



March 26, 2019

Councilmember David Ryu
Chair – Health, Education, Neighborhoods, Parks, Arts, and River Cmte
200 N Spring St, Rm 425
Los Angeles, CA 90012

Dear Councilmember Ryu:

The OUT Against Big Tobacco Coalition supports Councilmember Mitch O’Farrell’s motion [Council File: 18-1104] requesting the City Attorney and Chief Legislative Analyst to report on strategies to protect communities from flavored tobacco products. The OUT Against Big Tobacco Coalition is an alliance of LGBTQ individuals and community organizations collectively working to address tobacco control and health inequity issues within Los Angeles County’s LGBTQ community.

For decades, Big Tobacco has preyed on the LGBTQ community, targeting our community through their marketing efforts¹, getting us hooked on their products and then profiting off the deaths and disease of LGBTQ community members. The result? **LGBTQ people are nearly TWICE as likely to smoke as our non-LGBTQ peers², and nearly 25,000 LGBTQ people across the country die every year of tobacco-related causes^{3,4,5}.**

Even though tobacco use has plummeted among Americans over the past 50+ years, tobacco use and **tobacco-related deaths are still disproportionately higher for LGBTQ people and other marginalized communities^{2,3,4,5,6}.**

Nearly 24% of California’s LGBTQ population uses tobacco products, compared to just 17% of adults who don’t identify as LGBTQ⁷. Estimates of smoking rates among LGBTQ youth range from 38% to 59%, compared to just 28% to 35% of youth generally⁸.

Flavors, like menthol or candy, cover up the harsh taste of tobacco, which makes it easier to get hooked — and harder to quit. Approximately 36% of LGBTQ smokers smoke menthol cigarettes, compared to just 29% of non-LGBTQ adult smokers². Furthermore, strong evidence supports the finding that youth, certain **racial/ethnic groups, and women are particularly vulnerable to sweet flavors and menthol** and are largely driving this increased uptake and sustained use of flavored tobacco products⁹.

In the mid-90s, Big Tobacco launched a campaign titled Project SCUM [Sub-Culture Urban Marketing] that targeted “alternative populations,” including gay men. Tactics used in this predatory marketing — in which Big Tobacco targets the most vulnerable members of our LGBTQ community — are still used today¹⁰.

OUT Against Big Tobacco Coalition

Brandon Tate
Coalition Chair

Member Organizations:

AMAAD Institute

APAIT

API Equality-LA

APLA Health

Gender Justice LA

Health Access California

Latino Equality Alliance

Los Angeles LGBT Center

NAPAFASA

San Fernando Valley
LGBT Community Center

Members at Large:

Zul Surani
*Cedar-Sinai Cancer
Institute*

Staff:

Michael Ai
Equality California

Carolyn Chu
Equality California

Tobacco advertisements leverage LGBTQ values [e.g. pride, freedom, acceptance] and cultural elements [e.g. rainbow flag, same sex couples, drag queens, etc.] in order to appeal to LGBTQ people and make us feel like using tobacco is a key part of our LGBTQ identity¹⁰. Big Tobacco funds AIDS and LGBTQ nonprofit organizations and sponsors pride celebrations and events at gay bars to portray themselves as "friends" of our community — even as they harm our health and undermine our progress.

These messages in combination with tactics that appeal to younger members of the LGBT community like promotions in bars and clubs have placed LGBT youth and young adults at higher risk than their non-LGBTQ counterparts. In fact, understanding this trend led the FDA to develop, This Free Life, the first national LGBT tobacco prevention campaign to educate LGBT young adults about living a tobacco-free life^{11,12}.

Cities such as Beverly Hills and San Francisco have already passed citywide bans on the sale of flavored tobacco. The OUT Against Big Tobacco Coalition encourages the City of Los Angeles to consider similar policies that restrict the sale of flavored tobacco. Policies that prohibit the sale of flavored tobacco products help to protect not only youth but all communities from a lifetime of addiction.

Sincerely,



Brandon Tate
Coalition Chair
OUT Against Big Tobacco

Cc:

Councilman Mitch O'Farrell, Council District 13 and Vice-Chair - Health, Education, Neighborhoods, Parks, Arts, and River Cmte
Councilmember Curren Price, Council District 9 - Health, Education, Neighborhoods, Parks, Arts, and River Cmte Member
Councilmember Bob Blumenfield, Council District 3
Councilmember Monica Rodriguez, Council District 7
Councilmember Marqueece Harris-Dawson, Council District 8
Councilmember Mike Bonin, Council District 11

OUT Against Big Tobacco Coalition

Formed by Equality California, the OUT Against Big Tobacco Coalition is an alliance of LGBTQ individuals and community organizations collectively working to address tobacco control and health inequity issues within Los Angeles County's LGBTQ community. We advocate for common sense policies that protect LGBTQ people — especially the most vulnerable members of our community — from Big Tobacco's predatory marketing tactics.

¹ Smith EA, and Malone RE. (2003). The outing of Philip Morris: advertising tobacco to gay men. *Am J Public Health*, 93(6): 988-993; Smith EA, Thomson K, Offen N, and Malone RE. (2008). "If You Know You Exist, It's Just Marketing Poison": meanings of tobacco industry targeting in the lesbian, gay, bisexual, and transgender community. *Am J Public Health*, 98(6): 996-1003.

² Lee JGL, Griffin GK, and Melvin CL. (2009). Tobacco use among sexual minorities, USA, 1987-2007 (May): a systematic review. *Tob Control*, Online First, 18(4): 275-82.

³ Agaku et al. (2014). Tobacco Product Use Among Adults - United States, 2012-2013. *Morbidity and Mortality Weekly Report*. 63(25), 542-547.

⁴ Gates GJ & Newport F. (2012). Special Report: 3.4% of U.S. Adults Identify as LGBT. Washington, D.C.: Gallup, Inc.

⁵ U.S. Department of Health and Human Services (USDHHS) (2014). 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.

⁶ Caceres BA, Brody A, Luscombe RE, et al. (2017). A systematic review of cardiovascular disease in sexual minorities. *American Journal of Public Health*, 107(4), e13-e21.

⁷ Centers for Disease Control and Prevention. (2018) Lesbian, Gay, Bisexual, and Transgender Persons and Tobacco Use. Retrieved from <https://www.cdc.gov/tobacco/dlsparities/lgbt/index.htm>

⁸ American Lung Association. (n.d.) The LGBT Community A Priority Population for Tobacco Control. Retrieved from <https://www.lung.org/assets/documents/tobacco/lgbt-issue-brief-update.pdf>

⁹ California Medical Association. (2016). *Flavored and Mentholated Tobacco Products: Enticing a New Generation of Users* (White Paper). Retrieved from <https://www.cdph.ca.gov/Programs/CCDCPP/DCDC/CTCB/CDPH%20Document%20Library/Policy/FlavoredTobaccoAndMenthol/FlavoredAndMentholatedTobaccoProductsCMAWhitePaperAndExecSummaryMay2016.pdf>

¹⁰ Smith EA, Offen N, and Malone RE. (2006). Pictures worth a thousand words: noncommercial tobacco content in the lesbian, gay, and bisexual press. *J Health Commun*, 11(7): 635-649.

¹¹ Lynch, C., Hoffman, L., Smith, A., & Tate, B. (2016, August). Research Findings and Strategies Used to Develop the First National LGBT Tobacco Public Education Campaign. Presented at the 2016 National Conference on Health Communication, Marketing, and Media, Atlanta, GA.

¹² FDA Center for Tobacco Products. "This Free Life Campaign." US Food and Drug Administration Website, Center for Tobacco Products Office of Health Communication Education, 13 June 2018, www.fda.gov/TobaccoProducts/PublicHealthEducation/PublicEducationCampaigns/ThisFreeLifeCampaign/default.htm.



San Fernando Valley LGBT Community Center

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Office: 747 999-7466 Fax: 818 890-5455

March 26, 2019

Councilmember David Ryu

Chair – Health, Education, Neighborhoods, Parks, Arts, and River Cmte

200 N Spring St, Rm 425

Los Angeles, CA 90012

Dear Councilmember Ryu:

The San Fernando Valley LGBT Community Center supports Councilmember Mitch O'Farrell's motion (Council File: 18-1104) requesting the City Attorney and Chief Legislative Analyst to report on strategies to protect communities from flavored tobacco products.

The San Fernando Valley LGBT Community Center serves LGBTQ teens, young adults and their families in the San Fernando Valley and is a broad-based coalition made up of organizations serving the LGBT population. Special efforts are centralized around specifically outreaching to the Latino population in order to increase awareness, understanding and acceptance while diminishing stereotypes, prejudices and discrimination. Many of the youth we serve have indicated that they use flavored tobacco products despite the fact that it is illegal to use and purchase the harmful tobacco products.

San Fernando Valley LGBT Community Center's youth have joined with adult allies to implement strategies to prevent underage access to tobacco products. We encourage the City of Los Angeles to consider a policy that restrict the sale of flavored tobacco. Policies that prohibit the sale of flavored tobacco products help to protect not only youth but all communities from a lifetime of addiction.

Sincerely,

Renato Lira

Renato Lira

Executive Director

Cc:

Councilman Mitch O'Farrell, Council District 13 and Vice-Chair - Health, Education, Neighborhoods, Parks, Arts, and River Cmte

Councilmember Curren Price, Council District 9 - Health, Education, Neighborhoods, Parks, Arts, and River Cmte Member

Councilmember Bob Blumenfield, Council District 3

Councilmember Monica Rodriguez, Council District 7

Councilmember Marqueece Harris-Dawson, Council District 8

Councilmember Mike Bonin, Council District 11

Keck School of Medicine of USC

March 26, 2019
Los Angeles, CA

Los Angeles City Council, Health, Education, Neighborhoods, Parks, Arts, and River Committee
City Hall, 200 North Spring Street, Room 1060
Los Angeles, CA 90012-4801

RE: Proposed strategy to restrict the sale of flavored tobacco products to youth and young adults.

Dear Health, Education, Neighborhoods, Parks, Arts, And River Committee members,

We are submitting these documents to be reviewed as they relate to Agenda item #1 on the Health, Education, Neighborhoods, Parks, Arts, and River Committee (Council File: 18-1104) meeting agenda for March 27, 2019, titled “Flavored Tobacco Products / Youth Tobacco Use / Sale Restriction / Proposed Strategy.”

We have compiled the following research from the Tobacco Center of Regulatory Science (TCORS) in the department of Preventive Medicine at Keck School of Medicine of USC. For your convenience we have summarized the main findings of the studies that pertain to flavored e-cigarettes and tobacco products below. Please refer to the attached documents for more details on our research findings. We ask you to consider the evidence presented in relation to the proposal restricting the sale of flavored tobacco products. We believe this will provide you with scientific information for evidence-based decision-making.

