Monitoring Changing Tobacco Use Behaviors:

2000 – 2016

MARYLAND
Department of Health

SUMMARY REPORT

The mission of the Maryland Department of Health Prevention and Health Promotion Administration (PHPA) is to protect, promote and improve the health and well-being of all Marylanders and their families through provision of public health leadership and through community-based public health efforts in partnership with local health departments, providers, community based organizations, and public and private sector agencies, giving special attention to at-risk and vulnerable populations.

PHPA envisions a future in which all Marylanders and their families enjoy optimal health and well-being.

This is a summary of the Monitoring Changing Tobacco Use Behaviors: 2000-2016 (May 2018) report.

The full report can be accessed online at:
https://phpa.health.maryland.gov/ohpetup/Documents/2000 percent20- percent202016 percent20Legislative percent20Report percent20Monitoring percent20Changing percent20Tobacco percent20Use percent20Behaviors.pdf

Contents

Commonly Used Acronyms

BRFSS	Behavioral Risk Factor Surveillance System
CDC	U.S. Centers for Disease Control and Prevention
ESD	Electronic Smoking Device
ENDS	Electronic Nicotine Delivery System
LGBT	Lesbian, Gay, Bisexual, Transgender
MDH	Maryland Department of Health
SHS	Secondhand smoke
YRBS	Youth Risk Behavior Survey
YTS	Youth Tobacco Survey

Suggested Citation

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In Brief

2016 Highlights[i]

- Robust decreases in tobacco use among Maryland adults and youth are due to successful prevention and cessation efforts
- Youth tobacco use initiation continues to decrease and the percent of adults who never smoked continues to increase
- Maryland has also made great strides to prevent underage access to tobacco and to protect residents from the negative health effects of secondhand smoke (SHS)

Despite progress, more than 780,000 Maryland adults smoke or use tobacco in some form, placing their health at risk. The average number of annual deaths due to cigarette smoking remains higher than the combined number of deaths from all accidents, drugs, HIV/AIDS, homicide, and suicide. Maryland's medical costs to treat cancer and disease caused by smoking is estimated at $2.7 billion annually.[1] Incorporating tobacco cessation interventions into routine health care is important. Only 55 percent of Maryland tobacco users report being advised by a health care professional to quit.

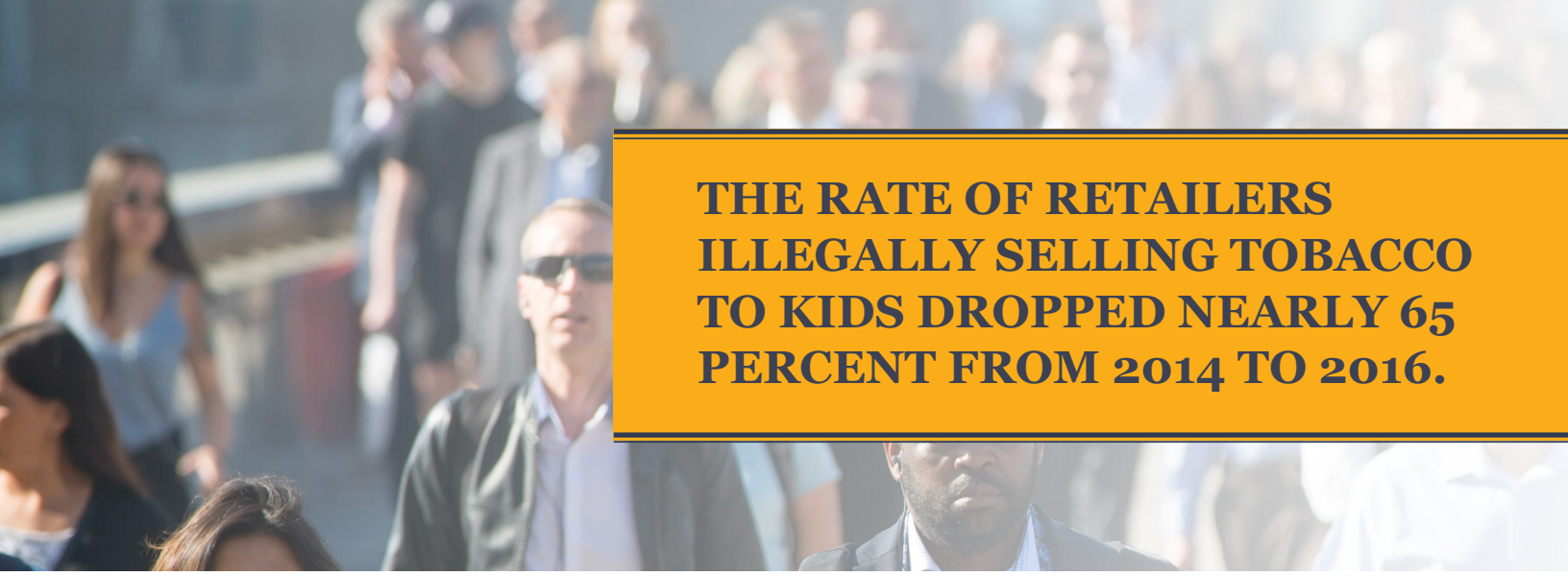
Future Challenges

The tobacco marketplace continues to change. While Maryland adults prefer cigarettes to other tobacco products, youth prefer electronic smoking devices (ESDs), also known as e-cigarettes, electronic nicotine delivery systems (ENDS), vapes, or USB-like products such as JUULs®. Youth are also more likely than adults to use more than one type of tobacco (47 percent versus 12 percent). And, youth tobacco use is linked with other risk behaviors, such as illegal drug use (like heroin), prescription drug abuse, and alcohol consumption. Further, youth believe that smokers have more friends than non-smokers, and that smoking makes you "look cool."

Other challenges include marked disparities in tobacco use among populations and geographic regions in Maryland. Among Maryland adults, higher tobacco use rates are seen in populations with lower annual incomes, substance use or mental health conditions, and among those in lesbian, gay, bisexual, and transgender (LGBT) communities. Racial/ethnic tobacco-related health disparities are also apparent. In Black/African American populations, tobacco-related diseases occur at similar or higher rates than in White populations, despite lower tobacco use.

More than 60 percent of adult smokers want to quit.[ii]

Maryland youth[iii] **tobacco use dropped nearly 50 percent from 2000 to 2016.**



THE RATE OF RETAILERS ILLEGALLY SELLING TOBACCO TO KIDS DROPPED NEARLY 65 PERCENT FROM 2014 TO 2016.

Youth Tobacco and ESD Use

	2000		2016		Trend
	%	N	%	N	
Any Tobacco[iv]	26.9%	57,538	14.4%	35,448	▼
Cigarettes	23.7%	52,369	8.2%	20,653	▼
Cigars	13.0%	29,147	9.0%	22,136	▼
Smokeless Tobacco	5.0%	11,334	6.2%	15,225	▲
	2014		2016		
ESDs[v]	20.0%	47,542	13.3%	30,026	▼

Adult Tobacco and ESD Use

	2012		2016		Trend
	%	N	%	N	
Any Tobacco[vi]	19.4%	856,080	16.6%	780,867	▼
Cigarettes	16.2%	708,885	13.7%	608,816	▼
Cigars	4.4%	169,763	3.7%	154,865	■
Smokeless Tobacco	2.0%	86,729	1.6%	70,410	■
	2014		2016		
ESDs[v]	3.2%	135,090	3.2%	141,529	■

▲ = statistically significant upward trend (p<.05) ▼ = statistically significant downward trend (p<.05) ■ = no statistically significant change

Youth protected from SHS indoors nearly doubled from 2000 to 2016.

