

# Letter of support and evidence in support of the San Jose City Flavor Ban

Dr. Bonnie Halpern-Felsher [Redacted]

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Letter\_San Jose flavor ban.pdf; Gaiha, Cheng and HF, E-cigs and COVID JAH 2020.pdf; flavor ads.pdf; JAH\_Flavors\_Nhung\_BHF\_2019.pdf; must remove flavors from all tobacco products.pdf;

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Dear all,

Please find attached a letter of support and some scientific papers in support of the San Jose City Tobacco Flavor Ban.

Please let me know if you have any questions or need additional information.

Best,  
Bonnie

Bonnie Halpern-Felsher, PhD, FSAHM (pronouns: [she/her](#))  
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## Youth say ads for flavored e-liquids are for them

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### ABSTRACT

**Introduction:** E-cigarettes are the most popular tobacco product among adolescents and young adults (“AYA”) and are available in many flavors. The e-cigarette industry argues that flavors are not meant to appeal to youth, yet no study has asked youth what age group they think ads for flavored e-liquids are targeting. We asked AYA which age group they thought ads for flavored e-liquids targeted.

**Methods:** In 2016 as part of a larger survey, a random sample of 255 youth from across California (62.4% female, mean age = 17.5, SD = 1.7) viewed eight ads, presented in randomized order, for fruit-, dessert-, alcohol-, and coffee-flavored e-liquids and indicated the age group they thought the ads targeted: younger, same age, a little older, or much older than them. Population means and 95% confidence intervals were estimated using bootstrapping (100,000 replicate samples).

**Results:** Most participants (93.7%) indicated the cupcake man flavor ad targeted an audience of people younger than they. Over half felt ads for smoothy (68.2%), cherry (63.9%), vanilla cupcake (58%), and caramel cappuccino (50.4%) targeted their age and for no flavor ad did most feel the primary target age group was much older.

**Conclusions:** Youth believe ads for flavored e-liquids target individuals about their age, not older adults. Findings support the need to regulate flavored e-liquids and associated ads to reduce youth appeal, which ultimately could reduce youth use of e-cigarettes.

### 1. Introduction

E-cigarettes are the most commonly used tobacco product among adolescents and young adults (NIDA, 2017). E-cigarettes aerosolize glycerin-based liquids, commonly referred to as “e-liquids,” which are available in myriad flavors including fruity, sweet, and alcohol (Brown, Luo, Isabelle, & Pankow, 2014). The e-cigarette industry maintains flavored e-liquids are intended for adult smokers using e-cigarettes to quit smoking cigarettes, and supports this claim with industry-sponsored research (Shiffman, Sembower, Pillitteri, Gerlach, & Gitchell, 2015). However, evidence shows that colorful ads depicting e-liquid flavors like those displayed on e-cigarette retail websites are attractive to youth (Grana & Ling, 2014; Lewis & Wackowski, 2006).

Flavor or “taste” is one of the most common persuasive marketing techniques used to promote food (mostly candy and snacks) to children on TV (Jenkin, Madhvani, Signal, & Bowers, 2014). Exposure to these ads is positively associated with youth consumption (Cairns, Angus,

Hastings, & Caraher, 2013); and most money spent by youth is on food or beverages, particularly sweets (Kraak, Gootman, & McGinnis, 2006). Not surprisingly, similar research conducted on e-cigarettes comports with these findings, concluding: flavors play an important role for on-line e-cigarette marketing and boosts user interaction and positive emotion (Liang, Zheng, Zeng, & Zhou, 2015), ads for flavored (vs. unflavored) e-cigarettes elicit greater appeal and interest in buying and trying e-cigarettes (Vasiljevic, Petrescu, & Marteau, 2016), the appeal of ads for flavors is linked to rapid and persistent adoption of e-cigarettes among youth (Zhu, Sun, Bonnevie, et al., 2014), and 84% of US youth who use e-cigarettes stated they would not use e-cigarettes without flavors (Ambrose et al., 2015).

Despite research implicating flavors and the marketing of flavors in youth interest in and use of e-cigarettes (Farrelly, Duke, Crankshaw, et al., 2015; Harrell, Loukas, Jackson, Marti, & Perry, 2017; Jackler & Ramamurthi, 2016; Klein et al., 2016), no study has asked youth what age group they think ads for flavored e-liquids are targeting. In this

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study, we examined adolescents' and young adults' (“AYA”) opinions of which age group(s) ads were targeting, and if target age group differed by flavor group (e.g., sweet, fruit, alcohol, coffee). We hypothesized that AYA would perceive ads, especially those depicting fruit and dessert flavors, to be targeting those around their age group, rather than older adults. Understanding whether and which flavors youth perceive as meant for their age group(s) will inform FDA regulation of e-liquid flavors and associated advertisements.

**2. Material and methods**

Participants (n = 255; mean age = 17.5, SD = 1.7 [range 14–21, Median age = 18; with only four participants (1.6%) aged 14 and 1 (0.4%) aged 21]; 62.4% female; 25.6% ever-used e-cigarettes; 24.2% white, 27.4% Asian/Pacific Islander, 36.1% Latino, and 12.3% other) were from an ongoing prospective cohort study designed to assess tobacco-related perceptions, exposure to marketing, and use (detailed methods have been published elsewhere (Roditis, Delucchi, Cash, & Halpern-Felsher, 2016; Gorukanti, Delucchi, Ling, Fisher-Travis, & Halpern-Felsher, 2016). Data for this study were collected from June through September 2016 from a random sample of Wave 3 participants (n = 255). There were no differences between the overall sample for Wave 3 (N = 528) and the analytic sample for this study in sex, age, e-cigarette ever-use status or race/ethnicity (all p's > 0.20).

Eight flavors were included: “appletini,” “beer,” “caramel cappuccino,” “kona coffee,” “the cupcake man,” “vanilla cupcake,” “cherry,” and “smoothy.” Images were randomly chosen from the Stanford Research into the Impact of Tobacco Advertising database (SRITA) and retail websites of e-liquid brands. The SRITA database is an online repository of advertisements that is continuously updated. The images were chosen such that each of the four flavor categories (“alcohol,” “coffee,” “dessert,” and “fruit”) had one image that exemplified a traditional advertisement while the other image was of a bottle containing flavored e-liquid. The advertisements selected for the study were current at the time of the study. Included flavor profiles were chosen in part because Reddit conversations at that point in time showed us that fruit and dessert flavors were very popular. Because there were many brands that offered alcohol flavored products, we wanted to add alcohol

to see if it was attractive to youth; this was unknown at the time. The selected ads were representative of flavor profiles commonly marketed by popular e-liquid and e-cigarette manufacturers. (See Appendix for ad images, including links to the ads, used in the study). The order in which ads were displayed was randomized. After viewing each ad, and without knowing what ads would come next, participants were asked to select which age group(s) they felt the advertisement targeted (younger than me; my age; a little older [18–24]; much older [parents' age]). Our university's institutional review board approved all study procedures.

We first calculated frequencies and proportions of target-age groups for each ad. A priori, it was decided not to stratify these analyses by e-cigarette use status due to small sample size (n = 65 had ever used) nor by age group (adolescent = 14–17 and young adult = 18+) as 72% of ever-users were ages 18 and over. To inform future research in this area, we conducted secondary analyses which used regressions adjusted for use status and age; these secondary analyses showed no differences in the outcomes of interest by use status or age. Only combined results are reported.

Next, to estimate population means and 95% confidence intervals, we performed a stratified bootstrap analysis with 100,000 replicate samples. The bootstrap is a non-parametric method employed to account for person-to-person variability (Erceg-Hurn and Mirosevich, 2008). This analysis was stratified by prior e-cigarette use, and participants were sampled/resampled with equal probability within: (i) never used and (ii) some use as reported in Wave 3.

**3. Results**

Participants predominately identified ads as targeting individuals just a little older than themselves or their own age. Nearly all participants (93.7%) indicated the cupcake man flavor ad targeted people younger than themselves. More than half of participants felt ads for smoothy (68.2%), cherry (63.9%), vanilla cupcake (58%), and caramel cappuccino (50.4%) targeted people their age (See Supplemental Fig. 1 for details). For none of the flavor ads did a majority of participants believe the target age group was much older (See Fig. 1, which illustrates the proportion of responses attributed to each age group for each flavor).

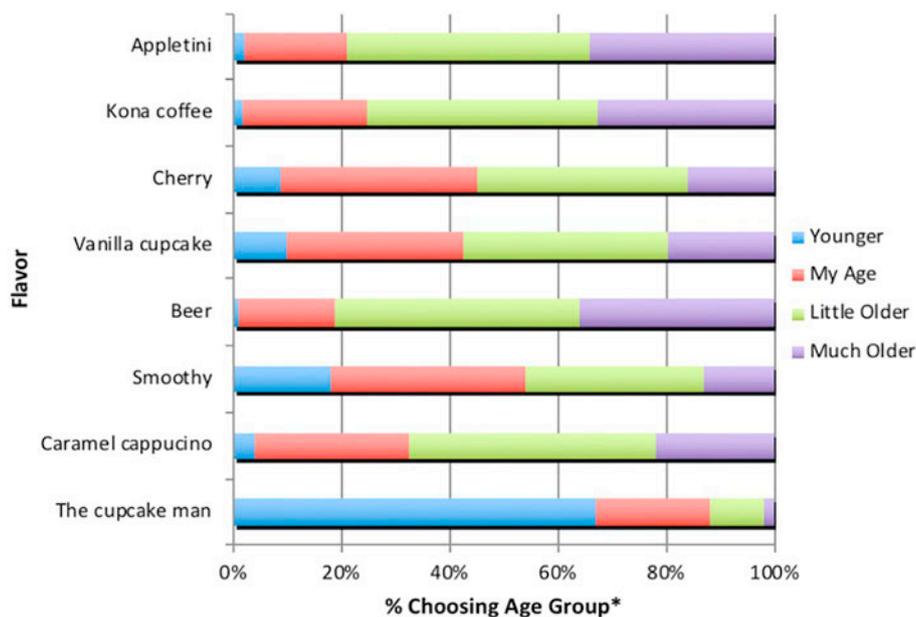
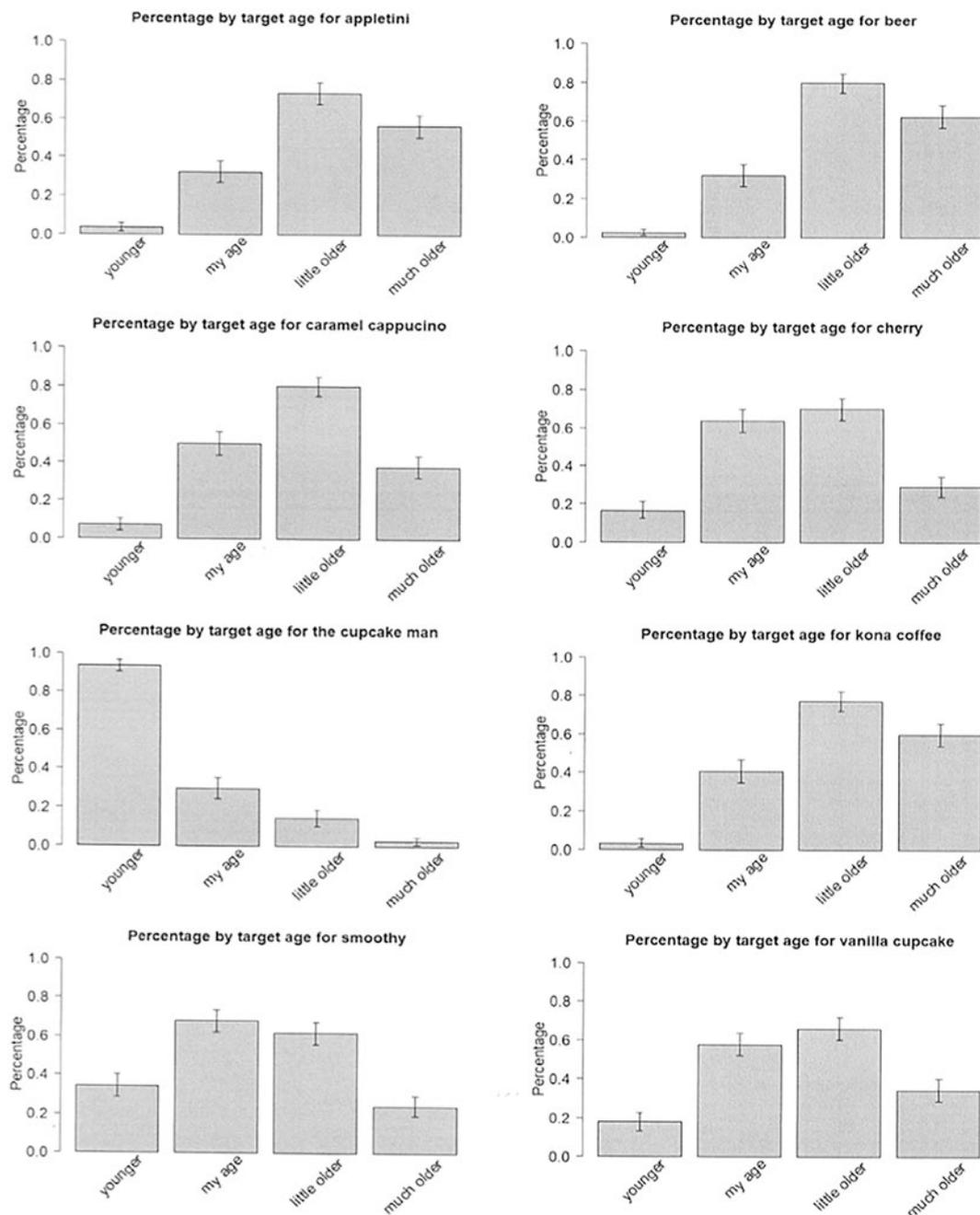


Fig. 1. Target age groups as proportion of total number of responses for each flavor among California adolescents and young adults in 2016 (n = 255; mean age = 17.5).

\*Proportions reported in Fig. 1 were calculated using the total number of responses choosing each age group (within each flavor) as the numerator and the total number of responses received for that flavor as the denominator. This was done to account for the fact that participants could choose from 0 to 4 age groups for each flavor, resulting in a diversity of denominators.



**Fig. 2.** Estimates of population means and 95% confidence intervals from stratified bootstrapping of 100,000 replicate samples among California adolescents (N = 255; mean age 17.5) surveyed in 2016.

Each category has the potential to have a height of 1 (i.e., probability 1), if all respondents selected a particular age-category as appropriate to the given flavor. Respondents were able to choose all age-categories they believed applied to each flavor, thus sum of all age-categories within a given flavor add to > 1. The confidence interval for each age-category represents the sampling variability, showing bootstrap upper and lower bounds.

Bootstrap estimates of the confidence intervals for estimates of population means and 95% confidence intervals, generated by stratified sampling on individuals and prior use of e-cigarettes, are summarized in Fig. 2 (see Supplemental Table 1 for point estimates and upper- and lower- bounds for 95% CI). In sum, mean point estimates for cupcake man are wildly out of line with those for the remaining flavor ads, reflecting the belief among participants that the cupcake man ad targets a younger audience extraordinarily more than any other flavor. Also, there is a slight shifting toward a younger audience being the target for the remaining sweet flavors (i.e., cherry, smoothy, and vanilla

cupcake), though nothing so dramatic as for the cupcake man. In other words, “sweets for children.”

#### 4. Discussion

Our findings contradict industry-sponsored claims that marketing of flavored e-liquids is not meant for and does not target youth. Instead these results show that AYA perceive flavored e-liquid ads to be targeting people their age (of 17.5 on average) or those a little older (18–24), and in fact at times to be targeting an audience even younger

than themselves. It is particularly problematic for the industry-sponsored claims that participants perceived dramatic differences in target-audience age by flavor (Feirman, Lock, Cohen, Holtgrave, & Li, 2016). For example, the cupcake man flavor ad was the most likely to be perceived as targeting younger people; contrastingly, appletini, kona coffee, and beer ads were most likely to be perceived as targeting those much older, although even for these ads, a greater proportion indicated the target age group was someone a little older. The dramatic shifts in the distribution of the histograms by flavor could be explained, at least in part, by an underlying connection between flavors and target audience-age groups in the minds of AYA. Also, the order the flavor ads were displayed was randomized and participants were shown flavors one by one (versus being shown all of the flavors at once). Perhaps AYA would not think about age if unprompted, but it is clear they perceive a difference in target-age by flavor if prompted.

Further, while a content analysis of tobacco-industry ads found intense visual images were important for ad saliency among adolescents (Davis, Gilpin, Loken, Viswanath, & Wakefield, 2008), participants here did not appear to differentially identify target age groups based on how the ad looked. Rather, participants overwhelmingly indicated that all flavors were for people about their age. These findings comport with evidence that tobacco advertising targeting young adults (age 18–24) appeals simultaneously to adolescents since many smokers started as a way to propel themselves into maturity (i.e., smoking serves as a tool for attempts to look older) (Bidstrup, Frederiksen, Siersma, et al., 2009; Barton, Chassin, Presson, & Sherman, 1982; Gerrard, Gibbons, Stock, Lune, & Cleveland, 2005; Halpern-Felsher, Biehl, Kropp, & Rubinstein, 2004; Kremers, Vries, Mudde, & Candel, 2004) and a review showing differences in flavor preferences by age group, with youth preferring sweet and fruit flavors and being more open to unique and exotic flavors, compared to adults (Feirman et al., 2016; Klein et al., 2008).

This is the first research showing AYA's opinions about the age groups being targeted by ads for flavored e-liquids. These findings should be interpreted within the limits of the data and may not be generalizable to youth outside of California or the U.S. Response options included “my age” and “a little older [18-24];” some participants were  $\geq 18$  years old, so there could have been some overlap. Still, participants were allowed to choose between and among discriminant categories for “target age group,” which helps reduce overlap within the measure and serves to bolster robustness of results (Conway & Lance, 2010). Another limitation is our lack of a tobacco-flavored ad; such an ad would further allow us to determine whether all flavors or just non-tobacco flavors most appeal to youth. Also, we did not stratify frequencies and proportions by use status or age and while our data revealed no differences, these variables have been shown to be important determinants of perceptions and use of tobacco products among AYA and should be included in future research. In our bootstrap analysis, we did stratify by e-cigarette ever-use and these results support results from the unstratified analyses.

Our findings are not surprising when one considers the established appeal of flavors to youth in both food and tobacco industry research, which shows AYA are more likely to purchase and use flavored products

(Jackler & Ramamurthi, 2016; Jawad, Nakkash, Hawkins, & Akl, 2015; Liang et al., 2015; Vasiljevic et al., 2016). Highlighting flavors in ads for food is known to be one of the most persuasive tactics to influence AYA food consumption behaviors, and it is likely similar in ads for other flavored products (Cairns et al., 2013; Jenkin et al., 2014; Kraak et al., 2006). These findings raise concerns that unregulated advertising of flavored e-liquids will contribute to continued appeal and uptake of e-cigarettes among youth; ultimately increasing associated short- and long-term deleterious health effects.

## 5. Conclusions

Our findings support FDA regulation of flavored e-liquids, including limiting or banning advertising for flavored tobacco products, given that marketing of flavored e-liquids is a potent strategy used by e-cigarette manufacturers (Clark, Jones, Williams, et al., 2016). Reducing youth exposure to flavored e-liquid ads could have a positive impact on public health by reducing appeal and uptake of e-cigarettes among youth (Aldrich et al., 2015). Lastly, FDA could develop public health and education campaigns to communicate information about harms associated with using flavored e-liquids and e-cigarette use in general.

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.addbeh.2018.08.029>.

## Human subjects approval statement

Our university's institutional review board approved all study procedures.

## Conflict of interest disclosure statement

All authors are aware of no potential real or perceived conflicts of interest.

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## Contributors

KM wrote the first draft and conducted analysis. MB Conducted analysis and contributed to writing. DR conceived of the study design and contributed to the writing. SM contributed to the writing and research. BHF conceived of the study design and contributed to the writing. All authors have contributed to and approved the final manuscript.

Appendix A. Ads and links to ads for flavored e-liquids used in 2016 survey of California high school students (N = 255; mean age = 17.5) to discern perceived target age group for each flavor



[http://tobacco.stanford.edu/tobacco\\_web/images/ecig\\_ads/d\\_flavor/cupcakes/large/cupcake\\_e\\_34.jpg](http://tobacco.stanford.edu/tobacco_web/images/ecig_ads/d_flavor/cupcakes/large/cupcake_e_34.jpg)



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[http://tobacco.stanford.edu/tobacco\\_web/images/ecig\\_ads/d\\_flavor/10%20Coffee%20p://&%20Tea/large/coffee\\_47.jpg](http://tobacco.stanford.edu/tobacco_web/images/ecig_ads/d_flavor/10%20Coffee%20p://&%20Tea/large/coffee_47.jpg)



<https://www.vapedudes.com/shop/e-juice/appletini>

## References

- Aldrich, M. C., Hidalgo, B., Widome, R., Briss, P., Brownson, R. C., & Teutsch, S. M. (2015 May 1). The role of epidemiology in evidence-based policy making: A case study of tobacco use in youth. *Annals of Epidemiology*, 25(5), 360–365.
- Ambrose, B. K., Day, H. R., Rostron, B., Conway, K. P., Borek, N., Hyland, A., & Villanti, A. C. (2015 Nov 3). Flavored tobacco product use among US youth aged 12–17 years, 2013–2014. *Jama*, 314(17), 1871–1873.
- Barton, J., Chassin, L., Presson, C. C., & Sherman, S. J. (1982). Social image factors as motivators of smoking initiation in early and middle adolescence. *Child Development*, 1499–1511.
- Bidstrup, P. E., Frederiksen, K., Siersma, V., et al. (2009). Social-cognitive and school factors in initiation of smoking among adolescents: A prospective cohort study. *Cancer Epidemiol Biomark Prev*, 18(2), 384–392.
- Brown, J. E., Luo, W., Isabelle, L. M., & Pankow, J. F. (2014). Candy flavorings in tobacco. *The New England Journal of Medicine*, 370(23), 2250–2252.
- Cairns, G., Angus, K., Hastings, G., & Caraher, M. (2013). Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. *Appetite*, 62, 209–215.
- Clark, E. M., Jones, C. A., Williams, J. R., et al. (2016). Vaporous marketing: Uncovering pervasive electronic cigarette advertisements on twitter. *PLoS One*, 11(7), e0157304.
- Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology*, 25(3), 325–334.
- Davis, R. M., Gilpin, E. A., Loken, B., Viswanath, K., & Wakefield, M. A. (2008). *The role of the media in promoting and reducing tobacco use*.
- Erceg-Hurn, D. M., & Miroseovich, V. M. (2008 Oct). Modern robust statistical methods: an easy way to maximize the accuracy and power of your research. *American Psychologist*, 63(7), 591.
- Feirman, S. P., Lock, D., Cohen, J. E., Holtgrave, D. R., & Li, T. (2016). Flavored tobacco products in the united states: A systematic review assessing use and attitudes. *Nicotine & Tobacco Research*, 18(5), 739–749.
- Farrelly, M. C., Duke, J. C., Crankshaw, E. C., et al. (2015). A randomized trial of the effect of e-cigarette TV advertisements on intentions to use e-cigarettes. *American Journal of Preventive Medicine*, 49(5), 686–693.
- Gerrard, M., Gibbons, F. X., Stock, M. L., Lune, L. S., & Cleveland, M. J. (2005). Images of smokers and willingness to smoke among african american pre-adolescents: An application of the prototype/willingness model of adolescent health risk behavior to smoking initiation. *Journal of Pediatric Psychology*, 30(4), 305–318.
- Gorukanti, A., Delucchi, K., Ling, P., Fisher-Travis, R., & Halpern-Felsher, B. (2016). Adolescents' attitudes towards e-cigarette ingredients, safety, addictive properties, social norms, and regulation. *Prev Med*.
- Grana, R. A., & Ling, P. M. (2014). "Smoking revolution": A content analysis of electronic cigarette retail websites. *American Journal of Preventive Medicine*, 46(4), 395–403.
- Halpern-Felsher, B. L., Biehl, M., Kropp, R. Y., & Rubinstein, M. L. (2004). Perceived risks and benefits of smoking: Differences among adolescents with different smoking experiences and intentions. *Prev Med*, 39(3), 559–567.
- Harrell, M. B., Loukas, A., Jackson, C. D., Marti, C. N., & Perry, C. L. (2017). Flavored tobacco product use among youth and young adults: What if flavors didn't exist? *Tobacco Regulatory Science*, 3(2), 168–173.
- Jackler, R. K., & Ramamurthi, D. (2016). Unicorns cartoons: Marketing sweet and creamy e-juice to youth. *Tobacco Control*, 24(4), 471–475.
- Jawad, M., Nakkash, R. T., Hawkins, B., & Akl, E. A. (2015). Waterpipe industry products and marketing strategies: Analysis of an industry trade exhibition. *Tobacco Control*, 24(e4), e275–e279.
- Jenkin, G., Madhvani, N., Signal, L., & Bowers, S. (2014). A systematic review of persuasive marketing techniques to promote food to children on television. *Obesity Reviews*, 15(4), 281–293.
- Klein, E. G., Berman, M., Hemmerich, N., Carlson, C., Htut, S., & Slater, M. (2016). Online E-cigarette marketing claims: A systematic content and legal analysis. *Tobacco Regulatory Science*, 2(3), 252–262.
- Klein, S. M., Giovino, G. A., Barker, D. C., Tworek, C., Cummings, K. M., & O'Connor, R. J. (2008). Use of flavored cigarettes among older adolescent and adult smokers: United states, 2004–2005. *Nicotine & Tobacco Research*, 10(7), 1209–1214.
- Kraak, V. I., Gootman, J. A., & McGinnis, J. M. (2006). *Food marketing to children and youth: Threat or opportunity?* National Academies Press.
- Kremers, S., Vries, H., Mudde, A. N., & Candel, M. (2004). Motivational stages of adolescent smoking initiation: Predictive validity and predictors of transitions. *Addict Behav*, 29(4), 781–789.
- Lewis, M. J., & Wackowski, O. (2006). Dealing with an innovative industry: A look at flavored cigarettes promoted by mainstream brands. *American Journal of Public*

- Health*, 96(2), 244–251.
- Liang, Y., Zheng, X., Zeng, D. D., & Zhou, X. (2015). *Impact of flavor on electronic cigarette marketing in social media*. 278–283.
- NIDA. *Tobacco/nicotine and E-cigs*. <https://www.drugabuse.gov/drugs-abuse/tobacconicotine-e-cigs>. Updated 2017. Accessed 09/12, 2017, 2017.
- Roditis, M., Delucchi, K., Cash, D., & Halpern-Felsher, B. (2016). Adolescents' perceptions of health risks, social risks, and benefits differ across tobacco products. *Journal of Adolescent Health*, 58(5), 558–566.
- Shiffman, S., Sembower, M. A., Pillitteri, J. L., Gerlach, K. K., & Gitchell, J. G. (2015). The impact of flavor descriptors on nonsmoking teens' and adult smokers' interest in electronic cigarettes. *Nicotine & Tobacco Research*, 17(10), 1255–1262.
- Vasiljevic, M., Petrescu, D. C., & Marteau, T. M. (2016). Impact of advertisements promoting candy-like flavoured e-cigarettes on appeal of tobacco smoking among children: An experimental study. *Tobacco Control*, 25(e2), e107–e112.
- Zhu, S. H., Sun, J. Y., Bonnevie, E., et al. (2014). Four hundred and sixty brands of e-cigarettes and counting: Implications for product regulation. *Tobacco Control*, 23(Suppl. 3), iii3–9.