- The most common reason reported for e-cigarette use was “They come in flavors I like” (56.6% of users reported).
- Sweet-flavored e-cigarette products have greater ratings and appeal to young adult vapers.
- Flavored e-cigarettes may differentially impact females compared to males, with females having a greater preference for sweet flavored or menthol products.
- Studies have found that sweet flavored vape products are preferred by most vapers.
- Adolescents who vaped e-cigarettes in nontraditional flavors, compared to those who exclusively vaped tobacco-flavored, mint/menthol, or flavorless e-cigarettes, were more likely to continue vaping and take more puffs per vaping occasion 6 months later.
- While appeal ratings were higher for sweet and menthol flavors compared to tobacco flavor among vapers, preference for sweet flavors was greater in never smokers.
- There is evidence indicating that most young adult vapers prefer sweet and menthol over tobacco flavored products. Many young adult vapers, particularly never-smokers, find nicotine-containing solutions unappealing. This study found that menthol and sweet flavors suppressed nicotine’s unappealing qualities among never smokers – suggesting that flavored e-cigarette products may neutralize a barrier that would otherwise keep never-smokers from vaping e-cigarettes.
- A study analyzing hookah related posts on Twitter found that flavors were a common topic.
- Another study analyzing hookah/water pipe related posts on Instagram found that 6% of posts contained images of water pipes and flavored tobacco products.

- Twitter posts that mention flavored e-cigarette products are re-tweeted at a significantly higher rate by e-cigarette brands and other Twitter users. This suggests that flavors are an attractive characteristic that are frequently posted about on social media.
- Little cigars and cigarillos, which are widely available in stores on and near California tribal lands. These stores are more likely to sell little cigars and cigarillos including popular flavored versions.
- A study analyzing Yelp reviews of vape shops in southern California found that vape shop attributes listed as most important were selection of flavors and hardware in 95% of reviews.

In summary, flavored tobacco products are widely popular among users and especially popular with youth in Los Angeles. Flavored tobacco also appeals to never-smokers who would otherwise not begin using tobacco products if it were not for the appealing flavors.

In addition to the studies attached, we have also included a letter that was submitted to the Los Angeles County Board of Supervisors in support of their proposed amendments to include restrictions to the sale of flavor and menthol tobacco products to their Tobacco Retail License ordinance. We have attached as a reference.

We thank the Los Angeles City Council for taking critical strides to address this urgent concern among youth. We urge you to contact us with any questions regarding the state of the science related to flavored tobacco and electronic cigarette use in Los Angeles. You can contact, Daniel Soto at danielws@usc.edu or Yaneth Rodriguez at ylr@usc.edu.

Sincerely,

A handwritten signature in black ink, reading "Adam Leventhal". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Adam Matthew Leventhal, PhD
Professor of Preventive Medicine
Director of Health, Emotion, & Addiction Laboratory,
Co-Director USC Tobacco Center of Regulatory Science
adam.leventhal@usc.edu

USC TCORS Research on Flavored Nicotine and Tobacco Products

The impact of local regulation on reasons for electronic cigarette use among Southern California young adults.

Hong H(1), McConnell R(2), Liu F(2), Urman R(2), Barrington-Trimis JL(3). Addict Behav. 2019 Apr;91:253-258. doi: 10.1016/j.addbeh.2018.11.020. Epub 2018 Nov 16.

OBJECTIVE: Tobacco control policies have decreased tobacco use among youth and young adults. We aimed to identify whether specific local tobacco retail licensing ordinances were associated with reasons for e-cigarette use, in order to examine whether strong local policies may reduce e-cigarette initiation rates by influencing the appeal of these products.

METHODS: Online questionnaires were completed by Southern California Children's Health Study participants in 2015-2016 (mean age = 18.9 years). Those who had ever used an e-cigarette (N = 614) were asked about reasons for use; additional data were collected on local jurisdiction tobacco sales policy, friends' attitudes toward e-cigarette use, e-cigarette characteristics (level of nicotine, flavorings), and history of tobacco use. Multivariate logistic regression models evaluated associations of each factor with reasons for e-cigarette use, adjusting for gender, ethnicity, highest parental education, tobacco use history and with a random effect of jurisdiction.

RESULTS: The top reason for e-cigarette use was "They come in flavors I like" (56.6%). Using e-cigarettes to quit smoking was uncommon (12.8%). Participants in jurisdictions with weaker tobacco retail licensing ordinances were more likely to report use of e-cigarettes because they are less harmful than cigarettes (50.1% vs. 36.2%), more acceptable to non-tobacco users (38% vs. 25%), and because they can use e-cigarettes in places where smoking is prohibited (30.7% vs. 18.3%; all $p < .05$).

CONCLUSION: Targeted policy to enforce a strong regulatory environment that denormalizes e-cigarette use, conveys the adverse impact of e-cigarettes, and restricts use in public places may reduce e-cigarette use among adolescents and young adults.

Hookah-Related Posts to Twitter From 2017 to 2018: Thematic Analysis.

Allem JP(1), Dharmapuri L(2), Leventhal AM(1), Unger JB(1), Boley Cruz T(1). J Med Internet Res. 2018 Nov 19;20(11):e11669. doi: 10.2196/11669.

BACKGROUND: Hookah (or tobacco waterpipe) use has recently become prevalent in the United States. The contexts and experiences associated with hookah use are unclear, yet such information is abundant via publicly available hookah users' social media postings.

OBJECTIVE: In this study, we utilized Twitter data to characterize Twitter users' recent experiences with hookah.

METHODS: Twitter posts containing the term "hookah" were obtained from April 1, 2017 to 29 March, 2018. Text classifiers were used to identify clusters of topics that tended to co-occur in posts (n=176,706).

RESULTS: The most prevalent topic cluster was Person Tagging (use of @username to tag another Twitter account in a post) at 21.58% (38,137/176,706) followed by Promotional or Social Events (eg, mentions of ladies' nights, parties, etc) at 20.20% (35,701/176,706) and Appeal or Abuse Liability (eg, craving, enjoying hookah) at 18.12% (32,013/176,706). Additional topics included Hookah Use Behavior (eg, mentions of taking a "hit" of hookah) at 11.67%

(20,603/176,706), Polysubstance Use (eg, hookah use along with other substances) at 10.95% (19,353/176,706), Buying or Selling (eg, buy, order, purchase, sell) at 9.37% (16,552/176,706), and Flavors (eg, mint, cinnamon, watermelon) at 1.66% (2927/176,706). The topic Dislike of Hookah (eg, hate, quit, dislike) was rare at 0.59% (1043/176,706).

CONCLUSIONS: Social events, appeal or abuse liability, flavors, and polysubstance use were the common contexts and experiences associated with Twitter discussions about hookah in 2017-2018. Considered in concert with traditional data sources about hookah, these results suggest that social events, appeal or abuse liability, flavors, and polysubstance use warrant consideration as targets in future surveillance, policy making, and interventions addressing hookah.

Point-of-sale marketing of little cigars and cigarillos on and near California Tribal lands.

Smiley SL(1), Soto C(1), Cruz TB(1), Kintz N(1), Rodriguez YL(1), Sussman S(1), Baezconde-Garbanati L(1). Tob Control. 2018 Nov 1. pii: tobaccocontrol-2018-054558. doi: 10.1136/tobaccocontrol-2018-054558. [Epub ahead of print]

INTRODUCTION: American Indians have the highest cigarette smoking prevalence of any racial/ethnic group in the USA. Tobacco marketing at point-of-sale is associated with smoking, possibly due to easy access to cheap tobacco products. The sale of novel tobacco products like little cigars/cigarillos (LCCs) has increased in recent years which may further increase combustible tobacco use among American Indians.

METHODS: Between October 2015 and February 2017, trained community health workers collected LCC product and price information by conducting audits of tobacco retailers on Tribal lands (n=53) and retailers within a 1-mile radius of Tribal lands (n=43) in California. X2 analyses were performed to examine associations among the availability and advertising of LCCs, including indoor price promotions and store location.

RESULTS: Overall, 85.4% of stores sold LCCs, 76.0% sold flavoured LCCs and 51.0% sold LCCs for less than \$1. Indoor price promotions were displayed at 45 (46.9%) stores. Stores within a 1-mile radius of Tribal lands sold significantly more LCC (p<0.01) and flavoured LCCs (p=0.01) than stores on Tribal lands. Stores within a 1-mile radius of Tribal lands also displayed significantly more LCCs priced at less than \$1 (p<0.01) than stores on Tribal lands.

CONCLUSIONS: LCCs are widely available in stores on and near California Tribal lands. Stores located a short distance away from Tribal lands were more likely to sell LCCs, including flavoured versions, more likely to sell LCCs priced below \$1, and more likely to advertise little LCC price promotions than stores on Tribal lands. Policy-makers and Tribal leaders should consider regulations that would limit access to LCCs at point of sale to help prevent youth initiation and reduce smoking-related morbidity and mortality among American Indians.

Waterpipe Promotion and Use on Instagram: #Hookah.

Allem JP(1), Chu KH(1), Cruz TB(1), Unger JB(1). Nicotine Tob Res. 2017 Oct 1;19(10):1248-1252. doi: 10.1093/ntr/ntw329.

Introduction: Waterpipe (hookah) use is becoming more prevalent in the United States and abroad with potential implications for public health. As waterpipe use rapidly grows in popularity, novel data streams are needed that can help capture and document the social and environmental context in which individuals use, and are marketed, this emerging tobacco

product. This study characterized waterpipe-related posts on Instagram in order to inform regulatory and policy activities in the United States.

Methods: Data were collected from Instagram, an image-based social media site. Inclusion criteria for this study comprised an Instagram post with the hashtag "#hookah" that was accompanied by geo-location metadata demonstrating that the post was inside the contiguous United States. Rules were established for coding themes of images (n = 1705).

Results: Seven percent of images depicted a single person using a waterpipe and/or blowing smoke, 25% depicted two or more persons lounging and/or using a waterpipe, 6% depicted waterpipes, coals or flavored tobacco without people, 18% of images were promotional material for hookah lounges and restaurant/bars/nightclubs referencing hookah in the text or depicting a waterpipe, 25% were non-waterpipe-related promotional material, 1% were sexually explicit material, and 18% other. 31% of all images depicted or referenced alcohol. 30% of posts provided geo-location from a hookah lounge, 56% from a restaurant/bar/nightclub, and 14% from other types of locations.

Conclusions: The cross promotion of waterpipe and alcohol use by hookah lounges, and restaurants/bars/nightclubs suggests that poly-substance use is regularly depicted, and promoted, in nightlife entertainment as well as normalized on Instagram in the United States.

Implications: In the US Instagram posts with the hashtag #hookah regularly depicted waterpipe use in conjunction with alcohol use. Instagram's focus on images facilitates picture-based advertising where hookah lounges promote drink specials at the same time nightclubs promote waterpipe specials. Instagram users often document the variety of shapes, sizes, and styles, of waterpipes, suggesting users take pride in their purchases and like to show their customized, and often times elaborate, waterpipes to their followers. Instagram has been underutilized in understanding tobacco related-behaviors and identifying tobacco-related promotional material.

Effects of sweet flavorings and nicotine on the appeal and sensory properties of e-cigarettes among young adult vapers: Application of a novel methodology.

