



FLAVORED TOBACCO SALES RESTRICTIONS: PROMISING EVIDENCE FOR REDUCING YOUTH ACCESS AND TOBACCO USE

In November 2019, Massachusetts became the first state to restrict the sale of all flavored tobacco products, including menthol cigarettes, followed by California in 2022, when voters upheld the state's law from a tobacco industry-funded ballot challenge. In 2020, New Jersey, New York and Rhode Island also passed bans on the sale of flavored e-cigarettes. In addition, over 360 localities across the U.S. have enacted restrictions on the sale of flavored tobacco products, although laws differ in their application to specific products and store types. Over 170 of these communities restrict the sale of menthol cigarettes, in addition to other flavored tobacco products.

Emerging Evidence from U.S. State and Local Flavor Restrictions is Promising

Because it is a relatively new strategy, data on the impact of flavored tobacco sale restrictions is still emerging. However, the available data indicate that strong laws can be easily implemented and can help reduce youth access to and use of tobacco by removing from store shelves the products that are most attractive to youth and the products that youth use most often. A 2020 Surgeon General report concluded that, "Prohibiting flavors, including menthol, in tobacco products can benefit public health by reducing initiation among young people and promoting cessation among adults."¹

Research also points to the importance of strong laws with robust enforcement programs, including retailer education. Weak enforcement measures and exemptions can reduce compliance and have other unintended consequences. In many localities, the most commonly sold noncompliant products were cigars or cigarillos with "concept flavors" like "Blue," "Jazz," and "Wild Rush." Case studies show that retailer education and providing retailers with a list of known flavored products can help to increase compliance. A report from the Johns Hopkins University concluded that, "When compliance is high, a comprehensive flavor ban or restriction without exemptions is likely to significantly affect sales of flavored tobacco products" and that, "A comprehensive flavor ban without product, flavor, and retailer exemptions may maximize public health benefits and minimize the opportunity for unintended consequences."²

Massachusetts

Local Policies

Research shows that local-level policies passed before the statewide law had an impact on reducing youth use and access to flavored tobacco products.

- Counties with greater implementation of flavored tobacco product restrictions (restricting flavored non-cigarette tobacco products to adult-only retailers) were associated with reductions in the likelihood of current e-cigarette use and a decrease in the frequency of cigarette use among users.³
- Store assessments conducted 8-10 months after implementation of **Boston's** law restricting the sale of flavored non-cigarette tobacco products, 14.4% of stores were selling flavored products, compared to 100% before the law was implemented. The law also led to a significant reduction in advertising for flavored tobacco products. Flavor advertisements were present in 28% of retailers at follow-up, compared to 58.9% before the law. Finally, the law reduced retail demand for flavored tobacco products. After the law, 64% of retailers reported that customers only asked for flavored products a few times a week or did not ask at all.⁴
- After implementing flavored tobacco restrictions, **Salem** and **Attleboro** experienced significantly smaller increases in current use of flavored and nonflavored tobacco products, compared to **Gloucester**, a locality with similar demographics but no flavored tobacco restriction.⁵

Statewide Policy

Preliminary data show declines in both youth and adult tobacco use following implementation of Massachusetts' comprehensive law restricting the sale of all flavored tobacco products:

- According to the Massachusetts Youth Health Survey, from 2019 to 2021 youth cigarette smoking declined from 4.3% to 2.9%, cigar smoking from 4.7% to 2.0% and e-cigarette use from 32.0% to

17.6%. Additionally, fewer youth report accessing tobacco products from retail stores. From 2019 to 2021, the proportion of current high school tobacco users who reported accessing tobacco products from a store declined from 16.7% to 11.9% and from a vape shop declined from 17.4% to 13.0%.⁶

- Using data from the Behavioral Risk Factor Surveillance System (BRFSS) survey, a study found that the law was associated with an additional one percentage point decrease in smoking among adults aged 25 and older, compared to states without flavor restrictions.⁷ Reducing smoking saves lives and health care dollars. In Massachusetts, each one percentage point decline in adult smoking rates translates to over 56,000 fewer adult smokers, 13,200 adults prevented from dying prematurely from smoking and approximately \$477 million in long-term health care costs savings.⁸
- A Massachusetts Department of Public Health online survey found that Black smokers were significantly more likely than white smokers to make a past year quit attempt in 2022 (55% vs. 30%).⁹ The survey also found that 57% of Black smokers and 53% of white smokers reported that the law made it more difficult to access menthol products.¹⁰ BRFSS data also show that there has been an increase in successful cessation among Black and Hispanic smokers. Finally, the law led to an increase in menthol smokers who completed coaching calls through the Quitline.¹¹

Massachusetts' law also led to a reduction in e-cigarette and cigarette sales, with high compliance and no evidence of significant or sustained increases in cross-border sales.