## Flavors Clearly Attract Youth

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The number of youth using e-cigarettes and other new vaping products (herein: e-cigarettes) has reversed progress in reducing youth nicotine addiction, and continues to grow. Over the past year, high school students' use of e-cigarettes including pod-based products has increased by 78%, with 1 in 5 high school students reporting current use. Middle school students' use increased by 48%, with 1 in 20 middle school students reporting recent use.<sup>1,2</sup>

FDA's public statements about the growing epidemic of youth e-cigarette use suggest the agency recognizes the enormity of the problem. For example, speaking of the proposed new steps to reduce youth vaping by preventing their access to flavored tobacco products, FDA Commissioner Scott Gottlieb, MD, said:

“Today, I'm pursuing actions aimed at addressing the disturbing trend of youth nicotine use and continuing to advance the historic declines we've achieved in recent years in the rates of combustible cigarette use among kids.”

“[A]ny policy accommodation to advance the innovations that could present an alternative to smoking – particularly as it relates to e-cigarettes – cannot, and will not, come at the expense of addicting a generation of children to nicotine through these same delivery vehicles. This simply will not happen. I will take whatever steps I must to prevent this.”<sup>3</sup>

### **All flavors, including mint and menthol, in all tobacco products, not just e-cigarettes, should be prohibited**

In order to attract young and new users, the tobacco industry adds characterizing flavors like mint, menthol, fruit, and candy to tobacco, often using the same flavorants that are in fruit-

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<sup>1</sup> CDC, National Youth Tobacco Survey (NYTS). Cullen KA, Ambrose BK, Gentske AS, Apelberg BJ, Jamal A, King BA. Notes from the field; Use of electronic cigarettes and any tobacco product among middle and high school students – United States, 2011-2018. MMWR Morb Mortal Wkly Rep 2018; 67:1276-1277. DOI: <http://dx.doi.org/10.15585/mmwr.mm6745a5>

<sup>2</sup> Wang TW, Gentzke A, Sharapova S, Cullen KA, Ambrose BK, Jamal A. Tobacco product use among middle and high school students — United States, 2011-2017. MMWR Morb Mortal Wkly Rep. 2018;67(22).

<sup>3</sup>November 15, 2018; <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm625884.htm>

flavored candy, and sometimes at higher doses.<sup>45</sup> These flavors appeal to new users by masking the harsh taste of tobacco, and in the case of e-cigarettes, resulting in a more pleasant smell than that found with tobacco alone.

Flavor or “taste” is one of the most common persuasive marketing techniques used to promote food (mostly candy and snacks) to children on TV.<sup>6</sup> Exposure to ads for flavored products is positively associated with youth consumption,<sup>7</sup> and most money spent by youth is on food or beverages, particularly sweets.<sup>8</sup> Research on e-cigarettes is consistent with these findings, concluding: flavors play an important role for online e-cigarette marketing and boosts user interaction and positive emotion;<sup>9</sup> flavored (vs. unflavored) e-cigarette ads elicit greater appeal and interest in buying and trying e-cigarettes; and the appeal of ads marketing flavors is linked to rapid and persistent adoption of e-cigarettes among youth.<sup>10</sup>

### **Youth are Attracted to Flavored Tobacco Products**

The vast majority of youth in the US who try tobacco initiate with flavored tobacco products, including 81% of e-cigarette ever users, 65% of cigar ever users, and 50% of cigarette ever smokers.<sup>1112</sup> Adolescents are more likely to report interest in trying an e-cigarette from a friend if it is menthol-, candy-, or fruit-flavored than if unflavored.<sup>13</sup> Flavor preferences are associated with higher e-cigarette use among adolescents.<sup>14</sup> Most adolescent current tobacco users cite flavors as a reason for use (including 81% for past 30-day e-cigarette users; 74% for past 30-day cigar users).<sup>10</sup> Three quarters of adolescent and young adult flavored tobacco product users reported they would quit if flavors were unavailable.<sup>15</sup>

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<sup>4</sup> Brown JE, Luo W, Isabelle LM, Pankow JF. Candy flavorings in tobacco. *N Engl J Med*. 2014;370(23):2250-2252.

<sup>5</sup> Nguyen, Nhung, McKelvey, K., Halpern-Felsher, B. Popular flavors used in alternative tobacco products among young adults. *Journal of Adolescent Health*. 2019 July 65:306-308.

<sup>6</sup> Jenkin G, Madhvani N, Signal L, Bowers S. A systematic review of persuasive marketing techniques to promote food to children on television. *Obesity reviews*. 2014;15(4):281-293.

<sup>7</sup> Cairns G, Angus K, Hastings G, Caraher M. Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. *Appetite*. 2013;62:209-215.

<sup>8</sup> Kraak VI, Gootman JA, McGinnis JM. *Food marketing to children and youth: Threat or opportunity?* National Academies Press; 2006.

<sup>9</sup> Liang Y, Zheng X, Zeng DD, Zhou X. Impact of flavor on electronic cigarette marketing in social media. 2015:278-283.

<sup>10</sup> Vasiljevic M, Petrescu DC, Marteau TM. Impact of advertisements promoting candy-like flavoured e-cigarettes on appeal of tobacco smoking among children: An experimental study. *Tob Control*. 2016;25(e2):e107-e112.

<sup>11</sup> Ambrose B, Day H, Rostron B, et al. Flavored tobacco product use among us youth aged 12-17 years, 2013-2014. *J Am Med Assoc*. 2015;314(17):1-3. doi:10.1001/jama.2015.13802.

<sup>12</sup> Nguyen, Nhung, McKelvey, K., Halpern-Felsher, B. Popular flavors used in alternative tobacco products among young adults. *Journal of Adolescent Health*. 2019 July 65:306-308.

<sup>13</sup> Pepper JK, Ribisl KM, Brewer NT. Adolescents’ interest in trying flavoured e-cigarettes. *Tob Control*. 2016;25(Suppl 2):ii62-ii66. doi:10.1136/tobaccocontrol-2016-053174.

<sup>14</sup> Morean ME, Butler ER, Bold KW, Kong G, Camenga DR, Cavallo DA, Simon P, O’Malley SS, Krishnan-Sarin S. Preferring more e-cigarette flavors is associated with e-cigarette use frequency among adolescents but not adults. *PloS one*. 2018 Jan 4;13(1):e0189015

<sup>15</sup> Loukas A, Jackson CD, Marti CN, Perry CL. Flavored tobacco product use among youth and young

Youth and young adult tobacco users are more likely than older adult tobacco users to use flavored products, including menthol cigarettes,<sup>16</sup> flavored smokeless tobacco,<sup>17</sup> and flavored cigars.<sup>18</sup> Young smokers (12-17 years of age) are three times as likely to smoke menthol cigarettes than smokers 35 years and older.<sup>19</sup> Research among approximately 4000 school-going youth shows that for 98% of them, first e-cigarettes used were flavored to taste like something other than tobacco, compared to 44.1% of older adults nationwide. Fruit and candy flavors predominated for all groups; and, for youth, flavors were an especially salient reason to use e-cigarettes.<sup>20</sup> Finally, a recent study showed that only 1.5% of adolescent and young adult e-cigarette users used tobacco flavored-Juuls and .9% used tobacco-flavored other e-cigarette products. Instead, the majority used fruit or dessert flavors (33% for Juul users and 64% for other e-cigarette users) and 27% of Juul users and 12% of other e-cigarette users used mint or menthol flavors.<sup>21</sup>

### **Youth Believe Ads for Flavored E-cigarettes Target Them**

Using flavors in e-cigarettes is a key marketing strategy to reach and recruit youth. In 2014, over 7,700 flavors for e-cigarettes were available, with greater than 240 new flavors being added per month.<sup>22</sup> What is most important is that youth believe flavored e-cigarette ads target them.

In a study<sup>23</sup> of California youth and young adults (mean age 17.5, SD = 1.7), participants were asked to indicate whether eight different ads for flavored e-cigarette products (Figure 2), randomly displayed, target someone younger than them, their age, someone a little older, or someone much older like their parents. Participants felt the ads were for someone just a little older than them (age 18 – 26; not for someone much older). More than half of participants felt

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adults: What if flavors didn't exist? *Tob Regul Sci.* 2017;3(2):168-173.

<sup>16</sup> Villanti AC, Mowery PD, Delnevo CD, Niaura RS, Abrams DB, Giovino GA. Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004–2014. *Tob Control.* 2016;25(Suppl 2):ii14-ii20. doi:10.1136/tobaccocontrol-2016-053329.

<sup>17</sup> Oliver AJ, Jensen JA, Vogel RI, Anderson AJ, Hatsukami DK. Flavored and nonflavored smokeless tobacco products: Rate, pattern of use, and effects. *Nicotine Tob Res.* 2013;15(1):88-92. doi:10.1093/ntr/nts093.

<sup>18</sup> Delnevo CD, Giovenco DP, Ambrose BK, Corey CG, Conway KP. Preference for flavoured cigar brands among youth, young adults and adults in the USA. *Tob Control.* 2014;24(4):389-394. doi:10.1136/tobaccocontrol-2013-051408.

<sup>19</sup> Villanti AC, Mowery PD, Delnevo CD, Niaura RS, Abrams DB, Giovino GA. Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004–2014. *Tob Control.* 2016:1-7. doi:10.1136/tobaccocontrol-2016-053329.

<sup>20</sup> Harrell MB, Weaver SR, Loukas A, Creamer M, Marti CN, Jackson CD, Heath JW, Nayak P, Perry CL, Pechacek TF, Eriksen MP. Flavored e-cigarette use: Characterizing youth, young adult, and adult users. *Preventive medicine reports.* 2017 Mar 1;5:33-40

<sup>21</sup> McKelvey, K., Baiocchi, M., Halpern-Felsher, B. Adolescents' and young adults' use and perceptions of pod-based electronic cigarettes. *JAMA Network Open,* 2018;1(6):e183535. doi:10.1001/jamanetworkopen.2018.3535

<sup>22</sup> Zhu SH, Sun JY, Bonnevie E, Cummins SE, Gamst A, Yin L, Lee M. Four hundred and sixty brands of e-cigarettes and counting: implications for product regulation. *Tobacco control.* 2014 Jul 1;23(suppl 3):iii3-9

<sup>23</sup> McKelvey, K., Baiocchi, M., Halpern-Felsher, B. Youth Say Ads for Flavored E-liquids are for Them. *Addictive Behaviors,* in press.

ads for *cherry, vanilla cupcake, caramel, and smoothie* flavors were for someone their age. Ads were also seen as targeting an audience younger than them. These findings suggest that while the tobacco industry argues that flavored tobacco products, including sweet and fruit flavored products, are not meant to attract youth, youth see them as aimed at them. ***These and similar findings indicate that we must immediately remove all flavored tobacco products from the market all tobacco.***<sup>24</sup>



Figure 2. Flavored e-cigarette ads shown to adolescents and young adults to elicit perceptions of the age of audience being targeted for each ad.

**There is no scientific basis to keep mint and menthol flavored e-cigarettes and e-liquids on the market.**

To successfully tackle youth e-cigarette use, we must ensure that all flavored tobacco products are prohibited. We need immediate action to ban all flavors in all products as part of our overall effort to protect youth.

Despite historic tobacco industry claims that menthol simply adds flavor, tobacco industry documents have revealed that the industry manipulates menthol levels to control a cigarette’s intensity to cater to new and long-term smokers.<sup>25</sup>

Menthol and other characterizing flavors appeal to new users by masking the harsh taste of tobacco, and bright packaging associates flavored tobacco products with candy and other flavors.<sup>26,27</sup> Additionally, tobacco products with a characterizing flavor including fruit-flavored e-cigarettes<sup>28</sup> and menthol cigarettes<sup>14</sup> are perceived to be less harmful than unflavored or

<sup>25</sup> Kreslake JM, Wayne GF, Alpert HR, Koh HK, Connolly GN. Tobacco industry control of menthol in cigarettes and targeting of adolescents and young adults. *Am J Public Health.* 2008;98(9):1685-1692. doi:10.2105/AJPH.2007.125542.

<sup>26</sup> Yerger VB. Menthol’s potential effects on nicotine dependence: a tobacco industry perspective. *Tob Control.* 2011;20(Suppl 2):ii29-ii36. doi:10.1136/tc.2010.041970.

<sup>27</sup> Lewis MJ, Wackowski O. Dealing with an innovative industry: A look at flavored cigarettes promoted by mainstream brands. *Am J Public Health.* 2006;96(2):244-251. doi:10.2105/AJPH.2004.061200.

<sup>28</sup> Pepper JK, Ribisl KM, Brewer NT. Adolescents’ interest in trying flavoured e-cigarettes. *Tob Control.* 2016;25(Suppl 2):ii62-ii66. doi:10.1136/tobaccocontrol-2016-053174.

tobacco-flavored products. In addition, there is some evidence that menthol cigarettes are harder to quit.<sup>29,30</sup>

***Mint and menthol target vulnerable youth.*** In the general population, differences in menthol use exist across race, gender, age, and sexual orientation. Rates of use of menthol flavored tobacco products are often higher in marginalized populations. African American smokers consistently have the highest menthol use rate.<sup>31</sup> Menthol use is also higher among female smokers;<sup>27</sup> Lesbian, Gay, and Bisexual smokers<sup>32</sup> (although see Rath et al 2013<sup>33</sup>); people with severe psychological distress; people with fewer years of education and lower income; and those who are unmarried or uninsured.<sup>34</sup>

The tobacco industry cultivated menthol use among African Americans by manipulating social factors of the civil rights era,<sup>35</sup> advertising menthol brand cigarettes, little cigars, and cigarillos in African American media and retail settings in African American neighborhoods,<sup>36,37</sup> and donating to African American leadership organizations.<sup>38</sup> The strategy has been so successful that even by 6<sup>th</sup> grade, African American youth were three times more likely to recognize menthol brands than their peers.<sup>39</sup>

***Taken together, these data clearly show that youth do use mint and menthol flavors, that such flavorants are purposely added to attract both users and non-users, and that mint and menthol***

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<sup>29</sup> Pletcher MJ, Hulley BJ, Houston T, Kiefe CI, Benowitz N, Sidney S. Menthol cigarettes, smoking cessation, atherosclerosis, and pulmonary function. 2006;166.

<sup>30</sup> Trinidad DR, Pérez-Stable EJ, Messer K, White MM, Pierce JP. Menthol cigarettes and smoking cessation among racial/ethnic groups in the United States. *Addiction*. 2010;105(SUPPL.1):84-94. doi:10.1111/j.1360-0443.2010.03187.x.

<sup>31</sup> Villanti AC, Mowery PD, Delnevo CD, Niaura RS, Abrams DB, Giovino GA. Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004–2014. *Tob Control*. 2016:1-7. doi:10.1136/tobaccocontrol-2016-053329.

<sup>32</sup> Fallin A, Goodin AJ, King BA. Menthol cigarette smoking among lesbian, gay, bisexual, and transgender adults. *Am J Prev Med*. 2015;48(1):93-97. doi:10.1016/j.amepre.2014.07.044.

<sup>33</sup> Rath JM, Villanti AC, Rubenstein RA, Vallone DM. Tobacco use by sexual identity among young adults in the united states. *Nicotine Tob Res*. 2013;15(11):1822-1831. doi:10.1093/ntr/ntt062.

<sup>34</sup> Hickman NJ, Delucchi KL, Prochaska JJ. Menthol use among smokers with psychological distress: findings from the 2008 and 2009 National Survey on Drug Use and Health. *Tob Control*. 2014;23(1):7-13. doi:10.1136/tobaccocontrol-2012-050479.

<sup>35</sup> Gardiner PS. The African Americanization of menthol cigarette use in the United States. *Nicotine Tob Res*. 2004;6 Suppl 1:S55-65. doi:10.1080/14622200310001649478.

<sup>36</sup> Henriksen L, Schleicher NC, Dauphinee AL, Fortmann SP. Targeted advertising, promotion, and price for menthol cigarettes in California high school neighborhoods. *Nicotine Tob Res*. 2012;14(1):116-121. doi:10.1093/ntr/ntr122.

<sup>37</sup> Kostygina G, Glantz SA, Ling PM. Tobacco industry use of flavours to recruit new users of little cigars and cigarillos. *Tob Control*. 2014:tobaccocontrol-2014-051830-. doi:10.1136/tobaccocontrol-2014-051830.

<sup>38</sup> Yerger VB, Malone RE. African American leadership groups: Smoking with the enemy. *Tob Control*. 2002;11(4):336-345. doi:10.1136/tc.11.4.336.

<sup>39</sup> Dauphinee AL, Doxey JR, Schleicher NC, Fortmann SP, Henriksen L. Racial differences in cigarette brand recognition and impact on youth smoking. *BMC Public Health*. 2013;13(1):170. doi:10.1186/1471-2458-13-170.

*attract youth. As such, a ban on flavored e-cigarette products must include mint and menthol.*

## **Summary**

The evidence is clear. Youth are using e-cigarettes, including pod-based products, in record numbers. The increase in use of e-cigarettes is undermining and repealing the great progress that has been made by tobacco control efforts over the past two decades. Such increases in e-cigarette use come at a time when youth have negative views of cigarettes, compared to even 10 years ago.<sup>40</sup>

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<sup>40</sup> McKelvey, K., & Halpern-Felsher, B. Adolescent cigarette smoking perceptions and behavior: Tobacco control gains and gaps amidst the rapidly expanding tobacco products market from 2001-2015. *J of Adol Health*, 60 (2017) 226e228



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## Popular Flavors Used in Alternative Tobacco Products Among Young Adults



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### ABSTRACT

**Purpose:** The aim of the article was to examine flavors of alternative tobacco products most commonly used by young adults (YAs).

**Methods:** California YA (N = 365; mean age = 20.0 years) were surveyed in 2018 about the first and usual flavors of alternative tobacco products used. Flavor categories were fruit, candy, menthol, mint, coffee, spice, alcohol, wintergreen, and tobacco.

**Results:** Fruit and mint were the most common flavors used (pod based e cigarettes: 35.4% and 29.3%; other e cigarettes: 52.7% and 23.1%; hookah: 45.4% and 18.5%; cigars/cigarillos: 22.4% and 6.9%, respectively). For other e cigarettes and hookah, candy was also popular (20.5% and 14.8%, respectively). For pod based and other e cigarettes, menthol was widely used (13.4% and 17.0%, respectively). Approximately half of the ever flavor users reported they “usually” used the same flavors across products (menthol users: 52.2%; fruit users: 51.7%; mint users: 44.0%; and candy users: 43.8%).

**Conclusions:** YA are clearly using flavors, specifically fruit, mint, candy, and menthol, in their tobacco products.

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### IMPLICATIONS AND CONTRIBUTION

The Food and Drug Administration, several states, and cities are proposing bills to eliminate the sale of all flavored tobacco products. More research is needed to inform these bills. This study shows the most common flavors (i.e., fruit, mint, candy, and menthol) used across e cigarettes, hookah, and cigars/cigarillos among young adults.

The tobacco industry uses flavors in alternative tobacco products (e.g., e cigarettes, hookah, cigars/cigarillos) to attract young and new users, with more than 7,700 flavors available in e cigarettes alone [1,2]. Adolescents and young adults (YA) have stronger preferences for flavored tobacco compared with older adults [3], with 70%–80% of young tobacco users using flavors [3].

The U.S. Food and Drug Administration and state and local agencies are seeking evidence to inform tobacco flavor regulation [4]. However, research has predominately focused on flavors more generally or on nonmenthol flavorings, rather than

examining specific flavors [3,5]. In addition, few have studied flavors used with hookah and cigars/cigarillos [3,5]. To inform regulatory actions, we examined the array of flavors used by YA (aged 18–26 years) in pod based e cigarettes, other e cigarettes, hookah, and cigars/cigarillos.

### Methods

#### Design and participants

An online survey administered by Qualtrics (Provo, UT) was completed by 365 racially/ethnically diverse California YA (mean age = 20.0; 64.9% female; 83.6% currently in college; Supplemental Table) participating in Wave 7 of a longitudinal study of tobacco use and perceptions. More details on the original sample were

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**Table 1**  
Flavors usually used by tobacco products among 365 California young adults in 2018<sup>a</sup>

	Pod-based e-cigarettes, n (%)	Other e-cigarettes, n (%)	Hookah, n (%)	Cigars/cigarillos, n (%)
Ever users	82 (22.5)	112 (30.7)	108 (29.6)	58 (15.9)
Current users	41 (11.2)	28 (7.7)	0 (.0)	11 (3.0)
Used flavor at the first time use of the product	59 (72.0)	95 (84.8)	86 (79.6)	19 (32.8)
First flavor used				
Fruit	21 (25.6)	42 (37.5)	42 (38.9)	9 (15.5)
Mint	23 (28.1)	7 (6.3)	8 (7.4)	2 (3.5)
Candy	6 (7.3)	18 (16.1)	3 (2.8)	2 (3.5)
Menthol	2 (2.4)	5 (4.5)	1 (.9)	0 (.0)
Tobacco flavored	0 (.0)	0 (.0)	0 (.0)	1 (1.7)
Wintergreen	1 (1.2)	1 (.9)	2 (1.9)	0 (.0)
Coffee	0 (.0)	1 (.9)	0 (.0)	0 (.0)
Spice	0 (.0)	0 (.0)	0 (.0)	0 (.0)
Alcohol	1 (1.2)	0 (.0)	1 (.9)	0 (.0)
Other	2 (2.4)	3 (2.7)	3 (2.8)	0 (.0)
Unknown/unsure	23 (28.1)	18 (16.1)	26 (24.1)	5 (8.5)
Unflavored	3 (3.7)	0 (.0)	0 (.0)	0 (.0)
Flavor usually used				
Fruit	29 (35.4)	59 (52.7)	49 (45.4)	13 (22.4)
Mint	24 (29.3)	26 (23.1)	20 (18.5)	4 (6.9)
Candy	7 (8.5)	23 (20.5)	16 (14.8)	2 (3.5)
Menthol	11 (13.4)	19 (17.0)	4 (3.7)	2 (3.5)
Tobacco flavored	NA	2 (1.8)	NA	NA
Wintergreen	4 (4.9)	5 (4.5)	8 (7.4)	1 (1.7)
Coffee	2 (2.4)	1 (.9)	1 (.9)	1 (1.7)
Spice	0 (.0)	1 (.9)	1 (.9)	3 (5.2)
Alcohol	1 (1.2)	1 (.9)	3 (2.8)	0 (0.0)
Other	7 (8.5)	8 (7.1)	6 (5.6)	2 (3.5)
Unknown/unsure	26 (31.7)	27 (24.1)	37 (34.3)	33 (56.9)
Unflavored	3 (3.7)	4 (3.6)	5 (4.6)	7 (12.1)

NA not available.

<sup>a</sup> Mean (standard deviation) age 20.0 (1.5) y.

described elsewhere [2]. The survey was completed from August to October 2018. Consent forms were obtained from participants. The study was approved by Stanford University’s Institutional Review Board.

**Measures**

Respondents answered questions about ever and past 30 day use of pod based e cigarettes, other e cigarettes, hookah, and cigars/cigarillos. For each product ever used, participants indicated whether the first product they used was flavored. If yes, they were asked which flavor (fruit, candy, menthol, mint, tobacco, coffee, alcohol, spice, wintergreen, unflavored, other, and unsure/unknown) was first used and usually used for each tobacco product.