Goldenson NI(1), Kirkpatrick MG(1), Barrington-Trimis JL(1), Pang RD(1), McBeth JF(1), Pentz MA(1), Samet JM(1), Leventhal AM(2). 5. Drug Alcohol Depend. 2016 Nov 1;168:176-180. doi: 10.1016/j.drugalcdep.2016.09.014. Epub 2016 Sep 22.

INTRODUCTION: Product characteristics that impact e-cigarette appeal by altering the sensory experience of vaping need to be identified to formulate evidence-based regulatory policies. While products that contain sweet flavorings and produce a "throat hit" (i.e., desirable airway irritation putatively caused by nicotine) are anecdotally cited as desirable reasons for vaping among young adults, experimental evidence of their impact on user appeal is lacking. This experiment applied a novel laboratory protocol to assess whether: (1) sweet flavorings and nicotine affect e-cigarette appeal; (2) sweet flavorings increase perceived sweetness; (3) nicotine increases throat hit; and (4) perceived sweetness and throat hit are associated with appeal.

METHODS: Young adult vapers (N=20; age 19-34) self-administered 20 standardized doses of aerosolized e-cigarette solutions varied according to a 3 flavor (sweet [e.g., cotton candy] vs. non-sweet [e.g., tobacco-flavored] vs. flavorless) ×2 nicotine (6mg/mL nicotine vs. 0mg/mL [placebo]) double-blind, cross-over design. Participants rated appeal (liking, willingness to use again and perceived monetary value), perceived sweetness and throat hit strength after each administration.

RESULTS: Sweet-flavored (vs. non-sweet and flavorless) solutions produced greater appeal and perceived sweetness ratings. Nicotine produced greater throat hit ratings than placebo, but did not significantly increase appeal nor interact with flavor effects on appeal. Controlling for flavor and nicotine, perceived sweetness was positively associated with appeal ratings; throat hit was not positively associated with appeal.

CONCLUSIONS: Further identification of compounds in e-cigarette solutions that enhance sensory perceptions of sweetness, appeal, and utilization of e-cigarettes are warranted to inform evidence-based regulatory policies.

Electronic Cigarettes on Twitter - Spreading the Appeal of Flavors.

Chu KH(1), Unger JB(1), Cruz TB(1), Soto DW(1). Tob Regul Sci. 2015 Apr;1(1):36-41. Epub 2015 Mar 1.

OBJECTIVES: Social media platforms are used by tobacco companies to promote products. This study examines message content on Twitter from e-cigarette brands and determines if messages about flavors are more likely than non-flavor messages to be passed along to other viewers.

METHODS: We examined Twitter data from 2 e-cigarette brands and identified messages that contained terms related to e-cigarette flavors.

RESULTS: Flavor-related posts were retweeted at a significantly higher rate by e-cigarette brands ($p = .04$) and other Twitter users ($p < .01$) than non-flavor posts.

CONCLUSIONS: E-cigarette brands and other Twitter users pay attention to flavor-related posts and retweet them often. These findings suggest flavors continue to be an attractive characteristic and their marketing should be monitored closely.

Consumers' perceptions of vape shops in Southern California: an analysis of online Yelp reviews.

Sussman S(1), Garcia R(2), Cruz TB(2), Baezconde-Garbanati L(2), Pentz MA(2), Unger JB(2). Tob Induc Dis. 2014 Nov 28;12(1):22. doi: 10.1186/s12971-014-0022-7. eCollection 2014.

BACKGROUND: E-cigarettes are sold at many different types of retail establishments. A new type of shop has emerged, the vape shop, which specializes in sales of varied types of e-cigarettes. Vape shops allow users to sample several types. There are no empirical research articles on vape shops. Information is needed on consumers' beliefs and behaviors about these shops, the range of products sold, marketing practices, and variation in shop characteristics by ethnic community and potential counter-marketing messages.

METHODS: This study is the first to investigate marketing characteristics of vape shops located in different ethnic neighborhoods in Los Angeles, by conducting a Yelp electronic search and content analysis of consumer reports on vape shops they have visited. The primary measure was Yelp reviews ($N = 103$ vape shops in the Los Angeles, California area), which were retrieved and content coded. We compared the attributes of vape shops representing four ethnic communities: African American, Hispanic/Latino, Korean, and White.

RESULTS: Vape shop attributes listed as most important were the selection of flavors or hardware (95%), fair prices (92%), and unique flavors or hardware (89%). Important staff marketing attributes included being friendly (99%), helpful/patient/respectful (97%), and knowledgeable/professional (95%). Over one-half of the shops were rated as clean (52%) and

relaxed (61%). Relatively few of the reviews mentioned quitting smoking (32%) or safety of e-cigarettes (15%). The selection of flavors and hardware appeared relatively important in Korean ethnic location vape shops.

CONCLUSIONS: Yelp reviews may influence potential consumers. As such, the present study's focus on Yelp reviews addressed at least eight of the FDA's Center for Tobacco Products' priorities pertaining to marketing influences on consumer beliefs and behaviors. The findings suggest that there were several vape shop and product attributes that consumers considered important to disseminate to others through postings on Yelp. Lack of health warnings about these products may misrepresent their potential risk. The main influence variables were product variety and price. There was only a little evidence of influence of ethnic neighborhood; for example, regarding importance of flavors and hardware. Shop observational studies are recommended to discern safety factors across different ethnic neighborhoods.



Sex Differences in the Appeal and Sensory Effects of Flavored e-Cigarettes among Young Adult Vapers

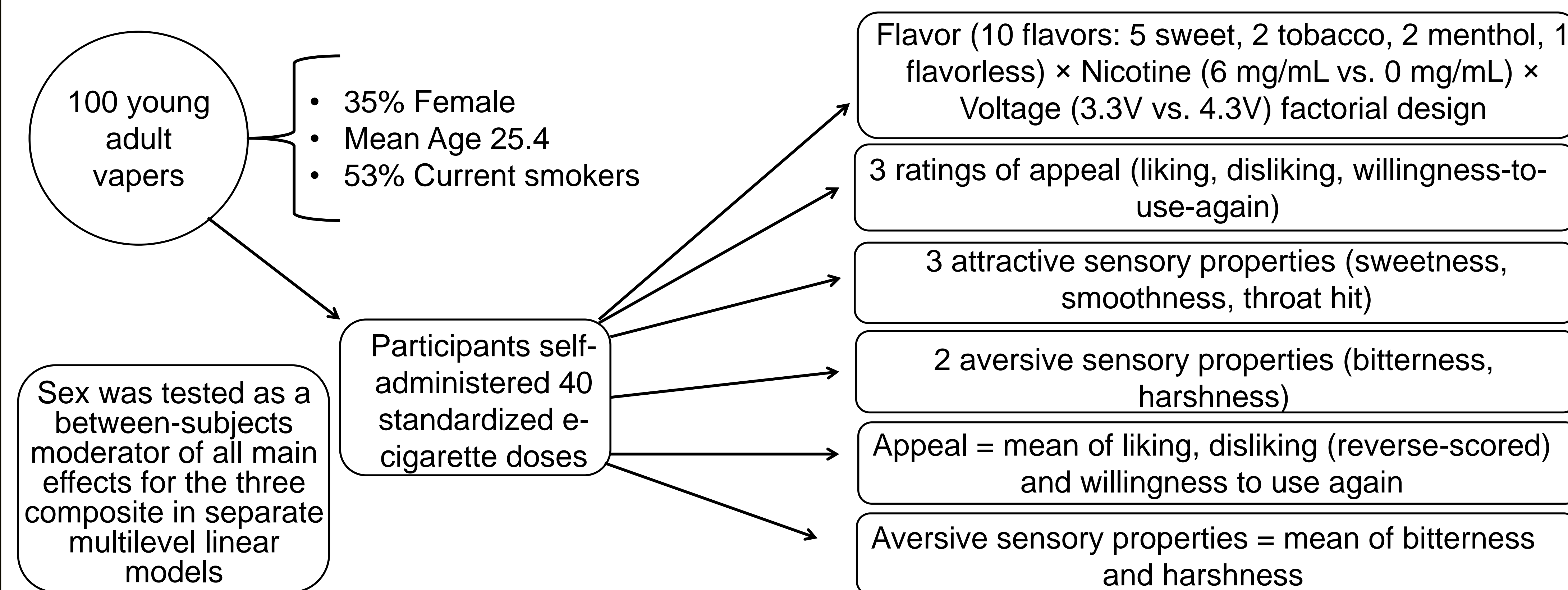
Nicholas I. Goldenson B.A.*, Raina D. Pang Ph.D., Jessica L. Barrington-Trimis Ph.D., Matthew G. Kirkpatrick Ph.D., Adam M. Leventhal Ph.D.

*Presenting Author

INTRODUCTION

- The combustible cigarette literature suggests that females (vs. males) may be more sensitive to the sensory (e.g., flavor, taste) aspects of smoking
- Controlled laboratory research demonstrates that flavored e-cigarettes are appealing due to their attractive sensory properties (e.g., sweetness, coolness)
- It is unknown if there are sex differences in the effects of flavored e-cigarettes

