

Youth

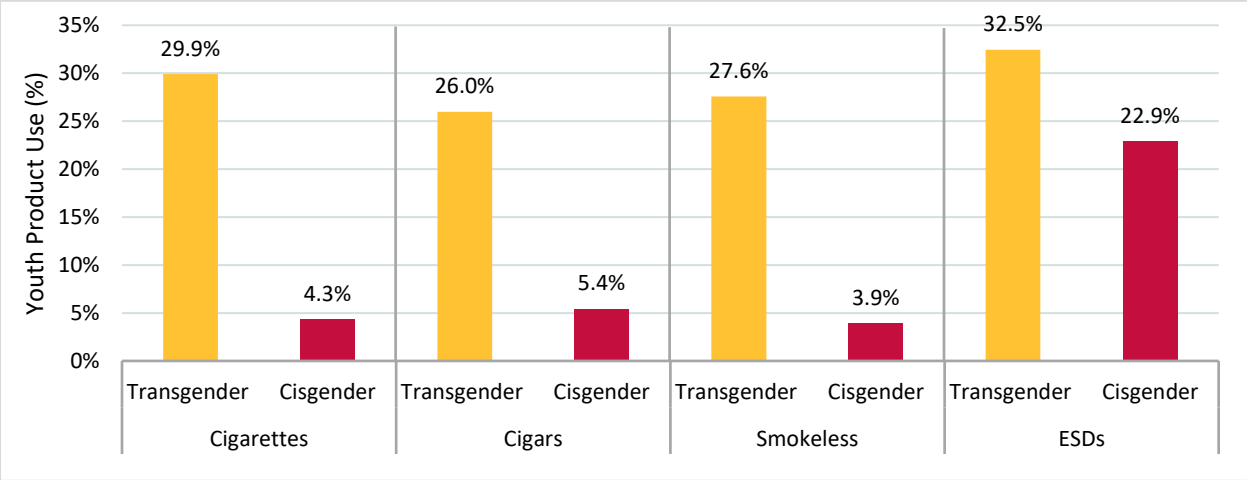
In the Maryland 2018-19 YRBS/YTS, 11.9 percent of high school youth are lesbian, gay, or bisexual (surveyed sexual orientation variables). Gay/lesbian high school youth are three times more likely to be cigarette, cigar, or smokeless tobacco users than heterosexual high school youth. Gay/lesbian high school youth also use cigarettes, cigars, and smokeless tobacco more than bisexual or heterosexual high school youth. Bisexual high school youth use ESDs more than gay/lesbian or heterosexual/straight high school youth (28.9 versus 26.6 and 22.6 percent, respectively). However, differences in ESD use are smaller among high school youth of different sexual orientations compared to other tobacco products. Figure 39 shows the prevalence of all tobacco product use is consistently lower for heterosexual/straight high school youth than it is for lesbian, gay, or bisexual high school youth. Differences in tobacco use by gender identity are shown in Figure 40.

Figure 39: High School Youth Tobacco Product Use by Sexual Orientation, Maryland 2018-19 YRBS/YTS



Even greater differences in tobacco use exist among transgender high school youth. Transgender high school youth are almost seven times more likely to be cigarette or smokeless tobacco users, and five times more likely to be cigar users. One-in-three (32.5 percent) transgender high school youth are current ESD users. Figure 40 illustrates how tobacco use among transgender high school youth is consistently higher compared to cisgender high school youth.

Figure 40: High School Youth Tobacco Product Use by Gender Identity, Maryland 2018-19 YRBS/YTS



LGBT communities include individuals with multiple intersecting identities, such as race, ethnicity, age, class, gender identity, sexual orientation, and disability/ability. Table 13 illustrates that for high school youth who are Black/African American or Hispanic/Latino, sexual orientation and gender identity significantly changes the likelihood of currently using a tobacco product. However, for White high school youth, sexual orientation and gender identity does not affect the likelihood of high school youth currently using a tobacco product. No significant differences were found among White high school youth with multiple intersecting identities.

Table 13: High School Youth Tobacco Use Prevalence by Race, Sexual Orientation, and Gender Identity, 2018-19 Maryland YRBS/YTS

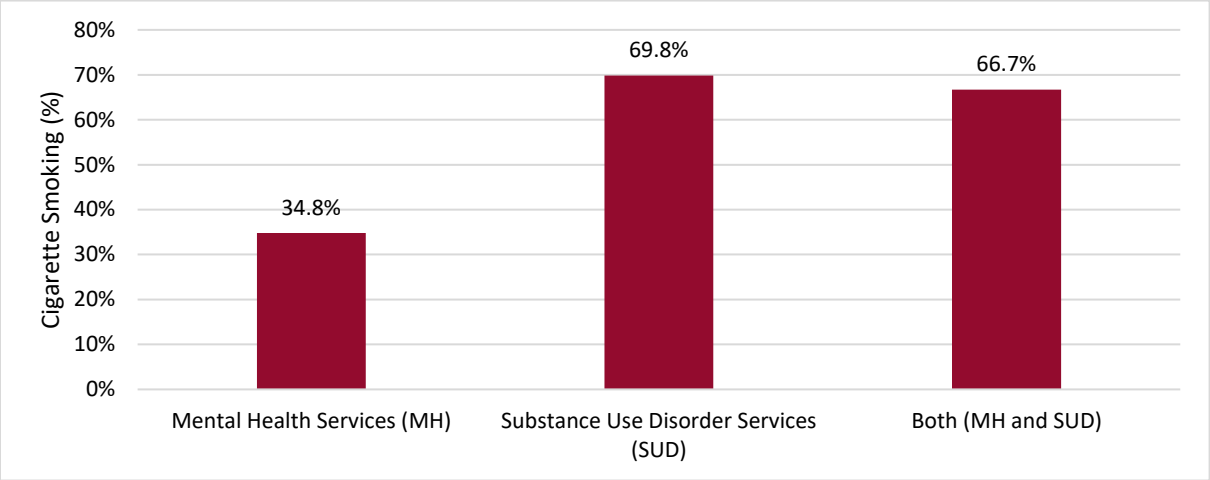
Race/Ethnicity	Straight	Gay/Lesbian	Bisexual	Transgender
White	35.7%	35.0%	37.5%	34.9%
Black/ African American	17.8%	26.3%	29.2%	N/A
Hispanic/Latino	22.0%	48.4%	33.8%	56.4%

Behavioral Health (Mental Health and Substance Use Disorders)

Nationwide, tobacco use continues to be higher among individuals with behavioral health comorbidities, including mental health and substance use disorders. The federal Substance Abuse and Mental Health Services Administration (SAMHSA) defines substance use disorder as a dependence on alcohol or drugs that causes health impairments, and mental illness as a diagnosable behavioral, mental, or social disorder that limits daily activities.[45] Disparate smoking rates in this population wield significant tobacco-related health issues,

including increases in both acute and chronic tobacco-related illnesses, such as tobacco-related cancers, as well as earlier mortality.[46] In 2018, Maryland adults who were ever told they had a depressive disorder were nearly two times more likely to currently use a tobacco product, compared to adults that were never told they had a depressive disorder (30.2 percent and 15.9 percent, respectively).

The Outcomes Measurement System Datamart (OMS) is a surveillance system that tracks outpatient mental health and substance use disorder services in Maryland's Public Behavioral Health System (PBHS) for both adults and youth who self-report risk behaviors and general health status while receiving behavioral health treatment services. OMS surveillance data show a significant association between those who are receiving behavioral health services



and smoking prevalence. About one-third (34.8 percent) of adults receiving mental health services smoke cigarettes, compared to nearly 70 percent of adults receiving substance use disorder services. For adults receiving both services, roughly 67 percent report smoking. These numbers are dramatically higher than the 2018 Maryland overall adult smoking rate of 12.5 percent. Figure 41 illustrates the high smoking rates among those receiving behavioral health services.

Figure 41: Adult (18+) Smoking Among Those Receiving Mental Health and/or Substance Use Disorder Services, Maryland OMS Datamart, Calendar Year (CY) 2018

In 2018-19, the overall high school youth rate for cigarette smoking was the lowest it has ever been at 5.0 percent. However, for youth aged 14 to 17 who received either substance use disorder services or both mental health and substance use disorder services, the prevalence of smoking was much higher (25.4 and 22.3 percent, respectively).

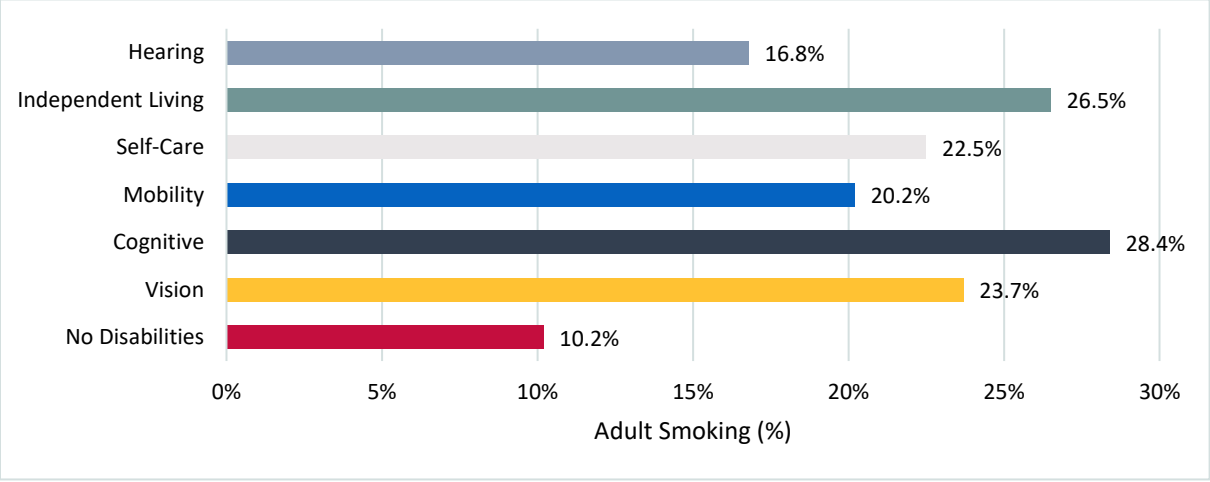
Disparities in tobacco use among adults and youth receiving behavioral health services are the highest of any demographic group. In addition to increased morbidity and mortality, studies show this population is at risk for decreased tobacco cessation attempts and increased use of tobacco as a self-medicating agent.[47] Working with mental health and substance use disorder providers to add tobacco cessation and treatment into their overall treatment plans could help to decrease smoking among this population. Additionally, enacting smoke-free policies in behavioral health treatment facilities could decrease smoking and nicotine dependence in this population.

Adults with Disabilities

People with disabilities represent a wide range of individuals with diverse needs. For data collection purposes, persons with disabilities include individuals who experience difficulties of hearing, vision, cognition, mobility, and self-care. According to the World Health Organization, 'disability' can have three dimensions: impairment (such as loss of limb), activity limitation (such as difficulty walking), or participation restrictions in daily activities (such as working or obtaining healthcare).[48]

In 2018, nearly one-in-four (22.2 percent) Maryland adults reported having one or more disabilities. Maryland adults with a disability are more likely to be smokers than adults without a disability (Figure 42). Current smoking is highest among those with cognitive disabilities (28.4 percent), followed by those who are unable to live independently (26.5 percent). To reduce and prevent smoking among people with disabilities, the CDC recommends State programs include questions regarding disability in population surveys, update existing health promotion campaigns and programs with targeted cessation messages for people with disabilities, and include people with disabilities in health promotion activities.[49]

Figure 42: Adult Cigarette Smoking by Disability Status, Maryland 2018 BRFSS



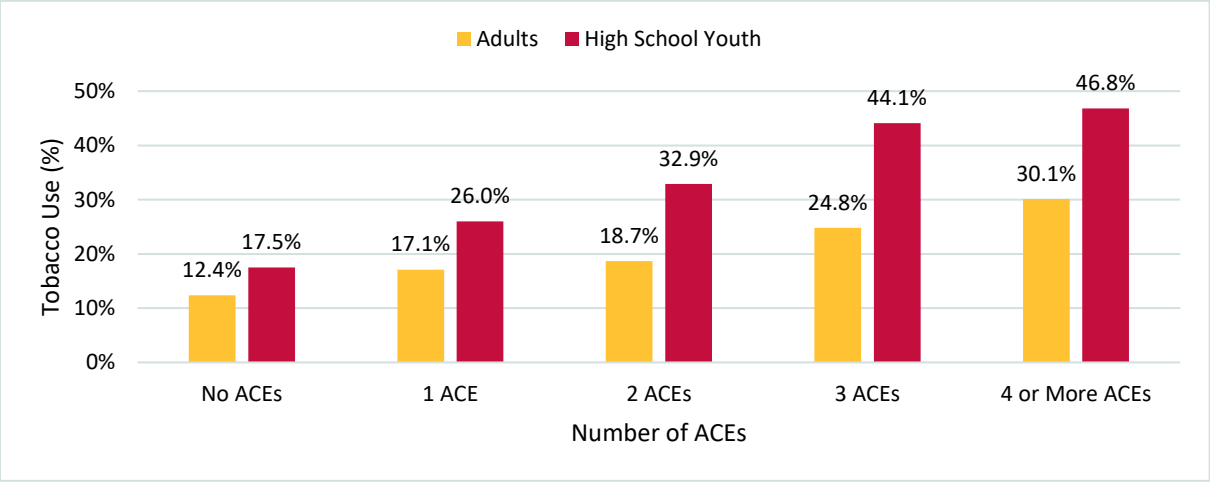
Adverse Childhood Experiences

Childhood exposure to physical, emotional, or sexual abuse, neglect, and other stressors are known as adverse childhood experiences (ACEs).[50] ACEs measure childhood exposure to 1) physical abuse, 2) sexual abuse, 3) emotional abuse, 4) living with an adult with mental health issues, 5) living with a problem drinker/alcoholic, 6) living with a drug user/abuser, 7) living with someone who was incarcerated/jailed, 8) living with separated/divorced parents, and 9) living with adults or parents who physically abused each other. Individuals who are exposed to these ACEs before age 18 have an increased tendency to use tobacco products and become nicotine dependent.[51]

In Maryland, the ACEs listed above were measured in the 2018 BRFSS, however only four questions were used in the 2018-19 YRBS/YTS due to space limitations. The four questions on the YRBS/YTS measured childhood adversities in the household such as emotional abuse, living with an adult with mental health issues, living with a problem drinker/drug abuser, and living with someone who was incarcerated/jailed. ACEs have a dose-response relationship, wherein the more ACEs a person has, the higher the tendency of associated risk behaviors.

YRBS/YTS survey data reflect that the more childhood adversities that high school youth and adults were exposed to, the higher the prevalence of tobacco use. About one-in-three adults who reported having four or more ACEs were current tobacco users and one-in-two high school youth who responded 'yes' to the four ACE questions in the Maryland YRBS/YTS were current tobacco users. Figure 43 illustrates a dose-response relationship between number of ACEs and tobacco use prevalence.

Figure 43: Any Tobacco Use by Number of Adverse Childhood Experiences, Maryland 2018 BRFSS and Maryland 2018-19 YRBS/YTS



Chapter Conclusions:

- Residents in rural communities, racial and ethnic minorities, residents with mental health or substance use disorders, residents of lower SES, residents with disabilities, residents who are LGBT, and residents who have experienced adverse childhood ACEs have disproportionately higher smoking and tobacco use rates than the general population.
- Tobacco use is lower in the Central region of Maryland, which is more populous, and higher in the Eastern and Western regions of the State, which are more rural.
- Transgender high school youth are almost seven times more likely to be cigarette or smokeless tobacco users, and five times more likely to be cigar users compared to cisgender high school youth.
- Almost 70 percent of adults receiving substance use disorder services smoke, and about 67 percent receiving both substance use and mental health services smoke. This is significantly higher than the 2018 Maryland adult smoking rate of 12.5 percent.
- Current cigarette smoking is highest among those with a cognitive disability (28.4 percent), followed by those who are unable to live independently (26.5 percent), when compared to adults without a disability (10.2 percent).
- Individuals who are exposed to ACEs before age 18 have an increased tendency to use tobacco products and become nicotine dependent.

RESTRICTING YOUTH ACCESS TO TOBACCO

Federal Restrictions on Underage Sales

The Synar Amendment, initiated by the 1992 federal Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act, requires states to enact and enforce laws prohibiting the sale and distribution of tobacco products to prospective buyers under age 18. States are also required to conduct annual compliance checks to a representative sample of tobacco retailers. States that have a noncompliance rate of more than 20 percent risk having a substantial portion of their Substance Abuse Prevention and Treatment Block Grant (SABG) withheld.

Signed into law in 2009, The Family Smoking Prevention and Tobacco Control Act gave the FDA authority to regulate the marketing, manufacture, and sale of tobacco products.[52] It also established the minimum age for legal tobacco product sale and purchase as 18, and required retailers to check photo identification of all purchasers who appeared younger than 27. In addition to these oversight measures, the FDA also conducts annual compliance checks on tobacco retailers within each state, with retailers found to be in violation of the law subject to federal penalties. Previously, ESDs were not regulated under this legislation. However, in 2016, the FDA further extended its authority under the Tobacco Control Act to include ESDs in its regulation of marketing, manufacturing, and sale of tobacco products.[53]

Maryland Restrictions on Underage Sale and Possession of Tobacco

As of October 1, 2019, the sale of tobacco products, including ESDs, to individuals under age 21 is prohibited in Maryland, except for those age 18 years and older with valid military identification. On December 20, 2019, the president signed national legislation raising the minimum legal sales age to 21 across the country, with no military exemption. Maryland has three distinct frameworks with respect to the prohibition of underage tobacco sales and related penalties: a statewide criminal framework, a local civil framework, and a statewide civil framework.[54] Prohibitions on sales and responsibilities of retailers are identical across all three frameworks, the differences lie in the authority to enforce the prohibitions and the penalties applied.

When the 2018 BRFSS and 2018-19 YRBS/YTS data were collected, the legal age to purchase tobacco in Maryland was 18 years old. Since the law to increase the legal tobacco sales age to 21 did not take effect until October 1, 2019, this chapter focuses on the law at the time of data collection. Underage, illegal tobacco sales, as referenced in this chapter, is defined as a tobacco sale to anyone under age 18.

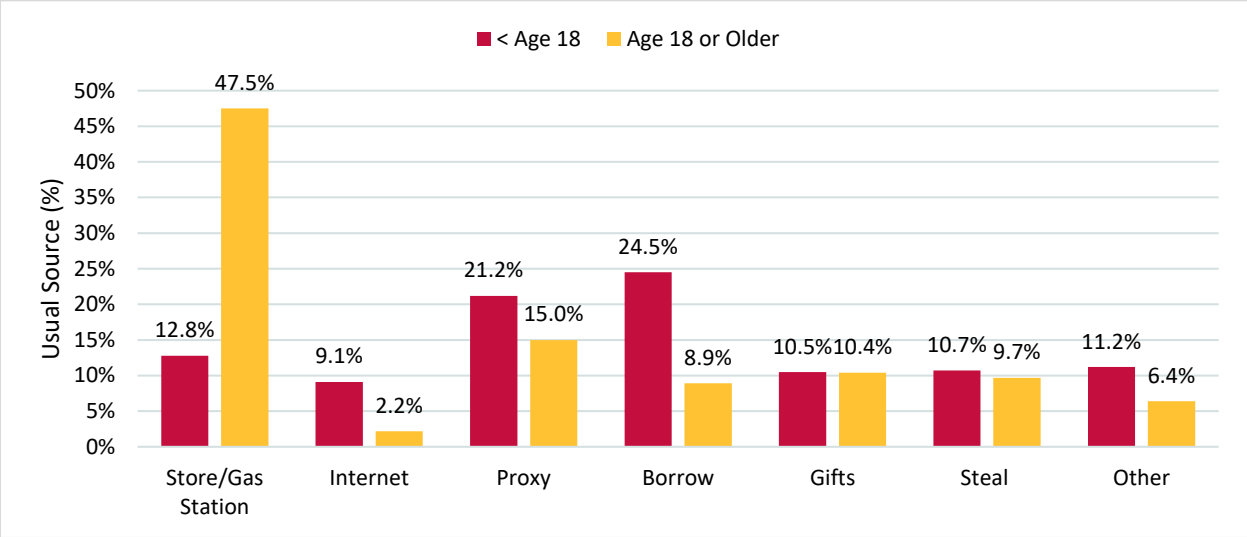
Youth Access Sources – Cigarettes and Electronic Smoking Devices

There are four primary ways by which Maryland youth obtain tobacco products: (1) making a direct purchase themselves from a store or retailer that sells tobacco products; (2) giving someone else money to make the purchase for them (proxy purchase); (3) borrowing a tobacco product from someone; and (4) stealing or taking the tobacco product without permission from family members, friends, or stores.

Cigarettes

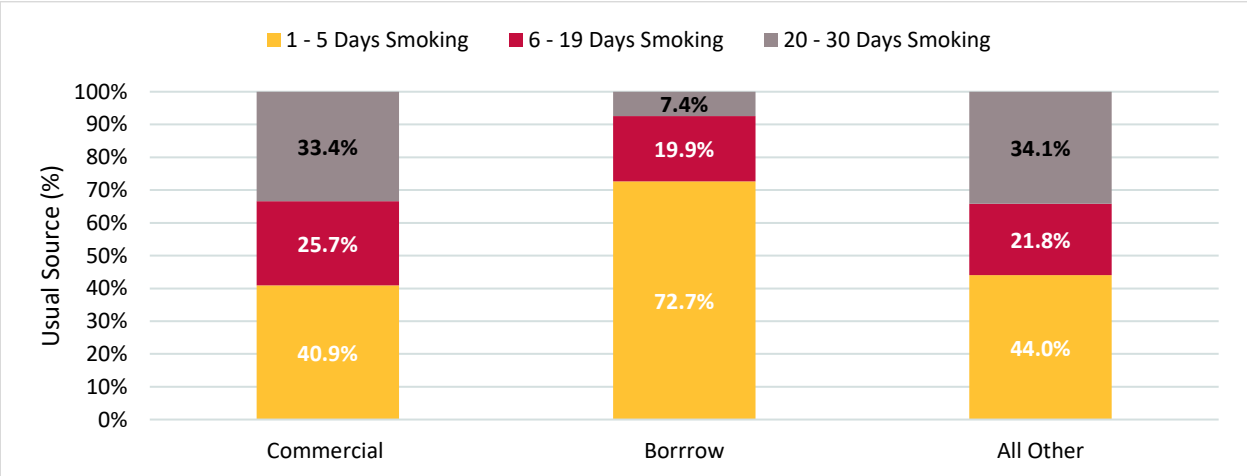
The 2018-19 YRBS/YTS asked high school youth to identify their 'usual source' for cigarettes. The 'usual source' for cigarettes differed by age. High school youth under age 18 reported their 'usual source' for cigarettes were instances of borrowing the product from a friend or family member (24.5 percent), proxy purchases (21.2 percent), or direct purchases of cigarettes at a store or gas station (12.8 percent). Not surprisingly, high school youth that were over the age of 18 (the legal age to purchase tobacco at the time of the survey) were 3.7 times more likely to directly purchase cigarettes from a store or gas station than high school youth under age 18 (47.5 percent), as described in Figure 44.

Figure 44: Usual Source of Cigarettes in Past 30 Days Among Maryland Public High School Youth Currently Using Cigarettes, Maryland 2018-19 YRBS/YTS



The 'usual source' of cigarettes for high school youth under age 18 is highly dependent upon the intensity of cigarette smoking, as detailed in Figure 45. Among high school cigarette smokers under age 18, only 7.4 percent of those smoking 20 to 30 days each month report borrowing as their usual means of access. The most frequent smokers report commercial purchases, both direct and proxy, from retailers (including online retailers) or all other sources, which include receipt as gifts, stealing, and other sources not listed. In contrast, those using cigarettes just one to five days per month are more likely to report borrowing cigarettes (72.7 percent) as their usual means of access.

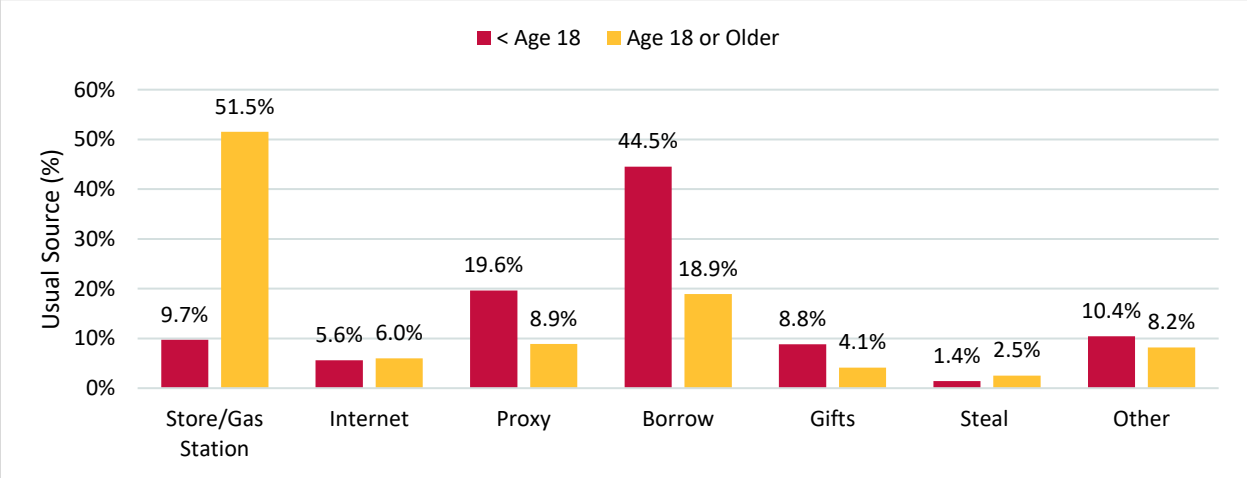
Figure 45: Usual Source of Cigarettes in Past 30 Days, by Category and Intensity of Use Among Maryland Public High School Youth Currently Using Cigarettes <18, Maryland 2018-19 YRBS/YTS



Electronic Smoking Devices

The 2018-19 YRBS/YTS asked high school youth to identify their 'usual source' for ESDs (Figure 46). Like cigarettes, the 'usual source' of ESDs differed by age at access. The 'usual source' for high school youth aged 18 and older were direct purchase at a store or gas station (51.5 percent) and borrowing (18.9 percent). The 'usual source' for high school youth under age 18 were borrowing (44.5 percent) and proxy purchase (19.6 percent).

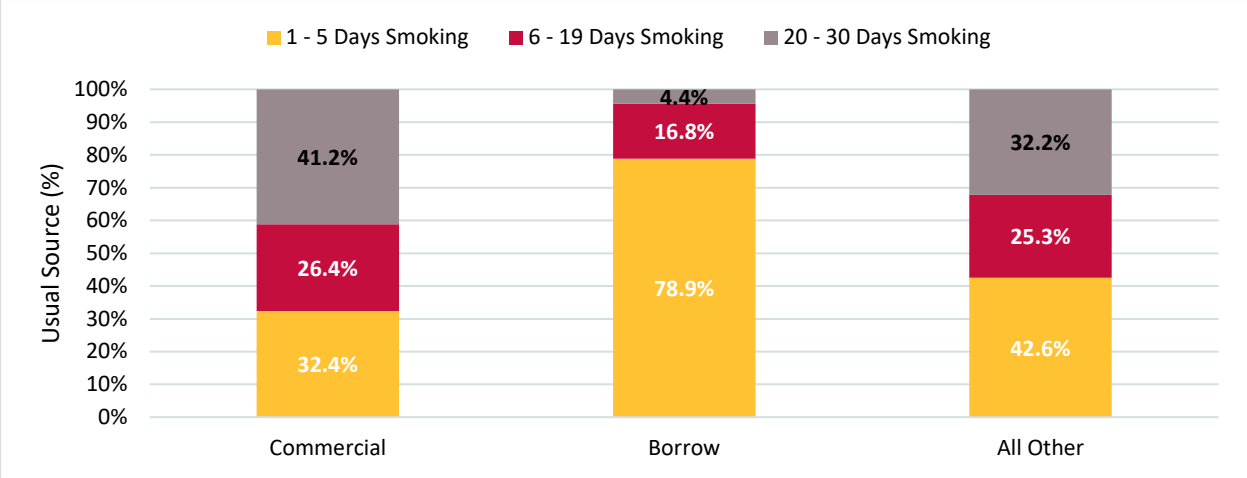
Figure 46: Usual Source of Electronic Smoking Devices in Past 30 Days Among Maryland Public High School Youth Currently Using Electronic Smoking Devices, Maryland 2018-19 YRBS/YTS



Like cigarettes, the 'usual source' of ESDs for high school youth under age 18 is highly dependent upon the intensity of ESD use, as detailed in Figure 47. Among high school ESD users under age 18, 41.2 percent of those using ESDs 20 to 30 days each month report a commercial source as their usual means of access. In contrast, those using ESDs just one to five days report borrowing as their usual source of access (78.9 percent). Like cigarette users and as their

reliance on the product increases, frequent and everyday ESD users cannot rely solely on borrowing as their means of accessing ESDs.

