

MONITORING CHANGING TOBACCO USE BEHAVIORS: 2000–2014



SUMMARY REPORT



Letter From the Secretary

I am pleased to release this Summary Report, which is intended for both the general public and the many organizations across the state who have been working diligently to reduce the use of tobacco in Maryland. It is my hope that with continuing efforts, Maryland will further reduce the number of deaths that are caused by tobacco use, the number of people who are suffering from a chronic disease caused by tobacco use, and the many thousands of Maryland families that have been negatively impacted by tobacco use.

This Summary Report provides an overview of the previously released *Monitoring Changing Tobacco Use Behaviors: 2000–2014*¹ and covers tobacco use behaviors among adolescent Maryland youth and adults. The underlying data come from one of the largest surveys in the nation of public middle and high school youth, together with surveys of adults age 18 and older, from 2000 through 2014. New data are collected every other year, with data currently being collected in 2016.

There is very good news in that, in many respects, tobacco use among youth and adults has decreased significantly since 2000. Challenges remain, however. Maryland's health care expenditures in treating smoking-related disease reach an estimated \$3.5 billion annually. Among youth, smokeless tobacco use is higher than it was in 2000; cigar use rates have surpassed those of cigarette use; and there has been a proliferation of the use of electronic smoking devices (ESDs), with the accompanying addiction to nicotine. In 2014, almost 20% of high school youth reported using an ESD during the past 30 days compared to less than 5% of adults, even though the sale of ESDs to youth is illegal in Maryland.

Cigars, ESDs and smokeless tobacco are available to youth in flavors such as grape, chocolate and peach. These flavors make the products seem less harmful and have a very high appeal among underage youth, with the majority reporting the use of flavored products.

The Department of Health and Mental Hygiene is committed to reducing the use of all tobacco products to battle this deadly epidemic that kills more Marylanders than homicide, suicide, HIV/AIDS and accidental injuries and overdoses combined. We continue to offer free resources such as the Maryland Tobacco Quitline, 1-800-QUIT-NOW, to teens and the nearly three-quarters of adult smokers who reported that they want to quit. We also have developed many toolkits, such as *Clearing the Air: The Value of Smoke-Free Living: A Resource Guide for Property Owners & Managers* to help protect the nearly one-quarter of underage youth who report being exposed to secondhand smoke indoors.

I trust that you will find this report informative and that you will join me in continuing to reduce tobacco use among Marylanders. For more information, please contact dhmh.healthmd@maryland.gov.

Sincerely,



Van T. Mitchell

Secretary, Maryland Department of Health and Mental Hygiene

¹ See http://phpa.dhmh.maryland.gov/ohpetup/Pages/tob_reports.aspx.

Contents



1	In Brief
3	Impact of Tobacco on Health
5	Restricting Youth Access
7	Initiation of Tobacco Use
9	Current Use of Tobacco Products
12	Disparities in Tobacco Use Behaviors
13	Use of Electronic Smoking Devices
15	Adult Cessation of Tobacco Products
17	Exposure to Secondhand Smoke
19	Attitudes and Beliefs Toward Tobacco Use
21	About This Report

In Brief



Still, more than 880,000 Maryland residents 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 tobacco use. The average number of annual deaths due to cigarette smoking is more than twice that of the number of average annual deaths resulting from accidental injury, HIV/AIDS, suicide and homicide combined. Every year an estimated \$3.5 billion is spent in Maryland treating cancer and disease caused by smoking.

Cigarettes are overwhelmingly the tobacco product of choice for adults, but adolescents prefer small, often flavored, cigars and cigarillos to cigarettes. Adolescent tobacco users are also more likely than adults to use more than one type of tobacco product (44% compared to 12% of adult tobacco users). The popularity of electronic smoking devices (ESDs) such as e-cigarettes is

Maryland's tobacco use prevention and cessation efforts have had a strong impact, with significant reductions in cigarette use among both adults and underage youth (e.g., a relative decrease of over 60% between 2000 and 2014 in underage youth). There has also been a steady increase in the proportion of adults who have never smoked cigarettes, as well as a significant decrease in the initiation of tobacco use by underage middle and high school adolescents. In 2014, over 60% of adults reported that they had never been a cigarette smoker, and among the 15% of adults who currently smoke cigarettes, almost three-fourths state that they would like to quit smoking.

on the rise. E-cigarettes are currently used by an estimated 20% of underage high school youth and 5% of adults in Maryland.

Underage smoking continues to be associated with other risk behaviors. As compared to their nonsmoking peers, Maryland underage high school youth who smoke cigarettes are much more likely to use alcohol and marijuana and abuse prescription drugs.

**EVERY YEAR AN ESTIMATED
\$3.5 BILLION IS SPENT IN
MARYLAND TREATING CANCER
AND DISEASE CAUSED
BY SMOKING.**

**TOBACCO AND ESD USE IS NOT UNIFORM
ACROSS THE STATE AND VARIES CONSIDERABLY
AMONG JURISDICTIONS**

(MORE INFORMATION FOUND ON PAGE 10)

ADULT PRODUCT USE	Lowest Jurisdiction Estimate	Highest Jurisdiction Estimate	Maryland State Estimate
Any tobacco product	10%	28%	19%
Cigarettes	6%	23%	15%
Cigars	2%	10%	5%
Smokeless tobacco	0%	5%	2%
E-cigarettes	1%	7%	5%

YOUTH PRODUCT USE	Lowest Jurisdiction Estimate	Highest Jurisdiction Estimate	Maryland State Estimate
Any tobacco product	10%	24%	15%
Cigarettes	5%	20%	8%
Cigars	6%	14%	10%
Smokeless tobacco	3%	13%	6%
E-cigarettes	15%	30%	20%

Adolescents under the age of 18 are not legally permitted to purchase or possess tobacco products, and retailers are not permitted to sell tobacco to them. Random unannounced undercover inspections conducted in 2014 found 31% of retailers willing to sell to underage youth. In the fall of 2014, 63% of underage high school youth who attempted to purchase cigarettes from a retail store in Maryland stated that they were not asked for photo identification.

