

File No. 190312

Committee Item No. 6

Board Item No. 31

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Comm: Public Safety & Neighborhood Services

Date: June 7, 2019

Board of Supervisors Meeting:

Date: June 25, 2019

Cmte Board

- Motion
- Resolution
- Ordinance
- Legislative Digest
- Budget and Legislative Analyst Report
- Youth Commission Report
- introduction Form
- Department/Agency Cover Letter and/or Report
- MOU
- Grant Information Form
- Grant Budget
- Subcontract Budget
- Contract/Agreement
- Form 126 – Ethics Commission
- Award Letter
- Application
- Public Correspondence

OTHER

- Small Business Commission Response - April 29, 2019
- Youth Commission Response - April 16, 2019
- FYI Referrals - March 27, 2019
- _____
- _____

Prepared by: John Carroll

Date: May 31, 2019

Prepared by: John Carroll

Date: June 13, 2019

1 [Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products,
2 Including Electronic Cigarettes]

3 **Ordinance amending the Health Code to prohibit the sale by tobacco retail**
4 **establishments of electronic cigarettes that require, but have not received, an order**
5 **from the Food and Drug Administration (FDA) approving their marketing; and**
6 **prohibiting the sale and distribution to any person in San Francisco of flavored**
7 **tobacco products and electronic cigarettes that require, but have not received, an FDA**
8 **order approving their marketing.**

9 NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.
10 **Additions to Codes** are in *single-underline italics Times New Roman font*.
11 **Deletions to Codes** are in *strikethrough italics Times New Roman font*.
12 **Board amendment additions** are in double-underlined Arial font.
13 **Board amendment deletions** are in ~~strikethrough Arial font~~.
14 **Asterisks (* * * *)** indicate the omission of unchanged Code
15 subsections or parts of tables.

16 Be it ordained by the People of the City and County of San Francisco:

17 Section 1. Findings.

18 (a) Despite progress in reducing smoking, tobacco use is still the leading cause of
19 preventable death in the United States. Tobacco kills more than 480,000 people in this
20 country annually – more than AIDS, alcohol, car accidents, illegal drugs, murders, and
21 suicides combined. And beyond this large, impersonal statistic, are countless human beings,
22 whose lives are forever devastated by the irreparable loss of a loved one caused by tobacco
23 use, and the inevitable rupture of family that follows such a loss. And that is to say nothing of
24 the huge financial costs tobacco use places on our health care system, and the constraints on
25 productivity it imposes on our economic system.

1 (b) Electronic cigarettes (or “e-cigarettes”) entered the marketplace around 2007, and
2 since 2014, they have been the most commonly used tobacco product among youth in the
3 United States. The dramatic surge in youth e-cigarette use (“vaping”) is no accident. E-
4 cigarettes are frequently marketed in a variety of flavors with obvious appeal to youth, such as
5 gummy bear, cotton candy, and fruit punch. As of 2017, researchers had identified more than
6 15,500 unique e-cigarette flavors available online. In addition, e-cigarette companies have
7 effectively used marketing strategies, including celebrity endorsements, slick magazine
8 advertisements, social media campaigns, paid influencers, and music sponsorships, to reach
9 youth and young adults. A 2016 study found that 78.2% of middle and high school students—
10 20.5 million youth—had been exposed to e-cigarette advertisements from at least one source,
11 an increase from 68.9% only two years before, in 2014.

12 (c) According to the Centers for Disease Control and Prevention (“CDC”), the number
13 of middle and high school students who reported being current users of tobacco products
14 increased 36%—from 3.6 million to 4.9 million students—between 2017 and 2018. This
15 dramatic increase, which has erased past progress in reducing youth tobacco use, is directly
16 attributable to a nationwide surge in e-cigarette use by adolescents. There were 1.5 million
17 more youth e-cigarette users in 2018 than 2017, and those who were using e-cigarettes were
18 using them more often. Frequent use of e-cigarettes increased from 20 percent in 2017 to 28
19 percent in 2018 among current high school e-cigarette users.

20 (d) The widespread use of e-cigarettes by youth has significant public health
21 consequences. As stated by the Surgeon General, “Most e-cigarettes contain nicotine – the
22 addictive drug in regular cigarettes, cigars, and other tobacco products. Nicotine exposure
23 during adolescence can harm the developing brain – which continues to develop until about
24 age 25. Nicotine exposure during adolescence can impact learning, memory, and attention.
25 Using nicotine in adolescence can also increase risk for future addiction to other drugs. In

1 addition to nicotine, the aerosol that users inhale and exhale from e-cigarettes can potentially
2 expose both themselves and bystanders to other harmful substances, including heavy metals,
3 volatile organic compounds, and ultrafine particles that can be inhaled deeply into the lungs.”

4 (e) And while there is some evidence that the use of e-cigarettes by adults may
5 support smoking cessation under certain circumstances, a 2018 National Academy of
6 Sciences, Engineering, and Medicine report concluded that there was moderate evidence that
7 e-cigarette use in fact *increases* the frequency and intensity of cigarette smoking in the future.

8 (f) In addition, there is a growing body of research concluding that there are significant
9 health risks associated with electronic cigarette use. For example, daily e-cigarette use is
10 associated with increased odds of a heart attack. And the American Lung Association has
11 warned that the inhalation of harmful chemicals through vaping may cause irreversible lung
12 damage and lung disease.

13 (g) To reduce the burden of tobacco use, the City and County of San Francisco (the
14 “City”) licenses tobacco retail establishments. (Health Code Article 19H). In 2017, to address
15 the appeal of flavored tobacco products to youth, the City enacted Ordinance No. 140-17,
16 prohibiting tobacco retail establishments from selling flavored tobacco products. As a result of
17 the referendum process, the ordinance was placed before the voters, who approved the
18 ordinance in June 2018 (Proposition E) by a majority of 68.39%.

19 (h) Notwithstanding these efforts, San Francisco’s youth still access and use tobacco
20 products. According to the most recent Youth Risk Behavior Survey for which local data are
21 available, in 2017, 16.7% of San Francisco’s high school students had tried smoking, 25%
22 had used an electronic cigarette (or “vaped”), and 7.1% reported current e-cigarette use,
23 which is defined as use on at least one day in the past 30 days.

24 (i) Among San Francisco high school students who reported currently using electronic
25 cigarettes, 13.6% reported that they usually purchased their electronic cigarette products in a

1 store. The remaining 86.4% reported that they obtained them from places other than the
2 City's licensed tobacco retail establishments, including friends, other social sources, and
3 internet e-cigarette vendors.

4 (j) To protect the public, especially youth, against the health risks created by tobacco
5 products, Congress enacted the Family Smoking Prevention and Tobacco Control Act
6 ("Tobacco Control Act") in 2009. Among other things, the Tobacco Control Act authorized the
7 U.S. Food and Drug Administration ("FDA") to set national standards governing the
8 manufacture of tobacco products, to limit levels of harmful components in tobacco products
9 and to require manufacturers to disclose information and research relating to the products'
10 health effects.

11 (k) A central requirement of the Tobacco Control Act is premarket review of all new
12 tobacco products. Specifically, every "new tobacco product"—defined to include any tobacco
13 product not on the market in the United States as of February 15, 2007—must be authorized
14 by the FDA for sale in the United States before it may enter the marketplace. A new tobacco
15 product may not be marketed until the FDA has found that the product is: (1) appropriate for
16 the protection of the public health upon review of a premarket tobacco application; (2)
17 substantially equivalent to a grandfathered product; or (3) exempt from substantial
18 equivalence requirements.

19 (l) In determining whether the marketing of a tobacco product is appropriate for the
20 protection of the public health, the FDA must consider the risks and benefits of the product to
21 the population as a whole, including users and nonusers of the product, and taking into
22 account the increased or decreased likelihood that existing users of tobacco products will stop
23 using tobacco products and the increased or decreased likelihood that those who do not use
24 tobacco products will start using them. Where there is a lack of showing that permitting the
25

1 sale of a tobacco product would be appropriate for the protection of the public health, the
2 Tobacco Control Act requires that the FDA deny an application for premarket review.

3 (m) Virtually all electronic cigarettes that are sold today entered the market after 2007,
4 but have not been reviewed by the FDA to determine if they are appropriate for the public
5 health. In 2017, the FDA issued Guidance that purports to give electronic cigarette
6 manufacturers until August 8, 2022 to submit their application for premarket review. The
7 Guidance further purports to allow unapproved products to stay on the market indefinitely,
8 until such time as the FDA complies with its statutory duty to conduct a premarket review to
9 determine whether a new tobacco product poses a risk to public health. In March 2019, the
10 FDA issued draft guidance in which it considered moving the premarket application deadline
11 up by one year for certain flavored e-cigarette products. It is not known when, if ever, this
12 narrow adjustment will become final or will take effect.

13 (n) By the time e-cigarette manufacturers will be required to submit their premarket
14 review applications, e-cigarettes will have been on the market for fifteen years without any
15 FDA analysis of their safety and alleged benefit. If current trends continue, six million more
16 youth in the United States will begin using e-cigarettes between now and then. Until such
17 time as the FDA fulfills its statutory duty to conduct premarket reviews of new tobacco
18 products, a generation of young people will become addicted to tobacco, resulting in an
19 entirely preventable increase in the burdens and tragedies associated with tobacco use. San
20 Francisco is not content to wait until then before addressing, for its residents, what appears
21 from the evidence to be a major public health crisis that is going unattended.

22
23 Section 2. The Health Code is amended by adding new Article 19R, consisting of
24 Sections 19R.1 through 19R.5, to read as follows:
25

1 ARTICLE 19R: PROHIBITING THE SALE OF ELECTRONIC CIGARETTES LACKING FOOD
2 AND DRUG ADMINISTRATION PREMARKET APPROVAL

3 SEC. 19R.1. DEFINITIONS.

4 For purposes of this Article 19R, the following terms have the following meanings:

5 "Director" has the meaning set forth in Health Code Section 19H.2.

6 "Electronic Cigarette" has the meaning set forth in Section 30121 of the California Revenue
7 and Taxation Code, as may be amended from time to time.

8 "Establishment" has the meaning set forth in Health Code Section 19H.2.

9 "New Tobacco Product" has the meaning set forth in 21 U.S.C. § 387j(a)(1), as may be
10 amended from time to time.

11
12 SEC. 19R.2. SALE OR DISTRIBUTION OF ELECTRONIC CIGARETTES LACKING
13 FOOD AND DRUG ADMINISTRATION PREMARKET ORDER OF APPROVAL PROHIBITED.

14 The sale or distribution by an Establishment of an Electronic Cigarette is prohibited where the
15 Electronic Cigarette:

16 (a) Is a New Tobacco Product;

17 (b) Requires premarket review under 21 U.S.C. § 387j, as may be amended from time to time;

18 and

19 (c) Does not have a premarket review order under 21 U.S.C. § 387j(c)(1)(A)(i), as may be
20 amended from time to time.

21
22 SEC. 19R.3. ADMINISTRATIVE REGULATIONS.

23 The Director may adopt rules, regulations, or guidelines for the implementation and
24 enforcement of this Article 19R.

1 **SEC. 19R.4. ENFORCEMENT.**

2 *The Director may enforce Section 19R.2 under Articles 19 et seq. of the Health Code, including*
3 *but not limited to Article 19H.*

4
5 **SEC. 19R.5. NO CONFLICT WITH FEDERAL OR STATE LAW.**

6 *Nothing in this Article 19R shall be interpreted or applied so as to create any requirement,*
7 *power, or duty that is preempted by federal or state law.*

8
9 Section 3. Article 19H of the Health Code is amended by adding new Section 19H.14-
10 3, to read as follows:

11
12 **SEC. 19H.14-3. CONDUCT VIOLATING HEALTH CODE ARTICLE 19R**
13 **(PROHIBITING THE SALE OR DISTRIBUTION OF ELECTRONIC CIGARETTES LACKING**
14 **FOOD AND DRUG ADMINISTRATION PREMARKET ORDER OF APPROVAL).**

15 *(a) Upon a decision by the Director that the Permittee or the Permittee's agent or employee*
16 *has engaged in any conduct that violates Health Code Section 19R.2 (Sale or Distribution of Electronic*
17 *Cigarettes Lacking Food and Drug Administration Premarket Order of Approval Prohibited), the*
18 *Director may suspend a Tobacco Sales permit as set forth in Section 19H.19.*

19 *(b) The Director shall commence enforcement under this Section 19H.14-3 by serving either a*
20 *notice of correction under Section 19H.21 or a notice of initial determination under Section 19H.22.*

21
22 Section 4. The Health Code is hereby amended by adding new Article 19S, consisting
23 of Sections 19S.1 through 19S.6, to read as follows:

1 ARTICLE 19S. PROHIBITING THE SALE AND DISTRIBUTION OF TOBACCO PRODUCTS

2 IN SAN FRANCISCO

3 SEC. 19S.1. DEFINITIONS.

4 For purposes of this Article 19S, the following terms have the following meanings:

5 "Characterizing Flavor" has the meaning set forth in Health Code Section 19Q.2.

6 "Cigarette" has the meaning set forth in Health Code Section 19Q.2.

7 "City" means the City and County of San Francisco.

8 "Constituent" has the meaning set forth in Health Code Section 19Q.2.

9 "Director" means the Director of Health, or the Director's designee.

10 "Distinguishable" has the meaning set forth in Health Code Section 19Q.2.

11 "Distribute" or "Distribution" means the transfer, by any Person other than a common carrier,
12 of a Tobacco Product at any point from the place of Manufacture or thereafter to the Person who sells
13 the Tobacco Product to an individual for personal consumption.

14 "Electronic Cigarette" has the meaning set forth in Section 30121 of the California Revenue
15 and Taxation Code, as may be amended from time to time.

16 "Flavored Tobacco Product" has the meaning set forth in Health Code Section 19Q.2.

17 "Labeling" has the meaning set forth in Health Code Section 19Q.2.

18 "New Tobacco Product" has the meaning set forth in 21 U.S.C. § 387j(a)(1), as may be
19 amended from time to time.

20 "Packaging" has the meaning set forth in Health Code Section 19Q.2.

21 "Person" has the meaning set forth in Health Code Section 19H.2.

22 "Sell," "Sale," and "to Sell" mean any transaction where, for any consideration, ownership of
23 a Tobacco Product is transferred from one Person to another, including but not limited to any transfer
24 of title or possession for consideration, exchange, or barter, in any manner or by any means.

25 "Tobacco Product" has the meaning set forth in Health Code Section 19H.2.

