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R STREET POLICY STUDY NO. 119
November 2017

BAY AREA FLAVORED TOBACCO BANS UNDERMINE HARM REDUCTION

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INTRODUCTION

Proposals to ban flavored tobacco products – and, by extension, vaping liquids – have been spreading across the Bay Area like a cigarette-ignited wildfire. San Francisco, Oakland, Contra Costa County, Novato and San Leandro have recently passed or proposed some version of the individual flavor ban. The specific ordinances vary, but lawmakers in all of these jurisdictions have been giving short shrift to arguments about tobacco “harm reduction.”

Harm reduction is the idea that instead of promoting abstinence from certain dangerous or risky behaviors, officials should instead promote “a set of practical strategies and ideas aimed at reducing negative consequences” associated with them.¹ Often, the concept is associated with drug use, but it can be applied to most behaviors that carry an inherent risk. Its aim is to help people in practical ways, rather than to focus on bans and arrests.

1. “Principles of Harm Reduction,” Harm Reduction Coalition, 2017. <http://harmreduction.org/about-us/principles-of-harm-reduction>.

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Table 1:
List of ordinances related to flavor bans or restrictions 1

TABLE I: LIST OF ORDINANCES RELATED TO FLAVOR BANS OR RESTRICTIONS

The following ordinances add to the growing list of Bay Area cities that adopt such measures that range from an outright ban of all flavored products in all locations to restricting sales of flavors not including menthol to putting in place geographical restrictions for the sale of tobacco products.

City/County	Date	Ordinance
Contra Costa	2017	Effective as of January 2017
San Francisco	2017	Ordinance passed, referendum qualified
Oakland	2017	Law goes into effect January 2018
San Leandro	2017	Law goes into effect March 2018
Novato City	2017	Law goes into effect January 2018

For example, the R Street Institute recommends that these localities eliminate e-cigarettes and other vapor products from the umbrella of tobacco products in their bans and recognize their potential as a much safer alternative to combustible cigarettes. Doing so would epitomize the harm-reduction approach.

A NOT-SO-PROGRESSIVE APPROACH

Ironically, officials in the Bay Area often express pride in their progressive approach toward health issues. For instance, the city of San Francisco has pioneered needle exchanges to decrease the disease transmission associated with drug-abuse and has focused on combating sexually transmitted diseases such as AIDS through safe sex, rather than abstinence. Such efforts are in keeping with harm reduction’s focus on practical help rather than on passing moral judgment.

Yet when it comes to smoking, these same elected bodies have been focusing instead on bans and heavy regulation, backed by an increased law-enforcement presence. Given the bad reputation that Big Tobacco has among liberal-oriented health advocates, the reason is undoubtedly political, even though the vaping industry is only tangentially connected to the large-scale tobacco companies. One could even argue that these bans actually support Big Tobacco. Global revenues of combustible cigarettes, which are not a part of these bans, are valued at approximately \$700 billion annually, while the e-cigarette market has global revenues of less than 1 percent of traditional cigarettes. Further, restrictions on flavors that essentially ban the sale of e-cigarettes will only bolster sales of their combustible counterparts.

There is little debate that in the past, tobacco companies engaged in disreputable marketing practices aimed at low-income communities², a point that Oakland City Council members made as they championed their ordinance. Some speakers expressed concern that a ban on menthol cigarettes – popular in the African-American community – could lead police to a neighborhood crackdown on illicit markets. But, ultimately, officials there and in other cities backed broad flavor bans, although San Leandro exempted menthol flavors.

While city officials are correct that tobacco is bad for people, this does not mean that these ordinances meaningfully reduce the harm caused by tobacco. Sadly, the inflexible flavor-ban approach, and an unwillingness to look seriously at the e-cigarette alternative, makes it even harder for smokers to break the habit.

But banning these nicotine products will not be effective at reducing the harm caused by tobacco because such bans will push people to use even-more dangerous products. In fact, when asked specifically about vaping, officials tend to give the stock answer that long-term vaping health effects remain unknown.³ However, there is plenty of evidence that, while no nicotine product is entirely safe, e-cigarettes are far safer than combustible alternatives.

These Bay Area bans make it illegal for convenience stores to sell any type of flavored-tobacco products and include e-cigarettes and vaping liquids in the definition of tobacco—but do not ban traditional cigarettes. So, when a nicotine-addicted person goes to the store, that person will still be allowed to buy a pack of traditional non-flavored cigarettes, but will not have access to less-dangerous vaping and smokeless

tobacco products.⁴ Given this, the ban's goal cannot possibly be health related. Such a counterproductive prohibitionist policy is contrary to the core philosophy of harm reduction. Instead of treating smokers respectfully and trying to help them make a practical switch toward less-harmful behaviors, these bans make smokers' lives more difficult and encourage them to make a more dangerous choice.

