

Testimony before the Alaska Senate Finance Committee Regarding Electronic Cigarettes/Vapor Products Lindsey Stroud, Director Consumer Center Taxpayers Protection Alliance April 11, 2022

Co-Chairs Bishop and Stedman, Members of the Committee,

Thank you for your time today to discuss the issue of taxing electronic cigarettes and vapor products. My name is Lindsey Stroud, and I am Director of The Taxpayers Protection Alliance's (TPA) Consumer Center. TPA is a non-profit, non-partisan organization dedicated to educating the public through the research, analysis and dissemination of information on the government's effects on the economy. TPA's Consumer Center focuses on providing up-to-date information on adult access to goods including alcohol, tobacco and vapor products, as well as regulatory policies that affect adult access to other consumer products, including harm reduction, technology, innovation, antitrust and privacy.

Introduction and Summary Points:

According to the sponsor's statement, this proposal is an effort to address youth use of tobacco and vapor products. While such efforts are laudable, policymakers should refrain from excessive taxation when addressing such issues. Rather than punish adult former smokers, Alaska lawmakers ought to fund robust tobacco control programs, including education and prevention.

Despite alarmism, electronic cigarettes are effective tobacco cessation products that have helped thousands of Alaskan adults quit combustible cigarettes and flavors are essential in this use. Although youth use of vapor products is concerning, lawmakers must refrain from alarmist efforts to impose draconian taxes and restrict access to flavors. And, rather than relying on former smokers, lawmakers ought to invest already-existing tobacco monies, borne already by low-income persons, to fund robust tobacco control programs including cessation efforts, education, and youth prevention campaigns.

- The sponsor's statement relies on data from 2017 and 2018. Recent youth surveys indicate that youth use of vapor products is declining.
- Nationally, current vapor product use among high school students has declined by 41.8 percent since 2020 and by 58.9 percent since 2019 when 27.5 percent reported using e-cigarettes on at least one occasion in the 30 days prior to the survey.
- Combustible cigarette use among Alaskan highschoolers are at record lows. In 2019, 8.4 percent reported current use of cigarettes, a 22.9 percent decrease from 2017 and a 77 percent increase from 1995 when 36.5 percent reported smoking.

- The first tax on cigarettes in Alaska took effect in 1949 at \$0.03 per pack. Since then, the state excise tax has increased seven times. The last tax increase raised the tax by \$0.20 to \$2.00-per-pack.
- Alaska spends very little of existing tobacco monies on tobacco control programs.
- In 2020, the Last Frontier collected \$42.9 million in state cigarette excise taxes and \$20.1 million in tobacco settlement payments, yet allocated only \$9.1 million (14.4 percent) to tobacco control. In 20 years, for every \$100 the state received in tobacco-related payments, it spent \$9.26 funding tobacco control programs. This is less than the average price of cigarettes which is \$9.79 per-pack.
- The vapor industry has been an economic boon to Alaska, generating \$31.9 million in economic activity in 2021 while creating 134 direct vaping-related jobs. Further, the industry has contributed more than \$1 million in state taxes.
- Unfortunately, anti-vaping efforts have reduced the industry's economic impact. The number of employees decreased by 31.6 percent from 196 employees in 2018, state tax collections were down 40 percent from 2018's \$1.7 million, and economic activity was down by 17.5 percent from \$5.4 million in 2018.
- Per the sponsor statement, "teens who vape are 4x more likely to start smoking cigarettes." There is no data to support that. E-cigarettes' market emergence is associated with low young adult smoking rates in the Last Frontier.
- In 2020, among current smokers in Alaska, only 10.1 percent of current smokers were 18 to 24 years old a 53.7 percent decrease from 2011. Further, since 2016, smoking rates among young adults have decreased by 40.6 percent.
- Existing state vape taxes have not reduced vapor product rates. As indicated on reasoning for e-cigarette use, taxation is unlikely to trump peer pressure in regards to youth use of any age-restricted substance.
- Electronic cigarettes and vapor products are effective tools at helping adult smokers quit. Lawmakers must refrain from policies that would restrict their use for former smokers.