METHODS

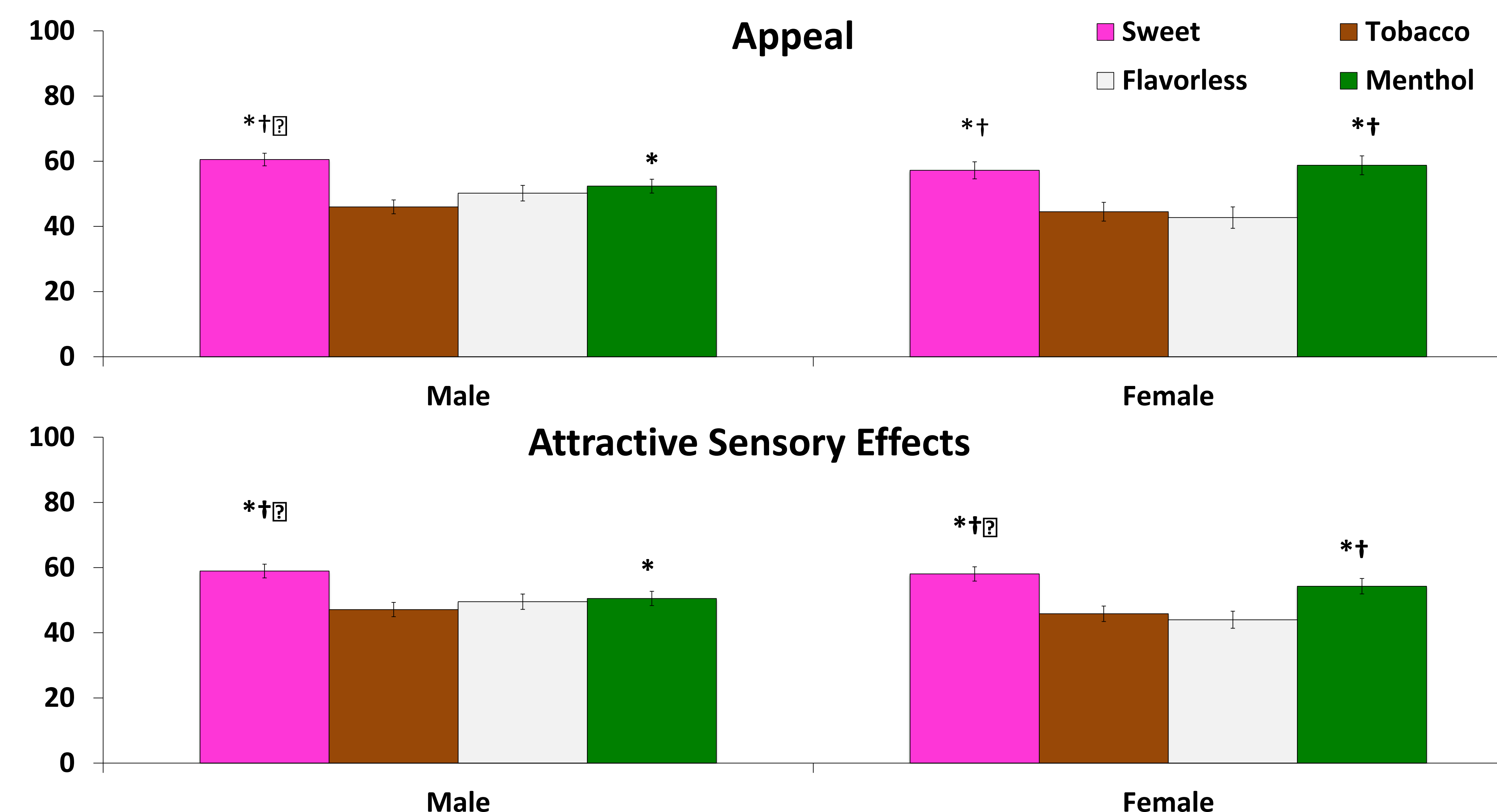


RESULTS

- Significant interactions between sex and flavor for the composite appeal and the attractive sensory effects outcomes ($ps < 0.003$)
- Among female vapers, there were no significant differences in the appeal of menthol and sweet-flavored e-cigarettes ($p = 0.40$)
- Only female vapers rated menthol-flavored e-cigarettes as more appealing and producing more attractive sensory effects than flavorless solutions ($ps < 0.001$)
- No significant interactions between sex and nicotine ($ps = 0.33-0.80$) or voltage ($ps = 0.08-0.72$).

FIGURES

Figure 1. Sex Differences in the Appeal and Attractive Sensory Effects of Flavored e-Cigarettes



SIGNIFICANCE

- Flavored e-cigarettes may differentially impact females
- Menthol-flavored e-cigarettes may be particularly appealing to female vapers
- Examining sex differences in the appeal of e-cigarettes in both sexes is critical, as different conclusions may be reached if females are not adequately represented
- Data on the appeal of flavored e-cigarettes in both sexes can inform regulations impacting:
 - The growing popularity of flavored e-cigarettes among youth
 - Use of e-cigarettes for smoking reduction or cessation among adult smokers

ACKNOWLEDGEMENTS

Research reported in this publication was supported by the FDA Center for Tobacco Products and the National Cancer Institute of the National Institutes of Health under Award Number P50CA180905. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or the Food and Drug Administration. The authors have no financial relationships or conflicts of interest to disclose.

Introduction

- Effects of e-cigarette product characteristics on appeal need to be identified to formulate evidence-based regulatory policies
- Nicotine and flavoring in e-cigarette solutions and device voltage setting are key dimensions of product diversity
- Young adult vapers are constituted by a mix of current, past, and never smokers
- Smoking status may differentiate:
 - How product characteristics affect the appeal and sensory qualities of vaping
 - Health implications of products that enhance appeal and persistence of vaping for the user

Study Aims

- To determine:
 - The individual and interactive effects of flavoring, nicotine, and voltage on e-cigarette product appeal and sensory qualities
 - Whether the effect of product variation on appeal and sensory qualities differed by smoking status

Design

- 4×2×2 factorial design in 3 smoking groups
- Within-subject manipulations (double blind)
 - Flavor** (sweet vs. tobacco vs. menthol vs. flavorless)
 - Nicotine** (0 vs. 6 mg/mL)
 - Voltage setting** (3.3 vs. 4.3 V)
- Between-subjects moderator
 - Never-smoker** (< 100 cigs/lifetime)
 - Past smoker** (>100 cigs/life, no smoking past mth.)
 - Current smoker** (past mth. smoking)

Method

- Adults 18-35 yrs who currently vape at least weekly in Los Angeles, CA in 2016 (Table 1)
- Vaping administration procedure
 - No smoking/vaping 2hr prior to visit
 - Each trial had a different combination of flavor, nicotine, and voltage (40 total trials)
 - Experimenter-provided tank device
 - Each trial = standardized 2 puff sequence followed by appeal and sensory ratings
- Outcome measures (0-100 VAS rating)
 - Appeal (avg. of: like, dislike (reversed), use again)
 - Pleasant (sweet, smooth) and aversive (bitter, harsh) sensory properties
- Multilevel linear (mixed) models
 - Smoking status × product characteristic factors adjusted for variables with * in Table 1
 - Significance set to .01

Results

- Main effect of product dimensions (Table 2)
- Interactive effects of product dimensions
 - Nicotine's unappealing and aversive sensory effects vs. placebo: (a) suppressed by menthol (vs. other) flavors; and (b) enhanced by tob. (vs. other) flavors (Nic. × Flavor; Fig. 1, P < .001)
 - Appeal & pleasant sensory effects of high (vs. low) voltage suppressed or reversed by nic. vs. placebo (Voltage × Nic. ; not shown, P < .001)
- Moderation of effects by smoking status
 - Nicotine's unappealing & aversive sensory effects vs. placebo amplified in never (vs. past & current) smokers (Nic. × Smk. Status; Fig. 2).
 - Unappealing & aversive sensory effects of tob. (vs. other) flavors are amplified in never (vs. past & current) smokers (Nic. × Smk. Status; Fig. 3).

Results continued

Table 1. Sample Descriptive Characteristics by Smoking Status

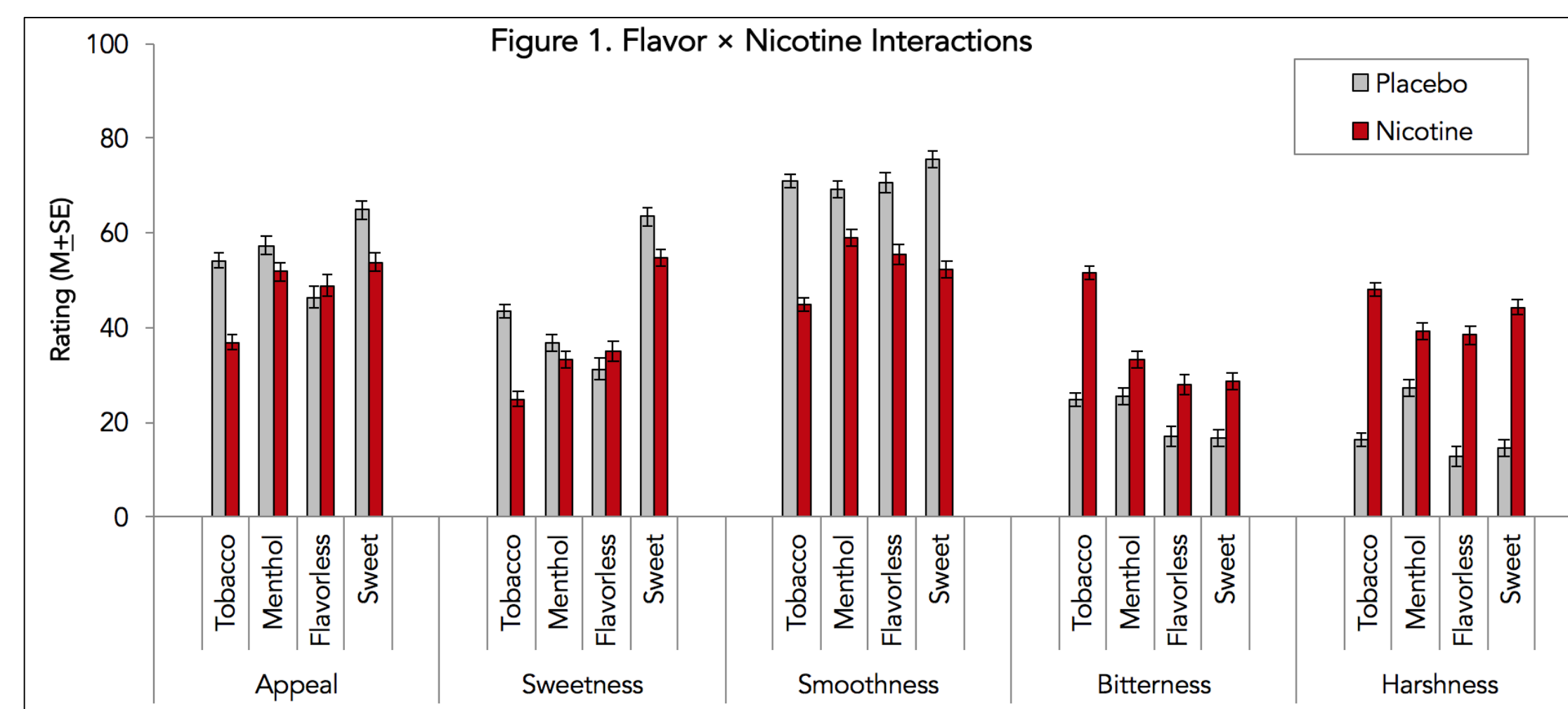
	Smokers (N=53)	Past Smokers (N=25)	Never- Smokers (N=22)		Smokers (N=53)	Past Smokers (N=25)	Never- Smokers (N=22)
Female Gender	37.7%	36%	21.4%	Current cig/day	7.4 (7.5)	—	—
Age (years)*	26.5 (4.4) ^a	25.6 (3.9) ^b	22.7 (3.9) ^c	Cig/day when smoking most	11.6 (7.50)	12.2 (5.4)	—
Race/Ethnicity				Fagerström score	2.5 (1.9)	—	—
Hispanic	18.9%	24%	27.3%	Penn St. e-cig dependence*	8.1 (4.5) ^a	9.8 (5.1) ^b	5.2 (4.0) ^c
White	35.8%	20%	9.1%	Puffs per day	62 (84)	123 (202)	50 (52)
Black	47.2%	16%	27.3%	Nicotine used (mg/mL)	7.7 (9.1)	7.4 (5.6)	5.7 (5.2)
Asian	9.4%	20%	27.3%	Duration of use (years)*	2.81 (1.5) ^a	2.56 (1.0) ^b	2.23 (1.0) ^c
Other	11.3%	20%	9.1%	Device typically used*			
Salivary Cotinine**	3.1 (1.4) ^a	3.0 (1.4) ^b	2.1 ^b (0.9)	Cig-alike	18.9%	0%	9.1%
Smoke(d) Menthol *	56.6% ^a	12.0% ^b	—	Tank/Pen	35.8%	32.0%	13.6%
Carbon monoxide (ppm)*	7.0 (5.9) ^a	2.4 (3.0) ^b	—	Adv. pers. vaporizer/mods	41.4%	68.0%	77.2%
Age of onset daily smoking	18.2 (9.4)	17.8 (1.5)	—	Typically use sweet flavor	77.4%	76.0%	90.9%
Current cig/day	7.4 (7.5)	—	—				