[i] Throughout this report, data presented in the text has been rounded to the nearest percent for clarity.
[ii] Smokers who want to quit are those that made a quit attempt in the past year.
[iii] Throughout this report, unless specifically noted otherwise, 'youth' refers to Maryland public high school youth.
[iv] "Any Tobacco" for middle school and high school youth only includes cigarettes, cigars, and smokeless tobacco products (dip/chew).
[v] ESD use was first captured on the 2014 YRBS/YTS (youth) and 2014 BRFSS (adults).
[vi] "Any Tobacco" for adults includes cigarettes, cigars, smokeless tobacco products, and other products (bidis, kreteks, pipe tobacco).

Tobacco and Health

Highlights

- Lung cancer is the leading cause of cancer deaths in Maryland
- Nearly 87 percent of lung cancers are attributed to cigarette smoke[2,3]
- Smoking-related deaths outnumber deaths due to homicide, suicide, HIV/AIDS, drugs, and accidents

Cigarette smoking is the largest cause of preventable death and disease in Maryland. Cigarettes and other tobacco products contain nicotine. Nicotine is addictive — making it hard for people to quit. In addition to nicotine, cigarette smoke can contain over 7,000 toxic chemicals.

There are short and long-term effects of tobacco use and SHS exposure. Lung or bronchus cancer is the leading cause of cancer death in Maryland and is mostly caused by cigarette smoke.[2] For men ages 55-64 the relative risk of dying from lung cancer is about 19 times greater for smokers than non-smokers, and about four times greater for current smokers than former smokers. Cigarette smoking is also linked to early heart disease and decreased lung function in both youth and adults. Exposure to SHS in children is linked to Sudden Infant Death Syndrome (SIDS), delayed development, and increased risk of lung cancer as adults.[3]

Cigarette smokers are twice as likely to report "fair/poor" health as non-smokers (25 percent versus 13 percent). And cigarette smokers are less likely to report "very good/excellent" health than non-smokers (38 percent versus 57 percent).

Those who use other tobacco products also suffer negative health effects. Most lit tobacco products (cigars and cigarillos) contain the same toxic chemicals as cigarettes, though in different degrees. Smokeless tobacco use is linked to an increase in oral cancers.

Despite decreases in tobacco use, annual medical costs to treat tobacco-related disease are estimated at $2.7 billion.[1]

Cigarettes cause nearly four times more deaths than drugs (including opioids like heroin).

CIGARETTE SMOKERS ARE TWICE AS LIKELY TO REPORT "FAIR/ POOR" HEALTH AS NON-SMOKERS.

In 2016, Maryland averaged 7,500 deaths due to smoking, outnumbering deaths due to homicide, suicide, HIV/AIDS, drugs, and accidents combined.

Smoking-related Deaths vs. Other Causes of Death in Maryland, 2016

Attitudes and Beliefs Toward Tobacco

Highlights

- Decreased exposure to tobacco use prevention curricula in Maryland schools coincides with an increase in positive attitudes toward smoking among both smoking and non-smoking youth
- Youth believe smoking helps them "fit in" and that smokers have more friends than non-smokers
- The rise in popularity among ESDs may have also influenced attitudes and beliefs towards smoking

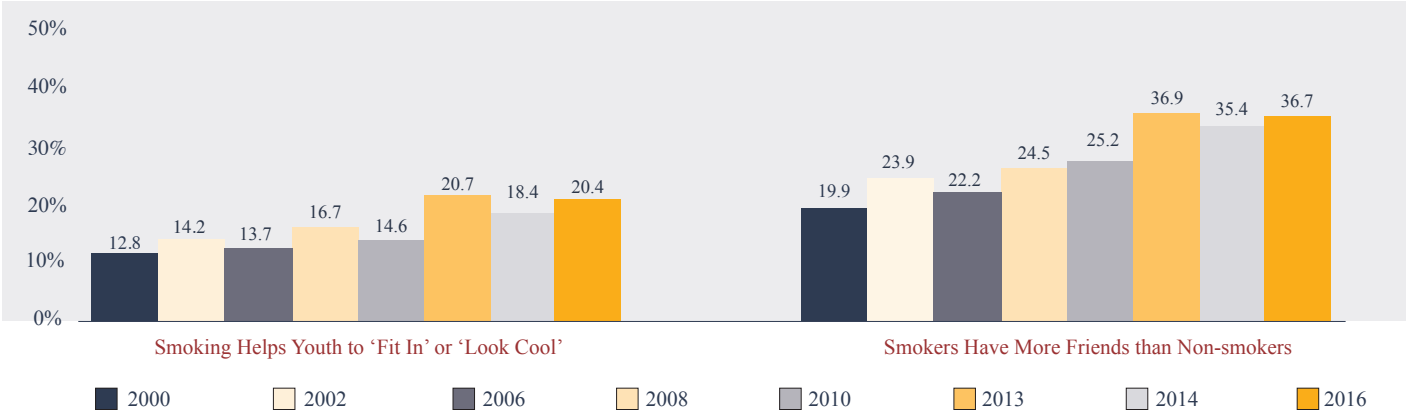
From 2013 to 2016, there was a significant decline in the number of students educated on the dangers of tobacco use. Just 74 percent of middle school students and 60 percent of high school students are taught about the dangers of tobacco use, compared to 82 percent and 69 percent in 2013. Conversely, from 2013 to 2016, the number of high school students who believe smokers have more friends than non-smokers and that smoking helps youth "fit in" or "look cool" slightly increased. Among high school youth that smoke, more than half believe smokers have more friends than non-smokers. Even among non-smoking high school youth, more than a third believe smokers have more friends than non-smokers.

In addition to declines in tobacco prevention education, the rise in popularity of ESDs may have also influenced attitudes and beliefs towards smoking. USB-like devices such as JUULs® are attractive to youth — they're available in candy and fruit flavors, easy to conceal, and can be recharged using a USB port on a laptop or computer.

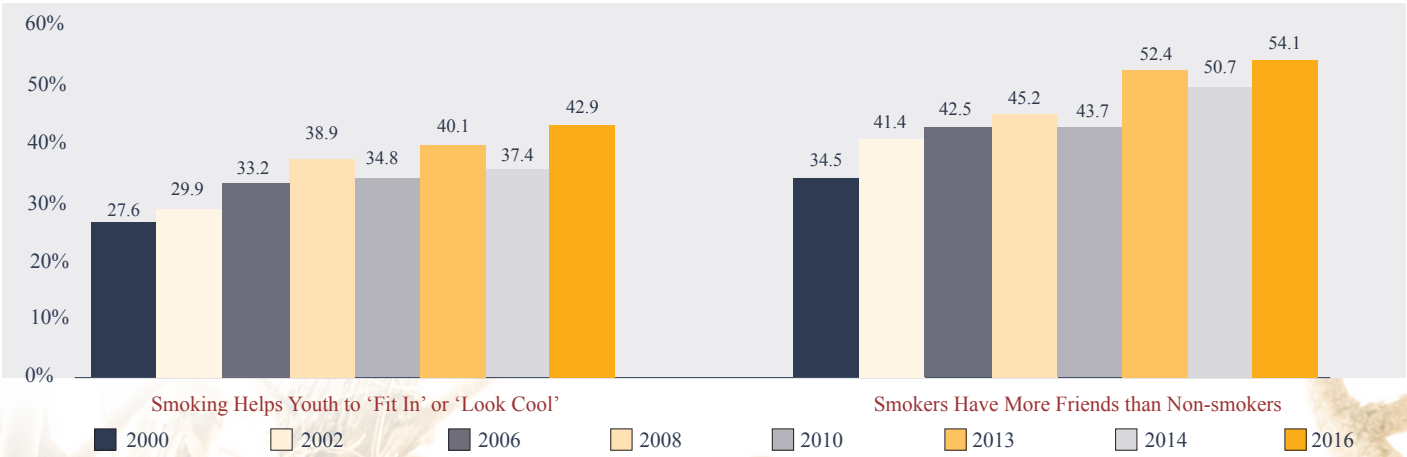
The complex and evolving environment of youth tobacco use reinforces that a multi-faceted approach is needed to prevent initiation and promote cessation among young Marylanders. The Centers for Disease Control and Prevention (CDC) promotes a comprehensive youth tobacco prevention strategy that is implemented in Maryland. This includes school curricula, in addition to mass reach and social media messaging coordinated with local and statewide prevention strategies. Strategies include youth access enforcement, retailer education, ESD health communications campaigns, and ongoing surveillance of changing tobacco use behaviors.

