HHS ITEM 1 November 25, 2019 Worksession

MEMORANDUM

November 20, 2019

TO:	Health and Human Services Committee
FROM:	Amanda Mihill, Legislative Attorney
SUBJECT:	Bill 29-19, Health and Sanitation – Electronic Cigarettes – Distribution Resolution to adopt Bill 29-19 as a Board of Health Regulation ¹
PURPOSE:	Worksession - Committee to make recommendations on Bill and Resolution

Bill 29-19, Health and Sanitation – Electronic Cigarettes - Distribution and a Resolution to adopt Bill 29-19 as a Board of Health regulation, Lead Sponsors Councilmembers Albornoz and Rice and Co-Sponsors Councilmember Jawando, Council President Navarro, Councilmembers Hucker, Riemer and Friedson, Council Vice President Katz, and Councilmember Glass, was introduced on September 17. A public hearing was held on November 5 on Bill 29-19, ZTA 19-06, Vape Shops along with related Bills 31-19 and 32-19 and their companion resolutions adopting each Bill as a Board of Health regulation.

Bill 29-19 would prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within 0.5 miles of middle and high schools in the County. The Resolution would adopt the bill as a Board of Health regulation.

Use among youth Attached on @6-57 are background materials related to e-cigarette use among teens. The Surgeon General's Advisory on E-cigarette Use Among Youth on @28-31 notes that e-cigarette use among U.S. middle and high school students increased 900% during 2011-2015, before declining during 2015-2017. The Advisory also notes that e-cigarette use among high schoolers increased from 11.7% in 2017 to 20.8% in 2018. In 2018, 1 in 5 high school students and 1 in 20 middle school students use e-cigarettes. E-cigarettes are now the most commonly used tobacco product among youth, surpassing conventional cigarettes in 2014 (@26).

Health concerns E-cigarettes often contain nicotine and exposure to nicotine during adolescence can impact learning, memory, and attention, and can increase the risk for future addition to other drugs. In addition to concerns regarding nicotine, e-cigarettes can expose the user and bystanders

#VapeFreeMontgomery

Key words: vape, vaping, e-cigarette, electronic cigarette, vape shops, schools, zoning, Board of Health

to other harmful substances, including heavy metals, volatile organic compounds, and ultrafine particles that can be inhaled deeply into the lungs (@28). The Centers for Disease Control is currently investigating an outbreak of lung illness associated with e-cigarette use (@44-46).

Public Hearing

The Council held a public hearing on November 5 on Bill 29-19 and its companion regulation as well as related Bills 31-19 and 32-19 and ZTA 19-06. It was a joint hearing and most written testimony submitted on these bills is attached to this staff report. If testimony/correspondence was submitted specifically referencing Bills 31-19 or 32-19, that testimony/correspondence is in the staff report for those bills. Similarly, to the extent that testimony/correspondence was submitted on the ZTA, that testimony will be attached to the staff report for the ZTA when it is taken up by the Council's Planning, Housing, and Economic Development Committee.

Testimony and correspondence generally supportive of the bills and ZTA is attached on ©64-65; testimony and correspondence generally opposed to the bills and ZTA is attached on ©66-103. Testimony and correspondence specific to Bill 29-19 is attached on ©104-115. Specific to Bill 29-19, the Maryland Association of Convenience Stores and Energy Distributors opposed Bill 29-19, but recommended legislation that includes penalties for use and possession of vape products by individuals under 21 (©115).

Issues for Committee Discussion

Should Bill 29-19 be expanded to include all tobacco products? As noted above, Bill 29-19 would prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within 0.5 miles of middle and high schools in the County. The American Cancer Society Cancer Action Network, American Heart Association, and American Lung Association submitted a joint letter to the Council urging an amendment to expand this to all tobacco products ((0106-108)).

Council staff comments: Bill 29-19 is legislation that is in response to authority given to local governments under Section 16.7-204(a)(3) of the Business Regulation Article of the Maryland Code. Council staff recommends against broadening the legislation to encompass all tobacco products.

Overlap with Bill 32-19. As introduced, Bill 29-19 would prohibit a manufacturer from distributing *electronic cigarettes* to retail stores within 0.5 miles of *middle and high schools* in the County. As introduced, Bill 32-19 would prohibit a manufacturer from distributing *flavored electronic cigarettes* to retail stores within 1.0 miles of *elementary, middle, or high school, library, park, playground, or recreational facility* in the County.

Council staff comments: Bill 29-19 covers a broader array of products (i.e., any electronic cigarette product, including flavored electronic cigarettes) while Bill 32-19 covers a broader area of the County. **Council staff supports both bills and recommends enactment of these**

measures; Committee members may want to discuss whether these bills could be consolidated into 1 bill or whether the Committee prefers a different approach that separates flavored electronic cigarettes from other electronic cigarette products. If the Committee prefers to consolidate the bills, Bill 29-19 and/or 32-19 could be amended to combine the substantive provisions of each bill.

Definition of "electronic cigarette". Section 24-9 defines an "electronic cigarette" as "any product containing or delivering nicotine or any other substance intended for human consumption that can be used by a person to simulate smoking through inhalation of vapor or aerosol from the product. The term includes any such device, whether manufactured, distributed, marketed, or sold as an e-cigarette, e-cigar, e-pipe, e-hookah, or vape pen, or under any other product name or descriptor."

Council staff recommends adding the following to the definition of "electronic cigarette":

Electronic cigarette includes any component, part, or accessory of an electronic cigarette, whether or not sold separately, that is used during the operation of the electronic cigarette, but does not include any battery or battery charger that is sold separately.

This packet contains:	Circle #
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Bill No	29	<u>-19</u>		
Concerning: _	lealth	and	Sanitation	<u>ו</u> –
<u>Electronic</u>	Cigare	ttes - [Distribution	
Revised: 9/4	/2019		Draft No.	1
Introduced:	Septe	mber	<u>17,</u> 2019 ⁻	
Expires:	March	17, 2	019	
Enacted:	_			
Executive:				
Effective:				
Sunset Date:	None			
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COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

Lead Sponsor: Councilmembers Albornoz and Rice Co-Sponsors: Councilmember Jawando, Council President Navarro, Councilmembers Hucker, Riemer, and Friedson, Council Vice President Katz, and Councilmember Glass

AN ACT to:

- (1) prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within a certain distance of certain schools; and
- (2) generally amend County law regarding smoking, electronic cigarettes, and health and sanitation.

By amending

Montgomery County Code Chapter 24, Health and Sanitation Section 24-15

Boldface <u>Underlining</u> [Single boldface brackets] <u>Double underlining</u> [[Double boldface brackets]]

The County Council for Montgomery County, Maryland approves the following Act:

1	Sec. 1. Section 24-15 is amended as follows:			
2	[24-15] <u>24</u>	<u>16</u> — 24-21. Reserved.		
3	<u>24-15.</u> Dis	tribution of electronic cigarettes near certain schools.		
4	<u>(a)</u>	Definition. In this Section, the following words have the meaning		
5		indicated:		
6		Distribute means to:		
7		(1) give away, sell, deliver, dispense, or issue;		
8		(2) offer to give away, sell, deliver, dispense, or issue; or		
9		(3) cause or hire any person to give away, sell, deliver, dispense, or		
10		issue or offer to give away, sell, deliver, dispense, or issue.		
11		Manufacturer means an electronic smoking devices manufacturer as		
12		defined in Section 16.7-101 of the Business Regulations Article of the		
13		Maryland Code.		
14	<u>(b)</u>	Unlawful distribution. A manufacturer must not distribute any electronic		
15		cigarette to any retail store within 0.5 miles of any middle school or high		
16		school in the County.		
17	Approved:			
18				
19		o, President, County Council Date		
19	Approved:			
20				
	Marc Elrich, C	Dunty Executive Date		
21	This is a corre	t copy of Council action.		
22				
	Mary Anne Pa	adise, Acting Clerk of the Council Date		

2.

Resolution No.:	
Introduced:	
Adopted:	

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND SITTING AS THE MONTGOMERY COUNTY BOARD OF HEALTH

Lead Sponsor: Councilmembers Albornoz and Rice Co-Sponsors: Councilmember Jawando, Council President Navarro, Councilmembers Hucker, Riemer, and Friedson, Council Vice President Katz, and Councilmember Glass

SUBJECT: Resolution to adopt Bill 29-19, Health and Sanitation – Electronic Cigarettes – Distribution as a Board of Health Regulation.

Background

- 1. County Code §2-65, as amended, provides that the County Council is, and may act as, the County Board of Health, and in that capacity may adopt any regulation which a local Board of Health is authorized to adopt under state law.
- 2. Maryland Code Health-General Article §3-202 authorizes the County Board of Health to adopt rules and regulations regarding any nuisance or cause of disease in the County.
- 3. On {DATE}, the Council held a public hearing on this regulation. As required by law, each municipality in the County and the public were properly notified of this hearing.
- 4. On {DATE}, the County Council enacted Bill 29-19, Health and Sanitation Electronic Cigarettes Distribution. Bill 29-19 prohibited the distribution of electronic cigarettes to retail stores under certain circumstances.
- 5. The County Council, sitting as the Board of Health, finds after reviewing the evidence in the record that prohibiting the distribution of electronic cigarettes to retail stores as required by this Regulation is necessary to protect the health of County residents.

<u>Action</u>

The County Council for Montgomery County, Maryland, sitting as the County Board of Health, approves the following resolution:

- 1. The provisions of Section 24-15 of the Montgomery County Code, entitled "Distribution of electronic cigarettes near certain schools.", as added by Bill 29-19, Health and Sanitation Electronic Cigarettes Distribution, are adopted as a Board of Health regulation. A copy of Bill 29-19 is attached to this resolution.
- 2. This resolution takes effect 90 days after adoption.

This is a correct copy of Council action.

Mary Anne Paradise, Acting Clerk of the Council

LEGISLATIVE REQUEST REPORT

Bill 29-19

Health and Sanitation – Electronic Cigarettes – Distribution

- **DESCRIPTION:** Bill 29-19 would prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within a certain distance of certain schools.
- **PROBLEM:** There is a rapid rise in e-cigarette use among youth and the associated health concerns.

GOALS AND To reduce access to e-cigarette products for County youth. **OBJECTIVES:**

COORDINATION: Health and Human Services

FISCAL IMPACT: To be requested

ECONOMIC IMPACT: To be requested

EVALUATION: To be done

EXPERIENCE To be researched **ELSEWHERE:**

SOURCE OF Amanda Mihill, Legislative Attorney **INFORMATION:**

APPLICATION WITHIN MUNICIPALITIES: To be researched

PENALTIES: The underlying penalties of Section 24-9 apply

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E-Cigarette Use Among Youth and Young Adults

A Report of the Surgeon General

Executive Summary



U.S. Department of Health and Human Services

E-Cigarette Use Among Youth and Young Adults

A Report of the Surgeon General

Executive Summary

2016

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service Office of the Surgeon General Rockville, MD





Suggested Citation

U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary.* Atlanta, GA: U.S. 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, 2016.

For more information

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For more information about the Surgeon General's report, visit www.surgeongeneral.gov. To download copies of this document, go to www.cdc.gov/tobacco.

To order copies of this document, go to www.cdc.gov/tobacco and click on Publications Catalog or call 1-800-CDC-INFO (1-800-232-4636); TTY: 1-888-232-6348.

Use of trade names is for identification only and does not constitute endorsement by the Department of Health and Human Services. Any recommendations expressed by nongovernmental individuals or organizations do not necessarily represent the views or opinions of the U.S. Department of Health and Human Services.

Message from Sylvia Burwell Secretary, U.S. Department of Health and Human Services

The mission of the Department of Health and Human Services is to enhance and protect the health and well-being of all Americans. This report confirms that the use of electronic cigarettes (or e-cigarettes) is growing rapidly among American youth and young adults. While these products are novel, we know they contain harmful ingredients that are dangerous to youth. Important strides have been made over the past several decades in reducing conventional cigarette smoking among youth and young adults. We must make sure this progress is not compromised by the initiation and use of new tobacco products, such as e-cigarettes. That work is already underway.

To protect young people from initiating or continuing the use of e-cigarettes, actions must be taken at the federal, state, and local levels. At the federal level, the U.S. Food and Drug Administration (FDA)—under authority granted to it by Congress under the *Family Smoking Prevention and Tobacco Control Act of 2009*—took a historic step to protect America's youth from the harmful effects of using e-cigarettes by extending its regulatory authority over the manufacturing, distribution, and marketing of e-cigarettes. Through such action, FDA now requires minimum age restrictions to prevent sales to minors and prohibits sales through vending machines (in any facility that admits youth), and will require products to carry a nicotine warning.

We have more to do to help protect Americans from the dangers of tobacco and nicotine, especially our youth. As cigarette smoking among those under 18 has fallen, the use of other nicotine products, including e-cigarettes, has taken a drastic leap. All of this is creating a new generation of Americans who are at risk of nicotine addiction.

The findings from this report reinforce the need to support evidence-based programs to prevent youth and young adults from using tobacco in any form, including e-cigarettes. The health and wellbeing of our nation's young people depend on it.

Foreword

Tobacco use among youth and young adults in any form, including e-cigarettes, is not safe. In recent years, e-cigarette use by youth and young adults has increased at an alarming rate. E-cigarettes are now the most commonly used tobacco product among youth in the United States. This timely report highlights the rapidly changing patterns of e-cigarette use among youth and young adults, assesses what we know about the health effects of using these products, and describes strategies that tobacco companies use to recruit our nation's youth and young adults to try and continue using e-cigarettes. The report also outlines interventions that can be adopted to minimize the harm these products cause to our nation's youth.

E-cigarettes are tobacco products that deliver nicotine. Nicotine is a highly addictive substance, and many of today's youth who are using e-cigarettes could become tomorrow's cigarette smokers. Nicotine exposure can also harm brain development in ways that may affect the health and mental health of our kids.

E-cigarette use among youth and young adults is associated with the use of other tobacco products, including conventional cigarettes. Because most tobacco use is established during adolescence, actions to prevent our nation's young people from the potential of a lifetime of nicotine addiction are critical.

E-cigarette companies appear to be using many of the advertising tactics the tobacco industry used to persuade a new generation of young people to use their products. Companies are promoting their products through television and radio advertisements that use celebrities, sexual content, and claims of independence to glamorize these addictive products and make them appealing to young people.

Comprehensive tobacco control and prevention strategies for youth and young adults should address all tobacco products, including e-cigarettes. Further reductions in tobacco use and initiation among youth and young adults are achievable by regulating the manufacturing, distribution, marketing, and sales of all tobacco products—including e-cigarettes, and particularly to children—and combining those approaches with other proven strategies. These strategies include funding tobacco control programs at levels recommended by the Centers for Disease Control and Prevention (CDC); increasing prices of tobacco products; implementing and enforcing comprehensive smokefree laws; and sustaining hard-hitting media campaigns, such as CDC's *Tips from Former Smokers* that encourages smokers to quit for good, and FDA's *Real Cost* that is aimed at preventing youth from trying tobacco and reducing the number of youth who move from experimenting to regular use. We can implement these cost-effective, evidence-based, life-saving strategies now. Together with additional effort and support, we can protect the health of our nation's young people.

> Thomas R. Frieden, M.D., M.P.H. Director Centers for Disease Control and Prevention

Preface from the Surgeon General

E-cigarette use among U.S. youth and young adults is now a major public health concern. E-cigarette use has increased considerably in recent years, growing an astounding 900% among high school students from 2011 to 2015. These products are now the most commonly used form of tobacco among youth in the United States, surpassing conventional tobacco products, including cigarettes, cigars, chewing tobacco, and hookahs. Most e-cigarettes contain nicotine, which can cause addiction and can harm the developing adolescent brain.

Compared with older adults, the brain of youth and young adults is more vulnerable to the negative consequences of nicotine exposure. The effects include addiction, priming for use of other addictive substances, reduced impulse control, deficits in attention and cognition, and mood disorders. Furthermore, fetal exposure to nicotine during pregnancy can result in multiple adverse consequences, including sudden infant death syndrome, altered corpus callosum, auditory processing deficits, effects on behaviors and obesity, and deficits in attention and cognition. Ingestion of e-cigarette liquids containing nicotine can also cause acute toxicity and possibly death if the contents of refill cartridges or bottles containing nicotine are consumed.

This report highlights what we know and do not know about e-cigarettes. Gaps in scientific evidence do exist, and this report is being issued while these products and their patterns of use continue to change quickly. For example, the health effects and potentially harmful doses of heated and aerosolized constituents of e-cigarette liquids—including solvents, flavorants, and toxicants—are not completely understood. However, although e-cigarettes generally emit fewer toxicants than combustible tobacco products, we know that aerosol from e-cigarettes is not harmless.

Although we continue to learn more about e-cigarettes with each passing day, we currently know enough to take action to protect our nation's young people from being harmed by these products. Previous reports of the Surgeon General have established that nearly all habitual tobacco use begins during youth and young adulthood. To prevent and reduce the use of e-cigarettes by youth and young adults, we must work together as a society. We must implement proven prevention and education strategies. Health care providers, parents, teachers, and other caregivers should advise youth about the dangers of nicotine and discourage tobacco use in any form, including e-cigarettes. They can set a positive example by being tobacco-free and encouraging those who already use these products to quit. Free help is available at 1-800-QUIT-NOW or http://www.smokefree.gov. Preventing tobacco use in any form among youth and young adults is critical to ending the tobacco epidemic in the United States.

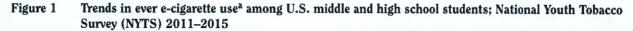
> Vivek H. Murthy, M.D., M.B.A. U.S. Surgeon General

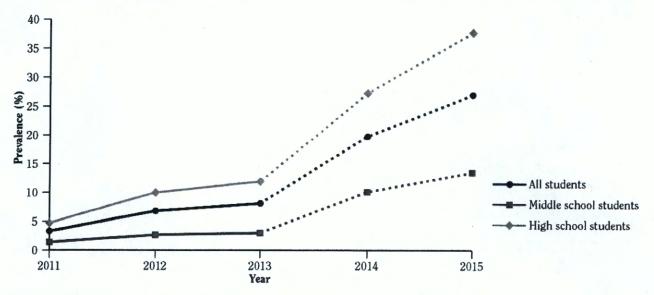
Overview

Although conventional cigarette smoking has declined markedly over the past several decades among youth and young adults in the United States (U.S. Department of Health and Human Services [USDHHS] 2012), there have been substantial increases in the use of emerging tobacco products among these populations in recent years (Centers for Disease Control and Prevention [CDC] 2015, 2016). Among these increases there has been a dramatic rise in electronic cigarette (e-cigarette) use among youth and young adults (Figures 1, 2, and 3). It is crucial that the progress made in reducing conventional cigarette smoking among youth and young adults not be compromised by the initiation and use of e-cigarettes. This Surgeon General's report focuses on the history, epidemiology, and health effects of e-cigarette use among youth and young adults; the companies involved with marketing and promoting these products; and existing and proposed public health policies regarding the use of these products by youth and young adults.

E-cigarettes include a diverse group of devices that allow users to inhale an aerosol, which typically contains nicotine, flavorings, and other additives. E-cigarettes are tobacco products and are regulated as such under the Federal Food, Drug, and Cosmetic Act, as amended by the Family Smoking Prevention and Tobacco Control Act of 2009. E-cigarettes vary widely in design and appearance, but generally operate in a similar manner and are composed of similar components (Figure 4). A key challenge for surveillance of the products and understanding their patterns of use is the diverse and nonstandard nomenclature for the devices (Alexander et al. 2016). These devices are referred to, by the companies themselves, and by consumers, as "e-cigarettes," "e-cigs," "cigalikes," "e-hookahs," "mods," "vape pens," "vapes," and "tank systems." This report employs the term "e-cigarette" to represent all of the diverse products in this rapidly diversifying product category.

This report focuses on research conducted among youth and young adults because of the implications of e-cigarette use in these populations, particularly the potential for future public health problems. Understanding e-cigarette use among young people is critical because previous research suggests that about 9 in 10 adult smokers first try conventional cigarettes during adolescence (USDHHS 2012). Similarly, youth e-cigarette experimentation and use could also extend into adulthood; ongoing





Source: Centers for Disease Control and Prevention 2013, 2014; unpublished data (data: NYTS 2015). Note: In 2014, modifications were made to the e-cigarette measure to enhance its accuracy, which may limit the comparability of this estimate to those collected in previous years. The dotted lines from 2013 to 2015 represent these differences. ^aIncludes those who responded "yes" to the following question: "Have you ever used an electronic cigarette or e-cigarette, even once or twice?"

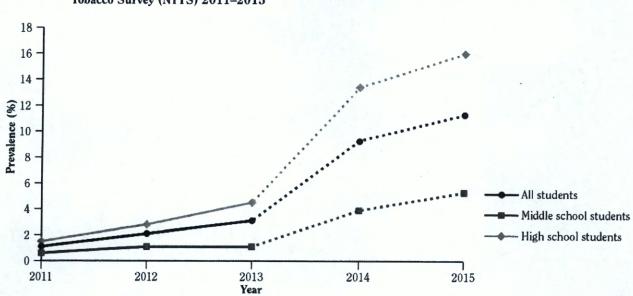
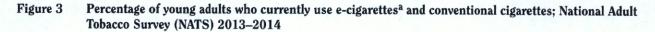
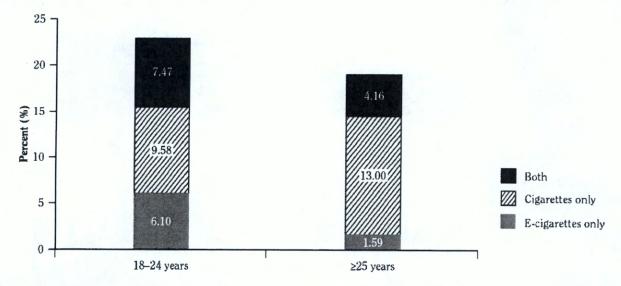


Figure 2 Trends in past-30-day e-cigarette use^a among U.S. middle and high school students; National Youth Tobacco Survey (NYTS) 2011–2015

Source: Centers for Disease Control and Prevention 2013, 2014; unpublished data (data: NYTS 2015). Note: In 2014, modifications were made to the e-cigarette measure to enhance its accuracy, which may limit the comparability of this estimate to those collected in previous years. The dotted lines from 2013 to 2015 represent these differences. ^aIncludes those who selected "1 or more" for the following question: "During the last 30 days, on how many days did you use electronic cigarettes or e-cigarettes?"





Source: Centers for Disease Control and Prevention, unpublished data (data: NATS 2013–2014). ^aCurrent e-cigarette use was defined as those who reported they had heard of e-cigarettes and had tried e-cigarettes, and reported using e-cigarettes every day, some days, or rarely at the time of the interview.

Figure 4 Diversity of e-cigarette products



Source: Photo by Mandie Mills, CDC.

research should examine the long-term trajectories of e-cigarette use that begins in youth. The first Surgeon General's report on the health consequences of smoking was published in 1964; of the subsequent reports, those published in 1994 and 2012 focused solely on youth and young adults (USDHHS 1994, 2012). Most recently, the 2012 report documented the evidence regarding tobacco use among youth and young adults, concluding that declines in conventional cigarette smoking had slowed and that decreases in the use of smokeless tobacco had stalled. That report also found that the tobacco industry's advertising and promotional activities are causal to the onset of smoking in youth and young adults and the continuation of such use as adults (USDHHS 2012). However, that report was prepared before e-cigarettes were as widely promoted and used in the United States as they are now. Therefore, this 2016 report documents the scientific literature on these new products within the context of youth

and young adults. This report also looks to the future by examining the potential impact of e-cigarette use among youth and young adults, while also summarizing the research on current use, health consequences, and marketing as it applies to youth and young adults.

Evidence for this report was gathered from scientific research that included one or more of three age groups. These age groups included young adolescents (11–13 years of age), adolescents (14–17 years of age), and young adults (18–24 years of age). Some studies refer to the younger groups more generally as *youth*. Despite important issues related to e-cigarette use in the general adult populations, clinical and otherwise (e.g., their potential for use in quitting conventional smoking), that literature is generally not included in this report unless it also discusses youth and young adults (Farsalinos and Polosa 2014; Franck et al. 2014; Grana et al. 2014a).

Organization of the Report

Chapter 1 ("Introduction, Conclusions, and Historical Background Relative to E-Cigarettes") presents a brief introduction to the report and includes its major conclusions, followed by the conclusions of each chapter, the historical background of e-cigarettes, descriptions of the products, a review of the marketing and promotional activities of e-cigarette companies, and the current status of regulations from the U.S. Food and Drug Administration (FDA). Chapter 2 ("Patterns of E-Cigarette Use Among U.S. Youth and Young Adults") describes the epidemiology of e-cigarette use, including current (i.e., past 30 day) use; ever use; co-occurrence of using e-cigarettes with other tobacco products, like cigarettes; and psychosocial factors associated with using e-cigarettes. This chapter relies on data from the most recent nationally representative studies available at the time this report was prepared. Chapter 3 ("Health Effects of E-Cigarette Use Among U.S. Youth and Young Adults") documents potential adverse health effects caused by direct exposure to aerosolized nicotine, flavorants, chemicals, and other particulates of e-cigarettes, secondhand environmental exposure to e-cigarette aerosol, and exposure to the surface-deposited aerosol contaminants. Literature regarding harmful consequences of close contact with malfunctioning e-cigarette devices and ingestion of the nicotine-containing liquids are also explored. Chapter 4 ("Activities of the E-Cigarette

Companies") describes e-cigarette companies' influences on e-cigarette use and considers manufacturing and price; the impact of price on sales and use; the rapid changes in the industry, particularly the e-cigarette companies; and the marketing and promotion of e-cigarettes. Chapter 5 ("E-Cigarette Policy and Practice Implications") discusses the implications for policy and practice at the national, state, and local levels. The report ends with a Call to Action to stakeholders—including policymakers, public health practitioners and clinicians, researchers, and the public to work to prevent harms from e-cigarette use and secondhand aerosol exposure among youth and young adults.

Because of the recency of research related to e-cigarettes (particularly in contrast with decades of research on conventional cigarette smoking) and since this report focuses on a vulnerable population for tobacco use (youth and young adults), the "precautionary principle" is employed to guide actions to address e-cigarette use among youth and young adults. This principle supports intervention to avoid possible health risks when the potential risks remain uncertain and have been, as yet, partially undefined (Bialous and Sarma 2014; Saitta et al. 2014; Hagopian et al. 2015).

The following is a brief summary of the report's Major Conclusions, each chapter, and their subsequent chapter conclusions.

Major Conclusions

- E-cigarettes are a rapidly emerging and diversified product class. These devices typically deliver nicotine, flavorings, and other additives to users via an inhaled aerosol. These devices are referred to by a variety of names, including "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," and "tank systems."
- 2. E-cigarette use among youth and young adults has become a public health concern. In 2014, current use of e-cigarettes by young adults 18-24 years of age surpassed that of adults 25 years of age and older.
- 3. E-cigarettes are now the most commonly used tobacco product among youth, surpassing conventional cigarettes in 2014. E-cigarette use is strongly associated with the use of other tobacco products among youth and young adults, including combustible tobacco products.

- 4. The use of products containing nicotine poses dangers to youth, pregnant women, and fetuses. The use of products containing nicotine in any form among youth, including in e-cigarettes, is unsafe.
- 5. E-cigarette aerosol is not harmless. It can contain harmful and potentially harmful constituents, including nicotine. Nicotine exposure during adolescence can cause addiction and can harm the developing adolescent brain.
- 6. E-cigarettes are marketed by promoting flavors and using a wide variety of media channels and approaches that have been used in the past for marketing conventional tobacco products to youth and young adults.

 Action can be taken at the national, state, local, tribal, and territorial levels to address e-cigarette use among youth and young adults. Actions could include incorporating e-cigarettes into smokefree policies,

preventing access to e-cigarettes by youth, price and tax policies, retail licensure, regulation of e-cigarette marketing likely to attract youth, and educational initiatives targeting youth and young adults.

Chapter 1. Introduction, Conclusions, and Historical Background Relative to E-Cigarettes

Chapter 1 presents the major conclusions of this Surgeon General's report and the conclusions of each chapter. E-cigarettes are presented within their historical context, with an overview of the components of these devices and the types of products. In May 2016, FDA published its final rule deeming e-cigarettes, among other products, to be subject to regulation under the *Federal Food, Drug, and Cosmetic Act*, as amended by the *Family Smoking Prevention and Tobacco Control Act (Federal Register* 2016). Chapter 1 outlines the current status of federal regulation of e-cigarettes, particularly as they relate to youth and young adults. The need to protect this population from initiating or continuing the use of tobacco products forms a strong basis for the need to regulate e-cigarettes at the local, state, and national levels, both now and in the future.

Conclusions

- E-cigarettes are devices that typically deliver nicotine, flavorings, and other additives to users via an inhaled aerosol. These devices are referred to by a variety of names, including "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," and "tank systems."
- 2. E-cigarettes represent an evolution in a long history of tobacco products in the United States, including conventional cigarettes.
- 3. In May 2016, the Food and Drug Administration issued the deeming rule, exercising its regulatory authority over e-cigarettes as a tobacco product.

Chapter 2. Patterns of E-Cigarette Use Among U.S. Youth and Young Adults

Among youth and young adults, rates of ever and past-30-day use of e-cigarettes have increased since the earliest e-cigarette surveillance efforts in 2011. According to the National Youth Tobacco Survey (NYTS), both ever use and past-30-day use of e-cigarettes have increased greatly among youth from 2011 to 2015 (Figures 1 and 2) (CDC 2013; Ambrose et al. 2014; Lippert 2015). Among young adults (18-24 years of age), the prevalence of ever use more than doubled from 2013 to 2014 (Figure 3; National Adult Tobacco Survey [NATS], 2013-2014, unpublished data). Figures 5 and 6 compare the prevalence of ever and current e-cigarette use among middle school students, high school students, young adults (18-24 years of age), and adults (≥25 years of age). Data for 2015 were not available for young adults and adults at the time this report was prepared; however, these trends are alarming and warrant continued surveillance.