Protections from the negative health effects of secondhand smoke continue to increase. In 2014, 76% of middle and high school youth reported that they had not been exposed to secondhand smoke indoors, compared

to just 44% in 2000. Households are increasingly adopting voluntary smoking bans inside their homes. Since 2000, there has been a 37% increase in voluntary household bans among smoking households (now 67%) and a 12% increase among nonsmoking households (now 94%).

Future Challenges

Future challenges in tobacco control include continued diligence in reducing tobacco sales to minors and addressing the use of ESDs. Recent efforts to promote compliance among tobacco retailers has had a significant positive impact on retailer compliance rates, but more needs to be done to reduce retail sales of tobacco to minors. ESDs are also growing in popularity, and while the long-term health effects of ESDs remain unknown, evidence indicating these products are not risk-free is mounting.

Underage youth also need greater exposure to tobacco control strategies and messaging beyond school-based curricula. Even with more exposure to school-based tobacco programs (up 20% among middle school youth and up 49% among high school youth since 2000), youth see tobacco use as helping them to “look cool,” and they believe that smokers have more friends than nonsmokers. From 2000 to 2014, among *nonsmoking* underage high school youth, there was a greater than 80% increase in the proportion of those who thought smoking helps youth to “look cool” or “fit in” as well as those who thought youth who smoked had more friends. Additionally, in the same time period among underage high school *smokers*, there was a 70% increase in the proportion who thought smoking helps youth to “look cool” or “fit in” and over a 50% increase in the proportion who thought youth who smoked had more friends.

Impact of Tobacco on Health



Highlights

- Initiation of tobacco use by adolescents and young adults continues to be the primary driver of tobacco-related mortality and economic burden.
- The average number of annual deaths due to cigarette smoking is more than twice that of the number of average annual deaths resulting from accidental injury (including all motor vehicle crashes, poisonings and overdoses from drugs such as heroin), HIV/AIDS, suicide and homicide combined.
- Significant progress is being made in reducing tobacco use, but treatment of smoking-related disease in Maryland still consumes an estimated \$3.5 billion of health care expenditures annually.

Approximately 149,600 Maryland residents suffer from one or more chronic diseases as a result of smoking,² and between 2005 and 2009, Maryland averaged 7,490 deaths annually due to smoking.³ By comparison, each year there are 2,742 deaths on average as a result of unintentional injuries of all kinds, HIV/AIDS, suicide and homicide combined. An estimated 92,000 Maryland adolescents alive today will die prematurely as a result of cigarette smoking.⁴

149,600 

Maryland residents suffer from one or more chronic diseases as a result of smoking.



² Hyland A, Li Q, Bauer J, Giovino GA, Yang J, Cummings KM. *Cigarette smoking-attributable morbidity by state*. Buffalo: Roswell Park Cancer Institute; September 5, 2003.

³ Centers for Disease Control and Prevention. Injury Prevention and Control: Data and Statistics (WISQARS). <http://www.cdc.gov/injury/wisqars>. Accessed August 10, 2016.

⁴ Campaign for Tobacco-Free Kids. "Key state-specific tobacco-related data and rankings." <http://www.tobaccofreekids.org/research/factsheets/pdf/0176.pdf>. Accessed June 3, 2016.

In the United States, the risk of dying from lung cancer is over 14 times greater among current male smokers between ages 35 and 64 than it is for nonsmokers. And while not everyone who dies from lung cancer is a smoker, almost 89% of lung cancer deaths are related to smoking and secondhand smoke.

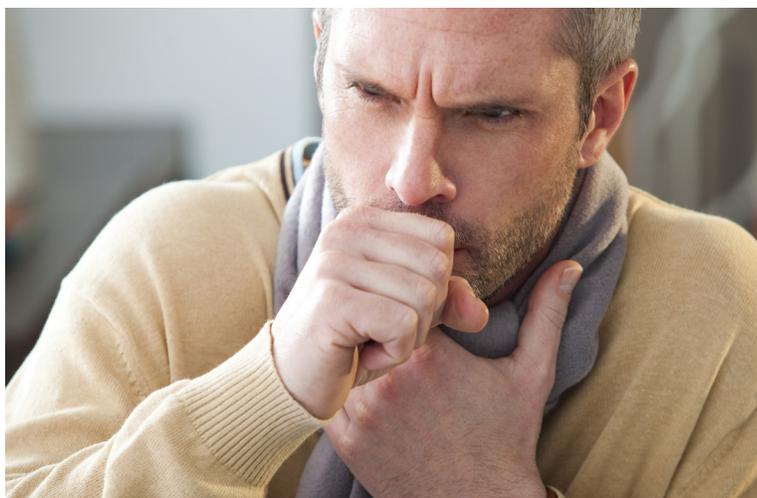


Between 2005 and 2009, Maryland averaged 7,490 deaths each year due to smoking.

OTHER CAUSES OF MARYLAND DEATHS:				
1,286	498	479	478	2,742
Accidental	HIV/AIDS	Suicide	Homicide	Combined Total

Though the number of Maryland adults using tobacco and/or suffering from cancer and diseases caused by cigarette smoking has decreased, total medical expenditures to treat these conditions have continued to grow. The cost of medical treatment was estimated at

\$1.4 billion in 2000 and at \$2.7 billion in 2009. This was a 93% increase (without adjustment for inflation). By 2015, the cost is estimated to be \$3.5 billion; by 2020, the cost is estimated to be \$4.5 billion.⁵



IN THE UNITED STATES, THE RISK OF DYING FROM LUNG CANCER IS 14 TIMES GREATER AMONG CURRENT MALE SMOKERS BETWEEN AGES 35 AND 64 THAN IT IS FOR NONSMOKERS.

⁵Maryland Department of Health and Mental Hygiene. *Monitoring changing tobacco use behaviors, Fiscal Year 2013*. [http://dlslibrary.state.md.us/publications/Exec/DHMH/HG13-1004\(d\)_2013\(rev\).pdf](http://dlslibrary.state.md.us/publications/Exec/DHMH/HG13-1004(d)_2013(rev).pdf). Accessed June 3, 2016.