Health officials prefer that smokers abstain or embrace medically approved cessation devices, such as gum, patches and prescription drugs. Those indeed are the safest choices. But abstinence is tough and medically oriented products only appeal to a small percentage of smokers.⁵ Indeed, state officials have complained publicly about the relatively few number of smokers who embrace these Food and Drug Administration (FDA)-approved products.⁶ Accordingly, vaping has a greater potential for widespread appeal and the stated concern of health advocates – that teens will start vaping and then move on to combustible products – is not bolstered by the evidence. On the contrary, as an R Street Institute study has revealed, “Data from both the United States and the United Kingdom show the vast majority of both adult and teen vapers are smokers or former smokers. Nonetheless, the rise of vaping has correlated with an accelerated reduction in adult and teen smoking rates in both countries.”⁷

Given such compelling evidence, harm-reduction advocates rightly fear that policymakers are sacrificing practical public health solutions for mere moral absolutism. As the Bay Area moves forward with these choice-reducing regulations, it is time to take stock of how we got here and what this means for the region's 7 million residents, approximately 7 percent to 11 percent of whom are smokers.⁸

CALIFORNIA POLICIES AND PRACTICES

At the federal level, the Family Smoking Prevention and Tobacco Control Act (TCA), which was signed into law in 2009, gives the FDA authority to regulate the manufacture, distribution and marketing of tobacco products.⁹ Some of these restrictions include bans on advertising to youth,

4. The category of “smokeless tobacco products” includes products such as flavored snus, snuff, chewing tobacco, flavored cigars and dip.

5. “Minutes of the Tobacco Education and Research Oversight Committee TEROC,” Feb. 14, 2017. <https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CTCB/CDPH/Document%20Library/TEROC/2017MeetingInformation/February13142017/TEROC2-14-17Minutes.pdf>.

6. Ibid.

7. Steven Greenhut and Cameron Smith, “Prop. 56: Tobacco Initiative Fails to Make Crucial Distinctions,” *R Street Shorts* No. 33, August 2016. <http://www.rstreet.org/policy-study/prop-56-tobacco-initiative-fails-to-make-crucial-distinctions>.

8. Philip Reece, “Who Still Smokes in California?,” *The Sacramento Bee*, Nov. 25, 2015. <http://www.sacbee.com/site-services/databases/article46473405.html>.

9. Office of Disease Prevention, “What Is the Tobacco Control Act?,” National Institutes of Health, Jan. 5, 2017. <https://prevention.nih.gov/tobacco-regulatory-science-program/about-the-FSPTCA>.

2. Stephen Smith, “Tobacco signs still target cities' poorer areas,” *The Boston Globe*, Aug. 30, 2010. http://archive.boston.com/news/health/articles/2010/08/30/tobacco_signs_still_target_citys_poorer_areas/?page=1.

3. Observations from author after attending tobacco initiative public meetings in Contra Costa County, San Leandro and Oakland.

requirements for reduced-risk product labeling to be supported by scientific evidence and prohibitions on certain characterizing flavors of cigarettes, with exceptions for tobacco and menthol flavors. Importantly, with few exceptions, the TCA preserves state and local authority to further regulate sales and distribution of tobacco products. So, for example, in California, preemption laws prevent restriction on vending-machine sales of tobacco in adult-only venues.¹⁰

State laws

In May 2016, California became the second state to adopt a statewide ban on the sale of tobacco products to people under 21—including e-cigarettes¹¹—and violations can carry strict penalties on retailers. It is estimated that, with 90 percent of smokers starting before age 21, raising the legal age of purchase by three years will cut smoking by 12 percent.¹² And, while there are differing opinions on the efficacy of such a change, it is misguided to create policy that ignores the inherent differences between vaping and cigarette smoking.

Other state tobacco-control policies include increased licensing fees, extended smoke-free workplace requirements and stricter tobacco ordinances on school grounds and college campuses. These other policies include geographical restrictions on retail advertising within 1,000 feet of a school or playground and placement restrictions where tobacco must be situated in such a way to restrict access in a store behind a locked case or store clerk.

The state of California also gives cities and counties wide latitude to set their own standards regarding tobacco control and the protection of public health.¹³ One example is that the state dictates tobacco use on public campuses, but explicitly permits local governments and individual college campuses (e.g., a particular campus of the University of California) to pass more restrictive ordinances, regulations and policies.¹⁴ As a result, all University of California campuses went smoke-free in 2014,¹⁵ California State University cam-

pus went smoke free in September 2017¹⁶ and about half of California's community college districts are smoke-free.¹⁷

Local ordinances

In the Bay Area, cities and counties have adopted measures of differing severities to limit products that are sold in their jurisdictions. Logistically speaking, flavor bans and retail licensing restrictions are the easiest and most popular ways to enforce tobacco control on a community. State zoning restrictions are already in place that require tobacco retailers to operate out of a fixed location or require that retailers are farther than 500 feet from another retailer or 1,000 feet from schools, parks and playgrounds. Such product and licensing restrictions are policymakers' latest targets.

Currently, Contra Costa County proposals include bans on flavored nicotine liquid used for e-cigarettes, flavored cigars and cigarillos, flavored smokeless tobacco and a ban on menthol cigarettes.¹⁸ The Oakland suburb of San Leandro proposed a ban on all flavored tobacco products, including nicotine liquid used for e-cigarettes, but exempts menthol cigarettes. Oakland, however, does include menthol cigarettes in the proposed flavor ban in addition to all other tobacco products. Oakland's ban, however, does exempt "tobacco stores" allowing them to sell flavored products. The city of Novato¹⁹ also considers e-cigarettes and nicotine liquid a tobacco product and restricts flavors to tobacco or menthol unless the product meets minimum packaging standards (five or more cigars or snuff units) or exceeds a minimum price of \$5 for a single cigar. Opponents have petitioned the city to revisit some of these elements.²⁰

Finally, because of the size and geography of the city, a new law approved in San Francisco by its board of supervisors will have some of the most impactful restrictions in the

10. *Tobacco Laws Affecting California*, Change Lab Solutions, 2016. http://www.changelabsolutions.org/sites/default/files/2016_CA_Law_Booklet_FINAL_201611.pdf

11. Senate Bill 7 exempts those on active military duty. See, e.g., "SB7 Tobacco Products: minimum legal age," California Legislative Information, May 4, 2016. http://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520162SB7.

