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Written Testimony on the Likely Effects of an Act Banning the Sale of Flavored Tobacco  
Products and E-Liquids (S.288)

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**Background and Qualifications**

I am pleased to submit these written comments on the likely effects of a ban on the sale of flavored tobacco products and e-liquids in Vermont.

I am a distinguished professor of Public Health and Economics at the University of Illinois at Chicago, where I direct the university's Health Policy Center. I also direct Tobacconomics, a group of economists and other policy researchers focused on the economics of tobacco and tobacco control. I specialize in the field of health economics, with an emphasis on the role of policy and environmental influences on health behaviors. For the past 35+ years, much of my research has focused on the economics of tobacco use and tobacco control. For nearly 20 years, I have led the economics component of the International Tobacco Control Policy Evaluation Project (ITC Project), a global research endeavor that surveys tobacco users in 29 countries in order to evaluate the impact of a wide variety of tobacco control policies. I have written hundreds of studies, book chapters, and other publications that evaluate efforts to prevent and reduce tobacco use.

**Overview**

In recent years, state and local governments in the U.S. have implemented policies banning the sale of flavored tobacco products and/or flavored e-liquids. Some of these policies are relatively comprehensive, with the most comprehensive banning the sale of all flavored products, including menthol cigarettes. At the same time, policies banning the sale of menthol cigarettes and other flavored products have been implemented at the national level in a few countries (Canada, Ethiopia, Senegal, and Uganda), while a growing number of others (currently 33) have adopted but not yet implemented these policies. Efforts to evaluate the impact of these policies are ongoing. To date, nearly all evidence on the impact of implemented policies that ban the sale of menthol cigarettes comes from Canada, where policies began at the provincial level in Nova Scotia (May 31, 2015). By mid-2017, most Canadian provinces had adopted similar policies and, effective October 2, 2017, the sale of menthol cigarettes was banned throughout Canada. Research demonstrates that these policies have been effective in reducing tobacco use in Canada, which will generate health and economic benefits that grow over time.

**Banning Flavored Tobacco Product Sales Reduces Tobacco Use**

A growing body of evidence demonstrates that banning the sale of flavored tobacco products results in reductions in the sale and use of these products. While some users switch to tobacco products that continue to be sold, others stop using entirely. Given the enormous health and economic consequences of tobacco use, these reduction in use will lead to significant

improvements in health and considerable economic benefits.

New research on the impact of the ban on the sale of menthol cigarettes in Canada from the ITC Project will be presented at this week's annual meeting of the Society for Research on Nicotine & Tobacco. Findings from this research are consistent with findings from recent studies that have assessed the impact of provincial policies and provide a basis for estimating the likely impact of the proposed ban on the sale of flavored tobacco products and e-liquids in Vermont.

The ITC Project conducts regular longitudinal surveys of cigarette smokers, vapers, and/or other tobacco product users in Canada, the United States, and 27 other countries. Data from these surveys are used to evaluate the impact of tobacco control policies on the use of these products. In a few countries (the United States, Canada, and the United Kingdom), comparable data are collected from youth (both users and non-users) in order to explore the impact of tobacco control policies on youth initiation and uptake. The ITC surveys were conducted in Canada in 2016 (from July through November) and 2018 (from April through July). The 2016 surveys were conducted after the implementation of provincial bans in Nova Scotia, Alberta, and New Brunswick, but before or during the implementation of provincial bans in Quebec (August 2016), Ontario (January 2017), Prince Edward Island (May 2017), and Newfoundland and Labrador (July 2017), and before the national ban (October 2017). Data was collected from 1,319 adult smokers who were not subject to a ban in 2016 (including those in British Columbia, Saskatchewan and Manitoba which did not enact provincial bans).

The ITC-Canada survey data clearly show that the implementation of the provincial and national bans on the sale of menthol and other flavored tobacco products in Canada led to a significant decline in cigarette smoking. Menthol cigarette smokers prior to the implementation of the bans were much more likely to try to quit smoking after the bans than non-menthol smokers (60% vs. 48%) and were twice as likely to have quit smoking for at least 6 months (12% vs. 6%). More than half (55%) switched from menthol cigarettes to non-menthol cigarettes and one in five (20%) continued to smoke menthol cigarettes. The remainder engaged in various other behaviors (quit less than six months at the time of the survey, switched to vaping menthol products, switched to vaping non-menthol products, and dual use of non-menthol cigarettes and vaping products).

The proposed comprehensive ban on the sale of flavored tobacco products and e-liquids would likely have a similar impact on tobacco and vapor product use in Vermont. According to the 2018 Behavioral Risk Factor Surveillance Survey, 13.7% of Vermont adults were cigarette smokers and 1.3% used smokeless tobacco products, implying that the state had nearly 70,000 adult smokers and almost 7,000 adult smokeless tobacco users. Based on the most recent publicly available state data from the Tobacco Use Supplement to the Current Population Survey (2014/2015 wave), 22.5% of adult smokers in Vermont smoked menthol cigarettes. According to the CDC, 7.4% of smokers were recent quitters in the U.S., based on data from the 2015 National Health Interview Survey. Combining these data with the finding that the bans on the sale of menthol cigarettes in Canada doubled the 6+ month quit rate, a ban on the sale of menthol cigarettes could lead to more than an additional 1,100 Vermonters quitting smoking. Given the greater share of flavored product use for other tobacco products and vaping products, the impact would be relatively higher, although smaller in absolute terms given the lower prevalence of use

for these products. The long-term impact would likely be greater, given the greater impact on the uptake of tobacco and vapor product use among youth and the higher rates of flavored product use among youth.