Youth Use of Tobacco and Vapor Products is Declining

It is interesting that the sponsor of 2021-2022 legislation is referring to 2018 data on youth ecigarette use. Before enacting bans and taxes, lawmakers should understand the scope of Alaskan youth tobacco use.

First, combustible cigarette rates are at record lows. In 2019, according to the Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Surveillance Survey (YRBS), 27.5 percent of Alaska high school students had reported ever trying cigarettes and 8.4 percent reported current use, defined as having smoked a cigarette on at least one occasion in the 30 days prior. These are significant declines. Ever-use of combustible cigarettes has declined by 19.1 percent since 2017, and by 61.9 percent since 1995 when 72.1 percent of high school students



reported trying smoking. Current smoking rates decreased by 22.9 percent from 2017, and by 77 percent since 1995 when 36.5 of high school students were current smokers.

In 2019, according to the YRBS (among Alaska high school students) 45.8 percent reported ever use of e-cigarettes and 26.1 percent reported current use. Only 4.5 percent reported using vapor products daily. While youth use of vapor products had increased between 2017 and 2019, by 14.8 percent among ever users and by 66.2 among current users, numerous national studies are indicating that youth vapor use is dropping.

(See Supplemental Graph 1.1)

Unfortunately for Alaska lawmakers, the Last Frontier did not participate in the 2021 YRBS due to the ongoing COVID-19 pandemic, so there is limited state data on youth vapor use. In 2021, according to the National Youth Tobacco Survey (NYTS), an estimated 11.3 percent of high school students and 2.8 percent of middle school students reported having used a vapor product on a least one occasion in the month prior to the survey.ⁱ Further, only 3.1 percent of high school students and less than one percent of middle schoolers reported daily e-cigarette use. The rate of decline is remarkable: among high school students, vaping rates have declined by 41.8 percent since 2020 and by 58.9 percent since 2019, when 27.5 percent reported using e-cigarettes.

(See Supplemental Graph 1.2)

Robust Tobacco Control Funding – Not Bans, Excessive Taxation to Address Youth Tobacco and Vapor Product Use

It's a shame that lawmakers use youth use to justify gouging former smokers and forcing them to black markets while allocating so very little of existing tobacco monies on tobacco control programs – including education, prevention and helping smokers quit.

Alaska has imposed a tax on cigarettes since 1949 "when the Territorial Legislature enacted a tax of \$0.03 per pack on cigarettes."ⁱⁱ Since then, the state cigarette excise tax rate has increased seven times. The last tax increase raised the price by \$0.20 to \$2.00 per pack.

In the mid-1990s, Alaska sued tobacco companies to reimburse Medicaid for the costs of treating smoking-related health issues. And, in 1998 with 45 other states, the Last Frontier reached "the largest civil litigation settlement in U.S. history" through the Master Settlement Agreement (MSA).ⁱⁱⁱ

Under the MSA, states receive annual payments – in perpetuity – from the tobacco companies, while relinquishing future claims against the participating companies.

Between 2000 and 2020, Alaska collected \$1.1 billion in cigarette taxes and \$573 million in MSA payments. In the same time period, the Last Frontier allocated only \$153 million towards tobacco control programs. This is 14.2 percent of cigarette tax collections and 26.7 percent of settlement payments. In total, in 20 years, for every \$100 Alaska received in tobacco-related payments, the state spent only \$9.26 funding programs to prevent youth use and help smokers quit. This is less than the average price of cigarettes – which is \$9.79 per-pack (or \$3,573.35 per-year for a pack-per-day habit).

(See Supplemental Graph 1.3)

Further, previous tobacco tax increases have not resulted in massive increases to tobacco control funding. Alaska's cigarette excise tax increased by \$1.00 between 2005 and 2007. This resulted in a 55.6 percent increase in cigarette excise tax collections, from \$41 million in 2004 to \$63.8 million in 2008. Although the state's funding of tobacco control programs increased by 97.4 percent, from \$3.8 million to \$7.5 million, the percent of cigarette tax funding used towards tobacco control did not increase as significantly.