Note. N(%) or M(SD) reported. *NicAlert Strip (Range 1–6). *Different across groups (p < 0.05). Groups without shared superscripts are not different in pairwise comparisons. — not applicable

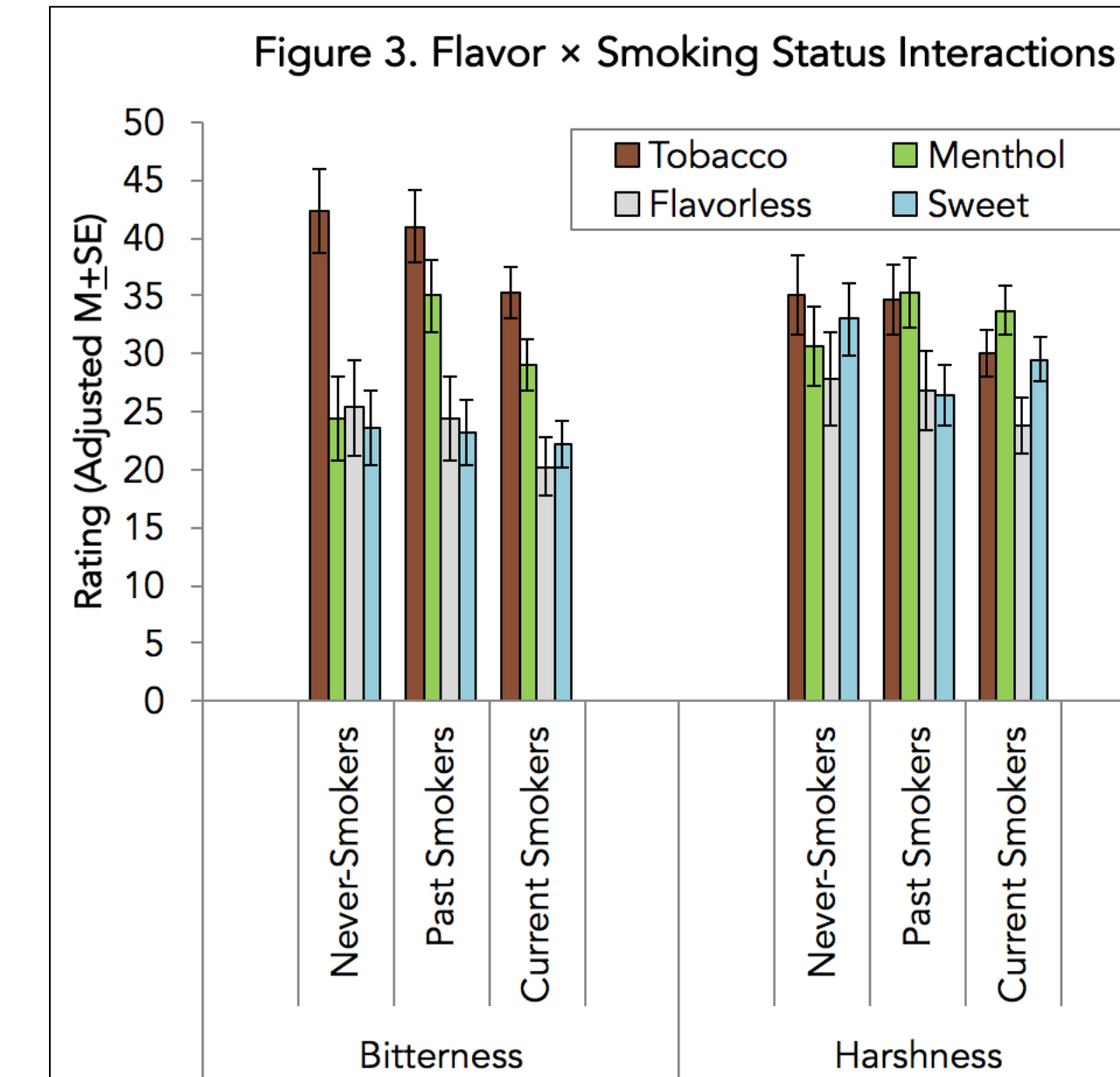
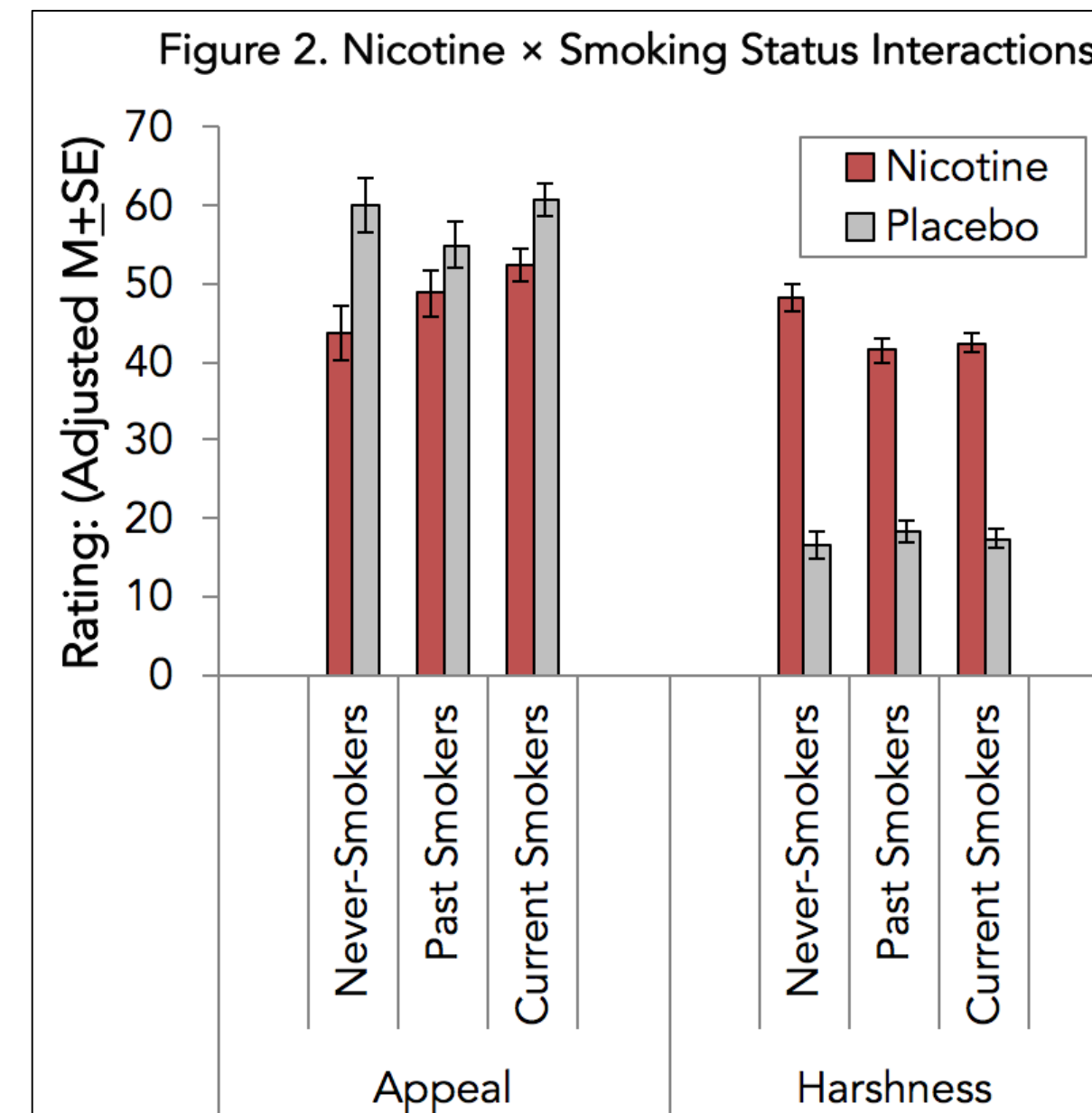
Table 2. Main Effects of Flavor, Nicotine, Voltage

Outcome	Flavor (Pairwise Comparisons)	Nicotine (vs. Placebo)	High (vs. Low) Voltage
Appeal	Sweet > Menthol > Flavorless = Tobacco	↓	↑
Sweet	Sweet > Tobacco = Menthol = Flavorless	↓	↑
Smooth	Sweet = Menthol = Flavorless > Tobacco	↓	↓
Bitter	Tobacco > Menthol > Sweet = Flavorless	↑	↑
Harsh	Tobacco = Menthol > Sweet > Flavorless	↑	↑

Note. N = 100. All effects Ps < .001.



Results continued



Discussion

- Sweet flavorings are preferred by most vapers
- Tobacco flavorings and nicotine may have independent and synergistic unappealing and aversive sensory qualities that never-smokers are particularly sensitive to
- Menthol flavorings may make nicotine more palatable
- Voltage may non-specifically intensify vaping's subject effect profile
- Understanding how multiple dimensions of product diversity impact e-cigarette appeal differently in populations of smokers and non-smokers may inform targeted regulatory policies that maximize health impact

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Disclosures: none

Submitted to the LA County Board of Supervisors (for reference only)

Keck School of Medicine of USC

March 18, 2019
Los Angeles, CA

Los Angeles Board of Supervisors
Kenneth Hahn Hall of Administration
500 W. Temple St
Los Angeles, CA 90012

RE: Including flavor and menthol restrictions as amendments to the Los Angeles County Tobacco Retailing License Ordinance

Honorable Supervisor Janice Hahn, Supervisor Hilda L. Solis, Supervisor Mark Ridley-Thomas, Supervisor Sheila Kuehl and Supervisor Kathryn Barger:

Please accept this letter as an official public comment regarding the proposed amendments to the Los Angeles County Tobacco Retailing License Ordinance.

As Dean of the Keck School of Medicine (KSOM) at the University of Southern California (USC), I introduce you to my faculty in the Department of Preventive Medicine and members of the USC Norris Comprehensive Cancer Center (USC Norris CCC) with substantial expertise and decades of research in tobacco prevention and control spanning several domains of relevance to the proposed policies. At USC, many of our research efforts focus on adolescents and young adults as a particularly vulnerable population that has been greatly impacted by nicotine and the current e-cigarette market. Below, we provide the Board with a summary of current research relevant to the proposed policies under consideration by Los Angeles County. We believe this will provide you with scientific information for evidence-based decision-making. We urge the Board to contact us with any questions regarding the state of the science related to tobacco use and electronic cigarettes among the youth of Los Angeles.