Figure 47: Usual Source of Electronic Smoking Devices in Past 30 Days, by Category and Intensity of Use Among Maryland Public High School Youth Under 18 Years of Age Currently Using Electronic Smoking Devices, Maryland 2018-19 YRBS/YTS

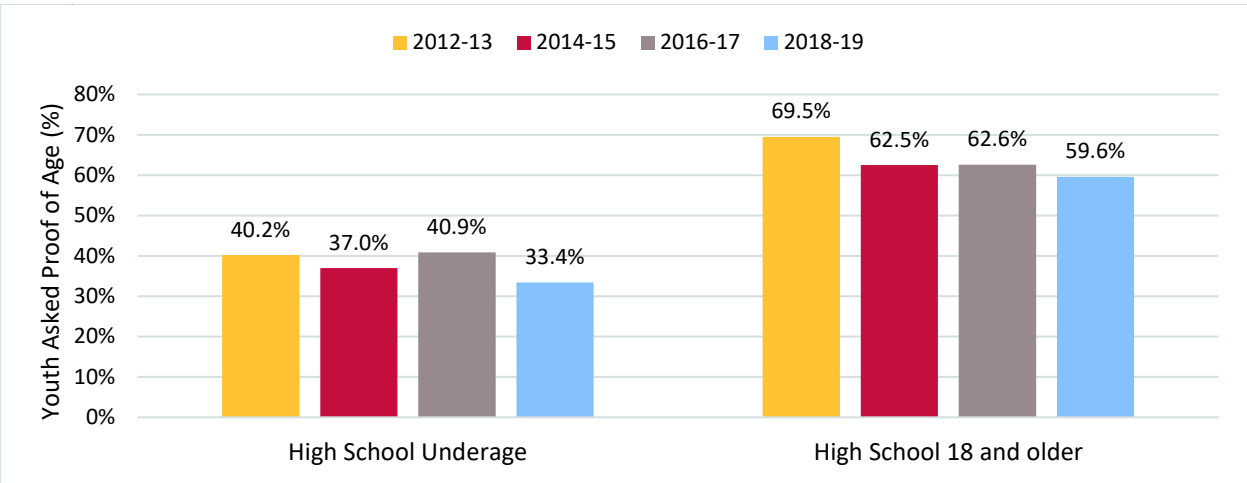


Maryland Retailers Asking for Photo Identification

As previously noted, the Federal Family Smoking Prevention and Tobacco Control Act of 2009 requires retailers to ask for photo identification and verify the age of all prospective tobacco customers that appear to be to be younger than 27 years of age. Federal and Maryland State law prohibit Maryland retailers from selling tobacco products to individuals that are underage. Either a criminal or civil penalty can be issued to a retailer if a sale is made to an individual that is underage. Citations for failure to ask for photo identification can also be issued by the FDA. FDA enforcement inspections are complementary but separate from the enforcement inspections conducted by Maryland's local civil and law enforcement authorities.

Maryland high school youth under age 18 who purchased or tried to purchase cigarettes at a retailer were less likely to be asked for age verification compared to high school youths age 18 and older, as detailed in Figure 48. The proportion of high school youth asked for age verification declined from 2012 to 2018. It should be noted that 66.6 percent of high school youth under age 18 reported not being asked for photo identification in the 2018-19 survey. These data suggest that high school tobacco users under age 18 may be aware of what retailers to visit so that they do not get asked for photo ID. A slight decrease in high school youth reporting retailers asking for proof of age between survey years 2016-17 and 2018-19 (40.9 percent to 33.4 percent), shows that continued retailer education is needed.

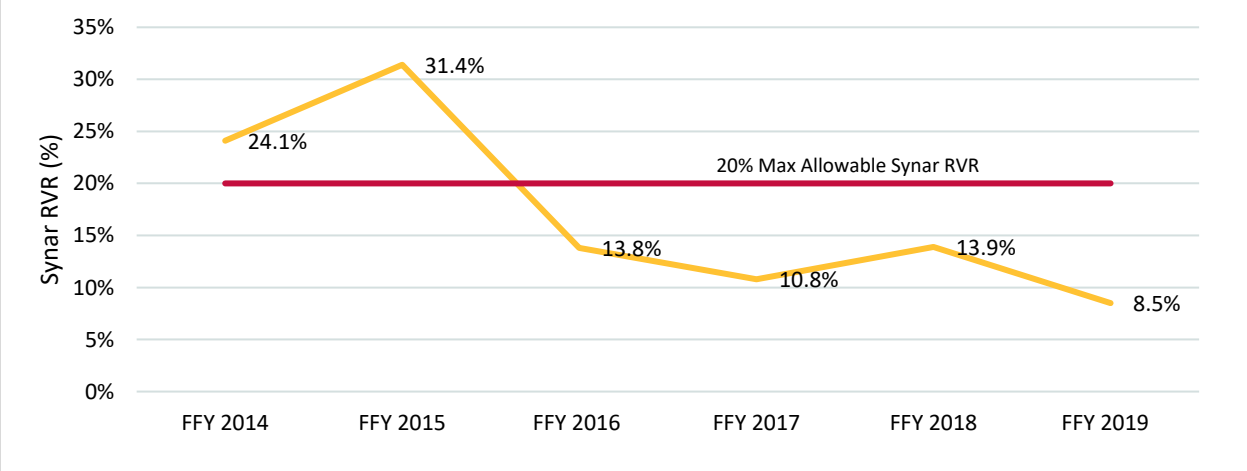
Figure 48: Proportion of High School Youth Asked for Proof of Age During Previous 30 Days Among Maryland Public High School Youth Who Bought or Tried to Buy Cigarettes in a Store, Maryland



Of the 33.4 percent of retailers who did ask for photo identification, 45.9 percent still sold tobacco to high school youth under age 18. Nonetheless, asking for photo identification significantly reduces cigarette sales to high school youth under age 18. Tobacco retailers who asked for photo identification were about 2.5 times more likely to refuse to sell cigarettes to high school youth under age 18 because of their age compared to retailers who did not ask for photo identification (54.1 percent vs. 21.2 percent, respectively).

Like FDA inspections, Synar inspections are complementary but separate from enforcement inspections conducted by Maryland's local civil and law enforcement authorities. As aforementioned, Synar inspections are tied to the Substance Abuse Prevention and SABG for each State's budget. In federal fiscal year (FFY) 2014, over 20 percent of Maryland retailers were found to be illegally selling tobacco to youth under age 18. In FFY 2015, the Maryland retailer violation rate rose again to its highest point (31.4 percent). Therefore, Maryland was

Figure 49: Maryland Synar Retailer Violation Rate (RVR) FFY 2014 to FFY 2019



not Synar Amendment compliant two years in a row, which jeopardized the State's SABG. Figure 49 details Maryland Synar retailer violation rates from FFY 2014 to FFY 2019.

In response, The Department developed the Responsible Tobacco Retailer Initiative (www.NoTobaccoSalesToMinors.com), which brought together local, community, and State partners to educate retailers on youth tobacco sales laws and increase enforcement of these laws. The initiative has proven successful, with retailer violation rates staying below the 20 percent maximum for four subsequent years.

Chapter Conclusions:

- As of October 1, 2019, the sale of tobacco products, including ESDs, to individuals under age 21 is prohibited in Maryland.
- High school youth under age 18 reported their 'usual source' for cigarettes as borrowing (24.5 percent), proxy purchase (21.2 percent), or direct commercial purchases (12.8 percent).
- For ESDs, high school youths under age 18 primarily borrowed (44.5 percent) or engaged in proxy purchases (19.6 percent).
- The 'usual source' of ESDs and cigarettes among high school youths under age 18 is highly dependent upon the intensity of ESD and cigarette use.
- The proportion of high school youths who report being asked for photo identification when attempting to purchase cigarettes decreased from 40.9 percent in 2016-17 to 33.4 percent in 2018-19.
- Nearly 46 percent of retailers who did ask for photo identification still sold tobacco to high school youths under age 18, indicating the need for continued education and enforcement visits to Maryland retailers.

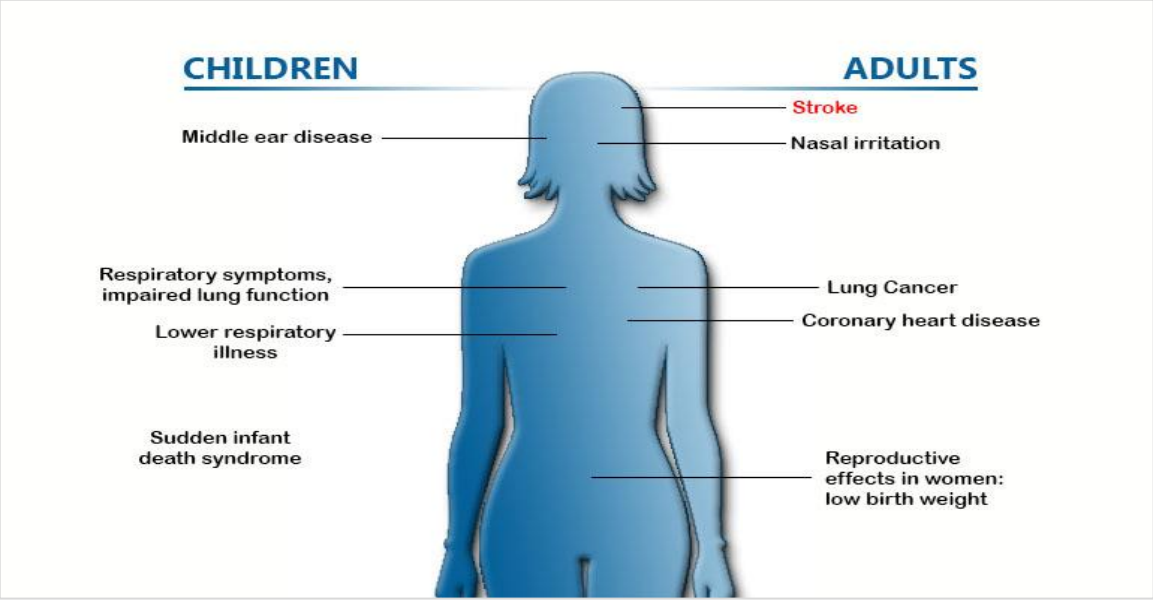
SECONDHAND SMOKE AND AEROSOL EXPOSURE

In 2006, the US Surgeon General issued *The Health Consequences of Involuntary Exposure to Tobacco Smoke,*[55] a comprehensive report that determined:

1. There is no risk-free level of exposure to secondhand smoke (SHS).
2. SHS causes premature death and disease in children and adults who do not smoke. Children exposed to secondhand smoke are at increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and severe asthma compared to children not exposed to SHS. Smoking by parents causes respiratory symptoms and slows lung growth in their children.
3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and can cause both coronary heart disease and lung cancer.
4. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to SHS. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposure of nonsmokers to secondhand smoke.

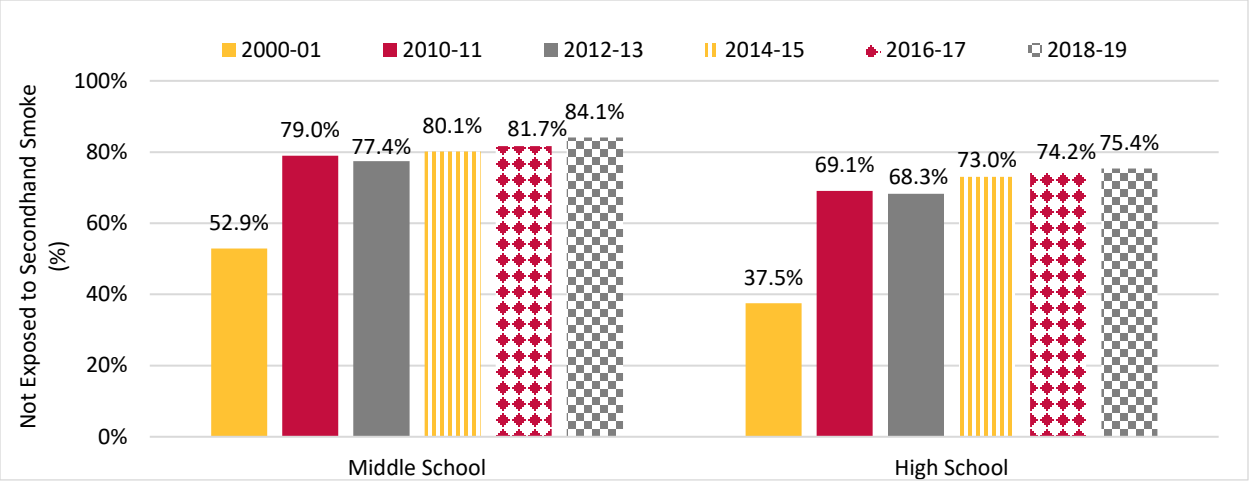
The 2014 US Surgeons General's Report *The Health Consequences of Smoking – 50 Years of Progress* provided further evidence and confirmation of the causal relationship between SHS exposure and SIDS, injury of the respiratory tract, heart disease, and stroke. Figure 50 details the health consequences of SHS exposure for children and adults. There are over 50 carcinogens and 7,000 chemicals identified in secondhand smoke[2]

Figure 50: Health Consequences Causally Linked to Exposure to Secondhand Smoke.[2]



In the early 1990s, Maryland enacted a regulatory smoking ban, followed by legislative prohibitions that began reducing involuntary exposure to SHS in the workplace. This effort reduced SHS exposure at most workplaces, but notably excluded restaurants and bars. In February 2008, Maryland enacted the Clean Indoor Air Act, which protects youth and adults from SHS exposure in virtually all indoor public spaces including restaurants, bars, workplaces, and common areas of multi-unit housing. In 2018, Maryland celebrated the 10-year anniversary of the law, signifying the State's first secondhand smoke-free generation. No elementary age student in Maryland has been exposed to SHS in bars or restaurants in their lifetime. In 2018, 87.5 percent of Maryland adults reported not being exposed to secondhand smoke indoors at work during the past week. During the 2018-19 school year, 84.1 percent of middle school students and 75.4 percent of high school youth reported not being exposed to secondhand smoke indoors, a 59.0 percent increase among middle school youth and a 101.1 percent increase among high school youth since 2000-01, as detailed in Figure 51.

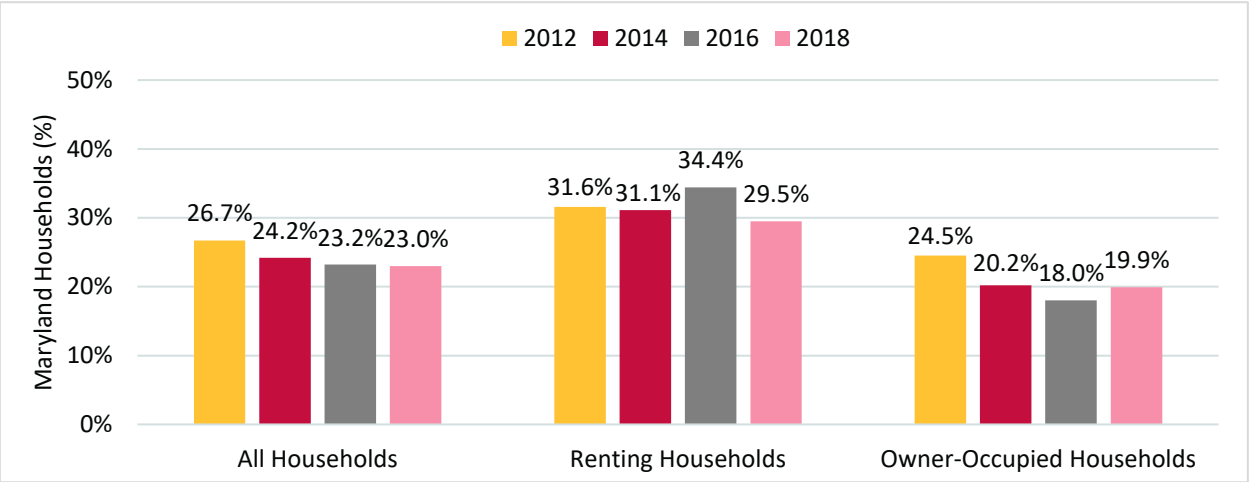
Figure 51: Maryland Youth Not Exposed to Secondhand Smoke Indoors in the Past 7 Days, Public Middle and High School Youth, Maryland YRBS/YTS



The Clean Indoor Air Act, coupled with Maryland's efforts to promote voluntary smoke-free homes, has significantly reduced involuntary indoor exposure to SHS among Maryland youth. Managers and owners of multi-unit housing are realizing the health and financial benefits of smoke-free homes and have incrementally implemented smoke-free policies in their multi-unit housing complexes. This is particularly notable, as SHS can easily pass through walls, doorways, heating systems, ventilation systems, and air conditioning systems of multi-unit housing complexes (e.g., townhomes, apartments, condominiums).

Overall, 23.0 percent of Maryland households with a resident adult smoker have at least one child living in the household. The proportion of Maryland households with a resident adult smoker and a resident child is significantly different for renter-occupied households (29.5 percent) compared to owner-occupied households (19.9 percent), as detailed in Figure 52.

Figure 52: Proportion of Maryland Households with Adult Smokers and Resident Children, Maryland 2012-2018 BRFSS

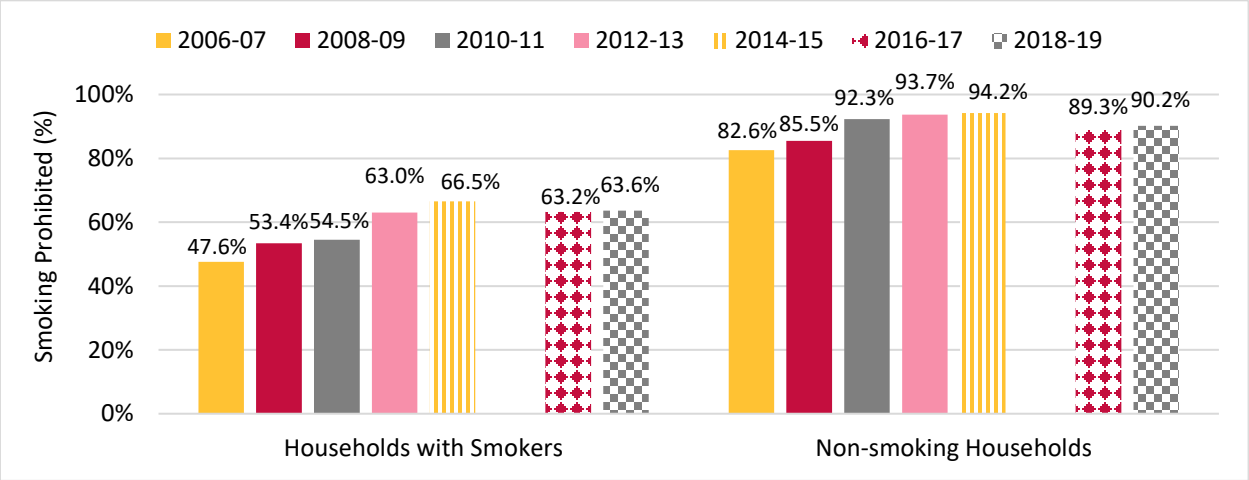


On July 30, 2018, the US Department of Housing and Urban Development made public housing smoke-free indoors, protecting two million public housing residents from the health consequences of SHS exposure. Maryland must continue to engage owners and managers of multi-unit housing developments to implement a similar smoke-free housing policy.

Maryland adults and youth living in rental housing are more likely to be exposed to SHS compared to those who own their homes. In 2018, Maryland adults reported that 89.1 percent of households prohibited all smoking inside the residence — 90.7 percent among those who own their home and 84.8 percent among those who rent their home. Maryland households continue to recognize the real health risks posed by SHS and voluntarily choose not to allow smoking inside their home.

Maryland high school youth have continued to report a steady increase in smoking bans inside their homes, regardless of whether they live with a resident adult smoker, as detailed in Figure 53. The 2018-19 YRBS/YTS shows 82.1 percent of Maryland high school youth (63.6 percent of high school youth with a resident smoker and 90.2 percent of high school youth without a resident smoker) report smoking never being allowed in their home. NOTE: Data beginning in 2016-17 are not comparable to previous years due to the change in answer choices for the survey question.

Figure 53: Smoking Status of Maryland Adults, Maryland 2016-2018 BRFSS



Voluntary smoking bans in cars are also becoming more common. In 2018, 85.3 percent of adults reported never allowing smoking in their owned or leased vehicles. Protecting nonsmokers in the homes and cars of resident smokers by enacting voluntary smoking bans is an important way to reduce the adverse health risks posed by SHS.

Secondhand Exposure to Electronic Smoking Device Aerosol

The *Surgeon General's Advisory on E-cigarette Use Among Youth* in 2018 found aerosols from activated ESDs can expose nonusers to chemicals, including: nicotine, ultrafine particles, carbonyl compounds, volatile organic compounds, and other toxins.[27] Secondhand exposure to these chemicals may worsen asthma symptoms or cause irritation to the eyes, throat, and nasal passages.[56] ESD aerosol is not a harmless 'water vapor,' and comprehensive smoke-free policies should include a ban on ESD use where combustible tobacco use is also prohibited. As of April 2020, 19 states have added ESDs to the list of tobacco products that are prohibited in smoke-free environments.[57]

Chapter Conclusions:

- In 2018, Maryland celebrated the 10-year anniversary of the enactment of the Maryland Clean Indoor Air Act, which prohibits smoking in nearly all indoor public spaces, including restaurants, bars, and workplaces. Children age 10 and younger make up the first smoke-free generation never exposed to SHS in bars and restaurants in their lifetime.

- The proportion of Maryland households with a resident adult smoker and a resident child is significantly higher for renter-occupied households (29.5 percent) compared to owner-occupied households (19.9 percent).
- Of all household moving towards smoke-free homes, nearly 90 percent prohibited smoking indoors.
- 63.6 percent of high school youth with a resident adult smoker and 90.2 percent of high school youth without a resident adult smoker report that smoking is never allowed in their home.

TOBACCO CESSATION AND TREATMENT

Incorporating tobacco cessation and treatment services within health systems, increasing insurance coverage of cessation treatments, enhancing access to a state quitline, and working with stakeholders and partners across diverse sectors can significantly decrease nicotine addiction as well as tobacco-related morbidity and mortality throughout a population.[2]

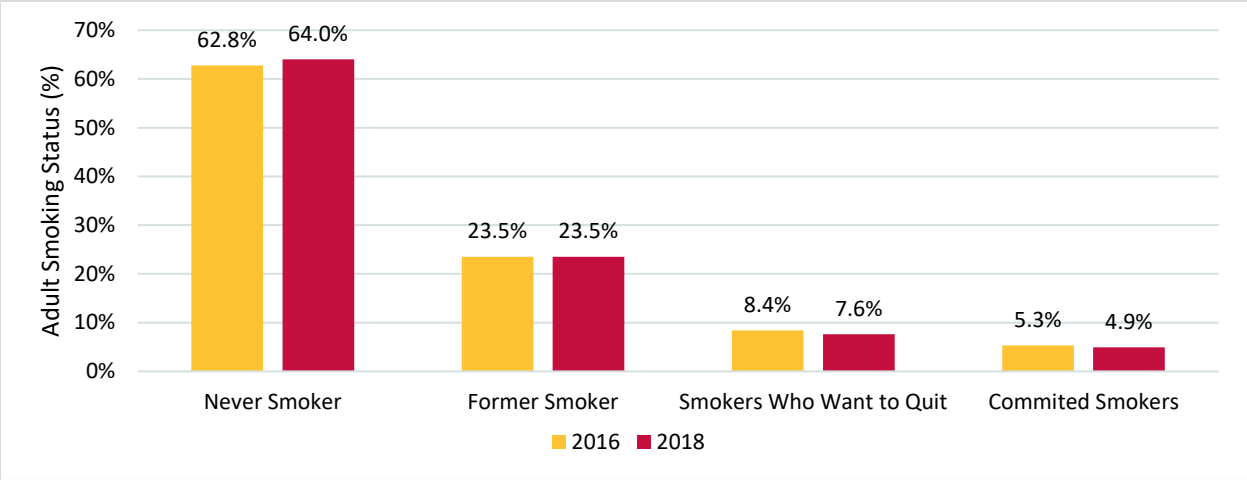
Although use of combustible tobacco products, including cigarettes, has decreased substantially over the last decade, the burden of tobacco-related disease and death is still overwhelmingly caused by these products. Nationwide, smoking continues to be the leading cause of preventable disease and death. Although many smokers attempt to quit, it can take an average of 8 to 11 attempts to permanently quit smoking.[17] With the proliferation of ESD use among youth, a new generation of youth and young adults will be left addicted to nicotine.

The CDC Office on Smoking and Health declared 2019 the "Year of Cessation," emphasizing new approaches to tobacco cessation and treatment policy and the expansion of cessation resources to disparate populations. The US Surgeon General marked the end of the "Year of Cessation" by publishing *Smoking Cessation: A report of the Surgeon General* in January of 2020, which concluded that:[11]

1. There are health benefits associated with smoking cessation at any age.
2. Smoking cessation reduces healthcare costs for smokers and society in addition to reducing the risk of many diseases, including cardiovascular disease, lung and bronchus cancer, cervical cancer, asthma, and adverse reproductive health outcomes.
3. Not enough smokers are utilizing FDA-approved medications or counseling in their cessation attempts, although many smokers make such an attempt each year.
4. Many disparities exist in different populations when it comes to smoking, quit attempts, and cessation.
5. Insurance coverage for comprehensive smoking cessation treatment leads to more successful quit attempts.
6. There is not enough evidence to conclude that ESD use increases successful smoking cessation.

Maryland is seeing a positive trend in adult smoking status. The proportion of Maryland adults who have never smoked increased from 2016 to 2018, and the proportion of Maryland adults who are committed smokers decreased from 2016 to 2018, as detailed in Figure 54.

