



# **Monitoring Changing Tobacco Use Behaviors: Maryland 2000 - 2016**

Maryland Department of Health

Cigarette Restitution Fund  
Center for Tobacco Prevention and Control

**State Fiscal Year 2017**

**Larry Hogan**  
Governor  
State of Maryland

**Boyd Rutherford**  
Lieutenant Governor  
State of Maryland

**Robert Neall**  
Secretary  
Maryland Department of Health

### ***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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## **SUGGESTED CITATION:**

Maryland Department of Health. Monitoring Changing Tobacco Use Behaviors: 2000-2016. Baltimore: Maryland Department of Health, Prevention and Health Promotion Administration, Cancer and Chronic Disease Bureau, Center for Tobacco Prevention and Control, May 2018.



# MARYLAND Department of Health

*Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary*

May 22, 2018

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

The Honorable Thomas V. Mike Miller, Jr.  
President of the Senate  
H-107 State House  
Annapolis, MD 21401-1991

The Honorable Michael E. Busch  
Speaker of the House  
H-101 State House  
Annapolis, MD 21401-1991

Re: Health-General Article, §13-1004(d), FY 2018 Biennial Tobacco Study, Cigarette  
Restitution Fund – Tobacco Use Prevention and Cessation Program

Dear Governor Hogan, President Miller, and Speaker Busch:

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.

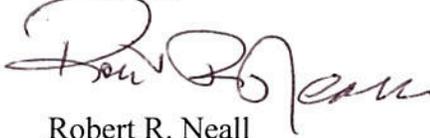
The enclosed legislative report summarizes trends related to tobacco use behaviors among all middle school and high school youth, regardless of age, and adults ages 18 and older since 2000. Included findings are derived from the results of the biennial Youth Tobacco Survey (2000-2012) and the corresponding expanded Youth Risk Behavior Survey/Youth Tobacco Survey (2013-2016). Findings on adult behaviors are derived from the results of the Behavioral Risk Factor Surveillance System (2000-2016). Data are presented for Maryland, as well as individually for each county and Baltimore City. Significant findings document continued reductions in tobacco use behaviors since program inception in Fiscal Year 2001.

This report was due December 31, 2017, and the Department apologizes for the lateness of this submission. The Department experienced a delay in its receipt of Maryland Youth Tobacco and Risk Behavior Survey data from the Centers for Disease Control and Prevention (CDC). The Maryland Youth Tobacco and Risk Behavior Survey data serve as the basis for this report. The data analysis was delivered to the Department in late November 2017. However, the analysis

showed that the response rate for Baltimore City was below the CDC standard. Once this issue was resolved and the data and analysis were finalized, the Department was able proceed with completing the report.

The Department appreciates your commitment to the progress we are making in reducing tobacco use in Maryland. If you have questions about this report, please contact Mr. Webster Ye, Deputy Chief of Staff, at (410) 767-6481.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert R. Neall". The signature is fluid and cursive, with a large initial "R" and "N".

Robert R. Neall  
Secretary

CC: Howard Haft, M.D., M.M.M., F.A.C.P.E., Deputy Secretary, Public Health Services  
Donna Gugel, M.H.S., Director, Cigarette Restitution Fund and Prevention and Health  
Promotion Administration  
Anna McCreery, M.P.H., Director, Cancer and Chronic Disease Bureau  
Dawn Berkowitz, M.P.H., C.H.E.S., Director, Center for Tobacco Prevention and Control  
Sarah Albert, MSAR #10377

## KEY FINDINGS

Maryland’s tobacco use prevention and cessation efforts have resulted in a decrease in the prevalence and initiation of tobacco use in both adults and youth. The prevalence of cigarette smoking in adults was 13.7 percent in 2016, down from 19.1 percent in 2011. High school youth tobacco use hit an all-time low of 14.4 percent in 2016, down from almost 27 percent in 2000. Youth initiation rates also greatly decreased from 18.0 percent in 2013 to 7.7 percent in 2016, and two-thirds of adults in Maryland have never smoked.

Despite this progress, more than 780,000 Maryland residents still smoke or use some form of tobacco product, placing their health at significant risk. Approximately one-half of all long-term smokers will eventually die from their use of tobacco. In Maryland, it is projected that 92,000 underage middle school and high school youth who smoke will die prematurely, and approximately 7,500 adults die each year from tobacco use.<sup>1,2</sup> The average number of annual deaths due to cigarette smoking is more than that of the combined number of average annual deaths resulting from all accidents (including drug-induced deaths), HIV/AIDS, homicide, and suicide. Every year, an estimated \$2.71 billion is spent in Maryland treating cancer and disease caused by smoking.<sup>3</sup>

The tobacco marketplace continues to change. Data from the 2016 Behavioral Risk Factor Surveillance System (BRFSS) and 2016 Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS) show that Maryland adults prefer cigarettes over other tobacco products while Maryland youth favor Electronic Smoking Devices (ESDs), followed by small cigars and cigarillos. Youth tobacco users are also more likely than adults to use more than one type of tobacco product (46.5 percent compared to 12.2 percent of adults). Thirteen percent of high school youth reported using ESDs, a much higher usage rate than any other product. Tables 1 and 2 below show overall prevalence data for tobacco and ESD use among Maryland adults and youth.

**Table 1. Adult Use of Tobacco and ESDs**

|                          | Adult |
|--------------------------|-------|
| Any Tobacco <sup>1</sup> | 16.6% |
| Cigarettes               | 13.7% |
| Cigars                   | 3.7%  |
| Smokeless Tobacco        | 1.6%  |
| ESDs                     | 3.2%  |

**Table 2. Youth Use of Tobacco and ESDs**

|                          | High School | Middle School |
|--------------------------|-------------|---------------|
| Any Tobacco <sup>1</sup> | 14.4%       | 4.1%          |
| Cigarettes               | 8.2%        | 1.3%          |
| Cigars                   | 9.0%        | 2.5%          |
| Smokeless Tobacco        | 6.2%        | 1.9%          |
| ESDs                     | 13.3%       | 4.7%          |

<sup>1</sup> US Department of Health and Human Services. (2014). “The health consequences of smoking—50 years of progress: a report of the Surgeon General.” US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 27 January 2018 at <<https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>>.

<sup>2</sup> Centers for Disease Control and Prevention. (2014). “Best Practices for Comprehensive Tobacco Control Programs – 2014.” US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 28 February 2018 at <<https://stacks.cdc.gov/view/cdc/21697>>.

<sup>3</sup> Id.

As tobacco use continues to decline, the number of Marylanders who die prematurely from tobacco-related cancer or disease and who live with a tobacco-related chronic disease should ultimately decrease.<sup>4</sup> Changes in tobacco use in Maryland are evident in long-, intermediate-, and short-term outcomes. A steady decrease among middle school and high school youth tobacco use is outlined in Tables 3 and 4. The most recent data available for all youth is from the 2016 Maryland YRBS/YTS.

| Table 3. High School Youth Tobacco Use |             |                   |
|--|-------------|-------------------|
| <u>2000</u>                            | <u>2016</u> | <u>% Decrease</u> |
| 26.9%                                  | 14.4%       | -46.5%            |
| <u>2000</u>                            | <u>2010</u> |                   |
| 26.9%                                  | 19.4%       | -28.0%            |
| <u>2010</u>                            | <u>2016</u> |                   |
| 19.4%                                  | 14.4%       | -25.8%            |
| <u>2014</u>                            | <u>2016</u> |                   |
| 16.4%                                  | 14.4%       | -12.2%            |

| Table 4. Middle School Youth Tobacco Use |             |                   |
|--|-------------|-------------------|
| <u>2000</u>                              | <u>2016</u> | <u>% Decrease</u> |
| 8.9%                                     | 4.1%        | -53.9%            |
| <u>2000</u>                              | <u>2010</u> |                   |
| 8.9%                                     | 4.6%        | -48.3%            |
| <u>2010</u>                              | <u>2016</u> |                   |
| 4.6%                                     | 4.1%        | -10.9%            |
| <u>2014</u>                              | <u>2016</u> |                   |
| 5.4%                                     | 4.1%        | -24.1%            |

Tables 5 and 6 outline decreases in adult cigarette use and overall adult tobacco use. Due to methodology changes in how the data is analyzed, data from 2000-2010 cannot be compared to data from 2011 forward for the adult data.<sup>5</sup> The most current adult data available is from the 2016 Maryland BRFSS.

| Table 5. Adult Cigarette Use |             |                   |
|------------------------------|-------------|-------------------|
| <u>2000</u>                  | <u>2010</u> | <u>% Decrease</u> |
| 20.5%                        | 15.2%       | -25.9%            |
| <u>2011</u>                  | <u>2016</u> |                   |
| 19.1%                        | 13.7%       | -28.3%            |
| <u>2014</u>                  | <u>2016</u> |                   |
| 14.6%                        | 13.7%       | - 6.2%            |

| Table 6. Adult All Tobacco Use |             |                   |
|--------------------------------|-------------|-------------------|
| <u>2012</u>                    | <u>2016</u> | <u>% Decrease</u> |
| 19.4%                          | 16.6%       | -14.4%            |
| <u>2014</u>                    | <u>2016</u> |                   |
| 19.0%                          | 16.6%       | -12.6%            |

Retailers are not permitted to sell tobacco to youth under 18 years of age. Federal law mandates that tobacco retailers ask for and check government issued photo identification when a person appears to be less than 27 years of age. Maryland has made great strides in implementing efforts to promote retailer compliance with these requirements, and these efforts have had a significant positive impact on preventing underage access to tobacco. Random unannounced undercover inspections conducted in 2014 found that 31.4 percent of licensed tobacco retailers illegally sold tobacco to underage youth; by 2016, the non-compliance rate had decreased to 10.8

<sup>4</sup> As tobacco use declines, changes in long-term outcomes (including premature death) cannot be assessed until users reach an age at which tobacco-caused cancers and diseases manifest, often decades after the first use of tobacco.

<sup>7</sup> CDC made significant changes to BRFSS methodology in 2011, which resulted in CDC determining that the data before and after that change were not comparable.

percent.<sup>6</sup> Nonetheless, in Fall 2016, 59.1 percent of high school youth under 18 years of age who attempted to purchase cigarettes from a retail store in Maryland responded in the 2016 YRBS/YTS that they were not asked for photo identification.

Protection from the negative health effects of secondhand smoke continues to increase. In 2016, 74.2 percent of high school youth and 81.7 percent of middle school youth reported that they had not been exposed to secondhand smoke indoors in the previous seven days. In 2000, the rates were 37.5 percent and 52.9 percent, respectively. The decreased rate of exposure to secondhand smoke may be attributed to the Clean Indoor Air Act of 2007, as well as voluntary household smoking bans, which in 2016 existed in 63.3 percent of smoking households, and 89.3 percent of non-smoking households.<sup>7</sup>

## **Future Challenges**

Notwithstanding documented Statewide success in reducing tobacco use, there are specific populations and geographic areas in Maryland where tobacco use remains high. Rural areas of the State, including, Garrett, Allegany, and Dorchester Counties, have higher rates of tobacco use than the other Maryland jurisdictions. Specific populations with higher rates of use include those without a four-year college degree, with lower annual incomes, who suffer from substance abuse or mental health conditions, and who are LGBT (lesbian, gay, bisexual, and transgender). Among racial and ethnic groups, minorities use tobacco at a lower overall rate than the White population, however tobacco-related diseases occur at a higher rate.<sup>8</sup>

In addition to tobacco-related disparities, data from the 2016 YRBS/YTS demonstrate that youth attitudes and beliefs toward tobacco use show that youth still believe smokers have more friends than non-smokers, and that tobacco use makes you 'look cool.' With the expansion of the tobacco market to include ESD products in various flavors and shapes and dissolvable smokeless tobacco, working on changing favorable perceptions of tobacco use is increasingly important.

Youth use of tobacco products continues to be associated with other risk behaviors. As the country is experiencing a devastating opioid crisis, data show that youth who smoke are 14.8 times more likely to have ever used heroin, and 10.9 times more likely to have ever injected illegal drugs. In addition, youth who smoke are 3.3 times more likely to currently drink alcohol, 5.0 times more likely to have ever abused prescription drugs, and 4.5 times more likely to use marijuana. Addressing tobacco product use along with other risk behaviors can help reduce harmful or deadly addictions.

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<sup>6</sup>According to Federal Fiscal Year 17 Behavioral Health Administration Synar Inspections (Unpublished). The national FFY17 Synar Report, which reports state-by-state Synar inspections, is subject to the US Substance Abuse and Mental Health Services Administration (SAMHSA) protocols and approval.

<sup>7</sup> The Clean Indoor Air Act of 2007 prohibited smoking in all public places, including bars and restaurants beginning February 1<sup>st</sup>, 2008. Chapter 502 of the Acts of 2007 (HB 359).

<sup>10</sup> US Department of Health and Human Services. "Tobacco Use Among US Racial/Ethnic Minority Groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, Hispanics: A Report of the Surgeon General," Atlanta, Georgia: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1998 Accessed 8 March 2018 at [https://www.cdc.gov/tobacco/data\\_statistics/sgr/1998/complete\\_report/pdfs/complete\\_report.pdf](https://www.cdc.gov/tobacco/data_statistics/sgr/1998/complete_report/pdfs/complete_report.pdf).

## ABOUT THIS REPORT

### Acronyms Found in this Report

|              |   |               |   |
|--------------|---|---------------|---|
| <b>BRFSS</b> | Behavioral Risk Factor Surveillance System    | <b>MS</b>     | Middle School   |
| <b>CDC</b>   | US Centers for Disease Control and Prevention | <b>NH</b>     | Non-Hispanic  |
| <b>ENDS</b>  | Electronic Nicotine Delivery System           | <b>OMS</b>    | Outcomes Measurement System Datamart, Public Behavioral Health System |
| <b>ESD</b>   | Electronic Smoking Device                     | <b>SAMHSA</b> | US Substance Abuse and Mental Health Services Administration          |
| <b>FDA</b>   | US Food and Drug Administration               | <b>SIDS</b>   | Sudden Infant Death Syndrome  |
| <b>HS</b>    | High School                                   | <b>YRBS</b>   | Youth Risk Behavior Survey  |
| <b>LGBT</b>  | Lesbian, Gay, Bisexual, Transgender           | <b>YTS</b>    | Youth Tobacco Survey  |
| <b>MDH</b>   | Maryland Department of Health                 |               |   |

### Data Sources

The current data in this report is derived from the 2016 Maryland Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS) and the 2016 Maryland Behavioral Risk Factor Surveillance System (BRFSS). Throughout this report, there will be comparisons of the 2016 data to Maryland data collected in previous years, starting in 2000.

In 2013, the Youth Tobacco Survey (YTS) merged with the Youth Risk Behavior Survey (YRBS). Data reported from this combined survey tool is reported as YRBS/YTS. More information can be found in the “Data Sources in this Report” section later in this document.

### Changes in Reporting of Youth Data

Historically, the statutory requirements for this report limited youth data to youth under 18 years of age at the time of the survey. Limiting the data to youth under 18 years of age precluded comparison of Maryland data to data in other states, as data from other states are typically categorized by school attended (i.e., middle school or high school), without regard to the age of the student. Chapter 139 of the Acts of 2017 was passed by the Maryland General Assembly and enacted on July 1, 2017 to amend the statute so that all data for all high school youth, not just underage youth, are included in this report. Therefore, all past youth smoking behavior data appearing in this report have been re-analyzed to contain all-age youth data for the years 2000-2016 that can readily be compared to data nationally and from other states.

All data is now reported separately for middle school and high school youth to enable comparability with other state and national data; youth data were combined in previous reports. Throughout this report, unless specifically noted otherwise, ‘youth’ refers to Maryland public high school youth.

## **Comparability of Data**

All youth data in this report can be compared year-to-year, jurisdiction-to-State, jurisdiction-to-jurisdiction, and to data from other states and national data, as there is comparable survey methodology. Questions included in surveys regarding current use of tobacco products have remained generally consistent. If there are differences in historical data, they will be addressed in the footnotes.

However, all adult data in this report 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 it weighted BRFSS survey data. Therefore, data reported from 2000 to 2010 can be compared, and data reported from 2011 to 2016 can be compared, but data reported from 2011 onward cannot be compared to previously reported data and vice versa. The BRFSS survey is 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-State. When jurisdiction-level data for a particular year is not available because too few people in that jurisdiction answered a question or, statistically, the estimate is too prone to error, it is noted in the tables.

## **Low Response Rates Affecting Jurisdiction-Level Youth Data**

To reduce non-response bias associated with State school surveys, CDC requires a 60 percent response rate for all Maryland YRBS/YTS samples. CDC tabulates the response rate by dividing the total number of eligible completed surveys in a jurisdiction by the total number of students enrolled in public high schools and middle schools. Although rates generally remained above the 60 percent standard, there was a significant drop in response rates Statewide for the 2016 Maryland YRBS/YTS. The decline could be caused by a variety of factors including increased numbers of students opting out of the survey, high absenteeism, and dropouts.

The response rate for Baltimore City jurisdiction-level high school data collected by the Fall 2016 State YRBS/YTS was 56 percent, which falls below CDC's 60 percent standard. Although all 25 randomly selected schools in Baltimore City participated, only 2,447 of the 4,001 (61.2 percent) enrolled students completed questionnaires, with 2,246 (56.1 percent) questionnaires usable for the final Baltimore City dataset.<sup>9</sup>

The Maryland Department of Health (MDH) considers the data as valid for both Statewide and Baltimore City-specific use. Though the data does not meet the 60 percent CDC standard for response rate, MDH independently weighted and analyzed the Baltimore City high school data to include in the report and the sampling strategy is in line with those used in all jurisdictions. Baltimore City's rate does not impact the validity of the middle school or overall State data, as those response rates were over 60 percent. To note that the CDC standard was not

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<sup>9</sup> Submitted surveys are removed from the final data set if there are 15 or more identical responses answered in a row or if there are fewer than 20 valid responses after the data edit criteria are applied.

met, all jurisdiction-level high school data associated with Baltimore City is marked with an asterisk.

## Reporting Race and Ethnicity

As part of the YRBS/YTS, 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 are allowed to select as many categories as they wish 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.

Similarly, 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 read the same response options as in the youth survey. If one race is selected, then the respondent is categorized as being of that race. Unlike in the youth survey, if multiple races are indicated, adults are next 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.

## YRBS/YTS Survey Sample and Weighted Demographics

**High School:** 52,408 students from 184 Maryland public, charter, and vocational high schools completed the survey in 2016. The results are representative of all Maryland students in grades 9-12.

*Table 7. The weighted demographics of the high school sample are as follows:*

| Gender |       | Grade Level            |       | Race/Ethnicity    |       |
|--------|-------|------------------------|-------|-------------------|-------|
| Female | 49.0% | 9 <sup>th</sup> Grade  | 27.4% | NH Black          | 34.8% |
| Male   | 51.0% | 10 <sup>th</sup> Grade | 25.9% | Hispanic/Latino   | 13.6% |
|        |       | 11 <sup>th</sup> Grade | 23.3% | NH White          | 40.8% |
|        |       | 12 <sup>th</sup> Grade | 23.0% | NH Multiple Races | 6.5%  |
|        |       | Other                  | 0.4%  | NH Other races    | 4.3%  |

**Middle School:** 26,520 students from 174 Maryland public, charter, and vocational schools completed the survey in 2016. The results are representative of all Maryland students in grades 6-8.

**Table 8. The weighted demographics of the middle school sample are as follows:**

| Gender |       | Grade Level           |       | Race/Ethnicity    |       |
|--------|-------|-----------------------|-------|-------------------|-------|
| Female | 48.8% | 6 <sup>th</sup> Grade | 33.3% | NH Black          | 34.1% |
| Male   | 51.2% | 7 <sup>th</sup> Grade | 33.2% | Hispanic/Latino   | 14.6% |
|        |       | 8 <sup>th</sup> Grade | 32.9% | NH White          | 39.6% |
|        |       | Other                 | 0.6%  | NH Multiple Races | 7.2%  |
|        |       |                       |       | NH Other races    | 4.4%  |

### BRFSS Survey Sample and Weighted Demographics

**Adult:** 18,473 adults 18 years of age or older completed the Maryland BRFSS survey in 2016. The results are representative of the Maryland adult population.

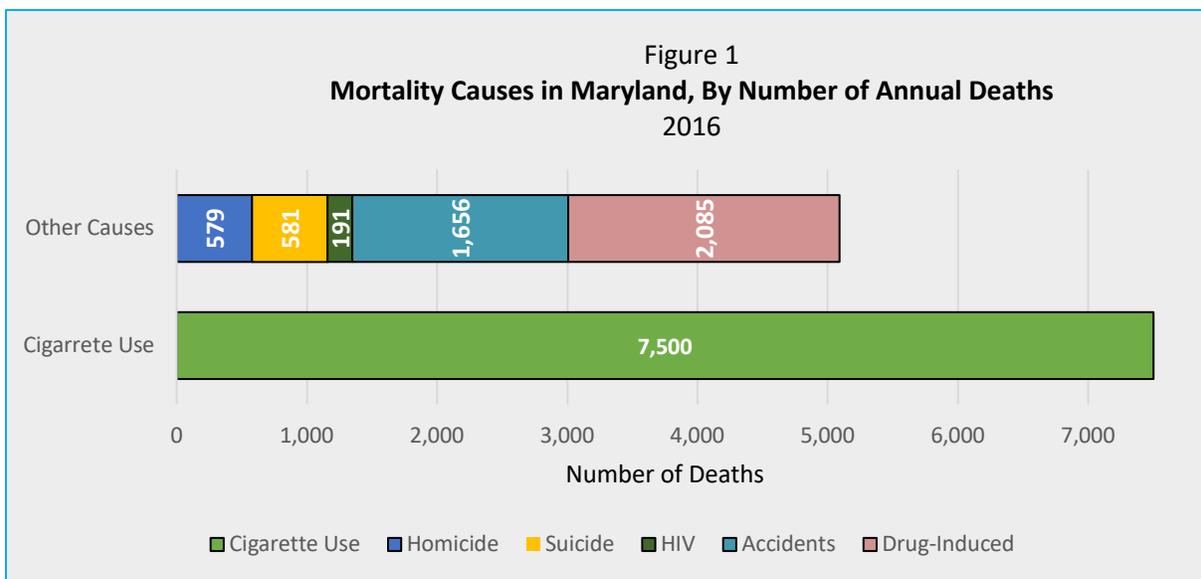
**Table 9. The weighted demographics of the adult sample are as follows:**

| Gender |       | Age Group |       | Race/Ethnicity    |       |
|--------|-------|-----------|-------|-------------------|-------|
| Female | 47.8% | Age 18-24 | 12.1% | NH Black          | 28.7% |
| Male   | 52.2% | Age 25-34 | 17.3% | Hispanic/Latino   | 9.1%  |
|        |       | Age 35-44 | 16.5% | NH White          | 53.4% |
|        |       | Age 45-54 | 17.9% | NH Multiple Races | 1.0%  |
|        |       | Age 55-64 | 17.1% | NH Other races    | 7.8%  |
|        |       | Age 65+   | 19.1% |                   |       |

## TOBACCO AND HEALTH

Cigarette smoking is the largest cause of preventable morbidity and mortality in Maryland. Cigarettes and other tobacco products contain varying levels of nicotine. Nicotine is highly addictive, making it difficult for people to quit using the product. In addition to nicotine, cigarette smoke can contain over 7,000 toxicants in both inhaled and secondhand smoke; the more tobacco products used over a life-time, the higher a smoker's risk for severe adverse health effects.<sup>10,11</sup>

Smoking causes more deaths in Maryland than homicide, suicide, HIV/AIDS, drug-induced deaths, and accidents combined. It is predicted that 7,500 deaths will be caused by cigarette smoking annually.<sup>12</sup> In 2016, homicide, suicide, HIV/AIDS related deaths, drug-induced deaths, and accidents accounted for 5,092 total deaths in Maryland.<sup>13</sup>



There are chronic and acute health consequences associated with use of cigarettes and exposure to the toxicants in cigarette smoke. The toxicants inhaled from these products can lead to long-term adverse health events like lung and bronchus cancer, which is the leading cause of cancer death in Maryland for both men and women.<sup>14</sup> Cigarette use is responsible for 87 percent

<sup>10</sup> US Department of Health and Human Services. (2010). "How tobacco smoke causes disease: The biology and behavioral basis for smoking-attributable disease: A report of the Surgeon General." US Department of Health and Human Services, Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 7 February 2018 at <http://ncbi.nlm.nih.gov/books/NBK53018/>.

<sup>11</sup> Id, fn 1

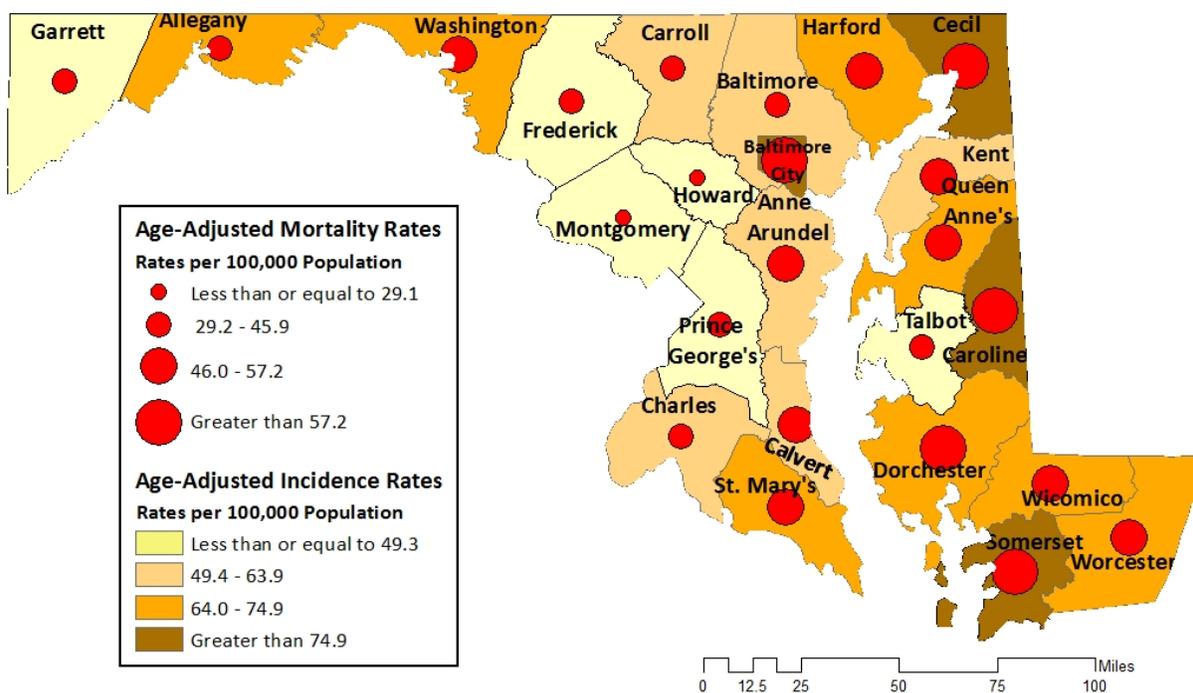
<sup>12</sup> Id, fn 2

<sup>13</sup> Vital Statistics Administration. "Maryland Vital Statistics Annual Report 2016." Maryland Department of Health. Accessed 7 February 2018 at <http://health.maryland.gov/vsa/Pages/reports.aspx>.

<sup>14</sup> Centers for Disease Control and Prevention, National Center for Health Statistics. "Compressed Mortality File 2014 on CDC WONDER Online Database, released December 2017." Data are from the Compressed Mortality File 2014 Series 20 No. 2V, 2017, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed 28 February 2018 at <http://wonder.cdc.gov/cmfi-icd10.html>.

of all lung cancer deaths in the US.<sup>15</sup> The incidence of lung cancer and mortality associated with lung cancer could be significantly reduced with a major reduction of tobacco use in Maryland. Figure 2 shows incidence rates of lung cancer and lung cancer mortality in Maryland by jurisdiction, averaged over the years 2010-2014. Somerset County had the highest incidence and mortality rate of lung cancer in Maryland (96.7 and 76.5 per 100,000 population respectively) and had higher prevalence of adult tobacco use (24.1 percent in 2014 and 24.2 percent in 2016). Montgomery County had the lowest lung cancer incidence and mortality rate among Maryland jurisdictions (32.7 and 24.7 per 100,000 population respectively), and one of the lowest prevalence rates of adult tobacco use (10.3 percent in 2014 and 8.4 percent in 2016).

Figure 2  
**Maryland Lung and Bronchus Cancer Incidence and Mortality Rates By Jurisdiction**  
 2010-2014



Data from SEER\*STAT Static Data Maryland Cancer Registry and NCHS Compressed Mortality File in CDC WONDER, 2010-2014

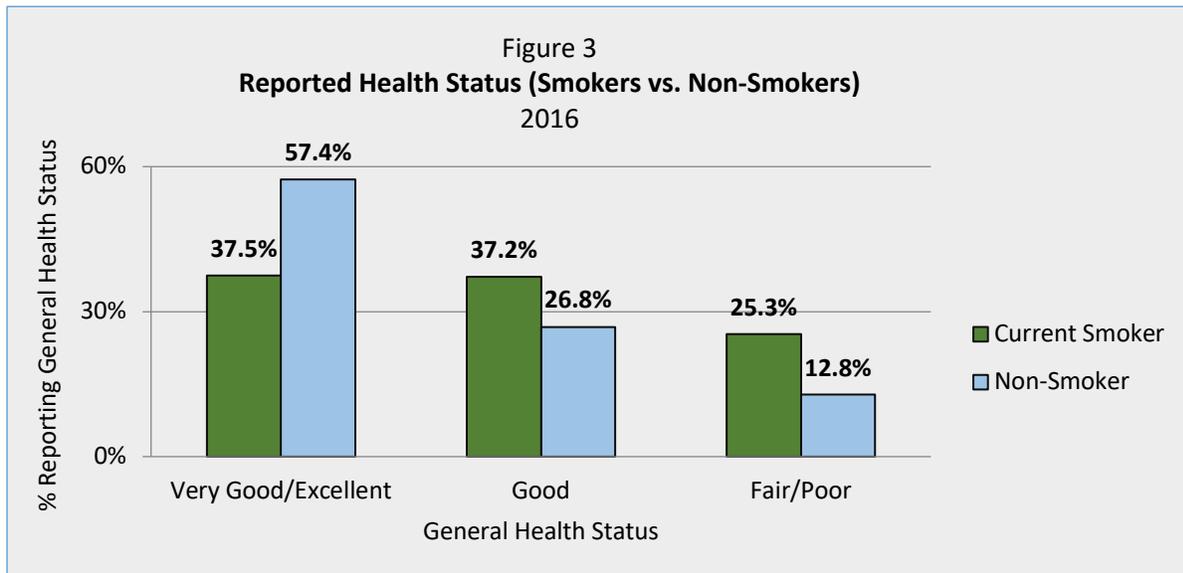
Moreover, smoking causes other chronic health effects that affect many major organs in the respiratory and cardiovascular systems.<sup>16</sup> Cigarette use is associated with the onset of coronary artery disease, which is the leading cause of death in the US.<sup>17</sup> Decreased lung function is highly prevalent in youth and adults that smoke cigarettes.<sup>18</sup> The relative risk of dying from lung cancer for men between the ages of 55 to 64 is 19.0 times greater for smokers than non-

<sup>15</sup> Id, fn 1  
<sup>16</sup> Id, fn 12  
<sup>17</sup> US Department of Health and Human Services. (2004). “The Health Consequences of Smoking: A Report of the Surgeon General.” US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 7 February 2018 at <<https://www.ncbi.nlm.nih.gov/books/NBK44695/>>.  
<sup>18</sup> Id

smokers and more than 4.0 times greater for current smokers than former smokers. Although women have significantly lower smoking rates in the US, their relative risk of dying from lung cancer is comparable to men (18.9 for women and 19.0 for men).<sup>19</sup>

In addition to increased prevalence of chronic adverse health effects, cigarette smokers usually report a suboptimal health status compared to non-smokers.<sup>20</sup> Figure 3 details the reported health status among smokers and non-smokers in Maryland. In 2016, 57.4 percent of all non-smokers reported a ‘very good/excellent’ health status and only 12.8 percent reported a ‘fair/poor’ health status. In comparison, only 37.5 percent of smokers reported a ‘very good/excellent’ health status, and 26.8 percent reported having a ‘fair/poor’ health status. Smoking weakens the health of cigarette users by increasing oxidative stress which damages DNA, proteins, and lipids of the body.<sup>21</sup> These effects lead to increased morbidity and mortality.

**Every adult who dies prematurely from smoking is replaced by two new, young smokers, one of whom will also die prematurely from smoking.**



Other tobacco product users also suffer adverse health effects. Combustible tobacco products other than cigarettes are associated with many of the same chronic and acute diseases that are caused by cigarette smoking. Most combustible products contain the same toxicants found in cigarette smoke, though sometimes to a lesser degree.<sup>22</sup> Smokeless tobacco is associated

<sup>19</sup> Id, fn 1

<sup>20</sup> Institute of Medicine. (2015). “Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products.” The National Academies Press. Accessed 7 February 2018 at <https://www.ncbi.nlm.nih.gov/books/NBK310413/>.

<sup>21</sup> Id, fn 1

<sup>22</sup> US Department of Health and Human Services. (1984). “The Health Consequences of Smoking: Chronic Obstructive Lung Disease: A Report of the Surgeon General.” US Department of Health and Human Services,

with an increased risk in oral cancer and other related diseases.<sup>23</sup> Although long-term health effects of Electronic Smoking Devices (ESDs) are not yet known, there are acute adverse health effects associated with them. ESDs can contain the same chemicals that are present in cigarette smoke, including nicotine and other carcinogens (for example: acetaldehyde, formaldehyde, and acrolein).<sup>24</sup> Frequent use of ESDs may also lead to nicotine toxicity which can increase blood pressure, heart rate, and nicotine dependence.<sup>25</sup>

Exposure to secondhand smoke affects individuals across the life span from fetal development through adulthood. Nicotine can travel across the placenta of a pregnant woman when the mother is smoking or is exposed to cigarette smoke.<sup>26</sup> Exposure to secondhand smoke is associated with spontaneous abortion, sudden infant death syndrome (SIDS), and delayed behavioral, physical, and cognitive development during childhood.<sup>27</sup> Individuals who are exposed to secondhand smoke are at risk for some of the same diseases and diminished health status as smokers or tobacco users.<sup>28</sup> Secondhand smoke exposure increases respiratory illnesses in those who are exposed, and increases the risk of developing lung cancer and cardiovascular disease in the future.<sup>29</sup>

Though the number of Maryland adults who use tobacco and who suffer from cancers and disease caused by cigarette smoking has decreased, medical expenditures to treat these conditions have continued to grow due to increased medical costs per case. The cost of medical treatment for tobacco-related diseases was estimated at \$1.4 billion in 2000. The most recent data (2014) estimated that medical treatment costs have nearly doubled to \$2.71 billion.<sup>30</sup>

## Chapter Conclusions:

1. Nearly 87 percent of lung cancers are attributed to cigarette smoke, and lung cancer is the leading cause of cancer deaths for both women and men in Maryland.
2. Approximately 7,500 deaths are associated with cigarette smoking in Maryland each year.

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Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 7 February 2018 at <<https://profiles.nlm.nih.gov/ps/access/NNBBBBF.pdf>>.

<sup>23</sup> Id

<sup>24</sup> US Department of Health and Human Services. (2016). “E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General.” US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 7 February 2018 at <<https://www.surgeongeneral.gov/library/2016ecigarettes/index.html>>.

<sup>25</sup> Id

<sup>26</sup> US Department of Health and Human Services. (2001). “Women and Smoking: A Report of the Surgeon General.” US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 7 February 2018 at <<https://www.ncbi.nlm.nih.gov/books/NBK44303/>>.

<sup>27</sup> US Department of Health and Human Services. (2006). “The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General.” US Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 7 February 2018 at <<http://www.surgeongeneral.gov/library/reports/secondhandsmoke/fullreport.pdf>>.

<sup>28</sup> Id

<sup>29</sup> Id, fn 29

<sup>30</sup> Id, fn 2

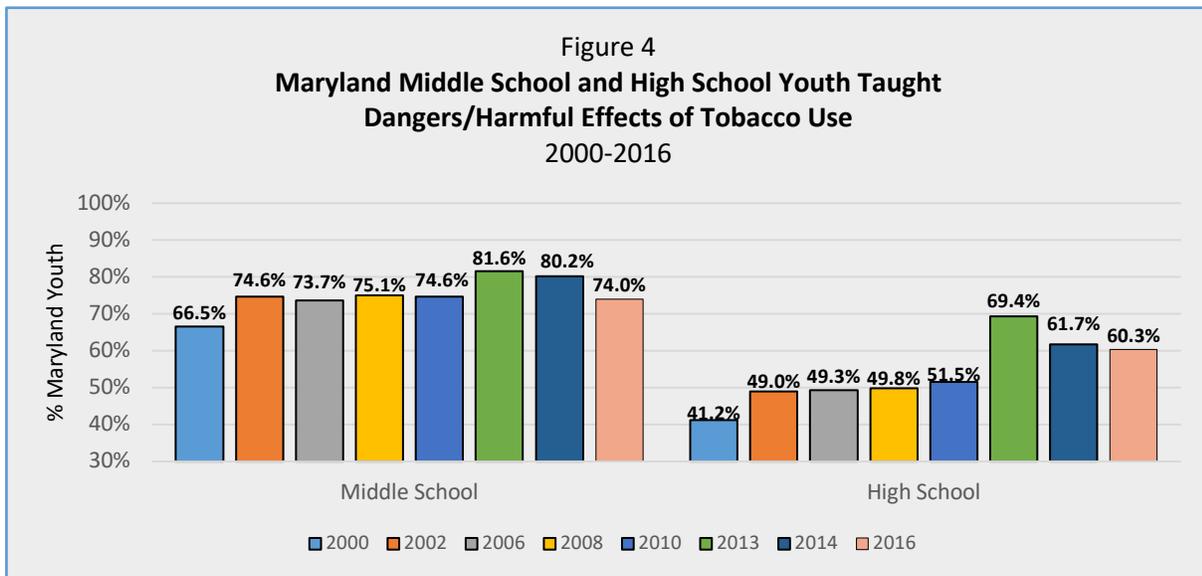
3. Smokers report having a suboptimal health status compared to non-smokers.
4. Adults and youth exposed to secondhand smoke are at a higher risk of respiratory illness, cardiovascular disease, and cancer than those who have not been exposed.
5. Maryland spends an estimated \$2.71 billion in medical costs related to cigarette smoking annually.

# ATTITUDES AND BELIEFS TOWARD TOBACCO USE

## Maryland Middle School and High School Youth

CDC has concluded that school-based tobacco prevention curricula are only one element of an effective youth tobacco prevention strategy. Strategies must be comprehensive and include not only school-based curricula, but corresponding mass reach media and social media messaging that is coordinated with local and Statewide prevention strategies. Strategies should also include youth access enforcement and retailer education, and ongoing surveillance of changing tobacco behaviors.<sup>31</sup>

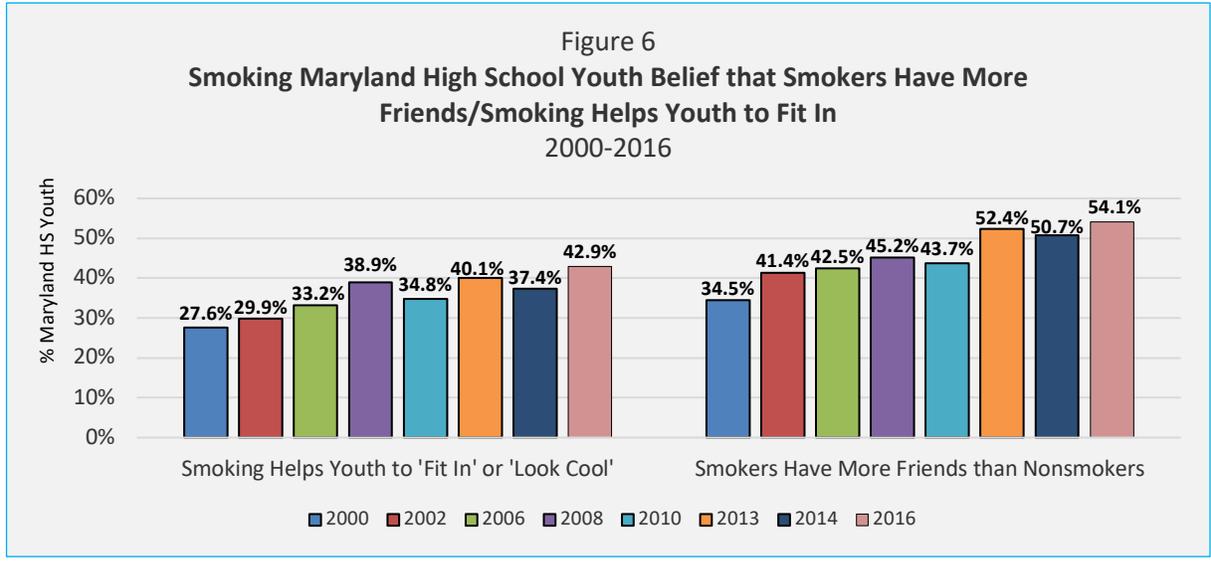
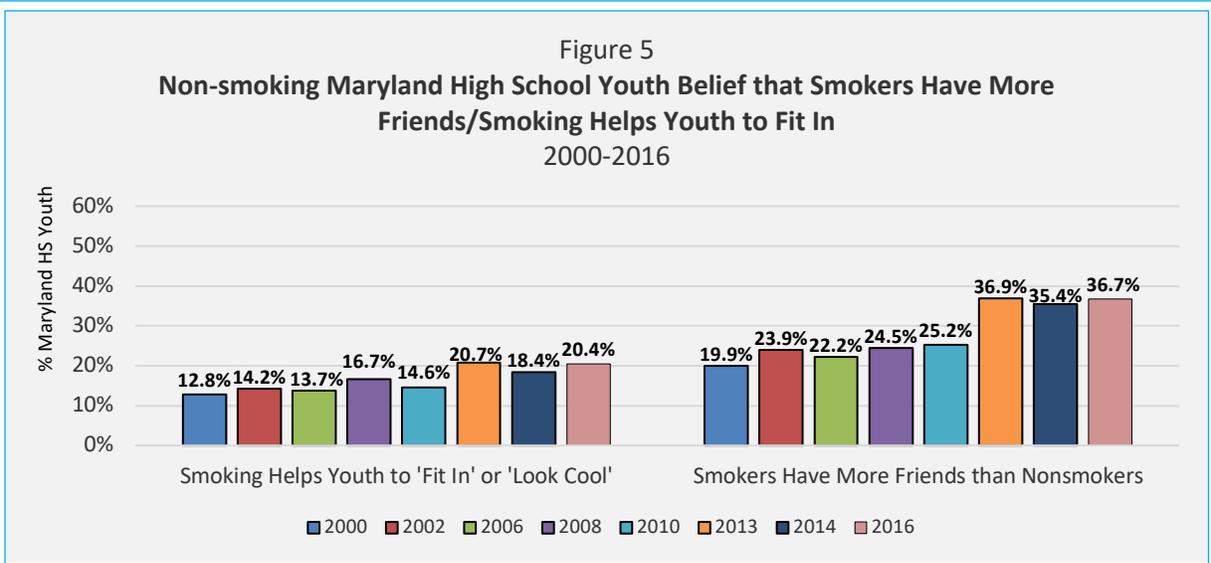
In Maryland, the number of middle school and high school youth taught tobacco prevention curricula increased steadily from 2000 to 2010. The overall increase for that period was 22.7 percent for middle school and 68.4 percent for high school. The 2013 school year was a high point for use of tobacco prevention curricula. However, since then, the number of youth taught tobacco prevention curricula fell 9.3 percent for middle school and 13.1 percent for high school. Figure 4 shows the percentage of students in Maryland that received tobacco prevention education from 2000-2016, as determined from the YRBS/YTS. Although middle school students receive more tobacco prevention education in school when compared to high school students, there was a significant decrease in middle school exposure to tobacco prevention curricula from 81.6 percent in 2013 to 74.0 percent in 2016; likewise, high school students' exposure to tobacco prevention curricula dropped significantly from 69.4 percent in 2013 to 60.3 percent in 2016.



Figures 5 and 6 show that an increasing percentage of high school youth believe that smokers have more friends than non-smokers, and that smoking helps youth to ‘fit in’ or ‘look cool’. Among non-smoking youth, the belief that smokers ‘fit in’ better or look ‘more cool’ than non-smokers has increased by 59.4 percent since 2000, and by 55.4 percent among youth smokers. Similar trends are reflected in beliefs that smokers have more friends than non-smokers

<sup>31</sup> Id, fn 1

– an increase since 2000 of 84.4 percent among non-smokers and 56.8 percent among smokers. The increase in these attitudes highlights the need for broadly accessible, sustained tobacco prevention education, coupled with enforcement of youth access policies, access to media, and other prevention program components outlined by CDC.<sup>32</sup>



The largest increases in these beliefs appear after the 2010 survey year and could be linked with the rising popularity of non-combustible products such as ESDs. These products are prominently promoted online in advertisements and social media, in magazines, and on television.

**In 2016, 42.9 percent of high school youth believed that smoking helps to make you 'fit in' or 'look cool'.**

<sup>32</sup> Id, fn 1

## **Chapter Conclusions:**

1. The recent decreased exposure to tobacco use prevention curricula coincides with an increase in more favorable attitudes towards tobacco use among both smoking and non-smoking youth.
2. Perceptions of those who smoke are increasingly favorable among high school students as exposure to tobacco education curricula decreases, and new tobacco products, such as ESDs, become more popular.

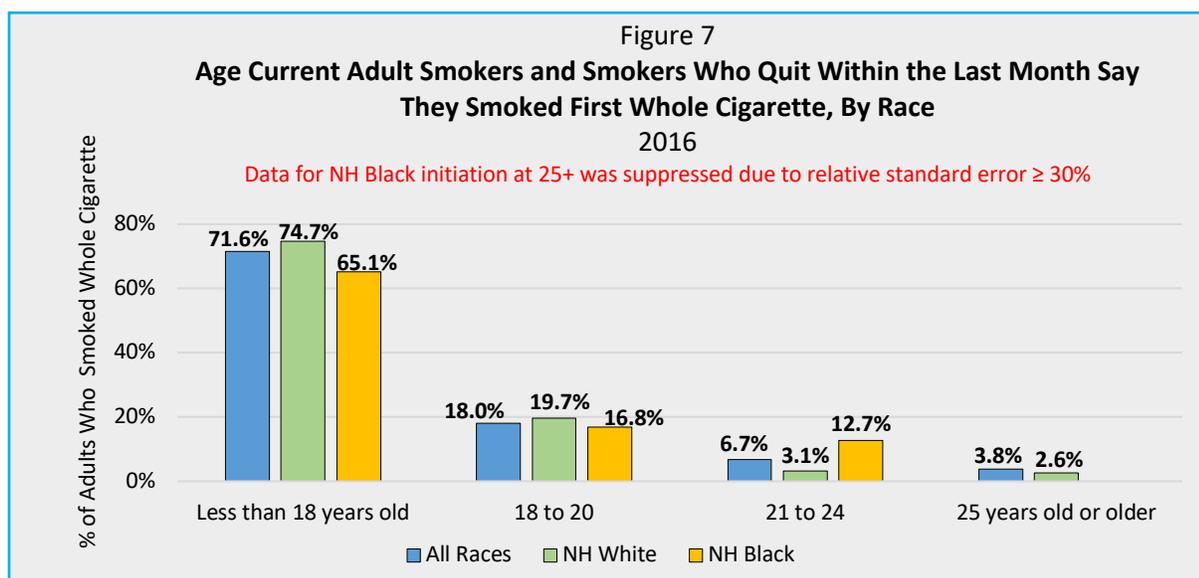
## INITIATION OF TOBACCO USE

In 2012, the US Surgeon General declared tobacco use a “pediatric epidemic,” concluding, “...given their developmental stage, youth and young adults are uniquely susceptible to social and environmental influences to use tobacco.”<sup>33</sup> The evidence in Maryland supports the conclusion that tobacco use and nicotine addiction has its roots in adolescence and young adulthood.

Maryland 2016 BRFSS data show that the initiation of tobacco use begins predominately among youth and young adults. The percentage of Maryland adults that report using tobacco for the first time during the previous 12 months of the 2016 BRFSS is low (0.6 percent). In comparison, 7.7 percent of public high school youth reported using tobacco for the first time during the 12 months prior to responding to the 2016 YRBS/YTS, as did 4.1 percent of public middle school students. Among adult cigarette smokers, almost 90 percent reported that they smoked their first whole cigarette before the age of 21 (71.6 percent before 18 years of age and 18.0 percent between the ages of 19 and 20).

**In Maryland, roughly one-half of those who try cigarette smoking, including those who just take a puff or two, become regular cigarette smokers.**

The age at which adults report smoking their first whole cigarette, by race, is detailed in Figure 7. Non-Hispanic (NH) Black adults initiate smoking at a later age overall compared to NH White adults, which is consistent with evidence of lower rates of cigarette smoking among



<sup>33</sup> US Department of Health and Human Services. (2012). “Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General.” US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed 17 February 2018 at <<https://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/index.html>>.

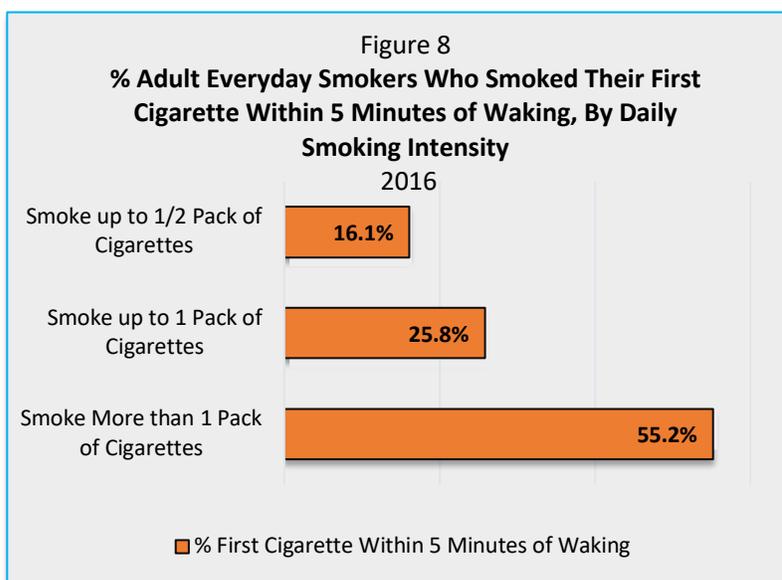
Maryland public high school NH Black youth compared to NH White youth. The difference between male and female age of initiation patterns is not statistically significant.

## Progression to Nicotine Dependence – First Whole Cigarette to Everyday Smoking

Unlike US Food and Drug Administration (FDA)-approved smoking cessation aids, which are designed and manufactured to *minimize* the risk of nicotine addiction, “Cigarettes have been researched, designed, and manufactured to *increase* the likelihood that initiation will lead to dependence and difficulty achieving cessation.”<sup>34</sup> Several Surgeon General’s Reports focusing on tobacco use have been issued over the past 50 years, concluding that tobacco use and secondhand smoke are detrimental to not only the user, but also those around them. Initiating and using tobacco is particularly dangerous to youth and young adults. The 2012 Surgeon General’s Report provides strong evidence that “Young people are sensitive to nicotine. The younger they are when they start using tobacco, the more likely they are to become addicted to nicotine and the more heavily addicted they will become.”<sup>35</sup> Nicotine dependence causes more damage to youth and youth brains than adult brains.<sup>36</sup>

The 2010 Surgeon General’s Report states: “Although not all smokers become nicotine dependent, the prevalence of individuals diagnosed as nicotine dependent is higher than any other substance abuse disorder.”<sup>37</sup> “Nicotine addiction is the fundamental reason that individuals persist in using tobacco products, and this persistent tobacco use contributes to [tobacco-caused cancers and disease]...”<sup>38</sup>

According to the 2012 Surgeon General’s Report, an estimated 80 percent of high school smokers will smoke into adulthood and one-half of those who continue smoking will die about 13 years sooner than their peers who do not smoke.<sup>39</sup> In Fall 2016, almost 50,000 Maryland public high school students were using tobacco. Applying the estimates outlined in the Surgeon General’s Report, this means that 40,000 of those will likely continue using tobacco into adulthood, with 20,000 dying 13 years prematurely due to their use of tobacco.



