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Chairwoman Eshoo, Ranking Member Burgess, and members of the Health Subcommittee, thank you for the opportunity to testify at this legislative hearing on H.R. 2339, the Reversing the Youth Tobacco Epidemic Act of 2019. My name is Matthew Myers, and I am the President of the Campaign for Tobacco-Free Kids. The Campaign for Tobacco-Free Kids works to reduce tobacco use and its deadly consequences in the United States and around the world. We promote the adoption of proven solutions to reduce tobacco use and save lives.

The Campaign for Tobacco-Free Kids strongly supports this bill. This legislation provides the comprehensive strategy we need to reverse the youth e-cigarette epidemic and to continue driving down youth tobacco use. We applaud Chairman Pallone and Rep. Shalala for their leadership in introducing this legislation.

The comprehensive steps taken by this legislation are sorely needed to address the urgent public health crisis facing our nation. The legislation addresses the leading drivers of youth tobacco use and tobacco-related health disparities – the use of sweet flavors that appeal to children and contribute to their misunderstanding of the health risks of these products, the use of marketing and promotions designed to reach and appeal to kids, and easy access to tobacco products for our nation's young people. This legislation will significantly reduce the number of young people who become addicted to e-cigarettes and other tobacco products.

Youth E-Cigarette Use in the United States is a Public Health Crisis

Youth e-cigarette use in the United States has skyrocketed to what the U.S. Surgeon General and the FDA have called "epidemic" levels.[1] It is a public health crisis and *it is getting worse*.

Newly released data from the 2019 National Youth Tobacco Survey (NYTS) shows that e-cigarette use among high school students more than doubled from 2017 to 2019, to 27.5 percent

of students, or more than 1 in 4 high schoolers.[2] Altogether, 5 million middle and high school students used e-cigarettes in 2019 – an increase of nearly 3 million users in two years.[3] Another national study showed that e-cigarette use among 8th, 10th and 12th graders has more than doubled in the past two years.[4]

What is happening is without precedent. Researchers at the University of Michigan who conduct the Monitoring the Future Study found that the increase in youth vaping of nicotine from 2017 to 2018 was the single largest increase in youth use of any substance in the survey's 43-year history.[5] And then it increased again this year.[6] E-cigarettes are addicting a new generation of kids and threaten to reverse decades of progress in reducing youth tobacco use.

Alarmingly, studies have found that young people who use e-cigarettes are more likely to become smokers. Last year, the National Academies of Science, Engineering & Medicine (NASEM) released a comprehensive report that found that there was substantial evidence that e-cigarette use increases risk of ever using cigarettes among youth and young adults.[7] A recent study found that youth who used e-cigarettes were four times more likely to subsequently try cigarettes.[8]

Multiple studies have also demonstrated that many youth who use e-cigarettes are kids who are among those least at risk of cigarette smoking. For these kids, e-cigarettes are not replacing cigarettes, they are turning non-tobacco users into tobacco users.[9]

And we now know that large numbers of youth are not just experimenting, they are becoming addicted. In fact, more than a quarter (27.7%) of high school e-cigarette users are frequent users, using e-cigarettes on at least 20 of the preceding 30 days. Frequent product use is more prevalent for e-cigarettes than for cigarettes.[10] Alarmingly, 1 in 9 high school seniors (11.7%) report vaping nicotine on a near daily basis, a strong sign of addiction.[11]

Sadly, the numbers and research are confirmed by parents and pediatricians across the country. E-cigarette use, especially Juul, has permeated schools and the daily life of hundreds of thousands of youth. It is clear that large numbers of teen e-cigarette users are struggling with nicotine addiction and withdrawal. Last November, the New York Times profiled Matt Murphy from Reading, Mass., who had his first Juul when he was 17. He described the euphoric head rush of nicotine as "love at first puff." He quickly became addicted to Juul's intense nicotine hits. He became so dependent on the Juul that he nicknamed the device his "11th finger."[12] He is not alone. The problem is so bad that FDA convened two public hearings to gather input on how to help youth addicted to the nicotine in e-cigarettes. No one is quite sure how to help these youth quit.