Among youth, e-cigarette use increases with age and is highest among Hispanics and Whites (Tables 2.1a, 2.1b).¹ Among young adults, e-cigarette use is higher among males than females and lowest among Blacks and those with a college education (Table 2.4a). Continued research is necessary to monitor patterns of e-cigarette use across population groups by gender, age, race/ethnicity, and education, as well as sociodemographic characteristics for which disparities in tobacco use have previously been noted, including geography (e.g., subnational data at the state or local levels), sexual orientation and gender identity (e.g., lesbian, gay, bisexual, and transgender), disability/limitation, and socioeconomic status (e.g., household income, poverty status) (CDC 2014; Johnson et al. 2016).

According to data from the Monitoring the Future (MTF) study, in 2015, among youth, past-30-day exclusive use of e-cigarettes (6.7%, 10.4%, and 10.4% in 8th, 10th, and 12th grades, respectively) is more common than exclusive use of conventional cigarettes (1.4%, 2.2%, and 5.3% in those grades) or dual use of e-cigarettes and

¹All tables that are cross-referenced in this Executive Summary can be found in the full report

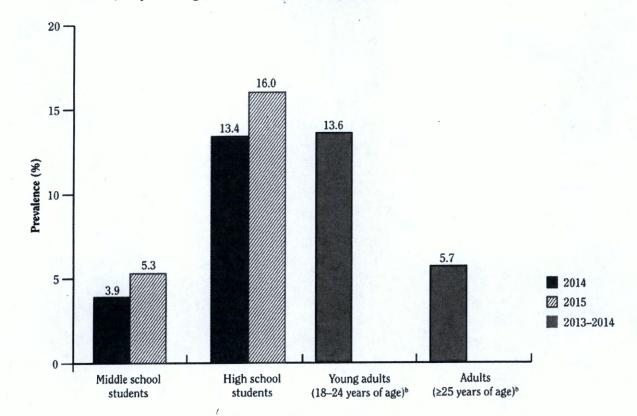


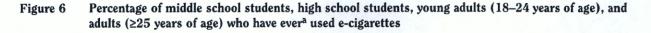
Figure 5 Percentage of middle school students, high school students, young adults (18–24 years of age), and adults (≥25 years of age) who currently^a use e-cigarettes

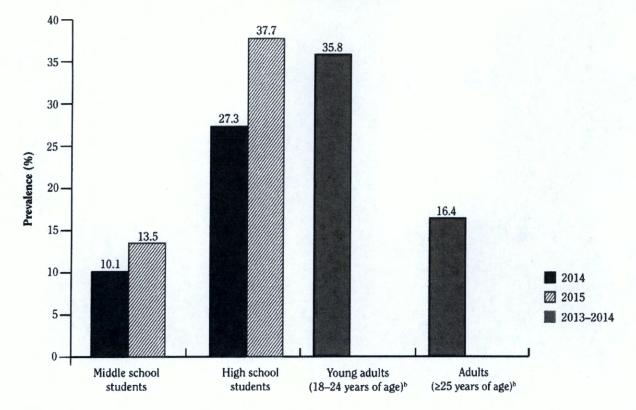
Source: Centers for Disease Control and Prevention, unpublished data (NYTS 2014, 2015; data: NATS 2013–2014). ^aFor middle school and high school students (NYTS 2014, 2015), current use included those who reported using e-cigarettes on 1 or more days in the past 30 days. For young adults and adults (NATS 2013–2014), current use included those who reported they had heard of, tried, and used e-cigarettes every day, some days, or rarely at the time of the interview. ^b2013–2014 NATS data for young adults and adults were the latest data available when this Surgeon General's report was prepared.

conventional cigarettes (2.4%, 3.5%, and 5.8%) (Figure 7). However, among young adults 18–24 years of age, exclusive use of conventional cigarettes surpasses exclusive use of e-cigarettes and dual use of both products, according to data from the NATS (Figure 3; Table 2.8b). In 2013–2014, 9.6% of young adults were exclusive past-30-day conventional cigarette smokers, compared to 6.1% who were exclusive past-30-day e-cigarette users, and 7.5% who were past-30-day dual users.

Five longitudinal studies to date (Leventhal et al. 2015; Primack et al. 2015; Wills et al. 2016; Barrington-Trimis et al. 2016; Unger et al. 2016) suggest that e-cigarette use is related to the onset of other tobacco product use among youth and young adults, including cigarette smoking and other combustible tobacco product use (e.g., cigar and hookah use). However, these studies are limited in their ability to distinguish experimental conventional cigarette smokers from regular conventional cigarette smokers at follow-up. Therefore, more studies are needed to elucidate the nature of any true causal relationship between e-cigarette and combustible tobacco product use. Additionally, investigation of whether e-cigarette use is related to other types of substance use (e.g., marijuana, alcohol) might help distinguish the extent to which e-cigarette use may precede or follow other forms of substance use in the context of the common liability/vulnerability model (Vanyukov et al. 2012).

The most commonly cited reasons that youth and young adults report using e-cigarettes include curiosity (Schmidt et al. 2014; Biener and Hargraves 2015; Biener et al. 2015; Kong et al. 2015; McDonald and Ling 2015; Suris et al. 2015; Sutfin et al. 2015), flavorings/taste (Ambrose et al. 2015; University of Michigan 2015), use as a less harmful/less toxic alternative to conventional cigarettes





Source: Centers for Disease Control and Prevention, unpublished data (NYTS 2014, 2015; data: NATS 2013–2014). ^aFor middle school and high school students (NYTS 2014, 2015), ever use included those who reported using an e-cigarette, even once or twice. For young adults and adults (NATS 2013–2014), ever use included those who reported they had heard of and tried e-cigarettes.

^b2013–2014 NATS data for young adults and adults were the latest data available when this Surgeon General's report was prepared.

(Peters et al. 2013; Tucker et al. 2014; Ambrose et al. 2015; Kong et al. 2015; McDonald and Ling 2015; Sutfin et al. 2015), and avoidance of indoor smoking restrictions or disturbing people with secondhand smoke from conventional cigarettes (Tucker et al. 2014; Ambrose et al. 2015; Kong et al. 2015; McDonald and Ling 2015; Suris et al. 2015; Sutfin et al. 2015). Using e-cigarettes as an aid to conventional cigarette smoking reduction/cessation (Li et al. 2013: Schmidt et al. 2014; Tucker et al. 2014) does not appear to be a primary reason for use among youth and young adults. Youth and young adult smokers cite lack of satisfaction (Kong et al. 2015), poor taste (Pepper et al. 2014: Kong et al. 2015), and cost (Pepper et al. 2014; Kong et al. 2015) as reasons for discontinuing e-cigarette use. Additional research is needed to examine how reasons for use, including the appeal of flavored e-cigarettes, are

causally related to the onset and progression of e-cigarette use among youth and young adults.

Conclusions

- Among middle and high school students, both ever and past-30-day e-cigarette use have more than tripled since 2011. Among young adults 18-24 years of age, ever e-cigarette use more than doubled from 2013 to 2014 following a period of relative stability from 2011 to 2013.
- The most recent data available show that the prevalence of past-30-day use of e-cigarettes was similar among high school students (16% in 2015, 13.4% in 2014) and young adults 18–24 years of age (13.6%

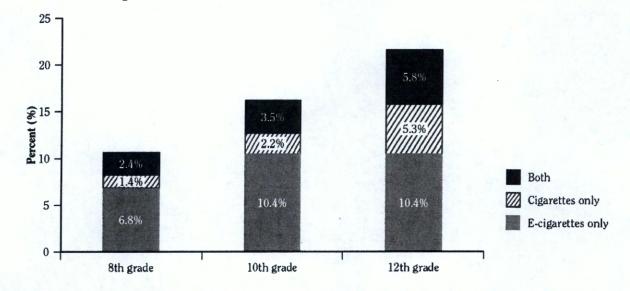


Figure 7 Percentage of students in grades 8, 10, and 12 who used e-cigarettes and cigarettes in the past 30 days; Monitoring the Future (MTF) 2015

Source: University of Michigan, Institute for Social Research, unpublished data (data: MTF 2015). *Note:* Questions on e-cigarette use were asked on four of six questionnaire forms. Data presented here are based on those four forms only.

in 2013–2014) compared to middle school students (5.3% in 2015, 3.9% in 2014) and adults 25 years of age and older (5.7% in 2013–2014).

- 3. Exclusive, past-30-day use of e-cigarettes among 8th-, 10th-, and 12th-grade students (6.8%, 10.4%, and 10.4%, respectively) exceeded exclusive, past-30-day use of conventional cigarettes in 2015 (1.4%, 2.2%, and 5.3%, respectively). In contrast in 2013–2014 among young adults 18–24 years of age—exclusive, past-30-day use of conventional cigarettes (9.6%) exceeded exclusive, past-30-day use of e-cigarettes (6.1%). For both age groups, dual use of these products is common.
- 4. E-cigarette use is strongly associated with the use of other tobacco products among youth and young adults, particularly the use of combustible tobacco products. For example, in 2015, 58.8% of high school students who were current users of combustible tobacco products were also current users of e-cigarettes.
- 5. Among youth—older students, Hispanics, and Whites are more likely to use e-cigarettes than younger students and Blacks. Among young

adults—males, Hispanics, Whites, and those with lower levels of education are more likely to use e-cigarettes than females, Blacks, and those with higher levels of education.

- 6. The most commonly cited reasons for using e-cigarettes among both youth and young adults are curiosity, flavoring/taste, and low perceived harm compared to other tobacco products. The use of e-cigarettes as an aid to quit conventional cigarettes is not reported as a primary reason for use among youth and young adults.
- Flavored e-cigarette use among young adult current users (18–24 years of age) exceeds that of older adult current users (25 years of age and older). Moreover, among youth who have ever tried an e-cigarette, a majority used a flavored product the first time they tried an e-cigarette.
- E-cigarette products can be used as a delivery system for cannabinoids and potentially for other illicit drugs. More specific surveillance measures are needed to assess the use of drugs other than nicotine in e-cigarettes.

Chapter 3. Health Effects of E-Cigarette Use Among U.S. Youth and Young Adults

There is little doubt that the use of e-cigarettes by youth and young adults represents self-administration of the drug nicotine, and this self-administration of nicotine puts youth at risk for addiction and many related harmful consequences. Animal research indicates adolescent brains are particularly sensitive to nicotine's effects, such that subsequent self-administration is more likely, and that same literature indicates that this age group is at risk for a constellation of nicotine-induced neural and behavioral alterations (Table A3.1-4 in Appendix 3.1). Studies of the effects of maternal smoking of conventional cigarettes during pregnancy, coupled with preclinical literature (e.g., animal studies) examining the effects of administration of nicotine during pregnancy, suggest that e-cigarette use by mothers during pregnancy could present a wide variety of risks to fetal, infant, and child brain development.

Users of e-cigarettes risk respiratory exposure to a variety of aerosolized chemicals, including solvents and flavorants added intentionally to e-liquids, adulterants added unintentionally, and other toxicants produced during the heating/aerosolization process (see the section on "Effects of the Inhalation of Aerosol Constituents Other than Nicotine" in Chapter 3). The health impacts of frequent exposure to the toxicants in e-cigarette aerosol are not well understood, though several are known carcinogens. The detection and level of these carcinogens depend on several factors, including the concentration of the e-liquid and the strength of the heating device. Although adults report using e-cigarettes as a cessation device, the evidence supporting the effectiveness of e-cigarettes as an aid for guitting conventional cigarettes remains unproven (Bullen et al. 2013: Caponnetto et al. 2013; Grana et al. 2014b) and nonexistent among youth (Bullen et al. 2013; Caponnetto et al. 2013; Grana et al. 2014b).

Further research is warranted to focus on the characteristics of e-cigarette devices, the constituents of e-liquids, and the user behaviors that can influence the yield of nicotine and other toxicants (Shihadeh and Eissenberg 2015). This close focus includes providing details of devices (e.g., voltage of the power supply, heating element resistance) and components of e-liquids (e.g., propylene glycol, vegetable glycerin, other additives), and measuring user puff topography. Standardization of procedures for producing and delivering the aerosol is likely a necessary component of at least some in vivo and in vitro work. Preclinical work examining the effects of e-cigarette aerosols is a clear research need and, again, the standardization of procedures for production and delivery of the

aerosol is necessary. To enhance relevance, the parameters of aerosol production should span the range of those seen with humans (Shihadeh and Eissenberg 2011).

The huge variety of products of different origin and design, the rapid appearance of new products, and the varied ways in which consumers use these products make the development of standard measurement conditions challenging (Famele et al. 2015). Accordingly, more research is needed to understand how different design features relate to potential toxicity—for example, how various compounds in e-cigarettes are affected by heating, changes in chemical composition, or pH; to what extent these compounds are absorbed into the bloodstream; and how additives to the e-liquid affect the bioavailability of these compounds, among other considerations. Research is also needed to understand whether potential health risks may be ameliorated by changes in product engineering.

Conclusions

- 1. Nicotine exposure during adolescence can cause addiction and can harm the developing adolescent brain.
- 2. Nicotine can cross the placenta and has known effects on fetal and postnatal development. Therefore, nicotine delivered by e-cigarettes during pregnancy can result in multiple adverse consequences, including sudden infant death syndrome, and could result in altered corpus callosum, deficits in auditory processing, and obesity.
- 3. E-cigarettes can expose users to several chemicals, including nicotine, carbonyl compounds, and volatile organic compounds, known to have adverse health effects. The health effects and potentially harmful doses of heated and aerosolized constituents of e-cigarette liquids, including solvents, flavorants, and toxicants, are not completely understood.
- 4. E-cigarette aerosol is not harmless "water vapor," although it generally contains fewer toxicants than combustible tobacco products.
- 5. Ingestion of e-cigarette liquids containing nicotine can cause acute toxicity and possibly death if the contents of refill cartridges or bottles containing nicotine are consumed.

9

Chapter 4. Activities of the E-Cigarette Companies

Although the e-cigarette marketplace is complicated by the differences in brands that are owned by tobacco companies versus independent brands, e-cigarette companies continue to change and influence the manufacturing, price, marketing and promotion, and distribution of e-cigarette products and accessories. The e-cigarette market continues to grow, with projected sales of \$3.5 billion in 2015. Consolidation of e-cigarette companies has been rapid, with the first major merger taking place in 2012. These mergers and acquisitions are likely to continue, but the rate of consolidation may slow down as sales of "cigalikes" (products that resemble cigarettes) have recently decelerated, and "vape shops" could have the potential to influence the e-cigarette marketplace based on the current structure of the marketplace and regulatory landscape. Chapter 4 shows that many of the marketing techniques used by e-cigarette companies are similar to those used by the tobacco industry for conventional cigarettes, and that awareness by youth and young adults of this marketing, and their levels of exposure to it, is high. Further, tracking marketing expenditures and product sales is difficult because of the rapidly changing venues, including "vape shops," use of social media and online advertising, and limited regulation of marketing.

Conclusions

- 1. The e-cigarette market has grown and changed rapidly, with notable increases in total sales of e-cigarette products, types of products, consolidation of companies, marketing expenses, and sales channels.
- 2. Prices of e-cigarette products are inversely related to sales volume: as prices have declined, sales have sharply increased.
- 3. E-cigarette products are marketed in a wide variety of channels that have broad reach among youth and young adults, including television, point-of-sale, magazines, promotional activities, radio, and the Internet.
- 4. Themes in e-cigarette marketing, including sexual content and customer satisfaction, are parallel to themes and techniques that have been found to be appealing to youth and young adults in conventional cigarette advertising and promotion.

Chapter 5. E-Cigarette Policy and Practice Implications

Chapters 1-4 document the particular challenges posed by the rapid emergence and dynamic nature of e-cigarette use among youth and young adults. The principles and strategies articulated in the 2014 Surgeon General's report and prior reports are also relevant to e-cigarettes. The 2014 report was written not long after the use of e-cigarettes began to surge dramatically; that report emphasized the need for rapid elimination of conventional cigarettes and other combustible tobacco products, but did not discuss strategies to minimize adverse effects among youth and young adults (USDHHS 2014). Building on this foundation, Chapter 5 sets out an evidence-based strategy for the future. It describes recommendations related to e-cigarettes that can be taken at the state and local levels to address e-cigarette use among youth and young adults, such as:

- Incorporating e-cigarettes into smokefree policies;
- · Preventing access to e-cigarettes by youth;

- Significant increases in tax and price;
- Retail licensure;
- Regulation of e-cigarette marketing that is likely to attract youth and young adults, to the extent feasible under the law; and
- Educational initiatives targeting this population.

Conclusions

1. The dynamic nature of the e-cigarette landscape calls for expansion and enhancement of tobaccorelated surveillance to include (a) tracking patterns of use in priority populations; (b) monitoring the characteristics of the retail market; (c) examining policies at the national, state, local, tribal, and territorial levels; (d) examining the channels and messaging for marketing e-cigarettes in order to more fully understand the impact future regulations could have; and (e) searching for sentinel health events in youth and young adult e-cigarette users, while longer-term health consequences are tracked.

- 2. Strategic, comprehensive research is critical to identify and characterize the potential health risks from e-cigarette use, particularly among youth and young adults.
- 3. The adoption of public health strategies that are precautionary to protect youth and young adults from adverse effects related to e-cigarettes is justified.
- 4. A broad program of behavioral, communications, and educational research is crucial to assess how youth perceive e-cigarettes and associated marketing messages, and to determine what kinds of tobacco control communication strategies and channels are most effective.

The Call to Action

5. Health professionals represent an important channel for education about e-cigarettes, particularly for youth and young adults.

6. Diverse actions, modeled after evidence-based tobacco control strategies, can be taken at the state, local, tribal, and territorial levels to address e-cigarette use among youth and young adults, including incorporating e-cigarettes into smoke-free policies; preventing the access of youth to e-cigarettes; price and tax policies; retail licensure; regulation of e-cigarette marketing that is likely to attract youth and young adults, to the extent feasible under the law; and educational initiatives targeting youth and young adults. Among others, research focused on policy, economics, and the e-cigarette industry will aid in the development and implementation of evidence-based strategies and best practices.

Finally, the Call to Action is issued to accelerate policies and approaches that can reduce the public health threat posed by e-cigarette use among young people. It offers a list of goals and evidence-based strategies designed to reduce the public health threat posed by e-cigarette use among youth and young adults.

Goal 1. First, Do No Harm

- Strategy 1A. Implement a comprehensive strategy to address e-cigarettes that will avoid adverse consequences and give careful consideration to the risks for youth and young adults. This can be done by including e-cigarettes in policies and programs related to conventional cigarette smoking at the national, state, local, tribal, and territorial levels.
- **Strategy 1B.** Provide consistent and evidencebased messages about the health risks of e-cigarette use and exposure to secondhand aerosol from e-cigarettes.

Goal 2. Provide Information About the Dangers of E-Cigarette Use Among Youth and Young Adults

- **Strategy 2A.** Educate parents, teachers, coaches, and other influencers of youth about the risks of e-cigarette use among youth and young adults.
- **Strategy 2B.** Educate health professionals about the risks of e-cigarette use among youth and young adults.

Goal 3. Continue to Regulate E-Cigarettes at the Federal Level to Protect Public Health

- **Strategy 3A.** Implement FDA regulatory authority over the manufacturing, marketing, and distribution of e-cigarettes.
- **Strategy 3B.** Reinforce other federal agencies as they implement programs and policies to address e-cigarettes.

Goal 4. Promote Programs and Policies at the State and Local Levels to Prevent E-Cigarette Use Among Youth and Young Adults

- **Strategy 4A.** State, local, tribal, and territorial governments should implement population-level strategies to reduce e-cigarette use among youth and young adults, such as including e-cigarettes in smokefree indoor air policies, restricting youth access to e-cigarettes in retail settings, licensing retailers, and establishing specific package requirements.
- **Strategy 4B.** Coordinate, evaluate, and share best practices from state and local entities that have implemented programs and policies to address e-cigarette use among youth and young adults.

Goal 5. Curb Advertising and Marketing that Encourages Youth and Young Adults to Use E-Cigarettes

- Strategy 5A. Curb e-cigarette advertising and marketing that are likely to attract youth and young adults.
- **Strategy 5B.** Urge the e-cigarette companies to stop advertising and marketing that encourages and glamorizes e-cigarette use among youth and young adults.

Goal 6. Expand Surveillance, Research, and Evaluation Related to E-Cigarettes

- **Strategy 6A.** Improve the quality, timeliness, and scope of e-cigarette surveillance, research, and evaluation.
- *Strategy 6B.* Address surveillance, research, and evaluation gaps related to e-cigarettes.

Summary

We know a great deal about what works to effectively prevent tobacco use among young people (USDHHS 2012). Now we must apply these strategies to e-cigarettes and continue to apply them to other tobacco products. To achieve success, we must work together, aligning and coordinating efforts across a wide range of stakeholders, including individuals and families; public health professionals and clinicians; federal, state, local, tribal, and territorial governments; public health agencies; and researchers. We must protect our nation's young people from a lifetime of nicotine addiction and associated problems by immediately addressing e-cigarettes as an urgent public health problem. Now is the time to take action.

References

Alexander JP, Coleman BN, Johnson SE, Tesseman GK, Tworek C, Dickinson DM. Smoke and vapor: exploring the terminology landscape among electronic cigarette users. *Tobacco Regulation Science* 2016;2(3):201–13.

Ambrose BK, Day HR, Rostron B, Conway KP, Borek N, Hyland A, Villanti AC. Flavored tobacco product use among U.S. youth aged 12–17 years, 2013–2014. *JAMA: the Journal of the American Medical Association* 2015;314(17):1871–3.

Ambrose BK, Rostron BL, Johnson SE, Portnoy DB, Apelberg BJ, Kaufman AR, Choiniere CJ. Perceptions of the relative harm of cigarettes and e-cigarettes among U.S. youth. American Journal of Preventive Medicine 2014;47(2 Suppl 1):S53-60.

- Barrington-Trimis JL, Urman R, Berhane K, Unger JB, Cruz TB, Pentz MA, Samet JM, Leventhal AM, McConnell R. E-cigarettes and future cigarette use. *Pediatrics* 2016;138(1):e20160379.
- Bialous SA, Sarma L. Electronic cigarettes and smoking cessation: a quandary? *Lancet* 2014;383(9915):407-8.
- Biener L, Hargraves JL. A longitudinal study of electronic cigarette use among a population-based sample of adult smokers: association with smoking cessation and motivation to quit. *Nicotine & Tobacco Research* 2015;17(2):127-33.
- Biener L, Song E, Sutfin EL, Spangler J, Wolfson M. Electronic cigarette trial and use among young adults: reasons for trial and cessation of vaping. *International Journal of Environmental Research and Public Health* 2015;12(12):16019-26.
- Bullen C, Howe C, Laugesen M, McRobbie H, Parag V, Williman J, Walker N. Electronic cigarettes for smoking cessation: a randomised controlled trial. *Lancet* 2013;382(9905):1629–37.

Caponnetto P, Campagna D, Cibella F, Morjaria JB, Caruso M, Russo C, Polosa R. EffiCiency and Safety of an eLectronic cigAreTte (ECLAT) as tobacco cigarettes substitute: a prospective 12-month randomized control design study. *PloS One* 2013;8(6):e66317.

Centers for Disease Control and Prevention. Notes from the field: electronic cigarette use among middle and high school students—United States, 2011–2012. *Morbidity and Mortality Weekly Report* 2013;62(35):729–30.

Centers for Disease Control and Prevention. Tobacco product use among adults—United States, 2012–2013. *Morbidity and Mortality Weekly Report* 2014;63(25):542–7.

Centers for Disease Control and Prevention. Tobacco use among middle and high school students----United States, 2011–2014. Morbidity and Mortality Weekly Report 2015;64(14):381–5.

- Centers for Disease Control and Prevention. Tobacco use among middle and high school students—United States, 2011–2015. Morbidity and Mortality Weekly Report 2016;65(14):361–7.
- Famele M, Ferranti C, Abenavoli C, Palleschi L, Mancinelli R, Draisci R. The chemical components of electronic cigarette cartridges and refill fluids: review of analytical methods. *Nicotine & Tobacco Research* 2015;17(3):271–9.
- Farsalinos KE, Polosa R. Safety evaluation and risk assessment of electronic cigarettes as tobacco cigarette substitutes: a systematic review. *Therapeutic Advances in Drug Safety* 2014;5(2):67–86.
- Federal Register. U.S. Department of Health and Human Services, Food and Drug Administration. 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 Fed. Reg. 28974 (2016); <https:// federalregister.gov/a/2016-10685>; accessed: May 16, 2016.
- Franck C, Budlovsky T, Windle SB, Filion KB, Eisenberg MJ. Electronic cigarettes in North America: history, use, and implications for smoking cessation. *Circulation* 2014;129(19):1945–52.
- Grana RA, Benowitz N, Glantz SA. E-cigarettes: a scientific review. *Circulation* 2014a;129(19):1972-86.
- Grana RA, Popova L, Ling PM. A longitudinal analysis of electronic cigarette use and smoking cessation. *JAMA Internal Medicine* 2014b;174(5):812–3.
- Hagopian A, Halperin A, Atwater P, Fradkin N, Gilroy JH, Medeiros E. *E-Cigarettes: Evidence and Policy Options* for Washington State. Seattle (WA): University of Washington, School of Public Health, Department of Health Services, January 2015; http://www.governor.wa.gov/sites/default/files/documents/ECigWhitePaper. PDF>; accessed: October 20, 2015.
- Johnson SE, Holder-Hayes E, Tessman GK, King BA, Alexander T, Zhao X. Tobacco product use among sexual minority adults: findings from the 2012–2013 National Adult Tobacco Survey. *American Journal of Preventive Medicine* 2016;50(4):e91–e100.
- Kong G, Morean ME, Cavallo DA, Camenga DR, Krishnan-Sarin S. Reasons for electronic cigarette experimentation and discontinuation among adolescents

and young adults. *Nicotine & Tobacco Research* 2015;17(7):847–54.

- Leventhal AM, Strong DR, Kirkpatrick MG, Unger JB, Sussman S, Riggs NR, Stone MD, Khoddam R, Samet JM, Audrain-McGovern J. Association of electronic cigarette use with initiation of combustible tobacco product smoking in early adolescence. JAMA: the Journal of the American Medical Association 2015;314(7):700–7.
- Li J, Bullen C, Newcombe R, Walker N, Walton D. The use and acceptability of electronic cigarettes among New Zealand smokers. *New Zealand Medical Journal* 2013;126(1375):48-57.
- Lippert AM. Do adolescent smokers use e-cigarettes to help them quit? The sociodemographic correlates and cessation motivations of U.S. adolescent e-cigarette use. *American Journal of Health Promotion* 2015;29(6):374–9.
- McDonald EA, Ling PM. One of several 'toys' for smoking: young adult experiences with electronic cigarettes in New York City. *Tobacco Control* 2015;24(6):588–93.
- Pepper JK, Ribisl KM, Emery SL, Brewer NT. Reasons for starting and stopping electronic cigarette use. *International Journal of Environmental Research and Public Health* 2014;11(10):10345–61.
- Peters RJ Jr, Meshack A, Lin MT, Hill M, Abughosh S. The social norms and beliefs of teenage male electronic cigarette use. *Journal of Ethnicity in Substance Abuse* 2013;12(4):300-7.
- Primack BA, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Progression to traditional cigarette smoking after electronic cigarette use among U.S. adolescents and young adults. JAMA Pediatrics 2015:1–7.
- Saitta D, Ferro GA, Polosa R. Achieving appropriate regulations for electronic cigarettes. *Therapeutic Advances in Chronic Disease* 2014;5(2):50–61.
- Schmidt L, Reidmohr A, Harwell TS, Helgerson SD. Prevalence and reasons for initiating use of electronic cigarettes among adults in Montana, 2013. *Preventing Chronic Disease* 2014;11:E204.
- Shihadeh A, Eissenberg T. Electronic cigarette effectiveness and abuse liability: predicting and regulating nicotine flux. *Nicotine & Tobacco Research* 2015;17(2):158-62.
- Shihadeh AL, Eissenberg TE. Significance of smoking machine toxicant yields to blood-level exposure in water pipe tobacco smokers. *Cancer Epidemiology*, *Biomarkers and Prevention* 2011;20(11):2457-60.
- Suris JC, Berchtold A, Akre C. Reasons to use e-cigarettes and associations with other substances among adolescents in Switzerland. *Drug and Alcohol Dependence* 2015;153:140–4.

- Sutfin EL, Reboussin BA, Debinski B, Wagoner KG, Spangler J, Wolfson M. The impact of trying electronic cigarettes on cigarette smoking by college students: a prospective analysis. *American Journal of Public Health* 2015;105(8):e83-e89.
- Tucker JS, Shadel WG, Golinelli D, Ewing B. Alternative tobacco product use and smoking cessation among homeless youth in Los Angeles County. *Nicotine & Tobacco Research* 2014;16(11):1522-6.
- U.S. Department of Health and Human Services. Preventing Tobacco Use Among Young People: A Report of the Surgeon General. Atlanta (GA): U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.
- U.S. Department of Health and Human Services. Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General. Atlanta (GA): U.S. 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, 2012.
- U.S. Department of Health and Human Services. Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta (GA): U.S. 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, 2014.
- Unger JB, Soto DW, Leventhal A. E-cigarette use and subsequent cigarette and marijuana use among Hispanic young adults. *Drug and Alcohol Dependence* 2016;163(1):261-4.
- University of Michigan. Most youth use ecigarettes for novelty, flavors—not to quit smoking (press release), 2015; http://www.monitoringthefuture.org/pressreleases/15ecigpr_complete.pdf; accessed: January 25, 2015.
- Vanyukov MM, Tarter RE, Kirillova GP, Kirisci L, Reynolds MD, Kreek MJ, Conway KP, Maher BS, Iacono WG, Bierut L, et al. Common liability to addiction and "gateway hypothesis": theoretical, empirical and evolutionary perspective. *Drug and Alcohol Dependence* 2012;123(Suppl 1):S3–S17.
- Wills TA, Knight R, Sargent JD, Gibbons FX, Pagano I, Williams RJ. Longitudinal study of e-cigarette use and onset of cigarette smoking among high school students in Hawaii. *Tobacco Control* 2016.