Even among non-smoking high school youth, more than a third believe smokers have more friends than non-smokers.

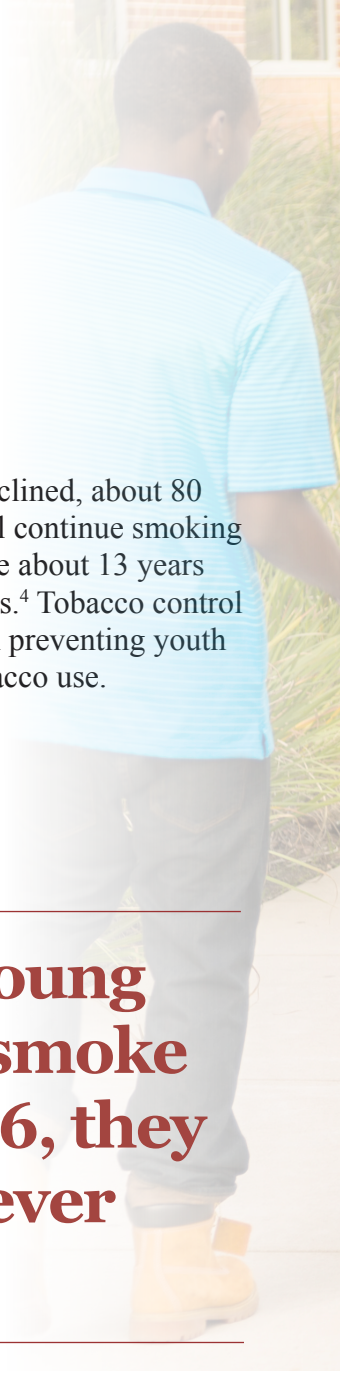
Non-smoking Youth-Belief that Smokers Have More Friends and Smoking Helps Youth to Fit In, 2000-2016



Smoking Youth-Belief that Smokers Have More Friends and Smoking Helps Youth to Fit In, 2000-2016



Tobacco Use Initiation



Highlights

- Maryland has been successful in reducing tobacco use initiation
- Youth tobacco use initiation continues to decrease and the percent of adults who never smoked continues to increase
- Almost 90 percent of adult smokers report smoking their first whole cigarette before the age of 21, with most of those (72 percent) smoking their first cigarette before the age of 18
- The U.S. Surgeon General estimates 80 percent of high school smokers will continue to smoke as adults [4]

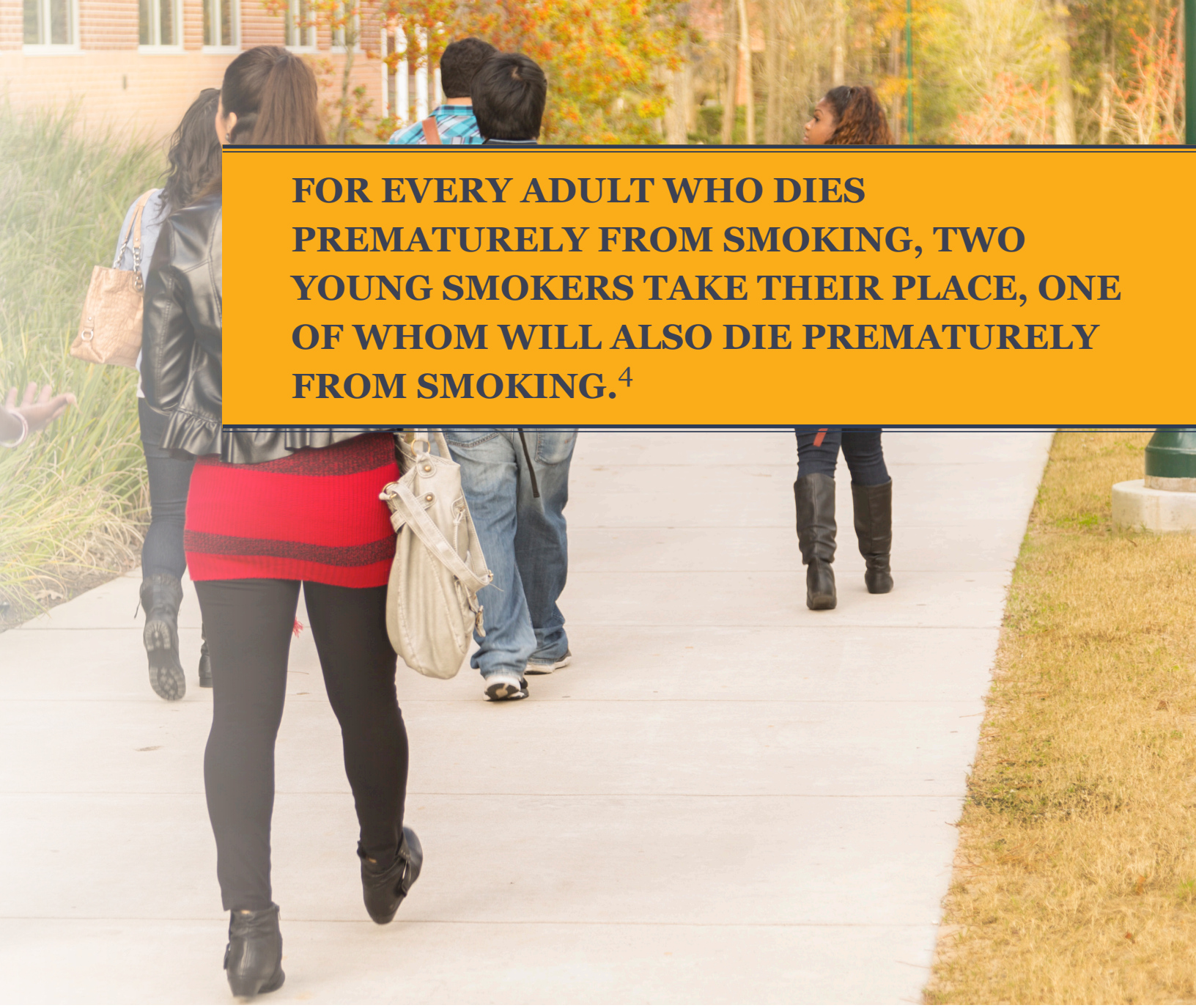
In 2012, the U.S. Surgeon General declared tobacco use a "pediatric epidemic," as tobacco use generally begins in youth and young adulthood. Youth are also sensitive to nicotine — the younger they are when they start using tobacco, the more likely they will become addicted.[4]

Nearly 90 percent of Maryland's current adult smokers started before age 21, with less than one percent of Maryland adults using tobacco for the first time in 2016. The age of tobacco initiation also differs by race, with Black/African American populations starting at an older age than White populations.