These reductions in smoking and vaping would have long-term health benefits given the considerable evidence on the death and disease caused by tobacco use and the emerging evidence on the health consequences of vaping, particularly among young people. These improvements in health would generate substantial economic benefits, given reductions in spending on health care to treat the diseases caused by tobacco use and the improved productivity that would result from a healthier workforce. The health care costs of treating the diseases caused by smoking in Vermont are estimated to be \$384 million annually, and include over \$87 million in costs to the state's Medicaid program. In addition, smoking reduces economic activity in the state, with lost productivity costs estimated to be \$232.8 million annually.

### **Impact of Flavor Ban on Tobacco Tax Revenues**

The reductions in tobacco and vaping product use that would result from a ban on the sale of flavored tobacco products and e-liquids would lead to a reduction in the tax revenues that are generated from the sale of these products.

The impact of the flavor ban on cigarette tax revenues can be estimated based on the Canadian experience discussed above. The ITC-Canada survey data show that 55.2% of menthol smokers switched to non-menthol cigarettes following the provincial and national bans. One recent study by Kuiper and colleagues, cited in the fiscal note for the proposed policy, found that 18.8% of cigarette sales from 2011-2015 were menthol cigarettes. Assuming that 55.2% of menthol smokers switch to non-menthol cigarettes and that the remainder either quit or consume untaxed products (a very strong assumption given that at least some are likely to switch to other taxed, non-flavored products), cigarette sales would fall by an estimated 8.4%. Given that total cigarette tax revenues are projected to be \$55 million in FY 2021, this amounts to a reduction of just over \$4.6 million in tax revenues.

Estimating the impact on revenues from other tobacco product and e-liquid taxes is more challenging given the limited evidence on the impact of flavor bans on the sales of these products and given the lack of detailed data on the revenues generated from these products. In the fiscal note on the proposed act, an estimated \$12.4 million in total tax revenues is expected to be generated from the sale of these products in FY 2021 and 20% to 40% of sales are estimated to be for flavored products. Making the same assumption made for cigarettes – that 55.2% of users switch to a non-flavored product – this implies a revenue loss of between \$1.1 million and \$2.2 million.

These are likely to be overestimates of the revenue losses as some who quit in response to the flavor ban will eventually relapse and consume non-flavored products. These estimates also do not account for other changes in tobacco and vaping product use in response to a ban on the sale of flavored products observed in Canada (e.g. substitution from menthol cigarettes to non-menthol e-cigarettes). Moreover, any decline in revenues from reductions in tobacco and vaping product use will be offset over time by the related declines in tobacco-related healthcare costs

burdening the state. A recent study by Glantz, for example, found that reducing national smoking prevalence by one percentage point would reduce Medicaid costs by \$2.5 billion nationally in the following year.

### **Avoidance and Evasion in Response to a Flavor Ban**

While there may be some avoidance and evasion in response to a ban on the sale of flavored tobacco products and e-liquids, the proposed policy will still generate significant public health benefits. The Canadian experience again provides some evidence on this. The ITC-Canada survey data show that 19.9% of menthol smokers continued to consume menthol cigarettes after the implementation of the provincial and national bans. Some of these continuing menthol smokers purchased menthol cigarettes on First Nations reserves (20%), outside of Canada (2.1%), online (1.6%) or in duty-free shops (0.8%), reflecting individual smokers' efforts to avoid/evade the policy. Others purchased cigarettes from a variety of outlets, most commonly convenience stores/gas stations (60.9%) and supermarkets, grocery stores, and drug stores (10.6%), likely reflecting the sale of illicit cigarettes. Concerns about the sale of illicit flavored products can be addressed directly by strengthening enforcement efforts to identify illegal sales of flavored products and by increasing penalties for those involved in smuggling of these products. Doing so would increase the public health impact of the flavor ban and minimize the reduction in tax revenues. Vermont has done well with enforcing its Tobacco 21 law, with retailer compliance increasing significantly following the implementation of the policy.

Similar arguments have been widely used in opposition to proposed state tobacco tax increases in Vermont and many other states. Specifically, opponents of state tax increases have argued that higher tax would not result in reductions in smoking and increases in tax revenues. My colleagues and I have assessed the impact of state cigarette tax increases since 2003, consistently finding that every state that has passed a significant cigarette tax increase enjoyed a substantial, sustained increase in its state cigarette tax revenues. These revenue increases occur despite the significant declines in smoking rates and tax-paid cigarette sales caused by the tax increases and despite any tax avoidance and evasion that follows.

The bottom line is that arguments that there will be an explosion in black market sales in response to a ban on the sale of flavored tobacco products and e-liquids are greatly overstated and that concerns about illicit sales can be directly addressed with increased enforcement and stronger penalties on illegal behavior.

### **Impact of a Flavor Ban on the Retail Environment**

Another commonly used argument against tobacco control policies is that these policies will harm small businesses, particularly convenience stores, given reduced sales of tobacco products. In a research paper published a few years ago, my colleague Jidong Huang and I looked at the number of convenience stores over time, before and after state tobacco tax increases and implementation of comprehensive smoke-free policies, using annual state-level data from 1997 through 2009. We found that, in contrast to what the tobacco industry and tobacco retailers claim, these policies did not negatively affect convenience stores. Instead, we observed a small

increase in convenience store business in states with higher cigarette excise taxes and no change in business in response to smoke-free policies. Other research in this area has found that decreased cigarette consumption does not negatively affect overall employment, but rather leads to a net increase in jobs in a state like Vermont with almost no tobacco growing and manufacturing.