E-Cigarette Use Among Youth and Young Adults A Report of the Surgeon General

Fact Sheet

This Surgeon General's report comprehensively reviews the public health issue of e-cigarettes and their impact on U.S. youth and young adults. Studies highlighted in the report cover young adolescents (11-14 years of age); adolescents (15-17 years of age); and/or young adults (18-25 years of age). Scientific evidence contained in this report supports the following facts:

E-cigarettes are a rapidly emerging and diversified product class. These devices typically deliver nicotine, flavorings, and other additives to users via an inhaled aerosol. These devices are referred to by a variety of names, including "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," and "tank systems."

E-cigarettes are battery-powered devices that heat a liquid into an aerosol that the user inhales.

The liquid usually has nicotine, which comes from tobacco; flavoring; and other additives.

E-cigarette products can also be used as a delivery system for marijuana and other illicit drugs.

E-cigarettes are now the most commonly used tobacco product among youth, surpassing conventional cigarettes in 2014. E-cigarette use is strongly associated with the use of other tobacco products among youth and young adults, including cigarettes and other burned tobacco products.

In 2015, more than 3 million youth in middle and high school, including about 1 of every 6 high school students, used e-cigarettes in the past month. More than a quarter of youth in middle and high school have tried e-cigarettes.

Among high school students, e-cigarette use is higher among males, whites, and Hispanics than among females and African-Americans.

There is a strong association between the use of e-cigarettes, cigarettes, and the use of other burned tobacco products by young people. In 2015, for example, nearly 6 of 10 high school cigarette smokers also used e-cigarettes.

Research has found that youth who use a tobacco product, such as e-cigarettes, are more likely to go on to use other tobacco products like cigarettes.

E-cigarette use among youth and young adults has become a public health concern. In 2014, current use of e-cigarettes by young adults 18-24 years of age surpassed that of adults 25 years of age and older.

Among young adults 18-24 years of age, e-cigarette use more than doubled from 2013 to 2014. As of 2014, more than one-third of young adults had tried e-cigarettes.

The most recent data available show that the prevalence of past 30-day use of e-cigarettes was 13.6% among young adults (2014) and 16.0% among high school students (2015).

The most recent data available show that the prevalence of past 30-day use of e-cigarettes is similar among middle school students (5.3%) and adults 25 years of age and older (5.7%).

Among young adults, e-cigarette use is higher among males, whites and Hispanics, and those with less education.

The use of products containing nicotine poses dangers to youth, pregnant women, and fetuses. The use of products containing nicotine in any form among youth, including in e-cigarettes, is unsafe.

Many e-cigarettes contain nicotine, which is highly addictive.

The brain is the last organ in the human body to develop fully. Brain development continues until the early to mid-20s. Nicotine exposure during periods of significant brain development, such as adolescence, can disrupt the growth of brain circuits that control attention, learning, and susceptibility to addiction.

The effects of nicotine exposure during youth and young adulthood can be long-lasting and can include lower impulse control and mood disorders.

The nicotine in e-cigarettes and other tobacco products can prime young brains for addiction to other drugs, such as cocaine and methamphetamine.

Nicotine can cross the placenta and affect fetal and postnatal development. Nicotine exposure during pregnancy can result in multiple adverse consequences, including sudden infant death syndrome (SIDS).

Ingestion of e-cigarette liquids containing nicotine can cause acute toxicity and possible death if the contents of refill cartridges or bottles containing nicotine are consumed.

E-cigarette aerosol is not harmless. It can contain harmful and potentially harmful constituents including nicotine. Nicotine exposure during adolescence can cause addiction and can harm the developing adolescent brain.

The constituents of e-cigarette liquids can include solvents, flavorants, and toxicants.

The aerosol created by e-cigarettes can contain ingredients that are harmful and potentially harmful to the public's health, including: nicotine; ultrafine particles; flavorings such as diacetyl, a chemical linked to serious lung disease; volatile organic compounds such as benzene, which is found in car exhaust; and heavy metals, such as nickel, tin, and lead.

E-cigarettes are marketed by promoting flavors and using a wide variety of media channels and approaches that have been used in the past for marketing conventional tobacco products to youth and young adults.

E-cigarettes are an estimated \$3.5 billion business in the United States. In 2014, e-cigarette manufacturers spent \$125 million advertising their products in the U.S.

In 2014, more than 7 of 10 middle and high school students said they had seen e-cigarette advertising. Retail stores were the most frequent source of this advertising, followed by the internet, TV and movies, and magazines and newspapers.

The 2012 Surgeon General's Report on tobacco use among youth and young adults found that tobacco product advertising causes young people to start using tobacco products. Much of today's e-cigarette advertising uses approaches and themes similar to those that were used to promote conventional tobacco products.

E-cigarettes are available in a wide variety of flavors, including many that are especially appealing to youth. More than 85% of e-cigarette users ages 12-17 use flavored e-cigarettes, and flavors are the leading reason for youth use. More than 9 of 10 young adult e-cigarette users said they use e-cigarettes flavored to taste like menthol, alcohol, fruit, chocolate, or other sweets. Action can be taken at the national, state, local, tribal and territorial levels to address e-cigarette use among youth and young adults. Actions could include incorporating e-cigarettes into smokefree policies, preventing access to e-cigarettes by youth, price and tax policies, retail licensure, regulation of e-cigarette marketing likely to attract youth, and educational initiatives targeting youth and young adults.

The Food and Drug Administration (FDA) now regulates the manufacturing, importing, packaging, labeling, advertising, promotion, sale, and distribution of e-cigarettes.

In August 2016, FDA began enforcing a ban on vending machine sales unless in adult-only facilities and a ban on free samples and sales to minors.

Parents, teachers, health care providers, and others who influence youth and young adults can advise and inform them of the dangers of nicotine; discourage youth tobacco use in any form, including e-cigarettes; and set a positive example by being tobacco-free themselves.

Citation: U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary.* Atlanta, GA: U.S. 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, 2016.

Website: E-cigarettes.Surgeongeneral.gov

Surgeon General's Advisory on E-cigarette Use Among Youth

I, Surgeon General of the United States Public Health Service, VADM Jerome Adams, am emphasizing the importance of protecting our children from a lifetime of nicotine addiction and associated health risks by immediately addressing the epidemic of youth e-cigarette use. The recent surge in e-cigarette use among youth, which has been fueled by new types of e-cigarettes that have recently entered the market, is a cause for great concern. **We must take action now to protect the health of our nation's young people**.

KNOW THE RISKS. TAKE ACTION. PROTECT OUR KIDS.

The E-cigarette Epidemic Among Youth

Considerable progress has been made in reducing cigarette smoking among our nation's youth.¹ However, the tobacco product landscape continues to evolve to include a variety of tobacco products, including smoked, smokeless, and electronic products, such as e-cigarettes.² E-cigarettes are designed to deliver nicotine, flavorings, and other additives to the user via an inhaled aerosol.²

E-cigarettes entered the U.S. marketplace around 2007, and since 2014, they have been the most commonly used tobacco product among U.S. youth.² E-cigarette use among U.S. middle and high school students increased 900% during 2011-2015, before declining for the first time during 2015-2017.³ However, current e-cigarette use increased 78% among high school students during the past year, from 11.7% in 2017 to 20.8% in 2018.⁴ In 2018, more than 3.6 million U.S. youth, including 1 in 5 high school students and 1 in 20 middle school students, currently use e-cigarettes.⁴

E-cigarette aerosol is not harmless.² Most e-cigarettes contain nicotine – the addictive drug in regular cigarettes, cigars, and other tobacco products.² Nicotine exposure during adolescence can harm the developing brain – which continues to develop until about age 25.² Nicotine exposure during adolescence can impact learning, memory, and attention.^{1,2} Using nicotine in adolescence can also increase risk for future addiction to other drugs.^{1,2} In addition to nicotine, the aerosol that users inhale and exhale from e-cigarettes can potentially expose both themselves and bystanders to other harmful substances, including heavy metals, volatile organic compounds, and ultrafine particles that can be inhaled deeply into the lungs.²

Many e-cigarettes also come in kid-friendly flavors. In addition to making e-cigarettes more appealing to young people,⁵ some of the chemicals used to make certain flavors may also have health risks.² E-cigarettes can also be used to deliver other drugs, including marijuana.² In 2016, one-third of U.S. middle and high school students who ever used e-cigarettes had used marijuana in e-cigarettes.⁶

For adults, e-cigarettes may have the potential to reduce risk for current smokers if they completely transition from cigarettes to e-cigarettes; however, a majority of adults who use e-cigarettes also smoke cigarettes.⁷ For youth, the use of multiple tobacco products puts youth at even greater risk for addiction and tobacco-related harms.^{1,2} Moreover, a 2018 National Academy of Sciences, Engineering, and Medicine report concluded that there was moderate evidence that e-cigarette use increases the frequency and intensity of cigarette smoking in the future.⁷ But any e-cigarette use among young people is unsafe, even if they do not progress to future cigarette smoking.²

E-cigarettes Come in Many Shapes and Sizes

E-cigarettes are a rapidly changing product class, and are known by many different names, including "e-cigs," "ehookahs," "mods," and "vape pens."² Recently, a new type of e-cigarette has become increasingly popular among our nation's youth due to its minimal exhaled aerosol, reduced odor, and small size, making it easy to conceal.⁸ Many of these new e-cigarettes look like a USB flash drive, among other shapes. One of the most commonly sold USB flash drive shaped e-cigarettes is JUUL, which experienced a 600% surge in sales during 2016-2017, giving it the greatest market share of any e-cigarette in the U.S. by the end of 2017.⁹ Other companies are now also starting to sell e-cigarettes that look like USB flash drives.

All JUUL e-cigarettes have a high level of nicotine. A typical JUUL cartridge, or "pod," contains about as much nicotine as a pack of 20 regular cigarettes.¹⁰ These products also use nicotine salts, which allow particularly high levels of nicotine to be inhaled more easily and with less irritation than the free-base nicotine that has traditionally been used in tobacco products, including e-cigarettes. This is of particular concern for young people, because it could make it easier for them to initiate the use of nicotine through these products and also could make it easier to progress to regular e-cigarette use and nicotine dependence. However, despite these risks, approximately two-thirds of JUUL users aged 15-24 do not know that JUUL always contains nicotine.¹¹

You Can Take Action

We must take aggressive steps to protect our children from these highly potent products that risk exposing a new generation of young people to nicotine.^{2,7} The bad news is that e-cigarette use has become an epidemic among our nation's young people. However, the good news is that we know what works to effectively protect our kids from all forms of tobacco product use, including e-cigarettes.^{1,2,12} We must now apply these strategies to e-cigarettes, including USB flash drive shaped products such as JUUL. To achieve success, we must work together, aligning and coordinating efforts across both old and new partners at the national, state, and local levels. Everyone can play an important role in protecting our nation's young people from the risks of e-cigarettes.

Information for Parents

- You have an important role to play in addressing this public health epidemic.
- Learn about the different shapes and types of e-cigarettes and the risks of all forms of e-cigarette use for young
 people at <u>https://e-cigarettes.surgeongeneral.gov/</u>.
- Set a good example by being tobacco-free. If you use tobacco products, it's never too late to quit. Talk to a
 healthcare professional about quitting all forms of tobacco product use. For free help, visit <u>smokefree.gov</u> or
 call <u>1-800-QUIT-NOW</u>.
- Adopt tobacco-free rules, including e-cigarettes, in your home and vehicle.
- Talk to your child or teen about why e-cigarettes are harmful for them. It's never too late.
- Get the Surgeon General's tip sheet for parents, <u>Talk With Your Teen About E-cigarettes</u>, at <u>https://e-cigarettes.surgeongeneral.gov/</u>. Start the conversation early with children about why e-cigarettes, including JUUL, are harmful for them.
- Let your child know that you want them to stay away from all tobacco products, including e-cigarettes, because they are not safe for them. Seek help and get involved.
 - Set up an appointment with your child's health care provider so that they can hear from a medical professional about the health risks of tobacco products, including e-cigarettes.
 - Speak with your child's teacher and school administrator about enforcement of tobacco-free school
 policies and tobacco prevention curriculum.
 - Encourage your child to learn the facts and get tips for quitting tobacco products at <u>Teen.smokefree.gov</u>.

Information for Teachers

- You have an important role to play in addressing this public health epidemic.
- Learn about the different shapes and types of e-cigarettes and the risks of all forms of e-cigarette use, including JUUL, for young people at https://e-cigarettes.surgeongeneral.gov/.
- Develop, implement, and enforce tobacco-free school policies and prevention programs that are free from tobacco industry influence, and that address all types of tobacco products, including e-cigarettes.

• Engage your students in discussions about the dangers of e-cigarette use. To help you, the Food and Drug Administration (FDA), and Scholastic, developed free resources for teachers. These materials can be found at <u>www.scholastic.com/youthvapingrisks</u>.

Information for Health Professionals

- You have an important role to play in addressing this public health epidemic.
- Learn about the different shapes and types of e-cigarettes and the risks of all forms of e-cigarette use, including JUUL, for young people at https://e-cigarettes.surgeongeneral.gov/.
- Ask about e-cigarettes, including small, discreet devices such as JUUL, when screening patients for the use of any tobacco products.
- Educate patients about the risks of all forms of tobacco product use, including e-cigarettes, for young people.
- Encourage patients to quit. For free help, patients can visit smokefree.gov or call 1-800-QUIT-NOW.

Information for States, Communities, Tribes, and Territories

- You have an important role to play in addressing this public health epidemic.
- Implement evidence-based population-level strategies to reduce e-cigarette use among young people, such as including e-cigarettes in smoke-free indoor air policies, restricting young peoples' access to ecigarettes in retail settings, licensing retailers, implementing price policies, and developing educational initiatives targeting young people.
- Implement strategies to curb e-cigarette advertising and marketing that are appealing to young people.
- Implement strategies to reduce access to flavored tobacco products by young people.

KNOW THE RISKS. TAKE ACTION. PROTECT OUR KIDS.

References

- 1. Office of the Surgeon General. *The Health Consequences of Smoking-50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention (US), National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014. https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf.
- 2. Office of the Surgeon General. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General.* Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2016. <u>https://www.cdc.gov/tobacco/data_statistics/sgr/e-cigarettes/pdfs/2016_sgr_entire_report_508.pdf</u>.
- 3. Wang TW, Gentzke A, Sharapova S, et al. Tobacco Use Among Middle and High School Students United States, 2011-2017. MMWR Morbidity and Mortality Weekly Report. 2018;67(22):629-633.
- 4. Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the Field: Increase in use of electronic cigarettes and any tobacco product among middle and high school students United States, 2011-2018. *MMWR Morbidity & Mortality Weekly Report* 2018; 67(45):1276-1277.
- 5. Ambrose BK, Day HR, Rostron B, et al. Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014. Jama. 2015;314(17):1871-1873.
- 6. Trivers KF, Phillips E, Gentzke AS, Tynan MA, Neff L. Prevalence of Cannabis Use in Electronic Cigarettes Among US Youth. JAMA pediatrics. 2018;172(11):1097-1099.
- 7. National Academies of Sciences, Engineering, and Medicine. 2018. Public Health Consequences of E-Cigarettes. Washington, DC: The National Academies Press. https://doi.org/10.17226/24952.
- 8. Ramamurthi D, Chau C, Jackler RK. JUUL and other stealth vaporisers: hiding the habit from parents and teachers. *Tob Control*. 2018. Epub ahead of print. doi: 10.1136/tobaccocontrol-2018-054455.
- 9. King BA, Gammon DG, Marynak KL, Rogers T. Electronic Cigarette Sales in the United States, 2013-2017. Jama. 2018;320(13):1379-1380.

- 10. Willett JG, Bennett M, Hair EC, et al. Recognition, use and perceptions of JUUL among youth and young adults. *Tob Control.* 2018. Epub ahead of print. doi: 10.1136/tobaccocontrol-2018-054273.
- 11. Truth Initiative. JUUL e-cigarettes gain popularity among youth, but awareness of nicotine presence remains low. https://truthinitiative.org/news/juul-e-cigarettes-gain-popularity-among-youth.

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12. US Department of Health and Human Services. *Preventing tobacco use among youth and young adults.* Atlanta, GA: US Department of Health and Human Services, CDC;2012. https://www.cdc.gov/tobacco/data_statistics/sgr/2012/index.htm.

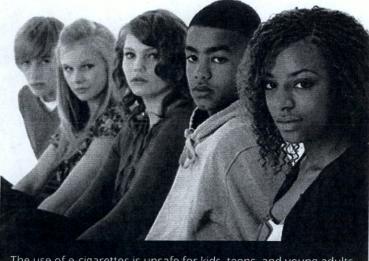


Smoking & Tobacco Use

Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults

What's the Bottom Line on the Risks of E-cigarettes for Kids, Teens, and Young Adults?

- The use of e-cigarettes is unsafe for kids, teens, and young adults.
- Most e-cigarettes contain nicotine. Nicotine is highly addictive and can harm adolescent brain development, which continues into the early to mid-20s.¹
- E-cigarettes can contain other harmful substances besides nicotine.
- Young people who use e-cigarettes may be more likely to smoke cigarettes in the future.

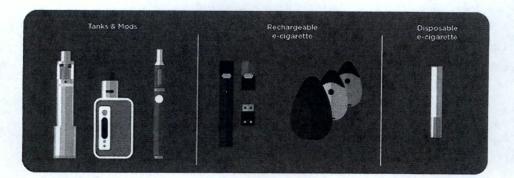


The use of e-cigarettes is unsafe for kids, teens, and young adults.

What Are E-cigarettes?

- E-cigarettes are electronic devices that heat a liquid and produce an aerosol, or mix of small particles in the air.
- E-cigarettes come in many shapes and sizes. Most have a battery, a heating element, and a place to hold a liquid.
- Some e-cigarettes look like regular cigarettes, cigars, or pipes. Some look like USB flash drives, pens, and other everyday items. Larger devices such as tank systems, or "mods," do not look like other tobacco products.
- E-cigarettes are known by many different names. They are sometimes called "e-cigs," "e-hookahs," "mods," "vape pens," "vapes," "tank systems," and "electronic nicotine delivery systems (ENDS)."
- Using an e-cigarette is sometimes called "vaping" or "JUULing."

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Some e-cigarettes look like regular cigarettes, cigars, or pipes. Some look like USB flash drives, pens, and other everyday items.

How Do E-cigarettes Work?

- E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine, flavorings, and other chemicals that help to make the aerosol.
- The liquid used in e-cigarettes often contains nicotine and flavorings. This liquid is sometimes called "e-juice," "eliquid," "vape juice," or "vape liquid."
- Users inhale e-cigarette aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales it into the air.
- E-cigarette devices can be used to deliver marijuana and other drugs.

What Is JUUL?



News outlets and social media sites report widespread use of JUUL by students in schools, including classrooms

- JUUL is a brand of e-cigarette that is shaped like a USB flash drive. Like other e-cigarettes, JUUL is a battery-powered device that heats a hicotine-containing liquid to produce an aerosol that is inhaled.
- All JUUL e-cigarettes have a high level of nicotine. According to the manufacturer, a single JUUL pod contains as much nicotine as a pack of 20 regular cigarettes.²
- News outlets and social media sites report widespread use of JUUL by students in schools, including classrooms and bathrooms.
- Although JUUL is currently the top-selling e-cigarette brand in the United States, other companies sell e-cigarettes that look like USB flash drives. Examples include the MarkTen Elite, a nicotine delivery device, and the PAX Era, a marijuana delivery device that looks like JUUL.
- Additional information about USB-shaped e-cigarettes and actions that parents, educators, and health care providers can take to protect kids is available at CDC's Infographic [PDF – 1.2MB]

Why Is Nicotine Unsafe for Kids, Teens, and Young Adults?

- Most e-cigarettes contain nicotine—the addictive drug in regular cigarettes, cigars, and other tobacco products.
- Nicotine can harm the developing adolescent brain.¹ The brain keeps developing until about age 25.
- Using nicotine in adolescence can harm the parts of the brain that control attention, learning, mood, and impulse control.¹
- Each time a new memory is created or a new skill is learned, stronger connections – or synapses – are built between brain cells. Young people's brains build synapses faster than adult brains. Nicotine changes the way these synapses are formed.
- Using nicotine in adolescence may also increase risk for future addiction to other drugs.¹



What Are the Other Risks of E-cigarettes for Kids, Teens, and Young Adults?

- Scientists are still learning about the long-term health effects of e-cigarettes.
- Some of the ingredients in e-cigarette aerosol could also be harmful to the lungs in the long-term. For example, some e-cigarette flavorings may be safe to eat but not to inhale because the gut can process more substances than the lungs.¹
- · Defective e-cigarette batteries have caused some fires and explosions, a few of which have resulted in serious injuries.
- Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.

What Is in E-cigarette Aerosol?

- E-cigarette aerosol is NOT harmless "water vapor."
- The e-cigarette aerosol that users breathe from the device and exhale can contain harmful and potentially harmful substances, including:
 - Nicotine
 - Ultrafine particles that can be inhaled deep into the lungs
 - Flavoring such as diacetyl, a chemical linked to a serious lung disease
 - Volatile organic compounds
 - Cancer-causing chemicals
 - Heavy metals such as nickel, tin, and lead¹

• It is difficult for consumers to know what e-cigarette products contain. For example, some e-cigarettes marketed as containing zero percent nicotine have been found to contain nicotine.³



Can Using E-cigarettes Lead to Future Cigarette Smoking Among Kids, Teens, and Young Adults?

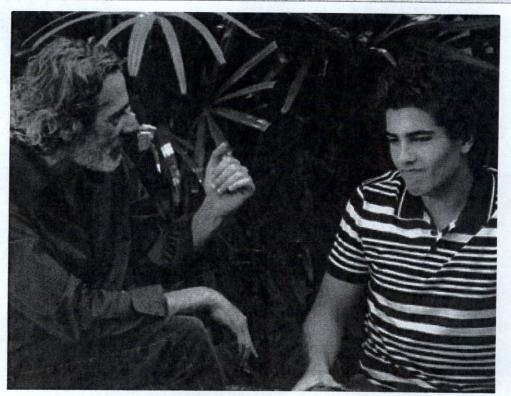
- Many young people who use e-cigarettes also smoke cigarettes.¹ There is some evidence that young people who use e-cigarettes may be more likely to smoke cigarettes in the future.
- Specifically, a 2018 National Academy of Medicine report found that there was some evidence that e-cigarette use increases the frequency and amount of cigarette smoking in the future.⁴
- But e-cigarette use among young people is unsafe, even if they do not progress to future cigarette smoking.

Aren't E-cigarettes Safer Than Cigarettes?

- E-cigarettes expose users to fewer harmful chemicals than burned cigarettes.¹ But burned cigarettes are extraordinarily dangerous, killing half of all people who smoke long-term.
- The use of any tobacco product, including e-cigarettes, is unsafe for young people.

What Can I Do to Prevent My Child from Using E-cigarettes or to Help Them Stop?

- Set a good example by being tobacco-free. If you use tobacco, it's never too late to quit.
 For free help, visit smokefree.gov 2 or call 1-800-QUIT-NOW.
- Talk to your child or teen about why ecigarettes are harmful for them. It's never too late.
- Get the Talk With Your Teen About Ecigarettes F [PDF - 5.2MB] tip sheet for parents. Start the conversation early with children about why ecigarettes are harmful for them.



Let your child know

that you want them to stay away from all

tobacco products,

Talk to your child or teen about why e-cigarettes are harmful for them. It's never too late

including e-cigarettes, because they are not safe for them. Seek help and get involved.

- Set up an appointment with your child's health care provider so that they can hear from a medical professional about the health risks of tobacco products, including e-cigarettes.
- Speak with your child's teacher and school administrator about enforcement of tobacco-free school grounds policies and tobacco prevention curriculum.
- Encourage your child to learn the facts and get tips for quitting tobacco products at Teen.smokefree.gov
 ☐.

Where Can I Learn More?

- Surgeon General's Advisory on E-cigarette Use Among Youth
 Download PDF-572 KB]
- E-cigarettes Shaped Like Flash Drives: Information for Parents, Educators, and Health Care Providers
- Teachers and Parents: That USB Stick Might Be an E-cigarette
- E-cigarettes.surgeongeneral.gov ☑
 - Information from the Surgeon General on the risks of e-cigarettes for young people, and includes free tools such as a parent tip sheet for talking to teens about e-cigarettes
 Image: Imag
- Teen.smokefree.gov 🖸
 - Information for teens who use tobacco products, including tips on how to quit.
- Electronic Cigarettes
 - · Basic information about e-cigarettes from CDC's Office on Smoking and Health.

Resources



TEACHERS AND PARENTS: That USB Stick Might Be an *E-cigarette*

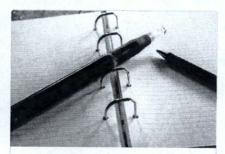
E-Cigarette Infographic

E-CIGARETTES SHAPED LIKE USB FLASH DRIVES:

INFORMATION FOR PARENTS, EDUCATORS, AND HEALTH CARE PROVIDERS

E-Cigarette Fact Sheet

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Know the Risks: A Youth Guide to E-cigarettes Presentation



Fact Sheet for Parents Download the PDF
[PDF 1 MB] or order a free hard copy



Fact Sheet for Health Care Providers [PDF 964 KB]

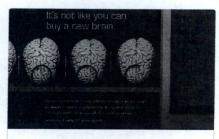


Fact Sheet for Educators [PDF - 809 KB]

Multimedia about E-cigarettes



"One Brain" :30 PSA [MP3-469KB] "One Brain" PSA Transcript



"New Brain" Print Ad [PDF-3MB]

Sources

- 1. US Department of Health and Human Services. *E-cigarette Use Among Youth and Young Adults: A Report of the Surgeon General* [PDF 8.47MB]. Atlanta, GA: US Department of Health and Human Services, CDC; 2016. Accessed July 27, 2018.
- 2. Willett JG, Bennett M, Hair EC, et al Recognition, use and perceptions of JUUL among youth and young adults. *Tobacco Control Published Online First*: 18 April 2018. doi: 10.1136/tobaccocontrol-2018-054273
- 3. Goniewicz ML, Gupta R, Lee YH, et al. Nicotine levels in electronic cigarette refill solutions: a comparative analysis of products from the United States, Korea, and Poland. *Int J Drug Policy*. 2015;26(6):583–588.
- 4. National Academies of Sciences, Engineering, and Medicine. 2018. *Public health consequences of e-cigarettes* 🖸 . Washington, DC: The National Academies Press.

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2018 NYTS Data: A Startling Rise in Youth E-cigarette Use

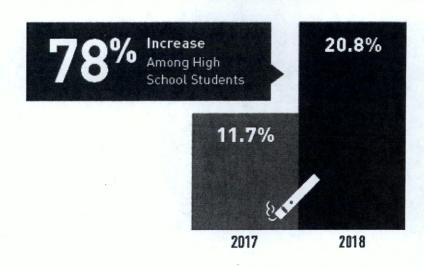
2018 NATIONAL YOUTH TOBACCO SURVEY FINDS CAUSE FOR CONCERN

According to 2018 National Youth Tobacco Survey (NYTS)

(https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w) data, current e-cigarette use—or "vaping"—among middle and high school students increased alarmingly between 2017 and 2018, with over 3.6 million kids currently using e-cigarettes in 2018. Each year, the NYTS—a nationally representative survey funded by FDA and CDC—sheds light on the latest rates of tobacco use among both middle and high school students. In recent years, e-cigarettes have become the most commonly used tobacco product by U.S. teens; however, rates of use generally declined between 2015 and 2017. Unfortunately, the 2018 NYTS data show a sharp and startling reversal of overall declines in youth tobacco use from previous years.¹

E-cigarette Use among High School Students

SURGE IN YOUTH CURRENT E-CIGARETTE USE



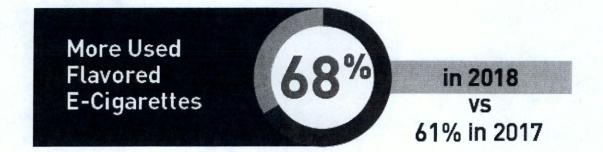
From 2017 to 2018, current e-cigarette use—defined by use on at least one day in the past 30 days—by high school students increased 78 percent, from 11.7 to 20.8 percent, accounting for a troubling 3.05 million American high school students using e-cigarettes in 2018. In addition, the proportion of current e-cigarette users in high school who reported use on 20 days or more in the past 30-day period increased from 20 percent to 27.7 percent between 2017 and 2018.¹

Flavors: A Reason for Use

During the one-year period between 2017 and 2018, among high school students who currently used e-cigarettes, use of flavored e-cigarettes increased as well. Use of any flavored e-cigarette went up among current users from 60.9 percent to 67.8 percent, and menthol use increased from 42.3 percent to 51.2 percent among all current e-cigarette users—including those using multiple products—and from 21.4 percent to 38.1 percent among exclusive e-cigarette users.

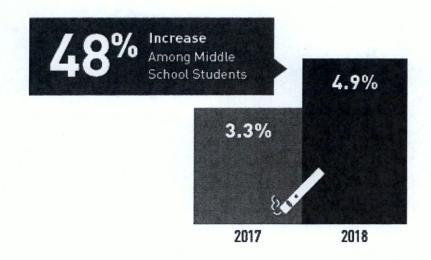
Flavors in tobacco products are problematic, as they can be very appealing to youth, and are frequently listed as one of the top three reasons this population uses e-cigarettes.^{2,3} Additionally, kids whose first tobacco product was flavored are more likely to become current tobacco users than those whose first product was tobacco-flavored.⁴





E-cigarette Use Among Middle School Students

SURGE IN YOUTH CURRENT E-CIGARETTE USE



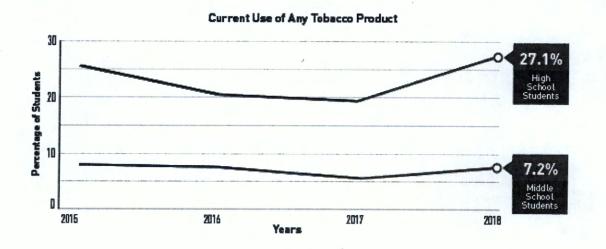
E-cigarette use among middle school students is also on the rise, jumping 48 percent from 2017 to 2018. Today, a total of 4.9 percent of middle school students—or 570,000 kids—are current e-cigarette users.¹

What caused this sharp increase in use?