**Analysis**

Unweighted frequencies and proportions were calculated for each flavor and tobacco product. Number of products (from 0 to 4) usually used for each flavor by participant was computed. Analyses were conducted using STATA 15 (StataCorp. 2017. Stata Statistical Software: Release 15, StataCorp LLC, College Station, TX).

**Results**

Most ever tobacco users reported using flavors the first time they tried a tobacco product (pod based e cigarettes: 72.0%; other e cigarettes: 84.8%; hookah: 79.6%; cigars/cigarillos: 32.8%). The most common first flavors were fruit, mint, and

**Table 2**  
Usual flavor used in multiple tobacco products among 365 California young adults in 2018<sup>a</sup>

Flavor	Ever-flavor users, n (%)	In a single product, n (%)	In multiple products, n (%)
Fruit	89 (100.0)	43 (48.3)	46 (51.7)
Mint	50 (100.0)	28 (56.0)	22 (44.0)
Candy	32 (100.0)	18 (56.2)	14 (43.8)
Menthol	23 (100.0)	11 (47.8)	12 (52.2)
Wintergreen	13 (100.0)	9 (69.2)	4 (30.8)
Coffee	3 (100.0)	2 (66.7)	1 (33.3)
Spice	5 (100.0)	5 (100.0)	0 (.0)
Alcohol	3 (100.0)	2 (66.7)	1 (33.3)

<sup>a</sup> Mean (standard deviation) age 20.0 (1.5) y.

candy. Fruit and mint were the most common flavors usually used (pod based e cigarettes: 35.4%, 29.3%; other e cigarettes: 52.7%, 23.1%; hookah: 45.4%, 18.5%; cigars/cigarillos: 22.4%, 6.9%, respectively). Other popular flavors were menthol for pod based e cigarettes (13.4%) and other e cigarettes (17.0%), candy for other e cigarettes (20.5%) and hookah (14.8%), and spice for cigars/cigarillos (5.2%). Notably, 24.1%–56.9% of participants were unaware of which flavors they used, and virtually none of the participants used tobacco flavored products (Table 1). Approximately half of the ever flavor users reported usually using the same flavors across products: menthol (52.2%), fruit (51.7%), candy (43.8%), and mint (44.0%) (Table 2).

## Discussion

This study extends the literature by examining a wide range of flavors used across alternative tobacco products among YA, with separate categories for mint and menthol and for pod based e cigarettes and other e cigarettes. We found both sweet (fruit and candy) and nonsweet (menthol and mint) flavors were most commonly used, and tobacco flavored products were not used among YA. Furthermore, half of the flavor users reported usually using the same flavors across multiple products, and many were unsure of flavors used.

We confirmed widespread appeal of flavored alternative to bacco products among YA, showing fruit, candy, mint, and menthol were particularly appealing regardless of products [3,5]. Industry targeted marketing [2], coupled with flavor preferences inherent among YA [6], contribute to the popularity of sweet flavored tobacco. We found YA preferred sweet flavors for both experimentation and usual use.

In our sample, substantial proportions of YA lacked awareness of the flavors used and marked “unknown/unsure” on the survey. It could be that names of flavors (e.g., unicorn, sugar booger) are so nuanced that YA do not know which flavor category to answer. Another explanation may be that YA are sharing e cigarettes and are unaware of what they are using. More research on measuring flavored tobacco use is warranted.

Currently, several states and cities are considering eliminating the sale of flavored tobacco; however, several bills have exemptions for mint/menthol, arguing that these flavors are not for youth [4,7]. The Tobacco Control Act did not consider menthol as a “flavor” [4], possibly impacting efforts to ban menthol. Our finding that mint and menthol are among the most commonly used flavors suggests appeal to YA similarly as do other characterizing flavors, and similarly as has been found for adolescents [6,8]. Moreover, mint and menthol may increase tobacco use disparities since tobacco companies have used these flavors to target vulnerable populations (e.g., youth, females, and African Americans) [9]. Emerging evidence suggests that flavors might further contribute to polytobacco use and subsequent nicotine addiction [3]. Although our study was not powered to examine this hypothesis, most ever users did report using the same flavors across products. In addition, there is inconsistent and inadequate evidence suggesting flavors help adult smokers quit [3]. Collectively, the evidence points to needed regulation of all flavored tobacco products, including mint and menthol.

Because our original sample was a school based convenience sample, the findings may not be representative of the California YA population. In addition, two thirds of our sample were female;

however, we did not find gender differences on flavor use in subgroup analysis (data not shown). Also, the findings may not generalize to other states that have higher smoking rates and fewer tobacco control policies than California (e.g., high taxes, older minimum age of tobacco purchase). In addition, self reported data and a large proportion of “unknown” responses may threaten the validity of our results.

Our findings provide the most updated data on flavor preferences across alternative tobacco products, suggesting that all flavors, including mint and menthol, should be eliminated from all tobacco products. By eliminating the sale of all flavored tobacco, these products will be less appealing to youth and YA, and they will be more likely to quit using tobacco [10]. As such, their tobacco use and associated negative health effects are likely to decrease. As the U.S., several states, and cities are proposing a comprehensive ban on all flavored tobacco products, this study makes a timely contribution by providing the rationale for this important regulation.

## Funding Sources

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## Supplementary Data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jadohealth.2019.05.004>.

## References

- [1] Zhu SH, Sun JY, Bonnevie E, et al. Four hundred and sixty brands of e-cigarettes and counting: Implications for product regulation. *Tob Control* 2014;23 Suppl. 3:iii3–9.
- [2] McKelvey K, Baiocchi M, Ramamurthi D, et al. Youth say ads for flavored e-liquids are for them. *Addict Behav* 2019;91:164–70.
- [3] Huang LL, Baker HM, Meernik C, et al. Impact of non-menthol flavours in tobacco products on perceptions and use among youth, young adults and adults: A systematic review. *Tob Control* 2017;26:709–19.
- [4] U.S. Food and Drug Administration (FDA). Regulation of flavors in tobacco products, advance notice of proposed rulemaking (ANPRM). 2018. Available at: <https://www.federalregister.gov/documents/2018/03/21/2018-05655/regulation-of-flavors-in-tobacco-products>. Accessed March 30, 2019.
- [5] Kowitz SD, Meernik C, Baker HM, et al. Perceptions and experiences with flavored non-menthol tobacco products: A systematic review of qualitative studies. *Int J Environ Res Public Health* 2017;14.
- [6] Soneji SS, Knutzen KE, Villanti AC. Use of flavored E-cigarettes among adolescents, young adults, and older adults: Findings from the population assessment for tobacco and health study. *Public Health Rep* 2019;134:282–92.
- [7] Glantz SA, Gardiner P. Local movement to ban menthol tobacco products as a result of federal inaction. *JAMA Intern Med* 2018;178:711–3.
- [8] Cullen KA, Ambrose BK, Gentzke AS, et al. Notes from the field: Use of electronic cigarettes and any tobacco product among middle and high school students - United States, 2011–2018. *MMWR Morb Mortal Wkly Rep* 2018;67:1276–7.
- [9] Lee YO, Glantz SA. Menthol: Putting the pieces together. *Tob Control* 2011;20 Suppl. 2:ii1–7.
- [10] Harrell MB, Loukas A, Jackson CD, et al. Flavored tobacco product use among youth and young adults: What if flavors didn't exist? *Tob Regul Sci* 2017;3:168–73.



**Bonnie Halpern-Felsher, PhD, FSAHM**  
Professor of Pediatrics  
Director, Stanford REACH Lab

September 24, 2021

The Honorable Sam Liccardo and City Councilmembers  
San Jose City Council  
200 E. Santa Clara St.  
San Jose, CA 95113

Dear Mayor Liccardo and Members of the San Jose City Council,

I am a tenured Professor of Pediatrics in the Division of Adolescent Medicine at Stanford University. I am a developmental psychologist, and Founder and Executive Director of the Tobacco Prevention Toolkit. I have over 25 years of experience researching why youth use tobacco.

I am writing to express strong support for San Jose City Council to ban all tobacco flavors, which will help protect youth from the harms of flavored tobacco products. I ask that you please swiftly approve this ordinance.

This is important because, as a scientist and developmental psychologist with over 170 publications in scientific journals, I can honestly say that this ordinance is based in the scientific evidence, and will go far to protect our kids from a lifetime of tobacco addiction by ending the sale of flavored tobacco products.

I have 4 main concerns about flavored tobacco products:

**First**, we recently published in the *Journal of Adolescent Health* the **first** population-based US study of adolescents and young adults, ages 13-24, showing that youth who ever used an e-cigarette were more likely to be diagnosed with COVID-19.

**Second**, there are over 15,000 e-cigarette flavors, and numerous flavors in all other tobacco products including cigars and hookah. Flavors including mint and menthol attract young and new users. Most youth cite flavors as a reason for use, and report they would **quit** tobacco use if flavors weren't available. And our research shows that these flavors aren't just for e-cigs, but all tobacco products.

**Third**, flavors mask the risks that are inherent in tobacco, including the alarmingly high amount of nicotine that is particularly harmful for youth.

**Fourth**, based on our research and national data, youth are getting these flavored products from local shops. Despite COVID, and despite the FDA enforcement of some products and flavors, youth easily obtain these products from retail stores.

NOW is the time to act. As we fight coronavirus, it has never been more important to keep our lungs healthy. Coronavirus attacks the lungs – and there is clear evidence that smoking AND vaping harm the lungs. We MUST do everything we can to prevent tobacco use, especially among youth.

Prohibiting all flavored tobacco products will help do this.

I thank you for your help!

Sincerely yours,



Bonnie Halpern-Felsher, PhD, FSAHM  
Professor of Pediatrics  
Taube Endowed Research Faculty Scholar  
Professor (by courtesy), Epidemiology and Population Health  
Professor (by courtesy), Psychiatry and Behavioral Sciences  
Director of Fellows' Scholarship, Department of Pediatrics  
Director of Research, Division of Adolescent Medicine  
Co-leader, Scholarly Concentrations, Pediatrics Residency Program

Founder and Executive Director, [Tobacco Prevention Toolkit](#), [Cannabis Awareness and Prevention Toolkit](#), and [Vaping Information, Solutions, and Interventions Toolkit](#).

Division of Adolescent Medicine  
Department of Pediatrics  
Stanford University





Original article

## Association Between Youth Smoking, Electronic Cigarette Use, and Coronavirus Disease 2019

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### A B S T R A C T

**Purpose:** This study aimed to assess whether youth cigarette and electronic cigarette (e cigarette) use are associated with coronavirus disease 2019 (COVID 19) symptoms, testing, and diagnosis.

**Methods:** An online national survey of adolescents and young adults (n = 4,351) aged 13–24 years was conducted in May 2020. Multivariable logistic regression assessed relationships among COVID 19–related symptoms, testing, and diagnosis and cigarettes only, e cigarettes only and dual use, sociodemographic factors, obesity, and complying with shelter in place.

**Results:** COVID 19 diagnosis was five times more likely among ever users of e cigarettes only (95% confidence interval [CI]: 1.82–13.96), seven times more likely among ever dual users (95% CI: 1.98–24.55), and 6.8 times more likely among past 30 day dual users (95% CI: 2.40–19.55). Testing was nine times more likely among past 30 day dual users (95% CI: 5.43–15.47) and 2.6 times more likely among past 30 day e cigarette only users (95% CI: 1.33–4.87). Symptoms were 4.7 times more likely among past 30 day dual users (95% CI: 3.07–7.16).

**Conclusions:** COVID 19 is associated with youth use of e cigarettes only and dual use of e cigarettes and cigarettes, suggesting the need for screening and education.

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### IMPLICATIONS AND CONTRIBUTION

The findings from a national sample of adolescents and young adults show that electronic cigarette use and dual use of electronic cigarettes and cigarettes are significant underlying risk factors for coronavirus disease 2019. Health care providers, parents, schools, community based organizations, and policymakers must help make youth aware of the connection between smoking and vaping and coronavirus disease.

As of June 2020, more than 2.1 million people have been infected, and approximately 116,000 have died from Coronavirus Disease 2019 (COVID 19) in the U.S. [1], and the numbers continue to rise. Both cigarette and electronic cigarette (e cigarette) use

damage the respiratory system [2–4], potentially increasing the risk of experiencing COVID 19–related symptoms, a positive diagnosis and exacerbated health outcomes [5]. A meta analysis of studies mostly in China found that smokers were at elevated risk of COVID 19 progression compared with non smokers [6]. Hospitalizations in the U.S. show that factors such as obesity, male sex, and older age are associated with COVID 19 [7]. Although youth are at relatively lower risk of contracting COVID 19 compared with older adults, given the proportion of youth using e cigarettes [8], youth e cigarette and cigarette use may pose an important risk factor for COVID 19.

Currently, there are no U.S. population based studies assessing the relationship between cigarette smoking, e cigarette use,

**Conflicts of interest:** None of the authors have any conflicting interests.

**Disclaimer:** The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Food and Drug Administration.

Clinical trials registry site and number: Not applicable to this cross-sectional survey study.

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and COVID 19–related outcomes. In the absence of information on smoking and e cigarette use history of youth diagnosed with COVID 19, we conducted a population level examination of whether youth cigarette and/or e cigarette use is associated with increased likelihood of experiencing COVID 19–related symptoms, being tested, and being diagnosed with COVID 19.

## Methods

We conducted a national cross sectional online survey of adolescents and young adults aged 13–24 years from May 6 to 14, 2020 in the U.S., using Qualtrics [9], a leading enterprise survey technology platform. Participants were recruited from Qualtrics' existing online panels using a survey Web link on gaming sites, social media, customer loyalty portals, and through website intercept recruitment. Qualtrics panels are widely used to conduct social/behavioral research [10]. The online survey took 15–20 minutes to complete. Through quota sampling, we recruited e cigarette ever users (50.2%) and nonusers (49.8%); and adolescents (aged 13–17; 33.7%), young adults (aged 18–20 years; 41.6%), and adults (aged 21–24 years; 24.7%), while balancing gender and race/ethnicity. This study was approved by the Institutional Review Board at Stanford University.

Multivariable logistic regression was conducted to assess associations of ever use and past 30 day use of cigarettes only, e cigarettes only, and dual use of e cigarettes and cigarettes with COVID 19 (self reported symptoms, testing, and positive diagnosis). The model used weights for age group; gender; lesbian, gay, bisexual, transgender, and questioning; race/ethnicity; and e cigarette ever use per U.S. population based data; accounted for clustering by region and state; and controlled for demographics, mother's education (as an indicator of socioeconomic status), body mass index (obesity as an underlying condition) [11,12], complying with county shelter in place orders and state percentage of COVID 19–positive cases [13]. All measures, percentages corresponding to weighted data in logistic regressions, and marginal population proportions used to calculate weight are included in [Supplementary Material](#). Missing values were treated as not missing completely at random for Taylor series variance estimation. Statistical significance was set at  $p < .05$ , and all tests were two tailed.

## Results

A total of 4,351 participants completed the online survey from 50 U.S. states, the District of Columbia, and three union territories. [Table 1](#) provides weighted sample characteristics. [Table 2](#) shows factors associated with COVID 19–related symptoms, getting a COVID 19 test and a positive COVID 19 diagnosis.

As shown in [Table 2](#), past 30 day dual users were 4.7 times more likely to experience COVID 19–related symptoms (95% confidence interval [CI]: 3.07–7.16). Experiencing such symptoms was nearly twice more likely among African American/black, Hispanic, other/multiracial, underweight, and obese participants; 1.8 times more likely among lesbian, gay, bisexual, transgender, and questioning youth; and 1.6 times more likely among those not complying with shelter in place.

Ever users of e cigarettes only were 3.3 times (95% CI: 1.77–5.94), ever dual users were 3.6 times (95% CI: 1.96–6.54), and ever users of cigarettes only were 3.9 times (95% CI: 1.43–10.86) more likely to get COVID 19 tested. Past 30 day dual users were nine times (95% CI: 5.43–15.47) and past 30 day e cigarette only

users were 2.6 times (95% CI: 1.33–4.87) more likely to get COVID 19 tested. Testing was 2–3 times more likely among male, African American/black, other/multiracial, and those who were underweight.

Ever dual users were seven times (95% CI: 1.98–24.55), ever users of e cigarettes only were five times (95% CI: 1.82–13.96), and past 30 day dual users were 6.8 times (95% CI: 2.40–19.55) more likely to be diagnosed with COVID 19. Sociodemographic factors associated with a positive COVID 19 diagnosis included being male, other/nonbinary gender, Hispanic, other/multiracial, and mother's completion of college or graduate level education. As a possible underlying risk factor for low immunity to COVID 19 among youth, being underweight was associated with 2.5 times greater risk of a positive COVID 19 diagnosis (95% CI: 1.05–6.20). In addition, being in a state with 11%–20% positive COVID 19 cases made a person nearly five times more likely to be diagnosed positive (95% CI: 1.19–21.39).

## Discussion

Our population based research provides timely evidence that youth using e cigarettes and dual users of e cigarettes and cigarettes are at greater risk of COVID 19. Given the predominance of e cigarette use among U.S. youth, our investigation informs public health concerns that the ongoing youth e cigarette epidemic contributes to the current COVID 19 pandemic. Surprisingly, exclusive ever use of combustible cigarettes was only associated with COVID 19–related testing, whereas both past 30 day use and ever use of e cigarettes and dual use were associated with COVID 19 testing and positive diagnosis.

There are a number of potential reasons why both dual use and e cigarette use were associated with getting infected with COVID 19. Heightened exposure to nicotine and other chemicals in e cigarettes adversely affects lung function [14], with studies showing that lung damage caused by e cigarettes is comparable to combustible cigarettes [4,15,16]. COVID 19 spreads through repeated touching of one's hands to the mouth and face, which is common among cigarette and e cigarette users [17]. Furthermore, sharing devices (although likely reduced while staying at home) is also a common practice among youth e cigarette users [18].

Our finding that some racial/ethnic groups, especially among African American, Hispanic, and multirace youth, are at higher risk for COVID 19 is supported by evidence of densely populated living conditions that make social distancing challenging, greater economic stress, and service industry work environments where working from home is less feasible and lower access to health care contribute to underlying health issues [19–21]. Both obesity and underweight conditions were associated with COVID 19 outcomes. Although at this point obesity is a more well established risk factor for COVID 19 [7], being underweight also impacts lung function [22–25], and therefore it is not surprising that it is also a risk factor for COVID 19. We also found that other/nonbinary gender was associated with COVID 19 testing and diagnosis, a population that has received little attention so far. The significant relationship between mother's college or graduate education and a positive COVID 19 diagnosis needs further investigation.

We adjusted our sample to be representative of the U.S. population and included confounders such as sex and race/ethnicity to provide conservative estimates of association. Based on recommendations for studies on smoking and

**Table 1**  
Participant characteristics (unweighted %) and COVID-19 related outcomes (weighted %) by never- and ever-e-cigarette users

	Participant characteristics <sup>a</sup> (unweighted)			COVID-19 related symptoms (weighted)		COVID-19 test (weighted)		COVID-19 positive diagnosis (weighted)	
	Sample (N)	Never-users (n 2,168)	E-cigarette users (n 2,183)	Never-users (n 2,168)	E-cigarette users (n 2,183)	Never-users (n 2,168)	E-cigarette users (n 2,183)	Never-users of e-cigarettes (n 2,168)	E-cigarette users (n 2,183)
Total	4,351	49.8	50.2	13.7	25.8	5.7	17.5	.8	2.3
Age									
Adolescents (13–17)	1,442	50.3	49.7	16.1	25.5	2.8	16.3	.1	1.2
Young adults (18–21)	1,810	49.3	50.7	13.4	23.5	7.2	16.1	1.0	3.1
Adults (22–24)	1,063	49.9	50.1	10.4	30.9	7.8	25.4	1.6	6.5
Sex									
Male	1,421	48.6	51.4	11.7	33.8	7.8	28.3	1.3	3.7
Female	2,832	50.4	49.6	15.5	17.4	3.8	6.1	.3	.9
Other <sup>b</sup>	71	51.5	48.5	18.0	21.7	6.0	21.7	.0	8.7
LGBTQ									
Yes	780	43.1	56.9	17.8	32.8	9.7	10.3	1.4	1.8
No	3,566	51.3	48.7	13.1	23.9	5.1	19.3	.7	2.5
Race/ethnicity									
White, non-Hispanic	2,611	57.5	42.5	11.4	15.8	4.4	10.3	.5	1.2
AA/black, non-Hispanic	602	46.5	53.5	21.2	42.3	11.5	29.6	1.8	1.2
Asian/Native Hawaiian or Pacific Islander, non-Hispanic	210	30.0	70.0	14.3	29.3	10.7	16.0	3.2	.8
Hispanic, non-AA/black	663	36.7	63.3	18.3	26.9	4.1	19.7	.8	3.3
Other/multiracial, non-Hispanic	265	30.6	69.4	9.1	54.6	17.3	37.5	.4	15.6
Complying with shelter-in-place									
Yes	3,463	50.7	49.3	19.1	39.5	9.2	30.8	2.3	4.3
No	709	43.5	56.5	12.6	22.9	5.4	14.7	.6	2.0
U.S. region									
Northeast	909	47.5	52.5	7.8	16.9	6.1	18.1	.6	2.4
Midwest	918	53.4	46.6	13.6	19.7	4.3	13.1	.3	4.1
South	1,505	48.1	51.9	14.3	27.7	5.3	16.9	.6	1.6
West	990	51.7	48.3	17.1	25.0	7.2	19.7	1.6	2.4
U.S. territories	11	27.3	72.7	.0	97.5	.0	35.9	.0	.0
BMI									
Underweight	350	38.9	61.1	29.40	40.37	22.90	47.69	2.00	12.85
Normal/healthy	2,939	50.9	49.1	15.12	20.16	5.29	15.99	.53	3.05
Overweight	615	53.5	46.5	7.80	20.09	8.06	11.42	1.25	1.95
Obese	381	48.1	51.9	17.45	49.56	3.74	18.88	1.06	3.47
Mother's highest level of education									
High school or below	998	49.0	51.0	19.59	25.2	8.07	16.12	.48	2.42
Started college	609	48.0	52.0	18.67	28.40	5.63	13.10	1.16	2.99
Completed college (2- or 4-y degree)	1,432	51.8	48.2	12.32	27.04	5.87	21.53	1.16	4.19
Graduate or professional degree (Masters, Ph.D., M.D., J.D., etc.)	885	48.0	52.0	14.86	31.15	10.87	26.57	.36	7.23
Don't know	410	51.2	48.8	12.02	22.10	1.50	18.87	.66	5.19

AA African American; BMI body mass index; COVID-19 coronavirus disease 2019; LGBTQ lesbian, gay, bisexual, transgender, and questioning.

<sup>a</sup> Unweighted percentages in observed sample.

<sup>b</sup> Other includes people whose sex is neither male or female, such people commonly describe themselves as non-binary or intersex.

