



**Testimony of Maine Public Health Association In Support of
LD 1550: An Act To End the Sale of Flavored Tobacco Products**

Joint Standing Committee on Health and Human Services
Room 220, Cross State Office Building
Friday, May 7, 2021

Good morning Senator Claxton, Representative Meyer, and distinguished members of the Joint Standing Committee on Health and Human Services. My name is Rebecca Boulos. I am a resident of South Portland and executive director of Maine Public Health Association. MPHA is in support of LD 1550: “An Act To End the Sale of Flavored Tobacco Products.”

MPHA is the state’s oldest, largest, and most diverse association for public health professionals. We represent more than 500 individual members and 30 organizations across the state. The mission of MPHA is to improve and sustain the health and well-being of all people in Maine through health promotion, disease prevention, and the advancement of health equity. As a statewide nonprofit association, we advocate, act, and advise on critical public health challenges, aiming to improve the policies, systems, and environments that underlie health inequities – but which also have potential to improve health outcomes for all people in Maine. We are not tied to a national agenda, which means we are responsive to the needs of Maine’s communities and we take that responsibility seriously.

This bill ends the sale of flavored tobacco products in Maine, including menthol. You will hear from others about why and how the more than 15,000 flavored tobacco products on the market are there to entice kids, and how the tobacco industry has targeted people with low-income and behavioral and mental health disorders, LGBTQ+, and Black and Brown communities, including tribal populations. At the hearing for LD 1282, you heard testimony suggesting robust research supports the use of e-cigarettes as an effective cessation tool for smokers. That is incorrect, and another example of the tobacco industry’s misleading effort to target potential users of their addictive and deadly products.

By far, [the most robust and comprehensive review of e-cigarettes conducted to date was published in May 2020 in CHEST by Bozier and colleagues.](#)¹ It is worth reading. One of their key findings is that research suggests **smokers do not “quit” with e-cigarettes but rather “switch” to e-cigarettes.** Other noteworthy findings from their work and that of others’:

1. **Data are insufficient to support e-cigarettes as a harm reduction strategy.** While e-cigarettes are proposed as a harm reduction tool for tobacco smokers wishing to quit, systematic reviews suggest a lack of clear efficacy of e-cigarettes in smoking cessation.^{2,3} Moreover, in addition to nicotine, e-cigarettes contain several harmful and potentially harmful ingredients, including ultrafine particles that can be inhaled deep into the lungs. There is evidence to suggest that these particles lead to cardiovascular injury, with links to negative effects on resting heart rate, blood pressure and the cells that line the blood vessels.⁴ Bystanders can breathe in this aerosol. E-cigarettes also contain flavorants such as diacetyl, a chemical linked to serious lung disease; volatile organic compounds; and heavy

metals, such as nickel, tin, and lead.⁵ While many of the flavorings and humectants used in e-liquids have been approved by the Food and Drug Administration (FDA) for oral consumption, they have not been approved for inhalation. Thus, their health consequences are not well known when consumed in this manner.² **In other words, the harm from use is not reduced; it's just different.**

2. A recent randomized controlled trial reported that smoking cessation was achieved in more participants using e-cigarettes than in those using conventional Nicotine Replacement Therapy (NRT) – but with the caveat that participants in both groups had regular face-to-face meetings with clinicians.⁶ This form of support is not provided to the majority of those seeking to quit smoking, and **in particular medical support and knowledge are not provided for e-cigarette use.** Furthermore, only 18% of participants using e-cigarettes achieved smoking abstinence, suggesting that e-cigarettes are not the “cure” for tobacco smoking; and 80% of the e-cigarette users who were tobacco abstinent were continuing to use e-cigarettes 12 months later, suggesting that e-cigarettes may promote continued nicotine dependence.
3. **Despite using e-cigarettes to quit smoking cigarettes, most adults continue to smoke combustibles (“dual use”).** Among adults, 54.6% of current e-cigarette users also smoke cigarettes.⁷ Data from Phillip Morris International show that “dual use of heated tobacco products along with cigarettes is, by far, the most dominant pattern of use, which raises substantial issues about what impact they might have on overall public health. Notably, research has shown that dual use is not associated with reduced cigarette use, but rather increased exposure and poorer health outcomes than using cigarettes or e-cigarettes alone.”⁷ Evidence suggests that many e-cigarette users continue to smoke cigarettes,⁸ and the extent of harm minimization, if any, in dual users is unclear. Even more worrisome, use of e-cigarettes may contribute to relapse of smoking in ex-smokers^{9,10} and may encourage initiation of tobacco smoking among nonsmokers.⁹
4. **Youth are more likely than adults to use e-cigarettes – and youth use is increasing.** Among U.S. adults, 4.5% are current e-cigarette users,¹¹ compared with 3.6 million U.S. middle and high school students (4.7% and 19.6%, respectively).¹² The prevalence of youth use in Maine is even higher. According to the [2019 Maine Integrated Youth Health Survey](#), there was a near doubling in youth e-cigarette use since 2017 (28.7% vs. 15.3%), with some of the greatest increases seen in Piscataquis (26.6% vs. 6.7%) and Oxford (30.9% vs. 12.3%) counties.
5. **Tobacco use may be a gateway drug.** Data suggest relationships between cigarette and alcohol use, and risk for use of illicit drugs, like marijuana, heroin, and cocaine.¹³ In a recent national survey, more than 90% of adult cocaine users smoked cigarettes before they began using cocaine.¹⁴ In a landmark 2011 study, researchers identified a proposed biological mechanism to explain the association:¹⁵ nicotine reprograms the expression pattern of specific genes associated with addiction, and ultimately alters the behavioral response to cocaine.
6. **We need to act now.** According to the U.S. Centers for Disease Control and Prevention, as of February 18, 2020, **2,807 cases** of hospitalized e-cigarette, or vaping, product use associated lung injury (EVALI) or deaths were reported by all 50 states, the District of Columbia, and 2 U.S. territories (Puerto Rico, and the U.S. Virgin Islands); and **68 EVALI deaths** have been confirmed in 29 states and the District of Columbia.¹⁶ Furthermore, youth who use e-cigarettes are 2 times more likely to start smoking cigarettes within 2 years than youth who never used any tobacco product.¹⁷