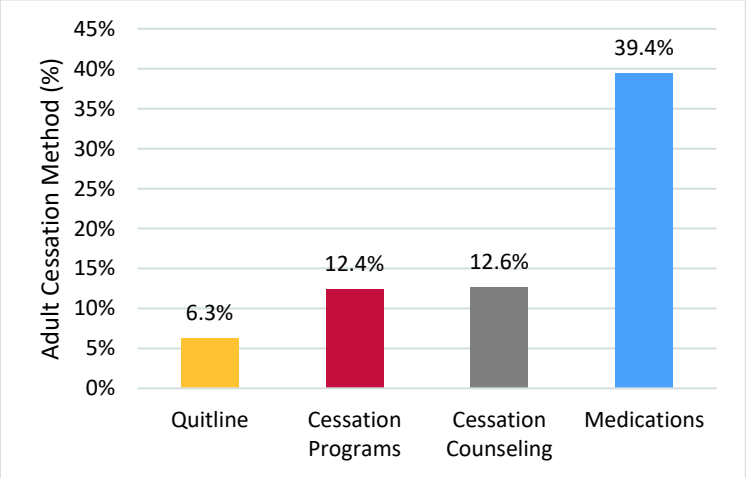
Figure 54: Smoking Status of Maryland Adults, Maryland 2016-2018 BRFSS



Adult Cessation Methods

Published by the US Department of Health and Human Services (HHS), *Clinical Practice Guidelines for Treating Tobacco Use and Dependence* offers ten recommendations for providers, insurers, and health systems to aid their clients in ending tobacco dependence. Such recommendations include access to a quitline, cessation medications, counseling, and cessation programs.[58] Maryland residents who wish to quit smoking have several resources available to assist them, including the Maryland Tobacco Quitline (Quitline), counseling from a health professional or insurance program, and FDA approved smoking cessation aids (non-nicotine prescription medication and/or nicotine replacement therapy). Although some smokers and tobacco users quit without treatment support or smoking cessation aids, the success rate for smokers quitting "cold turkey" and remaining tobacco free after 12 months is only seven to eight percent.[59] The most effective way for an adult to quit smoking is to combine both medications and behavioral interventions.[11]

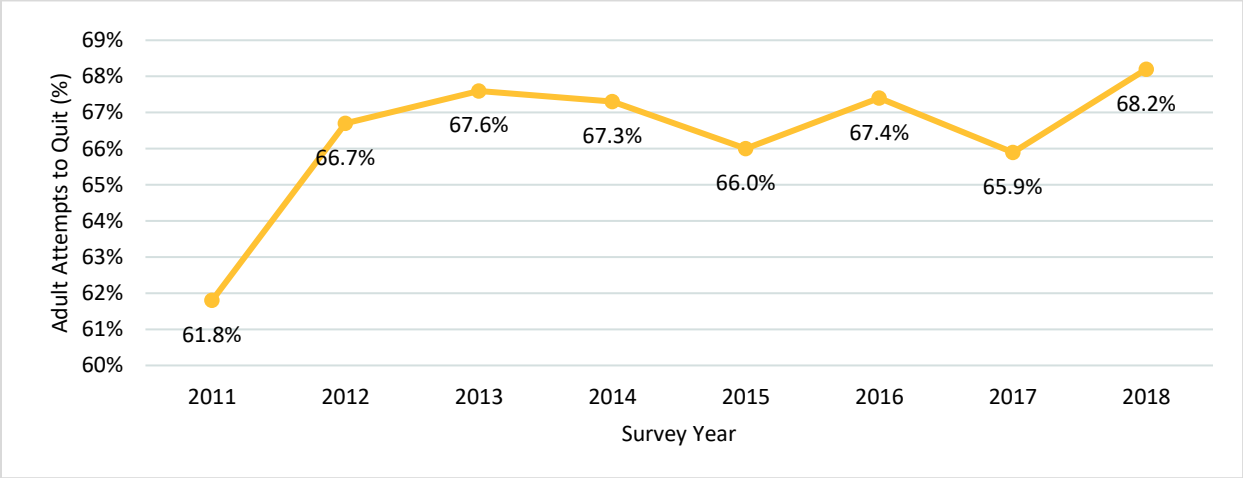
Figure 55: Methods Used to Help Quit Smoking Among Former and Current Smokers, Maryland 2018 BRFSS



In 2018, 42.7 percent of Maryland adults reported using one of four cessation methods in their last smoking cessation attempt. Smoking cessation aids, such as medications, were reported the most often (39.4 percent), followed

by cessation counseling (12.6 percent), cessation programs (12.4 percent), and the Quitline (6.3 percent). The percent of former and current smokers who reported using assistance during their last quit attempt is detailed in Figure 55. Increasing the rate of quit attempts using these methods could drive increases in prolonged tobacco cessation.

Figure 56: Adult Past Year Smoking Quit Attempts, Among Current and Former Adult Cigarette Users by Survey Year, Maryland 2011-2018 BRFSS[60,xi]



Since 2011, past year smoking quit attempts among current and former Maryland adult smokers have increased by 10.4 percent. In *Healthy People 2020*, also published by HHS, one of the national objectives seeks to increase past year quit attempts by 59.4 percent, from 50.2 percent to 80.0 percent.[61] In 2018, 68.2 percent of current and former adult smokers in Maryland attempted to quit, as detailed in Figure 56.

The Department has continued to implement novel health communication efforts to increase smoking cessation and treatment Statewide by funding multiple mass-reach health communication media campaigns promoting the Maryland Quitline. Mass-reach health communication intervention strategies that have demonstrated effectiveness at the state and local level include a variety of media, including television, radio, transit, billboard, print, digital, social media, and other advertising. These media campaigns reach Maryland residents in vulnerable populations, such as Medicaid participants, individuals with behavioral health conditions, pregnant women, and individuals who identify as LGBT. Local Maryland health

[xi] Quit attempt percentages were calculated among current cigarette smokers who answered yes to the question "During the past 12 months, have you stopped smoking for 1 day or longer because you were trying to quit smoking?" as well as among former cigarette smokers who answered "within the past month," "within the past 3 months," "within the past 6 months," or "within the past year" to the question "How long has it been since you last smoked a cigarette, even one or two puffs?"

departments also manage their own cessation programs to assist Maryland residents with cessation and treatment through local health communication campaigns and funding of community organizations that promote quitting among their localities, as well as hosting both group and individual tobacco cessation/treatment meetings. In order to meet the *Healthy People 2020* national objective, Maryland must continue to utilize enhanced health communication efforts to encourage smokers to quit.

The Department continues to provide Maryland tobacco users with comprehensive cessation services by maintaining relationships with healthcare systems and key stakeholders in the healthcare sector. In the 2018 Maryland BRFSS, 51.7 percent of tobacco users recall being advised by a doctor, dentist, nurse, or other healthcare professional to quit smoking cigarettes or another tobacco product. In order to motivate Maryland tobacco users to quit smoking and expand access to evidence-based cessation interventions and treatment, services should be offered at every visit regardless of type or location (e.g. dental, emergency room, primary care, urgent care).

If more health systems and providers are educated and trained to assist patients with tobacco cessation and treatment, patients will experience fewer barriers in accessing those services. The Department continues to partner with Maryland healthcare providers to encourage and assist patients with quitting tobacco. A particularly beneficial service healthcare providers can offer is helping patients to make a quit plan. In 2018, 39.3 percent of Maryland adults had a timeframe in mind for quitting, and many of them (89.6 percent) planned to quit within the next year.

Youth Cessation Methods

In the 2018-19 school year, 11.9 percent of Maryland high school youth completely quit using tobacco products, a 71.4 percent decrease from the last survey year. During the 2016-17 school year, 41.6 percent of Maryland high school youth reported completely quitting the use of tobacco products. However, this significant decrease in quitting tobacco products could be due to the high rates of high school youth ESD use. Accordingly, more needs to be done to reverse this trend and assist high school youth in their attempts to quit using tobacco products.

There is a gap in research regarding methods to assist nicotine addicted youth with quitting the use of tobacco products, including ESDs. Counseling and behavioral interventions are recommended for youth addicted to nicotine as nicotine replacement therapy is not recommended for individuals under age 18 without consulting a physician. Studies show cessation medications did not increase the rate of smoking cessation among youth, however, behavioral interventions were effective in increasing quit rates among this population.[11] The Maryland Quitline provides a specialized program for youth ages 13-17 to help with nicotine addiction; the program is confidential and available 24 hours a day, seven days a week. Other

tobacco cessation programs such as *SmokeFree Teen* and *This is Quitting* are tailored by age to assist youth with quitting tobacco products through text support.[xii,xiii] It is recommended that instead of suspending students for using a tobacco product on school grounds, it is more beneficial to treat the addiction through a tobacco cessation or prevention class, such as *INDEPTH,* an alternative to disciplinary action.[xiv] The Truth Initiative and the Mayo Clinic's *Become an Ex Program* is enrolling parents who are interested in learning how to help their child quit using nicotine products.[xv] Due to the social nature of ESD and tobacco use among youth, quitting these products may be socially isolating. It is important for youth to have family, friends, and others supporting them on their quit journey.

Maryland Tobacco Quitline

The Maryland Tobacco Quitline (1-800-QUIT-NOW or https://SmokingStopsHere.com/) is a free cessation service offered by the Department that assists Maryland tobacco users 13 years of age and older with quitting through personalized phone, web, and text-based counseling, as well as referrals to local cessation programs. For adults 18 years of age and older, the Maryland Tobacco Quitline (Quitline) also provides free access to FDA-approved nicotine replacement therapy (nicotine patch, nicotine gum, lozenges, and/or combination therapy). Marylanders can now also text "READY" to "200-400" to enroll in the Maryland Quitline.

Healthcare providers can refer clients and patients to the Quitline via the Fax to Assist program and through the Electronic Health Record (EHR) systems. Upon screening the patient for tobacco use, the provider can order or make a referral to the Quitline electronically via the patient's EHR. The Quitline will proactively reach out to the patient to enroll them into services if they desire. The Quitline will then provide feedback into the EHR once the patient is reached and has accepted tobacco treatment services. Implementing e-referrals to a quitline can increase tobacco screening and tobacco treatment rates to patients. Regular in-person trainings are offered to assist providers with easily referring patients and clients to cessation services. Provider trainings and referrals to the Quitline have continued to increase significantly since 2006. To date, there have been over 105,000 provider referrals to the Quitline and about 1,500 provider trainings.

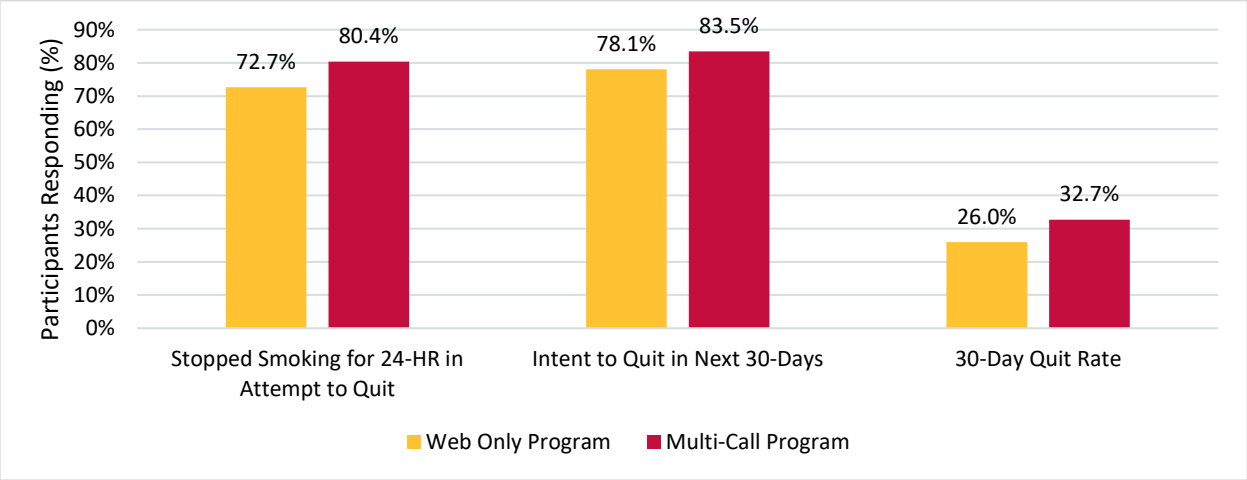
[xii] https://teen.smokefree.gov/
[xiii] https://truthinitiative.org/thisisquitting
[xiv] https://www.lung.org/stop-smoking/helping-teens-quit/indepth.html
[xv] https://www.becomeanex.org/

Maryland Tobacco Quitline Evaluation

The Quitline was evaluated from November 1, 2017 to October 31, 2018 in order to measure the satisfaction with using the program and 30-day quit rates (30 days absent from tobacco) of the participants seven months post enrollment. In the 2018 BRFSS, 30.3 percent of Marylanders were aware of the Quitline. Current smokers were more aware of the Quitline (61.5 percent) compared to residents that did not currently smoke (25.9 percent). During the evaluation timeframe, almost 10,000 Maryland residents enrolled in the Quitline multi-call program or the web-only program.

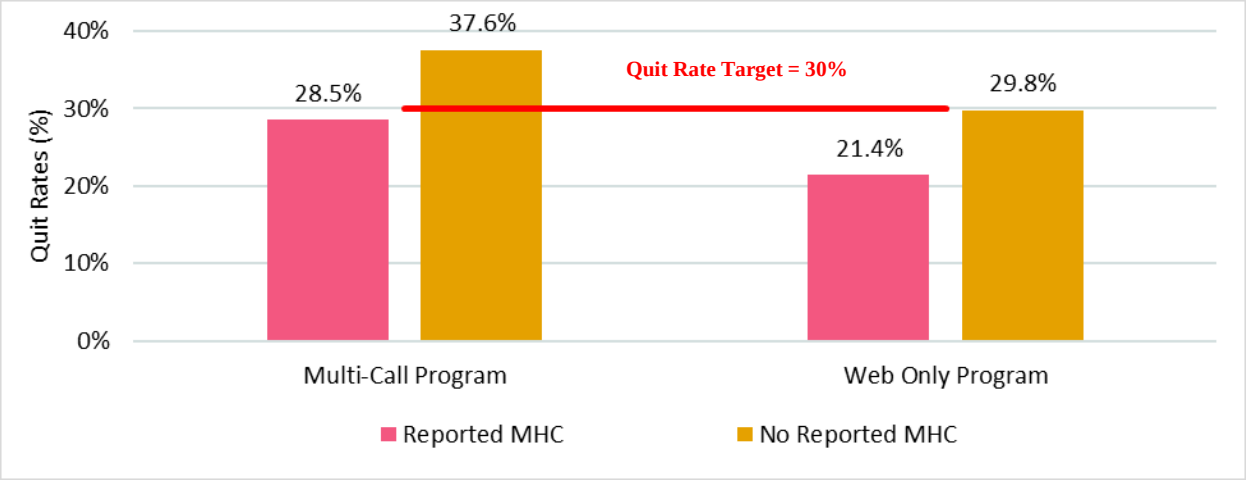
The evaluation results indicated that the 30-day quit rate for Quitline participants was 32.7 percent in the multi-call program and 26.0 percent in the web only program, as detailed in Figure 57. The national state quitline target rate is 30 percent; Maryland's multi-call program exceeded this target. The 30-day quit rate for both the web-only program and the multi-call program was approximately three to five times higher than the quit rate for quitting "cold turkey," which was approximately seven to eight percent — suggesting that the Quitline works to improve tobacco cessation.

Figure 57: Maryland Tobacco Quitline Evaluation Outcomes (November 1, 2017 - October 31, 2018)



In addition to quit rates, the evaluation detailed the relationship between tobacco cessation and mental health conditions (MHCs). Many Quitline participants reported one or more MHCs, with 51.5 percent of participants in the multi-call program and 43 percent of participants in the web-only program reporting at least one MHC. Thirty-day quit rates were higher for participants that did not report a MHC, as detailed in Figure 58. Access to quitlines can significantly increase quit attempts and quit rates, especially for patients with MHCs who may find it more difficult to access in-person cessation interventions and programs.[62]

Figure 58: Quit Rates (Conventional Tobacco) Among Participants with Mental Health Conditions (MHCs), Maryland Quitline Evaluation 2017-2018



Use of Electronic Smoking Devices for Cessation

ESDs are not approved by the FDA as a tobacco cessation device. The manufacturers of these products created an alternative nicotine delivery system that may contain less nicotine and potentially be less harmful, however, these products are still not safe.[63,4] As noted in a previous chapter, adults and high school youth do report using ESDs as cessation aids to quit using other tobacco products like cigarettes, cigars, and smokeless tobacco (4.4 percent). Many believe ESDs are safer or healthier than conventional tobacco products, however, using ESDs is not risk-free. Scientific evidence related to the success of using ESDs to quit tobacco is scarce, and the FDA has not certified these products as safe or effective.

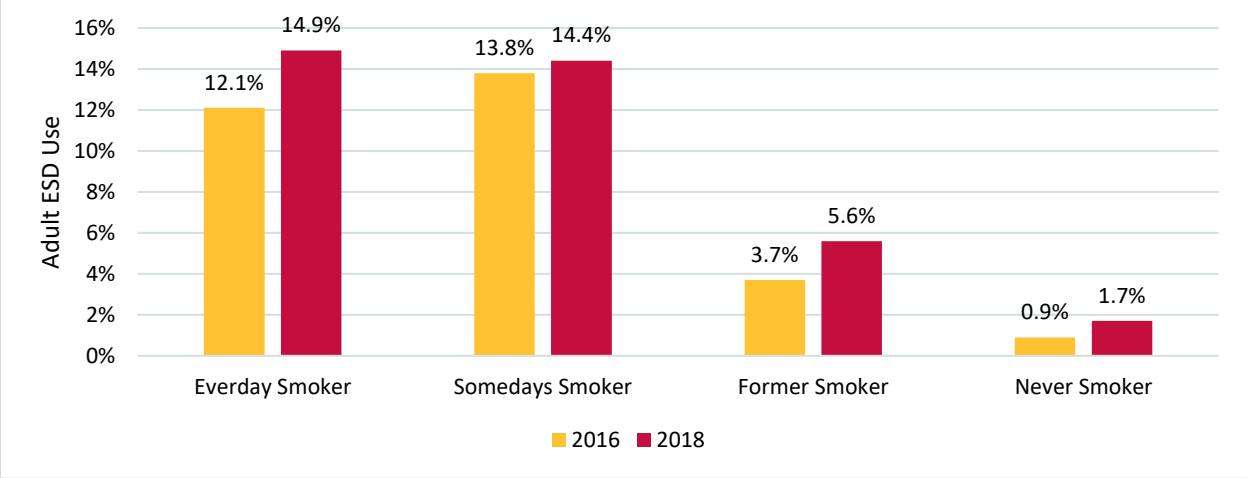
ESDs are highly addictive and those who use them are less likely to quit smoking altogether and more likely to start using other tobacco products.[64] The duration and frequency of aerosol inhalation in new generation ESDs can lead to increased nicotine and toxin intake when compared to cigarette smoking, as there is no calculated start and stop point.[4] In 2018, one in four current adult ESD users identified as never smokers and 43.1 percent of ESD users

currently smoke cigarettes. In 2017, 34.2 percent of adults reported using ESDs to quit smoking and 14.2 percent used ESDs as a substitute for nicotine.

Continued use of ESDs suggest that adult smokers have difficulty quitting all tobacco products, and those who want to quit smoking may prolong their nicotine dependence and addiction. Adult ESD users are more likely to be dual product users than high school youth, which may delay cessation of conventional tobacco products like cigars, cigarettes, and smokeless tobacco.[65] The most recent Quitline evaluation showed many Quitline participants used ESDs as a method to quit or wean off other tobacco products. However, 58.0 percent of current Maryland adult ESD users also used other tobacco products.

Adult ESD use by cigarette smoking status for 2016 and 2018 is detailed in Figure 59. Smokers who report smoking 'some days' and 'every day' continue to use ESDs. Current ESD use has continued to increase among former and never adult smokers. Maryland adult ESD users are still dependent on nicotine from other tobacco products and are more likely to be dual product users. There are substantial benefits to quitting combustible tobacco products, however, there is limited evidence that ESDs may be an effective aid in quitting those products. Youth, young adults, pregnant women, and nonsmoking adults should not use ESDs, and adults who smoke should try quitting combustible tobacco use with FDA approved medications and cessation aids. More research is needed to determine the effectiveness of ESDs as a tobacco cessation aid.

Figure 59: Adult Use of Electronic Smoking Devices By Cigarette Smoking Status, Maryland 2016-2018 BRFSS



Chapter Conclusions:

- To assist in quitting tobacco use, Maryland adults use smoking cessation aids. Medications are used most often, followed by cessation counseling, cessation programs, and the Maryland Tobacco Quitline.
- Tobacco cessation programs such as *SmokeFree Teen* and *This is Quitting* assist youth in quitting tobacco products, including ESDs, through text support. Programs are tailored by age group to assist youth at the appropriate developmental level.
- The Maryland Tobacco Quitline (1-800-QUIT-NOW) is a cessation service that assists Maryland tobacco users 13 years of age and older with quitting through personalized phone-based, web-based, and text-based counseling, as well as referrals to local cessation programs.
- Access to a quitline can significantly increase quit attempts and quit rates, especially for participants with mental health conditions who may find it more difficult to access in-person cessation interventions and programs.
- ESDs are not FDA approved cessation aids. Youth, young adults, pregnant women, and nonsmoking adults should not use ESDs, and adults who smoke should try quitting with FDA approved medications and cessation aids.

DATA SOURCES

Survey Data Sources

The primary survey sources include:

Public Middle School and High School Data

- Middle school and high school Youth Tobacco Survey (YTS), 2000-2010
- Middle school and high school Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS), 2012-13 to 2018-19

Adult Data

- Behavioral Risk Factor Surveillance System (BRFSS) Survey, 2000-2018
- 'Adult' in this report refers to persons 18 years of age and older when surveyed as part of the BRFSS

The most current data in this report are derived from the 2018-19 YRBS/YTS and the 2018 BRFSS.

Behavioral Risk Factor Surveillance System

BRFSS is a CDC-sponsored annual random-digit-dial telephone survey conducted by the Department. Like the middle school and high school youth oriented YRBS, the BRFSS focuses primarily on risk behaviors for adults, including the use of tobacco products. The survey is designed to primarily produce Statewide estimates of such behaviors, although jurisdiction-specific estimates can be calculated if the sample size within a jurisdiction is large enough. BRFSS data presented in this report are single year data, from a single survey for the identified calendar year.

In recent years, the BRFSS survey has expanded to include not only traditional landline telephones, but also cell phones. Those categories utilize distinct sample frames and weighting prior to being combined into a single data set. In 2018, there were more than 17,000 completed BRFSS telephone interviews.

BRFSS data are collected through a Department contractor and forwarded to CDC and/or the survey contractor for cleaning and weighting. Analysis of BRFSS data appearing in this report was conducted by the Department unless otherwise noted.

Youth Risk Behavior Survey and Youth Tobacco Survey

The YRBS and YTS are independent surveys sponsored nationally by CDC. In Maryland, the Department combined the YRBS and YTS and administers this joint YRBS/YTS beginning in the fall of even numbered calendar years. The CDC YRBS is the core of the Maryland survey, enhanced with expanded questions from the CDC YTS tool. Maryland's YRBS/YTS is accepted by CDC as an official YRBS CDC survey.

The YTS was first conducted in Maryland in 2000 and replicated biennially thereafter to maintain surveillance of middle and high school youth tobacco use behaviors as mandated by Maryland Health-General Article § 13-1004(d). The YTS was a jurisdiction-level survey that provided comprehensive data on tobacco use behaviors from 2000-2010.

The YRBS collects data on priority middle and high school youth health risk behaviors using distinct middle and high school survey instruments. The core of these survey instruments comes from the CDC YRBS (of which Maryland is required to include a minimum of two-thirds of the core survey questions).

The YRBS/YTS is Maryland's version of the CDC YRBS survey combined with the CDC YTS. The YRBS and YTS were combined for the first time in State fiscal year 2013 for the following reasons: (1) to reduce the survey burden on Maryland schools and students, (2) to produce jurisdiction-specific estimates for YRBS variables which previously were collected only at the State-level, (3) to continue to collect data necessary for support of youth-focused tobacco control efforts, and (4) to reduce costs associated with youth risk behavior surveillance.

CDC conducts the random selection of schools and supports the survey contractor in the random selection of classrooms within selected schools. CDC and/or its survey contractor also conduct all data cleaning, logic edits, weighting, and primary data analysis.

The Department administers the paper and pencil surveys (utilizing a machine-readable multiple-choice answer sheet to protect student anonymity) in the fall of even calendar years to middle and high school youth enrolled in public, vocational, and charter middle (grades 6-8) and high schools (grades 9-12). During the 2018-19 school year 365 schools were surveyed, with over 68,000 completed surveys.

The YTS, the YRBS, and the YRBS/YTS all employ the same methodology and model for conducting surveys.

Other Maryland Data Sources

Outcomes Measurement System Datamart:

The OMS Datamart is a data collection system tracking the trend in health risk behaviors of adults and youth receiving outpatient behavioral health treatment services for mental health and/or substance use disorders.

Maryland Vital Statistics Administration:

The Maryland Vital Statistics Administration maintains a registry of birth certificates, death records, marriage licenses, and other documentation.

Maryland Center for Cancer Prevention and Control:

The Maryland Center for Cancer Prevention and Control collects data on cancer incidence and mortality. The reports and data are produced under the Maryland Cigarette Restitution Fund Program.

High School Youth Population Data

Tables

Appendix tables with all survey years for the State and each jurisdiction remain available online at:
https://phpa.health.maryland.gov/ohpetup/Pages/tob_reports.aspx.