Restricting Youth Access



Though Maryland law prohibits the sale of cigarettes, cigars, smokeless tobacco and any other type of tobacco product, including ESDs, to underage adolescents⁶ (with violations punishable by criminal misdemeanor), many youth are able to obtain these products. The top four sources from which Maryland adolescents under 18 years old report obtaining cigarettes are (1) direct purchases (17%) from retail⁷ locations and the internet, (2) proxy⁸ (24%) purchases from retail locations, (3) people giving

Highlights

- Many Maryland tobacco retailers previously failed to adhere to federal and state laws in connection with tobacco sales to minors.
 - The failure of retailers to consistently ask for photo identification (ID) in connection with tobacco sales and the failure to verify that the ID shows an age of at least 18 caused Maryland's Synar noncompliance rate to exceed the federally allowable maximum rate of 20% in Federal Fiscal Years (FFYs) 2014 and 2015.
 - Recent efforts to promote compliance among tobacco retailers has had a significant positive impact on the state's Synar compliance rate.
-

them cigarettes and tobacco and (4) theft from retail locations and/or family members.

OVER 40% OF UNDERAGE SMOKERS OBTAIN TOBACCO PRODUCTS FROM RETAIL LOCATIONS.

⁶ Md. Ann. Code Criminal Law Art., § 10-107 (2007); Md. Ann. Code Health - General Art., § 24-305 (2012) (with violations punishable by criminal misdemeanor).

⁷ Retail locations include stores, gas stations and vending machines.

⁸ Proxy purchases are those that occur when an underage youth gives money to a youth who is old enough to purchase tobacco (or can otherwise gain access to them) and who buys the cigarettes for the underage youth.

ONLY 37% OF UNDERAGE YOUTH WERE ASKED TO SHOW ID.

To help ensure that tobacco retailers are correctly identifying the ages of youth attempting to purchase tobacco, in June 2010, the Federal Food and Drug Administration (FDA) adopted regulations that require all tobacco retailers nationally to ask for and inspect photo IDs from prospective purchasers of tobacco products who appear to be less than 27 years old.⁹ However, in the fall of 2014, just 37% of youth who attempted

to purchase cigarettes from Maryland retailers were asked to show their photo ID. Among adolescents not asked to show ID, 77% reported that they had not been refused in their attempt to purchase cigarettes, compared to 49% of those who were asked for ID.

The Synar Program

All 50 states are subject to a compliance program under the federal Synar amendment. The Synar program establishes a statewide maximum retailer noncompliance rate threshold of 20%, meaning at least 80% of retailers checked must refuse sales to minors in random statewide inspections, or face a significant loss of federal substance abuse treatment funds.

After intensive state efforts, including communications, outreach, increased compliance checks and development of a website (notobaccosalestominors.com), Maryland succeeded in reducing noncompliance rates by 56% in one year.



IN FFY13 17% OF MARYLAND TOBACCO RETAILERS SOLD TOBACCO TO UNDERAGE ADOLESCENTS DURING A SYNAR INSPECTION.¹⁰ NONCOMPLIANCE RATES INCREASED TO 24% AND 31% IN FFY14 AND FFY15, RESPECTIVELY.¹¹ HOWEVER, THE NONCOMPLIANCE RATE DROPPED TO 14% IN FFY16.

⁹21 CFR 1140.14.

¹⁰The national Synar Report is issued approximately two years after Maryland's Synar inspections are conducted. For example, the FFY13 national report was released in late 2014 with data from calendar 2012 Maryland Synar inspections. The next report release is expected sometime in 2016.

¹¹The national FFY14 Synar Report, which reports on Synar inspections conducted primarily during calendar year 2013, is expected to be released sometime in 2016.

Initiation of Tobacco Use



Initiation of tobacco use begins predominately among adolescents and young adults. In contrast, adult initiation of tobacco use in Maryland is rare. In 2014, less than 1% of the adult Maryland population was estimated to have used tobacco for the first time during the preceding 12 months.

Maryland has had success with tobacco use prevention efforts directed at adolescents and young adults. Past 12-month initiation

Highlights

- Two-thirds of those who smoked a whole cigarette became everyday cigarette smokers.
 - The vast majority of the heaviest smokers (87%) smoked their first whole cigarette before they were 18 years of age.
 - The younger people are when they smoke their first whole cigarette, the more likely it is they will become a cigarette smoker and the more heavily addicted they will become.
 - Tobacco use prevention efforts have been impactful, with a steady increase in the proportion of Maryland adults who never have been a cigarette smoker, as well as a significant decrease in initiation by underage middle and high school adolescents.
-

of cigarette smoking among underage public middle and high school youth has decreased 60% since 2000 (20% in 2000, 8% in 2014). At the same time, the proportion of Maryland adults who never were cigarette smokers has increased since 2000 (56% in 2000, 63% in 2014). Despite these successes, up to 34,800 underage middle and high school youth initiated tobacco use during the past 12 months.

PROGRESSION TO EVERYDAY CIGARETTE SMOKING

63%

OF ALL MARYLAND ADULTS
HAVE TRIED CIGARETTE
SMOKING

86%

OF THOSE WHO TRIED CIGARETTE
SMOKING SMOKED A WHOLE
CIGARETTE

67%

OF THOSE WHO SMOKED A WHOLE
CIGARETTE BECAME CIGARETTE
SMOKERS*

85%

OF CIGARETTE SMOKERS
BECAME EVERYDAY
SMOKERS

*A 'cigarette smoker' is an adult who has smoked at least 5 packs of cigarettes in their lifetime.



Current Use of Tobacco Products



Among adults, cigarettes remain the most popular tobacco product in Maryland, followed distantly by cigars, then smokeless tobacco. Among adolescents, however, cigars and cigarillos are more popular than cigarettes. An estimated 19% of Maryland adults were using some form of tobacco product in 2014 as compared to 15% of underage Maryland public high school students; this translates to 884,461 adult tobacco users and 35,500 public high school tobacco users.

Highlights

- Cigarettes remain the most popular type of tobacco product among adults, whereas cigars are the most popular among adolescents.
- Tobacco use prevention efforts among adolescents have been impactful, with rates of cigarette and cigar smoking decreasing significantly. However, significant numbers of youth continue to initiate tobacco use.
- Tobacco use prevention efforts among adults have also been impactful, as cigarette smoking continues to decline. However, more than 880,000 Maryland adults continue to use tobacco, placing their health at significant risk.