The harms of youth initiation of tobacco use far outweigh the potential benefit for the small percentage of e-cigarette users (who could still use unflavored e-cigarettes). For those smokers looking to quit, there are evidence-based, FDA-approved cessation methods available; these would even be more cost-effective given Maine’s strong laws that provide comprehensive and affordable (in most cases no-cost) coverage.

The bottom line: Safer doesn’t mean safe. E-cigarettes are not risk-free, even if you’ve never smoked cigarettes. If you do smoke cigarettes and want to quit, approved NRT is the best, healthiest option.

Preventing tobacco use is good public health, economic and social policy. LD 1550 promotes public health, and we respectfully request the committee vote LD 1550 “Ought to Pass.” Thank you for your consideration.

- ¹Bozier J, Chivers EK, Chapman DG, Larcombe AN, Bastian NA, Masso-Silva JA, et al. The evolving landscape of e-cigarettes: A systematic review of recent evidence. *Chest*. 2020;157(5):1362-90.
- ²Patil S, Arakeri G, Patil S, et al. Are electronic nicotine delivery systems (ENDs) helping cigarette smokers quit? Current evidence *J Oral Pathol Med*.
- ³El Dib R, Suzumura EA, Akl EA, et al. Electronic nicotine delivery systems and/or electronic non-nicotine delivery systems for tobacco smoking cessation or reduction: a systematic review and meta-analysis. *BMJ Open*, 7 (2) (2017), Article e012680.
- ⁴Truth Initiative. E-cigarettes: Facts, stats and regulations. 2019. <https://truthinitiative.org/research-resources/emerging-tobacco-products/e-cigarettes-facts-stats-and-regulations>.
- ⁵U.S. Surgeon General. Know the risks: E-cigarettes and young people. 2020. <https://e-cigarettes.surgeongeneral.gov>.
- ⁶Hajek P, Phillips-Waller A, Przulj D, et al. A randomized trial of e-cigarettes versus nicotine-replacement therapy. *N Engl J Med*, 2019;380(7):629-637.
- ⁷Truth Initiative. E-cigarettes: Facts, stats and regulations. 2019. <https://truthinitiative.org/research-resources/emerging-tobacco-products/e-cigarettes-facts-stats-and-regulations>.
- ⁸Martinez Ú, Martinez-Loredo V, Simmons VN, et al. How does smoking and nicotine dependence change after onset of vaping? A retrospective analysis of dual users. *Nicotine Tob Res*
- ⁹McMillen R, Klein JD, Wilson K, Winickoff JP, Tanski S. E-cigarette use and future cigarette initiation among never smokers and relapse among former smokers in the PATH Study. *Public Health Rep*, 134 (5) (2019), pp. 528-536.
- ¹⁰Gomajee R, El-Khoury F, Goldberg M, et al. Association between electronic cigarette use and smoking reduction in France. *JAMA Intern Med*.
- ¹¹Cornelius ME, Wang TW, Jamal A, Loretan C, Neff L. [Tobacco Product Use Among Adults – United States, 2019](#). *Morbidity and Mortality Weekly Report*, 2020;69(46): 1736–1742
- ¹²Wang TW, Neff LJ, Park-Lee E, et al. [E-cigarette Use Among Middle and High School Students — United States, 2020](#). *Morbidity and Mortality Weekly Report*, 2020;69.
- ¹³Lai S, Lai H, Page JB, McCoy CB. The association between cigarette smoking and drug abuse in the United States. *J Addict Dis*. 2000;19(4):11-24.
- ¹⁴National Institutes of Health. Why nicotine is a gateway drug. November 21, 2011. <https://www.nih.gov/news-events/nih-research-matters/why-nicotine-gateway-drug>.
- ¹⁵Levine A, Huang Y, Drisaldi B, Griffin EA, Pollak DD, Xu S, Yin D, Schaffran C, Kandel DB, Kandel ER. Molecular mechanism for a gateway drug: Epigenetic changes initiated by nicotine prime gene expression by cocaine. *Science Translational Medicine*. 2011;107ra109.
- ¹⁶U.S. Centers for Disease Control and Prevention. Outbreak of lung injury associated with the use of e-cigarette, or vaping, products. February 18, 2020. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html.
- ¹⁷Watkins SL, Glantz SA, Chaffee BW. Association of noncigarette tobacco product use with future cigarette smoking among youth in the Population Assessment of Tobacco and Health (PATH) Study, 2013-2015. *JAMA Pediatr*. 2018;172(2):181–187.