A. Youth Current Tobacco Use – Maryland Public High School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**26.9** (25.9-27.9) **57,538**	**19.4** (18.7- 20.1) **47,698**	**16.9** (16.3-17.5) **38,966**	**27.6** (26.9-28.4) **64,516**	**21.6** (20.7-22.4) **50,001**	**27.4** (26.2-28.6) **65,038**
Allegany	**40.8** (37.3-44.4) **1,249**	**24.3** (21.3-27.7) **620**	**27.2** (24.3-30.3) **661**	**36.9** (33.2-40.6) **928**	**33.3** (30.0-36.6) **806**	**43.5** (39.6-47.4) **1,038**
Anne Arundel	**32.5** (29.2-35.9) **6,440**	**21.0** (19.0-23.1) **4,428**	**17.7** (15.8-19.8) **3,643**	**31.0** (28.5-33.4) **6,536**	**25.5** (23.0-28.0) **5,351**	**33.1** (30.0-36.2) **7,047**
Baltimore City	**17.8** (14.7-21.6) **3,776**	**19.2** (17.0-21.7) **4,110**	**16.6** (14.8-18.6) **3,210**	**29.3** (26.2-32.4) **5,509**	**24.6** (21.6-27.5) **4,759**	**23.3** (19.9-26.6) **4,119**
Baltimore County	**27.9** (24.4-31.6) **7,687**	**22.7** (19.9-25.7) **6,665**	**18.1** (15.3-21.2) **5,120**	**27.9** (24.2-31.6) **7,954**	**24.4** (20.7-28.1) **6,881**	**28.7** (25.3-32.0) **8,193**
Calvert	**32.1** (28.5-36.1) **1,349**	**21.7** (19.4-24.3) **1,176**	**23.0** (20.1-26.1) **1,149**	**31.1** (28.0-34.2) **1,550**	**23.0** (20.2-25.7) **1,126**	**39.4** (36.7-42.2) **1,935**
Caroline	**41.0** (35.7-46.5) **618**	**25.7** (23.0-28.7) **374**	**25.4** (21.7-29.6) **359**	**36.8** (32.7-41.0) **556**	**28.7** (24.3-33.2) **404**	**42.2** (39.0-45.5) **666**
Carroll	**29.0** (24.9-33.5) **2,206**	**19.6** (17.7-21.6) **1,738**	**18.7** (16.7-21.0) **1,546**	**25.1** (22.3-27.8) **2,029**	**25.4** (22.4-28.3) **2,001**	**34.7** (32.3-37.0) **2,716**
Cecil	**36.0** (31.9-40.3) **1,386**	**25.8** (23.1-28.8) **1,211**	**24.6** (22.0-27.4) **1,082**	**39.1** (36.1-42.1) **1,758**	**26.6** (23.8-29.5) **1,175**	**42.7** (39.7-45.8) **1,884**
Charles	**31.8** (27.8-36.1) **2,032**	**18.7** (16.7-20.9) **1,601**	**17.6** (15.9-19.5) **1,439**	**31.8** (29.5-34.2) **2,540**	**23.6** (21.4-25.9) **1,809**	**23.3** (21.1-25.5) **1,791**
Dorchester	**30.0** (26.8-33.5) **401**	**22.9** (19.6-26.7) **282**	**24.4** (20.6-28.7) **287**	**36.4** (32.7-40.1) **439**	**33.3** (26.3-40.3) **390**	**43.6** (39.5-47.7) **525**
Frederick	**33.5** (30.1-37.1) **3,194**	**18.7** (16.4-21.2) **2,259**	**19.9** (17.8-22.0) **2,351**	**29.3** (27.2-31.5) **3,505**	**23.5** (21.0-26.1) **2,728**	**33.7** (31.1-36.3) **4,067**
Garrett	**38.3** (34.4-42.4) **497**	**34.9** (30.6-39.3) **448**	**34.3** (29.5-39.5) **382**	**46.1** (40.6-51.7) **517**	**38.9** (34.0-43.8) **412**	**45.4** (39.8-50.9) **496**
Harford	**36.0** (32.8-39.3) **3,575**	**22.9** (20.7-25.3) **2,654**	**20.2** (18.2-22.5) **2,201**	**32.1** (29.9-34.4) **3,473**	**21.9** (19.5-24.2) **2,310**	**32.7** (30.0-35.4) **3,520**
Howard	**24.5** (21.5-27.8) **2,867**	**15.1** (13.4-17.0) **2,379**	**11.5** (10.1-13.0) **1,799**	**20.4** (18.4-22.4) **3,170**	**15.0** (13.0-17.1) **2,321**	**22.1** (19.1-25.0) **3,503**
Kent	**43.5** (38.1-49.0) **334**	**28.8** (23.5-34.8) **164**	**25.7** (19.9-32.4) **142**	**30.8** (23.5-38.1) **172**	**29.2** (22.5-35.8) **151**	**46.7** (41.5-51.9) **253**
Montgomery	**22.5** (20.3-24.7) **7,585**	**14.3** (12.4-16.5) **6,131**	**12.1** (10.8-13.6) **4,961**	**22.4** (20.8-23.9) **9,553**	**14.9** (12.4-17.3) **6,359**	**22.2** (17.4-27.0) **10,054**
Prince George's	**18.5** (15.6-21.9) **5,896**	**16.9** (15.3-18.6) **6,100**	**13.3** (11.8-14.9) **4,057**	**23.0** (21.0-24.9) **7,082**	**16.6** (14.4-18.8) **5,182**	**16.2** (12.1-20.3) **5,309**
Queen Anne's	**34.1** (30.9-37.5) **601**	**24.4** (21.7-27.2) **545**	**22.5** (19.2-26.2) **478**	**39.0** (34.8-43.1) **845**	**31.7** (27.6-35.9) **668**	**44.2** (40.7-47.7) **1,003**
Somerset	**42.0** (34.6-49.8) **321**	**30.8** (25.3-36.8) **222**	**23.0** (18.4-28.3) **156**	**39.8** (32.5-47.2) **265**	**32.6** (27.2-37.9) **217**	**34.0** (27.7-40.4) **232**
St. Mary's	**32.1** (28.4-36.1) **1,258**	**19.1** (16.7-21.6) **929**	**19.2** (17.0-21.6) **889**	**33.9** (30.0-37.7) **1,609**	**27.0** (24.3-29.8) **1,209**	**38.2** (35.4-41.0) **1,855**
Talbot	**38.7** (35.2-42.4) **457**	**24.4** (20.9-28.4) **317**	**20.2** (16.5-24.6) **247**	**32.2** (28.3-36.0) **409**	**25.3** (21.7-28.9) **326**	**39.3** (35.7-42.9) **531**
Washington	**36.2** (32.9-39.6) **1,888**	**28.8** (25.9-32.0) **1,792**	**24.6** (22.1-27.2) **1,506**	**35.1** (32.6-37.7) **2,213**	**30.1** (27.3-33.0) **1,874**	**34.2** (31.2-37.1) **2,180**
Wicomico	**36.2** (32.2-40.3) **1,301**	**26.8** (23.8-30.0) **957**	**22.8** (20.7-25.1) **803**	**33.4** (29.8-37.0) **1,232**	**24.2** (21.0-27.3) **917**	**34.7** (31.7-37.6) **1,333**
Worcester	**31.6** (27.3- 36.2) **622**	**29.8** (26.8-32.9) **597**	**27.4** (23.7-31.3) **498**	**35.4** (32.4-38.5) **671**	**32.5** (28.6-36.5) **624**	**41.4** (37.1-45.8) **787**

B. Youth Current Tobacco Use, By Minority Race/Ethnicity – Maryland Public High School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**20.0** (18.6-21.5) **18,045**	**18.3** (17.5-19.0) **24,513**	**14.6** (13.9-15.3) **17,870**	**25.6** (24.6-26.5) **32,666**	**19.3** (18.4-20.2) **25,106**	**21.3** (19.9-22.8) **29,212**
Allegany	**41.8** (32.8-51.4) **89**	**32.5** (26.0-39.8) **92**	**39.3** (33.3-45.4) **144**	**44.2** (36.3-52.1) **159**	**42.2** (35.6-48.8) **181**	**47.1** (40.7-53.5) **207**
Anne Arundel	**27.9** (22.3-34.2) **1,341**	**22.2** (19.7-25.0) **1,599**	**18.6** (15.8-21.3) **1,312**	**31.1** (28.0-34.1) **2,454**	**23.9** (21.0-26.8) **1,982**	**28.5** (24.2-32.8) **2,562**
Baltimore City	**16.8** (13.8-20.4) **3,131**	**18.9** (16.6-21.3) **3,775**	**15.9** (14.1-17.7) **2,742**	**27.6** (24.6-30.6) **4,600**	**22.5** (19.6-25.3) **3,793**	**22.0** (18.5-25.4) **3,460**
Baltimore County	**20.6** (18.2-23.2) **1,841**	**19.6** (17.9-21.4) **2,934**	**13.5** (10.7-16.3) **1,978**	**25.9** (21.9-30.0) **4,057**	**22.8** (18.5-27.1) **3,562**	**22.1** (17.1-27.2) **3,666**
Calvert	**29.5** (24.1-35.6) **251**	**23.1** (19.4-27.2) **295**	**25.0** (20.4-29.6) **288**	**32.0** (27.6-36.4) **386**	**19.8** (16.4-23.3) **242**	**39.2** (35.5-42.9) **523**
Caroline	**34.6** (27.7-42.3) **119**	**29.3** (24.2-35.0) **121**	**23.5** (17.9-29.0) **89**	**40.3** (34.4-46.2) **188**	**30.5** (24.5-36.4) **167**	**38.5** (34.0-43.1) **209**
Carroll	**46.8** (36.5-57.4) **292**	**23.7** (19.6-28.4) **207**	**24.8** (19.6-30.0) **199**	**27.7** (22.7-32.7) **260**	**24.9** (19.9-29.8) **238**	**39.5** (34.4-44.5) **420**
Cecil	**36.8** (27.9-46.7) **162**	**26.4** (22.6-30.7) **224**	**20.7** (16.9-24.6) **163**	**42.3** (37.1-47.6) **372**	**28.2** (23.4-33.0) **242**	**38.5** (33.8-43.1) **353**
Charles	**25.9** (21.8-30.5) **512**	**17.2** (15.1-19.4) **942**	**14.6** (12.8-16.5) **756**	**29.2** (26.5-31.9) **1,527**	**20.8** (18.4-23.2) **1,070**	**17.2** (15.2-19.3) **926**
Dorchester	**25.6** (21.6-30.2) **128**	**27.0** (22.8-31.7) **161**	**23.3** (17.3-29.2) **111**	**38.6** (33.4-43.7) **203**	**40.1** (30.9-49.4) **204**	**46.8** (41.7-52.0) **263**
Frederick	**36.0** (30.0-42.3) **518**	**18.1** (15.3-21.2) **619**	**19.1** (16.4-21.8) **664**	**30.4** (26.8-33.9) **1,102**	**25.6** (22.1-29.1) **943**	**30.8** (27.6-34.1) **1,309**
Garrett	**Data Not Available**	**48.3** (39.9-56.9) **78**	**57.5** (47.6-67.3) **80**	**Data Not Available**	**Data Not Available**	**46.6** (36.5-56.8) **83**
Harford	**31.2** (26.7-36.1) **669**	**22.0** (19.3-25.1) **734**	**19.6** (16.5-22.8) **597**	**30.8** (27.6-33.9) **996**	**21.7** (17.8-25.5) **711**	**23.6** (20.5-26.8) **860**
Howard	**19.2** (15.3-23.9) **579**	**16.1** (14.0-18.4) **1,165**	**10.0** (8.4-11.6) **752**	**20.8** (18.5-23.2) **1,673**	**13.7** (11.6-15.9) **1,140**	**19.1** (15.9-22.3) **1,756**
Kent	**42.9** (34.6-51.7) **94**	**30.9** (22.8-40.4) **62**	**16.7** (9.1-24.3) **29**	**29.6** (18.1-41.1) **58**	**27.5** (17.9-37.1) **47**	**47.8** (39.3-56.2) **79**
Montgomery	**19.1** (16.1-22.5) **2,867**	**14.7** (12.9-16.7) **3,951**	**11.8** (10.3-13.4) **2,998**	**21.5** (19.6-23.5) **5,897**	**15.1** (12.8-17.4) **4,228**	**19.1** (14.9-23.3) **5,768**
Prince George's	**15.4** (12.4-19.0) **4,097**	**16.7** (15.1-18.4) **5,787**	**12.8** (11.3-14.3) **3,717**	**22.0** (20.2-23.8) **6,370**	**15.4** (13.4-17.3) **4,534**	**14.5** (11.1-18.0) **4,434**
Queen Anne's	**33.7** (27.1-41.1) **84**	**36.6** (31.6-42.0) **167**	**28.5** (21.1-34.8) **88**	**42.8** (36.4-49.3) **224**	**36.1** (30.4-41.8) **134**	**46.1** (39.8-52.3) **228**
Somerset	**37.9** (30.4-46.0) **115**	**31.6** (25.5-38.3) **121**	**22.4** (17.6-27.2) **74**	**35.0** (27.7-42.2) **121**	**29.2** (23.9-34.5) **102**	**28.4** (22.7-34.1) **101**
St. Mary's	**26.8** (22.1-32.2) **267**	**20.0** (16.4-24.1) **280**	**17.6** (13.4-21.8) **210**	**32.6** (27.9-37.4) **440**	**29.8** (25.9-33.7) **405**	**35.7** (31.4-40.0) **554**
Talbot	**24.2** (19.1-30.1) **67**	**27.9** (22.6-33.9) **120**	**21.7** (15.8-27.6) **76**	**36.2** (30.7-41.7) **140**	**24.8** (19.7-30.0) **101**	**38.7** (33.8-43.6) **184**
Washington	**37.7** (30.9-45.1) **254**	**32.8** (28.5-37.5) **447**	**23.2** (19.2-27.2) **312**	**38.2** (33.8-42.7) **585**	**26.2** (22.1-30.4) **408**	**27.2** (23.7-30.6) **497**
Wicomico	**33.3** (28.6-38.3) **391**	**26.8** (23.7-30.2) **446**	**21.7** (18.6-24.7) **361**	**32.1** (27.2-36.9) **566**	**22.7** (18.8-26.6) **428**	**30.7** (27.0-34.4) **581**
Worcester	**26.7** (20.9-33.5) **155**	**29.9** (26.2-33.9) **186**	**26.6** (21.7-31.4) **133**	**37.6** (32.9-42.4) **207**	**30.1** (23.5-36.6) **168**	**33.2** (27.7-38.8) **192**

C. Youth First Tried Tobacco, Past 12 Months – Maryland Public High School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**23.5** (22.6-24.3) **54,445**	**25.7** (25.2- 26.3) **67,919**	**17.9** (17.4-18.5) **42,364**	**11.0** (10.5-11.4) **26,213**	**7.7** (7.4-8.0) **17,675**	**6.5** (6.0-7.0) **14,596**
Allegany	**34.4** (32.1-36.8) **1,141**	**27.1** (23.9-30.3) **736**	**24.8** (22.4-27.1) **612**	**15.6** (13.8-17.4) **391**	**10.3** (8.6-11.9) **247**	**8.8** (7.4-10.3) **204**
Anne Arundel	**27.2** (24.6-29.7) **5,803**	**27.0** (24.8-29.2) **6,137**	**18.7** (17.0-20.4) **3,903**	**12.4** (11.2-13.7) **2,630**	**9.6** (8.5-10.8) **2,005**	**7.2** (5.4-8.9) **1,446**
Baltimore City	**16.1** (12.6-19.7) **3,787**	**27.9** (25.6-30.3) **6,732**	**16.9** (15.3-18.6) **3,368**	**10.2** (8.6-11.8) **1,969**	**6.9** (5.5-8.4) **1,240**	**5.2** (3.6-6.9) **854**
Baltimore County	**24.7** (22.2-27.3) **7,305**	**28.3** (26.4-30.2) **8,954**	**19.7** (17.4-22.0) **5,671**	**10.8** (8.5-13.0) **3,096**	**9.0** (7.8-10.3) **2,505**	**7.9** (5.8-10.1) **2,183**
Calvert	**28.2** (25.6-30.8) **1,261**	**26.9** (24.5-29.2) **1,524**	**23.1** (20.4-25.8) **1,179**	**13.6** (12.1-15.2) **682**	**10.2** (8.8-11.5) **499**	**9.0** (7.8-10.1) **414**
Caroline	**29.5** (26.4-32.6) **477**	**30.3** (26.5-34.0) **481**	**23.6** (20.3-26.8) **335**	**15.3** (12.4-18.1) **226**	**8.2** (6.3-10.1) **115**	**10.9** (8.5-13.3) **160**
Carroll	**24.0** (21.5-26.6) **1,949**	**25.0** (22.9-27.0) **2,303**	**18.5** (16.5-20.5) **1,543**	**11.9** (10.3-13.4) **968**	**9.9** (8.3-11.6) **786**	**8.9** (7.7-10.2) **659**
Cecil	**28.1** (24.9-31.4) **1,141**	**29.4** (26.8-32.0) **1,438**	**24.7** (22.4-27.0) **1,113**	**16.1** (14.3-17.9) **732**	**8.6** (7.4-9.8) **386**	**11.3** (9.5-13.1) **476**
Charles	**25.6** (22.8-28.5) **1,793**	**25.1** (23.0-27.1) **2,301**	**19.5** (17.8-21.2) **1,636**	**12.9** (11.5-14.2) **1,055**	**6.9** (5.8-8.0) **521**	**4.8** (3.9-5.7) **358**
Dorchester	**23.0** (19.9-26.1) **342**	**30.1** (26.1-34.1) **410**	**22.8** (19.4-26.2) **277**	**14.2** (11.2-17.3) **170**	**8.7** (6.3-11.2) **92**	**7.1** (5.2-9.1) **74**
Frederick	**28.8** (26.1-31.6) **2,941**	**25.0** (22.5-27.6) **3,187**	**19.1** (17.2-21.1) **2,306**	**12.0** (10.6-13.3) **1,442**	**8.5** (7.5-9.5) **999**	**7.9** (6.9-9.0) **914**
Garrett	**30.5** (27.3-33.8) **413**	**37.3** (33.4-41.2) **512**	**28.5** (24.6-32.4) **324**	**15.4** (13.0-17.8) **170**	**11.8** (9.0-14.7) **127**	**10.3** (8.0-12.6) **104**
Harford	**28.8** (26.2-31.3) **3,144**	**29.1** (26.8-31.4) **3,542**	**20.2** (18.5-21.9) **2,237**	**14.4** (13.0-15.8) **1,579**	**7.8** (6.4-9.2) **821**	**9.6** (8.3-11.0) **986**
Howard	**22.2** (19.5-24.8) **2,757**	**21.7** (19.7-23.7) **3,614**	**14.4** (12.9-15.9) **2,280**	**7.9** (6.9-9.0) **1,253**	**5.1** (4.2-6.0) **792**	**5.6** (4.3-6.9) **857**
Kent	**33.5** (29.0-38.0) **281**	**36.4** (31.0-41.7) **232**	**24.8** (20.3-29.4) **144**	**11.3** (8.6-14.0) **64**	**7.9** (5.2-10.6) **42**	**12.0** (8.6-15.4) **60**
Montgomery	**21.2** (19.0-23.4) **7,781**	**21.4** (19.6-23.2) **9,710**	**14.9** (13.3-16.6) **6,231**	**9.2** (8.0-10.3) **4,010**	**6.3** (5.7-7.0) **2,755**	**5.7** (4.0-7.4) **2,461**
Prince George's	**18.5** (16.0-21.0) **6,561**	**23.5** (21.7-25.3) **9,234**	**14.2** (12.8-15.5) **4,533**	**8.4** (7.5-9.2) **2,760**	**6.1** (5.2-7.1) **1,850**	**2.1** (1.2-3.1) **665**
Queen Anne's	**29.1** (26.6-31.6) **555**	**32.5** (29.7-35.3) **795**	**21.7** (18.8-24.6) **471**	**14.9** (12.8-16.9) **318**	**11.0** (9.2-12.9) **236**	**12.0** (10.2-13.8) **254**
Somerset	**27.1** (22.1-32.1) **233**	**36.6** (31.5-41.6) **294**	**21.6** (17.6-25.6) **146**	**15.9** (12.2-19.5) **109**	**8.7** (5.6-11.7) **58**	**6.9** (3.9-9.9) **45**
St. Mary's	**27.1** (23.8-30.5) **1,179**	**25.2** (22.5-27.8) **1,302**	**21.4** (19.1-23.7) **1,027**	**14.5** (12.6-16.4) **693**	**9.5** (8.2-10.8) **432**	**10.3** (8.9-11.6) **466**
Talbot	**29.3** (26.0-32.6) **380**	**30.6** (27.1-34.1) **433**	**18.5** (15.1-21.9) **232**	**13.3** (10.8-15.9) **170**	**8.9** (7.0-10.9) **115**	**10.6** (8.5-12.7) **131**
Washington	**30.6** (27.5-33.6) **1,673**	**31.7** (29.0-34.4) **2,087**	**23.5** (21.6-25.5) **1,483**	**15.7** (14.3-17.1) **991**	**9.5** (8.2-10.7) **575**	**6.9** (5.8-8.0) **421**
Wicomico	**27.0** (24.2-29.8) **1,031**	**31.6** (28.4-34.8) **1,264**	**21.8** (19.6-24.0) **798**	**12.9** (11.4-14.4) **481**	**7.3** (5.7-8.9) **273**	**6.9** (5.5-8.4) **255**
Worcester	**24.6** (21.9- 27.2) **518**	**32.7** (29.5-35.9) **698**	**27.3** (24.1-30.5) **514**	**13.1** (10.9-15.2) **251**	**10.7** (8.5-12.9) **204**	**8.0** (6.3-9.7) **147**

D. Youth Tobacco Users Who Quit Tobacco, Past 12 Months – Maryland Public High School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01⁺* *% (CI) N*	*2010-11⁺* *% (CI) N*	*2012-13⁺* *% (CI) N*	*2014-15* *% (CI) N*	*2016-17* *% (CI) N*	*2018-19* *% (CI) N*
Maryland	**30.9** (29.0-32.8) **11,253**	**39.5** (37.6-41.4) **9,318**	**41.3** (40.2-42.5) **26,570**	**40.2** (39.1-41.3) **19,220**	**41.6** (40.0-43.2) **17,123**	**11.9** (10.7-13.2) **4,126**
Allegany	**26.4** (21.3-31.5) **231**	**29.5** (20.8-38.2) **83**	**29.1** (25.0-33.2) **263**	**33.0** (28.4-37.5) **248**	**35.7** (30.5-40.9) **250**	**6.5** (4.2-8.8) **43**
Anne Arundel	**29.9** (24.6-35.2) **1,316**	**35.9** (30.2-41.5) **809**	**40.5** (36.7-44.2) **2,413**	**40.5** (36.4-44.6) **1,905**	**38.0** (33.3-42.6) **1,612**	**13.8** (8.9-18.6) **508**
Baltimore City	**43.9** (33.4-54.3) **1,107**	**38.2** (31.6-44.8) **738**	**47.1** (43.0-51.2) **2,766**	**47.0** (42.6-51.5) **1,952**	**47.2** (40.7-53.7) **1,652**	**16.4** (9.3-23.4) **290**
Baltimore County	**30.1** (24.0-36.3) **1,412**	**34.7** (28.6-40.7) **1,100**	**39.8** (36.9-42.6) **3,236**	**38.6** (34.4-42.8) **2,169**	**41.9** (37.0-46.9) **2,332**	**10.7** (6.0-15.4) **450**
Calvert	**26.6** (21.8-31.3) **246**	**33.9** (28.2-39.7) **214**	**35.6** (31.8-39.4) **581**	**32.9** (28.6-37.2) **412**	**34.8** (30.5-39.2) **377**	**9.1** (6.3-12.0) **86**
Caroline	**23.0** (16.5-29.6) **79**	**32.3** (23.7-41.0) **67**	**34.0** (28.6-39.3) **169**	**32.6** (26.6-38.6) **138**	**36.8** (30.4-43.2) **120**	**9.5** (5.7-13.4) **32**
Carroll	**28.5** (23.4-33.7) **389**	**38.6** (31.8-45.4) **302**	**33.9** (29.9-38.0) **737**	**39.3** (34.8-43.7) **633**	**31.8** (26.1-37.6) **500**	**8.2** (5.4-10.9) **132**
Cecil	**22.6** (17.3-27.9) **192**	**36.8** (30.8-42.7) **233**	**34.2** (30.6-37.7) **538**	**29.7** (25.8-33.5) **400**	**34.1** (28.8-39.4) **335**	**7.1** (4.5-9.7) **75**
Charles	**27.6** (21.9-33.3) **368**	**46.3** (39.4-53.2) **414**	**36.5** (32.6-40.3) **881**	**43.0** (38.9-47.2) **769**	**40.3** (35.8-44.9) **569**	**16.0** (11.3-20.8) **148**
Dorchester	**30.7** (24.2-37.2) **70**	**37.2** (28.5-45.9) **57**	**30.6** (24.0-37.2) **116**	**31.7** (24.9-38.4) **100**	**32.7** (23.0-42.4) **81**	**9.1** (4.7-13.4) **19**
Frederick	**29.1** (24.0-34.2) **546**	**38.4** (31.3-45.5) **387**	**35.1** (31.8-38.4) **1,191**	**33.9** (29.9-37.9) **843**	**36.2** (32.4-40.1) **833**	**8.9** (6.5-11.3) **208**
Garrett	**34.1** (26.9-41.3) **106**	**25.4** (18.6-32.1) **45**	**27.4** (23.2-31.6) **138**	**23.3** (18.4-28.2) **97**	**28.5** (22.9-34.2) **103**	**8.6** (5.2-12.0) **29**
Harford	**25.6** (20.7-30.5) **548**	**34.8** (28.9-40.8) **422**	**39.3** (36.0-42.7) **1,281**	**36.4** (32.2-40.6) **938**	**35.7** (31.2-40.3) **704**	**7.4** (5.0-9.7) **156**
Howard	**31.0** (23.8-38.2) **525**	**37.5** (30.8-44.1) **366**	**43.4** (39.9-47.0) **1,450**	**44.7** (40.4-48.9) **1,042**	**44.0** (38.8-49.1) **810**	**11.5** (6.7-16.2) **210**
Kent	**32.2** (22.4-42.0) **62**	**Data Not Available**	**36.2** (27.3-45.1) **77**	**35.7** (27.4-43.9) **52**	**29.5** (20.9-38.1) **38**	**Data Not Available**
Montgomery	**34.3** (27.2-41.4) **1,680**	**46.1** (40.1-52.1) **1,470**	**46.3** (41.5-51.1) **4,162**	**47.2** (44.1-50.2) **3,353**	**45.4** (38.1-52.7) **2,676**	**14.1** (11.2-17.0) **780**
Prince George's	**33.3** (26.4-40.2) **1,243**	**51.5** (46.1-56.9) **1,648**	**49.5** (45.2-53.7) **4,038**	**45.9** (41.9-50.0) **2,383**	**56.8** (52.4-61.2) **2,379**	**20.2** (10.5-29.9) **530**
Queen Anne's	**25.0** (19.5-30.4) **98**	**37.4** (31.0-43.8) **104**	**37.3** (31.8-42.8) **260**	**37.4** (32.8-42.1) **234**	**29.7** (24.6-34.7) **167**	**5.5** (2.8-8.2) **31**
Somerset	**33.3** (25.0-41.6) **73**	**Data Not Available**	**43.4** (31.9-54.9) **91**	**38.7** (28.4-49.0) **85**	**Data Not Available**	**Data Not Available**
St. Mary's	**24.5** (18.9-30.2) **200**	**41.2** (34.5-47.9) **196**	**34.8** (31.2-38.3) **765**	**30.9** (26.5-35.3) **404**	**35.7** (30.9-40.5) **372**	**8.0** (5.4-10.5) **84**
Talbot	**20.9** (14.2-27.5) **52**	**36.2** (26.6-45.8) **51**	**44.4** (37.9-51.0) **172**	**32.0** (26.7-37.4) **104**	**34.4** (27.4-41.5) **96**	**14.1** (7.6-20.6) **37**
Washington	**30.9** (26.1-35.7) **365**	**30.1** (25.3-34.9) **281**	**34.8** (31.2-38.3) **765**	**33.0** (29.5-36.4) **559**	**36.7** (32.5-41.0) **567**	**11.5** (8.6-14.4) **141**
Wicomico	**28.7** (22.3-35.1) **226**	**28.8** (23.8-33.8) **143**	**39.2** (34.7-43.6) **482**	**28.4** (23.2-33.5) **247**	**39.7** (34.4-45.1) **309**	**12.4** (7.8-17.0) **80**
Worcester	**29.4** (22.2-36.7) **117**	**36.3** (29.1-43.5) **120**	**34.1** (28.6-39.6) **247**	**29.3** (24.0-34.5) **152**	**35.2** (28.6-41.8) **174**	**10.0** (6.2-13.8) **44**