For example, in 2004, the state allocated \$3.8 million towards tobacco control programs, which was 9.3 percent of cigarette tax collections. In 2008, the state allocated \$7.5 million to such programs, which was 11.8 percent of cigarette taxes and only a 26.8 percent increase from 2004 percentages.

If lawmakers truly care about youth use of age-restricted products, especially tobacco products, they ought to invest more funding in robust tobacco control programs. In 2020, Alaska dedicated only \$9.1 million in state funding to such programs, that amounts to just \$50.91 per person under the age of 18.

Vapor Product Emergence Correlates to Significant Declines in Young Adult Smoking Rates

Electronic cigarettes and vapor products were first introduced to the U.S. in 2007 "and between 2009 and 2012, retail sales of e-cigarettes expanded to all major markets in the United States."^{iv} Moreover, between September 2014 and May 2020, e-cigarette sales in the U.S. increased by 122.2 percent.^v

Examining data from the CDC's BRFSS finds that e-cigarettes' market emergence has coincided with a significant reduction in smoking rates among young adults.

In 1999, among current adult smokers, 38.3 percent were 18 to 24 years old. In 2009, this had decreased by 39.4 percent to 23.2 percent of adult smokers in Alaska being between 18 to 24 years old.



In the years after e-cigarette's market emergence in the early 2010s, smoking rates among current smokers aged 18 to 24 years decreased by 53.7 percent. Indeed, in 2011, among current smokers in Alaska, 21.8 percent were between 18 to 24 years old. In 2020, only 10.1 percent of current smokers were 18 to 24 years old.

Interestingly, e-cigarettes' market emergence was associated with a larger decline in average annual percent decreases. Between 1998 and 2008, the percentage of current smokers aged 18 to 24 years old decreased on average 1.7 percent each year. Between 2011 and 2020, annual percentage decreases average at 6.9 percent.

Further, since 2016, when the U.S. surgeon general issued an alarm about youth e-cigarette use, smoking rates among adults aged 18 to 24 years in the Last Frontier have decreased by 40.6 percent, with an average annual decrease of seven percent.

(See Supplemental Graph 1.4)

Adult Vaping Rates

Despite providing annual data on cigarette and smokeless tobacco use, the CDC's BRFSS only reports on adult e-cigarette use for 2016 and 2017.

In 2017, according to the BRFSS, 3.5 percent of Alaska adults were current e-cigarette users. Similar to income status among smokers, lower income persons are more likely to use vapor products. As there is no data from 2017, in 2016, among current adult e-cigarette users, 5.4 percent reported household incomes of \$25,000 or less per year. Conversely, only 3.8 percent reported earning \$50,000 a year or more.

Economic Impact of Vaping in Alaska

In 2021, according to the analysis by the Vapor Technology Association, the industry created 134 direct vaping-related jobs. These jobs generated more than \$5 million in wages.^{vi} Moreover, the industry has created hundreds of secondary jobs in the Last Frontier, bringing the total economic impact in 2021 to \$31.9 million. In the same year, Alaska received more than \$1 million in state taxes attributable to the vaping industry.

Unfortunately, efforts by anti-vaping organizations and policymakers have negatively impacted vape shops in the Last Frontier. The number of employees in the vaping industry has decreased by 31.6 percent from 196 in 2018 to 134 in 2021, representing a loss of \$1.4 million in wages.^{vii} Further, state tax collections in 2020 were down 40 percent from 2018's level of \$1.7 million. Overall, the economic output from the vaping industry in Alaska was reduced from \$40.5 million in 2018 to \$31.9 million in 2021, a 17.5 percent decrease.



(See Supplemental Graph 1.5)

Low Income Alaskans More Impacted by Tobacco and Vapor Excise Taxes

An increase on vapor products would unfairly burden lower income Alaskans. Excise taxes are inherently regressive and tend to burden lower income persons. For example, a Cato Journal article found from 2010 to 2011, "smokers earning less than \$30,000 per year spent 14.2 percent of their household income on cigarettes, compared to 4.3 percent for smokers earning between \$30,000 and \$59,999 and 2 percent for smokers earning more than \$60,000."^{viii}

Among current smokers in Alaska, in 2020, 53.4 percent reported annual incomes of less than \$15,000 and 33.6 percent of current smokers reported earning between \$15,000 and \$24,999 per year. In fact, more than four-fifths (87 percent) of all current adult smokers earned less than \$24,999 per year in 2020. Only 11.9 percent of current adult smokers in Alaska reported earning \$50,000 or more a year in 2020.