<sup>34</sup> Id, fn 1

<sup>35</sup> Id, fn 35

<sup>36</sup> Id, fn 26

<sup>37</sup> Id, fn 12

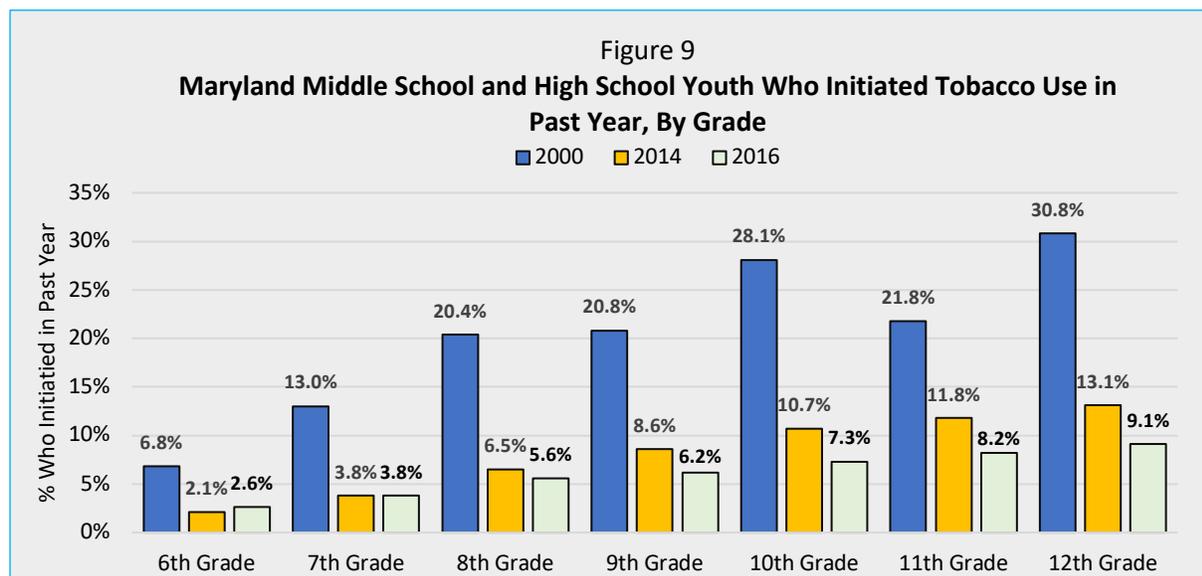
<sup>38</sup> Id

<sup>39</sup> Id, fn 35

The health risks of tobacco use are dose-dependent, so the frequency, intensity, and duration of tobacco use are important factors.<sup>40</sup> The amount of time after waking until smoking the first cigarette appears to be the most highly correlated factor with the degree of nicotine addiction, which is an important indicator to assess health risks and efforts to quit smoking.<sup>41</sup> Figure 8 displays the correlation between the number of cigarettes smoked each day and the proportion of adult smokers with the highest degree of nicotine addiction, who usually have their first cigarette of the day within five minutes of waking. Among everyday smokers who smoke up to one-half a pack of cigarettes a day, 16.1 percent smoke their first cigarette of the day within five minutes of waking. In contrast, among those who smoke more than one pack of cigarettes per day, 55.2 percent smoke their first cigarette within five minutes of waking.

## Prevention Efforts

The 2012 Surgeon General's Report concluded that 99.0 percent of smokers began smoking before the age of 26. If youth and young adults do not initiate smoking, very few people would ever start to smoke.<sup>42</sup> Maryland is moving in the right direction and has had success with tobacco use prevention efforts directed at youth and young adults. Past 12-month initiation of cigarette smoking among all public middle and high school youth has decreased significantly since 2000 at every grade level (Figure 9). At the same time, the proportion of Maryland adults who report that they were *never* a cigarette smoker continues to increase. In 2011, 58.3 percent of adults were never smokers, increasing to 62.8 percent by 2016.

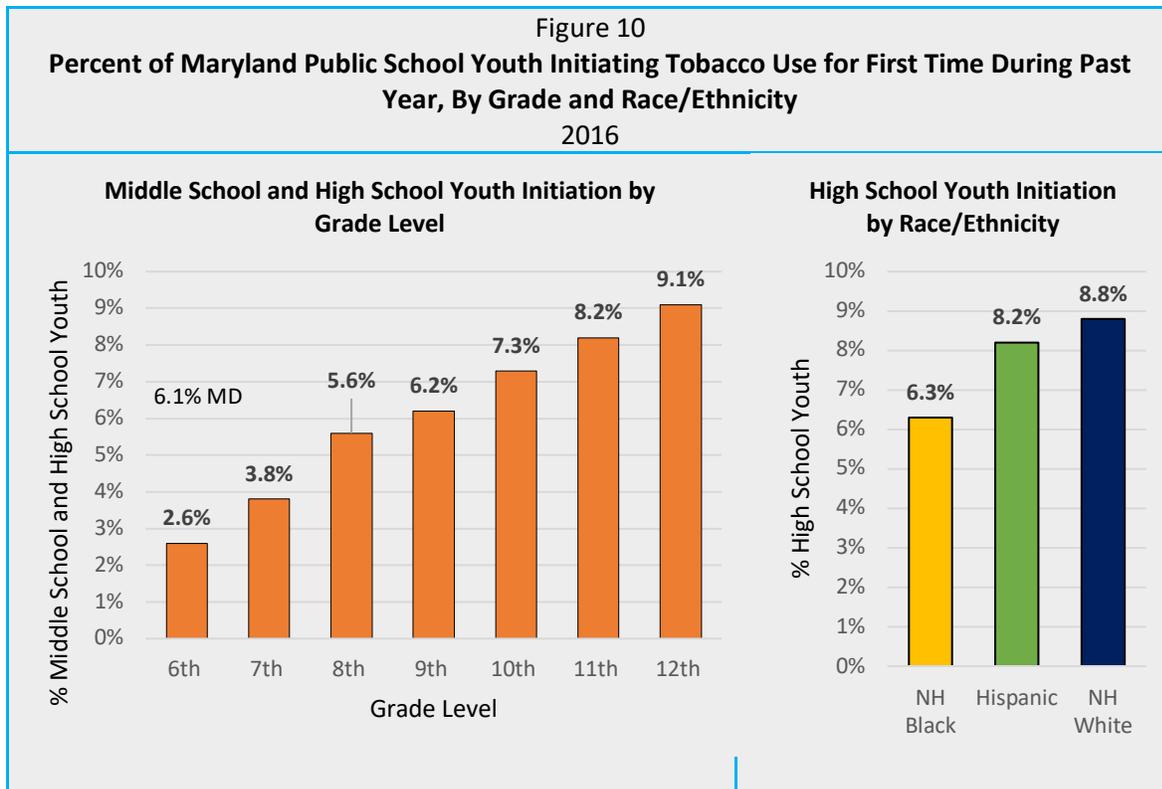


<sup>40</sup> Fagan, P., & Rigotti, N. A. (2009). "Light and intermittent smoking: the road less traveled." *Nicotine & Tobacco Research*, 11(2), 107-110. Accessed 28 February 2018 at <<https://academic.oup.com/ntr/article/11/2/107/1053307>>.

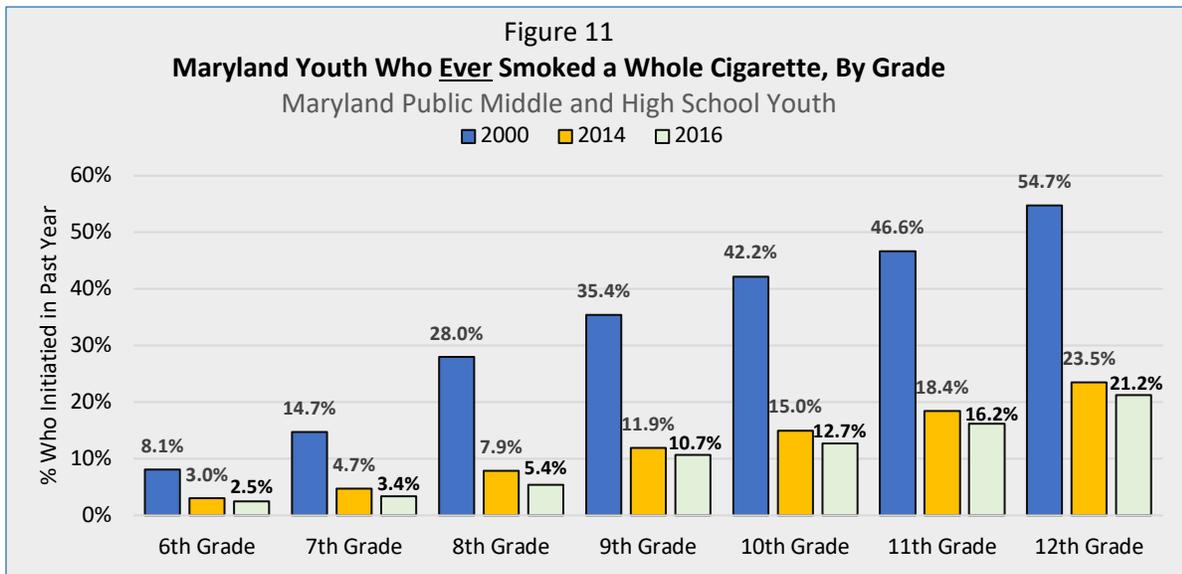
<sup>41</sup> Baker, T. B., et al. (2007). "Time to first cigarette in the morning as an index of ability to quit smoking: implications for nicotine dependence." *Nicotine & Tobacco Research*, 9(Suppl 4), S555-S570. Accessed 28 February 2018 at <[https://academic.oup.com/ntr/article/9/Suppl\\_4/S555/1075939](https://academic.oup.com/ntr/article/9/Suppl_4/S555/1075939)>.

<sup>42</sup> Id, fn 35

There are no statistically significant differences in initiation by gender in either high school or middle school. Rates of initiation increase by grade and age and NH White youth have higher rates of initiation as compared to Hispanic and NH Black youth, as shown in Figure 10.



Another measure for the initiation of youth smoking is the change over time in the proportion of youth who have ever smoked a whole cigarette. Figure 11 shows that the proportion of middle school and high school youth who have ever smoked a whole cigarette has declined significantly since 2000, yet the rate still increases by grade. Youth who smoke a whole cigarette have a higher likelihood of becoming a regular smoker compared to those who participate in more casual experimentation by taking a puff of a friend’s cigarette.



Notwithstanding the reduction, 7.7 percent (almost 70,000) of Maryland high school youth used tobacco for the first time during the 12 months prior to the Fall 2016 survey. This measure includes youth who experimented with tobacco as well as those who became regular tobacco users.

## Chapter Conclusions:

1. In 2016, almost 90 percent of adult Maryland smokers reported that they had smoked their first whole cigarette before 21 years of age; the vast majority of these before 18 years of age (71.6 percent) and the remainder between ages 19 and 20 (18.0 percent).
2. Because few high school smokers are able to break free from the powerful addicting effects of nicotine, about 80 percent (40,000 Maryland youth) will smoke into adulthood. Among those who persist in smoking, one-half (20,000) will die about 13 years earlier than their non-smoking peers.
3. Nicotine is highly addictive. Almost 50 percent of youth who try a cigarette, including those who just take a puff or two, become regular cigarette smokers.
4. Addiction to nicotine is dose sensitive. The more cigarettes smoked, the more likely the smoker is to become highly addicted to nicotine.
5. The proportion of Maryland youth who initiated tobacco use in the past 12 months, as well as those who ever smoked a whole cigarette, increases by grade level.
6. Prevention efforts among adults and youth have been successful; 62.8 percent of adults were never smokers, a 7.0 percent increase from 58.3 percent in 2011. Youth initiation of use of tobacco products dropped to 7.7 percent in 2016 from 23.5 percent in 2000.

## PREVALENCE OF TRADITIONAL TOBACCO PRODUCTS

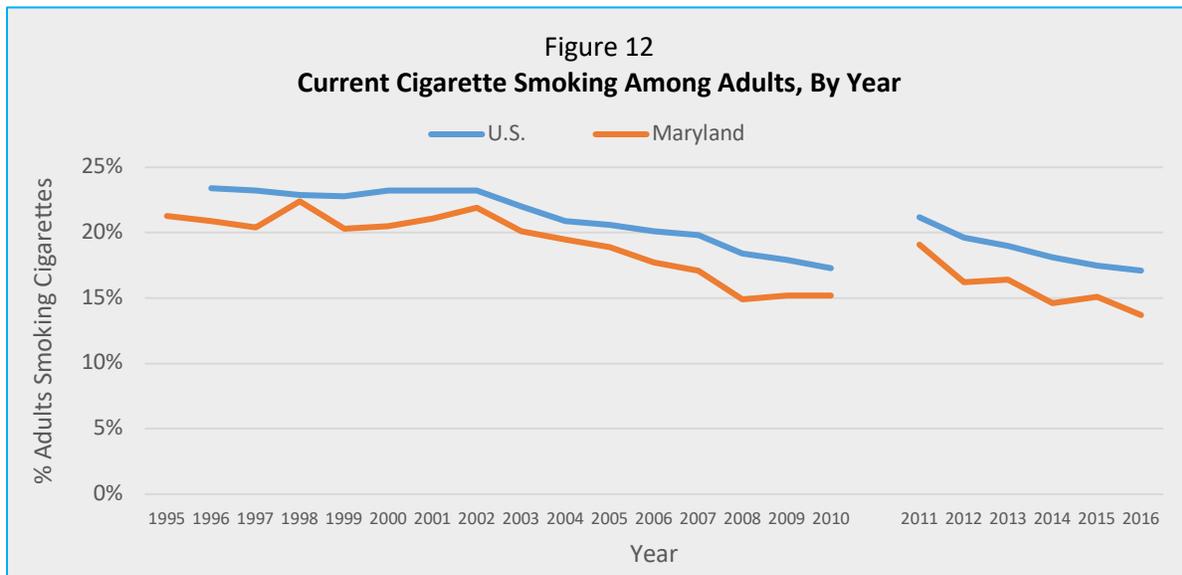
There are many categories of tobacco products used in Maryland including cigarettes, cigars, smokeless tobacco (including snuff and chew), and pipe tobacco.<sup>43</sup> Use of these products differs among youth and adults, as well as among population groups. This chapter focuses on traditional tobacco products including cigarettes, cigars, and smokeless tobacco. ESDs will be addressed in a later chapter.

An estimated 16.6 percent of Maryland adults used some form of tobacco in 2016, with cigarettes remaining the most popular products among adults. Maryland youth used some form of tobacco at a rate of 14.4 percent, with cigars and cigarillos being more popular than cigarettes. Nearly 6.0 percent of pregnant women still report being smokers, which is a decrease of 35.8 percent since 2000.

### National Comparison – Current Cigarette Smoking

#### Adults

Figure 12 shows that despite fluctuations, the rate of current cigarette smoking among adults in Maryland has remained lower than national rates. Since 2011, there has been a 28.3 percent decline in cigarette use among Maryland adults, as compared to a 26.9 percent decline nationally.

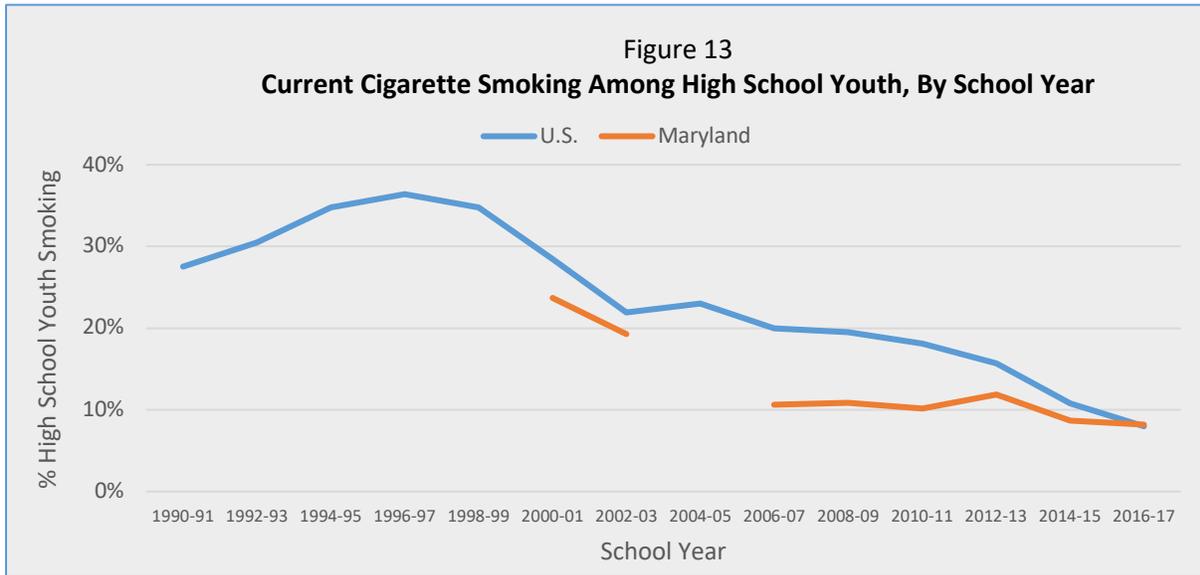


#### Youth

Maryland has consistently had a lower prevalence of cigarette smoking by high school youth than the nation as a whole (Figure 13). By the 2006-07 school year, the proportion of high

<sup>43</sup> Tobacco products are defined in Md. Ann. Code Health-General, §13-1001 (2004).

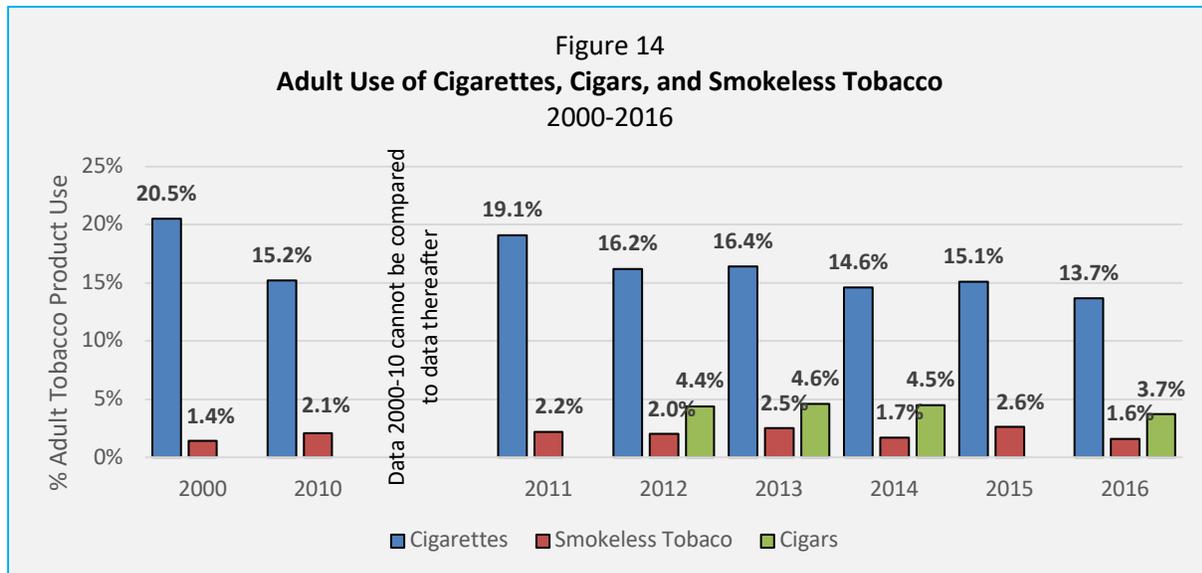
school youth smoking cigarettes in Maryland was statistically significantly lower than that observed nationally. However, Maryland’s rate of decrease has slowed since the 2006-07 school year while the national rate has continued to decrease steadily. In the 2016-17 school year, the national rate of youth smoking was 8.0 percent, slightly lower than Maryland’s youth smoking rate of 8.2 percent.



### Current Use of Tobacco Products – Adults

CDC defines ‘current’ tobacco use as the use of a tobacco product in the past 30 days. As determined in the 2016 Maryland BRFSS, 780,867 Maryland adults (16.6 percent) used some form of tobacco, including cigarettes (13.7 percent), cigars (3.7 percent), and smokeless tobacco (1.6 percent). Figure 14 shows the proportion of adults from 2000 to 2010 and 2011 to 2016 that used either cigarettes, cigars, or smokeless tobacco.<sup>44</sup> Maryland has seen a 30 percent decline in adult cigarette use since 2011. Adult cigar and smokeless tobacco use declined during this period as well; however, not by a significant proportion.

<sup>44</sup> Data on smokeless tobacco was not collected in the BRFSS from 2001 to 2008, and data on cigars was not collected until 2012. Therefore, the BRFSS data for these years was supplemented with the 2000-2010 Maryland Adult Tobacco Survey (MATS) to collect data for smokeless tobacco and cigars.



### Adult Use of Combustible Tobacco Products

In July 2017, FDA announced a new plan to regulate nicotine levels in combustible tobacco products.<sup>45</sup> Combustible tobacco products include tobacco that is intended to be smoked, such as, cigarettes, cigars, cigarillos, little cigars, or pipe tobacco.<sup>46,47</sup> Combustible tobacco products usually have high levels of nicotine and toxicants when compared to smokeless tobacco.<sup>48</sup> FDA is seeking to lower cigarette nicotine levels to non-addictive levels; however, FDA does not plan to announce regulation of cigar or other product nicotine levels until 2021.<sup>49</sup> Overall use of combustible products among Maryland adults has decreased from 2012 to 2016 (from 18.0 percent to 15.0 percent) as seen in Figure 15.

<sup>45</sup> US Food and Drug Administration. (2017). “FDA announces comprehensive regulatory plan to shift trajectory of tobacco-related disease, death.” Press Release, July, 28, 2017. Accessed 28 February 2018 at <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm568923.htm>.

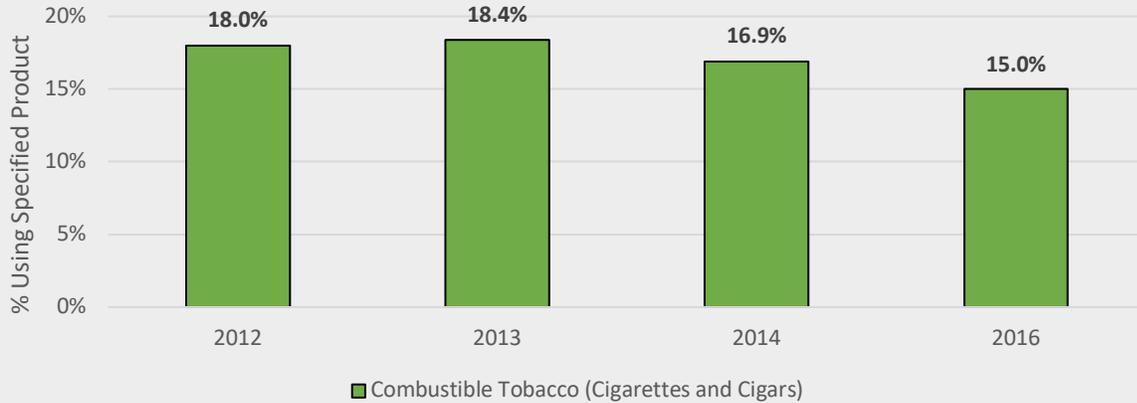
<sup>46</sup> A cigarillo is a cigar about the size of a cigarette and includes a filter. A little cigar is also the same size as a cigarette but usually does not include a filter.

<sup>47</sup> Phillips E, Wang TW, Husten CG, et al. (2017). “Tobacco Product Use Among Adults — United States, 2015.” MMWR Morbidity and Mortality Weekly Report, 66(44), 1209. Accessed 28 February 2018 at <http://dx.doi.org/10.15585/mmwr.mm6644a2>.

<sup>48</sup> Id

<sup>49</sup> Id, fn 49

Figure 15  
**Adult Tobacco Combustible Product Use, Cigarettes and Cigars**  
 2012-2016



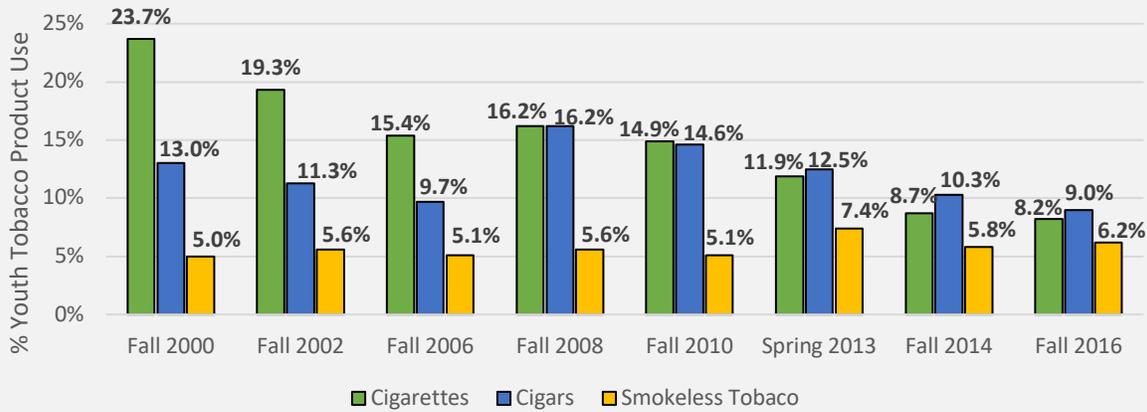
### Current Use of Tobacco Products – Youth

In 2016, 14.4 percent of youth used a tobacco product, translating to 35,448 youth tobacco users in Maryland. Unlike adults, youth were more likely to use cigars or cigarillos (9.0 percent), followed by cigarettes (8.2 percent), and smokeless tobacco (6.2 percent).<sup>50</sup> Figure 16 details youth tobacco product preferences, showing youth cigarette use decreasing by 65 percent since 2000 (23.7 percent in 2000 to 8.2 percent in 2016). Cigar use and smokeless tobacco use have not followed the same downward trajectory. There was a shift from cigarettes to cigars and cigarillos in 2008-2010, and, while cigar use declined from 2013 to 2016, it is decreasing at a slower rate than youth cigarette use. Smokeless tobacco use remained relatively constant until 2013, and then increased slightly.

**Tobacco use among youth has changed dramatically in the last 16 years, shifting from cigarettes to other tobacco products and ESDs.**

<sup>50</sup> Maryland’s definition of tobacco in Md. Ann. Code Health-General, §13-1001 (2004) does not include ESDs.

Figure 16  
**High School Youth Use of Cigarettes, Cigars, and Smokeless Tobacco**  
 2000-2016

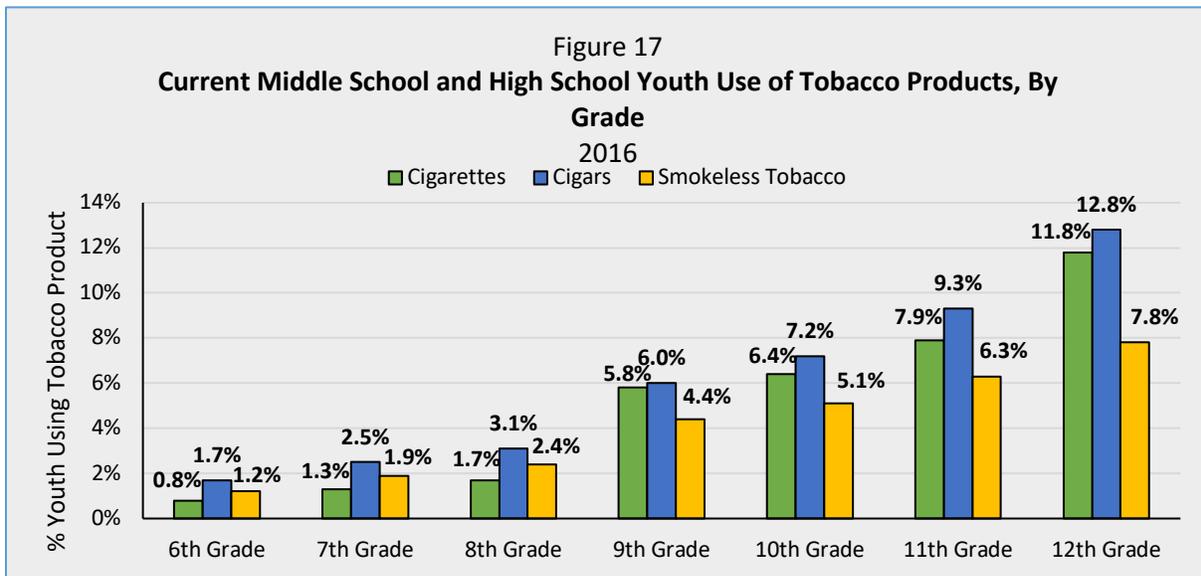


Youth preference for cigars and cigarillos could be due to a variety of factors, including the availability of flavored and inexpensive options that appeal to youth. FDA currently only regulates flavoring options for cigarettes, which creates an appeal for other tobacco products like cigars, cigarillos, and smokeless tobacco that have more flavor options.<sup>51</sup> Menthol is the only cigarette flavor permitted by FDA. Because cigars can contain candy, fruit, or other flavors, such as grape, cotton candy, or chocolate, youth may be led to think that cigars are a ‘healthier’ and ‘less addictive’ choice compared to cigarettes; however, cigars can be just as addictive and toxic as cigarettes, especially among youth. In 2016, over half of all youth tobacco users used flavored tobacco products other than menthol.

The shift to youth preference for cigars in 2008 also coincides with an increased tax on cigarettes from \$1 per pack to \$2 per pack. The excise tax on non-premium cigars and cigarillos and smokeless tobacco products did not increase until 2012, at which time, the tax on non-premium cigars and cigarillos increased from 15 percent to 70 percent of wholesale price, and the smokeless tobacco excise tax increased from 15 percent to 30 percent of wholesale price (roughly equivalent to the \$2 tax per pack on cigarettes). Non-premium cigars and cigarillos are still typically less expensive than cigarettes.

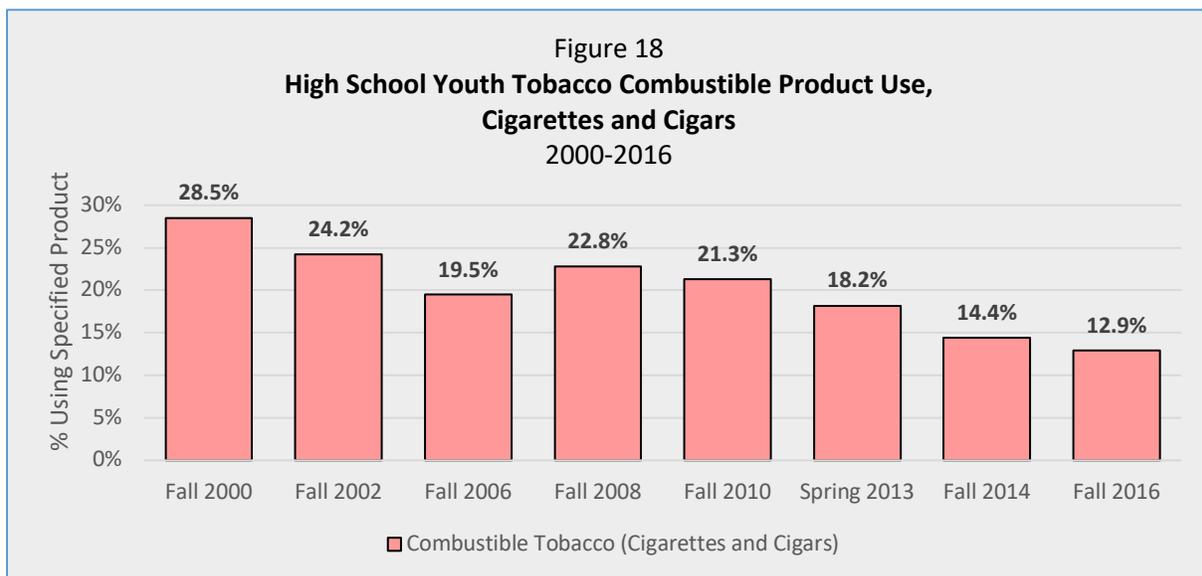
In the 2016 YRBS/YTS, middle school and high school students were asked about current use of cigarettes, cigars, and smokeless tobacco. There is an increasing linear relationship between tobacco use and grade level: the higher the grade, the more students use tobacco products. Figure 17 shows the increasing use of cigarettes, cigars, and smokeless tobacco by grade level. Cigars are consistently used more than cigarettes and smokeless tobacco at each grade level.

<sup>51</sup> Id, fn 35



### High School Youth Use of Combustible Tobacco Products

Figure 18 shows a significant drop in overall youth combustible tobacco use from 2000 to 2016 (28.5 percent to 12.9 percent, respectively). As mentioned previously, FDA is seeking to regulate nicotine levels in cigarettes to non-addictive levels in the coming years. Regulation of nicotine levels among *all* combustible products, including cigars and cigarillos, would be necessary to reduce nicotine dependence among youth.



## High School Youth Cigarette Smoking and Other Risk Behaviors

Cigarette smoking and tobacco use are highly associated with other risk behaviors, such as initiation of use of other substances including alcohol, marijuana, injection drugs, and opioids including prescription drugs and heroin.<sup>52</sup>

**Table 10. Relative Risk of Alcohol, Marijuana, and Other Drug Use among Youth, by Smoking Status, 2016 YRBS/YTS**

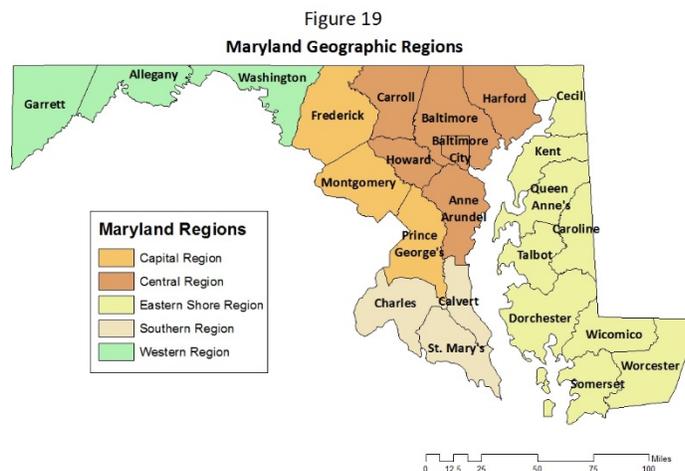
| <b>Smoking Status</b>   | <b>Currently Drinks Alcohol</b> | <b>Currently Uses Marijuana</b> | <b>Ever Abused Prescription Drugs</b> | <b>Ever Injection Drug Use</b> | <b>Ever Heroin Use</b> |
|---|---------------------------------|---------------------------------|---------------------------------------|--------------------------------|------------------------|
| Cigarette Smoker  | 73.1%                           | 66.5%                           | 51.8%                                 | 23.9%                          | 29.6%                  |
| Non-Smoker  | 22.4%                           | 14.9%                           | 10.4%                                 | 2.2%                           | 2.0%                   |
| <b>Increased Likelihood of Engaging in Other Risk Behaviors</b> | <b>3.3x</b>                     | <b>4.5x</b>                     | <b>5.0x</b>                           | <b>10.9x</b>                   | <b>14.8x</b>           |

Youth who smoke cigarettes are 3.3 times more likely to also drink alcohol, 4.5 times more likely to use marijuana, 5.0 times more likely to abuse prescription drugs, and 10.9 times more likely to inject illegal drugs. Youth who are cigarette smokers are also 14.8 times more likely to have ever used heroin than non-smokers.

Like many other states, Maryland is experiencing an opioid crisis. There is a clear correlation between opioid use and youth cigarette use. Interventions for youth tobacco use, opioid use, and use of the other substances listed in Table 10 should be offered simultaneously to help youth on their path of overall recovery from addictive substances and related adverse effects.

## Types of Tobacco Products Used By Region

The 2016 BRFSS and 2016 YRBS/YTS data show a clear disparity in tobacco and ESD use among rural (Southern, Western, and Eastern Shore) and non-rural (Capital and Central) regions of the State. Overall, cigarette, smokeless tobacco, and ESD use is highest in rural regions for both adults and youth, as outlined in Table 11 (Maryland state regions are defined in Figure 19).



<sup>52</sup> Id, fn 35

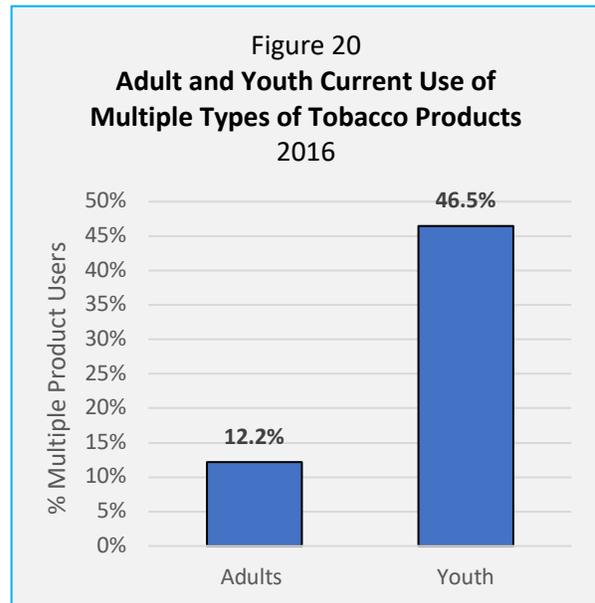
**Table 11. Tobacco Product Use By Region for High School Youth and Adults 2016**

| Regions       | Cigarettes |       | Cigars |       | Smokeless |       | ESDs  |       |
|---------------|------------|-------|--------|-------|-----------|-------|-------|-------|
|               | Youth      | Adult | Youth  | Adult | Youth     | Adult | Youth | Adult |
| Capital       | 6.2%       | 9.6%  | 6.5%   | 2.6%  | 4.5%      | 1.1%  | 9.9%  | 2.4%  |
| Central       | 8.5%       | 15.3% | 10.6%  | 4.7%  | 6.7%      | 1.4%  | 13.9% | 3.5%  |
| Eastern Shore | 12.4%      | 20.7% | 10.9%  | 3.4%  | 7.9%      | 1.9%  | 19.8% | 4.8%  |
| Southern      | 9.8%       | 14.6% | 9.1%   | 3.4%  | 7.3%      | 1.8%  | 15.5% | 3.5%  |
| Western       | 13.2%      | 17.5% | 11.3%  | 2.3%  | 11.4%     | 4.4%  | 21.8% | 4.1%  |

## Use of More Than One Tobacco Product

Almost half of youth tobacco users reported that they used more than one type of product in the last 30 days. In comparison, only 12.2 percent of adult tobacco users reported using more than one type of tobacco product. Figure 20 shows that youth tobacco users are about four times more likely to use multiple tobacco product types compared to adult tobacco users.

Concurrent use of multiple tobacco products increases the exposure to the addictive effects of nicotine and the dangers that arise from inhaling and ingesting chemicals from multiple combustible products.

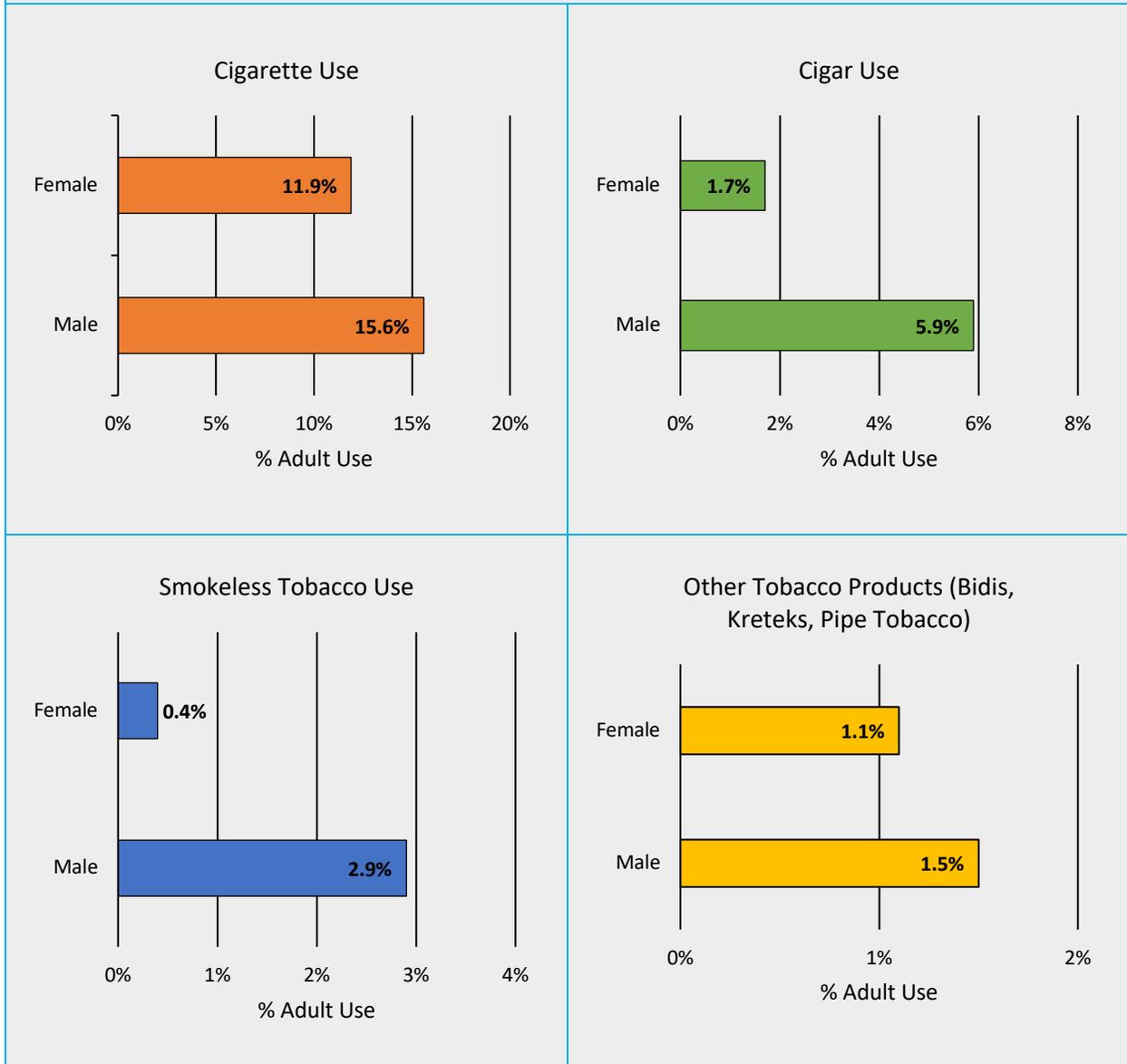


## Gender Differences in Tobacco Use

### Adults

Gender is a factor in tobacco use rates among Maryland adults. When looking at all tobacco use, 20.6 percent of males use tobacco products, whereas 12.9 percent of females use tobacco products. Males are also more likely than females to be current tobacco product users. Figure 21 shows that tobacco product use among males and females are consistently different for cigarettes, cigars, smokeless tobacco, and other tobacco products. There is a sizeable gap by gender in cigar and smokeless tobacco use, where males are 3.5 times more likely to use cigars and over 7.0 times more likely to use smokeless tobacco.

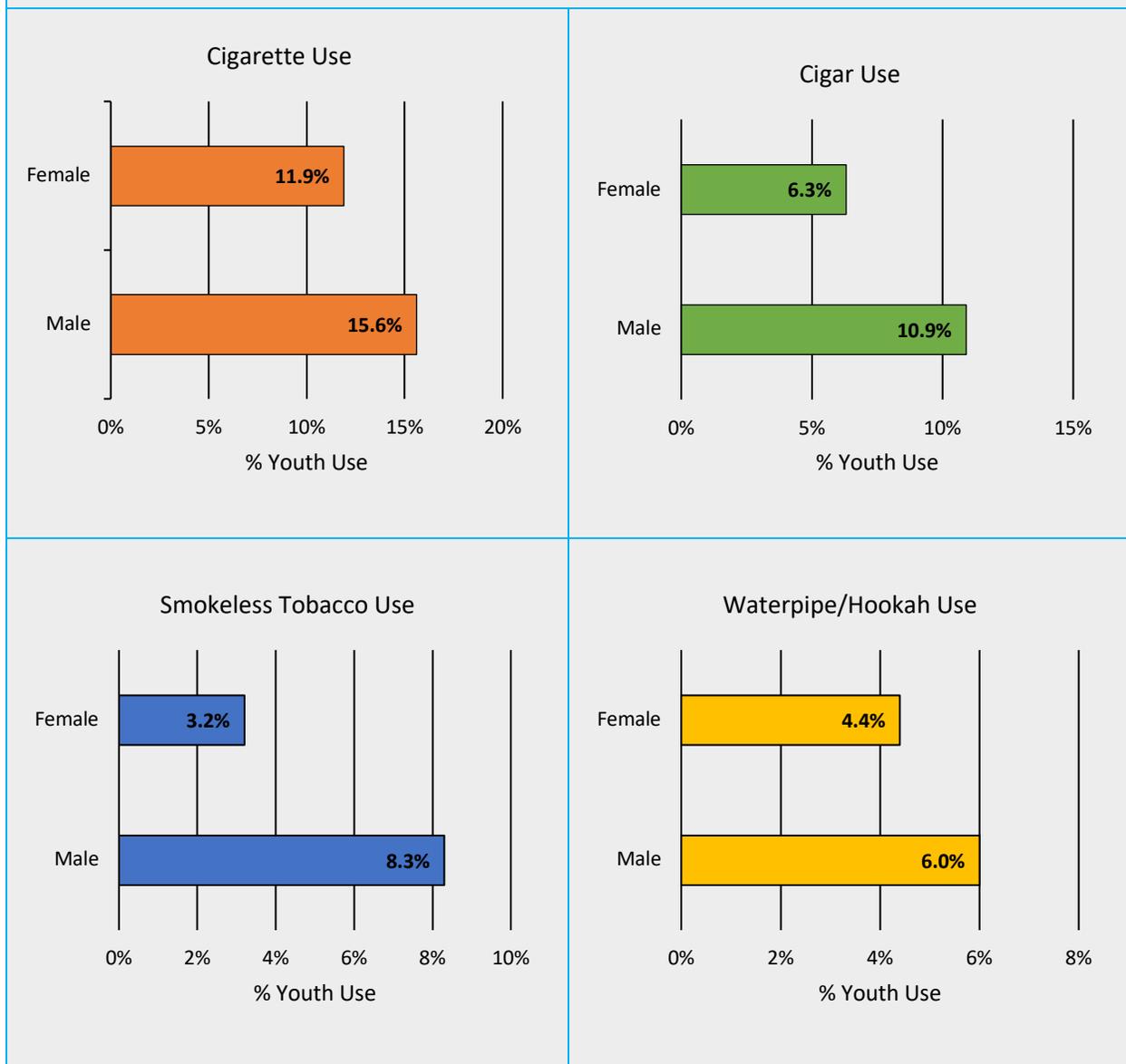
**Figure 21**  
**Adult Use of Individual Tobacco Products, By Gender**  
**2016**



**Youth**

There are differences in youth tobacco use by gender as well. Male youth are consistently more likely to be cigarette, cigar, and smokeless tobacco users. Figure 22 shows cigarette, cigar, and smokeless tobacco use by gender. One notable difference between the youth and adult data is that the gap between female and male tobacco users is not as large for youth cigar and smokeless tobacco users as it is for adults.

**Figure 22**  
**High School Youth Use of Individual Tobacco Products, By Gender**  
**2016**



## **Race/Ethnicity Differences in Tobacco Use**

### **Adults**

In 2016, 18.0 percent of NH White adults reported using a tobacco product compared to 14.9 percent of racial/ethnic minorities.<sup>53</sup> While American Indian/Alaska Native populations comprise less than one percent of the State adult population, their use of tobacco products is at a significantly higher proportion (42.6 percent). White (18.0 percent) and Black/African-

<sup>53</sup> Racial/ethnic minorities are those who do not identify as NH White.

Americans (16.9 percent) have larger populations in the State, with higher use rates than the overall State tobacco use rate, as outlined in Table 12.

**Table 12. Percentage Adult Current Tobacco Use (Cigarette, Cigar, Smokeless Tobacco, or other tobacco products), By Race/Ethnicity 2016**

| <i>Demographic</i>                   | <i>N**</i> | <i>% (95% Confidence Interval)</i> |
|--------------------------------------|------------|------------------------------------|
| <b>Overall</b>                       | 780,867    | 16.6 (15.7-17.5)                   |
| <b>Race/Ethnicity</b>                |            |                                    |
| <i>White</i>                         | 457,753    | 18.0 (16.8-19.2)                   |
| <i>Black/African-American</i>        | 225,762    | 16.9 (15.1-18.7)                   |
| <i>Hispanic/Latino</i>               | 50,910     | 12.1 (9.1-15.2)                    |
| <i>Asian</i>                         | 16,580     | 5.5 (3.1-7.8)                      |
| <i>American Indian/Alaska Native</i> | 9,263      | 42.6 (30.6-54.5)                   |
| <i>Other-race, NH</i>                | 20,598     | 22.9 (17.4-28.5)                   |

**N\*\* Weighted Population of 2016 BRFSS Survey Respondents**

### **Youth**

Racial and ethnic groups with high population density, such as Whites, Black/African Americans, and multiracial groups have a high proportion of tobacco use. Youth who identify as Native Hawaiian/Pacific Islander and American Indian/Alaska Native are more likely to be tobacco users compared to other racial and ethnic groups. Youth who identify as Asian currently have the lowest proportion of tobacco users. CDC reports that differences among these groups could be due to the acceptability of tobacco use within certain cultures.<sup>54</sup>

While Native Hawaiian/Pacific Islander and American Indian/Alaska Native populations comprise less than one percent of the State population, their use of tobacco products is significantly higher than other groups (29.7 percent). Multiracial Hispanic (19.5 percent), White (14.4 percent), and Multiracial NH (14.6 percent) groups have larger populations in the State, and have equal or higher use rates than the overall State tobacco use rate, as outlined in Table 13.