1
2 **SEC. 19S.2. PROHIBITION ON SALE OR DISTRIBUTION OF TOBACCO PRODUCTS.**

3 (a) No Person shall Sell or Distribute any Flavored Tobacco Product to a Person in San
4 Francisco. There shall be a rebuttable presumption that a Tobacco Product, other than a Cigarette, is
5 a Flavored Tobacco Product if a manufacturer or any of the manufacturer's agents or employees, in
6 the course of their agency or employment, has made a statement or claim directed to consumers or to
7 the public that the Tobacco Product has or produces a Characterizing Flavor, including, but not
8 limited to, text, color, and/or images on the product's Labeling or Packaging that are used to explicitly
9 or implicitly communicate that the Tobacco Product has a Characterizing Flavor.

10 (b) No Person shall Sell or Distribute an Electronic Cigarette to a Person in San Francisco
11 where the Electronic Cigarette:

12 (1) Is a New Tobacco Product;

13 (2) Requires premarket review under 21 U.S.C. § 387j, as may be amended from time
14 to time; and

15 (3) Does not have a premarket review order under 21 U.S.C. § 387j(c)(1)(A)(i), as may
16 be amended from time to time.

17
18 **SEC. 19S.3. ADMINISTRATIVE REGULATIONS.**

19 The Director may adopt rules, regulations, or guidelines for the implementation of this Article
20 19S.

21
22 **SEC. 19S.4. ENFORCEMENT.**

23 (a) Violations of this Article 19S or of any rule or regulation issued under this Article shall be
24 punishable by administrative fines imposed pursuant to administrative citations. Administrative Code
25 Chapter 100 "Procedures Governing the Imposition of Administrative Fines," as amended from time to

1 time, shall govern the issuance and enforcement of administrative citations, and collection and review
2 of administrative fines, to enforce this Article and any rule or regulation adopted pursuant to this
3 Article.

4 (b) The City Attorney may at any time institute civil proceedings for injunctive and monetary
5 relief including civil penalties, against any Person for violations of this Article 19S, without regard to
6 whether the Director has assessed or collected administrative penalties.

7 (c) At any time, the Director may refer a case to the City Attorney's Office for civil
8 enforcement, but a referral is not required for the City Attorney to bring a civil action under subsection
9 (b).

10 (d) Any Person that violates any provision of this Article 19S shall be subject to injunctive
11 relief and a civil penalty in an amount not to exceed \$1,000 for each violation, which penalty shall be
12 assessed and recovered in a civil action brought in the name of the people of the City and County of
13 San Francisco by the City Attorney in any court of competent jurisdiction. In assessing the amount of
14 the civil penalty, the court shall consider any one or more of the relevant circumstances presented by
15 any of the parties to the case, including but not limited to, the following: the nature and seriousness of
16 the misconduct giving rise to the violation, the number of violations, the persistence of the misconduct,
17 the length of time over which the misconduct occurred, the willfulness of the misconduct, and the
18 defendant's assets, liabilities, and net worth.

19 (e) The City may recover reasonable attorneys' fees and costs for civil actions brought
20 pursuant to this Section 19S.4.

21 (f) Remedies under this Section 19S.4 are non-exclusive and cumulative to all other remedies
22 available at law or equity.

23
24 **SEC. 19S.5. NO CONFLICT WITH FEDERAL OR STATE LAW.**
25

1 Nothing in this Article 19S shall be interpreted or applied so as to create any requirement,
2 power, or duty that is preempted by federal or state law.

3
4 **SEC. 19S.6. SEVERABILITY.**

5 If any section, subsection, sentence, clause, phrase, or word of this Article 19S, or any
6 application thereof to any person or circumstance, is held to be invalid or unconstitutional by a
7 decision of a court of competent jurisdiction, such decision shall not affect the validity of the remaining
8 portions or applications of the Article. The Board of Supervisors hereby declares that it would have
9 passed this ordinance and each and every section, subsection, sentence, clause, phrase, and word not
10 declared invalid or unconstitutional without regard to whether any other portion of this Article or
11 application thereof would be subsequently declared invalid or unconstitutional.

12
13 Section 5. Effective and Operative Dates.

14 (a) This ordinance shall become effective 30 days after enactment. Enactment occurs
15 when the Mayor signs the ordinance, the Mayor returns the ordinance unsigned or does not
16 sign the ordinance within ten days of receiving it, or the Board of Supervisors overrides the
17 Mayor's veto of the ordinance.

18 (b) This ordinance shall become operative six months after the effective date.

19
20 Section 6. Severability. If any section, subsection, sentence, clause, phrase, or word of
21 this ordinance, or any application thereof to any person or circumstance, is held to be invalid
22 or unconstitutional by a decision of a court of competent jurisdiction, such decision shall not
23 affect the validity of the remaining portions or applications of the ordinance. The Board of
24 Supervisors declares that it would have passed this ordinance and each and every section,
25 subsection, sentence, clause, phrase, and word not declared invalid or unconstitutional

1 without regard to whether any other portion of this ordinance or application thereof would be
2 subsequently declared invalid or unconstitutional.

3
4 Section 7. Undertaking for the General Welfare. In enacting and implementing this
5 ordinance, the City is assuming an undertaking only to promote the general welfare. It is not
6 assuming, nor is it imposing on its officers and employees, an obligation for breach of which it
7 is liable in money damages to any person who claims that such breach proximately caused
8 injury.

9
10 APPROVED AS TO FORM:
11 DENNIS J. HERRERA, City Attorney

12 By: 
13 ANNE PEARSON
Deputy City Attorney

14 n:\leganas2019\1900441\01345951.docx

LEGISLATIVE DIGEST

[Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes]

Ordinance amending the Health Code to prohibit the sale by tobacco retail establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration (FDA) approving their marketing; and prohibiting the sale and distribution to any person in San Francisco of flavored tobacco products and electronic cigarettes that require, but have not received, an FDA order approving their marketing.

Existing Law

Local law requires that all retail establishments in San Francisco that sell tobacco products, including electronic cigarettes, obtain a permit from the Department of Public Health to do so. (Health Code Article 19H). Local law also prohibits permitted tobacco retail establishments from selling flavored tobacco products, including electronic cigarettes, to any person. (Health Code Article 19Q).

At the federal level, the Family Smoking Prevention and Tobacco Control Act ("Tobacco Control Act") authorizes the U.S. Food and Drug Administration ("FDA") to set national standards governing the manufacture of tobacco products, to limit levels of harmful components in tobacco products and to require manufacturers to disclose information and research relating to the products' health effects.

A central requirement of the Tobacco Control Act is premarket review of all new tobacco products. Specifically, every "new tobacco product"—defined to include any tobacco product not on the market in the United States as of February 15, 2007—must be authorized by the FDA for sale in the United States before it may enter the marketplace. A new tobacco product may not be marketed until the FDA has found that the product is: (1) appropriate for the protection of the public health upon review of a premarket tobacco application; (2) substantially equivalent to a grandfathered product; or (3) exempt from substantial equivalence requirements.

In determining whether the marketing of a tobacco product is appropriate for the protection of the public health, federal law requires that the FDA consider the risks and benefits of the product to the population as a whole, including users and nonusers of the product, and taking into account the increased or decreased likelihood that existing users of tobacco products will stop using tobacco products and the increased or decreased likelihood that those who do not use tobacco products will start using them. Where there is a lack of showing that permitting the sale of a tobacco product would be appropriate for the protection of the public health, the Tobacco Control Act requires that the FDA deny an application for premarket review.

Amendments to Current Law

The proposed ordinance would amend the Health Code to prohibit permitted tobacco retail establishments located in San Francisco from selling electronic cigarettes that require premarket review by the FDA, but have not undergone such review. It would also prohibit the sale to any person in San Francisco, including via mail or internet, of: 1) flavored tobacco products, including electronic cigarettes; and 2) electronic cigarettes that require FDA premarket review, but have not undergone such review.

Background Information

Despite progress in reducing smoking, tobacco use is still the leading cause of preventable death in the United States. Tobacco kills more than 480,000 people in this country annually – more than AIDS, alcohol, car accidents, illegal drugs, murders, and suicides combined.

Electronic cigarettes (or “e-cigarettes”) entered the marketplace around 2007, and since 2014, they have been the most commonly used tobacco product among youth in the United States. According to the Centers for Disease Control and Prevention (“CDC”), the number of middle and high school students who reported being current users of tobacco products increased 36%—from 3.6 million to 4.9 million students—between 2017 and 2018. This dramatic increase, which has erased past progress in reducing youth tobacco use, is directly attributable to a nationwide surge in e-cigarette use by adolescents. There were 1.5 million more youth e-cigarette users in 2018 than 2017, and those who were using e-cigarettes were using them more often. Frequent use of e-cigarettes increased from 20 percent in 2017 to 28 percent in 2018 among current high school e-cigarette users.

The widespread use of e-cigarettes by youth has significant public health consequences. As stated by the Surgeon General, “Most e-cigarettes contain nicotine – the addictive drug in regular cigarettes, cigars, and other tobacco products. Nicotine exposure during adolescence can harm the developing brain – which continues to develop until about age 25. Nicotine exposure during adolescence can impact learning, memory, and attention. Using nicotine in adolescence can also increase risk for future addiction to other drugs. In addition to nicotine, the aerosol that users inhale and exhale from e-cigarettes can potentially expose both themselves and bystanders to other harmful substances, including heavy metals, volatile organic compounds, and ultrafine particles that can be inhaled deeply into the lungs.”

And while there is some evidence that the use of e-cigarettes by adults may support smoking cessation under certain circumstances, a 2018 National Academy of Sciences, Engineering, and Medicine report concluded that there was moderate evidence that e-cigarette use in fact increases the frequency and intensity of cigarette smoking in the future.

In addition, there is a growing body of research concluding that there are significant health risks associated with electronic cigarette use. For example, daily e-cigarette use is associated with increased odds of a heart attack. And the American Lung Association has

warned that the inhalation of harmful chemicals through vaping may cause irreversible lung damage and lung disease.

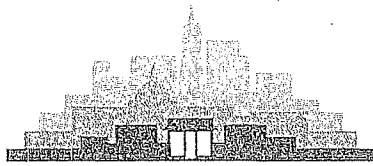
Notwithstanding the City's efforts to reduce youth tobacco use, San Francisco's youth still access and use tobacco products. According to the most recent Youth Risk Behavior Survey for which local data are available, in 2017, 16.7% of San Francisco's high school students had tried smoking, 25% had used an electronic cigarette (or "vaped"), and 7.1% reported current e-cigarette use, which is defined as use on at least one day in the past 30 days.

Among San Francisco high school students who reported currently using electronic cigarettes, 13.6% reported that they usually purchased their electronic cigarette products in a store. The remaining 86.4% reported that they obtained them from places other than the City's licensed tobacco retail establishments, including friends, other social sources, and internet e-cigarette vendors.

Virtually all electronic cigarettes that are sold today entered the market after 2007, but have not been reviewed by the FDA to determine if they are appropriate for the public health. In 2017, the FDA issued Guidance that purports to give electronic cigarette manufacturers until August 8, 2022 to submit their application for premarket review. The Guidance further purports to allow unapproved products to stay on the market indefinitely, until such time as the FDA complies with its statutory duty to conduct a premarket review to determine whether a new tobacco product poses a risk to public health.

By the time e-cigarette manufacturers will be required to submit their premarket review applications, e-cigarettes will have been on the market for as much as fifteen years without any FDA analysis of their safety and alleged benefit. If current trends continue, six million more youth in the United States will begin using e-cigarettes between now and then.

n:\eganalas2019\1900441\01345996.docx



SAN FRANCISCO

OFFICE OF SMALL BUSINESS

CITY AND COUNTY OF SAN FRANCISCO
LONDON BREED, MAYOR

OFFICE OF SMALL BUSINESS
REGINA DICK-ENDRIZZI, DIRECTOR

April 29, 2019

Ms. Angela Calvillo, Clerk of the Board
City Hall Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

RE: BOS File No. 190312 – Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes

Small Business Commission Recommendations to the Board of Supervisors (BOS):

1. **Do not approve of the legislation as written. Motion passed (6-1); and,**
2. **In order to preserve the economic health of San Francisco small businesses, consider the following proposed amendments. Passed unanimously (7-0).**
 - a. Exempt existing compliant tobacco retailers from the ban on selling electronic cigarette products and prohibit new tobacco retailers from selling e-cigarette products until FDA pre-market review. However, if that is not considered, establish a reasonable period of enactment of the ban, not less than seven months, comparable to the flavored tobacco ban¹;
 - b. Include declarative language that this legislation would be a temporary ban contingent upon a determination by the FDA regarding pre-market review;
 - c. Ensure that by mail or online e-cigarette retailers would be subject to the same fines or fees that brick and mortar retailers would be subject to;
 - d. Commission a formal study of black market activity and sales of e-cigarette products relating to this legislation and the flavored tobacco ban;
 - e. Determine a means for mitigating revenue losses incurred as a result of this legislation for brick and mortar retailers in San Francisco through compensation measures;
 - f. Include a requirement that an economic impact analysis be commissioned through the City Controller's office to determine what type of impact this ban would have on City losses (i.e. tax revenue and abatement fees) and brick and mortar business revenue loss in San Francisco.

Dear Ms. Calvillo,

On April 22, 2019 the Small Business Commission (SBC or the Commission) conducted a regularly scheduled and duly noticed public hearing to consider the proposed Ordinance, introduced by Supervisor Shamann Walton, which would amend the Health Code to restrict the sale, manufacture, and distribution of tobacco products, including electronic cigarettes. The SBC appreciated that Supervisor Walton took the time to address many questions and concerns regarding the legislation. At the hearing, the SBC consequently voted on two separate motions recommending that: 1) the Board of Supervisors not approve BOS File No. 190312 as written (6-1), and 2) the Board of Supervisors approve the legislation upon the consideration of six amendments (7-0).

¹ The Commission recognizes that an operative date of six months from the effective date of the Ordinance is included in the legislation.