Interestingly, smoking rates have declined more rapidly among higher income persons in the Last Frontier than their low-income counterparts. Between 2019 and 2020, smoking rates among current smokers earning \$24,999 or less increased by 30.4 percent. Conversely, among persons earning \$50,000 or more, rates increased by only 13.3 percent during the same period.

(See Supplemental Graph 1.6)

Taxes on E-Cigarettes Unlikely to Deter Youth Use

Further, there is no data to indicate that youth use of vapor products decreased after implementing taxes on e-cigarettes and indeed, youth vaping has actually increased after other states implemented vapor taxes. Tobacco Harm Reduction 101 examined the effects of vapor taxes in six states. From 2017 to 2019, current e-cigarette use among high school students increased in five states – even with excise taxes imposed on such products.

Kansas Vapor Tax: \$0.05 per milliliter

Kansas' tax on e-cigarettes and vapor products went into effect July 1, 2017.ix

According to Kansas's YRBSS, in 2017, 34.8 percent and 10.6 percent of high school students reported ever and current e-cigarette product use, respectively.^x

In 2019, ever-use increased by 28.4 percent, to 48.6 percent of Kansas high school students and current e-cigarette use increased by 51.8 percent, to 22 percent of high school students using an e-cigarette on at least one occasion in the 30 days prior.

Louisiana Vapor Tax: \$0.05 per milliliter

Louisiana's tax on e-cigarettes and vapor products went into effect August 1, 2015.^{xi}

According to Louisiana's YRBSS, in 2017, 45.1 percent and 12.2 percent of high school students reported ever and current e-cigarette product use, respectively.^{xii}

In 2019, ever-use increased by 13.3 percent, to 52 percent of Louisiana high school students and current e-cigarette use increased by 46.7 percent, to 22.9 percent of high school students using an e-cigarette at least one occasion in the 30 days prior.

North Carolina Vapor Tax: \$0.05 per milliliter

North Carolina's tax on e-cigarettes and vapor products went into effect July 1, 2015.xiii

According to North Carolina's YRBSS, in 2015, 49.4 percent and 29.6 percent of high school students reported ever and current e-cigarette product use, respectively. In 2017, ever-use decreased by 12 percent, to 44.1 percent of North Carolina high school students and current e-cigarette use decreased by 33.9 percent, to 22.1 percent of high school students using an e-cigarette in the last 30 days.^{xiv}

In 2019, 52.4 percent of high school students reporting having ever used an e-cigarette, this is a 15.8 percent increase from 2017, and a 5.7 percent increase from 2015 rates. Regarding current e-cigarette use, in 2019, 35.5 percent of North Carolina high school students reported using an e-cigarette on at least one occasion in the 30 days prior, this is a 37.7 percent increase from 2017 rates, and a 16.6 percent increase from 2015 rates.

Pennsylvania Vapor Tax: 40 percent of purchase price

Pennsylvania's tax on e-cigarettes and vapor products went into effect October 1, 2016.xv

According to Pennsylvania's YRBSS, in 2015 40.8 percent and 23.1 percent of high school students reported ever and current e-cigarette product use, respectively. In 2017, ever-use increased by 2.4 percent, to 41.8 percent of Pennsylvania high school students, and current e-cigarette use decreased by 104 percent, to 11.3 percent of high school students using an e-cigarette in the last 30 days.^{xvi}

In 2019, 52.6 percent of high school students reporting having ever used an e-cigarette, this is a 20.5 percent increase from 2017, and a 22.4 percent increase from 2015 rates. Regarding current e-cigarette use, in 2019, 24.4 percent of Pennsylvania high school students reported using an e-cigarette on at least one occasion in the 30 days prior, this is a 53.7 percent increase from 2017 rates, and a 5.3 percent increase from 2015 rates.