**Table 13. Percentage Youth Current Tobacco Use (Cigarette, Cigar, and Smokeless Tobacco), By Race/Ethnicity, 2016 YRBS/YTS**

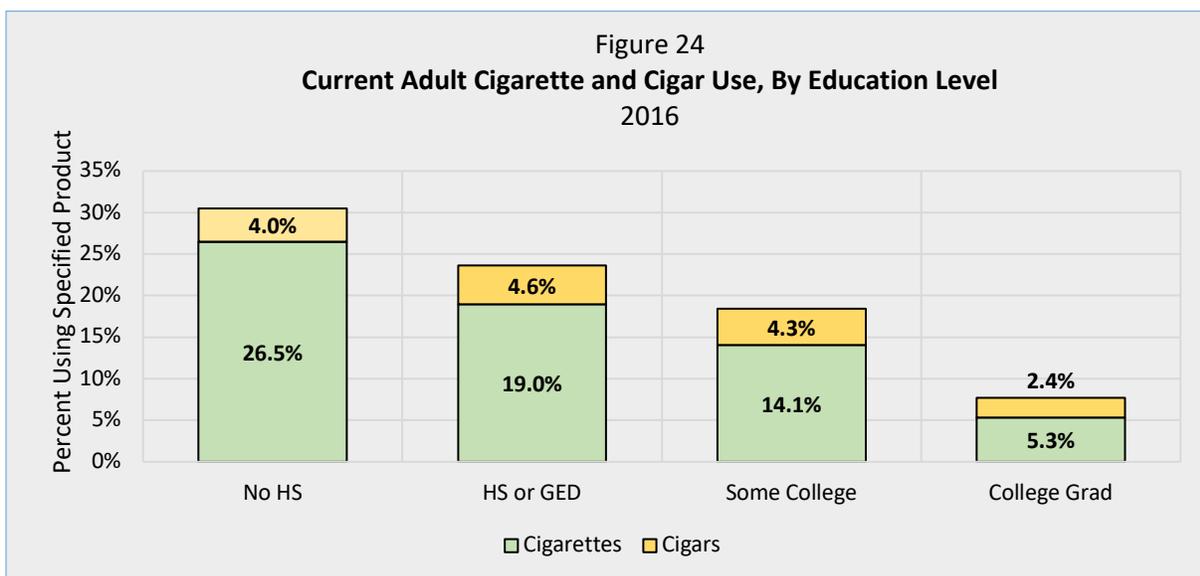
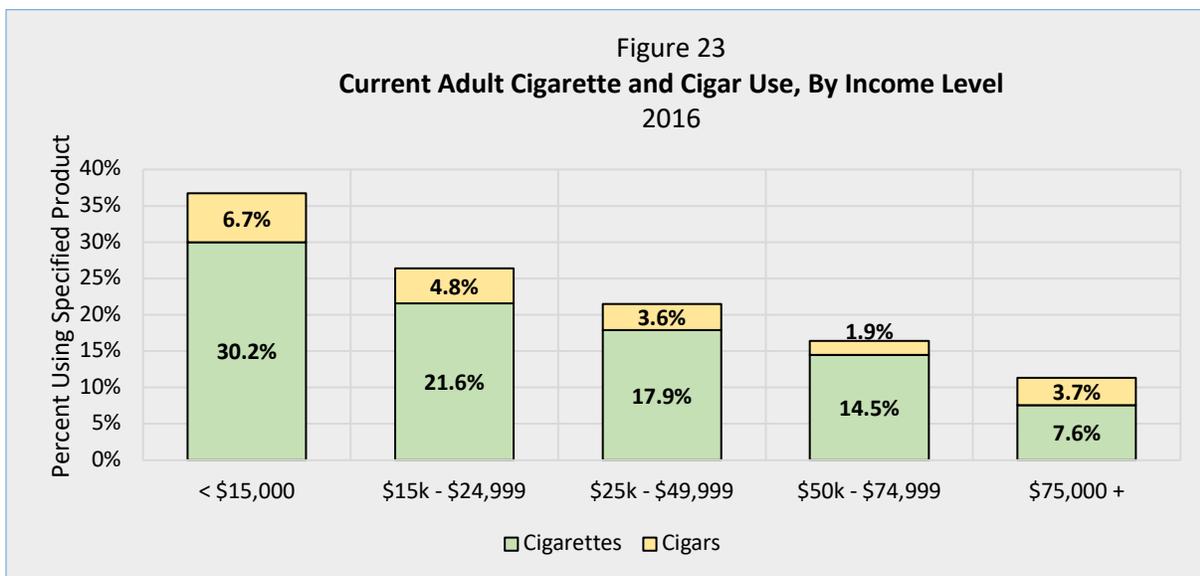
| <i>Demographic</i>                      | <i>N**</i> | <i>% (95% Confidence Interval)</i> |
|---|------------|------------------------------------|
| <b>Overall</b>                          | 35,448     | 14.4 (13.7-15.0)                   |
| <b>Race/Ethnicity</b>                   |            |                                    |
| <i>White</i>                            | 14,253     | 14.4 (13.7-15.2)                   |
| <i>Black/African-American</i>           | 10,011     | 12.3 (11.3-13.4)                   |
| <i>Hispanic/Latino</i>                  | 1,506      | 11.4 (9.8-13.1)                    |
| <i>Asian</i>                            | 720        | 5.4 (4.2-6.6)                      |
| <i>American Indian/Alaska Native</i>    | 388        | 26.2 (21.7-30.8)                   |
| <i>Native Hawaiian/Pacific Islander</i> | 274        | 29.7 (23.8-35.6)                   |
| <i>Multiracial-NH</i>                   | 1,518      | 14.6 (13.1-16.2)                   |
| <i>Multiracial-Hispanic</i>             | 3,637      | 19.5 (17.5-21.6)                   |

**N\*\* Weighted Population of 2016 YRBS/YTS Survey Respondents**

<sup>54</sup> Id, fn 10

## Socioeconomic Differences in Tobacco Product Use

Socioeconomic factors are associated with different rates of use of tobacco products. Figures 23 and 24 display the proportion of Maryland adults using cigarettes and cigars by income level and education level. As household income increases, Maryland residents are less likely to use cigarettes overall. A similar trend occurs when the education level of a resident increases from having no high school diploma to college graduate. The trend for cigars is not as predictable, but there is a significant decrease in cigar use between residents that report a household income of less than \$15,000 compared to residents that report a household income of \$50,000-\$75,000. The cigar use rate then increases for persons making \$75,000 or more. Looking at education level, there is a sharp drop in cigar usage between non-high school graduates compared to college graduates, but a smaller difference between high school graduates and those who have some college.



## **Chapter Conclusions:**

1. Overall, tobacco use has decreased significantly for both the adult and youth populations in Maryland.
2. Cigarettes continue to be the tobacco product of choice for adults, while cigars and cigarillos are the tobacco product of choice for youth.
3. Youth tobacco users are more likely to currently use multiple tobacco products compared to adult tobacco users.
4. There are variations in tobacco use by gender; males are more likely to be current tobacco users than females.
5. Youth who smoke cigarettes are more likely to partake in other risk behaviors that may affect their general health and wellbeing.
6. Despite overall lower rates of use in Maryland, tobacco use remains a significant public health issue among minority populations and populations with lower socioeconomic status.

## PREVALENCE OF ESDs

ESDs, also known to consumers as e-cigarettes, Electronic Nicotine Delivery Systems (ENDS), e-hookahs, vapes, tanks, or JUULs® (Figure 25), were not widely available or marketed in 2000 at the inception of Maryland’s Cigarette Restitution Fund (CRF) Tobacco Use Prevention and Cessation Program.<sup>55</sup> In recent years, manufacturers of such devices have employed significant mass media advertising, particularly via targeted digital and social media, to promote these products and have obtained distribution channels through gas stations, liquor stores, ‘big box’ stores, and even stand-alone kiosks and store-fronts. ESDs operate by heating a liquid (e-liquid) substance usually containing nicotine and other ingredients.<sup>56</sup>



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. The act of using these products is called ‘vaping.’ However, the emissions inhaled by the user, and those around the user, are not vapor, but rather an aerosol. An aerosol is not the gaseous state of a chemical; it is actually comprised of very small particles of solids or liquid droplets. Aerosols emitted by ESDs contain small droplets of liquid nicotine, liquid chemical flavorings, liquid chemicals formed because of the heating process (including benzene, formaldehyde, and carcinogens), and liquid propylene glycol and/or liquid glycerin.<sup>57</sup>

Most of the first generation ESDs were manufactured to look like conventional cigarettes, cigars, or pipes. However, ESD products are ever evolving, with newer products that have tanks, colors, character themes, or that resemble USB computer flash drives or memory sticks (such as JUULs®<sup>58</sup>) that have recently become popular among youth. These products are easy to conceal and contain as much nicotine as an entire pack of cigarettes.

**The e-liquid in a JUUL® pod contains as much nicotine as one pack of cigarettes.**

ESDs are attractive to youth, as they are available in over 7,000 fruit and candy flavors.<sup>59</sup> While some chemical flavorings have been approved for human digestion in small quantities,

<sup>55</sup> Photo of ESDs (except for JUUL®) by Mandie Mills (CDC) in US Department of Health and Human Services. (2016); photo of Pax Juul from <<https://vaping.com/juul>>.

<sup>56</sup> Id, fn 26

<sup>57</sup> Id, fn 1

<sup>58</sup> <https://support.juulvapor.com/home/learn/faqs/juulpods-juice>.

<sup>59</sup> Allen, J. G., Flanigan, S. S., LeBlanc, M., Vallarino, J., MacNaughton, P., Stewart, J. H., & Christiani, D. C. (2016). “Flavoring chemicals in e-cigarettes: diacetyl, 2, 3-pentanedione, and acetoin in a sample of 51 products, including fruit-, candy-, and cocktail-flavored e-cigarettes.” *Environmental health perspectives*, 124(6), 733. Accessed 1 March 2018 at <<https://ehp.niehs.nih.gov/15-10185/>>.

there have been no studies regarding the safety of deep and repeated inhalation of these chemical flavorings. Many e-liquids have varying degrees of toxicity and may include hundreds of chemical flavorings.<sup>60</sup>

## Youth Use of ESDs

Data on youth use of ESDs was first collected in 2014 and again in the 2016 YRBS/YTS. In 2014, ESD use among all high school youth in Maryland was nearly 20 percent. In 2016, this number decreased to 13.3 percent among high school youth. The survey question in the YRBS/YTS did not include names of newer more popular devices, and therefore, youth may not have identified as an ESD user if the name of their preferred device was not listed. This might explain the decline from 2014-2016. The 2018 YRBS/YTS will include updated product names of devices.

**64 percent of youth e-cigarette users reported using fruit flavored ESD products. Flavored ESD products are almost 10 times more popular than tobacco or menthol flavored e-cigarettes.**

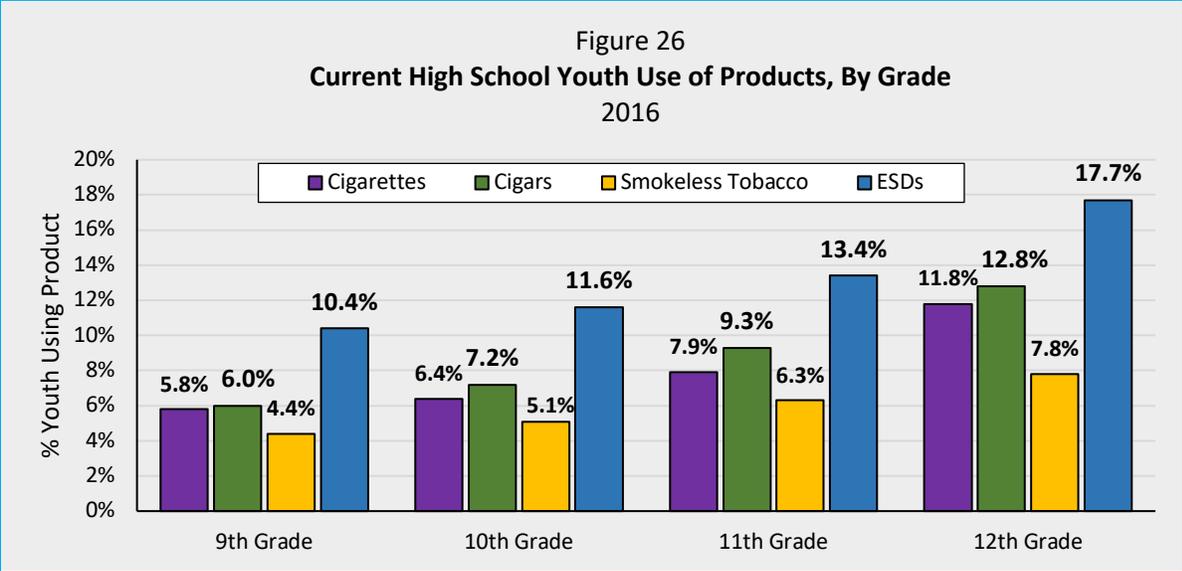
Despite the decline, ESDs are still the most used product by youth compared to individual use of cigarettes, cigars, and smokeless tobacco. The continued popularity of ESDs among youth could be due to the large selection of flavored products as well as the reported ease of obtaining those products online while underage.<sup>61,62</sup> As with tobacco use, ESD use increased by grade level, as shown in Figure 26.

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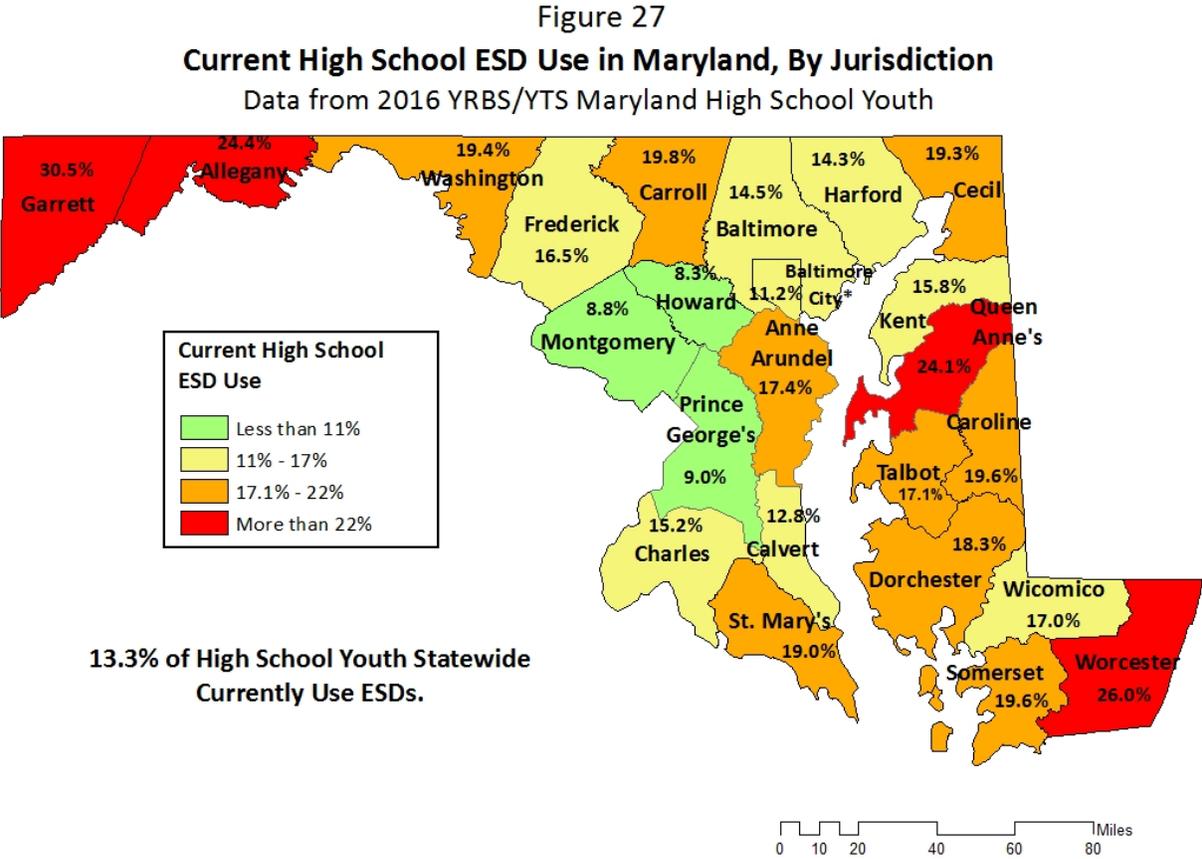
<sup>60</sup> Id

<sup>61</sup> Centers for Disease Control and Prevention. (2015). “Flavored tobacco product use among middle and high school students—United States, 2014.” Morbidity and Mortality Weekly Report 2015. Accessed 31 January 2018 at <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6438a2.htm>.

<sup>62</sup> Focus Group Investigation of Underage Access to Electronic Smoking Devices. Focus groups sponsored by the Center for Tobacco Prevention and Control, Maryland Department of Health, and conducted by Analytic Insights, September 2017.



Youth ESD use also varies significantly by jurisdiction (Figure 27), with Howard County having the lowest proportion of youth ESD users (8.3 percent) and Garrett County the highest (30.5 percent).



\*The response rate for Baltimore City high school data was 56%, below CDC standard of 60%.

Table 14 illustrates the variations in ESD use by gender and race/ethnicity. Slightly more males use ESDs compared to females (14.0 percent and 12.1 percent, respectively). While American Indian/Alaska Native and Native Hawaiian/Pacific Islander populations comprise one percent of the State youth population surveyed, their use of ESDs is significantly higher than other racial/ethnic groups (22.4 percent and 30.5 percent, respectively). Multiracial Hispanic (16.9 percent), White (16.0 percent) and NH Multiracial (15.4 percent) have larger populations in the State, with higher ESD use rates than the overall State ESD use rate.

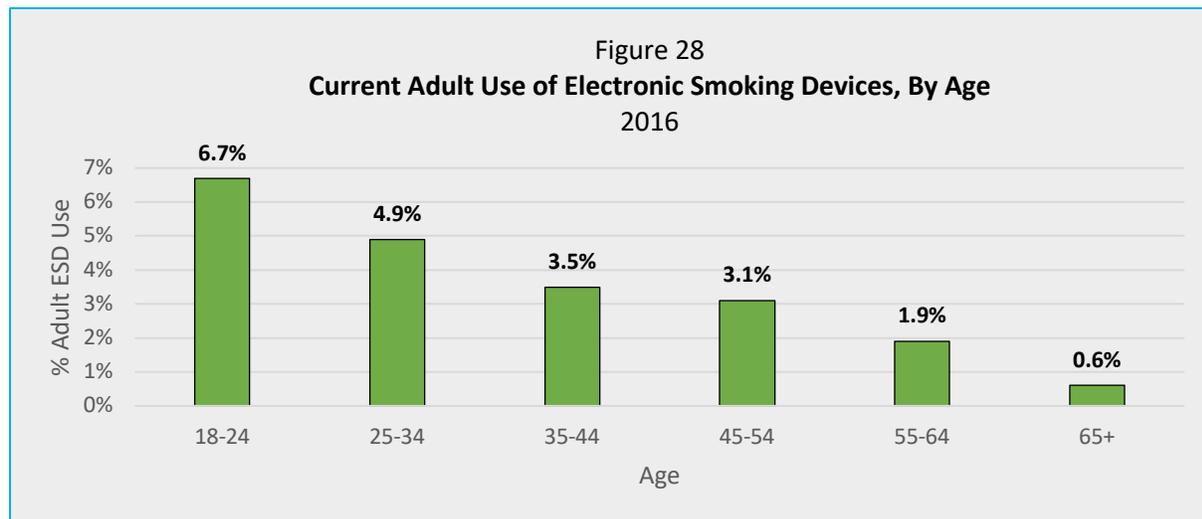
**Table 14. Percentage Current Youth ESD Users, By Gender and Race/Ethnicity, 2016 YRBS/YTS**

| <i>Demographic</i>               | <b>N**</b> | <b>% (95% Confidence Interval)</b> |
|----------------------------------|------------|------------------------------------|
| <b>Overall</b>                   | 35,448     | 13.3 (12.7-13.9)                   |
| <b>Gender</b>                    |            |                                    |
| Female                           | 13,389     | 12.1 (11.4-12.8)                   |
| Male                             | 15,841     | 14.0 (13.3-14.7)                   |
| <b>Race/Ethnicity</b>            |            |                                    |
| White                            | 14,626     | 16.0 (15.1-16.8)                   |
| Black/African-American           | 6,742      | 9.1 (8.3-9.9)                      |
| Hispanic/Latino                  | 1,406      | 11.8 (9.9-13.6)                    |
| Asian                            | 685        | 5.4 (4.2-6.7)                      |
| American Indian/Alaska Native    | 283        | 22.4 (17.7-27.0)                   |
| Native Hawaiian/Pacific Islander | 245        | 30.5 (24.0-37.1)                   |
| Multiracial NH                   | 1,455      | 15.4 (13.8-16.9)                   |
| Multiracial Hispanic             | 2,772      | 16.9 (15.0-18.7)                   |

**N\*\*Weighted Population of 2016 YRBS/YTS Respondents**

## Adult Use of ESDs

Adult ESD use is far less prevalent than youth use, with only 3.2 percent of adults reporting being current ESD users.<sup>63</sup> Figure 28 details the current adult use of ESD products by age group. 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. Young adults are 11 times more likely than adults 65 years of age or older to be current ESD users.



In addition to age, there are differences by gender and race/ethnicity among ESD users, as outlined in Table 15. Males are twice as likely to be ESD users in comparison to females. Among racial and ethnic groups, 65.1 percent of ESD users are White, while approximately 20.7 percent of ESD users are Black/African-American. Due to high standard errors, percentages for all racial and ethnic groups could not be reported.

**Table 15. Percentage Current Adult ESD Use, By Gender and Race/Ethnicity 2016**

| <i>Demographic</i>     | <i>N**</i> | <i>% (95% Confidence Interval)</i> |
|------------------------|------------|------------------------------------|
| <b>Overall</b>         | 138,510    | 3.2 (2.8-3.7)                      |
| <b>Gender</b>          |            |                                    |
| Female                 | 46,436     | 2.0 (1.6-2.5)                      |
| Male                   | 95,093     | 4.5 (3.7-5.3)                      |
| <b>Race/Ethnicity</b>  |            |                                    |
| White                  | 90,239     | 3.8 (3.2-4.5)                      |
| Black/African-American | 28,677     | 2.3 (1.5-3.2)                      |

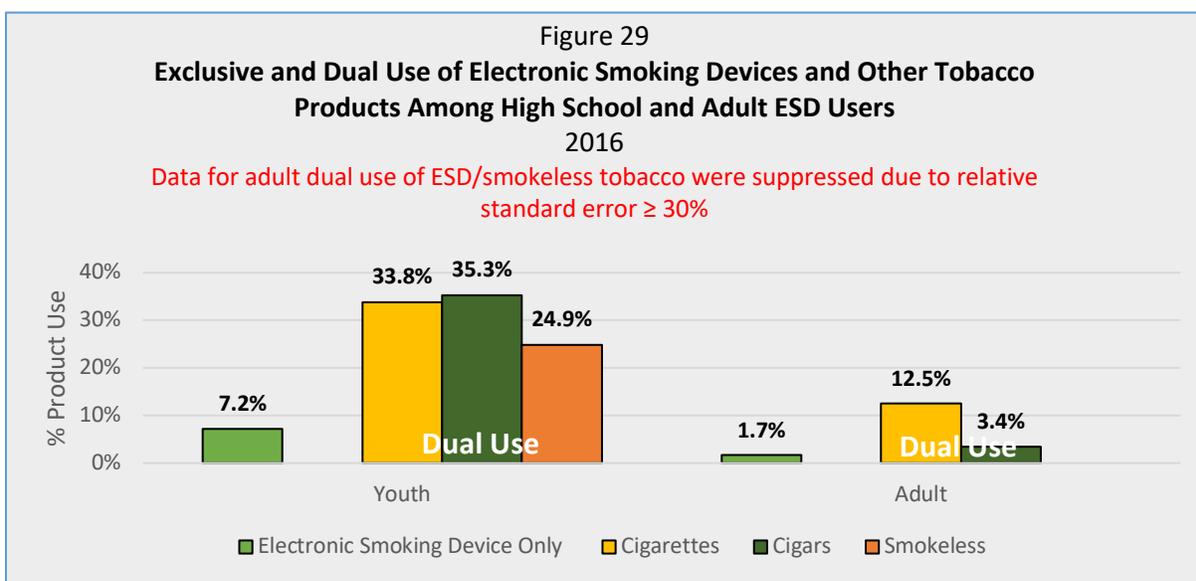
***N\*\*Weighted Frequency of 2016 BRFSS Respondents***

<sup>63</sup> Current ESD use was defined as ‘some days’ or ‘every day’ ESD use in the 2016 BRFSS: “Do you now use e-cigarettes or other electronic “vaping” products every day, some days, or not at all?”

## Concurrent Use of ESDs and Traditional Tobacco Products

ESD use is strongly correlated with use of traditional tobacco products including cigarettes, cigars, and smokeless tobacco. Data from the 2016 BRFSS and YRBS/YTS show that over half of youth ESD users (52.3 percent) and 16.3 percent of adult ESD users also use traditional tobacco products. When ESDs are included in the overall tobacco products category, 21.6 percent of youth use any of the following products: cigarettes, cigars, smokeless tobacco, or ESDs, while 17.9 percent of adults use any of those products. Youth exclusively use ESDs more than adults (7.2 percent of youth and 1.7 percent of adults, respectively). The high proportion of youth who exclusively use ESDs could point back to youth appeal for flavored products and easier access to ESDs. Adults could be using ESDs in places where combustible tobacco products are not allowed.

Figure 29 illustrates both exclusive and dual use of ESDs and other tobacco products among ESD youth and adult users. Nearly 34.0 percent of youth ESD users and 12.5 percent of adult ESD users also use traditional cigarettes. Over 35.0 percent of youth ESD users and 3.4 percent of adult ESD users also use cigars. One-fourth of youth ESD users also use smokeless tobacco.



## Use of ESDs and Marijuana

Some ESDs can be altered to use with marijuana, tetrahydrocannabinol (THC)/hash oil, and THC Wax, a concentrated form of marijuana. Use of ESDs to vaporize marijuana was reported by 8.3 percent of all high school youth and 38.2 percent of current youth high school ESD users. The use of these devices can enable marijuana use in youth.

## **The Dangers of E-Juices and E-Liquids**

The liquid nicotine used in ESDs has resulted in a substantial increase in reporting of nicotine poisonings to poison control centers from 2013 to 2014. ESD and liquid nicotine exposure calls to poison control increased from 1,543 cases in 2013 to 4,024 cases in 2014; an increase of about 160 percent.<sup>64</sup> In 2016, the number of cases was approximately 2,900, which is still high compared to the number of 2013 cases. In 2016, a federal law was enacted requiring that any liquid nicotine container be child proof.<sup>65</sup> This may have led to the decrease in calls to poison control centers.

### **Chapter Conclusions:**

1. There was a significant drop in youth ESD use from 2014 to 2016, 20.0 percent to 13.3 percent respectively. However, these products are still used more than cigars, cigarettes, and smokeless tobacco by youth in Maryland, with a significant increase of ESD use by grade level.
2. Youth use ESDs almost four times more than adults (13.3 percent and 3.2 percent, respectively); young adults (18-24 years of age) have the highest proportion of ESD use among adults.
3. Many current ESD users also use other tobacco products including cigars, cigarettes, and smokeless tobacco; dual product use is more prevalent in youth than adults.
4. ESD use, like smoking, is correlated to engagement in other risk behaviors affecting youth, including marijuana use.
5. ESD use is especially dangerous for youth, due to the addictive nature of nicotine and the adverse effects on brain development.

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<sup>64</sup> American Association of Poison Control Centers. (2017). "Electronic Cigarettes and Liquid Nicotine Data." Accessed 31 January 2018 at <[https://aapcc.s3.amazonaws.com/files/library/E-cig\\_Nicotine\\_Web\\_Data\\_through\\_11.2017.pdf](https://aapcc.s3.amazonaws.com/files/library/E-cig_Nicotine_Web_Data_through_11.2017.pdf)>.

<sup>65</sup> Child Nicotine Poisoning Prevention Act of 2015. Accessed 16 March 2018 at <https://www.congress.gov/bill/114th-congress/senate-bill/142>

## TOBACCO-RELATED DISPARITIES

Overall tobacco use in Maryland has declined significantly since 2000. However, certain populations, such as racial and ethnic minorities, lesbian, gay, bisexual, and transgender (LGBT) individuals, women, those suffering from substance use disorders and mental health diagnoses, and individuals with lower socioeconomic status have a disproportionate burden of tobacco use and related morbidity and mortality.

The Healthy People 2020 initiative categorized five “social determinants of health”: education, economic stability, the built environment, access to health care, and social structures that all impact the health of a person.<sup>66</sup> Tobacco-related health disparities exist among high-risk population groups due to social, economic, and environmental factors, and place these groups at a health disadvantage.

Maryland must continue to implement evidence-based policies and programs that reach disparate populations. Efforts include increasing access to cessation services through free phone-, web-, and text-based tobacco cessation services via the Maryland Tobacco Quitline (1-800-QUIT-NOW), engaging communities and partners to prevent youth access and initiation, and eliminating exposure to secondhand smoke. Ensuring disadvantaged populations can attain health equity will help every person to achieve “his or her health potential.”<sup>67</sup> This chapter will examine tobacco-related disparities that exist in Maryland.

### Geography

As shown in Figure 30, 14.4 percent of youth Statewide attending public high school reported using tobacco during the previous 30 days. However, by jurisdiction, the proportion of such youth using tobacco ranged from 9.6 percent in Montgomery County to 26.6 percent in Garrett County. With the exception of Baltimore City, overall tobacco use is lowest in the central region of Maryland, with increasing rates of tobacco use to the east and west in more rural areas of the State.<sup>68</sup>

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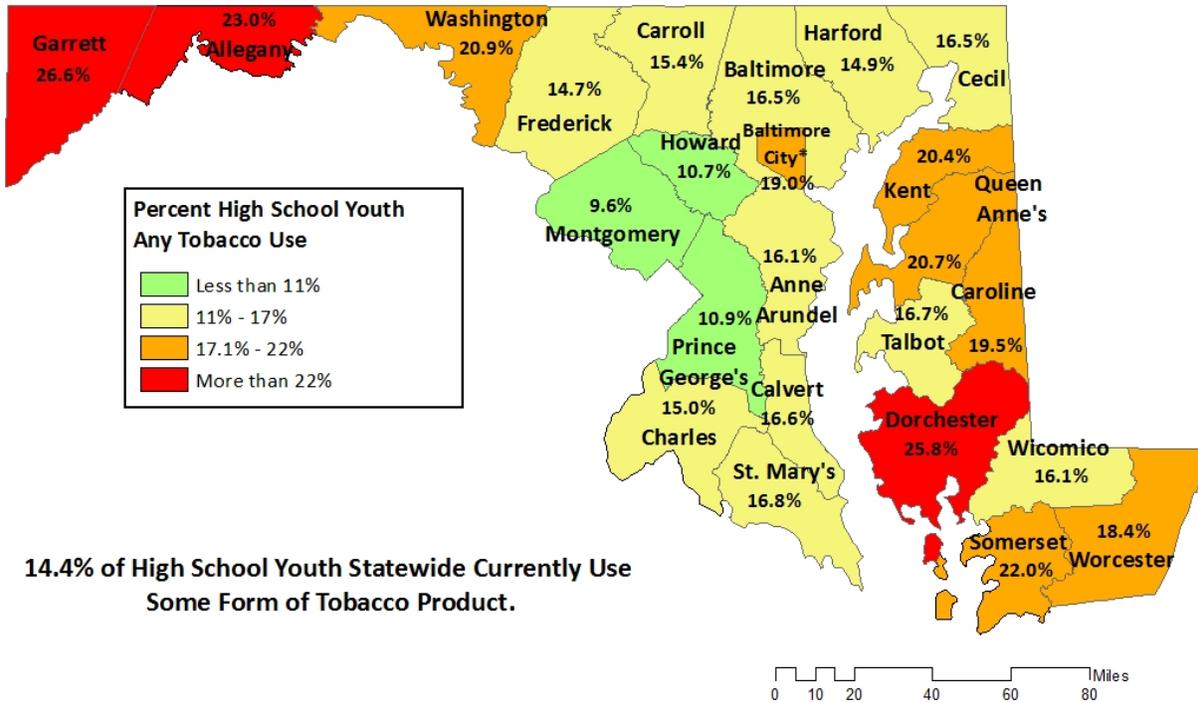
<sup>66</sup> Healthy People 2020. “Social Determinants of Health.” US Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Accessed 3 January 2018 at <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=39>.

<sup>67</sup> Centers for Disease Control and Prevention. “Health Equity.” US Department of Health and Human Services. Accessed 3 January 2018 at <https://www.cdc.gov/chronicdisease/healthequity/index.htm>.

<sup>68</sup> Urban(Central)/Rural Classification done by the Maryland Rural Health Association.

Figure 30  
**Current High School Any Tobacco Use in Maryland, By Jurisdiction**

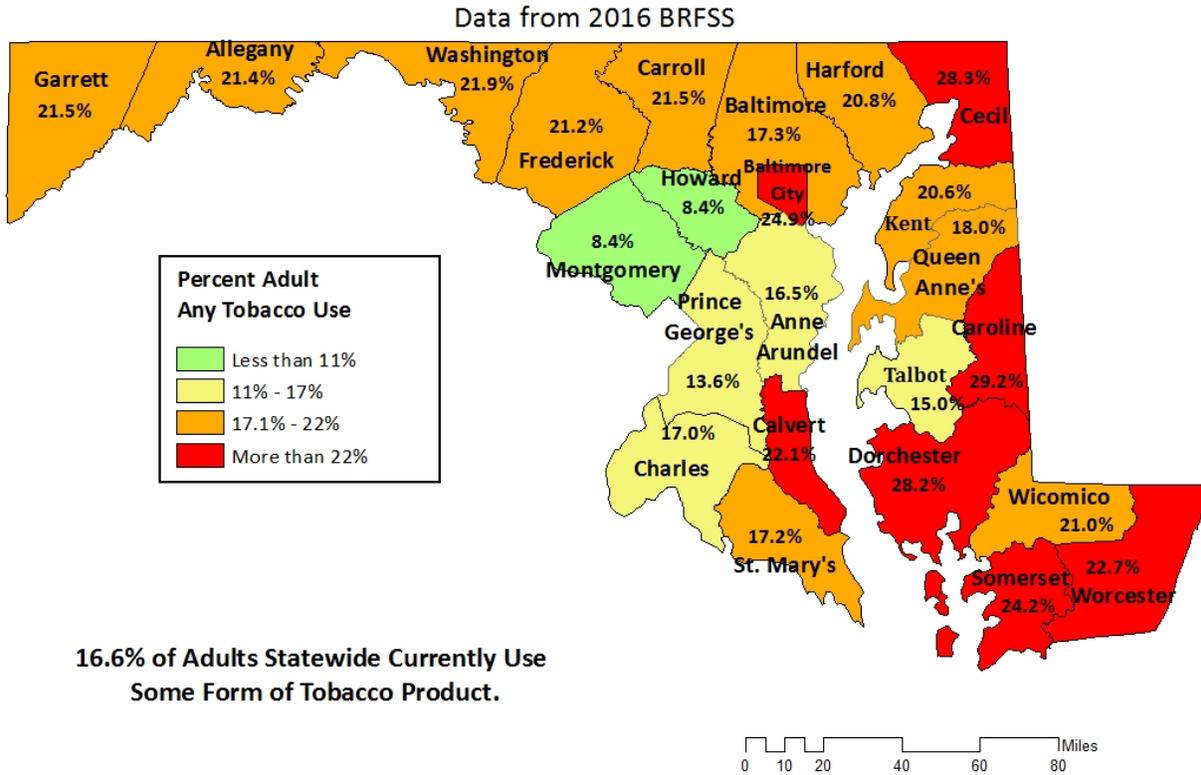
Data from 2016 YRBS/YTS Maryland High School Youth



\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%.

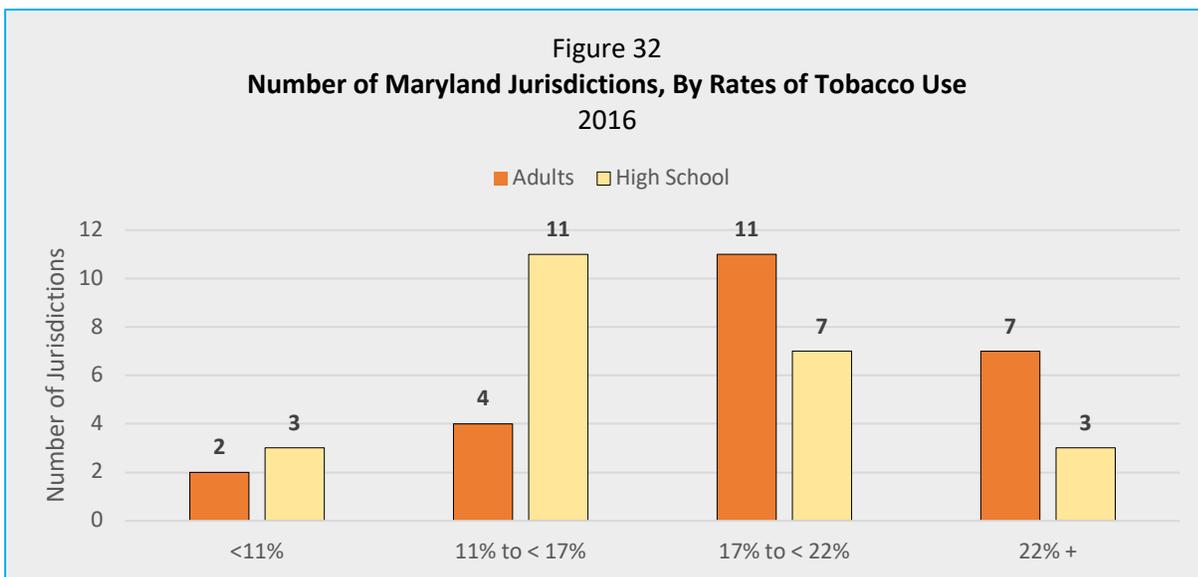
Similarly, for adult current tobacco use, central jurisdictions have lower tobacco use rates than rural jurisdictions. Howard and Montgomery counties have tobacco use rates of less than 11 percent and are very populous compared to the remainder of the State (Figure 31).

Figure 31  
**Current Adult Any Tobacco Use in Maryland, By Jurisdiction**



Among both youth and adults, the jurisdictions with the lowest tobacco usage rates are the larger, more populous jurisdictions. This significantly reduces Statewide estimates, which disguises the extent to which Maryland is still facing significant public health issues arising from tobacco use, particularly in rural areas. Figure 32 shows that among the adult population, a majority of the jurisdictions have tobacco use rates above the Statewide estimate of 16.6 percent.

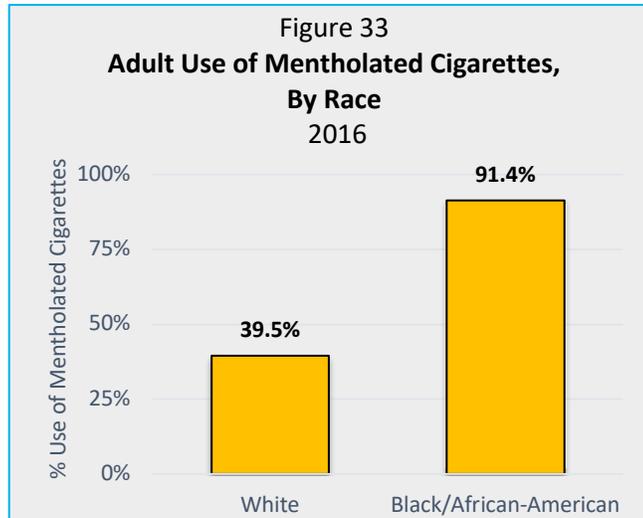
Figure 32  
**Number of Maryland Jurisdictions, By Rates of Tobacco Use**  
 2016



## Race/Ethnicity

Although cigarette smoking in Maryland has decreased among all racial and ethnic minority groups, many groups still have higher rates of tobacco-related morbidity and mortality. Black/African-Americans smoke slightly less than Whites and represent about 30 percent of the Maryland population (Whites account for about 60 percent). Despite lower tobacco use rates, Black/African-Americans are dying from lung and bronchus cancer at a similar rate to Whites (44.2 and 44.3 per 100,000 respectively).<sup>69</sup>

Studies have linked the increased risk of tobacco-related health problems in Black/African-Americans to the disproportionate use of mentholated cigarettes (Figure 33), which were heavily marketed to the



Black/African-American community in the 1950s.<sup>70</sup> In 2011, FDA’s Tobacco Products Scientific Advisory Committee found that mentholated cigarettes increased smoking initiation and addiction, and reduced the rate of quitting the product.<sup>71</sup> Despite this finding, menthol still remains the only flavor permitted by the FDA in cigarettes.

American Indian/Alaska Native and Native Hawaiian/Pacific Islander communities who make up less than one percent of the State adult population have significantly higher smoking rates than other racial and ethnic groups. Table 16 details the distribution of smoking prevalence in the Maryland adult population. Rates among American Indian/Alaska Native adults are more than double the rate in the White population. Table 17 illustrates smoking prevalence in high school youth.

<sup>69</sup> “Maryland Cancer Registry.” (2017). Center for Cancer Surveillance and Control, Maryland Department of Health. Accessed 1 March 2018 at <[https://phpa.health.maryland.gov/cancer/Pages/mcr\\_home.aspx](https://phpa.health.maryland.gov/cancer/Pages/mcr_home.aspx)>.

<sup>70</sup> Id, fn 1

<sup>71</sup> Tobacco Products Scientific Advisory Committee. (2011). “Menthol cigarettes and public health: review of the scientific evidence and recommendations.” US Food and Drug Administration.

**Table 16. Percentage Current Adult Smoking, By Race/Ethnicity 2016**

| <i>Demographic</i>                   | <i>N**</i> | <i>%</i> |
|--------------------------------------|------------|----------|
| <b><i>Race/Ethnicity</i></b>         |            |          |
| <i>White</i>                         | 359,650    | 14.8     |
| <i>Black/African-American</i>        | 171,744    | 13.7     |
| <i>Hispanic/Latino</i>               | 38,334     | 10.2     |
| <i>Asian</i>                         | 14,354     | 5.1      |
| <i>American Indian/Alaska Native</i> | 8,023      | 37.7     |
| <i>NH Other Race</i>                 | 16,711     | 19.3     |

***N\*\* Weighted Population of 2016 BRFSS Survey Respondents***

**Table 17. Percentage Current High School Youth Smoking, By Race/Ethnicity 2016**

| <i>Demographic</i>                      | <i>N**</i> | <i>%</i> |
|---|------------|----------|
| <b><i>Race/Ethnicity</i></b>            |            |          |
| <i>White</i>                            | 8,591      | 8.6      |
| <i>Black/African-American</i>           | 4,783      | 5.7      |
| <i>Hispanic/Latino</i>                  | 1,027      | 7.5      |
| <i>Asian</i>                            | 465        | 3.5      |
| <i>American Indian/Alaska Native</i>    | 232        | 15.4     |
| <i>Native Hawaiian/Pacific Islander</i> | 183        | 19.8     |

***N\*\* Weighted Population of 2016 YRBS/YTS Survey Respondents***

A 2014 Surgeon General's Report supports Maryland's data noting that American Indian/Alaska Natives had the highest daily smoking prevalence, highest prevalence of tobacco use, and the lowest smoking quit rate.<sup>72</sup> Native Hawaiian/Pacific Islander and American Indian/Alaska Native populations have a significantly higher prevalence of smoking and tobacco use in both the adult and youth populations when compared to other races/ethnicities.<sup>73</sup>

## Socioeconomic Status

National data show that adults living near the US federal poverty line, those who are unemployed, and those with low education levels are more likely to smoke heavily and have an increased risk of tobacco-related health problems.<sup>74</sup>

Similar findings from the 2016 BRFSS show that college graduates are more likely to have never smoked (73.2 percent) when compared to adults who do not have their high school diploma (49.6 percent). Adults without a high school diploma are five times more likely to be current smokers than adults with a college degree (26.5 percent and 5.3 percent, respectively). Similarly, adults who rent their home are two times more likely to be current smokers (21.9 percent), compared to those who own their home (10.9 percent).

**Adults who own their homes (10.9 percent) are less likely to be current smokers than those who rent their homes (21.9 percent).**

About one-third of adults (30.2 percent) making less than \$15,000 annually are current smokers compared to 7.6 percent of adults earning over \$75,000 annually. Similarly, adults who

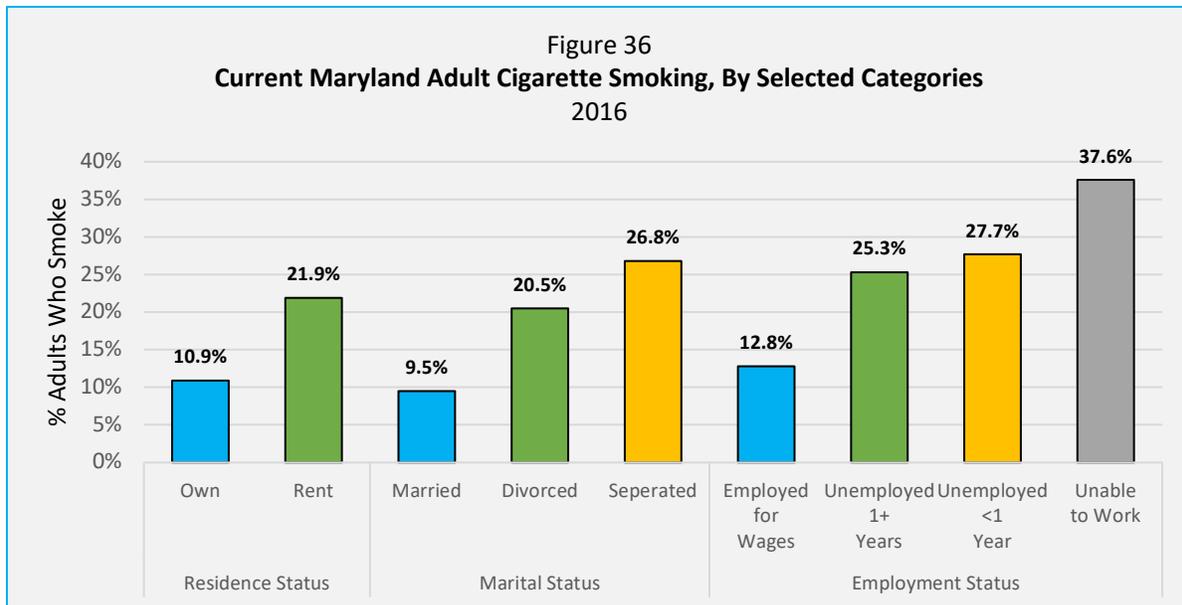
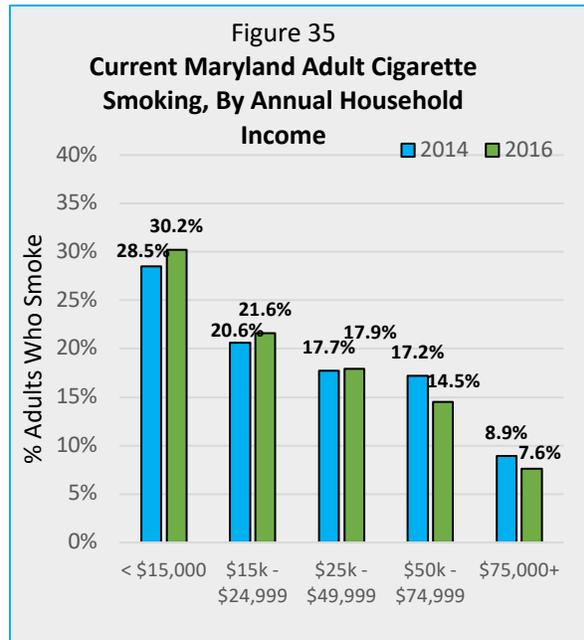
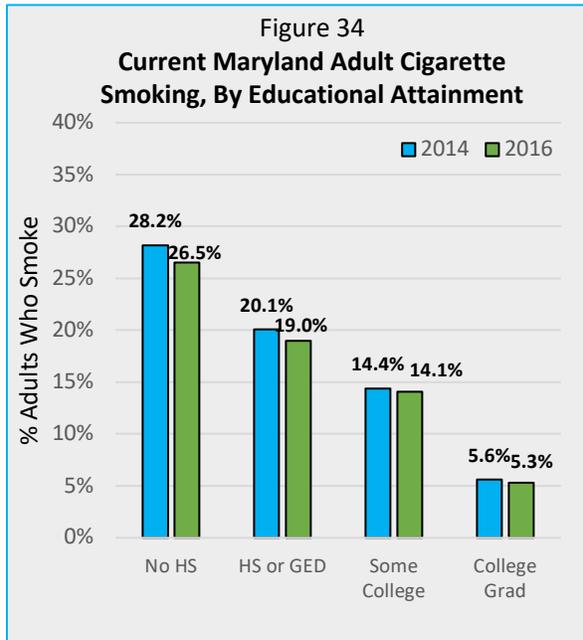
<sup>72</sup> Id, fn1

<sup>73</sup> American Indian/Alaska Native and Native Hawaiian/Pacific Islander make up about 0.8% of the adult population surveyed and 1% of the high school youth population surveyed.

<sup>74</sup> Campaign for Tobacco-Free Kids. "Tobacco and Socioeconomic Status," Washington, D.C.: Campaign for Tobacco-Free Kids, 2015. Accessed 8 December 2017 at <<https://www.tobaccofreekids.org/assets/factsheets/0260.pdf>>.

are unemployed are more than two times as likely to be current smokers (26.6 percent), compared to those who are employed for wages (12.9 percent).

Figures 34, 35, and 36 provide data on adult cigarette use by several demographic variables. These figures clearly illustrate the relationship between lower socioeconomic status and the increased likelihood of being a current smoker.



## Sexual Orientation

National data show that individuals who identify as LGBT use tobacco at a higher rate than those who identify as heterosexual.<sup>75,76</sup> In 2015, CDC reported the nationwide prevalence of current cigarette smoking among LGB individuals was 23.9 percent in the National Health Interview Survey compared with 16.6 percent among heterosexual/straight individuals.<sup>77,78</sup> Maryland's adult smoking prevalence data show a similar disparity. In the 2015 Maryland BRFSS (the most recent survey in which adult sexual orientation and tobacco use was collected), 29.9 percent of Maryland adults who identified as lesbian, gay, or bisexual reported being current cigarette smokers, compared to 14.8 percent of current smokers who reported being heterosexual/straight.<sup>79</sup> The higher rates of use may be linked to high levels of stress, social stigma, discrimination, and excessive tobacco marketing targeting LGBT communities.<sup>80,81</sup>

In Summer 2017, MDH conducted focus groups with adult members of LGBT communities in Maryland who identify as current and former tobacco users. These focus groups were designed to assess tobacco-related attitudes and behaviors, challenges associated with access to cessation services, and the influence of social networks on tobacco use and health.<sup>82</sup> Focus group participants identified inclusion and mental health as key points of focus needed in prevention and cessation messages. Additionally, for many participants, tobacco use was a coping method, often initiated before 21 years of age. Participants reported that their tobacco use was strongly associated with anxiety, depression, stress, and other mental health conditions.

Data was collected for transgender individuals for the first time in 2016 YRBS/YTS. Figure 37 shows the prevalence of youth cigarette, cigar, and smokeless tobacco usage as consistently lower for heterosexual youth than it is for LGBT youth. Overall, current tobacco use is highest for youth who report being transgender (52.1 percent). This high prevalence is followed by gay and lesbian youth tobacco users, and bisexual youth tobacco users. Comparatively, 10.9 percent of heterosexual youth are current tobacco users. Transgender youth use smokeless tobacco more than cigarettes or cigars, a trend that is not seen in the other groups.

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<sup>75</sup> Lee, J. G., Griffin, G. K., & Melvin, C. L. (2009). "Tobacco use among sexual minorities, USA, 1987-2007 (May): A Systematic Review." *Tobacco control*. Accessed 8 December 2017 at <<http://tobaccocontrol.bmj.com/content/18/4/275>>.

<sup>76</sup> Centers for Disease Control and Prevention. (2015). "Current Cigarette Smoking Among Adults—United States, 2005–2014." *Morbidity and Mortality Weekly Report* 2015;64(44):1233–40. Accessed 25 January 2018 at <[https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6444a2.htm?s\\_cid=mm6444a2\\_w](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6444a2.htm?s_cid=mm6444a2_w)>.

<sup>77</sup> For the purposes of this article, CDC assessed tobacco use among lesbian, gay and bi-sexual individuals (LGB) only. Tobacco use among transgender individuals was not collected for this particular study.

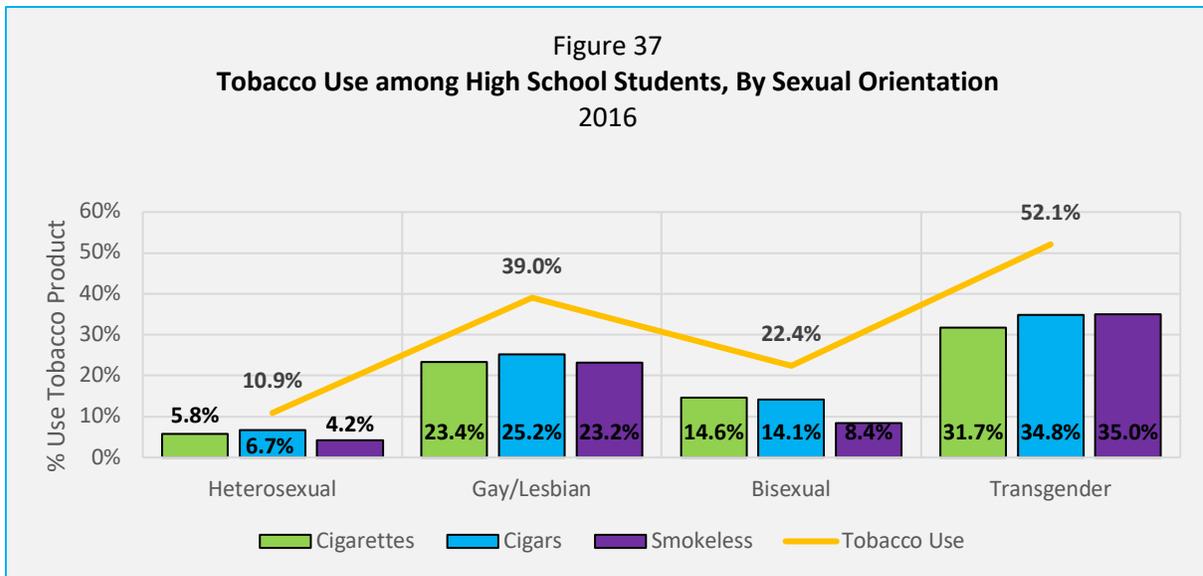
<sup>78</sup> Id

<sup>79</sup> The BRFSS did not collect data on transgender individuals.