Director's Note:

There are approximately 738 San Francisco licensed tobacco retailers who may be economically impacted by this proposed Ordinance. As discussed during the meeting and cited below, these San Francisco licensed tobacco retailers also boast high rates of compliance with local tobacco control laws, which are some of the strictest in the country. Conservatively, a small business could stand to \$70,000-\$90,000 a year in revenue. Most severely, small businesses that only sell this product would have to close six months after enactment. The Commission highly recommends, thusly, that the BOS consider alternative measures (discussed by the Commission below) that would prevent youth access; especially where adult users will continue to be able to purchase e-cigarette products in neighboring localities. Additionally, where proposed BOS File No. 190311 will exempt JUUL, an e-cigarette product development company who currently leases City property and whose products are sold to 41 states with far less restrictive tobacco control laws, and will allow the continuance of their operations for the remainder of their lease (9.5 years), the same exemption should be afforded to existing San Francisco licensed retail establishments. Without extending an equivalent exemption, the small business community may infer that the City values JUUL's economic health, a company valued at \$38 billion, more highly than the economic health of San Francisco small businesses. [*End Director's note.*]

The Commission is supportive of the legislative intent of BOS File No. 190312 which is to ultimately reduce and prevent the consumption of tobacco products, particularly among youth. However, the Commission discussed myriad concerns relative to the means of achieving that policy goal. Specifically, that the policy goal of limiting youth access will likely not be met via a ban on the sale of electronic cigarette (e-cigarette) products by San Francisco licensed tobacco retailers, particularly where neighboring localities will continue to sell the product. **And, where the legislation will likely not have the intended effect of reducing youth access, it will have the untended and outsized harmful economic effect on San Francisco licensed tobacco retailers who are otherwise compliant with local tobacco control laws.**

The primary justification for this Ordinance is that e-cigarette products have not received a determination from the federal Food and Drug Administration (FDA) regarding whether or not they may be legally marketed. The Tobacco Control Act requires that manufacturers of new or modified tobacco products to submit a premarket application and obtain a market authorization order before they market their products (Tobacco Control Act Sec. 910 (b)). Responsive to *national* increases in youth e-cigarette use, the FDA issued draft guidelines on March 13, 2019 requiring that manufacturers of all flavored electronic cigarette products (other than tobacco-, mint-, and menthol-flavored) to submit premarket applications by Aug. 8, 2021. With regard to tobacco, mint, and menthol flavored e-cigarette products, the FDA noted that those flavors are preferred by adults and will have until August 8, 2022 to submit premarket applications².

The Commission recognized that some e-cigarette companies did in fact market to youth populations, primarily flavored tobacco products. However, the Commission also identified that licensed tobacco retailers in San Francisco have been allowed by all governmental levels, since 2007, to sell this product and that they have been largely compliant with local, state, and Federal tobacco control laws³. **They**

² Office of the Commissioner, Press Announcements - Statement from FDA Commissioner Scott Gottlieb, M.D., on advancing new policies aimed at preventing youth access to, and appeal of, flavored tobacco products, including e-cigarettes and cigars U S Food and Drug Administration Home Page (2019), <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm633291.htm>.

³ The FDA has conducted 222 Compliance Check Inspections in San Francisco since 2012. There have been eight total charges: two involved an e-cigarette product – one charge involved a formula retailers and one charge involved a San Francisco small business owner, both failed to verify the respective purchaser's age. And, the San Francisco Department of Public Health reported that in 2018, there were 21 instances by 20 businesses where it was found that a licensed tobacco retailer did not verify a purchaser's age, or just 3% of businesses were found not to be in compliance.

additionally acknowledged that flavored tobacco products have already been banned by the City and County of San Francisco and the City does not yet know what, if any, impact this has had on youth use of those products. The Commission asked the Supervisor to confirm that this proposed ban would be lifted if or when an e-cigarette product received market authorization from the FDA. The Supervisor confirmed that it would be a temporary ban.

The findings of BOS File No. 190312 referenced *local* data reported by the federal Centers for Disease Control's Youth Risk Behavior Survey (YRBS)⁴. It was reported that among San Francisco high school students who reported to currently use e-cigarettes [~7%], 13.1% of them or usually got them from a store. The Commission then inquired, if approximately 1% of San Francisco high schoolers are accessing these products in stores, what additional or alternative efforts would the Supervisor consider to curb youth access. The Commission also asked if the Supervisor knew or had retrieved data on, specifically where San Francisco youth were accessing e-cigarette products. The Supervisor shared that there are many studies out there regarding youth access and his belief that if these products are not on store shelves, that youth will be less likely to access them. He also shared that it is just as important that adults will not be able to access them because they have not completed their premarket review as required by the FDA.

The Commission noted that the YRBS data source referenced in the legislative findings indicates that San Francisco youth use of e-cigarettes decreased significantly between 2015 and 2017⁵. They then asked the Supervisor that, given this, what specifically, in the current local tobacco control framework is not working. The Supervisor replied that youth and adults are continuing to use a product that has not yet received a premarket review determination by the FDA and, that if the product is less accessible they will be less likely to be used.

The Commission also shared their concerns that if a ban on e-cigarette products is authorized, that activity on the already vibrant black market would increase. They also shared that sales in neighboring localities would also likely increase and therefore also result in City losses via tax revenue and abatement fees. The Commission also postulated that where it appears that youth are accessing e-cigarette products on the black market⁶, more data should be collected to better understand how to prevent it. The Commission then asked whether youth access would be more controllable without an outright ban. The Supervisor did not specifically address the issue of control, however, he did share that local law enforcement would continue to enforce the local laws.

The Commission identified that e-cigarette products yield a higher revenue as compared to other products due to their high cost, and, that many stores will be left with large inventories that they will not be able to sell. And, where all levels of government have allowed the sale of these products, San Francisco small businesses rightfully relied on that revenue. They also shared that many small business owners may find themselves in positions where they will not be able to pay their commercial rent because they may not generate their projected revenue.

The Commission asked, where there is not a strong indication that youth are accessing them in stores, and where San Francisco licensed tobacco retailers boast high tobacco control law compliance rates, if the Supervisor would consider a more gradual implementation of the ban, or alternative strategies to the ban. The Supervisor indicated that he would not be amendable to any changes to the legislation as it is written,

⁴ San Francisco, CA 1997-2017 Tobacco Use Results, Centers for Disease Control High School YRBS, <https://nccd.cdc.gov/youthonline/App/Results.aspx?LID=CA> (last visited Apr 26, 2019).

⁵ Between 2015 and 2017 youth reporting to have ever used e-cigarettes declined by 22%. Between 2015 and 2017, youth reporting to be currently using e-cigarettes declined by 47%

⁶ 2017 San Francisco YRBS data indicates that the majority of youth currently using e-cigarette products (86.4% of 7.1%) acquire them from sources other than a store.

but would be open to additional legislation that would assist small businesses. The Commission reiterated that many San Francisco small businesses will likely, upon enactment, immediately find themselves in positions where they will not be able to make their mortgage or pay their commercial rents, and may have to move out of the City. When asked what additional legislation or adjustment tools might look like, the Supervisor welcomed suggestions from the small business community and reiterated his commitment toward providing assistance through a subsequent piece of legislation. He also indicated that stores could start preparing for the ban now.

Additionally, the Commission expressed concern that there are many products on the market that are not specifically deemed safe by the FDA but nonetheless, can have adverse health effects on consumers. For example: sugar, alcohol, and cannabis. The Commission questioned, what impacts could this legislation have on other products not specifically deemed safe for consumption. The Supervisor would not comment on any product other than e-cigarettes.

Data has also shown that e-cigarette products have helped many adults quit smoking cigarettes. Where evidence indicates that San Francisco licensed tobacco retailers are not selling to youth, and with numerous local tobacco control laws, **the Commission expressed concern that this ban would have the unintended consequence of driving adult e-cigarette users back to using cigarettes, which notably, are not banned.** The Supervisor shared that [national] data shows that tobacco use was down until e-cigarettes.

The Commission concurred that they held a number of concerns relative to the potential effectiveness of this proposed ban on e-cigarettes. The vast majority noted that, given that the majority of youth users are reporting to access these products through social sources and the black market, it is unlikely that this ban would have the intended effect on reducing youth use. More, in allowing this ban to move forward and given the close proximity of other localities that will continue to sell e-cigarette products, this legislation will have unintended yet harmful economic consequence for San Francisco small business owners who are otherwise compliant with the law. This will be especially true without also including an economic transition strategy for these businesses. The Commission concluded that historically, bans such as the one proposed, can have and have had severe and unintended societal consequences.

Thank you for considering the Commission's recommendations. Please feel free to contact me should you have any questions.

Sincerely,



Regina Dick-Endrizzi
Director, Office of Small Business

cc: Shamann Walton, Member, Board of Supervisors,
Sophia Kittler, Mayor's Liaison to the Board of Supervisors
Lisa Pagan, Office of Economic and Workforce Development
John Carroll, Clerk, Public Safety and Neighborhood Services Committee

Carroll, John (BOS)

From: Board of Supervisors, (BOS)
Sent: Tuesday, June 18, 2019 3:48 PM
To: BOS-Supervisors; Carroll, John (BOS)
Subject: FW: File number 190312
Attachments: JUUL Labs Inc. - Board of Supervisors_File No 190312 - Correspondence for Record 6.18.19_fnl.pdf

Categories: 190312, 2019.06.18 - BOS

From: Chris Gruwell <chris@newdealadvisers.com>
Sent: Tuesday, June 18, 2019 11:06 AM
To: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>
Subject: File number 190312

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hello,

Please find here attached a letter from JUUL Labs, Inc. in reference to file number 190312, or item 41 on today's full Board of Supervisors' meeting agenda.

Please include this in the legislative file and distribute it to the Supervisors.

Thank you!

Chris Gruwell

M. [415.608.6583](tel:415.608.6583)

O. [415.418.9693](tel:415.418.9693)



Josh Vose MD MBA
Vice President
Clinical, Scientific and Medical Affairs

June 18, 2019

Via Hand Delivery and Email

San Francisco Board of Supervisors
c/o Angela Calvillo, Clerk of the Board of Supervisors
1 Dr. Carlton B Goodlett Pl, #244
San Francisco, CA 94102

Re: File No. 190312; Health Code – Restricting the Sale, Manufacture and Distribution of Tobacco Products, Including Electronic Cigarettes.

Dear Board of Supervisors,

On June 18, 2019, the Board of Supervisors will consider File No. 190312 (Health Code – Restricting the Sale, Manufacture and Distribution of Tobacco Products, Including Electronic Cigarettes). On behalf of JUUL Labs, Inc. (JLI or the Company), I am writing to provide context on the public-health impact of vapor products (also referred to as “electronic cigarettes” or “e-cigarettes”) for adult smokers as a potentially less harmful nicotine alternative, to correct misinformation that you received at a previous hearing, and to urge you to reject this misguided, legally-flawed, and ultimately dangerous measure to public health. If this ordinance passes, San Francisco will be the *only* locality in the nation to enact a law that effectively removes risk-reduction products yet preserves the most-deadly consumer product in our history — the combustible cigarette — on store shelves.

JLI was founded with one objective: to eliminate the use of combustible cigarettes among adult smokers. Cigarette smoking remains the number one cause of preventable death worldwide, accounting for more than 8 million deaths each year from both direct use and indirect exposure to secondhand smoke.¹ In the U.S. alone, more than 480,000 people die each year from smoking-related causes.² In fact, “cigarettes are the only legal consumer product that, when used as intended, will kill half of all long-term users.”³ It is critical to

¹ See World Health Organization, Tobacco – Key Facts, available at <https://www.who.int/news-room/fact-sheets/detail/tobacco>.

² See Centers for Disease Control and Prevention. Smoking and Tobacco Use, available at https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm.

³ FDA, Statement from FDA Commissioner Scott Gottlieb, M.D., on Pivotal Public Health Step to Dramatically Reduce Smoking Rates by Lowering Nicotine in Combustible Cigarettes to Minimally or Non-addictive Levels, available at <https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-pivotal-public-health-step-dramatically-reduce-smoking>.

public health that we find and support alternatives to combustible cigarettes for the world's 1.1 billion adult smokers and those around them.⁴

Recent testimony to the Public Safety and Neighborhood Services Committee on June 7, 2019, was factually incorrect in many areas and regrettably misrepresented the role vapor products can play as a viable, potentially less harmful alternative to combustible cigarettes for the 11% of adults in the City and County of San Francisco who smoke.⁵ We would like to set the record straight on these issues for the Board's full consideration. Incorrect, inaccurate, and, at times, misleading statements presented to the Board by proponents of the ordinance included the following:

- **First**, Supervisor Shamann Walton said "nicotine kills more people than AIDS, car accidents, murders [or] suicide. It is the number one preventable murderer." This is patently incorrect. It is not the nicotine that kills, but the combustible smoke and thousands of harmful chemicals and toxicants associated with setting cigarettes on fire that will kill one out of every two long-term users.

This statement also is at odds with the U.S. Food and Drug Administration's (FDA) stated position on the continuum of risk of nicotine products and its various delivery systems. A recent former commissioner of FDA has explained that nicotine "is not directly responsible for the tobacco-caused cancer, lung disease, and heart disease that kill hundreds of thousands of Americans each year."⁶ And the FDA's 2018 Strategic Policy Roadmap asserts that "[i]t is the other chemical compounds in tobacco, and in the smoke created by setting tobacco on fire, that directly and primarily cause the illness and death — not the nicotine."⁷

There is consensus in the medical literature that, while nicotine is addictive, it is the exposure to combustible smoke, including the approximately 7,000 chemical compounds present in it — not the nicotine itself — that causes virtually all tobacco-related disease. Furthermore, according to the World Health Organization's International Agency for Research on Cancer, nicotine does not cause cancer. This

⁴ See World Health Organization, Tobacco: Key Facts., available at <https://www.who.int/news-room/fact-sheets/detail/tobacco>.

⁵ See California Department of Public Health California Tobacco Control Program, California Tobacco Facts and Figures 2019, available at <https://www.cdph.ca.gov/Programs/CCDPHP/DCD/C/CTCB/CDPH%20Document%20Library/ResearchandEvaluation/FactsandFigures/CATobaccoFactsandFigures2019.pdf>

⁶ S. Gottlieb & M. Zeller, A Nicotine-Focused Framework for Public Health, 377 New Eng. J. Med. 1111 (2017), available at <https://www.nejm.org/doi/full/10.1056/NEJMp1707409>.