**Table 2**  
Association between COVID-19 and use of inhaled tobacco products, adjusting for sociodemographic factors, weighted

	Ever-use of inhaled tobacco and...			Past 30-day use of inhaled tobacco and...		
	COVID-19 related symptoms (n 4,043)	COVID-19 test (n 4,048)	COVID-19 positive diagnosis (n 4,048)	COVID-19 related symptoms (n 4,043)	COVID-19 test (n 4,048)	COVID-19 positive diagnosis (n 4,048)
	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)
<b>Inhaled tobacco products</b>						
Cigarettes only	1.40 (.83, 2.38)	<b>3.94 (1.43, 10.86)</b>	2.32 (.34, 15.86)	1.15 (.58, 2.27)	1.16 (.64, 2.12)	1.53 (.29, 8.14)
E-cigarettes only	1.18 (.80, 1.73)	<b>3.25 (1.77, 5.94)</b>	<b>5.05 (1.82, 13.96)</b>	1.43 (.84, 2.43)	<b>2.55 (1.33, 4.87)</b>	1.91 (.77, 4.73)
Dual use	1.36 (.90, 2.04)	<b>3.58 (1.96, 6.54)</b>	<b>6.97 (1.98, 24.55)</b>	<b>4.69 (3.07, 7.16)</b>	<b>9.16 (5.43, 15.47)</b>	<b>6.84 (2.40, 19.55)</b>
Never used	Ref	Ref	Ref	Ref	Ref	Ref
<b>Age</b>						
Adolescents (13–17)	.85 (.59, 1.23)	<b>.43 (.24, .78)</b>	.64 (.18, 2.30)	1.11 (.73, 1.68)	<b>.54 (.30, .97)</b>	.81 (.22, 2.96)
Young adults (18–21)	.79 (.50, 1.24)	<b>.58 (.32, 1.07)</b>	.52 (.22, 1.22)	.91 (.57, 1.44)	<b>.66 (.36, 1.21)</b>	.63 (.26, 1.54)
Adults (22–24)	Ref	Ref	Ref	Ref	Ref	Ref
<b>Sex</b>						
Male	1.34 (.95, 1.89)	<b>2.58 (1.70, 3.93)</b>	<b>4.75 (2.37, 9.50)</b>	1.15 (.82, 1.62)	<b>2.11 (1.33, 3.35)</b>	<b>3.65 (1.86, 7.15)</b>
Other	1.13 (.37, 3.42)	<b>2.92 (.98, 8.70)</b>	<b>6.38 (1.45, 28.03)</b>	1.19 (.38, 3.76)	<b>3.10 (.90, 10.71)</b>	<b>7.20 (1.49, 34.87)</b>
Female	Ref	Ref	Ref	Ref	Ref	Ref
<b>LGBTQ</b>						
Yes	<b>1.81 (1.04, 3.13)</b>	.78 (.52, 1.19)	.95 (.40, 2.23)	1.69 (.98, 2.90)	.71 (.43, 1.18)	.95 (.38, 2.39)
No	Ref	Ref	Ref	Ref	Ref	Ref
<b>Race/ethnicity</b>						
AA/black, non-Hispanic	<b>2.06 (1.22, 3.50)</b>	<b>1.87 (1.05, 3.34)</b>	1.18 (.45, 3.08)	<b>2.13 (1.32, 3.46)</b>	<b>1.97 (1.17, 3.33)</b>	1.18 (.51, 2.72)
Asian/Native Hawaiian or Pacific Islander, non-Hispanic	1.92 (.93, 3.98)	1.24 (.47, 3.28)	<b>.08 (.01, .49)</b>	1.89 (.98, 3.66)	1.26 (.47, 3.35)	<b>.10 (.02, .51)</b>
Hispanic, non-AA/black	<b>2.01 (1.28, 3.18)</b>	1.76 (.93, 3.33)	<b>2.84 (1.18, 6.87)</b>	<b>1.98 (1.30, 3.02)</b>	1.77 (.98, 3.21)	<b>2.97 (1.15, 7.71)</b>
Other/multiracial, non-Hispanic	<b>1.89 (1.16, 3.08)</b>	<b>2.74 (1.43, 5.25)</b>	<b>3.88 (1.27, 11.85)</b>	1.69 (.99, 2.88)	<b>2.57 (1.23, 5.35)</b>	<b>3.71 (1.14, 12.02)</b>
White, non-Hispanic	Ref	Ref	Ref	Ref	Ref	Ref
<b>Complying with shelter-in-place</b>						
No	<b>1.54 (1.02, 2.34)</b>	.74 (.45, 1.22)	1.00 (.47, 2.13)	<b>1.62 (1.04, 2.51)</b>	.83 (.54, 1.26)	1.22 (.51, 2.95)
Yes	Ref	Ref	Ref	Ref	Ref	Ref
<b>State % of COVID-19 positive cases</b>						
21–30	.75 (.33, 1.70)	.94 (.17, 5.05)	4.07 (.84, 19.80)	.69 (.31, 1.54)	.85 (.19, 3.70)	3.54 (.70, 18.00)
11–20	1.29 (.56, 2.99)	1.16 (.21, 6.47)	4.91 (.90, 26.77)	1.30 (.58, 2.90)	1.26 (.28, 5.65)	<b>5.05 (1.19, 21.39)</b>
6–10	1.05 (.46, 2.38)	1.16 (.21, 6.27)	4.27 (.67, 27.34)	.93 (.41, 2.07)	.96 (.22, 4.18)	3.96 (.98, 16.01)
0–5	Ref	Ref	Ref	Ref	Ref	Ref
<b>Body mass index</b>						
Underweight	<b>2.50 (1.50, 4.20)</b>	<b>2.90 (1.63, 5.18)</b>	<b>2.56 (1.05, 6.20)</b>	<b>1.92 (1.05, 3.51)</b>	<b>2.12 (1.19, 3.77)</b>	1.95 (.82, 4.64)
Overweight	<b>.69 (.50, .95)</b>	.57 (.31, 1.03)	.65 (.24, 1.72)	.77 (.56, 1.06)	.74 (.38, 1.45)	.79 (.32, 1.96)
Obese	<b>2.19 (1.37, 3.51)</b>	.90 (.48, 1.71)	1.40 (.53, 3.71)	<b>1.87 (1.14, 3.01)</b>	.53 (.28, 1.02)	.90 (.31, 2.66)
Normal/healthy	Ref	Ref	Ref	Ref	Ref	Ref
<b>Mother's highest level of education completed</b>						
Started college	1.13 (.71, 1.80)	.76 (.39, 1.47)	1.61 (.65, 4.04)	1.06 (.67, 1.68)	.65 (.29, 1.45)	1.37 (.52, 3.60)
Completed college (2 or 4 year degree)	.97 (.57, 1.66)	1.06 (.62, 1.81)	<b>2.10 (1.08, 4.11)</b>	.93 (.54, 1.60)	.97 (.59, 1.61)	1.84 (.91, 3.75)
Graduate or professional degree (Masters, Ph.D., M.D., J.D., etc.)	1.29 (.78, 2.14)	1.83 (.98, 3.42)	<b>3.28 (1.20, 8.93)</b>	1.11 (.66, 1.68)	1.43 (.75, 2.70)	2.33 (.87, 6.22)
Don't know	.79 (.38, 1.65)	.83 (.40, 1.73)	2.42 (.55, 10.69)	.88 (.43, 1.81)	1.03 (.49, 2.18)	2.72 (.64, 11.60)
High school or below	Ref	Ref	Ref	Ref	Ref	Ref

Bold indicates  $p < .05$ ; adjusted for state- and region-level clustering effects.

COVID-19 = coronavirus disease 2019; CI = confidence interval; LGBTQ = lesbian, gay, bisexual, transgender, and questioning; Ref = reference.

COVID 19 [26], our study adjusted for obesity, which we found was also an underlying risk factor among 13 to 24 year olds. However, we did not include or adjust for other comorbid conditions such as hypertension due to low prevalence among 13 to 24 year olds [27]. Furthermore, we did not ask participants about hospitalization or severity of symptoms and cannot ascertain asymptomatic respondents. We recommend biomarker based studies to determine causality, as this study is based on self report.

## Conclusion

Our findings from a national sample of adolescents and young adults show that e cigarette use and dual use of e cigarettes and cigarettes are significant underlying risk factors for COVID 19 that has previously not been shown. The findings have direct implications for health care providers to ask all youth and COVID 19–infected youth about cigarette and e cigarette use history; for parents, schools, and community based organizations to guide youth to learn more about how e cigarettes and dual use affect the respiratory and immune systems; for the Food and Drug Administration to effectively regulate e cigarettes during the COVID 19 pandemic; and for the development and dissemination of youth focused COVID 19 prevention messaging to include e cigarette and dual use.

## Funding Sources

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## Supplementary Data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jadohealth.2020.07.002>.

## References

- [1] U.S. Centers for Disease Control and Prevention. Cases in the US. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html>. Accessed June 2, 2020.
- [2] Wills TA, Pagano I, Williams RJ, Tam EK. E-cigarette use and respiratory disorder in an adult sample. *Drug Alcohol Depend* 2019;194:363–70.
- [3] McConnell R, Barrington-Trimis JL, Wang K, et al. Electronic cigarette use and respiratory symptoms in adolescents. *Am J Respir Crit Care Med* 2017; 195:1043–9.
- [4] Ghosh A, Coakley RD, Ghio AJ, et al. Chronic e-cigarette use increases neutrophil elastase and matrix metalloprotease levels in the lung. *Am J Respir Crit Care Med* 2019;200:1392–401.
- [5] National Institute of Drug Abuse. COVID-19: Potential implications for individuals with substance use disorders. Available at: <https://www.drugabuse.gov/about-nida/noras-blog/2020/04/covid-19-potential-implications-in-dividuals-substance-use-disorders>. Accessed May 20, 2020.
- [6] Patanavanich R, Glantz SA. Smoking is associated with COVID-19 progression: A meta-analysis. *Nicotine Tob Res* 2020:ntaa082.
- [7] Garg S, Kim L, Whitaker M, et al. Hospitalization rates and characteristics of patients hospitalized with laboratory-confirmed coronavirus disease 2019 COVID-NET, 14 states, March 1–30, 2020. *Morb Mortal Wkly Rep* 2020;69:458–64.
- [8] Cullen KA, Gentzke AS, Sawdey MD, et al. E-cigarette use among youth in the United States, 2019. *JAMA* 2019;322:2095–103.
- [9] Qualtrics. Qualtrics. Provo, UT: Qualtrics; 2005.
- [10] Qualtrics. Qualtrics (2014) Esomar 28: 28 questions to help research buyers of online samples. Available at: <https://success.qualtrics.com/rs/qualtrics/images/ESOMAR%2028%202014.pdf>. Accessed July 1, 2020.
- [11] Centers for Disease Control and Prevention. Defining childhood obesity. Available at: <https://www.cdc.gov/obesity/childhood/defining.html>. Accessed June 11, 2020.
- [12] Centers for Disease Control and Prevention. How is BMI interpreted for adults? Available at: [https://www.cdc.gov/healthyweight/assessing/bmi/adult\\_bmi/index.html#InterpretedAdults](https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html#InterpretedAdults). Accessed June 11, 2020.
- [13] Centers for Disease Control and Prevention. CDC COVID data tracker. Available at: <https://www.cdc.gov/covid-data-tracker/>. Accessed May 29, 2020.
- [14] Hamberger ES, Halpern-Felsher B. Vaping in adolescents: Epidemiology and respiratory harm. *Curr Opin Pediatr* 2020;32:378–83.
- [15] Reinikovaite V, Rodriguez IE, Karoor V, et al. The effects of electronic cigarette vapour on the lung: Direct comparison to tobacco smoke. *Eur Respir J* 2018;51:1701661.
- [16] Reidel B, Radicioni G, Clapp PW, et al. E-cigarette use causes a unique innate immune response in the lung, involving increased neutrophilic activation and altered mucin secretion. *Am J Respir Crit Care Med* 2018; 197:492–501.
- [17] Berlin I, Thomas D, Le Faou AL, et al. COVID-19 and smoking. *Nicotine Tob Res* 2020:ntaa059.
- [18] McKelvey K, Halpern-Felsher B. How and why California young adults are using different brands of pod-type electronic cigarettes in 2019: Implications for researchers and regulators. *J Adolesc Health* 2020;67: 46–52.
- [19] Hooper MW, Nápoles AM, Pérez-Stable EJ. COVID-19 and racial/ethnic disparities. *JAMA* 2020. <https://doi.org/10.1001/jama.2020.8598>.
- [20] Centers for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19): Racial & minority groups. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>. Accessed June 18, 2020.
- [21] Laurencin CT, McClinton A. The COVID-19 pandemic: A call to action to identify and address racial and ethnic disparities. *J Racial Ethn Health Disparities* 2020;7:398–402.
- [22] Davidson WJ, Mackenzie-Rife KA, Witmans MB, et al. Obesity negatively impacts lung function in children and adolescents. *Pediatr Pulmonol* 2014; 49:1003–10.
- [23] Azad A, Zamani A. Lean body mass can predict lung function in underweight and normal weight sedentary female young adults. *Tanaffos* 2014; 13:20–6.
- [24] Cvijetic S, Pipinic IS, Varnai VM, et al. Relationship between ultrasound bone parameters, lung function, and body mass index in healthy student population. *Arh Hig Rada Toksikol* 2017;68:53–8.
- [25] Do JG, Park CH, Lee YT, Yoon KJ. Association between underweight and pulmonary function in 282,135 healthy adults: A cross-sectional study in Korean population. *Sci Rep* 2019;9:1–10.
- [26] van Zyl-Smit RN, Richards G, Leone FT. Tobacco smoking and COVID-19 infection. *Lancet Respir Med* 2020;8:664–5.
- [27] Bell CS, Samuel JP, Samuels JA. Prevalence of hypertension in children: Applying the new American Academy of Pediatrics clinical practice guideline. *Hypertension* 2019;73:148–52.

# Letter of Support for 9/28 City of San Jose City Council Meeting - Tobacco Flavor Ban

Juan Ednalino <jednalino@sccoe.org>

Tue 9/28/2021 8:53 AM

To: Agendadesk <Agendadesk@sanjoseca.gov>

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To whom it may concern,

Please see two letters attached on behalf of the Santa Clara County Office of Education (SCCOE) and the youth led, Peer Advocate Advisory Council (PAAC) for the support of the Tobacco Flavor Ban (Amendment to Chapter 6.87).

Please reach out for any questions.

Best regards,



**Juan Ednalino IV**  
**School Climate Specialist**  
 School Climate, Leadership, & Instructional Services Department  
 Professional Learning & Instructional Support Division  
 Santa Clara County Office of Education  
 1290 Ridder Park Drive MC 221  
 San Jose, CA 95131-2304  
[jednalino@sccoe.org](mailto:jednalino@sccoe.org)  
 Pronouns – he | him | his  
 Restorative – Individualization- Input – Relator - Intellection

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## Santa Clara County Office of Education

Mary Ann Dewan, Ph.D.  
County Superintendent of Schools

September 28, 2021

San José City Council  
200 E. Santa Clara St.  
San José, CA 95113

Dear Council Members Jimenez, Peralez, Cohen, Carrasco, Davis, Esparza, Arenas, Foley, and Mahan,

Santa Clara County Office of Education (SCCOE) supports the development of an ordinance to strengthen the tobacco retailer licensing law and restrict flavored tobacco products in the City of San José. We applaud the efforts of San José in taking the necessary steps to protect youth from nicotine addiction and the dangerous health risks associated with electronic cigarettes, also known as “vapes”.

SCCOE strongly encourages the City of San José to take action on the existing tobacco retailer licensing policy by voting to ban ALL flavored tobacco products, including menthol, restrict the density of tobacco retailers near schools and create strong enforcement provisions. These key laws will protect San José youth.

Tobacco companies use candy-flavored products to hook kids into nicotine addiction. Most youth who use tobacco started with a flavored product. These products are sleek, appealing and often mimic popular candies, drinks, or snacks in both packaging and flavors, making them attractive to youth. In Santa Clara County, 82.3% of teens currently using tobacco reported using a flavored product. Eight in ten San José tobacco retailers sell fruit or sweet flavored tobacco products. More alarming, 45.4% of teens in Santa Clara County reported purchasing their own e-cigarettes, with over a quarter of this group saying they buy them directly from a local store. Brain development continues until the age of 25 and nicotine negatively impacts parts of the brain responsible for attention, learning, and memory.

There is growing evidence that smokers are at a greater risk of hospitalization and severe illness due to COVID-19. In addition, vaping harms lung health and puts them at greater risk for coronavirus.

It is crucial that action be taken by the City of San José. As a community, we have the responsibility to keep youth safe from these harmful tobacco and vape products. We advocate to ban ALL flavored tobacco products in all San José locations, restrict e-cigarette and vape product sales, restrict the density of tobacco retailers near schools, and eliminate the adult-only store exemption.

Sincerely,

DocuSigned by:

Mary Ann Dewan, Ph.D.

County Superintendent of Schools



# Santa Clara County Office of Education

Mary Ann Dewan, Ph.D.  
County Superintendent of Schools

San Jose City Council  
200 E. Santa Clara St.  
San José, CA 95113

September 28, 2021

Dear Council Members Jimenez, Peralez, Cohen, Carrasco, Davis, Esparza, Arenas, Foley, and Mahan,

We are the Peer Advocate Advisory Council (PAAC), a youth branch of the Tobacco Use Prevention Education program (TUPE) at the Santa Clara County Office of Education, that is made up of 20 student leaders who are passionate about leading tobacco and vaping prevention efforts to protect our peers in Santa Clara County (SCC) from the harmful effects of addiction. We are submitting this letter of support from the Peer Advocate Advisory Council's to urge the City of San Jose to eliminate flavors from retail stores in San Jose and limit the tobacco, and alcohol stores near schools.

As young people, we have seen the harmful implications of tobacco/nicotine use at the ground level, in our schools, in our neighborhoods, and by our friends. The variety of flavors available in San Jose stores that are found in vapes is a major contributing factor to the severity of the issues contributing to youth substance abuse and addiction. In fact, according to the Santa Clara County Public Health Department, approximately 82.3% of youth reported using flavored vapes. They go on to report that 1 in 4 Santa Clara County teens have used a vape at least once and 3 in 5 SCC teens have purchased their own e-cigarette or vape. We find these statistics very alarming and dangerous.

Through this letter, the Peer Advocate Advisory Council (PAAC), would like to emphasize the role that flavors play in the continuously and rapidly growing tobacco and vape use among our peers. It is our belief that if we ban flavored e-cigarettes, vapes, and other electronic nicotine delivery systems from stores, a dramatic drop in youth vape use may also be observed.

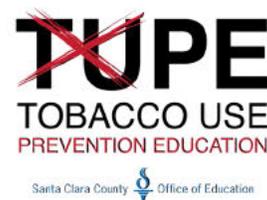
This is a very serious issue for our generation. We believe that banning flavored vapes, including menthol, is a necessary step to protecting young people and will contribute to the good of the whole San Jose community.

We look forward to supporting and contributing to the San Jose government's ongoing efforts to protect youth and eliminate youth addiction.

Sincerely,

### The Peer Advocate Advisory Council (PAAC)

**Aarushi** (10th grade, Milpitas High School), **Amber** (12th grade, Evergreen Valley High School) **Carlo** (10th grade, Leland High School), **Chien-Chih** (10th grade, Evergreen Valley High School), **Christopher** (11th grade, Leigh High School), **Zero** (9th grade, Ann Sobrato High School), **Dhyuti** (12th grade, Evergreen Valley High School), **Ethan** (9th grade, Cupertino High School), **Grace** (9th grade, Cupertino High School), **Ira** (11th grade, Evergreen Valley High School), **Kelly** (10th grade, Evergreen Valley High School), **Krish** (10th grade, Leland High School), **Maggie** (11th grade, Branham High School), **Nicholas** (12th grade, Evergreen Valley High School), **Nihal** (12th grade, Evergreen Valley High School), **Paarth** (10th grade, Milpitas High School), **Paniz** (11th grade, Westmont High School), **Taylor** (12th grade, Evergreen Valley High School), **Trisha** (12th grade, Evergreen Valley High School), **Willie** (12th grade, Westmont High School).



County Board of Education: Victoria Chon, Joseph Di Salvo, Rosemary Kamei, Grace H. Mah, Peter Ortiz, Claudia Rossi, Tara Sreerishnan  
1290 Ridder Park Drive, San José, CA 95131-2304 (408) 453-6500 [www.sccoe.org](http://www.sccoe.org)

Transforming Education through Leadership, Service, and Advocacy

# End the sale of all flavored tobacco products, no exemptions

Jen Grand-Lejano <[REDACTED]>

Tue 9/28/2021 9:47 AM

To: Agendadesk <Agendadesk@sanjoseca.gov>; Liccardo, Sam <sam.liccardo@sanjoseca.gov>; Jones, Chappie <Chappie.Jones@sanjoseca.gov>; Jimenez, Sergio <sergio.jimenez@sanjoseca.gov>; Peralez, Raul <Raul.Peralez@sanjoseca.gov>; Cohen, David <David.Cohen@sanjoseca.gov>; Carrasco, Magdalena <Magdalena.Carrasco@sanjoseca.gov>; Davis, Dev <dev.davis@sanjoseca.gov>; Esparza, Maya <Maya.Esparza@sanjoseca.gov>; Arenas, Sylvia <sylvia.arenas@sanjoseca.gov>; Foley, Pam <Pam.Foley@sanjoseca.gov>; Mahan, Matt <Matt.Mahan@sanjoseca.gov>

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Dear Mayor Liccardo and San Jose City Councilmembers,

Thank you for taking important steps to bring the issue of flavored tobacco before council today. We urge you to remove the current exemptions for flavored shisha, cigars, and loose leaf tobacco, strengthen enforcement, and remove license transferability. The current definitions of flavored tobacco and tobacco product may present legal challenges due to federal preemption issues. I've attached sample flavored tobacco language that is more legally defensible and models best practice in the Bay Area. See attached letter for supporting information and policy recommendations we urge you to consider in order to realize the intent of this ordinance to protect youth from tobacco.

**Jen Grand-Lejano**

Government Relations Director, CA - Northern California

[REDACTED]

American Cancer Society Cancer Action Network, Inc.  
1001 Marina Village Parkway Suite 300  
Alameda, CA 94501  
[fightcancer.org](http://fightcancer.org) | 1.800.227.2345



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September 28, 2021



The Honorable Sam Liccardo  
Members of the San José City Council  
200 E. Santa Clara St.  
San Jose, Ca 95113

Dear Mayor Liccardo and Members of the San José City Council:

The American Cancer Society Cancer Action Network's (ACS CAN) mission is to end suffering and death from cancer, and we are committed to continuing that mission in the City of San José. We are deeply concerned about the availability of flavored tobacco products, which is contributing to the growing epidemic that is plaguing our communities here in Northern California and nationwide. Thank you for considering a policy to protect the health of our youth and communities of color. We urge you to adopt a comprehensive tobacco retailer licensing (TRL) policy to end the sale of all flavored tobacco products, including menthol cigarettes, and remove the proposed exemptions for flavored shisha, cigars, and loose leaf tobacco. We also ask that you allow no new tobacco retailers to locate within 1000 feet youth areas, and limit the number of tobacco retailers as proposed, and remove license transferability so that over time tobacco marketing near youth areas is reduced. Together with strengthened enforcement protocols, these provisions go far to protect the lives of our young people and communities of color from the predatory marketing of the tobacco industry. A model TRL enforces tobacco retail, not personal use, purchase or possession, and we applaud staff for emphasizing that the ordinance is in no way intended to penalize the community.

The proposed ordinance ends the sale of certain flavored tobacco products, which is a good first step but falls short of best practice in the Bay Area. **It is vital to remove the proposed exemptions for flavored hookah, premium cigars and loose leaf tobacco, and ensure no exemption is added for menthol.** Four out of five youth who have ever used a tobacco product started with a flavored tobacco product, and when asked why, say because they come in flavors they like. A recent study concluded that youth who use e-cigarettes are more than four times more likely to try cigarettes. The Tobacco Industry knows flavors hook new users, any exempted product will become the "go to" flavored tobacco product for youth.

It is imperative to include menthol cigarettes, flavored shisha, other flavored tobacco, including cigars and flavored e-cigarettes in a policy that aims to address the epidemic of youth tobacco use. Young people who smoke menthol cigarettes are disproportionately African American, Asian American, LGBT and from low-income communities already significantly impacted by tobacco-related disease. A recent California study found that menthol cigarettes were marketed more heavily and sold more cheaply in Black neighborhoods. Ending the sale of all flavored tobacco products, including menthol cigarettes, removes much of the allure of these products and is a key component of a comprehensive strategy to effectively help reduce tobacco initiation and subsequent addiction.

ACS CAN recommends establishing a definition for "Flavored Tobacco Product" and simply prohibiting the sale of flavored tobacco products in the policy. We recommend specific language changes to ensure the ordinance is better protected from litigation. Current Language opens this policy up to possible legal

challenges. See attached sample flavors and language provides an example of more defensible language, including a definition of “flavored tobacco product” that avoids getting into what goes into the product and how it’s made. We also recommend striking the current definition of “Tobacco Product” and instead using the language in the attached sample flavor language.

The proposed ordinance allows for the transfer of the TRL upon sale of business. However, the City is also proposing to reduce tobacco retailer density and proximity, which have been correlated with adolescent lifetime smoking. Tobacco retail establishments are often clustered in communities most affected by tobacco-related disease. Removing transferability language is critical to accomplishing the City’s goal of reducing youth exposure to tobacco retail businesses and marketing near schools and youth sensitive areas.

By not allowing any new retailers to locate near youth areas, youth exposure to tobacco product marketing decreases. Research shows that when tobacco retailers are located near schools, youth experimentation with tobacco products goes up. The tobacco industry pours millions of dollars a day into in-store marketing because they know it works. For this reason, we also encourage you to limit tobacco retailer licenses.

We recommend a tobacco retailer license with fees to fund enforcement of existing and new tobacco laws, and escalating penalties for retailers with repeat violations be codified in the ordinance. Currently, enforcement protocols are part of the City’s TRL program which you can find online, but are not part of the ordinance, which makes retailer education and compliance difficult. Additionally, we’ve learned from experience that exempting adult-only stores is problematic and weakens what could be a strong policy. All places where tobacco can be purchased, including adult-only tobacco shops, should be required to have a TRL. Research shows that smoke shops have higher rates of sales to minors. Smoke shops should not be exempted from a TRL.

The City Council needs to make the health of San José youth a priority and join our neighbors in the 100+ communities throughout California who have adopted strong policies to end the sale of all flavored tobacco products, including Santa Clara County, Oakland, and San Francisco. We urge you to end the sale of all flavored tobacco products citywide, including menthol cigarettes, flavored shisha, flavored cigars, flavored e-cigarettes, and other flavored tobacco products without exemption, strengthen enforcement protocol, limit retailer location and remove license transferability.

Sincerely,



Jen Grand-Lejano  
Government Relations Director, Northern California  
American Cancer Society Cancer Action Network

# COMPREHENSIVE TOBACCO RETAILER LICENSING ORDINANCE

## Introduction

This Comprehensive Tobacco Retailer Licensing Ordinance was prepared to assist California cities and counties interested in establishing or strengthening a local tobacco retailer licensing (“TRL”) program and further regulating the tobacco retail environment. Communities adopt TRL laws to ensure compliance with local business standards, reduce youth access to tobacco products, limit the negative public health and equity impacts associated with tobacco use, and enforce local, state, and federal tobacco control laws.

The Public Health Law Center revised and updated this 2020 model ordinance, which was originally developed by ChangeLab Solutions and released in 2018. The Center acknowledges the excellent work done by ChangeLab Solutions in creating the original ordinance. This revised model ordinance takes a comprehensive approach to regulating the sale of tobacco products and the tobacco retail environment. It builds on core provisions such



as requiring a local tobacco retailer license by incorporating several innovative policy options. It also reflects changes to state and federal tobacco control laws such as Tobacco 21 and the federal Food and Drug Administration’s (“FDA”) Deeming Rule that expands the FDA’s regulatory

authority to all tobacco products. The model ordinance offers cities and counties a variety of options to tailor this policy to meet the needs of their communities.\*

The model ordinance is based on an independent and objective analysis of the relevant law, evidence, and available data. Readers should consider all the evidence and decide for themselves which approach is appropriate for their local jurisdiction.