E-cigarettes are drawing in new youth unlikely to have otherwise smoked cigarettes. Two studies of trends in tobacco use over time (both nationally¹ and in Southern California²) have found that e-cigarettes are being used by some youth unlikely to have otherwise smoked cigarettes. This is evidenced by higher rates of overall tobacco use than would be expected if e-cigarettes were simply used by smokers or "would-be smokers". Further, e-cigarettes are often used by youth considered to be at very low risk of cigarette initiation, as measured via psychological factors and willingness or intention to use cigarettes.^{3,4}

Flavors in e-cigarettes may encourage youth initiation. E-cigarettes are available in a wide range of flavors that are appealing to youth and to those who may not have been interested in smoking combustible cigarettes. Most youth report initiating use with a flavored e-cigarette.^{5,6} E-cigarette flavors are often marketed in such a way as to appeal to youth, and many youth report using e-



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cigarettes because they are available in flavors.⁵⁻¹² The presence of cartoon images on e-cigarette packaging is not uncommon, and flavor names go beyond simply “vanilla” or “cherry” to “killer kustard” and “unicorn milk”.¹³ Although the argument has been made that adults like flavors too – a statement which is not altogether false – the bottom line is that a flavor like “killer kustard” is likely to have a far greater impact on whether youth are interested in trying a product than whether adult smokers are likely to try a product, and this is an important consideration. A recent study found that youth using more flavors were more likely to keep using e-cigarettes,¹⁴ and a majority of youth state that they would no longer use e-cigarettes if they were not available in flavors.⁶ On the other hand, the number of flavors used had no impact on whether adults continued using e-cigarettes.¹⁴ Further, there has not yet been research showing that flavors in e-cigarettes help adult smokers to quit smoking. Other characteristics of e-cigarettes also are appealing to youth – for example, new products such as Juul, are very low profile making them easy to conceal from authority figures.¹⁵ Collectively, the rapid increase in e-cigarette use and popularity of these products has fueled the continued use of e-cigarettes among youth and young adult populations.

There are a multitude of consequences of e-cigarette use among youth and young adults. These include exposure to nicotine (which is addictive and affects the developing brain), adverse respiratory effects,¹⁶ and risk of transition to more harmful products.¹⁷⁻³⁵ Youth and young adults who use e-cigarettes are about 4 times as likely as those who have not used e-cigarettes to begin smoking combustible cigarettes.¹⁷⁻³⁵ These findings have been replicated in numerous studies across the United States, including in Southern California, and in other countries around the world. Several other studies have also reported that the risk of transition to cigarette smoking is substantially higher for youth presumed to be at very low risk of cigarette initiation.^{18,22,24-26,29,31,35,36} Moreover, our studies have shown that youth who begin smoking after using e-cigarettes follow a similar or heavier trajectory into cigarette smoking – they smoke as much or more than youth who had never used e-cigarettes.^{19,37}

E-cigarettes have not been consistently shown to be a successful smoking cessation aid, either among youth and young adults, or among adult smokers. Two clinical trials were relatively inconclusive regarding the efficacy of early generation e-cigarettes in smoking cessation.^{38,39} A more recent clinical trial found that those using e-cigarettes with nicotine were significantly more likely to report complete cessation from cigarettes at 12-month follow-up, though this study notably took place in England and participants had the additional benefit of cessation counseling.⁴⁰ On the other hand, a paper that combined data from multiple observational studies found that adult smokers who were using e-cigarettes were actually about 25% less likely to quit smoking.⁴¹ In a recent study of young adults in California, we found that cigarette smokers were more likely to remain cigarette smokers than to transition to e-cigarettes or to quit smoking completely,⁴² a finding which was particularly notable among Hispanic young adults (publication under review) – further raising concerns regarding differential benefits for vulnerable populations.

Tobacco regulation can prevent youth initiation of e-cigarettes and other tobacco products. In a recent study, we report that youth in Southern California living in jurisdictions with strong enforcement regarding sales of tobacco products to minors – including having a tobacco retail license in place that can support local enforcement efforts – were substantially less likely to initiate use of combustible cigarettes and e-cigarettes.⁴³ This effect extended beyond just adolescence but into early adulthood as well. Thus, it is clear that amending the Tobacco Retailing License ordinance to regulate e-cigarettes, flavored, and menthol tobacco products as proposed by the motion to expand regulations of nicotine tobacco shops in Los Angeles County has tremendous potential to substantially reduce youth use of tobacco products – including e-cigarettes.

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While we do have a strong law in this state that prohibits the sale of tobacco products to those under the age of 21, the availability of e-cigarettes in flavors, and current location of retailers in close proximity to areas where youth congregate only increases use of these products among young people in our community. It is important to consider the overall impact of e-cigarettes on all segments of the population – among youth, young adults, and among adult smokers. But right now, the weight of the evidence points to a far more detrimental effect on youth that outweighs the benefit to adult smokers. The proposed policies would greatly enhance tobacco control in Southern California and would protect our youth from the long-term adverse effects of nicotine initiation through flavored tobacco products.

We thank the Board for taking critical strides to address this urgent concern among youth. Please do not hesitate to contact us. You can do so by reaching Dr. Baezconde-Garbanati at baezcond@usc.edu or Yaneth Rodriguez via phone at 323-442-8210 if you have any questions. For your reference, we have included short bios of each faculty member below and a list of cited resesarch.

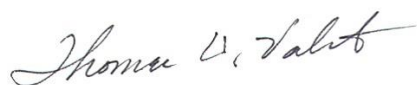
Sincerely,



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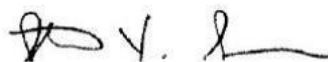
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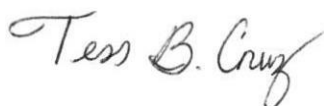
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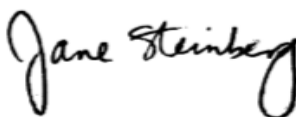
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References

1. Dutra LM, Glantz SA. E-cigarettes and National Adolescent Cigarette Use: 2004-2014. *Pediatrics*. 2017;139(2).
2. Barrington-Trimis JL, Urman R, Leventhal AM, et al. E-cigarettes, Cigarettes, and the Prevalence of Adolescent Tobacco Use. *Pediatrics*. 2016;138(2).
3. Leventhal AM, Strong DR, Sussman S, et al. Psychiatric comorbidity in adolescent electronic and conventional cigarette use. *J Psychiatr Res*. 2015;73:71-78.
4. Lechner WV, Janssen T, Kahler CW, Audrain-McGovern J, Leventhal AM. Bi-directional associations of electronic and combustible cigarette use onset patterns with depressive symptoms in adolescents. *Prev Med*. 2017;96:73-78.
5. 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.
6. Harrell MB, Weaver SR, Loukas A, et al. Flavored e-cigarette use: Characterizing youth, young adult, and adult users. *Prev Med Rep*. 2017;5:33-40.
7. Bold KW, Kong G, Cavallo DA, Camenga DR, Krishnan-Sarin S. Reasons for Trying E-cigarettes and Risk of Continued Use. *Pediatrics*. 2016;138(3).
8. Cooper M, Harrell MB, Pérez A, Delk J, Perry CL. Flavorings and Perceived Harm and Addictiveness of E-cigarettes among Youth. *Tob Regul Sci*. 2016;2(3):278-289.
9. Cooper M, Harrell MB, Perry CL. A Qualitative Approach to Understanding Real-World Electronic Cigarette Use: Implications for Measurement and Regulation. *Prev Chronic Dis*. 2016;13:E07.
10. Corey CG, Ambrose BK, Apelberg BJ, King BA. Flavored Tobacco Product Use Among Middle and High School Students--United States, 2014. *MMWR Morb Mortal Wkly Rep*. 2015;64(38):1066-1070.
11. Feirman SP, Lock D, Cohen JE, Holtgrave DR, Li T. Flavored Tobacco Products in the United States: A Systematic Review Assessing Use and Attitudes. *Nicotine Tob Res*. 2015.
12. Kong G, Morean ME, Cavallo DA, Camenga DR, Krishnan-Sarin S. Reasons for Electronic Cigarette Experimentation and Discontinuation Among Adolescents and Young Adults. *Nicotine Tob Res*. 2015;17(7):847-854.
13. Jackler RK, Ramamurthi D. Unicorns cartoons: marketing sweet and creamy e-juice to youth. *Tob Control*. 2017;26(4):471-475.
14. Morean ME, Butler ER, Bold KW, et al. Preferring more e-cigarette flavors is associated with e-cigarette use frequency among adolescents but not adults. *PLoS One*. 2018;13(1):e0189015.
15. Barrington-Trimis JL, Leventhal AM. Adolescents' Use of "Pod Mod" E-Cigarettes - Urgent Concerns. *N Engl J Med*. 2018;379(12):1099-1102.
16. 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(8):1043-1049.
17. Soneji S, Barrington-Trimis JL, Wills TA, 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 Pediatr*. 2017.
18. Barrington-Trimis JL, Urman R, Berhane K, et al. E-cigarettes and Future Cigarette Use. *Pediatrics*. 2016.
19. Leventhal AM, Stone MD, Andrabi N, et al. Association of e-Cigarette Vaping and Progression to Heavier Patterns of Cigarette Smoking. *Jama*. 2016;316(18):1918-1920.
20. Unger JB, Soto DW, Leventhal A. E-cigarette use and subsequent cigarette and marijuana use among Hispanic young adults. *Drug Alcohol Depend*. 2016;163:261-264.
21. Leventhal AM, Strong DR, Kirkpatrick MG, et al. Association of Electronic Cigarette Use With Initiation of Combustible Tobacco Product Smoking in Early Adolescence. *JAMA*. 2015;314(7):700-707.
22. Primack BA, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Progression to Traditional Cigarette Smoking After Electronic Cigarette Use Among US Adolescents and Young Adults. *JAMA Pediatr*. 2015:1-7.
23. Spindle TR, Hiler MM, Cooke ME, Eissenberg T, Kendler KS, Dick DM. Electronic cigarette use and uptake of cigarette smoking: A longitudinal examination of U.S. college students. *Addict Behav*. 2017;67:66-72.
24. Conner M, Grogan S, Simms-Ellis R, et al. Do electronic cigarettes increase cigarette smoking in UK Adolescents? Evidence from a 12-month prospective study. *Tob Control*. 2017.
25. Best C, Haseen F, Currie D, et al. Relationship between trying an electronic cigarette and subsequent cigarette experimentation in Scottish adolescents: a cohort study. *Tob Control*. 2017.
26. Miech R, Patrick ME, O'Malley PM, Johnston LD. E-cigarette use as a predictor of cigarette smoking: results from a 1-year follow-up of a national sample of 12th grade students. *Tob Control*. 2017.
27. Wills TA, Knight R, Sargent JD, Gibbons FX, Pagano I, Williams RJ. Longitudinal study of e-cigarette use and onset of cigarette smoking among high school students in Hawaii. *Tob Control*. 2016.
28. Wills TA, Gibbons FX, Sargent JD, Schweitzer RJ. How Is the Effect of Adolescent E-Cigarette Use on Smoking Onset Mediated: A Longitudinal Analysis. *Psychol Addict Behav*. 2016.