Youth tobacco use initiation has declined from nearly 24 percent in 2000 to less than eight percent in 2016. The percent of Maryland adults who never smoked continues to move in the right direction. Nearly 63 percent of adults have never smoked compared to 58 percent in 2011.

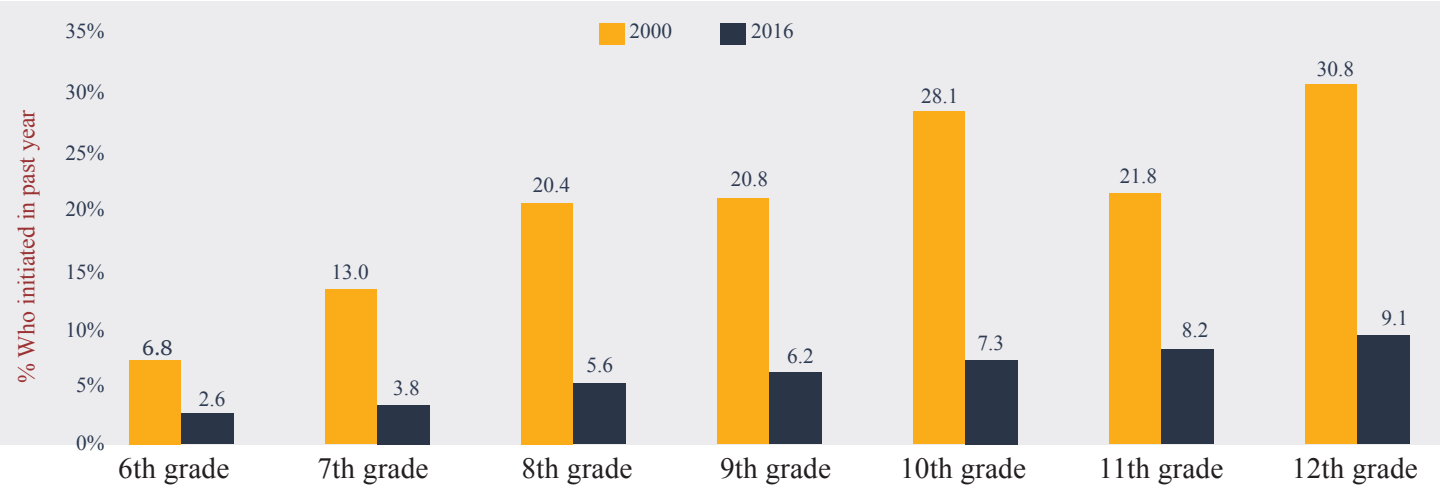
While tobacco use initiation has declined, about 80 percent of high school smokers will continue smoking as adults. Of these, one-half will die about 13 years earlier than their non-smoking peers.[4] Tobacco control efforts should continue focusing on preventing youth and young adults from starting tobacco use.

If youth and young adults do not smoke by the age of 26, they are likely to never start.



FOR EVERY ADULT WHO DIES PREMATURELY FROM SMOKING, TWO YOUNG SMOKERS TAKE THEIR PLACE, ONE OF WHOM WILL ALSO DIE PREMATURELY FROM SMOKING.[4]

Tobacco Use Initiation by Grade



Tobacco Use

(cigarettes, cigars, and smokeless tobacco)

Highlights

- Seventeen percent of Maryland adults and 14 percent of youth use tobacco
- Among tobacco users, 47 percent of youth use multiple tobacco products compared to 12 percent of adults
- Youth who smoke cigarettes are more likely to engage in other risk behaviors, including illegal drug use

This section discusses tobacco product use — cigarettes, cigars, and smokeless tobacco (dip/chew). ESD use is covered in the next section.

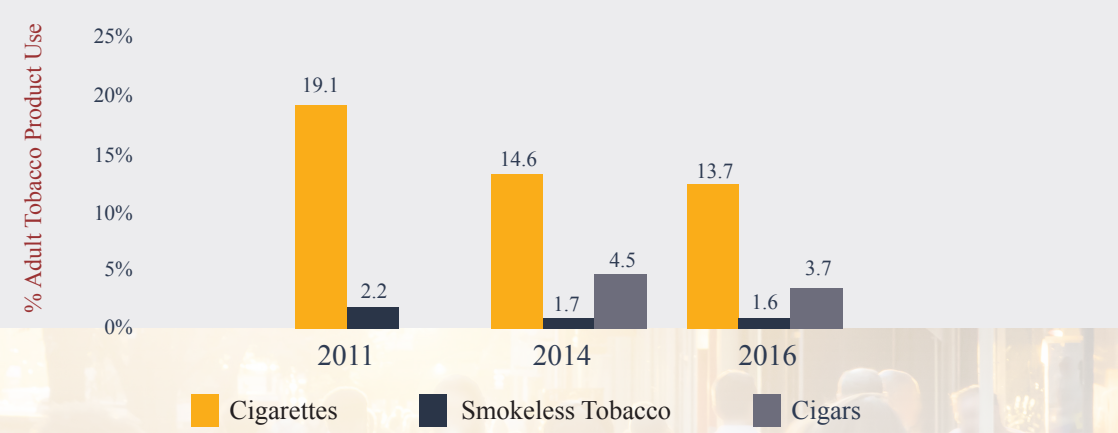
Maryland adult and youth tobacco use continues to decline. However, rates differ by tobacco product. Cigarettes remain the most popular tobacco product among adults, while youth prefer cigars or cigarillos. Youth preference for cigars is likely caused by an increased tax on cigarettes (2008). Non-premium cigars and cigarillos are less expensive than cigarettes and come in fruit and candy flavors making them affordable, attractive, and accessible to youth.

Among tobacco users, youth are four times more likely than adults to use multiple tobacco products. Using more than one tobacco product at the same time increases exposure to nicotine and toxic chemicals found in these products, which in turn increases the addictiveness and negative health impacts to tobacco users.

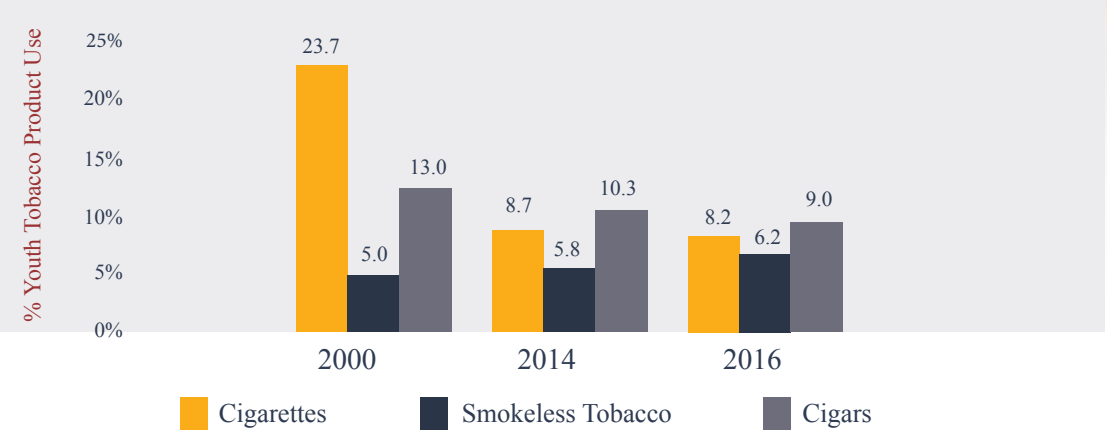
Among youth, cigarette smoking is highly associated with other risk behaviors. Youth prevention and cessation programs should address tobacco use, opioid use, and other substance use together. Offering comprehensive programs to help prevent and stop use of all drugs will help youth on their path of recovery from all addictive substances.