E. Youth Current Tobacco Use, By Gender – Maryland Public High School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*Gender*	*2000-01⁺* % (CI) N	*2010-11⁺* % (CI) N	*2012-13⁺* % (CI) N	*2014-15* % (CI) N	*2016-17* % (CI) N	*2018-19* % (CI) N
Maryland	*Female*	**25.5** (24.2-26.8) **27,207**	**16.1** (15.4-16.8) **20,578**	**13.6** (12.9-14.3) **15,651**	**25.0** (24.1-25.9) **28,707**	**18.5** (17.6-19.4) **20,793**	**26.0** (24.6-27.3) **29,886**
	Male	**28.2** (26.9-29.6) **29,953**	**22.9** (22.0-23.9) **26,968**	**19.7** (18.9-20.5) **22,471**	**29.6** (28.7-30.5) **34,558**	**23.5** (22.6-24.5) **27,486**	**27.9** (26.5-29.3) **33,309**
Allegany	*Female*	**38.0** (33.6-42.6) **587**	**20.5** (17.3-24.0) **273**	**20.5** (17.5-23.8) **248**	**33.0** (28.9-37.1) **390**	**29.7** (25.6-33.8) **335**	**43.8** (39.0-48.5) **483**
	Male	**43.6** (39.2-48.2) **654**	**28.5** (24.2-33.2) **346**	**33.3** (29.2-37.7) **402**	**40.3** (35.7-45.0) **531**	**35.8** (31.5-40.0) **453**	**43.0** (38.2-47.8) **542**
Anne Arundel	*Female*	**29.8** (26.2-33.8) **2,934**	**18.1** (15.9-20.6) **1,976**	**14.8** (12.8-17.1) **1,525**	**27.8** (24.8-30.8) **2,909**	**22.9** (20.1-25.8) **2,328**	**32.7** (28.3-37.1) **3,462**
	Male	**35.1** (30.8-39.7) **3,506**	**24.0** (21.4-26.8) **2,447**	**20.2** (17.6-23.1) **2,062**	**33.4** (30.3-36.5) **3,497**	**27.2** (24.1-30.2) **2,893**	**32.7** (28.4-37.0) **3,427**
Baltimore City	*Female*	**15.1** (11.4-19.7) **1,634**	**16.1** (13.6-19.0) **1,782**	**14.2** (11.9-16.9) **1,433**	**24.7** (22.0-27.4) **2,379**	**20.3** (17.1-23.4) **1,948**	**19.6** (15.6-23.6) **1,743**
	Male	**20.8** (16.0-26.4) **2,132**	**22.6** (19.9-25.5) **2,319**	**18.3** (15.7-21.4) **1,675**	**33.0** (28.6-37.5) **2,970**	**27.1** (23.1-31.0) **2,528**	**24.7** (20.2-29.2) **2,093**
Baltimore County	*Female*	**26.6** (22.1-31.7) **3,665**	**20.8** (17.9-23.9) **3,174**	**15.3** (12.2-19.1) **2,189**	**27.7** (23.5-31.9) **3,854**	**22.4** (18.2-26.6) **3,081**	**27.1** (22.5-31.6) **3,707**
	Male	**29.0** (25.9-32.3) **3,957**	**24.8** (21.2-28.7) **3,482**	**20.3** (17.6-23.4) **2,813**	**27.5** (24.0-31.1) **3,957**	**25.2** (21.3-29.1) **3,540**	**30.2** (26.8-33.6) **4,455**
Calvert	*Female*	**30.7** (26.6-35.3) **640**	**17.9** (15.3-20.7) **503**	**18.9** (15.6-22.6) **466**	**27.2** (23.7-30.6) **673**	**21.1** (18.2-23.9) **502**	**39.6** (36.1-43.1) **992**
	Male	**33.4** (29.0-38.0) **702**	**25.9** (22.6-29.5) **673**	**26.7** (23.2-30.5) **666**	**35.1** (30.9-39.2) **870**	**23.9** (20.1-27.6) **589**	**39.1** (35.5-42.6) **926**
Caroline	*Female*	**38.1** (32.4-44.1) **281**	**21.2** (17.5-25.4) **165**	**19.7** (15.8-24.3) **141**	**30.1** (24.8-35.4) **224**	**21.9** (16.9-26.9) **151**	**44.3** (39.9-48.6) **344**
	Male	**43.5** (36.7-50.5) **331**	**30.8** (26.3-35.7) **206**	**31.0** (26.2-36.3) **214**	**42.9** (37.9-47.8) **322**	**34.5** (28.9-40.1) **242**	**39.7** (35.1-44.4) **313**
Carroll	*Female*	**27.9** (23.0-33.4) **1,034**	**15.6** (13.5-18.0) **705**	**13.7** (11.7-15.9) **558**	**21.2** (18.3-24.0) **820**	**23.0** (19.4-26.5) **875**	**34.0** (31.0-37.0) **1,308**
	Male	**29.7** (25.0-34.7) **1,132**	**23.8** (21.1-26.8) **1,033**	**23.4** (20.3-26.7) **961**	**28.4** (24.8-31.9) **1,185**	**27.2** (23.3-31.2) **1,102**	**34.4** (31.1-37.8) **1,350**
Cecil	*Female*	**37.2** (32.8-41.7) **702**	**23.3** (20.3-26.6) **563**	**20.0** (17.0-23.3) **429**	**35.8** (32.0-39.6) **780**	**23.6** (19.8-27.5) **490**	**43.7** (39.7-47.6) **930**
	Male	**34.9** (29.1-41.3) **681**	**28.5** (25.0-32.3) **648**	**28.8** (25.6-32.3) **646**	**42.2** (38.7-45.7) **970**	**29.2** (25.8-32.5) **669**	**41.5** (37.9-45.2) **934**
Charles	*Female*	**28.4** (23.9-33.4) **905**	**16.4** (14.2-18.9) **727**	**14.0** (11.9-16.3) **553**	**29.4** (27.0-31.8) **1,149**	**20.6** (17.8-23.3) **745**	**18.9** (16.0-21.7) **685**
	Male	**35.1** (30.1-40.4) **1,112**	**21.1** (18.5-24.1) **868**	**20.8** (18.4-23.3) **865**	**33.2** (29.7-36.8) **1,324**	**25.8** (22.8-28.7) **1,018**	**25.8** (22.5-29.1) **1,017**
Dorchester	*Female*	**30.1** (26.1-34.4) **203**	**17.6** (14.4-21.4) **112**	**16.8** (13.0-21.4) **95**	**29.1** (24.5-33.7) **172**	**23.0** (16.5-29.5) **129**	**41.6** (37.2-46.0) **246**
	Male	**29.0** (24.3-34.1) **187**	**28.7** (23.9-33.9) **170**	**31.2** (25.6-37.5) **189**	**42.3** (36.7-47.9) **255**	**41.9** (32.6-51.2) **243**	**43.1** (36.6-49.5) **250**
Frederick	*Female*	**33.2** (28.8-38.0) **1,554**	**14.0** (11.5-16.9) **886**	**15.5** (13.3-18.1) **904**	**26.2** (23.6-28.7) **1,507**	**19.6** (17.0-22.3) **1,113**	**35.2** (32.0-38.4) **2,025**
	Male	**33.9** (30.1-37.8) **1,626**	**23.8** (20.7-27.2) **1,362**	**23.6** (21.0-26.5) **1,412**	**32.1** (29.2-34.9) **1,957**	**26.6** (23.4-29.8) **1,539**	**32.0** (28.7-35.3) **1,989**

E. Youth Current Tobacco Use, By Gender (Continued) – Maryland Public High School Youth[YRBS/YTS]

Jurisdiction	*Gender*	*2000-01+* % (CI) N	*2010-11+* % (CI) N	*2012-13+* % (CI) N	*2014-15* % (CI) N	*2016-17* % (CI) N	*2018-19* % (CI) N
Garrett	*Female*	**32.0** (27.3-37.1) **194**	**28.5** (24.0-33.5) **188**	**22.7** (17.6-28.9) **123**	**37.7** (30.4-44.9) **200**	**30.3** (25.0-35.6) **152**	**43.1** (37.1-49.1) **225**
	Male	**43.8** (39.2-48.6) **303**	**41.5** (35.5-47.7) **259**	**45.2** (39.9-50.6) **258**	**53.5** (46.8-60.2) **315**	**46.2** (39.6-52.7) **252**	**46.6** (39.1-54.2) **258**
Harford	*Female*	**34.3** (30.0-38.8) **1,713**	**19.5** (17.1-22.0) **1,147**	**16.7** (14.3-19.4) **907**	**29.6** (26.9-32.4) **1,582**	**19.7** (16.8-22.7) **998**	**34.3** (30.8-37.8) **1,771**
	Male	**37.6** (33.4-41.9) **1,841**	**26.4** (23.5-29.5) **1,496**	**23.7** (21.1-26.5) **1,279**	**34.2** (31.4-37.0) **1,853**	**23.2** (20.1-26.3) **1,252**	**30.8** (27.6-34.0) **1,700**
Howard	*Female*	**21.7** (18.4-25.5) **1,259**	**12.1** (10.4-14.0) **1,002**	**7.8** (6.5-9.4) **601**	**18.3** (16.2-20.5) **1,393**	**10.8** (8.9-12.6) **803**	**21.0** (17.7-24.3) **1,610**
	Male	**27.1** (22.9-31.9) **1,585**	**18.3** (15.8-21.1) **1,365**	**14.9** (13.0-17.0) **1,178**	**22.1** (19.4-24.8) **1,729**	**18.4** (15.6-21.2) **1,438**	**22.9** (18.8-26.9) **1,850**
Kent	*Female*	**40.6** (33.5-48.1) **161**	**24.9** (19.2-31.6) **76**	**14.1** (8.6-22.3) **35**	**22.6** (14.8-30.5) **59**	**25.2** (16.4-34.0) **61**	**53.9** (48.3-59.6) **133**
	Male	**46.9** (39.3-54.7) **172**	**33.3** (26.6-40.8) **88**	**34.5** (26.4-43.6) **105**	**37.7** (27.4-48.0) **110**	**32.1** (25.2-39.0) **87**	**39.8** (31.4-48.1) **114**
Montgomery	*Female*	**22.2** (18.4-26.5) **3,718**	**10.6** (8.8-12.7) **2,375**	**9.5** (7.8-11.6) **1,922**	**20.5** (17.8-23.1) **4,280**	**11.9** (9.7-14.2) **2,474**	**20.3** (15.8-24.7) **4,488**
	Male	**22.4** (18.6-26.8) **3,776**	**18.3** (15.3-21.6) **3,703**	**14.0** (12.2-16.0) **2,858**	**23.9** (22.4-25.5) **5,135**	**16.9** (14.0-19.9) **3,669**	**23.4** (18.0-28.7) **5,313**
Prince George's	*Female*	**19.0** (15.5-22.9) **3,077**	**13.3** (11.7-15.0) **2,494**	**10.9** (9.3-12.8) **1,702**	**20.5** (18.3-22.7) **3,138**	**14.1** (11.7-16.6) **2,152**	**12.5** (7.8-17.3) **1,956**
	Male	**17.9** (14.1-22.5) **2,784**	**20.7** (18.4-23.3) **3,597**	**14.9** (12.3-18.0) **2,206**	**24.2** (21.3-27.0) **3,666**	**17.6** (15.2-20.0) **2,746**	**17.0** (13.0-21.0) **2,787**
Queen Anne's	*Female*	**31.3** (26.9-36.1) **262**	**20.0** (17.3-23.1) **234**	**14.3** (11.5-17.5) **151**	**34.1** (30.0-38.3) **363**	**25.3** (21.6-29.1) **262**	**46.2** (41.5-50.9) **514**
	Male	**36.6** (32.3-41.2) **336**	**28.8** (24.9-33.1) **305**	**30.1** (25.4-35.2) **317**	**42.9** (37.2-48.5) **459**	**37.3** (31.4-43.1) **393**	**41.8** (36.9-46.7) **474**
Somerset	*Female*	**37.2** (27.4-48.1) **151**	**29.6** (23.2-36.8) **114**	**14.7** (10.2-20.7) **47**	**34.3** (27.3-41.3) **108**	**25.9** (19.6-32.3) **86**	**26.7** (19.7-33.7) **92**
	Male	**47.1** (39.2-55.1) **168**	**31.8** (25.3-39.1) **106**	**26.9** (21.2-33.4) **90**	**43.3** (33.8-52.8) **147**	**38.7** (31.2-46.3) **126**	**41.2** (32.4-50.1) **138**
St. Mary's	*Female*	**28.7** (24.6-33.1) **558**	**15.3** (12.7-18.3) **381**	**16.6** (14.0-19.6) **387**	**31.4** (27.0-35.9) **725**	**23.9** (20.8-26.9) **525**	**36.5** (33.2-39.9) **872**
	Male	**35.2** (30.3-40.5) **688**	**22.9** (19.7-26.3) **543**	**21.4** (18.4-24.9) **490**	**35.7** (31.1-40.3) **858**	**29.2** (25.4-32.9) **649**	**39.4** (35.5-43.2) **953**
Talbot	*Female*	**33.5** (28.7-38.6) **182**	**20.3** (16.6-24.6) **134**	**17.2** (12.4-23.2) **103**	**27.2** (22.3-32.0) **160**	**22.9** (18.9-26.8) **139**	**40.7** (35.6-45.7) **262**
	Male	**43.2** (38.5-48.0) **273**	**28.7** (23.5-34.4) **182**	**22.0** (17.5-27.4) **134**	**35.7** (30.9-40.5) **239**	**27.3** (22.7-32.0) **185**	**38.0** (32.8-43.1) **265**
Washington	*Female*	**35.9** (31.7-40.3) **924**	**27.2** (23.5-31.2) **875**	**18.8** (16.3-21.7) **578**	**33.1** (29.9-36.3) **1,029**	**27.5** (24.0-30.9) **822**	**34.5** (30.9-38.0) **1,064**
	Male	**36.4** (32.4-40.7) **961**	**30.6** (27.3-34.0) **912**	**30.2** (26.7-33.9) **917**	**36.5** (33.0-40.0) **1,149**	**32.0** (28.1-35.9) **1,011**	**33.3** (29.6-36.9) **1,076**
Wicomico	*Female*	**34.6** (29.4-40.2) **626**	**23.4** (19.9-27.3) **442**	**19.6** (16.7-22.8) **347**	**28.5** (24.4-32.6) **523**	**19.6** (16.7-22.5) **366**	**32.8** (29.3-36.2) **599**
	Male	**37.8** (32.8-43.1) **673**	**30.4** (26.8-34.4) **512**	**25.8** (22.7-29.2) **446**	**37.5** (32.6-42.3) **686**	**27.3** (22.4-32.2) **512**	**35.2** (31.0-39.4) **685**
Worcester	*Female*	**26.5** (21.2-32.6) **246**	**23.6** (19.7-28.0) **249**	**22.6** (18.8-26.8) **205**	**31.1** (26.8-35.5) **291**	**28.4** (23.6-33.2) **256**	**40.9** (35.5-46.3) **376**
	Male	**36.1** (31.0-41.6) **375**	**36.6** (32.7-40.8) **348**	**31.8** (26.6-37.5) **288**	**39.3** (35.0-43.5) **373**	**35.4** (30.4-40.4) **352**	**41.5** (36.3-46.6) **400**

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Middle School Youth Population Data

Tables

Appendix tables with all survey years for the State and each jurisdiction remain available online at:
https://phpa.health.maryland.gov/ohpetup/Pages/tob_reports.aspx.

F. Youth Current Tobacco Use – Maryland Public Middle School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**8.9** (7.8-10.1) **15,944**	**4.6** (4.2-5.1) **8,031**	**5.6** (5.2-6.1) **9,431**	**11.1** (10.1-12.0) **18,883**	**7.6** (6.9-8.2) **13,145**	**9.0** (8.3-9.6) **15,926**
Allegany	**10.8** (7.9-14.6) **247**	**7.1** (5.3-9.4) **132**	**7.7** (5.4-9.9) **138**	**15.1** (11.9-18.2) **272**	**12.7** (9.1-16.2) **225**	**14.0** (10.9-17.1) **237**
Anne Arundel	**11.2** (7.9-13.7) **1,826**	**4.0** (2.3-6.7) **638**	**4.7** (3.2-6.3) **759**	**11.1** (7.2-15.1) **1,791**	**6.4** (3.8-9.1) **1,050**	**9.3** (7.2-11.4) **1,550**
Baltimore City	**12.9** (7.2-18.7) **2,395**	**8.9** (7.8-10.1) **1,276**	**9.1** (7.2-11.1) **1,340**	**16.3** (13.1-19.4) **2,437**	**8.1** (6.9-9.3) **1,172**	**10.7** (8.1-13.2) **1,584**
Baltimore County	**7.6** (2.8-12.5) **1,759**	**4.4** (3.1-6.2) **937**	**5.3** (3.8-6.8) **1,128**	**11.5** (7.5-15.5) **2,462**	**8.3** (6.0-10.6) **1,765**	**8.9** (6.5-11.3) **2,043**
Calvert	**11.6** (8.3-14.8) **405**	**4.5** (3.2-6.3) **170**	**4.2** (2.6-5.8) **152**	**6.4** (4.5-8.3) **229**	**5.4** (3.6-7.1) **190**	**10.5** (8.1-12.8) **347**
Caroline	**16.0** (11.8-20.2) **193**	**5.2** (3.5-7.7) **57**	**6.0** (3.6-8.3) **68**	**13.0** (9.6-16.3) **149**	**8.4** (6.0-10.8) **94**	**13.2** (10.0-16.4) **155**
Carroll	**5.6** (3.1-8.1) **345**	**2.1** (1.4-3.2) **126**	**3.0** (1.8-4.1) **175**	**5.0** (3.7-6.2) **289**	**4.5** (2.8-6.3) **261**	**8.5** (6.2-10.8) **473**
Cecil	**12.8** (9.6-16.1) **434**	**6.9** (5.2-8.9) **237**	**5.8** (4.1-7.5) **196**	**13.9** (10.6-17.1) **457**	**9.9** (7.4-12.3) **319**	**13.0** (9.9-16.0) **419**
Charles	**10.5** (7.4-13.6) **526**	**5.4** (3.8-7.5) **314**	**4.2** (2.9-5.6) **227**	**12.7** (9.7-15.6) **680**	**9.1** (6.7-11.5) **471**	**10.8** (7.8-13.7) **583**
Dorchester	**13.5** (9.9-17.1) **146**	**7.4** (5.1-10.7) **68**	**4.5** (2.9-6.1) **42**	**14.7** (11.4-18.1) **136**	**16.9** (12.2-21.6) **156**	**16.3** (12.8-19.7) **154**
Frederick	**11.2** (8.5-14.0) **889**	**3.2** (2.1-4.8) **278**	**4.3** (3.5-5.1) **366**	**7.9** (5.3-10.5) **676**	**4.2** (3.1-5.3) **353**	**7.5** (6.2-8.9) **676**
Garrett	**13.7** (8.6-18.8) **144**	**11.7** (8.4-16.0) **101**	**12.0** (8.8-15.2) **104**	**12.3** (8.3-16.2) **100**	**11.7** (6.6-16.8) **98**	**18.0** (13.1-22.9) **150**
Harford	**11.0** (8.2-13.8) **946**	**2.9** (2.0-4.0) **240**	**3.5** (2.2-4.8) **278**	**10.4** (8.5-12.3) **822**	**7.7** (5.5-9.8) **610**	**9.4** (6.6-12.3) **758**
Howard	**5.5** (3.5-7.6) **546**	**1.7** (0.9-3.2) **190**	**2.1** (1.4-2.9) **236**	**5.6** (4.0-7.3) **657**	**2.5** (1.2-3.7) **295**	**5.1** (3.8-6.4) **638**
Kent	**11.8** (8.6-15.1) **72**	**6.3** (3.5-10.9) **27**	**6.1** (2.8-9.3) **27**	**9.3** (4.8-13.7) **39**	**10.4** (5.2-15.7) **43**	**17.6** (11.8-23.4) **73**
Montgomery	**5.3** (3.8-6.7) **1,518**	**3.0** (1.8-4.8) **882**	**4.9** (3.7-6.1) **1,461**	**8.0** (5.5-10.4) **2,461**	**4.8** (3.2-6.3) **1,494**	**6.2** (4.4-8.0) **2,056**
Prince George's	**6.4** (2.9-9.8) **1,665**	**6.1** (4.7-7.9) **1,475**	**8.6** (6.9-10.4) **1,674**	**15.7** (12.8-18.7) **3,234**	**12.7** (10.2-15.3) **3,054**	**9.6** (7.2-12.0) **2,181**
Queen Anne's	**11.3** (7.1-15.5) **177**	**3.8** (2.9-5.0) **62**	**6.2** (4.0-8.4) **104**	**9.1** (6.6-11.5) **152**	**6.8** (4.9-8.8) **117**	**10.0** (7.0-13.0) **170**
Somerset	**18.4** (14.1-22.6) **116**	**10.0** (7.2-13.6) **53**	**7.4** (4.8-9.9) **43**	**13.6** (8.9-18.3) **80**	**10.8** (7.5-14.1) **65**	**13.5** (9.8-17.1) **82**
St. Mary's	**9.5** (6.8-12.3) **296**	**4.4** (3.3-5.9) **156**	**6.2** (4.3-8.2) **213**	**11.4** (9.0-13.8) **413**	**9.3** (7.0-11.6) **330**	**11.3** (8.7-13.9) **415**
Talbot	**10.8** (6.1-15.6) **103**	**4.8** (3.1-7.3) **41**	**4.6** (3.0-6.2) **38**	**10.8** (8.1-13.6) **104**	**7.9** (5.5-10.3) **75**	**17.5** (13.9-21.1) **164**
Washington	**14.6** (10.5-18.7) **637**	**5.6** (4.0-7.6) **248**	**8.6** (6.3-10.8) **400**	**13.4** (10.8-16.1) **646**	**8.7** (6.2-11.2) **404**	**11.0** (8.2-13.8) **515**
Wicomico	**13.5** (9.6-17.4) **395**	**8.1** (5.7-11.3) **222**	**6.3** (4.5-8.0) **179**	**15.8** (11.9-19.7) **438**	**13.9** (11.2-16.5) **380**	**12.8** (10.3-15.3) **346**
Worcester	**11.2** (7.7-14.7) **164**	**7.2** (5.7-9.2) **101**	**7.7** (7.2-11.1) **83**	**14.9** (11.1-18.7) **159**	**9.5** (6.4-12.5) **123**	**14.8** (11.8-17.8) **156**

G. Youth Current Tobacco Use, By Minority Race/Ethnicity – Maryland Public Middle School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**8.5** (7.1-10.2) **6,600**	**5.8** (5.2-6.4) **5,515**	**6.8** (6.1-7.4) **6,048**	**13.0** (11.8-14.1) **11,946**	**8.8** (8.0-9.5) **8,497**	**9.3** (8.6-10.0) **9,412**
Allegany	**15.9** (9.1-26.4) **42**	**10.6** (6.7-16.3) **32**	**10.9** (5.5-16.4) **42**	**21.8** (16.0-27.6) **71**	**19.3** (12.3-26.2) **31**	**21.3** (15.1-27.4) **76**
Anne Arundel	**13.1** (8.6-19.5) **463**	**5.7** (3.6-8.8) **331**	**5.9** (3.3-8.5) **348**	**12.6** (10.5-14.7) **750**	**8.6** (5.0-12.1) **550**	**10.9** (8.7-13.2) **770**
Baltimore City	**10.7** (6.9-16.3) **1,635**	**8.6** (7.7-9.7) **1,136**	**9.1** (7.2-11.1) **1,156**	**15.9** (12.8-19.1) **2,069**	**8.0** (6.6-9.3) **986**	**10.8** (8.4-13.1) **1,350**
Baltimore County	**5.1** (2.6-9.6) **403**	**5.5** (3.8-8.1) **639**	**4.9** (3.1-6.7) **552**	**11.1** (7.7-14.6) **1,251**	**8.6** (6.6-10.6) **993**	**9.2** (6.0-12.4) **1,185**
Calvert	**14.8** (9.4-22.6) **120**	**5.5** (3.3-8.9) **52**	**5.5** (2.9-8.1) **46**	**6.3** (3.6-9.1) **54**	**8.9** (4.5-13.3) **73**	**13.9** (10.0-17.8) **119**
Caroline	**18.0** (11.8-26.5) **59**	**5.4** (3.3-8.7) **21**	**5.1** (2.1-8.2) **17**	**18.1** (12.4-23.8) **66**	**10.5** (6.3-14.7) **46**	**13.7** (8.8-18.6) **48**
Carroll	**13.4** (7.1-23.7) **83**	**2.9** (1.4-5.6) **24**	**7.4** (3.1-11.6) **47**	**9.2** (4.7-13.7) **63**	**8.7** (3.5-13.9) **67**	**9.7** (5.3-14.1) **79**
Cecil	**14.9** (9.0-23.8) **68**	**6.4** (4.0-10.2) **45**	**5.8** (2.9-8.7) **33**	**16.3** (9.8-22.7) **95**	**12.9** (8.5-17.2) **81**	**17.9** (12.2-23.7) **114**
Charles	**9.5** (6.3-14.1) **174**	**4.9** (3.3-7.1) **183**	**5.4** (3.6-7.1) **188**	**12.6** (9.2-15.9) **443**	**9.0** (6.5-11.5) **309**	**11.2** (7.5-15.0) **424**
Dorchester	**14.8** (10.2-21.0) **66**	**7.7** (5.5-10.8) **35**	**5.7** (3.3-8.1) **26**	**20.6** (15.5-25.7) **89**	**20.4** (13.1-27.7) **90**	**20.5** (16.5-24.5) **98**
Frederick	**14.7** (10.1-21.0) **227**	**5.1** (3.3-7.8) **133**	**5.8** (3.3-8.3) **141**	**11.5** (7.8-15.3) **308**	**5.8** (2.8-8.8) **155**	**8.8** (6.2-11.4) **277**
Garrett	**Data Not Available**	**17.7** (11.9-25.5) **28**	**25.9** (14.8-37.0) **31**	**Data Not Available**	**Data Not Available**	**Data Not Available**
Harford	**11.0** (6.9-17.1) **221**	**4.3** (2.7-6.8) **110**	**4.8** (2.1-7.5) **115**	**13.3** (10.0-16.5) **334**	**8.8** (5.3-12.3) **226**	**10.2** (6.5-13.8) **262**
Howard	**4.5** (2.9-7.1) **120**	**2.8** (1.5-5.1) **156**	**1.8** (1.1-2.4) **100**	**7.6** (4.3-10.8) **468**	**2.9** (1.3-4.4) **191**	**5.6** (4.0-7.3) **396**
Kent	**10.8** (7.5-15.3) **21**	**7.1** (4.4-11.4) **13**	**6.0** (1.5-10.5) **10**	**12.2** (5.0-19.3) **14**	**13.2** (6.5-20.0) **19**	**24.5** (19.2-29.8) **39**
Montgomery	**6.9** (4.5-10.6) **902**	**4.1** (2.5-6.5) **758**	**6.0** (4.2-7.7) **1,128**	**9.9** (6.5-13.2) **1,917**	**6.1** (4.2-7.9) **1,208**	**6.4** (5.5-7.3) **1,404**
Prince George's	**6.2** (3.4-11.0) **1,385**	**6.1** (4.7-8.0) **1,421**	**8.9** (7.2-10.7) **1,629**	**16.1** (13.1-19.1) **3,120**	**12.2** (10.0-14.4) **2,777**	**9.2** (7.3-11.1) **1,976**
Queen Anne's	**18.2** (10.8-29.2) **41**	**5.2** (3.3-8.2) **18**	**10.9** (5.5-16.4) **27**	**13.3** (8.0-18.7) **37**	**9.0** (4.5-13.5) **25**	**15.9** (10.9-20.9) **47**
Somerset	**16.3** (10.9-23.6) **48**	**9.0** (6.3-12.7) **29**	**6.6** (4.2-9.1) **21**	**13.6** (8.7-18.5) **40**	**11.9** (7.2-16.6) **40**	**13.1** (8.5-17.8) **52**
St. Mary's	**12.0** (8.2-17.3) **117**	**4.8** (3.0-7.5) **48**	**9.4** (6.2-12.6) **90**	**13.8** (9.1-18.6) **151**	**13.5** (9.6-17.4) **142**	**13.5** (8.9-18.1) **150**
Talbot	**13.6** (8.0-22.4) **38**	**5.4** (3.1-9.3) **16**	**6.0** (2.5-9.4) **18**	**13.9** (8.9-18.9) **42**	**11.1** (6.3-15.9) **35**	**24.1** (17.7-30.4) **82**
Washington	**15.2** (8.2-26.3) **111**	**9.0** (5.2-15.2) **97**	**13.1** (8.8-17.3) **142**	**20.5** (15.4-25.6) **257**	**12.5** (8.6-16.4) **155**	**12.5** (8.5-16.5) **168**
Wicomico	**17.9** (12.7-24.7) **190**	**10.4** (7.5-14.2) **138**	**8.4** (5.5-11.4) **115**	**19.0** (12.4-25.6) **244**	**16.6** (12.8-20.4) **222**	**14.3** (10.7-17.8) **202**
Worcester	**9.8** (5.4-17.0) **38**	**10.0** (7.2-13.6) **50**	**7.2** (3.3-11.2) **25**	**12.7** (7.6-17.9) **41**	**10.2** (5.4-15.1) **42**	**15.7** (10.8-20.6) **49**