## Customizing the Ordinance

Context boxes are included throughout the ordinance to explain some key provisions. These boxes are not meant to be included in any final ordinance. A city wishing to adopt all or part of this ordinance should keep this in mind and remove the context boxes.

In some instances, blanks (such as [ \_\_\_\_\_ ] ) prompt you to customize the language to fit your community's needs. In other instances, the ordinance offers you a choice of options (such as [ choice one/choice two ]). Some options are followed by a comment that describes the legal provisions in more detail. A degree of customization is always necessary to make sure the ordinance is consistent with a community's existing laws. Such customization also ensures that communities are using this model ordinance to address local needs and engender health equity.

## Tips for Using This Model Ordinance

The best possible world is one without the death and health harms associated with commercial tobacco use.<sup>†</sup> Communities differ on their readiness and willingness to adopt certain tobacco control policies that are intended to help make that world a reality. Accordingly, this model ordinance represents a balance between state and federal minimum standards, best public health policy practices, and practicality for city governments in California. This model ordinance contains several policy components that communities may or may not choose to adopt at this time that may go beyond minimum state and federal requirements.

\* This model ordinance uses "community" as shorthand for a group of people who will be impacted, either directly or indirectly, by a proposed changemaking strategy. People in a community (1) are in a particular geographic area, like a neighborhood or jurisdiction, and/or (2) share a common identity or characteristic.

† The Public Health Law Center recognizes that traditional and commercial tobacco are different in the ways they are planted, grown, harvested, and used. Traditional tobacco is and has been used in sacred ways by Indigenous communities and tribes for centuries. Comparatively, commercial tobacco is manufactured with chemical additives for recreational use and profit, resulting in disease and death. For more information, visit: <http://www.keepitsacred.itcml.org>. When the word "tobacco" is used throughout this document, a commercial context is implied and intended.

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While the Public Health Law Center does not lobby, advocate, or directly represent communities, we can provide assistance through our publications and referrals to experts in the field. Education, stakeholder and community engagement, and a strong advocacy plan are key steps in the adoption of effective tobacco control policies. If a community is unaware of the resources available to it for engaging the community and developing an advocacy plan, or if a city is considering adopting an ordinance and is interested in learning about the range of resources available, please contact the Public Health Law Center. If you have any questions about this ordinance, you can reach us at [www.publichealthlawcenter.org](http://www.publichealthlawcenter.org).

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This publication was prepared by the Public Health Law Center, a nonprofit organization that provides information and legal technical assistance on issues related to public health. The Center does not provide legal representation or advice. The information in this document should not be considered legal advice. This model ordinance was made possible by funds received from Grant Number 19-10229 with the California Department of Public Health, California Tobacco Control Program, and the American Lung Association in California.

AN ORDINANCE OF THE [ city/county ] OF  
[ insert jurisdiction name ] REGULATING TOBACCO PRODUCT  
SALES, REQUIRING THE LICENSURE OF TOBACCO RETAILERS, AND  
AMENDING THE [ Insert Jurisdiction Name ] MUNICIPAL CODE

The [ city council of the city/board of supervisors of the county ] of [ insert jurisdiction name ]  
does ordain as follows:

**Note**

This is introductory boilerplate language that should be adapted to the conventional form used in the jurisdiction.

SECTION I. [ See Appendix A: Findings ]

**Note**

The findings section is part of the ordinance and legislative record, but it usually does not become codified in the municipal code. An ordinance based on this model ordinance should include findings of fact — data, statistics, relevant epidemiological information, for instance — that support the purposes of this ordinance, as well as any legal precedent that directly supports the ordinance. In addition to serving an educational purpose and building support for the ordinance, the findings can also serve a legal purpose. If the ordinance is challenged in court, the findings are an admissible record of the factual determinations made by the legislative body when considering the ordinance. Courts will generally defer to legislative determinations of factual issues, which often influence legal conclusions. A list of findings supporting this model ordinance appears in “Appendix A: Findings.” Jurisdictions may select findings from that list to insert here, along with additional findings on local or regional conditions, outcomes, and issues that help make the case for the law.

SECTION II. [ article/section ] of the County/City Code is hereby amended to read as follows:

Sec. [ \_\_\_\_ (\*1) ]. **DEFINITIONS.** The following words and phrases, whenever used in this [ article/chapter ], shall have the meanings defined in this section unless the context clearly requires otherwise:

- (A) “Arm’s Length Transaction” means a sale in good faith and for valuable consideration that reflects the fair market value between two informed and willing parties, neither of which is under any compulsion to participate in the transaction.
- (B) “Cannabis” has the meaning set forth in California Business and Professions Code Section 26001, as that section may be amended from time to time.
- (C) “Cannabis Product” has the meaning set forth in California Business and Professions Code Section 26001, as that section may be amended from time to time.
- (D) “Cannabis Retailer” means any retail establishment in which cannabis or cannabis products are sold or offered for sale to persons that do not hold a license to engage in commercial cannabis activity issued by the State of California in accordance with the Business and Professions Code Section 26000 et seq., as that section may be amended from time to time.
- (E) “Child-Resistant Packaging” means packaging that meets the definition set forth in Code of Federal Regulations, title 16, section 1700.15(b), as in effect on January 1, 2015, and was tested in accordance with the method described in Code of Federal Regulations, title 16, section 1700.20, as in effect on January 1, 2015.
- (F) “Cigar” means any roll of tobacco other than a cigarette wrapped entirely or in part in tobacco or any substance containing tobacco and weighing more than 4.5 pounds per thousand.
- (G) “Cigarette” means: (1) any roll of tobacco wrapped in paper or in any substance not containing tobacco; and (2) any roll of tobacco wrapped in any substance containing tobacco which, because of its appearance, the type of tobacco used in the filler, or its packaging and labeling, is likely to be offered to, or purchased by, consumers as a cigarette described herein.
- (H) “Compliance checks” means systems the department uses to investigate and ensure that tobacco retailers are following and complying with the requirements of this [ article/ chapter ]. Compliance checks may involve the use of persons between the ages of 18 and 20 who purchase or attempt to purchase tobacco products. Compliance checks may also be conducted by the department or other units of government for educational, research, and training purposes or for investigating or enforcing federal, state, or local laws and regulations relating to tobacco products.
- (I) “Coupon” means any voucher, rebate, card, paper, note, form, statement, ticket, image, or other issue, whether in paper, digital, or other form, used for commercial purposes to obtain an article, product, service, or accommodation without charge or at a discounted price.

- (J) “Delivery sale” means the sale of any tobacco product to any person for personal consumption and not for resale when the sale is conducted by any means other than an in-person, over-the-counter sales transaction in a tobacco retail establishment. Delivery sale includes the sale of any tobacco product when the sale is conducted by telephone, other voice transmission, mail, the internet, or app-based service. Delivery sale includes delivery by licensees or third parties by any means, including curbside pick-up.
- (K) “Department” means [ insert department name ] and any agency or person designated by the Department to enforce or administer the provisions of this [ article/chapter ].
- (L) “Electronic smoking device” means any device that may be used to deliver any aerosolized or vaporized substance to the person inhaling from the device, including, but not limited to, an e-cigarette, e-cigar, e-pipe, vape pen, or e-hookah. Electronic smoking device includes any component, part, or accessory of the device, and also includes any substance that may be aerosolized or vaporized by such device, whether or not the substance contains nicotine. Electronic smoking device does not include drugs, devices, or combination products authorized for sale by the U.S. Food and Drug Administration, as those terms are defined in the Federal Food, Drug, and Cosmetic Act.
- (M) “Flavored Tobacco Product” means any tobacco product that contains a taste or smell, other than the taste or smell of tobacco, that is distinguishable by an ordinary consumer either prior to, or during the consumption of, a tobacco product, including, but not limited to, any taste or smell relating to fruit, menthol, mint, wintergreen, chocolate, cocoa, vanilla, honey, molasses, or any candy, dessert, alcoholic beverage, herb, or spice.
- (N) “Full Retail Price” means the price listed for a tobacco product on its packaging or on any related shelving, advertising, or display where the tobacco product is sold or offered for sale, plus all applicable taxes and fees if such taxes and fees are not included in the listed price.
- (O) “Little Cigar” means any roll of tobacco other than a cigarette wrapped entirely or in part in tobacco or any substance containing tobacco and weighing no more than 4.5 pounds per thousand. “Little Cigar” includes, but is not limited to, tobacco products known or labeled as small cigar, little cigar, or cigarillo.
- (P) “Manufacturer” means any person, including any repacker or relabeler, who manufactures, fabricates, assembles, processes, or labels a tobacco product; or imports a finished tobacco product for sale or distribution into the United States.
- (Q) “Moveable place of business” means any form of business that is operated out of a kiosk, truck, van, automobile or other type of vehicle or transportable shelter and not a fixed address store front or other permanent type of structure authorized for sales transactions.

- (R) "Person" means any natural person, partnership, cooperative association, corporation, personal representative, receiver, trustee, assignee, or any other legal entity.
- (S) "Pharmacy" means any retail establishment in which the profession of pharmacy is practiced by a pharmacist licensed by the State of California in accordance with the Business and Professions Code and where prescription pharmaceuticals are offered for sale, regardless of whether the retail establishment sells other retail goods in addition to prescription pharmaceuticals.
- (T) "Proprietor" means a person with an ownership or managerial interest in a business. An ownership interest shall be deemed to exist when a person has a 10% or greater interest in the stock, assets, or income of a business other than the sole interest of security for debt. A managerial interest shall be deemed to exist when a person has or shares ultimate control over the day-to-day operations of a business.
- (U) "Recreation Facility" means an area, place, structure, or other facility that is used either permanently or temporarily for community recreation, even though it may be used for other purposes, and includes but is not limited to a gymnasium, playing court, playing field, and swimming pool.
- (V) "Sale" or "Sell" means any transfer, exchange, barter, gift, offer for sale, or distribution for a commercial purpose, in any manner or by any means whatsoever.
- (W) "Self-Service Display" means the open display or storage of tobacco products in a manner that is physically accessible in any way to the general public without the assistance of the retailer or employee of the retailer and a direct face-to-face transfer between the purchaser and the retailer or employee of the retailer. A vending machine is a form of self-service display.
- (X) "Smoking" means inhaling, exhaling, burning, or carrying any lighted or heated cigar, cigarette, or pipe, or any other lighted or heated product containing, made, or derived from nicotine, tobacco, marijuana, or other plant, whether natural or synthetic, that is intended for inhalation. "Smoking" includes using an electronic smoking device.
- (Y) "Tobacco Product" means:
- (1) any product containing, made of, or derived from tobacco or nicotine that is intended for human consumption or is likely to be consumed, whether inhaled, absorbed, or ingested by any other means, including but not limited to, a cigarette, a cigar, pipe tobacco, chewing tobacco, snuff, or snus;

- (2) any electronic smoking device and any substances that may be aerosolized or vaporized by such device, whether or not the substance contains nicotine; or
- (3) any component, part, or accessory of (1) or (2), whether or not any of these contains tobacco or nicotine, including but not limited to filters, rolling papers, blunt or hemp wraps, hookahs, mouthpieces, and pipes.

“Tobacco product” does not mean drugs, devices, or combination products authorized for sale by the U.S. Food and Drug Administration, as those terms are defined in the Federal Food, Drug, and Cosmetic Act.

#### Note

Both the definition of “electronic smoking device” and “tobacco product” in this model include substances that go into an electronic smoking device regardless of whether they contain nicotine. In a jurisdiction that already regulates the commercial sale of cannabis products, these definitions might result in an overlapping and possibly confusing regulatory regime where certain products are covered by both the tobacco and cannabis laws. The Center can provide additional language to exclude regulated cannabis products under a TRL.

- (Z) “Tobacco Retailer” means any person who sells, offers for sale, or exchanges or offers to exchange for any form of consideration, tobacco products. This definition is without regard to the quantity of tobacco products sold, offered for sale, exchanged, or offered for exchange.
- (AA) “Tobacco Retailing” means engaging in the activities of a tobacco retailer.
- (AB) “Youth-Oriented Facility” means a parcel in the [ city/county ] that is occupied by:
  - (1) a private or public kindergarten, elementary, middle, junior high, or high school;
  - (2) a library open to the public;
  - (3) a playground open to the public;
  - (4) a youth center, defined as a facility where children, ages 6 to 17, inclusive, come together for programs and activities;
  - (5) a recreation facility open to the public, defined as an area, place, structure, or other facility that is used either permanently or temporarily for community recreation, even though it may be used for other purposes;

- (6) a park open to the public or to all the residents of a private community;
- (7) a licensed child-care facility or preschool [other than a small-family day care home or a large-family day care home [as defined in California Health & Safety Code § 1596.78]];

Sec. [ \_\_\_\_ (\*2) ]. GENERAL REQUIREMENTS AND PROHIBITIONS.

- (A) TOBACCO RETAILER'S LICENSE REQUIRED. It shall be unlawful for any person to engage in tobacco retailing in the [ city/county ] without first obtaining and maintaining a valid tobacco retailer's license for each location at which tobacco retailing is to occur. Tobacco retailing without a valid tobacco retailer's license is a nuisance as a matter of law.
- (B) LAWFUL BUSINESS OPERATION. In the course of tobacco retailing or in the operation of the business or maintenance of the location for which a license issued, it shall be a violation of this [ article/chapter ] for a licensee, or any of the licensee's agents or employees, to violate any local, state, or federal law applicable to the sale of tobacco products.
- (C) SMOKING PROHIBITED. Smoking, including smoking for the purpose of sampling any tobacco product, is prohibited within the indoor area of any retail establishment licensed under this chapter. Smoking also prohibited outdoors within 25 feet of any retail establishment licensed under this [ article/chapter ].
- (D) MINIMUM LEGAL SALES AGE. No person engaged in tobacco retailing shall sell a tobacco product to a person under 21 years of age.
- (E) DISPLAY OF LICENSE. Each tobacco retailer license shall be prominently displayed in a publicly visible location at the licensed location.
- (F) POSITIVE IDENTIFICATION REQUIRED. No person engaged in tobacco retailing shall sell a tobacco product to another person without first verifying by means of government-issued photographic identification that the recipient is at least 21 years of age.
- (G) SELF-SERVICE DISPLAYS PROHIBITED. Tobacco retailing by means of a self-service display is prohibited.
- (H) ON-SITE SALES. All sales of tobacco products shall be conducted in-person in the licensed location. It shall be a violation of this [ article/chapter ] for any tobacco retailer or any of the tobacco retailer's agents or employees to engage in the delivery sale of tobacco products or to knowingly or recklessly sell or provide tobacco products to any person that intends to engage in the delivery sale of the tobacco product in the [ city/county ].

Sec. [ \_\_\_\_ (\*3) ]. SALE OF FLAVORED TOBACCO PRODUCTS PROHIBITED.

- (A) FLAVORED TOBACCO PRODUCT SALES PROHIBITED. It shall be unlawful for any tobacco retailer to sell any flavored tobacco product.
- (B) PRESUMPTIVE FLAVORED TOBACCO PRODUCT. A public statement or claim made or disseminated by the manufacturer of a tobacco product, or by any person authorized or permitted by the manufacturer to make or disseminate public statements concerning such tobacco product, that such tobacco product has a taste or smell other than tobacco shall constitute presumptive evidence that the tobacco product is a flavored tobacco product.

Sec. [ \_\_\_\_\_ (\*4) ]. TOBACCO PRODUCT PRICING AND PACKAGING.

- (A) PACKAGING AND LABELING. No tobacco retailer shall sell any tobacco product to any consumer unless the tobacco product: (1) is sold in the manufacturer's packaging intended for sale to consumers; (2) conforms to all applicable federal labeling requirements; and (3) conforms to all applicable child-resistant packaging requirements.
- (B) DISPLAY OF PRICE. The price of each tobacco product offered for sale shall be clearly and conspicuously displayed on the tobacco product or on any related shelving, posting, advertising, or display at the location where the item is sold or offered for sale.
- (C) DISTRIBUTION OF TOBACCO SAMPLES OR PROMOTIONAL ITEMS. It is unlawful for any person to distribute free or nominally priced tobacco products.
- (D) PROHIBITION OF TOBACCO COUPONS AND DISCOUNTS. No tobacco retailer shall:
  - (1) honor or redeem, or offer to honor or redeem, a coupon to allow a consumer to purchase a tobacco product for less than the full retail price;
  - (2) sell any tobacco product to a consumer through a multiple-package discount or otherwise provide any such product to a consumer for less than the full retail price in consideration for the purchase of any tobacco product or any other item; or
  - (3) provide any free or discounted item to a consumer in consideration for the purchase of any tobacco product.
- (E) MINIMUM PACKAGE SIZE FOR LITTLE CIGARS AND CIGARS. No tobacco retailer shall sell:
  - (1) any little cigar unless it is sold in a package of at least [ 20 ] little cigars; or

- (2) any cigar unless it is sold in a package of at least at least [ 6 ] cigars ; provided, however, that this subsection shall not apply to a cigar that has a price of at least [ \$X.00 ] per cigar, including all applicable taxes and fees.

(F) MINIMUM PRICES FOR CIGARETTES, LITTLE CIGARS, AND CIGARS. No tobacco retailer shall sell:

- (1) Cigarettes at a price that is less than [ \$X.00 ] per package of 20 cigarettes, including all applicable taxes and fees;
- (2) Little cigars at a price that is less than [ \$X.00 ] per package of little cigars, including all applicable taxes and fees; or
- (3) Cigars at a price that is less [ \$X.00 ] per cigar, including all applicable taxes and fees.

The minimum prices established in this section shall be adjusted annually by the Department in proportion with the Consumer Price Index, using a system established by the Department.

**Note**

Indexing minimum prices to inflation is an efficient policy that does not require decision-makers to amend the TRL annually to keep up with prevailing prices. Jurisdictions in California have pegged the prices to the nearest U.S. Bureau of Labor Statistics statistical area, and the language here is broad enough that a jurisdiction can take that approach or determine another effective way to adjust the prices over time.

Sec. [ \_\_\_\_ (\*5) ]. LIMITS ON ELIGIBILITY FOR A TOBACCO RETAILER LICENSE.

- (A) MOBILE VENDING. No license may issue to authorize tobacco retailing at other than a fixed location. No tobacco retail license will be issued to a moveable place of business.
- (B) LICENSED CANNABIS BUSINESSES. No license may issue, and no existing license may be renewed, to authorize tobacco retailing at a location licensed for commercial cannabis activity by the State of California under Business and Professions Code Division 10.
- (C) PHARMACIES. No license may issue, and no existing license may be renewed, to authorize tobacco retailing in a pharmacy.

- (D) PROXIMITY TO YOUTH-ORIENTED FACILITIES. No license may issue, and no existing license may be renewed, to authorize tobacco retailing within [ 1000 ] feet of a youth-oriented facility as measured by a straight line from the nearest point of the property line of the parcel on which the youth-oriented facility is located to the nearest point of the property line of the parcel on which the applicant's business is located.
- (E) PROXIMITY TO OTHER TOBACCO RETAILERS. No license may issue, and no existing license may be renewed, to authorize tobacco retailing within [ 1000 ] feet of a tobacco retailer location already licensed pursuant to this [ article/chapter ] as measured by a straight line from the nearest point of the property line of the parcel on which the applicant's business is located to the nearest point of the property line of the parcel on which an existing licensee's business is located.
- (F) PROXIMITY TO CANNABIS RETAILERS. No license may issue, and no existing license may be renewed, to authorize tobacco retailing within [ 1000 ] feet of an existing cannabis retailer as measured by a straight line from the nearest point of the property line of the parcel on which the applicant's business is located to the nearest point of the property line of the parcel on which an existing cannabis retailer is located.

#### Note

The three proximity limitations above would prohibit tobacco retailing within a certain distance of relevant businesses and facilities with no grandfathering of existing licensed retailers. As a result, retail licenses for locations that do not meet these proximity limitations would not be renewable after expiring. Issuing a tobacco retail license is a privilege, not a right, and jurisdictions have the authority to grant or deny tobacco retailer licenses. Accordingly, it would be unlikely for a tobacco retailer to successfully argue that refusing to renew their license is a violation of the constitutional guarantee against taking property without due process. To deal with potential "takings" claims, some jurisdictions have created a hearing process for affected businesses where they can make hardship arguments and ask for additional time to sell prohibited products, allowing for some more flexibility on a case-by-case basis and under extraordinary circumstances.

- (G) POPULATION AND DENSITY. The issuing of tobacco retailer licenses is limited as follows:
- (1) The total number of tobacco retailer licenses within the [ city/county ] shall be limited to one for each [ 2,500 ] inhabitants of the [ city/county ].

- (2) For the purposes of this subsection, the total population of the [ city/county ] shall be determined by the most current published total available from the U.S. Census Bureau or the California State Department of Finance, whichever has been more recently updated, as of the date the license application is filed.
- (3) No new license may issue to authorize tobacco retailing if the number of tobacco retailer licenses already issued equals or exceeds the total number authorized pursuant to subsection (1).

### Sec. [ \_\_\_\_ (\*6) ]. APPLICATION PROCEDURE.

- (A) An application for a tobacco retailer's license shall be submitted in the name of each proprietor proposing to conduct retail tobacco sales and shall be signed by each proprietor or an authorized agent thereof. All applications shall be submitted on a form supplied by the Department.
- (B) A license issued contrary to this [ article/chapter ], contrary to any other law, or on the basis of false or misleading information shall be revoked pursuant to Section [ \_\_\_\_ (\*13) (c) ] of this [ article/chapter ]. Nothing in this [ article/chapter ] shall be construed to vest in any person obtaining and maintaining a tobacco retailer's license any status or right to act as a tobacco retailer in contravention of any provision of law.
- (C) Applicant submissions shall contain the following information:
  - (1) The name, address, and telephone number of each proprietor of the business seeking a license.
  - (2) The business name, address, and telephone number of the location for which a license is sought.
  - (3) The name and mailing address authorized by each proprietor to receive all communications and notices required by, authorized by, or convenient to the enforcement of this [ article/chapter ].
  - (4) Proof that the location for which a tobacco retailer's license is sought has been issued all necessary state licenses for the sale of tobacco products.
  - (5) Whether or not any proprietor or any agent of the proprietor has admitted violating, or has been found to have violated, this [ article/chapter ] or any other local, state, or federal law governing the sale of tobacco products and, if so, the dates and locations of all such violations within the previous five years.

- (6) A signed affidavit affirming that the proprietor has not sold and will not sell any tobacco product without a license required by this [ article/chapter ].
- (7) Such other information as the Department deems necessary for the administration or enforcement of this [ article/chapter ] as specified on the application form required by this section.
- (D) A licensed tobacco retailer shall inform the Department in writing of any change in the information submitted on an application for a tobacco retailer's license within [ 10 ] business days of a change.

#### Sec. [ \_\_\_\_ (\*7) ]. LICENSE ISSUANCE OR DENIAL.

- (A) ISSUANCE OF LICENSE. Upon the receipt of a complete and adequate application for a tobacco retailer's license and the license fee required by this [ article/chapter ], the Department may approve or deny the application for a license, or it may delay action for a reasonable period of time to complete any investigation of the application or the applicant deemed necessary.
- (B) DENIAL OF APPLICATION. The department may deny an application for a tobacco retailer's license based on any of the following:
  - (1) The information presented in the application is inaccurate or false. Intentionally supplying inaccurate or false information shall be a violation of this [ article/chapter ];
  - (2) The application seeks authorization for tobacco retailing at a location for which this [ article/chapter ] prohibits a license to be issued;
  - (3) The application seeks authorization for tobacco retailing for a proprietor to whom this [ article/chapter ] prohibits a license to be issued; or
  - (4) The application seeks authorization for tobacco retailing in a manner that is prohibited pursuant to this [ article/chapter ], that is unlawful pursuant to any other [ article/chapter ] of this Code, or that is unlawful pursuant to any other law.
  - (5) Any other any other suitable reason the granting of a license to the applicant is not consistent with the public health and welfare, including the applicant's history of noncompliance with this [ article/chapter ] and other laws relating to the sale of tobacco products.

Sec. [ \_\_\_\_ (\*8) ]. LICENSE RENEWAL AND EXPIRATION.

(A) RENEWAL OF LICENSE. A tobacco retailer's license is invalid if the appropriate fee has not been timely paid in full or if the term of the license has expired. The term of a tobacco retailer license is [ 1 year ]. Each tobacco retailer shall apply for the renewal of their tobacco retailer's license and submit the license fee no later than [ 30 ] days prior to expiration of the current license. A retailer that fails to timely submit a renewal application and fee is ineligible for license renewal and must submit a new application pursuant to Section [ \_\_\_\_ (\*6) ].

Sec. [ \_\_\_\_ (\*9) ]. LICENSES NOT TRANSFERABLE, PAST VIOLATIONS AT RETAIL LOCATION.

- (A) LICENSES NOT TRANSFERRABLE. A tobacco retailer's license may not be transferred from one person to another or from one location to another. A new tobacco retailer's license is required whenever a tobacco retailing location has a change in proprietors.
- (B) PAST VIOLATIONS. Notwithstanding any other provision of this [ article/chapter ], prior violations at a location shall continue to be counted against a location and license ineligibility periods shall continue to apply to a location unless:
- (1) the location has been transferred to new proprietor(s) in an arm's length transaction; and
  - (2) the new proprietor(s) provide the [ city/county ] with clear and convincing evidence that the new proprietor(s) have acquired the location in an arm's length transaction.