⁷ FDA, 2018 Strategic Policy Roadmap (Jan. 11, 2018), available at <https://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Reports/UCM592001.pdf>.

public-health organization describes nicotine as a common chemical compound, the effect of which “is to make tobacco addictive rather than to cause cancer directly.”⁸

Critically, current and former researchers affiliated with the Truth Initiative, a nonprofit public-health organization that advocates for tobacco-control policies, have highlighted the current misperceptions on the risks of nicotine use.⁹ In a study recently accepted for publication, the researchers assessed the nicotine and nicotine product perceptions, including addictiveness and health harms of nicotine alternatives compared to cigarettes, among young adults (aged 18–34 years).¹⁰ Among various findings, the researchers noted that “the majority of young adults incorrectly believe that nicotine is a cause of cancer and that nicotine is responsible for a relatively or very large part of the health risks of smoking and cancer caused by smoking.” While they appropriately acknowledge that “[n]icotine is not without harms and should not be encouraged among non-users,” they concluded that there are “widespread misperceptions equating the risks of nicotine, NRT, and e-cigarettes with cigarettes in young adults.” The rhetoric that transpired at the June 7 hearing only will further these misperceptions and negatively impact adult smokers who continue to believe they do not have access to potentially less harmful nicotine alternatives to combustible cigarettes.

- **Second**, assertions were made to members at the June 7 hearing that vapor products serve as a “gateway” that leads people who would not otherwise use cigarettes to start smoking. Public commenters blatantly mischaracterized a study that modelled an increase in new smokers based on hypothetical acceptance of this “gateway” assumption. But in that very study, the authors noted that it is still not known if use of vapor products causes adolescents and young adults who would not have otherwise smoked to initiate on combustible cigarettes, as the evidence on this topic is largely observational, based on cross-sectional studies or unable to establish patterns of e-cigarette and cigarette use. Without this causal evidence, the authors nonetheless assume youth and young adults who had *ever used* an e-cigarette would be 3.5 times more likely to initiate and sustain long-term use of combustible cigarettes.¹¹

Moreover, the authors’ model-based conclusions were tied to historical assumptions that conflict with more recent data on the impact of vapor products for adult

⁸ <https://cancer-code-europe.iarc.fr/index.php/en/ecac-12-ways/tobacco/199-nicotine-cause-cancer>.

⁹ The Truth Initiative, formerly known as the “American Legacy Foundation,” was created out of the 1998 Master Settlement Agreement with the then five largest cigarette manufacturers in the United States.

¹⁰ See A. Villanti, et al., Prevalence and Correlates of Nicotine and Nicotine Product Perceptions in U.S. Young Adults, 2016, *Addictive Behaviors* (2019) (forthcoming publication).

¹¹ See S. Soneji, et al., Quantifying Population-level Health Benefits and Harms of E-cigarette Use in the United States, *PLoS ONE* (2018).

smokers. For example, they assumed (i) very few adult smokers initiate on e-cigarettes to switch (based on survey data from 2014) and (ii) very low switching rates among those who do (based on historical e-cigarette products that proved ineffective).

On the other hand, a growing body of high quality and more recent real-world evidence from randomized clinical trials, large-scale behavioral health surveys, and far more current data on smoking rates suggest that vapor products can have a significant impact in helping adult smokers switch from combustible cigarettes. For example, a recent randomized controlled trial of almost 900 adult smokers in the United Kingdom found that sustained year-long abstinence from cigarette smoking was twice as high among those using vapor products as compared to those using traditional nicotine-replacement therapies (NRTs).¹² Another long-term study of over 18,000 adult smokers in the United Kingdom reported that e-cigarette use was associated with almost twice the odds of smoking abstinence as compared to those who did not use e-cigarettes. These odds of smoking abstinence also were higher than for smokers using other methods such as traditional NRTs.¹³ Additionally, researchers analyzing U.S. census data have found that the substantial increase in e-cigarette use among U.S. adult smokers was associated with a statistically significant increase in the smoking abstinence rate at the population level.¹⁴

Commentators at the hearing mischaracterized the conclusions of Soneji, et al. study estimating “gateway” effects while failing to provide the Board of Supervisors a complete and accurate account of the best available science on the use of vapor products and potential for harm reduction.

- **Third**, During the June 7 hearing, commentators inaccurately questioned the harm-reduction potential of vapor products because they had not been evaluated as “safety and efficacious” as compared to traditional NRTs approved by FDA for the treatment of nicotine addiction and/or dependence. Current vapor products, however, are not assessed according to the same clinical endpoints as nicotine-replacement gums, patches, and inhalers which regulated by FDA as tobacco-cessation products. Instead, FDA regulates vapor products as tobacco products, not as pharmaceuticals, and ultimately FDA will determine whether these alternative nicotine products are “appropriate for the protection of public health” based on, among other factors, their ability to transition adult smokers from combustible cigarettes to a potentially less harmful alternative.

¹² See P. Hajek, et al., A Randomized Trial of E-cigarettes versus Nicotine-Replacement Therapy, 380 New Eng. J. Med. 629 (2019).

¹³ See S. Jackson, Moderators of Real-world Effectiveness of Smoking Cessation Aides: A Population Study, Addiction (2019).

¹⁴ See S. Zhu, et al., E-cigarette Use and Associated Changes in Population Smoking Cessation: Evidence from US Current Population Surveys, British Med. J. (2017).

Setting aside the misinformation noted above, our own scientific research shows the potential public-health impact of vapor products as an alternative to combustible cigarettes. For example, in a recent clinical study of adult smokers which assessed biomarkers of exposure (BOEs) linked to tobacco-related cancers and heart and lung disease, the Company saw equivalent reductions between JUUL product users and those who abstained from smoking. The study examined changes, relative to baseline, in primary urine and blood BOEs in 90 adult smokers. Study subjects were randomized into six groups and, over five days, used JUUL products, abstained from smoking, or continued use of their usual brand of cigarettes. The reduction in BOEs between smokers who switched to JUUL products and smokers who abstained from cigarettes was nearly identical with 99.6% relative reduction for JUUL users.¹⁵ In the cigarette group, the same BOEs increased by an aggregate of 14.4% from baseline.

Just last week, JLI presented on the significant differences in exhaled toxicants and particles associated with the use of JUUL products compared to combustible cigarettes. Findings from this clinical study showed an approximate 99% reduction of formaldehyde and carbon monoxide particles in secondhand vapor associated with the use of JUUL products compared secondhand smoke associated with the use of combustible cigarettes. The aggregate measurements of formaldehyde and carbon monoxide particles were not statistically different from the background levels measured without product use.¹⁶

And finally, the Company's behavioral research is showing the impact of JUUL products to switch adult smokers completely from combustible use. One study, published in the Harm Reduction Journal, found that 47.1% of the 9,272 survey participants who completed a three-month follow-up assessment following use of JUUL products had completely abstained from smoking for the 30 days prior.¹⁷ The rate of smoking abstinence improved at both the six-month and nine-month follow-up assessments.

But let us be clear on two points: First, we declare emphatically that no youth should ever use JUUL products. Second, we discourage any adult who does not already use nicotine from using our products. We support substantial category-wide actions to restrict youth access, such as imposing enhanced age-verification requirements for retail and online sales and banning flavors and packaging that are directly targeted at a younger

¹⁵ See J. Jay, et al., Changes in Biomarkers of Exposure Associated with Switching for 5 Days from Combusted Cigarettes to Nicotine Salt Pod System; Poster Presented at the 2019 Society for Research on Nicotine and Tobacco Annual Conference (Feb. 23, 2019).

¹⁶ See <https://www.prnewswire.com/news-releases/study-data-find-significant-differences-in-exhaled-toxicants-and-particles-in-vapor-products-compared-to-combustible-cigarettes-300867679.html>.

¹⁷ See C. Russell, et al., Factors Associated with Past 30-day Abstinence from Cigarette Smoking in a Non-Probabilistic Sample of 15,456 Adult Established Current Smokers in the United States Who Used JUUL Vapor Products for Three Months, Harm Reduction J. (2019). This and other studies are available for scientific review and assessment at <https://jliscience.com>.

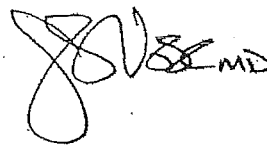
audience such as those that mimic youth-appealing candies, desserts, or drinks. JLI has already taken aggressive action to restrict youth access, including strongly advocating for Tobacco 21 legislation and removing its own non-tobacco and non-menthol-based flavored products from traditional retail outlets across the country.

At the same time, we believe that it is imperative, as we continue to pursue new legislation to protect youth, that we also preserve access to vapor products for the thousands of adult smokers in San Francisco who already benefit, or could potentially benefit, from switching from combustible cigarettes.

It is important to keep in mind that FDA, which will determine which products are appropriate for the protection of public health based on the actual science and data, continues to acknowledge the critical role of these products for adult smokers. Recently, in litigation challenging FDA's current compliance policy for vapor products, the Director of FDA's Center for Tobacco Products stated that removing such products from the market before FDA has time to conduct its administrative review "creates a genuine risk of migration from potentially less harmful ENDS products back to combustible tobacco products within the population of addicted adult smokers who have completely switched to ENDS. This is a public health outcome that should be avoided if at all possible . . ."¹⁸

JLI is a San Francisco-based company, but we do not just do business here. Many of us live here, we raise our families here, and we share a deep concern for the public health of fellow San Franciscans of all ages. We have a direct interest in strengthening the safeguards against youth access to vapor products and would welcome the opportunity to work with the City to legislate additional mechanisms that would impede youth access, which is presumably the purpose of this proposed ordinance. But this proposed legislation, which is in direct conflict with the growing scientific evidence demonstrating the public-health impact of vapor products for adult smokers, begs the question — why would the City be comfortable with combustible cigarettes being on shelves when we know they kill more than 480,000 Americans per year?

Sincerely,

A handwritten signature in black ink, appearing to read "J Vose MD MBA". The signature is stylized and somewhat cursive.

Josh Vose MD MBA

¹⁸ Declaration of Mitchell Zeller filed in the United States District Court for the District of Maryland in *American Academy of Pediatrics, et al. v. United States Food and Drug Administration, et al.*, ¶¶ 12, 15.

Carroll, John (BOS)

From: Board of Supervisors, (BOS)
Sent: Tuesday, June 18, 2019 3:46 PM
To: Carroll, John (BOS)
Subject: FW: Item 42, Leg. 190312
Attachments: SFCDMA Item 42, Leg. 190312.pdf

Categories: 190312, 2019.06.18 - BOS

From: Maryo Mogannam <maryo@sfgdma.org>
Sent: Monday, June 17, 2019 4:34 PM
To: Lee, Ivy (BOS) <ivy.lee@sfgov.org>; Mahogany, Honey (BOS) <honey.mahogany@sfgov.org>; Peskin, Aaron (BOS) <aaron.peskin@sfgov.org>; Safai, Ahsha (BOS) <ahsha.safai@sfgov.org>; Mar, Gordon (BOS) <gordon.mar@sfgov.org>; Brown, Vallie (BOS) <vallie.brown@sfgov.org>; Waltonstaff (BOS) <waltonstaff@sfgov.org>; Fewer, Sandra (BOS) <sandra.fewer@sfgov.org>; Jen Lee <jen@footprint27.com>; StefaniStaff, (BOS) <stefanistaff@sfgov.org>; Haneystaff (BOS) <haneystaff@sfgov.org>; Yee, Norman (BOS) <norman.yee@sfgov.org>; Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>; Maybaum, Erica (BOS) <erica.maybaum@sfgov.org>; Remski, Derek (BOS) <derek.remski@sfgov.org>; Ronen, Hillary <hillary.ronen@sfgov.org>
Cc: David Sahagun <dmsah@aol.com>; Gwen Kaplan <gwen.kaplan@acemailingsf.com>; Jonah Buffa <jonah@fellowbarber.com>; Scott Hauge <shauge@cal-insure.com>; Stephen Cornell <stephencornell@gmail.com>; MandelmanStaff, [BOS] <mandelmanstaff@sfgov.org>
Subject: Item 42, Leg. 190312

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

June 17, 2019

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Item 42, Leg. 190312

To the Board of Supervisors,

On behalf of The San Francisco Council of District Merchants Associations, advocating for the **19,500** small business merchants and their employees, of which many live and vote in San Francisco throughout the 80 distinct and underrepresented merchant corridors that define our beloved city, we are writing in opposition to the Ordinance 190312 Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes unless there are substantive amendments and immediate mitigation for affected small businesses **that were licensed to operate by the City of San Francisco.**

We ask that you work with us on amendments and parallel legislation that would support mitigation and an adjustment assistance plan for the affected business, that will also **EFFECTIVELY reduce illegal sales and access to minors.**

Many of these businesses help define our neighborhoods and have been burdened by an inordinate amount of restrictive legislation that seems to squeeze the "little guy" out of business. In an economy where the unfair online advantage operates unchecked, these small businesses and many others are becoming unsustainable. **They are essentially an endangered species.**

It is apparent that City revenue from all small businesses is on the decrease. If this continues. The city will be littered with more urban blight and expenses of abatement than it will be able to handle or recover from.

Our concern at the Council goes beyond this individual legislation. This is just the proverbial "straw that broke the camel's back" No pun intended.

We only ask for mindful consideration and leadership. We only ask that you not acquiesce to kneejerk public opinion and "popularity positions". **This legislation will not stop those that are already scofflaws.** This legislation only pushes the illegal activities further underground at the expense of hundreds of small businesses and their surrounding communities.

On behalf of all San Francisco small business merchants,
Thank you for your consideration and leadership,

Maryo Mogannam, President
SIGNED DOCUMENT ATTACHED
San Francisco Council of
District Merchants Associations
@sfdma



San Francisco Council of District Merchants Associations

Maryo Mogannam
President

Albert Chow
Vice President

Al Williams
Vice President

Jen Lee
Secretary

Susie McKinnon
Treasurer

SFCDMA

MEMBER ASSOCIATIONS

Arab American Grocers Association
Balboa Village Merchants Association
Bayview Merchants Association
Castro Merchants
Chinatown Merchants Association
Clement St. Merchants Association
Divisadero Merchants Association

Dogpatch Business Association
Excelsior Outer Mission Merchants
Fillmore Merchants Association
Fisherman's Wharf Merchants Assn.
Glen Park Merchants Association
Golden Gate Restaurant Association
Greater Geary Boulevard Merchants
& Property Owners Association
Haight Ashbury Merchants Assn.
Hayes Valley Neighborhood Assn.
Merchant Group
Ingleside Merchants Association
Inner Sunset Merchants Association
Japantown Merchants Association
Larkin Street Merchants Association
Lower Haight Merchants &
Neighbors Assn.
Marina Merchants Association
Mission Merchants Association
Nob Hill Merchants Association
North Beach Business Association
North East Mission Business Assn.
People of Parkside Sunset
Polk District Merchants Association
Potrero Dogpatch Merchants Assn.
Sacramento St. Merchants Assn.
South of Market Business Assn.
The Outer Sunset Merchant
& Professional Association
Union Street Association
Valencia Corridor Merchants Assn.
West Portal Merchants Association

June 17, 2019

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Item 42, Leg. 190312

To the Board of Supervisors,

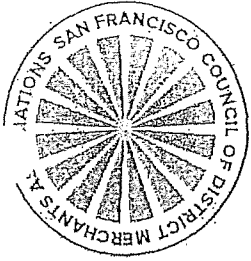
On behalf of The San Francisco Council of District Merchants Associations, advocating for the 19,500 small business merchants and their employees, of which many live and vote in San Francisco throughout the 80 distinct and under represented merchant corridors that define our beloved city, we are writing in opposition to the Ordinance 190312 Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes unless there are substantive amendments and immediate mitigation for affected small businesses **that were licensed to operate by the City of San Francisco.**

We ask that you work with us on amendments and parallel legislation that would support mitigation and an adjustment assistance plan for affected business; that will also **EFFECTIVELY reduce illegal sales and access to minors.**

Many of these businesses help define our neighborhoods and have been burdened by an inordinate amount of restrictive legislation that seems to squeeze the "little guy" out of business. In an economy where the unfair online advantage operates unchecked, these small businesses and many other are becoming unsustainable. **They are essentially and endangered species.**

It is apparent that City revenue from all small businesses is on the decrease. If this continues, The city will be littered with more urban blight and expenses of abatement than it will be able to handle or recover from.