H. Youth First Tried Tobacco, Past 12 Months – Maryland Public Middle School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**7.3** (6.4-8.2) **13,959**	**8.9** (8.1-9.6) **16,313**	**6.5** (5.9-7.0) **11,105**	**4.2** (3.8-4.7) **7,561**	**4.1** (3.6-4.5) **7,227**	**1.8** (1.6-2.1) **3,267**
Allegany	**9.8** (6.6-13.0) **236**	**8.8** (6.8-10.9) **172**	**9.8** (7.2-12.5) **183**	**5.3** (3.7-6.8) **97**	**7.5** (5.2-9.8) **139**	**3.4** (2.0-4.7) **58**
Anne Arundel	**8.4** (6.5-10.3) **1,457**	**7.5** (4.9-10.1) **1,254**	**5.7** (3.4-8.0) **925**	**3.9** (2.3-5.6) **663**	**4.2** (1.4-7.0) **703**	**2.1** (1.2-2.9) **342**
Baltimore City	**10.8** (8.2-13.5) **2,458**	**15.1** (13.8-16.4) **2,554**	**11.6** (8.9-14.2) **1,812**	**9.4** (7.0-11.7) **1,519**	**4.6** (3.7-5.5) **679**	**1.9** (0.9-2.9) **282**
Baltimore County	**6.7** (2.9-10.4) **1,657**	**8.6** (6.6-10.7) **1,948**	**5.8** (4.4-7.1) **1,262**	**3.7** (2.6-4.8) **833**	**4.2** (2.5-5.9) **921**	**1.5** (0.9-2.1) **349**
Calvert	**7.9** (5.2-10.7) **292**	**7.2** (5.3-9.1) **277**	**5.7** (3.8-7.6) **208**	**2.9** (1.8-4.0) **109**	**3.3** (2.2-4.4) **119**	**2.2** (1.2-3.2) **73**
Caroline	**11.0** (6.8-15.1) **139**	**6.9** (5.0-8.8) **77**	**7.5** (4.6-10.5) **88**	**5.7** (3.8-7.5) **67**	**4.1** (2.2-6.0) **47**	**2.5** (1.2-3.9) **30**
Carroll	**5.6** (3.2-8.0) **357**	**4.4** (3.1-5.8) **271**	**3.6** (2.4-4.8) **214**	**1.8** (0.9-2.7) **107**	**2.1** (0.9-3.3) **124**	**1.3** (0.6-2.0) **74**
Cecil	**10.0** (7.3-12.7) **360**	**11.4** (8.8-14.0) **410**	**6.5** (4.8-8.2) **221**	**4.6** (3.1-6.0) **156**	**4.6** (3.2-6.0) **152**	**2.9** (1.8-3.9) **93**
Charles	**8.2** (5.0-11.4) **441**	**10.9** (8.6-13.1) **665**	**6.7** (4.8-8.6) **377**	**4.5** (3.0-5.9) **251**	**5.0** (3.4-6.7) **275**	**1.6** (0.8-2.4) **87**
Dorchester	**10.1** (6.7-13.6) **119**	**10.4** (7.3-13.4) **101**	**5.8** (3.8-7.8) **56**	**4.8** (2.9-6.6) **47**	**4.7** (2.8-6.6) **43**	**2.8** (1.3-4.2) **27**
Frederick	**7.4** (5.5-9.4) **619**	**6.3** (4.5-8.1) **558**	**4.0** (3.4-4.5) **345**	**3.2** (2.3-4.1) **285**	**3.1** (1.8-4.5) **271**	**2.6** (1.6-3.6) **233**
Garrett	**9.3** (5.4-13.2) **101**	**15.0** (11.3-18.7) **138**	**11.8** (8.3-15.4) **104**	**7.7** (4.8-10.7) **64**	**6.4** (3.3-9.6) **56**	**4.8** (2.9-6.7) **39**
Harford	**7.7** (5.4-10.0) **707**	**6.9** (5.4-8.4) **598**	**4.2** (2.9-5.5) **344**	**4.0** (2.9-5.1) **331**	**3.0** (1.9-4.0) **245**	**2.3** (1.4-3.3) **185**
Howard	**5.9** (4.2-7.6) **597**	**5.0** (3.2-6.8) **576**	**2.5** (1.6-3.4) **281**	**2.1** (1.4-2.8) **253**	**1.7** (1.2-2.1) **202**	**1.0** (0.8-1.3) **130**
Kent	**7.7** (4.7-10.8) **51**	**9.0** (5.4-12.6) **42**	**7.1** (3.6-10.5) **32**	**3.5** (1.5-5.5) **15**	**5.7** (3.2-8.2) **25**	**4.5** (2.2-6.7) **18**
Montgomery	**4.4** (2.3-6.5) **1,318**	**7.6** (5.1-10.0) **2,330**	**4.4** (2.8-5.9) **1,323**	**2.4** (0.9-3.9) **791**	**2.6** (1.4-3.8) **850**	**1.6** (0.9-2.2) **523**
Prince George's	**5.6** (2.3-8.9) **1,591**	**10.6** (9.2-12.1) **2,824**	**10.4** (7.6-13.2) **2,092**	**4.9** (3.9-6.0) **1,094**	**6.4** (4.9-7.9) **1,561**	**1.5** (0.6-2.3) **340**
Queen Anne's	**8.6** (5.1-12.0) **143**	**7.4** (6.1-8.7) **125**	**7.3** (4.6-10.0) **123**	**3.2** (1.8-4.7) **56**	**3.7** (2.3-5.0) **65**	**2.9** (1.5-4.3) **49**
Somerset	**14.7** (10.3-19.0) **100**	**15.1** (11.0-19.1) **85**	**9.3** (6.2-12.4) **55**	**5.6** (3.2-8.0) **34**	**7.5** (4.4-10.5) **44**	**2.0** (0.6-3.5) **12**
St. Mary's	**7.1** (4.7-9.5) **234**	**6.2** (4.4-8.0) **233**	**6.7** (5.0-8.4) **239**	**4.4** (2.7-6.2) **166**	**5.4** (3.8-6.9) **194**	**2.4** (1.4-3.3) **87**
Talbot	**9.8** (6.5-13.1) **100**	**8.9** (6.0-11.8) **81**	**6.7** (4.4-9.0) **58**	**3.9** (2.1-5.6) **38**	**4.6** (2.9-6.3) **44**	**4.4** (2.6-6.2) **41**
Washington	**8.6** (5.8-11.4) **401**	**9.2** (6.6-11.9) **468**	**9.4** (7.2-11.5) **456**	**6.0** (4.3-7.7) **294**	**4.3** (3.2-5.5) **208**	**2.1** (1.2-2.9) **97**
Wicomico	**10.5** (7.8-13.2) **330**	**12.1** (9.0-15.2) **363**	**7.1** (5.3-8.9) **209**	**7.3** (5.4-9.2) **210**	**6.8** (5.0-8.7) **193**	**2.0** (1.1-3.0) **54**
Worcester	**9.9** (6.6-13.2) **154**	**11.0** (9.3-12.8) **161**	**8.9** (4.7-13.1) **98**	**7.4** (4.9-9.9) **82**	**5.2** (3.1-7.4) **70**	**4.0** (2.5-5.6) **42**

I. Youth Tobacco Users Who Quit Tobacco, Past 12 Months – Maryland Public Middle School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*2000-01*[+] *% (CI) N*	*2010-11*[+] *% (CI) N*	*2012-13*[+] *% (CI) N*	*2014-15 % (CI) N*	*2016-17 % (CI) N*	*2018-19 % (CI) N*
Maryland	**44.0** (40.0-48.1) **5,503**	**61.1** (56.9-65.3) **3,717**	**54.1** (51.0-57.1) **9,094**	**54.2** (50.5-57.9) **7,304**	**68.1** (65.1-71.1) **9,395**	**33.7** (29.7-37.6) **2,502**
Allegany	**46.9** (36.9-56.9) **108**	**49.1** (34.8-63.3) **48**	**47.7** (37.6-57.8) **129**	**69.3** (56.5-82.1) **108**	**58.1** (46.7-69.5) **155**	**29.4** (18.0-40.8) **37**
Anne Arundel	**33.5** (22.8-44.1) **437**	**Data Not Available**	**57.9** (47.9-67.9) **759**	**45.3** (38.8-51.8) **512**	**63.8** (51.8-75.8) **778**	**Data Not Available**
Baltimore City	**43.6** (36.3-50.8) **965**	**55.0** (44.9-65.1) **440**	**52.6** (44.6-60.6) **1,397**	**53.0** (44.9-61.2) **1,318**	**67.3** (57.6-76.9) **893**	**Data Not Available**
Baltimore County	**Data Not Available**	**67.8** (52.7-83.0) **552**	**60.2** (51.3-69.0) **1,277**	**53.3** (41.9-64.6) **870**	**69.9** (60.6-79.2) **1,168**	**Data Not Available**
Calvert	**43.3** (33.0-53.7) **125**	**Data Not Available**	**48.0** (38.4-57.6) **133**	**68.9** (56.9-80.9) **143**	**79.6** (68.5-90.6) **183**	**Data Not Available**
Caroline	**30.2** (16.1-44.3) **46**	**Data Not Available**	**40.9** (27.7-54.1) **46**	**49.9** (38.3-61.6) **56**	**58.5** (46.2-70.8) **55**	**32.1** (18.1-46.0) **25**
Carroll	**54.2** (33.8-74.6) **174**	**Data Not Available**	**46.6** (32.4-60.7) **135**	**50.2** (36.0-64.5) **122**	**Data Not Available**	**Data Not Available**
Cecil	**36.5** (26.4-46.7) **108**	**59.5** (46.5-72.5) **100**	**53.6** (44.0-63.1) **181**	**57.1** (44.1-70.1) **131**	**57.4** (45.3-69.4) **206**	**Data Not Available**
Charles	**49.0** (37.3-60.6) **172**	**60.5** (47.9-73.1) **149**	**64.0** (53.7-74.4) **341**	**61.1** (51.9-70.4) **253**	**64.9** (53.4-76.5) **354**	**Data Not Available**
Dorchester	**42.9** (33.2-52.6) **55**	**Data Not Available**	**60.2** (46.2-74.1) **51**	**51.7** (34.9-68.4) **43**	**53.3** (38.9-67.6) **58**	**Data Not Available**
Frederick	**41.3** (31.0-51.6) **261**	**Data Not Available**	**67.1** (56.9-77.4) **417**	**51.1** (36.0-66.1) **216**	**68.4** (60.7-76.1) **317**	**Data Not Available**
Garrett	**45.4** (28.8-62.1) **45**	**Data Not Available**	**36.6** (27.0-46.3) **49**	**47.1** (33.4-60.8) **45**	**50.0** (38.3-61.8) **54**	**16.5** (8.1-24.8) **18**
Harford	**41.2** (30.0-52.4) **326**	**Data Not Available**	**49.1** (37.0-61.2) **250**	**52.0** (39.0-65.0) **265**	**74.0** (62.8-85.1) **373**	**Data Not Available**
Howard	**61.8** (44.3-79.3) **305**	**Data Not Available**	**58.8** (47.9-69.6) **356**	**60.3** (47.1-73.4) **244**	**Data Not Available**	**Data Not Available**
Kent	**Data Not Available**	**Data Not Available**	**Data Not Available**	**Data Not Available**	**Data Not Available**	**Data Not Available**
Montgomery	**Data Not Available**	**Data Not Available**	**62.9** (54.9-70.8) **1,415**	**62.1** (41.1-83.2) **1,027**	**80.9** (74.0-87.9) **1,507**	**Data Not Available**
Prince George's	**Data Not Available**	**62.1** (51.0-73.2) **619**	**45.4** (35.5-55.3) **1,317**	**57.1** (48.8-65.4) **1,232**	**68.3** (58.9-77.6) **1,907**	**Data Not Available**
Queen Anne's	**Data Not Available**	**Data Not Available**	**46.7** (37.5-55.8) **83**	**57.0** (44.2-69.9) **57**	**62.4** (49.5-75.3) **66**	**Data Not Available**
Somerset	**47.9** (32.5-63.3) **50**	**Data Not Available**	**52.5** (35.8-69.3) **38**	**Data Not Available**	**Data Not Available**	**Data Not Available**
St. Mary's	**58.4** (45.0-71.8) **127**	**Data Not Available**	**42.7** (31.3-54.0) **156**	**49.9** (40.4-59.5) **146**	**55.6** (46.7-64.4) **201**	**Data Not Available**
Talbot	**41.6** (28.1-55.0) **32**	**Data Not Available**	**46.3** (34.0-58.7) **33**	**Data Not Available**	**Data Not Available**	**17.3** (7.7-26.8) **12**
Washington	**46.5** (38.0-55.0) **264**	**Data Not Available**	**47.6** (39.2-56.1) **303**	**41.9** (33.3-50.5) **212**	**64.5** (55.0-74.1) **260**	**Data Not Available**
Wicomico	**43.3** (34.1-52.5) **148**	**Data Not Available**	**50.3** (41.4-59.1) **158**	**52.3** (41.3-63.3) **193**	**61.1** (52.4-69.7) **196**	**Data Not Available**
Worcester	**52.5** (33.9-71.0) **62**	**46.1** (32.4-59.8) **33**	**42.0** (26.2-57.8) **51**	**33.8** (21.6-46.0) **40**	**41.7** (30.0-53.5) **49**	**16.4** (7.7-25.1) **13**

J. Youth Current Tobacco Use, By Gender – Maryland Public Middle School Youth[YRBS/YTS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	*Gender*	*2000-01[+]* *% (CI) N*	*2010-11[+]* *% (CI) N*	*2012-13[+]* *% (CI) N*	*2014-15* *% (CI) N*	*2016-17* *% (CI) N*	*2018-19* *% (CI) N*
Maryland	*Female*	**8.4** (7.2-9.6) **7,303**	**4.0** (3.6-4.6) **3,620**	**4.7** (4.2-5.3) **3,869**	**9.5** (8.5-10.5) **8,001**	**7.0** (6.3-7.7) **6,013**	**8.4** (7.7-9.2) **7,361**
	Male	**9.4** (7.9-10.8) **8,516**	**5.3** (4.6-6.0) **4,370**	**6.5** (5.9-7.1) **5,424**	**12.2** (11.1-13.4) **10,526**	**7.8** (7.0-8.5) **6,772**	**9.2** (8.4-10.0) **8,179**
Allegany	*Female*	**9.7** (6.2-13.2) **108**	**6.9** (4.9-9.6) **68**	**7.0** (4.7-10.1) **60**	**14.8** (11.0-18.6) **129**	**9.7** (6.2-13.2) **83**	**14.1** (10.0-18.3) **113**
	Male	**11.8** (8.0-15.7) **139**	**7.4** (5.2-10.4) **64**	**8.2** (5.5-11.9) **76**	**15.1** (11.1-19.1) **139**	**15.0** (10.3-19.7) **137**	**14.0** (9.6-18.4) **124**
Anne Arundel	*Female*	**12.0** (7.5-16.5) **939**	**4.1** (2.1-7.8) **343**	**4.0** (2.5-6.3) **325**	**10.5** (6.1-15.0) **845**	**5.9** (3.7-8.2) **478**	**9.7** (5.8-13.6) **805**
	Male	**10.5** (7.0-14.1) **887**	**3.9** (2.5-6.0) **295**	**5.4** (3.7-7.7) **427**	**11.1** (6.7-15.6) **885**	**6.9** (3.5-10.2) **565**	**8.5** (7.5-9.5) **699**
Baltimore City	*Female*	**11.7** (6.3-17.1) **1,083**	**8.9** (8.1-9.8) **671**	**8.0** (6.0-10.7) **597**	**14.8** (10.1-19.4) **1,070**	**7.8** (6.2-9.4) **565**	**10.4** (7.0-13.7) **764**
	Male	**14.2** (5.3-23.0) **1,311**	**8.6** (6.8-10.8) **582**	**10.4** (7.6-13.9) **743**	**17.0** (13.5-20.5) **1,301**	**8.1** (6.2-10.0) **573**	**10.7** (8.3-13.2) **785**
Baltimore County	*Female*	**9.3** (4.1-14.6) **1,060**	**3.4** (2.1-5.5) **377**	**3.5** (2.3-5.3) **367**	**8.4** (5.3-11.4) **871**	**8.5** (5.5-11.5) **894**	**7.8** (6.1-9.4) **891**
	Male	**6.1** (0.9-11.2) **699**	**5.4** (3.1-9.4) **560**	**6.7** (5.4-8.4) **723**	**13.8** (8.8-18.7) **1,501**	**7.6** (4.6-10.5) **813**	**9.6** (6.3-12.8) **1,078**
Calvert	*Female*	**13.1** (8.5-17.8) **212**	**4.5** (2.7-7.3) **86**	**4.0** (2.4-6.8) **72**	**5.0** (3.4-6.6) **90**	**4.6** (2.6-6.6) **84**	**7.7** (5.1-10.2) **124**
	Male	**10.2** (6.9-13.5) **191**	**4.5** (2.9-7.0) **83**	**4.2** (2.7-6.7) **77**	**7.7** (5.0-10.5) **135**	**5.9** (3.6-8.3) **100**	**13.3** (10.2-16.4) **222**
Caroline	*Female*	**12.0** (6.1-17.9) **70**	**4.3** (2.9-6.3) **24**	**6.7** (4.1-10.9) **38**	**11.4** (7.1-15.7) **66**	**7.4** (4.4-10.3) **41**	**11.9** (8.0-15.8) **69**
	Male	**19.6** (14.7-24.5) **120**	**6.2** (3.8-10.0) **33**	**5.2** (2.9-9.4) **30**	**14.2** (10.7-17.8) **81**	**9.3** (5.7-12.8) **52**	**14.6** (10.8-18.4) **86**
Carroll	*Female*	**4.7** (1.7-7.6) **138**	**1.5** (0.8-3.0) **48**	**1.6** (0.7-3.3) **45**	**3.9** (2.2-5.6) **112**	**4.0** (1.5-6.4) **112**	**7.8** (5.2-10.5) **215**
	Male	**6.5** (3.5-9.5) **208**	**2.7** (1.6-4.7) **77**	**4.3** (2.8-6.6) **130**	**5.9** (4.0-7.7) **170**	**4.8** (2.4-7.2) **137**	**9.3** (6.3-12.2) **259**
Cecil	*Female*	**12.0** (7.6-16.3) **204**	**6.0** (4.2-8.5) **107**	**6.6** (4.5-9.7) **109**	**11.1** (7.8-14.3) **174**	**9.7** (6.4-12.9) **153**	**13.0** (9.1-16.9) **200**
	Male	**13.8** (10.0-17.5) **230**	**7.8** (5.4-11.1) **130**	**5.0** (3.5-7.1) **86**	**16.3** (12.2-20.4) **281**	**9.5** (6.1-12.9) **156**	**13.0** (9.6-16.4) **217**
Charles	*Female*	**10.4** (5.9-14.9) **252**	**4.7** (3.0-7.4) **143**	**3.8** (2.3-6.1) **99**	**10.8** (7.7-13.9) **278**	**8.5** (5.2-11.7) **209**	**9.1** (6.0-12.2) **246**
	Male	**10.6** (7.5-13.6) **274**	**6.1** (4.1-8.9) **171**	**4.5** (3.2-6.4) **123**	**13.9** (10.5-17.3) **384**	**9.8** (6.8-12.8) **263**	**11.9** (8.1-15.7) **317**
Dorchester	*Female*	**14.0** (9.2-18.8) **73**	**6.5** (4.3-9.7) **32**	**4.2** (2.6-7.0) **19**	**12.8** (8.9-16.7) **58**	**13.8** (8.4-19.1) **63**	**16.9** (11.3-22.6) **77**
	Male	**12.6** (8.4-16.8) **70**	**8.4** (5.0-13.9) **36**	**4.8** (2.9-8.0) **22**	**15.9** (11.3-20.5) **73**	**18.4** (12.8-24.1) **84**	**15.5** (11.0-20.0) **75**
Frederick	*Female*	**9.2** (5.6-12.8) **351**	**2.5** (1.4-4.3) **110**	**2.3** (1.4-3.9) **98**	**7.3** (4.9-9.7) **300**	**3.0** (1.8-4.3) **123**	**6.2** (4.2-8.3) **278**
	Male	**13.0** (9.9-16.0) **530**	**3.9** (2.5-6.0) **169**	**6.2** (4.4-8.6) **268**	**8.4** (4.9-11.9) **370**	**4.9** (2.9-7.0) **214**	**8.5** (6.6-10.4) **382**

J. Youth Current Tobacco Use, By Gender (Continued) – Maryland Public Middle School Youth[YRBS/YTS]

Jurisdiction	Gender	2000-01+ % (CI) N	2010-11+ % (CI) N	2012-13+ % (CI) N	2014-15 % (CI) N	2016-17 % (CI) N	2018-19 % (CI) N
Garrett	Female	**10.4** (4.9-15.9) **54**	**8.8** (5.4-13.9) **38**	**7.1** (4.5-11.0) **31**	**8.8** (4.8-12.7) **34**	**9.6** (5.2-14.1) **38**	**18.8** (13.0-24.6) **75**
	Male	**16.9** (9.1-24.7) **90**	**14.7** (10.1-20.8) **62**	**17.0** (12.6-22.4) **73**	**15.5** (10.1-20.9) **67**	**13.6** (6.8-20.4) **59**	**17.4** (11.2-23.6) **75**
Harford	Female	**13.0** (8.8-17.3) **547**	**1.5** (0.9-2.6) **67**	**2.7** (1.6-4.7) **104**	**9.2** (6.5-11.8) **352**	**6.9** (4.4-9.4) **270**	**9.2** (5.7-12.7) **361**
	Male	**9.1** (6.2-11.9) **398**	**4.2** (2.8-6.4) **169**	**4.0** (2.6-6.2) **169**	**11.1** (8.9-13.2) **449**	**8.6** (5.7-11.4) **341**	**9.5** (6.5-12.6) **387**
Howard	Female	**4.5** (3.5-5.6) **216**	**1.3** (0.5-3.2) **76**	**1.4** (0.8-2.6) **76**	**4.2** (2.4-6.1) **241**	**1.8** (0.6-3.0) **106**	**6.2** (4.4-7.9) **376**
	Male	**6.5** (3.0-9.9) **329**	**2.1** (1.0-4.6) **114**	**2.8** (1.8-4.5) **160**	**6.9** (5.2-8.7) **411**	**2.9** (1.4-4.4) **179**	**4.1** (2.6-5.5) **255**
Kent	Female	**7.9** (3.9-11.8) **24**	**4.7** (2.3-9.4) **11**	**4.8** (2.0-10.8) **10**	**9.1** (3.3-14.9) **19**	**9.2** (3.5-14.8) **19**	**19.8** (11.2-28.5) **43**
	Male	**16.1** (11.5-20.7) **48**	**7.3** (3.8-13.6) **15**	**7.2** (4.1-12.3) **17**	**9.4** (4.3-14.6) **20**	**10.7** (4.6-16.7) **22**	**15.2** (8.7-21.6) **29**
Montgomery	Female	**4.5** (2.3-6.8) **626**	**2.6** (1.4-5.0) **402**	**3.4** (2.2-5.3) **503**	**6.1** (4.3-7.8) **926**	**4.7** (2.9-6.5) **730**	**5.8** (3.8-7.8) **922**
	Male	**5.5** (3.4-7.6) **816**	**3.4** (2.2-5.3) **480**	**6.1** (4.6-8.0) **909**	**9.7** (5.5-13.9) **1,513**	**4.7** (3.1-6.2) **729**	**6.4** (4.9-7.9) **1,091**
Prince George's	Female	**4.6** (2.2-7.0) **593**	**5.2** (4.2-6.4) **646**	**8.9** (7.0-11.2) **855**	**14.3** (9.8-18.7) **1,487**	**11.8** (9.7-14.0) **1,399**	**8.6** (6.9-10.2) **952**
	Male	**8.0** (3.7-12.3) **1,045**	**7.1** (4.9-10.4) **830**	**8.3** (6.1-11.2) **803**	**17.2** (15.0-19.3) **1,728**	**12.9** (9.9-15.8) **1,533**	**9.9** (6.3-13.6) **1,131**
Queen Anne's	Female	**9.6** (5.3-13.9) **71**	**2.5** (1.5-4.1) **20**	**5.0** (3.0-8.3) **41**	**10.7** (7.1-14.4) **89**	**5.9** (3.4-8.4) **49**	**9.1** (5.5-12.6) **77**
	Male	**12.9** (7.7-18.1) **106**	**5.0** (3.5-6.9) **40**	**7.4** (4.8-11.3) **62**	**7.5** (4.3-10.7) **64**	**7.8** (4.9-10.7) **68**	**11.0** (7.3-14.7) **93**
Somerset	Female	**12.9** (5.9-19.9) **40**	**7.7** (5.6-10.7) **21**	**5.3** (3.1-8.8) **16**	**10.3** (6.0-14.6) **30**	**6.9** (3.2-10.7) **20**	**10.8** (5.7-16.0) **32**
	Male	**23.6** (18.8-28.4) **74**	**12.2** (7.9-18.3) **32**	**9.6** (6.4-14.2) **27**	**16.4** (10.0-22.8) **47**	**14.8** (9.7-19.9) **45**	**15.8** (10.4-21.2) **48**
St. Mary's	Female	**7.0** (4.3-9.6) **103**	**3.8** (2.5-5.8) **70**	**5.3** (3.3-8.3) **92**	**11.8** (8.5-15.1) **214**	**8.0** (5.3-10.7) **141**	**9.9** (6.8-12.9) **179**
	Male	**11.8** (7.9-15.6) **190**	**5.0** (3.4-7.3) **86**	**7.2** (5.0-10.2) **121**	**11.0** (7.7-14.3) **197**	**10.2** (7.0-13.4) **178**	**12.7** (9.2-16.2) **232**
Talbot	Female	**10.6** (4.5-16.7) **49**	**3.6** (1.8-6.9) **15**	**3.0** (1.5-5.8) **12**	**8.8** (5.3-12.3) **43**	**4.9** (2.6-7.2) **24**	**15.8** (12.2-19.4) **71**
	Male	**11.2** (6.6-15.8) **54**	**6.0** (3.9-9.3) **26**	**5.7** (3.9-8.2) **25**	**12.7** (8.7-16.8) **60**	**11.1** (7.3-15.0) **51**	**19.3** (13.9-24.7) **93**
Washington	Female	**12.7** (8.0-17.4) **269**	**4.2** (2.9-6.1) **97**	**7.8** (5.1-11.7) **176**	**14.3** (11.4-17.1) **338**	**7.6** (4.7-10.5) **172**	**11.9** (8.4-15.4) **271**
	Male	**16.5** (11.2-21.8) **368**	**6.7** (4.2-10.4) **144**	**9.3** (6.9-12.4) **221**	**12.3** (8.3-16.3) **296**	**9.2** (6.1-12.4) **215**	**10.1** (7.2-13.0) **240**
Wicomico	Female	**13.2** (8.5-17.8) **175**	**6.6** (4.3-10.1) **93**	**5.5** (3.6-8.3) **78**	**12.2** (8.6-15.7) **162**	**13.9** (10.5-17.4) **183**	**11.0** (7.8-14.3) **149**
	Male	**13.7** (9.0-18.4) **217**	**9.5** (6.5-13.6) **126**	**6.8** (4.9-9.5) **97**	**19.0** (13.6-24.4) **270**	**13.8** (10.2-17.5) **194**	**13.8** (10.3-17.3) **180**
Worcester	Female	**6.2** (3.5-8.8) **44**	**7.7** (5.6-10.4) **55**	**8.6** (4.5-15.7) **46**	**13.8** (9.1-18.5) **73**	**9.0** (5.2-12.9) **57**	**14.8** (9.9-19.7) **71**
	Male	**16.0** (11.1-20.8) **120**	**6.7** (4.6-9.4) **45**	**6.7** (3.1-13.8) **36**	**16.0** (10.7-21.3) **85**	**9.6** (5.9-13.4) **64**	**14.6** (11.4-17.9) **81**