12. This projection is based on a nation-wide increase in minimum legal age and estimates a 3 percent decrease if the minimum legal age were raised to 19, a 12 percent decrease if raised to 21 and a 16 percent decrease if raised to 25. See, e.g., Public Health Implications of *Raising the Minimum Age of Legal Access to Tobacco Products*, R. J. Bonnie and K. Stratton, et al., eds. (Washington, D.C.: The National Academies Press, 2015). http://www.nationalacademies.org/hmd/-/media/Files/Report_Files/2015/TobaccoMinAge/tobacco_minimum_age_report_brief.pdf.

13. "California," Americans for Nonsmokers' Rights, October 2016. <http://www.no-smoke.org/goingsmokefree.php?id=127>.

14. *Tobacco Laws Affecting California*, p. 19. http://www.changelabsolutions.org/sites/default/files/2016_CA_Law_Booklet_FINAL_201611.pdf Page 19

15. Katherine Tam, "UC goes tobacco free," *University of California News*, December 5, 2013. <https://www.universityofcalifornia.edu/news/uc-goes-tobacco-free>.

16. Office of the Chancellor, "Policy on Systemwide Smoke and Tobacco Free Environment, Executive Order 1108," The California State University, April 17, 2017. <https://www.calstate.edu/eo/EO-1108.pdf>.

17. In May 2016, 37 of 114 community college districts in California are either 100% tobacco or smoke free. This number is expected to rise. See, e.g., Patrick McGreevy, "Public college students can still light up on campus after Gov. Brown vetoes smoking ban bill," *Los Angeles Times*, Sept. 26, 2016. <http://www.latimes.com/politics/essential/la-pol-sac-essential-politics-updates-gov-brown-vetoes-smoking-ban-for-1474931450-htlmstory.html>.

18. Contra Costa Municipal Code, as explained by Contra Costa Health Services. http://cchealth.org/tobacco/pdf/provisions_2010.pdf

19. *Novato Municipal Code*, License of Tobacco Retailers, <http://novato.org/home/showdocument?id=20062>

20. Novato's rules are so far-reaching that they undermine one of the city's other oft-stated concerns: promoting affordable housing. The law requires all leases to include a clause "providing that it is a material breach of the agreement for tenant or any other person subject to the control of the tenant or present by invitation or permission of the tenant to violate any law regulating smoking while anywhere on the property." So if a tenant – or even one of the tenant's guests – uses any type of tobacco product, the landlord will have the right to evict them. This will only further limit housing choices for lower-income residents in a city where the median home price is \$759,000. <http://novato.org/home/showdocument?id=20062>

state.²¹ The ordinance includes a ban on all flavored tobacco products, including e-cigarettes. In addition, it extends the flavor ban to menthol cigarettes. Such draconian regulation makes San Francisco a prime location for the development of a thriving black market of tobacco products, as the city is surrounded by water on three sides and borders a city²² and counties that already have fairly strict tobacco sales ordinances in place.

The law's language is fairly simple: "The sale or distribution by an establishment of any flavored tobacco product is prohibited."²³ And if there is any question about whether something is flavored, the city resolves it in an unusual way. Products are presumed to be flavored "if a manufacturer or any of the manufacturer's agents or employees" made any statement or claim "that the tobacco product has a characterizing flavor."²⁴

As justification for the ban, the ordinance claims that "scientific modeling has projected that a national ban on menthol cigarettes could save between 300,000 and 600,000 lives by 2050."²⁵ However, this estimate, which is based on scenarios that include switching to non-mentholated cigarettes or quitting altogether, does not wrestle with the likely black-market issue.²⁶ The ordinance also contends that vaping products are part of tobacco companies' "graduation strategy" to encourage new users to start with tobacco products of lower levels of nicotine and progress to products with higher levels,²⁷ despite the fact that e-cigarettes have been a remarkably successful means to help smokers break their habit.²⁸ In fact, in contrast to the estimate of lives saved by banning menthols, a study conducted by the same researchers predicted that if the trajectory of e-cigarette use continues at a population level, they have the potential to save between 1.6 million and 6.6 million lives through the end of

the century.²⁹ Of course, this can only happen if e-cigarettes are as widely available as combustible cigarettes.

Ironically, the San Francisco Controller's Office inadvertently made the case for tobacco harm reduction in its June study that evaluated the economic impact of the flavored-tobacco ban:

Because some nicotine products are affected by the proposed ban, while others are not, existing users of flavored tobacco may replace the consumption of flavored tobacco products with unflavored. This switching behavior would likely occur most with cigarettes, since essentially all electronic cigarettes are affected. In this event, there will be essentially no impact on either consumers or retailers, since sales of one type of tobacco product would be replaced by another.³⁰

In other words, even the city itself acknowledges that many or most e-cigarette users might simply switch back to the use of more dangerous unflavored cigarettes. The office has said it needs more detailed information on tobacco consumption habits in San Francisco to determine a likely economic impact of the ban, but has acknowledged that "the value of flavored tobacco cigarettes that would be affected by the legislation at approximately \$50 million per year."³¹

SAN FRANCISCO AS GROUND ZERO

Although the debate about the ban at the San Francisco Board of Supervisors seemed like a foregone conclusion, the city's public will have a chance to more thoroughly consider the wisdom of the decision. Over the summer, opponents of the ban have gathered 34,000 signatures for a referendum, which is well above the 19,040 signatures needed to qualify the measure for consideration on the ballot.