<sup>80</sup> American Lung Association. "The LGBT Community: A Priority Population for Tobacco Control." American Lung Association, Smoke-free Communities Project. Accessed 27 December 2017 at <<http://www.lung.org/assets/documents/tobacco/lgbt-issue-brief-update.pdf>>.

<sup>81</sup> Bryant, L. & Damarin, A. K. & Marshall, Z. (2014). "Tobacco Control Recommendations Identified by LGBT Atlantans in a Community-Based Research Project." *Progress in Community Health Partnerships: Research, Education, and Action* 8(3), 259-260. Accessed 25 January 2017 at <<https://muse.jhu.edu/article/562261/pdf>>.

<sup>82</sup> "Qualitative Research to Support LGBTQ Tobacco Control Initiatives." Focus groups sponsored by the Center for Tobacco Prevention and Control, Maryland Department of Health, and conducted by EurekaFacts, LLC. October 2017 (Unpublished).



LGBT communities include individuals with multiple intersecting identities, such as race, ethnicity, age, class, gender identity, sexual orientation, and disability/ability. YRBS/YTS data indicate that students who identified as Multiracial Hispanic LGBT were significantly more likely to use tobacco than heterosexual youth among the same population, and much more likely than LGBT youth who identified as White. Black/African-American LGBT youth used tobacco at significantly higher rates than Black/African-American heterosexual youth, and White heterosexual, gay/lesbian and transgender youth.

**Table 18. Youth Tobacco Use Prevalence By Race and Sexual Orientation, 2016 YRBS/YTS**

| Race/Ethnicity         | Heterosexual | Gay/Lesbian | Bisexual | Transgender |
|------------------------|--------------|-------------|----------|-------------|
| White                  | 13.1%        | 27.6%       | 19.6%    | 33.6%       |
| Black/African-American | 8.2%         | 37.9%       | 21.0%    | 52.4%       |
| Multiracial Hispanic   | 12.9%        | 52.8%       | 30.6%    | 64.4%       |

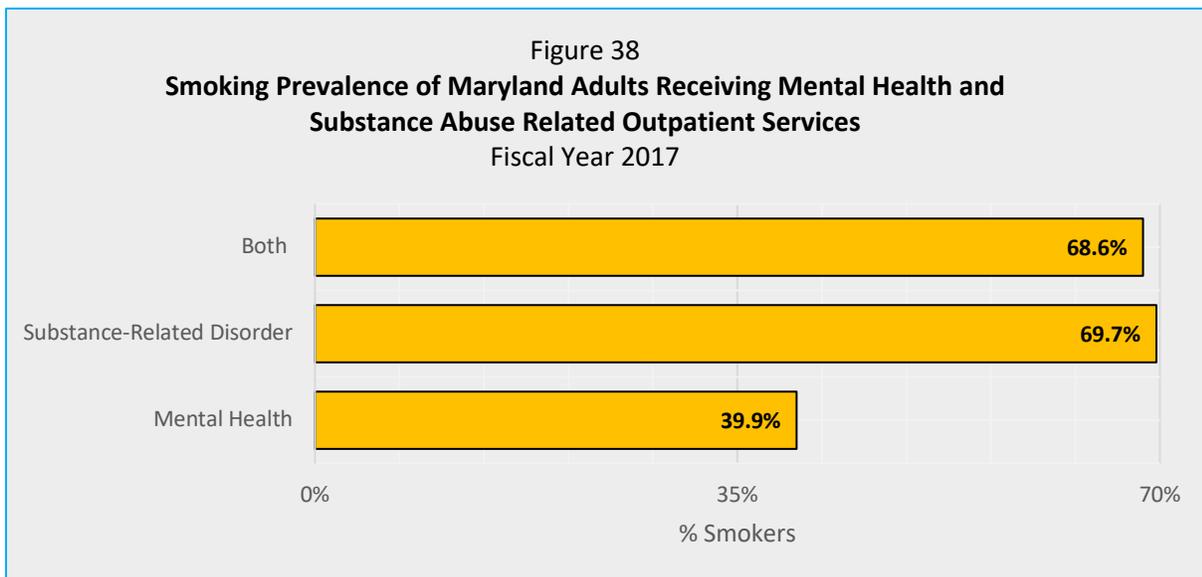
## Behavioral Health (Mental Health and Substance Use Disorders)

The US Substance Abuse and Mental Health Services Administration (SAMHSA) has found that adults with substance use or mental health disorders are significantly more likely to be smokers than adults who do not have mental or substance use disorders.<sup>83</sup> The Maryland Outcomes Measurement System Datamart, Public Behavioral Health System (OMS) is a surveillance system that tracks outpatient mental health and substance abuse services in Maryland for both adults and youth who self-report risk behaviors and general health.<sup>84</sup>

<sup>83</sup> US Department of Health and Human Services. (2013). “Adults with Mental Illness or Substance Use Disorder Account for 40 Percent of All Cigarettes Smoked,” Substance Abuse and Mental Health Services Administration. The NSDUH Report: March 20, 2013. Accessed 8 December 2017 at <https://www.samhsa.gov/data/sites/default/files/spot104-cigarettes-mental-illness-substance-use-disorder/spot104-cigarettes-mental-illness-substance-use-disorder.pdf>.

<sup>84</sup> OMS is managed by the MDH Behavioral Health Administration.

OMS shows the link between adults who receive mental health and substance use outpatient services and smoking prevalence. Nearly 40 percent of Maryland adults who receive mental health outpatient services report smoking cigarettes. Those who receive substance abuse-related services are even more likely to be smokers (about 70 percent). Among Maryland adults that receive both mental health and substance abuse-related services, 68.6 percent report being cigarette smokers, compared to the overall adult smoking rate of 13.7 percent. Figure 38 clearly shows that smoking-related disparities exist for those who have a mental illness or substance use disorder. These disparities lead to increased morbidity and mortality, decreased tobacco cessation, and increased use of tobacco as a self-medicating agent for those suffering from mental health and substance-use disorders.<sup>85,86</sup>



## Chapter Conclusions:

1. Although tobacco use prevention and cessation efforts have been impactful Statewide, many Maryland jurisdictions still face significant public health challenges arising from tobacco use.
2. In general, rural/non-central Maryland jurisdictions have high rates of tobacco use. Future programs should focus on efforts to address high rates of tobacco use in these jurisdictions.
3. Racial/ethnic minorities experience higher rates of morbidity and mortality despite lower tobacco use rates.

<sup>85</sup> Centers for Disease Control and Prevention. (2013). "Vital Signs: Current Cigarette Smoking Among Adults Aged ≥18 Years With Mental Illness – United States, 2009–2011." *Morbidity and Mortality Weekly Report*, 62(5), 81-7. Accessed 8 December 2017 at <<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6205a2.htm>>.

<sup>86</sup> Prochaska JJ. (2011). "Smoking and Mental Illness—Breaking the Link," *New England Journal of Medicine*, 365(3), 196-8. Accessed 8 December 2017 at <<http://www.nejm.org/doi/full/10.1056/NEJMp1105248#t=article>>.

4. LGBT communities, individuals with lower socioeconomic status, and those with behavioral health disorders are more likely to use tobacco products.
5. Significantly higher rates of tobacco use, compared to the State average, are also found among those who rent their residence, are separated or divorced, are unemployed, have a low education level, or are disabled.
6. Comprehensive and tailored programs could help these groups quit using tobacco products and prevent initiation of tobacco products.
7. Disparities in tobacco use must be addressed in order to mitigate the disproportionate burden of tobacco-related diseases for these population groups.

## UNDERAGE ACCESS TO TOBACCO AND ESDs

### Federal Restrictions on Underage Sales

The 1992 federal Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act includes what is referred to as the ‘Synar Amendment’. The Synar Amendment established a mechanism to withhold a substantial proportion of Substance Abuse Block Grant funding from states where more than 20 percent of licensed tobacco retailers are found to be illegally selling tobacco to minors.

The federal Family Smoking Prevention and Tobacco Control Act (2009) and the regulations promulgated thereunder directly prohibit selling tobacco to individuals under 18 years of age, and retailers are required to check photo identification of all prospective purchasers who appear to be less than 27 years of age.<sup>87</sup> In 2016, FDA asserted its authority under the Tobacco Control Act to regulate all tobacco products, including ESDs, prohibiting the sale of ESDs to persons less than 18 years of age.<sup>88</sup>

### Maryland’s Restrictions on Underage Sales and Possession of Tobacco

Maryland similarly prohibits the sale of tobacco products and ESDs to individuals under 18 years of age, but State law does not require retailers to check photo identification. Maryland has three distinct frameworks with respect to prohibitions on underage sales and related violations and penalties: a criminal framework, a local civil framework, and a Statewide civil framework.<sup>89,90,91</sup> Prohibitions on sales and the responsibilities of retailers are identical across all three frameworks, the differences are in the authority to enforce the prohibitions and the penalties applied.

### Youth Access Sources – Tobacco and ESDs

#### Tobacco Products

There are four primary avenues by which Maryland youth obtain cigarettes: (1) making a direct purchase themselves from a retailer or other person selling tobacco; (2) giving someone else money to make the purchase for them (proxy purchases); (3) borrowing tobacco from someone; and (4) taking the cigarettes without permission from family members, friends, or stores. The method used depends on both the apparent age of the tobacco user and the quantity of

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<sup>87</sup> Public Law 111-31 [H.R. 1256] Family Smoking Prevention and Tobacco Control Act; 21 C.F.R. §1140.14.

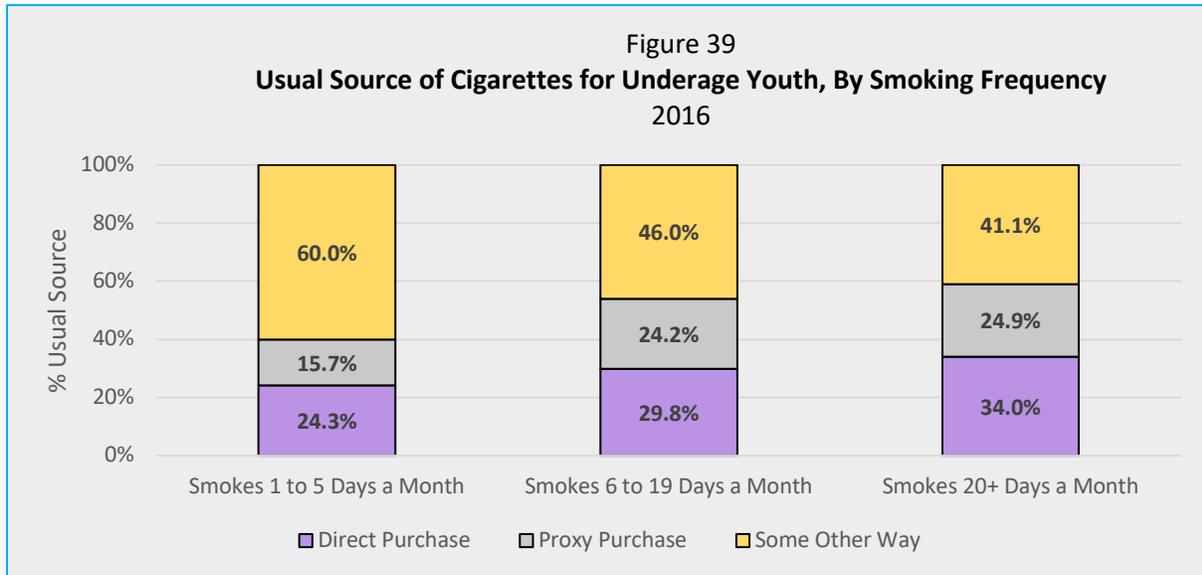
<sup>88</sup> Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products, 81 FR 28973 (May 10, 2016). Accessed 31 January 2018 at <<https://www.federalregister.gov/documents/2016/05/10/2016-10685/deeming-tobacco-products-to-be-subject-to-the-federal-food-drug-and-cosmetic-act-as-amended-by-the>>.

<sup>89</sup> Md. Ann. Code Criminal Law Art., §10-107 prohibits sale of tobacco products to underage persons, and §10-108 prohibits underage persons from possessing tobacco products.

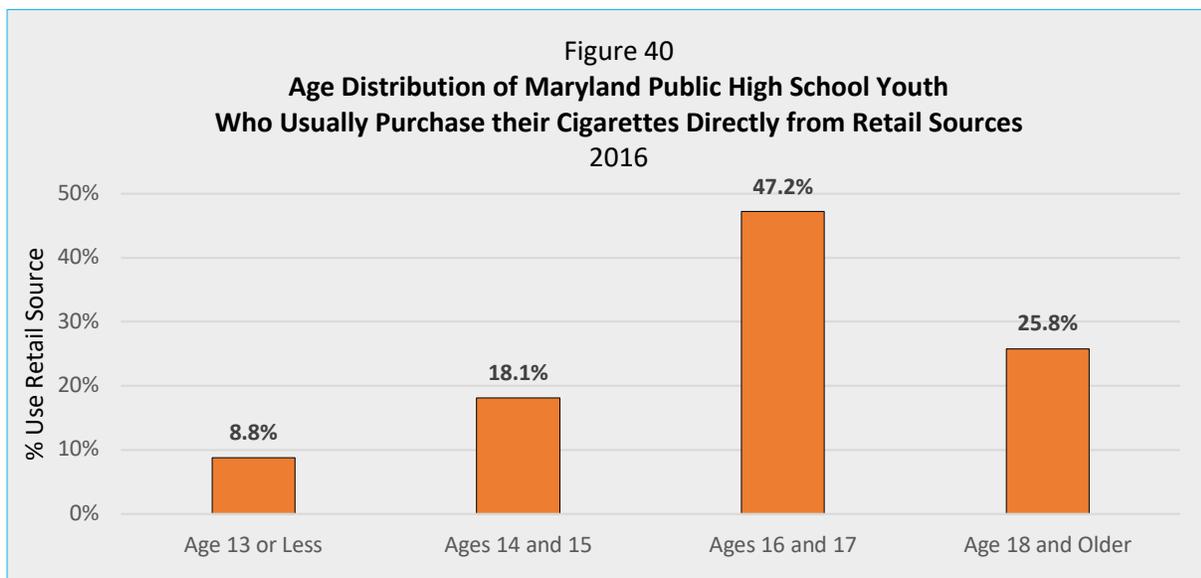
<sup>90</sup> Maryland Department of Health and Mental Hygiene. (2016). “Monitoring Changing Tobacco Use Behaviors: 2000 – 2014.” Maryland Department of Health and Mental Hygiene, Prevention and Health Promotion Administration, Center for Tobacco Prevention and Control. Accessed 31 January 2018 at <<http://phpa.health.maryland.gov/ohpetup/Documents/Legislative%20Report%20May%202016-%20Biennial%20Tobacco%20Study.pdf>>.

<sup>91</sup> Md. Ann. Code Health-General Art., §24-305 prohibits the sale of ESDs to persons less than 18 years of age; §24-307 prohibits the sale of tobacco products to persons less than 18 years of age.

tobacco used. Frequent and everyday cigarette smokers who smoke several cigarettes each day cannot rely on borrowing cigarettes as easily youth who smoke occasionally (Figure 39).<sup>92,93</sup>



Among Maryland public high school students whose usual source of cigarettes was direct purchase from retailers, almost 75 percent were under 18 years of age (Figure 40). Youth ages 16 and 17 were the largest groups of direct purchasers. Youth ages 18 and older who were of legal age to purchase represented 25.8 percent of direct retail purchasers, although they only comprised 5.6 percent of the public high school population in Fall 2016.



<sup>92</sup> A 'frequent' cigarette smoker is defined by CDC as a youth who smokes on 20 or more days each month.

<sup>93</sup> Youth source of cigarettes by 'some other way' includes borrowing/bumming, taking from a store/family member, someone 18 and older giving the cigarette, etc.

## Maryland Retailers Asking for Photo Identification

Federal law requires Maryland retailers to ask for photo identification and verify the age of all tobacco customers appearing to be less than 27 years of age. However, Maryland State law does not currently include a similar requirement. Consequently, Maryland enforcement officials are unable to issue citations to retailers for failing to request photo identification. Only FDA sanctioned enforcement inspections can result in a citation for failure to ask for photo identification. FDA enforcement inspections are complementary, but separate from the enforcement inspections conducted by Maryland’s local civil and law enforcement authorities.

Focus groups conducted with young adults who previously obtained tobacco while underage suggest that underage youth who usually purchase cigarettes in retail outlets have found stores and clerks who do not check photo identification or who are willing to sell tobacco regardless of age. These retailers are identified through trial-and-error, and building upon peer networks.<sup>94</sup>

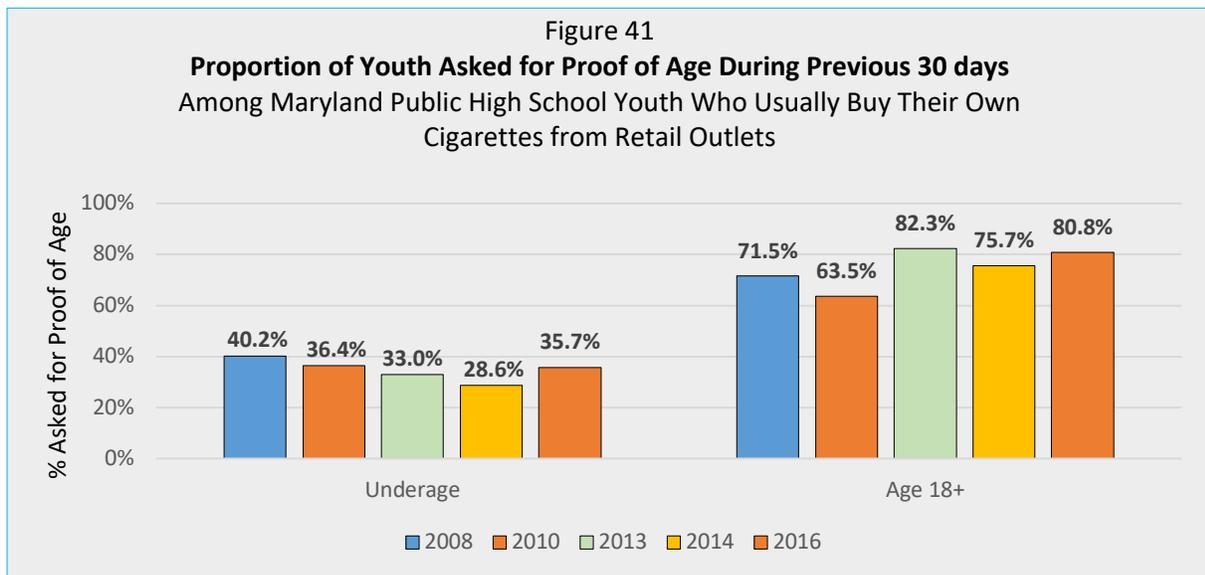


Figure 41 shows that Maryland public high school youth under 18 years of age who usually purchase cigarettes from tobacco retailers are successful in selecting stores less likely to ask them for proof of age.<sup>95</sup> The proportion of youth asked for proof of age declined steadily from 2008 through 2014. In 2015, Maryland significantly increased



**Tobacco retailers who ask youth to show proof of identification are less likely to sell tobacco products to underage youth.**

<sup>94</sup> Focus Group Investigation of Underage Access to Electronic Smoking Devices. Focus groups sponsored by the Center for Tobacco Prevention and Control, Maryland Department of Health, and conducted by Analytic Insights, September 2017.

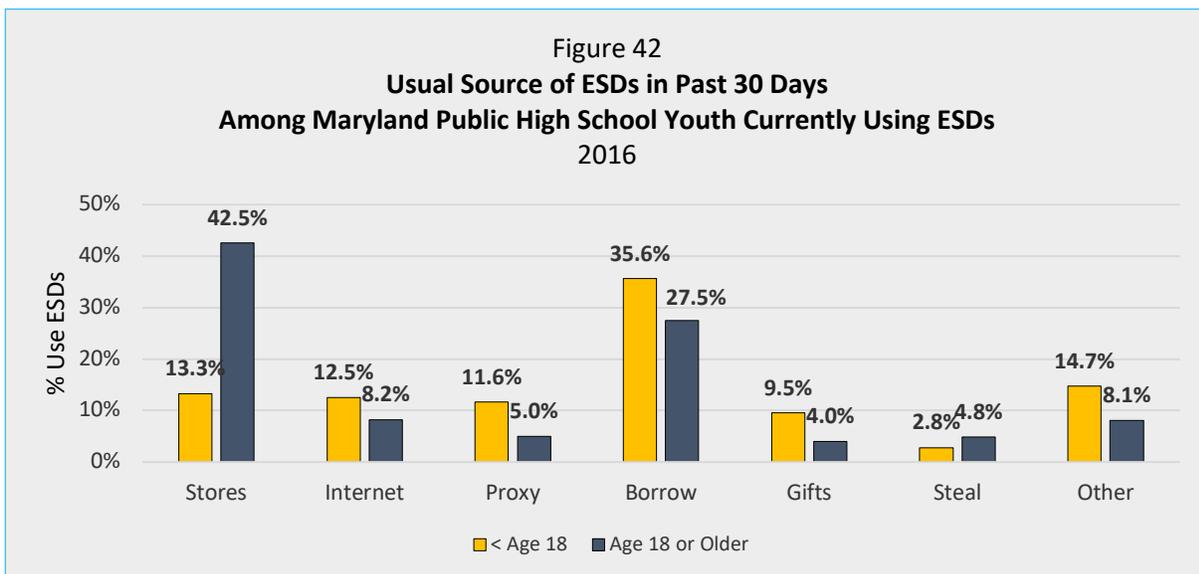
<sup>95</sup> This figure does not purport to reflect the proportion of Maryland tobacco retailers that are asking for proof of age as required by FDA. Instead, it reflects the experience of public high school youth when purchasing cigarettes in Maryland – some of whom may be going to the same stores.

retailer education and enforcement efforts at the local and state levels, which is likely responsible for the nearly 25 percent increase in the proportion of such youth reporting having been asked for proof of age (from 28.6 percent in 2014 to 35.7 percent in 2016). The increase in requests for proof of age amongst youth 18 years of age and older, beginning in 2013, was likely the result of FDA inspections beginning in 2011. While the increase in retailers asking for proof of age is a positive step, it should be noted that 40.9 percent of underage youth still reported not being asked for photo identification in 2016, and 45.9 percent of retailers who did ask for photo identification still sold tobacco to youth under 18 years of age.

In 2013 and 2014, over 20 percent of Maryland retailers were found to be illegally selling tobacco to youth under 18 years of age (24.1 percent and 31.4 percent, respectively). Maryland was, therefore, out of compliance with the Synar Amendment. In response, Maryland launched the Responsible Tobacco Retailer Initiative ([www.NoTobaccoSalesToMinors.com](http://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 was successful, and retailer violation rates dropped from 31.4 percent in 2014 to 10.8 percent in 2016. Rates have remained below 20 percent: the 2017 rate was 13.8 percent.

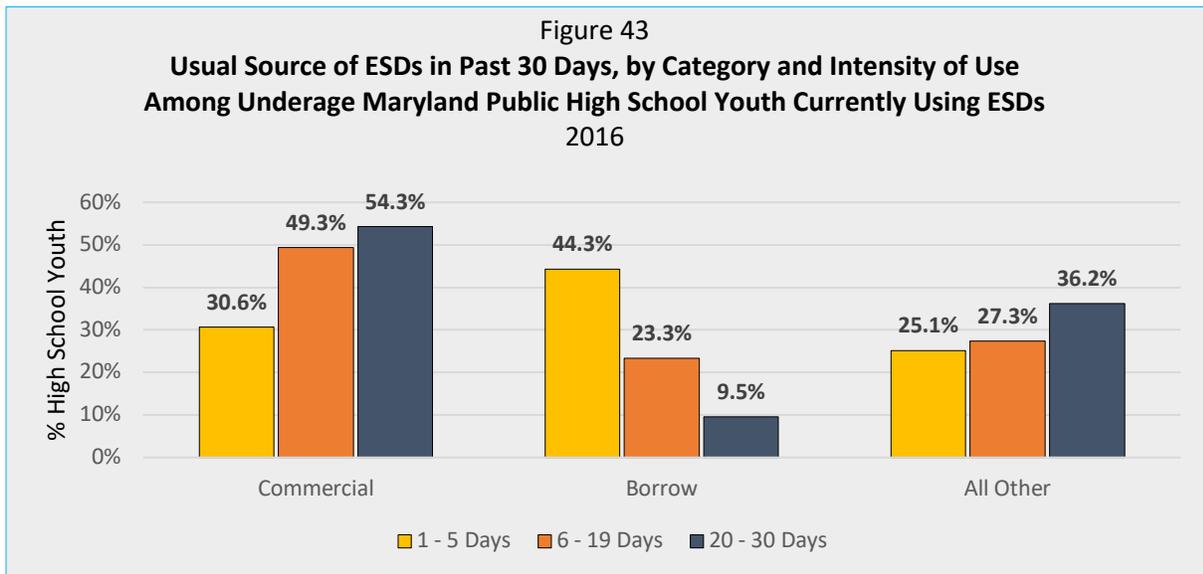
### **ESDs**

Both federal and Maryland laws prohibit the sale of ESDs, liquid nicotine, e-liquid/e-juice, and component parts to individuals under 18 years of age. For the first time, the Fall 2016 YRBS/YTS asked public high school youth to identify their ‘usual source’ for these products. Commercial ESD sources for underage youth are split between retail stores (13.3 percent), proxy purchases (11.6 percent), and internet purchases (12.5 percent) – a total of 37.4 percent. Underage youth also reported high rates of access to ESDs through borrowing (35.6 percent).



The ‘usual source’ of ESDs amongst underage youth is highly dependent upon the intensity of ESD use. Among underage ESD users, 54.3 percent of those using 20 to 30 days

each month report a commercial source as their usual means of access. In contrast, those using ESDs just 1 to 5 days per month report borrowing (44.3 percent) as their usual means of access.



## Chapter Conclusions:

1. Federal, State, and in some instances local ordinances prohibit the sale or distribution of tobacco products or ESDs to persons less than 18 years of age.
2. Federal law requires retailers to ask for photo identification and verify age before selling tobacco to anyone who appears to be less than 27 years of age.
3. Almost half of all high school students who usually purchase cigarettes from retail locations are 16 or 17 years of age.
4. Between 2014 and 2016, the proportion of underage Maryland public high school youth asked for proof of age when buying cigarettes during the past 30 days increased by 24.8 percent among youth who usually purchased their cigarettes from retailers.
5. Underage Maryland public high school youth who usually buy cigarettes from retailers identify stores that are less likely to ask for proof of age through trial-and-error and building upon peer networks.
6. Among underage Maryland public high school youth, of those who reported ESD use during the past 30 days, 35.6 percent usually obtained products through borrowing.
7. Commercial sources, including direct and proxy purchases from retailers (including online retailers) represent the ‘usual source’ of access to ESDs for underage youth (37.4 percent).

## EXPOSURE TO SECONDHAND SMOKE

In 2006, the Surgeon General issued a seminal report on “The Health Consequences of Involuntary Exposure to Tobacco Smoke.”<sup>96</sup> The report determined:

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

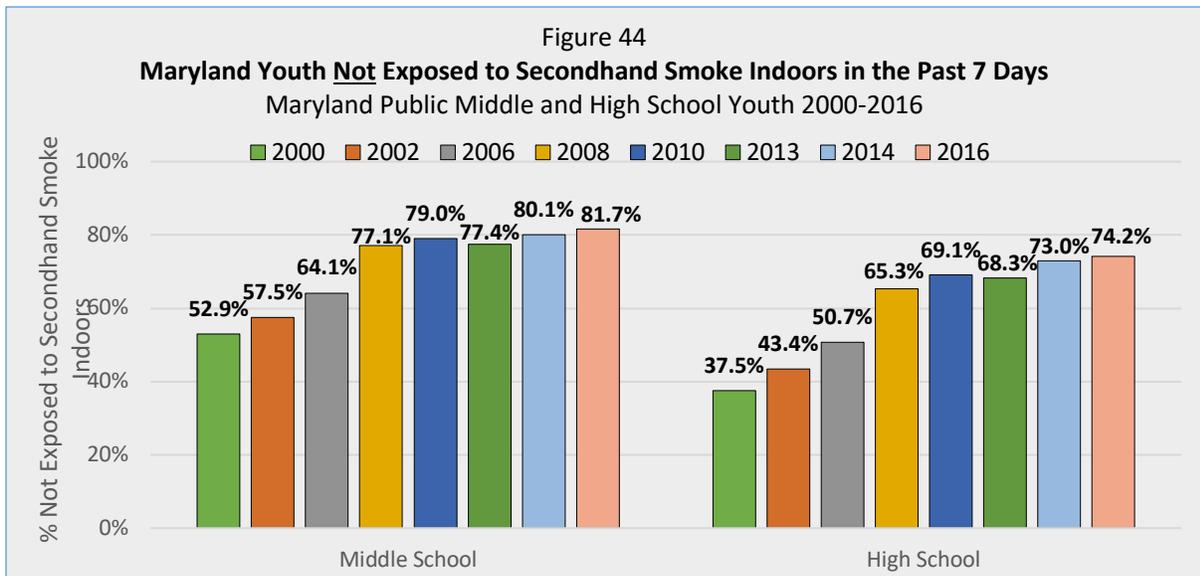
The 2014 Surgeons General’s Report "The Health Consequences of Smoking – 50 Years of Progress" provided further evidence in support of the above conclusions.<sup>97</sup>

Maryland has made significant progress in reducing involuntary exposure to secondhand smoke in the workplace. This effort began in the early 1990s, first with a regulatory smoking ban, followed shortly thereafter by legislative prohibitions on smoking indoors at most workplaces, with the notable exception of restaurants and bars. The 2007 Maryland Clean Indoor Air Act removed those exceptions, and today 84.9 percent of employed and self-employed Maryland adults report no exposure to secondhand smoke in the workplace.

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<sup>96</sup> Id, fn 29

<sup>97</sup> Id, fn 1



The result of Maryland’s efforts to promote voluntary smoke-free homes coupled with the Clean Indoor Air Act has significantly reduced involuntary indoor exposure to secondhand smoke among Maryland youth. Figure 44 shows that between Fall 2000 and Fall 2016, the proportion of middle school and high school youth reporting that they had not been exposed to secondhand smoke indoors during the seven days before being surveyed increased from 52.9 percent to 81.7 percent among public middle school youth, and from 37.5 percent to 74.2 percent among public high school youth.

Table 19 shows that the largest single-year increase in youth reporting that they were not exposed to secondhand smoke indoors came directly after passage of Clean Indoor Air Act. This establishes a clear benchmark year for assessing progress between 2000 and 2008, and then from 2008 until 2016. The changes reflect both reduced exposure to secondhand smoke in the home, as well as in public places such as restaurants.

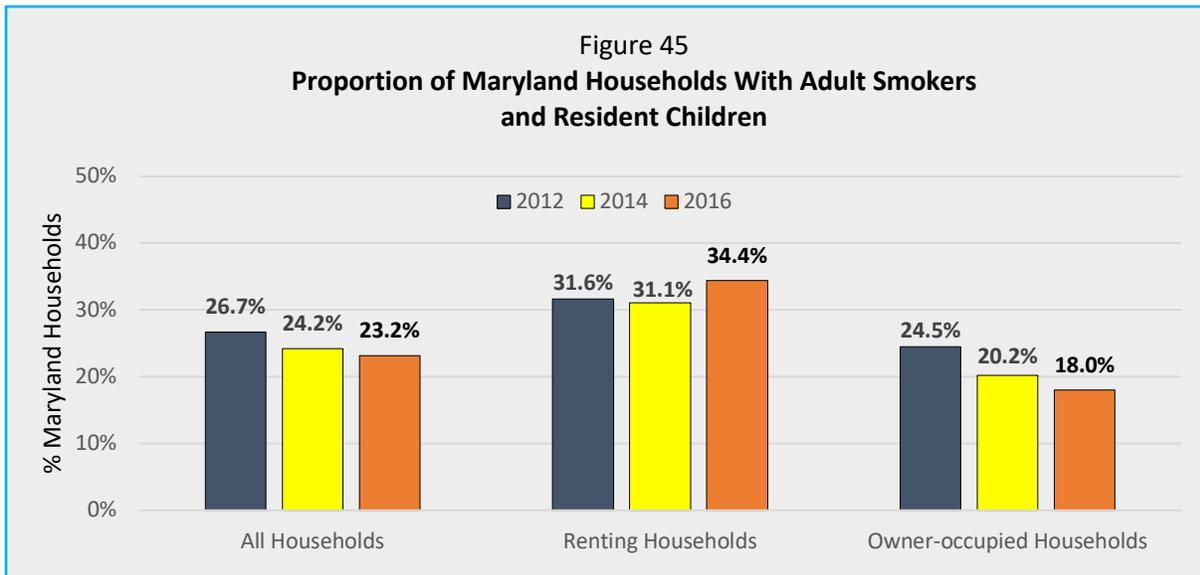
**Table 19. Percent Change in Middle School and High School Youth Reporting No Exposure to Secondhand Smoke**

|                  | Middle School Change | High School Change |
|------------------|----------------------|--------------------|
| <b>2000-2008</b> | + 45.7%              | + 74.1%            |
| <b>2008-2016</b> | + 6.0%               | + 13.6%            |
| <b>2000-2016</b> | + 54.4%              | + 98.0%            |

Households with resident smokers as well as non-smoking households that have youth in the household increasingly recognize the real health risks posed by secondhand smoke and are voluntarily choosing not to allow smoking inside their home. As shown in Figure 45, the proportion of Maryland households with a resident adult smoker and a resident child is significantly different for renter-occupied households compared to owner-

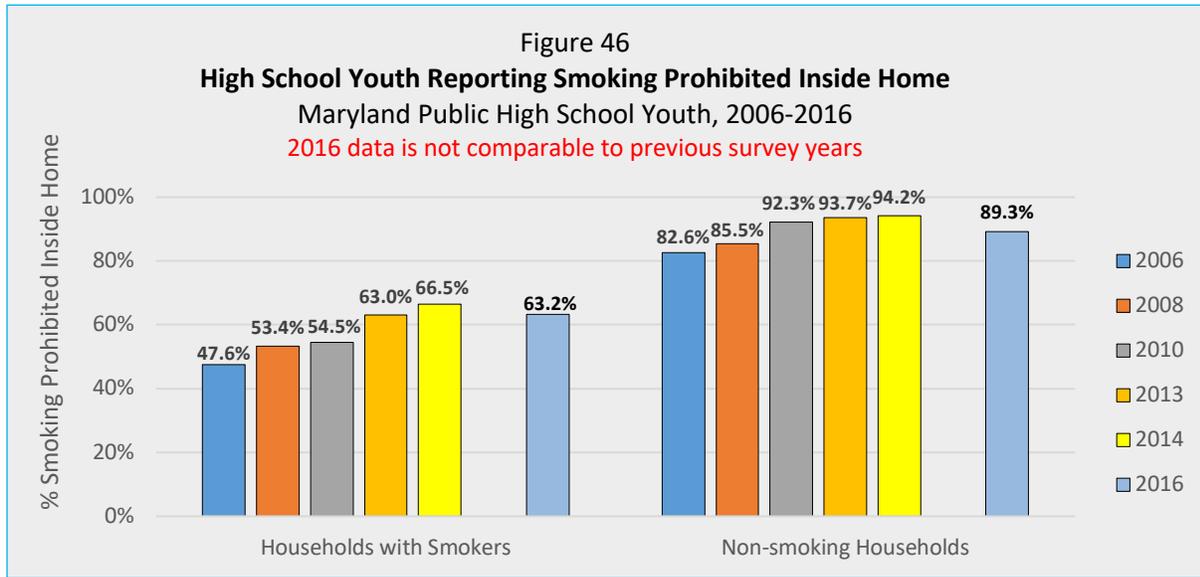
**Owner-occupied households are less likely to have an adult smoker with resident children compared to renting households.**

occupied households. There has been a 26.5 percent decrease in owner-occupied households with adult smokers since 2012. However, there has not been a statistically significant change in the proportion of renter-occupied smoking households, which is consistent with higher rates of cigarette use among populations more likely to live in renter-occupied households discussed earlier in the report.



In 2016, adults reported that 87.0 percent of Maryland households prohibited all smoking inside the residence (81.9 percent among those with no college education, 85.0 percent among those with some college, and 93.5 percent among college graduates). Middle school student responses showed a similar trend in smoking rules inside the home.

Since 2006, when rules about smoking inside residences were first assessed, Maryland high school youth have reported a steady increase in smoking bans inside their homes, whether or not there is a resident adult smoker present, see Figure 46. The ‘smoking rule’ question asked to students in 2016 included new response options. The original question asked in 2006 had three response options: never allowed, sometimes allowed, and always allowed. The 2016 question included four response options: never allowed, sometimes allowed, always allowed, and no smoking rule. The data from 2016 is not comparable to previous years; however, 2016 data do show that even among smokers, over 63 percent never allow smoking in their homes.



## Reducing Exposure of Youth and Adults to ESD Smoke

Although there is no Statewide prohibition of ESD use in public places, several cities and jurisdictions in Maryland have passed local laws banning use of ESDs in public spaces like parks, restaurants, and other spaces where combustible tobacco product use is banned. Businesses are free to prohibit ESD use in their spaces. Some jurisdictions have stricter local laws than others regarding ESD use. Baltimore City, Worcester, Howard, and Montgomery Counties have all banned ESD use where smoking is prohibited. Washington County has local laws in place banning smoking in most of the local parks.

### Chapter Conclusions:

1. Maryland’s Clean Indoor Air Act protects almost 85 percent of employed and self-employed residents from exposure to secondhand smoke in the workplace.
2. Voluntary rules prohibiting smoking anywhere inside a residence have gained popularity over time in Maryland in smoking as well as non-smoking households.
3. Youth are far more likely to be found living in smoking households when their residence is rented as compared to when it is owned by their parents or guardians.
4. Local businesses and local initiatives have sought to ban ESD use in areas where conventional smoking is prohibited.

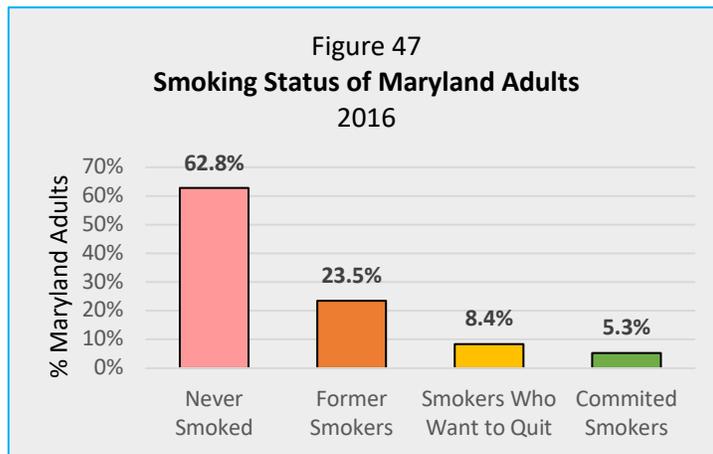
# ADULT CESSATION OF TOBACCO USE

## Adult Cessation Methods

Nicotine dependence is a serious addiction that can lead to negative health consequences. Tobacco use reduction and cessation can significantly decrease countless tobacco-related diseases and premature death.<sup>98</sup> CDC recommends establishing comprehensive cessation programs that focus on incorporating cessation within the health care system, increasing insurance coverage of cessation treatments, and improving access to a state tobacco quitline.<sup>99</sup>

Due to the addictive nature of tobacco, multiple cessation attempts are typically necessary and both cessation counseling programs and medications should be used. The Tobacco Use and Dependence Guideline Panel created a list of ten recommendations for providers, insurers, and health systems to aid their clients in ending tobacco dependence.<sup>100</sup> The guidelines encourage providers to refer tobacco users to cessation counseling programs (such as individual or telephone counseling) and medical treatments. Non-nicotine prescription medication (Bupropion or Varenicline) and nicotine replacement therapy, such as a patch, inhaler, lozenge, or gum are recommended as medical treatments.<sup>101</sup> Providing insurance coverage for these programs and treatments is important to increase accessibility and quit attempts.

As shown in Figure 47, in 2016, 23.5 percent of Maryland adults reported being former smokers, with over 8 percent of Maryland adult smokers saying they want to quit.<sup>102</sup> Nearly 63 percent of Maryland adults have never smoked.



<sup>98</sup> Id, fn 1

<sup>99</sup> Id, fn 2

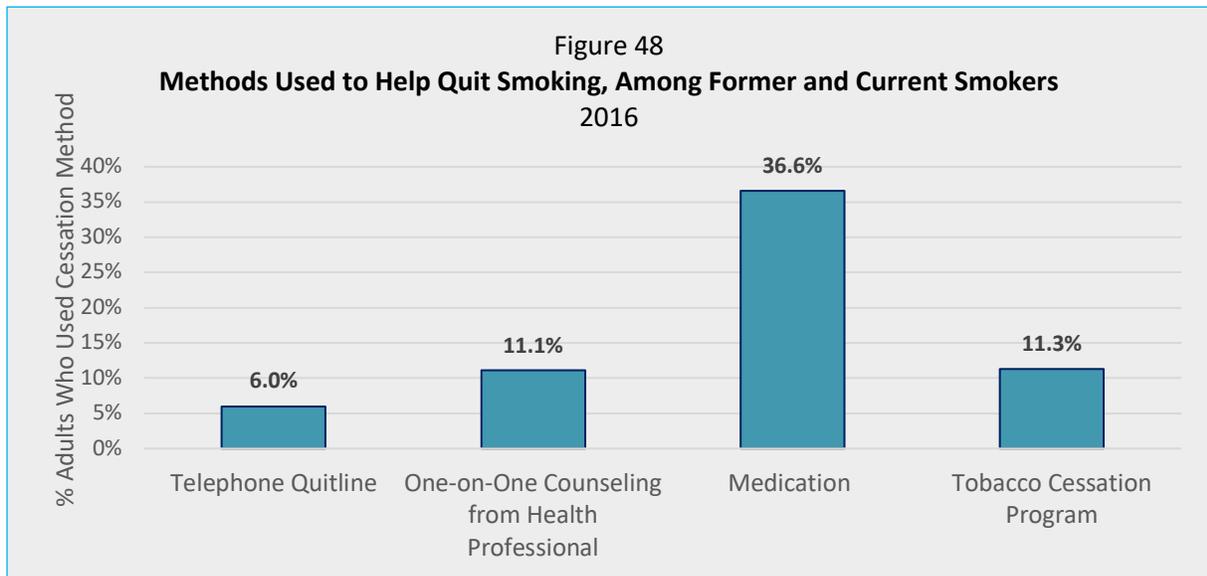
<sup>100</sup> Fiore, M. C., Jaen, C. R., Baker, T., et al. (2008). "Treating tobacco use and dependence: 2008 update." US Department of Health and Human Services. Accessed 28 December 2017 at <https://www.ncbi.nlm.nih.gov/books/NBK63952>.

<sup>101</sup> Id

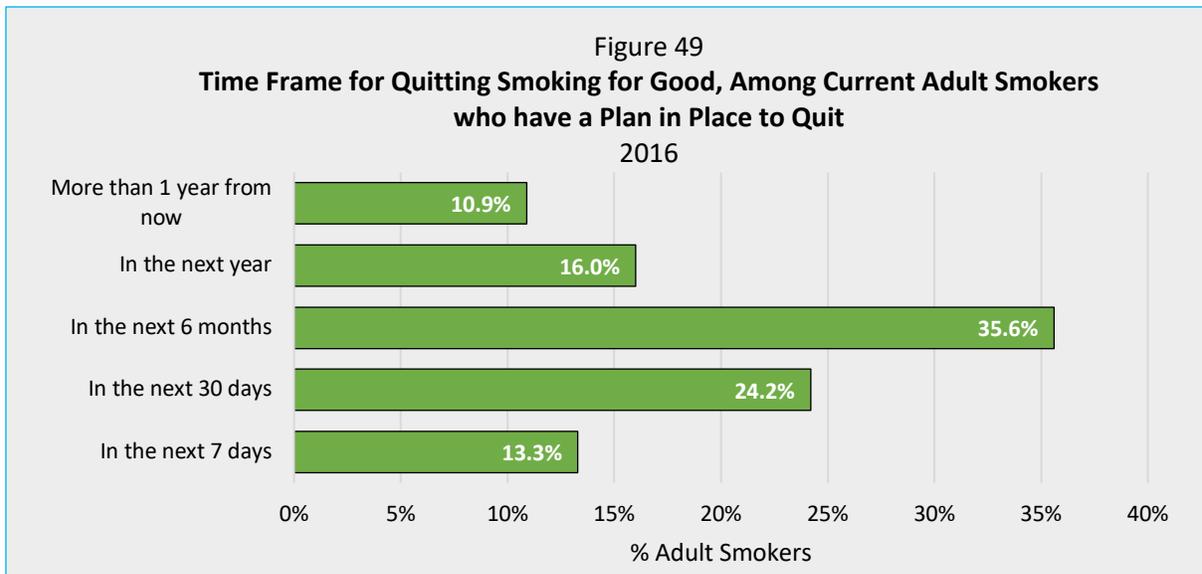
<sup>102</sup> Smokers who want to quit are smokers who made a quit attempt in the last year, committed smokers did not make a quit attempt in the last year.

Although some tobacco users successfully quit without assistance, many quit attempts require smoking and tobacco cessation help via the Maryland Tobacco Quitline (1-800-QUIT NOW); counseling from a health professional or insurance program; and/or medical treatment (non-nicotine prescription medication and/or nicotine replacement therapy). Use of medication was the most used method for tobacco cessation. Although it is imperative to have these methods available for tobacco users to quit, it is equally important for health systems and providers to assist tobacco users with creating a quit plan and timeframe. The methods used by former and current smokers to quit smoking are shown in Figure 48.

**Out of all adult smokers who attempted to quit by using one of the methods above, 26.4 percent of cigarette smokers, who had quit or were trying to quit, used only medication.**



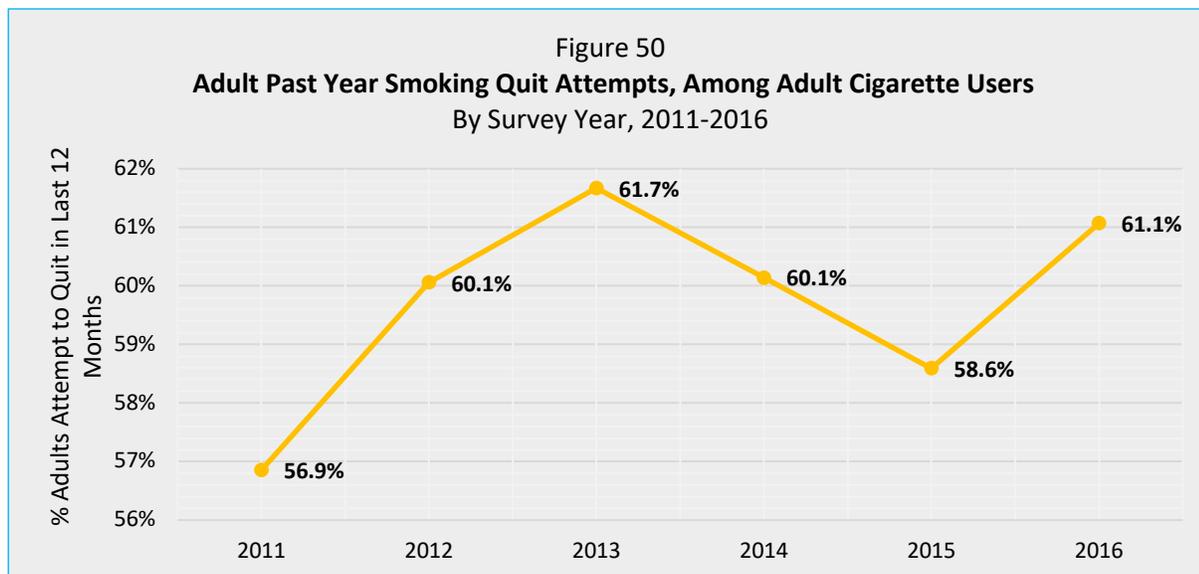
About 42 percent of current Maryland adult smokers have a time frame in mind for quitting smoking, with a majority (89.1 percent) planning to quit smoking within the next year. Figure 49 details the timeframe in mind for smokers with a plan to quit smoking.



To provide effective cessation interventions for Marylanders, MDH has formed and maintained relationships with health care systems and key stakeholders in the health care sector to enact health system changes related to tobacco cessation. Incorporating tobacco cessation interventions and treatments as part of a health care visit in hospitals, emergency rooms, urgent care centers, dental offices, and clinics will expand access and knowledge of evidence-based cessation interventions for Maryland tobacco users. These relationships with health care systems are important, as only about 55 percent of Maryland tobacco users reported in the 2016 BRFSS as being advised by a health care professional to quit using tobacco products in the last year. Since 2006, provider trainings and referrals to the Maryland Tobacco Quitline have increased significantly, and new and emerging technologies, such as Electronic Medical Records, can assist providers with easily referring patients and clients to cessation services. The more providers that are trained to assist their clients or patients with tobacco cessation, the less barriers tobacco users face in accessing the cessation services they need. Partnerships with providers can encourage clients to access resources and begin thinking about quitting tobacco for good.

One of the national objectives in Healthy People 2020 is to increase smoking cessation quit attempts for adults from a baseline of 50.2 percent in 2008 to 80.0 percent in 2020.<sup>103</sup> The proportion of Maryland adult cigarette smokers who made quit attempts in the past 12 months has fluctuated over the last six years, as is shown in Figure 50. In 2011, 56.9 percent of Maryland adult cigarette smokers attempted to quit smoking in the last 12 months, and 61.1 percent attempted to quit in 2016. Smokers who smoked on ‘some days’ were more likely to try to quit smoking than smokers who smoked ‘every day’ (81.6 percent and 51.8 percent, respectively).

<sup>103</sup> Healthy People 2020. “Tobacco Use.” US Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Accessed 29 December 2017 at <<https://www.healthypeople.gov/2020/topics-objectives/topic/tobacco-use/objectives>>.



## Maryland Tobacco Quitline

In 2006, the Maryland Tobacco Quitline (1-800-QUIT-NOW) began providing free tobacco use counseling to Maryland residents 13 years of age and older.<sup>104</sup> The Quitline provides phone-based, web-based, and text-based counseling in multiple languages to assist tobacco users on their cessation journey. For residents aged 18 years of age and older, the Quitline also provides free nicotine replacement therapy (such as nicotine patch and/or nicotine gum) to tobacco users that is directly shipped to their home. In State fiscal year 2016, over 10,000 Maryland residents accessed the Quitline for services.