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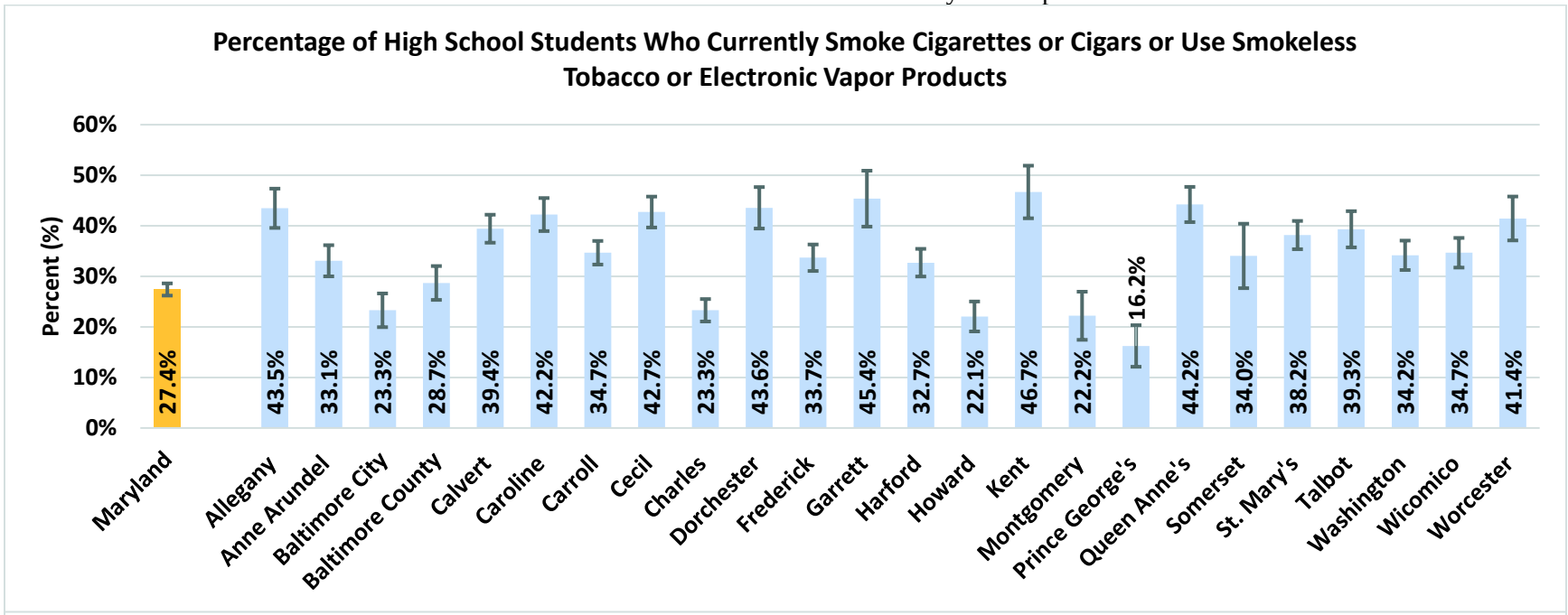
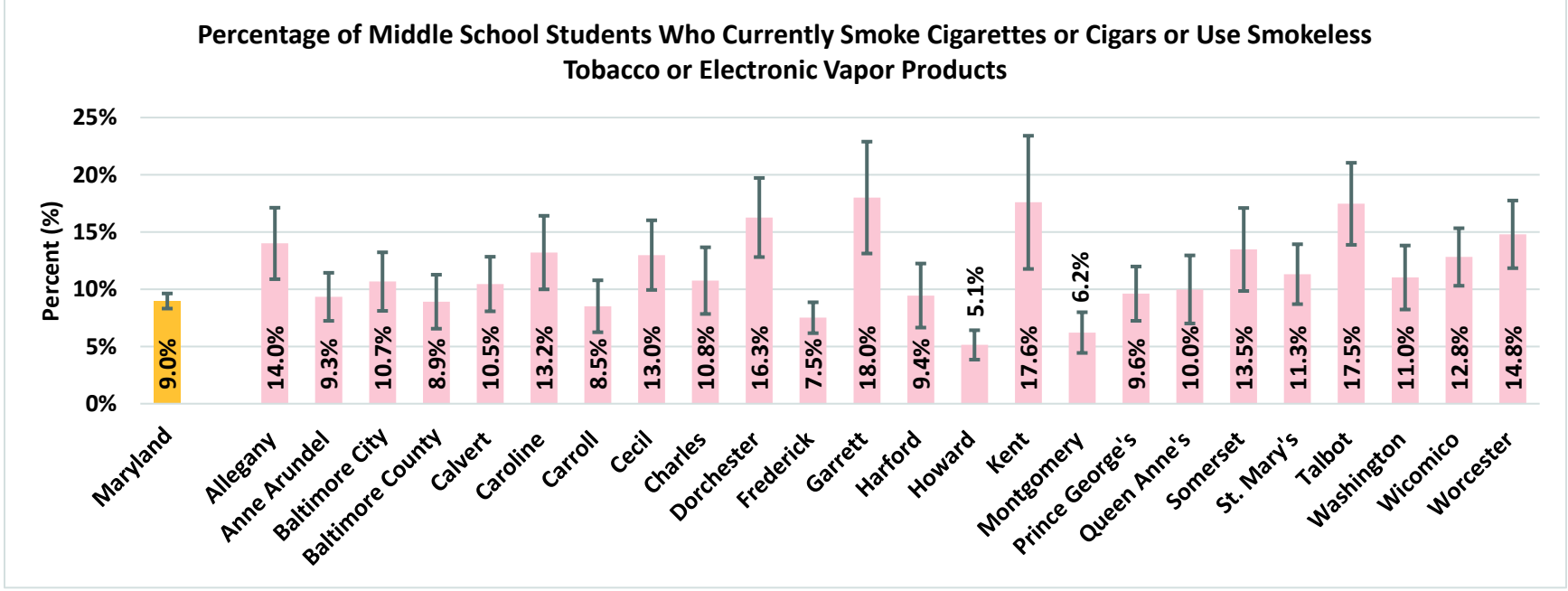
Youth Tobacco Product Use

Figures

K. High School and Middle School Any Tobacco Use[YRBS/YTS] – 2018-19

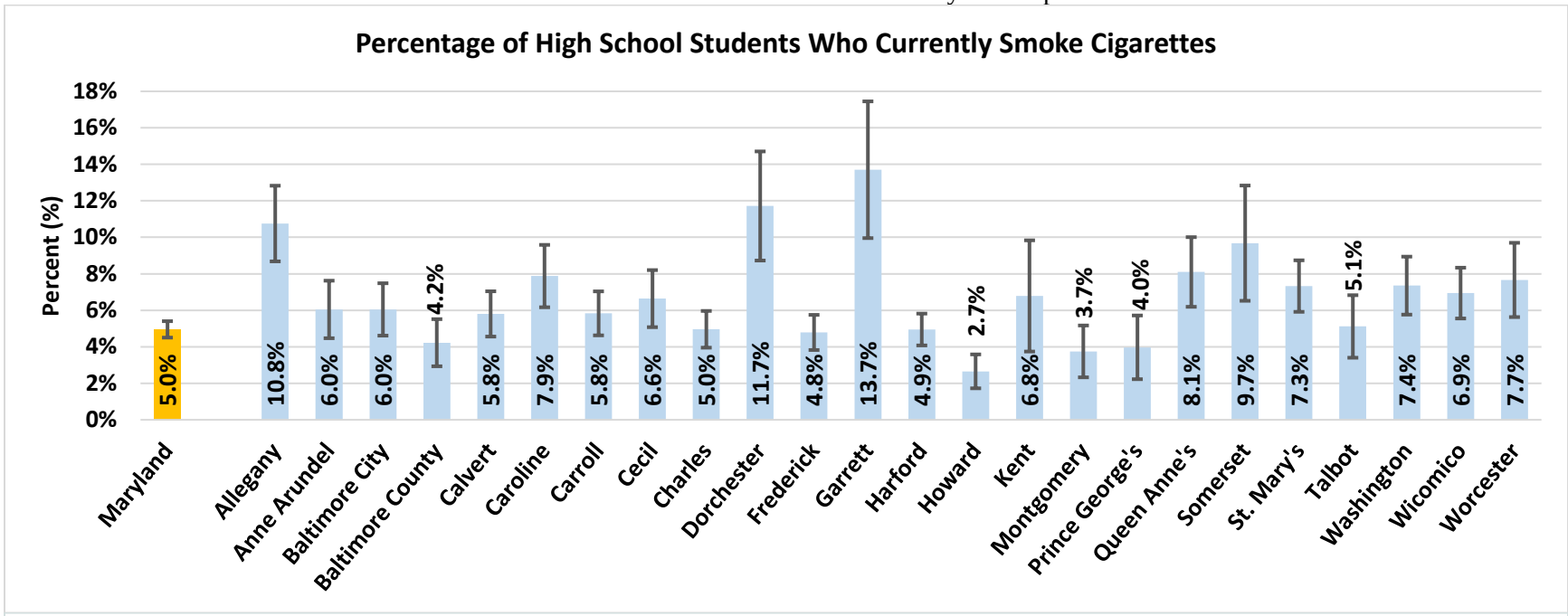
Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

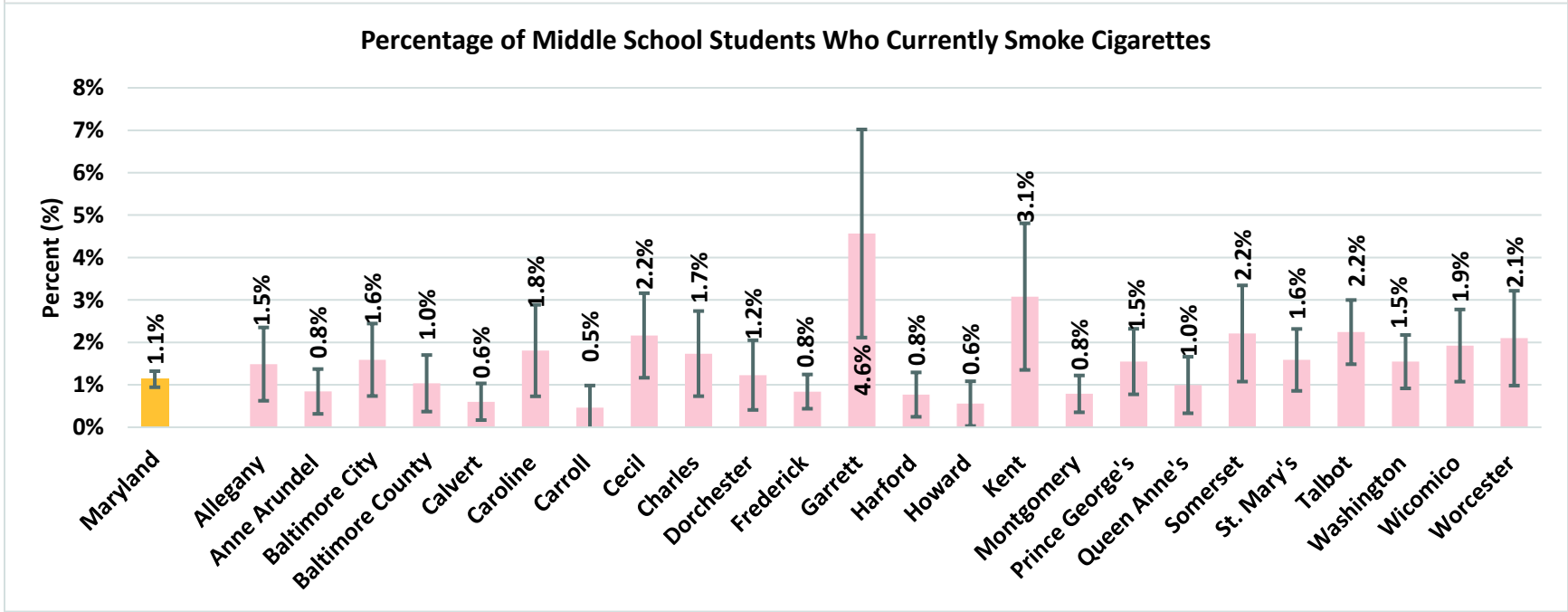




L. High School and Middle School Cigarette Use[YRBS/YTS] – 2018-19

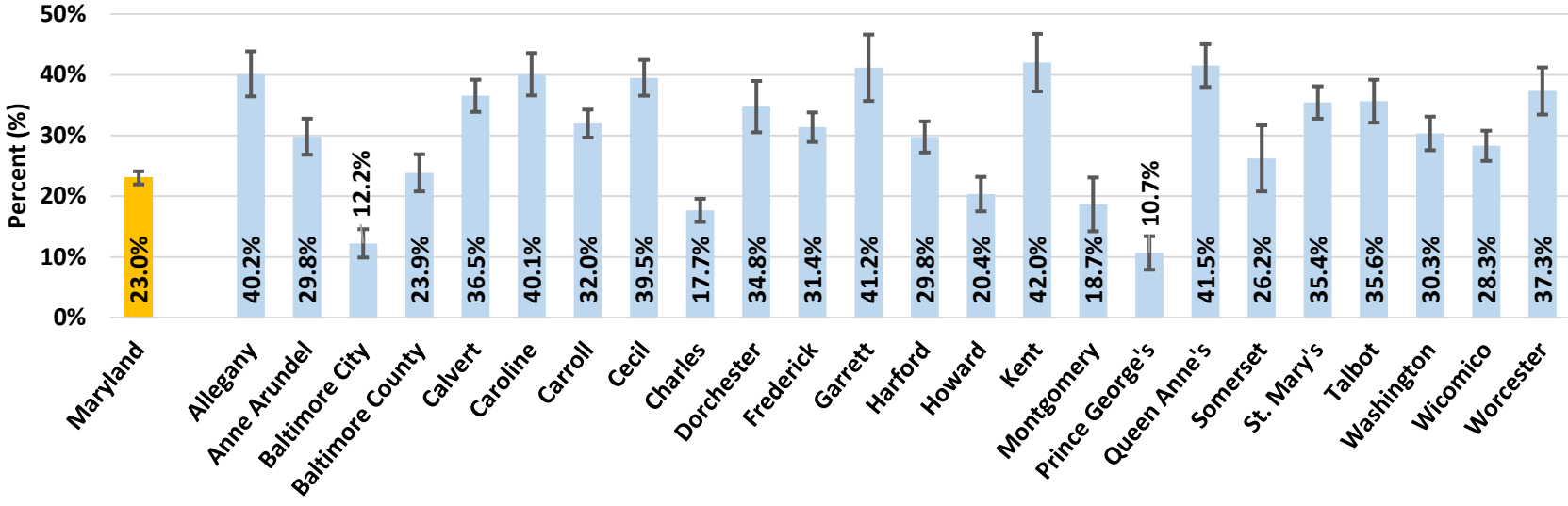
Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

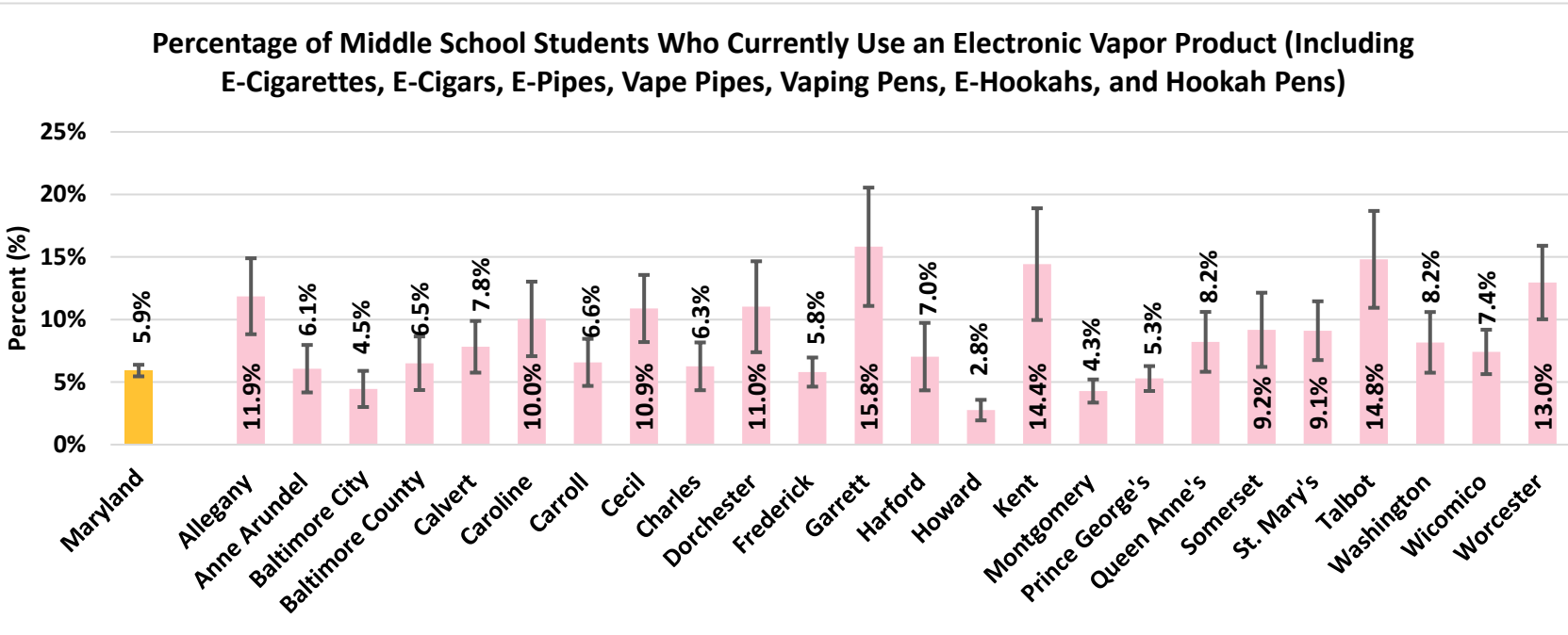


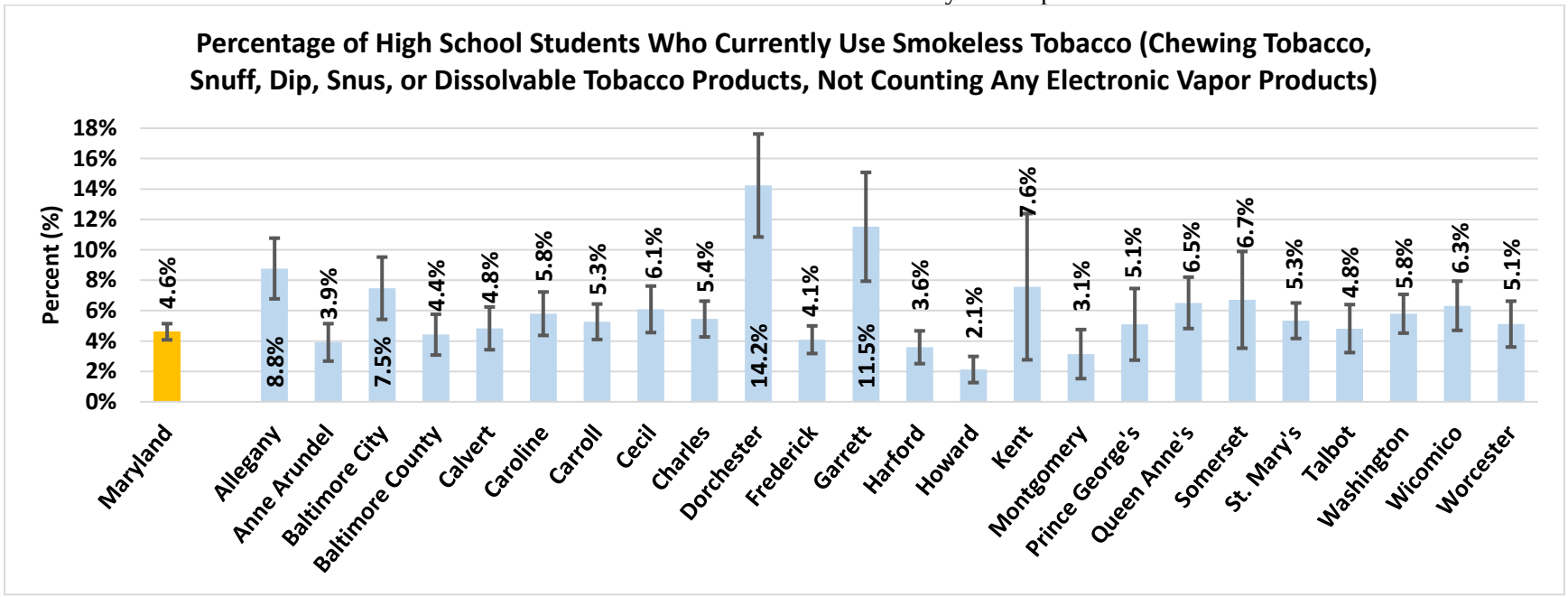


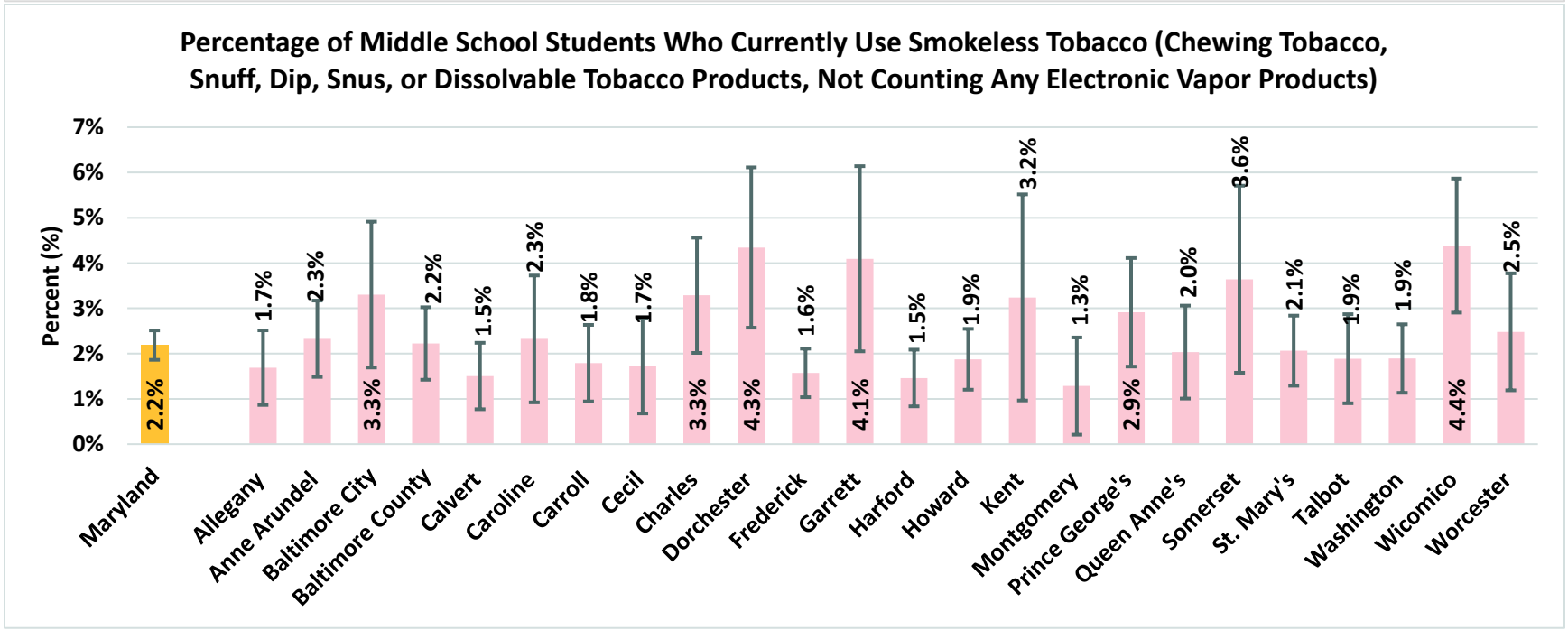
M. High School and Middle School Electronic Smoking Device Use[YRBS/YTS] – 2018-19

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health



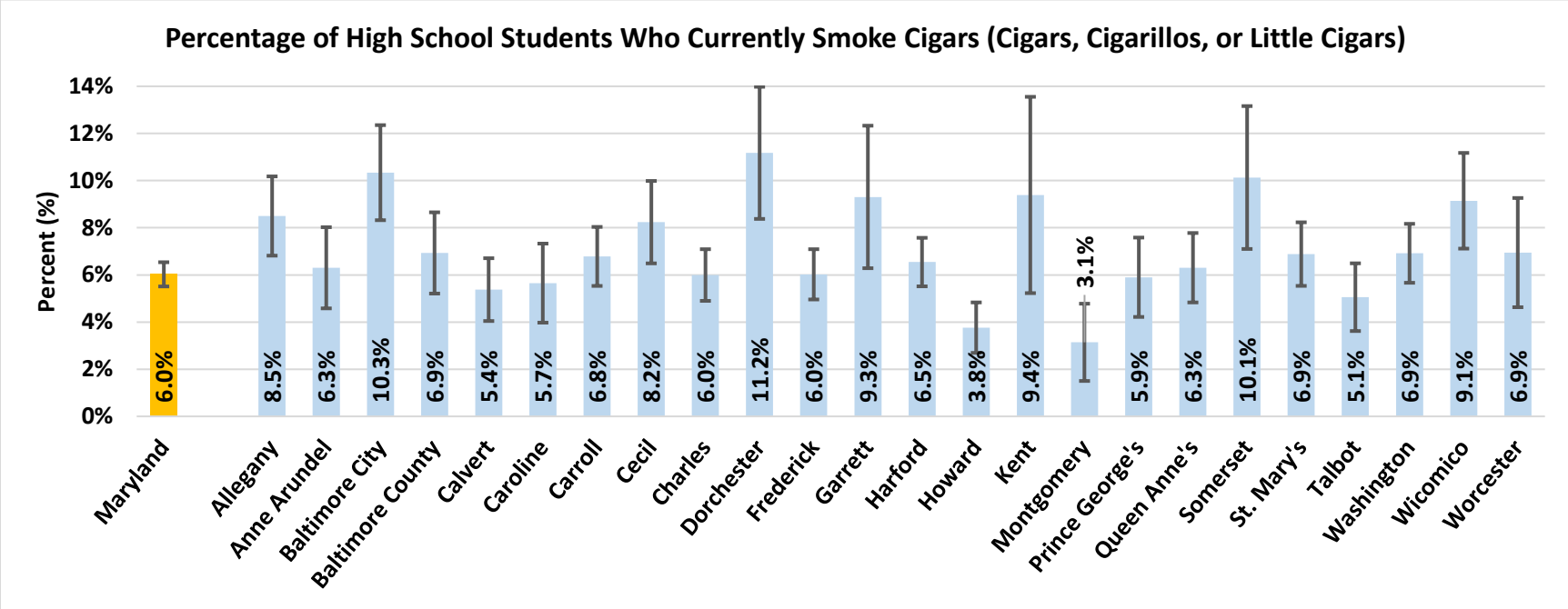


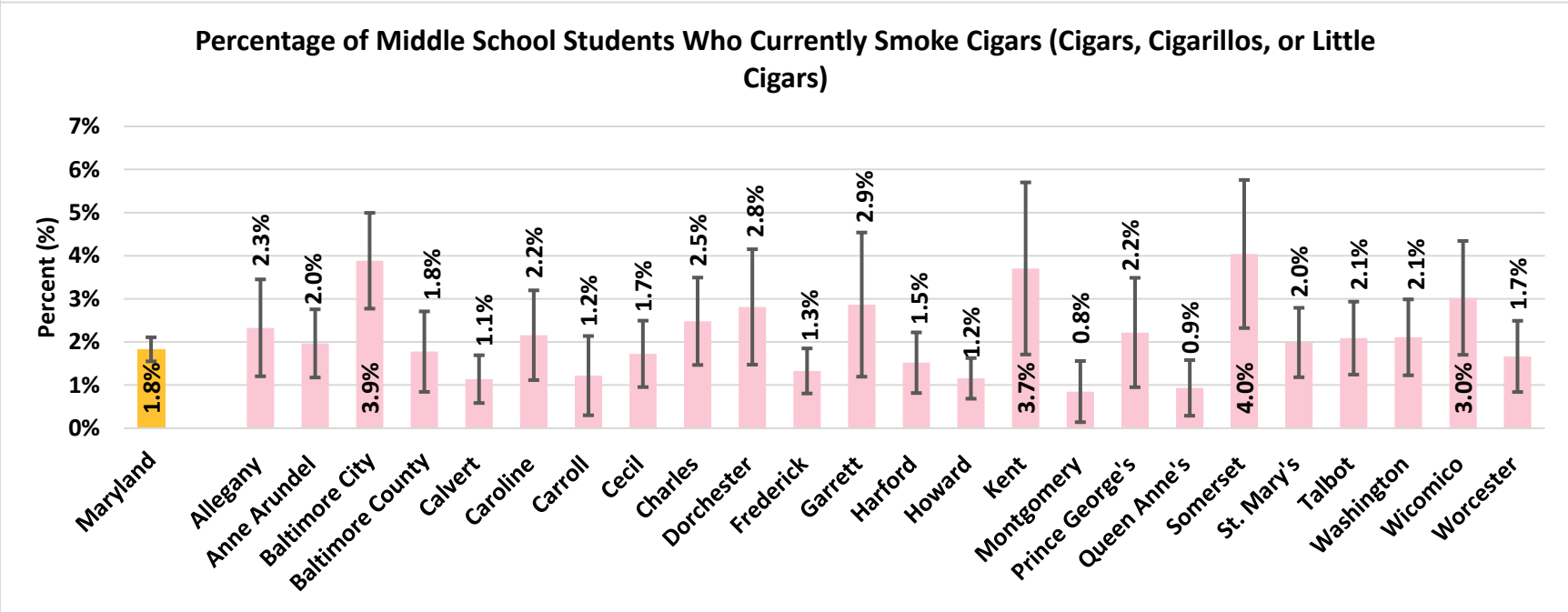

Percentage of High School Students Who Currently Use Smokeless Tobacco (Chewing Tobacco, Snuff, Dip, Snus, or Dissolvable Tobacco Products, Not Counting Any Electronic Vapor Products)
Percent (%)
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
4.6%
8.8%
3.9%
7.5%
4.4%
4.8%
5.8%
5.3%
6.1%
5.4%
14.2%
4.1%
11.5%
3.6%
2.1%
7.6%
3.1%
5.1%
6.5%
6.7%
5.3%
4.8%
5.8%
6.3%
5.1%
Maryland
Allegany
Anne Arundel
Baltimore City
Baltimore County
Calvert
Caroline
Carroll
Cecil
Charles
Dorchester
Frederick
Garrett
Harford
Howard
Kent
Montgomery
Prince George's
Queen Anne's
Somerset
St. Mary's
Talbot
Washington
Wicomico
Worcester