NYTS study authors hypothesize the last year's increase in e-cigarette use among youth could be attributable to use of USB-flash-drive-like e-cigarettes, including JUUL, which have garnered popularity among youth. These products have high nicotine content; appealing flavors; and the ability to be easily concealed and used discreetly.

Reasons for Concern

E-CIGARETTE USE SURGE LED TO UPTICK IN OVERALL TOBACCO USE – Reversing Previous Declines



The significant rise in e-cigarette use among both student populations has resulted in overall tobacco product use increases of 38 percent among high school students and 29 percent among middle school students between 2017 and 2018, negating declines seen in the previous few years.¹

This is a cause for concern because tobacco use is the leading cause of preventable disease and death in the United States and because nearly all tobacco products contain nicotine. As adolescent brains are still developing, nicotine exposure during youth and young adulthood can

change the way the brain works, leading to a lifetime of addiction and, in some cases, causing long-lasting effects such as increased impulsivity and mood disorders.⁵ Studies also find teens who use e-cigarettes have an increased risk of trying combustible cigarettes.⁶ While completely switching from combustible cigarettes to e-cigarettes may potentially benefit

addicted adult smokers' health,⁶ no tobacco product—including e-cigarettes—is safe for youth to use.

FDA is committed to protecting future generations by preventing youth access to tobacco products, curbing marketing of tobacco products aimed at youth, and educating teens about the dangers of using any tobacco product, including e-cigarettes, as well as educating retailers about their key role in protecting youth. Learn more: FDA's Youth Tobacco Prevention Plan (/tobacco-products/youth-and-tobacco/fdas-youth-tobacco-prevention-plan).

Additional Resources

- Youth Tobacco Use: Results from the National Youth Tobacco Survey (/tobaccoproducts/youth-and-tobacco/youth-tobacco-use-results-national-youth-tobacco-survey)
- Statement from FDA Commissioner Scott Gottlieb, M.D., on new data demonstrating rising youth use of tobacco products and the agency's ongoing actions to confront the epidemic of youth e-cigarette use (/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-new-data-demonstrating-rising-youth-use-tobacco)
- Vital Signs: Tobacco Product Use Among Middle and High School Students United States, 2011–2018 (https://www.cdc.gov/vitalsigns/youth-tobacco-use/)
- CDC Press Release: Results from 2018 National Youth Tobacco Survey show dramatic increase in e-cigarette use among youth over past year (https://www.cdc.gov/media/releases/2019/p0211-youth-tobacco-use-increased.html)
- CDC MMWR: Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students — United States, 2011–2018 (https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w)
- National Youth Tobacco Survey (https://www.cdc.gov/tobacco/data_statistics/surveys/nyts/index.htm)
- Information on regulation of e-cigarettes and other ENDS (/tobacco-products/productsingredients-components/vaporizers-e-cigarettes-and-other-electronic-nicotine-deliverysystems-ends)
- FDA's Youth Tobacco Prevention Plan (/tobacco-products/youth-and-tobacco/fdasyouth-tobacco-prevention-plan)

• FDA's "The Real Cost" Youth E-Cigarette Prevention Campaign (/tobacco-products/real-cost-campaign)

References

Smoking & Tobacco Use

Outbreak of Lung Illness Associated with Using Ecigarette Products

Investigation Notice

Posted September 11, 2019 at 3:00pm ET

CDC, U.S. Food and Drug Administration (FDA), state and local health departments, and other clinical and public health partners are investigating a multistate outbreak of severe pulmonary disease associated with e-cigarette product (devices, liquids, refill pods, and/or cartridges) use. This investigation is ongoing and has not identified a cause, but all reported cases have a history of using e-cigarette products.

E-cigarettes are devices that deliver an aerosol to the user by heating a liquid that usually contains nicotine, flavorings, and other chemicals. E-cigarettes can also be used to deliver marijuana or other substances.

Latest Outbreak Information

- As of September 6, 2019, over 450 possible cases of lung illness associated with the use of e-cigarette products have been reported to CDC from the following 33 states and 1 U.S. territory: AR, CA, CO, CT, DE, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MN, MT, NC, NE, NJ, NM, NY, OH, OR, PA, SC, TN, TX, UT, VA, VT, WI, WV, and the U.S. Virgin Islands. These numbers may change frequently.
- Six deaths have been confirmed in California, Illinois, Indiana, Kansas, Minnesota, and Oregon.
- CDC worked with states to create a case definition to classify cases in a consistent way. State investigators determine if cases are confirmed or probable after examining the medical records of suspected cases and consulting with the clinical care team to exclude other possible causes. Unlike nationally reportable conditions, these cases are requiring clinicians and public health to interview patients to determine product use and individual behaviors.
- CDC will report numbers of confirmed and probable cases once states have finalized their classification of cases.
- We expect that states and clinicians may look back for older cases based on CDC's case definition. States are in the
 process of classifying current possible cases as well as older cases.
- No evidence of infectious diseases has been identified; therefore lung illnesses are likely associated with a chemical exposure. Initial published reports from the investigation point to clinical similarities among cases. Patients report ecigarette use and similar symptoms and clinical findings. These align with the CDC health advisory released August 30, 2019.
- The investigation has not identified any specific substance or e-cigarette product that is linked to all cases. Many patients report using e-cigarette products with liquids that contain cannabinoid products, such as tetrahydrocannabinol (THC).
- These investigations are ongoing. CDC will provide updates when more information is available.

Map of Reported Cases



Recommendations for the Public

While this investigation is ongoing, consider not using e-cigarette products.

If you do use e-cigarette products and you experience symptoms like those reported in this outbreak, seek medical care promptly. CDC and the FDA will continue to alert the public throughout this investigation.

Regardless of the ongoing investigation:

- · Youth and young adults should not use e-cigarette products.
- Women who are pregnant should not use e-cigarette products.
- Adults who do not currently use tobacco products should not start using e-cigarette products.
- If you do use e-cigarette products, you should not buy these products off the street (for example, e-cigarette products with THC or other cannabinoids).
- You should not modify e-cigarette products or add any substances to these products that are not intended by the manufacturer.
- Adult smokers who are attempting to quit should use evidence-based treatments, including counseling and FDAapproved medications. If you need help quitting tobacco products, including e-cigarettes, contact your doctor or other medical provider.

If you are concerned about your health after using an e-cigarette product, you can also call your local poison control center at 1-800-222-1222.

CDC and FDA encourage the public to submit detailed reports of any unexpected health or product issues related to tobacco or e-cigarette products to the FDA via the online Safety Reporting Portal.

Symptoms of Severe Pulmonary Disease Reported by Some Patients in This Outbreak

- Patients in this investigation have reported symptoms such as:
 cough, shortness of breath, or chest pain
 - nausea, vomiting, or diarrhea
 - fatigue, fever, or weight loss
- Some patients have reported that their symptoms developed over a few days, while others have reported that their symptoms developed over several weeks. A pulmonary infection does not appear to be causing the symptoms, which have generally not improved with antibiotic treatment alone.

Recommendations for Healthcare Providers

As this investigation continues, CDC encourages clinicians to report possible cases of e-cigarette-associated pulmonary disease to their local or state health department for further investigation.

If e-cigarette product use is suspected as a possible cause for a patient's lung disease, a detailed history of the substances used, the sources, and the devices used should be obtained, as outlined in the HAN, and efforts should be made to determine if any remaining product, devices, and liquids are available for testing.

Recommendations for Local and State Public Health Departments

CDC encourages local and state health departments to notify CDC about possible cases promptly, and contact CDC for the most recent versions of the surveillance case definitions, reporting guidelines, and case investigation forms.

Local and state public health departments that need data collection tools should email CDC at eocevent101@cdc.gov.

Investigation Details

August 30, 2019

CDC, several states, and federal partners are investigating a multistate outbreak of severe pulmonary disease associated with using e-cigarette products. The investigation is ongoing and has not identified a cause, but all reported cases have indicated use of e-cigarette products.

Based on reports from several states, patients have experienced respiratory symptoms (cough, shortness of breath, or chest pain), and some have also experienced gastrointestinal symptoms (nausea, vomiting, or diarrhea) or non-specific symptoms (fatigue, fever, or weight loss). Some patients have reported that their symptoms developed over a few days, while others have reported that their symptoms developed over several weeks. Some patients have reported gastrointestinal symptoms. Some patients have reported the blood cell gastrointestinal symptoms began before respiratory symptoms. Fever, elevated heart rate, and elevated white blood cell count have been reported, even though no infectious disease has been identified. Many patients sought medical care in ambulatory settings, sometimes over several visits, before they were admitted to the hospital.

Many patients have required medical treatment with supplemental oxygen. Some required assisted ventilation. Some patients have been treated with corticosteroids with demonstrated improvement. Evidence does not suggest an infectious disease is the cause of the severe pulmonary disease. Antibiotic therapy alone has not consistently been associated with clinical improvement.

Investigation of the Outbreak

CDC, FDA, state and local health departments, and other clinical and public health partners are investigating a multistate outbreak of pulmonary disease associated with e-cigarette product (devices, liquids, refill pods, and/or cartridges) use. This ongoing investigation seeks to identify the exposures, demographic, clinical, and laboratory features and behaviors of patients. All patients have reported e-cigarette product use. Some patients have reported using e-cigarettes containing cannabinoid products, such as THC. To date, the investigation has not identified any single substance or e-cigarette product that has been consistently associated with illness.

State health departments are working with FDA to enable collection of e-cigarette product specimens for testing at the U.S. FDA Forensic Chemistry Center.

Key Resources

- MMWR: Severe Pulmonary Disease Associated with Electronic-Cigarette-Product Use Interim Guidance
- MMWR: Notes from the Field: Outbreak of Electronic-Cigarette Associated Acute Lipoid Pneumonia—North Carolina, July-August, 2019
- New England Journal of Medicine: Pulmonary Illness Related to E-Cigarette Use in Illinois and Wisconsin Preliminary Report [2]

The Washington Post

Democracy Dies in Darkness

Maryland, Virginia among 22 states reporting incidents of vaping-related illness

By Laurel Demkovich

August 28, 2019 at 5:36 p.m. EDT

Maryland and Virginia are among 22 states that are reporting cases of vapingrelated illness.

At least one death has been reported, in Illinois.

Maryland announced Wednesday that the Department of Health and the Maryland Poison Center at the University of Maryland School of Pharmacy have identified five individuals who have developed severe lung illness after using e-cigarettes. All required hospitalization, according to a news release.

Virginia has reported three cases as of Monday, two in northern Virginia and one in the southwest part of the state. Health officials also are investigating other potential cases, according to a statement from the state's Department of Health. D.C. health officials have reported no cases in the District, a Department of Health spokeswoman said.

"The Maryland Department of Health is taking this issue seriously and is working with local health departments, the Centers for Disease Control and Prevention and the Food and Drug Administration to identify anyone who may be experiencing similar symptoms," Maryland Deputy Secretary for Public Health Frances B. Phillips said in a news release

The Centers for Disease Control and Prevention said 193 potential cases of severe lung illness had been reported as of Aug. 22.

On Aug. 23, an Illinois resident died after being hospitalized with a severe respiratory illness associated with vaping.

Symptoms of the illness include shortness of breath, pain associated with breathing, coughing, fever, nausea, vomiting and diarrhea, according to Maryland health officials.

Anyone who has these symptoms and has a history of e-cigarette use is urged to seek medical attention immediately, said Virginia health officials.

The cause of the illness is not yet known and it has not been linked to any particular device or brand, according to Maryland health officials. Those who reported being ill claimed to use a variety of vaping products, including ones containing marijuana, THC and nicotine.

Since 2014, e-cigarettes have become popular among many middle and high school students without fully knowing their long-term effects. In 2018, more than 3.6 million U.S. middle and high school students had used e-cigarettes in the past 30 days, according to the CDC.

E-cigarettes contain nicotine as well as harmful ingredients and chemicals, all delivered at much higher rates than in cigarettes, according to D.C.'s Tobacco Control Program.

Health departments are encouraging medical providers to ask about history of

recent e-cigarette use or vaping and to report potential cases to their local health departments.

Laurel Demkovich

Laurel Demkovich is a cops and courts reporter for the local desk.

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https://beta.washingtonpost.com/local/maryland-virginia-among-22-states-reporting-incidents-of-vaping-related-illness/2019/08/28/dddf1c26-c9d2-11e... 4/6
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Teen Vaping Linked to More Health Risks

By KATHLEEN RAVEN (MAILTO:KATHLEEN.RAVEN@YALE.EDU) SEPTEMBER 7, 2019

Young people may think that vaping does no harm – and that's a problem.



A popular type of vaping device, called pod mods, look like USB drives and can even be charged via a laptop or USB port. Yale researchers in addiction medicine are concerned that teens may not know that they could be vaping with nicotine, a highly addictive drug.

Credit: Getty Images

[Originally published: September 13, 2018. Updated: September 7, 2019.]

During a recent media briefing, the Centers for Disease Control and Prevention (CDC) advised people to avoid e-cigarettes while federal and state officials investigate a nationwide outbreak of severe respiratory illnesses associated with the use of e-cigarette, or vaping, products. "Of course, e-cigarette use is never safe for youth, young adults, or pregnant women," said CDC's Dana Meaney-Delman, MD, who is managing the agency's response to the outbreak.

Federal and state officials have reported hundreds of total possible cases of pulmonary disease and several deaths that may be related to vaping. Patients' symptoms ranged from cough, chest pain and shortness of breath to fatigue, vomiting, diarrhea, and fever, according to the CDC.

"Based on clinical and laboratory evidence to date, we believe that a chemical exposure is likely associated with these illnesses," Dr. Meaney-Delman said. "However, and I really want to stress this, more information is needed to determine which specific products or substances are involved."

As part of their investigations, state health officials have sent samples of products to the Food and Drug Administration (FDA) for analysis. The FDA is evaluating these samples for THC (the high-inducing compound in marijuana), nicotine, Vitamin E acetate, and a range of other chemicals.

Even if or when a potential culprit is identified, Mitch Zeller, director of FDA's Center for Tobacco Products, cautioned that it will be only "one piece of the puzzle...and it makes all of our ongoing work that much more critical."

Last year, the U.S. Surgeon General's office began the work of awareness when the nation's doctor, Jerome Adams, MD, issued a warning that vaping among youth has reached epidemic levels.

The numbers are startling. More than 3.6 million middle and high school students currently use e-cigarettes, according to the latest National Youth Tobacco Study. Another national study last year found that 11 percent of high school seniors, 8 percent of 10th-graders, and 3.5 percent of eighth-graders vaped with nicotine (/stories/vaping-nicotine-addiction/) during a previous one month period. The worrying part? Young people think vaping is mostly harmless.

To understand vaping, it's best to start on broad terms. To vape is to inhale vapor created from a liquid heated up inside a device. From there, things quickly get complicated. The devices have many names—vape pens, pod mods, tanks, electronic nicotine delivery devices (ENDS), e-hookahs and e-cigarettes. The liquid they contain also has many monikers—it might be called e-juice, e-liquid, cartridges,



pods, or oil. Most vape liquids contain a combination of propylene glycol or glycerol - also called glycerin - as a base, and nicotine, marijuana, or flavoring chemicals to produce common or outlandish flavors, from mint to "unicorn puke." The devices rely on batteries to power heating elements made of various materials that aerosolize the liquid.

What's more, the San Francisco-based company that sells Juuls – currently the most popular vaping device on the market – offers vape liquid made from nicotine salts found in loose-leaf tobacco instead of the traditional free-base nicotine found in most e-cigarette liquid. This may allow the user to experience a higher – and more addictive – concentration of nicotine, according to an article (https://www.nejm.org/doi/full/10.1056/NEJMp1805758) *in The New England Journal of Medicine*.

Since e-cigarettes arrived in the U.S. in 2007, they have been investigated by addiction researchers as possible cessation devices for adults trying to quit combustible, or regular, cigarettes. The Food and Drug Administration (FDA) lists 93 harmful or potentially harmful chemicals found in regular cigarettes, and the National Cancer Institute (NCI) describes cigarettes as having more than 7,000 chemicals in them. E-cigarettes contain fewer chemicals and so the industry has presented them as a healthier alternative to regular cigarettes. But vape liquids can still contain nicotine, a highly addictive drug.

And on one point, Yale health researchers who study the health effects of vaping and e-cigarettes agree: Vape devices have not been proven to help adult smokers quit smoking. Moreover, vaping increases the risk a teen will smoke regular cigarettes later.

"The addiction to nicotine and later conversion to (or dual use with) regular cigarettes are the greatest concerns," says Roy S. Herbst, MD (/doctors/roy_herbst/), Yale Medicine's chief of medical oncology at Yale Cancer Center. He points to two heavyweight organizations, the American Society of Clinical Oncology (ASCO) and the American Association for Cancer Research (AACR), that have issued statements that vaping could be harmful to youth. (Dr. Herbst chairs the AACR Tobacco & Cancer Subcommittee that led the development of the statement.)

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The popularity of Juul is worrying to addiction researchers. Juuls arrived late to the e-cigarette market in 2015, about eight years after vaping devices first began appearing in the United States. But the company, called Juul Labs, has surged ahead of competitors. Juul accounted for 72 percent of the e-cigarette market in August 2018, according to news reports. Sleek and slim, with an appearance that mirrors a flash drive, Juul has been established among youth as the vaping tool of choice. Teens even morphed the brand into a verb – juuling – according widespread news coverage chronicling its rise. "When we ask teens about their vaping or e-cig habits, they don't even consider juuling to be part of that," says Suchitra Krishnan-Sarin, PhD, co-leader of the Yale Tobacco Center for Regulatory Science, one of nine centers in the country currently funded by the National Institutes of Health (NIH) and the FDA to foster tobacco regulatory research.

Juul and other vape manufacturers, including Vuse, MarkTen XL, blu, and Logic, came under scrutiny by the FDA for marketing and sales practices that seemed aimed at teens and young adults, according to an announcement the FDA released in September 2018. At the time, the agency asked the companies to submit plans on how they planned to address widespread youth access and use of their products.

"We cannot allow a whole new generation to become addicted to nicotine," former FDA Commissioner Scott Gottlieb, MD, said in the release.

Surgeon General Adams shared similar concerns, which he outlined in a news conference last year: "The number one reason young people say they try these devices is because they have flavors in them," Dr. Adams said, noting that e-cigarettes come in kid-friendly flavors.

While it's possible to buy liquid without nicotine for some e-cigarettes, it's not possible to do so with popular pod mod devices. According to Juul's website – in a description that has since been taken down – a single Juulpod contains 40 mg of nicotine, which is similar to "the nicotine yield of a pack of cigarettes." (The company also sells Juulpods with approximately 23 mg of nicotine.) But researchers explain that it's difficult to describe a single pod as a "serving." A person might consume one pod in a week, while another may take only one day.

A stubborn trend

Teen Vaping Linked to More Health Risks > Stories at Yale Medicine

When potentially risky behaviors experience an uptick in popularity, health researchers are never far behind – gathering data. A Yale study last year found that, among students at three Connecticut public schools, those who used e-cigarettes were more likely to smoke regular cigarettes in the future.

Krishnan-Sarin points to progress that has been made – finally – in recent years to reduce regular cigarette smoking rates among young adults. In her opinion, the significant decline is due to the success of large-scale public health campaigns and a general awareness among youth that cigarettes are harmful to health.

She is concerned that most teens who vape with nicotine don't know the drug can be damaging to their development. "We have a lot of evidence showing that the adolescent brain is extremely sensitive to the effects of nicotine," she says, adding that the brain doesn't stop growing until around age 25. "Studies have shown us that nicotine can interfere with memory and attention processing."

In his imaging studies of adults who use e-cigarettes, Stephen Baldassarri, MD (/doctors/stephen_baldassarri/), an internist at Yale Medicine, has begun to gather information on the factors that influence nicotine delivery from e-cigarettes and whether vaping promotes cessation from conventional cigarette smoking. Teens cannot participate in such studies, but "we all agree that e-cigs are not a good thing for youth and nonsmokers," Dr. Baldassarri says.

How to talk to your kids

Probably the worst thing a parent could do for their child would be to buy an ecigarette under the misconception that this might prevent them from smoking regular cigarettes, Krishnan-Sarin says. She encourages parents to talk openly and freely about vaping — with the caveat that they provide accurate information. "I think the problem is that parents lose credibility if they say something to try and convince their child, who then finds out that it isn't true," she says.

"Parents should base their information on accurate facts and also encourage their children to read about and understand the science on this issue instead of relying on what their friends and peers tell them."

Dr. Baldassarri suggests explaining the addictive nature of vaping, which would mess with the one thing teens crave the most: independence. "In some ways, when you get addicted to a drug, it's like losing your freedom of choice," he says. "The risk of losing that freedom might be a persuasive message for kids."

Deepa Camenga, MD (/doctors/deepa_camenga/), a pediatrician who is boardcertified in addiction medicine, says it's never too early to begin talking about ecigarettes in age-appropriate language. "When you are out and about with your children and see an advertisement, for example, take the opportunity to talk about it," she says. As they grow older, parents can expand on their thoughts and expectations. "It's also important to give teens and young adults the space to ask questions," she says.

Patrick O'Connor, MD (/doctors/patrick_oconnor/), Yale Medicine's chief of general internal medicine, who has dedicated his career to researching opioid and alcohol drug abuse, points to similarities between epidemic cigarette use in the 1940s and 50s, and e-cigarette use now.

Even as evidence accumulated on the link between lung cancer and cigarette use, doctors didn't always take time to talk to patients about those risks, he says. "I think it's a major responsibility of physicians, family medicine doctors, pediatricians, and adolescent medicine practitioners. One of the big deficits in medical education has been to prepare medical students to address these issues with their patients, ask them about their use of these substances, and advise them on the risks," Dr. O'Connor says. "This is as true for e-cigarette use and vaping as it is for alcohol and other drug use."

What may be the most important message of all is that e-cigarettes and vaping come with many health unknowns, Dr. O'Connor adds. "You see plumes of what looks like steam coming out of people's mouths on the street when they are vaping, and I think they assume it's mostly safe, mostly water. But these liquids used in vaping are filled with all kinds of stuff [like nicotine, marijuana, flavoring agents, chemicals], and we don't always know what else is in there," he says.

Surgeon General Adams echoed these concerns in his news conference following the release of his advisory: "Studies show that youth, like my son, have no clue what's in these products most of the time."

Months after the release of the advisory, Yale researchers found (/stories/vapingdangers/) that byproducts, called acetals, form when flavoring agents mix with solvents in the liquid. It is not yet known if this has negative effects on the body, but Teen Vaping Linked to More Health Risks > Stories at Yale Medicine

Sven-Eric Jordt, PhD, one of the study's authors, says he hopes that the FDA will begin to study the short- and long-term effects of inhaled acetals. "We want these companies to be more transparent about what's in their liquids," he says.

To learn more, go to Yalemedicine.org. (https://www.yalemedicine.org/stories/)



Roy S. Herbst (/doctors/roy_herbst/) MEDICAL ONCOLOGY

Call 203-200-5864 for an appointment (tel:+1-203-200-5864)



Stephen Baldassarri (/doctors/stephen_baldassarri/) PULMONARY CRITICAL CARE



ROCKVILLE, MARYLAND

M E M O R A N D U M

November 1, 2019

TO: Nancy Navarro, President, County Council

FROM: Richard S. Madaleno, Director, Office of Management and Budget KBM. Michael Coveyou, Acting Director, Department of Finance June

SUBJECT: FEIS for Bill 29-19, Health and Sanitation Electronic Cigarettes - Distribution

Please find attached the Fiscal and Economic Impact Statements for the above-referenced legislation.

RSM:cm

cc: Andrew Kleine, Chief Administrative Officer Fariba Kassiri, Deputy Chief Administrative Officer Debbie Spielberg, Special Assistant to the County Executive Dale Tibbitts, Special Assistant to the County Executive Lisa Austin, Office of the County Executive Barry Hudson, Director, Public Information Office David Platt, Department of Finance Dennis Hetman, Department of Finance Raymond Crowel, Department of Health and Human Services Monika Coble, Office of Management and Budget Estela Gomes, Office of Management and Budget Lindsay Lucas, Office of Management and Budget Chrissy Mireles, Office of Management and Budget

Fiscal Impact Statement Zoning Text Amendment 19-06 Vape Shops Bill 29-19, Health and Sanitation -Electronic Cigarettes -Distribution

1. Legislative Summary

Zoning Text Amendment 19-06 would add Vape Shops as a limited use allowed in certain zones. Bill 29-19 would prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within 0.5 miles of middle and high schools in the County. The resolution would adopt Bill 29-19 as a Board of Health Regulation.

2. An estimate of changes in County revenues and expenditures regardless of whether the revenues or expenditures are assumed in the recommended or approved budget. Includes source of information, assumptions, and methodologies used.

Bill 29-19 will not have an impact on County revenues or expenditures. The Department of Health and Human Services, Montgomery County Police Department, Alcohol Beverage Services, and the Department of Permitting Services all advise that enforcing the bill's provisions can be handled within existing resources and personnel.

3. Revenue and expenditure estimates covering at least the next 6 fiscal years.

Not applicable.

4. An actuarial analysis through the entire amortization period for each bill that would affect retiree pension or group insurance costs.

Not applicable.

5. An estimate of expenditures related to County's information technology (IT) systems, including Enterprise Resource Planning (ERP) systems.

No additional expenditures related to the County's information technology systems are expected.

6. Later actions that may affect future revenue and expenditures if the bill authorizes future spending.

Not applicable.

7. An estimate of the staff time needed to implement the bill.

No additional staff time is needed to implement the bill's provisions.

- 8. An explanation of how the addition of new staff responsibilities would affect other duties.
 - Not applicable.
- 9. An estimate of costs when an additional appropriation is needed.

Not applicable.

10. A description of any variable that could affect revenue and cost estimates.

Not applicable.

11. Ranges of revenue or expenditures that are uncertain or difficult to project.

Not applicable.

12. If a bill is likely to have no fiscal impact, why that is the case.

The Department of Health and Human Services, Montgomery County Police Department, Alcohol Beverage Services, and the Department of Permitting Services all advise that enforcing the bill's provisions can be handled within existing resources and personnel.

13. Other fiscal impacts or comments.

Not applicable.

14. The following contributed to and concurred with this analysis:

Clark R. Beil, Senior Administrator, Department of Health and Human Services Neil A. Shorb, Director, Montgomery County's Department of Police John Martin Utermohle, Chief of Administrative Services, Alcohol Beverage Services Barbara Suter, Management and Budget Manager, Department of Permitting Services Estela Gomes, Fiscal and Policy Analyst, Office of Management and Budget Lindsay Lucas, Fiscal and Policy Analyst, Office of Management and Budget

Richard S. Madaleno, Director

Office of Management and Budget

11/1/19

Economic Impact Statement Bill 29-19, Health and Sanitation – Electronic Cigarettes – Distribution

Background:

Bill 29-19 would:

- (1) prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within a certain distance of certain schools; and
- (2) generally amend County law regarding smoking, electronic cigarettes, and health and sanitation.

The Bill's goal is to address a rapid rise in e-cigarette use among youth, the associated health concerns, and to reduce access to e-cigarette products for County youth.

1. The sources of information, assumptions, and methodologies used.

- September 2019 (FY20) Selected Operations Summaries, Montgomery County Division of Treasury
- Bloomberg Businessweek, "Juul's Wildly Successful, Very Silicon Valley Business has a Serious Bug", Lauren Etter, Ben Elgin, and Ellen Huet; 10/14/2019

According to a study published this month in the New England Journal of Medicine, one in nine U.S. high school seniors say they now vape almost daily¹. The 2018 National Youth Tobacco Survey showed that an estimated 3.6 million middle and high school students used e-cigarettes, an increase of more than 70% from the previous year. Opposition has recently catalyzed against e-cigarette brands as mysterious killer vapes have heightened anxiety about the unknown long-term health risks associated with vaping particularly among youth.

The most prominent e-cigarette brand is Juul with more than \$1 billion in annual revenue and 70% of the U.S. vape market according to market researcher IRI. Juul currently faces multiple investigations by the U.S. Food and Drug Administration, the Federal Trade Commission, a congressional inquiry, and a criminal probe by the Department of Justice. San Francisco recently banned the sale and distribution of e-cigarettes and this month Kroger Co. joined Walmart Inc. and other retailers in announcing it would stop selling e-cigarettes.

Juul began with a goal to save millions of lives a year by helping smokers switch to a seemingly healthier alternative. However, through their efforts to perfect the delivery of nicotine promoted by Instagram marketing, much of the decade's antismoking gains were being undone and vaping became a fact of life for teens. Bloomberg Businessweek in a cover story this month on the company notes "Achieving verb status is a hallmark of next-level success for any Silicon Valley company, and Juul has reached other such milestones as it became the world's third-most-valuable startup...but the biggest chunk of the money didn't come from Silicon Valley venture capitalists; it came from Altria Group Inc., the Marlboro maker formerly known as Philip Morris, which received a 35% stake... Big Tobacco's replacement project was beginning to look like a standard tobacco company." Locally, Maryland Comptroller Peter Franchot announced last week the launch of a task force to examine the effects of vaping and e-cigarettes, as more people across the country are becoming affected.

2. A description of any variable that could affect the economic impact estimates.

¹ Miech, Richard. (2019) "Trends in Adolescent Vaping, 2017-2019" NEJM.org

Economic Impact Statement Bill 29-19, Health and Sanitation – Electronic Cigarettes – Distribution

The number of retail stores within 0.5 miles of middle and high schools in the County will affect the potential economic impact of the legislation. According to the latest Selected Operation Summary from the Division of Treasury there are currently 37 registered retailers in the County, up 27% from 29 in FY19.

3. The Bill's positive or negative effect, if any on employment, spending, savings, investment, incomes, and property values in the County.