Youth cigarette smokers are nearly 15 times more likely to have ever used heroin than their non-smoking peers.

Adult Use of Cigarettes, Cigars, and Smokeless Tobacco



Youth Use of Cigarettes, Cigars, and Smokeless Tobacco



Relative Risk of Alcohol, Marijuana, and Other Drug Use Among Youth, By Smoking Status 2016					
Smoking Status	Currently Drinks Alcohol	Currently Uses Marijuana	Ever Abused Prescription Drugs	Ever Injection Drug Use	Ever Heroin Use
Cigarette Smoker	73.1%	66.5%	51.8%	23.9%	29.6%
Non-cigarette Smoker	22.4%	14.9%	10.4%	2.2%	2.0%
Increased Likelihood of Engaging in Other Risk Behaviors	3.3x	4.5x	5.0x	10.9x	14.8x

Electronic Smoking Device (ESD) Use

Highlights

- Youth ESD use declined from 20 percent in 2014 to 13 percent in 2016
- Youth use ESDs four times more than adults
- Just three percent of adults use ESDs, with the highest use among those 18-24 years old

ESDs include, but are not limited to, e-cigarettes, ENDS, e-hookahs, vapes, tanks, and USB-like devices such as JUUL®. Many believe ESDs release a harmless water vapor. In fact, they emit an aerosol that contains small droplets of liquid nicotine and liquid chemicals (including several linked to cancer).

ESDs come in a variety of candy and fruit flavors, making them attractive to youth. Among youth ESD users, 64 percent use fruit flavored products.

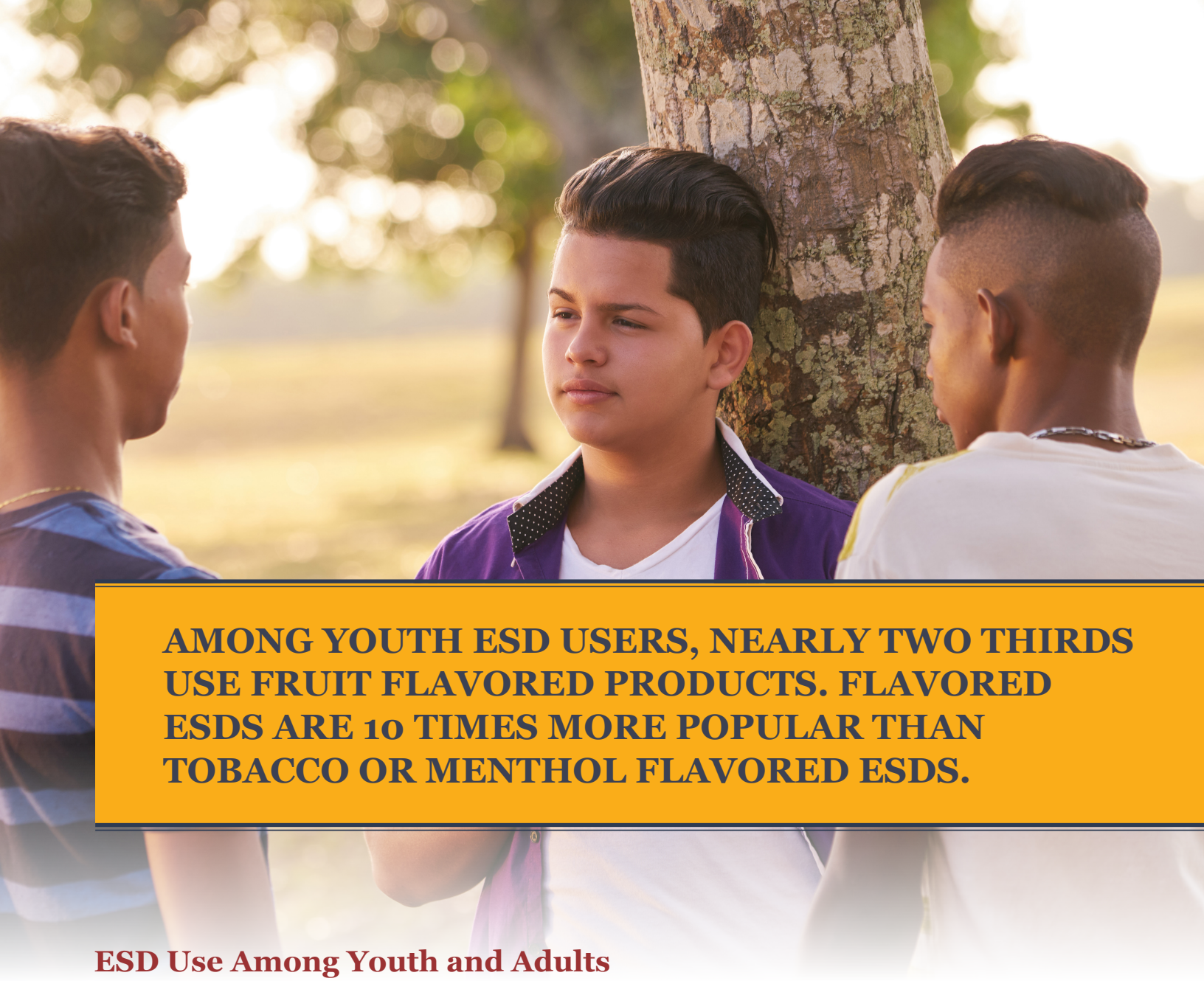
Youth ESD use was first measured in the 2014 YRBS/YTS. At the time, 20 percent of youth used ESDs. In 2016, this number declined to 13 percent. While this is a positive trend, newer products may not have been captured on the 2016 survey, potentially leading to under-reporting and/or an increase after the 2016 survey administration period. These products will continue to be monitored.

ESDs are still the most widely used tobacco product among Maryland youth. Adult ESD use is far less common, with about three percent of adults currently using ESDs. ESD use also varies among age groups. Seven percent of young adults (age 18-24) use ESDs compared to less than one percent of older adults (age 65+). Youth ESD use increases by grade level. Ten percent of ninth graders use ESDs compared to 18 percent of 12th graders.

Other factors that influence ESD use among adults are gender and race/ethnicity. Men are twice as likely to use ESDs as women (five percent versus two percent). And, ESD use is higher in White populations than Black/African American populations (four percent versus two percent).

ESD use is also strongly linked with concurrent use of traditional tobacco products. About 52 percent of youth ESD users and 56 percent of adult ESD users also use traditional tobacco products.

Among youth, ESDs are used more than cigarettes, cigars, or smokeless tobacco.



AMONG YOUTH ESD USERS, NEARLY TWO THIRDS USE FRUIT FLAVORED PRODUCTS. FLAVORED ESDS ARE 10 TIMES MORE POPULAR THAN TOBACCO OR MENTHOL FLAVORED ESDS.