Our concern at the Council goes beyond this individual legislation. This is just the proverbial "straw that broke the camel's back" No pun intended.



San Francisco Council of District Merchants Associations

Maryo Mogannam
President

Albert Chow
Vice President

Al Williams
Vice President

Jen Lee
Secretary

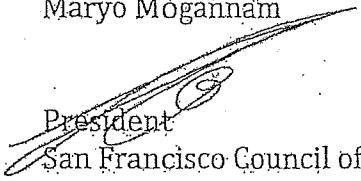
Susie McKinnon
Treasurer

SFCDMA

We only ask for mindful consideration and leadership. We only ask that you not acquiesce to kneejerk public opinion and "popularity positions". **This legislation will not stop those that are already scofflaws.** This legislation only push the illegal activities further underground at the expense of hundreds of small businesses and their surrounding communities.

On behalf of all San Francisco small business merchants,
Thank you for your consideration and leadership,

Maryo Mogannam



President

San Francisco Council of District
Merchants Associations

Carroll, John (BOS)

From: Board of Supervisors, (BOS)
Sent: Tuesday, June 18, 2019 3:21 PM
To: BOS-Supervisors; Carroll, John (BOS)
Subject: FW: Written Comment Item 42 (Leg 190312)
Attachments: Item 42 - Arab American Grocers Association Public Comment.pdf

Categories: 2019.06.18 - BOS, 190312

From: Arab American Grocers Association (AAGA) <ArabGrocersAssn@gmail.com>
Sent: Monday, June 17, 2019 2:38 PM
To: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>
Cc: Yu, Angelina (BOS) <angelina.yu@sfgov.org>
Subject: Written Comment Item 42 (Leg 190312)

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Item 42, Leg. 190312

To the Board of Supervisors,

We are writing in opposition to the Ordinance 190312 Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes unless there are substantive amendments and immediate mitigation for affected small businesses. Proposed amendments include exempting compliant brick and mortar retailers, keeping e-cigarette products in a lock-box, improved technology with age-checking technology for each retailer, and a limit in the amount of product that can be purchased at a time. We also ask that the Supervisors request an Economic Impact Report conducted by the Controller's office prior to a final vote in addition to a study on the black market (since the Ban on Flavored Tobacco) and foreseeable ramifications of a similar proposed ban where products are readily available in neighboring cities and online. We have seen a 25% decrease in tobacco license holding businesses since the Flavored Tobacco Ban last year. The formation of a long-term "working group" has been alluded to in order to address the cumulative affect recent laws have had on the corner grocer sector in particular; however, we ask that immediate mitigation measures be taken including:

a. Administer a tobacco retail permit buy-back program: for licensed tobacco retailers who are interested or, who anticipate that they will be forced into closure due to restrictions on their inventory. The buy-back value should be determined with at least a consideration of the following: discretionary cash flow relative to the product inventory; number of years the tobacco license has been held; proximity to localities that will continue to sell e-cigarette and flavored tobacco products; and the density of tobacco retail permits in the district. This may be a limited option for those who are nearing retirement, wish to sell their business, or want to transition their business entirely.

- b. Allowing for a pathway for merchants to diversify their inventory and current consumer offerings. For example: Broker with pop-ups and companies that open food booths in gas stations and stores, i.e. Krispy Krunchy Chicken to support flexible retail options;
- d. Facilitate fast-tracked permitting as needed (i.e. the CU process for delis);
- e. Connect merchants with consultants who can advise on diversifying their stock;
- f. Assist merchants in facilitating bulk purchasing via established trade associations, 501c6s, etc.. This allows for merchants to buy their inventory at a much cheaper price and therefore compete for formula retailers.
- g. Expand the Healthy Retail SF program to assist most vulnerable corner stores: The current Health Retail SF program assists corner stores in upgrading their storefronts (through SF Shiines), transitioning their current consumer offerings to more healthy options through technical assistance and infrastructure support, and assists with long-term business planning. An estimated \$70k is spent per store. At minimum, this fund should be expanded to \$3.5 million annually to allow for 50 stores per year to participate per year. (The Sugar Tax proposed budget only allocates \$150,000)
- h. Reassess the Cigarette Litter Abatement Fee and Fund. Direct that a nexus study be conducted to 1) reassess the fee as compared to the sales of combustible tobacco as well as merchant inventories; 2) evaluate how the funds have been used since program's inception relative to the requirements of the legislation. Ensure funds are used for public outreach and education as intended.
- i. Expand on technical assistance that can be provided to merchants through SBDC, OSB, and OEWD - i.e. business to business services and development; POS and general tech support.

Thank you.

AAGA Board



Arab American Grocers
Association (AAGA)

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Item 42, Leg. 190312

To the Board of Supervisors,

We are writing in opposition to the Ordinance 190312 Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes unless there are substantive amendments and immediate mitigation for affected small businesses. Proposed amendments include exempting compliant brick and mortar retailers, keeping e-cigarette products in a lock-box, improved technology with age-checking technology for each retailer, and a limit in the amount of product that can be purchased at a time. We also ask that the Supervisors request an Economic Impact Report conducted by the Controller's office prior to a final vote in addition to a study on the black market (since the Ban on Flavored Tobacco) and foreseeable ramifications of a similar proposed ban where products are readily available in neighboring cities and online. We have seen a 25% decrease in tobacco license holding businesses since the Flavored Tobacco Ban last year. The formation of a long-term "working group" has been alluded to in order to address the cumulative affect recent laws have had on the corner grocer sector in particular; however, we ask that immediate mitigation measures be taken including:

- a. Administer a tobacco retail permit buy-back program: for licensed tobacco retailers who are interested or, who anticipate that they will be forced into closure due to restrictions on their inventory. The buy-back value should be determined with at least a consideration of the following: discretionary cash flow relative to the product inventory; number of years the tobacco license has been held; proximity to localities that will continue to sell e-cigarette and flavored tobacco products; and the density of tobacco retail permits in the district. This may be a limited option for those who are nearing retirement, wish to sell their business, or want to transition their business entirely.
- b. Allowing for a pathway for merchants to diversify their inventory and current consumer offerings. For example: Broker with pop-ups and companies that open food booths in gas stations and stores, i.e. Krispy Krunchy Chicken to support flexible retail options;
- d. Facilitate fast-tracked permitting as needed (i.e. the CU process for delis);
- e. Connect merchants with consultants who can advise on diversifying their stock;
- f. Assist merchants in facilitating bulk purchasing via established trade associations, 501c6s, etc.. This allows for merchants to buy their inventory at a much cheaper price and therefore compete for formula retailers.

Arab American Grocers Association (AAGA) - 200 Valencia St, San Francisco, CA 94103 -

ArabGrocers5524@gmail.com



g. Expand the Healthy Retail SF program to assist most vulnerable corner stores: The current Health Retail SF program assists corner stores in upgrading their storefronts (through SF Shines), transitioning their current consumer offerings to more healthy options through technical assistance and infrastructure support, and assists with long-term business planning. An estimated \$70k is spent per store. At minimum, this fund should be expanded to \$3.5 million annually to allow for 50 stores per year to participate per year. (The Sugar Tax proposed budget only allocates \$150,000)

h. Reassess the Cigarette Litter Abatement Fee and Fund. Direct that a nexus study be conducted to 1) reassess the fee as compared to the sales of combustible tobacco as well as merchant inventories; 2) evaluate how the funds have been used since program's inception relative to the requirements of the legislation. Ensure funds are used for public outreach and education as intended.

i. Expand on technical assistance that can be provided to merchants through SBDC, OSB, and OEWD - i.e. business to business services and development; POS and general tech support.

Thank you.

AAGA Board

Carroll, John (BOS)

From: Board of Supervisors, (BOS)
Sent: Tuesday, June 18, 2019 3:04 PM
To: Haney, Matt (BOS); Carroll, John (BOS)
Subject: FW: Consequence of a Vaping Ban

Categories: 190311, 190312

From: McGirr, Kevin <Kevin.McGirr@ucsf.edu>
Sent: Sunday, June 16, 2019 11:59 PM
To: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>
Cc: Brown, Vallie (BOS) <vallie.brown@sfgov.org>; Fewer, Sandra (BOS) <sandra.fewer@sfgov.org>; Mandelman, Rafael (BOS) <rafael.mandelman@sfgov.org>; Ronen, Hillary <hillary.ronen@sfgov.org>; Safai, Ahsha (BOS) <ahsha.safai@sfgov.org>; Walton, Shamann (BOS) <shamann.walton@sfgov.org>; Mar, Gordon (BOS) <gordon.mar@sfgov.org>; Peskin, Aaron (BOS) <aaron.peskin@sfgov.org>; Stefani, Catherine (BOS) <catherine.stefani@sfgov.org>; Yee, Norman (BOS) <norman.yee@sfgov.org>
Subject: Consequence of a Vaping Ban

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Honorable Supervisors:

I need to register an additional concern to the ill conceived proposed ordinance to prohibit the sales and distribution of vaping products in the city of San Francisco.

I will be conducting research on various harm reduction approaches to tobacco use in persons with substance use and mental health disorders. As the board may be aware, tobacco use is at least two and half times the rate and consequently these communities incur greater morbidity and mortality. My research will provide a variety of options, e.g., support without any nicotine aides, conventional nicotine replacement as well as alternative nicotine delivery strategies. It appears that this ban would impact my and other researchers at UCSF and other academic and research centers in San Francisco and inhibit continuing efforts to examine critical efforts to address tobacco use..

In a previous communication to the board, the relative safety and efficacy of vaping devices for persons who continue to use tobacco and have not responded to conventional measures has been documented.

I urge you to consider all of the ramifications of a prohibition policy.

Kevin McGirr, MS,MPH, RN
Clinical Professor
School of Nursing
Department of Community Health Systems
University of California, San Francisco
415.290.3416

VAPING?



IS IT COOL TO JUUL?

"It's just kinda gross because of all the chemicals, I wouldn't."

Chayse Mashburn '22



"I think everyone should do it everyday. It's great. Just the best. You could even say amazing."

Elijah Pham '20



"I think it would be fine, I mean how bad could it be?"

Aekm Kaur '21

Electronic Cigarette Use and Myocardial Infarction Among Adults in the US Population Assessment of Tobacco and Health

Dharma N. Bhatta, PhD, MPH; Stanton A. Glantz, PhD

Background—E-cigarettes are popular for smoking cessation and as an alternative to combustible cigarettes. We assess the association between e-cigarette use and having had a myocardial infarction (MI) and whether reverse causality can explain the observed cross-sectional association between e-cigarette use and MI.

Methods and Results—Cross-sectional analysis of the Population Assessment of Tobacco and Health Wave 1 for association between e-cigarette use and having had and MI. Longitudinal analysis of Population Assessment of Tobacco and Health Waves 1 and 2 for reverse causality analysis. Logistic regression was performed to determine the associations between e-cigarette initiation and MI, adjusting for cigarette smoking, demographic and clinical variables. Every-day (adjusted odds ratio, 2.25, 95% CI: 1.23–4.11) and some-day (1.99, 95% CI: 1.11–3.58) e-cigarette use were independently associated with increased odds of having had an MI with a significant dose-response ($P < 0.0005$). Odds ratio for daily dual use of both products was 6.64 compared with a never cigarette smoker who never used e-cigarettes. Having had a myocardial infarction at Wave 1 did not predict e-cigarette use at Wave 2 ($P > 0.62$), suggesting that reverse causality cannot explain the cross-sectional association between e-cigarette use and MI observed at Wave 1.

Conclusions—Some-day and every-day e-cigarette use are associated with increased risk of having had a myocardial infarction, adjusted for combustible cigarette smoking. Effect of e-cigarettes are similar as conventional cigarette and dual use of e-cigarettes and conventional cigarettes at the same time is riskier than using either product alone. (*J Am Heart Assoc.* 2019;8:e012317. DOI: 10.1161/JAHA.119.012317.)

Key Words: e-cigarettes • epidemiology • myocardial infarction • smoking

Cardiovascular disease is the leading cause of death in the United States¹ and tobacco smoking is a major modifiable risk factor for cardiovascular disease, including myocardial infarction.² The risk of myocardial infarction is 2- to 5-fold higher among young smokers compared with never smokers,^{2,3} with a non-linear dose-response curve with even the low levels of exposure associated with smoking a single

cigarette a day⁴ or breathing secondhand smoke conferring substantial risk.⁵

E-cigarettes are promoted as a smoking cessation device and less dangerous way to self-administer nicotine than conventional cigarettes^{6,7} and people with cardiovascular disease are using e-cigarettes as a smoking cessation aid.⁸ Like conventional cigarettes, e-cigarettes deliver nicotine as an inhaled aerosol of nicotine and ultrafine particles.⁹ Fine particles increase cardiovascular risk.¹⁰ E-cigarettes and combustible cigarettes have similar effects on endothelial function which increases the risk of cardiovascular disease.^{11–15} E-cigarettes increase oxidative stress and the release of inflammatory mediators,^{11,16} induce platelet activation, aggregation, and adhesion¹⁷ and alters cardiovascular function in mice.^{18–20} Acute exposure to electronic cigarettes with nicotine increases aortic stiffness²¹ and cardiac sympathetic tone (reflected in heart rate variability) in a way associated with increased cardiac risk.¹³ Nevertheless, the 2018 National Academies of Science, Engineering, and Medicine report *Public Health Consequences of E-Cigarettes*²² observed that “there are no epidemiological studies evaluating clinical outcomes such as coronary heart disease . . . This lack of data on e-cigarettes and clinical and subclinical

From the Center for Tobacco Control Research and Education (D.N.B., S.A.G.), Helen Diller Family Comprehensive Cancer Center (D.N.B., S.A.G.), and Department of Medicine (Cardiology), Cardiovascular Research Institute, and Philip R Lee Institute for Health Policy Studies (S.A.G.), University of California, San Francisco, San Francisco, CA.