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29. Wills TA, Sargent JD, Gibbons FX, Pagano I, Schweitzer R. E-cigarette use is differentially related to smoking onset among lower risk adolescents. *Tob Control*. 2016.
30. Lozano P, Barrientos-Gutierrez I, Arillo-Santillan E, et al. A longitudinal study of electronic cigarette use and onset of conventional cigarette smoking and marijuana use among Mexican adolescents. *Drug Alcohol Depend*. 2017;180:427-430.
31. Loukas A, Marti CN, Cooper M, Pasch KE, Perry CL. Exclusive e-cigarette use predicts cigarette initiation among college students. *Addict Behav*. 2018;76:343-347.
32. Bold KW, Kong G, Camenga DR, et al. Trajectories of E-Cigarette and Conventional Cigarette Use Among Youth. *Pediatrics*. 2018;141(1).
33. Hammond D, Reid JL, Cole AG, Leatherdale ST. Electronic cigarette use and smoking initiation among youth: a longitudinal cohort study. *CMAJ*. 2017;189(43):E1328-E1336.
34. Treur JL, Rozema AD, Mathijssen JJP, van Oers H, Vink JM. E-cigarette and waterpipe use in two adolescent cohorts: cross-sectional and longitudinal associations with conventional cigarette smoking. *Eur J Epidemiol*. 2018;33(3):323-334.
35. Morgenstern M, Nies A, Goecke M, Hanewinkel R. E-Cigarettes and the Use of Conventional Cigarettes. *Dtsch Arztebl Int*. 2018;115(14):243-248.
36. Aleyan S, Cole A, Qian W, Leatherdale ST. Risky business: a longitudinal study examining cigarette smoking initiation among susceptible and non-susceptible e-cigarette users in Canada. *BMJ Open*. 2018;8(5):e021080.
37. Barrington-Trimis J, Leventhal A, Kong G, et al. E-cigarette Use and Subsequent Smoking Frequency Among Adolescents. *Pediatrics*. 2018 (in press).
38. Bullen C. Electronic cigarettes for smoking cessation. *Curr Cardiol Rep*. 2014;16(11):538.
39. McRobbie H, Bullen C, Hartmann-Boyce J, Hajek P. Electronic cigarettes for smoking cessation and reduction. *Cochrane Database Syst Rev*. 2014;12:CD010216.
40. Hajek P, Phillips-Waller A, Przulj D, et al. A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy. *N Engl J Med*. 2019;380(7):629-637.
41. Kalkhoran S, Glantz SA. E-cigarettes and smoking cessation in real-world and clinical settings: a systematic review and meta-analysis. *Lancet Respir Med*. 2016;4(2):116-128.
42. Barrington-Trimis JL, Kong G, Leventhal AM, et al. E-cigarette Use and Subsequent Smoking Frequency Among Adolescents. *Pediatrics*. 2018.
43. Astor RL, Urman R, Barrington-Trimis JL, et al. Tobacco Retail Licensing and Youth Product Use. *Pediatrics*. 2019;143(2).

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Biographies for Faculty Members

Dr. Laura Mosqueda, M.D

Dr. Laura Mosqueda was appointed dean of the Keck School of Medicine of USC on May 1, 2018. Prior to her appointment as dean, Dr. Mosqueda, a professor of Family Medicine and Geriatrics and a professor at the USC Leonard Davis School of Gerontology, served as associate dean of Primary Care and the chair of Family Medicine. An accomplished physician and researcher, Dr. Mosqueda is a national and international expert on elder abuse and neglect. She has testified in front of Congress and has been invited to the White House several times to discuss elder justice initiatives. She is the director of the National Center on Elder Abuse, a \$2.95 million federally-funded initiative which focuses on information regarding policy, research, training, and resources related to the neglect and exploitation of older adults for policymakers, professionals, and the public. In addition to Dr. Mosqueda's leadership in clinical care and research, she has been actively involved in medical education. She has mentored medical students, graduate students, residents and clinical fellows. She has particular interest in care of vulnerable and underserved populations and precepts interprofessional health care students at a homeless shelter on Skid Row.

Caryn Lerman, Ph.D.

Dr. Caryn Lerman is Director at USC Norris Comprehensive Cancer Center and professor of Psychiatry and Behavioral Sciences at the Keck School of Medicine, University of Southern California. The USC Norris Comprehensive Cancer Center is a leader in cancer research with more than 200 members investigating different aspects of cancer, developing prevention strategies, and searching for new therapies, discoveries and cures. USC Norris is part of the Keck School of Medicine and is designated by the National Cancer Institute as one of the nation's 45 comprehensive cancer centers. Dr. Lerman has joined the USC Norris as its new Director overseeing different programs of research from basic science to translational efforts, a cadre of trainees, and efforts that span from cell to society as we seek to make cancer a disease of the past. Dr. Lerman has an extensive experience leading cancer centers and programs. She is a nationally recognized cancer prevention researcher that has spanned the fields of neuroscience, pharmacology, genetics and behavioral science. Dr. Lerman was among the first to publish evidence for the genetic basis of cancer risk behaviors, including pioneering work on the genetic influences on tobacco use that helped shape tobacco dependence treatment.

Thomas W. Valente, Ph.D

Dr. Thomas W. Valente is Professor in the Department of Preventive Medicine, Institute for Prevention Research, Keck School of Medicine, University of Southern California. The Department of Preventive Medicine is ranked # 2 in research funding from the U.S. National Institutes of Health. The Department houses the USC Tobacco Center for Regulatory Sciences, the USC Institute for Addiction Science, a Masters of Public Health Program, and the undergraduate program in health promotion. As Interim Chair, Valente oversees a large program of research in tobacco prevention and control funded by the National Institutes of Health, and the Tobacco Related Disease Research Program. He is author of Social Networks and Health: Models, Methods, and Applications (2010, Oxford University Press); Evaluating Health Promotion Programs (2002, Oxford University Press); Network Models of the Diffusion of Innovations (1995, Hampton Press); and over 150 articles and chapters (as of June 2015) on social networks, behavior change, and program evaluation. Valente uses social network analysis, health communication, and mathematical models to implement and evaluate health promotion programs designed to prevent tobacco and substance abuse, unintended fertility, and STD/HIV infections. He is also engaged in mapping community coalitions and collaborations to improve health care delivery and reduce healthcare disparities.

Lourdes Baezconde-Garbanati, Ph.D, M.P.H, M.A

Dr. Lourdes Baezconde-Garbanati is Professor in Preventive Medicine, Associate Dean for Community Initiatives at the Keck School of Medicine, and Associate Director for Community Outreach and Engagement at the Norris Comprehensive Cancer Center at USC. She is also faculty liaison at Keck Medicine. She has over 25 years of experience working to protect youth and the diverse citizens of Los Angeles against the deleterious effects of tobacco and electronic cigarettes. Her work focuses on regulatory tobacco science and culture, exposure to secondhand and thirdhand smoke and cannabis use, funded by the Tobacco Related Disease Research Program (TRDRP). She has conducted, funded by the National Cancer Institute, one of the most diverse studies examining the tobacco retail environment in California. She is a renowned scholar, widely recognized locally, nationally and internationally for her tobacco prevention and control expertise. She has over 150 publications in scientific journals and book chapters that promote prevention and control of cancer, with a focus on risk factors, health disparities and social determinants of health. She has won prestigious awards nationally and internationally, including more recent recognitions from the Los Angeles Board of Supervisors and the City Attorney's Office in August of 2018 for her work in protecting the health and well-being of the citizens of Los Angeles.

Jessica Barrington-Trimis, Ph.D.

Dr. Jessica Barrington-Trimis is an epidemiologist and Assistant Professor of Preventive Medicine at the University of Southern California, and faculty member in the USC Health, Emotion, and Addiction Laboratory, the USC

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Institute for Addiction Science, the USC Institute for Health Promotion and Disease Prevention Research, and the USC Norris Comprehensive Cancer Center. After receiving her BA in Philosophy and English (creative writing) from Bucknell University (2007), Dr. Barrington-Trimis joined Teach for America, earning an MA in Education (2009), while teaching high school chemistry in Los Angeles. Dr. Barrington-Trimis left her teaching position to earn an MS in Global Medicine (2010), and her PhD in Epidemiology (2014). From 2014-2016, Dr. Barrington-Trimis completed a postdoctoral fellowship in the FDA and NIH-supported USC Tobacco Center of Regulatory Science (TCORS), and in January 2017 accepted a faculty position at USC. Dr. Barrington-Trimis' research focuses on investigation of the rapidly changing tobacco, alternative tobacco, and cannabis landscape. Her work aims to identify intra-individual psychological, behavioral, and social processes associated with nicotine and cannabis product use in adolescence and early adulthood, and to elucidate the behavioral consequences (e.g., transition to more harmful patterns of substance use) and physiological consequences (e.g., adverse respiratory health effects of e-cigarette use) of varying patterns of cannabis and nicotine product use in adolescence.

Mary Ann Pentz, Ph.D.

Dr. Mary Ann Pentz is Director of the Institute for Health Promotion and Disease Prevention Research (IPR), Director of the Division of Health Behavior Research in Preventive Medicine, and co-Director of the Cancer Control Program of the Norris Comprehensive Cancer Center. All of her research and leadership experience over the last 25 years has focused on prevention of chronic diseases of lifestyle, with a primary emphasis on adolescents and their families. Her prevention research has focused on developing and evaluating interventions to prevent the multiple health risk and disseminating both programmatic and policy interventions for tobacco and alcohol use, physical activity, sedentary behavior, nutrition, obesity, stress, and sleep in large randomized trials that involve communities, schools, and families, for all of which she has been PI. As PI of the NIH Tobacco Center of Regulatory Science (TCORS, with Jon Samet), her TCORS research has developed and disseminated evidence-based tobacco prevention strategies and promoted adoption of evidence-based prevention policies. Dr. Pentz has also organized and coordinated large teams of transdisciplinary researchers and resources required for large-scale trials.

Adam Leventhal, Ph.D.

Dr. Adam Leventhal is Professor of Preventive Medicine and Psychology at the University of Southern California Keck School of Medicine and USC Norris Comprehensive Cancer Center, is an addiction psychologist and public health scientist. He is the Founding Director of the USC Health, Emotion, & Addiction Laboratory (USC-HEAL; heal.usc.edu), a group of five faculty investigators and 20 staff and trainees who study the causes, consequences, treatment, and prevention of addiction and mental illness across the lifespan. Having been awarded more than \$32M in grant funding from the NIH and other agencies, USC-HEAL's current areas of focus are: (1) adolescent and young adult use of tobacco, cannabis, and opioids; (2) the co-occurrence of addiction and mental illness; (3) the development of new medications to promote smoking cessation; (4) science to inform public policies for regulating tobacco and other consumer products; and (5) cancer and cardiovascular disease prevention. Dr. Leventhal has authored over 200 peer-reviewed scientific articles, including publications in JAMA, New England Journal of Medicine, and other journals. His work has been covered by the Associated Press, NBC Nightly News, New York Times, and other media outlets. Dr. Leventhal is active in policy arenas, having served on expert panels on the health effects of e-cigarettes and tobacco products for the National Academy of Sciences, Engineering, and Medicine and the US Surgeon General. He is an elected fellow of the American Academy of Health Behavior and American Psychological Association and recipient of awards for early and mid-career contributions to science and mentoring.