ESD Use Among Youth and Adults

2014
YOUTH ESD USE
20
PERCENT
47,542

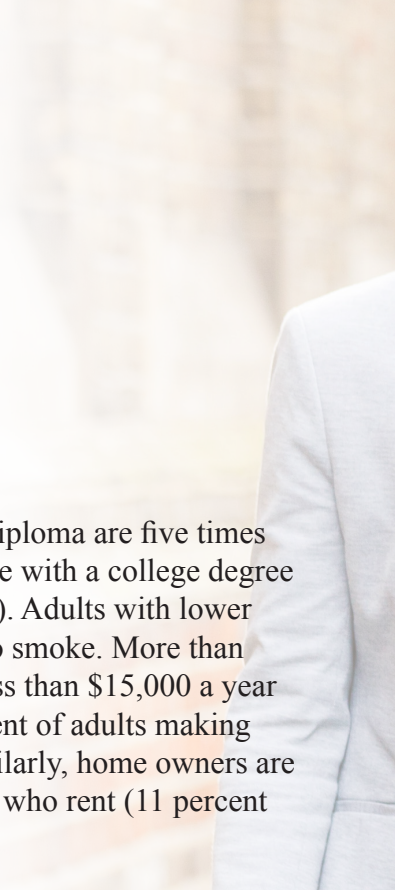
2016
YOUTH ESD USE
13.3
PERCENT
30,026

ADULT ESD USE
3.2
PERCENT
135,090

=

ADULT ESD USE
3.2
PERCENT
141,529

Tobacco-Related Disparities



Highlights

- Overall tobacco use has declined since 2000, but disparities remain among different population groups
- Individuals with behavioral health conditions, lower socioeconomic status, and those within LGBT communities are more likely to use tobacco
- Smoking rates differ between racial/ethnic groups
- Rural areas have higher tobacco use compared to urban areas

Behavioral Health Conditions[5]

Nearly 70 percent of Maryland adults receiving substance use-related services smoke cigarettes. And nearly 40 percent of adults receiving mental health outpatient services smoke cigarettes. Among those receiving both mental health and substance use-related services, 69 percent smoke cigarettes. These represent the highest smoking rates for any demographic group.

Socioeconomic Status

Adults without a high school diploma are five times more likely to smoke than those with a college degree (27 percent versus five percent). Adults with lower incomes are also more likely to smoke. More than 30 percent of adults making less than $15,000 a year smoke compared to eight percent of adults making more than $75,000 a year. Similarly, home owners are less likely to smoke than those who rent (11 percent versus 22 percent).

Sexual Orientation/Gender Identity

Tobacco use is higher among LGBT youth than heterosexual youth, with transgender youth having the highest tobacco use rate. Race/ethnicity, gender, and socioeconomic status also impact tobacco use within LGBT communities.

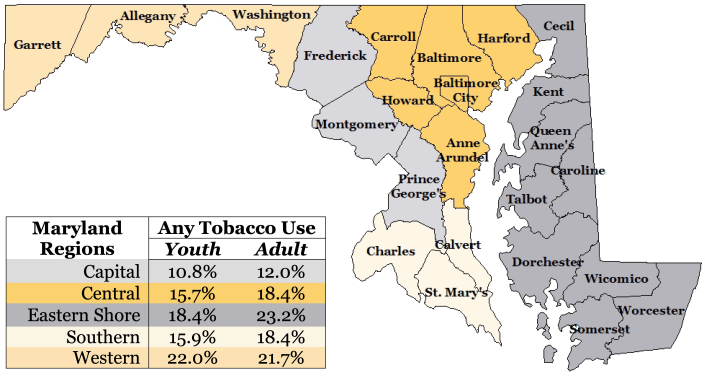
Geography

Maryland's rural regions have higher tobacco use rates than urban regions (with the exception of Baltimore City). Since the most populous counties have lower tobacco use rates, statewide estimates mask the problems faced in rural regions.

Youth Tobacco Use by Race and Sexual Orientation/Gender Identity, 2016

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%
All Youth	10.9%	39.0%	22.4%	52.1%

DESPITE LOWER SMOKING RATES, BLACK/AFRICAN AMERICANS DIE FROM LUNG AND BRONCHUS CANCER AT SIMILAR RATES TO WHITES.



Maryland Regions	Any Tobacco Use	
	Youth	*Adult*
Capital	10.8%	12.0%
Central	15.7%	18.4%
Eastern Shore	18.4%	23.2%
Southern	15.9%	18.4%
Western	22.0%	21.7%

Race/Ethnicity

Tobacco use rates differ among racial/ethnic groups. Among adults and youth, Asian Americans have the lowest tobacco use rate. Among adults, American Indian/Alaskan Natives have the highest tobacco use rate. And among youth, Native Hawaiian/Pacific Islanders have the highest tobacco use rate.

Tobacco-related health disparities also exist. Despite lower smoking rates, Black/African Americans die from lung and bronchus cancer at similar rates to Whites. The increased risk of tobacco-related health problems may be due to high menthol cigarette use in Black/African American communities.[6]

Youth Tobacco Use, by Race/Ethnicity 2016		
Overall	35,448	14.4%
Race/Ethnicity		
White	14,253	14.4%
Black/African American	10,011	12.3%
Hispanic/Latino	1,506	11.4%
Asian	720	5.4%
American Indian/Alaska Native	388	26.2%
Native Hawaiian/Pacific Islander	274	29.7%
Multiracial Non Hispanic	1,518	14.6%
Multiracial Hispanic	3,637	19.5%

Adult Tobacco Use, by Race/Ethnicity 2016		
Overall	780,867	16.6%
Race/Ethnicity		
White	457,753	18.0%
Black/African American	225,762	16.9%
Hispanic/Latino	50,910	12.1%
Asian	16,580	5.5%
American Indian/Alaska Native	9,263	42.6%
Non Hispanic Other Race	20,598	22.9%

Restricting Youth Access

Highlights

- The number of retailers illegally selling tobacco to kids decreased from a high of 31 percent in 2014 to 11 percent in 2016
- Underage youth usually obtain cigarettes and ESDs through direct purchase or giving someone else money to make the purchase for them (proxy purchase)

To comply with federal laws, states must enact and enforce laws banning tobacco sales to minors. If more than 20 percent of retailers are found to illegally sell tobacco to minors, states risk losing up to 40 percent of their Substance Abuse and Block Treatment Funding. Both Maryland and federal laws ban the sale of tobacco, including ESDs, to everyone under 18. Federal law also requires retailers to check the photo ID of every tobacco customer under 27.[7]

In 2013 and 2014, more than 20 percent of Maryland retailers were illegally selling tobacco to youth. In response, Maryland launched the Responsible Tobacco Retailer Initiative (NoTobaccoSalesToMinors.com), which brought together local, community, and state partners to educate retailers on youth tobacco sales laws, increase enforcement of these laws, and decrease youth access to tobacco. The Initiative was successful, and retailer violation rates dropped from 31 percent in 2014 to 11 percent in 2016.

Youth Access Sources

Maryland youth usually obtain cigarettes through four avenues: direct purchase from store; giving someone else money to make the purchase for them (proxy purchase); borrowing; and theft. Regular youth smokers[vii] usually get cigarettes through direct or proxy purchases. Of those that directly purchase cigarettes from a store, 75 percent are under age 18.

Underage Maryland youth usually obtain ESDs through: direct purchase from stores and Internet; proxy purchase; and borrowing. Like cigarette users, regular ESD users[vii] typically get these products through direct or proxy purchases.