Accompanying Tables S1 through S6 and Figure S1 are available at <https://www.ahajournals.org/doi/suppl/10.1161/JAHA.119.012317>

Correspondence to: Stanton A. Glantz, PhD, Center for Tobacco Control Research and Education, University of California, San Francisco, 530 Parnassus Ave, Suite 366, San Francisco, CA 94143-1390. E-mail: stanton.glantz@ucsf.edu

Received December 10, 2018; accepted April 30, 2019.

© 2019 The Authors. Published on behalf of the American Heart Association, Inc., by Wiley. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

Clinical Perspective

What Is New?

- Both e-cigarettes and combustible cigarettes are independently associated with increased risk of myocardial infarction.
- Dual use of e-cigarettes and combustible cigarettes is riskier than using either product alone and switching from combustible cigarettes to e-cigarettes is not associated with lower risk of myocardial infarction than continuing to smoke; complete cessation is the only way to reduce risk of myocardial infarction.
- These results are unlikely because of reverse causality, where smokers who had myocardial infarctions started using e-cigarettes in an effort to quit smoking.

What Are the Clinical Implications?

- E-cigarettes should not be promoted or prescribed as a less risky alternative to combustible cigarettes and should not be recommended for smoking cessation among people with or at risk of myocardial infarction.

atherosclerotic outcomes represents a major research need." Since then, 2 studies, 1 using data from the National Health Interview Survey²³ and another using data from the Behavioral Risk Factors Surveillance Survey,²⁴ found cross-sectional associations between e-cigarette use and having had a myocardial infarction among daily e-cigarette users controlling for cigarette smoking and other risk factors. Nevertheless, this finding remains controversial, because of concerns about reverse causality based on the possibility that after having a myocardial infarction smokers switched to e-cigarettes, which would induce a spurious association between e-cigarette use and myocardial infarction.^{25,26} We use the Population Assessment of Tobacco and Health²⁷ (PATH) data set to test for the relationship between e-cigarette use and myocardial infarction, controlling for cigarette use, demographic and clinical variables and use the longitudinal data from PATH to test the reverse causality hypothesis.

Methods

Study Population and Design

We used PATH Waves 1 and 2 (Figure S1), a nationally representative population-based longitudinal cohort study to collect data on uses of tobacco products, health outcomes, risk perception, and attitudes.²⁷ The restricted use PATH data set is available at the University of Michigan National Addiction & HIV Data Archive Program.²⁸ The Wave 1 data

set contained 32 320 adults aged ≥ 18 years and 28 362 adults in Wave 2, of whom 26 447 completed a Wave 1 interview. Wave 1 data were collected from September 2013 to December 2014 and Wave 2 data were collected 1 year later (from October 2014 to October 2015). PATH uses a 4-stage stratified probability sample technique. The weighted response rate at Wave 1 household screener was 54.0%; among screened households, overall weighted response rate at Wave 1 adult interview was 74.0%. The weighted retention rate for continuing adult at Wave 2 was 83.1%, and the weighted recruitment rate including youth aged < 18 years at Wave 1 and ≥ 18 years (and so counted as adults at Wave 2) was 85.7%.²⁸ Informed consent was obtained by PATH. The University of California San Francisco (UCSF) Committee on Human Research approved this study.

Outcome Variables

Wave 1: Participants who responded "Yes" to the question "Has a doctor, nurse, or other health professional ever told you that you had a heart attack (myocardial infarction)?" were considered as having had a myocardial infarction.

Wave 2: Participants who responded "Yes" to the question "In the past 12 months, has a doctor, nurse, or other health professional told you that you had a heart attack (myocardial infarction)?" were considered as having had a myocardial infarction.

Independent Variables

Electronic cigarette use

Respondents who reported that they have ever used e-cigarettes, have used fairly regularly, and currently use every day were classified as "Every-day users." Respondents who reported that they have ever used e-cigarettes, have used fairly regularly, and currently use some days were considered as "Some-day users." Respondents who reported that they have ever used e-cigarettes and currently do not use them were considered "Former users." Respondents who reported that they have never used e-cigarettes, even once or twice were considered "Never users." Current experimental e-cigarette users (current e-cigarette users but never used e-cigarettes fairly regularly) were not included in the main analysis but were considered some-day users in a sensitivity analysis.

Cigarette smoking

Respondents who reported that they smoked at least 100 cigarettes in their lifetime and currently smoke every day were classified as "Every-day smokers." Respondents who reported that they smoked at least 100 cigarettes in their lifetime and currently smoke some days were classified as "Some-day

smokers.” Respondents who ever smoked cigarettes and have not smoked in the past 12 months or currently do not smoke at all were classified as “Former smokers.” Respondents who reported that they have never smoked a cigarette, even 1 or 2 puffs were classified as “Never smokers.” Respondents who were current smokers but who had not smoked 100 cigarettes (experimental smokers) were excluded from the main analysis, but included in a sensitivity analysis as some-day smokers.

Demographic variables

Demographic variables were assessed at Wave 1: age, body mass index (BMI), sex (men or women), race/ethnicity (white, black, Asian, and others), poverty level/income (below poverty: <100% of poverty line, at or above poverty: ≥100% of poverty line [poverty was calculated using this formula: $[\text{effective family income}]/[\text{poverty guideline}] \times 100 = \text{family income as a percentage of the household size poverty guideline.}]$) and education.

Clinical variables

Wave 1: Respondents who answered “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you had a high blood pressure?” were considered as having “high blood pressure.” Respondents who answered “Yes” to the question “Has a doctor, nurse or other health professional ever told you that you had a high cholesterol?” were considered as having “high cholesterol.” Respondents who answered “Yes” to the question “Has a doctor, nurse, or other health professional ever told you that you had a diabetes, sugar diabetes, high blood sugar, or borderline diabetes?” were considered as having “diabetes mellitus.”

Wave 2: Respondents who answered “Yes” to the question “In the past 12 months, has a doctor, nurse or other health professional told you that you had a high blood pressure?” were considered as having “high blood pressure.” Respondents who answered “Yes” to the question “In the past 12 months, has a doctor, nurse, or other health professional told you that you had a high cholesterol?” were considered as having “high cholesterol.” Respondents who answered “Yes” to the question “In the past 12 months, has a doctor, nurse, or other health professional told you that you had a diabetes, sugar diabetes, high blood sugar, or borderline diabetes?” were considered as having “diabetes mellitus.”

Analysis

We calculated weighted estimates of e-cigarette and cigarette use and clinical and demographic variables at Wave 1 for the overall sample. We used Wave 1 sampling weights for analysis

of Wave 1 and Wave 2 sampling weights for analysis of Wave 2²⁸ accounting for the complex survey design for all the outcomes.²⁹

Multivariable logistic regressions were performed to examine the associations between e-cigarette use (former, some day and every day) and myocardial infarction at Wave 1 controlling for cigarette smoking (former, some day and every day), age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.

We tested for interaction between e-cigarette use and cigarette smoking in a logistic regression by combining some-day and every-day users into “current e-cigarette use” and “current smoking,” then ran the logistic regression with these variables, their interaction, and the demographic and clinical variables. The *P* value for the interaction was 0.671. Likewise, we analyzed interaction for “former e-cigarette use” and “former smoking,” and *P* value for this model was 0.192. As a result, interaction terms were omitted from the remaining analysis.

We tested for dose-response by replacing the categorical use variables with continuous variables (0=never, 1=former, 2=some day, 3=every day) in logistic regressions including the demographic and clinical variables.

We assessed the possibility of reverse causality accounting for the observed association between having had a myocardial infarction at Wave 1 being due to people who had a myocardial infarction preferentially trying to quit smoking with e-cigarettes. Specifically, we used logistic regression to predict every day e-cigarette use at Wave 2 as a function of having had a myocardial infarction at Wave 1 adjusting for age, BMI, sex, poverty level, and race/ethnicity among only every day, and only current (every day and some day) cigarette smoker at Wave 1 (excluding all e-cigarette users) as well as in the entire longitudinal sample.

We used “survey package” in R software for statistical analyses.

Results

Table 1 shows the descriptive statistics at Wave 1 baseline; 643 (2.4%) adults reported that they had a myocardial infarction. Table 2 shows the descriptive statistics stratified by myocardial infarction status at Wave 1 and first myocardial infarctions between Waves 1, 2, and 3 and Table S1 shows the descriptive statistics stratified by e-cigarette use at Wave 1. Among the adults who had myocardial infarctions as of Wave 1, 10.2% reported that they were former e-cigarette users, 1.6% were some-day e-cigarette users and 1.5% were every-day e-cigarette users, 58.8% adults reported that they were former cigarette smokers, 3.4% were some-day cigarette smokers and 20.4% were every-day cigarette smokers. The number of e-cigarette users who had first

Table 1. Demographic, Clinical, and Tobacco Use Variables at Wave 1 Baseline (N=32 320)

Variables	Weighted Percentage
Myocardial infarction	
Yes	2.4
Tobacco use	
E-cigarette user	
Never	85.0
Former	12.6
Some day	1.4
Every day	1.0
Cigarette smoker	
Never	34.3
Former	46.9
Some day	3.8
Every day	15.0
Dual users*	69.0%
Demographic	
Age in y, mean (\pm SD)	46.7 (17.9 \pm SD)
Body mass index (\pm SD) kg/m ²	28.0 (7.5 \pm SD)
Sex	
Men	48.1
Women	51.9
Poverty level/income	
Below poverty (<100% of poverty guideline)	25.2
Race/ethnicity	
White alone	77.8
Black alone	12.4
Asian alone	5.5
Other, including multiracial	4.3
Education	
Less than high school	4.5
High school or equivalent	36.6
Some college and associate	31.0
Bachelor and advanced degree	27.9
High blood pressure	
Yes	27.8
High cholesterol	
Yes	23.0
Diabetes mellitus	
Yes	14.0

*Current (every day+some day) dual users=current cigarette smoker used e-cigarette at Wave 1/current e-cigarette user at Wave 1.

myocardial infarctions between Waves 1 and 2 (only 6 some-day and 2 every-day e-cigarette users) and Waves 2 and 3 (only 1 some-day and 3 every-day e-cigarette users) was small, so, as required by PATH reporting rules, we combined some-day and every-day e-cigarette users in Table 2 for the first myocardial infarction between Waves 1 and 2, and Waves 2 and 3.

The cross-sectional multivariable analysis of the relationship between e-cigarette use and having had a myocardial infarction at Wave 1 (Table 3) adjusting for cigarette smoking, demographic, and clinical variables yielded significant increases in the odds of having had a myocardial infarction for some-day e-cigarette users (adjusted odds ratio, 1.99, 95% CI: 1.11–3.58) and every-day e-cigarette users (adjusted odds ratio, 2.25, 95% CI: 1.23–4.11). The risk of having had a myocardial infarction was not significantly elevated in former e-cigarette users (adjusted odds ratio, 1.25, 95% CI: 0.93–1.69). All variance inflation factors were <1.1, indicating that the effects of e-cigarette and conventional cigarette use were independent risk factors for myocardial infarction.

As expected, any cigarette smoking, age, BMI, sex, poverty level, education, and high blood pressure, high cholesterol, and diabetes mellitus were significantly associated with increased risk of myocardial infarction.

There was a significant dose-response for both e-cigarette use ($P<0.0005$) and smoking ($P=0.019$) and myocardial infarction controlling for demographic and clinical variables (detailed results not shown).

The longitudinal analysis did not reveal any statistically significant associations between e-cigarette use at Wave 1 and having had a first myocardial infarction by Wave 2, perhaps because of the small numbers of first myocardial infarctions in e-cigarette users between Waves 1 and 2 (Table S2). Daily cigarette smoking was also not significantly associated with having had a first myocardial infarction at Wave 2.

The sensitivity analysis including current experimental e-cigarette user with some-day e-cigarette user and current experimental cigarette smokers with some-day cigarette smokers yielded similar results as the main analysis (Table S3).

Reverse Causality

There were 1990 respondents who started using e-cigarettes between Waves 1 and 2 (Table 4). Having had a myocardial infarction at Wave 1 did not predict every-day e-cigarette use at Wave 2 among overall follow-up sample ($P=0.687$), every-day cigarette smokers at Wave 1 ($P=0.675$), or current cigarette smokers at Wave 1 ($P=0.634$), adjusting for demographic and clinical variables. Similar results were

Table 2. Myocardial Infarctions, Tobacco Use, Clinical, and Demographic Variables

Variables (at Wave 1)	Myocardial infarction at Wave 1 (All Respondents)		
Tobacco Use	Yes (n=643)	No (n=31,531)	P Value
E-cigarette user			
Never	86.7	85.0	0.073
Former	10.2	12.6	
Some day	1.6	1.4	
Every day	1.5	1.0	
Cigarette smoker			
Never	17.4	34.7	<0.001
Former	58.8	46.6	
Some day	3.4	3.9	
Every day	20.4	14.8	
Myocardial infarction at Wave 1 (excluding dual users)			
E-cigarette use only (n=18,294)			
Never	96.0	93.4	0.017
Former	2.7	5.7	
Some day	0.3	0.3	
Every day	1.0	0.6	
Cigarette smoker only (n=26,652)			
Never	18.5	36.4	<0.001
Former	61.2	48.1	
Some day	2.5	3.2	
Every day	17.8	12.3	
First Myocardial Infarction Between Waves 1 and 2 (Excluding Respondents Who Had MI at Wave 1)			
Tobacco Use	Yes (n=117)	No (n=25,609)	P Value
E-cigarette user			
Never	86.5	84.9	0.645
Former	10.4	12.6	
Some day+every day [†]	3.1	2.5	
Cigarette smoker			
Never	7.8	34.0	<0.001
Former	68.8	47.6	
Some day	5.5	3.8	
Every day	18.3	14.6	
First Myocardial Infarction Between Waves 2 and 3 (Excluding Respondents Who Had MI at Wave 1)			
Tobacco Use	Yes (n=89)	No (n=22,967)	P Value
E-cigarette user			
Never	89.1	84.9	0.410
Former	9.2	12.6	
Some day+every day [†]	1.7	2.5	

Continued

Downloaded from http://ahajournals.org by on June 6, 2019

Table 2. Continued

Variables (at Wave 1)	Myocardial Infarction at Wave 1 (All Respondents)		
	Yes (n=643)	No (n=31531)	P Value
Cigarette smoker			
Never	20.3	34.6	0.107
Former	61.1	47.0	
Some day	2.1	3.8	
Every day	16.5	14.7	
Demographics (at Wave 1)			
Age in y, mean (\pm SD)	66.5 (\pm 13.17)	46.1 (\pm 17.7)	<0.001
Body mass index (\pm SD) kg/m ²	29.7 (\pm 10.2)	28.0 (\pm 7.4)	<0.001
Sex			
Men	71.1	47.5	<0.001
Women	28.9	52.5	
Poverty level/income			
Below poverty	24.8	25.2	0.885
At or above poverty	75.2	74.8	
Race/ethnicity			
White	84.3	77.7	<0.001
Black	10.5	12.4	
Asian	0.9	5.6	
Other	4.3	4.3	
Education			
Less than high school	11.7	4.3	<0.001
High school or equivalent	46.1	36.3	
Some college and associate	28.1	31.2	
Bachelor and advanced degree	14.1	28.2	
Clinical status			
High blood pressure			
Yes	72.5	26.8	<0.001
High cholesterol			
Yes	67.7	21.9	<0.001
Diabetes mellitus			
Yes	39.6	13.4	<0.001

*Chi-square for counts, *t* test for continuous variables.