West Virginia Vapor Tax: \$0.075 per milliliter

West Virginia's tax on e-cigarettes and vapor products went into effect July 1, 2016.xvii

According to West Virginia's YRBSS, in 2015, 49.1 percent and 31.2 percent of high school students reported ever and current e-cigarette product use, respectively. In 2017, ever-use decreased by 10.6 percent, to 44.4 percent of West Virginia high school

students, and current e-cigarette use decreased by 118.2 percent, to 14.3 percent of high school students using an e-cigarette in the last 30 days.^{xviii}

In 2019, 62.4 percent of high school students reporting having ever used an e-cigarette, this is a 28.8 percent increase from 2017, and a 21.3 percent increase from 2015 rates. Regarding current e-cigarette use, in 2019, 35.7 percent of West Virginia's high school students reported using an e-cigarette on at least one occasion in the 30 days prior, this is a 59.9 percent increase from 2017 rates, and a 12.6 percent increase from 2015 rates.

(See Supplemental Graph 1.7)

Health Effects of Electronic Cigarettes and Vapor Products

Despite recent media reports, e-cigarettes are significantly less harmful than combustible cigarettes. Public health statements on the harms of e-cigarettes include:

Public Health England (PHE): In 2015, a landmark report relying on 185 studies and produced by PHE (a leading health agency in the United Kingdom), found "that using [e-cigarettes are] around 95% safer than smoking," and that their use "could help in reducing smoking related disease, death and health inequalities."^{xix} In 2018, the agency reiterated their findings, finding vaping to be "at least 95% less harmful than smoking."^{xx}

As recent as February 2021, PHE provided the latest update to their ongoing report on the effects of vapor products in adults in the UK. The authors found that in the UK, e-cigarettes were the "most popular aid used by people to quit smoking [and] ... vaping is positively associated with quitting smoking successfully."^{xxi}

The Royal College of Physicians (RCP): In 2016, RCP found the use of e-cigarettes and vaping devices "unlikely to exceed 5% of the risk of harm from smoking tobacco."^{xxii} RCP is another United Kingdom-based public health organization, and the same group which was the first to highlight the link between smoking and lung cancer, and other tobacco related diseases, in 1962.

The National Academies of Sciences, Engineering, and Medicine: In January 2018, the academy noted "using current generation e-cigarettes is less harmful than smoking."^{xxiii}

Cochrane Review: Researchers at the Tobacco Addiction Group analyzed studies that examined the effects of e-cigarettes in helping smokers quit. The researchers found 61 studies that had over 16,700 adults that had smoked. The studies compared the instances of quitting smoking using e-cigarettes to other nicotine replacements including nicotine replacement therapy, nicotine-free e-cigarettes, behavioral support and others. Of the available evidence, the authors found that more people "probably stop smoking for at least six months using nicotine e-cigarettes than using nicotine replacement therapy ... or

nicotine-free e-cigarettes." The authors also found that e-cigarette "may help more people to stop smoking than no support or [behavioral] support only."^{xxiv}

Society for Research on Nicotine and Tobacco (SRNT): An article in August 2021 coauthored by 15 past presidents of the SRNT reported that "Many scientists have concluded that vaping is likely substantially less dangerous than smoking". Furthermore, they found that "A growing body of evidence indicates that vaping can foster smoking cessation" and warned "Studies have found that policies intended to restrict e-cigarette use may have unintentionally increased cigarette smoking".^{xxv}

Conclusion & Summary Points

Despite alarmism, electronic cigarettes are effective tobacco cessation products that have helped thousands of Alaskan adults quit combustible cigarettes and flavors are essential in this use. Although youth use of vapor products is concerning, lawmakers must refrain from alarmist efforts to impose draconian taxes and restrict access to flavors. And, rather than relying on former smokers, lawmakers ought to invest already-existing tobacco monies, borne already by low-income persons, to fund robust tobacco control programs including cessation efforts, education, and youth prevention campaigns.