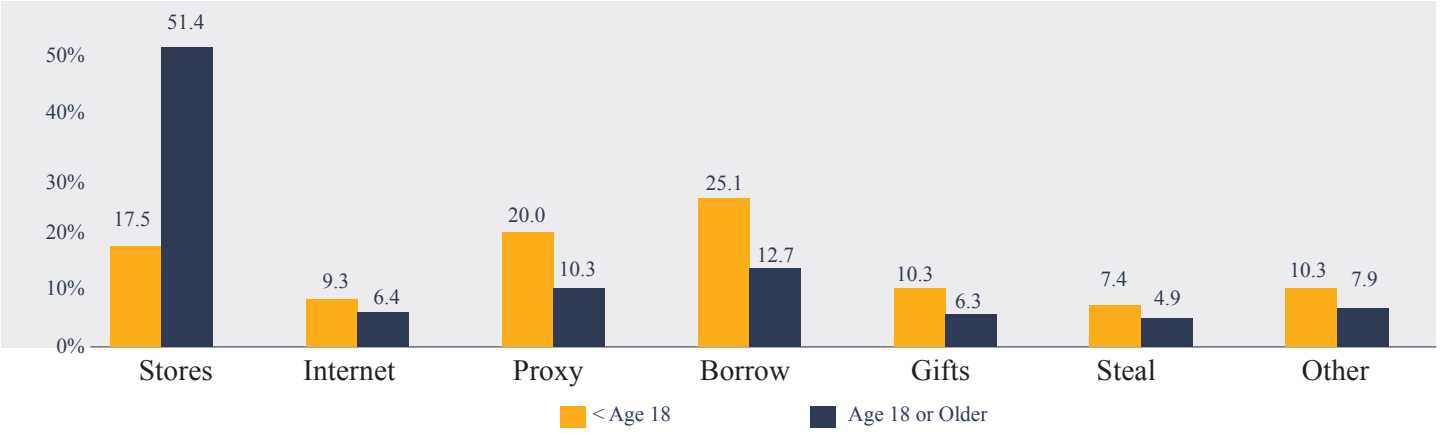
Photo ID Checks

Even though federal law requires Maryland retailers to check the photo ID of all tobacco customers under 27, many underage youth are still able to buy tobacco, even when asked for photo ID. The number of youth who were not asked for photo ID declined from 2014 to 2016 (63 percent versus 59 percent). While this is positive, the number of youth asked for ID and were still successful in their buy attempt increased from 2014 to 2016 (37 percent to 46 percent). This suggests a continued need for retailer education.

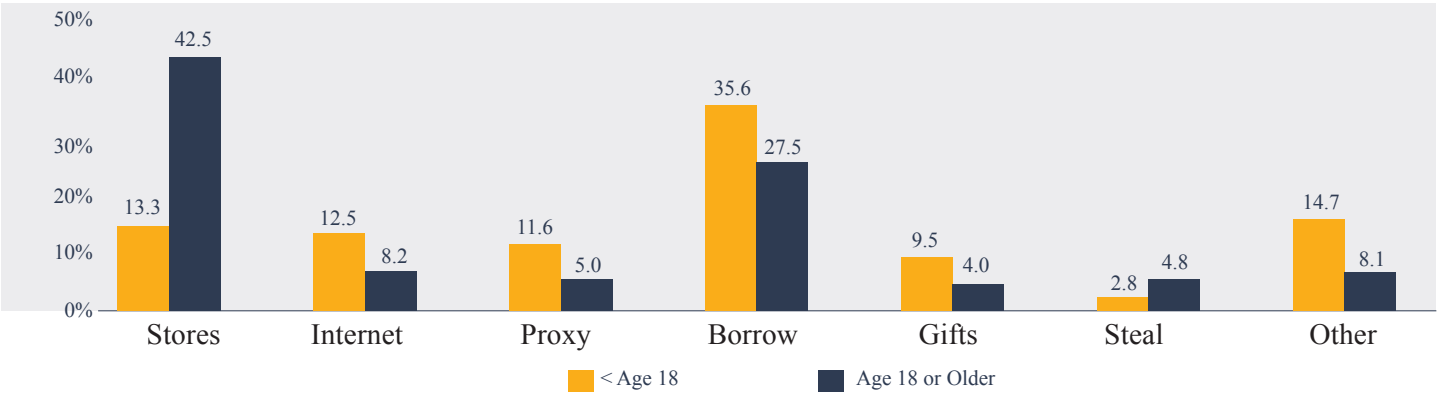
Both Maryland and federal laws ban the sale of tobacco, including ESDs, to everyone under 18.

[vii] A regular smoker or ESD user is someone who uses that product more than 20 days per month.

Usual Source of Cigarettes in Past 30 Days Among Youth Currently Using Cigarettes, 2016



Usual Source of ESDs in Past 30 Days Among Youth Currently Using ESDs, 2016



Secondhand Smoke (SHS) Exposure

Highlights

- Maryland's Clean Indoor Air Act protects almost 85 percent of employed and self-employed residents from exposure to SHS in the workplace
- A majority of Maryland homes (87 percent) have voluntary no-smoking rules

There is no risk-free level of exposure to SHS.[3] SHS causes early death and disease among children and adults who do not smoke. The only way to fully protect non-smokers from the harmful effects of SHS is to ban smoking indoors.

Maryland residents have been protected from SHS indoors since 2008, when the Clean Indoor Air Law was implemented. It protects residents from exposure to SHS in the workplace and in public spaces — including bars, restaurants, and common areas of apartment buildings. While ESDs are not included in the Clean Indoor Air Law, several localities ban ESD use in public spaces such as parks, college campuses, and restaurants. Businesses may also prohibit ESD use on their property.

Maryland youth not exposed to SHS indoors has nearly doubled from 2000 to 2016 (38 percent versus 74 percent). The largest single-year increase came directly after the passage of Clean Indoor Air Law in 2008.

Most Marylanders understand the health risks of SHS and keep their homes smoke-free, regardless of whether a smoker lives there. Since 2006, when youth were first asked about smoke-free rules in the home, the number of smoke-free homes has steadily increased. In 2016, the 'smoking rule' question included new response options, making the data not comparable to previous years. However, 2016 data shows that even among households with a resident smoker, more than 63 percent never allow smoking in their home.

Youth Who Report Smoking is Prohibited Inside their Home

63.2 percent

Households with Smokers

89.3 percent

Non-smoking Households

2018 10TH ANNIVERSARY

air!

100% SMOKE FREE

IN 2018, MARYLAND WILL CELEBRATE THE 10TH ANNIVERSARY OF SMOKE-FREE BARS, RESTAURANTS, AND WORKPLACES.

Adult Tobacco Cessation

Highlights

- Quit attempts among Maryland adults have increased to 61 percent in 2016, up from 57 percent in 2011
- Medication is the most used tobacco cessation method for adults, though many people use more than one method to quit successfully
- The Maryland Tobacco Quitline (1-800-QUIT-NOW) offers free, 24/7 counseling to all tobacco users in Maryland, including ESD users, and free nicotine replacement therapy for adults

The CDC recommends establishing comprehensive cessation programs that incorporate cessation within health systems, increase insurance coverage, and improve access to a state quitline, such as the Maryland Tobacco Quitline (the Quitline), which is available at 1-800-QUIT-NOW and smokingstopshere.com.

As tobacco products contain nicotine and other chemicals making them highly addictive, multiple serious cessation attempts are typically required to quit for good, with an average of eight to 11 full attempts needed to succeed. Medication is the most used tobacco cessation method, though many people use more than one strategy. Many tobacco users benefit from smoking and tobacco cessation help, such as the Quitline and counseling from a health professional or insurance program. Using multiple methods is the best strategy for quitting successfully.

Sixty-three percent of Maryland adults have never smoked, 24 percent are former smokers, and 14 percent are current smokers. Forty-two percent of current smokers have a time-frame in mind for quitting; the majority (89 percent) plan to quit within the next year.