E-Cigarettes Pose Serious Risks to Kids' Health

The widespread use of e-cigarettes among young people raises particular concerns because they almost always use products that contain nicotine, and since the introduction of Juul, are now often using products that effectively deliver very large doses of nicotine.[13] Nicotine is a highly addictive drug that can harm the developing adolescent brain and impact learning, memory and attention. Using nicotine in adolescence also has been shown to increase the risk of future addiction, including to cigarettes and to other drugs. The 2016 U.S. Surgeon General's report concluded that youth use of nicotine in any form, including e-cigarettes, is unsafe.[14]

It should not be surprising that there are reports of youth becoming addicted more rapidly and more intensely to e-cigarettes than was previously recorded for cigarettes. A single Juul can deliver as much nicotine as a pack of cigarettes.[15] This is even more dangerous because Juul delivers nicotine without the harsh taste and smell of regular cigarettes, allowing users to inhale high levels of nicotine more easily and with less irritation than other e-cigarettes that are designed differently.[16] Research has also found that young Juul users often do not know the products they are using contains nicotine.[17]

E-cigarettes can also expose users to other harmful chemicals. While we do not yet know the long-term effects of e-cigarette use, studies have found that e-cigarettes can contain harmful and potentially harmful constituents, including formaldehyde, acrolein, volatile organic compounds, and metals like nickel and lead.[18] We do not yet know the cause of the recent outbreak of serious lung illnesses among e-cigarette users, but the most recent report from CDC indicates that 13 percent of the cases are in individuals who report using only nicotine based products. 58 percent of the cases report using nicotine (just not exclusively). Because FDA has not reviewed any of these products, we know far too little about the potential risks of using these products and that should be of concern to all of us.

Youth Epidemic Is Clear, Evidence about Smoking Cessation Is Insufficient

While the evidence is clear that there is a youth e-cigarette epidemic, the evidence is insufficient to conclude that e-cigarettes are a safe and effective smoking cessation device.[19] Public health authorities in the U.S have found that there is not enough evidence to recommend e-cigarettes for tobacco cessation. The U.S. Preventive Services Task Force, which makes recommendations about the effectiveness of specific preventive care services after a thorough assessment of the science, concluded that, "the current evidence is insufficient to recommend electronic nicotine delivery systems for tobacco cessation..."[20] The NASEM report concluded, "[o]verall, there is limited evidence that e-cigarettes may be effective aids to promote smoking cessation."[21] According to researchers from the CDC, "There is currently no conclusive scientific evidence

that e-cigarettes promote long-term cessation, and e-cigarettes are not included as a recommended smoking cessation method by the U.S. Public Health Service."[22]

More research is needed to determine if e-cigarettes will help people quit, especially whether newer e-cigarette products are effective for cessation. While we should keep an open mind about the potential for e-cigarettes as a cessation tool, we need science to back this up.

Even if some e-cigarettes were found to help people to quit, the value of e-cigarettes to adults would have to be weighed against their attraction to youth. Any potential that e-cigarettes may have at helping smokers quit cannot come at the expense of large scale youth use.

The E-Cigarette Industry Has Created this Crisis and Has Engaged in Behavior Similar to the Behavior of the Tobacco Industry

Driving this crisis are the irresponsible actions of the e-cigarette industry, which has targeted kids with thousands of flavors that appeal to young people and engaged in the kind of marketing that mirrors what the cigarette industry did for decades. The actions of the e-cigarette industry are identical to the actions the cigarette industry took to attract and addict generations of youth. The 2016 Surgeon General Report on e-cigarettes concluded that, "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."[23]

Flavored Tobacco Products Have Fueled Youth Tobacco Use. Flavors improve the taste and mask the harshness of tobacco products, making it easier for kids to try the product and ultimately become addicted. There is conclusive evidence that flavors play a key role in youth initiation and continued use of tobacco products. In fact, over 80 percent of kids who have used tobacco started with a flavored product.[24]

Flavored e-cigarettes continue the tobacco industry's long history of targeting kids with flavored products. Despite the foreseeable risks of marketing flavored nicotine products, manufacturers flooded the market with flavored e-cigarettes with little or no regard for the impact these products would have on youth. The consequences should not be a surprise to anyone.