The Bill is not anticipated to have a discernable effect on employment, savings, investment, incomes, and property values in the County but is projected to alter the current trajectory of exponential growth in the e-cigarette tax which is estimated to grow 88% this year over 2018. Total collections in 2019 are estimated to be approximately \$1.3 million or .02% of the County's \$5.8 billion FY20 approved operating budget.

	2016	2017	2018	2019
	Actual	Actual	Actua!	Prelim. Final
E-Cigarettes	\$372,931	\$483,415	\$698,169	\$1,317,692
annual growth rate:		29.6%	44. 4%	88.7%

The Council packet notes that while there is a potential health impact from e-cigarettes there is also a lack of data on the potential economic impacts including the effects on income and health care. The largest anticipated economic effect from the legislation will be on the revised revenue and earnings estimates of e-cigarette makers and distributors in the County. Given the multiple national measures to alter access to e-cigarettes, investigations, lawsuits, and concerns regarding the severe unknown associated health risks of vaping, the e-cigarette industry is expected to be structurally altered over the coming years to barely resemble the distribution networks and growth rates that it knew as recently as last year. The economic impact of this shift to the County is expected to be minimal with declines expected in the e-cigarette tax that currently comprise .02% of the FY20 operating budget.

4. If a Bill is likely to have no economic impact, why is that the case?

See number 2.

5. The following contributed to or concurred with this analysis:

David Platt, Dennis Hetman, and Robert Hagedoorn, Finance.

Michael Coveyou, Acting Director Department of Finance

10/20/19

Date

Testimony of Madeleine Wenk Montgomery County Council November 5, 2019

Hi, my name is Madeleine Wenk, I am 12 years old. I go to Sligo Middle School and I am in seventh grade. I have lived in Silver Spring since I was born. I play soccer, I swim, I get good grades and I am in the school play.

I am here tonight to support various bills which together would:

- Not allow vape shops near our schools
- Not allow flavored e-cigarettes to be sold near schools, libraries and other places kids go like playgrounds
- Prohibit e-cigarettes from being sold to anyone under age 21

I am here because everyone should be healthy - and more and more kids are using these e-cigarettes, and some are dying. There was a girl at my school, who juuled. And it's really bad and I wonder how she got access to e-cigarettes. At a Nats game, I saw a high schooler who had access to one and was vaping.

I'm not just worried about their health, but others around them because the smoke or the vape goes through your lungs. The smoke is really bad for your lungs because it damages and blocks your airways making it hard to breathe and can cause lung illness.

Here are just a few reasons why I support these bills:

- With no vape stores around fewer kids would have access.
- More kids would stay safe without them.
- Less people would die because of vaping.

- It would be illegal for teens up to age 21 to have access to ecigarettes, so they wouldn't be able to get a hold of them
- People don't know how much nicotine can affect you-. they don't know that nicotine can cause you to be addicted to tobacco products and kill you.
- Since there are several different flavors like mint, bubble gum, and watermelon, etc... kids don't think that the product contains as much nicotine because of the flavor.
- Also, I found out that one JUUL pod has the amount of nicotine as 20 cigarettes.
- With the flavor, it may seem like the nicotine is not there but with or without the flavor is doesn't make a difference.
- Kids also don't know how addictive the chemicals are and try it once, and then at some point do it several times a week.
- Also, think about the athletes if they juul not only is it terrible for their health but it messes with their brain causing them brain damage and not being able to focus. If they can't focus, they can't play the game.

In conclusion, I support the bills and urge the Council to pass them. Our schools and neighborhoods will be safer and healthier.

November 5, 2019

Honorable Councilpersons,

My name is John O' Hara. I am the President of the Maryland Group Against Smoker's Pollution (MDGASP), an organization with over 1,000 members across the state. Approximately one third of our members are from Montgomery County.

Over the last four decades I have testified before this Council approximately 20 times pertaining to tobacco and vaping control. The reason for my many testimonies is that Montgomery County has been perhaps the most aggressive county in the State of Maryland when it comes to protecting the health of its citizens.

During these many hearings, I, the Council members and attendees heard the tobacco industry tell many half truths and in some cases blatant lies. Now we are hearing the same kind of rhetoric from the vaping industry, some of whom are owned by the tobacco industry. Fortunately, the previous councils saw through the tactics of the tobacco industry and passed marvelous legislation to protect Montgomery County residents.

Over 25% of our high school students and even 10% of our eighth graders are hooked on vaping The facts are clear that vaping is harmful and extremely addictive. Many adults and young people are dying from vaping.

In order to protect ALL county residents and especially our young people, I urge the Council to pass the strongest possible legislation to prohibit the distribution and sale of any flavored tobacco and vape products. The physical health of your constituents is far more important than the financial health of the tobacco and vaping industry.

Respectfully.

John O' Hara: Ph. D President Maryland Group Against Smoker's Pollution Box 863, Bowie, MD 20718 (P) 301-262-3434 (C) 301-351-8839 MDGASP@aol.com

Testimony to Montgomery County Council November 5, 2019 Hearing on Bills 29-19, 31-19, and 32-19

Good Evening, President Navarro, Vice President Katz, and County Council Members,

My name is Patty Winters. I am the proud team leader of that rockin' group of volunteers, Phoenix Rising: Maryland Recovery School Advocates and I am here tonight as activist for our youth to make alcohol-and-other drug-free choices since 2008.

I commend your work on Bills 29-19, 31-19, and 32-19. I think we all know there is no easy fix to the youth vaping epidemic, and efforts to resolve it will take time, with some trial and error. I have seen uninformed troll and other nay-sayer comments on social media, but these bills are among effective strategies that, to use Councilmember Reimer's phrase, are within our reach.

Probably our biggest obstacle to impacting this epidemic is when adolescents do not know or appreciate the multi-layered and long-term risks inherent in using electronic nicotine delivery systems (ENDS)...

If you are not already applying these resources as part of your ongoing work on this epidemic, I would like to offer the following strategies to empower our youth to avoid these products, and two bill revision suggestions.

Strategies to Reduce Youth Use of Electronic Nicotine Delivery Systems

- 1. Invest in approaches to solicit a diverse cross-section of middle and high school student input on effective methods to educate our youth and help them develop strong resilience skills so they are confident enough and respect themselves enough to walk away from negative influences and not worry what others think.
 - a. Host a Youth Town Hall or two specifically focused on vaping and other high risk behaviors; perhaps designate some time to these topics at your November 13 Town Hall.
 - b. At county recreation centers, pools, and libraries, offer surveys or sit with an onsite Council or HHS representative to identify these strategies.
 - i. Collaborate with MCPS to make these SSL-hour activities.
- Expand alternative peer group (APG) efforts.² Although created for the recovery community, APGs are a powerful preventive strategy as well. The nonprofits Project Change (<u>https://www.projectchange-md.org/</u>) and Identity (<u>https://identity-youth.org/</u>) are excellent APG models.
- 3. Collaborate with MCPS to address youth vaping and other substance abuse as a Parent Academies event.
- 4. Provide Motivational Interview¹ training to county staff who work with our youth.

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Suggested Revisions to Related Documents Bill 31-19: Delete "(or 18 with military ID)."

Research by the National Institute on Alcohol Abuse and Alcoholism showed "people who begin drinking before age 14 are about three times more likely than those who begin drinking at or after age 21 to be injured while drinking..."This analysis shows that for each year under age 21 that drinking onset is delayed, risk for later life injury diminishes."³

Underage drinking and youth ENDS use share enough common denominators (for example, becoming addicted to the ingested drug and unhealthy risky behavior patterns) that I believe this research can easily be applied to youth ENDS use.

Should we not empower our youth in the military with the same knowledge and advantage of delaying their first ingestion of drugs with legal age limits to age twenty-one years? Why enable these brave, sacrificing youth in the military with the opportunity to become (or remain) addicted to nicotine, or possibly ingest tainted ENDS, when we could help them avoid or stop this addiction and all it is fraught with?

Zoning Text Amendment (ZTA) No. 19-06, first paragraph: "Bill 31-19 would prohibit the distribution of any tobacco product, coupon redeemable for a tobacco product, cigarette rolling paper, or electronic cigarette to any individual under 21 except under certain circumstances. It would also prohibit an individual under 21 from using or possessing a tobacco product or electronic cigarette except under certain circumstances."

Does "certain circumstances" refer to under-21s in the military or is there another intended reference? Please consider rewording this paragraph to be more clear.

Thank you for your committed service to help our youth avoid risky behaviors.

Patty Winters

Team Leader, Phoenix Rising: Maryland Recovery School Advocates

November 5, 2019

Footnotes

¹Enhancing Motivation for Change in Substance Abuse Treatment, Chapter 3—Motivational Interviewing as a Counseling Style. Center for Substance Abuse Treatment. Enhancing Motivation for Change in Substance Abuse Treatment. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 1999. (Treatment Improvement Protocol (TIP) Series, No. 35.) Chapter 3Motivational Interviewing as a Counseling Style. Available from: <u>https://www.ncbi.nlm.nih.gov/books/NBK64964/</u>.

²Crystal Morrison Caitlin Bailey, "The Alternative Peer Group: A Recovery Model for Teens and Young Adults": <u>http://www.drug-addiction-help-now.org/blog/2012/03/alternative-peer-groups-successful-recovery-model/</u>.

³Early Drinking Onset Increases Lifetime Injury Risk, September 29, 2000: <u>https://www.niaaa.nih.gov/news-events/news-releases/early-drinking-onset-increases-lifetime-injury-risk</u>.

Addenda

Sites describing strategies to engage adolescents Trust for America's Health, "Addressing a Crisis: Cross-Sector Strategies to Prevent Adolescent Substance Use and Suicide." October 29, 2019 : <u>https://www.tfah.org/report-</u> <u>details/adsandadolescents/</u>

Brett Dahlberg, "As e-cigarette use rises in teens, one school district tries a new approach." Oct 7, 2019 <u>https://www.wxxinews.org/post/e-cigarette-use-rises-teens-one-school-district-tries-new-approach?fbclid=IwAR26ZhMYIWAuErHbL2OFahoSeJDLYGZdJS6dRFCCs_v6qWEsB1guGNI7uhk</u>

James Poulos, "Iceland asked its teens why they binge drink. Their responses changed everything." October 21, 2019: <u>https://megaphone.upworthy.com/p/iceland-substance-abuse?fbclid=IwAR0y51gcnN5t3qKnRKuAYqNpMqzVgfGSVVIHaB3hIVOIkA-4WQKX1Z1so2o</u>

National Institute on Alcohol Abuse and Alcoholism, *Make a Difference: Talk to Your Child About Alcohol*, NIH Publication No. 16-4314, Published: 2003, Revised 2009. <u>https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/make-a-difference-child-alcohol#TakingAction and https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/make-a-difference-child-alcohol#DrinkingProblem.</u>

National Cancer Institute "Become a Smoke-free Teen" site: https://teen.smokefree.gov/.

Recent Related Reports

Jeff Morris, "Two high school students overdose on heroin-laced vape pens, Morgantown police say." November 1st 2019: <u>https://wchstv.com/news/local/two-high-school-students-overdose-on-heroin-laced-vape-pens-morgantown-police-say?fbclid=IwAR0P-t8zLrZAX4VXk33D-TCVSxIE5RAqRJ0LXnyT-L-NcIJISgzVFjsuALY</u>

Taylor Telford, The Washington Post, "Juul put 1 million tainted pods into the market, former executive alleges in lawsuit." October 30, 2019:

https://www.washingtonpost.com/business/2019/10/30/juul-put-million-tainted-pods-intomarket-former-executive-alleges-lawsuit/?fbclid=IwAR2iapfww100cg1HhFsectjWmADkhHsWEX7Ye6tzM9MpdbJm2-EqYRQ-ds

Angelica LaVito, CNBC report, "E-cigarette giant Juul suspends sales of all fruity flavors ahead of looming US ban." October 17, 2019: <u>https://www.cnbc.com/2019/10/17/e-cigarette-giant-juul-suspends-sales-of-fruity-flavors-ahead-of-looming-</u>

ban.html?fbclid=IwAR3zTUa9wvw8oBK0faqg26RsDkKiwcLL9BEHpmgvRaWITCX0OcCdsabWHQI

November 14, 2019 Local Event:

TESTIMONY: BETHESDA VAPOR COMPANY / DOWNTOWN VAPOR COMPANY OWNERS: RODRIGO SANTOS; JESSE FLORES; REZA AHMADABADI

Good Evening and thank you for your time.

I represent two local businesses, Bethesda Vapor Company and Downtown Vapor Company.

We are here to talk to you about the different types of vaporizers on the market which are Open-Coil Systems and Closed-Pod Systems, such as Juul, and the link between closed pod systems and the rise of underage use.

An Open-Coil system is a refillable tank with a coil heating element. The user will add their own e-liquid with the nicotine level of their choosing, normally on a low level. This allows the user to gradually decrease their nicotine intake and reduce dependency. This type of unit makes it easier to know exactly what substance is being vaporized and has been a dominant system in the vaporizer market for the past several years. By allowing the user to be able to gradually lower their nicotine intake, an open-coil system is an effective tool to break a smoking habit and ultimately a nicotine addiction. Being as this is a more involved system requiring educating the user, open-coil systems are predominantly obtained at age-restricted vape shops.

A Closed Pod system consists of a cartridge pre-filled with liquid with a high level of nicotine. They introduce high levels of nicotine and are designed to be disposable and discreet. The recent reports of increased nicotine addiction has been a result of these types of systems being readily available at most gas stations and convenience stores. These locations do not take the time to interact and engage with the user and provide little to no knowledge about the addictive products they are selling. Vape Shops take pride in making sure our community is well informed and try to combat illicit use by requiring appropriate identification. As the eyes of disapproval are on vaping and nicotine, combustible cigarettes are taking lives every second and are readily available on almost every street corner.

The recent rise in underage use can largely be contributed to convenience store and gas station sales of these closed pod systems and as the data provided by state of Maryland shows, virtually all infractions for underage sales happen at a non age restricted store and at locations that are open to general public. Reputable vape shops such as ours and the ones of my colleagues with me here today, have had age restrictions implemented since our doors opened requiring proper Government issued ID to be presented for all purchases. We provide knowledge and guidance for the end user to make an informed decision and do our best to ensure our products are sold to users of legal age.

CDC has confirmed that almost all cases of recent illnesses have been linked directly to using Black Market Cartridges pre-filled with THC and other illicit substances, none of which are found in the products in our stores. We fear that further punishing reputable businesses like ours will only cause a rise in black market production and distribution. Giving current users and people looking for help and information with no where to turn will only lead to poor decisions and unfavorable results. Flavor bans have been introduced and subsequently overturned in several states and jurisdictions. The quick reversals are a clear example that it is not the way to fight the issue.

For the past 5+ years our stores have helped thousands of individuals combat their addiction to smoking and nicotine addiction by offering reputable products that would help wean users off combustible cigarettes. This is largely due in part to having options for lower nicotine levels found in traditional combustible cigarettes, and also for having flavors that do not resemble traditional tobacco. Although tobacco type flavors are available, a large majority of former smokers opt for more fruity and savory flavors. This is an advantage to help people get rid of all reminders of the effects of combustible cigarettes. Flavors provide the user the ability to find something that fits their needs.

Instead of enforcing a zoning clause or a flavor ban, we believe that introducing legislation to limit sales of any vaporizer products to age-restricted stores and regulating a limit on the amount of nicotine to no more than 25mg (or 2.5%) will better help to try and curb underage use. We ask that you please allow us to keep educating our communities and lets work together to target the real issues.

James Collins

Let me start off by saying I vape, and I vote.

First of all, I don't believe that there is a, to quote Hans Reimer, "emergency" or a vaping "crisis" or "epidemic" over teen vaping. Yes, vaping among teens is up, but cigarette smoking is down, and if it's the same kids, that would have taken up cigarettes, that are instead vaping instead of smoking, that's a good thing.

The British version of the American Medical Society, the Royal College of Physicians, has stated that vaping is 95% safer than smoking. They recently revised that to 99% and are urging all British smokers to switch to vaping instead.

This proposed legislation does exactly the opposite.

The current spate of illnesses and unfortunate deaths that have been erroneously attributed to vaping have clearly been caused by contaminated THC laced with vitamin E, causing lipid pneumonia.

This is based on the latest information from the CDC, the Center for Disease Control.

With regard to flavored e-juice, which is supposedly being used to target kids, 95% percent of adult vapers prefer fruit or dessert flavors over tobacco flavor.

I myself prefer "donut".

Gabe Albornoz has said "flavors such as Pina Colada, cotton candy, bubble gum...clearly these flavors have youth and children in mind"

Do you know what else comes in exactly those flavors? Vodka.



The bills being proposed today would potentially close down nineteen small businesses, result in the unemployment of over one hundred people, discourage people from quitting smoking, and cause others to go back to smoking tobacco cigarettes.

It would do absolutely noting to address the problem of teen vaping.

Why do I say that? Because most vape stores don't even sell Juuls, and teenagers are not allowed to even be in a vape store, much less buy anything.



If someone under 21 is merely IN a vape shop, under Maryland state law, that is a \$500 fine.

Teenagers are not buying Juuls in vape shops, they're buying them at 7-11s, where they are clearly and prominently displayed directly behind the cash register, if not actually on the counter.

A ban on sales of Juuls within a half-mile of a school, would at least address the issue, not a ban on vape shops.

Montgomery county already has the dubious distinction of being the first county in the country to tax vaping.

"Think of the children" is not a replacement for sound, responsible legislation that addresses the teen vaping issue while supporting small businesses and the efforts of adult smokers to free themselves from addiction to dangerous, disease causing tobacco cigarettes.

I strongly urge that the proposed legislation be voted down.

Thank you for your time.

J. Davis Testimony for Bills 29-19, 31-19, 32-19

My name is Jim Davis, and I'm a 68-year-old lifelong resident of Montgomery County, MD. I am opposed to Bills 29-19 and 32-19 because they do not balance the needs of Adult smokers and Vapers vs. Youth who abuse nicotine daily or weekly. Bill 31-19 is appropriate and needed. I notice that The Council begins their sessions with an invocation. The one offered by Rev. Nelson prior to the October 1, 2019 session is particularly relevant to my points and testimony.

I was raised by non-smoking parents and as an only child. Still, I smoked cigarettes for 48 years, from the age of 12 to the age of 59 years and 50 weeks, until I was able to quit within 1 hour of using an e-cigarette. I had attempted to quit by many methods at various times in my life including but not limited to my dating & marriage, and the births of my daughters. I was always the only smoker but I always tried to consider those around me. I continue to do so today as a healthier e-cigarette user when around my <u>non-smoking</u> children, grandchildren, in-laws, and other family.

I am a Christian, after having been agnostic for 63 years. I was finally able to understand the words of The Holy Bible after all these years, and how Jesus Christ is my Lord and Savior, is God, and is our 1st authority and only Judge.

When I was considering e-cigarettes to stop smoking for my health and 60th birthday I felt the need to do my own "due diligence" so I began seeking and saving information, and have continued to collect it for these 8 years. Today I have over 1500 such research papers.

Sifting through the vast amounts of alleged facts and opinions about vaping to find the truth and the right thing to do is very much like a journey to understand the word of God and Jesus. You must put a desire to know the truth in your heart, and take personal, earthly motives and biases out of your mind. Just read, observe, and ask questions. The answers will become clear to you. Trust only those who you believe to have the same pure mind and heart.

During the testimony for past Montgomery County bills on this subject, I heard one individual (I believe he was a restaurant owner) say that "Tobacco is the Devil's tool". I agree with him, but I am here today to tell you that I truly believe that e-cigarettes have been given to us as a tool and a gift from God. These are broad analogies, and only to serve the point.

Why a gift? Extending a life by any means is a gift. Think "It's a Wonderful Life" movie if nothing else. For me, my health salvation preceded my spiritual salvation by 3 years. My health salvation preceded knowing about and finding my birth Father, Mother, and my siblings by 5 years. What would extra time be worth to you?

My birth Mother, as it turns out (or, as DNA would have it?), has also been a cigarette smoker for most of her 85 years. When my wife and I drove to Kansas to meet her a year and a half ago she said "I hear they are as bad as cigarettes" when I showed her my e-cigarette. She has since been diagnosed with COPD, and has relapsed to cigarettes despite the devices and liquids that I left for her. Were we in the U.K. she would have been told the benefits and had support from Public Health. And, she would not have been forced out of her public Senior home for "vaping" instead of smoking.

These are my testimonies. I beseech you to seek the whole truth, and do the right things. I know firsthand that this is a struggle. We all need improvement, and righteous guidance.

I have closely observed Council actions on E-Cigarettes since 2014, and have voiced not only my opinion but provided the Council with scientific references to balance the clearly biased lobbyist sourced information as well as the biased professional opinions. Yet none of it has been discussed on record. I hold no expectations that what I say will ever be considered in earnest by The Council or it's staff & advisors, but none the less this needs to be part of the public record.

Thank You. Jim Davis Silver Spring, MD 20904 (attachments)

Attachment to J. Davis October 2019 Testimony

The advice given the Council is demonstrably incomplete and agenda biased. No records exist of substantive consideration by the Council for current adult e-cigarette users or adult cigarette smokers, nor to the Public Health impact of hindering current smokers from switching to a documented 95% less harmful and burdensome alternative.

Dr. David Abrams, a professor at New York University was recently quoted "E-cigarette panic is ruining the biggest public health opportunity in 120 years"¹. This is not the first warning from true Public Health advocates and authorities against misinformed and reactionary actions. In 2006 Benjamin Mason Meier and Donna Shelley authored "The Fourth Pillar of the Framework Convention on Tobacco Control: Harm Reduction and the International Human Right to Health."² urging that tobacco harm reduction be viewed by the WHO as a human right, while in 2015 Dr. Derek Yach³, previous Director of Tobacco Control at the WHO advocated in an editorial that his fear was that people would fail to differentiate nicotine from combusted tobacco delivery, ignore the evidence of the benefits of nicotine itself for adults, and quoted Mitch Zeller, Director of FDA's Centre for Tobacco Products as saying that "People 'smoke for nicotine but die from tar', and "new products represent a public health opportunity".

It is sad indeed that my governments cannot or will not find a balance for the benefit of all of its citizens.

Montgomery County, MD

Population Demographics 2018 29,472 131.477 145,254 6th-12th Grade Daily Non-E-Cg. Users ■ 12th Grade Daily Nicotine E-Cig. Users 19.349 · 10th Grade Daily Nicotine E-Circ. Users 11 411 # 8th Grade Daily Nicotine E-Cig. Users 15.7% 16.6% Adult Smokers & Adult E-Cig. Users # Adult Non-Smokers 67.6% U.S. Censu CDC 2018 UN 2018 EST. VNHIS 2018 710,356 Survey 2019

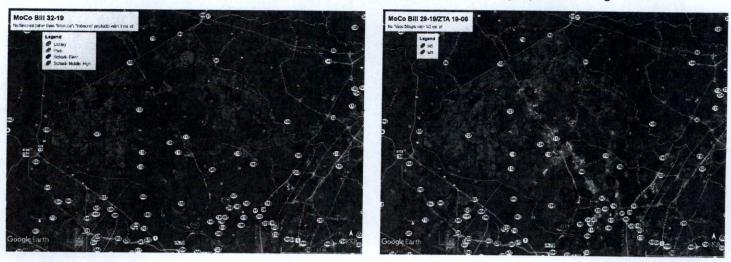
How many illegal and black-market THC e-cigarette cartridges have we seized? Were any from retailers? How many minors have been cited for illegal possession of tobacco or nicotine products? How many retailers have been cited for illegal distribution to minors of tobacco or nicotine products? What High School programs target the escalating daily e-cigarette nicotine use from 10th to 11th Grades? Targeted efforts for youth intervention to educate on nicotine will be far more effective than rhetoric using selective facts and token actions. High school and even middle school students can sense when adults are giving them partial truths, and will experiment themselves until they find their own answer, which is particularly problematic with nicotine use.

- Enforce existing law with stiff fines and in the case of Youth possession with impactful mandatory remediation.
- Inform parents on the subject, not with cautionary scare tactics, but with knowledge of detection, prevention, and remediation options. These two alone would have prevented youth instances of the ongoing, poorly handled, illegal THC purchase and use poisonings.
- Eliminate or severely limit E-cigarette sales from the places that surveys indicate Youth can most easily obtain them from (gas stations, convenience stores) and are the hardest to police because they are more prolific. NOT the only sources most knowledgeable of the devices: Vape specialty stores.
- Encourage and guide in-school peer mentoring programs such as the one at Richard Montgomery High School in delivering honest and unvarnished education on nicotine and tobacco use. Adult e-cigarette users who are exsmokers have rich stories to pass on that are honest examples, and there should be no problem finding guest speakers. I know of at least one.
- Get to KNOW Vape Specialist Shop retailers, and WORK WITH THEM, not eliminate them. I am confident that the
 vast majority of them will HELP educate and keep youth from experimentation. Those that will not help SHOULD
 be barred from retail sales of ANY nicotine containing products.

"Adults will still be able to purchase e-cigarettes. This isn't a ban"⁴

I live in Southeast Montgomery County and I use Berry-Menthol. I gave up tobacco "flavor" when I quit smoking 8 years ago. For a reason. Driving to West Rockville or Up-County is not an ideal choice for a senior such as myself.

When you put small vape specialists out of business as planned, where will I buy products that are not sold by Tobacco Companies (which I have not done for 8 years and will never again do)? Where do I get personal usage advice?



WERE YOU AWARE:

- Of the conclusions of the 2018 National Academies of Science, Engineering, and Medicine (NASEM) Summary Report on E-Cigarettes?⁵
- Of the conclusions of the 2018 Public Health England's E-Cigarette evidence review and update of the organization's 2015 vaping report?⁶
 - Of England's current smoking, cessation, and E-Cigarette nicotine use statistics for both Youth and Adults??
- Of the 2018 American Cancer Society public health statement "Eliminating Combustible Tobacco Use"8?
 - □ Of their E-Cigarette use recommendations for Adults wanting to quit smoking?
 - Of the specific lobbying directions this report makes for the Cancer Action Network (ACS/CAN), and that these are specifically for Youth and Adult E-Cigarette initiation issues, not for current smokers?
- That E-Cigarette liquids are available without nicotine?
 - That even JUUL replacement cartridges are available without nicotine (in Vape Shops and online)?9
 - That most all E-Cigarette liquids are available in no nicotine as well as a wide range of nicotine strengths to assist in smoking cessation as well as for Adult preferences?
- Of which of the surveys on E-Cigarettes ask specifically about nicotine containing device and/or liquid use? And if so, which years is this nicotine use-specific data available for^{10 11}?
 - □ For Youth?
 - For Adults?
 - Of the differences in usage time interval questions and percentage statistics between the various Youth surveys and why comparisons between them is difficult or impossible (in the case of verified nicotine e-cigarette use)?
- Of the relative addiction descriptions of nicotine vs sugar or animal fat as published by <u>research documents^{12 13 14}</u>, and that there is no agreed upon definition of "addiction" across disciplines?
- Of the documented health benefits of nicotine use by Adults, and of the documented potential benefits¹⁵ ¹⁶ ¹⁷ ¹⁸ ¹⁹ ²⁰?
- That Adults are also attracted to flavorings in E-Cigarettes rather than Tobacco flavors²¹, and also in beverages, medicines, and in OTC health products?
- That tobacco companies only entered the E-Cigarette market in 2012, after they began to see the cigarette market decline, and last acquired independent JUUL after they (JUUL) gained majority E-Cigarette market share?
 - Prior to 2012 and until today "Big Vape" was a world-wide community of disparate individuals, most of whom were exlong term combusted tobacco product users who became e-cigarette zealots when they found a cessation method that finally worked?

WAS ALL OF THE ABOVE INCLUDED IN YOUR "DUE DILLEGENCE" AND DECISIONS?

The final two pages are meant to give you insight as to the differing interpretations of the conclusions in the 2018 NASEM Report dependent upon stakeholder group (and we are ALL stakeholders).