†Some-day and every-day e-cigarette users combined because PATH does not allow reporting results for cell sizes <3, and there were only 2 everyday e-cigarette users who had first myocardial infarctions between Waves 1 and 2 and only 3 every-day e-cigarette users who had first myocardial infarctions between Waves 2 and 3. Wave 1 data were collected from September 2013 to December 2014, Wave 2 from October 2014 to October 2015, and Wave 3 from October 2015 to October 2016.

obtained for any e-cigarette use (every day or some day) at Wave 2 (Table S4).

Discussion

This study confirms earlier^{23,24} findings that e-cigarette use is an independent risk factor for having had a myocardial

infarction controlling for cigarette smoking, demographic and clinical risk factors. The magnitudes of the effects in this study are similar to the updated analysis by Alzahrani and Glantz³⁰ using the 2014, 2015, and 2016 from the National Health Interview Survey (some-day e-cigarette user [odds ratio: 1.99, 95% CI: 1.11–3.58 in this study versus 1.49: 1.08–2.09 in Alzahrani et al] and every-day e-cigarette user

Table 3. Adjusted Odds Ratios for Myocardial Infarction at Wave 1

Variables	AOR (95% CI)	P Value
E-cigarette use		
Never	Reference	
Former	1.25 (0.93–1.69)	0.147
Some day	1.99 (1.11–3.58)	0.024
Every day	2.25 (1.23–4.11)	0.010
Cigarette use		
Never	Reference	
Former	1.48 (1.01–2.15)	0.047
Some day	2.38 (1.40–4.06)	0.002
Every day	2.95 (1.91–4.56)	<0.001
High blood pressure		
Yes	2.08 (1.56–2.77)	<0.001
High cholesterol		
Yes	3.01 (2.31–3.92)	<0.001
Diabetes mellitus		
Yes	1.49 (1.09–2.03)	0.013
Age in y	1.07 (1.06–1.08)	<0.001
Body mass index, kg/m ²	1.02 (1.00–1.03)	0.016
Sex		
Women	0.27 (0.18–0.39)	<0.001
Poverty level/income		
At or above poverty	0.72 (0.49–1.04)	0.086
Race/ethnicity		
White	Reference	
Black	0.86 (0.63–1.16)	0.324
Asian	0.31 (0.07–1.38)	0.127
Other	1.37 (0.83–2.25)	0.226
Education		
Less than high school	1.49 (1.05–2.13)	0.030
High school or equivalent	Reference	
Some college and associate	0.97 (0.72–1.29)	0.814
Bachelor and advanced degree	0.62 (0.44–0.87)	0.007
Sample size	32 320	
VIF	<1.1	

Adjusted odds ratio adjusts for cigarette smoking (former, some day and every day), age, body mass index, sex, poverty level, race/ethnicity, education, and clinical variables. VIF indicates variance inflation factor.

[2.25: 1.23–4.11 versus 2.14: 1.41–3.25]). Odds of myocardial infarction among former e-cigarette users are not significantly elevated in either study. The increased odds of myocardial infarction are similarly and significantly associated with smoking in both studies, with higher estimates in the

present study (former [1.48: 1.01–2.15 versus 1.70: 1.51–1.91], some day [2.38: 1.40–4.06 versus 2.36: 1.80–3.09] and every day [2.95: 1.91–4.56 versus 2.72: 2.29–3.24]). Vindhyal et al³¹ reported that e-cigarette use is significantly associated with MI (odds ratio [OR] 1.56 [1.45–1.68]), stroke (OR 1.30 [1.20–1.40]), and circulatory problems (OR 1.44 [1.25–1.65]) using the 2014, 2016, and 2017 National Health Interview Survey. Ndunda and Muutu²⁴ found that compared with non-users, e-cigarette users (without specifying frequency of use, but controlling for smoking and other risk factors) the odds of having had a myocardial infarction (OR 1.59 [1.53–1.66]) that was lower than in this study, although the CIs overlapped. They also found higher risks for angina or coronary heart disease (OR 1.4 [1.35–1.46]) and stroke (OR 1.71 [1.64–1.8]) using 2016 Behavioral Risk Factor Surveillance System.

Both the present and earlier^{23,24} results are based on cross-sectional analysis, which raises the possibility of reverse causality,^{25,26} specifically that after having had a myocardial infarction people might preferentially attempt to quit smoking using e-cigarettes. In a cross sectional analysis of the National Health Interview Survey, Stokes et al⁸ reported that individuals with cardiovascular disease who recently quit smoking or recently attempt to quit were more likely to use e-cigarettes than those who did not report a recent quit attempt, which may indicate that e-cigarettes were being used for smoking cessation. We used the longitudinal data in PATH to test directly for reverse causality by testing whether having had a myocardial infarction at Wave 1 predicted e-cigarette use at Wave 2 among people who were cigarette smokers at Wave 1 (Table 4). The results did not approach statistical significance ($P>0.62$ for all outcomes), strongly suggesting that reverse causality is not an issue. In addition, the presence of a statistically significant dose-response is consistent with a causal effect.

Our results on the lack of reverse causality are consistent with Gaalema et al³² who concluded based on longitudinal analysis of the first 2 waves of PATH, that having a myocardial infarction was not a significant predictor of initiating non-combusted tobacco (mostly e-cigarettes) use ($P=0.20$). Furthermore, they found, “cardiac status was significantly negatively associated with switching completely from combusted to non-combusted products. While 9.2% of those with no change in health status switched (from combusted tobacco, mostly cigarettes) to non-combusted use, none of those experiencing a new MI switched ($P=0.0015$).” Thus, any differential misclassification is in the direction opposite to what would be required for reverse causality to explain our results, which strengthens our conclusion that e-cigarette use is associated with the risk of having had an MI. Our finding is also consistent with Alzahrani et al’s²⁶ cross-sectional analysis of reverse causality using the National Health Interview Survey, which found a non-significant

Table 4. Reverse Causality Analysis: Adjusted Odds Ratios for Every Day e-Cigarette Use at Wave 2*

Variables at Wave 1	Among Overall Follow-Up Sample		Among Every-Day Cigarette Smoker at Wave 1		Among Current Cigarette Smoker at Wave 1	
	AOR (95% CI)	P Value	AOR (95% CI)	P Value	AOR (95% CI)	P Value
MI						
No	Reference		Reference		Reference	
Yes	0.85 (0.38–1.90)	0.687	0.80 (0.28–2.26)	0.675	0.79 (0.30–2.07)	0.634
High blood pressure						
Yes	1.08 (0.83–1.41)	0.550	0.89 (0.63–1.26)	0.526	0.88 (0.64–1.21)	0.422
High cholesterol						
Yes	1.08 (0.79–1.47)	0.618	1.38 (0.94–2.03)	0.106	1.54 (1.08–2.18)	0.019
Diabetes mellitus						
Yes	0.92 (0.61–1.38)	0.684	0.96 (0.66–1.40)	0.820	0.95 (0.65–1.38)	0.775
Age	0.97 (0.96–0.98)	<0.001	0.97 (0.96–0.98)	<0.001	0.98 (0.97–0.99)	<0.001
Body mass index, kg/m ²	0.99 (0.98–1.00)	0.147	1.00 (0.99–1.02)	0.735	1.00 (0.98–1.01)	0.847
Sex						
Women	0.72 (0.59–0.89)	0.002	0.81 (0.60–1.10)	0.183	0.83 (0.64–1.09)	0.195
Poverty level/income						
At or above poverty	1.01 (0.80–1.28)	0.918	1.36 (1.04–1.78)	0.028	1.26 (0.98–1.62)	0.077
Race/ethnicity						
White	Reference		Reference		Reference	
Black	0.28 (0.18–0.43)	<0.001	0.24 (0.12–0.51)	<0.001	0.26 (0.14–0.50)	<0.001
Asian	0.31 (0.13–0.73)	0.009	0.18 (0.02–2.07)	0.171	0.24 (0.04–1.51)	0.133
Other	0.92 (0.63–1.35)	0.683	0.97 (0.53–1.76)	0.916	0.93 (0.53–1.63)	0.804
Education						
Less than high school	0.62 (0.38–1.00)	0.056	0.95 (0.48–1.89)	0.884	0.83 (0.44–1.56)	0.565
High school or equivalent	Reference		Reference		Reference	
Some college and associate	1.03 (0.82–1.28)	0.814	1.26 (0.96–1.66)	0.099	1.15 (0.90–1.48)	0.257
Bachelor and advanced degree	0.40 (0.28–0.56)	<0.001	1.38 (0.84–2.29)	<0.001	1.01 (0.67–1.52)	0.973
VIF	<1.1		<1.1		<1.1	
Number of new e-cigarette users between Waves 1 and 2	1990		776		946	
Sample size	26 447		7378		9284	
Minimum detectable effect (OR) [‡]	1.51		1.39		1.35	

Adjusted odds ratio (AOR) adjusts for age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables. BMI indicates bone mass index; OR, odds ratio; VIF, variance inflation factor.

*Some-day and former e-cigarette users excluded from the analysis.

†Excluding e-cigarette users.

‡To achieve 0.80 power with $\alpha=0.005$ (2-tail) with observed sample size calculated using GPower 3.1.92.

association between MI and e-cigarette use when controlling for covariates.

Like Alzahrani et al,^{23,30} we found that the increased odds of having had a myocardial infarction associated with e-cigarette use were independent of the increased odds associated with smoking. This result means that dual use of e-cigarettes and conventional cigarettes, the most common use pattern for e-cigarette users, is more dangerous than use of either product alone (69% of current e-cigarette users were also smoking

cigarettes in our sample at Wave 1, which is similar to the 70% Stokes et al⁸ reported among people with cardiovascular disease in the National Health Interview Survey). For example, the total odds of having had a myocardial infarction among every-day cigarette smokers who also use e-cigarettes every day (dual users)—the most common use pattern (Table 1)—is (odds of myocardial infarction among every-day smokers) × (odds of myocardial infarction among every-day e-cigarette user) = 2.95 × 2.25 = 6.64 compared with a never cigarette

Downloaded from http://ahaajournals.org by on June 6, 2019

smoker who has never used e-cigarettes (which is similar from additional regression analysis estimating the effect directly, Adjusted Odds Ratio (AOR): 5.06, 95% CI: 1.99–12.83, Table S5). Odds of having had a myocardial infarction for individuals who switched from every-day combustible cigarette smoking to every-day e-cigarette use would change by a factor of $\left(\frac{\text{odds of myocardial infarction among former combustible cigarette smokers} \times \text{odds of myocardial infarction among every-day e-cigarette user}}{\text{odds of myocardial infarction among every-day combustible cigarette smoker}}\right) = 3.33/2.95 = 1.13$, which is virtually no benefit in terms of myocardial infarction risk. More importantly, the total odds of having had a myocardial infarction for an individual who switched from every-day combustible cigarette smoking to every-day e-cigarette use compared with quitting smoking would be $\left(\frac{\text{odds of myocardial infarction among former smokers} \times \text{odds of myocardial infarction among every-day e-cigarette user}}{\text{odds of myocardial infarction among former cigarette smokers}}\right) = (1.48 \times 2.25) / 1.48 = 2.25$.

As discussed above, we cannot infer temporality from the cross-sectional finding that e-cigarette use is associated with having had an MI and it is possible that first MIs occurred before e-cigarette use. PATH Wave 1 was conducted in 2013 to 2014, only a few years after e-cigarettes started gaining popularity on the US market around 2007. To address this problem we used the PATH questions “How old were you when you were first told you had a heart attack (also called a myocardial infarction) or needed bypass surgery?” and the age when respondents started using e-cigarettes and cigarettes (1) for the very first time, (2) fairly regularly, and (3) every day. We used current age and age of first MI to select only those people who had their first MIs at or after 2007 (Table S6). While the point estimates for the e-cigarette effects (as well as other variables) remained about the same as for the entire sample, these estimates were no longer statistically significant because of a small number of MIs among e-cigarette users after 2007. Note that this analysis does not capture reinfarctions occurring after 2007, whose risk could be increased by e-cigarette use as it is for continued smoking conventional cigarettes.^{33,34}

One could argue that the cleanest study would have been one that only examined the association of sole e-cigarette use with myocardial infarction. In contrast, most e-cigarette users are dual users with cigarettes so it is important to study the effects of e-cigarette use simultaneously with cigarette use. Our analysis quantified the additional risk of MI associated with e-cigarette use in addition to cigarette smoking among dual users. Limiting the analysis to sole e-cigarette users would not only be less clinically relevant, but would substantially reduce the sample size and the power of the analysis to detect an effect.