In 2014, among adolescents who currently use tobacco, 44% reported using more than one type of tobacco product during the past 30 days as compared to just 12% of current adult tobacco users. Among adolescents, cigar smoking has overtaken cigarette smoking as the most common tobacco use behavior. This trend began in 2008, coinciding with the increase of the excise tax on cigarettes by \$1/pack (total of \$2/pack), while the excise tax on cigars remained unchanged until 2012.

19% of Maryland adults and **15%** of underage high school students reported using some form of tobacco product.



The chart below details statewide and local estimates of tobacco and Electronic Smoking Device (ESD) use. These figures are striking in that at least 19 jurisdictions have estimates that are greater than the statewide estimate.

Through prevention efforts such as the Department of Health and Mental Hygiene's The Cigar Trap campaign (TheCigarTrap.com) and the General Assembly increasing the excise tax on cheap cigars in 2012, the

proportion of adolescents smoking cigars has steadily declined since 2008, although rates are still higher than for cigarettes. The proportion of adolescents who use smokeless tobacco remained relatively steady for many years (from 2000 to 2010). However, since 2013 the use of smokeless tobacco has been more common among youth than at any previous time. Cigars and cigarillos (10%) have overtaken cigarettes (8%) as the most popular tobacco product used among Maryland adolescents.

UNDERAGE HIGH SCHOOL STUDENTS' CURRENT USE OF PRODUCTS

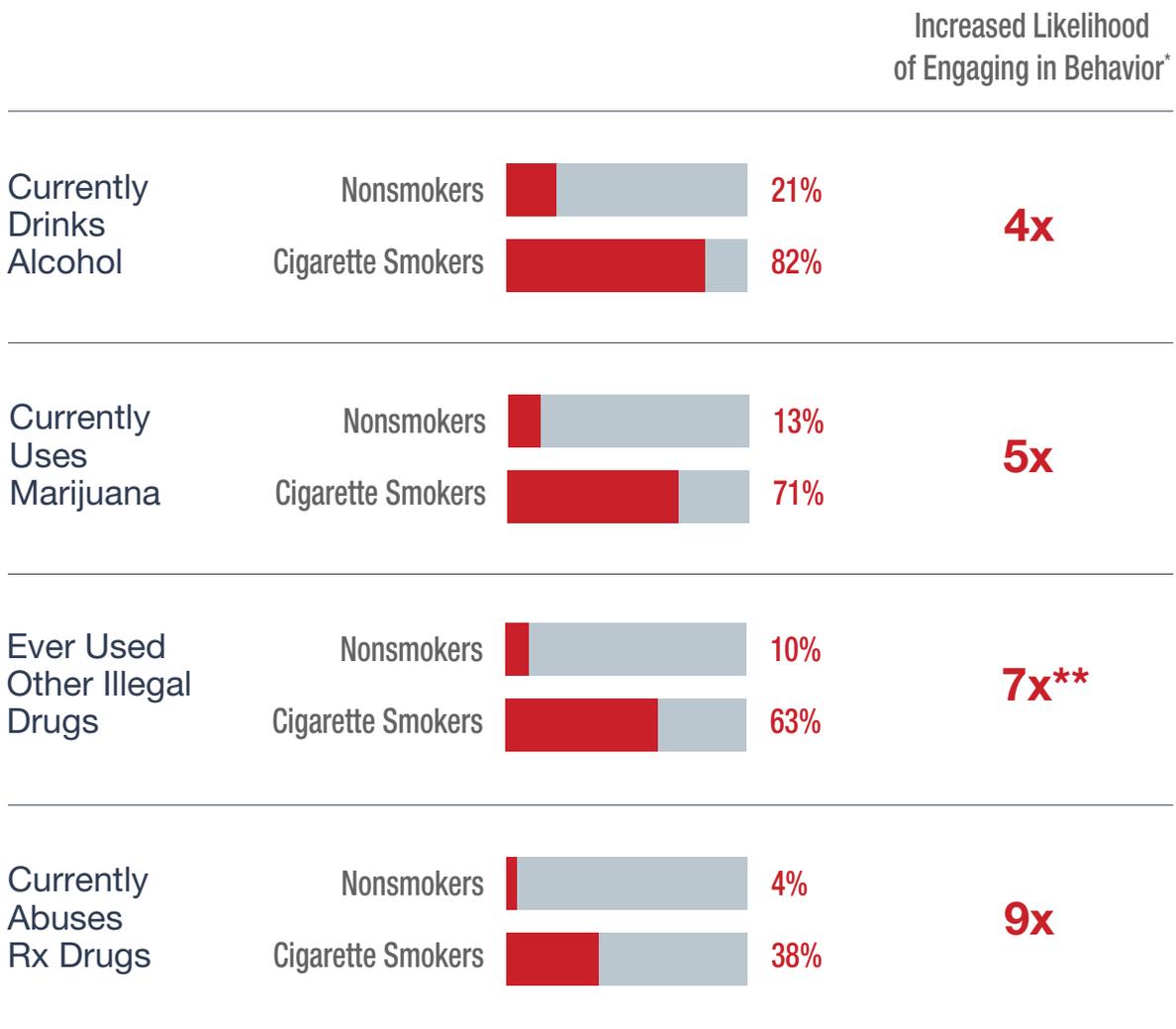
	TOBACCO	CIGARETTES	CIGARS	SMOKELESS	ESD/VAPOR PRODUCT
Maryland	15%	8%	10%	6%	20%
Allegany	23%	15%	11%	11%	29%
Anne Arundel	18%	10%	13%	6%	23%
Baltimore City	18%	6%	14%	6%	16%
Baltimore Co.	15%	9%	11%	5%	20%
Calvert	19%	12%	11%	8%	22%
Caroline	24%	18%	12%	11%	25%
Carroll	15%	10%	9%	5%	20%
Cecil	23%	16%	14%	9%	30%
Charles	16%	9%	10%	6%	23%
Dorchester	22%	14%	12%	13%	25%
Frederick	15%	10%	9%	6%	24%
Garrett	30%	20%	12%	18%	36%
Harford	18%	10%	12%	7%	24%
Howard	9%	5%	6%	3%	16%
Kent	22%	15%	11%	11%	20%
Montgomery	10%	6%	7%	3%	17%
Prince George's	12%	5%	9%	5%	15%
Queen Anne's	22%	17%	14%	10%	30%
Somerset	24%	14%	14%	13%	25%
St. Mary's	21%	15%	11%	8%	25%
Talbot	20%	14%	11%	9%	23%
Washington	22%	12%	13%	11%	25%
Wicomico	19%	12%	13%	8%	24%
Worcester	21%	14%	11%	9%	27%

Tobacco Use and Other Risk Behaviors

Cigarette smoking and tobacco use by adolescents is highly correlated with other risk behaviors such as alcohol use, marijuana use, prescription drug abuse and the use of other illegal drugs. Adolescents who smoke are four

times more likely than their nonsmoking peers to currently drink, five times more likely to currently use marijuana and nine times more likely to currently abuse prescription drugs.