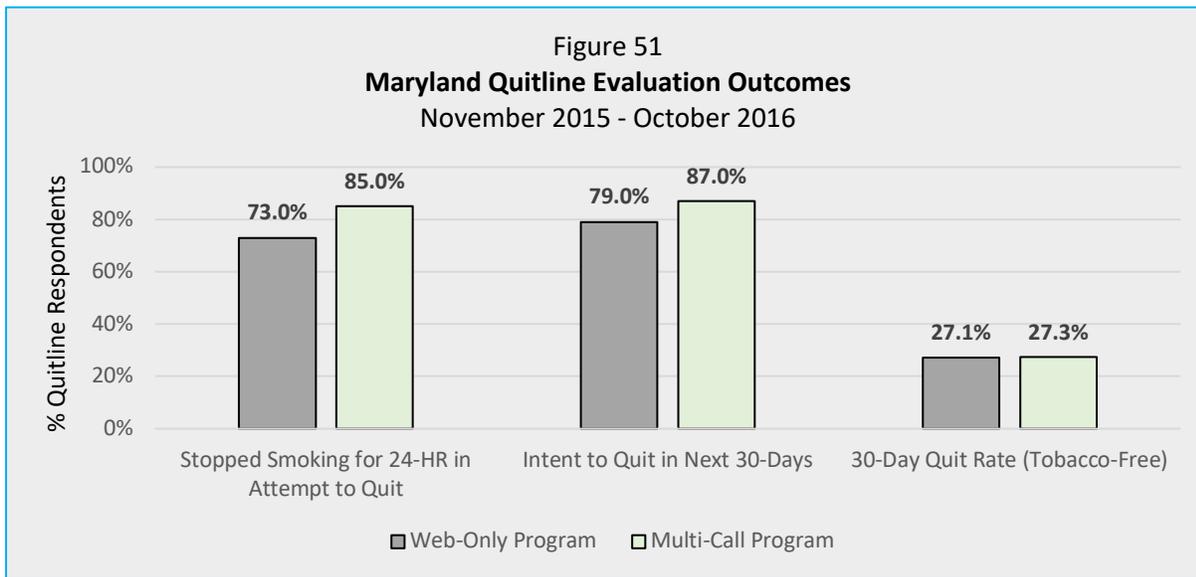
## Maryland Tobacco Quitline Evaluation

In 2016, 30.2 percent of Maryland adults were aware of the Maryland Tobacco Quitline service. Of current smokers, 62.9 percent were aware of the Quitline compared to 48.4 percent in 2011 when the question was first asked, demonstrating that outreach efforts are successfully reaching smokers.

The Maryland Tobacco Quitline conducted a follow-up evaluation survey of participants who enrolled in services to measure the effectiveness of the program. The primary objective of the evaluation was to determine how many participants had been tobacco-free for at least 30 days when they were contacted for a 7-month follow-up.

<sup>104</sup> Maryland Tobacco Quitline. Accessed 16 January 2018 at [https://phpa.health.maryland.gov/ohpetup/Pages/tob\\_quit.aspx](https://phpa.health.maryland.gov/ohpetup/Pages/tob_quit.aspx).

The evaluation, which surveyed multiple-call Quitline participants and web-only participants separately, found the 30-day quit rates to be 27.3 percent and 27.1 percent, respectively.<sup>105</sup> There are additional beneficial outcomes for tobacco users who use the Quitline including an increased number of quit attempts, reduction in use of cigarettes, and a reduction in persons reporting needing their first cigarette within five minutes of waking.



## Use of ESDs for Cessation

### **ESDs are Not an FDA Approved Smoking Cessation Aid**

FDA has not approved any ESD as a smoking cessation aid. However, youth and adults do try to use these products to stop using other tobacco products like cigarettes, cigars, or smokeless tobacco. Many people believe that ESDs are healthier or safer to use than conventional tobacco products. ESDs may contain less nicotine and less harmful toxicants when compared to conventional cigarettes.<sup>106,107</sup> However, the duration and frequency of inhalation associated with ESD use can lead to more nicotine and toxicant intake when compared to general cigarette usage.<sup>108,109</sup> Increased nicotine delivery can

**Callers to the Maryland Tobacco Quitline (1-800-QUIT-NOW) who never used an ESD had significantly higher quit rates than callers who had used an ESD.**

<sup>105</sup> Optum. “Maryland Tobacco Quitline Stakeholder Report” 2016 and 2017.

<sup>106</sup> National Institute on Drug Abuse. (2018). “Cigarettes and Other Tobacco Products.” Accessed 26 January 2018 at <<https://www.drugabuse.gov/publications/drugfacts/cigarettes-other-tobacco-products>>.

<sup>107</sup> National Academies of Sciences, Engineering, and Medicine. (2018). “Public health consequences of e-cigarettes.” The National Academies Press. Accessed 2 March 2018 at <<https://doi.org/10.17226/24952>>.

<sup>108</sup> Id, fn 109

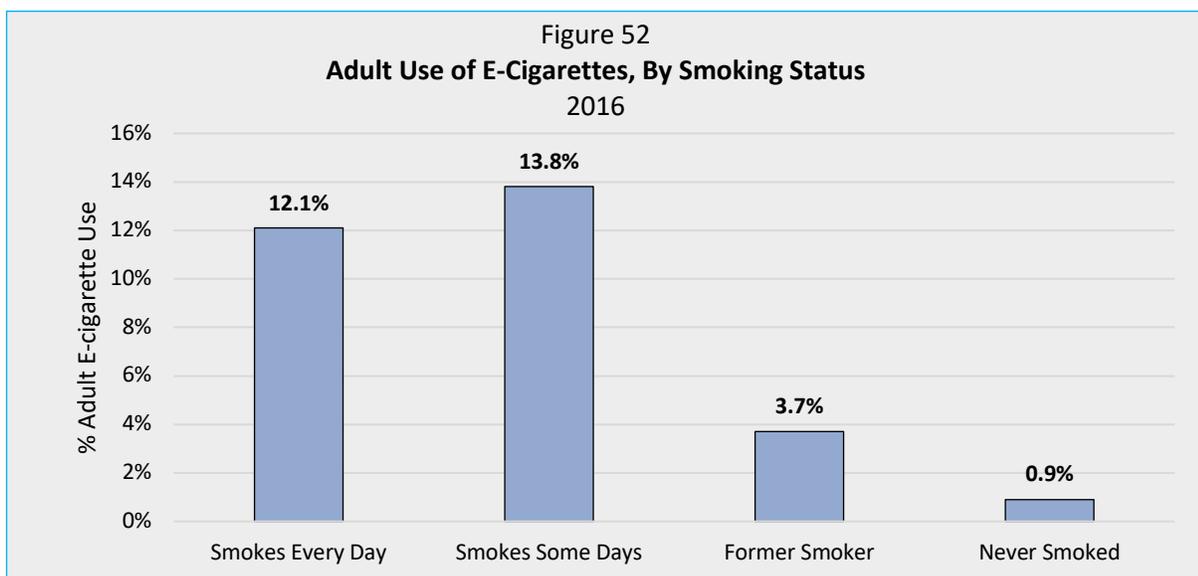
<sup>109</sup> Id, fn 26

lead to nicotine dependence and conventional smoking initiation for both adults and youth.

In 2016, 10.7 percent of adult ESD users said they used ESDs because they thought they were safer than cigarettes, and 45.1 percent reported using them to try to quit smoking. One third of ESD users identified as former smokers. Among youth who reported quitting conventional tobacco use in the past year, 32.5 percent were currently using ESDs. Continuing to use ESDs suggests that adults and youth who formerly used traditional tobacco products have difficulty with quitting all products, and those who are trying to quit may prolong their nicotine dependence. Studies have found that dual tobacco and ESD users are more likely to delay cessation of tobacco products.<sup>110</sup>

Although scientific evidence related to the success of using ESDs to quit tobacco is scarce, certain trends concerning ESD and tobacco users are available. In 2016, 45.1 percent of adult ESD users reported that the main reason they used ESDs was to quit smoking conventional cigarettes. The Quitline evaluation showed many survey participants used ESDs as a method to quit or wean off other tobacco products. However, 16.3 percent of current adult ESD users in the BRFSS also used other tobacco products.

Figure 52 shows adult ESD use by cigarette smoking status. Smokers who report smoking ‘some days’ are more likely to be ESD users compared to those who smoke ‘every day.’ Nearly 4.0 percent of former smokers currently use ESDs ‘every day’ or on ‘some days.’ A large proportion of ESD users are still dependent on nicotine from other tobacco products, and some of those that have quit smoking are still getting nicotine through ESDs. The benefits of quitting combustible tobacco use are extensive; however, there is limited evidence that ESDs may be an effective aid in smoking cessation. More and better research is needed to help clarify whether ESDs will reduce harm or cause harm in individuals and populations.<sup>111</sup>



<sup>110</sup> Grana, R. A., Popova, L., & Ling, P. M. (2014). “A longitudinal analysis of electronic cigarette use and smoking cessation.” *JAMA internal medicine*, 174(5), 812-813. Accessed 31 January 2018 at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4122246/>.

<sup>111</sup> National Academies of Sciences, Engineering, and Medicine. (2018). “Public health consequences of e-cigarettes.” The National Academies Press. Accessed 2 March 2018 at <https://doi.org/10.17226/24952>.

## **Chapter Conclusions:**

1. Medications are the most preferred tobacco cessation method used by adults who want to quit smoking.
2. Past year quit attempts have increased from 56.9 percent in 2011 to 61.1 percent in 2016, with a majority of adult smokers with a plan to quit wanting to do so in the next year.
3. Including tobacco cessation intervention programs in existing health care systems will more readily connect residents to the Maryland Tobacco Quitline and other cessation services.
4. In 2016, 45.1 percent of adult ESD users reported that the main reason they used ESDs was to try to quit smoking conventional cigarettes. However, 16.1 percent of current adult ESD users still use other tobacco products, meaning they are still dependent on nicotine from other tobacco products.
5. More research is needed to determine what harms or benefits ESDs offer to decrease cigarette initiation and tobacco related diseases and deaths.

## DATA SOURCES IN THIS REPORT

### Survey Data Sources

Both youth and adult data in this report may come from a variety of survey and other sources. The primary survey sources include:

#### Youth Data – Public Middle and High School

- Youth Tobacco Survey (YTS), 2000-2010
- Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS), 2013-2016
- ‘Youth’ refers to youth enrolled in any grade 6-12, regardless of age

#### Adult Data

- Behavioral Risk Factor Surveillance System (BRFSS) Survey, 2000-2016
- ‘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 is derived from the 2016 YRBS/YTS and the 2016 BRFSS.

### Behavioral Risk Factor Surveillance System (BRFSS)

BRFSS is a CDC-sponsored annual random-digit-dial telephone survey conducted by MDH. Like the youth-oriented YRBS, the BRFSS focuses primarily on risk behaviors, but for adults, including the use of tobacco products. The survey is designed to produce primarily 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 2016, there were more than 17,000 completed BRFSS telephone interviews.

BRFSS data is collected through an MDH 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 MDH unless otherwise noted.

### Youth Risk Behavior Survey (YRBS)

The YRBS is a survey sponsored nationally by CDC. In Maryland, the YRBS has been combined with CDC’s YTS and is now called the YRBS/YTS. The YRBS/YTS is sponsored by the MDH. The YRBS is the core of the Maryland YRBS/YTS and the YRBS/YTS is accepted by CDC as an official YRBS CDC survey.

The YRBS uses distinct middle and high school survey instruments. The core of these survey instruments comes from CDC’s YRBS (of which Maryland is required to include a minimum of two-thirds of the core survey questions).

MDH administers the paper and pencil surveys, utilizing a Scantron® type answer sheet to protect student anonymity, in the Fall of even calendar years to youth enrolled in public middle (grades 6-8) and high (grades 9-12) schools.

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 conducts all data cleaning, logic edits, weighting, and primary data analysis.

### **Youth Tobacco Survey (YTS)**

The YTS was first conducted in Maryland in 2000 and replicated biennially thereafter to maintain surveillance of youth tobacco use behaviors as mandated by the Health-General Article (Section 13-1004). The YTS was a jurisdiction-level survey that provided comprehensive data on tobacco use behaviors from 2000-2010. Thereafter in Maryland, the YTS was combined with the YRBS. The YTS, the YRBS, and the YRBS/YTS all employ the same methodology and model for conducting surveys.

### **Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS)**

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

**High School Youth Population Data**  
*Statutory Tables*

**A. Youth Current Tobacco Use – Maryland Public High School Youth**<sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 26.9 (25.9-27.9)<br>57,538    | 21.7 (20.9-22.6)<br>47,083    | 17.0 (16.1-17.9)<br>42,180    | 19.4 (18.8-20.0)<br>44,820    | 19.4 (18.7- 20.1)<br>47,698   | 16.9 (16.3-17.5)<br>38,966      | 16.4 (15.7-17.1)<br>38,634    | 14.4 (13.7-15.0)<br>35,448    |
| <b>Allegany</b>         | 40.8 (37.3-44.4)<br>1,249     | 35.1 (30.6-40.0)<br>1,039     | 29.3 (24.4-34.7)<br>870       | 27.1 (23.1-31.5)<br>741       | 24.3 (21.3-27.7)<br>620       | 27.2 (24.3-30.3)<br>661         | 24.9 (21.6-28.1)<br>621       | 23.0 (19.8-26.3)<br>585       |
| <b>Anne Arundel</b>     | 32.5 (29.2-35.9)<br>6,440     | 25.6 (23.2-28.2)<br>5,139     | 19.7 (16.9-22.8)<br>4,255     | 21.8 (19.6-24.0)<br>4,387     | 21.0 (19.0-23.1)<br>4,428     | 17.7 (15.8-19.8)<br>3,643       | 19.1 (17.0-21.2)<br>4,044     | 16.1 (14.0-18.1)<br>3,596     |
| <b>Baltimore City*</b>  | 17.8 (14.7-21.6)<br>3,776     | 14.1 (11.7-16.8)<br>2,837     | 10.2 (8.2-12.6)<br>2,147      | 18.6 (16.4-21.0)<br>2,794     | 19.2 (17.0-21.7)<br>4,110     | 16.6 (14.8-18.6)<br>3,210       | 20.0 (17.1-22.9)<br>3,840     | 16.6 (15.1-18.4)<br>3,881     |
| <b>Baltimore County</b> | 27.9 (24.4-31.6)<br>7,687     | 22.5 (19.2-26.1)<br>6,263     | 17.7 (14.7-21.1)<br>5,431     | 22.0 (19.4-25.0)<br>5,572     | 22.7 (19.9-25.7)<br>6,665     | 18.1 (15.3-21.2)<br>5,120       | 16.5 (13.3-19.7)<br>4,736     | 16.5 (13.6-19.3)<br>4,973     |
| <b>Calvert</b>          | 32.1 (28.5-36.1)<br>1,349     | 30.6 (25.2-36.7)<br>1,319     | 22.2 (19.9-24.6)<br>1,223     | 20.3 (17.9-22.9)<br>1,102     | 21.7 (19.4-24.3)<br>1,176     | 23.0 (20.1-26.1)<br>1,149       | 20.7 (18.2-23.3)<br>1,023     | 16.6 (14.2-19.0)<br>852       |
| <b>Caroline</b>         | 41.0 (35.7-46.5)<br>618       | 32.6 (28.9-36.4)<br>472       | 27.2 (25.7-28.7)<br>456       | 29.1 (25.4-33.0)<br>457       | 25.7 (23.0-28.7)<br>374       | 25.4 (21.7-29.6)<br>359         | 26.1 (22.3-29.8)<br>390       | 19.5 (15.9-23.0)<br>294       |
| <b>Carroll</b>          | 29.0 (24.9-33.5)<br>2,206     | 25.8 (21.8-30.2)<br>1,975     | 22.0 (19.6-24.6)<br>2,070     | 21.9 (19.7-24.2)<br>1,976     | 19.6 (17.7-21.6)<br>1,738     | 18.7 (16.7-21.0)<br>1,546       | 15.0 (13.0-17.1)<br>1,219     | 15.4 (13.0-17.7)<br>1,269     |
| <b>Cecil</b>            | 36.0 (31.9-40.3)<br>1,386     | 28.5 (24.6-32.7)<br>1,119     | 27.9 (25.5-30.3)<br>1,318     | 26.4 (24.0-29.0)<br>1,243     | 25.8 (23.1-28.8)<br>2,211     | 24.6 (22.0-27.4)<br>1,082       | 25.2 (22.7-27.8)<br>1,133     | 16.5 (14.4-18.7)<br>772       |
| <b>Charles</b>          | 31.8 (27.8-36.1)<br>2,032     | 24.8 (21.6-28.2)<br>1,569     | 18.1 (15.1-21.6)<br>1,531     | 20.6 (18.7-22.7)<br>1,739     | 18.7 (16.7-20.9)<br>1,601     | 17.6 (15.9-19.5)<br>1,439       | 17.9 (15.8-20.0)<br>1,435     | 15.0 (13.2-16.8)<br>1,229     |
| <b>Dorchester</b>       | 30.0 (26.8-33.5)<br>401       | 26.5 (22.6-30.7)<br>339       | 20.2 (15.1-26.4)<br>284       | 22.3 (18.9-26.1)<br>283       | 22.9 (19.6-26.7)<br>282       | 24.4 (20.6-28.7)<br>287         | 24.9 (20.7-29.0)<br>301       | 25.8 (19.0-32.6)<br>323       |
| <b>Frederick</b>        | 33.5 (30.1-37.1)<br>3,194     | 25.8 (22.5-29.5)<br>2,610     | 21.1 (17.8-24.8)<br>2,475     | 20.8 (18.5-23.4)<br>2,532     | 18.7 (16.4-21.2)<br>2,259     | 19.9 (17.8-22.0)<br>2,351       | 16.3 (14.6-18.0)<br>1,952     | 14.7 (12.7-16.8)<br>1,813     |
| <b>Garrett</b>          | 38.3 (34.4-42.4)<br>497       | 36.3 (31.6-41.3)<br>438       | 32.2 (26.0-39.1)<br>457       | 33.6 (28.9-38.7)<br>466       | 34.9 (30.6-39.3)<br>448       | 34.3 (29.5-39.5)<br>382         | 33.0 (27.5-38.6)<br>368       | 26.6 (22.4-30.9)<br>302       |
| <b>Harford</b>          | 36.0 (32.8-39.3)<br>3,575     | 24.9 (21.9-28.2)<br>2,574     | 21.0 (18.9-23.3)<br>2,434     | 20.8 (18.6-23.2)<br>2,113     | 22.9 (20.7-25.3)<br>2,654     | 20.2 (18.2-22.5)<br>2,201       | 19.2 (17.2-21.3)<br>2,086     | 14.9 (12.9-16.8)<br>351       |
| <b>Howard</b>           | 24.5 (21.5-27.8)<br>2,867     | 20.9 (18.5-23.5)<br>2,519     | 15.5 (13.5-17.8)<br>2,288     | 16.5 (14.6-18.7)<br>2,534     | 15.1 (13.4-17.0)<br>2,379     | 11.5 (10.1-13.0)<br>1,799       | 10.1 (8.8-11.4)<br>1,587      | 10.7 (8.9-12.4)<br>1,738      |
| <b>Kent</b>             | 43.5 (38.1-49.0)<br>334       | 34.4 (29.9-39.2)<br>243       | 28.4 (26.7-30.1)<br>205       | 29.4 (24.0-35.5)<br>187       | 28.8 (23.5-34.8)<br>164       | 25.7 (19.9-32.4)<br>142         | 22.9 (15.9-29.8)<br>130       | 20.4 (14.9-25.9)<br>115       |
| <b>Montgomery</b>       | 22.5 (20.3-24.7)<br>7,585     | 17.8 (15.6-20.2)<br>6,505     | 15.1 (12.3-18.4)<br>6,193     | 14.5 (13.0-16.1)<br>5,948     | 14.3 (12.4-16.5)<br>6,131     | 12.1 (10.8-13.6)<br>4,961       | 11.1 (9.5-12.7)<br>4,772      | 9.6 (7.8-11.4)<br>4,358       |
| <b>Prince George's</b>  | 18.5 (15.6-21.9)<br>5,896     | 15.7 (13.7-17.9)<br>4,913     | 9.4 (7.6-11.7)<br>3,581       | 15.4 (13.9-17.2)<br>5,498     | 16.9 (15.3-18.6)<br>6,100     | 13.3 (11.8-14.9)<br>4,057       | 13.3 (11.8-14.9)<br>4,219     | 10.9 (9.1-12.8)<br>3,657      |
| <b>Queen Anne's</b>     | 34.1 (30.9-37.5)<br>601       | 30.1 (27.0-33.5)<br>548       | 26.9 (21.4-33.1)<br>628       | 25.2 (22.3-28.4)<br>589       | 24.4 (21.7-27.2)<br>545       | 22.5 (19.2-26.2)<br>478         | 24.3 (20.7-27.9)<br>525       | 20.7 (17.3-24.0)<br>463       |
| <b>Somerset</b>         | 42.0 (34.6-49.8)<br>321       | 28.5 (23.4-34.2)<br>191       | 22.7 (20.8-24.8)<br>169       | 26.5 (22.0-31.5)<br>195       | 30.8 (25.3-36.8)<br>222       | 23.0 (18.4-28.3)<br>156         | 27.5 (21.0-34.0)<br>186       | 22.0 (17.2-26.9)<br>161       |
| <b>St. Mary's</b>       | 32.1 (28.4-36.1)<br>1,258     | 27.5 (23.3-32.2)<br>1,099     | 18.1 (13.9-23.2)<br>897       | 19.5 (17.1-22.2)<br>969       | 19.1 (16.7-21.6)<br>929       | 19.2 (17.0-21.6)<br>889         | 22.6 (19.2-26.0)<br>1,077     | 16.8 (14.7-18.9)<br>809       |
| <b>Talbot</b>           | 38.7 (35.2-42.4)<br>357       | 31.0 (27.3-35.0)<br>363       | 27.4 (24.3-30.8)<br>362       | 26.3 (22.6-30.4)<br>360       | 24.4 (20.9-28.4)<br>317       | 20.2 (16.5-24.6)<br>247         | 21.6 (17.9-25.2)<br>274       | 16.7 (13.5-20.0)<br>228       |
| <b>Washington</b>       | 36.2 (32.9-39.6)<br>1,888     | 28.6 (25.4- 32.0)<br>1,550    | 26.0 (22.8-29.4)<br>1,602     | 28.5 (25.6-31.5)<br>1,612     | 28.8 (25.9-32.0)<br>1,792     | 24.6 (22.1-27.2)<br>1,506       | 23.7 (21.5-25.9)<br>1,495     | 20.9 (18.3-23.4)<br>1,355     |
| <b>Wicomico</b>         | 36.2 (32.2-40.3)<br>1,301     | 27.0 (22.3-32.2)<br>942       | 19.9 (17.0-23.1)<br>796       | 23.5 (21.2-26.1)<br>915       | 26.8 (23.8-30.0)<br>957       | 22.8 (20.7-25.1)<br>803         | 21.5 (20.0-22.9)<br>797       | 16.1 (13.4-18.8)<br>642       |
| <b>Worcester</b>        | 31.6 (27.3- 36.2)<br>622      | 26.8 (22.5-31.5)<br>517       | 22.8 (19.8-26.0)<br>511       | 29.8 (27.0-32.7)<br>607       | 29.8 (26.8-32.9)<br>597       | 27.4 (23.7-31.3)<br>498         | 22.5 (20.0-25.0)<br>426       | 18.4 (14.8-21.6)<br>372       |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

**B. Youth Current Tobacco Use, By Minority Race/Ethnicity – Maryland Public High School Youth**<sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 20.0 (18.6-21.5)<br>18,045    | 16.4 (15.4-17.5)<br>16,083    | 12.3 (11.4-13.2)<br>15,705    | 17.1 (16.3-17.8)<br>19,864    | 18.3 (17.5-19.0)<br>24,513    | 14.6 (13.9-15.3)<br>17,870      | 14.5 (13.7-15.3)<br>18,789    | 13.0 (12.2-13.8)<br>18,054    |
| <b>Allegany</b>         | 41.8 (32.8-51.4)<br>89        | Insufficient<br>Sample Size   | 35.0 (26.7-44.2)<br>98        | 39.5 (31.5-48.1)<br>104       | 32.5 (26.0-39.8)<br>92        | 39.3 (33.3-45.4)<br>144         | 28.4 (21.8-35.0)<br>101       | 31.7 (25.2-38.1)<br>142       |
| <b>Anne Arundel</b>     | 27.9 (22.3-34.2)<br>1,341     | 20.7 (17.4-24.4)<br>1,120     | 17.2 (12.3-23.6)<br>1,229     | 20.7 (18.1-23.6)<br>1,304     | 22.2 (19.7-25.0)<br>1,599     | 18.6 (15.8-21.3)<br>1,312       | 17.5 (15.2-19.8)<br>1,390     | 15.9 (13.5-18.3)<br>1,404     |
| <b>Baltimore City*</b>  | 16.8 (13.8-20.4)<br>3,131     | 11.6 (9.3-14.4)<br>2,041      | 9.9 (7.8-12.5)<br>1,978       | 18.2 (15.9-20.8)<br>2,536     | 18.9 (16.6-21.3)<br>3,775     | 15.9 (14.1-17.7)<br>2,742       | 18.7 (16.0-21.4)<br>3,148     | 16.9 (14.4-19.4)<br>3,011     |
| <b>Baltimore County</b> | 20.6 (18.2-23.2)<br>1,841     | 14.5 (10.3-20.1)<br>1,505     | 10.1 (8.1-12.5)<br>1,505      | 17.4 (15.5-19.5)<br>2,103     | 19.6 (17.9-21.4)<br>2,934     | 13.5 (10.7-16.3)<br>1,978       | 14.5 (11.3-17.6)<br>2,288     | 15.2 (11.8-18.6)<br>2,576     |
| <b>Calvert</b>          | 29.5 (24.1-35.6)<br>251       | 38.7 (28.7-49.8)<br>309       | 21.4 (16.0-27.9)<br>285       | 19.3 (16.3-22.6)<br>227       | 23.1 (19.4-27.2)<br>295       | 25.0 (20.4-29.6)<br>288         | 20.6 (17.0-24.2)<br>245       | 14.2 (11.1-17.3)<br>187       |
| <b>Caroline</b>         | 34.6 (27.7-42.3)<br>119       | 26.6 (20.2-34.2)<br>90        | 22.5 (17.4-28.6)<br>98        | 26.6 (21.2-32.8)<br>106       | 29.3 (24.2-35.0)<br>121       | 23.5 (17.9-29.0)<br>89          | 26.3 (21.1-31.5)<br>121       | 20.5 (15.5-25.4)<br>122       |
| <b>Carroll</b>          | 46.8 (36.5-57.4)<br>292       | 31.6 (24.0-40.4)<br>235       | 26.2 (22.0-30.8)<br>234       | 30.4 (26.0-35.2)<br>223       | 23.7 (19.6-28.4)<br>207       | 24.8 (19.6-30.0)<br>199         | 18.4 (13.7-23.1)<br>173       | 15.2 (11.3-19.1)<br>151       |
| <b>Cecil</b>            | 36.8 (27.9-46.7)<br>162       | 32.2 (22.7-43.3)<br>147       | 26.6 (21.1-33.0)<br>223       | 28.1 (23.5-33.3)<br>186       | 26.4 (22.6-30.7)<br>224       | 20.7 (16.9-24.6)<br>163         | 27.7 (23.0-32.5)<br>242       | 18.1 (13.8-22.3)<br>166       |
| <b>Charles</b>          | 25.9 (21.8-30.5)<br>512       | 17.4 (13.1-22.8)<br>456       | 16.3 (12.8-20.4)<br>787       | 19.0 (16.8-21.5)<br>955       | 17.2 (15.1-19.4)<br>942       | 14.6 (12.8-16.5)<br>756         | 15.8 (13.5-18.1)<br>833       | 13.0 (11.1-14.9)<br>720       |
| <b>Dorchester</b>       | 25.6 (21.6-30.2)<br>128       | 21.1 (16.2-27.0)<br>105       | 17.2 (11.4-25.2)<br>116       | 24.2 (19.2-30.0)<br>145       | 27.0 (22.8-31.7)<br>161       | 23.3 (17.3-29.2)<br>111         | 23.3 (18.0-28.6)<br>122       | 28.7 (20.0-37.4)<br>157       |
| <b>Frederick</b>        | 36.0 (30.0-42.3)<br>518       | 31.7 (24.0-40.6)<br>542       | 20.5 (14.5-28.0)<br>558       | 21.1 (17.4-25.3)<br>566       | 18.1 (15.4-21.2)<br>619       | 19.1 (16.4-21.8)<br>664         | 15.6 (12.6-18.6)<br>566       | 16.9 (14.0-19.8)<br>668       |
| <b>Garrett</b>          | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 48.3 (39.9-56.9)<br>78        | 57.5 (47.6-67.3)<br>80          | 54.7 (43.4-66.1)<br>62        | 45.7 (33.8-57.7)<br>62        |
| <b>Harford</b>          | 31.2 (26.7-36.1)<br>669       | 25.2 (20.3-30.7)<br>606       | 16.5 (13.5-20.0)<br>513       | 20.3 (17.6-23.3)<br>541       | 22.0 (19.3-25.1)<br>734       | 19.6 (16.5-22.8)<br>597         | 19.6 (16.4-22.8)<br>638       | 15.0 (11.7-18.3)<br>532       |
| <b>Howard</b>           | 19.2 (15.3-23.9)<br>579       | 19.2 (16.3-22.5)<br>771       | 13.3 (10.7-16.5)<br>774       | 15.5 (13.4-18.0)<br>957       | 16.1 (14.0-18.4)<br>1,165     | 10.0 (8.4-11.6)<br>752          | 10.3 (8.7-11.9)<br>834        | 9.5 (7.8-11.3)<br>840         |
| <b>Kent</b>             | 42.9 (34.6-51.7)<br>94        | 30.2 (23.5-37.9)<br>65        | 20.7 (15.4-27.3)<br>52        | 28.3 (20.8-37.3)<br>53        | 30.9 (22.8-40.4)<br>62        | 16.7 (9.1-24.3)<br>29           | 22.0 (10.6-33.4)<br>44        | 21.7 (12.5-31.0)<br>40        |
| <b>Montgomery</b>       | 19.1 (16.1-22.5)<br>2,867     | 16.2 (14.0-18.6)<br>3,078     | 13.4 (10.8-16.5)<br>3,160     | 13.7 (12.2-15.4)<br>3,265     | 14.7 (12.9-16.7)<br>3,951     | 11.8 (10.3-13.4)<br>2,998       | 10.3 (8.6-12.0)<br>2,836      | 10.0 (8.0-12.0)<br>2,985      |
| <b>Prince George's</b>  | 15.4 (12.4-19.0)<br>4,097     | 13.6 (11.8-15.7)<br>3,709     | 8.4 (7.0-10.1)<br>2,935       | 15.2 (13.6-17.0)<br>5,150     | 16.7 (15.1-18.4)<br>5,787     | 12.8 (11.3-14.3)<br>3,717       | 12.3 (10.8-13.8)<br>3,653     | 9.7 (8.0-11.3)<br>3,048       |
| <b>Queen Anne's</b>     | 33.7 (27.1-41.1)<br>84        | 30.8 (34.6-48.7)<br>79        | 29.7 (27.3-32.3)<br>100       | 38.5 (32.4-45.1)<br>144       | 36.6 (31.6-42.0)<br>167       | 28.5 (21.1-34.8)<br>88          | 30.1 (23.7-36.6)<br>153       | 25.5 (20.6-30.4)<br>101       |
| <b>Somerset</b>         | 37.9 (30.4-46.0)<br>115       | 24.3 (17.7-32.2)<br>70        | 13.3 (10.6-16.5)<br>49        | 19.8 (14.5-26.4)<br>73        | 31.6 (25.5-38.3)<br>121       | 22.4 (17.6-27.2)<br>74          | 21.5 (15.5-27.5)<br>75        | 20.8 (15.4-26.1)<br>81        |
| <b>St. Mary's</b>       | 26.8 (22.1-32.2)<br>267       | 26.5 (19.7-34.7)<br>283       | 16.9 (12.8-22.0)<br>241       | 18.9 (15.4-22.9)<br>253       | 20.0 (16.4-24.1)<br>280       | 17.6 (13.4-21.8)<br>210         | 20.2 (16.6-23.9)<br>277       | 18.9 (15.5-22.3)<br>275       |
| <b>Talbot</b>           | 24.2 (19.1-30.1)<br>67        | 31.1 (24.9-38.2)<br>85        | 17.4 (12.4-23.9)<br>63        | 26.8 (21.4-32.9)<br>106       | 27.9 (22.6-33.9)<br>120       | 21.7 (15.8-27.6)<br>76          | 22.4 (17.0-27.7)<br>86        | 17.7 (12.6-22.7)<br>77        |
| <b>Washington</b>       | 37.7 (30.9-44.1)<br>254       | 35.1 (27.2-43.8)<br>232       | 23.9 (17.8-31.3)<br>270       | 28.9 (24.1-34.2)<br>290       | 32.8 (28.5-37.5)<br>447       | 23.2 (19.2-27.2)<br>312         | 24.1 (19.9-28.3)<br>371       | 18.4 (14.7-22.0)<br>303       |
| <b>Wicomico</b>         | 33.3 (28.6-38.3)<br>391       | 20.3 (14.7-27.4)<br>254       | 16.2 (11.5-22.3)<br>283       | 20.8 (18.0-23.8)<br>345       | 26.8 (23.7-30.2)<br>446       | 21.7 (18.6-24.7)<br>361         | 20.8 (15.7-25.8)<br>370       | 14.8 (11.4-18.2)<br>293       |
| <b>Worcester</b>        | 26.7 (20.9-33.5)<br>155       | 31.2 (23.4-40.1)<br>180       | 18.3 (9.9-31.4)<br>125        | 31.3 (27.2-35.7)<br>191       | 29.9 (26.2-33.9)<br>186       | 26.6 (21.7-31.4)<br>133         | 23.2 (18.9-27.4)<br>23        | 19.2 (13.4-25.0)<br>114       |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

**C. Youth First Tried Tobacco, Past 12 Months – Maryland Public High School Youth<sup>YRBS/YTS</sup>**

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 23.5 (22.6-24.3)<br>54,445    | 19.5 (18.9-20.1)<br>48,199    | 17.1 (16.4-17.8)<br>46,354    | 17.5 (17.0-18.0)<br>44,321    | 25.7 (25.2- 26.3)<br>67,919   | 17.9 (17.4-18.5)<br>42,364      | 11.0 (10.5-11.4)<br>26,213    | 7.7 (7.4-8.0)<br>17,675       |
| <b>Allegany</b>         | 34.4 (32.1-36.8)<br>1,141     | 27.1 (23.7-30.4)<br>846       | 26.8 (22.8-30.7)<br>835       | 23.1 (20.1-26.1)<br>663       | 27.1 (23.9-30.3)<br>736       | 24.8 (22.4-27.1)<br>3,903       | 15.6 (13.8-17.4)<br>391       | 10.3 (8.6-11.9)<br>247        |
| <b>Anne Arundel</b>     | 27.2 (24.6-29.7)<br>5,803     | 22.0 (20.3-23.7)<br>4,901     | 19.5 (17.2-21.8)<br>4,565     | 17.6 (16.1-19.1)<br>3,930     | 27.0 (24.8-29.2)<br>6,137     | 18.7 (17.0-20.4)<br>3,903       | 12.4 (11.2-13.7)<br>2,630     | 9.6 (8.5-10.8)<br>2,005       |
| <b>Baltimore City*</b>  | 16.1 (12.6-19.7)<br>3,787     | 13.0 (11.2-14.8)<br>3,301     | 11.7 (10.2-13.2)<br>2,808     | 16.1 (14.5-17.6)<br>2,945     | 27.9 (25.6-30.3)<br>6,732     | 16.9 (15.3-18.6)<br>3,368       | 10.2 (8.6-11.8)<br>1,969      | 6.9 (5.5-8.4)<br>1,240        |
| <b>Baltimore County</b> | 24.7 (22.2-27.3)<br>7,305     | 20.6 (18.2-23.0)<br>6,504     | 17.0 (14.3-19.6)<br>5,760     | 17.3 (15.8-18.9)<br>5,026     | 28.3 (26.4-30.2)<br>8,954     | 19.7 (17.4-22.0)<br>5,671       | 10.8 (8.5-13.0)<br>3,096      | 9.0 (7.8-10.3)<br>2,505       |
| <b>Calvert</b>          | 28.2 (25.6-30.8)<br>1,261     | 24.9 (20.7-29.2)<br>1,236     | 20.3 (18.6-22.0)<br>1,198     | 18.0 (16.1-20.0)<br>1,027     | 26.9 (24.5-29.2)<br>1,524     | 23.1 (20.4-25.8)<br>1,179       | 13.6 (12.1-15.2)<br>682       | 10.2 (8.8-11.5)<br>499        |
| <b>Caroline</b>         | 29.5 (26.4-32.6)<br>477       | 26.6 (23.7-29.6)<br>427       | 25.9 (24.2-27.6)<br>466       | 22.9 (20.1-25.6)<br>388       | 30.2 (26.5-34.0)<br>481       | 23.6 (20.3-26.8)<br>335         | 15.3 (12.4-18.1)<br>226       | 8.2 (6.3-10.1)<br>115         |
| <b>Carroll</b>          | 24.0 (21.5-26.6)<br>1,949     | 23.9 (20.9-26.8)<br>1,996     | 23.0 (20.8-25.2)<br>2,267     | 20.7 (18.9-22.5)<br>1,951     | 25.0 (22.9-27.0)<br>2,303     | 18.5 (16.5-20.5)<br>1,543       | 11.9 (10.3-13.4)<br>968       | 9.9 (8.3-11.6)<br>786         |
| <b>Cecil</b>            | 28.1 (24.9-31.4)<br>1,141     | 21.1 (18.1-24.1)<br>929       | 25.4 (23.2-27.5)<br>1,288     | 22.6 (20.7-24.6)<br>1,139     | 29.4 (26.8-32.0)<br>1,438     | 24.7 (22.4-27.0)<br>1,113       | 16.1 (14.3-17.9)<br>732       | 8.6 (7.4-9.8)<br>386          |
| <b>Charles</b>          | 25.6 (22.8-28.5)<br>1,793     | 21.9 (19.4-24.4)<br>1,618     | 17.4 (14.6-20.2)<br>1,584     | 18.8 (17.1-20.5)<br>1,744     | 25.1 (23.9-27.1)<br>2,301     | 19.5 (17.8-21.2)<br>1,636       | 12.9 (11.5-14.2)<br>1,055     | 6.9 (5.8-8.0)<br>521          |
| <b>Dorchester</b>       | 23.0 (19.9-26.1)<br>342       | 22.1 (19.3-24.9)<br>320       | 19.7 (19.4-19.9)<br>308       | 19.9 (17.1-22.6)<br>282       | 30.1 (26.1-34.1)<br>410       | 22.8 (19.4-26.2)<br>277         | 14.2 (11.2-17.3)<br>170       | 8.7 (6.3-11.2)<br>92          |
| <b>Frederick</b>        | 28.8 (26.1-31.6)<br>2,941     | 23.4 (20.9-26.0)<br>2,607     | 20.6 (16.7-24.5)<br>2,653     | 19.0 (16.9-21.0)<br>2,424     | 25.0 (22.5-27.6)<br>3,187     | 19.1 (17.2-21.1)<br>2,306       | 12.0 (10.6-13.3)<br>1,442     | 8.5 (7.5-9.5)<br>999          |
| <b>Garrett</b>          | 30.5 (27.3-33.8)<br>413       | 26.0 (23.1-28.9)<br>340       | 26.4 (24.7-28.1)<br>392       | 22.9 (19.6-26.3)<br>340       | 37.3 (33.4-41.2)<br>512       | 28.5 (24.6-32.4)<br>324         | 15.4 (13.0-17.8)<br>170       | 11.8 (9.0-11.7)<br>127        |
| <b>Harford</b>          | 28.8 (26.2-31.3)<br>3,144     | 21.2 (19.1-23.3)<br>2,430     | 19.9 (17.2-22.5)<br>2,475     | 20.9 (19.1-22.7)<br>2,250     | 29.1 (26.8-31.4)<br>3,542     | 20.2 (18.5-21.9)<br>2,237       | 14.4 (13.0-15.8)<br>1,579     | 7.8 (6.4-9.2)<br>821          |
| <b>Howard</b>           | 22.2 (19.5-24.8)<br>2,757     | 20.8 (18.4-23.2)<br>2,806     | 17.4 (14.9-19.9)<br>2,752     | 17.0 (15.3-18.7)<br>2,736     | 21.7 (19.7-23.7)<br>3,614     | 14.4 (12.9-15.9)<br>2,280       | 7.9 (6.9-9.0)<br>1,253        | 5.1 (4.2-6.0)<br>792          |
| <b>Kent</b>             | 33.5 (29.0-38.0)<br>281       | 26.8 (23.5-30.0)<br>215       | 24.3 (24.3-24.3)<br>194       | 23.7 (20.1-27.2)<br>162       | 36.4 (31.0-41.7)<br>232       | 24.8 (20.3-29.4)<br>144         | 11.3 (8.6-14.0)<br>64         | 7.9 (5.2-10.6)<br>42          |
| <b>Montgomery</b>       | 21.2 (19.0-23.4)<br>7,781     | 18.1 (16.3-19.9)<br>7,317     | 15.8 (13.6-18.0)<br>7,121     | 15.8 (13.9-17.7)<br>6,990     | 21.4 (19.6-23.2)<br>9,710     | 14.9 (13.3-16.6)<br>6,231       | 9.2 (8.0-10.3)<br>4,010       | 6.3 (5.7-7.0)<br>2,755        |
| <b>Prince George's</b>  | 18.5 (16.0-21.0)<br>6,561     | 14.7 (13.4-15.9)<br>5,455     | 10.8 (9.3-12.4)<br>4,537      | 13.4 (12.5-14.4)<br>5,378     | 23.5 (21.7-25.3)<br>9,234     | 14.2 (12.8-15.5)<br>4,533       | 8.4 (7.5-9.2)<br>2,760        | 6.1 (5.2-7.1)<br>1,850        |
| <b>Queen Anne's</b>     | 29.1 (26.6-31.6)<br>555       | 23.3 (21.1-25.5)<br>476       | 24.6 (22.3-26.8)<br>623       | 21.0 (19.0-23.0)<br>535       | 32.5 (29.7-35.3)<br>795       | 21.7 (18.8-24.6)<br>471         | 14.9 (12.8-16.9)<br>318       | 11.0 (9.2-12.9)<br>236        |
| <b>Somerset</b>         | 27.1 (22.1-32.1)<br>233       | 24.8 (20.4-29.3)<br>206       | 19.6 (15.1-24.2)<br>158       | 21.3 (17.2-25.3)<br>175       | 36.6 (31.5-41.6)<br>294       | 21.6 (17.6-25.6)<br>146         | 15.9 (12.2-19.5)<br>109       | 8.7 (5.6-11.7)<br>58          |
| <b>St. Mary's</b>       | 27.1 (23.8-30.5)<br>1,179     | 21.8 (18.8-24.8)<br>987       | 18.5 (15.6-21.4)<br>966       | 19.2 (16.8-21.5)<br>1,017     | 25.2 (22.5-27.8)<br>1,302     | 21.4 (19.1-23.7)<br>1,027       | 14.5 (12.6-16.4)<br>693       | 9.5 (8.2-10.8)<br>432         |
| <b>Talbot</b>           | 29.3 (26.0-32.6)<br>380       | 26.1 (22.9-29.2)<br>345       | 25.2 (21.3-29.2)<br>370       | 21.7 (19.0-24.4)<br>322       | 30.6 (27.1-34.1)<br>433       | 18.5 (15.1-21.9)<br>232         | 13.3 (10.8-15.9)<br>170       | 8.9 (7.0-10.9)<br>115         |
| <b>Washington</b>       | 30.6 (27.5-33.6)<br>1,673     | 26.4 (23.4-29.4)<br>1,522     | 25.1 (22.6-27.6)<br>1,652     | 23.9 (22.0-26.0)<br>1,458     | 31.7 (29.0-34.4)<br>2,087     | 23.5 (21.6-25.5)<br>1,483       | 15.7 (14.3-17.1)<br>991       | 9.5 (8.2-10.7)<br>575         |
| <b>Wicomico</b>         | 27.0 (24.2-29.8)<br>1,031     | 24.3 (20.2-28.3)<br>942       | 20.8 (19.3-22.4)<br>878       | 20.1 (18.2-22.1)<br>845       | 31.6 (28.4-34.8)<br>1,264     | 21.8 (19.6-24.0)<br>798         | 12.9 (11.4-14.4)<br>481       | 7.3 (5.7-8.9)<br>273          |
| <b>Worcester</b>        | 24.6 (21.9- 27.2)<br>518      | 22.0 (18.2-26.8)<br>472       | 21.3 (14.3-28.3)<br>505       | 27.5 (25.2-29.9)<br>596       | 32.7 (29.5-35.9)<br>698       | 27.3 (24.1-30.5)<br>514         | 13.1 (10.9-15.2)<br>251       | 10.7 (8.5-12.9)<br>204        |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

**D. Youth Who Quit Tobacco, Past 12 Months – Maryland Public High School Youth** <sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 30.9 (29.0-32.8)<br>11,253    | 31.6 (30.0-33.2)<br>8,891     | 38.4 (36.6-40.3)<br>9,976     | 31.4 (29.9-33.0)<br>9,489     | 39.5 (37.6-41.4)<br>9,318     | 41.3 (40.2-42.5)<br>26,570      | 40.2 (39.1-41.3)<br>19,220    | 41.6 (40.0-43.2)<br>17,123    |
| <b>Allegany</b>         | 26.4 (21.3-31.5)<br>231       | 19.7 (13.5-25.9)<br>123       | 29.6 (26.7-32.4)<br>135       | 26.1 (19.2-32.9)<br>128       | 29.5 (20.8-38.2)<br>83        | 29.1 (25.0-33.2)<br>263         | 33.0 (28.4-37.5)<br>248       | 35.7 (30.5-40.9)<br>250       |
| <b>Anne Arundel</b>     | 29.9 (24.6-35.2)<br>1,316     | 26.1 (21.3-31.0)<br>740       | 36.1 (29.6-42.6)<br>920       | 30.5 (26.2-34.8)<br>898       | 35.9 (30.2-41.5)<br>809       | 40.5 (36.7-44.2)<br>2,413       | 40.5 (36.4-44.6)<br>1,905     | 38.0 (33.3-42.6)<br>1,612     |
| <b>Baltimore City*</b>  | 43.9 (33.4-54.3)<br>1,107     | 41.4 (32.7-50.0)<br>732       | 48.6 (40.4-56.9)<br>814       | 32.3 (26.4-38.2)<br>656       | 38.2 (31.6-44.8)<br>738       | 47.1 (43.0-51.2)<br>2,766       | 47.0 (42.6-51.5)<br>1,952     | 47.2 (40.7-53.7)<br>1,652     |
| <b>Baltimore County</b> | 30.1 (24.0-36.3)<br>1,412     | 28.4 (23.4-33.4)<br>1,108     | 32.7 (27.5-37.8)<br>1,139     | 26.3 (20.6-32.0)<br>1,025     | 34.7 (28.6-40.7)<br>1,100     | 39.8 (36.9-42.6)<br>3,236       | 38.6 (34.4-42.8)<br>2,169     | 41.9 (37.0-46.9)<br>2,332     |
| <b>Calvert</b>          | 26.6 (21.8-31.3)<br>246       | 20.7 (14.5-26.9)<br>173       | 31.9 (26.0-37.8)<br>250       | 32.0 (26.6-37.5)<br>218       | 33.9 (28.2-39.7)<br>214       | 35.6 (31.8-39.4)<br>581         | 32.9 (28.6-37.2)<br>412       | 34.8 (30.5-39.2)<br>377       |
| <b>Caroline</b>         | 23.0 (16.5-29.6)<br>79        | 24.7 (19.1-30.4)<br>63        | 30.8 (30.1-21.5)<br>82        | 25.1 (19.9-30.3)<br>74        | 32.3 (23.7-41.0)<br>67        | 34.0 (28.6-39.3)<br>169         | 32.6 (26.6-38.6)<br>138       | 36.8 (30.4-43.2)<br>120       |
| <b>Carroll</b>          | 28.5 (23.4-33.7)<br>389       | 26.7 (17.9-35.5)<br>299       | 35.4 (31.5-39.3)<br>361       | 27.3 (22.3-32.3)<br>344       | 38.6 (31.8-45.4)<br>302       | 33.9 (29.9-38.0)<br>737         | 39.3 (34.8-43.7)<br>633       | 31.8 (26.1-37.6)<br>500       |
| <b>Cecil</b>            | 22.6 (17.3-27.9)<br>192       | 29.7 (24.3-35.1)<br>237       | 29.0 (22.5-35.5)<br>231       | 30.5 (25.6-35.5)<br>244       | 36.8 (30.8-42.7)<br>233       | 34.2 (30.6-37.7)<br>538         | 29.7 (25.8-33.5)<br>400       | 34.1 (28.8-39.4)<br>335       |
| <b>Charles</b>          | 27.6 (21.9-33.3)<br>368       | 29.2 (22.6-35.8)<br>322       | 34.7 (26.3-43.2)<br>332       | 31.8 (26.6-37.0)<br>405       | 46.3 (39.4-53.2)<br>414       | 36.5 (32.6-40.3)<br>881         | 43.0 (38.9-47.2)<br>769       | 40.3 (35.8-44.9)<br>569       |
| <b>Dorchester</b>       | 30.7 (24.2-37.2)<br>70        | 29.5 (21.9-37.1)<br>56        | 39.5 (37.5-41.5)<br>73        | 37.2 (29.2-45.3)<br>78        | 37.2 (28.5-45.9)<br>57        | 30.6 (24.0-37.2)<br>116         | 31.7 (24.9-38.4)<br>100       | 32.7 (23.0-42.4)<br>81        |
| <b>Frederick</b>        | 29.1 (24.0-34.2)<br>546       | 29.6 (24.2-35.0)<br>450       | 34.6 (26.4-42.8)<br>485       | 25.1 (20.4-29.9)<br>312       | 38.4 (31.3-45.5)<br>387       | 35.1 (31.8-38.4)<br>1,191       | 33.9 (29.9-37.9)<br>843       | 36.2 (32.4-40.1)<br>833       |
| <b>Garrett</b>          | 34.1 (26.9-41.3)<br>106       | 31.4 (23.1-39.6)<br>67        | Insufficient<br>Sample Size   | 24.1 (17.6-30.6)<br>63        | 25.4 (18.6-32.1)<br>45        | 27.4 (23.2-31.6)<br>138         | 23.3 (18.4-28.2)<br>97        | 28.5 (22.9-34.2)<br>103       |
| <b>Harford</b>          | 25.6 (20.7-30.5)<br>548       | 26.4 (20.4-32.3)<br>347       | 36.0 (28.5-36.0)<br>423       | 29.6 (24.9-34.4)<br>423       | 34.8 (28.9-40.8)<br>422       | 39.3 (36.0-42.7)<br>1,281       | 36.4 (32.2-40.6)<br>938       | 35.7 (31.2-40.3)<br>704       |
| <b>Howard</b>           | 31.0 (23.8-38.2)<br>525       | 30.6 (24.8-36.5)<br>447       | 40.6 (35.9-45.2)<br>503       | 27.1 (21.8-32.4)<br>430       | 37.5 (30.8-44.1)<br>366       | 43.3 (39.9-47.0)<br>1,450       | 44.7 (40.4-48.9)<br>1,042     | 44.0 (38.8-49.1)<br>810       |
| <b>Kent</b>             | 32.2 (22.4-42.0)<br>62        | 30.5 (22.1-39.0)<br>47        | 26.9 (26.9-26.9)<br>30        | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 36.2 (27.3-45.1)<br>77          | 35.7 (27.4-43.9)<br>52        | 29.5 (20.9-38.1)<br>38        |
| <b>Montgomery</b>       | 34.3 (27.2-41.4)<br>1,680     | 41.4 (37.6-45.3)<br>1,692     | 43.9 (38.4-49.5)<br>1,621     | 32.9 (26.9-38.9)<br>1,233     | 46.1 (40.1-52.1)<br>1,470     | 46.3 (41.5-51.1)<br>4,162       | 47.2 (44.1-50.2)<br>3,353     | 45.4 (38.1-52.7)<br>2,676     |
| <b>Prince George's</b>  | 33.3 (26.4-40.2)<br>1,243     | 37.3 (31.4-43.2)<br>1,056     | 52.8 (44.7-61.0)<br>1,484     | 43.0 (38.6-47.5)<br>1,952     | 51.5 (46.1-56.9)<br>1,648     | 49.5 (45.2-53.7)<br>4,038       | 45.9 (41.9-50.0)<br>2,383     | 56.8 (52.4-61.2)<br>2,379     |
| <b>Queen Anne's</b>     | 25.0 (19.5-30.4)<br>98        | 20.7 (14.7-26.7)<br>65        | 38.5 (23.8-53.3)<br>91        | 22.7 (17.5-28.0)<br>84        | 37.4 (31.0-43.8)<br>104       | 37.3 (31.8-42.8)<br>260         | 37.4 (32.8-42.1)<br>234       | 29.7 (24.6-34.7)<br>167       |
| <b>Somerset</b>         | 33.3 (25.0-41.6)<br>73        | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 43.4 (31.9-54.9)<br>91          | 38.7 (28.4-49.0)<br>85        | Insufficient<br>Sample Size   |
| <b>St. Mary's</b>       | 24.5 (18.9-30.2)<br>200       | 20.1 (13.8-26.4)<br>126       | 38.5 (23.8-53.3)<br>224       | 31.9 (26.3-37.6)<br>223       | 41.2 (34.5-47.9)<br>196       | 34.8 (31.2-38.3)<br>765         | 30.9 (26.5-35.3)<br>404       | 35.7 (30.9-40.5)<br>372       |
| <b>Talbot</b>           | 20.9 (14.2-27.5)<br>52        | 27.9 (20.0-35.8)<br>52        | 34.1 (33.6-34.6)<br>87        | 26.8 (20.5-33.1)<br>63        | 36.2 (26.6-45.8)<br>51        | 44.4 (37.9-51.0)<br>172         | 32.0 (26.7-37.4)<br>104       | 34.4 (27.4-41.5)<br>96        |
| <b>Washington</b>       | 30.9 (26.1-35.7)<br>365       | 34.4 (28.4-40.5)<br>332       | 33.6 (28.4-38.8)<br>334       | 29.9 (24.9-34.9)<br>319       | 30.1 (25.3-34.9)<br>281       | 34.8 (31.2-38.3)<br>765         | 33.0 (29.5-36.4)<br>559       | 36.7 (32.5-41.0)<br>567       |
| <b>Wicomico</b>         | 28.7 (22.3-35.1)<br>226       | 34.8 (24.7-44.8)<br>212       | 39.0 (30.8-47.2)<br>199       | 30.9 (25.2-36.6)<br>172       | 28.8 (23.8-33.8)<br>143       | 39.2 (34.7-43.6)<br>482         | 28.4 (23.2-33.5)<br>247       | 39.7 (34.4-45.1)<br>309       |
| <b>Worcester</b>        | 29.4 (22.2-36.7)<br>117       | 33.5 (20.0-47.0)<br>99        | 30.2 (24.9-35.6)<br>75        | 23.8 (18.0-29.5)<br>77        | 36.3 (29.1-43.5)<br>120       | 34.1 (28.6-39.6)<br>2,766       | 29.3 (24.0-34.5)<br>152       | 35.2 (28.6-41.8)<br>1,652     |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