The referendum effort is backed by R.J. Reynolds Tobacco Co., which spent more than \$685,000 on the petition drive.³² With all ballot initiatives, the first question comes down to whether or not supporters have enough funding to run a serious campaign. In this case, they clearly do. As the *San Francisco Chronicle* reported, the Board of Supervisors has a choice: "It can back down and repeal the ordinance. Or it can put the law on the June ballot, opening the door for a fierce

21. "Ordinance Amending the Health Code to prohibit tobacco retailers from selling flavored tobacco products, including menthol cigarettes," Ord No. 140-17, San Francisco Municipal Code, June 20, 2017. <http://sfbos.org/sites/default/files/o0140-17.pdf>.

22. Brendan P. Bartholomew, "Daly City takes next step to restrict tobacco," *San Francisco Examiner*, Aug. 20, 2015. <http://www.sfexaminer.com/daly-city-takes-next-step-to-restrict-tobacco>.

23. Ord. No. 140-17. <http://sfbos.org/sites/default/files/o0140-17.pdf>.

24. *Ibid.*

25. *Ibid.*

26. The estimate cited in the ban is derived from, David T. Levy, Jennifer L. Pearson, et al., "Modeling the future effects of a menthol ban on smoking prevalence and smoking-attributable deaths in the United States," *American Journal of Public Health* 101:7 (July 2011), 1236-40. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3110235>.

27. Ord. No. 140-17. <http://sfbos.org/sites/default/files/o0140-17.pdf>

28. See, e.g., Shu-Hong Zhu, Yue-Lin Zhuang, et al., "E-cigarette use and associated changes in population smoking cessation: evidence from US current population surveys," *The BMJ* 358: j3262 (July 26, 2017). <http://www.bmj.com/content/358/bmj.j3262>.

29. David T. Levy, Ron Borland, et al., "Potential deaths averted in USA by replacing cigarettes with e-cigarettes," *Tobacco Control* (2017). <http://tobaccocontrol.bmj.com/content/tobaccocontrol/early/2017/08/30/tobaccocontrol-2017-053759.full.pdf>.

30. Office of Economic Analysis, *Banning the Sale of Flavored Tobacco Products: Economic Impact Report*, San Francisco Controller's Office, June 13, 2017, p. 9. [http://sfcontroller.org/sites/default/files/Documents/Economic Analysis/170441_economic_impact_final.pdf](http://sfcontroller.org/sites/default/files/Documents/Economic%20Analysis/170441_economic_impact_final.pdf).

31. *Ibid.*, p. 7.

32. Rachel Swan, "San Fran's battle over flavored tobacco heats up," *San Francisco Chronicle*, Sept. 4, 2017. <http://www.sfchronicle.com/bayarea/article/SF-s-battle-over-flavored-tobacco-heats-up-12172353.php>.

battle against tobacco manufacturers and local store owners who rely on e-cigarettes, menthol cigarettes and candy-tinctured cigarillos as anchor products.³³ Nevertheless, the board has chosen not to repeal the ordinance.

Subsequently, the San Francisco Chamber of Commerce called for the city to delay the ban, and urged the board to “consider the financial needs of a significant component of neighborhood retail in San Francisco before further hindering small retailers’ ability to operate their businesses.”³⁴ Given the board’s strong support for the new law, however, they have thus far also chosen to ignore this more reasonable advice.

However, if opponents of the flavor ban can succeed in rolling back such measures in a city as prominent as San Francisco, it may halt the movement to spread these flavored-tobacco bans across the state. In any event, the issue is shaping up to be a significant political battle.

THE CASE FOR HARM REDUCTION

To put matters in perspective, California has the second lowest smoking rate in the United States, between Utah’s and Minnesota’s.³⁵ As of 2011, only 13.7 percent of adults aged 18 or older smoke regularly compared to a national average of 21.2 percent.³⁶ Of the 5 million people who smoke, 60 percent have attempted to quit in the last year.³⁷ Sadly, less than 10 percent of smokers who attempt to quit are successful after six months.³⁸ This means that 5.2 million people are vulnerable to the dangers of smoking that kill 48,000 people a year in California.

The problem with “just quitting”

The ordinances and practices described above aim to prevent initiation to smoking, but for those who smoke and seek to quit, there are many recognized ways of doing so. The vast majority of quit attempts are undertaken “cold turkey” but the California Department of Public Health endorses

quitting through nicotine replacement, medication assistance and behavioral therapy.³⁹

For those who are covered, Medi-Cal, the state’s health program for low-income people, will fully cover nicotine replacement therapies, such as gum, patches, inhalers, lozenges, and the prescription drugs varenicline (Chantix) and bupropion (Zyban) but it will not cover behavioral therapy or counseling.⁴⁰ The success rate for these products is variable and may increase when combined with cognitive therapy and motivation to quit.⁴¹ While many people who are committed to quitting find nicotine replacement or non-nicotine medications helpful, side effects that range from mild irritation to psychological distress may prevent smokers from achieving a tobacco-free life.