- E-cigarette companies market more than 15,000 flavors to kids – from mango and mint to cotton candy and gummy bear.[25]
- Nearly all (97%) of current youth e-cigarette users have used a flavored e-cigarette in the past month and 70 percent of you current youth e-cigarette users say they use e-cigarettes "because they come in flavors I like" (according to data from the government's Population Assessment of Tobacco and Health, PATH, study).[26]

- The percentage of high school e-cigarette users who reported using mint and menthol flavors increased from 51.2 percent in 2018 to 63.9 percent in 2019. Mint and menthol flavors are about as popular as fruit flavors among high school e-cigarette users.[27]

E-Cigarette Marketing Reaches and Appeals to Youth. In addition to marketing e-cigarettes in flavors attractive to kids, manufacturers have employed extensive advertising campaigns to promote these products. The Surgeon General has concluded that, "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."[28] By mimicking the tobacco industry's strategies, including celebrity endorsements, slick TV and magazine advertisements, and sports and music sponsorships, e-cigarette advertising has effectively reached youth and young adults. The 2016 NYTS found that 78.2 percent of middle and high school students—20.5 million youth—had been exposed to e-cigarette advertisements from at least one source, an increase from 68.9 percent in 2014.[29]

When Juul was first launched in 2015, the company used colorful, eye-catching designs and youth-oriented imagery and themes, such as young people dancing and using Juul. Juul's original marketing campaign included billboards, YouTube videos, advertising in Vice Magazine, launch parties and a sampling tour. A report by Stanford University researchers concluded that Juul's launch marketing was "patently youth oriented" and closely resembled the themes and tactics used by the tobacco industry for decades.[30] Posts on social media platforms like Twitter and Instagram also fueled Juul's popularity among youth.[31] Social media promotion included influencers – social media stars with large numbers of online followings who were paid to recommend Juul and post photos with the product. These influencers created tremendous interest and enthusiasm for the product. E-cigarette companies market extensively on product websites and maintain a strong presence on social media sites popular among youth, like Facebook, YouTube, Instagram, and Twitter. [32] E-cigarette manufacturers have also placed ads on search engines and websites that focus on music, entertainment, and sports and which often have substantial youth and young adult audiences.[33]

Young people can easily access tobacco products. Tobacco companies target kids and young adults because they know that is when most users first try and become addicted to tobacco. About 95 percent of adult smokers begin smoking before they turn 21, and about 80 percent start before age 18.[34] Research shows that youth smokers identify social sources, such as friends and classmates, as a common source of cigarettes.[35] According to the 2018 Monitoring the Future Survey, more than 60 percent of 10th grade students say it is easy to get vaping devices and e-liquids.[36]

In addition, online sales provide youth with easy access to tobacco products and create challenges for enforcement of federal, state, and local laws related to the manufacture, marketing, and sale of tobacco products. Internet sites that sell tobacco products often fail to use effective age verification strategies and offer products that violate FDA requirements. For example, some retailers simply require purchasers to check a box affirming that they are over age 18 to enter the site. Research demonstrates that youth can easily buy e-cigarettes online. Studies have found that youth successfully purchased e-cigarettes over the internet in 94 to 97 percent of their online purchase attempts.[37]

Use of Other Tobacco Products Remains a Serious Concern

It is important to both tackle the current e-cigarette crisis and to simultaneously take action to reduce the death toll from traditional tobacco use. Today, tobacco use is responsible for more than 480,000 deaths a year, and more than 16 million Americans are living with a tobacco-caused disease.[38] Tobacco use not only has a devastating effect on health but it is also responsible for approximately $170 billion in health care costs each year.[39] More than 60 percent of these health care costs are paid by government programs such as Medicare and Medicaid. In addition, certain populations and regions of the country continue to suffer from disproportionately high rates of tobacco use and tobacco-related disease and premature death. Menthol cigarettes and other flavors tobacco products contribute directly to that disparity.

Despite enormous progress in reducing smoking rates, tobacco use remains the leading cause of preventable death and disease in the United States.

Flavors in Other Tobacco Products Increase Use by Youth and African-Americans

E-cigarettes are not the only flavored tobacco products on the market that impacts youth tobacco initiation. Tobacco companies continue to target kids with other flavored products, including menthol cigarettes and flavored cigars.

Menthol cigarettes. The scientific evidence leaves no doubt that menthol cigarettes increase the number of people, particularly kids, and especially African-American kids, who try the product, become addicted and die a premature death as a result. Prohibiting the sale of menthol cigarettes is one of the most important things you can do to protect the health of American kids.