**E. Youth Current Tobacco Use, By Gender – Maryland Public High School Youth**<sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Gender</i> | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|---------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | <i>Female</i> | 25.5 (24.2-26.8)<br>27,207    | 20.4 (19.4-21.5)<br>22,715    | 15.0 (14.1-16.0)<br>19,023    | 16.8 (16.2-17.5)<br>19,717    | 16.1 (15.4-16.8)<br>20,578    | 13.6 (12.9-14.3)<br>15,651      | 13.1 (12.4-13.9)<br>15,151    | 10.8 (10.1-11.4)<br>12,946    |
|                         | <i>Male</i>   | 28.2 (26.9-29.6)<br>29,953    | 22.9 (21.8-24.0)<br>23,866    | 19.0 (18.0-20.0)<br>23,020    | 22.0 (21.2-22.8)<br>24,967    | 22.9 (22.0-23.9)<br>26,968    | 19.7 (18.9-20.5)<br>22,471      | 19.0 (18.2-19.8)<br>22,355    | 16.9 (16.1-17.7)<br>20,869    |
| <b>Allegany</b>         | <i>Female</i> | 38.0 (33.6-42.6)<br>587       | 35.3 (30.0-41.1)<br>528       | 27.4 (22.7-32.8)<br>389       | 24.2 (20.0-28.9)<br>325       | 20.5 (17.3-24.0)<br>273       | 20.5 (17.5-23.8)<br>248         | 19.5 (16.1-22.9)<br>228       | 17.9 (14.4-21.3)<br>215       |
|                         | <i>Male</i>   | 43.6 (39.2-48.2)<br>654       | 34.9 (29.3-40.9)<br>508       | 31.0 (25.5-37.0)<br>479       | 29.9 (25.1-35.1)<br>416       | 28.5 (24.2-33.2)<br>346       | 33.3 (29.2-37.7)<br>402         | 29.5 (25.2-33.8)<br>387       | 26.8 (22.5-31.0)<br>352       |
| <b>Anne Arundel</b>     | <i>Female</i> | 29.8 (26.2-33.8)<br>2,934     | 24.9 (22.0-28.0)<br>2,510     | 17.3 (14.4-20.7)<br>1,910     | 19.1 (16.7-21.8)<br>1,974     | 18.1 (15.9-20.6)<br>1,976     | 14.8 (12.8-17.1)<br>1,525       | 15.4 (13.1-17.7)<br>1,611     | 13.6 (11.2-16.0)<br>1,487     |
|                         | <i>Male</i>   | 35.1 (30.8-39.7)<br>3,506     | 26.2 (23.2-29.5)<br>2,596     | 22.1 (18.1-26.6)<br>2,332     | 24.5 (21.7-27.5)<br>2,400     | 24.0 (21.4-26.8)<br>2,447     | 20.2 (17.6-23.1)<br>2,062       | 22.2 (19.4-25.0)<br>2,324     | 17.7 (15.0-20.3)<br>1,989     |
| <b>Baltimore City*</b>  | <i>Female</i> | 15.1 (11.4-19.7)<br>1,634     | 12.9 (10.2-16.2)<br>1,438     | 8.8 (7.1-11.0)<br>1,009       | 16.7 (14.5-19.2)<br>1,377     | 16.1 (13.6-19.0)<br>1,782     | 14.2 (11.9-16.9)<br>1,433       | 14.5 (12.2-16.8)<br>1,421     | 14.6 (11.8-17.3)<br>1,491     |
|                         | <i>Male</i>   | 20.8 (16.0-26.4)<br>2,132     | 15.3 (11.8-19.7)<br>1,354     | 11.6 (9.0-14.8)<br>1,115      | 20.5 (17.8-23.6)<br>1,391     | 22.6 (19.9-25.5)<br>2,319     | 18.3 (15.7-21.4)<br>1,674       | 24.6 (20.8-28.4)<br>2,267     | 21.6 (18.4-24.8)<br>2,107     |
| <b>Baltimore County</b> | <i>Female</i> | 26.6 (22.1-31.7)<br>3,665     | 21.8 (18.1-26.0)<br>3,120     | 16.7 (13.3-20.6)<br>2,633     | 20.1 (17.5-22.9)<br>2,613     | 20.8 (17.9-23.9)<br>3,174     | 15.3 (12.2-19.1)<br>2,189       | 15.1 (11.8-18.5)<br>2,127     | 13.1 (10.1-16.2)<br>1,954     |
|                         | <i>Male</i>   | 29.0 (25.9-32.3)<br>3,957     | 23.1 (18.9-28.0)<br>3,086     | 18.7 (15.4-22.6)<br>2,798     | 24.1 (20.7-27.8)<br>2,955     | 24.8 (21.2-28.7)<br>3,482     | 20.3 (17.6-23.4)<br>2,813       | 17.2 (13.9-20.5)<br>2,475     | 18.5 (15.4-21.7)<br>2,775     |
| <b>Calvert</b>          | <i>Female</i> | 30.7 (26.6-35.3)<br>640       | 27.4 (21.1-34.6)<br>622       | 22.0 (18.5-25.9)<br>624       | 18.1 (15.4-21.1)<br>497       | 17.9 (15.3-20.7)<br>503       | 18.9 (15.6-22.6)<br>466         | 16.5 (13.7-19.3)<br>406       | 13.4 (11.1-15.8)<br>334       |
|                         | <i>Male</i>   | 33.4 (29.0-38.0)<br>702       | 34.4 (28.0-41.4)<br>697       | 22.4 (21.4-23.5)<br>599       | 22.5 (19.6-25.6)<br>602       | 25.9 (22.6-29.5)<br>673       | 26.7 (23.2-30.5)<br>666         | 24.8 (21.2-28.3)<br>609       | 18.7 (15.4-22.0)<br>486       |
| <b>Caroline</b>         | <i>Female</i> | 38.1 (32.4-44.1)<br>281       | 30.7 (26.6-35.0)<br>216       | 24.9 (24.5-24.3)<br>209       | 26.0 (21.9-30.6)<br>202       | 21.2 (17.5-25.4)<br>165       | 19.7 (15.8-24.3)<br>141         | 21.0 (16.2-25.8)<br>155       | 13.7 (10.1-17.4)<br>102       |
|                         | <i>Male</i>   | 43.5 (36.7-50.5)<br>331       | 34.0 (28.5-39.9)<br>248       | 29.2 (27.3-31.1)<br>244       | 31.9 (26.3-37.6)<br>252       | 30.8 (26.3-35.7)<br>206       | 31.0 (26.2-36.3)<br>214         | 30.5 (25.8-35.2)<br>227       | 24.2 (19.2-29.2)<br>180       |
| <b>Carroll</b>          | <i>Female</i> | 27.9 (23.0-33.4)<br>1,034     | 23.8 (19.1-29.2)<br>910       | 18.7 (15.8-22.1)<br>857       | 17.5 (15.2-20.0)<br>789       | 15.6 (13.5-18.0)<br>705       | 13.7 (11.7-15.9)<br>558         | 11.1 (9.0-13.3)<br>433        | 11.2 (8.4-14.0)<br>449        |
|                         | <i>Male</i>   | 29.7 (25.0-34.7)<br>1,132     | 27.5 (22.6-33.1)<br>1,043     | 25.2 (21.8-28.9)<br>1,208     | 26.0 (23.1-29.2)<br>1,172     | 23.8 (21.1-26.8)<br>1,033     | 23.4 (20.3-26.7)<br>961         | 18.4 (15.7-21.1)<br>768       | 18.9 (15.4-22.3)<br>795       |
| <b>Cecil</b>            | <i>Female</i> | 37.2 (32.8-41.7)<br>702       | 30.9 (26.4-35.8)<br>632       | 25.6 (22.9-28.6)<br>608       | 23.6 (20.7-26.8)<br>560       | 23.3 (20.3-26.6)<br>563       | 20.0 (17.0-23.3)<br>429         | 20.2 (17.5-22.9)<br>437       | 13.5 (10.8-16.2)<br>299       |
|                         | <i>Male</i>   | 34.9 (29.1-41.3)<br>681       | 25.9 (21.0-31.4)<br>483       | 30.1 (28.1-32.3)<br>710       | 29.3 (26.2-32.6)<br>683       | 28.5 (25.0-32.3)<br>648       | 28.8 (25.6-32.3)<br>646         | 29.8 (26.2-33.4)<br>688       | 19.1 (16.2-22.1)<br>459       |
| <b>Charles</b>          | <i>Female</i> | 28.4 (23.9-33.4)<br>905       | 24.1 (19.9-28.8)<br>811       | 16.3 (12.5-21.0)<br>711       | 18.5 (16.1-21.2)<br>803       | 16.4 (14.2-18.9)<br>727       | 14.0 (11.9-16.3)<br>553         | 14.3 (12.2-16.3)<br>559       | 11.2 (9.2-13.3)<br>439        |
|                         | <i>Male</i>   | 35.1 (30.1-40.4)<br>1,112     | 25.0 (20.6-30.0)<br>733       | 20.1 (17.3-23.3)<br>820       | 22.8 (20.3-25.5)<br>935       | 21.1 (18.5-24.1)<br>868       | 20.8 (18.4-23.3)<br>865         | 20.3 (17.1-23.4)<br>811       | 17.8 (15.4-20.2)<br>744       |
| <b>Dorchester</b>       | <i>Female</i> | 30.1 (26.1-34.4)<br>203       | 26.1 (21.8-30.9)<br>173       | 18.6 (15.9-21.6)<br>141       | 21.6 (17.7-26.2)<br>149       | 17.6 (14.4-21.4)<br>112       | 16.8 (13.0-21.4)<br>95          | 16.8 (12.6-21.0)<br>99        | 17.6 (11.2-24.0)<br>103       |
|                         | <i>Male</i>   | 29.0 (24.3-34.1)<br>187       | 25.7 (21.6-30.3)<br>1,285     | 22.1 (14.5-32.0)<br>143       | 23.1 (18.0-29.0)<br>134       | 28.7 (23.9-33.9)<br>170       | 31.2 (25.6-37.5)<br>189         | 31.3 (25.5-37.0)<br>190       | 31.8 (23.0-40.6)<br>201       |
| <b>Frederick</b>        | <i>Female</i> | 33.2 (28.8-38.0)<br>1,554     | 25.7 (22.1-29.7)<br>1,302     | 19.3 (15.6-23.8)<br>1,169     | 17.3 (14.7-20.2)<br>1,042     | 14.0 (11.5-16.9)<br>886       | 15.5 (13.3-18.1)<br>904         | 13.0 (11.1-14.9)<br>748       | 10.4 (8.4-12.4)<br>624        |
|                         | <i>Male</i>   | 33.9 (30.1-37.8)<br>1,626     | 25.7 (21.6-30.3)<br>1,285     | 22.8 (19.6-26.4)<br>1,297     | 24.2 (21.3-27.5)<br>1,481     | 23.8 (20.7-27.2)<br>1,362     | 23.6 (21.0-26.5)<br>1,412       | 19.1 (16.7-21.4)<br>1,173     | 18.2 (15.6-20.7)<br>1,117     |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

**E. Youth Current Tobacco Use, by Gender (Continued) – Maryland Public High School Youth<sup>YRBS/YTS</sup>**

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

| <i>Jurisdiction</i>    | <i>Gender</i> | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|------------------------|---------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Garrett</b>         | <i>Female</i> | 32.0 (27.3-37.1)<br>194       | 29.1 (24.1-34.7)<br>170       | 24.6 (19.6-30.4)<br>171       | 27.8 (22.3-34.1)<br>191       | 28.5 (24.0-33.5)<br>188       | 22.7 (17.6-28.9)<br>123         | 24.1 (17.5-30.7)<br>127       | 18.1 (12.9-23.3)<br>99        |
|                        | <i>Male</i>   | 43.8 (39.2-48.6)<br>303       | 43.2 (36.7-49.9)<br>267       | 39.4 (31.8-47.5)<br>285       | 39.4 (33.6-45.5)<br>275       | 41.5 (35.5-47.7)<br>259       | 45.2 (39.9-50.6)<br>258         | 41.1 (34.3-47.9)<br>240       | 33.8 (28.3-39.4)<br>196       |
| <b>Harford</b>         | <i>Female</i> | 34.3 (30.0-38.8)<br>1,713     | 24.9 (21.2-29.0)<br>1,293     | 18.1 (17.0-19.2)<br>1,066     | 18.7 (16.4-21.4)<br>975       | 19.5 (17.1-22.0)<br>1,147     | 16.7 (14.3-19.4)<br>907         | 15.6 (13.3-17.8)<br>832       | 12.4 (10.3-14.5)<br>665       |
|                        | <i>Male</i>   | 37.6 (33.4-41.9)<br>1,841     | 24.9 (21.5-28.6)<br>1,270     | 24.0 (20.7-27.7)<br>1,364     | 22.8 (20.1-25.9)<br>1,132     | 16.4 (23.5-29.5)<br>1,496     | 23.7 (21.1-26.5)<br>1,279       | 22.4 (19.7-25.0)<br>1,217     | 16.4 (13.6-19.2)<br>937       |
| <b>Howard</b>          | <i>Female</i> | 21.7 (18.4-25.5)<br>1,259     | 18.9 (16.2-21.9)<br>1,139     | 11.8 (9.8-14.2)<br>881        | 13.7 (11.7-16.1)<br>1,049     | 12.1 (10.4-14.0)<br>1,002     | 7.8 (6.5-9.4)<br>601            | 7.9 (6.5-9.3)<br>605          | 6.9 (5.5-8.3)<br>546          |
|                        | <i>Male</i>   | 27.1 (22.9-31.9)<br>1,585     | 22.3 (19.2-25.7)<br>1,321     | 19.4 (16.6-22.5)<br>1,402     | 19.2 (16.6-22.1)<br>1,469     | 18.3 (15.8-21.1)<br>1,364     | 14.9 (13.0-17.0)<br>1,178       | 12.0 (10.2-13.8)<br>944       | 13.6 (11.1-16.0)<br>1,123     |
| <b>Kent</b>            | <i>Female</i> | 40.6 (33.5-48.1)<br>161       | 29.4 (23.6-35.9)<br>105       | 24.3 (20.1-29.0)<br>86        | 27.5 (21.5-34.4)<br>84        | 24.9 (19.2-31.6)<br>76        | 14.1 (8.6-22.3)<br>35           | 17.8 (11.2-24.5)<br>47        | 13.9 (7.7-20.1)<br>37         |
|                        | <i>Male</i>   | 46.9 (39.3-54.7)<br>172       | 39.0 (33.3-44.9)<br>134       | 32.6 (24.2-42.3)<br>119       | 31.2 (24.5-38.8)<br>103       | 33.3 (26.6-40.8)<br>88        | 34.5 (26.4-43.6)<br>105         | 26.7 (16.6-36.8)<br>81        | 26.2 (19.1-33.2)<br>76        |
| <b>Montgomery</b>      | <i>Female</i> | 22.2 (18.4-26.5)<br>3,718     | 16.1 (13.4-19.2)<br>2,947     | 13.8 (10.6-17.7)<br>2,824     | 11.8 (10.4-13.4)<br>2,419     | 10.6 (8.8-12.7)<br>2,375      | 9.5 (7.8-11.6)<br>1,922         | 8.6 (6.3-11.0)<br>1,810       | 6.2 (4.9-7.5)<br>1,368        |
|                        | <i>Male</i>   | 22.4 (18.6-26.8)<br>3,776     | 19.5 (17.0-22.1)<br>3,510     | 16.3 (13.7-19.3)<br>3,335     | 17.1 (14.8-19.7)<br>3,511     | 18.3 (15.3-21.6)<br>3,703     | 14.0 (12.2-16.0)<br>2,858       | 13.1 (11.3-14.8)<br>2,835     | 12.2 (9.8-14.5)<br>2,797      |
| <b>Prince George's</b> | <i>Female</i> | 19.0 (15.5-22.9)<br>3,077     | 13.7 (11.4-16.5)<br>2,252     | 7.6 (5.6-10.1)<br>1,471       | 12.7 (10.9-14.8)<br>2,291     | 13.3 (11.7-15.0)<br>2,494     | 10.9 (9.3-12.8)<br>1,702        | 10.4 (8.6-12.1)<br>1,617      | 7.7 (5.7-9.7)<br>1,260        |
|                        | <i>Male</i>   | 17.9 (14.1-22.5)<br>2,784     | 17.4 (15.0-20.1)<br>2,565     | 11.3 (9.1-13.9)<br>2,082      | 18.2 (16.1-20.6)<br>3,201     | 20.7 (18.4-23.3)<br>3,597     | 14.9 (12.3-18.0)<br>2,206       | 15.0 (12.6-17.3)<br>2,343     | 12.7 (10.6-14.7)<br>2,118     |
| <b>Queen Anne's</b>    | <i>Female</i> | 31.3 (26.9-36.1)<br>262       | 30.8 (27.1-34.8)<br>278       | 23.9 (17.0-32.6)<br>290       | 21.8 (18.7-25.4)<br>257       | 20.0 (17.3-23.1)<br>245       | 14.3 (11.5-17.5)<br>151         | 18.6 (15.4-21.9)<br>197       | 13.6 (11.0-16.3)<br>151       |
|                        | <i>Male</i>   | 36.6 (32.3-41.2)<br>336       | 29.4 (24.8-34.4)<br>267       | 30.0 (26.5-33.8)<br>336       | 28.5 (25.0-32.3)<br>328       | 28.8 (24.9-33.1)<br>305       | 30.1 (25.4-35.2)<br>317         | 28.9 (23.9-33.9)<br>310       | 27.0 (21.8-32.1)<br>300       |
| <b>Somerset</b>        | <i>Female</i> | 37.2 (27.4-48.1)<br>151       | 21.9 (16.3-28.7)<br>81        | 19.7 (16.8-23.0)<br>77        | 22.1 (17.4-27.8)<br>84        | 29.6 (23.2-36.8)<br>114       | 14.7 (10.2-20.7)<br>47          | 20.1 (14.8-25.3)<br>64        | 15.0 (10.3-19.7)<br>54        |
|                        | <i>Male</i>   | 47.1 (39.2-55.1)<br>168       | 36.1 (28.9-44.1)<br>107       | 26.2 (24.8-27.6)<br>91        | 31.0 (24.7-38.2)<br>112       | 31.8 (25.3-39.1)<br>106       | 26.9 (21.2-33.4)<br>90          | 32.4 (22.8-42.1)<br>112       | 28.3 (21.6-35.0)<br>101       |
| <b>St. Mary's</b>      | <i>Female</i> | 28.7 (24.6-33.1)<br>558       | 30.9 (24.3-38.3)<br>622       | 16.5 (11.3-23.4)<br>420       | 18.6 (15.5-22.1)<br>462       | 15.3 (12.7-18.3)<br>381       | 16.6 (14.0-19.6)<br>387         | 20.2 (16.2-24.2)<br>464       | 13.7 (11.6-15.7)<br>324       |
|                        | <i>Male</i>   | 35.2 (30.3-40.5)<br>688       | 23.7 (19.1-28.9)<br>458       | 19.6 (16.3-23.4)<br>477       | 20.4 (17.4-23.7)<br>502       | 22.9 (19.7-26.3)<br>543       | 21.4 (18.4-24.9)<br>490         | 24.6 (20.5-28.6)<br>594       | 18.8 (15.7-22.0)<br>449       |
| <b>Talbot</b>          | <i>Female</i> | 33.5 (28.7-38.6)<br>182       | 29.2 (24.4-34.6)<br>168       | 24.4 (23.8-25.1)<br>155       | 25.3 (20.1-31.3)<br>177       | 20.3 (16.6-24.6)<br>134       | 17.2 (12.4-23.2)<br>103         | 16.6 (12.1-21.0)<br>97        | 14.9 (11.5-18.3)<br>95        |
|                        | <i>Male</i>   | 43.2 (38.5-48.0)<br>273       | 32.7 (28.2-37.7)<br>193       | 29.9 (22.9-38.0)<br>203       | 27.3 (23.1-31.8)<br>182       | 28.7 (23.5-34.4)<br>182       | 22.0 (17.5-27.4)<br>134         | 25.0 (20.6-29.4)<br>168       | 18.2 (14.0-22.0)<br>130       |
| <b>Washington</b>      | <i>Female</i> | 35.9 (31.7-40.3)<br>924       | 27.0 (22.9-31.6)<br>733       | 24.1 (20.7-27.9)<br>737       | 25.1 (21.7-28.7)<br>694       | 27.2 (23.5-31.2)<br>875       | 18.8 (16.3-21.7)<br>578         | 19.2 (16.7-21.7)<br>597       | 16.0 (13.2-18.8)<br>505       |
|                        | <i>Male</i>   | 36.4 (32.4-40.7)<br>961       | 30.1 (25.8-34.8)<br>803       | 27.8 (23.9-32.1)<br>863       | 31.6 (28.1-35.3)<br>912       | 30.6 (27.3-34.0)<br>912       | 30.2 (26.7-33.9)<br>917         | 27.4 (24.3-30.5)<br>865       | 24.8 (21.4-28.3)<br>814       |
| <b>Wicomico</b>        | <i>Female</i> | 34.6 (29.4-40.2)<br>626       | 24.5 (19.0-31.1)<br>422       | 17.9 (14.9-21.4)<br>363       | 22.4 (19.5-25.6)<br>443       | 23.4 (19.9-27.3)<br>442       | 19.6 (16.7-22.8)<br>347         | 16.2 (12.6-19.8)<br>302       | 10.8 (8.3-13.3)<br>212        |
|                        | <i>Male</i>   | 37.8 (32.8-43.1)<br>673       | 29.3 (24.5-34.6)<br>515       | 21.9 (17.8-26.6)<br>432       | 24.6 (21.4-28.2)<br>470       | 30.4 (26.8-34.4)<br>512       | 25.8 (22.7-29.2)<br>446         | 25.9 (21.3-30.5)<br>473       | 20.0 (15.8-24.2)<br>397       |
| <b>Worcester</b>       | <i>Female</i> | 26.5 (21.2-32.6)<br>246       | 25.3 (19.7-31.8)<br>244       | 20.4 (17.1-24.1)<br>224       | 25.5 (22.1-29.2)<br>260       | 23.6 (19.7-28.0)<br>249       | 22.6 (18.8-26.8)<br>205         | 18.1 (14.9-21.3)<br>169       | 13.8 (10.1-17.4)<br>133       |
|                        | <i>Male</i>   | 36.1 (31.0-41.6)<br>375       | 27.7 (21.7-34.6)<br>266       | 25.1 (22.3-28.0)<br>286       | 34.0 (30.6-37.6)<br>347       | 36.6 (32.7-40.8)<br>348       | 31.8 (26.6-37.5)<br>288         | 26.8 (22.7-30.8)<br>253       | 21.7 (17.1-26.4)<br>225       |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

**Middle School Youth Population Data**  
*Statutory Tables*

**F. Youth Current Tobacco Use – Maryland Public Middle School Youth**<sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 8.9 (7.8-10.1)<br>15,944      | 6.3 (5.8-6.9)<br>11,641       | 4.5 (4.0-5.0)<br>8,250        | 4.9 (4.4-5.4)<br>8,364        | 4.6 (4.2-5.1)<br>8,031        | 5.6 (5.2-6.1)<br>9,431          | 5.4 (4.8-6.0)<br>9,477        | 4.1 (3.6-4.6)<br>7,492        |
| <b>Allegany</b>         | 10.8 (7.9-13.7)<br>247        | 9.8 (7.1-12.5)<br>221         | 8.2 (7.3-9.2)<br>164          | 4.9 (3.5-6.8)<br>94           | 7.1 (5.3-9.4)<br>132          | 7.7 (5.4-9.9)<br>138            | 7.3 (5.2-9.4)<br>132          | 7.4 (4.8-10.0)<br>138         |
| <b>Anne Arundel</b>     | 11.2 (7.9-13.7)<br>1,826      | 7.0 (4.6-9.5)<br>1,165        | 4.0 (3.0-5.3)<br>642          | 5.2 (3.2-8.3)<br>800          | 4.0 (2.3-6.7)<br>638          | 4.7 (3.2-6.3)<br>759            | 5.1 (3.2-7.0)<br>836          | 2.7 (1.3-4.1)<br>461          |
| <b>Baltimore City</b>   | 12.9 (7.2-18.7)<br>2,395      | 8.9 (7.1-10.6)<br>1,572       | 7.6 (5.0-11.5)<br>1,236       | 11.3 (8.9-14.2)<br>1,395      | 8.9 (7.8-10.1)<br>1,276       | 9.1 (7.2-11.1)<br>1,340         | 10.1 (7.2-13.0)<br>1,563      | 6.1 (4.8-7.3)<br>936          |
| <b>Baltimore County</b> | 7.6 (2.8-12.5)<br>1,759       | 6.2 (3.9-8.5)<br>1,448        | 4.7 (3.7-5.9)<br>1,059        | 6.0 (4.2-8.5)<br>1,273        | 4.4 (3.1-6.2)<br>937          | 5.3 (3.8-6.8)<br>1,128          | 5.5 (2.5-8.6)<br>1,218        | 4.4 (3.1-5.7)<br>989          |
| <b>Calvert</b>          | 11.6 (8.3-14.8)<br>405        | 6.6 (4.1-9.1)<br>247          | 4.1 (2.7-6.4)<br>164          | 3.9 (2.6-5.8)<br>150          | 4.5 (3.2-6.3)<br>170          | 4.2 (2.6-5.8)<br>152            | 3.3 (2.0-4.6)<br>122          | 2.6 (1.5-3.8)<br>97           |
| <b>Caroline</b>         | 16.0 (11.8-20.2)<br>193       | 12.2 (9.3-15.1)<br>157        | 9.4 (7.1-12.4)<br>110         | 7.6 (5.6-10.2)<br>85          | 5.2 (3.5-7.7)<br>57           | 6.0 (3.6-8.3)<br>68             | 6.3 (4.1-8.6)<br>74           | 3.8 (2.4-5.2)<br>45           |
| <b>Carroll</b>          | 5.6 (3.1-8.1)<br>345          | 3.4 (1.8-5.1)<br>227          | 4.5 (3.0-6.9)<br>300          | 2.3 (1.7-3.3)<br>143          | 2.1 (1.4-3.2)<br>126          | 3.0 (1.8-4.1)<br>175            | 2.8 (1.8-3.8)<br>165          | 2.5 (1.4-3.6)<br>147          |
| <b>Cecil</b>            | 12.8 (9.6-16.1)<br>434        | 10.3 (7.6-13.0)<br>365        | 7.4 (4.4-12.2)<br>279         | 7.8 (6.0-10.2)<br>271         | 6.9 (5.2-8.9)<br>237          | 5.8 (4.1-7.5)<br>196            | 6.2 (4.6-7.9)<br>210          | 5.8 (4.0-7.6)<br>197          |
| <b>Charles</b>          | 10.5 (7.4-13.6)<br>526        | 6.8 (5.0-8.6)<br>349          | 2.5 (1.7-3.8)<br>155          | 4.3 (3.1-5.8)<br>246          | 5.4 (3.8-7.5)<br>314          | 4.2 (2.9-5.6)<br>227            | 5.9 (3.5-8.3)<br>324          | 4.9 (3.3-6.5)<br>272          |
| <b>Dorchester</b>       | 13.5 (9.9-17.1)<br>146        | 9.0 (6.2-11.8)<br>102         | 8.4 (5.0-13.6)<br>81          | 5.1 (3.6-7.2)<br>47           | 7.4 (5.1-10.7)<br>68          | 4.5 (2.9-6.1)<br>42             | 9.1 (5.9-12.2)<br>86          | 12.2 (8.5-15.8)<br>117        |
| <b>Frederick</b>        | 11.2 (8.5-14.0)<br>889        | 5.1 (3.3-6.9)<br>437          | 3.5 (2.2-5.6)<br>314          | 3.8 (3.0-4.8)<br>327          | 3.2 (2.1-4.8)<br>278          | 4.3 (3.5-5.1)<br>366            | 4.4 (3.2-5.6)<br>384          | 2.9 (1.8-3.9)<br>254          |
| <b>Garrett</b>          | 13.7 (8.6-18.8)<br>144        | 12.8 (8.6-16.9)<br>133        | 10.2 (5.7-17.7)<br>115        | 9.2 (6.7-12.5)<br>87          | 11.7 (8.4-16.0)<br>101        | 12.0 (8.8-15.2)<br>104          | 7.4 (4.6-10.2)<br>61          | 5.8 (2.1-9.5)<br>51           |
| <b>Harford</b>          | 11.0 (8.2-13.8)<br>946        | 6.8 (4.7-8.9)<br>605          | 2.9 (1.3-6.0)<br>251          | 4.3 (3.2-5.7)<br>345          | 2.9 (2.0-4.0)<br>240          | 3.5 (2.2-4.8)<br>278            | 4.8 (3.6-5.9)<br>386          | 4.5 (3.0-5.9)<br>373          |
| <b>Howard</b>           | 5.5 (3.5-7.6)<br>546          | 4.5 (2.9-6.1)<br>479          | 1.9 (0.9-3.9)<br>216          | 2.3 (1.3-3.8)<br>256          | 1.7 (0.9-3.2)<br>190          | 2.1 (1.4-2.9)<br>236            | 2.7 (1.9-3.4)<br>316          | 1.1 (0.5-1.8)<br>143          |
| <b>Kent</b>             | 11.8 (8.6-15.1)<br>72         | 14.8 (9.5-20.1)<br>91         | 6.9 (3.7-12.3)<br>31          | 8.1 (5.4-11.8)<br>36          | 6.3 (3.5-10.9)<br>27          | 6.1 (2.8-9.3)<br>27             | 6.1 (3.1-9.1)<br>26           | 4.0 (1.6-6.5)<br>18           |
| <b>Montgomery</b>       | 5.3 (3.8-6.7)<br>1,518        | 4.2 (3.0-5.4)<br>1,255        | 3.2 (2.0-5.2)<br>972          | 2.1 (1.3-3.3)<br>623          | 3.0 (1.8-4.8)<br>882          | 4.9 (3.7-6.1)<br>1,461          | 3.1 (1.8-4.5)<br>991          | 2.1 (1.4-2.9)<br>705          |
| <b>Prince George's</b>  | 6.4 (2.9-9.8)<br>1,665        | 4.9 (3.4-6.4)<br>1,348        | 4.2 (3.0-5.8)<br>1,180        | 5.4 (3.9-7.5)<br>1,348        | 6.1 (4.7-7.9)<br>1,475        | 8.6 (6.9-10.4)<br>1,674         | 6.7 (5.3-8.2)<br>1,413        | 6.7 (4.2-9.1)<br>1,689        |
| <b>Queen Anne's</b>     | 11.3 (7.1-15.5)<br>177        | 6.7 (4.7-8.8)<br>113          | 5.3 (3.2-8.7)<br>89           | 3.7 (2.7-5.2)<br>64           | 3.8 (2.9-5.0)<br>62           | 6.2 (4.0-8.4)<br>104            | 3.9 (2.3-5.4)<br>66           | 3.1 (1.8-4.4)<br>55           |
| <b>Somerset</b>         | 18.4 (14.1-22.6)<br>116       | 16.3 (11.1-21.6)<br>92        | 9.9 (6.4-14.9)<br>65          | 10.6 (7.3-15.0)<br>63         | 10.0 (7.2-13.6)<br>53         | 7.4 (4.8-9.9)<br>44             | 10.4 (6.4-14.3)<br>62         | 6.2 (3.5-8.9)<br>39           |
| <b>St. Mary's</b>       | 9.5 (6.8-12.3)<br>296         | 9.2 (6.8-11.5)<br>295         | 3.9 (2.3-6.7)<br>140          | 4.6 (2.8-7.5)<br>158          | 4.4 (3.3-5.9)<br>156          | 6.2 (4.3-8.2)<br>213            | 5.3 (3.9-6.8)<br>197          | 4.7 (3.2-6.2)<br>176          |
| <b>Talbot</b>           | 10.8 (6.1-15.6)<br>103        | 9.2 (6.3-12.2)<br>86          | 6.5 (5.8-7.3)<br>62           | 8.2 (5.6-11.8)<br>73          | 4.8 (3.1-7.3)<br>41           | 4.6 (3.0-6.2)<br>38             | 4.0 (2.2-5.8)<br>39           | 4.2 (2.4-5.9)<br>41           |
| <b>Washington</b>       | 14.6 (10.5-18.7)<br>637       | 9.5 (6.6-12.4)<br>420         | 7.8 (5.9-10.3)<br>359         | 4.7 (3.2-6.8)<br>208          | 5.6 (4.0-7.6)<br>248          | 8.6 (6.3-10.8)<br>400           | 8.9 (6.9-10.8)<br>435         | 4.7 (3.2-6.3)<br>232          |
| <b>Wicomico</b>         | 13.5 (9.6-17.4)<br>395        | 11.2 (7.7-14.8)<br>309        | 7.0 (4.9-9.8)<br>188          | 7.4 (5.9-9.1)<br>192          | 8.1 (5.7-11.3)<br>222         | 6.3 (4.5-8.0)<br>179            | 9.5 (7.1-11.8)<br>264         | 8.4 (6.4-10.5)<br>240         |
| <b>Worcester</b>        | 11.2 (7.7-14.7)<br>164        | 8.4 (6.7-10.0)<br>126         | 5.6 (3.3-9.2)<br>78           | 5.9 (4.6-7.7)<br>81           | 7.2 (5.7-9.2)<br>101          | 7.7 (7.2-11.1)<br>83            | 9.8 (6.8-13.0)<br>107         | 5.7 (3.4-8.0)<br>77           |

**G. Youth Current Tobacco Use, By Minority Race/Ethnicity – Maryland Public Middle School Youth** <sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 8.5 (7.1-10.2)<br>6,600       | 6.6 (5.8-7.5)<br>5,831        | 4.7 (4.0-5.5)<br>4,581        | 5.7 (5.0-6.4)<br>5,069        | 5.8 (5.2-6.4)<br>5,514        | 6.8 (6.1-7.4)<br>6,048          | 6.1 (5.4-6.8)<br>5,750        | 4.7 (4.1-5.3)<br>4,797        |
| <b>Allegany</b>         | 15.9 (9.1-26.4)<br>42         | 14.2 (7.7-20.6)<br>40         | 9.2 (4.8-16.7)<br>25          | 9.3 (5.9-14.6)<br>20          | 10.6 (6.7-16.3)<br>32         | 10.9 (5.5-16.4)<br>42           | 8.6 (4.0-13.1)<br>28          | 12.2 (6.0-18.3)<br>20         |
| <b>Anne Arundel</b>     | 13.1 (8.6-19.5)<br>463        | 6.4 (2.6-10.2)<br>272         | 4.7 (3.1-7.1)<br>245          | 8.2 (5.0-13.3)<br>414         | 5.7 (3.6-8.8)<br>331          | 5.9 (3.3-8.5)<br>348            | 6.3 (4.4-8.3)<br>387          | 3.9 (1.9-5.8)<br>256          |
| <b>Baltimore City</b>   | 10.7 (6.9-16.3)<br>1,635      | 8.1 (5.8-10.4)<br>1,572       | 7.1 (4.7-10.7)<br>1,070       | 11.0 (8.4-14.1)<br>1,222      | 8.6 (7.7-9.7)<br>1,136        | 9.1 (7.2-11.1)<br>1,340         | 10.1 (7.4-12.9)<br>1,363      | 5.8 (2.9-11.2)<br>30          |
| <b>Baltimore County</b> | 5.1 (2.6-9.6)<br>403          | 7.0 (3.9-10.1)<br>742         | 4.7 (3.7-6.0)<br>567          | 5.6 (4.0-7.7)<br>623          | 5.5 (3.8-8.1)<br>639          | 4.9 (3.1-6.7)<br>552            | 4.5 (2.4-6.6)<br>518          | 4.5 (3.0-6.1)<br>552          |
| <b>Calvert</b>          | 14.8 (9.4-22.6)<br>120        | 8.5 (4.1-12.9)<br>75          | 8.2 (5.6-11.8)<br>79          | 6.5 (3.3-12.7)<br>56          | 5.5 (3.3-8.9)<br>52           | 5.5 (2.9-8.1)<br>46             | 2.7 (1.0-4.3)<br>23           | 4.9 (2.1-7.7)<br>42           |
| <b>Caroline</b>         | 18.0 (11.8-26.5)<br>59        | 15.6 (10.6-20.6)<br>53        | 11.6 (4.4-27.4)<br>36         | 9.3 (6.5-13.1)<br>32          | 5.4 (3.3-8.7)<br>21           | 5.1 (2.1-8.2)<br>17             | 7.9 (4.2-11.6)<br>29          | 3.6 (1.3-5.9)<br>17           |
| <b>Carroll</b>          | 13.4 (7.1-23.7)<br>83         | 9.0 (3.3-14.7)<br>71          | 8.0 (4.8-13.0)<br>70          | 7.5 (4.1-13.3)<br>48          | 2.9 (1.4-5.6)<br>24           | 7.4 (3.1-11.6)<br>47            | 5.6 (2.6-8.7)<br>39           | 4.9 (1.5-8.3)<br>39           |
| <b>Cecil</b>            | 14.9 (9.0-23.8)<br>68         | 6.7 (3.3-10.2)<br>38          | 10.7 (7.7-14.7)<br>86         | 8.5 (5.8-12.4)<br>56          | 6.4 (4.0-10.2)<br>45          | 5.8 (2.9-8.7)<br>33             | 8.3 (4.6-12.1)<br>50          | 7.9 (4.6-11.3)<br>53          |
| <b>Charles</b>          | 9.5 (6.3-14.1)<br>174         | 6.3 (4.0-8.7)<br>145          | 2.6 (1.7-3.9)<br>101          | 4.4 (3.1-6.3)<br>157          | 4.9 (3.3-7.1)<br>183          | 5.4 (3.6-7.1)<br>188            | 5.8 (3.6-8.1)<br>210          | 4.6 (3.0-6.1)<br>169          |
| <b>Dorchester</b>       | 14.8 (10.2-21.0)<br>66        | 9.4 (6.1-12.8)<br>45          | 8.6 (4.3-16.6)<br>44          | 7.0 (4.5-10.9)<br>30          | 7.7 (5.5-10.8)<br>35          | 5.7 (3.3-8.1)<br>26             | 12.4 (7.3-17.4)<br>55         | 14.3 (8.6-20.0)<br>65         |
| <b>Frederick</b>        | 14.7 (10.1-21.0)<br>227       | 8.3 (3.8-12.8)<br>131         | 4.4 (2.5-7.7)<br>99           | 4.8 (3.0-7.6)<br>103          | 5.1 (3.3-7.8)<br>133          | 5.8 (3.3-8.3)<br>141            | 5.7 (3.1-8.3)<br>157          | 3.8 (1.6-6.1)<br>106          |
| <b>Garrett</b>          | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 15.1 (14.6-15.6)<br>19        | Insufficient<br>Sample Size   | 17.7 (11.9-25.5)<br>28        | 25.9 (14.8-37.0)<br>31          | 16.4 (6.9-26.0)<br>14.5       | 11.3 (3.2-19.4)<br>16         |
| <b>Harford</b>          | 11.0 (6.9-17.1)<br>221        | 8.4 (4.8-12.0)<br>193         | 2.8 (1.3-5.9)<br>73           | 6.1 (4.0-9.3)<br>122          | 4.3 (2.7-6.8)<br>110          | 4.8 (2.1-7.5)<br>115            | 6.1 (4.2-8.1)<br>156          | 5.2 (2.6-7.9)<br>141          |
| <b>Howard</b>           | 4.5 (2.9-7.1)<br>120          | 5.7 (2.7-8.7)<br>208          | 1.5 (0.6-3.5)<br>78           | 3.6 (2.0-6.1)<br>174          | 2.8 (1.5-5.1)<br>156          | 1.8 (1.1-2.4)<br>100            | 3.5 (2.3-4.6)<br>217          | 1.4 (0.8-2.0)<br>98           |
| <b>Kent</b>             | 10.8 (7.5-15.3)<br>21         | 12.3 (6.5-18.2)<br>24         | 6.6 (2.3-17.5)<br>10          | 5.0 (2.1-11.4)<br>8           | 7.1 (4.4-11.4)<br>13          | 6.0 (1.5-10.5)<br>10            | 7.9 (1.4-14.4)<br>10          | 6.3 (1.5-11.1)<br>10          |
| <b>Montgomery</b>       | 6.9 (4.5-10.6)<br>902         | 5.4 (3.4-7.4)<br>896          | 3.5 (2.1-5.7)<br>564          | 2.5 (1.7-3.7)<br>450          | 4.1 (2.5-6.5)<br>758          | 6.0 (4.2-7.7)<br>1,128          | 3.3 (1.4-5.1)<br>654          | 2.5 (1.7-3.2)<br>519          |
| <b>Prince George's</b>  | 6.2 (3.4-11.0)<br>1,385       | 4.6 (2.8-6.5)<br>1,076        | 4.0 (2.6-6.1)<br>1,053        | 5.2 (3.7-7.3)<br>1,227        | 6.1 (4.7-8.0)<br>1,421        | 8.9 (7.2-10.7)<br>1,629         | 6.8 (5.2-8.3)<br>1,336        | 6.5 (4.4-8.5)<br>1,555        |
| <b>Queen Anne's</b>     | 18.2 (10.8-29.2)<br>41        | 11.6 (6.6-16.7)<br>28         | 12.2 (7.2-20.0)<br>30         | 7.6 (4.6-12.3)<br>21          | 5.2 (3.3-8.2)<br>18           | 10.9 (5.5-16.4)<br>27           | 6.1 (2.3-9.9)<br>17           | 3.2 (0.6-5.9)<br>9            |
| <b>Somerset</b>         | 16.3 (10.9-23.6)<br>48        | 14.2 (8.2-20.2)<br>41         | 7.6 (6.5-8.8)<br>25           | 13.3 (8.9-19.4)<br>41         | 9.0 (6.3-12.7)<br>29          | 6.6 (4.2-9.1)<br>21             | 8.3 (4.2-12.5)<br>25          | 7.3 (3.7-10.8)<br>26          |
| <b>St. Mary's</b>       | 12.0 (8.2-17.3)<br>117        | 12.4 (8.3-16.5)<br>113        | 4.9 (2.9-8.1)<br>54           | 5.3 (2.6-10.3)<br>48          | 4.8 (3.0-7.5)<br>48           | 9.4 (6.2-12.6)<br>90            | 7.1 (4.1-10.2)<br>80          | 6.4 (3.7-9.0)<br>71           |
| <b>Talbot</b>           | 13.6 (8.0-22.4)<br>38         | 9.0 (4.8-13.2)<br>27          | 6.2 (5.5-7.0)<br>19           | 10.7 (6.9-16.3)<br>33         | 5.4 (3.1-9.3)<br>16           | 6.0 (2.5-9.4)<br>18             | 6.8 (2.7-10.8)<br>21          | 3.9 (1.1-6.7)<br>13           |
| <b>Washington</b>       | 15.2 (8.2-26.3)<br>111        | 15.7 (9.9-21.6)<br>126        | 9.4 (6.6-13.4)<br>108         | 4.6 (2.7-7.8)<br>44           | 9.0 (5.2-15.2)<br>97          | 13.1 (8.8-17.3)<br>142          | 13.7 (10.0-17.4)<br>174       | 7.0 (4.6-9.4)<br>91           |
| <b>Wicomico</b>         | 17.9 (12.7-24.7)<br>190       | 11.4 (7.0-15.7)<br>144        | 7.4 (5.3-10.1)<br>97          | 8.5 (6.4-11.3)<br>102         | 10.4 (7.5-14.2)<br>138        | 8.4 (5.5-11.4)<br>115           | 12.0 (7.6-16.4)<br>157        | 9.4 (6.3-12.4)<br>130         |
| <b>Worcester</b>        | 9.8 (5.4-17.0)<br>38          | 10.0 (7.1-12.9)<br>44         | 7.0 (3.6-13.2)<br>32          | 6.6 (4.4-9.6)<br>29           | 10.0 (7.2-13.6)<br>50         | 7.2 (3.3-11.2)<br>25            | 9.1 (5.4-12.7)<br>30          | 7.0 (2.9-11.2)<br>30          |

**H. Youth First Tried Tobacco, Past 12 Months – Maryland Public Middle School Youth** <sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 7.3 (6.4-8.2)<br>13,959       | 8.0 (7.5-8.5)<br>16,256       | 7.4 (6.6-8.2)<br>14,304       | 6.8 (6.2-7.4)<br>12,514       | 8.9 (8.1-9.6)<br>16,313       | 6.5 (5.9-7.0)<br>11,105         | 4.2 (3.8-4.7)<br>7,561        | 4.1 (3.6-4.5)<br>7,227        |
| <b>Allegany</b>         | 9.8 (6.6-13.0)<br>236         | 10.2 (7.8-12.6)<br>250        | 10.7 (7.8-13.6)<br>222        | 8.3 (6.1-10.5)<br>166         | 8.8 (6.8-10.9)<br>172         | 9.8 (7.2-12.5)<br>183           | 5.3 (3.7-6.8)<br>97           | 7.5 (5.2-9.8)<br>139          |
| <b>Anne Arundel</b>     | 8.4 (6.5-10.3)<br>1,457       | 8.7 (6.9-10.4)<br>1,582       | 7.2 (5.0-9.4)<br>1,208        | 6.9 (4.7-9.1)<br>1,121        | 7.5 (4.9-10.1)<br>1,254       | 5.7 (3.4-8.0)<br>925            | 3.9 (2.3-5.6)<br>663          | 4.2 (1.4-7.0)<br>703          |
| <b>Baltimore City</b>   | 10.8 (8.2-13.5)<br>2,458      | 11.1 (9.8-12.4)<br>2,428      | 12.9 (8.6-17.3)<br>2,419      | 13.3 (11.0-15.6)<br>1,991     | 15.1 (13.8-16.4)<br>2,554     | 11.6 (8.9-14.2)<br>1,812        | 9.4 (7.0-11.7)<br>1,519       | 4.6 (3.7-5.5)<br>679          |
| <b>Baltimore County</b> | 6.7 (2.9-10.4)<br>1,657       | 7.7 (6.2-9.3)<br>1,994        | 7.8 (6.1-9.4)<br>1,848        | 8.5 (5.4-11.7)<br>1,919       | 8.6 (6.6-10.7)<br>1,948       | 5.8 (4.4-7.1)<br>1,262          | 3.7 (2.6-4.8)<br>833          | 4.2 (2.5-5.9)<br>921          |
| <b>Calvert</b>          | 7.9 (5.2-10.7)<br>292         | 9.1 (6.5-11.7)<br>371         | 7.3 (4.9-9.7)<br>302          | 5.7 (3.9-7.6)<br>228          | 7.2 (5.3-9.1)<br>277          | 5.7 (3.8-7.6)<br>208            | 2.9 (1.8-4.0)<br>109          | 3.3 (2.2-4.4)<br>119          |
| <b>Caroline</b>         | 11.0 (6.8-15.1)<br>139        | 12.1 (9.5-14.7)<br>168        | 13.1 (8.9-17.2)<br>159        | 10.0 (7.5-12.6)<br>119        | 6.9 (5.0-8.8)<br>77           | 7.5 (4.6-10.5)<br>88            | 5.7 (3.8-7.5)<br>67           | 4.1 (2.2-6.0)<br>47           |
| <b>Carroll</b>          | 5.6 (3.2-8.0)<br>357          | 3.6 (1.9-5.4)<br>250          | 5.7 (4.3-7.1)<br>383          | 4.6 (2.7-6.5)<br>291          | 4.4 (3.1-5.8)<br>271          | 3.6 (2.4-4.8)<br>214            | 1.8 (0.9-2.7)<br>107          | 2.1 (0.9-3.3)<br>124          |
| <b>Cecil</b>            | 10.0 (7.3-12.7)<br>360        | 11.6 (8.9-14.4)<br>444        | 8.9 (7.6-10.3)<br>350         | 9.7 (7.1-12.4)<br>355         | 11.4 (8.8-14.0)<br>410        | 6.5 (4.8-8.2)<br>221            | 4.6 (3.1-6.0)<br>156          | 4.6 (3.2-6.0)<br>152          |
| <b>Charles</b>          | 8.2 (5.0-11.4)<br>441         | 8.6 (6.6-10.6)<br>499         | 4.8 (3.3-6.4)<br>303          | 7.6 (5.7-9.5)<br>471          | 10.9 (8.6-13.1)<br>665        | 6.7 (4.8-8.6)<br>377            | 4.5 (3.0-5.9)<br>251          | 5.0 (3.4-6.7)<br>275          |
| <b>Dorchester</b>       | 10.1 (6.7-13.6)<br>119        | 9.6 (7.0-12.2)<br>121         | 12.1 (8.0-16.2)<br>124        | 8.1 (5.9-10.3)<br>82          | 10.4 (7.3-13.4)<br>101        | 5.8 (3.8-7.8)<br>56             | 4.8 (2.9-6.6)<br>47           | 4.7 (2.8-6.6)<br>43           |
| <b>Frederick</b>        | 7.4 (5.5-9.4)<br>619          | 6.4 (4.3-8.5)<br>579          | 6.3 (4.4-8.2)<br>583          | 5.3 (3.8-6.9)<br>481          | 6.3 (4.5-8.1)<br>558          | 4.0 (3.4-4.5)<br>345            | 3.2 (2.3-4.1)<br>285          | 3.1 (1.8-4.5)<br>271          |
| <b>Garrett</b>          | 9.3 (5.4-13.2)<br>101         | 11.7 (8.2-15.2)<br>132        | 12.3 (4.2-20.4)<br>143        | 12.4 (9.0-15.9)<br>123        | 15.0 (11.3-18.7)<br>138       | 11.8 (8.3-15.4)<br>104          | 7.7 (4.8-10.7)<br>64          | 6.4 (3.3-9.6)<br>56           |
| <b>Harford</b>          | 7.7 (5.4-10.0)<br>707         | 9.0 (6.6-11.3)<br>867         | 5.0 (3.2-6.7)<br>452          | 5.8 (3.7-8.0)<br>520          | 6.9 (5.4-8.4)<br>598          | 4.2 (2.9-5.5)<br>344            | 4.0 (2.9-5.1)<br>331          | 3.0 (1.9-4.0)<br>245          |
| <b>Howard</b>           | 5.9 (4.2-7.6)<br>597          | 5.9 (4.9-7.0)<br>663          | 3.7 (2.2-5.3)<br>444          | 3.8 (2.1-5.5)<br>444          | 5.0 (3.2-6.8)<br>576          | 2.5 (1.6-3.4)<br>281            | 2.1 (1.4-2.8)<br>253          | 1.7 (1.2-2.1)<br>202          |
| <b>Kent</b>             | 7.7 (4.7-10.8)<br>51          | 13.8 (10.0-17.7)<br>93        | 11.8 (9.0-14.5)<br>57         | 11.8 (8.2-15.5)<br>56         | 9.0 (5.4-12.6)<br>42          | 7.1 (3.6-10.5)<br>32            | 3.5 (1.5-5.5)<br>15           | 5.7 (3.2-8.2)<br>25           |
| <b>Montgomery</b>       | 4.4 (2.3-6.5)<br>1,318        | 4.6 (3.3-5.9)<br>1,485        | 4.4 (2.9-5.8)<br>1,355        | 2.7 (1.6-3.9)<br>842          | 7.6 (5.1-10.0)<br>2,330       | 4.4 (2.8-5.9)<br>1,323          | 2.4 (0.9-3.9)<br>791          | 2.6 (1.4-3.8)<br>850          |
| <b>Prince George's</b>  | 5.6 (2.3-8.9)<br>1,591        | 7.7 (5.9-9.6)<br>2,408        | 7.8 (4.3-11.3)<br>2,348       | 7.0 (5.4-8.5)<br>1,949        | 10.6 (9.2-12.1)<br>2,824      | 10.4 (7.6-13.2)<br>2,092        | 4.9 (3.9-6.0)<br>1,094        | 6.4 (4.9-7.9)<br>1,561        |
| <b>Queen Anne's</b>     | 8.6 (5.1-12.0)<br>143         | 8.0 (6.1-9.8)<br>142          | 7.2 (4.5-9.0)<br>127          | 5.7 (4.2-7.1)<br>101          | 7.4 (6.1-8.7)<br>125          | 7.3 (4.6-10.0)<br>123           | 3.2 (1.8-4.7)<br>56           | 3.7 (2.3-5.0)<br>65           |
| <b>Somerset</b>         | 14.7 (10.3-19.0)<br>100       | 15.7 (12.2-19.3)<br>104       | 12.7 (8.1-17.2)<br>90         | 14.6 (10.7-18.5)<br>95        | 15.1 (11.0-19.1)<br>85        | 9.3 (6.2-12.4)<br>55            | 5.6 (3.2-8.0)<br>34           | 7.5 (4.4-10.5)<br>44          |
| <b>St. Mary's</b>       | 7.1 (4.7-9.5)<br>234          | 11.5 (9.2-13.8)<br>409        | 6.0 (2.9-9.1)<br>223          | 7.8 (4.9-10.6)<br>282         | 6.2 (4.4-8.0)<br>233          | 6.7 (5.0-8.4)<br>239            | 4.4 (2.7-6.2)<br>166          | 5.4 (3.8-6.9)<br>194          |
| <b>Talbot</b>           | 9.8 (6.5-13.1)<br>100         | 8.4 (6.2-10.5)<br>88          | 10.1 (9.5-10.8)<br>102        | 9.2 (6.4-12.0)<br>89          | 8.9 (6.0-11.8)<br>81          | 6.7 (4.4-9.0)<br>58             | 3.9 (2.1-5.6)<br>38           | 4.6 (2.9-6.3)<br>44           |
| <b>Washington</b>       | 8.6 (5.8-11.4)<br>401         | 13.2 (10.2-16.2)<br>631       | 12.0 (9.3-14.7)<br>340        | 7.4 (5.2-9.6)<br>361          | 9.2 (6.6-11.9)<br>468         | 9.4 (7.2-11.5)<br>456           | 6.0 (4.3-7.7)<br>294          | 4.3 (3.2-5.5)<br>208          |
| <b>Wicomico</b>         | 10.5 (7.8-13.2)<br>330        | 11.5 (8.1-14.9)<br>350        | 11.2 (9.8-12.5)<br>145        | 10.0 (7.6-12.4)<br>292        | 12.1 (9.0-15.2)<br>363        | 7.1 (5.3-8.9)<br>209            | 7.3 (5.4-9.2)<br>210          | 6.8 (5.0-8.7)<br>193          |
| <b>Worcester</b>        | 9.9 (6.6-13.2)<br>154         | 12.1 (10.5-13.7)<br>197       | 9.9 (6.2-13.7)<br>145         | 9.8 (7.6-12.0)<br>137         | 11.0 (9.3-12.8)<br>161        | 8.9 (4.7-13.1)<br>98            | 7.4 (4.9-9.9)<br>82           | 5.2 (3.1-7.4)<br>70           |