While quitting is the best way to reduce the burden of disease among smokers, not only is it very difficult to do successfully, some people have no desire to quit, at all. Many cite addiction and dependence, enjoyment and behavioral patterns (such as socializing and even boredom) as the top three reasons they continue to smoke.⁴²

The rituals that accompany smoking, such as a cigarette after a meal, a break from work or a reason to socialize with friends are certainly rewarding and reinforcing enough that people either cannot quit smoking or are not interested in trying. Right or wrong, they may view the potential for disease as less risky than the benefits that come with smoking. For these people, nicotine replacements or other approaches will not suffice and the availability of tobacco-free or non-combustible products might be a safer way to use nicotine.

A history of harm reduction in California

As previously mentioned, the state of California has a rich and progressive history of applying harm reduction principles to decrease negative consequences of risky behaviors

33. Ibid.

34. “Letter from the San Francisco Chamber of Commerce to the San Francisco Board of Supervisors RE: File No. 170441, Banning Sale of Flavored Tobacco Products,” June 13, 2017. <https://sfchamber.com/wp-content/uploads/2016/05/6.13.17-Delay-Action-on-File-No.-170441-Banning-Sale-of-Flavored-Tobacco....pdf>.

35. “California Adult Current Cigarette/Smokeless Tobacco Use,” Centers for Disease Control, Dec. 8, 2014, 1. https://www.cdc.gov/tobacco/data_statistics/state_data/state_highlights/2012/pdfs/states/california.pdf.

36. Ibid., 60.

37. Ibid., 64.

38. See, e.g., Karen Messer, Dennis R. Trinidad, et al., “Smoking cessation rates in the United States: a comparison of young adult and older smokers,” *American Journal of Public Health* 98:2 (2008), 317-22. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376894>.

39. California Tobacco Control Branch, “Cessation Services and Resources,” California Department of Public Health, May 8, 2017. <https://www.cdph.ca.gov/Programs/CCDC-PHP/DCDC/CTCB/Pages/CessationServicesAndResources.aspx>.

40. California Smokers’ Healthline, “Medi-Cal members,” 2017. <https://www.nobutts.org/tobacco-users-medi-cal-members>.

41. See, e.g., John R. Hughes, “Motivating and helping smokers to stop smoking,” *Journal of General Internal Medicine* 18:12 (December 2003), 1053-57, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1494968>; Gajin Lim, Inki Park, et al., “Effectiveness of smoking cessation using motivational interviewing in patients consulting a pulmonologist,” *Tuberculosis and Respiratory Diseases (Seoul)* 76:6 (June 2014), 276-83. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4092159>; David Moore, Paul Aveyard et al., “Effectiveness and safety of nicotine replacement therapy assisted reduction to stop smoking: systematic review and meta-analysis,” *The BMJ* 338:b1024 (Apr. 2, 2009). <http://www.bmj.com/content/338/bmj.b1024>; Lindsay F. Stead, Rafael Perera et al., Nicotine replacement therapy for smoking cessation. *Cochrane Database of Systematic Reviews* 11 (2012). <https://www.ncbi.nlm.nih.gov/pubmed/23152200>.

42. Navneet Uppal, Lion Shahab, et al., “The forgotten smoker: a qualitative study of attitudes towards smoking, quitting, and tobacco control policies among continuing smokers,” *BMC Public Health* 13:432 (May 3, 2013). <https://bmcpubhealth.biomedcentral.com/articles/10.1186/1471-2458-13-432>.

like sex and drug use, and one need not look far back in time to recognize the benefits that harm reduction programs have provided to its residents.

This is because, recognizing that abstinence is an unattainable goal on a population level, harm reduction targets the consequences of risky behaviors and meets people “where they are,” instead of where we “wish they would be.” Indeed, there is extensive literature that has examined the beneficial results of harm reduction programs for drug use, which include reduced fatal drug overdoses,⁴³ decreased infectious disease transmission,⁴⁴ reduced violence associated with drug use⁴⁵ and increased entry into treatment programs.⁴⁶

For example, California’s first needle-exchange program, Prevention Point, opened in 1988 in San Francisco and within a mere four years, the rate of needle sharing decreased from 67 percent to 35 percent.⁴⁷ Due to the blossoming of such legal needle-exchange programs San Francisco now has lower HIV transmission rates than the national average.⁴⁸

In California’s more conservative Central Valley, the Fresno Needle Exchange—the only operating one in the region—distributes nearly 1 million syringes and thousands of naloxone prescriptions per year, all without local authorization. Fresno needle exchange operates legally in the state of California and meets all requirements to do so, such as a viable hazardous waste disposal, service delivery, treatment referral and data collection plans. In the absence of local laws explicitly preventing the operation of a mobile needle exchange, it is unlikely to be shut down and will be able to continue to provide this essential service.

California also recognizes that providing people with a safe place to use drugs will reduce disease transmission, dramatically reduce overdose deaths and restore much-need-

ed dignity to people who are the most marginalized in our abstinence-only society. If pending legislation is passed, Californians will have access to “supervised injection facilities” that allow people who use drugs to have access to clean needles, overdose-prevention health care and treatment referrals.

Further, Assembly Bill 186, which stalled in committee in the last legislative session, will change existing state laws to allow specified cities or counties within them⁴⁹ to authorize the operation of facilities where people can reduce the risk of overdose or disease transmission by injecting their drugs under the supervision of licensed medical professionals.⁵⁰

Among the most sophisticated overdose-prevention programs are those that distribute the drug naloxone to at-risk users. The California Department of Public Health is in the process of providing \$3 million in grants to licensed clinicians and medical directors to distribute the drug, which can prevent death from opioid use.⁵¹

Harm reduction is not limited to drug use, as it also can be applied to positive behaviors. For example, the San Francisco AIDS Foundation’s state of the art sexual health center, Strut, had more than 16,000 clinic visits in just one year and provides prophylaxis to prevent HIV infections.⁵² In 2016, Strut enrolled its 1000th participant in pre-exposure prophylaxis (PrEP) medication, which can prevent HIV transmission when taken before exposure.