Sec. [ \_\_\_\_ (\*10) ]. LICENSE CONVEYS A LIMITED, CONDITIONAL PRIVILEGE.

Nothing in this [ article/chapter ] shall be construed to grant any person obtaining and maintaining a tobacco retailer's license any status or right other than the limited conditional privilege to act as a tobacco retailer at the location in the [ City/County ] identified on the face of the permit. Nothing in this [ article/chapter ] shall be construed to render inapplicable, supersede, or apply in lieu of, any other provision of applicable law.

Sec. [ \_\_\_\_ (\*11) ]. FEE FOR LICENSE.

The fee to issue or to renew a tobacco retailer's license shall be established from time to time by resolution of the [ city council/board of supervisors ]. The fee shall be calculated so as to recover the total cost of administration and enforcement of this [ article/chapter ], including, but not limited to, issuing a license, administering the license program, retailer education,

retailer inspection and compliance checks, documentation of violations, and prosecution of violators, but shall not exceed the cost of the regulatory program authorized by this [ article/ chapter ]. All fees and interest upon proceeds of fees shall be used exclusively to fund the program. Fees are nonrefundable except as may be required by law.

#### Note

The California Constitution places some limits on how much a jurisdiction can charge in a fee, deeming excessive fees to be taxes that require a vote of the people. Nonetheless, without a referendum, it is lawful to impose a fee on applicants in an amount sufficient to offset the reasonable regulatory cost of the entire tobacco retailer enforcement program of the locality. *Sinclair Paint Co. v. Board of Equalization*, 15 Cal. 4th 866 (1997); *Griffith v. City of Santa Cruz*, 207 Cal. App. 4th 982 (2012).

The license fee can incorporate the cost of enforcing all tobacco laws related to tobacco retailing because a violation of any tobacco-related law is a basis for suspension of a license. The Public Health Law Center can provide further information on some of the factors to consider when calculating a reasonable license fee.

### Sec. [ \_\_\_\_ (\*12) ]. COMPLIANCE MONITORING.

- (A) Compliance with this [ article/chapter ] shall be monitored by the Department. In addition, the [ City/County ] may designate additional persons to monitor compliance with this [ article/chapter ]. All licensed premises must be open to inspection by [ city/ county ] staff or designated persons during regular business hours.
- (B) The Department shall inspect each tobacco retailer at least [ 3 ] times per 12 month period to ensure compliance with this [ article/chapter ].

#### Note

Subsection (b) allows for the inspection of licensed premises to check for any violations of this ordinance or other tobacco control laws. For example, some inspections might focus on pricing or flavored product violations, but preferably inspectors would be able to review compliance with all applicable laws during the inspections. For more information on challenges and case studies in enforcing TRL requirements please contact the Center.

- (C) The [ city/county ] will conduct at least [ one ] compliance check per 12-month period that involves the participation of persons between the ages of 18 and 20 to enter licensed premises to attempt to purchase tobacco products.

**Note**

This underage sales compliance provision requires a minimum of one check per year, but jurisdictions might choose to require more frequent compliance checks to ensure consistent compliance.

- (D) Nothing in this section shall create a right of action in any licensee or other person against the [ city/county ] or its agents.

Sec. [ \_\_\_\_ (\*13) ]. SUSPENSION OR REVOCATION OF LICENSE.

- (A) SUSPENSION OR REVOCATION OF LICENSE FOR VIOLATION. In addition to any other penalty authorized by law, a tobacco retailer's license shall be suspended or revoked if the Department finds, based on a preponderance of the evidence, after the licensee is afforded notice and an opportunity to be heard, that the licensee, or any of the licensee's agents or employees, have violated any of the requirements, conditions, or prohibitions of this [ article/chapter ]; such violation is determined by any court of competent jurisdiction; or the licensee has pleaded guilty, "no contest" or its equivalent, or admitted to a violation of any law designated in Section [ \_\_\_\_ (\*2) ] above.
- (1) Upon a finding by the Department of a first violation of this [ article/chapter ] at a location, the license shall be suspended for [ 30 ] days.
  - (2) Upon a finding by the Department of a second violation of this [ article/chapter ] at a location within any [ 5 ]-year period, the license shall be suspended for [ 90 ] days.
  - (3) Upon a finding by the Department of a third violation of this [ article/chapter ] at a location within any [ 5 ] year period, the license shall be suspended for [ 1 ] year.
  - (4) Upon a finding by the Department of four or more violations of this [ article/chapter ] at a location within any [ 5 ] year period, the license shall be revoked.
- (B) APPEAL OF SUSPENSION OR REVOCATION. A decision of the Department to suspend or revoke a license is appealable to [ the name of appellate agency, panel, or person (for

example, Board of Supervisors, city manager, or director of the health department) ] and any appeal must be filed in writing with [ the name of the agency, panel, or person to receive the notice (for example, Board of Supervisors) ] within 10 days of mailing of the Department's decision. If such an appeal is timely made, it shall stay enforcement of the appealed action. An appeal to [ the name of appellate agency, panel, or person ] is not available for a revocation made pursuant to subsection (c) below.

- (C) REVOCATION OF LICENSE WRONGFULLY ISSUED. A tobacco retailer's license shall be revoked if the Department finds, after the licensee is afforded notice and an opportunity to be heard, that one or more of the bases for denial of a license under Section [ \_\_\_\_(\*7) ] existed at the time application was made or at any time before the license issued. The decision by the Department shall be the final decision of the [ city/county ].

#### Sec. [ \_\_\_\_ (\*14) ]. TOBACCO RETAILING WITHOUT A VALID LICENSE.

- (A) INELIGIBLE FOR LICENSE. In addition to any other penalty authorized by law, if the Department finds, or if a court of competent jurisdiction determines, based on a preponderance of evidence after notice and an opportunity to be heard, that any person has engaged in tobacco retailing at a location without a valid tobacco retailer's license, either directly or through the person's agents or employees, the person shall be ineligible to apply for, or to be issued, a tobacco retailer's license as follows:
- (1) After a first violation of this section at a location, no new license may issue for the person or the location (unless ownership of the business at the location has been transferred in an arm's length transaction), until [ 30 ] days have passed from the date of the violation.
  - (2) After a second violation of this section at a location within any [ 5 year ] period, no new license may issue for the person or the location (unless ownership of the business at the location has been transferred in an arm's length transaction), until [ 90 ] days have passed from the date of the violation.
  - (3) After of a third or subsequent violation of this section at a location within any [ 5 year ] period, no new license may issue for the person or the location (unless ownership of the business at the location has been transferred in an arm's length transaction), until [ 5 ] years have passed from the date of the violation.

#### Sec. [ \_\_\_\_ (\*15) ]. ADDITIONAL REMEDIES.

- (A) The remedies provided by this [ article/chapter ] are cumulative and in addition to any other remedies available at law or in equity.

- (B) Whenever evidence of a violation of this [ article/chapter ] is obtained in any part through the participation of a person under the age of 18 years, such a person shall not be required to appear or give testimony in any civil or administrative process brought to enforce this [ article/chapter ] and the alleged violation shall be adjudicated based upon the sufficiency and persuasiveness of the evidence presented.
- (C) Violations of this [ article/chapter ] are subject to a civil action brought by the [ district attorney ] or the [ county counsel ], punishable by a civil fine not less than [ \$250 ] and not exceeding [ \$1,000 ] per violation.
- (D) Violations of this [ article/chapter ] may, in the discretion of the [ district attorney/county counsel ], be prosecuted as infractions or misdemeanors when the interests of justice so require.
- (E) Violations of this [ article/chapter ] are hereby declared to be public nuisances.
- (F) In addition to other remedies provided by this [ article/chapter ] or by other law, any violation of this [ article/chapter ] may be remedied by a civil action brought by the [ district attorney/county counsel ], including administrative or judicial nuisance abatement proceedings, civil code enforcement proceedings, and suits for injunctive relief.
- (G) Tobacco products offered for sale in violation of this [ article/chapter ] are subject to seizure by the Department or its designee and shall be forfeited after the licensee or any other owner of the tobacco products seized is given reasonable notice and an opportunity to demonstrate that the tobacco products were not offered for sale in violation of this [ article/chapter ]. The decision by the Department may be appealed pursuant to the procedures set forth in Section [ \_\_\_\_(\*13)(b) ]. Forfeited tobacco products shall be destroyed and properly disposed of at the cost of the seller after all internal appeals have been exhausted and the time in which to seek judicial review pursuant to California Code of Civil Procedure section 1094.6 or other applicable law has expired without the filing of a lawsuit or, if such a suit is filed, after judgment in that suit becomes final.
- (H) For the purposes of the civil remedies provided in this [ article/chapter ]:
- (1) Each day on which a tobacco product is distributed, sold, or offered for sale in violation of this [ article/chapter ] shall constitute a separate violation of this [ article/chapter ]; and
  - (2) Each individual tobacco product that is distributed, sold, or offered for sale in violation of this [ article/chapter ] shall constitute a separate violation of this [ article/chapter ].

- (I) All tobacco retailers are responsible for the actions of their employees relating to the sale, offer to sell, and furnishing of tobacco products at the retail location. The sale of any tobacco product by an employee shall be considered an act of the tobacco retailer.

Sec. [ \_\_\_\_ (\*16) ]. EXCEPTIONS.

- (A) Nothing in this [ article/chapter ] prevents the provision of tobacco products to any person as part of an indigenous practice or a lawfully recognized religious or spiritual ceremony or practice.
- (B) Nothing in this [ article/chapter ] shall be construed to penalize the purchase, use, or possession of a tobacco product by any person not engaged in tobacco retailing.

Sec. [ \_\_\_\_ (\*17) ]. **CONSTRUCTION & SEVERABILITY.** It is the intent of the [ board of supervisors/city council ] of [ county/city ] to supplement applicable state and federal law and not to duplicate or contradict such law and this ordinance shall be construed consistently with that intention. If any section, subsection, subdivision, paragraph, sentence, clause, or phrase of this [ article/chapter ], or its application to any person or circumstance, is for any reason held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases of this [ article/chapter ], or its application to any other person or circumstance. The [ board of supervisors/city council ] of [ jurisdiction ] hereby declares that it would have adopted each section, subsection, subdivision, paragraph, sentence, clause, or phrase hereof, irrespective of the fact that any one or more other sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases hereof be declared invalid or unenforceable.

Sec. [ \_\_\_\_ (\*18) ]. **PUBLIC RECORDS.** All information provided to the Department by a licensee or license applicant pursuant to this [ article/chapter ] shall be subject to disclosure under the California Public Records Act (California Government Code section 6250 et seq.) or any other applicable law.

**SECTION III. EFFECTIVE DATE.** This Ordinance shall take effect and be in force from and after [ 30 days after date of enactment ]; provided, however, that Section [ \_\_\_\_(\*3) ] shall not take effect until [ 6 months after date of enactment ].

## Appendix A: Findings.

The [ city council of the city/board of supervisors of the county ] of [ insert jurisdiction name ] hereby finds and declares as follows:

**WHEREAS**, the [ city council/board of supervisors ] finds that a local licensing system for tobacco retailers is appropriate to ensure that retailers comply with tobacco control laws and business standards of the [ city council/board of supervisors ], to protect the health, safety, and welfare of our residents;

**WHEREAS**, approximately 480,000 people die in the United States from smoking-related diseases and exposure to secondhand smoke every year, making tobacco use the nation's leading cause of preventable death;<sup>2</sup>

**WHEREAS**, the World Health Organization (WHO) estimates that tobacco kills 8 million people and causes over 1.4 trillion dollars in economic damage each year;<sup>136</sup>

**WHEREAS**, 5.6 million of today's Americans who are younger than 18 years of age are projected to die prematurely from a smoking-related illness;<sup>2</sup>

**WHEREAS**, tobacco use is the number one cause of preventable death in California<sup>137</sup> and continues to be an urgent public health issue, as evidenced by the following:

- 40,000 California adults die from their own smoking annually;<sup>1</sup>
- More than 25% of all adult cancer deaths in California are attributable to smoking;<sup>138</sup>
- Smoking costs California \$13.29 billion in annual health care expenses, \$3.58 billion in Medicaid costs caused by smoking, and \$10.35 billion in smoking-caused productivity losses;<sup>139</sup>
- Tobacco use can cause disease in nearly all of the organs of the body and is responsible for 87% of lung cancer deaths, 32% of coronary heart disease deaths, and 79% of all cases of chronic obstructive pulmonary disease in the United States;<sup>2</sup>

**WHEREAS**, tobacco use among priority populations in California contributes to health disparities and creates significant barriers to health equity, as evidenced by the following:

- African American (20.4%), Asian or Pacific Islander (11.4%), and Hispanic (15.2%) males all report a higher smoking prevalence than the statewide average among all adults (11.0%);<sup>9</sup>
- American Indian/Alaska Native Californians have the highest smoking prevalence (19.1%) among all reported adult demographic populations;<sup>9</sup>

- Smoking is more prevalent among rural (14.9%) compared to urban (10.6%) Californians;<sup>9</sup>
- Californians with the highest levels of educational attainment and annual household income have the lowest smoking prevalence;<sup>9</sup>
- Adults who identify as lesbian, gay, bisexual, or transgender report smoking at a higher rate (17.4%) than the statewide average (11.0%);<sup>9</sup>
- Those who reported experiencing psychological distress in the past month smoke at rates (26.7%) higher than the statewide average (11.0%);<sup>9</sup>

[ insert local data if available ]

**WHEREAS**, despite the state's efforts to limit youth access to tobacco, youth are still able to access tobacco products, as evidenced by the following:

- In California, research indicates over 67% of current and former adult smokers started by the age of 18 and almost 100% start by age 26;<sup>140</sup>
- In California, from 2017 to 2018, approximately 13% of high school students reported using tobacco;<sup>9</sup>
- Disparities in tobacco use exist among California high school students, with higher rates found among LGBTQ, American Indian, and Pacific Islander youth;<sup>9</sup>
- Unless smoking rates decline, an estimated 441,000 of all California youth who are alive today will die prematurely from smoking-related diseases;<sup>2</sup>
- In 2017, 22.8% of high school students in California had tried cigarette smoking;<sup>141</sup>
- Between 2014 and 2018, electronic smoking device use among California youth increased from 14.1% to 46.2%;<sup>8</sup>

[ insert local data if available ]

**WHEREAS**, the tobacco industry encourages youth and young adult tobacco initiation through predatory targeting,<sup>11</sup> as evidenced by the following:

- Tobacco companies target young adults ages 18 to 24 to increase their frequency of tobacco use and encourage their transition to habitual users;<sup>66</sup>
- Tobacco industry documents state that if "a man has never smoked by the age of 18, the odds are three-to-one he never will. By age 24, the odds are twenty-to-one",<sup>142</sup>

- The tobacco industry spends an estimated \$496 million annually to market tobacco products to California residents;<sup>139</sup>

**WHEREAS**, California retailers continue to sell tobacco to underage consumers, evidenced by the following:

- 9.3% of high school students in California reported buying their own electronic cigarette from a store;<sup>141</sup>
- 19.1% of California tobacco retailers unlawfully sold tobacco products to underage persons in 2018;<sup>9</sup>

[ insert local data if available ]

**WHEREAS**, requiring tobacco retailers to obtain a tobacco retailer license will not unduly burden legitimate business activities of retailers who sell tobacco products to adults but will, however, allow the [ city council/board of supervisors ] to regulate the operation of lawful businesses to discourage violations of federal, state, and local tobacco control and youth tobacco access laws, as evidenced by the following:

- Tobacco products are the number one seller in U.S. convenience stores, and in 2018, they generated an average of \$523,084 in sales per store;<sup>143</sup>
- Systematic scientific reviews indicate that merchant compliance with youth tobacco sales laws reduces the rate of tobacco use among adolescents;<sup>26,27</sup>
- Studies found increased retailer compliance and reduced tobacco sales to youth following implementation and active enforcement of youth tobacco sales laws paired with penalties for violations;<sup>144,145</sup>
- A review of 41 California communities with strong tobacco retailer licensing ordinances found that youth sales rates declined in 40 of these communities after the ordinances were enacted, with an average 69% decrease in the youth sales rate;<sup>25</sup>

**WHEREAS**, the federal Family Smoking Prevention and Tobacco Control Act (“Tobacco Control Act”), enacted in 2009, prohibited candy- and fruit-flavored cigarettes,<sup>28</sup> largely because these flavored products are marketed to youth and young adults,<sup>26,35,145</sup> and younger smokers were more likely than older smokers to have tried these products;<sup>26</sup>

**WHEREAS**, neither federal nor California state laws restrict the sale of menthol cigarettes or flavored non-cigarette tobacco products, such as cigars, cigarillos, smokeless tobacco, hookah tobacco, electronic smoking devices, and the solutions used in these devices;

**WHEREAS**, in 2018, more than 86% of tobacco retailers in California sold flavored non-cigarette tobacco products, over 91% of tobacco retailers sold menthol cigarettes,<sup>80</sup> and, as of 2016, 8 out of 10 tobacco retailers near schools sold flavored non-cigarette tobacco products;<sup>147</sup>

**WHEREAS**, flavored tobacco products are used by the majority of youth and young adult tobacco users (86.4% and 57.7%, respectively) in California;<sup>9</sup>

**WHEREAS**, mentholated and flavored products have been shown to be “starter” products for youth who begin using tobacco<sup>26,148,149</sup> and that these products help establish tobacco habits that can lead to long-term addiction;<sup>26,150,151</sup>

**WHEREAS**, between 2004 and 2014, use of non-menthol cigarettes decreased among all populations, but overall use of menthol cigarettes increased among young adults (ages 18 to 25) and adults (ages 26+);<sup>30</sup>

**WHEREAS**, flavored tobacco has significant public health implications for youth and people of color as a result of targeted industry marketing strategies and product manipulation;<sup>11,26,152,153</sup>

**WHEREAS**, a review of advertising, promotions, and pack prices near California high schools found that “for each 10 percentage point increase in the proportion of Black students, the proportion of menthol advertising increased by 5.9% ... the odds of a Newport [a leading brand of mentholated cigarettes] promotion were 50% higher ... and the cost of Newport was 12 cents lower.” There was no such association found for non-mentholated cigarettes;<sup>154</sup>

**WHEREAS**, scientific reviews by the FDA and the Tobacco Products Scientific Advisory Committee (“TPSAC”) found marketing of menthol cigarettes likely increases the prevalence of smoking among the entire population, but especially among youth, African Americans,<sup>33</sup> and possibly Hispanic and Latino individuals;<sup>34</sup> and that menthol cigarettes are associated with increased initiation and progression to regular cigarette smoking, increased dependence on cigarettes, and reduced success in smoking cessation, especially among African American menthol smokers;<sup>33</sup>

**WHEREAS**, research indicates that the FDA ban in 2009 on all flavored cigarette products (except menthol) led to a 6% decrease in youth tobacco use and a 17% decrease in the likelihood of a youth becoming a cigarette smoker;<sup>155</sup>

**WHEREAS**, studies indicate that laws prohibiting the sale of flavored tobacco products lead to decreases in youth tobacco use, as evidenced by the following:

- An evaluation of New York City's law, which prohibits the sale of all flavored tobacco, excluding menthol, indicated that as a result of the law, youth had 37% lower odds of ever trying flavored tobacco products and 28% lower odds of ever using any type of tobacco;<sup>156</sup>
- An evaluation of a law in Providence, Rhode Island, which prohibits the sale of all flavored tobacco, excluding menthol, indicated that as a result of the law, current use of any tobacco product among high school youth declined from 22% to 12% and e-cigarette use declined from 13.3% to 6.6%, even as statewide e-cigarette use among high school increased to more than 20%;<sup>157</sup>

**WHEREAS**, the health effects of non-cigarette tobacco products such as cigars, cigarillos, smokeless tobacco, and shisha are substantial as demonstrated by research that shows that non-cigarette tobacco products have addictive levels of nicotine, harmful toxins, and dangerous carcinogens;<sup>158 164</sup>

**WHEREAS**, unlike cigarette use that has steadily declined among youth, the prevalence of the use of non-cigarette tobacco products has increased among California youth;<sup>9</sup>

**WHEREAS**, the availability of inexpensive tobacco products leads to increased tobacco use as evidenced by more than 100 academic studies that conclusively show that when tobacco products are made more expensive, fewer people use tobacco, fewer initiate tobacco use, and more people quit tobacco use;<sup>2,48 51,53 58</sup>

**WHEREAS**, research has also consistently shown that increases in cigarettes prices will result in less smoking across various sociodemographic populations;<sup>165</sup>

**WHEREAS**, a systematic review by the U.S. Community Preventive Services Task Force found that a 20% price increase would reduce demand for cigarettes by approximately 10.4%, the prevalence of adult tobacco use by 3.6%, and initiation of tobacco use by young people by 8.6%;<sup>49</sup>

**WHEREAS**, unequal price increases across different types of tobacco products lead to substitution from one product to another;<sup>56,58</sup>

**WHEREAS**, youth are particularly responsive to changes in tobacco prices,<sup>26,52,54,166</sup> and evidence suggests that tobacco companies deliberately target youth with price reductions;<sup>26,51,64 66,167</sup>

**WHEREAS**, evidence also suggests that cigarettes are cheaper in neighborhoods with lower household incomes,<sup>118,168</sup> Newport menthol cigarettes cost less in areas with higher proportions of African Americans,<sup>118</sup> and underserved communities are targeted with price discounts and coupons;<sup>169 171</sup>

**WHEREAS**, tobacco companies spend considerably to decrease the price of their products in order to counter state and local tobacco control efforts, appeal to price-sensitive consumers, and increase demand for tobacco products. For example, tobacco companies spent the majority of their cigarette marketing budgets on price discounts, accounting for nearly \$6.2 billion of \$8.6 billion advertising and promotional expenditures in 2018;<sup>50,51,62</sup>

**WHEREAS**, the tobacco industry's price discounting strategies, such as coupons and multiple-package discounts, are popular among consumers, with more than half of adults using some price minimization strategy.<sup>70</sup> Coupon receipt and redemption appears more prevalent among white, younger, female, sexual minority, and more nicotine dependent smokers.<sup>172</sup> In California, individuals who used price minimization strategies saved an average \$1.04 per pack (or 18.6% off the total) in 2010;<sup>70</sup>

**WHEREAS**, price-discounted sales account for a substantial proportion of overall tobacco product sales;<sup>63</sup>

**WHEREAS**, although federal and state law ban the sale of individual cigarettes,<sup>78,173</sup> neither federal nor California state laws restrict the sale of individual little cigars and cigars;

**WHEREAS**, many retailers sell little cigars and cigars individually, making them more affordable and appealing to youth.<sup>79</sup> Additionally:

- 78.3% of California tobacco retailers sell a popular brand of youth-friendly cigars for less than \$1.00;<sup>79</sup>
- Between 2012 and 2016, annual sales of cigarillos increased by 78% overall and by 155% for "concept-flavored" (e.g., Jazz) cigarillos;<sup>174</sup>

**WHEREAS**, a 10% increase in cigar prices has been associated with decreased cigar sales<sup>175,176</sup> and may significantly reduce cigar use among youth;<sup>177</sup>

**WHEREAS**, neither federal nor California state laws set a minimum price for tobacco products;

**WHEREAS**, minimum price markups and related laws in other states have been shown to be effective at increasing the price of cigarettes but may remain vulnerable to price manipulation by the tobacco industry without attention to coupons and discounts;<sup>82</sup>

**WHEREAS**, studies have estimated that if price discounts were prohibited across the United States, the number of people who smoke would decrease by more than 13%;<sup>68</sup> the impact of a \$10 federal minimum floor price for cigarettes could reduce the number of packs sold in the United States by 5.7 billion per year and prompt more than 10 million smokers to quit;<sup>55</sup> and that a state-level minimum floor price law designed to raise the average price of cigarette

packs by just under \$2.00 could decrease the prevalence of cigarette use and consumption by more than 4% and reduce income-based smoking disparities in California;<sup>86</sup>

**WHEREAS**, by selling tobacco products, pharmacies reinforce positive social perceptions of smoking, convey tacit approval of tobacco use, and send a message that it is not so dangerous to smoke;<sup>178,179</sup>

**WHEREAS**, pharmacies sell cigarettes cheaper than other stores<sup>118</sup> and advertise tobacco product discounts more than other stores in California;<sup>80</sup>

**WHEREAS**, tobacco-free pharmacy sales policies decrease the availability of tobacco products by reducing tobacco retailer density by up to three times compared with communities that do not have such policies,<sup>119</sup> and immediately after the nationwide CVS policy change to not sell tobacco products, cigarette purchases declined and smokers who had previously purchased their cigarettes exclusively at CVS were up to twice as likely to stop buying cigarettes entirely;<sup>120</sup>

**WHEREAS**, research indicates that the density and proximity of tobacco retailers increase smoking behaviors, including number of cigarettes smoked per day,<sup>90</sup> particularly in neighborhoods experiencing poverty;<sup>90,180 182</sup>

**WHEREAS**, the density of tobacco retailers near adolescents' homes has been associated with increased youth smoking rates<sup>101</sup> and initiation of noncigarette tobacco product use;<sup>183</sup>

**WHEREAS**, adults who smoke are likely to have a harder time quitting when residential proximity to tobacco retailers is closer<sup>107</sup> and density is higher;<sup>184 186</sup>

**WHEREAS**, tobacco retailers are more prevalent in underserved communities, especially in neighborhoods with a higher proportion of African American or Hispanic residents;<sup>93 98</sup>

**WHEREAS**, tobacco retailer density is higher in urban compared to rural areas, except for low-income communities, which have higher tobacco retailer densities regardless of geography, and Hispanic communities, which are associated with variable retailer densities across geography;<sup>97,187</sup>

**WHEREAS**, policies to reduce tobacco retailer density have been shown to be effective<sup>103,104,188,189</sup> and can reduce or eliminate inequities in the location and distribution of tobacco retailers;<sup>103,104</sup>

**WHEREAS**, six out of 10 tobacco retailers in California sold cigar products using cannabis-related flavor descriptors and these retailers were more prevalent in school neighborhoods with lower median income;<sup>190</sup>

**WHEREAS**, both youth and adult tobacco users are more likely to also use cannabis;<sup>191,192</sup>

**WHEREAS**, strict enforcement of policies prohibiting retail sales of cigarettes to youth, sales of cigarettes via vending machines, and other means through which youth gain access to tobacco in the commercial settings can limit their opportunities to obtain these products;<sup>26,27</sup>

**WHEREAS**, strong policy enforcement and monitoring of retailer compliance with tobacco control policies (e.g., requiring identification checks) is necessary to achieve reductions in youth tobacco sales;<sup>193,194</sup>

**WHEREAS**, the Institute of Medicine recognizes that retailers are not likely to comply with youth tobacco access laws unless such laws are actively enforced through retailer compliance checks paired with meaningful penalties on business owners for violations;<sup>195</sup>

**WHEREAS**, state law explicitly permits cities and counties to enact local tobacco retail licensing ordinances, and allows for the suspension or revocation of a local license for a violation of any state tobacco control law (Cal. Bus. & Prof. Code § 22971.3);

**WHEREAS**, California courts have affirmed the power of the [ city council/board of supervisors ] to regulate business activity to discourage violations of law. See, e.g., *Cohen v. Board of Supervisors*, 40 Cal. 3d 277 (1985); *Bravo Vending v. City of Rancho Mirage*, 16 Cal. App. 4th 383 (1993); *Prime Gas, Inc. v. City of Sacramento*, 184 Cal. App. 4th 697 (2010);

**WHEREAS**, over 180 cities and counties in California have passed tobacco retailer licensing ordinances in an effort to stop youth from using tobacco;<sup>9</sup>

**WHEREAS**, the [ city council/board of supervisors ] has a substantial interest in protecting youth and underserved populations from the harms of tobacco use; and

**WHEREAS**, the [ city council/board of supervisors ] finds that a local licensing system for tobacco retailers is appropriate to ensure that retailers comply with tobacco control laws and business standards of the [ Insert jurisdiction name ] in order to protect the health, safety, and welfare of our residents;

**NOW THEREFORE**, it is the intent of the [ city council/board of supervisors ], in enacting this ordinance, to ensure compliance with the business standards and practices of the [ city/county ] and to encourage responsible tobacco retailing and to discourage violations of tobacco-related laws, especially those which prohibit or discourage the sale or distribution of tobacco products to youth, but not to expand or reduce the degree to which the acts regulated by federal or state law are criminally proscribed or to alter the penalties provided therein.