Kiros T. Berhane, Ph.D

Dr. Kiros Berhane is Professor in the Division of Biostatistics, and Director of Graduate Programs in Biostatistics and Epidemiology. He obtained his B.Sc. from Addis Ababa University (Ethiopia), majoring in statistics, M.Sc. degree in statistics at University of Guelph (Canada), Ph.D. degree in biostatistics at University of Toronto (Canada), and a postdoctoral fellowship at Johns Hopkins University (Baltimore, MD). His main research interests are in the development of statistical methods for environmental research, and their application to examination of health effects of air pollution, occupational exposures and climate change. His research is funded via grants from the NIH, US-EPA, HEI and the Canadian IDRC. He is an elected fellow of the American Statistical Association. He is a member of the US-EPA Science Advisory Board, Health Effects Institute Review Committee, and the Biostatistical Methods and Research Design [BMRD] Study Section of the NIH. He has been an active member of the USC-TCORS, serving as Co-Director of the Methods Core and participating in several peer-reviewed publications relating effects of tobacco related exposures on children's health.

Jennifer B. Unger, Ph.D

Dr. Jennifer B. Unger is Professor of Preventive Medicine at the University of Southern California Keck School of Medicine. Her research focuses on the psychological, social, and cultural influences on health-risk and health-protective behaviors, with the ultimate goal of developing improved prevention programs to reduce health

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disparities. She and her colleagues have conducted several longitudinal studies of acculturation and substance use among Hispanic adolescents. Her research also has examined cultural influences on substance use among American Indian adolescents, Chinese adolescents, and African American adults. She is interested in entertainment-education strategies for health education among low-literacy minority populations and has collaborated on the design and evaluation of fotonovelas and telenovelas about secondhand smoke exposure in multiunit housing; diabetes; asthma; immunization; and kidney transplantation. She is a co-investigator in the USC Tobacco Center of Regulatory Science (TCORS), where she studies diffusion of messages about emerging tobacco products to vulnerable populations through social media. Dr. Unger directs the Ph.D. program in Preventive Medicine / Health Behavior Research. She is a Deputy Editor for Nicotine & Tobacco Research and an Associate Editor for Substance Use and Misuse and Tobacco Regulatory Science.

Rob McConnell, Ph.D

Dr. Rob McConnell is a physician and environmental epidemiologist, and Professor of Preventive Medicine. He has led the development of studies examining the role of e-cigarettes as a gateway to cigarette and tobacco product use, and of other risk factors for tobacco product use, in youth in the large cohort studies conducted in the USC Tobacco Center for Regulatory Science Project 3, for which he is the co-PI. He has also studied the effects of e-cigarette use on respiratory health. Dr. McConnell directs the NIH/Environmental Protection Agency-supported Southern California Children's Environmental Health Center. He has studied the effects of air pollution and smoking on children's health, including the development of asthma and lung function deficits, early markers for cardiovascular disease, obesity and metabolic disease, and neurodevelopment. He has investigated susceptibility to the effects of environmental exposures conferred by psychosocial stress and social factors, exercise, genetics and co-exposures associated with housing conditions. He co-directs the NIEHS T32 training program in environmental genomics and the Career Development Program of the Southern California Environmental Health Sciences Center. Prior to coming to USC, he directed a World Health Organization regional environmental health center for Latin America and the Caribbean. Dr. McConnell is a fellow of the American Association for the Advancement of Science.

Steve Sussman, Ph.D, FAAHB, FAPA

Dr. Steve Sussman is Professor in Preventive Medicine at the Keck School of Medicine, Professor in Psychology at the USC Dana and David Dornsife College of Letters, Arts and Science, and in Social Work, at the Suzanne Dworak-Peck School of Social Work at USC. His primary research interest is in drug abuse prevention and cessation. He has extensive experience in school-based adolescent alcohol, tobacco, and other drug abuse prevention and cessation research, and has investigated the psychosocial predictors of drug-use development, cessation, and relapse prevention. He is also interested in empirically-based program development, and in differentiating the effects of condition credibility versus information content for eliciting successful program effects. Dr. Sussman is a prolific writer, with hundreds of publications in scientific journals. He is highly recognized in the field of drug abuse prevention, for his Project Towards No Drug Abuse, Drug Use Prevention Programming in Continuation Schools and Smokeless Tobacco-Onset Prevention and Cessation, among other. He has received funding from the National Institute on Drug Abuse, the National Cancer Institute among other.

Tess Boley Cruz, Ph.D, M.P.H, CHES

Dr. Tess Boley Cruz, is Associate Professor of clinical in the Department of Preventive Medicine and the Institute for Prevention Research at USC. Her primary research interests are health disparities, public health communication, health literacy, tobacco marketing and tobacco control. She has been involved in research projects on health communication, health literacy, diversity, and tobacco control, and in teaching and administration for the academic programs of the Keck School. Cruz is the Director of the Health Communications track of the USC Master of Public Health program, past director of the MPH program during its early years, and currently teaches courses on health promotion, public health communications, race and gender issues in public health. Most recently she has been adapting courses for our new online MPH program. She has also trained health professionals in materials development for low-income populations. Her current research projects include development of a fotonovela on second hand smoke in apartment buildings, comparison of a print and audio-visual novela on obesity, and development of a community-based participatory research project on HIV among immigrant Latino families in Los Angeles.

Jane Steinberg, Ph.D, M.P.H

Dr. Jane Steinberg is Assistant Professor in Preventive Medicine at the Keck School of Medicine at USC. Her research focuses on how tobacco and cannabis policies are implemented and regulated at the local level, and best public health practices for reducing health disparities and minimizing harms to vulnerable populations such as youth and communities of color. Dr. Steinberg is a co-investigator on two research grants: one funded by the Tobacco-Related Disease Research Program, University of California, which is a 2-year longitudinal survey of 2000 California adolescents. We will determine whether proximity to recreational cannabis retailers and/or medical cannabis dispensaries is associated with higher perceived access to cannabis and whether this perceived access

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increases cannabis use. The second grant is funded by California Tobacco Control Program Statewide Hispanic/Latino Coordinating Center. We will evaluate the adoption, implementation and impact of tobacco policy and system change campaigns conducted by projects that were funded under this program.

Raina Pang, Ph.D

Dr. Raina Pang, is Assistant Professor of Research in the Department of Preventive Medicine at the KSOM. She is a member of HEAL, the Health, Emotion and Addiction Laboratory at USC. Along with a cadre of trainees and investigators, HEAL studies the causes, consequences, treatment and prevention of addiction and mental illness across the lifespan. Dr. Pang's particular interest are in understanding sex/gender differences and women specific factors in addiction. She has investigated the interactive role of menstrual cycle and nicotine on response inhibition and smoking behavior using laboratory based behavioral pharmacology. Currently, Dr. Pang is PI on a five year study aimed at understanding within and between subject effects of ovarian hormones on mood and smoking behavior across the menstrual cycle using ecological momentary assessment. Dr. Pang's research utilizes behavioral, pharmacology and EMA methods to investigate mechanisms underlying tobacco related health disparities, sex/gender differences, and female specific factors, as well as psychiatric comorbidity.

Lorraine Kelley-Quon, M.D., MSHS

Dr. Lorraine Kelley-Quon is Assistant Professor of Surgery and Preventive Medicine at Children's Hospital Los Angeles (CHLA) and the University of Southern California. She obtained her B.S. in Biochemistry and Cell Biology at the University of California, San Diego and completed her M.D. and General Surgery training at the University of California, Los Angeles followed by a fellowship in Pediatric Surgery at Nationwide Children's Hospital at The Ohio State University in Columbus, Ohio. During residency, she completed the Robert Wood Johnson Clinical Scholars Program and obtained a Master's in Health Services Research from the UCLA Fielding School of Public Health. Dr. Kelley-Quon's research interests include identifying and eliminating health care disparities for children, optimizing pediatric surgical health care delivery and translating health services research into health policy. In partnership with HEAL, she is developing a pilot project to explore postoperative opioid use in adolescents and identify predictors of use, abuse, diversion, and conversion to chronic use. Her goal is to create physician decision support tools to optimize opioid prescribing for children and to inform policy makers of prudent initiatives regarding pediatric opioid legislation.

March 25, 2019

Hon. David Ryu
Committee on Health, Education, Neighborhoods, Parks, Arts, and River
200 N. Main Spring Street, Room 1060
Los Angeles, CA 90012

Re: Banning All Flavored Tobacco Products in Los Angeles

Dear Councilmember Ryu,

I write you on behalf of the residents and faculty of the Advocacy Interest Group at Olive View-UCLA.* We are doctors that care for our vulnerable adult patients at Olive View-UCLA Medical Center, a LAC/DHS facility. As internists, we see the outcomes of tobacco smoking on a day-to-day basis. Four of the five top causes of death in the United States – heart disease, cancer, chronic lung disease, and stroke – are directly linked to smoking. We have been heartened by the gains made in recent decades on smoking rates in the US, but we are very concerned about the potential to see these changes reverse as e-cigarette use becomes increasingly widespread.

Flavored e-cigarettes are used to make smokeless tobacco more palatable and appealing. They are marketed particularly to children and young adults, the age groups that are most susceptible to addictive habits. A 2016 report from the Surgeon General notes that 37.7% of high school and 13.5% of middle school students have ever smoked an e-cigarette.

Not only are more children and young adults using e-cigarettes, but they are also more likely to smoke tobacco as a result. One reliable study showed that children who had used e-cigarettes are up to 7 times more likely to smoke tobacco than if they had never used an e-cigarette; a similar effect has been seen among young adults. In fact, children that had no intention to smoke tobacco when they first tried e-cigarettes were even more vulnerable to later smoking. Furthermore, it has been seen that flavored e-cigarettes are even more effective at leading to cigarette smoking than non-flavored e-cigarettes.

As the rate of cigarette smoking rises in these children and young adults, we are also concerned that this will lead to long-term cigarette smoking in adulthood. Nearly 90% of adult smokers begin before age 18. Therefore, as more and more of our young population use e-cigarettes, we are highly concerned that this could lead to cigarette smoking in youth and later adulthood.

As stated by the Surgeon General, Dr. Jerome Adams, “e-cigarette use among youth (is) an epidemic in the United States.” We know that flavored e-cigarettes target these young and impressionable people. And it has worked, with rates of vaping rising year after year leading to increased cigarette smoking, reversing gains made in recent decades. Therefore, we strongly urge you to stem the tide of youth e-

cigarette use and support the citywide ban on all flavored tobacco products in Los Angeles. This ordinance from a city such as ours will set a strong example for other municipalities around our state.

Sincerely,

A handwritten signature in black ink, appearing to read "Colin L. Robinson", with a horizontal line underneath.

Colin L. Robinson, MD, MPH, on behalf of the
Olive View-UCLA Medical Center Resident Advocacy Committee

**The views expressed by the faculty and residents of the Resident Advocacy Group at Olive View-UCLA Medical Center do not necessarily represent those of the Olive View-UCLA Medical Center, the Olive View-UCLA Department of Medicine, or the Olive View-UCLA Internal Medicine Residency.*