**I. Youth Who Quit Tobacco, Past 12 Months – Maryland Public Middle School Youth** <sup>YRBS/YTS</sup>

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

| <i>Jurisdiction</i>     | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | 44.0 (40.0-48.1)<br>5,503     | 48.1 (43.9-52.2)<br>4,040     | 56.8 (51.7-61.9)<br>3,651     | 57.0 (52.5-61.5)<br>4,563     | 61.1 (56.9-65.3)<br>3,717     | 54.1 (51.0-57.1)<br>9,094       | 54.2 (50.5-57.9)<br>7,304     | 68.1 (65.1-71.1)<br>9,395     |
| <b>Allegany</b>         | 46.9 (36.9-56.9)<br>108       | 48.5 (32.3-64.7)<br>81        | Insufficient<br>Sample Size   | 49.0 (32.3-65.7)<br>49        | 49.1 (34.8-63.3)<br>48        | 47.7 (37.6-57.8)<br>129         | 69.3 (56.5-82.1)<br>108       | 58.1 (46.7-69.5)<br>155       |
| <b>Anne Arundel</b>     | 33.5 (22.8-44.1)<br>437       | 49.7 (40.1-59.3)<br>434       | Insufficient<br>Sample Size   | 44.2 (30.9-57.5)<br>351       | Insufficient<br>Sample Size   | 57.9 (47.9-67.9)<br>759         | 45.3 (38.8-51.8)<br>512       | 63.8 (51.8-75.8)<br>778       |
| <b>Baltimore City</b>   | 43.6 (36.3-50.8)<br>965       | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 56.5 (48.0-65.0)<br>694       | 55.0 (44.9-65.1)<br>440       | 52.6 (44.6-60.6)<br>1,397       | 53.0 (44.9-61.2)<br>1,318     | 67.3 (57.6-76.9)<br>893       |
| <b>Baltimore County</b> | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 52.8 (35.8-69.9)<br>584       | 67.8 (52.7-83.0)<br>552       | 60.2 (51.3-69.0)<br>1,277       | 53.3 (41.9-64.6)<br>870       | 69.9 (60.6-79.2)<br>1,168     |
| <b>Calvert</b>          | 43.3 (33.0-53.7)<br>125       | 49.1 (39.7-58.6)<br>112       | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 48.0 (38.4-57.6)<br>133         | 68.9 (56.9-80.9)<br>143       | 79.6 (68.5-90.6)<br>183       |
| <b>Caroline</b>         | 30.2 (16.1-44.3)<br>46        | 37.0 (26.7-47.4)<br>36        | 49.1 (34.7-63.5)<br>159       | 48.2 (35.5-60.8)<br>38        | Insufficient<br>Sample Size   | 40.9 (27.7-54.1)<br>46          | 49.9 (38.3-61.6)<br>56        | 58.5 (46.2-70.8)<br>55        |
| <b>Carroll</b>          | 54.2 (33.8-74.6)<br>174       | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 46.6 (32.4-60.7)<br>135         | 50.2 (36.0-64.5)<br>122       | Insufficient<br>Sample Size   |
| <b>Cecil</b>            | 36.5 (26.4-46.7)<br>108       | 36.0 (26.3-45.7)<br>95        | 55.1 (32.5-77.7)<br>131       | 49.6 (42.3-56.8)<br>118       | 59.5 (46.5-72.5)<br>100       | 53.6 (44.0-63.1)<br>181         | 57.1 (44.1-70.1)<br>131       | 57.4 (45.3-69.4)<br>206       |
| <b>Charles</b>          | 49.0 (37.3-60.6)<br>172       | 42.0 (28.9-55.1)<br>89        | Insufficient<br>Sample Size   | 63.3 (50.0-76.6)<br>173       | 60.5 (47.9-73.1)<br>149       | 64.0 (53.7-74.4)<br>341         | 61.1 (51.9-70.4)<br>253       | 64.9 (53.4-76.5)<br>354       |
| <b>Dorchester</b>       | 42.9 (33.2-52.6)<br>55        | 39.0 (24.8-53.3)<br>28        | Insufficient<br>Sample Size   | 46.3 (33.6-59.0)<br>28        | Insufficient<br>Sample Size   | 60.2 (46.2-74.1)<br>51          | 51.7 (34.9-68.4)<br>43        | 53.3 (38.9-67.6)<br>58        |
| <b>Frederick</b>        | 41.3 (31.0-51.6)<br>261       | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 67.1 (56.9-77.4)<br>417         | 51.1 (36.0-66.1)<br>216       | 68.4 (60.7-76.1)<br>317       |
| <b>Garrett</b>          | 45.4 (28.8-62.1)<br>45        | 25.7 (14.9-36.6)<br>25        | 34.3 (26.5-42.1)<br>25        | 55.0 (43.9-66.1)<br>35        | Insufficient<br>Sample Size   | 36.6 (27.0-46.3)<br>49          | 47.1 (33.4-60.8)<br>45        | 50.0 (38.3-61.8)<br>54        |
| <b>Harford</b>          | 41.2 (30.0-52.4)<br>326       | 45.0 (34.2-55.8)<br>185       | Insufficient<br>Sample Size   | 50.9 (38.5-63.2)<br>160       | Insufficient<br>Sample Size   | 49.1 (37.0-61.2)<br>250         | 52.0 (39.0-65.0)<br>265       | 74.0 (62.8-85.1)<br>373       |
| <b>Howard</b>           | 61.8 (44.3-79.3)<br>305       | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 58.8 (47.9-69.6)<br>356         | 60.3 (47.1-73.4)<br>244       | Insufficient<br>Sample Size   |
| <b>Kent</b>             | Insufficient<br>Sample Size     | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   |
| <b>Montgomery</b>       | Insufficient<br>Sample Size   | 62.9 (54.9-70.8)<br>1,415       | 62.1 (41.1-83.2)<br>1,027     | 80.9 (74.0-87.9)<br>1,507     |
| <b>Prince George's</b>  | Insufficient<br>Sample Size   | 56.2 (42.6-69.9)<br>672       | 55.6 (45.5-65.7)<br>794       | 71.2 (59.9-82.4)<br>1,095     | 62.1 (51.0-73.2)<br>619       | 45.4 (35.5-55.3)<br>1,317       | 57.1 (48.8-85.4)<br>1,232     | 68.3 (58.9-77.6)<br>1,907     |
| <b>Queen Anne's</b>     | Insufficient<br>Sample Size   | 53.1 (42.7-63.5)<br>45        | Insufficient<br>Sample Size   | 51.3 (37.8-64.8)<br>32        | Insufficient<br>Sample Size   | 46.7 (37.5-55.8)<br>83          | 57.0 (44.2-69.9)<br>57        | 62.4 (49.5-75.3)<br>66        |
| <b>Somerset</b>         | 47.9 (32.5-63.3)<br>50        | 35.9 (25.2-47.6)<br>25        | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 52.5 (35.8-69.3)<br>38          | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   |
| <b>St. Mary's</b>       | 58.4 (45.0-71.8)<br>127       | 38.5 (28.2-48.8)<br>84        | Insufficient<br>Sample Size   | 45.1 (31.2-59.0)<br>73        | Insufficient<br>Sample Size   | 42.7 (31.3-54.0)<br>156         | 49.9 (40.4-59.5)<br>146       | 55.6 (46.7-64.4)<br>201       |
| <b>Talbot</b>           | 41.6 (28.1-55.0)<br>32        | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   | 46.3 (34.0-58.7)<br>33          | Insufficient<br>Sample Size   | Insufficient<br>Sample Size   |
| <b>Washington</b>       | 46.5 (38.0-55.0)<br>264       | 50.2 (38.7-61.6)<br>204       | 53.9 (43.6-64.3)<br>127       | 48.9 (34.5-63.4)<br>126       | Insufficient<br>Sample Size   | 47.6 (39.2-56.1)<br>303         | 41.9 (33.3-50.5)<br>212       | 64.5 (55.0-74.1)<br>260       |
| <b>Wicomico</b>         | 43.3 (34.1-52.5)<br>148       | 31.4 (19.5-43.3)<br>71        | Insufficient<br>Sample Size   | 48.9 (37.1-60.7)<br>94        | Insufficient<br>Sample Size   | 50.3 (41.4-59.1)<br>158         | 52.3 (41.3-63.3)<br>193       | 61.1 (52.4-69.7)<br>49        |
| <b>Worcester</b>        | 52.5 (33.9-71.0)<br>62        | 53.0 (43.0-63.0)<br>55        | 55.9 (45.1-66.8)<br>37        | 55.6 (42.8-68.4)<br>44        | 46.1 (32.4-59.8)<br>33        | 42.0 (26.2-57.8)<br>51          | 33.8 (21.6-46.0)<br>40        | 41.7 (30.0-53.5)<br>49        |

**J. Youth Current Tobacco Use, By Gender – Maryland Public Middle School Youth<sup>YRBS/YTS</sup>**

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

| <i>Jurisdiction</i>     | <i>Gender</i> | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|-------------------------|---------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Maryland</b>         | <i>Female</i> | 8.4 (7.2-9.6)<br>7,303        | 6.2 (5.4-7.1)<br>5,646        | 3.9 (3.3-4.6)<br>3,542        | 4.1 (3.5-4.8)<br>3,504        | 4.0 (3.6-4.6)<br>3,620        | 4.7 (4.2-5.3)<br>3,869          | 3.9 (3.4-4.4)<br>3,357        | 3.3 (2.9-3.7)<br>2,929        |
|                         | <i>Male</i>   | 9.4 (7.9-10.8)<br>8,516       | 6.4 (5.8-7.1)<br>5,891        | 4.9 (4.3-5.7)<br>4,605        | 5.6 (5.0-6.4)<br>4,846        | 5.3 (4.6-6.0)<br>4,370        | 6.5 (5.9-7.1)<br>5,424          | 6.6 (5.7-7.6)<br>5,830        | 4.6 (4.0-5.3)<br>4,261        |
| <b>Allegany</b>         | <i>Female</i> | 9.7 (6.2-13.2)<br>108         | 9.7 (6.8-13.7)<br>105         | 8.1 (5.3-12.3)<br>80          | 4.6 (2.8-7.4)<br>44           | 6.9 (4.9-9.6)<br>68           | 7.0 (4.7-10.1)<br>60            | 4.9 (2.4-7.4)<br>43           | 5.5 (3.1-8.0)<br>49           |
|                         | <i>Male</i>   | 11.8 (8.0-15.7)<br>139        | 9.9 (6.8-14.1)<br>116         | 8.2 (5.8-11.5)<br>84          | 5.3 (3.5-7.9)<br>50           | 7.4 (5.2-10.4)<br>64          | 8.2 (5.5-11.9)<br>76            | 9.2 (6.3-12.2)<br>85          | 8.7 (5.3-12.1)<br>84          |
| <b>Anne Arundel</b>     | <i>Female</i> | 12.0 (7.5-16.5)<br>939        | 7.0 (4.8-10.1)<br>585         | 3.6 (2.1-6.1)<br>283          | 4.0 (1.8-8.4)<br>302          | 4.1 (2.1-7.8)<br>343          | 4.0 (2.5-6.3)<br>325            | 4.7 (2.3-7.1)<br>386          | 2.2 (0.7-3.6)<br>182          |
|                         | <i>Male</i>   | 10.5 (7.0-14.1)<br>887        | 6.9 (4.1-11.3)<br>558         | 4.5 (2.9-6.9)<br>359          | 6.3 (3.9-10.1)<br>498         | 3.9 (2.5-6.0)<br>295          | 5.4 (3.7-7.7)<br>427            | 4.8 (2.4-7.2)<br>389          | 3.1 (1.7-4.6)<br>272          |
| <b>Baltimore City</b>   | <i>Female</i> | 11.7 (6.3-17.1)<br>1,083      | 7.4 (6.2-8.8)<br>680          | 7.0 (4.2-11.5)<br>557         | 9.6 (7.0-13.0)<br>611         | 8.9 (8.1-9.8)<br>671          | 8.0 (6.0-10.7)<br>1,433         | 8.1 (5.0-11.2)<br>612         | 5.3 (3.9-6.7)<br>410          |
|                         | <i>Male</i>   | 14.2 (5.3-23.0)<br>1,311      | 10.6 (7.6-14.7)<br>893        | 8.0 (5.1-12.2)<br>651         | 13.1 (10.0-17.0)<br>781       | 8.6 (6.8-10.8)<br>582         | 10.4 (7.6-13.9)<br>1,674        | 11.3 (7.8-14.8)<br>886        | 6.5 (4.2-8.8)<br>492          |
| <b>Baltimore County</b> | <i>Female</i> | 9.3 (4.1-14.6)<br>1,060       | 7.3 (4.6-11.2)<br>830         | 3.1 (1.9-4.9)<br>344          | 5.0 (3.3-7.5)<br>525          | 3.4 (2.1-5.5)<br>377          | 3.5 (2.3-5.3)<br>367            | 2.4 (1.1-3.8)<br>259          | 3.9 (2.6-5.3)<br>429          |
|                         | <i>Male</i>   | 6.1 (0.9-11.2)<br>699         | 5.0 (3.8-6.6)<br>592          | 6.0 (4.1-8.7)<br>695          | 7.1 (5.1-9.9)<br>747          | 5.4 (3.1-9.4)<br>560          | 6.7 (5.4-8.4)<br>723            | 8.0 (3.0-13.1)<br>911         | 4.4 (2.1-6.7)<br>502          |
| <b>Calvert</b>          | <i>Female</i> | 13.1 (8.5-17.8)<br>212        | 5.6 (3.3-9.3)<br>102          | 3.9 (2.4-6.4)<br>75           | 3.9 (2.2-6.8)<br>73           | 4.5 (2.7-7.3)<br>86           | 4.0 (2.4-6.8)<br>72             | 2.1 (1.0-3.1)<br>38           | 1.4 (0.3-2.4)<br>25           |
|                         | <i>Male</i>   | 10.2 (6.9-13.5)<br>191        | 7.6 (5.0-11.3)<br>145         | 4.4 (2.2-8.4)<br>89           | 3.9 (2.5-6.2)<br>77           | 4.5 (2.9-7.0)<br>83           | 4.2 (2.7-6.7)<br>77             | 4.5 (2.3-6.8)<br>81           | 4.0 (2.1-5.9)<br>72           |
| <b>Caroline</b>         | <i>Female</i> | 12.0 (6.1-17.9)<br>70         | 11.7 (8.7-15.7)<br>75         | 8.8 (6.5-11.9)<br>49          | 6.3 (3.8-10.1)<br>34          | 4.3 (2.9-6.3)<br>24           | 6.7 (4.1-10.9)<br>38            | 4.9 (2.2-7.5)<br>28           | 2.9 (1.2-4.5)<br>17           |
|                         | <i>Male</i>   | 19.6 (14.7-24.5)<br>120       | 12.6 (9.6-16.4)<br>82         | 10.1 (7.6-13.4)<br>61         | 8.9 (6.4-12.1)<br>51          | 6.2 (3.8-10.0)<br>33          | 5.2 (2.9-9.4)<br>30             | 7.4 (4.8-9.9)<br>42           | 4.5 (2.1-6.9)<br>27           |
| <b>Carroll</b>          | <i>Female</i> | 4.7 (1.7-7.6)<br>138          | 3.7 (1.9-7.2)<br>120          | 3.6 (2.6-4.9)<br>117          | 2.1 (1.1-3.7)<br>62           | 1.5 (0.8-3.0)<br>48           | 1.6 (0.7-3.3)<br>45             | 2.4 (0.9-3.9)<br>69           | 1.3 (0.2-2.5)<br>39           |
|                         | <i>Male</i>   | 6.5 (3.5-9.5)<br>208          | 2.8 (1.5-5.0)<br>92           | 5.5 (2.8-10.5)<br>183         | 2.6 (1.7-3.9)<br>81           | 2.7 (1.6-4.7)<br>77           | 4.3 (2.8-6.6)<br>130            | 3.0 (1.5-4.6)<br>89           | 3.2 (1.4-5.0)<br>97           |
| <b>Cecil</b>            | <i>Female</i> | 12.0 (7.6-16.3)<br>204        | 12.0 (8.6-16.6)<br>206        | 7.6 (3.4-16.3)<br>140         | 6.9 (4.9-9.7)<br>117          | 6.0 (4.2-8.5)<br>107          | 6.6 (4.5-9.7)<br>109            | 3.7 (2.1-5.4)<br>60           | 5.5 (3.0-8.0)<br>91           |
|                         | <i>Male</i>   | 13.8 (10.0-17.5)<br>230       | 8.6 (6.3-11.8)<br>158         | 7.2 (5.3-9.8)<br>140          | 8.7 (6.1-12.1)<br>154         | 7.8 (5.4-11.1)<br>130         | 5.0 (3.5-7.1)<br>86             | 8.5 (5.7-11.2)<br>147         | 5.6 (3.3-7.9)<br>96           |
| <b>Charles</b>          | <i>Female</i> | 10.4 (5.9-14.9)<br>252        | 7.9 (5.5-11.1)<br>209         | 1.9 (1.0-3.8)<br>58           | 4.4 (3.2-6.2)<br>124          | 4.7 (3.0-7.4)<br>143          | 3.8 (2.3-6.1)<br>99             | 4.6 (2.5-6.8)<br>121          | 3.8 (2.0-5.7)<br>101          |
|                         | <i>Male</i>   | 10.6 (7.5-13.6)<br>274        | 5.7 (3.8-8.5)<br>140          | 3.1 (2.0-4.9)<br>97           | 3.9 (2.6-5.9)<br>115          | 6.1 (4.1-8.9)<br>171          | 4.5 (3.2-6.4)<br>123            | 6.5 (4.0-8.9)<br>184          | 5.9 (3.5-8.3)<br>170          |
| <b>Dorchester</b>       | <i>Female</i> | 14.0 (9.2-18.8)<br>73         | 8.7 (5.9-12.7)<br>50          | 8.0 (6.4-9.9)<br>39           | 5.0 (3.2-7.9)<br>23           | 6.5 (4.3-9.7)<br>32           | 4.2 (2.6-7.0)<br>19             | 4.7 (2.7-6.8)<br>23           | 8.9 (5.7-12.1)<br>42          |
|                         | <i>Male</i>   | 12.6 (8.4-16.8)<br>70         | 9.3 (6.4-13.3)<br>52          | 8.8 (3.1-22.7)<br>42          | 5.2 (3.3-8.2)<br>24           | 8.4 (5.0-13.9)<br>36          | 4.8 (2.9-8.0)<br>22             | 12.6 (7.7-17.5)<br>59         | 13.8 (8.7-18.9)<br>66         |
| <b>Frederick</b>        | <i>Female</i> | 9.2 (5.6-12.8)<br>351         | 3.8 (2.1-6.8)<br>166          | 3.0 (1.5-5.8)<br>131          | 2.9 (1.9-4.2)<br>119          | 2.5 (1.4-4.3)<br>110          | 2.3 (1.4-3.9)<br>98             | 4.5 (2.9-6.2)<br>193          | 1.4 (0.4-2.4)<br>59           |
|                         | <i>Male</i>   | 13.0 (9.9-16.0)<br>530        | 6.3 (4.1-9.4)<br>265          | 4.0 (2.5-6.2)<br>182          | 4.7 (3.4-6.4)<br>208          | 3.9 (2.5-6.0)<br>169          | 6.2 (4.4-8.6)<br>268            | 4.2 (2.3-6.0)<br>186          | 4.0 (2.2-5.7)<br>179          |

**J. Youth Current Tobacco Use, By Gender (Continued) – Maryland Public Middle School Youth<sup>YRBS/YTS</sup>**

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

| <i>Jurisdiction</i>    | <i>Gender</i> | <i>Fall 2000<br/>% (CI) N</i> | <i>Fall 2002<br/>% (CI) N</i> | <i>Fall 2006<br/>% (CI) N</i> | <i>Fall 2008<br/>% (CI) N</i> | <i>Fall 2010<br/>% (CI) N</i> | <i>Spring 2013<br/>% (CI) N</i> | <i>Fall 2014<br/>% (CI) N</i> | <i>Fall 2016<br/>% (CI) N</i> |
|------------------------|---------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| <b>Garrett</b>         | <i>Female</i> | 10.4 (4.9-15.9)<br>54         | 10.5 (6.6-16.4)<br>52         | 10.5 (5.3-19.9)<br>56         | 6.3 (3.7-10.5)<br>29          | 8.8 (5.4-13.9)<br>38          | 7.1 (4.5-11.0)<br>31            | 4.3 (1.7-7.0)<br>17           | 3.8 (1.3-6.2)<br>16           |
|                        | <i>Male</i>   | 16.9 (9.1-24.7)<br>90         | 14.8 (10.4-20.5)<br>81        | 10.0 (6.0-16.1)<br>59         | 11.9 (8.5-16.5)<br>58         | 14.7 (10.1-20.8)<br>62        | 17.0 (12.6-22.4)<br>73          | 10.3 (5.8-14.7)<br>44         | 7.7 (2.4-13.0)<br>35          |
| <b>Harford</b>         | <i>Female</i> | 13.0 (8.8-17.3)<br>547        | 7.1 (4.8-10.4)<br>315         | 2.8 (1.2-6.4)<br>122          | 2.8 (1.6-4.7)<br>114          | 1.5 (0.9-2.6)<br>67           | 2.7 (1.6-4.7)<br>104            | 4.1 (2.2-6.0)<br>163          | 3.8 (2.1-5.4)<br>154          |
|                        | <i>Male</i>   | 9.1 (6.2-11.9)<br>398         | 6.5 (4.6-9.1)<br>290          | 2.9 (1.4-6.0)<br>129          | 5.8 (4.3-7.8)<br>231          | 4.2 (2.8-6.4)<br>169          | 4.0 (2.6-6.2)<br>169            | 4.9 (3.2-6.3)<br>201          | 5.3 (3.2-7.3)<br>219          |
| <b>Howard</b>          | <i>Female</i> | 4.5 (3.5-5.6)<br>216          | 4.3 (2.9-6.3)<br>227          | 1.0 (0.3-3.7)<br>55           | 2.0 (1.1-3.6)<br>110          | 1.3 (0.5-3.2)<br>76           | 1.4 (0.8-2.6)<br>76             | 1.7 (0.6-2.8)<br>98           | 0.8 (0.3-1.3)<br>51           |
|                        | <i>Male</i>   | 6.5 (3.0-9.9)<br>329          | 4.7 (3.2-6.7)<br>252          | 2.7 (1.2-5.7)<br>161          | 2.5 (1.3-4.7)<br>146          | 2.1 (1.0-4.6)<br>114          | 2.8 (1.8-4.5)<br>160            | 3.5 (2.7-4.3)<br>213          | 1.3 (0.5-2.1)<br>81           |
| <b>Kent</b>            | <i>Female</i> | 7.9 (3.9-11.8)<br>24          | 15.3 (9.6-23.6)<br>49         | 3.8 (1.5-9.4)<br>9            | 5.1 (2.4-10.5)<br>10          | 4.7 (2.3-9.4)<br>11           | 4.8 (2.0-10.8)<br>10            | 4.2 (1.1-7.2)<br>9            | 2.3 (0.1-4.6)<br>5            |
|                        | <i>Male</i>   | 16.1 (11.5-20.7)<br>48        | 14.2 (9.0-21.8)<br>41         | 9.9 (3.8-23.1)<br>23          | 10.5 (6.6-16.4)<br>26         | 7.3 (3.8-13.6)<br>15          | 7.2 (4.1-12.3)<br>17            | 8.0 (3.7-12.3)<br>17          | 4.6 (1.1-8.1)<br>10           |
| <b>Montgomery</b>      | <i>Female</i> | 4.5 (2.3-6.8)<br>626          | 3.3 (2.2-4.8)<br>487          | 3.0 (1.9-4.7)<br>449          | 1.9 (0.9-3.7)<br>273          | 2.6 (1.4-5.0)<br>402          | 3.4 (2.2-5.3)<br>503            | 1.8 (1.2-2.4)<br>280          | 1.7 (1.0-2.5)<br>282          |
|                        | <i>Male</i>   | 5.5 (3.4-7.6)<br>816          | 5.2 (3.5-7.7)<br>767          | 3.2 (1.5-6.5)<br>478          | 2.3 (1.4-3.9)<br>350          | 3.4 (2.2-5.3)<br>480          | 6.1 (4.6-8.0)<br>909            | 4.3 (1.9-6.7)<br>689          | 2.3 (1.5-3.2)<br>386          |
| <b>Prince George's</b> | <i>Female</i> | 4.6 (2.2-7.0)<br>593          | 5.5 (2.8-10.5)<br>743         | 4.1 (2.4-6.9)<br>572          | 4.7 (2.9-7.4)<br>592          | 5.2 (4.2-6.4)<br>646          | 8.9 (7.0-11.2)<br>855           | 4.2 (3.4-5.1)<br>453          | 5.1 (3.5-6.7)<br>641          |
|                        | <i>Male</i>   | 8.0 (3.7-12.3)<br>1,045       | 4.2 (3.0-5.7)<br>584          | 4.3 (3.0-6.1)<br>608          | 6.3 (4.0-9.6)<br>756          | 7.1 (4.9-10.4)<br>830         | 8.3 (6.1-11.2)<br>803           | 9.4 (6.4-12.3)<br>960         | 7.8 (4.6-11.0)<br>979         |
| <b>Queen Anne's</b>    | <i>Female</i> | 9.6 (5.3-13.9)<br>71          | 6.6 (4.4-9.6)<br>53           | 4.1 (2.7-6.2)<br>33           | 2.6 (1.7-4.0)<br>22           | 2.5 (1.5-4.1)<br>20           | 5.0 (3.0-8.3)<br>41             | 3.5 (1.8-5.2)<br>29           | 2.6 (0.8-4.3)<br>22           |
|                        | <i>Male</i>   | 12.9 (7.7-18.1)<br>106        | 6.9 (4.9-9.5)<br>60           | 6.2 (3.4-11.1)<br>54          | 4.5 (3.0-6.7)<br>40           | 5.0 (3.5-6.9)<br>40           | 7.4 (4.8-11.3)<br>62            | 4.3 (1.9-6.7)<br>37           | 3.7 (1.8-5.5)<br>33           |
| <b>Somerset</b>        | <i>Female</i> | 12.9 (5.9-19.9)<br>40         | 11.9 (7.3-18.8)<br>35         | 10.9 (7.3-15.8)<br>34         | 8.8 (5.9-13.1)<br>24          | 7.7 (5.6-10.7)<br>21          | 5.3 (3.1-8.8)<br>16             | 6.8 (2.9-10.7)<br>20          | 3.9 (1.3-6.6)<br>12           |
|                        | <i>Male</i>   | 23.6 (18.8-28.4)<br>74        | 21.4 (15.1-29.5)<br>57        | 8.7 (5.1-14.5)<br>30          | 11.8 (7.6-17.8)<br>38         | 12.2 (7.9-18.3)<br>32         | 9.6 (6.4-14.2)<br>27            | 13.3 (8.4-18.2)<br>39         | 8.6 (4.2-13.1)<br>27          |
| <b>St. Mary's</b>      | <i>Female</i> | 7.0 (4.3-9.6)<br>103          | 8.3 (5.8-11.6)<br>134         | 2.5 (1.3-4.8)<br>43           | 4.4 (2.5-7.9)<br>76           | 3.8 (2.5-5.8)<br>70           | 5.3 (3.3-8.3)<br>92             | 4.8 (3.1-6.6)<br>89           | 3.7 (2.3-5.1)<br>69           |
|                        | <i>Male</i>   | 11.8 (7.9-15.6)<br>190        | 9.6 (6.9-13.2)<br>152         | 5.2 (2.8-9.5)<br>93           | 4.8 (2.8-8.0)<br>83           | 5.0 (3.4-7.3)<br>86           | 7.2 (5.0-10.2)<br>121           | 5.8 (3.6-8.0)<br>106          | 5.3 (3.2-7.4)<br>97           |
| <b>Talbot</b>          | <i>Female</i> | 10.6 (4.5-16.7)<br>49         | 8.2 (5.2-12.6)<br>37          | 5.3 (4.4-6.4)<br>27           | 6.5 (3.9-10.5)<br>29          | 3.6 (1.8-6.9)<br>15           | 3.0 (1.5-5.8)<br>12             | 2.7 (0.8-4.7)<br>13           | 2.8 (0.8-4.8)<br>14           |
|                        | <i>Male</i>   | 11.2 (6.6-15.8)<br>54         | 10.3 (7.3-14.2)<br>49         | 8.0 (7.1-9.0)<br>35           | 10.0 (6.5-15.0)<br>44         | 6.0 (3.9-9.3)<br>26           | 5.7 (3.9-8.2)<br>25             | 5.0 (2.2-7.9)<br>24           | 5.6 (2.9-8.4)<br>27           |
| <b>Washington</b>      | <i>Female</i> | 12.7 (8.0-17.4)<br>269        | 8.1 (5.6-11.8)<br>178         | 6.0 (3.7-9.4)<br>132          | 3.8 (2.4-5.9)<br>85           | 4.2 (2.9-6.1)<br>97           | 7.8 (5.1-11.7)<br>176           | 9.5 (7.0-12.0)<br>227         | 3.2 (1.6-4.8)<br>77           |
|                        | <i>Male</i>   | 16.5 (11.2-21.8)<br>368       | 10.8 (7.7-14.9)<br>158        | 9.4 (7.8-11.3)<br>223         | 5.6 (3.4-9.0)<br>123          | 6.7 (4.2-10.4)<br>144         | 9.3 (6.9-12.4)<br>221           | 8.0 (5.0-11.1)<br>199         | 5.6 (3.4-7.9)<br>140          |
| <b>Wicomico</b>        | <i>Female</i> | 13.2 (8.5-17.8)<br>175        | 11.1 (7.3-16.5)<br>151        | 7.0 (4.2-11.4)<br>91          | 6.1 (4.1-9.0)<br>77           | 6.6 (4.3-10.1)<br>93          | 5.5 (3.6-8.3)<br>78             | 5.8 (3.5-8.2)<br>77           | 8.2 (5.7-10.8)<br>113         |
|                        | <i>Male</i>   | 13.7 (9.0-18.4)<br>217        | 11.4 (7.6-16.8)<br>158        | 7.0 (4.3-11.1)<br>97          | 8.6 (6.3-11.7)<br>114         | 9.5 (6.5-13.6)<br>126         | 6.8 (4.9-9.5)<br>97             | 12.7 (9.2-16.2)<br>184        | 8.6 (5.6-11.5)<br>124         |
| <b>Worcester</b>       | <i>Female</i> | 6.2 (3.5-8.8)<br>44           | 7.7 (5.8-10.1)<br>59          | 6.5 (4.2-10.0)<br>46          | 4.3 (2.9-6.3)<br>29           | 7.7 (5.6-10.4)<br>55          | 8.6 (4.5-15.7)<br>46            | 9.0 (5.0-13.0)<br>49          | 4.7 (1.8-7.5)<br>30           |
|                        | <i>Male</i>   | 16.0 (11.1-20.8)<br>120       | 9.1 (6.7-12.1)<br>67          | 4.7 (2.5-8.4)<br>286          | 7.5 (5.4-10.4)<br>51          | 6.7 (4.6-9.4)<br>45           | 6.7 (3.1-13.8)<br>36            | 10.5 (6.3-14.6)<br>57         | 6.4 (3.4-9.4)<br>44           |

**Youth Current Product Use**  
*Statutory Tables and Figures*

**K. Percent High School Use of Products - Maryland Public High School Youth<sup>YRBS/YTS</sup> – Fall 2016**

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

| <i>Jurisdiction</i>     | <i>Tobacco<br/>% CI</i>    | <i>Cigarettes<br/>% CI</i> | <i>Cigars<br/>% CI</i>     | <i>Smokeless<br/>% CI</i>  | <i>Electronic Smoking<br/>Devices (ESDs)<br/>% CI</i> |
|-------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---|
| <b>Maryland</b>         | <b>14.4%</b> (13.7%-15.0%) | <b>8.2%</b> (7.8%-8.6%)    | <b>9.0%</b> (8.5%-9.5%)    | <b>6.2%</b> (5.8%-6.6%)    | <b>13.3%</b> (12.7%-13.9%)                            |
| <b>Allegany</b>         | <b>23.0%</b> (19.8%-16.3%) | <b>14.6%</b> (12.3%-16.9%) | <b>11.9%</b> (9.7%-14.2%)  | <b>11.2%</b> (9.0%-13.3%)  | <b>24.4%</b> (21.7%-27.1%)                            |
| <b>Anne Arundel</b>     | <b>16.1%</b> (14.0%-18.1%) | <b>9.2%</b> (7.8%-10.6%)   | <b>10.4%</b> (8.8%-11.9%)  | <b>6.0%</b> (4.8%-7.2%)    | <b>17.4%</b> (15.5%-19.2%)                            |
| <b>Baltimore City*</b>  | <b>19.0%</b> (16.4%-21.6%) | <b>8.8%</b> (6.9%-10.8%)   | <b>14.0%</b> (11.8%-16.1%) | <b>8.2%</b> (6.5%-9.9%)    | <b>11.2%</b> (9.5%-13.0%)                             |
| <b>Baltimore County</b> | <b>16.5%</b> (13.6%-19.3%) | <b>9.2%</b> (7.6%-10.8%)   | <b>11.2%</b> (9.0%-13.3%)  | <b>6.8%</b> (4.9%-8.7%)    | <b>14.5%</b> (12.1%-16.9%)                            |
| <b>Calvert</b>          | <b>16.6%</b> (14.2%-19.0%) | <b>9.9%</b> (7.9%-11.9%)   | <b>8.9%</b> (7.2%-10.6%)   | <b>7.6%</b> (6.1%-9.1%)    | <b>12.8%</b> (10.8%-14.7%)                            |
| <b>Caroline</b>         | <b>19.5%</b> (15.9%-23.0%) | <b>13.9%</b> (11.1%-16.6%) | <b>11.2%</b> (8.3%-14.1%)  | <b>7.9%</b> (5.2%-10.7%)   | <b>19.6%</b> (16.1%-23.1%)                            |
| <b>Carroll</b>          | <b>15.4%</b> (13.0%-17.7%) | <b>9.0%</b> (7.4%-10.7%)   | <b>8.9%</b> (7.1%-10.6%)   | <b>8.4%</b> (6.7%-10.1%)   | <b>19.8%</b> (17.3%-22.4%)                            |
| <b>Cecil</b>            | <b>16.5%</b> (14.4%-18.7%) | <b>10.1%</b> (8.3%-11.9%)  | <b>10.3%</b> (8.7%-11.9%)  | <b>6.0%</b> (4.7%-7.3%)    | <b>19.3%</b> (16.8%-21.9%)                            |
| <b>Charles</b>          | <b>15.0%</b> (13.2%-16.8%) | <b>8.6%</b> (7.3%-9.9%)    | <b>9.2%</b> (7.8%-10.6%)   | <b>7.4%</b> (6.2%-8.7%)    | <b>15.2%</b> (13.4%-17.0%)                            |
| <b>Dorchester</b>       | <b>25.8%</b> (19.0%-32.6%) | <b>17.8%</b> (12.3%-23.4%) | <b>15.8%</b> (10.3%-21.4%) | <b>16.4%</b> (10.2%-22.6%) | <b>18.3%</b> (12.1%-24.5%)                            |
| <b>Frederick</b>        | <b>14.7%</b> (12.7%-16.8%) | <b>8.6%</b> (7.2%-10.0%)   | <b>8.6%</b> (7.2%-10.1%)   | <b>6.6%</b> (5.3%-8.0%)    | <b>16.6%</b> (14.7%-18.5%)                            |
| <b>Garrett</b>          | <b>26.6%</b> (22.4%-30.9%) | <b>16.2%</b> (12.6%-19.7%) | <b>11.5%</b> (8.6%-14.3%)  | <b>14.3%</b> (10.9%-17.8%) | <b>30.5%</b> (26.2%-34.7%)                            |
| <b>Harford</b>          | <b>14.9%</b> (12.9%-16.8%) | <b>9.3%</b> (7.8%-10.9%)   | <b>9.5%</b> (7.9%-11.0%)   | <b>6.3%</b> (5.0%-7.5%)    | <b>14.3%</b> (12.5%-16.1%)                            |
| <b>Howard</b>           | <b>10.7%</b> (8.9%-12.4%)  | <b>4.7%</b> (3.6%-5.7%)    | <b>7.3%</b> (5.9%-8.6%)    | <b>4.7%</b> (3.5%-5.8%)    | <b>8.3%</b> (6.9%-9.7%)                               |
| <b>Kent</b>             | <b>20.4%</b> (14.9%-25.9%) | <b>12.6%</b> (8.1%-17.1%)  | <b>9.8%</b> (6.1%-13.6%)   | <b>10.7%</b> (7.0%-14.5%)  | <b>15.8%</b> (11.7%-19.9%)                            |
| <b>Montgomery</b>       | <b>9.6%</b> (7.8%-11.4%)   | <b>5.5%</b> (4.4%-6.6%)    | <b>5.6%</b> (4.5%-6.7%)    | <b>3.5%</b> (2.5%-4.5%)    | <b>8.8%</b> (7.0%-10.5%)                              |
| <b>Prince George's</b>  | <b>10.9%</b> (9.1%-12.8%)  | <b>6.2%</b> (5.1%-7.4%)    | <b>14.6%</b> (12.3%-16.9%) | <b>5.0%</b> (4.0%-6.0%)    | <b>9.0%</b> (7.8%-10.1%)                              |
| <b>Queen Anne's</b>     | <b>20.7%</b> (17.3%-24.0%) | <b>15.1%</b> (12.3%-17.8%) | <b>11.8%</b> (9.4%-14.2%)  | <b>8.2%</b> (6.0%-10.4%)   | <b>24.1%</b> (20.7%-27.4%)                            |
| <b>Somerset</b>         | <b>22.0%</b> (17.2%-26.9%) | <b>12.4%</b> (8.5%-16.3%)  | <b>13.0%</b> (9.5%-16.5%)  | <b>10.3%</b> (7.1%-13.4%)  | <b>19.6%</b> (15.6%-23.6%)                            |
| <b>St. Mary's</b>       | <b>16.8%</b> (14.7%-18.9%) | <b>11.7%</b> (10.0%-13.5%) | <b>9.2%</b> (7.7%-10.7%)   | <b>6.7%</b> (5.5%-8.0%)    | <b>19.0%</b> (16.6%-21.3%)                            |
| <b>Talbot</b>           | <b>16.7%</b> (13.5%-20.0%) | <b>12.3%</b> (9.6%-14.9%)  | <b>9.9%</b> (7.7%-12.2%)   | <b>7.4%</b> (5.4%-9.5%)    | <b>17.1%</b> (14.3%-19.9%)                            |
| <b>Washington</b>       | <b>20.9%</b> (18.3%-23.4%) | <b>12.1%</b> (10.2%-14.0%) | <b>11.1%</b> (9.3%-12.8%)  | <b>10.9%</b> (9.0%-12.8%)  | <b>19.4%</b> (17.1%-21.6%)                            |
| <b>Wicomico</b>         | <b>16.1%</b> (13.4%-18.8%) | <b>11.0%</b> (8.9%-13.1%)  | <b>9.7%</b> (7.8%-11.6%)   | <b>6.8%</b> (5.2%-8.4%)    | <b>17.0%</b> (14.5%-19.4%)                            |
| <b>Worcester</b>        | <b>18.4%</b> (16.4%-21.6%) | <b>13.3%</b> (10.4%-16.2%) | <b>10.3%</b> (11.8%-16.1%) | <b>7.7%</b> (5.3%-10.0%)   | <b>26.0%</b> (22.7%-29.3%)                            |

\*The response rate for Baltimore City high school data was 56%, below the CDC standard of 60%

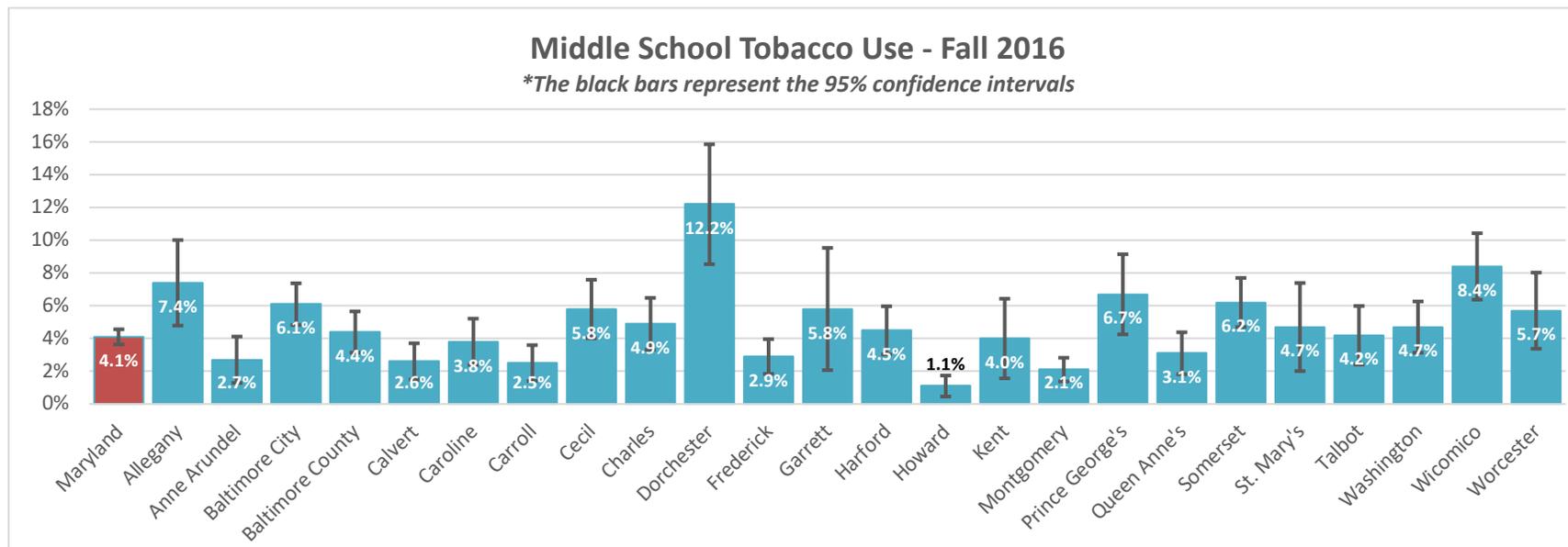
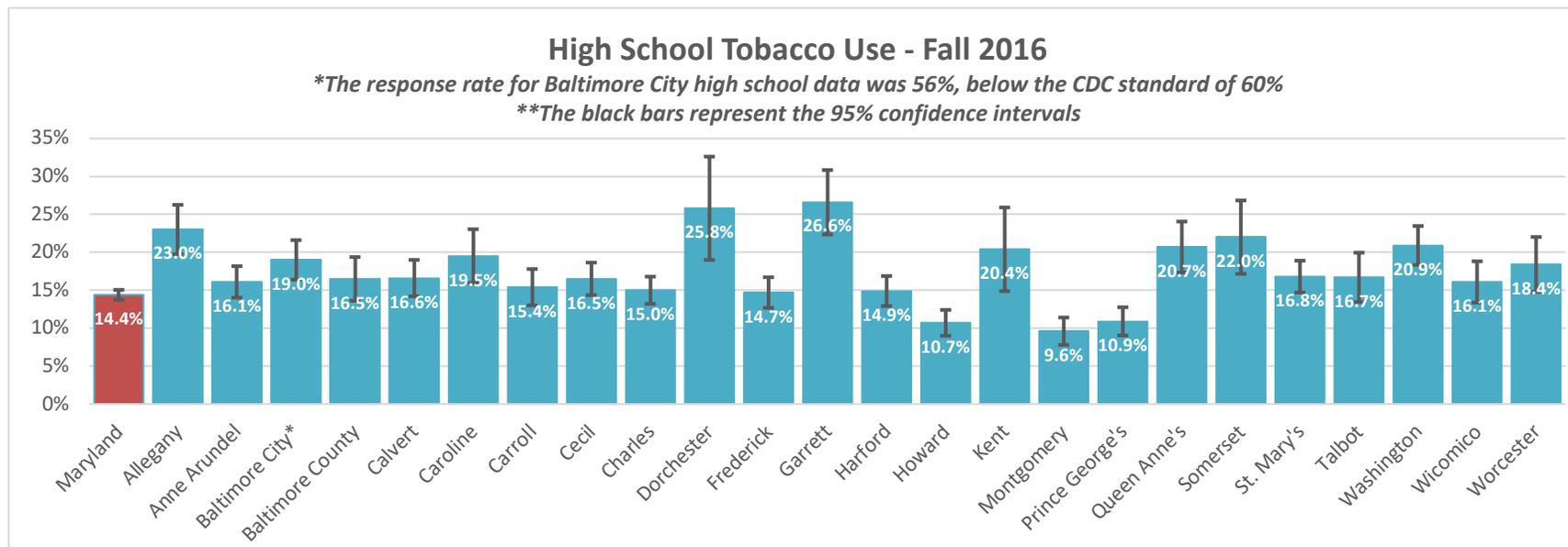
**L. Percent Middle School Use of Products - Maryland Public Middle School Youth<sup>YRBS/YTS</sup> – Fall 2016**