- The sponsor's statement relies on data from 2017 and 2018. Recent youth surveys indicate that youth use of vapor products is declining.
- Nationally, current vapor product use among high school students has declined by 41.8 percent since 2020 and by 58.9 percent since 2019 when 27.5 percent reported using e-cigarettes on at least one occasion in the 30 days prior to the survey.
- Combustible cigarette use among Alaskan highschoolers are at record lows. In 2019, 8.4 percent reported current use of cigarettes, a 22.9 percent decrease from 2017 and a 77 percent increase from 1995 when 36.5 percent reported smoking.
- The first tax on cigarettes in Alaska took effect in 1949 at \$0.03 per pack. Since then, the state excise tax has increased seven times. The last tax increase raised the tax by \$0.20 to \$2.00-per-pack.
- Alaska spends very little of existing tobacco monies on tobacco control programs.
- In 2020, the Last Frontier collected \$42.9 million in state cigarette excise taxes and \$20.1 million in tobacco settlement payments, yet allocated only \$9.1 million (14.4 percent) to tobacco control. In 20 years, for every \$100 the state received in tobacco-related payments, it spent \$9.26 funding tobacco control programs. This is less than the average price of cigarettes which is \$9.79 per-pack.
- The vapor industry has been an economic boon to Alaska, generating \$31.9 million in economic activity in 2021 while creating 134 direct vaping-related jobs. Further, the industry has contributed more than \$1 million in state taxes.

- Unfortunately, anti-vaping efforts have reduced the industry's economic impact. The number of employees decreased by 31.6 percent from 196 employees in 2018, state tax collections were down 40 percent from 2018's \$1.7 million, and economic activity was down by 17.5 percent from \$5.4 million in 2018.
- Per the sponsor statement, "teens who vape are 4x more likely to start smoking cigarettes." There is no data to support that. E-cigarettes' market emergence is associated with low young adult smoking rates in the Last Frontier.
- In 2020, among current smokers in Alaska, only 10.1 percent of current smokers were 18 to 24 years old a 53.7 percent decrease from 2011. Further, since 2016, smoking rates among young adults have decreased by 40.6 percent.
- Existing state vape taxes have not reduced vapor product rates. As indicated on reasoning for e-cigarette use, taxation is unlikely to trump peer pressure in regards to youth use of any age-restricted substance.
- Electronic cigarettes and vapor products are effective tools at helping adult smokers quit. Lawmakers must refrain from policies that would restrict their use for former smokers.



Supplemental Graphs

1.1 High School Tobacco and Vapor Product Use, Alaska







1.2 National High School Tobacco and Vapor Product Use

1.3 Tobacco Economics

Cigarette Taxes, Settlement Payments, Tobacco Control Funding





1.4 Smoking Rates & E-Cigarettes' Market Emergence

E-CIGARETTES EMERGENCE LED TO SIGNIFICANT DECREASE IN SMOKING RATES AMONG YOUNG ADULTS

Current Smokers by Age Group (Percent)



TAXPAYERS PROTECTION ALLIANCE

Source: Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance Survey



1.5 Economic Impact of Vaping, Alaska

Vape Shop Economics

(Dollars, in millions)



Source: Vapor Technology Association, The Economic Impact of the Vapor Industry



1.6 Low Income Smoking Rates





1.7 Vapor Taxes and High School Vaping Rates, Various States



ⁱ Eunice Park-Lee PhD. et *al.*, "*Notes from the Field:* E-Cigarette Use Among Middle and High School Students – National Youth Tobacco Survey, United States, 2021," *Morbidity and Mortality Weekly Report*, Centers for Disease Control and Prevention, October 1, 2021, <u>https://www.cdc.gov/mmwr/volumes/70/wr/mm7039a4.htm</u>. ⁱⁱ Tax Division, "Tobacco Tax 2017 Annual Report," Alaska Department of Revenue, 2017, <u>http://tax.alaska.gov/programs/programs/reports/Annual.aspx?60170&Year=2017</u>.

ⁱⁱⁱ Tobacco Control Legal Consortium, "The Master Settlement Agreement: An Overview," August 2015, p. 1, http://publichealthlawcenter.org/sites/default/files/resources/tclc-fs-msa-overview-2015.pdf.

^{iv} National Center for Chronic Disease Prevention and Health Promotion, "E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General," 2016, https://www.ncbi.nlm.nih.gov/books/NBK538679/.