- According to a study in *JAMA Network Open*, Massachusetts' prohibition on flavored e-cigarettes was associated with an 88.91% reduction in total e-cigarette sales between December 2019 and December 2020, controlling for COVID-19 and EVALI measures and compared to control states.¹² The most recently available e-cigarette sales data show that as of December 2022, only 0.4% of all e-cigarette sales in Massachusetts retail-tracked channels are for prohibited flavored products, indicating high compliance.¹³
- The statewide menthol ban was associated with a statistically significant decrease in state-level menthol as well as overall cigarette sales. Overall, the adjusted 4-week sales of all cigarettes decreased by 282.65 packs per 1000 people in Massachusetts vs. comparison states.¹⁴
- The decline in cigarette sales in Massachusetts dramatically outweighed any increase in border states, showing that the policy is working as intended to reduce access to and use of menthol cigarettes. A study published in *JAMA Network Open* found that there was a net decrease of 2.32 million packs per month across Massachusetts and its bordering states over the first year of policy implementation.¹⁵ Another study concluded that the law had "no significant impact on cross-border sales in neighboring states where menthol cigarettes are sold."¹⁶

California Local Policies

In 2017, the **San Francisco** Board of Supervisors enacted the first comprehensive ban on all flavored tobacco products, which was upheld by city voters in June 2018. The San Francisco Department of Public Health's outreach and retailer education efforts extended through the fall of 2018. Between January and December 2019, compliance was 80%, compared to 18% in December 2018.¹⁷ Sales data show that flavored tobacco product sales decreased by 96% in San Francisco after implementation of the city law in early 2019. Total tobacco sales also significantly decreased over the same period, suggesting consumers did not broadly switch to unflavored tobacco products. The study concluded, "A reduction in total tobacco sales in SF suggests there was not a one-to-one substitution of tobacco/unflavored products for flavored products."¹⁸

In 2018, **Oakland** restricted the sale of all flavored tobacco products to adult-only tobacco retailers. From 2017 to 2019, high school e-cigarette use in Oakland declined from 11.2% to 8.0% and high school smoking declined from 4.4% to 2.4%.¹⁹ Oakland later strengthened its law to remove the retailer exemptions.

A survey conducted in 2019 found that youth and young adult flavored e-cigarette users who lived in a California locality with a flavored restriction were less likely than their peers in the rest of the state to report obtaining flavored e-cigarettes from a retail source, but more likely to report obtaining them from a social source.

New York City, NY

New York City restricted sales of flavored tobacco products (excluding e-cigarettes and menthol cigarettes) in 2009 and began enforcement in November 2010. In 2020, New York City's law was strengthened to prohibit flavored e-cigarettes, but evaluation data is not yet available on the new law.

- **Implementation:** Retailer scanner data through 2012 showed sale of all flavored cigar, smokeless and pipe/roll-your-own tobacco declined by 87%. These declines were coupled with only minor increases in the sale of non-flavored cigars and pipe/roll-your-own tobacco (5% and 4%, respectively).²⁰ Out of over 75,000 compliance checks conducted from 2010 to 2015, the New York City Department of Community Affairs found only a 4.1% violation rate.²¹
- **Youth tobacco use:** Data from the New York City YRBS shows that New York City teens in 2013 had 37% lower odds of ever-trying flavored tobacco products and 28% lower odds of ever using tobacco products than teens in 2010. The percent of New York City teens who reported ever use of flavored tobacco products or use of any tobacco products declined significantly after the policy was implemented (from 19.6% in 2010 to 15.6% in 2013; a 20% decline).²²

Together, these findings indicate that not only are retailers complying with the New York City ordinance, it is effectively reducing youth access to and use of these products.

Minnesota Local Policies

In 2016, both **Minneapolis** and **St. Paul** implemented laws restricting all flavored non-cigarette tobacco products to adult-only retailers. In both Minneapolis and St. Paul, significantly fewer convenience and grocery stores sold flavored tobacco after policy implementation. In Minneapolis, availability was reduced from 85.4% of retailers before implementation to 39% after 5 months and 15.4% after 14 months. In St. Paul, availability was reduced from 97.3% of retailers before implementation to 8.1% after 2 months. While Minneapolis saw a decrease in the sale of concept-flavor (e.g., "Blue") cigars (from 80.5% to 61.5%), St. Paul had an increase (from 67.6% to 81.1%).²³ From 2014 to 2017, youth e-cigarette use in the Twin Cities increased by a much lesser extent than the rest of Minnesota (34.1% vs. 114% increase), suggesting that these policies attenuated the increases in e-cigarette use that occurred in the rest of the state.²⁴

In 2018, **Minneapolis** and **St. Paul** implemented stronger laws that included restrictions on menthol cigarettes, but they added liquor stores to the definition of exempted retailers. In the same year, **Duluth** and **Falcon Heights** implemented comprehensive flavored tobacco bans with no retailer exemptions. Compliance has been high across all four cities, with only eight retailers found to be non-compliant. Minneapolis and St. Paul's policies led to 76% and 62% reductions in the number of retailers selling menthol cigarettes, respectively, whereas Duluth and Falcon Heights saw larger reductions (95% and 100% respectively) because they did not allow for retailer exemptions.²⁵ From 2016 to 2019, e-cigarette use and any tobacco use increased by a lesser extent in the Twin Cities area than the rest of Minnesota, and cigarette, cigar, and hookah use prevalence decreased to a greater extent in the Twin Cities than the rest of the state.²⁶