The harm reduction programs that have been implemented in California have resulted in significant reductions in disease transmission and improvements in health. But the failure to expand harm reduction programs to smoking leaves 5.2 million Californians at risk for early death and unnecessary disease.⁵³

APPLYING HARM REDUCTION PRINCIPLES TO TOBACCO

Getting smokers to switch to e-cigarettes is a good idea because overwhelming evidence indicates that they are a safer alternative to their combustible cousins. But opponents

43. Christopher Rowe, Glenn-Milo Santos, et al., “Neighborhood-Level and Spatial Characteristics Associated with Lay Naloxone Reversal Events and Opioid Overdose Deaths,” *Journal of Urban Health* 93:1 (February 2016), 117-30. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4794468>.

44. See, e.g., Katy M. E. Turner, Sharon Hutchinson, et al., “The impact of needle and syringe provision and opiate substitution therapy on the incidence of hepatitis C virus in injecting drug users: pooling of UK evidence,” *Addiction* 106:11 (November 2011), 1978-88. <https://www.ncbi.nlm.nih.gov/pubmed/21615585>.

45. See, e.g., Dan Werb, Greg Rowell, et al., “Effect of Drug Law Enforcement on Drug-Related Violence,” *International Centre for Science in Drug Policy* (April 2010). <http://www.druglawreform.info/en/issues/harm-reduction/item/1234-effect-of-drug-law-enforcement-on-drug-related-violence>.

46. Carrie Wade, “Indiana’s embrace of harm reduction could save lives,” R Street Institute, August 25, 2017. <http://www.rstreet.org/2017/08/25/indianas-embrace-of-harm-reduction-could-save-lives>.

47. Institute of Medicine and National Research Council, “Proceedings Workshop on Needle Exchange and Bleach Distribution Programs” (Washington DC: The National Academies Press, 1994), pp. 174-75. <https://www.nap.edu/catalog/4552/proceedings-workshop-on-needle-exchange-and-bleach-distribution-programs>.

48. “History of Health: Needle Exchange in San Francisco,” San Francisco AIDS Foundation, 2017. <http://www.sfaf.org/client-services/syringe-access/history-of-needle-exchange.html>.

49. The eight counties outlined in this bill are Alameda, Fresno, Humboldt, Los Angeles, Mendocino, San Francisco, San Joaquin and Santa Cruz.

50. Assembly Bill 186, “Controlled substances: safer drug consumption program,” California State Legislature, Jan. 19, 2017. https://leginfo.ca.gov/faces/bill-TextClient.xhtml?bill_id=201720180AB186.

51. Safe and Active Communities (SAC) Branch, “Naloxone Grant Program,” California Department of Public Health, Sep. 27, 2017. <https://www.cdph.ca.gov/Programs/CCD-PPP/DCCID/SACB/Pages/NaloxoneGrantProgram.aspx>.

52. SFAF Annual Report 2016, San Francisco AIDS Foundation, May 3, 2017, pp. 6-7. https://issuu.com/sfaidsfoundation/docs/sfaf_annual_report_2016_050417.

53. 53 Data derived from Messer, Trinidad, et al. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376894>.

of e-cigarettes are quick to cite the toxins that are present in them – formaldehyde, acetaldehyde, acrolein and propylene glycol. While it is impossible to defend e-cigarettes as absolutely safe, a comparison of chemicals and toxins between combustible cigarettes and e-cigarettes establishes that the relative risk associated with the latter is vastly lower.⁵⁴

Toxins that are present in e-cigarettes are at a very low concentration in the excipients – the products that make up the aerosol suspension that delivers the active ingredient of nicotine. In comparison, combustible cigarettes have approximately 500 to 1,300 times the concentrations of most of these chemicals in their emissions.⁵⁵ A better estimate of the risk these products pose is analysis of biomarkers of toxin levels in people following their exposure to e-cigarette vapor.⁵⁶ In a comprehensive analysis of salivary and urinary biomarkers, specific toxicants and carcinogens, it was shown that e-cigarette smokers were exposed to much lower levels of harmful compounds than those who smoked combustible cigarettes.⁵⁷ Thus while the absolute risk depends largely on the components of the e-liquid and delivery device, when compared to smoking combustible cigarettes, the relative risk is at least twentyfold lower⁵⁸—about the same as the nicotine nasal spray currently used as a replacement therapy.⁵⁹

Moreover, the contributors to this comprehensive report on the harm reduction potential of e-cigarettes collectively estimate that long-term health risks of e-cigarettes are about half the risk that accompanies smokeless tobacco and only slightly greater than long-term use of the patch or nicotine gum.⁶⁰ While perhaps not initially intended as a smoking-cessation tool, smokers have adopted e-cigarettes as a way to transition off cigarettes and eventually, nicotine.