Relative Risk of Alcohol, Marijuana and Other Drug Use by Adolescents, by Smoking Status – 2014



*The increased likelihood represents the relative risk of an adolescent smoker engaging in the behavior vs. that of a nonsmoking adolescent. Note that the data above represent observed correlations in risk behaviors and are not presented as evidence of causality.

**Percentages have been rounded for clarity in displaying data for this report. Data presented for *Increased Likelihood of Engaging in Behavior* are based on detailed unrounded data.

Disparities in Tobacco Use Behaviors

- **Adult males (17%) are more likely to smoke cigarettes as compared to females (13%).**
- **Underage males (18%) were more likely to use tobacco as compared to underage females (13%).**
- **Gay and lesbian (43%) and bisexual (26%) youth reported far higher rates of current smoking than heterosexual youth (13%).**

It is important to identify and address disparities in tobacco use behaviors in order to reduce future health disparities within specific population groups.

Initiation of Tobacco Use

A higher percentage of White adult males (70%) initiate smoking underage, as compared to Black adult males (56%). Conversely, though initiation above age 24 is rare, a greater number of Black adults report later initiation (9%), as compared to White adults (3%).

Current Tobacco Use

The highest rate of cigarette smoking is reported by Blacks (17%), followed by Whites (16%), Hispanics (8%) and Asians (7%).



Additional Tobacco Use Disparities

The higher the annual household income, the reduced likelihood of current adult smoking: 11% of smokers report a household income of \$50,000 or more, while 29% of smokers report a household income of less than \$15,000. Similarly by education level, only 6% of adults with four or more years of college are current smokers, compared to 28% of adults who are not high school graduates. Finally, there is considerable disparity in the proportion of pregnant women smoking among jurisdictions, from a low of 2% in Howard County to a high of 24% in Allegany County.

Use of Electronic Smoking Devices



“Electronic Smoking Devices” (ESDs) refers to products such as e-cigarettes, e-pipes, e-cigars, e-hookahs, vapes and pens. The act of using these products is often referred to as “vaping,” with the visible emissions from an ESD called “vapor.” However, these emissions inhaled by the user and by those around the user are not vapor, but rather an aerosol containing small particles of liquid nicotine, artificial flavorings and other chemicals (including benzene, formaldehyde and carcinogens) formed as a result of the heating process, combined

Highlights

- Maryland adolescents are using ESDs at four times the rate of adults.
- Over 70% of underage cigarette smokers also use ESDs – these products are easily accessed by underage youth.
- Nearly 13% of underage youth who *do not use* traditional tobacco products report using ESDs.
- The long-term health effects of ESD use remain unknown, but increasingly the evidence base is establishing that they are not risk free. Poison control centers receive hundreds of reports of nicotine poisoning each month.



Maryland adolescents are using ESDs at four times the rate of adults.

with liquid propylene glycol and/or glycerin. In some instances, small particles of metals have also been found in ESD emissions. At least one study found that some ESDs damaged cells in ways that could lead to cancer, even in nicotine-free products.¹³ ESDs are available in thousands of fruit, candy and other flavors, making them attractive to youth.

¹³ Yu V, Rahimy M, Korrapati A, Xuan Y, Zou AE, Krishnan AR, et al. Electronic cigarettes induce DNA strand breaks and cell death independently of nicotine in cell lines. *Oral Oncology*. 2016; 52:58–65. [http://www.oraloncology.com/article/S1368-8375\(15\)00362-0/fulltext](http://www.oraloncology.com/article/S1368-8375(15)00362-0/fulltext). Accessed June 3, 2016.

Oversight of tobacco (cigarettes, cigars, smokeless tobacco and, more recently, ESDs) and tobacco cessation aids (over-the-counter nicotine patches, nicotine gum and nicotine lozenges) falls within the jurisdiction of the Food and Drug Administration (FDA). The FDA recommends the approved over-the-counter aids above, as well as other prescription aids such as nasal sprays, inhalers and drugs like Chantix® and Zyban®. To date, the FDA has not approved any ESD as a smoking cessation aid.

There is no clear scientific evidence that ESDs are an effective cessation tool. A recently published study found that “compared with smokers who never used e-cigarettes, smokers who [had] ever used e-cigarettes were significantly less likely to quit [smoking] for 30 days or more at follow-up.”¹⁴ Nonetheless, 37% of those calling the Maryland Tobacco Quitline, 1-800-QUIT-NOW, for assistance in quitting smoking reported using an ESD, thereby potentially reducing the likelihood of successfully quitting smoking for good.¹⁵

USE BY ADULTS

5% of Maryland adults were using an ESD either every day or on some days



35% of ESD users also smoke cigarettes every day



20% of current Maryland adult ESD users have never been cigarette smokers



25% of current ESD users are former cigarette smokers



USE BY ADOLESCENTS

20% of Maryland adolescents use ESDs



70% of adolescent ESD users also smoke cigarettes



13% of adolescent ESD users do not use tobacco



PREVALENCE OF ESD USE AMONG ADOLESCENTS WHO ENGAGE IN OTHER RISK BEHAVIORS

70% of adolescent cigarette smokers



67% of adolescents using smokeless tobacco



64% of adolescents who smoke cigars



54% of adolescents who smoke marijuana



47% of adolescents who drink alcohol



PREVALENCE OF ESD USE AMONG ADOLESCENTS WHO ARE NOT ENGAGING IN OTHER RISK BEHAVIORS

13% of adolescents who do not use any tobacco



11% of adolescents who do not smoke marijuana



8% of adolescents who do not drink alcohol



¹⁴ Al-Delaimy WK, Myers MG, Leas EC, Strong DR, Hofstetter R. E-cigarette use in the past and quitting behavior in the future: A population-based study. *Public Health*. 2015; 105(6):1213-19. <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2014.302482?journalCode=ajph&> Accessed June 3, 2016.