The following is one reason why I chose e-cigarettes to quit tobacco 8 years ago, why I continue to use them, and why I am a zealous advocate of their use by current combustible tobacco product users: NASEM Institute of Medicine 2018 E-Cigarette Report¹ Conclusions by Topic

I AM:

Over 21 🗹 A Parent 🗹 A Grandparent 🗋 A Non-Smoker 🗹 An Ex-Smoker 🗋 A Smoker

An E-Cigarette user I use menthol and/or flavored tobacco or e-cigarette products

	Evaluate your concern about the following topics and conclusions using the Key and definitions below	
	X A Concern	5
Evaluation Key:	✓ A Benefit	23
Evaluation Key.	- Not a Concern	5
	Not a Concern because evaluation needs contextual discussion	13
	Levels of Evidence Framework for Conclusions	
Conclusive evidence	There are many supportive findings from good-quality controlled studies (including randomized and non-randomized controlled to credible opposing findings. A firm conclusion can be made, and the limitations to the evidence, including chance, bias, and confican be ruled out with reasonable confidence.	rials) with no ounding factors,
Substantial evidence	There are several supportive findings from good-quality observational studies or controlled trials with few or no credible opposin conclusion can be made, but minor limitations, including chance, bias, and confounding factors, cannot be ruled out with reason	g findings. A firm able confidence.
Moderate evidence	There are several supportive findings from fair-quality studies with few or no credible opposing findings. A general conclusion ca limitations, including chance, bias, and confounding factors, cannot be ruled out with reasonable confidence.	in be made, but
Limited evidence	There are supportive findings from fair-quality studies or mixed findings with most favoring one conclusion. A conclusion can be is significant uncertainty due to chance, bias, and confounding factors.	made, but there
Insufficient evidence	There are mixed findings or a single poor study. No conclusion can be made because of substantial uncertainty due to chance, I confounding factors. No available evidence	pias, and

Topic	Item	Eval.	Conclusion
NICOTINE	1	~	There is conclusive evidence that exposure to nicotine from e-cigarettes is highly variable and depends on product characteristics (including device and e-liquid characteristics) and how the device is operated
	2	~	There is substantial evidence that nicotine intake from e-cigarette devices among experienced adult e-cigarette users can be comparable to that from combustible tobacco cigarettes
	3	-*	There is conclusive evidence that in addition to nicotine, most e-cigarette products contain and emit numerous potentially toxic substances
	4	-	There is conclusive evidence that, other than nicotine, the number, quantity, and characteristics of potentially toxic substances emitted from e-cigarettes are highly variable and depend on product characteristics (including device and e-liquid characteristics) and how the device is operated
TOXICOLOGY OF E- CIGARETTE	5	~	There is substantial evidence that except for nicotine, under typical conditions of use, exposure to potentially toxic substances from e-cigarettes is significantly lower compared with combustible tobacco cigarettes
CONSTITUENTS	6	-*	There is substantial evidence that e-cigarette aerosol contains metals. Such risk is significantly increased when batteries are of poor quality, stored improperly, or modified by users. The origin of the metals could be the metallic coil used to heat the e-liquid, other parts of the e-cigarette device, or e-liquids. Product characteristics and use patterns may contribute to differences in the actual metals and metal concentrations measured in e-cigarette aerosol.
	7	-*	There is limited evidence that the number of metals in e-cigarette aerosol <u>could</u> be greater than the number of metals in combustible tobacco cigarettes, except for cadmium, which is markedly lower in e-cigarettes compared with combustible tobacco cigarettes
	8	-*	There is substantial evidence that e-cigarette aerosols can induce acute endothelial cell dysfunction, although the long-term consequences and outcomes on these parameters with long-term exposure to e-cigarette aerosol are uncertain
MODES OF ACTION	9	~	There is substantial evidence that components of e-cigarette aerosols can promote formation of reactive oxygen species/oxidative stress. Although this supports the <i>biological <u>plausibility</u></i> of tissue injury and disease from long-term exposure to e-cigarette aerosols, generation of reactive oxygen species and oxidative stress induction is generally lower from e-cigarettes than from combustible tobacco cigarette smoke.
	10		There is substantial evidence that e-cigarette use results in symptoms of dependence on e-cigarettes
DEPENDENCE AND ABUSE LIABILITY	11	~	There is moderate evidence that risk and severity of dependence are lower for e-cigarettes than combustible tobacco cigarettes
<u>.</u>	12	-	There is moderate evidence that variability in e-cigarette product characteristics (nicotine concentration, flavoring, device type, and brand) is an important determinant of risk and severity of e-cigarette dependence
	13	-	There is no available evidence whether or not e-cigarette use is associated with clinical cardiovascular outcomes (coronary heart disease, stroke, and peripheral artery disease) and subclinical atherosclerosis (carotid intima-media thickness and coronary artery calcification)
	14	-	There is substantial evidence that heart rate increases shortly after nicotine intake from e-cigarettes
CARDIOVASCULAR DISEASE	15	-	There is moderate evidence that diastolic blood pressure increases shortly after nicotine intake from e-cigarettes
	16	-	There is limited evidence that e-cigarette use is associated with a <u>short-term</u> increase in systolic blood pressure, changes in biomarkers of oxidative stress, increased endothelial dysfunction and arterial stiffness, and autonomic control
	17	~	There is insufficient evidence that e-cigarette use is associated with long-term changes in heart rate, blood pressure, and cardiac geometry and function

Evaluation Key:		-	A Benefit Not a Concern
	T	*	Not a Concern because evaluation needs contextual discussion)
Topic	Item	Eval.	Conclusion
E-CIGARETTE DEVICES,	18	-*	There is conclusive evidence that e-cigarette use increases airborne concentrations of particulate matter and nicotine in indoor environments compared with background levels
USES, AND EXPOSURES	19	-*	There is limited evidence that e-cigarette use increases levels of nicotine and other e-cigarette constituents on a variety of indoc surfaces compared with background levels
	20	-*	There is substantial evidence that some chemicals present in e-cigarette aerosols (e.g. formaldehyde, acrolein) are capable of causing DNA damage and mutagenesis. This supports the <i>biological <u>plausibility</u></i> that long-term exposure to e-cigarette aerosols could increase risk of cancer and adverse reproductive outcomes. Whether or not the levels of exposure are high enough to contribute to human carcinogenesis remains to be determined.
CANCERS	21	-	There is limited evidence from in vivo animal studies using intermediate biomarkers of cancer to support the hypothesis that long term e-cigarette use could increase the risk of cancer; there is no available evidence from adequate long-term animal bioassays e-cigarette aerosol exposures to inform cancer risk.
	22	-*	There is limited evidence that e-cigarette aerosol can be mutagenic or cause DNA damage in humans, animal models, and huma cells in culture
	23	~	There is no available evidence whether or not e-cigarette use is associated with intermediate cancer endpoints in humans. This holds true for e-cigarette use compared with use of combustible tobacco cigarettes and e-cigarette use compared with no use o tobacco products
	24	×	There is moderate evidence for increased cough and wheeze in <u>adolescents</u> who use e-cigarettes and an association with e- cigarette use and an increase in asthma exacerbations
	25	-	There is limited evidence for improvement in lung function and respiratory symptoms among <u>adult</u> smokers with asthma who switch to e-cigarettes completely or in part (dual use)
RESPIRATORY DISEASES	26	~	There is limited evidence for reduction of chronic obstructive pulmonary disease (COPD) exacerbations among adult smokers wit COPD who switch to e-cigarettes completely or in part (dual use)
	27	-	There is limited evidence of adverse effects(?) of e-cigarette exposure on the respiratory system from animal and in vitro studies
-	28	~	There is no available evidence whether or not e-cigarettes cause respiratory diseases in humans
	29	<	There is limited evidence suggesting that switching to e-cigarettes will improve periodontal disease in smokers
ORAL DISEASES	30	×	There is limited evidence suggesting that nicotine- and non-nicotine- containing e-cigarette aerosol can adversely affect cell viability and cause cell damage of oral tissue in non-smokers
	31	~	There is insufficient evidence whether or not maternal e-cigarette use affects fetal development
REPRODUCTIVE - EFFECTS	32	~	There is no available evidence whether or not e-cigarettes affect pregnancy outcomes
	33	-*	There is conclusive evidence that e-cigarette devices can explode and cause burns and projectile injuries.
INJURIES AND POISONINGS	34	-*	There is conclusive evidence that intentional or accidental exposure to e-liquids (from drinking, eye contact, or dermal contact) ca result in adverse health effects including but not limited to seizures, anoxic brain injury, vomiting, and lactic acidosis
-	35	-*	There is conclusive evidence that intentionally or unintentionally drinking or injecting e-liquids can be fatal
	36	×	There is substantial evidence that e-cigarette use increases risk of <u>ever using</u> combustible tobacco cigarettes among youth and young adults
OMBUSTIBLE TOBACCO CIGARETTE SMOKING AMONG YOUTH AND YOUNG ADULTS	37	*	Among youth and young adult e-cigarette users who ever use combustible tobacco cigarettes, there is moderate evidence that e- cigarette use increases the frequency and intensity of subsequent combustible tobacco cigarette smoking
-	38	×	Among youth and young adult e-cigarette users who ever use combustible tobacco cigarettes, there is limited evidence that e- cigarette use increases, in the near term; the duration of subsequent combustible tobacco cigarette smoking
	39	~	While the overall evidence from observational trials is mixed, there is moderate evidence from observational studies that more frequent use of e-cigarettes is associated with an increased likelihood of cessation
- SMOKING CESSATION AMONG ADULTS –	40	~	There is moderate evidence from randomized controlled trials that e-cigarettes with nicotine are more effective than e-cigarettes without nicotine for smoking cessation
	41	~	Overall, there is limited evidence that e-cigarettes may be effective aids to promote smoking cessation
	42	-*	There is insufficient evidence from randomized controlled trials about the effectiveness of e-cigarettes as cessation aids compare with no treatment or to Food and Drug Administration-approved smoking cessation treatments
	43	~	There is conclusive evidence that completely substituting e-cigarettes for combustible tobacco cigarettes reduces users' exposure to numerous toxicants and carcinogens present in combustible tobacco cigarettes
-	44	•	There is substantial evidence that completely switching from regular use of combustible tobacco cigarettes to e-cigarettes results i reduced short-term adverse health outcomes in several organ systems
HARM REDUCTION	45	~	There is no available evidence whether or not long-term e-cigarette use among smokers (dual use) changes morbidity or mortality compared with those who only smoke combustible tobacco cigarettes
_	46	~	There is insufficient evidence that e-cigarette use changes short-term adverse health outcomes in several organ systems in smokers who continue to smoke combustible tobacco cigarettes (dual users)
	47	-	There is moderate evidence that secondhand exposure to nicotine and particulates is lower from e-cigarettes compared with combustible tobacco cigarettes

I.

Attachment to J. Davis October 2019 Testimony

Citations:

² Benjamin Mason Meier, and Donna Shelley. "The Fourth Pillar of the Framework Convention on Tobacco Control: Harm Reduction and the International Human Right to Health." *Public Health Reports* 121, no. September–October 2006 (October 2006): 494–500.

³ Yach, Dr. Derek. "E-Cigarettes Save Lives." *The Spectator*, February 21, 2015. https://www.spectator.co.uk/issues/21-february-2015/. <u>https://www.spectator.co.uk/2015/02/e-cigarettes-save-lives/</u>.

⁴ Phone conversation with Councilman Albernoz office, October 2019

⁵ NASEM Conclusion Summary <u>https://www.nap.edu/read/24952/chapter/2</u>

⁶ Public Health England (PHE). "PHE Publishes Independent Expert E-Cigarettes Evidence Review - GOV.UK," February 6, 2018. <u>https://www.gov.uk/government/news/phe-publishes-independent-expert-e-cigarettes-evidence-review</u>.

⁷ GOV.UK. "Fastest Drop in Smoking Rates in over a Decade as Stoptober Launches." <u>https://www.gov.uk/government/news/fastest-</u> <u>drop-in-smoking-rates-in-over-a-decade-as-stoptober-launches</u>.

⁸ Douglas, Clifford E., Rosie Henson, Jeffrey Drope, and Richard C. Wender. "The American Cancer Society Public Health Statement on Eliminating Combustible Tobacco Use in the United States: Eliminating Combustible Tobacco Use." *CA: A Cancer Journal for Clinicians*, June 11, 2018. <u>https://doi.org/10.3322/caac.21455</u>.

⁹ Nicotine Free Juul Compatible Pods <u>https://cyclonepods.com/</u>

¹⁰ NASEM-IOM. Youth Electronic Cigarette Use Surveys (Chapter 4, Page 26). <u>https://doi.org/10.17226/24952</u>.

¹¹ Miech, Richard, Megan E. Patrick, Patrick M. O'Malley, and Lloyd D. Johnston. "What Are Kids Vaping? Results from a National Survey of US Adolescents." *Tobacco Control* 26, no. 4 (July 1, 2017): 386–91. <u>https://doi.org/10.1136/tobaccocontrol-2016-053014</u>.

¹² Avena, Nicole M., Pedro Rada, and Bartley G. Hoebel. "Evidence for Sugar Addiction: Behavioral and Neurochemical Effects of Intermittent, Excessive Sugar Intake." *Neuroscience & Biobehavioral Reviews* 32, no. 1 (2008): 20–39. <u>https://doi.org/10.1016/j.neubiorev.2007.04.019</u>.

¹³ Avena, Nicole M., Pedro Rada, and Bartley G. Hoebel. "Sugar and Fat Bingeing Have Notable Differences in Addictive-like Behavior." *The Journal of Nutrition* 139, no. 3 (March 1, 2009): 623–28. <u>https://doi.org/10.3945/in.108.097584</u>.

¹⁴ Ahmed, Serge H., Karine Guillem, and Youna Vandaele. "Sugar Addiction: Pushing the Drug-Sugar Analogy to the Limit." *Current Opinion in Clinical Nutrition and Metabolic Care* 16, no. 4 (July 2013): 434–39. <u>https://doi.org/10.1097/MCO.0b013e328361c8b8</u>.

¹⁵ Yach, Dr. Derek. "E-Cigarettes Save Lives." *The Spectator*, February 21, 2015. https://www.spectator.co.uk/issues/21-february-2015/. <u>https://www.spectator.co.uk/2015/02/e-cigarettes-save-lives/</u>.

¹⁶ Dawkins et al., "Investigating the Impact of Nicotine on Executive Functions Using a Novel Virtual Reality Assessment."

¹⁷ Newhouse, P., K. Kellar, P. Aisen, H. White, K. Wesnes, E. Coderre, A. Pfaff, H. Wilkins, D. Howard, and E.D. Levin. "Nicotine Treatment of Mild Cognitive Impairment." *Neurology* 78, no. 2 (January 10, 2012): 91–101. <u>https://doi.org/10.1212/WNL.0b013e31823efcbb</u>.

¹⁸ Soar, Kirstie, Lynne Dawkins, Husna Begum, and Andrew C. Parrott. "The Effects of Cigarette Smoking and Abstinence on Auditory Verbal Learning." *Human Psychopharmacology: Clinical and Experimental* 23, no. 7 (2008): 621–627. <u>https://doi.org/10.1002/hup.968</u>.

¹⁹ Hukkanen, J. "Metabolism and Disposition Kinetics of Nicotine." *Pharmacological Reviews* 57, no. 1 (March 1, 2005): 79–115. <u>https://doi.org/10.1124/pr.57.1.3</u>.

²⁰ Jarvik, Murray E. "Nicotine: Medication or Scourge?" In *The Mosaic of Contemporary Psychiatry in Perspective*, edited by Anthony Kales MD, Chester M. Pierce MD, and Milton Greenblatt MD, 347–59. Springer New York, 1992. <u>http://link.springer.com/chapter/10.1007/978-1-4613-9194-4_32</u>.

²¹ Farsalinos MD MPH, Konstantinos, Christopher Russell PhD, George Lagoumintzis PhD, and Konstantinos Poulas. "Submitting to the FDA the Findings of the Largest Ever Survey on E-Cigarette Flavors Use by US Vapers," August 11, 2018. <u>http://www.ecigarette-research.org/research/index.php/whats-new/2018-2/266-us-flav</u>.

¹ CBS News. "E-Cigarette Panic Is Ruining 'Biggest Public Health Opportunity' in 120 Years, Scientist Says." Accessed September 20, 2019. <u>https://www.cbsnews.com/news/vaping-deaths-us-blowing-single-biggest-public-health-opportunity-in-120-years-as-debate-e-cigarettes-scientist/</u>.

From: Navarro's Office, Councilmember [Councilmember.Navarro@montgomerycountymd.gov] Sent: Tuesday, October 29, 2019 1:34:42 PM To: Council President Subject: FW: E-Cigarette bans

From: Bruce Hulvey <brucehulvey@gmail.com> Sent: Tuesday, October 29, 2019 1:33 PM To: Navarro's Office, Councilmember <Councilmember.Navarro@montgomerycountymd.gov>; Katz's Office, Councilmember <Councilmember.Katz@montgomerycountymd.gov>; Albornoz's Office, Councilmember <Councilmember.Albornoz@montgomerycountymd.gov>; Friedson's Office, Councilmember <Councilmember.Friedson@montgomerycountymd.gov>; Glass's Office, Councilmember <Councilmember.Glass@montgomerycountymd.gov>; Hucker's Office, Councilmember <Councilmember.Hucker@montgomerycountymd.gov>; Jawando's Office, Councilmember <Councilmember.Jawando@montgomerycountymd.gov>; Rice's Office, Councilmember <Councilmember.Rice@montgomerycountymd.gov>; Riemer's Office, Councilmember <Councilmember.Rice@montgomerycountymd.gov>; Riemer's Office, Councilmember <Councilmember.Rice@montgomerycountymd.gov>; Riemer's Office, Councilmember <Councilmember.Riemer@montgomerycountymd.gov> Subject: E-Cigarette bans

[EXTERNAL EMAIL]

I am writing as a voter and taxpayer in Montgomery County urging you to resist calls from well-meaning but misinformed activists to enact policies that severely limit my access to flavored, smoke-free alternatives to combustible tobacco. A productive path forward must include adequate representation from all stakeholders--especially nicotine consumers.

Legitimate, regulated businesses play a vital role in ensuring that consumers have legal access to well-made products and keeping adult products out of the hands of young people. If these products are pushed into an underground market--where there is no oversight or motivation to comply with sales age restrictions--purchasing and consuming nicotine will be unnecessarily dangerous.

The recent outbreak of lung illnesses being broadly attributed to "vaping" by the CDC is a direct result of overbearing drug policy that encourages products to be made and sold by an underground, unregulated industry. Pushing currently legal nicotine products into such an environment might have similar results--including puting all consumers at greater risk.

I along with my fellow members of Consumer Advocates for Smoke-free Alternatives Association (CASAA) thank you for considering my comments on this issue. Please keep me informed of developments in this matter. I look forward to your response on this issue and I am available for any questions you might have.

Topic: Statistics and Data of C-Stores Selling E-Cigarettes to Minors Written Testimony - Jon Alcanites

Thank you for this opportunity to submit written testimony concerning an important priority of the Maryland Vapor Alliance (MVA). The MVA is a registered 501C6 trade association and also a registered non profit with the IRS that works with the vapor industry in Maryland with a mission to make sure e-cigarette products can stay in the hands of adults who want a healthier alternative to smoking. The MVA is comprised of responsible retailers, manufacturers and distributors. The MVA is a results based organization that works towards advancing harm reduction for adults. The group brings together vapor industry businesses at the state and local level to forward advocacy efforts in the state of Maryland.

As lead manager at a local vape retailer in Montgomery County, MD I can attest to the high level of scrutiny that vape specific retailers in the county give to ensuring customers buying e-cigarette products are not underage. The business model of a vape store is targeted at adult smokers and helping them reduce the desire to or quit smoking cigarettes altogether. By providing adults a less harmful alternative to cigarettes coupled with education and guidance, we have been able to successfully help hundreds if not thousands of adults in Montgomery County quit smoking and totally eliminate or reduce their dependence on nicotine.

I would like to share data with you that sheds some light on a question that every parent has today. Where are underage children purchasing their ecigarettes? According to a list compiling all FDA violations for selling e-cigarettes to minors in Montgomery County, they are purchasing them at non-age restricted businesses. Specifically they are being purchased at convenience stores/gas stations (c-stores) such as 7-Eleven, Sunoco, Mobil, and Exxon, among others. Out of the roughly 160 FDA violations reported in Montgomery County in the past year, 100% are from c-stores and 0% of the violations are from dedicated vape stores.

When we look at the business model of a c-store we may be able to understand the reasoning behind the data. As opposed to a vape store business model, a c-stores business model is based on the stores ability to sell as many products as possible to as many customers as possible, including cigarettes. At a vape store each client is seen as an individual with specific needs and guidance to reduce or quit smoking cigarettes and therefore the majority if not all in the county do not even have cigarettes for purchase. The vast majority of the violations comprise of attempts to purchase the products JUUL, Blu and Vuse. These are e-cigarette products owned by big tobacco companies, Altria the maker of Marlboro, Imperial Tobacco the maker of USA Golds, and RJ Reynolds the maker of Newport, Camel and Pall Mall cigarettes.

However, the biggest takeaway is that based on the data, 100% of the FDA violations of selling e-cigarettes to minors in Montgomery County occurred at c-stores. Additionally, for every single vape store in Montgomery County, there are roughly 24-36 c-stores in its surrounding area. Based on the density of c-stores across the county, vape stores are in full support of the Age Gating Amendment that restricts e-cigarette sales to age restricted retailers in order to protect our youth.

Good evening Chairman & Committee members. My name is Pat Carpenter. I own a local retail vape store. I am a board member, here representing the Maryland Vapor Alliance.

Let me first address the recent news reports that vaping is causing lung illnesses and even deaths across the U.S. The public is being misled into thinking that nicotine-containing ecigarettes are causing this "outbreak". The primary purpose of any "outbreak" investigation should be, first, to prevent future cases. I do not believe the CDC has done a good job because they have been so obsessed with the idea of finding one single product to explain the outbreak that they have lost sight of the overall purpose of the investigation. No outbreak ever finds 100% of the cases share a common exposure. The fact is that 90% of the cases appear to be linked to THC vaping not nicotine vaping. The priority should be to warn the public, especially youth, to avoid THC vaping – specifically black-market products.

Due to the lack of clarification by the CDC, many municipalities have decided to ban flavored vaping products. Their overreactions are problematic because it is conflating the outbreak with the youth vaping problem. These bans will have 3 adverse effects:

- 1. Force many ex-smokers to return to smoking
- 2. Most ex-smokers who don't return to smoking will start buying black-market products
- 3. Will cause a transition in the liquids away from regulated nicotine-containing liquids to THC products, which remain easily obtainable from the internet or off the street.

All 3 of these effects will have severe adverse consequences for the public's health.

We all agree vaping is an adult product and youth should not vape – period. We need sensible legislation which finds a way to keep ecigarettes on the market for adults, while minimizing the risks to youth. Here are a few ideas this could be done:

- 1. Ban the sale of all tobacco products, including ecigarettes & combustible cigarettes to stores that are only open to adults 21yrs and older. Attached to my written testimony are all violations of stores that sold tobacco products to minors in Maryland for the past 12 months. You will notice not one violator is a vape store.
- Restrict the level of nicotine in liquids (i.e. nicotine cap). You don't need 59.9mg, such a Juul products, for smokers to succeed in using ecigarettes to quit smoking. This cap will also curb youth vaping because they are chasing the "buzz" by vaping high-concentrated nicotine & THC products.
- 3. Educate youth about the high addiction potential of Juul & THC products. Kids hate to be controlled and stressing that these products are designed in a way to maximize addiction can be an effective way of taking the glamour out of using the products. It worked with smoking, so why wouldn't it work with vaping as well?

There is no question that growing up in a home where someone smokes, *increases the chances* that a youth will also smoke or use other tobacco products. We have seen the culture of smoking gradually dissipate and it is largely due to vaping. There are still approximately 36 million smokers in the U.S. and there will be millions of premature deaths because of it. We need to do something for these millions of adults to help them quit deadly cigarettes. I ask the question, "Why are tobacco control groups trying more to reduce youth vaping and not giving any weight to the effect that millions of adult smokers quit cigarettes by vaping? I believe that smoking has been "moralized" in public health. It is no longer viewed as a health issue, but as a moral issue. Smokers are making bad decisions, and it is OK if they get punished because they are perceived as "addicts". The CDC actually & explicitly stated that they were only concerned about youth vaping and were willing to throw smokers under the bus. They are not being insincere about the intentions, the intentions themselves are simply being misplaced.

Therefore, I ask the council, before you vote, look at the impact these 4 bills will have on all adults residing in the county. How will they adversely be affected? While we cannot 100% stop youth from obtaining adult products, we can certainly educate and discourage it. This not only references vaping products, but also other items such as cigarettes, alcohol, opioids, and other illicit products.

	STREET							Inspection 4
letailer Name	7091 BERRY	Cip	The	Sale to Mino	Product Type	Brand		Date
OBACCO	ROAD	ACCOKEEK	20607	Yes	ENDS / E-liquid	Company one	6/7/201	0
WEIS	15789	necon	20007		Lindo / Li nquite		0/1/2019	-
MARKETS	LIVINGSTON						Phase and the	
276	ROAD	ACCOKEEK	20607	Yes	ENDS / E-liquid	DEFINITE	9/21/2018	4
VAPE N TOBACCO	1346 CAPE SAINT CLAIRE ROAD	ANNAPOLIS	21409	Yes	ENDS / E-liquid	ALANE	See Complaint	
-ELEVEN	730 EAST COLLEGE PKWY	ANNAPOLIS	21409	Yes	ENDS / E-liquid		1/4/2019	
IBERTY	2042 WEST	1. 2						t
QUIKMART	STREET	ANNAPOLIS	21401	Yes	ENDS / E-liquid		See Complaint	
SUNOCO /	1506 RITCHIE						1	
APLUS	HIGHWAY	ARNOLD	21012	Yes	ENDS / E-liquid		10/17/2018	ļ
CROWN	501 EAST 33RD STREET	BALTIMORE	21218	Yes	ENDS / E-liquid		8/29/2019	
LUCKY'S	445 EAST FORT							
DELI AND MARKET	AVENUE	BALTIMORE	21230	Yes	ENDS / E-liquid		8/28/2019	
7-ELEVEN	1465 KEY	DITETIMORE	21200	105	Ditbor Diriquit		0/20/2019	t
34280	HIGHWAY	BALTIMORE	21230	Yes	ENDS / E-liquid	S. Ball	8/28/2019	
ANN'S	140 SOUTH				a la construcción de la construc			T
GROCERY	ANN STREET	BALTIMORE	21231	Yes	ENDS / E-liquid		8/22/2019	ļ
HANOVER LIQUOR	1701 S HANOVER ST	BALTIMORE	21230	Yes	ENDS / E-liquid		8/28/2019	
March 1	5320 YORK		. States and	13 - A 13 - 11		医生物性 生物		
BP	ROAD	BALTIMORE	21212	Yes	ENDS / E-liquid		7/30/2019	-
ROYAL	7204 YORK	DALTRIOPE	21212	Yes	ENDS / E liquid		7/30/2019	
FARMS	ROAD 5921	BALTIMORE	21212	res	ENDS / E-liquid		//30/2019	-
MORAVIA	MORAVIA			1000				
BP	ROAD	BALTIMORE	21206	Yes	ENDS / E-liquid		6/7/2019	
7-ELEVEN 25816	6001 HARFORD ROAD	BALTIMORE	21214	Yes	ENDS / E-liquid		5/3/2019	
EXXON /	5425 FALLS	Lingthing		100	and a state of the state of the		C.C. DOLY	-
FIGER MART		BALTIMORE	21210	Yes	ENDS / E-liquid	on e	See Complain	t

7-ELEVEN 27456E	5401 RADECKE AVENUE	BALTIMORE	21206	Yes	ENDS / E-liquid	JUUL	See Complaint	6/11/2019	Civil Money Penalty
MONOPOLY GROCERY & TOBACCO	329 N EUTAW ST	BALTIMORE	21201	Yes	ENDS / E-liquid	JUUL	3/29/2019		Warning Letter
WALGREENS #5623	3801 LIBERTY HEIGHTS AVENUE	BALTIMORE	21201	Yes	ENDS / E-liquid	JUUL	1/11/2019		Warning Letter
BP / SNACK SHOP	3601 DOLFIELD ROAD	BALTIMORE	21215	Yes	ENDS / E-liquid	auu	1/11/2019		Warning Letter
TOBACCO MALL	2039 EAST JOPPA ROAD	BALTIMORE	21234	Yes	ENDS / E-liquid	JUL	1/5/2019	3/21/2019	Warning Letter
7-ELEVEN	6700 BRENTWOO D AVE	BALTIMORE	21222	Yes	ENDS / E-liquid	acort.	9/22/2018		Warning Letter
EXXON	11055 BALTIMORE AVENUE	BELTSVILLE	20705	Yes	ENDS / E-liquid	HUDL	4/8/2019	5/16/2019	Warning Letter
SHELL	10920 BALTIMORE AVE	BELTSVILLE	20705	Yes	ENDS / E-liquid	AUNT	4/8/2019	5/16/2019	Warning Letter
EXXON / TIGER MART	4040 POWDER MILL ROAD	BELTSVILLE	20705	Yes	ENDS / E-liquid	bin	2/14/2019	4/11/2019	Warning Letter
US FUEL	5901 GREENBELT ROAD	BERWYN HEIGHTS	20740	Yes	ENDS / E-liquid	JUNE	12/13/2018	2/28/2019	Warning Letter
BT NEWSTAND	3 BETHESDA METRO CENTER, UNIT B011	BETHESDA	20814	Yes	ENDS / E-liquid	bla	3/6/2019	4/25/2019	Warning Letter
EXXON	10335 OLD GEORGETO WN ROAD	BETHESDA	20814	Yes	ENDS / E-liquid	JUUE	3/5/2019		Warning Letter
7-ELEVEN	7305 MACARTHU R BOULEVARD	BETHESDA	20816	Yes	ENDS / E-liquid	JUUL	10/23/2018	12/20/2018	Warning Letter

7 DI EVEN	7820 WISCONSIN								
7-ELEVEN 33215		BETHESDA	20814	Yes	ENDS / E-liquid	THE R	9/17/2018	11/8/2018	Warning Letter
ГНЕ	713 NORTH								
	MAIN								
AC AND T	STREET	BOONSBORO	21713	Yes	ENDS / E-liquid	THE SECTION	12/4/2018	2/14/2019	Warning Letter
	5716 RITCHIE HIGHWAY	BROOKLYN PARK	21225	Yes	ENDS / E-liquid		See Complaint	6/3/2019	Civil Money Penalty
CIGARETTES DISCOUNT	4823	PARK	41443	105	ERDS / E-liquid		See Complaint	0/5/2015	renarry
TOBACCO	MARLBORO	CAPITOL							
PALACE	PIKE	HEIGHTS	20743	Yes	ENDS / E-liquid	atan Const	4/2/2019	5/16/2019	Warning Letter
	7411								
	CENTRAL	CAPITOL							
7-ELEVEN	AVE	HEIGHTS	20743	Yes	ENDS / E-liquid		1/31/2019	4/4/2019	Warning Letter
	8901								
EXXON /	CENTRAL	CAPITOL					1010010		
TIGER MART	AVE	HEIGHTS	20743	Yes	ENDS / E-liquid		1/31/2019	4/4/2019	Warning Letter
CARROLL									
MART /	500		1						al second
CARROLL MOTOR	FREDERICK	CATONSVIL							
FUELS	RD	LE	21228	Yes	ENDS / E-liquid		3/13/2019	5/2/2019	Warning Letter
	9705							1	
7-ELEVEN	BRANDYWIN								
11676B	ERD	CLINTON	20735	Yes	ENDS / E-liquid		10/11/2018	11/29/2018	Warning Letter
	9820								
	PISCATAWA		00705		TO TOC / T limit		0/10/2018	11/01/0018	Warming T atta
7-ELEVEN	Y RD	CLINTON	20735	Yes	ENDS / E-liquid		9/19/2018	11/21/2018	Warning Letter
COVENTRY	6441 COVENTRY								
		CLINTON	20735	Yes	ENDS / E-liquid		9/19/2018	11/21/2018	Warning Letter
WAIEAAON	10175	CLINION	20155	105	DI IDO / D' Inquita		5/15/2010	11/21/2010	
7-ELEVEN	FOXRUN DR	CLINTON	20735	Yes	ENDS / E-liquid		9/19/2018	11/8/2018	Warning Lette
	4404 KNOX	COLLEGE						5	1000
7-ELEVEN	ROAD	PARK	20740	Yes	ENDS / E-liquid		12/4/2018	2/14/2019	Warning Lette
	6251			·					
COLUMBIA	COLUMBIA			o the state					Civil Money
CROSSING	CROSSING	COLUMBIA	21045	Yes	ENDS / E-liquid		See Complaint	12/24/2018	
MOBIL	CIRCLE 2129	COLUMBIA	21045	105	ETTES / E-Ilquid		See Complaint	12/24/2010	1 charty
7-ELEVEN	DEFENSE								
11534	HIGHWAY	CROFTON	21114	Yes	ENDS / E-liquid	AUTOLOGI	10/17/2018	12/13/2018	Warning Lette