Providence, RI

In January 2013, Providence began enforcement on its sales restriction on flavored non-cigarette tobacco products (except mint, menthol and wintergreen). Sales data from 2012 to 2016 show that sales of cigars with explicit flavor names (e.g., Cherry) declined by 93%. However, sales of concept-flavor cigars (e.g., Jazz) increased by 74%, resulting in a 51% overall decline in flavored cigar sales.²⁷

International Evidence

In October 2017, Canada banned menthol cigarettes nationwide, although most provinces had banned menthol cigarettes prior to the nationwide law. A study from the International Tobacco Control Policy Evaluation Project (ITC), using longitudinal surveys of Canadian smokers in seven provinces from 2016-2018, found that after implementation of the law, menthol smokers were more likely to try to quit than non-menthol smokers (59% vs. 49%), and were twice as likely to have quit smoking for at least six months (12% vs. 6%).²⁸

Earlier studies of Ontario's provincial menthol ban found that the law was associated with significant reductions in menthol cigarette sales and total cigarette sales²⁹ In addition, the law was associated with increases in quit attempts and cessation:

- A 1-year follow-up survey found that both daily and occasional menthol smokers were more likely to report having quit smoking (24% and 20% vs 14%) or having made a quit attempt (63% and 62% vs 43%), compared to non-menthol smokers.³⁰
- A 2-year follow-up survey found that menthol smokers were more likely to report having quit smoking for at least the last 6 months (12% for daily menthol smokers and 10% for occasional menthol smokers), compared to non-menthol smokers (3%), with no significant differences in relapse rates. Menthol smokers also reported more quit attempts than non-menthol smokers. Daily menthol smokers reported an average of 3 quit attempts, compared to 2.6 for occasional menthol smokers and 1.2 for non-menthol smokers.³¹

Based on this research from Canada and Ontario's bans, researchers estimate that a menthol ban in the United States would lead over 1.3 million smokers to quit, including 381,000 Black smokers.³² It is important to note that menthol cigarettes comprised a much smaller proportion of the Canadian cigarette marketplace (~5%) than the US marketplace (37%), and the demographics of menthol smokers are very different between the two countries.

In May 2020, the European Union and the United Kingdom banned the sale of menthol cigarettes. Similar to Canada, emerging research shows a positive impact on quitting behaviors. According to data from the Netherlands, pre-ban menthol smokers were significantly more likely to attempt to quit than non-menthol smokers (66.9% vs. 49.6%) and a higher, but non-significant proportion of pre-ban menthol smokers reported quitting (26.1% vs. 14.1%). Researchers estimate that if the 12.0% additional quitting found in the Netherlands were applied to the entire European Union and United Kingdom, there would be more than a million additional quitters.³³

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¹ U.S. Department of Health and Human Services (HHS), *Smoking Cessation. 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, 2020.

² Institute for Global Tobacco Control. State of the Evidence: Flavored Tobacco Product Bans or Restrictions. January 2020. Available at: <https://www.globaltobaccocontrol.org/resources/flavorreportsummary>.

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⁴ Kephart L, Setodji C, Pane J, et al. Evaluating tobacco retailer experience and compliance with a flavoured tobacco product restriction in Boston, Massachusetts: impact on product availability, advertisement and consumer demand. *Tobacco Control* 2020;29:e71-e77.

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⁶ Massachusetts Department of Public Health, Evaluation of An Act Modernizing Tobacco Control: Overview and Preliminary Results, presented September 28, 2022, <https://www.mass.gov/doc/illegal-tobacco-task-force-public-meeting-fifty-one-minutes/download>.

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⁸ Population estimates: U.S. Census Bureau; Adult quitters have a 10 to 37 percent chance of dying from smoking, anyway. Midpoint of 10 to 37% = 23.5%. [MMWR 45(44): 971-974, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00044348.htm> November 8, 1996.] Future Savings: Hodgson, TA, "Cigarette Smoking and Lifetime Medical Expenditures," *Milbank Quarterly* 70(1), 1992 [average smoker's lifetime health care costs are \$16,000 (in 2018 dollars) more than nonsmoker's despite earlier death; but the savings per each adult quitter are less than that because adult smokers have already been significantly harmed by their smoking and have already incurred or extra, smoking-caused health costs. Average lifetime health care cost savings for adults who quit are approximately \$8,500 (in 2018 dollars)]

⁹ Data presented on March 22, 2023 webinar, "Flavored Tobacco Sales Restrictions: Successes, Challenges, and Best Practices."

¹⁰ Massachusetts Department of Public Health, Evaluation of An Act Modernizing Tobacco Control: Overview and Preliminary Results, presented September 28, 2022, <https://www.mass.gov/doc/illegal-tobacco-task-force-public-meeting-fifty-one-minutes/download>.

¹¹ Data presented on March 22, 2023 webinar, "Flavored Tobacco Sales Restrictions: Successes, Challenges, and Best Practices."

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