¹⁵ Maryland Marketing Source, Inc. and Bay Area Research, LLC. Maryland Tobacco Quitline and web-based services annual 7-month evaluation final interim report: Fiscal Year 2013/2014, June 2015 (unpublished).

Adult Cessation of Tobacco Products



Highlights

- Less than 15% of Maryland adults currently smoke cigarettes, and of those who do, more than 70% would like to quit.
- Many smokers require multiple serious attempts to quit smoking, with an average of eight to 11 attempts needed before they succeed.
- The likelihood of an adult succeeding in a quit attempt is increased with the use of FDA-approved smoking cessation aids together with counseling, such as that available without charge through local health departments or the Maryland Tobacco Quitline, 1-800-QUIT-NOW.

Although 15% of Maryland adults are current cigarette smokers, the majority (74%) wish that they were not and want to quit smoking permanently. Less than 4% of Maryland adults are committed cigarette smokers (smokers who reported they do not want to quit smoking). Of the remaining Maryland adults who currently smoke cigarettes and want to quit, 32% plan to quit within one month, 26% within six months, 18% within a year and 11% in more than a year. However,

quitting successfully is not easy to do. It takes an average of eight to 11¹⁶ serious quit attempts¹⁷ before a smoker succeeds. The proportion of former smokers whose last cigarette was less than one year ago was the same in 2014 (14%) as it was in 2012 (14%), the first year the question was asked.

Less than 15% 
of Maryland adults currently smoke cigarettes.

¹⁶ U.S. Department of Health and Human Services. *Women and smoking: A report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2001.

¹⁷ A serious quit attempt is when someone stops smoking for one day or more because they are trying to quit smoking.

NEARLY ONE-THIRD OF ADULTS WHO WANT TO QUIT WOULD LIKE TO QUIT WITHIN THE NEXT 30 DAYS.

Educating smokers on the benefits of quitting sooner rather than later, and promoting the availability of evidence-based aids to increase the likelihood of successfully quitting, is proven to significantly increase the number of adult smokers who try to quit.



IN 2014, ALMOST TWO-THIRDS OF MARYLAND ADULTS WHO REPORTED EVER SMOKING CIGARETTES HAVE QUIT, AND MORE THAN 14% OF ADULT SMOKERS QUIT IN THE PAST 12 MONTHS.

Data from the Maryland Tobacco Quitline, 1-800-QUIT-NOW, have consistently shown a significant increase in call volume in response to such promotional efforts. The Quitline continues to offer free counseling to all tobacco users in Maryland, 24/7, and provides free nicotine replacement therapy to assist individuals in successfully quitting tobacco for good.

73%

of adults who currently smoke would like to quit.

Exposure to Secondhand Smoke



Maryland has made significant progress in reducing involuntary exposure to secondhand smoke in the workplace. That effort began in the early 1990s, first with a regulatory smoking ban, followed shortly thereafter by legislative prohibitions on smoking indoors at most workplaces. Those initial efforts were significantly enhanced with the passage of Maryland's Clean Indoor Air Act in 2007, which prohibits smoking in all indoor workplaces, including restaurants, bars and clubs, as well as inside work vehicles. Over time, efforts to promote smoke-free homes, coupled with the above restrictions, have reduced underage youth exposure to secondhand smoke.

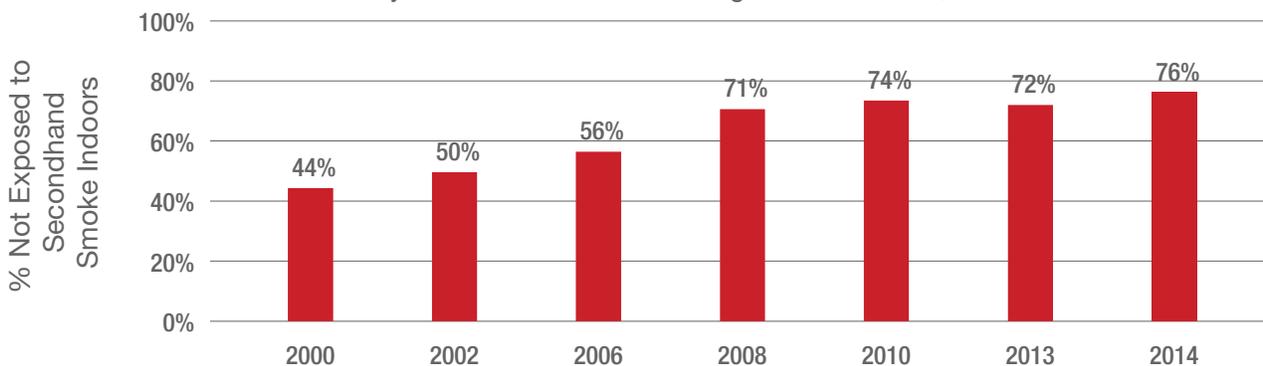
Highlights

- Maryland's Clean Indoor Air Act protects the vast majority of workers from exposure to secondhand smoke in the workplace.
 - Increasingly, Maryland households are adopting voluntary smoke-free rules inside their homes.
 - Owner-occupied housing may be adopting this approach at a faster rate than renter-occupied housing.
-

The majority of households – both those with resident smokers and those that are nonsmoking and have children under 18 – are increasingly recognizing the real health risks posed by secondhand smoke and voluntarily choosing not to allow smoking inside their home. Although only two years of data have been collected to date, the percentages in the graphic to the right suggest that this choice may be more likely in owner-occupied housing than in rental housing, with over 30% of renters reporting a resident adult smoker in their homes, as opposed to 20% of homeowners reporting a resident adult smoker at home.