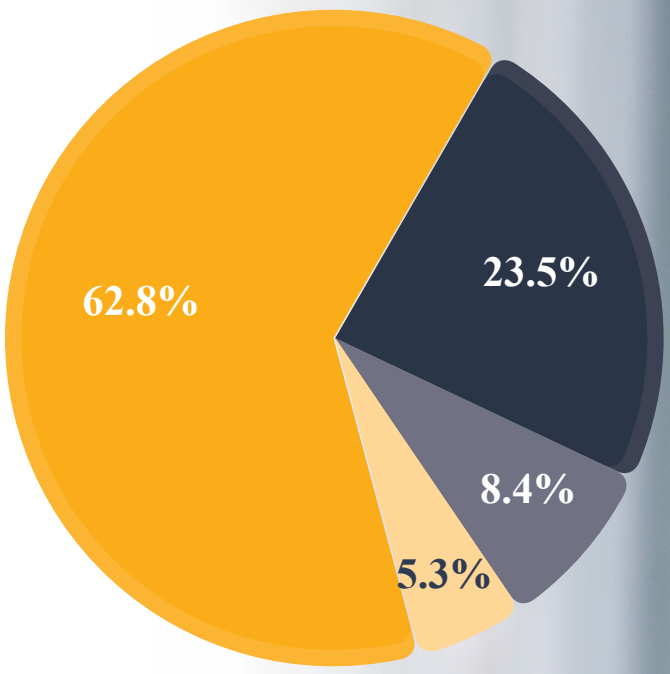
The Quitline consistently shows an increase in call volume in response to statewide promotional efforts. The Quitline offers free counseling to all tobacco users in Maryland and free nicotine replacement therapy to those over 18. The 2016 Quitline evaluation shows more than 27 percent of participants had been tobacco-free for more than 30 days at follow-up. Other benefits of using Quitline services include an increased number of quit attempts, reduced cigarette use, and a reduced urge to smoke within five minutes of waking.

ESDs as Cessation Aids

ESDs are not an FDA-approved smoking cessation aid. Yet, many residents try these products to quit smoking. More than 45 percent of adult ESD users report the main reason for their ESD use is to quit smoking cigarettes. However, over 56 percent of adult ESD users still use other tobacco products along with ESDs.

Over one quarter of Quitline participants had been tobacco-free for 30 days.

Smoking Status of Maryland Adults



- Never Smoked
- Former Smokers
- Smokers Who Want to Quit
- Committed Smokers

SEVERAL METHODS ARE AVAILABLE TO SUPPORT QUIT ATTEMPTS IN MARYLAND. AMONG FORMER AND CURRENT SMOKERS — 37 PERCENT USE MEDICATION, 11 PERCENT USE ONE-ON-ONE COUNSELING, 11 PERCENT USE A CESSATION PROGRAM, AND SIX PERCENT CALL THE QUITLINE.

About This Report

This is a summary of the *Monitoring Changing Tobacco Use Behaviors: 2000-2016* (May 2018) report.[viii] Youth and adult data in this report come from a variety of sources outlined in this section.

Youth Data

Youth data presented in this report includes Maryland public high school and middle school youth of all ages. All youth data in this report can be compared year-to-year, nationally, jurisdiction-to-state, jurisdiction-to-jurisdiction, and to data from other states, as there is comparable survey methodology.

Throughout this report, unless specifically noted otherwise, 'youth' refers to Maryland public high school youth.

The Youth Tobacco Survey (YTS) was conducted biennially from 2000 through 2010 in Maryland 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.

The YTS was combined in 2013, 2014, and 2016 with the **Youth Risk Behavior Survey** (YRBS). The YRBS is a biennial survey sponsored nationally by the CDC and is conducted in Maryland as the combined YRBS/YTS.

The YRBS/YTS employs a complex, two-stage cluster design that allows for valid, weighted estimates of risk behaviors for middle and high school students for each jurisdiction in Maryland. In the first stage, eligible public schools are randomly selected. In the second stage, classrooms within selected schools are randomly selected. All youth who wish to participate and who have parental permission may take the survey.

In 2016, more than 78,000 youth were surveyed on tobacco use and other risk behaviors.[ix]

High School

In 2016, over 51,000 student surveys from 184 Maryland public, charter, and vocational high schools were analyzed. Results are representative of all Maryland students in grades 9-12.

Gender

- Female 49.0%
- Male 51.0%

Race Ethnicity

- **Black 34.8%
- Hispanic Latino 13.6%
- **White 40.8%
- ** Other Races 4.3%
- ** Multiple Races 6.5%

Grade Level

- 9th Grade 27.4%
- 10th Grade 25.9%
- 11th Grade 23.3%
- 12th Grade 23.0%
- Other 0.4%

** Non Hispanic

Middle School

In 2016, over 23,500 student surveys from 174 Maryland public, charter, and vocational schools were analyzed. Results are representative of all Maryland students in grades 6-8.

Gender

- Female 48.8%
- Male 51.2%

Race Ethnicity

- **Black 34.1%
- Hispanic Latino 14.6%
- **White 39.6%
- ** Other Races 4.4%
- ** Multiple Races 7.2%

Grade Level

- 6th Grade 33.3%
- 7th Grade 33.2%
- 8th Grade 32.9%
- Other 0.6%

** Non Hispanic

Changes in Reporting

In previous reports, per statute, youth data was limited to those under 18 years of age at the time of survey. Enacted on July 1, 2017, Chapter 139 of the Acts of 2017 amended the statute so that data for all high school youth, not just underage youth, are included in this report.

All past youth smoking behavior data appearing in this report have been re-analyzed to contain all-age youth data for the years 2000 to 2016. Additionally, all data is now reported separately for middle school and high school youth to enable comparability with other state and national data. Previously, youth data were combined. Throughout this report, unless specifically noted otherwise, "youth" refers to Maryland public high school youth.

Low Response Rates

CDC requires a 60 percent response rate for all Maryland YRBS/YTS samples to reduce non-response bias. The Fall 2016 YRBS/YTS high school response rate in Baltimore City was 56 percent. The Maryland Department of Health (MDH) considers the data 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. The sampling strategy is in line with those used in all jurisdictions. Baltimore City's response rate does not impact the validity of the middle school, overall State data, or other jurisdictions, as those response rates were over 60 percent.

[viii] Full report available at https://phpa.health.maryland.gov/ohpetup/Documents/2000%20-%202016%20Legislative%20Report%20Monitoring%20Changing%20Tobacco%20Use%20Behaviors.pdf

[ix] This includes both Maryland high school and middle school youth surveyed.

Adult Data
The term "adult" used in this report refers to persons 18 years of age or older.

Data for these individuals was collected as part of the **Behavioral Risk Factor Surveillance System** (BRFSS), which has been conducted in Maryland since 2000. The Maryland BRFSS is a CDC-sponsored survey conducted annually using random-digit-dialing telephone interviews. The BRFSS focuses on adult risk behaviors, including the use of tobacco products. The survey is designed to produce statewide estimates, but jurisdiction-specific estimates can be calculated if the sample size within a jurisdiction is large enough.

In 2016, more than 18,000 telephone interviews were conducted. Results are representative of the Maryland adult population. Data collected in 2010 or earlier cannot be directly compared to data collected after 2011 due to changes in survey methodology.

In 2016, more than 18,000 adults were surveyed on tobacco and other risk behaviors.

[1]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 4 October 2018 at < https://stacks.cdc.gov/view/cdc/21697>.

[2]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/cmf-icd10.html>.

[3]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 5 September 2018 at <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>.

[4]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 5 September 2018 at <https://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/index.html>.

[5]Data from this section are taken from the 2017 Maryland Outcomes Measurement System Datamart, Public Behavioral Health System (OMS) managed by the MDH, Behavioral Health Administration. Accessed 7 January 2019 at <http://maryland.beaconhealthoptions.com/services/OMS_Welcome.html>.

[6]Tobacco Products Scientific Advisory Committee. (2011). "Menthol cigarettes and public health: review of the scientific evidence and recommendations." US Food and Drug Administration.

[7]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 5 September 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>.

MARYLAND
Department of Health

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