The evidence in support of the need and benefit of prohibiting the sale of menthol cigarettes has grown since Congress passed the Tobacco Control Act in 2009. A 2013 Food and Drug Administration (FDA) report on the health impact of menthol cigarettes determined that menthol cigarettes lead to increased smoking initiation among youth and young adults, greater addiction and decreased success in quitting smoking.[40] Further, FDA's Tobacco Products Scientific

Advisory Committee (TPSAC)[1] concluded, "Removal of menthol cigarettes from the marketplace would benefit public health in the United States."[41] They projected that by 2020, about 17,000 premature deaths will be attributable to menthol cigarettes and about 2.3 million people will have started smoking because of menthol cigarettes.[42]

Menthol cools and numbs the throat and reduces the harshness of tobacco smoke, making menthol cigarettes easier and more appealing to kids who are starting to smoke. As a result, menthol cigarettes increase the number of kids who experiment with cigarettes and who become regular smokers. And young people who initiate using menthol cigarettes are more likely to become addicted daily smokers.[43]

Just like other flavored tobacco products, youth smokers are more likely to use menthol cigarettes than any other age group. Half (50.1%) of youth who have ever tried smoking initiated with menthol flavored cigarettes.[44] Over half (54%) of youth smokers ages 12-17 use menthol cigarettes, compared to less than one-third of smokers ages 35 and older.[45] Prevalence of menthol use is even higher among African American youth: seven out of ten African-American youth smokers smoke menthol cigarettes.[46]

Menthol cigarettes have had a particularly destructive impact on the African-American community. The continued availability of menthol cigarettes threatens the progress we have made in reducing adult smoking, particularly among African Americans. Over 80 percent of African-American smokers smoke menthol cigarettes.[47] It is no accident that African Americans and youth smoke menthol at higher rates than other demographic groups. It is a direct result of a decades-long marketing campaign by the tobacco industry.[48] Indeed, in the 1950's only about 5% of African-American smokers smoked menthol cigarettes.[49] The tobacco industry then targeted the African-American community intensely. The current tobacco related crisis and disparate cancer rates in the African-American community are a direct result of the industry's targeting.

Menthol cigarettes are a major reason why tobacco use is the leading preventable cause of death for African Americans. Smoking kills 45,000 African Americans each year.[50] Lung cancer kills more African Americans than any other type of cancer.[51] In 2011, FDA's tobacco scientific advisory committee estimated that by 2020, 4,700 excess deaths in the African-American community will be attributable to menthol in cigarettes, and over 460,000 African Americans will have started smoking because of menthol in cigarettes.[52]

[1] TPSAC is a group of scientific experts charged with advising the Commissioner of Food and Drugs on safety, dependence, and health issues relating to tobacco. See https://www.fda.gov/advisoryCommittees/CommitteesMeetingMaterials/tobaccoproductsScientificAdvisoryCommittee/default.htm for more details.

Flavored cigars. Flavored cigars have proliferated in recent years and now make up more than half the U.S. cigar market.[53] Sales of all cigars (i.e., large cigars, cigarillos, and small cigars) more than doubled between 2000 and 2017[54] and much of the growth is attributable to smaller types of cigars, many of which are flavored and inexpensive (e.g., 3 or 4 cigars for 99 cents). Flavored cigars, which come in flavors like "Berry Fusion" and "Maui Pineapple," are especially popular among high school boys, who smoke cigars at roughly the same rate as cigarettes.[55] African American high school students smoke cigars at nearly three times the rate of cigarettes.[56] Similar to e-cigarettes, cigars are marketed using social media, music event sponsorship, celebrity endorsements and point-of-sale promotions.[57]

Strong Comprehensive Action by FDA Is Needed to Protect Kids and Highest Priority Should be a Ban on Flavored Tobacco Products

The current crisis exists because e-cigarette companies and other tobacco companies have designed their products to appeal to kids, engaged in marketing and sales practices that have enhanced the appeal of these products to kids, and made them far too accessible to our nation's youth. It has also occurred because the FDA has done far too little to restrain the behavior of these companies and to protect our nation's youth and the public from these products. For example, it took FDA over 5 years to assert jurisdiction over e-cigarettes and cigars. FDA has not reviewed any of these products for safety or appeal to youth; has not used its authority to restrict how these products are marketed; has not taken action to date to restrict flavors; and has not used its authority to require other changes to products to reduce their health risks, their appeal to youth or their addictiveness.

This is why the Reversing the Youth Tobacco Epidemic Act is critical. It addresses the key drivers to the current problem: flavored products, marketing that appeals to kids, and youth access to tobacco products.