In fact, data from the Center for Disease Control shows that e-cigarettes are the most popular product for adults who quit

smoking and users enjoy higher rates of long-term success.⁶¹ Much of the credit for these results is due to the similarities that e-cigarettes and combustible cigarettes share, including ritual use, inhalation and “feel.”⁶² Other credit for the success of e-cigarettes in transitioning people off combustible cigarettes can be given to the more novel aspects of e-cigarettes like the variety of flavors and lack of odor.⁶³

Flavors: A gateway to abstinence

Intended to dissuade non-smokers from vaping and eventually smoking cigarettes, flavor bans have become a popular way to prevent initiation of smoking. On the surface, the logic may be persuasive, but there is no real-world evidence to show that flavors or vaping are a gateway to cigarette smoking.

Vaping’s critics point to studies showing that adolescents who use e-cigarettes are more likely to use combustible cigarettes a year later.⁶⁴ However, these studies do not demonstrate a gateway effect, as the research designs they employed make it impossible to differentiate between those who smoked cigarettes because they used e-cigarettes and those who would have smoked cigarettes anyway.

Health officials point specifically to a 2015 University of Southern California study that suggests teens who vape are six times more likely to start smoking cigarettes than those who do not, which also concluded that “some teens who never would have smoked cigarettes are now vaping.”⁶⁵ However, according to other experts, such results are inconclusive: “This study, like a number of others quoted as saying that e-cigs are a gateway to smoking, only reflects the difference between teens inclined to experiment and teens not so

54. Konstantinos E. Farsalinos, Kurt A. Kistler, et al., “Evaluation of electronic cigarette liquids and aerosol for the presence of selected inhalation toxins,” *Nicotine and Tobacco Research* 17:2 (Sep. 1, 2014), 168-74. <https://www.ncbi.nlm.nih.gov/pubmed/25180080>.

55. Mohamad Sleiman, Jennifer M. Logue, et al., “Emissions from Electronic Cigarettes: Key Parameters Affecting the Release of Harmful Chemicals,” *Environmental Science and Technology* 50:17 (Jul. 27, 2016) 9644-51. <http://pubs.acs.org/doi/abs/10.1021/acs.est.6b01741>.

56. Lion Shahab, Maciej L. Goniewicz, et al., “Nicotine, Carcinogen, and Toxin Exposure in Long-Term E-Cigarette and Nicotine Replacement Therapy Users: A Cross-sectional Study,” *Annals of Internal Medicine* 166:6 (2017), 390-400. <http://annals.org/aim/article-abstract/2599869/nicotine-carcinogen-toxin-exposure-long-term-e-cigarette-nicotine-replacement>.

57. Ibid.

58. Health and Wellbeing Directorate, “E-cigarettes: a new foundation for evidence-based policy and practice,” Public Health England, August 2015. <http://studylib.net/doc/10997703/e-cigarettes--a-new-foundation-for-evidence-based-policy->.

59. Ibid.

60. Ibid.

61. See, e.g., S. H. Zhu, Y. L. Zhuang, et al., “E-cigarette use and associated changes in population smoking cessation: evidence from US current population surveys,” *The BMJ* 358:j3262 (Jul. 26, 2017). <http://www.bmj.com/content/358/bmj.j3262>; Daniel P. Giovenco and Cristine D. Delnevo, “Prevalence of population smoking cessation by electronic cigarette use status in a national sample of recent smokers,” *Addictive Behaviors* 76, 129-34 (Aug. 3, 2017). [https://www.heartland.org/_template-assets/documents/LS -. Studies/Prevalence of population smoking cessation by electronic cigarette use.pdf](https://www.heartland.org/_template-assets/documents/LS-.Studies/Prevalence%20of%20population%20smoking%20cessation%20by%20electronic%20cigarette%20use.pdf).

62. Neil McKeganey and Tiffany Dickson, “Why Don’t More Smokers Switch to Using E-Cigarettes: The Views of Confirmed Smokers,” *International Journal of Environmental Research and Public Health* 14:6 (June 2017), 647. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5486333/>.

63. Navneet Uppal, Lion Shahab, et al., “The forgotten smoker: a qualitative study of attitudes towards smoking, quitting, and tobacco control policies among continuing smokers,” *BMC Public Health* 13:432 (2013). <https://bmcpublihealth.biomedcentral.com/articles/10.1186/1471-2458-13-432>.

64. Samir Soneji S, J.L. Barrington-Trimis, et al., “Association Between Initial Use of e-Cigarettes and Subsequent Cigarette Smoking Among Adolescents and Young Adults: A Systematic Review and Meta-analysis,” *JAMA Pediatrics* 171:8 (August 2017), 788-97. <https://www.ncbi.nlm.nih.gov/pubmed/28654986>.

65. Zen Vuong, “More teen vaping could reverse progress in tobacco education,” *USC News*, Jul. 11, 2016. <https://news.usc.edu/103472/teen-vaping-could-reverse-progress-in-the-control-of-tobacco>.

inclined,” explains R Street Senior Fellow Dr. Joel Nitzkin.⁶⁶

Furthermore, the data show that teen smoking rates are actually lower than they have ever been, declining from 15.8 percent in 2011 to 9.3 percent in 2015, and that e-cigarette use has also gone down since 2014.⁶⁷

Perhaps more importantly, data also shows that flavors can act as a gateway to abstinence. *The International Journal of Environmental Research and Public Health* reports that limitations in flavor choices negatively impact user experience.⁶⁸ About 40 percent of former and current adult smokers predict that removing their ability to choose flavors would make them less likely to remain abstinent or attempt to quit.⁶⁹ In fact, data in this report suggests that current smokers tend toward the flavor of tobacco, while fruit and sweet flavors are the preferred flavorings for former smokers.⁷⁰