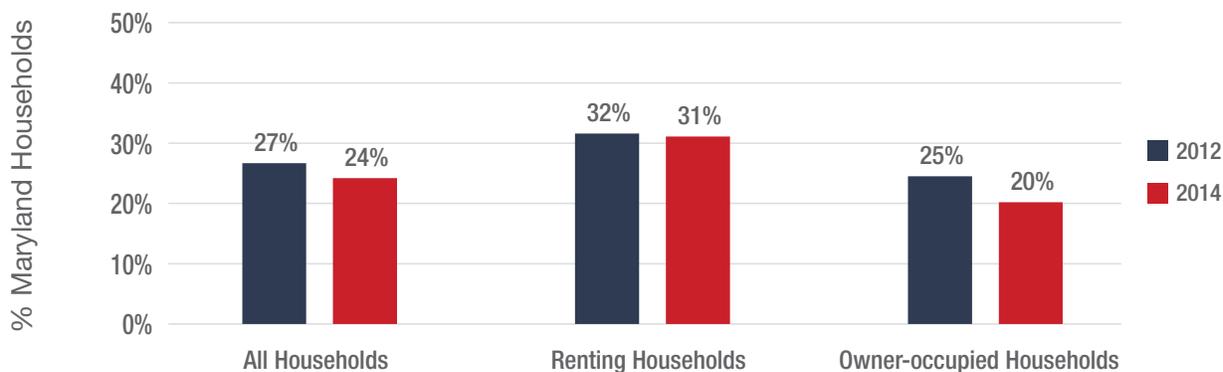
Underage Maryland Youth Not Exposed to Secondhand Smoke Indoors

Maryland Public Middle and High School Youth, 2000–2014



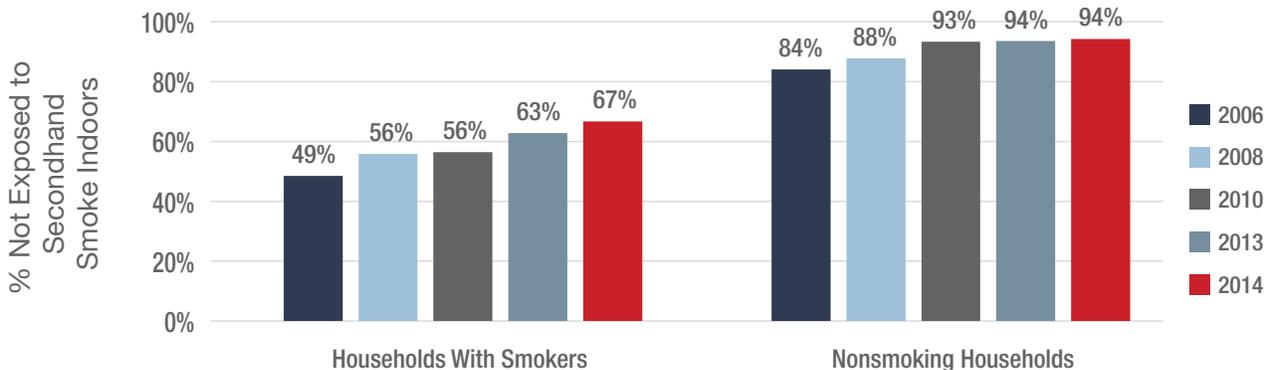
More than three-quarters (76%) of Maryland youth reported not being exposed to secondhand smoke indoors.

Percentage of Maryland Households With Resident Smokers and Children



Youth Reporting Voluntary Smoking Prohibitions Inside Home

Maryland Public Middle and High School Youth, 2006–2014



67% of Maryland youth living with smokers and 94% of youth living with nonsmokers reported adopting voluntary smoke-free rules inside the home.

Attitudes and Beliefs Toward Tobacco Use



Highlights

- Adolescents increasingly see tobacco use as helping youth to “look cool,” and smokers and nonsmokers alike believe that “smokers have more friends than nonsmokers.” Underage youth need to have greater exposure to tobacco control strategies other than school-based curricula.
 - Adult perception of the degree of harm arising from exposure to secondhand smoke is heavily influenced by a person’s smoking status. Never-smokers are much more likely to view exposure to secondhand smoke as “very harmful” (72%) as compared to current cigarette smokers (42%).
 - Overall perception of exposure to secondhand smoke as being either “very harmful” or “somewhat harmful” is extremely high (94%), providing significant evidence of harm perception among the public.
-

Maryland Youth

The Centers for Disease Control and Prevention (CDC) has found that school-based tobacco prevention curricula presented in the school environment is only one element of an effective tobacco prevention strategy.

In Maryland, there has been a reported increase in exposure to school-based prevention curricula. In 2014, 80% of Maryland middle school youth reported that they were taught about the dangers of tobacco use during the preceding school year, a significant improvement from the 67% reported in 2000. In contrast, 62% of high school students reported that they were taught about the dangers of tobacco use during the preceding school year. That percentage increased from 42% in 2000. Youth access enforcement has also increased, while local and statewide prevention has continued at the same level of intensity as in the recent past. Nonetheless, youth attitudes toward smoking are becoming more favorable rather than less favorable. In 2000, 34% of Maryland youth believed that smokers have more friends than nonsmokers. This rate increased to 53% in 2014.

Maryland Adults

Exposure to secondhand smoke presents serious health risks to infants, children, adolescents and adults.¹⁸ Notwithstanding the established science, individual beliefs (often influenced by current smoking status) about the health risks of exposure to secondhand smoke appear to play a significant role in adult attitudes toward protective factors that may reduce the risk of involuntary exposure to secondhand smoke. For example, 72% of adults who never smoked believe that secondhand smoke is very harmful. In contrast, only 42% of current cigarette smokers believe that secondhand smoke is very harmful.



IN 2000, **34%** OF MARYLAND YOUTH BELIEVED THAT SMOKERS HAVE MORE FRIENDS THAN NONSMOKERS. THIS RATE INCREASED TO **53% IN 2014.**

¹⁸ U.S. Department of Health and Human Services. *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. 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; 2006. <http://www.surgeongeneral.gov/library/reports/secondhandsmoke/fullreport.pdf>. Accessed June 3, 2016.

About This Report



This is a summary of the *Monitoring Changing Tobacco Use Behaviors: 2000–2014* report submitted to the Maryland General Assembly. The full report can be accessed online at <http://phpa.dhmh.maryland.gov/ohpetup/Documents/Legislative%20Report%20May%202016-%20Biennial%20Tobacco%20Study.pdf>.