## References

- 1 Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs — 2014*. 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. 2014. Available at: [https://www.cdc.gov/tobacco/stateandcommunity/best\\_practices/pdfs/2014/comprehensive.pdf](https://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/comprehensive.pdf).
- 2 U.S. Department of Health and Human Services. *The Health Consequences of Smoking: 50 Years of Progress. 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. 2014. Available at: [https://www.ncbi.nlm.nih.gov/books/NBK179276/pdf/Bookshelf\\_NBK179276.pdf](https://www.ncbi.nlm.nih.gov/books/NBK179276/pdf/Bookshelf_NBK179276.pdf).
- 3 Family Smoking Prevention and Tobacco Control Act § 3(1), Pub. L. No. 111-31, 123 Stat. 1776-1858 (2009).
- 4 National Academies of Sciences, Engineering, and Medicine. *Public Health Consequences of E-Cigarettes*. 2018. Washington, DC: The National Academies Press. doi: <https://doi.org/10.17226/24952>.
- 5 Fowles J, Barreau T, Wu N. Cancer and Non-Cancer Risk Concerns from Metals in Electronic Cigarette Liquids and Aerosols. *Int J Environ Res Public Health*. 2020;17(6):2146. doi: 10.3390/ijerph17062146.
- 6 Romberg AR, Miller Lo EJ, Cuccia AF, et al. Patterns of nicotine concentrations in electronic cigarettes sold in the United States, 2013-2018. *Drug Alcohol Depend*. 2019;201:1-7. doi: 10.1016/j.drugalcdep.2019.05.029.
- 7 Wang TW, Coats EM, Gammon DG et al. National and State-Specific Unit Sales and Prices for Electronic Cigarettes, United States, 2012-2016. *Prev Chron Dis*. 2018;15:E99. doi: 10.5888/pcd15.170555.
- 8 Lin C, Baiocchi M, Halpern-Felsher B. Longitudinal trends in e-cigarette devices used by Californian youth, 2014-2018. *Addict Behav*. 2020;108:106459. doi: 10.1016/j.addbeh.2020.106459.
- 9 California Tobacco Control Program. *California Tobacco Facts and Figures 2019*. Sacramento, CA: California Department of Public Health. 2019. Available at: <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/CDPH%20Document%20Library/ResearchandEvaluation/FactsandFigures/CATobaccoFactsandFigures2019.pdf>.
- 10 U.S. National Cancer Institute. *A Socioecological Approach to Addressing Tobacco-Related Health Disparities*. National Cancer Institute Tobacco Control Monograph 22. NIH Publication No. 17-CA-8035A. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. 2017.
- 11 United States v. Philip Morris USA, Inc., 449 F. Supp. 2d 1 (D.D.C. 2006), aff'd in part, vacated in part, 566 F.3d 1095 (D.C. Cir. 2009), and order clarified, 778 F. Supp. 2d 8 (D.D.C. 2011).
- 12 California Tobacco Control Program. *California Tobacco Facts and Figures 2018*. Sacramento, CA: California Department of Public Health. 2018. Available at: <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/CDPH%20Document%20Library/ResearchandEvaluation/FactsandFigures/CATobaccoFactsFigures2018.pdf>.
- 13 California Tobacco Education and Research Oversight Committee. *New Challenges — New Promise for All: Toward a Tobacco-Free California Master Plan 2018-2020*. Sacramento, CA: California Tobacco Education and Research Oversight Committee. 2018. Available at: <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/CDPH%20Document%20Library/TEROC/MasterPlan/TEROCMasterPlan2018-2020.pdf>.
- 14 California Tobacco Control Program. Story of Inequity. 2019; <http://tobaccofreeca.com/story-of-inequity>. Accessed May 22, 2020.
- 15 Cal. Bus. & Prof. Code § 22972(a).

- 16 Cal. Bus. & Prof. Code § 22970.1 (Finding that state tobacco excise tax revenues “have declined by hundreds of millions of dollars per year due, in part, to unlawful distributions and untaxed sales of cigarettes and tobacco products,” and that “the licensing of ... retailers will help stem the tide of untaxed distributions and illegal sales of cigarettes and tobacco products.”).
- 17 Cal. Rev. & Tax Code § 30111 (providing that state tobacco taxes “are in lieu of all other state, county, municipal, or district taxes on the privilege of distributing cigarettes or tobacco products.”); Cal. Bus. & Prof. Code § 22964 (providing that the Stop Tobacco Access to Kids Act does not “preempt or otherwise prohibit the adoption of a local standard that imposes a more restrictive legal age to purchase or possess tobacco products.”).
- 18 Cal. Bus. & Prof. Code § 22971.3 (“Nothing in this division preempts or supersedes any local tobacco control law other than those related to the collection of state taxes. Local licensing laws may provide for the suspension or revocation of the local license for any violation of a state tobacco control law.”).
- 19 Cal. Penal Code § 308(a)(1)(A).
- 20 Cal. Bus. & Prof. Code §§ 22950-22964.
- 21 21 C.F.R. §§ 1140.14(a)(4), 1140.16(b).
- 22 21 C.F.R. § 1140.14(a)(2), (b)(2).
- 23 The American Lung Association in California, Center for Tobacco Policy and Organizing. *Matrix of Strong Local Tobacco Retailer Licensing Ordinances*. 2018.
- 24 The American Lung Association in California Center for Tobacco Policy and Organizing. *Local Tobacco Policies in the Retail Environment*. 2017.
- 25 The American Lung Association in California Center for Tobacco Policy and Organizing. *Tobacco Retailer Licensing is Effective*. 2018.
- 26 U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults: 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. 2012. Available at: [https://www.ncbi.nlm.nih.gov/books/NBK99237/pdf/Bookshelf\\_NBK99237.pdf](https://www.ncbi.nlm.nih.gov/books/NBK99237/pdf/Bookshelf_NBK99237.pdf).
- 27 DiFranza JR. Which interventions against the sale of tobacco to minors can be expected to reduce smoking? *Tob Control*. 2012;21:436-442. doi: 10.1136/tobaccocontrol-2011-050145.
- 28 21 U.S.C. § 387g(a)(1)(A).
- 29 Villanti AC, Johnson AL, Glasser AM. Association of Flavored Tobacco Use With Tobacco Initiation and Subsequent Use Among US Youth and Adults, 2013-2015. *JAMA Netw Open*. 2019;2(10):e1913804. doi: 10.1001/jamanetworkopen.2019.13804.
- 30 Villanti AC, Mowery PD, Delnevo CD, Niaura RS, Abrams DB, Giovino GA. Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004-2014. *Tob Control*. 2016;25(Suppl 2):ii14-ii20. doi: 10.1136/tobaccocontrol-2016-053329.
- 31 King BA, Dube SR, Tynan MA. Flavored cigar smoking among U.S. adults: findings from the 2009-2010 National Adult Tobacco Survey. *Nicotine Tob Res*. 2013;15(2):608-614. doi: 10.1093/ntr/nts178.
- 32 D’Silva J, Cohn AM, Johnson AL, Villanti AC. Differences in Subjective Experiences to First Use of Menthol and Non-menthol Cigarettes in a National Sample of Young Adult Cigarette Smokers. *Nicotine Tob Res*. 2018;20(9):1062-1068. doi: 10.1093/ntr/ntx181.

- 33 Food and Drug Administration. *Preliminary Scientific Evaluation of the Possible Public Health Effects of Menthol Versus Nonmenthol Cigarettes*. 2013. Available at: <http://www.fda.gov/downloads/ScienceResearch/SpecialTopics/PeerReviewofScientificInformationandAssessments/UCM361598.pdf>.
- 34 Tobacco Products Scientific Advisory Committee. *Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations*. 2011. Available at: <https://wayback.archive-it.org/7993/20170405201731/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>.
- 35 Villanti AC, Collins LK, Niaura RS, Gagosian SY, Abrams DB. Menthol cigarettes and the public health standard: a systematic review. *BMC Public Health*. 2017;17(1):983. doi: 10.1186/s12889-017-4987-z.
- 36 Fallin A, Goodin AJ, King BA. Menthol cigarette smoking among lesbian, gay, bisexual, and transgender adults. *Am J Prev Med*. 2015;48(1):93-97. doi: 10.1016/j.amepre.2014.07.044.
- 37 Cohn AM, Johnson AL, Hair E, Rath JM, Villanti AC. Menthol tobacco use is correlated with mental health symptoms in a national sample of young adults: implications for future health risks and policy recommendations. *Tob Induc Dis*. 2016;14:1. doi: 10.1186/s12971-015-0066-3.
- 38 Chen C, Isabelle LM, Pickworth WB, Pankow JF. Levels of mint and wintergreen flavorants: smokeless tobacco products vs. confectionery products. *Food Chem Toxicol*. 2010;48(2):755-763. doi: 10.1016/j.fct.2009.12.015.
- 39 Morris DS, Fiala SC, Pawlak R. Opportunities for policy interventions to reduce youth hookah smoking in the United States. *Prev Chronic Dis*. 2012;9:120082. doi: 10.5888/pcd9.120082.
- 40 Cameron JM, Howell DN, White JR, Andrenyak DM, Layton ME, Roll JM. Variable and potentially fatal amounts of nicotine in e-cigarette nicotine solutions. *Tob Control*. 2014;23(1):77-78. doi: 10.1136/tobaccocontrol-2012-050604.
- 41 Tsai J, Walton K, Coleman BN, et al. Reasons for Electronic Cigarette Use Among Middle and High School Students - National Youth Tobacco Survey, United States, 2016. *MMWR Morb Mortal Wkly Rep*. 2018;67(6):196-200. doi: 10.15585/mmwr.mm6706a5.
- 42 Wang TW, Gentzke AS, Creamer MR, et al. Tobacco Product Use and Associated Factors Among Middle and High School Students - United States, 2019. *MMWR Surveill Summ*. 2019;68(12):1-22. doi: 10.15585/mmwr.ss6812a1.
- 43 Kuiper NM, Gammon D, Loomis B, et al. Trends in Sales of Flavored and Menthol Tobacco Products in the United States during 2011-2015. *Nicotine Tob Res*. 2018;20(6):698-706. doi: 10.1093/ntr/ntx123.
- 44 Cullen KA, Ambrose BK, Gentzke AS, et al. Notes from the field: use of electronic cigarettes and any tobacco product among middle and high school students—United States, 2011-2018. *MMWR Morb Mortal Wkly Rep*. 2018;67(45):1276-1277. doi: 10.15585/mmwr.mm6745a5.
- 45 Cullen KA, Gentzke AS, Sawdey MD, et al. e-Cigarette Use Among Youth in the United States, 2019. *JAMA*. 2019;322(21):2095-2103. doi: 10.1001/jama.2019.18387.
- 46 Ambrose BK, Day HR, Rostron B, et al. Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014. *JAMA*. 2015;314(17):1871-1873. doi: 10.1001/jama.2015.13802.
- 47 Bonhomme MG, Holder-Hayes E, Ambrose BK, et al. Flavoured non-cigarette tobacco product use among US adults: 2013-2014. *Tob Control*. 2016;25(Suppl 2):ii4-ii13. doi: 10.1136/tobaccocontrol-2016-053373.
- 48 Institute of Medicine. *Ending the Tobacco Problem: A Blueprint for the Nation*. Washington, DC. 2007. Available at: <https://www.nap.edu/catalog/11795/ending-the-tobacco-problem-a-blueprint-for-the-nation>.
- 49 Community Preventive Services Task Force. *Reducing Tobacco Use and Secondhand Smoke Exposure: Interventions to Increase the Unit Price for Tobacco Products*. 2012. Available at: <https://www.thecommunityguide.org/findings/tobacco-use-interventions-increase-unit-price-tobacco>.

- 50 Centers for Disease Control and Prevention. State Cigarette Minimum Price Laws — United States, 2009. *MMWR Morb Mortal Wkly Rep.* 2010;59(13):389-392.
- 51 Chaloupka FJ, Cummings KM, Morley C, Horan J. Tax, price and cigarette smoking: evidence from the tobacco documents and implications for tobacco company marketing strategies. *Tob Control.* 2002;11(Supplement 1):i62-i72. doi: 10.1136/tc.11.suppl\_1.i62.
- 52 Chaloupka F. *Tobacco Control Lessons Learned: The Impact of State and Local Policies.* ImpacTeen. 2010. Available at: <http://tobaccopolicycenter.org/wp-content/uploads/2017/11/153.pdf>.
- 53 Chaloupka FJ, Yurekli A, Fong GT. Tobacco taxes as a tobacco control strategy. *Tob Control.* 2012;21(2):172-180. doi: 10.1136/tobaccocontrol-2011-050417.
- 54 Maciosek MV, LaFrance AB, St. Claire AW, et al. The 20-year impact of tobacco price and tobacco control expenditure increases in Minnesota, 1998-2017. *PLoS ONE.* 2020;15(3): e0230364. doi: 10.1371/journal.pone.0230364.
- 55 Doogan NJ, Wewers ME, Berman M. The Impact of a Federal Cigarette Minimum Pack Price Policy on Cigarette Use in the USA. *Tob Control.* 2018;27(2):203-208. doi: 10.1136/tobaccocontrol-2016-053457.
- 56 Huang J, Gwarnicki C, Xu X, Caraballo RS, Wada R, Chaloupka FJ. A comprehensive examination of own- and cross-price elasticities of tobacco and nicotine replacement products in the U.S. *Prev Med.* 2018. doi: 10.1016/j.ypmed.2018.04.024.
- 57 Pesko MF, Huang J, Johnston LD, Chaloupka FJ. E-cigarette price sensitivity among middle- and high-school students: evidence from monitoring the future. *Addiction.* 2018;113(5):896-906. doi: 10.1111/add.14119.
- 58 Jawad M, Lee JT, Glantz S, Millett C. Price elasticity of demand of non-cigarette tobacco products: a systematic review and meta-analysis. *Tob Control.* 2018. doi: 10.1136/tobaccocontrol-2017-054056.
- 59 Centers for Disease Control and Prevention. *STATE System Excise Tax Fact Sheet.* <https://www.cdc.gov/statesystem/factsheets/excisetax/ExciseTax.html>. Accessed May 27, 2020.
- 60 Cal. Rev. & Tax. Code § 30111.
- 61 Schleicher NC, Johnson T, Ahmad I, Henriksen L. *Tobacco Marketing in California's Retail Environment (2011-2014).* Palo Alto, CA: Stanford Prevention Research Center, Stanford University School of Medicine. 2015.
- 62 Federal Trade Commission. *Cigarette Report for 2018.* 2019. Available at: <https://www.ftc.gov/reports/federal-trade-commission-cigarette-report-2018-smokeless-tobacco-report-2018>.
- 63 Wang TW, Falvey K, Gammon DG, et al. Sales Trends in Price-Discounted Cigarettes, Large Cigars, Little Cigars, and Cigarillos—United States, 2011-2016. *Nicotine Tob Res.* 2018;20(11):1401-1406. doi: 10.1093/ntr/ntx249.
- 64 White VM, White MM, Freeman K, Gilpin EA, Pierce JP. Cigarette promotional offers: who takes advantage? *Am J Prev Med.* 2006;30(3):225-231. doi: 10.1016/j.amepre.2005.11.001.
- 65 Pierce JP, Gilmer TP, Lee L, Gilpin EA, de Beyer J, Messer K. Tobacco industry price-subsidizing promotions may overcome the downward pressure of higher prices on initiation of regular smoking. *Health Econ.* 2005;14(10):1061-1071. doi: 10.1002/hec.990.
- 66 Ling PM, Glantz SA. Why and How the Tobacco Industry Sells Cigarettes to Young Adults: Evidence From Industry Documents. *Am J Public Health.* 2002;92(6):908-916. doi: 10.2105/ajph.92.6.908.
- 67 Lempert LK, Glantz SA. Tobacco Industry Promotional Strategies Targeting American Indians/Alaska Natives and Exploiting Tribal Sovereignty. *Nicotine Tob Res.* 2019;21(7):940-948. doi: 10.1093/ntr/nty048.
- 68 Slater SJ, Chaloupka FJ, Wakefield M, Johnston LD, O'Malley PM. The impact of retail cigarette marketing practices on youth smoking uptake. *Arch Pediatr Adolesc Med.* 2007;161(5):440-445. doi: 10.1001/archpedi.161.5.440.

- 69 Xu X, Wang X, Caraballo RS. Is Every Smoker Interested in Price Promotions? An Evaluation of Price-Related Discounts by Cigarette Brands. *J Public Health Manag Pract.* 2016;22(1):20-28. doi: 10.1097/PHH.0000000000000223.
- 70 Xu X, Pesko MF, Tynan MA, Gerzoff RB, Malarcher AM, Pechacek TF. Cigarette price-minimization strategies by U.S. smokers. *Am J Prev Med.* 2013;44(5):472-476. doi: 10.1016/j.amepre.2013.01.019.
- 71 Cal. Health & Safety Code § 118950(b)-(c)(1). The California Supreme Court upheld this law, finding that federal law did not preempt the state law. *People v. R.J. Reynolds Tobacco Co.*, 124 P.3d 408 (Cal. 2005).
- 72 Chicago Municipal Code § 4-64-905.
- 73 New York City Administrative Code § 17-176.1.
- 74 Oakland, California, Municipal Code § 5.91.040.
- 75 Providence, Rhode Island Municipal Code § 14-303.
- 76 Nat'l Ass'n of Tobacco Outlets, Inc. v. City of New York, 27 F. Supp. 3d 415 (S.D.N.Y. 2014).
- 77 Nat'l Ass'n of Tobacco Outlets, Inc. v. City of Providence, R.I., 731 F.3d 71 (1st Cir. 2013).
- 78 21 C.F.R. § 1140.16(b).
- 79 Schleicher NC, Johnson T, Rigdon J, et al. *California Tobacco Retail Surveillance Study, 2017*. Available at: <https://www.cdph.ca.gov/Programs/CCDC/DCDC/CTCB/CDPH%20Document%20Library/ResearchandEvaluation/SurveyInstrumentsTrainingManualsAndProtocols/CaliforniaTobaccoRetailSurveillanceStudy2017-CTRSS%206-4.pdf>.
- 80 Schleicher NC, Johnson T, Vishwakarma M, et al. *California Tobacco Retail Surveillance Study 2018*. Available at: <https://www.cdph.ca.gov/Programs/CCDC/DCDC/CTCB/CDPH%20Document%20Library/ResearchandEvaluation/Reports/CaliforniaTobaccoRetailSurveillanceStudyReport-2018.pdf>.
- 81 Henriksen L, Andersen-Rodgers E, Zhang X, et al. Neighborhood Variation in the Price of Cheap Tobacco Products in California: Results From Healthy Stores for a Healthy Community. *Nicotine Tob Res.* 2017;19(11):1330-1337. doi: 10.1093/ntr/ntx089.
- 82 Huang J, Chiqui JF, DeLong H, Mirza M, Diaz MC, Chaloupka FJ. Do state minimum markup/price laws work? Evidence from retail scanner data and TUS-CPS. *Tob Control.* 2016;25(Suppl 1):i52-i59. doi: 10.1136/tobaccocontrol-2016-053093.
- 83 Sonoma County, California Municipal Code § 32A-3(k).
- 84 Windsor, California Municipal Code § 3-11-115(l).
- 85 San Leandro Municipal Code § 4-36-150(k).86 Golden SD, Kim K, Kong A, et al. Simulating the Impact of a Cigarette Minimum Floor Price Law on Adult Smoking Prevalence in California. *Nicotine Tob Res.* 2020;ntaa046. doi: 10.1093/ntr/ntaa046.
- 87 Golden SD, Farrelly MC, Luke DA, Ribisl KM. Comparing projected impacts of cigarette floor price and excise tax policies on socioeconomic disparities in smoking. *Tob Control.* 2016;25(Suppl 1):i60-i66. doi: 10.1136/tobaccocontrol-2016-053230.
- 88 Brock B, Carlson SC, Moilanen M, Schillo BA. Effectiveness of Local Policy Efforts to Increase the Price of Cheap Cigars in Minnesota. *Am J Public Health.* 2017;107(1):127-129. doi: 10.2105/AJPH.2016.303517.
- 89 Hill S, Amos A, Clifford D, Platt S. Impact of tobacco control interventions on socioeconomic inequalities in smoking: review of the evidence. *Tob Control.* 2014;23(e2):e89-97. doi: 10.1136/tobaccocontrol-2013-051110.
- 90 Chuang YC, Cubbin C, Ahn D, Winkleby MA. Effects of neighbourhood socioeconomic status and convenience store concentration on individual level smoking. *J Epidemiol Community Health.* 2005;59(7):568-573. doi: 10.1136/jech.2004.029041.