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

| <i>Jurisdiction</i>     | <i>Tobacco<br/>% CI</i>   | <i>Cigarettes<br/>% CI</i> | <i>Cigars<br/>% CI</i>   | <i>Smokeless<br/>% CI</i> | <i>Electronic Smoking<br/>Devices (ESDs)<br/>% CI</i> |
|-------------------------|---------------------------|----------------------------|--------------------------|---------------------------|---|
| <b>Maryland</b>         | <b>4.1%</b> (3.6%-4.6%)   | <b>1.3%</b> (1.1%-1.6%)    | <b>2.5%</b> (2.2%-2.9%)  | <b>1.9%</b> (1.6%-2.2%)   | <b>4.7%</b> (4.3%-5.2%)                               |
| <b>Allegany</b>         | <b>7.4%</b> (4.8%-10.0%)  | <b>3.8%</b> (2.1%-5.4%)    | <b>4.3%</b> (2.4%-6.2%)  | <b>4.0%</b> (2.4%-5.6%)   | <b>8.9%</b> (5.7%-12.0%)                              |
| <b>Anne Arundel</b>     | <b>2.7%</b> (1.3%-4.1%)   | <b>1.0%</b> (0.4%-1.7%)    | <b>1.6%</b> (0.7%-2.5%)  | <b>1.0%</b> (0.4%-1.6%)   | <b>4.6%</b> (2.7%-6.5%)                               |
| <b>Baltimore City</b>   | <b>6.1%</b> (4.8%-7.3%)   | <b>1.3%</b> (0.5%-2.1%)    | <b>4.5%</b> (3.5%-5.5%)  | <b>1.8%</b> (0.9%-2.7%)   | <b>4.1%</b> (3.4%-4.8%)                               |
| <b>Baltimore County</b> | <b>4.4%</b> (3.1%-5.7%)   | <b>0.9%</b> (0.5%-1.4%)    | <b>3.0%</b> (2.0%-3.9%)  | <b>1.7%</b> (0.5%-2.9%)   | <b>5.2%</b> (3.3%-7.1%)                               |
| <b>Calvert</b>          | <b>2.6%</b> (1.5%-3.8%)   | <b>1.1%</b> (0.4%-1.9%)    | <b>1.2%</b> (0.4%-2.1%)  | <b>1.4%</b> (0.6%-2.2%)   | <b>3.5%</b> (2.2%-4.8%)                               |
| <b>Caroline</b>         | <b>3.8%</b> (2.4%-5.2%)   | <b>2.0%</b> (0.9%-3.2%)    | <b>1.9%</b> (0.8%-2.9%)  | <b>2.0%</b> (1.0%-2.9%)   | <b>6.3%</b> (4.1%-8.4%)                               |
| <b>Carroll</b>          | <b>2.5%</b> (1.4%-3.6%)   | <b>0.9%</b> (0.3%-1.4%)    | <b>0.9%</b> (0.3%-1.6%)  | <b>1.3%</b> (0.6%-2.0%)   | <b>2.9%</b> (1.5%-4.3%)                               |
| <b>Cecil</b>            | <b>5.8%</b> (4.0%-7.6%)   | <b>2.5%</b> (1.3%-3.7%)    | <b>3.5%</b> (2.1%-5.0%)  | <b>1.8%</b> (0.9%-2.6%)   | <b>6.8%</b> (4.8%-8.9%)                               |
| <b>Charles</b>          | <b>4.9%</b> (3.3%-6.5%)   | <b>1.6%</b> (0.7%-2.5%)    | <b>2.7%</b> (1.6%-3.7%)  | <b>2.6%</b> (1.4%-3.8%)   | <b>5.7%</b> (3.9%-7.5%)                               |
| <b>Dorchester</b>       | <b>12.2%</b> (8.5%-15.8%) | <b>4.5%</b> (2.7%-6.2%)    | <b>8.3%</b> (4.9%-11.6%) | <b>4.2%</b> (2.2%-6.1%)   | <b>9.0%</b> (6.0%-12.1%)                              |
| <b>Frederick</b>        | <b>2.9%</b> (1.8%-3.9%)   | <b>1.0%</b> (0.4%-1.5%)    | <b>1.6%</b> (1.0%-2.1%)  | <b>1.6%</b> (0.6%-2.7%)   | <b>2.1%</b> (0.9%-3.2%)                               |
| <b>Garrett</b>          | <b>5.8%</b> (2.1%-9.5%)   | <b>3.6%</b> (1.4%-5.8%)    | <b>2.6%</b> (0.5%-4.7%)  | <b>2.8%</b> (1.1%-4.6%)   | <b>9.4%</b> (5.6%-13.3%)                              |
| <b>Harford</b>          | <b>4.5%</b> (3.0%-5.9%)   | <b>1.9%</b> (1.0%-2.9%)    | <b>2.2%</b> (1.2%-3.3%)  | <b>2.0%</b> (1.1%-2.9%)   | <b>4.6%</b> (2.7%-6.5%)                               |
| <b>Howard</b>           | <b>1.1%</b> (0.5%-1.8%)   | <b>0.1%</b> (0.0%-0.3%)    | <b>0.8%</b> (0.3%-1.3%)  | <b>0.8%</b> (0.3%-1.3%)   | <b>1.5%</b> (0.8%-2.2%)                               |
| <b>Kent</b>             | <b>4.0%</b> (1.6%-6.5%)   | <b>1.3%</b> (0.1%-2.5%)    | <b>1.2%</b> (0.0%-3.0%)  | <b>2.4%</b> (0.7%-4.2%)   | <b>7.7%</b> (3.3%-12.1%)                              |
| <b>Montgomery</b>       | <b>2.1%</b> (1.4%-2.9%)   | <b>0.8%</b> (0.4%-1.2%)    | <b>1.5%</b> (1.0%-2.0%)  | <b>1.2%</b> (0.9%-1.6%)   | <b>3.1%</b> (2.0%-4.3%)                               |
| <b>Prince George's</b>  | <b>6.7%</b> (4.2%-9.1%)   | <b>2.2%</b> (1.1%-3.3%)    | <b>4.0%</b> (2.3%-5.7%)  | <b>3.5%</b> (1.8%-5.2%)   | <b>7.9%</b> (6.6%-9.2%)                               |
| <b>Queen Anne's</b>     | <b>3.1%</b> (1.8%-4.4%)   | <b>1.0%</b> (0.3%-1.7%)    | <b>1.5%</b> (0.6%-2.4%)  | <b>1.8%</b> (0.7%-2.8%)   | <b>4.7%</b> (2.9%-6.4%)                               |
| <b>Somerset</b>         | <b>6.2%</b> (3.5%-8.9%)   | <b>2.5%</b> (0.6%-4.4%)    | <b>3.5%</b> (1.8%-5.2%)  | <b>2.3%</b> (0.8%-3.7%)   | <b>6.5%</b> (4.2%-8.9%)                               |
| <b>St. Mary's</b>       | <b>4.7%</b> (3.2%-6.2%)   | <b>2.8%</b> (1.6%-3.9%)    | <b>2.8%</b> (1.7%-3.9%)  | <b>2.1%</b> (1.2%-3.1%)   | <b>6.7%</b> (4.7%-8.6%)                               |
| <b>Talbot</b>           | <b>4.2%</b> (2.4%-5.9%)   | <b>1.9%</b> (0.8%-3.0%)    | <b>1.7%</b> (0.5%-2.8%)  | <b>1.4%</b> (0.4%-2.4%)   | <b>5.5%</b> (3.6%-7.3%)                               |
| <b>Washington</b>       | <b>4.7%</b> (3.2%-6.3%)   | <b>1.9%</b> (0.9%-2.9%)    | <b>2.2%</b> (1.3%-3.1%)  | <b>2.5%</b> (1.4%-3.7%)   | <b>5.5%</b> (3.7%-7.4%)                               |
| <b>Wicomico</b>         | <b>8.4%</b> (6.4%-10.5%)  | <b>2.7%</b> (1.5%-3.8%)    | <b>5.4%</b> (3.7%-7.0%)  | <b>3.2%</b> (1.9%-4.5%)   | <b>8.0%</b> (5.8%-10.1%)                              |
| <b>Worcester</b>        | <b>5.7%</b> (3.4%-8.0%)   | <b>2.9%</b> (1.2%-4.5%)    | <b>3.0%</b> (1.3%-4.6%)  | <b>2.8%</b> (1.5%-4.2%)   | <b>6.9%</b> (4.5%-9.2%)                               |

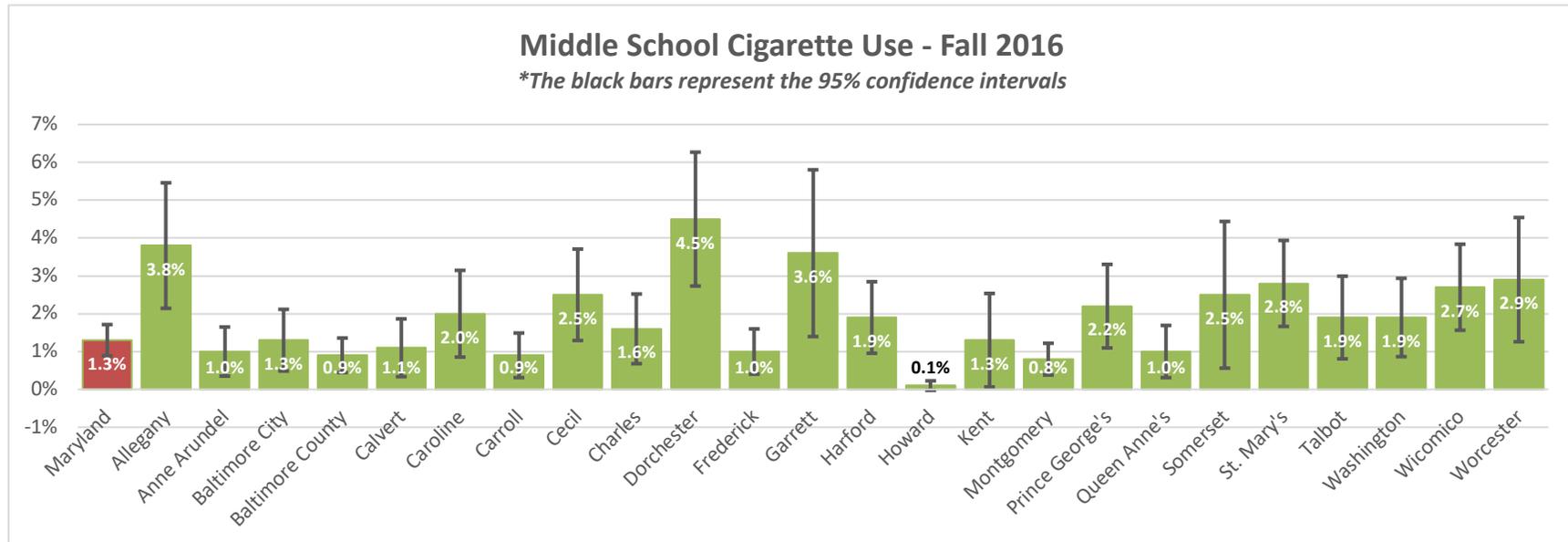
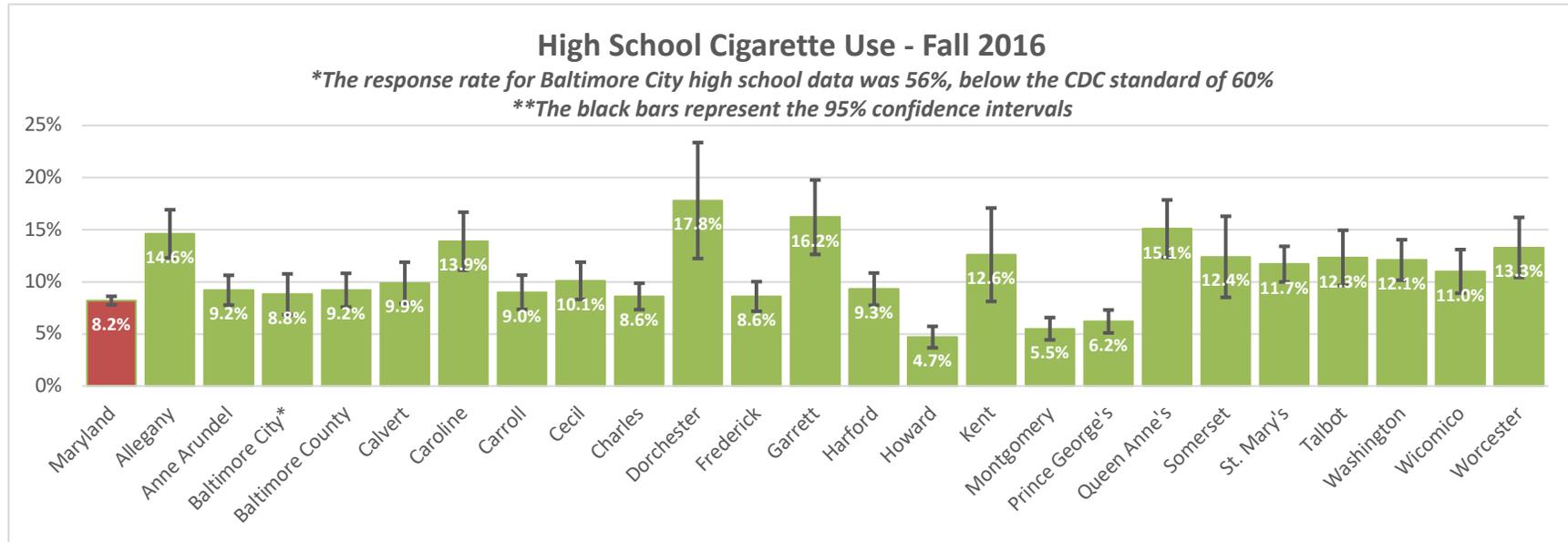
**M. High School and Middle School Youth Tobacco Use<sup>YRBS/YTS</sup> – Fall 2016**

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



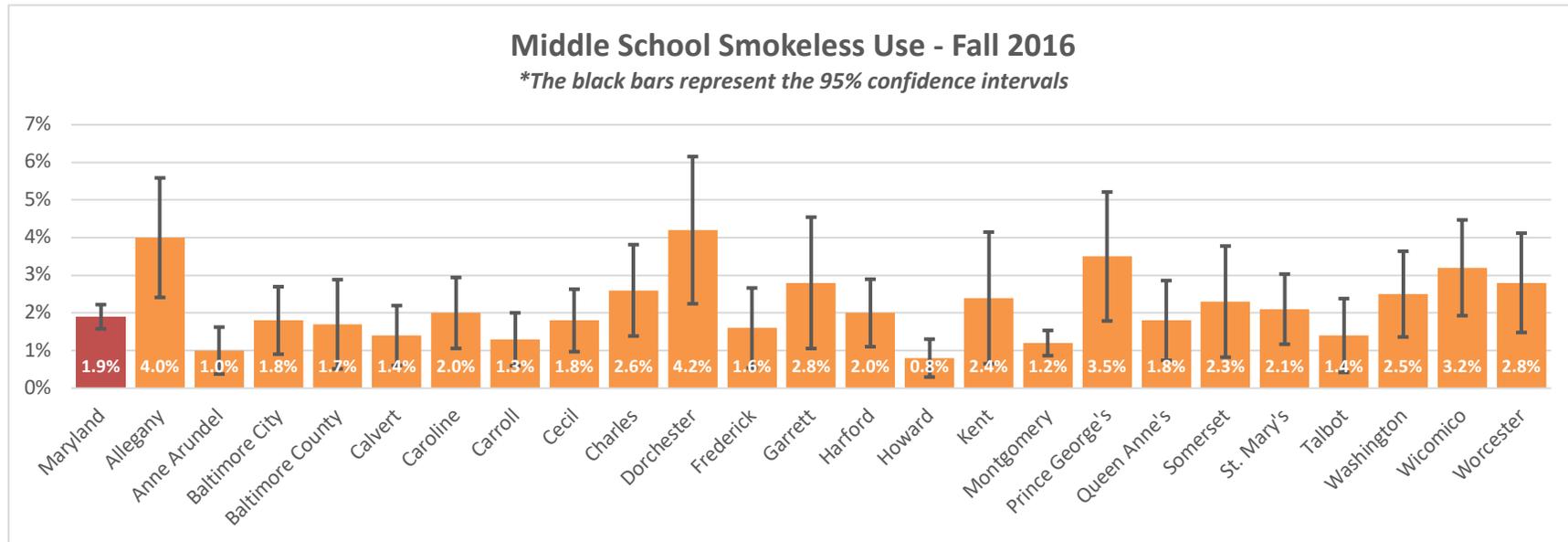
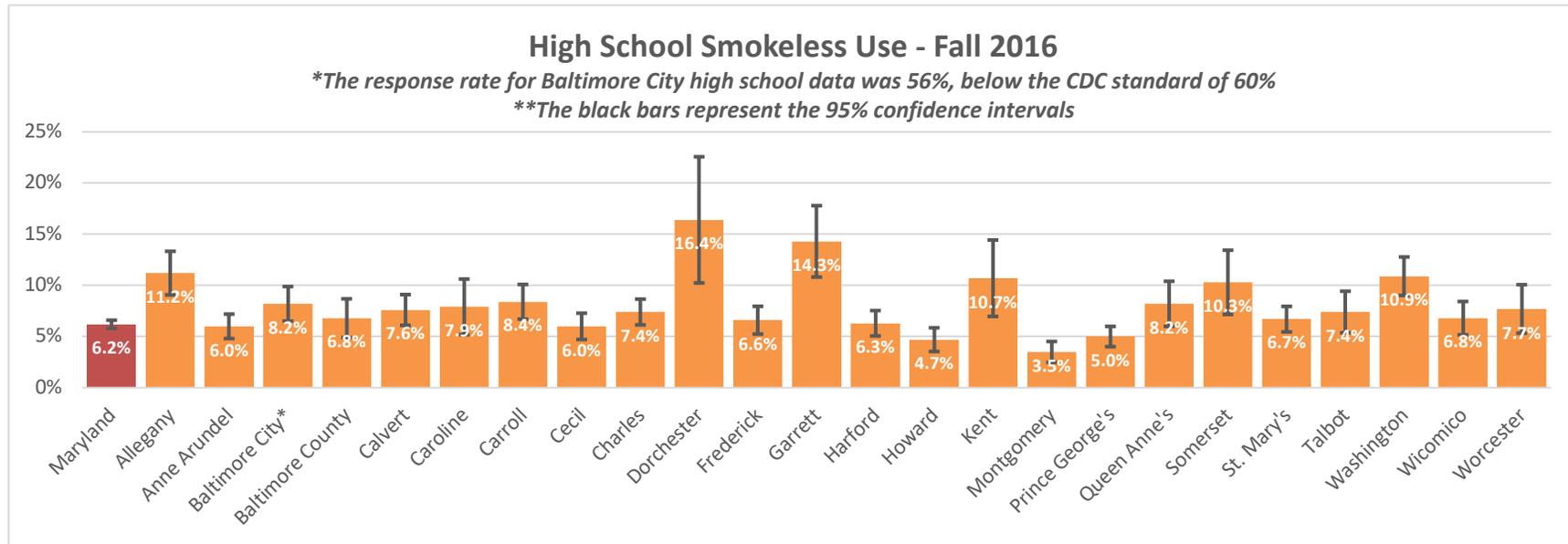
**N. High School and Middle School Cigarette Use<sup>YRBS/YTS</sup> – Fall 2016**

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



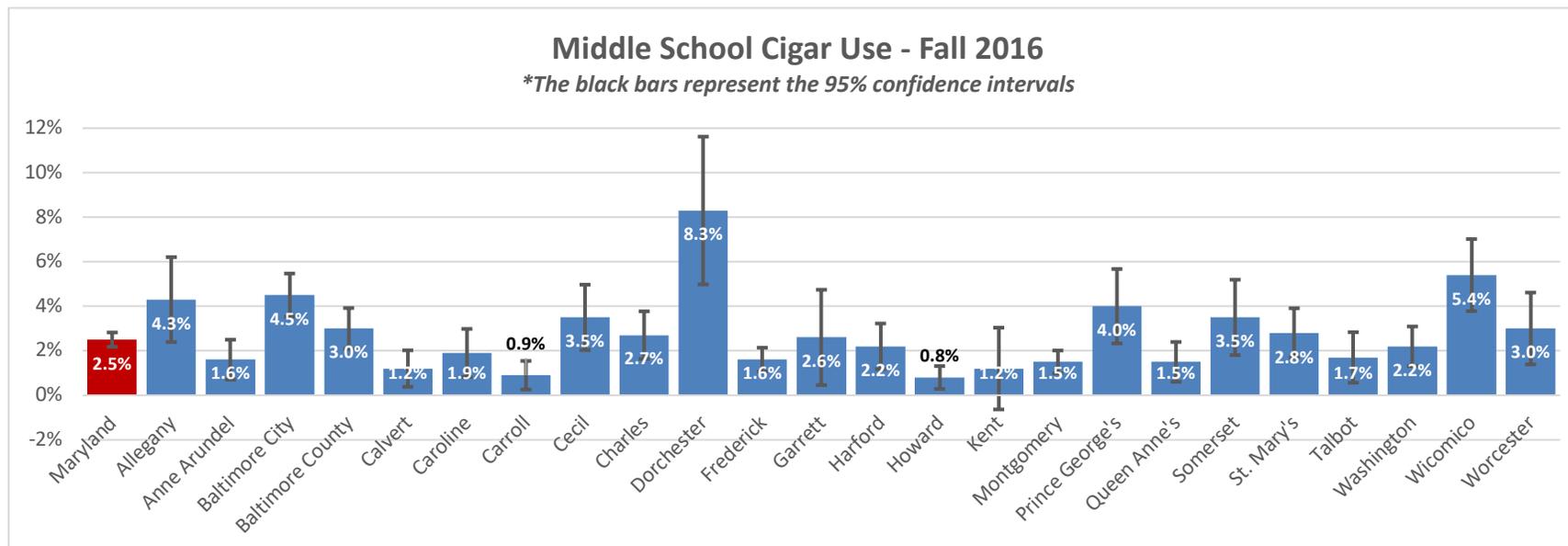
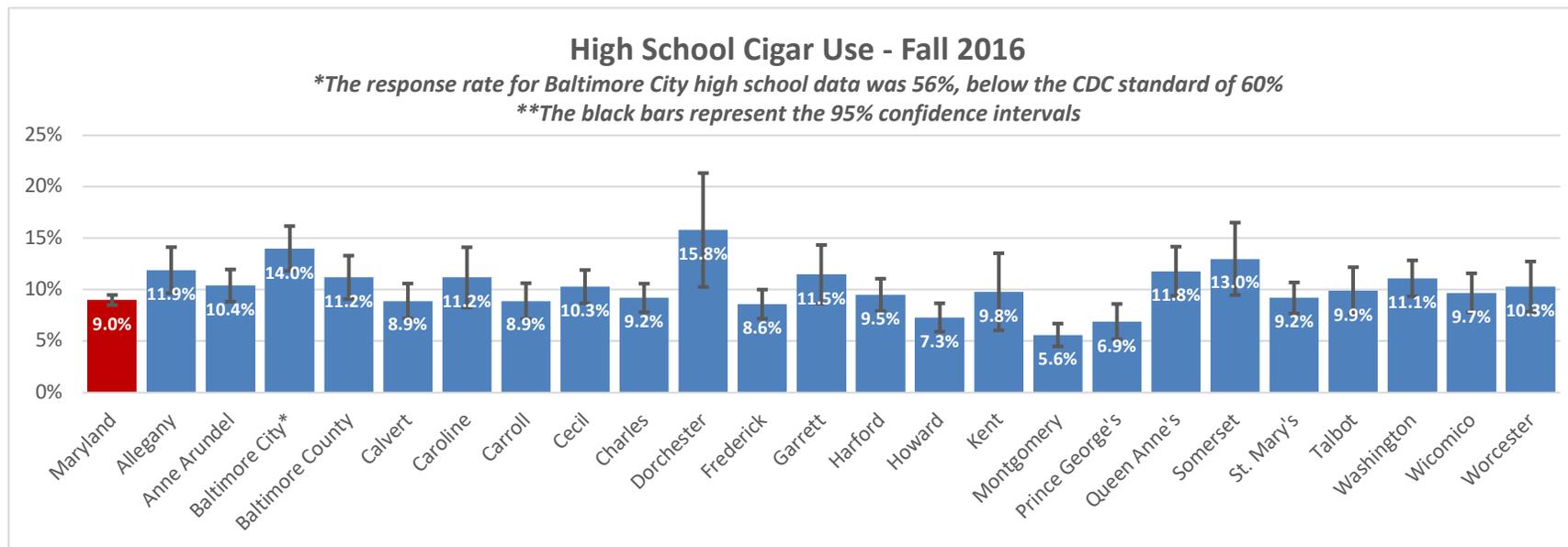
**O. High School and Middle School Smokeless Tobacco Use<sup>YRBS/YTS</sup> – Fall 2016**

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



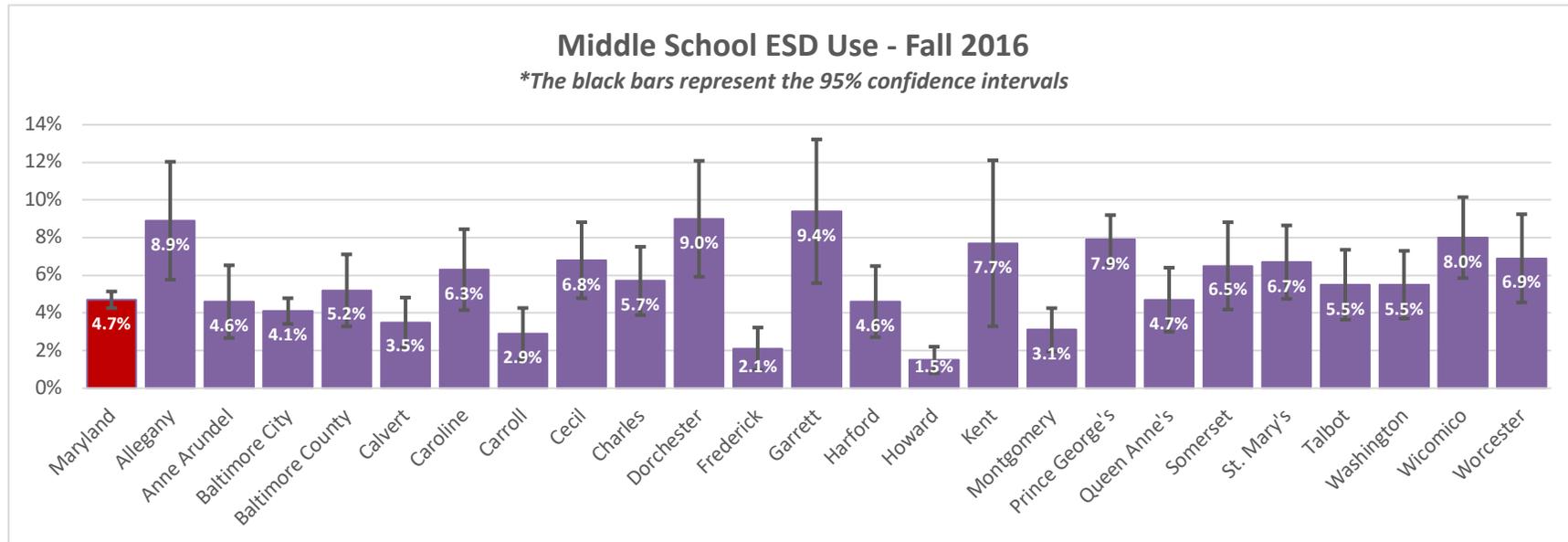
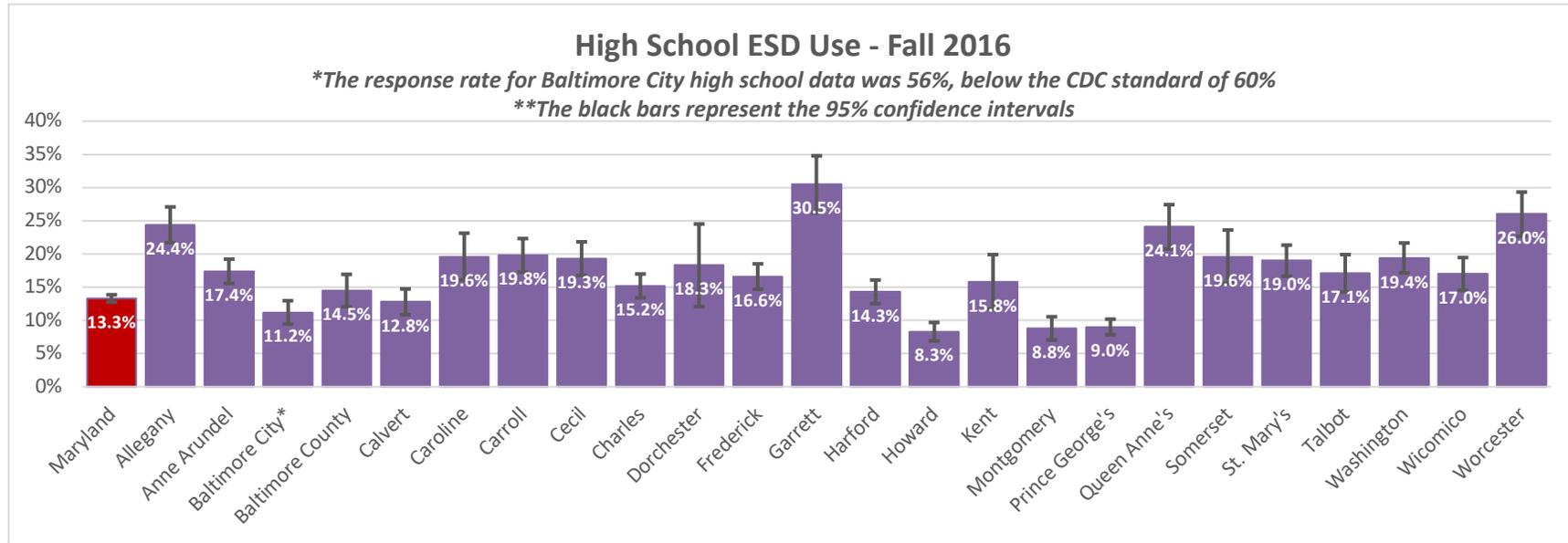
**P. High School and Middle School Cigar Use<sup>YRBS/YTS</sup> – Fall 2016**

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



**Q. High School and Middle School ESD Use<sup>YRBS/YTS</sup> – Fall 2016**

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



**Adult Population Data**  
*Statutory Tables and Figures*

**R. Percent and Number of Current Adult Tobacco Use- Maryland Adults 18 years of age or older<sup>BRFSS</sup>**

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

| Jurisdiction            | 2012                          |         | 2014                          |         | 2016                          |         |
|-------------------------|-------------------------------|---------|-------------------------------|---------|-------------------------------|---------|
|                         | % (CI)                        | N       | % (CI)                        | N       | % (CI)                        | N       |
| <b>Maryland</b>         | <b>19.4%</b><br>(18.2%-20.7%) | 856,080 | <b>19.0%</b><br>(17.6%-20.4%) | 884,461 | <b>16.6%</b><br>(15.7%-17.5%) | 780,867 |
| <b>Allegany</b>         | <b>28.3%</b><br>(17.9%-38.7%) | 17,530  | <b>23.8%</b><br>(15.4%-32.2%) | 13,270  | <b>21.4%</b><br>(15.3%-27.4%) | 11,403  |
| <b>Anne Arundel</b>     | <b>21.5%</b><br>(17.3%-25.7%) | 81,624  | <b>20.2%</b><br>(15.7%-24.7%) | 88,211  | <b>16.5%</b><br>(13.5%-19.4%) | 72,991  |
| <b>Baltimore City</b>   | <b>24.2%</b><br>(19.1%-29.3%) | 96,402  | <b>28.3%</b><br>(22.6%-34.0%) | 137,513 | <b>24.9%</b><br>(21.1%-28.6%) | 120,894 |
| <b>Baltimore County</b> | <b>22.8%</b><br>(19.2%-26.3%) | 166,242 | <b>22.0%</b><br>(17.9%-26.0%) | 143,359 | <b>17.3%</b><br>(14.8%-19.8%) | 113,885 |
| <b>Calvert</b>          | <b>27.2%</b><br>(19.5%-34.8%) | 18,800  | <b>22.9%</b><br>(15.2%-30.6%) | 17,046  | <b>22.1%</b><br>(16.6%-27.7%) | 16,777  |
| <b>Caroline</b>         | <b>27.6%</b><br>(14.1%-41.1%) | 7,727   | <b>23.4%</b><br>(13.6%-33.1%) | 6,653   | <b>29.2%</b><br>(22.2%-36.2%) | 7,595   |
| <b>Carroll</b>          | <b>23.2%</b><br>(15.6%-30.8%) | 29,043  | <b>20.2%</b><br>(10.3%-30.1%) | 24,730  | <b>21.5%</b><br>(14.9%-28.0%) | 27,814  |
| <b>Cecil</b>            | <b>26.1%</b><br>(16.3%-35.8%) | 20,515  | <b>12.3%</b><br>(7.9%-16.7%)  | 9,468   | <b>28.3%</b><br>(22.5%-34.2%) | 22,424  |
| <b>Charles</b>          | <b>20.5%</b><br>(13.5%-27.4%) | 27,840  | <b>17.4%</b><br>(11.9%-22.9%) | 20,642  | <b>17.0%</b><br>(13.1%-20.8%) | 20,425  |
| <b>Dorchester</b>       | <b>16.9%</b><br>(7.8%-26.0%)  | 4,694   | <b>24.5%</b><br>(14.5%-34.6%) | 5,893   | <b>28.2%</b><br>(21.6%-34.7%) | 7,121   |
| <b>Frederick</b>        | <b>19.7%</b><br>(13.5%-26.0%) | 32,315  | <b>15.8%</b><br>(11.4%-20.3%) | 29,595  | <b>21.2%</b><br>(17.3%-25.2%) | 40,446  |
| <b>Garrett</b>          | <b>23.7%</b><br>(14.4%-32.9%) | 5,317   | <b>17.5%</b><br>(9.9%-25.1%)  | 4,435   | <b>21.5%</b><br>(15.2%-27.7%) | 6,764   |
| <b>Harford</b>          | <b>24.4%</b><br>(18.8%-30.1%) | 49,272  | <b>22.9%</b><br>(15.3%-30.6%) | 48,538  | <b>20.8%</b><br>(15.5%-26.1%) | 40,832  |
| <b>Howard</b>           | <b>13.0%</b><br>(8.4%-17.6%)  | 28,642  | <b>10.1%</b><br>(5.5%-14.7%)  | 23,324  | <b>8.4%</b><br>(5.7%-11.0%)   | 20,581  |
| <b>Kent</b>             | <b>21.7%</b><br>(6.2%-37.2%)  | 3,960   | <b>21.7%</b><br>(11.1%-32.2%) | 3,362   | <b>20.6%</b><br>(12.4%-28.8%) | 3,044   |
| <b>Montgomery</b>       | <b>10.9%</b><br>(8.2%-13.7%)  | 81,828  | <b>10.3%</b><br>(7.6%-13.0%)  | 82,171  | <b>8.4%</b><br>(6.7%-10.1%)   | 68,320  |
| <b>Prince George's</b>  | <b>16.6%</b><br>(13.1%-20.1%) | 103,805 | <b>18.3%</b><br>(14.1%-22.4%) | 127,102 | <b>13.6%</b><br>(11.3%-15.9%) | 97,260  |
| <b>Queen Anne's</b>     | <b>19.3%</b><br>(10.6%-28.0%) | 5,970   | <b>17.2%</b><br>(10.1%-24.2%) | 6,451   | <b>18.0%</b><br>(12.9%-23.2%) | 6,949   |
| <b>Somerset</b>         | <b>34.5%</b><br>(16.0%-53.0%) | 5,087   | <b>24.1%</b><br>(12.5%-35.7%) | 4,504   | <b>24.2%</b><br>(12.8%-35.6%) | 3,364   |
| <b>St. Mary's</b>       | <b>23.4%</b><br>(14.7%-32.0%) | 20,585  | <b>19.4%</b><br>(10.9%-27.9%) | 14,646  | <b>17.2%</b><br>(12.9%-21.5%) | 14,663  |
| <b>Talbot</b>           | <b>21.5%</b><br>(7.8%-35.2%)  | 6,776   | <b>19.2%</b><br>(12.4%-26.0%) | 6,063   | <b>15.0%</b><br>(10.4%-19.7%) | 4,573   |
| <b>Washington</b>       | <b>20.8%</b><br>(14.0%-27.6%) | 21,800  | <b>24.7%</b><br>(16.9%-32.5%) | 29,014  | <b>21.9%</b><br>(17.5%-26.4%) | 25,656  |
| <b>Wicomico</b>         | <b>26.4%</b><br>(5.5%-37.3%)  | 17,134  | <b>27.5%</b><br>(15.5%-39.5%) | 26,479  | <b>21.0%</b><br>(15.7%-26.4%) | 16,924  |
| <b>Worcester</b>        | <b>8.6%</b><br>(3.1%-14.0%)   | 3,169   | <b>19.6%</b><br>(10.3%-28.9%) | 11,992  | <b>22.7%</b><br>(15.4%-30.1%) | 10,162  |

**S. Percent and Number of Current Minority Adult Tobacco Use - Maryland Adults 18 years of age or older<sup>BRFSS</sup>**

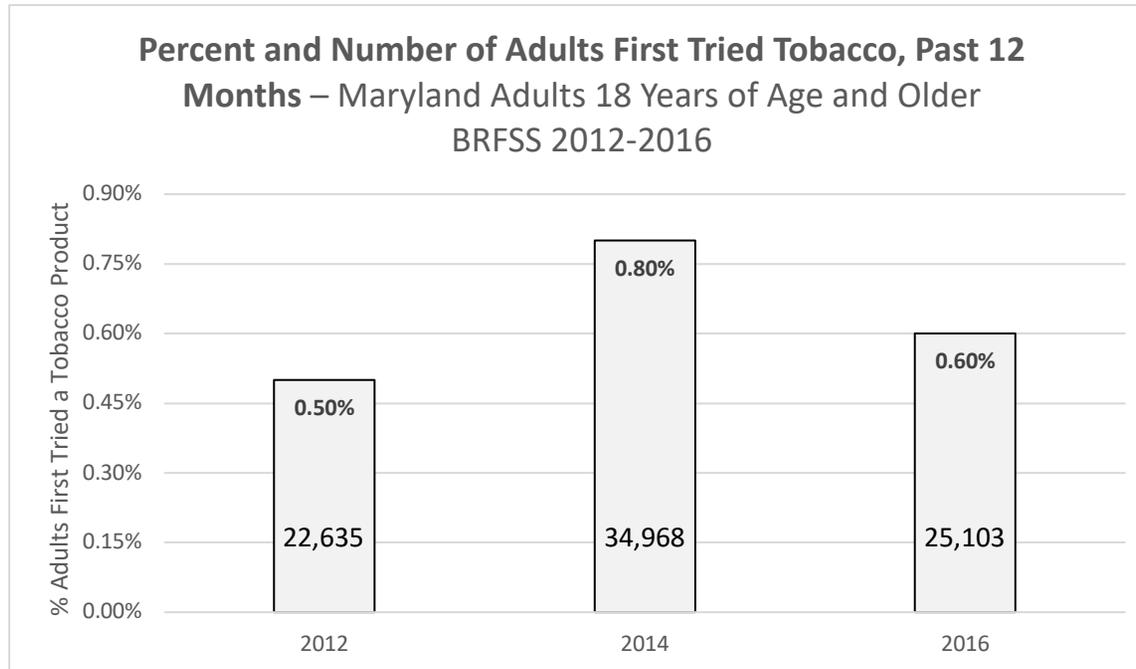
Center for Tobacco Prevention and Control – Prevention and Health Promotion Administration – Maryland Department of Health

| <i>Jurisdiction</i>            | <b>2012</b>                   |                    | <b>2014</b>                   |                    | <b>2016</b>                   |          |
|--------------------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|----------|
|                                | <b>% (CI)</b>                 | <b>N</b>           | <b>% (CI)</b>                 | <b>N</b>           | <b>% (CI)</b>                 | <b>N</b> |
| <b><i>Maryland</i></b>         | <b>17.8%</b><br>(16.3%-19.2%) | 590,081            | <b>17.1%</b><br>(15.5%-18.7%) | 581,693            | <b>14.6%</b><br>(13.6%-15.6%) | 508,546  |
| <b><i>Allegany</i></b>         | <b>21.9%</b><br>(10.2%-33.7%) | 8,047              | <b>19.3%</b><br>(10.5%-28.1%) | 6,169              | <b>18.1%</b><br>(11.1%-25.0%) | 5,629    |
| <b><i>Anne Arundel</i></b>     | <b>19.3%</b><br>(14.4%-24.3%) | 49,656             | <b>15.9%</b><br>(11.0%-20.8%) | 44,087             | <b>14.8%</b><br>(11.2%-18.4%) | 42,633   |
| <b><i>Baltimore City</i></b>   | <b>25.9%</b><br>(20.3%-31.5%) | 91,028             | <b>28.7%</b><br>(22.4%-35.1%) | 114,518            | <b>23.8%</b><br>(19.8%-27.8%) | 96,658   |
| <b><i>Baltimore County</i></b> | <b>20.4%</b><br>(16.3%-24.4%) | 114,872            | <b>18.6%</b><br>(14.4%-22.9%) | 88,306             | <b>15.8%</b><br>(13.0%-18.6%) | 75,354   |
| <b><i>Calvert</i></b>          | <b>25.2%</b><br>(15.5%-34.9%) | 11,868             | <b>17.3%</b><br>(9.1%-25.4%)  | 7,948              | <b>17.0%</b><br>(10.8%-23.1%) | 7,579    |
| <b><i>Caroline</i></b>         | Data Not Available            | Data Not Available | <b>19.2%</b><br>(8.0%-30.4%)  | 3,382              | <b>27.1%</b><br>(18.3%-35.9%) | 4,522    |
| <b><i>Carroll</i></b>          | <b>22.2%</b><br>(13.0%-31.4%) | 14,636             | Data Not Available            | Data Not Available | <b>17.2%</b><br>(10.3%-24.1%) | 12,567   |
| <b><i>Cecil</i></b>            | <b>22.8%</b><br>(12.2%-33.5%) | 10,566             | <b>13.1%</b><br>(7.5%-18.7%)  | 5,274              | <b>26.9%</b><br>(19.8%-34.0%) | 12,233   |
| <b><i>Charles</i></b>          | <b>15.2%</b><br>(7.9%-22.5%)  | 14,964             | <b>14.5%</b><br>(8.2%-20.9%)  | 13,419             | <b>13.7%</b><br>(9.7%-17.8%)  | 12,567   |
| <b><i>Dorchester</i></b>       | Data Not Available            | Data Not Available | <b>25.1%</b><br>(12.2%-37.9%) | 4,374              | <b>28.8%</b><br>(20.8%-36.8%) | 4,965    |
| <b><i>Frederick</i></b>        | <b>22.6%</b><br>(12.7%-32.6%) | 22,804             | <b>11.3%</b><br>(6.6%-16.1%)  | 12,695             | <b>17.3%</b><br>(13.1%-21.5%) | 20,821   |
| <b><i>Garrett</i></b>          | Data Not Available            | Data Not Available | <b>12.3%</b><br>(5.6%-19.1%)  | 1,725              | <b>23.1%</b><br>(13.5%-32.7%) | 3,831    |
| <b><i>Harford</i></b>          | <b>23.2%</b><br>(16.0%-30.5%) | 30,777             | <b>19.1%</b><br>(11.0%-27.1%) | 26,604             | <b>15.8%</b><br>(10.0%-21.6%) | 19,070   |
| <b><i>Howard</i></b>           | <b>12.6%</b><br>(6.9%-18.3%)  | 19,898             | <b>9.3%</b><br>(3.9%-14.8%)   | 15,694             | <b>7.3%</b><br>(4.6%-10.1%)   | 13,120   |
| <b><i>Kent</i></b>             | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available | <b>17.5%</b><br>(7.7%-27.4%)  | 1,501    |
| <b><i>Montgomery</i></b>       | <b>8.0%</b><br>(5.4%-10.7%)   | 47,808             | <b>9.2%</b><br>(5.9%-12.5%)   | 55,714             | <b>7.2%</b><br>(5.4%-8.9%)    | 45,165   |
| <b><i>Prince George's</i></b>  | <b>16.4%</b><br>(12.8%-20.1%) | 93,972             | <b>17.7%</b><br>(13.3%-22.1%) | 113,264            | <b>13.1%</b><br>(10.7%-15.4%) | 85,814   |
| <b><i>Queen Anne's</i></b>     | <b>12.8%</b><br>(5.7%-19.8%)  | 1,961              | <b>16.7%</b><br>(7.5%-25.9%)  | 3,320              | <b>16.7%</b><br>(10.0%-23.4%) | 3,620    |
| <b><i>Somerset</i></b>         | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available | <b>23.5%</b><br>(10.9%-36.2%) | 2,517    |
| <b><i>St. Mary's</i></b>       | <b>17.1%</b><br>(8.6%-25.6%)  | 9,213              | Data Not Available            | Data Not Available | <b>16.7%</b><br>(11.5%-21.9%) | 8,674    |
| <b><i>Talbot</i></b>           | Data Not Available            | Data Not Available | <b>19.6%</b><br>(10.7%-28.5%) | 4,075              | <b>11.8%</b><br>(7.0%-16.6%)  | 2,286    |
| <b><i>Washington</i></b>       | <b>20.8%</b><br>(12.3%-29.4%) | 13,617             | <b>22.0%</b><br>(12.3%-31.8%) | 15,884             | <b>19.2%</b><br>(14.1%-24.2%) | 12,853   |
| <b><i>Wicomico</i></b>         | <b>31.2%</b><br>(16.9%-45.6%) | 13,706             | <b>27.4%</b><br>(14.5%-40.3%) | 17,531             | <b>16.2%</b><br>(10.6%-21.8%) | 8,864    |
| <b><i>Worcester</i></b>        | Data Not Available            | Data Not Available | <b>30.1%</b><br>(14.2%-46.1%) | 7,243              | <b>20.8%</b><br>(12.2%-29.5%) | 5,425    |

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

Maryland Residents – Vital Statistics Administration – Maryland Department of Health

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



**V. Percent and Number of Adults Who Quit Using Tobacco, Past 12 Months - Maryland Adults 18 years of age or older<sup>BRFSS</sup>**

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

| <i>Jurisdiction</i>            | <b>2012</b>                 |                    | <b>2014</b>                   |                    | <b>2016</b>                   |                    |
|--------------------------------|-----------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|
|                                | <b>% (CI)</b>               | <b>N</b>           | <b>% (CI)</b>                 | <b>N</b>           | <b>% (CI)</b>                 | <b>N</b>           |
| <b><i>Maryland</i></b>         | <b>3.1%</b><br>(2.6%-3.7%)  | 141,391            | <b>14.3%</b><br>(11.6%-16.9%) | 143,336            | <b>11.4%</b><br>(9.7%-13.0%)  | 117,658            |
| <b><i>Allegany</i></b>         | Data not Available          | Data Not Available | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Anne Arundel</i></b>     | <b>6.6%</b><br>(4.0%-9.2%)  | 25,576             | <b>14.6%</b><br>(7.8%-21.5%)  | 15,251             | <b>11.4%</b><br>(5.9%-16.9%)  | 13,873             |
| <b><i>Baltimore City</i></b>   | <b>3.7%</b><br>(1.2%-6.1%)  | 14,892             | <b>7.7%</b><br>(3.2%-12.2%)   | 6,230              | <b>17.2%</b><br>(10.0%-24.3%) | 16,473             |
| <b><i>Baltimore County</i></b> | <b>3.1%</b><br>(2.0%-4.1%)  | 22,991             | <b>29.3%</b><br>(19.3%-39.3%) | 43,997             | <b>9.0%</b><br>(5.5%-12.5%)   | 12,954             |
| <b><i>Calvert</i></b>          | <b>3.1%</b><br>(0.4%-6.6%)  | 2,462              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Caroline</i></b>         | <b>3.1%</b><br>(0.4%-6.6%)  | 199                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Carroll</i></b>          | <b>1.3%</b><br>(0.1%-2.5%)  | 1,657              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Cecil</i></b>            | <b>3.2%</b><br>(0.3%-6.0%)  | 2,513              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Charles</i></b>          | <b>2.5%</b><br>(0.7%-4.2%)  | 3,392              | Data Not Available            | Data Not Available | <b>11.2%</b><br>(5.4%-17.0%)  | 2,858              |
| <b><i>Dorchester</i></b>       | <b>0.9%</b><br>(0.1%-1.8%)  | 276                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Frederick</i></b>        | <b>1.7%</b><br>(0.5%-2.8%)  | 2,743              | Data Not Available            | Data Not Available | <b>7.1%</b><br>(3.2%-11.1%)   | 3,326              |
| <b><i>Garrett</i></b>          | <b>2.3%</b><br>(0.2%-4.5%)  | 578                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Harford</i></b>          | <b>2.2%</b><br>(0.8%-3.7%)  | 4,600              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Howard</i></b>           | <b>1.7%</b><br>(0.0%-3.6%)  | 3,732              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Kent</i></b>             | <b>1.0%</b><br>(0.0%-2.1%)  | 187                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Montgomery</i></b>       | <b>3.3%</b><br>(1.8%-4.9%)  | 26,531             | <b>12.6%</b><br>(7.5%-17.7%)  | 4,553              | <b>12.6%</b><br>(7.9%-17.3%)  | 20,237             |
| <b><i>Prince George's</i></b>  | <b>2.2%</b><br>(1.0%-3.4%)  | 13,903             | Data Not Available            | Data Not Available | <b>10.8%</b><br>(5.1%-16.6%)  | 12,210             |
| <b><i>Queen Anne's</i></b>     | <b>1.3%</b><br>(0.5%-2.2%)  | 419                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Somerset</i></b>         | <b>2.8%</b><br>(0.0%-16.6%) | 2,259              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>St. Mary's</i></b>       | <b>1.8%</b><br>(0.5%-3.0%)  | 1,593              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Talbot</i></b>           | Data Not Available          | Data Not Available | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Washington</i></b>       | <b>1.6%</b><br>(0.4%-2.8%)  | 1,719              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Wicomico</i></b>         | <b>3.8%</b><br>(1.0%-6.6%)  | 2,521              | Data Not Available            | Data Not Available | <b>18.4%</b><br>(7.9%-28.9%)  | 3,875              |
| <b><i>Worcester</i></b>        | <b>6.8%</b><br>(0.0%-14.6%) | 2,522              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |

**W. Percent and Number of Households with a Resident Adult Smoker and Minor Children - Maryland Adults 18 years of age or older<sup>BRFSS</sup>**

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

| <i>Jurisdiction</i>            | <b>2012</b>                 |                    | <b>2014</b>                   |                    | <b>2016</b>                   |                    |
|--------------------------------|-----------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|
|                                | <b>% (CI)</b>               | <b>N</b>           | <b>% (CI)</b>                 | <b>N</b>           | <b>% (CI)</b>                 | <b>N</b>           |
| <b><i>Maryland</i></b>         | <b>3.1%</b><br>(2.6%-3.7%)  | 141,391            | <b>14.3%</b><br>(11.6%-16.9%) | 143,336            | <b>11.4%</b><br>(9.7%-13.0%)  | 117,658            |
| <b><i>Allegany</i></b>         | Data not Available          | Data Not Available | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Anne Arundel</i></b>     | <b>6.6%</b><br>(4.0%-9.2%)  | 25,576             | <b>14.6%</b><br>(7.8%-21.5%)  | 15,251             | <b>11.4%</b><br>(5.9%-16.9%)  | 13,873             |
| <b><i>Baltimore City</i></b>   | <b>3.7%</b><br>(1.2%-6.1%)  | 14,892             | <b>7.7%</b><br>(3.2%-12.2%)   | 6,230              | <b>17.2%</b><br>(10.0%-24.3%) | 16,473             |
| <b><i>Baltimore County</i></b> | <b>3.1%</b><br>(2.0%-4.1%)  | 22,991             | <b>29.3%</b><br>(19.3%-39.3%) | 43,997             | <b>9.0%</b><br>(5.5%-12.5%)   | 12,954             |
| <b><i>Calvert</i></b>          | <b>3.1%</b><br>(0.4%-6.6%)  | 2,462              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Caroline</i></b>         | <b>3.1%</b><br>(0.4%-6.6%)  | 199                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Carroll</i></b>          | <b>1.3%</b><br>(0.1%-2.5%)  | 1,657              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Cecil</i></b>            | <b>3.2%</b><br>(0.3%-6.0%)  | 2,513              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Charles</i></b>          | <b>2.5%</b><br>(0.7%-4.2%)  | 3,392              | Data Not Available            | Data Not Available | <b>11.2%</b><br>(5.4%-17.0%)  | 2,858              |
| <b><i>Dorchester</i></b>       | <b>0.9%</b><br>(0.1%-1.8%)  | 276                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Frederick</i></b>        | <b>1.7%</b><br>(0.5%-2.8%)  | 2,743              | Data Not Available            | Data Not Available | <b>7.1%</b><br>(3.2%-11.1%)   | 3,326              |
| <b><i>Garrett</i></b>          | <b>2.3%</b><br>(0.2%-4.5%)  | 578                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Harford</i></b>          | <b>2.2%</b><br>(0.8%-3.7%)  | 4,600              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Howard</i></b>           | <b>1.7%</b><br>(0.0%-3.6%)  | 3,732              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Kent</i></b>             | <b>1.0%</b><br>(0.0%-2.1%)  | 187                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Montgomery</i></b>       | <b>3.3%</b><br>(1.8%-4.9%)  | 26,531             | <b>12.6%</b><br>(7.5%-17.7%)  | 4,553              | <b>12.6%</b><br>(7.9%-17.3%)  | 20,237             |
| <b><i>Prince George's</i></b>  | <b>2.2%</b><br>(1.0%-3.4%)  | 13,903             | Data Not Available            | Data Not Available | <b>10.8%</b><br>(5.1%-16.6%)  | 12,210             |
| <b><i>Queen Anne's</i></b>     | <b>1.3%</b><br>(0.5%-2.2%)  | 419                | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Somerset</i></b>         | <b>2.8%</b><br>(0.0%-16.6%) | 2,259              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>St. Mary's</i></b>       | <b>1.8%</b><br>(0.5%-3.0%)  | 1,593              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Talbot</i></b>           | Data Not Available          | Data Not Available | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Washington</i></b>       | <b>1.6%</b><br>(0.4%-2.8%)  | 1,719              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |
| <b><i>Wicomico</i></b>         | <b>3.8%</b><br>(1.0%-6.6%)  | 2,521              | Data Not Available            | Data Not Available | <b>18.4%</b><br>(7.9%-28.9%)  | 3,875              |
| <b><i>Worcester</i></b>        | <b>6.8%</b><br>(0.0%-14.6%) | 2,522              | Data Not Available            | Data Not Available | Data Not Available            | Data Not Available |