SHEETZ	429 VIRGINIA AVENUE	CUMBERLA ND	21502	Yes	ENDS / E-liquid	JUEL	8/15/2019	9/12/2019	Warning Letter
TOBACCO & GROCERY	6302B MARLBORO PIKE	DISTRICT HEIGHTS	20747	Yes	ENDS / E-liquid	JUUL	4/2/2019		Warning Letter
SHELL	3617 FORESTVILL E ROAD	DISTRICT HEIGHTS	20747	Yes	ENDS / E-liquid	Dia	11/24/2018	2/7/2019	Warning Letter
DISCOUNT CIGARETTES	5742 SILVER HILL ROAD	DISTRICT HEIGHTS	20747	Yes	ENDS / E-liquid	JUUL	9/12/2018	11/8/2018	Warning Letter
FASTOP / SHELL	9880 SOUTHERN MARYLAND	DUNKIRK	20754	Yes	ENDS / E-liquid	JUUL	3/26/2019	5/9/2019	Warning Letter
BP	10855 TOWN CENTER BOULEVARD	DUNKIRK	20754	Yes	ENDS / E-liquid	AUVE	10/18/2018	12/13/2018	Warning Letter
TIGER MART / EXXON	1804 EDGEWOOD ROAD	EDGEWOOD	21040	Yes	ENDS / E-liquid	RUUL	See Complaint	7/1/2019	Civil Money Penalty
7-ELEVEN 21081 D	9398 BALTIMORE NATIONAL PIKE	ELLICOTT CITY	21042	Yes	ENDS / E-liquid	JUUI.	2/7/2019	4/4/2019	Warning Letter
INTERNATIO NAL FOOD MARKET	8722 TOWN AND COUNTRY BOULEVARD	ELLICOTT	21043	Yes	ENDS / E-liquid	RUUL	See Complaint	12/27/2018	Civil Money Penalty
7-ELEVEN 34747	2101 SANDYMOU NT ROAD	FINKSBURG	21048	Yes	ENDS / E-liquid	AUUL	7/8/2019	9/26/2019	Warning Letter
THE GREAT GREEN GOAT SMOKE SHOP	1507 WEST PATRICK STREET, SUITE 3	FREDERICK	21702	Yes	ENDS / E-liquid	JUUL	8/14/2019	9/12/2019	Warning Letter
ROYAL FARMS 347	2050 YELLOW SPRINGS RD	FREDERICK	21702	Yes	ENDS / E-liquid	JUCL	6/11/2019		Warning Letter
FOOD LION #1442	6920 CRESTWOOD BLVD	FREDERICK	21703	Yes	ENDS / E-liquid	Vuse	2/19/2019	4/11/2019	Warning Letter

	7729				1				
7-ELEVEN 39220	SUNDAYS LANE	FREDERICK	21702	Yes	ENDS / E-liquid		2/19/2019	4/11/2019	Warning Letter
FOOD LION 1162	2060 YELLOW SPRINGS ROAD	FREDERICK	21702	Yes	ENDS / E-liquid		See Complaint	11/27/2018	Civil Money
CITGO / XPRESS MART	7237 RITCHIE HIGHWAY	GLEN BURNIE	21061	Yes	ENDS / E-liquid		5/6/2019	6/20/2019	Warning Letter
TOBACCO & GIFTS	7387 BALTIMORE ANNAPOLIS	GLEN BURNIE	21061	Yes	ENDS / E-liquid		5/13/2019	6/20/2019	Warning Letter
TOBACCO STOP	7110 RITCHIE HWY	BURNIE	21061	Yes	ENDS / E-liquid		5/13/2019		Warning Letter
ROYAL FARMS 16	6901 RITCHIE HIGHWAY 121 CRAIN	GLEN BURNIE	21061	Yes	ENDS / E-liquid		See Complaint	6/4/2019	Civil Money Penalty
FOOD LION 1543	HIGHWAY NORTH	GLEN BURNIE	21061	Yes	ENDS / E-liquid		See Complaint	5/8/2019	
WALGREENS 7554	HIGHWAY	BURNIE	21061	Yes	ENDS / E-liquid		See Complaint	5/8/2019	Civil Money Penalty
ROYAL FARMS 16 WALGREENS	6901 RITCHIE HIGHWAY 7901 RITCHIE	BURNIE	21061	Yes	ENDS / E-liquid		9/17/2018	11/8/2018	Warning Letter
7554 EXXON /	HIGHWAY 6701 RITCHIE	BURNIE	21061	Yes	ENDS / E-liquid	0000	9/17/2018	11/8/2018	Warning Letter
TIGER MART	HIGHWAY 8200 MARTIN LUTHER KING	BURNIE	21061	Yes	ENDS / E-liquid	4.93	9/13/2018	11/8/2018	Warning Letter
7-ELEVEN 11655	JUNIOR HIGHWAY	GLENARDEN	20706	Yes	ENDS / E-liquid		11/1/2018	1/3/2019	Warning Letter
EXXON	26 SOUTH YODER STREET	GRANTSVIL LE	21536	Yes	ENDS / E-liquid		2/25/2019	4/18/2019	Warning Letter
SHELL / FOOD MART	8711 GREENBELT ROAD	GREENBELT	20770	Yes	ENDS / E-liquid	SUUL-	4/9/2019	5/16/2019	Warning Letter
LOVE'S TRAVEL STOP	14188 PERINI DRIVE	HAGERSTO WN	21742	Yes	ENDS / E-liquid	1 3002	5/7/2019	6/27/2019	Warning Letter

PILOT	11633							12	
TRAVEL	GREENCAST	HAGERSTO	01740	V			4/20/2010	((())))	Wanter Latter
CENTER AC&T / THE	LE PIKE 18141	WN	21740	Yes	ENDS / E-liquid	JUIL	4/30/2019	6/6/2019	Warning Letter
MARKET AT	GARLAND	HAGERSTO	1.7.5.3.5				•	San Sala	
AC&T	GROH BLVD	WN	21740	Yes	ENDS / E-liquid	Vuse	12/6/2018	2/14/2019	Warning Letter
neur	6200	WIN	21/40	103	ERDS / E-liquid		12/0/2010	2/14/2017	Walling Lotter
2 & 4	SOLOMONS	HUNTINGTO						1	
LIQUORS	ISLAND RD	WN	20639	Yes	ENDS / E-liquid	TUN.	7/27/2019	8/22/2019	Warning Letter
	3599 EAST	HYATTSVILL	Read and			CARLES STREET	1	a station of	New York
SUNOCO	WEST HWY	E	20782	Yes	ENDS / E-liquid	JUIL	12/14/2018	2/28/2019	Warning Letter
	7460								
MOBIL /	ANNAPOLIS	HYATTSVILL							
SNACK SHOP	ROAD	E	20784	Yes	ENDS / E-liquid	JUUL	11/7/2018	1/10/2019	Warning Letter
	1752								
	JARRETTSVI	JARRETTSVI		-					
7-ELEVEN	LLE ROAD	LLE	21084	Yes	ENDS / E-liquid	JUIL	4/18/2019	5/30/2019	Warning Letter
CF CARROLL									
MOTOR									
FUELS /	1755	TADDOTTOT							
CARROLL	JARRETTSVI	JARRETTSVI	01004	V	ENDO / E limit		4/18/2010	5/20/2010	Warning Letter
MART	LLE ROAD 7600	LLE	21084	Yes	ENDS / E-liquid	JIID	4/18/2019	5/30/2019	warning Letter
	ANNAPOLIS								
GULF	RD	LAMHAM	20706	Yes	ENDS / E-liquid	JUUL	4/9/2019	5/23/2019	Warning Letter
GOLI	7750		20700	103	ERDS / E-Inquid		4/7/2017	512512017	Truining Detter
	ANNAPOLIS								
CITGO	RD	LANHAM	20784	Yes	ENDS / E-liquid	blue	1/25/2019	4/4/2019	Warning Letter
	9400								
· · · .	LANHAM								
	SEVERN		1.1.1						
W EXPRESS	ROAD 6	LANHAM	20706	Yes	ENDS / E-liquid	JUUL	11/1/2018	1/10/2019	Warning Letter
	7801 SANDY		C. C. Market						
EXXON /	SPRING		a second second	11-161					
TIGER MART	ROAD	LAUREL	20707	Yes	ENDS / E-liquid	BUUL	8/5/2019	8/29/2019	Warning Lette
	3393 LAUREL				and the second second				
	FORT								Citil
7-ELEVEN	MEADE	LAUDEL	20724	Var	ENDS /E limit		San Complaint	8/26/2019	Civil Money
32390	ROAD	LAUREL	20724	Yes	ENDS / E-liquid	JUL	See Complaint	0/20/2019	renaity
	12675 LAUREL								
FOOD LION	BOWIE								Civil Money
2566	ROAD	LAUREL	20708	Yes	ENDS / E-liquid		See Complaint	8/23/2019	

	3351								
TOBACCO STOP	CORRIDOR MARKET PL	LAUREL	20724	Yes	ENDS / E-liquid		5/20/2019	6/27/2010	Warning Letter
5101	3393 LAUREL	LITOREL	20724	105	DITES / D-Inquite		5/20/2015	0/21/2015	Warning Letter
7-ELEVEN	FORT								
32390	MEADE	LAUREL	20724	Yes	ENDS / E-liquid		1/30/2019	4/4/2019	Warning Letter
CORK 'N BOTTLE LIQUOR	516 MAIN ST	LAUREL	20707	Yes	ENDS / E-liquid		1/30/2019	4/4/2019	Warning Letter
FOOD LION 2566	12675 LAUREL BOWIE ROAD	LAUREL	20708	Yes	ENDS / E-liquid		9/10/2018		Warning Letter
MIMI'S STATION	12020 ROUSBY HALL RD	LUSBY	20657	Yes	ENDS / E-liquid		8/28/2019		Warning Letter
BP	1601 YORK ROAD	LUTHERVILL E TIMONIUM	21093	Yes	ENDS / E-liquid		See Complaint	1/8/2019	Civil Money
EXXON / TIGER MART	2333 EASTERN BOULEVARD	MIDDLE RIVER	21220	Yes	ENDS / E-liquid		9/12/2019	9/26/2019	Warning Letter
ROYAL FARMS STORE #47	12545 EASTERN AVENUE	MIDDLE RIVER	21220	Yes	ENDS / E-liquid		5/14/2019	6/27/2019	Warning Letter
ROYAL FARM STORE 66	9600 PULASKI HIGHWAY	MIDDLE RIVER	21220	Yes	ENDS / E-liquid	ana ta	5/14/2019	6/27/2019	Warning Letter
DC MINI MART AND DELI	2319 VARNUM ST	MTRAINIER	20712	Yes	ENDS / E-liquid	ACOL	9/7/2018	10/25/2018	Warning Letter
SUNOCO / APLUS	9630 MYERSVILL E ROAD	MYERSVILL E	21773	Yes	ENDS / E-liquid	JIGANG	9/12/2019	9/26/2019	Warning Letter
SHELL / FOOD MART	8309 ANNAPOLIS ROAD	NEW CARROLLTO N	20784	Yes	ENDS / E-liquid	Since -	12/20/2018	3/7/2019	Warning Letter
EXXON / TIGER MART		OWINGS MILLS	21117	Yes	ENDS / E-liquid	the second	11/14/2018	1/24/2019	Warning Letter
DISCOUNT MART 24/7	5519 LIVINGSTON ROAD	OXON HILL	20745	Yes	ENDS / E-liquid	JUOL	7/12/2019	8/8/2019	Warning Letter

MGM AND	101 MGM NATIONAL	OVONUMU	20745	V	ENDS /E liquid		7/11/2010	8/8/2010	W
COMPANY	AVENUE	OXON HILL	20745	Yes	ENDS / E-liquid	AURIL.	7/11/2019	8/8/2019	Warning Letter
ZIP IN MART	6801 LIVINGSTON ROAD	OXON HILL	20745	Yes	ENDS / E-liquid		11/8/2018	1/17/2019	Warning Letter
EXXON	31 HEATHER LANE	PERRYVILLE	21903	Yes	ENDS / E-liquid	JUIL	8/23/2019	9/12/2019	Warning Letter
CROWN EXPRESS MART	17700 ELGIN ROAD	POOLESVILL E	20837	Yes	ENDS / E-liquid	AUL	2/12/2019	4/11/2019	Warning Letter
7-ELEVEN 23702	9100 LIBERTY ROAD	RANDALLST OWN	21133	Yes	ENDS / E-liquid	blu	See Complaint	6/14/2019	Civil Money Penalty
ONE FLIGHT UP	56 MAIN ST	REISTERSTO WN	21136	Yes	ENDS / E-liquid	.Aug. S	6/26/2019	7/25/2019	Warning Letter
ROYAL FARMS STORE #34	15 HANOVER PIKE	REISTERSTO WN	21136	Yes	ENDS / E-liquid	AULA.	4/22/2019	5/30/2019	Warning Letter
EXXON	11430 ROCKVILLE PIKE	ROCKVILLE	20852	Yes	ENDS / E-liquid	JUIL	8/20/2019	9/12/2019	Warning Letter
MOBIL / SNACK SHOP	15450 GEORGIA AVENUE	ROCKVILLE	20853	Yes	ENDS / E-liquid	Vuse	1/28/2019		Warning Letter
FOOD LION 1211	1216 NANTICOKE RD	SALISBURY	21801	Yes	ENDS / E-liquid	bin	8/5/2019	8/29/2019	Warning Letter
ROYAL FARMS 127	7900 ROYALITY WAY	SALISBURY	21801	Yes	ENDS / E-liquid	JEIUL	8/5/2019	8/29/2019	Warning Letter
7-ELEVEN	9464 LANHAM SEVERN ROAD	SEABROOK	20706	Yes	ENDS / E-liquid	JUUL	11/14/2018	1/24/2019	Warning Letter
29 CONVENIEN	10755 COLUMBIA	SILVER. SPRING				JUUL	4/6/2019	No A	
CE MART EXXON / TIGER MART	PIKE 12245 VEIRS MILL ROAD	SILVER SPRING	20901 20906	Yes Yes	ENDS / E-liquid ENDS / E-liquid	JULL	See Complaint	5/2/2019	Warning Letter Civil Money Penalty
7-ELEVEN	8472 PINEY BRANCH RD	SILVER SPRING	20901	Yes	ENDS / E-liquid	blu	1/26/2019		Warning Letter

ALC: N	11295 VEIRS	SILVER							
REESTATE	MILL RD	SPRING	20902	Yes	ENDS / E-liquid	Adia	12/10/2018	2/28/2019	Warning Letter
SHELL	100 UNIVERSITY BOULEVARD WEST	SILVER SPRING	20901	Yes	ENDS / E-liquid		10/29/2018	1/10/2019	Warning Letter
EXXON	8301 FENTON STREET	SILVER SPRING	20910	Yes	ENDS / E-liquid		10/25/2018	12/20/2018	Warning Letter
VIERS MILL EXXON	12245 VEIRS MILL RD	SILVER SPRING	20906	Yes	ENDS / E-liquid		10/2/2018	11/21/2018	Warning Letter
SUNOCO / WASHINGTO NIAN	8875 PINEY BRANCH RD	SILVER SPRING	20903	Yes	ENDS / E-liquid		9/14/2018		Warning Letter
HIGH'S	22550 JEFFERSON BLVD	SMITHSBUR G	21783	Yes	ENDS / E-liquid		8/8/2019	8/29/2019	Warning Letter
CITGO / FASTOP	13888 H G TRUEMAN RD	SOLOMONS	20688	Yes	ENDS / E-liquid		9/15/2018	11/8/2018	Warning Letter
GULF / FRIENDLY FOOD STORE		STEVENSVIL LE	21666	Yes	ENDS / E-liquid		10/19/2018	12/13/2018	Warning Letter
EXXON	3000 COLEBROOK DRIVE	SUITLAND	20746	Yes	ENDS / E-liquid		6/17/2019	7/18/2019	Warning Letter
ANDREWS SHELL SERVICE	6408 AUTH ROAD	SUITLAND	20746	Yes	ENDS / E-liquid		11/13/2018		Warning Lette
SUNOCO	6360 NEW HAMPSHIRE AVENUE	TAKOMA PARK	20912	Yes	ENDS / E-liquid		10/29/2018		Warning Lette
24 HR TOBACCO AND GROCERY	3216 BRANCH AVE	TEMPLE HILLS	20748	Yes	ENDS / E-liquid	100 A	6/19/2019		Warning Lette
DISCOUNT TOBACCO	3905 BRANCH AVENUE	TEMPLE HILLS	20748	Yes	ENDS / E-liquid		6/14/2019		Warning Lette
TOBACCO AND WIRELESS	3217 BRINKLEY ROAD	TEMPLE HILLS	20748	Yes	ENDS / E-liquid	BUUL	6/14/2019	7/18/2019	9 Warning Lette

	140 FREDERICK								
	ROAD, SUITE								
7-ELEVEN	A	THURMONT	21788	Yes	ENDS / E-liquid	JUEL	5/14/2019	6/27/2019	Warning Letter
LOCH	8623 LOCH						Carl Carlos and		
RAVEN	RAVEN		· · · ·					1994 F 3	
LIQUORS	BOULEVARD	TOWSON *	21286	Yes	ENDS / E-liquid	JUIL	6/28/2019	9/19/2019	Warning Letter
GLI	4								-6
SMOKER'S	ALLEGHENY							1. 1. 1.	
CHOICE	AVENUE	TOWSON	21204	Yes	ENDS / E-liquid	JUD.	8/20/2019	9/12/2019	Warning Letter
RAS AND	402 YORK								
NATTY	ROAD	TOWSON	21204	Yes	ENDS / E-liquid	JUTE	8/20/2019	9/12/2019	Warning Letter
SHELL /									
CORNER	935 YORK								
MART	ROAD	TOWSON	21204	Yes	ENDS / E-liquid	ALRIN	5/1/2019	6/13/2019	Warning Letter
MARLBORO	5111 JOHN					M. Shine States			
VILLAGE	ROGERS	UPPER							Civil Money
EXXON		MARLBORO	20772	Yes	ENDS / E-liquid	JUUL	See Complaint	9/3/2019	
SHELL /	9220 CRAIN	UPPER							
DASH IN	HIGHWAY	MARLBORO	20772	Yes	ENDS / E-liquid	bla	2/21/2019	4/11/2019	Warning Letter
	5111 JOHN								
EXXON/VILL	ROGERS	UPPER							
AGE SHOP	BLVD	MARLBORO	20772	Yes	ENDS / E-liquid	JUDL	2/21/2019	4/11/2019	Warning Letter
	3620								
	MATTAWOM								a contractor
	AN			-					
SHELL /	BEANTOWN								
DASH IN	ROAD	WALDORF	20601	Yes	ENDS / E-liquid	bin .	1/17/2019	3/28/2019	Warning Letter
LIBERTY	23 CARROLL	WESTMINST							
FOOD SHOP	PLZ	ER	21157	Yes	ENDS / E-liquid	- JUTUL	7/15/2019	8/8/2019	Warning Letter
	398					NASA STATE			
SUNOCO/	BALTIMORE	WESTMINST							
FOOD MART	BOULEVARD	ER	21157	Yes	ENDS / E-liquid	JUR	7/11/2019	8/8/2019	Warning Letter
	11295 VEIRS								Civil Money
FREESTATE	MILL ROAD	WHEATON	20902	Yes	ENDS / E-liquid	bh	See Complaint	8/23/2019	
JIMMIE'S									
PADDOCK	4740 CRAIN	WHITE							
LIQUORS	HIGHWAY	PLAINS	20695	Yes	ENDS / E-liquid	ALCOL.	9/10/2019	9/26/2019	Warning Letter
CF CARROLL									
/ CARROLL	ROLLING	WINDSOR							
MART	ROAD	MILL	21244	Yes	ENDS / E-liquid	S BUULS	4/22/2019	5/30/2019	Warning Letter

11/4/19

Testimony for Matthew Milby, speaking for the Maryland Vapor Alliance.

Good day Councilmen and women,

My name is Matthew Milby and I'm speaking on behalf of the Maryland Vapor Alliance. The MVA has for several years worked with the Maryland General Assembly to craft responsible legislation pertaining to the vapor industry.

The MVA has always been interested in:

- 1. Keeping vapor products out of the hands of minors.
- 2. Providing a pathway to adult smokers to transition to a much less harmful product.
- 3. Supporting marketing standards that do not attract our youth.
- 4. Increased penalties for anyone who sells tobacco products to minors.
- 5. Education of youth on the harms of tobacco and youth prevention initiatives.
- 6. Strict age verification procedures and ways to improve them.
- 7. Protecting small businesses against harmful legislation.
- 8. We supported Tobacco 21 in the state of MD.

It is my belief that we can work together to achieve these goals. We can make sure adults have access to these life saving products while keeping them out of the hands of our youth.

We have open lines of communication with our state representatives and we would like to have that same relationship with this council. I firmly believe if we can work together we can achieve this.

The current proposed laws in Montgomery County do not work to achieve this goal and we wish to work with you to alter them so that they do. There are many small businesses in Mont. Co. that rely on the vapor industry to provide for their families and have invested life savings to open up these businesses to help adult smokers. I'm sure we can find a better solution. I've talked with these businesses that will be affected and they are afraid these laws will put them out of business and are in fear of providing for their families.

I urge you to stay these bills until we can have further discussions.

Thank you for you time and we look forward to working with you in the future,

Matthew Milby

MVA Vice President

Topic: Programs and Avenues to Prevent Underage Sales to Minors Written Testimony - Jack Nguyen

Thank you for this opportunity to submit written testimony concerning an important priority of the Maryland Vapor Alliance (MVA). The MVA is a registered 501C6 trade association and also a registered nonprofit with the IRS that works with the vapor industry in Maryland with a mission to make sure e-cigarette products can stay in the hands of adults who want a healthier alternative to smoking. The MVA is comprised of responsible retailers, manufacturers and distributors. The MVA is a results based organization that works towards advancing harm reduction for adults. The group brings together vapor industry businesses at the state and local level to forward advocacy efforts in the state of Maryland.

As a local vape shop owner with partners that live and grew up in Montgomery County, our contribution to the community has always been part of our business plan. Our company was started in 2013 to help adults kick the deadly habit of smoking cigarettes while creating jobs in the local community. Age verification is a topic that we take very seriously and keeping products out of reach of minors has always been a key component of our business plan. As a responsible retailer, we have implemented safeguards to protect our community by keeping minors (and now individuals under the age of 21) from purchasing age restricted vaping products. Some ways in which we have worked to keep age restricted products out of underage individuals is through mandatory, thorough employee age verification training and setting clear store policies and procedures around checking ID. Additionally, since 2018 we have utilized a secret shopper program that audits our store on a regular basis to ensure our staff are always verifying the age of our customers.

Our staff are all fully trained to verify the age of customers looking to purchase vape products upon entry to the store. Additionally, we have signage placed on storefront windows and in-store at the sales counter and around the sales floor announcing the 21+ age requirement to purchase tobacco or vape products.

In addition to store policies and procedures, we self-police our staff through the use of a secret shopper program where third party contracted individuals aged 21-25 are sent to the store on random dates to confirm that our staff are following proper age verification procedures at all times. Nobody at our company knows when the visits will occur, including the owners. If a team member follows proper age verification procedure on the visit they are given a green card congratulating them on passing the audit. If they fail, they are given a red card telling them they did not successfully verify age and to report the event to their manager. Managers are sent a report via email that details the

date, time and employee along with the pass/fail outcome of the visit regardless of whether the employee notified them.

A third party is contracted to ensure fairness, consistency and a high level of operational standards when it comes to checking ID along with an element of surprise. Our company has a zero tolerance policy in that if an employee is found to not check ID in accordance with our store policy or fail an age verification audit then they are automatically terminated. In addition to this, our staff are required to report to local authorities instances where individuals under 21 attempt to purchase products from our store.

Through the use of the proper safeguards and policies/procedures in age restricted environments such as vape stores, we can continue to help adults lead a healthier life free of cigarettes without allowing them to get into the hands of our youth.

From: Navarro's Office, Councilmember [Councilmember.Navarro@montgomerycountymd.gov] Sent: Monday, September 23, 2019 2:59:04 PM To: Council President Subject: FW: Vaping Saves Lives

From: Kellen Leeson <kellen@vaporww.com> Sent: Monday, September 23, 2019 2:48 PM To: Rice's Office, Councilmember <Councilmember.Rice@montgomerycountymd.gov>; Jawando's Office, Councilmember <Councilmember.Jawando@montgomerycountymd.gov>; Riemer's Office, Councilmember <Councilmember.Riemer@montgomerycountymd.gov> Cc: eric frit <friteric@gmail.com>; Albornoz's Office, Councilmember <Councilmember.Albornoz@montgomerycountymd.gov>; Hucker's Office, Councilmember <Councilmember.Hucker@montgomerycountymd.gov>; Glass's Office, Councilmember <Councilmember.Glass@montgomerycountymd.gov>; Navarro's Office, Councilmember <Councilmember.Navarro@montgomerycountymd.gov>; Katz's Office, Councilmember <Councilmember.Katz@montgomerycountymd.gov> Subject: Vaping Saves Lives

[EXTERNAL EMAIL]

Dear Councilmember Rice & Others,

I hope this email finds you in a timely manner. My name is Kellen Leeson. I am the inventory manager of Vapor Worldwide in Gaithersburg, Maryland.

I would like to first thank you for your contributions to our community & for you raising awareness for the vaping issue that has risen in the last year or so.

There is definitely an issue with underage vaping, but I believe your solution to solving this issue is a bit misguided.

Banning Vapor Stores from operating within 0.5 miles of a school will not be an effective solution to the underage vaping problem.

At Vapor Worldwide, we have maintained a strict policy of having to be 18 years or older to enter our store. Very soon that age policy will be upped to 21 years of age or older. Many times the words I hear as a frustrated teen, who has just been told to leave the store, walks away is

In the second second

I just go to 7/11

I encourage the online sales & convenience store (gas stations, 7/11 s, etc.) sales of E-Cig products be halted completely.

Specialty stores, like vape shops, who actually ask every customer for ID should not be punished. We are all for common sense regulation!

We have been a fixture in Montgomery County for over 5 years and have helped thousands of people quit deadly tobacco cigarettes.

My Owner, Eric Fritschler looks forward to seeing many of you again this November 5th as he has signed up to testify at the Public Hearing. (99)

We would be happy to meet with you all at your convenience and we also invite you and all Montgomery County Officials to please visit our store in your county and meet our staff! We have served many county officials such as lawyers, police officers, and firefighters.

Since opening in 2014, we have always been in the business of helping the ADULT smoker community in Montgomery County quit tobacco cigarettes and we hope to continue striving towards that goal.

I have attached links to a few articles that I ask you to read and take into consideration:

CBS NEWS: US MIGHT RUIN BIGGEST HEALTH OPPORTUNITY <u>https://www.cbsnews.com/news/vaping-deaths-us-blowing-single-biggest-public-health-opportunity-in-120-years-as-debate-e-cigarettes-scientist/</u>

SLATE COM: VAPING BANS WILL ONLY BENEFIT BIG TOBACCO <u>https://slate.com/technology/2019/09/vaping-illnesses-dont-warrant-an-ecigarette-ban-philip-morris.html</u>

We have a real opportunity to completely eliminate tobacco cigarettes in this county. Let swork together and keep moving forward!

Thank You So Much! Kellen Leeson Vapor Worldwide

<u>County Written Testimony November 2, 2019: E Cigarettes vs Big Tobacco</u> Public Hearing: Bill 29-19, Health and Sanitation - Electronic Cigarettes - Distribution [Nov. 5, 2019]

<u>Vapor Worldwide</u> <u>Owner: Eric "Frit" Fritschler</u> <u>Ph: 240-793-3280 Email: Friteric@gmail.com</u> <u>15906 Shady Grove Road Unit A</u> <u>Gaithersburg, MD 20877</u>

My name is Eric "Frit" Fritschler, I am the owner of Vapor Worldwide in Gaithersburg Maryland. We have been on Shady Grove road for almost 6 years now serving the community and helping adults get off of combustible tobacco cigarettes. I have worked, lived and employed people in Montgomery County for more than 25 years. I am a proud father of 2 teenagers age 19 and age 15 neither of which vape at all.

As vape shop owner and someone who is helping people remove people from the grips of tobacco and nicotine addiction, I strongly oppose this legislation as written. For example, your e cigarette legislation would close my vape shop, however you would leave open the 711, the beer and wine store, and the tobacco cigar shop in the same shopping mall and allow them to continue to sell big tobacco vapor/tobacco products to teenagers.

Moreover, 7 elevens, Walmarts, gas stations, and beer and wine outlets were all found to be the biggest offenders of underage selling of e cigarettes. The FDA did a sting operation across the country this year, and in the state of Maryland there were 136 violations of underage selling of e cigarettes. Of those 136 violations not, a single one was a vapor store. Instead every single violation was related to a 711, A beer and wine store, a convenience store, a Walmart and they were only selling big tobacco E cigarettes products like JUUL and My Blu.