This legislation takes the action that is needed to address the youth e-cigarette epidemic and to reduce use of other tobacco products. Let me highlight a few of the key provisions.

Flavors. The single most important action that could be taken to reduce youth e-cigarette use and other tobacco use would be to crack down on flavored tobacco products. For several years, we have urged FDA to prohibit the marketing of flavored e-cigarettes because of the evidence that the flavors appeal to kids and are significantly increasing youth e-cigarette use. Prior to FDA issuing its rule asserting its authority over e-cigarettes, we urged FDA to prohibit flavored e-cigarettes other than tobacco-flavored e-cigarettes. That is why we support the Administration's plan to remove flavored e-cigarettes from the market as it was described on September 11.

The Administration's announcement does not decrease the need for Congress to act. First, in the absence of clear guidance from Congress, any rule adopted by FDA could be later changed.

Second, it is likely that the tobacco industry will take legal action to try to block or delay the Administration's plan. Third, it is important to set clear standards so that the industry does not use the premarket tobacco product application (PMTA) process to get approval of flavored products despite the evidence of their appeal to youth and the lack of evidence of their effectiveness in helping smoking to quit. The flavor provisions of the Pallone-Shalala bill would buttress the Administration's plan by permanently prohibiting flavored e-cigarettes (other than tobacco-flavored e-cigarettes) unless a manufacturer can demonstrate three things to FDA: that a particular flavor helps current tobacco users to stop smoking, will not lead non-tobacco users (such as youth) to start, and does not increase the risk of harm from using the product. The bill would also recognize the devastating role played by menthol cigarettes and flavored cigars both on youth use and on use by the African-American community and prohibit the sale of menthol cigarettes, flavored cigars, and other flavored tobacco products. By doing so, it will reduce youth use of these products and disparities in tobacco-related mortality.

Marketing. E-cigarettes face fewer marketing restrictions than cigarettes do. Certain marketing restrictions that FDA determined would reduce youth use of cigarettes and smokeless tobacco products have not been extended to other tobacco products, including e-cigarettes. The bill would address this problem by extending these marketing restrictions to all tobacco products. As a result, e-cigarette and cigar companies would be prohibited from sponsoring athletic, music, or other social and cultural events under the brand name of their products or sell or distribute shirts, hats and other non-tobacco items with their products' brand name. Further, the bill enhances FTC's ability to address inappropriate e-cigarette marketing by prohibiting marketing that appeals to people under the age of 21 and prohibits social media influencers and others from being compensated for endorsing an e-cigarette unless they clearly disclose that the communication is an advertisement.

Youth access. The bill strengthens youth access restrictions by raising the tobacco sale age nationwide to 21. Raising the tobacco sale age will help reduce tobacco use by helping keep tobacco out of high schools, where younger teens often can obtain tobacco products from older students who can purchase them legally.[58] Some may think raising the tobacco sale age is the only step Congress must take to address the youth e-cigarette problem. But sales restrictions alone have never been sufficient to reduce youth tobacco sale. A comprehensive response, like this bill, is what is necessary to make a significant difference.

Online sales. The bill also makes it harder for youth to access e-cigarettes and other tobacco products by prohibiting online sales of tobacco products. While existing age verification requirements for online sales of cigarettes and smokeless tobacco have been helpful, they have not fully addressed the problem. A complete prohibition on online sales, and applying it to all tobacco products, would more effectively shut off this access point.

Conclusion

We are facing an epidemic in youth e-cigarette use. Parents, school officials, and health care providers from across the country are worried that a new generation of young people are becoming addicted to nicotine and are troubled by what that will mean for their health. In addition, higher rates of smoking and other forms of tobacco use persist among certain populations and regions of the country, burdening these communities with higher rates of cancer, heart disease, and pulmonary disease attributable to tobacco use. These challenges will not go away by themselves. They will require a concerted effort by Congress, federal agencies, as well as state and local efforts.

The Campaign for Tobacco-Free Kids strongly supports the Reversing the Youth Tobacco Epidemic Act. We believe that it provides the comprehensive approach that is needed toll help protect our kids from dangerous and addictive tobacco products and will greatly benefit the public health of the nation. We urge the Subcommittee to move quickly to mark up this bill and hope it will enjoy broad support.

Thank you for the opportunity to testify on this important issue.

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