ADJUSTING THE ORDINANCES

In light of the evidence, if reducing the health risks associated with cigarettes is a top priority for California, then adopting a harm reduction approach to smoking should also be top priority. Doing so will drastically reduce smoking-related diseases and premature deaths. Accordingly, we suggest the following specific measures:

Eliminate e-cigarettes and other vapor products from the umbrella of tobacco products

To define e-cigarettes as a tobacco product is misleading and inappropriate. The fundamental distinctions between traditional cigarettes and e-cigarettes is the absence of the tobacco plant, which contains at least two dozen other phytochemicals⁷¹ and combustion, a process that releases thousands of other harmful chemicals whenever anyone lights up.⁷² On the other hand, e-cigarettes contain far fewer

chemicals and impurities,⁷³ with predicted levels that are not harmful to humans.⁷⁴

Recognize electronic cigarettes' potential as a safer alternative to combustible cigarettes

While e-cigarettes are not totally safe or healthful, they are far less harmful than cigarettes. Indeed, electronic cigarettes are approximately 95 percent safer than combustible cigarettes⁷⁵ and both Public Health England and the Office of the Surgeon General report that e-cigarettes have a similar risk profile to other nicotine replacements, such as the patch and nicotine gum.⁷⁶

View tobacco harm reduction as a social justice issue

It is incumbent upon public health officials to reduce the disparities of preventable diseases among the groups that experience higher rates. As is explicitly stated in the ordinance's language, there are groups—particularly those at risk for discrimination—that are at higher risk for smoking-related diseases and death.⁷⁷

In California, 19 percent of African-Americans and 28 percent of American Indian/Alaskan Natives smoke, compared to the approximate 12 percent smoking rate for the rest of the population. Of this smoking population, nearly 83 percent of African-Americans and 25 to 35 percent of all other smokers prefer menthol cigarettes.⁷⁸ In other words, these prohibition-focused policies will disproportionately harm minority groups. In a region committed to progressive and social-justice politics, this aspect of the debate needs to be more widely addressed given the many ways that harm-reduction can help these groups of smokers.

66. Steven Greenhut, “State officials addicted to nicotine taxes,” *Orange County Register*, June 25, 2016. <http://www.ocregister.com/articles/tobacco-720549-tax-smoking.html>.

67. René A. Arrazola, Tushar Singh, et al., “Tobacco Use Among Middle and High School Students — United States, 2011–2014,” *Morbidity and Mortality Weekly Report*, 64:14 (Apr. 17, 2015), 381–85. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6414a3.htm?s_cid=mm6414a3_w.

68. Konstantinos E. Farsalinos, Giorgio Romagna, et al., “Impact of flavour variability on electronic cigarette use experience: an internet survey,” *International Journal of Environmental Research and Public Health* 10:12 (December 2013), 7272–82. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3881166>.

69. *Ibid.*

70. *Ibid.*

71. Okere O. Shekins, Eijike Uju Dorathy, et al., “Phytochemical Screening of Tobacco (*Nicotiana tabacum*) and Its Effects on Some Haematological Parameters and Histopathology of Liver and Brain in Male Rats,” *International Journal of Biochemistry Research and Review* 14:4 (2016), 1–9. <http://www.sciencedomain.org/abstract/16808>.

72. Neal L. Benowitz and Joseph B. Fraiman, “Cardiovascular effects of electronic cigarettes,” *Nature Reviews Cardiology* 14 (Mar. 23, 2017), 447–56. <https://www.nature.com/articles/nrcardio.2017.36>.

73. Mohamad Sleiman, Jennifer M. Logue, et al., “Emissions from Electronic Cigarettes: Key Parameters Affecting the Release of Harmful Chemicals,” *Environmental Science and Technology* 50:17 (2016), 9644–51. <http://pubs.acs.org/doi/abs/10.1021/acs.est.6b01741>.

74. J. F. Etter, E. Zather, et al., “Analysis of refill liquids for electronic cigarettes,” *Addiction* 108:9 (September 2013), 1671–79. <https://www.ncbi.nlm.nih.gov/pubmed/23701634>.

75. See, e.g., Health and Wellbeing Directorate. <https://www.heartland.org/publications-resources/publications/e-cigarettes-a-new-foundation-for-evidence-based-policy-and-practice>.

76. See, e.g., Office of the Surgeon General, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, U.S. Department of Health and Human Services, 2015. <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/index.html>.

77. Ord No. 140-17, p. 3. <http://sfbos.org/sites/default/files/o0140-17.pdf>.

78. “Prevalence of Cigarette Smoking among Adults in California, by Race/Ethnicity, 2011–2014, Tobacco Free California, November 2016. <http://tobaccofreeca.com/secondhand-smoke/tobacco-use-among-american-indian-alaska-natives-populations>.

CONCLUSION

Flavors play a vital role in a person's decision to use e-cigarettes and thus they are a crucial component of tobacco harm reduction, as they encourage people to switch from combustible cigarettes. When used as a harm reduction tool, the flavors of e-cigarettes can distance a smoker from traditional cigarettes—and ultimately nicotine—by cutting the association between the flavor of tobacco and the delivery of the chemical. In view of this, policies that reflect the reduced harm of e-cigarettes—including those that allow flavors to be available for current smokers who see them as an attractive feature—can significantly reduce the enormous burden of disease that combustible cigarettes impose on society. If Bay Area cities take a more progressive approach to tobacco use – one in keeping with the region's long-standing approach to other forms of harm reduction—they could help achieve their stated goal to reduce cigarette smoking and all of its ill effects.

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