^v Fatma Romeh M. Ali, PhD., et *al.*, "E-cigarette Unite Sales, by Product and Flavor Type – United States, 2014 – 2020," *Morbidity and Mortality Weekly Report*, Centers for Disease Control and Prevention, September 18, 2020, <u>https://www.cdc.gov/mmwr/volumes/69/wr/mm6937e2.htm/</u>.

^{vi} Vapor Technology Association, "The Economic Impact of the Vapor Industry Alaska," 2021, https://vta.guerrillaeconomics.net/reports/5609e90f-c94b-434e-a036-412c575ad434?. vii Vapor Technology Association, "The Economic Impact of the Vapor Industry Alaska," 2018, https://vta.guerrillaeconomics.net/reports/2411a65b-1d70-4911-8766-aceee2a5e8ed?. viii 1 Kevin Callison and Robert Kaestner, "Cigarette Taxes and Smoking," Regulation, Cato Institute, Winter 2014-15, https://object.cato.org/sites/cato.org/files/serials/files/regulation/2014/12/regulation-v37n4-7.pdf. ^{ix} Kansas Department of Revenue, "Selected Kansas Tax Rates with Statutory Citation," 2021, https://www.ksrevenue.org/taxrates.html. ^x Centers for Disease Control and Prevention, *supra* note 20. xi Louisiana Department of Revenue, "Retail Dealers of Vapor Products," 2021, https://revenue.louisiana.gov/ExciseTaxes/RetailDealersOfVaporProducts. ^{xii} Centers for Disease Control and Prevention, *supra* note 20. xiii North Carolina Department of Revenue, "Tobacco Products Tax," December, 2019, https://files.nc.gov/ncdor/documents/files/Tobacco-Products-Tax-Bulletin rev 12-19-Final.pdf. xiv Centers for Disease Control and Prevention, *supra* note 20. ^{xv} Pennsylvania Department of Revenue, "Other Tobacco Products Tax," 2021, https://www.revenue.pa.gov/GeneralTaxInformation/Tax%20Types%20and%20Information/OTPT/Pages/default.as px#:~:text=E%2Dcigarettes%2FVapor%20products.the%20wholesaler%20on%20the%20following%3A&text=E% 2Dcigarette%20devices%20sold%20in,liquid%20or%20substance%20contains%20nicotine. xvi Centers for Disease Control and Prevention, *supra* note 20. ^{xvii} West Virginia State Tax Department, "E-cigarette Liquids Excise Tax FAQ," 2021, https://tax.wv.gov/Business/ExciseTax/TobaccoTax/HowDoI/Pages/ElectronicCigaretteLiquidsExciseTaxFAO.aspx ^{xviii}Centers for Disease Control and Prevention, *supra* note 20. xix A. McNeill et al., "E-cigarettes: an evidence update," Public Health England, August, 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachm. xx A. McNeill et al., "Evidence review of e-cigarettes and heated tobacco products 2018," Public Health England, February 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/684963/Evi dence review of e-cigarettes and heated tobacco products 2018.pdf. ^{xxi} A. McNeill *et* al., "Vaping in England: an evidence update including vaping for smoking cessation, February 2021," Public Health England, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962221/Vaping_in England evidence update February 2021.pdf. xxii Royal College of Physicians, *Nicotine without Smoke: Tobacco Harm Reduction*, April, 2016, https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0. ^{xxiii} Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems, "Public Health Consequences of E-Cigarettes," The National Academies of Science, Engineering, and Medicine, 2018, https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes. ^{xxiv} Hartmann-Boyce J. *et al.*, "Can electronic cigarettes help people stop smoking, and do they have any unwanted effects when used for this purpose?," Cochrane Review, September 14, 2021, https://www.cochrane.org/CD010216/TOBACCO can-electronic-cigarettes-help-people-stop-smoking-and-do-theyhave-any-unwanted-effects-when-used.

^{xxv} David J. K. Balfour, *et al.* "Balancing Consideration of the Risks and Benefits of E-Cigarettes", *American Journal of Public Health* 111, no. 9 (September 1, 2021): pp. 1661-1672. https://ajph.aphapublications.org/doi/10.2105/AJPH.2021.306416