- 91 Lipperman-Kreda S, Grube JW, Friend KB, Mair C. Tobacco outlet density, retailer cigarette sales without ID checks and enforcement of underage tobacco laws: associations with youths' cigarette smoking and beliefs. *Addiction*. 2016;111(3):525-532. doi: 10.1111/add.13179.
- 92 Novak SP, Reardon SF, Raudenbush SW, Buka SL. Retail tobacco outlet density and youth cigarette smoking: a propensity-modeling approach. *Am J Public Health*. 2006;96(4):670-676. doi: 10.2105/AJPH.2004.061622.
- 93 Siahpush M, Jones PR, Singh GK, Timsina LR, Martin J. Association of availability of tobacco products with socio-economic and racial/ethnic characteristics of neighbourhoods. *Public Health*. 2010;124(9):525-529. doi: 10.1016/j.puhe.2010.04.010.
- 94 Lee JG, Sun DL, Schleicher NM, Ribisl KM, Luke DA, Henriksen L. Inequalities in tobacco outlet density by race, ethnicity and socioeconomic status, 2012, USA: results from the ASPIRE Study. *J Epidemiol Community Health*. 2017;71(5):487-492. doi: 10.1136/jech-2016-208475.
- 95 Loomis BR, Kim AE, Goetz JL, Juster HR. Density of tobacco retailers and its association with sociodemographic characteristics of communities across New York. *Public Health*. 2013;127(4):333-338. doi: 10.1016/j.puhe.2013.01.013.
- 96 Yu D, Peterson NA, Sheffer MA, Reid RJ, Schnieder JE. Tobacco outlet density and demographics: analysing the relationships with a spatial regression approach. *Public Health*. 2010;124(7):412-416. doi: 10.1016/j.puhe.2010.03.024.
- 97 Rodriguez D, Carlos HA, Adachi-Mejia AM, Berke EM, Sargent JD. Predictors of tobacco outlet density nationwide: a geographic analysis. *Tob Control*. 2013;22(5):349-355. doi: 10.1136/tobaccocontrol-2011-050120.
- 98 Fakunle DO, Curriero FC, Leaf PJ, Furr-Holden DM, Thorpe RJ. Black, White, or Green? The Effects of Racial Composition and Socioeconomic Status on Neighborhood-Level Tobacco Outlet Density. *Ethn Health*. 2019;1-16. doi: 10.1080/13557858.2019.1620178.
- 99 Finan LJ, Lipperman-Kreda S, Abadi M, et al. Tobacco outlet density and adolescents' cigarette smoking: a meta-analysis. *Tob Control*. 2019;28:27-33. doi: 10.1136/tobaccocontrol-2017-054065.
- 100 Schleicher NC, Johnson TO, Fortmann SP, Henriksen L. Tobacco outlet density near home and school: Associations with smoking and norms among US teens. *Prev Med*. 2016;91:287-293. doi: 10.1016/j.ypmed.2016.08.027.
- 101 Finan LJ, Lipperman-Kreda S, Abadi M, et al. Tobacco Outlet Density and Adolescents' Cigarette Smoking: A Meta-Analysis. *Tob Control*. 2019;28(1):27-33. doi: 10.1136/tobaccocontrol-2017-054065.
- 102 Lovato CY, Hsu HCH, Sabiston CM, Hadd V, Nykiforuk CIJ. Tobacco Point-of-Purchase marketing in school neighbourhoods and school smoking prevalence: a descriptive study. *Can J Public Health*. 2007;98(4):265-270. doi: 10.17269/cjph.98.865.
- 103 Ribisl KM, Luke DA, Bohannon DL, Sorg AA, Moreland-Russell S. Reducing Disparities in Tobacco Retailer Density by Banning Tobacco Product Sales Near Schools. *Nicotine Tob Res*. 2017;19(2):239-244. doi: 10.1093/ntr/ntw185.
- 104 HG, Henry KA, Scheeres A, et al. Tobacco Retail Licensing and Density 3 Years After License Regulations in Philadelphia, Pennsylvania (2012-2019). *Am J Public Health*. 2020;110(4):547-553. doi: 10.2105/AJPH.2019.305512.
- 105 Cantrell J, Pearson JL, Anesetti-Rothermel A, Xiao H, Kirchner TR, Vallone D. Tobacco Retail Outlet Density and Young Adult Tobacco Initiation. *Nicotine Tob Res*. 2016;18(2):130-137. doi: 10.1093/ntr/ntv036.
- 106 Young-Wolff KC, Henriksen L, Delucchi K, Prochaska JJ. Tobacco retailer proximity and density and nicotine dependence among smokers with serious mental illness. *Am J Public Health*. 2014;104(8):1454-1463. doi: 10.2105/AJPH.2014.301917.
- 107 Reitzel LR, Cromley EK, Li Y, et al. The effect of tobacco outlet density and proximity on smoking cessation. *Am J Public Health*. 2011;101(2):315-320. doi: 10.2105/AJPH.2010.191676.

- 108 Luke DA, Ribisl KM, Smith C, Sorg AA. Family Smoking Prevention And Tobacco Control Act: banning outdoor tobacco advertising near schools and playgrounds. *Am J Prev Med.* 2011;40(3):295-302. doi: 10.1016/j.amepre.2010.11.018.
- 109 Fakunle DO, Milam AJ, Furr-Holden CD, Butler J, 3rd, Thorpe RJ, Jr., LaVeist TA. The inequitable distribution of tobacco outlet density: the role of income in two Black Mid-Atlantic geopolitical areas. *Public Health.* 2016;136:35-40. doi: 10.1016/j.puhe.2016.02.032.
- 110 Galiatsatos P, Kineza C, Hwang S, et al. Neighbourhood characteristics and health outcomes: evaluating the association between socioeconomic status, tobacco store density and health outcomes in Baltimore City. *Tob Control.* 2018;27(e1):e19-e24. doi: 10.1136/tobaccocontrol-2017-053945.
- 111 Berg CJ, Henriksen L, Cavazos-Rehg PA, Haardoefer R, Freisthler B. The emerging marijuana retail environment: Key lessons learned from tobacco and alcohol retail research. *Addict Behav.* 2018;81:26-31. doi: 10.1016/j.addbeh.2018.01.040.
- 112 Feighery EC, Schleicher NC, Boley Cruz T, Unger JB. An examination of trends in amount and type of cigarette advertising and sales promotions in California stores, 2002-2005. *Tob Control.* 2008;17(2):93-98. doi: 10.1136/tc.2007.022046.
- 113 Jernigan DH, Sparks M, Yang E, Schwartz R. Using public health and community partnerships to reduce density of alcohol outlets. *Prev Chronic Dis.* 2013;10:E53. doi: 10.5888/pcd10.120090.
- 114 Cal. Bus. & Prof. Code § 23817.5.
- 115 Bright Research Group for the San Francisco Tobacco-Free Project. *Reducing Tobacco Retail Density in San Francisco: A Case Study.* 2016. Available at: <https://sanfranciscotobaccofreeproject.org/wp-content/uploads/Retail-Density-Case-Study-1.27.16-FINAL-to-TFP.pdf>.
- 116 Center for Public Health Systems Science. *Point-of-Sale Report to the Nation: Realizing the Power of States and Communities to Change the Tobacco Retail and Policy Landscape.* St. Louis, MO: Center for Public Health Systems Science at the Brown School at Washington University in St. Louis and the National Cancer Institute, State and Community Tobacco Control Research Initiative. 2016. Available at: [https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/e/1037/files/2017/10/Reporttothenation\\_2016-2mfepqr.pdf](https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/e/1037/files/2017/10/Reporttothenation_2016-2mfepqr.pdf).
- 117 Attorneys General Call on Retail Pharmacies to Stop Selling Tobacco Products [press release]. March 28, 2014. Available at: <https://news.delaware.gov/2014/03/18/attorneys-general-call-on-retail-pharmacies-to-stop-selling-tobacco-products>.
- 118 Henriksen L, Schleicher NC, Barker DC, Liu Y, Chaloupka FJ. Prices for Tobacco and Nontobacco Products in Pharmacies Versus Other Stores: Results From Retail Marketing Surveillance in California and in the United States. *Am J Public Health.* 2016;106(10):1858-1864. doi: 10.2105/AJPH.2016.303306.
- 119 Jin Y, Lu B, Klein EG, Berman M, Foraker RE, Ferketich AK. Tobacco-Free Pharmacy Laws and Trends in Tobacco Retailer Density in California and Massachusetts. *Am J Public Health.* 2016;106(4):679-685. doi: 10.2105/AJPH.2015.303040.
- 120 Polinski JM, Howell B, Gagnon MA, Kymes SM, Brennan TA, Shrank WH. Impact of CVS Pharmacy's Discontinuation of Tobacco Sales on Cigarette Purchasing (2012-2014). *Am J Public Health.* 2017;107(4):556-562. doi: 10.2105/AJPH.2016.303612.
- 121 Cal. Bus. & Prof. Code § 22963.
- 122 Prevent All Cigarettes Trafficking Act of 2009, Pub. L. No. 111-154, 124 Stat. 1087 (2009).
- 123 21 U.S.C. § 387f(d)(4)(A).

- 124 Food and Drug Administration. *Report to Congress — Progress and Effectiveness of the Implementation of the Family Smoking Prevention and Tobacco Control Act*. U.S. Department of Health and Human Services. 2013. Available at: <https://www.fda.gov/downloads/tobaccoproducts/labeling/rulesregulationsguidance/ucm371271.pdf>.
- 125 Williams RS, Derrick J, Phillips KJ. Cigarette sales to minors via the internet: how the story has changed in the wake of federal regulation. *Tob Control*. 2017;26(4):415-420. doi: 10.1136/tobaccocontrol-2015-052844.
- 126 Williams RS, Derrick J, Liebman AK, LaFleur K, Ribisl KM. Content analysis of age verification, purchase and delivery methods of internet e-cigarette vendors, 2013 and 2014. *Tob Control*. 2018;27(3):287-293. doi: 10.1136/tobaccocontrol-2016-053616.
- 127 Williams RS, Derrick JC. Internet Little Cigar and Cigarillo Vendors: Surveillance of Sales and Marketing Practices via Website Content Analysis. *Prev Med*. 2018;109:51-57. doi: 10.1016/j.ypmed.2018.01.017.
- 128 FDA announces comprehensive regulatory plan to shift trajectory of tobacco-related disease, death [press release]. July 28, 2017. Available at: <https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm568923.htm>.
- 129 Stebbins KR. Tobacco, politics and economics: Implications for global health. *Social Science & Medicine*. 1991;33(12):1317-1326. doi: 10.1016/0277-9536(91)90275-h.
- 130 Wang TW, Gentzke A, Sharapova S, Cullen KA, Ambrose BK, Jamal A. Tobacco Product Use Among Middle and High School Students - United States, 2011-2017. *MMWR Morb Mortal Wkly Rep*. 2018;67(22):629-633. doi: 10.15585/mmwr.mm6722a3.
- 131 Pesko MF, Robarats AM. Adolescent Tobacco Use in Urban Versus Rural Areas of the United States: The Influence of Tobacco Control Policy Environments. *J Adolesc Health*. 2017;61(1):70-76. doi: 10.1016/j.jadohealth.2017.01.019.
- 132 Chaffee BW, Couch ET, Urata J, et al. Predictors of Smokeless Tobacco Susceptibility, Initiation, and Progression Over Time Among Adolescents in a Rural Cohort. *Subst Use Misuse*. 2019;54(7):1154-1166. doi: 10.1080/10826084.2018.
- 133 Healthy Retail SF. <https://susanahennessey-lavery.squarespace.com>. Accessed July 13, 2018.
- 134 Davis KC, Grimshaw V, Merriman D, et al. Cigarette trafficking in five northeastern US cities. *Tob Control*. 2014;23(e1):e62-68. doi: 10.1136/tobaccocontrol-2013-051244.
- 135 Kurti MK, von Lampe K, Thompkins DE. The illegal cigarette market in a socioeconomically deprived inner-city area: the case of the South Bronx. *Tob Control*. 2013;22(2):138-140. doi: 10.1136/tobaccocontrol-2011-050412.
- 136 World Health Organization. *WHO Report on the Global Tobacco Epidemic, 2019: Offer Help to Quit Tobacco Use*. 2019. Available at: <https://apps.who.int/iris/handle/10665/326043>.
- 137 California Department of Public Health, California Tobacco Control Program. The #1 Preventable Cause of Death. <https://tobaccofreeca.com/health/tobacco-is-the-number-one-preventable-cause-of-death>. Accessed May 12, 2020.
- 138 Lortet-Tieulent J, Goding Sauer A, Siegel RL, et al. State-Level Cancer Mortality Attributable to Cigarette Smoking in the United States. *JAMA Intern Med*. 2016;176(12):1792-1798. doi: 10.1001/jamainternmed.2016.6530.
- 139 Campaign for Tobacco-Free Kids. The Toll of Tobacco in California. <https://www.tobaccofreekids.org/problem/toll-us/california>. Accessed May 12, 2020.
- 140 California Tobacco Control Program. *California Tobacco Facts and Figures 2016*. Sacramento, CA: California Department of Public Health. 2016.
- 141 Kann L, McManus T, Harris WA, et al. Youth Risk Behavior Surveillance — United States, 2017. *MMWR Surveill Summ*. 2018;67(8):1-114 and Supplementary Tables 52-93. doi: 10.15585/mmwr.ss6708a1.
- 142 Burrows, D.S. "Estimated Change in Industry Trend Following Federal Excise Tax Increase." UCSF Library Truth Tobacco Industry Documents. Date Mod. Industry, Apr. 17, 2012: <https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/nnnw0084>. Accessed May 12, 2020.

- 143 National Association of Convenience Stores. *U.S. Convenience Store Count*. Available at: <https://www.convenience.org/Research/FactSheets/ScopeofIndustry/IndustryStoreCount>; Statista. *In-store merchandise sales of convenience stores in the United States in 2018, by product category*. Available at: <https://www.statista.com/statistics/308783/us-convenience-stores-in-store-merchandise-sales-by-category> (Cigarettes + Other Tobacco Products Sales \$81.056 billion).
- National Association of Convenience Stores. *Convenience Stores and Their Communities*. 2019. Available at: <https://www.convenience.org/Topics/CommunityToolkit/How-Stores-Work>.
- 144 McLaughlin I. *License to Kill?: Tobacco Retailer Licensing as an Effective Enforcement Tool*. Tobacco Control Legal Consortium. 2010. Available at: <http://www.publichealthlawcenter.org/sites/default/files/resources/tclc-syn-retailer-2010.pdf>.
- 145 Institute of Medicine. *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products*. Washington, DC: The National Academies Press. 2015. Available at: <https://www.nap.edu/catalog/18997/public-health-implications-of-raising-the-minimum-age-of-legal-access-to-tobacco-products>.
- 146 Villanti AC, Johnson AL, Ambrose BK, et al. Flavored Tobacco Product Use in Youth and Adults: Findings From the First Wave of the PATH Study (2013-2014). *Am J Prev Med*. 2017;53(2):139-151. doi: 10.1016/j.amepre.2017.01.026.
- 147 California Department of Public Health, California Tobacco Control Program. *2016 Healthy Stores for a Healthy Community Survey Results-all counties*. 2016. Available at: <https://www.cdph.ca.gov/Programs/CCDC/DCDC/CTCB/CDPH%20Document%20Library/ResearchandEvaluation/Reports/HSHTechnicalReport2016.pdf>.
- 148 Hersey JC, Ng SW, Nonnemaker JM, et al. Are menthol cigarettes a starter product for youth? *Nicotine Tob Res*. 2006;8(3):403-413. doi: 10.1080/14622200600670389.
- 149 Wackowski O, Delnevo CD. Menthol cigarettes and indicators of tobacco dependence among adolescents. *Addict Behav*. 2007;32(9):1964-1969. doi: 10.1016/j.addbeh.2006.12.023.
- 150 Oliver AJ, Jensen JA, Vogel RI, Anderson AJ, Hatsukami DK. Flavored and nonflavored smokeless tobacco products: rate, pattern of use, and effects. *Nicotine Tob Res*. 2013;15(1):88-92. doi: 10.1093/ntr/nts093.
- 151 Villanti AC, Johnson AL, Glasser AM, et al. Association of Flavored Tobacco Use With Tobacco Initiation and Subsequent Use Among US Youth and Adults, 2013-2015. *JAMA Netw Open*. 2019;2(10):e1913804. doi: 10.1001/jamanet-workopen.2019.13804.
- 152 Yerger VB, Przewoznik J, Malone RE. Racialized geography, corporate activity, and health disparities: tobacco industry targeting of inner cities. *J Health Care Poor Underserved*. 2007;18(4 Suppl):10-38. doi: 10.1353/hpu.2007.0120.
- 153 Kreslake JM, Wayne GF, Alpert HR, Koh HK, Connolly GN. Tobacco industry control of menthol in cigarettes and targeting of adolescents and young adults. *Am J Public Health*. 2008;98(9):1685-1692. doi: 10.2105/AJPH.2007.125542.
- 154 Henriksen L, Schleicher NC, Dauphinee AL, Fortmann SP. Targeted advertising, promotion, and price for menthol cigarettes in California high school neighborhoods. *Nicotine Tob Res*. 2012;14(1):116-121. doi: 10.1093/ntr/ntr122.
- 155 Courtemanche CJ, Palmer MK, Pesko MF. Influence of the Flavored Cigarette Ban on Adolescent Tobacco Use. *Am J Prev Med*. 2017;52(5):e139-e146. doi: 10.1016/j.amepre.2016.11.019.
- 156 Farley SM, Johns M. New York City flavoured tobacco product sales ban evaluation. *Tob Control*. 2017;26(1):78-84. doi: 10.1136/tobaccocontrol-2015-052418.
- 157 Pearlman DN, Arnold JA, Guardino GA, Boles Welsh E. Advancing Tobacco Control Through Point of Sale Policies, Providence, Rhode Island. *Prev Chronic Dis*. 2019;16:E129. doi: 10.5888/pcd16.180614.
- 158 Hoffmann D, Hoffmann I. Chapter 3: Chemistry and Toxicology. In: *Smoking and Tobacco Control Monograph No. 9: Cigars: Health Effects and Trends*. National Cancer Institute; 1998.

- 159 National Cancer Institute. Cigar Smoking and Cancer. 2020; <https://www.cancer.gov/about-cancer/causes-prevention/risk/tobacco/cigars-fact-sheet>. Accessed May 12, 2020.
- 160 Waziry R, Jawad M, Ballout RA, Al Akel M, Akl EA. The effects of waterpipe tobacco smoking on health outcomes: an updated systematic review and meta-analysis. *Int J Epidemiol*. 2017;46(1):32-43. doi: 10.1093/ije/dyw021.
- 161 Stepanov I, Biener L, Knezevich A, et al. Monitoring tobacco-specific N-nitrosamines and nicotine in novel Marlboro and Camel smokeless tobacco products: findings from Round 1 of the New Product Watch. *Nicotine Tob Res*. 2012;14(3):274-281. doi: 10.1093/ntr/ntr209.
- 162 National Cancer Institute. *Monograph 2: Smokeless Tobacco or Health: An International Perspective*. 1992.
- 163 Pickworth WB, Rosenberry ZR, Koszowski B. Large Cigars: Smoking Topography and Toxicant Exposure. *Nicotine Tob Res*. 2018;20(2):183-191. doi: 10.1093/ntr/ntw289.
- 164 Pickworth WB, Rosenberry ZR, Yi D, et al. Cigarillo and Little Cigar Mainstream Smoke Constituents from Replicated Human Smoking. *Chem Res Toxicol*. 2018;31(4):251-258. doi: 10.1021/acs.chemrestox.7b00312.
- 165 Yao T, Ong MK, Max W, et al. Responsiveness to cigarette prices by different racial/ethnic groups of US adults. *Tob Control*. 2018;27(3):301-309. doi: 10.1136/tobaccocontrol-2016-053434.
166. Levy DT, Tam J, Kuo C, Fong GT, Chaloupka F. The Impact of Implementing Tobacco Control Policies: The 2017 Tobacco Control Policy Scorecard. *J Public Health Manag Pract*. 2018;24(5):448-457. doi: 10.1097/PHH.0000000000000780.
- 167 Tessman GK, Caraballo RS, Corey CG, Xu X, Chang CM. Exposure to tobacco coupons among U.S. middle and high school students. *Am J Prev Med*. 2014;47(2 Suppl 1):S61-68. doi: 10.1016/j.amepre.2014.05.001.
- 168 Mills SD, Golden SD, Henricksen L. Neighbourhood disparities in the price of the cheapest cigarettes in the USA. *J Epidemiol Community Health*. 2019;73(9):894-896. doi: 10.1136/jech-2018-210998.
- 169 Counter Tobacco. Disparities in Point-of-Sale Advertising and Retailer Density. Available at: <https://countertobacco.org/resources-tools/evidence-summaries/disparities-in-point-of-sale-advertising-and-retailer-density>. Accessed May 18, 2020.
- 170 Lempert LK, Glantz SA. Tobacco Industry Promotional Strategies Targeting American Indians/Alaska Natives and Exploiting Tribal Sovereignty. *Nicotine Tob Res*. 2018. doi: 10.1093/ntr/nty048.
- 171 Henriksen L, Schleicher NC, Johnson TO, Roeseler A, Zhu SH. Retail Tobacco Marketing in Rural Versus Nonrural Counties: Product Availability, Discounts, and Prices. *Health Promot Pract*. 2020;21(1\_suppl):275-365. doi: 10.1177/1524839919888652.
- 172 Osman A, Queen T, Choi K, Goldstein AO. Receipt of direct tobacco mail/email coupons and coupon redemption: Demographic and socioeconomic disparities among adult smokers in the United States. *Prev Med*. 2019;126:105778. doi: 10.1016/j.ypmed.2019.105778.
- 173 Cal. Penal Code § 308.3(a).
- 174 Gammon DG, Rogers T, Coats EM, et al. National and state patterns of concept-flavoured cigar sales, USA, 2012-2016. *Tob Control*. 2019;28(4):394-400. doi: 10.1136/tobaccocontrol-2018-054348.
- 175 Gammon DG, Loomis BR, Dench DL, King BA, Fulmer EB, Rogers T. Effect of price changes in little cigars and cigarettes on little cigar sales: USA, Q4 2011-Q4 2013. *Tob Control*. 2016;25(5):538-544. doi: 10.1136/tobaccocontrol-2015-052343.
- 176 Jawad M, Lee JT, Glantz S, Millett C. Price elasticity of demand of non-cigarette tobacco products: a systematic review and meta-analysis. *Tob Control*. 2018;27(6):689-695. doi: 10.1136/tobaccocontrol-2017-054056.

- 177 Ringel JS, Wasserman J, Andreyeva T. Effects of public policy on adolescents' cigar use: evidence from the National Youth Tobacco Survey. *Am J Public Health*. 2005;95(6):995-998. doi: 10.2105/AJPH.2003.030411.178; Katz MH. Banning tobacco sales in pharmacies: the right prescription. *JAMA*. 2008;300(12):1451-1453. doi: 10.1001/jama.300.12.1451.
- 179 Hudmon KS, Fenlon CM, Corelli RL, Prokhorov AV, Schroeder SA. Tobacco sales in pharmacies: time to quit. *Tob Control*. 2006;15(1):35-38. doi: 10.1136/tc.2005.012278.
- 180 Golden SD, K T-M, Kong AY, et al. County-level associations between tobacco retailer density and smoking prevalence in the USA, 2012. *Prev Med Rep*. 2020; Mar:17:101005. doi: 10.1016/j.pmedr.2019.101005.
- 181 Leas EC, Schleicher NC, Prochaska JJ, Henriksen L. Place-Based Inequity in Smoking Prevalence in the Largest Cities in the United States. *JAMA Intern Med*. 2019;179(3):442-444. doi: 10.1001/jamainternmed.2018.5990.
- 182 Farley SM, Maroko AR, Suglia SF, Thorpe LE. The Influence of Tobacco Retailer Density and Poverty on Tobacco Use in a Densely Populated Urban Environment. *Public Health Rep*. 2019;134(2):164-171. doi: 10.1177/0033354918824330.
- 183 Abdel Magid HS, Halpern-Felsher B, Ling PM, et al. Tobacco Retail Density and Initiation of Alternative Tobacco Product Use Among Teens. *J Adolesc Health*. 2020;66(4):423-430. doi: 10.1016/j.jadohealth.2019.09.004.
- 184 Cantrell J, Anesetti-Rothermel A, Pearson JL, Xiao H, Vallone D, Kirchner TR. The impact of the tobacco retail outlet environment on adult cessation and differences by neighborhood poverty. *Addiction*. 2015;110(1):152-161. doi: 10.1111/add.12718.
- 185 Vyas P, Tsoh JY, Gildengorin G, et al. Disentangling individual and neighborhood differences in the intention to quit smoking in Asian American male smokers. *Prev Med Rep*. 2020;18:101064. doi: 10.1016/j.pmedr.2020.101064.
- 186 Shareck M, Datta GD, Vallee J, Kestens Y, Frohlick KL. Is Smoking Cessation in Young Adults Associated With Tobacco Retailer Availability in Their Activity Space? *Nicotine Tob Res*. 2020;22(4):512-521. doi: 10.1093/ntr/nty242.
- 187 Rodriguez D, Carlos HA, Adachi-Mejia AM, Berke EM, Sargent J. Retail tobacco exposure: using geographic analysis to identify areas with excessively high retail density. *Nicotine Tob Res*. 2014;16(2):155-165. doi: 10.1093/ntr/ntt126.
- 188 Myers AE, Hall MG, Isgett LF, Ribisl KM. A comparison of three policy approaches for tobacco retailer reduction. *Prev Med*. 2015;74:67-73. doi: 10.1016/j.ypmed.2015.01.025.
- 189 Luke DA, Hammond RA, Combs T, et al. Tobacco Town: Computational Modeling of Policy Options to Reduce Tobacco Retailer Density. *Am J Public Health*. 2017;107(5):740-746. doi: 10.2105/AJPH.2017.303685.190; Henriksen L, Schleicher NC, Ababseh K, Johnson TO, Fortmann SP. Marijuana as a 'concept' flavour for cigar products: availability and price near California schools. *Tob Control*. 2017. doi: 10.1136/tobaccocontrol-2017-053961.
- 191 Richter L, Pugh BS, Smith PH, Ball SA. The co-occurrence of nicotine and other substance use and addiction among youth and adults in the United States: implications for research, practice, and policy. *Am J Drug Alcohol Abuse*. 2017;43(2):132-145. doi: 10.1080/00952990.2016.1193511.
- 192 Conway KP, Green VR, Kasza KA, et al. Co-occurrence of Tobacco Product Use, Substance Use, and Mental Health Problems Among Youth: Findings From Wave 1 (2013-2014) of the Population Assessment of Tobacco and Health (PATH) Study. *Addict Behav*. 2018;76:208-217. doi: 10.1016/j.addbeh.2017.08.009.
- 193 DiFranza JR. Best Practices for Enforcing State Laws Prohibiting the Sale of Tobacco to Minors. *J Public Health Manag Pract*. 2005;11(6):559-565. doi: 10.1097/00124784-200511000-00014.
- 194 Macinko J, Silver D. Impact of New York City's 2014 Increased Minimum Legal Purchase Age on Youth Tobacco Use. *Am J Public Health*. 2018;108(5):669-675. doi: 10.2105/AJPH.2018.304340.
- 195 Institute of Medicine. *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products*. Washington, DC: National Academies Press. 2015.