In my vapor store and many others in the county, we do not sell the JUUL products or My Blu, or Logic, or Vuse; because they are made with way more nicotine than you need and are marketed and pushed by big tobacco companies not vapor stores. In our shop for the last two years and featured on Fox news; we give adult vapors a 15% discount to turn in their JUUL device, and switch off of the high nicotine, high cost products like JUUL that are marketed by big tobacco to our children.

Vapor Worldwide and the vapor business owners of Montgomery County and Maryland are deeply concerned about youth vaping and youth tobacco cigarette use. We believe there are common sense legislative actions that the county can take if their main concern is to curb the use of E cigarettes and tobacco cigarettes among youth.

The 1st step that the county has taken was to raise the age from 18 to 21 years old. Vapor Worldwide and the vapor community as a whole supports this kind of common-sense legislation. Although this change has caused a 10% drop in the revenue for my store and I am sure many of my fellow store owners, we still support this change because our main goal is to eliminate big tobacco and tobacco cigarettes from everyone's life, specifically everyone in Montgomery County. Now since the hysteria of the so-called vapor epidemic began around September 11th 2019, our shop and many of my fellow shop owners have seen an additional 35% drop in revenue. I need to make myself clear, the reason for this additional drop in revenue is the dishonest reporting by the big media outlets and the misrepresentation of the facts by tobacco lobbyists and by politicians; either unaware or unwilling to seek and repeat the facts and the truth behind these vaping illnesses. These sources are not looking into the facts of why people are getting sick or why or who currently vapes and for what purpose. Instead they are demonizing nicotine vaping as the cause of these illnesses and deaths which is 1000% incorrect, not based on available scientific evidence, and just not based on the facts that are being produced by the FDA and the CDC on this matter.

The CDC reported on October 31st, 2019, 37 deaths and 1,888 cases of illness in the entire United states related to vaping. Not a single death in the state of Maryland, and only 3 cases of illness in Montgomery County high school kids related to THC vapes not e-cigarettes with nicotine, all 3 have fully recovered within one week.

The most current science and recommendations from the CDC are and quoted directly from their website:

"CDC recommends that you do not use e cigarettes or vaping products that contain THC."

Also CDC, says, "people should not buy any type of e cigarette or vaping products, particularly those with THC, off the street." Finally, CDC's direct recommendation is "If people continue to use e cigarettes or vaping to quit smoking, do not return to smoking cigarettes"

The additional 35% drop in revenue for our shop is solely based on the hysteria created by the media and by political bodies that are not reviewing the facts. This 35% drop is directly related to current adult tobacco smokers, tobacco users, not transitioning to vapor products and instead continuing to smoke combustible known deadly tobacco cigarettes. In the state of Maryland last year alone; tobacco killed more than a 7500 people, just last year. Vaping nicotine killed no one in Maryland last year and very likely not this year or ever.

In my store alone in Gaithersburg last year, we converted at least 1500 county residents and others who work in the county, off of deadly tobacco cigarettes. We do this every day with adult smokers in our shop. I invite all of council members to our shop to meet and see what vaping is doing for adults in our community and how we hate and want to stomp out big tobacco more than anyone.

To relate this fact to the so called hysteria around the so called vapor epidemic, there have been no deaths in the state of Maryland related to black market THC cartridges that have been proven to be responsible for 88% the deaths across the United States and honestly reported by our Federal FDA and CDC. Moreover, outside the USA more than 10 million people vape worldwide, not a single illness or death have been reported in 10 plus years. These illnesses have nothing to do with nicotine vaping. Kids are looking for JUUL, My Blu, Logic, Vuse; all sold with 20 times or more nicotine than what we sell, and all made and marketed by big tobacco companies, not vapor companies like mine.

We hate big tobacco and tobacco cigarettes more than anyone. We are aiming to eliminate burning tobacco forever and we were well on our way until this fake vaping hysteria began. Point of reference, vaping has taken more than \$100 Billion from big

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tobacco this year alone worldwide. Big tobacco is still the enemy not 24 small businesses in the county that are saving adult lives every day.

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The average age of my customers is 33.5 years over more than 5 years. We have converted people to vaping off of tobacco for good after 20, 30 even 40 years of smoking and after trying all other cessation methods. Finally, big tobacco companies want to limit the flavored vapes so people go back to smoking; it's not to save lives like we do in our vapor shop every day. Think about it, councilmembers, why would big tobacco companies agree to ban vape flavors? So, they can wipe out the most effective cessation method to date, e-cigarettes. If one industry was costing the tobacco industry \$100 billion a year, they could be lying or trying to manipulate you again. Think, read, research, don't believe what the tobacco lobby is trying to feed you again. Don't forget these same big tobacco companies didn't even admit cigarettes were killing people until the early 1980s, don't get fooled again by big tobacco's tricks.

Just to reiterate, we have seen a 35% drop in revenue which has caused the layoff of 2.5 full time employees and Montgomery County residents. This drop off is directly related to current tobacco users not switching to vaping and instead telling me things like "vaping kills you", so they continue to smoke tobacco and killing themselves and those around them. We have ample scientific evidence that tobacco cigarette smoking is at least 95% to 98% worse than vaporizing nicotine.

In conclusion, we would propose, along with the Maryland Vapor Alliance (MVA), the Vapor Trade Association (VTA), and others for common sense regulations to curb youth vaping and tobacco smoking. For example, instead of closing the vape shops of which there are 24 in the county. You should consider controlling all vapor products from 24 stores or more, that are adult only 21 and over stores so that no one can enter these stores unless they are 21 years old.

Currently, tobacco cigarettes and vaping products are the only adult items available in non-adult only stores in Montgomery County. Why? By allowing 7 11s, beer and wine stores, and gas stations to continue to sell vapor products to minors; sold by, marketed by, and produced by big tobacco companies is a terrible idea. The FTA sting operation shows us that children are getting these devices from gas stations and convenience stores not from vapor stores. As I have in the past, and as I will say today. I invite all the county council members to come to our shop and meet the county residence that are using flavored vapor products to get off of combustible cigarettes and they feel better, their family is happier, their lives are better, and it helps everyone from the parents to the children. By closing the vape shops or banning flavors you are not going to save children, but you are going to kill their parents.

If we are trying to protect children, which is my goal, then ban the sale of JUUL and big tobacco from non-adult stores like 7 11s and gas stations. Please understand that our vapor stores are leading the charge to eliminate tobacco smoking for good. Only big tobacco is trying to hook kids on nicotine again; not vapor stores like mine. Big tobacco companies are the ones you need to go after to control youth Vaping not shut down small businesses in the county that employ hundreds of people and that pay a 30% wholesale tax to the county already for saving lives every day.

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Nov 4, 2019

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From: "Mihill, Amanda" < Amanda.Mihill@montgomerycountymd.gov> Date: 9/23/2019 8:36:49 AM To: "County Council" <County.Council@montgomerycountymd.gov> Cc:

Subject: FW: BOH reg notice to municipalities

From: James Ruspi <jimruspi@aol.com> Sent: Saturday, September 21, 2019 3:04 PM To: Mihill, Amanda <Amanda.Mihill@montgomerycountymd.gov>; 'Charlene Dillingham' <clerk@comcast.net>; 'Clerk2' <clerk2@comcast.net>; charlesb84@aol.com; amy-tom koval <amover40@hotmail.com>; ohairjr@aol.com; 'Tom Burke' <tburke4@aol.com> Subject: FW: BOH reg notice to municipalities

[EXTERNAL EMAIL] Amanda,

I have discussed this proposal with the Laytonsville Town Council. Three of the Council Members and I are very much in favor of these restrictions. Our fourth Council Member was not able to respond.

Each day and in many parts of the Country, the health hazards have increased dramatically in our young people. Some of the proposals in the western states are forbidding the sale of electronic smoking devices. While the restrictions proposed by the Montgomery County Council are a step in the right direction, it seems that a more aggressive action may be necessary.

The Laytonsville Council and Mayor appreciate the oppratunity to comment on this and ask that you please make sure that our response is given to the proper officials.

Respectfully submitted,

James A. Ruspi, Mayor Town of Laytonsville

From: County Council [mailto:County.Council@montgomerycountymd.gov] Sent: Tuesday, September 17, 2019 12:28 PM To: lisa.fedders@comcast.net<mailto:lisa.fedders@comcast.net>; clerk.bmd@barnesvillemd.org<mailto:clerk.bmd@barnesvillemd.org>;

clerk@townofbrookevillemd.org<mailto:clerk@townofbrookevillemd.org>; townofbrookeville@comcast.net<mailto:townofbrookeville@comcast.net>; commissioners@townofbrookevillemd.org<mailto:commissioners@townofbrookevillemd.org>; townoffice@townofchevychase.org<mailto:townoffice@townofchevychase.org>; Todd Hoffman; villagemanager@chevychasesection3.org<mailto:villagemanager@chevychasesection3.org>; manager@chevychasesection5.org<mailto:manager@chevychasesection5.org>; janascoe@gmail.com<mailto:janascoe@gmail.com>; Village, Chevy Chase; info@friendshipheightsmd.gov<mailto:info@friendshipheightsmd.gov>; cityhall@gaithersburgmd.gov<mailto:cityhall@gaithersburgmd.gov>; jashman@gaithersburgmd.gov<mailto:jashman@gaithersburgmd.gov>; managergene@garrettparkmd.gov<mailto:managergene@garrettparkmd.gov>; townhall@glenecho.org<mailto:townhall@glenecho.org>; d.beers@verizon.net<mailto:d.beers@verizon.net>; mayor.council@tok.md.gov<mailto:mayor.council@tok.md.gov>; mayor.council@tok.org<mailto:mayor.council@tok.org>; Engels, Susan; laytonsvillemayor@comcast.net<mailto:laytonsvillemayor@comcast.net>; clerk2011@comcast.net<mailto:clerk2011@comcast.net>; manager@martinsadditions.org<mailto:manager@martinsadditions.org>; MartinsAdditions@gmail.com<mailto:MartinsAdditions@gmail.com>; martinsadditions@verizon.net<mailto:martinsadditions@verizon.net>; nccvm@comcast.net<mailto:nccvm@comcast.net>; secretary@townofoakmont.org<mailto:secretary@townofoakmont.org>; jimbrown.sales@gmail.com<mailto:jimbrown.sales@gmail.com>; townhall@lan2wan.com<mailto:townhall@lan2wan.com>; clerk@rockvillemd.gov<mailto:clerk@rockvillemd.gov>; manager@townofsomerset.com<mailto:manager@townofsomerset.com>; town@townofsomerset.com<mailto:town@townofsomerset.com>; suzannel@takomaparkmd.gov<mailto:suzannel@takomaparkmd.gov>; jmccathranwgmd@gmail.com<mailto:jmccathranwgmd@gmail.com>; washgrove@comcast.net<mailto:washgrove@comcast.net> Subject: BOH reg notice to municipalities

To Whom It May Concern:

Before the Montgomery County Council adopts a Board of Health regulation, Council Rule 4(d) requires the Council to notify the governing body or chief executive officer of each municipality in the County of the proposed regulation at least 15 days before the public hearing. On September 17, a resolution to adopt a Board of Health regulation was introduced that would prohibit an electronic smoking devices manufacturer from distributing electronic cigarettes to retail stores within a certain distance of certain schools. A public hearing will be held on November 5 at 7:30 p.m. in the Council Office Building at 100 Maryland Avenue, Rockville, MD. Attached to this message is a copy of the regulation as introduced and the corresponding bill. If you have any questions about the attached regulation, you may contact Amanda Mihill at (240) 777-7815. You may also email your questions to

amanda.mihill@montgomerycountymd.gov<mailto:amanda.mihill@montgomerycountymd.gov>.



October 11, 2019

The Honorable Gabe Albornoz, Chairman and Members of the Health and Human Services Committee (HHS) Montgomery County Council Council Office Building 100 Maryland Ave, 6th Floor Rockville, MD 20850

Dear Chairman Albornoz and Members of the Health and Human Services Committee (HHS),

We, the below signed organizations, deeply appreciate your commitment to the county's health and your resolve to address the growing epidemic of e-cigarette use among our youth. We agree that this epidemic demands strong and immediate action, which the Council has already taken.

We do, however, have some concerns regarding the proposed e-cigarette legislative package. Some legislation we would support with amendments. Because the county is preempted from taking the strongest possible action, and because proposed statewide legislation would accomplish the same goals and has a good chance of passage in 2020, we would recommend holding off on some of the legislation in the package.

Of the bills proposed, we can support **Bill No. 29-19 Health and Sanitation—Electronic Cigarettes—Distribution** if amended to include <u>all tobacco retailers</u>, not just e-cigarette retailers. All forms of tobacco are dangerous and protect kids from this addiction in all its forms is essential. All tobacco products and all tobacco retailers should be regulated in the same strict manner.

Since the Council intends to limit e-cigarette distribution near schools, the best practice would be to limit the total number of tobacco retailers and where those tobacco retailers can be located.

We also support **Bill No. 31-19 Health and Sanitation—Electronic Cigarettes—Distributions, Use, and Possession,** with amendments. The legislation does not currently mirror the State provisions that went into effect on October 1st, 2019. Specifically, the tobacco product definition should be updated, <u>impose fines on the retailer not the clerk</u>, and remove the purchase, use, and possession provisions on youth.

Compliance with the law should be the responsibility of the retailer, and penalties for violations should not fall on the youth attempting to purchase tobacco.

The evidence shows penalizing youth for the purchase, use, and possession of tobacco products is not effective at reducing tobacco use. Penalties for youth for purchase, use, and possession



may divert attention from more effective tobacco control strategies and relieve the tobacco industry of responsibility for its marketing practices and retailer's irresponsible sale to underage persons. For those adolescents who do smoke, what they need most is access to evidencebased cessation resources, not fines. What has been proven effective is a dedicated enforcement entity conducting active enforcement, including graduated fines for retailers when in violation with potential for license suspension and revocation, licensing of all retailers, unannounced compliance checks on retailers, and signage.

We recommend you hold off on moving forward with **Bill No. 32-19 Health and Sanitation**— **Flavored Electronic Cigarettes**, as the county is not able expand the proposal to restrict the sale of <u>all flavored tobacco products, including but not limited to menthol cigarettes and flavored</u> <u>cigars due to preemption</u>. Without a comprehensive prohibition, we do not believe this legislation will be as effective as intended and will not end the epidemic.

95% of smokers begin before the age of 21. Right here in Maryland, while 14.4% of adults across the city still smoke, 13.9% of MD high school students use e-cigarettes. We know that most current smokers were enticed to begin this deadly addiction as youth, and most report beginning with a flavor.

As a result of targeted marketing, while the use of traditional cigarettes has declined, the sale of menthol cigarettes has steadily increased, especially among young people and new smokers. Menthol makes it easier to start smoking by masking the harshness of tobacco smoke. As a result, over half of youth smokers use menthol cigarettes; among African American youth smokers, seven out of ten use menthol cigarettes. In addition, there are now over 250 different cigar flavors, and cigars surpass cigarettes in popularity among high school boys nationwide.

In addition to youth, African Americans have been heavily targeted with menthol cigarette marketing. Quitting menthol cigarettes is particularly difficult, so those who initiate with menthol are more likely to become addicted and less likely to quit. Leaving menthol cigarettes in our community is a matter of social justice and leaves those already most impacted by health disparities vulnerable to the aggressive marketing of the tobacco industry.

Cities across the country have already acted to prohibit the sale of <u>all flavored tobacco</u> <u>products</u>. Over 50 communities in California, Colorado, Minnesota, Massachusetts and New York have done so.

Unfortunately, the Council is preempted from adding menthol cigarettes and flavored cigars to the legislation, so we ask that the Council hold off on introducing legislation and instead support a statewide bill being introduced in 2020 led by Del. Dereck E. Davis (D-25) and Attorney General Brian Frosh. The statewide bill, which is supported by our national public health organizations and a vast coalition of state-based groups, will restrict the sale of <u>all</u> flavored tobacco products, including but not limited to e-cigarettes, menthol cigarettes, and flavored cigars.



While we share in your fight against the growing epidemic and commend your intentions, we would support some of the proposed legislation with amendments, but recommend the Council hold off on other bills due to pending 2020 Statewide efforts, and as a result of limitations on the county due to preemption.

We look forward to continuing to work with the County Council on proven tobacco control interventions and to improve the health of all residents.

Sincerely,

American Cancer Society Cancer Action Network (ACS CAN)

American Heart Association (AHA)

American Lung Association (ALA)

<u>CC:</u> Members of the Montgomery County Council

Montgomery County Delegation (MD General Assembly)

Testimony of Adam Zimmerman Montgomery County Council November 5, 2019

Good evening.

My name is Adam Zimmerman. I am a ten-year Rockville resident. Thank you for the opportunity to testify.

Since August 2016, it has been illegal in the United States to sell e-cigarettes to anybody under age 18, and retailers have been required to verify the age of anyone under 27 purchasing a tobacco product.

Nevertheless, over the past few years, youth e-cigarette use in the United States has exploded.

- High school students: 12 percent in 2017; 21 percent in 2018; 28 percent in 2019.
- Middle school students: 0.6 percent in 2017; 5 percent in 2018; 9 percent in 2019.
- Overall, 5 million middle and high school students use e-cigarettes today.

Here in Montgomery County, this Council has taken strong action in recent years, from raising taxes on e-cigarettes; to ensuring e-cigarettes are included in smoke-free laws; to suing Juul for relentlessly and insidiously marketing to children.

But we must do more. Vaping rates locally mirror national averages. MCPS students have been <u>hospitalized</u> after vaping in schools. Both the county and state have been affected by the <u>severe vaping-associated lung illnesses</u> sweeping the country—nearly 2,000 cases to date nationwide, hundreds of which are kids under age 18.

I applaud each member of the Council for supporting the legislative package before us tonight, but I particularly want to commend Councilmember Albornoz for his outstanding leadership protecting kids from e-cigarettes. As we write in our co-authored Washington Post <u>op-ed</u>:

"We must act swiftly and decisively in response to these alarming numbers. It took decades before we realized the full harm associated with kids using cigarettes. With respect to ecigarettes, we cannot afford a 'wait and see' approach—we know enough about the dangers to act now. We strongly support this package—not just as an elected official and a smoke-free advocate, but as proud Montgomery County residents and parents of young children."

Under the package being considered tonight:

- Vape shops would no longer be located, and e-cigarettes no longer sold at any retailer, near our schools.
- E-cigarettes would no longer be distributed to individuals under age 21.
- And flavored e-cigarettes—which are driving the epidemic; <u>97 percent</u> of kids who use e-cigarettes use flavors—would no longer sold near schools, libraries, parks, playgrounds, or recreational facilities. This includes mint and menthol, the two flavors used by nearly two-thirds of high school students who use e-cigarettes and—not coincidentally—the two flavors which Juul has refused to stop selling.

This legislation utilizes the full range of the County's authority to regulate where and by whom ecigarettes are sold.

The health and human services committee should strengthen it further—for example, by extending the ban on manufacturers distributing both flavored *and* non-flavored e-cigarettes to retailers to a full mile from any elementary, middle or higher school; and shortening the timeframe under which vape shops can no longer operate near any school from 24 months to 18 months, if not less.

The Council should pass unanimously, and the county executive should sign immediately, the full package before the end of the year.

E-cigarettes are not healthy—not a single e-cigarette product or brand has been certified by the FDA as healthier than regular cigarettes.

E-cigarettes are not safe— one Juul pod contains as much nicotine as 20 cigarettes, which can <u>harm</u> kids' brain development.

E-cigarettes are not harmless—kids who use e-cigarettes are more likely to use regular tobacco products as well.

To avoid losing a new generation of kids to nicotine addiction, Montgomery County must once again assert its national leadership. Passing this package would do exactly that.

Thank you.

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According to the 2018 Monitoring the Future Survey, more than 60% of 10th grade students say it is easy to get vaping devices and e-liquids.¹ In the summer of 2018, the FDA's undercover enforcement efforts yielded over 1,300 warning letters and fines to brick-and-mortar and online retailers for illegally selling e-cigarettes to minors.²

Where and how youth smokers get their e-cigarettes can vary considerably from state to state or city to city, depending on factors such as whether the jurisdiction strictly enforces the laws prohibiting tobacco sales to minors or requires retailers to keep all tobacco products behind the counter. Some youth buy the e-cigarettes they use, either directly from retailers or other kids, or by giving money to others to buy for them. Others get their cigarettes for free from social sources (usually other kids).

In-Store Purchases of E-Cigarettes

According to the 2018 National Youth Tobacco Survey (NYTS), 14.8% of middle and high school e-cigarette users under 18 report obtaining e-cigarettes from a vape shop in the past month and 8.4% from a gas station or convenience store.³ Another national study, the 2017 Youth Risk Behavior Surveillance (YRBS) survey of high school students in grades 9-12, found that 13.6% of current e-cigarette users aged <18 years had directly purchased their cigarettes from a store (including convenience stores, supermarkets, gas stations and vape shops), with over one-fifth (22.9%) of all twelfth grade smokers aged <18 years making such direct purchases.⁴

Online Purchases of E-Cigarettes

According to the 2018 NYTS, 6.5% of middle and high school e-cigarette users under 18 report buying ecigarettes from the Internet.⁵ Data from the 2016-2017 wave of the FDA's Population Assessment of Tobacco and Health (PATH) study found that 7.2% of current youth (ages 12-17) e-cigarette users reported that they usually get their e-cigarettes online.⁶

Studies have found that youth successfully purchased e-cigarettes over the internet in 94 to 97 percent of their online purchase attempts.⁷ Many online retailers do not have adequate age verification, with some retailers simply requiring purchasers to check a box affirming that they are over age 18 to enter the site.

In addition to purchasing through online tobacco retailers, many e-cigarettes are available through sites like ebay and Craigslist, which have no age verification whatsoever. Ebay policy prohibits sale of tobacco products; however, JUUL products have been found for sale on the website under other categories such as electronics, sometimes with product listings that neglect to use the terms "tobacco" and/or "nicotine." In April 2018, FDA contacted ebay regarding these violations and ebay has worked to remove JUUL listings and implement measures to prevent new JUUL listings.⁸ Despite these efforts, some JUUL products continue to be listed for sale on ebay.⁹

Social Sources of E-Cigarettes

Youth smokers also identify social sources, such as friends and classmates, as a common source of ecigarettes. A 2018 study found that among surveyed youth JUUL users (ages 12-17), half had gotten JUUL from a social source.¹⁰ While the up-front cost of some e-cigarettes, like JUUL, is high (a JUUL starter kit, which includes the device, charger and four JUULpods of various flavors, is \$29.99 on the JUUL website), there have been anecdotal reports of kids pooling together money to share a device and sell "hits" from the device to recoup the cost. In addition, these social sources have to get the products they distribute from somewhere, so they likely purchased from the Internet or from a retail store before distributing to others.

Making it More Difficult for Kids to Buy E-Cigarettes Reduces Youth Smoking

Numerous research studies have found that making obtaining tobacco products as inconvenient, difficult and expensive as possible for kids reduces both the number of kids who try or regularly use tobacco products.¹¹ To the extent that these measures directly affect youth who buy their own e-cigarettes or be sources for other youth, then they could also reduce the supply to other kids.

Increasing the price of e-cigarettes is an effective way to discourage youth use because youth are particularly price sensitive.¹² Price hikes may also make it less likely that parents and other adults will give ecigarettes to kids.

Restricting the sale of flavored tobacco products is another strategy that can help reduce youth access to ecigarettes. According to PATH data, 97% of current youth e-cigarette users have used a flavored e-cigarette in the past month and 70.3% say they use e-cigarettes "because they come in flavors I like."¹³ Restricting or prohibiting the sale of flavored e-cigarettes will therefore reduce the availability of the products most popular among youth. At least 200 localities have passed restrictions or complete prohibitions on the sale of flavored e-cigarettes, along with other flavored tobacco products.¹⁴

Raising the sale age of tobacco to 21 is likely to make both direct retail purchase and social source acquisition more difficult for underage youth, especially for 15-,16-, and 17- year olds, "who are most likely to get tobacco from social sources, including from students and co-workers above the [minimum legal age of access] MLA."¹⁵ With the minimum legal sale age set at 21 instead of 18, legal purchasers would be less likely to be in the same social networks as high school students and therefore less able to sell or give cigarettes to them. Eighteen states - Arkansas, California, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusetts, New Jersey, New York, Ohio, Oregon, Texas, Utah, Vermont, Virginia, and Washington - have raised the tobacco age to 21, along with Washington, DC and at least 480 localities.¹⁶

Finally, FDA must require that online retailers implement effective measures to block youth from accessing and purchasing e-cigarettes and e-liquids, such as using a third party vendor to verify age before entering the website and purchasing products and requiring ID verification upon delivery. Self-regulation by retailers is insufficient to prevent youth purchases online, given the high levels of successful purchases by youth.

For each of these policies, it is important to have strict enforcement to ensure high retailer compliance, including penalties on the tobacco retailer.

Campaign for Tobacco-Free Kids, September 10, 2019 / Laura Bach

CDC, "Youth Risk Behavior Surveillance-United States, 2017," MMWR, 67(8), June 15, 2018.

⁷ Williams, RT, Derrick J, & Ribisl, KM, "Electronic cigarette sales to minors via the internet." JAMA Pediatrics 169(3):e1563, doi:

¹ University of Michigan, 2018 Monitoring the Future Study, Trends in Availability – Tables 15-17. See

http://monitoringthefuture.org/data/18data/18drtb/15.pdf and http://monitoringthefuture.org/data/18data/18drtb/16.pdf.

² FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, https://www.fda.gov/media/121384/download.

³ FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, https://www.fda.gov/media/121384/download.

https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2017/ss6708.pdf.

⁵ FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, https://www.fda.gov/media/121384/download.

⁶ FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, https://www.fda.gov/media/121384/download.

^{10.1001/}jamapediatrics.2015.63, Epub March 2, 2015. Nikitin, D, Timberlake, DS, & Williams, RS, "Is the E-Liquid Industry Regulating Itself? A Look at E-Liquid Internet Vendors in the United States," Nicotine & Tobacco Research 18(10):1967-72, 2016.

⁸ FDA, "Statement from FDA Commissioner Scott Gottlieb, M.D., on new enforcement actions and a Youth Tobacco Prevention Plan to stop youth use of, and access to, JUUL and other e-cigarettes," April 24, 2018, https://www.fda.gov/news-events/press-announcements/statement-fdacommissioner-scott-gottlieb-md-new-enforcement-actions-and-youth-tobacco-prevention.

⁹ Laestadius, L and Wang, Y, "Youth access to JUUL online: eBay sales of JUUL prior to and following FDA action," Tobacco Control, published online September 5, 2018. Kelly, M, "Teen vapers are using eBay to dodge age restrictions," The Verge, June 5, 2019, https://www.theverge.com/2019/6/5/18652706/teen-vapers-ebay-purchase-age-restrictions-vaping-cigarettes-juul

¹⁰ Truth Initiative, "Where are kids getting JUUL?" May 29, 2018, https://truthinitiative.org/news/where-are-kids-getting-juul.

¹¹ See related Campaign fact sheets, Raising Cigarette Taxes Reduces Smoking, Especially Among Kids (and the Cigarette Companies Know It), http://www.tobaccofreekids.org/research/factsheets/pdf/0146.pdf and Enforcing Laws Prohibiting Cigarette Sales to Kids Reduces Youth Smoking, http://www.tobaccofreekids.org/research/factsheets/pdf/0049.pdf.

¹² Pesko, MF, et al., "E-cigarette price sensitivity among middle- and high-school students: evidence from Monitoring the Future," Addiction 113(5):896-906, May 2018.

13 FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, https://www.fda.gov/media/121384/download.

¹⁴ Campaign for Tobacco-Free Kids, States & Localities That Have Restricted the Sale of Flavored Tobacco Products, https://www.tobaccofreekids.org/assets/factsheets/0398.pdf.

¹⁵ Institute of Medicine, Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products, Washington, DC: The National Academies Press, 2015 , http://iom.nationalacademies.org/Reports/2015/TobaccoMinimumAgeReport.aspx ¹⁶ Some of the localities are in the states that subsequently enacted statewide laws. See:

http://www.tobaccofreekids.org/content/what we do/state tocal issues/sales 21/states localities MLSA 21.pdf.

Ettra testimony



WMDA/CAR Service Station and Automotive Repair Association

November 4, 2019

Members of Montgomery Council

RE: 29-19 and 32-19

WMDA members who sell electronic smoking devises are already enforcing age 21 tobacco and OTP (other tobacco products) which includes electronic smoking devises and basically all accessories used with tobacco or OTP. We are the best defense for identifying underage buyers an employee many county residents.

To ban the sale of electronic smoking devises within 0.5 of a school or flavored devise within 1 mile of any school, playground, park, or recreational facility does not make sense when you have 21 years of age requirement to buy the product.

Montgomery County is not an island and there will be a robust black market in tobacco and OTP with age 21 statewide. Lets not enhance that market by putting sales into the hands of individuals who check no I.D. and collect no tax revenue.

Our members agree that these products need to be controlled and the age restriction does that. Please don't pick winners and looser based on store locations.

Please give 29-19 and 32-19 Unfavorable Reports.

Kirk McCauley Director of Government Affairs WMDA/CAR <u>kmccauley@wmda.net</u> 301-775-0221 Cell



Ettra Testimony



- To: Montgomery County Council
- From: Ellen Valentino
- Date: November 5, 2019
- Re: 29-19 and 32-19 Retailer Prohibition Vape

The number of young people who are vaping has increased dramatically and MAPDA shares the concern of the Montgomery County Council on this issue. Understandably, the Montgomery County Council wants to take a stand to prevent underage vaping.

This legislation will not achieve the goal you want to accomplish and misses an opportunity for real change. At best, driving consumers to other retail establishments not affected by the ban only serves to pick winners and losers among the retail community.

At worst, this ban will foster a black market for vaping devices and supplies. As retailers, we have a responsibility to check ID; failure to do so comes with a significant penalty and threat of loss of license. Criminals selling on the street and distributing to underage individuals are operating unchecked. This legislation will most definitely exacerbate that practice and make it even more lucrative.

Instead of a ban that hurts legitimate consumers and retail businesses, we urge you to consider legislation that includes strong penalties for use and possession of vape products by individuals under the age of 21. We believe that policy will move the needle on prevention.