Both youth and adult data in this report come from a variety of survey sources outlined in this section.

Youth Data

The term “adolescents” as used in this report refers only to high school youth less than 18 years of age unless otherwise specifically noted.

Youth Tobacco Survey (YTS), 2000–2010

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 county-level survey that provided comprehensive data on tobacco use behaviors between 2000 and 2010. Thereafter, the YTS was combined with the Youth Risk Behavior Survey (YRBS).¹⁹ The YTS, the YRBS and the

Youth Tobacco and Risk Behavior Survey all employ the same methodology and model for conducting surveys.

Youth Tobacco and Risk Behavior Survey (YTRBS), 2013–2014

The YTRBS is Maryland’s version of the CDC’s YRBS combined with the 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 county-specific estimates for YRBS variables that previously were collected only at the state level, (3) continue to collect data necessary for the support of youth-focused tobacco control efforts and (4) reduce costs associated with youth risk behavior surveillance.

¹⁹The YRBS is a survey sponsored nationally by the CDC. In Maryland, the YRBS has been combined with the CDC’s YTS and is now called the Youth Tobacco and Risk Behavior Survey (YTRBS), sponsored by the Department of Health and Mental Hygiene. The YRBS is the core of the Maryland YTRBS, and the YTRBS is accepted by the CDC as an official YRBS CDC survey.

The youth data, whether from the YTS or the YTRBS, can be compared across all years. The youth data presented in this report, unless specifically noted otherwise, are limited to youth less than 18 years of age. Please note, in contrast, much of the youth data reported on the Maryland Department of Health and Mental Hygiene website and attributed to the YRBS (a subset of the YTRBS) is for middle or high school youth regardless of their age. This dichotomy is because Maryland's statutory tobacco prevention program is required to provide data on underage youth. The CDC and other states use the YRBS reporting standard (all ages) for making national and state-to-state comparisons.

YTRBS Survey Sample and Weighted Demographics

The YTRBS, the YRBS and the YTS each use the same complex two-stage cluster design for the purpose of producing valid weighted estimates of risk behaviors for middle and high school students for each county and Baltimore City. In the first stage, eligible public schools are randomly selected. In the second stage, classrooms within selected schools are randomly selected. The cluster is the selected classroom, wherein all youth who wish to participate and who have parental permission may elect to take the survey.



**THE YOUTH DATA PRESENTED IN THIS REPORT,
UNLESS SPECIFICALLY NOTED OTHERWISE, ARE
LIMITED TO YOUTH LESS THAN 18 YEARS OF AGE.**

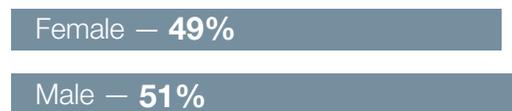
High School

Students voluntarily completed a self-administered, anonymous, 99-question survey. **A total of 56,717 students** in 183 Maryland public, charter and vocational high schools took the survey in 2014. The results are representative of all underage students in grades 9–12.

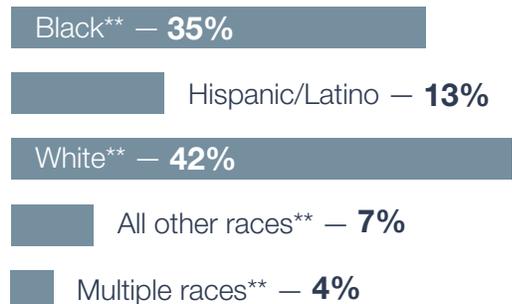
The weighted demographics of the **high school** sample are as follows:



Gender



Race/Ethnicity*



Grade Level*



*Percentages may sum to more than 100 due to rounding
**Non-Hispanic

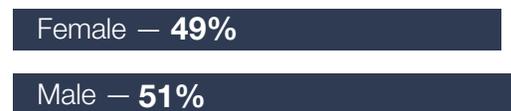
Middle School

Students voluntarily completed a self-administered, anonymous, 83-question survey. **A total of 27,104 students** in 175 Maryland public, charter and vocational middle schools completed the survey in 2014. The results are representative of all underage students in grades 6–8.

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



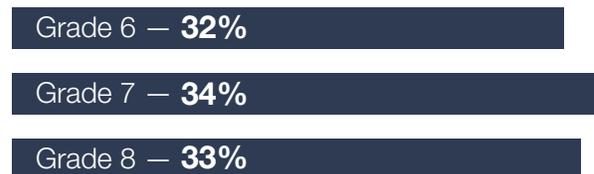
Gender



Race/Ethnicity*



Grade Level*



*Percentages may sum to more than 100 due to rounding
**Non-Hispanic

Adult Data

The term “adult” as used in this report refers to persons 18 years of age or older.

Behavioral Risk Factor Surveillance System (BRFSS), 2000–2014

The Maryland BRFSS is a CDC-sponsored annual random-digit-dial telephone survey conducted by the Maryland Department of Health and Mental Hygiene. The BRFSS focuses primarily on adult risk behaviors, including the use of tobacco products. In 2014, there were over 12,500 completed BRFSS telephone interviews.

Data from the BRFSS collected in 2010 or earlier cannot be directly compared to BRFSS data collected in 2011 or thereafter. The CDC made significant changes to BRFSS methodology in 2011, which resulted in the CDC determining that the data before and after were not comparable.



Maryland Healthier Communities Survey (MHCS), 2014

The MHCS is an expanded version of the CDC-sponsored Adult Tobacco Survey and is sponsored in Maryland by the Department of Health and Mental Hygiene. The MHCS also focuses on tobacco-use behaviors but is also supplemented by a number of other behaviors not typically addressed by the Maryland BRFSS. The MHCS is designed to produce single-year

county-specific estimates of these behaviors by using separate sample frames for each of Maryland’s 23 counties and Baltimore City. In 2014, more than 19,000 adult Maryland residents were surveyed as part of this project.



IN 2014, MORE THAN
31,500 ADULTS
 AND
83,000 YOUTH
 WERE SURVEYED ON
TOBACCO
 AND OTHER
RISK BEHAVIORS.