Percentage of Middle School Students Who Currently Use Smokeless Tobacco (Chewing Tobacco, Snuff, Dip, Snus, or Dissolvable Tobacco Products, Not Counting Any Electronic Vapor Products)
Percent (%)
7%
6%
5%
4%
3%
2%
1%
0%
2.2%
1.7%
2.3%
3.3%
2.2%
1.5%
2.3%
1.8%
1.7%
3.3%
4.3%
1.6%
4.1%
1.5%
1.9%
3.2%
1.3%
2.9%
2.0%
8.6%
2.1%
1.9%
1.9%
4.4%
2.5%
Maryland
Allegany
Anne Arundel
Baltimore City
Baltimore County
Calvert
Caroline
Carroll
Cecil
Charles
Dorchester
Frederick
Garrett
Harford
Howard
Kent
Montgomery
Prince George's
Queen Anne's
Somerset
St. Mary's
Talbot
Washington
Wicomico
Worcester

O. High School and Middle School Cigar Use[YRBS/YTS] – 2018-19

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health





Adult Population Data

Tables

P. Percent and Number of Current Adult Tobacco Use - Maryland Adults 18 years of age or older[BRFSS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	2012+		2014		2016		2018	
	% (CI)	N	% (CI)	N	% (CI)	N	% (CI)	N
Maryland	**19.4** (18.2-20.7)	856,080	**19.5** (18.1-20.9)	907,879	**17.9** (17.0-18.8)	842,991	**18.2** (17.3-19.2)	865,325
Allegany	**28.3** (17.9-38.7)	17,530	**24.6** (16.2-33.1)	13,734	**24.9** (18.5-31.3)	13,304	**31.8** (24.2-39.5)	19,256
Anne Arundel	**21.5** (17.3-25.7)	81,624	**20.2** (15.8-24.7)	88,516	**19.3** (16.0-22.6)	85,439	**18.3** (15.0-21.6)	82,740
Baltimore City	**24.2** (19.1-29.3)	96,402	**28.5** (22.8-34.2)	138,429	**26.1** (22.3-29.9)	126,900	**26.2** (22.3-30.0)	124,952
Baltimore County	**22.8** (19.2-26.3)	166,242	**23.6** (19.4-27.8)	154,037	**18.4** (15.8-20.9)	120,943	**19.6** (16.8-22.4)	128,768
Calvert	**27.2** (19.5-34.8)	18,800	**23.4** (15.7-31.1)	17,412	**22.1** (16.6-27.7)	16,777	**19.0** (13.5-24.5)	15,471
Caroline	**27.6** (14.1-41.1)	7,727	**23.4** (13.6-33.1)	6,653	**29.2** (22.2-36.2)	7,595	**21.8** (15.4-28.3)	5,654
Carroll	**23.2** (15.6-30.8)	29,043	**21.0** (11.1-30.9)	25,698	**24.5** (17.7-31.3)	31,707	**21.2** (14.6-27.8)	28,104
Cecil	**26.1** (16.3-35.8)	20,515	**12.7** (8.3-17.2)	9,806	**29.4** (23.4-35.3)	23,256	**27.2** (20.3-34.1)	19,785
Charles	**20.5** (13.5-27.4)	27,840	**19.4** (13.1-25.7)	22,966	**18.2** (14.1-22.2)	21,877	**18.4** (13.2-23.5)	22,841
Dorchester	**16.9** (7.8-26.0)	4,694	**24.5** (14.5-34.6)	5,893	**30.6** (23.8-37.5)	7,747	**26.3** (18.3-34.3)	6,758
Frederick	**19.7** (13.5-26.0)	32,315	**15.9** (11.4-20.3)	29,683	**22.7** (18.7-26.7)	43,226	**21.1** (17.2-25.0)	41,754
Garrett	**23.7** (14.4-32.9)	5,317	**18.4** (10.7-26.0)	4,650	**22.7** (16.4-29.1)	7,162	**22.9** (15.9-29.9)	6,409
Harford	**24.4** (18.8-30.1)	49,272	**23.4** (15.8-31.0)	49,489	**21.5** (16.2-26.8)	42,171	**19.6** (15.1-24.1)	38,881
Howard	**13.0** (8.4-17.6)	28,642	**10.2** (5.6-14.8)	23,566	**9.0** (6.2-11.7)	22,022	**10.3** (6.8-13.9)	25,908
Kent	**21.7** (6.2-37.2)	3,960	**21.7** (11.1-32.2)	3,362	**22.0** (13.6-30.4)	3,248	**25.5** (15.2-35.8)	3,918
Montgomery	**10.9** (8.2-13.7)	81,828	**10.4** (7.7-13.1)	82,701	**9.3** (7.5-11.1)	75,567	**11.6** (9.4-13.8)	95,944
Prince George's	**16.6** (13.1-20.1)	103,805	**18.8** (14.6-23.0)	130,769	**15.0** (12.6-17.4)	106,840	**14.2** (11.7-16.7)	101,335
Queen Anne's	**19.3** (10.6-28.0)	5,970	**17.7** (10.6-24.8)	6,642	**19.5** (14.2-24.9)	7,532	**19.5** (14.6-24.5)	7,769
Somerset	**34.5** (16.0-53.0)	5,087	**24.1** (12.5-35.7)	4,504	**26.1** (14.6-37.5)	3,628	**31.8** (16.9-46.7)	5,451
St. Mary's	**23.4** (14.7-32.0)	20,585	**19.4** (10.9-27.9)	14,646	**17.3** (13.0-21.6)	14,755	**22.8** (17.6-28.0)	19,716
Talbot	**21.5** (7.8-35.2)	6,776	**19.5** (12.7-26.3)	6,161	**15.7** (11.0-20.4)	4,776	**21.1** (14.4-27.8)	6,384
Washington	**20.8** (14.0-27.6)	21,800	**25.1** (17.3-32.9)	29,512	**22.8** (18.3-27.3)	26,674	**26.5** (21.3-31.7)	31,394
Wicomico	**26.4** (5.5-37.3)	17,134	**30.8** (20.5-41.1)	27,058	**23.1** (17.6-28.6)	18,576	**22.4** (17.0-27.7)	18,063
Worcester	**8.6** (3.1-14.0)	3,169	**27.5** (15.5-39.5)	11,992	**25.2** (17.5-32.9)	11,268	**20.8** (13.1-28.6)	8,072

Q. Percent and Number of Current Minority Adult Tobacco Use - Maryland Adults 18 years of age or older[BRFSS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	2012+		2014		2016		2018	
	% (CI)	N	% (CI)	N	% (CI)	N	% (CI)	N
Maryland	**17.8** (16.3-19.2)	590,081	**17.7** (16.0-19.3)	600,629	**15.6** (14.6-16.6)	541,501	**16.9** (15.8-18.1)	595,771
Allegany	**21.9** (10.2-33.7)	8,047	**20.1** (11.3-29.0)	6,430	**20.4** (13.0-27.7)	6,338	**31.0** (20.5-41.5)	10,579
Anne Arundel	**19.3** (14.4-24.3)	49,656	**16.0** (11.1-20.9)	44,393	**16.1** (12.3-19.8)	46,360	**14.8** (10.7-19.0)	43,305
Baltimore City	**25.9** (20.3-31.5)	91,028	**29.0** (22.6-35.3)	115,433	**25.1** (21.0-29.2)	101,673	**28.0** (23.8-32.3)	113,946
Baltimore County	**20.4** (16.3-24.4)	114,872	**20.4** (15.9-24.8)	96,396	**16.5** (13.7-19.3)	78,373	**18.8** (15.7-21.9)	90,001
Calvert	**25.2** (15.5-34.9)	11,868	**17.6** (9.4-25.8)	8,090	**17.0** (10.8-23.1)	7,579	**17.1** (9.9-24.2)	7,707
Caroline	Data Not Available	Data Not Available	**19.2** (8.0-30.4)	3,382	**27.1** (18.3-35.9)	4,522	**21.7** (14.0-29.5)	3,439
Carroll	**22.2** (13.0-31.4)	14,636	Data Not Available	Data Not Available	**18.6** (11.5-25.7)	13,564	**18.0** (9.9-26.1)	13,715
Cecil	**22.8** (12.2-33.5)	10,566	**13.9** (8.2-19.7)	5,612	**27.4** (20.2-34.5)	12,443	**25.8** (16.8-34.7)	10,700
Charles	**15.2** (7.9-22.5)	14,964	**17.1** (9.6-24.6)	15,743	**14.7** (10.4-18.9)	13,724	**18.5** (12.7-24.3)	18,191
Dorchester	Data Not Available	Data Not Available	**25.1** (12.2-37.9)	4,374	**29.6** (21.6-37.7)	5,116	**26.6** (16.8-36.5)	4,794
Frederick	**22.6** (12.7-32.6)	22,804	**11.3** (6.6-16.1)	12,695	**18.4** (14.1-22.8)	22,137	**17.9** (13.6-22.3)	21,941
Garrett	Data Not Available	Data Not Available	**13.9** (6.7-21.1)	1,940	**23.4** (13.8-33.0)	3,883	**15.9** (8.2-23.6)	2,060
Harford	**23.2** (16.0-30.5)	30,777	**19.8** (11.7-27.8)	27,555	**16.3** (10.5-22.1)	19,729	**17.3** (11.8-22.8)	21,392
Howard	**12.6** (6.9-18.3)	19,898	**9.5** (4.0-14.9)	15,936	**7.8** (4.9-10.7)	13,922	**8.5** (4.5-12.6)	15,695
Kent	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**17.5** (7.7-27.4)	1,501	**25.1** (12.7-37.5)	2,199
Montgomery	**8.0** (5.4-10.7)	47,808	**9.3** (6.0-12.6)	56,245	**7.9** (6.0-9.8)	50,059	**11.2** (8.5-13.8)	71,921
Prince George's	**16.4** (12.8-20.1)	93,972	**18.3** (13.9-22.7)	116,931	**14.3** (11.9-16.8)	94,201	**13.4** (10.9-15.9)	88,531
Queen Anne's	**12.8** (5.7-19.8)	1,961	**17.7** (8.4-26.9)	3,511	**17.1** (10.4-23.9)	3,714	**15.9** (10.2-21.6)	3,528
Somerset	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**24.6** (11.9-37.3)	2,631	**38.6** (20.7-56.5)	5,091
St. Mary's	**17.1** (8.6-25.6)	9,213	Data Not Available	Data Not Available	**16.7** (11.5-21.9)	8,674	**18.9** (12.6-25.1)	10,059
Talbot	Data Not Available	Data Not Available	**20.1** (11.2-29.0)	4,173	**12.1** (7.3-16.9)	2,353	**19.1** (11.2-27.0)	3,591
Washington	**20.8** (12.3-29.4)	13,617	**22.4** (12.6-32.1)	16,117	**20.4** (15.2-25.5)	13,658	**26.9** (20.9-32.9)	18,500
Wicomico	**31.2** (16.9-45.6)	13,706	**27.6** (14.7-40.5)	17,672	**17.5** (11.8-23.2)	9,569	**17.8** (12.3-23.3)	9,950
Worcester	Data Not Available	Data Not Available	**30.1** (14.2-46.1)	7,243	**22.2** (13.3-31.1)	5,778	**20.6** (9.8-31.5)	4,934

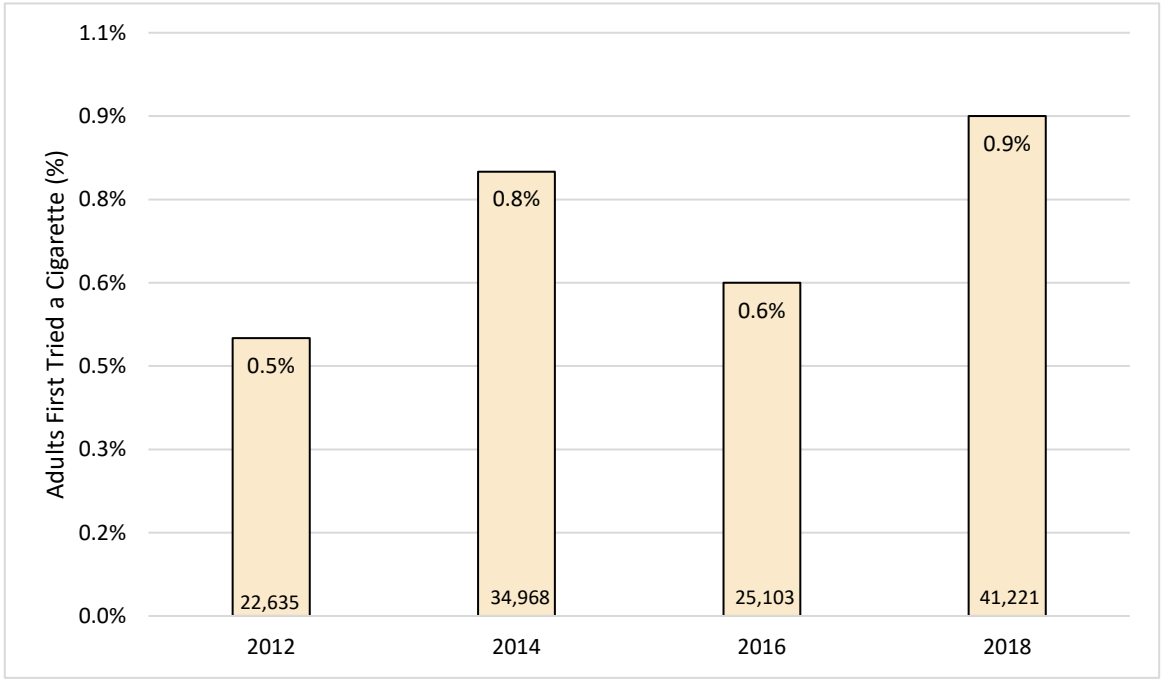
R. Percent and Number of Pregnant Females Smoking During Pregnancy Birth Certificate Data

Maryland Residents – Vital Statistics Administration – Maryland Department of Health

Jurisdiction	2000 % (N)**	2002 % (N)	2004 % (N)	2006 % (N)	2008 % (N)	2010 % (N)	2012 % (N)	2014 % (N)	2016 % (N)	2018 % (N)
Maryland	**9.2** (6,842)	**8.0** (5,877)	**7.4** (5,504)	**6.8** (5,262)	**6.6** (5,105)	**6.1** (4,584)	**7.4** (5,351)	**6.9** (5,075)	**5.9** (4,288)	**5.2** (3,713)
Allegany	**16.8** (133)	**22.1** (157)	**24.8** (159)	**23.7** (166)	**24.7** (176)	**27.6** (203)	**26.7** (186)	**24.3** (161)	**24.7** (153)	**23.5** (158)
Anne Arundel	**11.1** (754)	**9.7** (656)	**8.7** (587)	**8.1** (576)	**7.7** (552)	**8.0** (566)	**7.5** (512)	**7.1** (497)	**6.0** (417)	**5.1** (346)
Baltimore City	**14.9** (1,435)	**13.9** (1,254)	**12.0** (1,106)	**10.3** (1,009)	**10.3** (1,025)	**11.6** (1,036)	**10.4** (945)	**10.4** (924)	**10.1** (864)	**8.2** (631)
Baltimore County	**9.6** (904)	**8.8** (791)	**8.6** (809)	**7.8** (776)	**7.3** (748)	**9.0** (894)	**8.1** (777)	**7.8** (779)	**6.2** (606)	**5.3** (521)
Calvert	**14.2** (145)	**12.7** (129)	**11.8** (118)	**12.7** (128)	**11.5** (110)	**15.3** (138)	**13.8** (126)	**11.8** (107)	**9.3** (84)	**8.5** (75)
Caroline	**17.0** (69)	**15.1** (58)	**15.9** (74)	**12.8** (61)	**12.8** (64)	**17.1** (74)	**17.1** (63)	**15.0** (56)	**13.7** (53)	**12.2** (52)
Carroll	**11.1** (211)	**11.2** (213)	**9.6** (191)	**10.2** (191)	**10.6** (186)	**13.1** (210)	**10.6** (170)	**10.0** (161)	**8.7** (150)	**6.5** (116)
Cecil	**23.3** (265)	**18.2** (211)	**19.7** (239)	**19.7** (267)	**22.8** (291)	**21.5** (254)	**21.2** (246)	**21.6** (203)	**19.1** (211)	**18.5** (213)
Charles	**13.3** (232)	**11.1** (195)	**10.7** (194)	**8.7** (169)	**7.0** (134)	**8.7** (157)	**8.3** (160)	**6.7** (125)	**5.8** (106)	**5.4** (101)
Dorchester	**18.6** (61)	**16.6** (51)	**13.2** (48)	**13.1** (53)	**14.4** (65)	**19.9** (76)	**11.8** (49)	**18.6** (72)	**20.2** (77)	**19.6** (74)
Frederick	**12.1** (351)	**9.2** (276)	**8.6** (254)	**7.5** (231)	**7.4** (219)	**9.9** (281)	**9.0** (248)	**8.2** (231)	**6.1** (172)	**5.7** (169)
Garrett	**16.8** (56)	**17.0** (51)	**20.9** (66)	**16.2** (48)	**17.0** (47)	**16.9** (47)	**17.4** (50)	**19.7** (56)	**23.5** (73)	**18.6** (51)
Harford	**13.1** (386)	**12.4** (360)	**10.1** (301)	**11.3** (342)	**9.1** (271)	**10.4** (281)	**10.8** (286)	**9.0** (243)	**7.8** (210)	**7.4** (196)
Howard	**3.3** (119)	**3.3** (117)	**3.3** (116)	**2.9** (99)	**2.2** (74)	**3.1** (104)	**3.5** (121)	**2.3** (81)	**1.8** (64)	**1.9** (65)
Kent	**21.2** (43)	**16.6** (26)	**16.3** (33)	**19.0** (36)	**13.7** (30)	**18.1** (30)	**15.8** (28)	**15.9** (25)	**14.2** (21)	**8.2** (11)
Montgomery	**2.5** (327)	**1.3** (168)	**1.0** (142)	**0.7** (95)	**0.6** (80)	**1.6** (219)	**1.6** (213)	**1.4** (186)	**1.0** (134)	**1.0** (128)
Prince George's	**3.6** (447)	**2.5** (316)	**1.9** (237)	**1.4** (177)	**1.7** (213)	**2.4** (290)	**2.4** (281)	**2.5** (304)	**1.6** (197)	**1.5** (181)
Queen Anne's	**15.6** (78)	**10.2** (54)	**10.8** (55)	**8.9** (46)	**6.2** (33)	**10.9** (53)	**10.2** (45)	**11.5** (50)	**7.2** (36)	**6.7** (32)
Somerset	**20.9** (57)	**17.0** (44)	**16.5** (44)	**16.1** (45)	**14.8** (41)	**17.3** (47)	**13.3** (35)	**15.9** (38)	**14.7** (39)	**14.8** (32)
St. Mary's	**13.0** (158)	**12.3** (165)	**13.5** (195)	**9.9** (148)	**8.8** (127)	**12.8** (185)	**12.2** (169)	**10.5** (155)	**7.8** (111)	**8.4** (111)
Talbot	**14.4** (53)	**10.2** (34)	**8.0** (31)	**10.1** (36)	**10.6** (41)	**10.1** (36)	**11.8** (38)	**7.5** (25)	**8.5** (28)	**7.2** (23)
Washington	**19.1** (305)	**18.1** (306)	**15.6** (266)	**16.3** (310)	**16.3** (298)	**19.9** (351)	**21.3** (376)	**20.0** (361)	**17.4** (294)	**14.6** (246)
Wicomico	**14.9** (169)	**15.1** (175)	**14.8** (172)	**13.3** (177)	**15.5** (212)	**16.4** (205)	**13.7** (166)	**13.6** (165)	**11.0** (136)	**11.2** (140)
Worcester	**16.9** (84)	**15.4** (70)	**14.9** (67)	**16.1** (75)	**14.2** (68)	**14.1** (59)	**13.4** (61)	**15.1** (70)	**12.4** (52)	**10.1** (41)

S. Percent and Number of Adults First Tried Cigarettes, Past 12 Months - Maryland Adults 18 years of age or older[BRFSS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health



T. Percent and Number of Adults Who Quit Smoking, Past 12 Months - Maryland Adults 18 years of age or older[BRFSS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	2012		2014		2016		2018	
	% (CI)	N	% (CI)	N	% (CI)	N	% (CI)	N
Maryland	**3.1** (2.6-3.7)	141,391	**14.3** (11.6-16.9)	143,336	**11.4** (9.7-13.0)	117,658	**12.4** (10.7-14.1)	130,579
Allegany	Data not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Anne Arundel	**6.6** (4.0-9.2)	25,576	**14.6** (7.8-21.5)	15,251	**11.4** (5.9-16.9)	13,873	**11.5** (6.4-16.7)	12,952
Baltimore City	**3.7** (1.2-6.1)	14,892	**7.7** (3.2-12.2)	6,230	**17.2** (10.0-24.3)	16,473	**16.6** (9.9-23.3)	14,615
Baltimore County	**3.1** (2.0-4.1)	22,991	**29.3** (19.3-39.3)	43,997	**9.0** (5.5-12.5)	12,954	**11.8** (7.4-16.2)	18,719
Calvert	**3.1** (0.4-6.6)	2,462	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Caroline	**3.1** (0.4-6.6)	199	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Carroll	**1.3** (0.1-2.5)	1,657	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Cecil	**3.2** (0.3-6.0)	2,513	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Charles	**2.5** (0.7-4.2)	3,392	Data Not Available	Data Not Available	**11.2** (5.4-17.0)	2,858	Data Not Available	Data Not Available
Dorchester	**0.9** (0.1-1.8)	276	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Frederick	**1.7** (0.5-2.8)	2,743	Data Not Available	Data Not Available	**7.1** (3.2-11.1)	3,326	**14.2** (7.5-20.8)	7,288
Garrett	**2.3** (0.2-4.5)	578	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Harford	**2.2** (0.8-3.7)	4,600	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**11.8** (5.0-18.7)	5,653
Howard	**1.7** (0.0-3.6)	3,732	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**12.9** (5.6-20.3)	7,206
Kent	**1.0** (0.0-2.1)	187	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Montgomery	**3.3** (1.8-4.9)	26,531	**12.6** (7.5-17.7)	4,553	**12.6** (7.9-17.3)	20,237	**9.3** (5.4-13.2)	14,533
Prince George's	**2.2** (1.0-3.4)	13,903	Data Not Available	Data Not Available	**10.8** (5.1-16.6)	12,210	**16.4** (9.3-23.4)	21,473
Queen Anne's	**1.3** (0.5-2.2)	419	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Somerset	**2.8** (0.0-16.6)	2,259	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
St. Mary's	**1.8** (0.5-3.0)	1,593	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Talbot	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**16.2** (7.5-24.9)	1,497
Washington	**1.6** (0.4-2.8)	1,719	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Wicomico	**3.8** (1.0-6.6)	2,521	Data Not Available	Data Not Available	**18.4** (7.9-28.9)	3,875	Data Not Available	Data Not Available
Worcester	**6.8** (0.0-14.6)	2,522	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available

U. Percent and Number of Households with a Resident Adult Smoker and Minor Children - Maryland Adults 18 years of age or older[BRFSS]

Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

Jurisdiction	2012		2014		2016		2018	
	% (CI)	N	% (CI)	N	% (CI)	N	% (CI)	N
Maryland	**26.5** (24.8-28.2)	213,250	**24.2** (21.6-26.8)	381,195	**23.2** (21.4-25.1)	364,391	**23.0** (21.0-24.9)	338,719
Allegany	**31.5** (14.2-48.8)	4,496	**44.6** (23.8-65.3)	7,256	**40.1** (23.6-56.7)	5,446	**39.9** (21.0-58.8)	6,282
Anne Arundel	**30.7** (23.1-38.4)	48,196	**22.6** (15.1-30.1)	33,279	**23.6** (17.3-29.9)	37,402	**21.7** (15.4-28.0)	30,738
Baltimore City	**31.6** (21.3-41.8)	36,345	**37.7** (26.3-49.1)	56,260	**34.1** (26.1-42.0)	50,265	**37.9** (28.5-47.2)	47,779
Baltimore County	**32.9** (26.1-39.6)	90,479	**26.6** (18.7-34.3)	55,705	**28.0** (22.4-33.6)	62,063	**26.8** (21.2-32.4)	53,329
Calvert	**34.4** (21.4-47.4)	9,246	**38.4** (24.0-52.9)	12,167	**38.0** (25.6-50.4)	9,370	**32.3** (17.6-47.0)	9,187
Caroline	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**54.0** (39.9-68.1)	4,594	**36.7** (22.2-51.2)	2,694
Carroll	**41.4** (24.4-58.3)	17,048	Data Not Available	Data Not Available	**29.4** (18.4-40.3)	12,456	**25.2** (12.7-37.7)	11,323
Cecil	**31.7** (14.2-49.2)	10,813	**27.3** (11.4-43.2)	6,526	**37.6** (27.4-47.8)	12,495	**32.3** (19.6-44.9)	7,673
Charles	**31.4** (18.4-44.5)	17,600	**33.4** (20.8-46.1)	14,514	**23.3** (16.4-30.3)	11,024	**23.0** (14.5-31.6)	9,403
Dorchester	Data Not Available	Data Not Available	Data Not Available	Data Not Available	**42.9** (29.2-56.7)	3,926	**48.5** (32.0-65.0)	3,437
Frederick	**23.4** (11.4-35.4)	14,507	**22.3** (13.1-31.6)	13,371	**26.1** (19.4-32.9)	19,760	**17.9** (11.9-23.9)	10,634
Garrett	**20.8** (9.5-32.2)	947	Data Not Available	Data Not Available	**34.4** (19.6-49.3)	3,818	**32.6** (15.8-49.3)	2,116
Harford	**41.6** (30.3-53.0)	31,005	**36.1** (23.6-48.5)	24,892	**22.4** (13.0-31.7)	14,410	**32.7** (21.9-43.5)	19,289
Howard	**12.7** (6.0-19.4)	10,751	Data Not Available	Data Not Available	**11.0** (6.0-15.9)	9,267	**14.2** (8.0-20.4)	12,769
Kent	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
Montgomery	**15.2** (9.7-20.8)	41,554	**11.3** (6.5-16.2)	31,651	**8.5** (5.4-11.6)	22,479	**13.6** (9.3-18.0)	36,581
Prince George's	**21.4** (14.7-28.2)	48,264	**17.4** (11.3-23.5)	44,688	**20.1** (14.8-25.5)	45,308	**15.1** (10.3-19.9)	35,041
Queen Anne's	**23.6** (10.1-37.2)	3,477	**19.1** (9.2-28.9)	2,007	**26.9** (15.7-28.1)	3,412	**29.0** (14.5-43.5)	3,651
Somerset	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available
St. Mary's	**41.2** (24.3-58.1)	13,392	**31.2** (13.5-48.9)	7,683	**27.4** (18.2-36.7)	8,353	**24.7** (14.4-34.9)	7,015
Talbot	Data Not Available	Data Not Available	**41.2** (24.4-58.1)	4,437	Data Not Available	Data Not Available	**28.6** (15.7-41.4)	1,976
Washington	**30.0** (16.7-43.3)	12,818	**44.0** (28.5-59.5)	16,240	**34.8** (25.9-43.7)	14,099	**34.9** (24.6-45.2)	13,865
Wicomico	**27.6** (13.9-41.4)	5,681	**42.8** (21.6-64.0)	12,914	**26.5** (15.1-37.8)	6,926	**40.0** (26.0-54.0)	8,131
Worcester	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available	Data Not Available

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