Limitations

While PATH is a longitudinal study, there were only 8 people who used e-cigarettes and had first myocardial infarctions during this follow-up, so there was not enough power to detect an effect. Confirming this problem, every-day and former-conventional cigarette smoking were not significant either. While longitudinal studies are more desirable than cross-sectional studies, the reality is that it will be years before enough myocardial infarctions have occurred to do a meaningful analysis. In the meantime, millions of people are using e-cigarettes and clinicians are being asked about them and this cross-sectional analysis can be used to inform decision making about these products.

Response for both e-cigarette and combustible cigarette use were self-reported, which could lead to recall bias. Participants with myocardial infarction might over-report e-cigarette and cigarette use, but previous work found that compared with biochemical monitoring with cotinine levels, self-reporting in myocardial infarction survivors tended to understate the prevalence of smoking.³⁵ Myocardial infarction was self-reported which also could lead recall bias, but the questions “Has a doctor, nurse, or other health professional ever told you that you had a heart attack (myocardial infarction)?” and “In the past 12 months, has a doctor, nurse, or other health professional told you that you had a heart attack (myocardial infarction)?” have been found to have high agreement (81%–98%) with medical records.^{36,37}

Other possible risk factors including family history of myocardial infarction, angina, and heavy alcohol use are not available in the PATH data set. There is no information on the duration since smoking or e-cigarette cessation. In the main analysis, it also is unknown whether the reported myocardial infarction occurred before or after the respondents’ initiated e-cigarettes and cigarettes use.

Conclusions

As one would expect based on what is known about the biological effects of e-cigarette use, in the cross-sectional analysis some-day and every-day e-cigarette use is associated with increased risk for having myocardial infarction, adjusted for combustible cigarette smoking, demographic and clinical variables. This result is unlikely because of reverse causality. Former, some-day, and every-day combustible cigarette smoking is also independently associated with myocardial infarction among adults in the United States. Dual use of the e-cigarette and combustible cigarettes results in higher risk of myocardial infarction than using either product alone and switching from cigarettes to e-cigarettes was not associated

with any benefits in terms of reduced myocardial infarction risk. E-cigarettes should not be promoted or prescribed as a less risky alternative to combustible cigarettes and should not be recommended for smoking cessation among people with or at risk of myocardial infarction.

Sources of Funding

This work was supported by grants R01DA043950 from the National Institute on Drug Abuse, P50CA180890 from the National Cancer Institute and the Food and Drug Administration Center for Tobacco Products, U54HL147127 from the National Heart, Lung, and Blood Institute and the Food and Drug Administration Center for Tobacco Products, and the University of California San Francisco (UCSF) Helen Diller Family Comprehensive Cancer Center Global Cancer Program. The content is solely the responsibility of the authors and does not necessarily represent the official views of National Institutes of Health or the Food and Drug Administration. The funding agencies played no role in study design, collection, analysis, and interpretation of data, writing the report, or the decision to submit for publication.

Disclosures

None.

References

- Murphy SL, Xu J, Kochanek KD, Curtin SC, Arias E. Deaths: final data for 2015. *Natl Vital Stat Rep*. 2017;66:1–75.
- US Department of Health and Human Services. The health consequences of smoking: 50 years of progress: a report of the surgeon general. Atlanta, GA: US Department of Health and Human Services, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014. Available at: <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>. Accessed April 23, 2019.
- Prescott E, Hippe M, Schnohr P, Hein HO, Vestbo J. Smoking and risk of myocardial infarction in women and men: longitudinal population study. *BMJ*. 1998;316:1043–1047.
- Hackshaw A, Morris JK, Boniface S, Tang JL, Milenković D. Low cigarette consumption and risk of coronary heart disease and stroke: meta-analysis of 141 cohort studies in 55 study reports. *BMJ*. 2018;360:j5855.
- Barnoya J, Glantz SA. Cardiovascular effects of secondhand smoke: nearly as large as smoking. *Circulation*. 2005;111:2684–2698.
- Grana R, Benowitz N, Glantz SA. E-cigarettes: a scientific review. *Circulation*. 2014;129:1972–1986.
- Glantz SA, Boreham DW. E-cigarettes: use, effects on smoking, risks, and policy implications. *Annu Rev Public Health*. 2018;39:215–235.
- Stokes A, Collins JM, Berry KM, Reynolds LM, Fetterman JL, Rodriguez CJ, Siegel MB, Benjamin EJ. Electronic cigarette prevalence and patterns of use in adults with a history of cardiovascular disease in the United States. *J Am Heart Assoc*. 2018;7:e007602. DOI: 10.1161/JAHA.117.007602.
- Fuoco FC, Buonanno G, Stabile L, Vigo P. Influential parameters on particle concentration and size distribution in the mainstream of e-cigarettes. *Environ Pollut*. 2014;184:523–529.
- Pope CA III, Burnett RT, Krewski D, Jerrett M, Shi Y, Calle EE, Thun MJ. Cardiovascular mortality and exposure to airborne fine particulate matter and cigarette smoke: shape of the exposure-response relationship. *Circulation*. 2009;120:941–948.
- Carnevale R, Sclarretta S, Violi F, Nocella C, Loffredo L, Perri L, Peruzzi M, Marullo AG, De Falco E, Chimenti I. Acute impact of tobacco vs electronic cigarette smoking on oxidative stress and vascular function. *Chest*. 2016;150:606–612.
- Targonski PV, Bonetti PO, Pumper GM, Higano ST, Holmes DR, Lerman A. Coronary endothelial dysfunction is associated with an increased risk of cerebrovascular events. *Circulation*. 2003;107:2805–2809.
- Moheimani RS, Bhattacharata M, Peters KM, Yang BK, Yin F, Gornbein J, Araujo JA, Middlekauff HR. Sympathomimetic effects of acute e-cigarette use: role of nicotine and non-nicotine constituents. *J Am Heart Assoc*. 2017;6:e006579. DOI: 10.1161/JAHA.117.006579.
- Mohammadi L, Derakhshandeh R, Han DD, Whitlatch A, Huang A, Schick SF, Springer ML. Relative endothelial toxicity of tobacco smoke and e-cigarette aerosol: a functional and mechanistic assessment. *Circulation*. 2018;138:A16844.
- Lee WH, Zhou Y, Ong S-G, Tian L, Baker N, Bae HR, Mohammadi L, Springer ML, Schick SF, Bhatnagar A, Wu JC. Assessing cardiovascular risks associated with e-cigarettes with human induced pluripotent stem cell-derived endothelial cells. Paper presented at: Society for Research on Nicotine and Tobacco Annual Meeting; 2019; San Francisco, USA. Available at: https://cdn.ymaws.com/www.smt.org/resource/resmgr/SRNT19_Abstracts.pdf. Accessed March 27, 2019.
- Moheimani RS, Bhattacharata M, Yin F, Peters KM, Gornbein J, Araujo JA, Middlekauff HR. Increased cardiac sympathetic activity and oxidative stress in habitual electronic cigarette users: implications for cardiovascular risk. *JAMA Cardiol*. 2017;2:278–284.
- Horn S, Chen L, Wang T, Ghebrehiwet B, Yin W, Rubenstein DA. Platelet activation, adhesion, inflammation, and aggregation potential are altered in the presence of electronic cigarette extracts of variable nicotine concentrations. *Platelets*. 2016;27:694–702.
- Crotty Alexander LE, Drummond CA, Hepokoski M, Mathew DP, Moshensky A, Willeford A, Das S, Singh P, Yong Z, Lee JH. Chronic inhalation of e-cigarette vapor containing nicotine disrupts airway barrier function and induces systemic inflammation and multi-organ fibrosis in mice. *Am J Physiol Regul Integr Comp Physiol*. 2018;314:R834–R847.
- Karim ZA, Hernandez K, Rivera JO, Kha-sawneh FT, Aishbool FZ. In utero exposure to e-cigarettes modulates platelet function and increases the risk of thrombogenesis, in mice. Paper presented at: Society for Research on Nicotine and Tobacco Annual Meeting; 2019; San Francisco, USA. Available at: https://cdn.ymaws.com/www.smt.org/resource/resmgr/SRNT19_Abstracts.pdf. Accessed March 27, 2019.
- Olfert IM, DeVallance E, Hoskinson H, Branyan KW, Clayton S, Pitzer CR, Sullivan DP, Breit MJ, Wu Z, Klinkhachorn P, Mandler WK, Erdreich BH, Ducatman BS, Bryner RW, Dasgupta P, Chantler PD. Chronic exposure to electronic cigarettes results in impaired cardiovascular function in mice. *J Appl Physiol*. 2018;124:573–582.
- Vlachopoulos C, Ioakeimidis N, Abdelrasoul M, Terentes-Printzios D, Georgakopoulos C, Pietri P, Stefanadis C, Tousoulis D. Electronic cigarette smoking increases aortic stiffness and blood pressure in young smokers. *J Am Coll Cardiol*. 2016;67:2802–2803.
- National Academies of Sciences, Engineering and Medicine. *Public Health Consequences of e-Cigarettes*. Washington, DC: The National Academies Press; 2018. Available at: <https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes>. Accessed February 7, 2019.
- Alzahrani T, Pena I, Temesgen N, Glantz SA. Association between electronic cigarette use and myocardial infarction. *Am J Prev Med*. 2018;55:455–461.
- Ndunda PM, Muutu TM. Electronic cigarette use is associated with a higher risk of stroke. International Stroke Conference 2019 Oral Abstracts. Community/risk factors, Abstract 9. *Stroke*. 2019;50:A9. Available at: https://www.ahajournals.org/doi/10.1161/str.50.suppl_1.9. Accessed February 8, 2019.
- Middlekauff H, Gornbein J. Association of electronic cigarette use with myocardial infarction: persistent uncertainty. *Am J Prev Med*. 2019;56:159–166.
- Alzahrani T, Pena I, Temesgen N, Glantz SA. E-cigarettes: stick to the evidence. *Am J Prev Med*. 2019;56:160–161.
- United States Department of Health and Human Services. National Institutes of Health. National Institute on Drug Abuse, and United States Department of Health and Human Services. Food and Drug Administration. Center for Tobacco Products. Population assessment of tobacco and health (PATH) study [United States] restricted-use files. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. June 19, 2017. <https://doi.org/10.3886/icpsr36231.v13>. Accessed October 8, 2018.
- Inter-University Consortium for Political and Social Research. Population assessment of tobacco and health (PATH) study [United States] restricted-use files: user guide. Available at: <https://www.icpsr.umich.edu/icpsrweb/NAHDAP/studies/36231>. Accessed September 8, 2018.

29. Judkins DR. Fay's method for variance estimation. *J Off Stat.* 1990;6:223-239.
30. Alzahrani T, Glantz SA. Adding data from 2015 strengthens the association between e-cigarette use and myocardial infarction. *Am J Prev Med.* in press.
31. Vindhyal MR, Ndunda P, Munguti C, Vindhyal S, Okut H. Impact on cardiovascular outcomes among e-cigarette users: a review from National Health Interview Surveys. *J Am Coll Cardiol.* 2019;73:11.
32. Gaalema DE, Pericot-Valverde I, Bunn JY, Villanti AC, Cepeda-Benito A, Doogan NJ, Keith DR, Kurti AN, Lopez AA, Nighbor T, Parker MA, Quisenberry AJ, Redner R, Roberts ME, Stanton CA, Ades PA, Higgins ST. Tobacco use in cardiac patients: perceptions, use, and changes after a recent myocardial infarction among US adults in the PATH study (2013-2015). *Prev Med.* 2018;117:76-82.
33. Aberg A, Bergstrand R, Johansson S, Ulvenstam G, Vedin A, Wedel H, Wilhelmsson C, Wilhelmsen L. Cessation of smoking after myocardial infarction. Effects on mortality after 10 years. *Br Heart J.* 1983;49:416-422.
34. Rivers JT, White HD, Cross DB, Williams BF, Norris RM. Reinfarction after thrombolytic therapy for acute myocardial infarction followed by conservative management: incidence and effect of smoking. *J Am Coll Cardiol.* 1990;16:340-348.
35. Woodward M, Tunstall-Pedoe H. Biochemical evidence of persistent heavy smoking after a coronary diagnosis despite self-reported reduction: analysis from the Scottish Heart Health Study. *Eur Heart J.* 1992;13:160-165.
36. Tretli S, Lund-Larsen PG, Foss OP. Reliability of questionnaire information on cardiovascular disease and diabetes: cardiovascular disease study in Finnmark county. *J Epidemiol Community Health.* 1982;36:269-273.
37. Yuji O, Urban L, Mahoney D, Jacobsen S, Rodeheffer R. Agreement between self-reported questionnaires and medical record data was substantial for diabetes, hypertension, myocardial infarction and stroke but not for heart failure. *J Clin Epidemiol.* 2004;57:1096-1103.

SUPPLEMENTAL MATERIAL

Table S1. Myocardial Infarctions, tobacco use, clinical, and demographic variables.

Variables (at Wave 1)	E-cigarette Use at Wave 1 (Weighted percent)				P-value*
	Never	Former	Some Day ^a	Every Day	
Myocardial Infarction					
Yes	2.4	1.9	2.6	3.4	0.073
No	97.6	98.1	97.4	96.6	
Cigarette smoker					
Never	40.7	3.6	1.9	0.5	<0.001
Former	50.3	34.7	16.2	51.2	
Some day	2.0	11.4	14.2	19.9	
Every day	7.0	50.3	67.7	28.4	
Demographics					
Age in years, mean (±SD)	48.6 (±17.9)	36.8 (±14.4)	35.7 (±13.5)	41.0 (±15.2)	<0.001
Body Mass Index (±SD) kg/m ²	28.1 (±7.5)	27.7 (±7.0)	27.7 (±7.0)	27.9 (±6.6)	<0.001
Sex					
Male	46.8	54.3	54.2	54.4	<0.001
Female	53.2	45.7	45.8	45.6	
Poverty level/income					
Below poverty	22.9	33.1	27.4	35.1	<0.001
At or above poverty	77.1	66.9	72.6	64.9	
Race/ethnicity					
White	77.6	78.6	79.1	84.8	<0.001
Black	12.5	12.0	10.3	6.6	
Asian	5.9	3.6	3.1	2.7	
Other	3.9	5.7	7.5	5.9	
Education					
Less than high school	35.1	13.2	39.6	39.9	<0.001
High school or equivalent	4.7	3.5	3.9	3.4	
Some college and associate	29.5	37.8	41.8	42.9	
Bachelor and advanced degree	30.8	15.5	14.7	13.7	
Clinical status					
High blood pressure					
Yes	29.2	21.1	22.6	23.1	<0.001
No	70.8	78.9	77.4	76.9	
High cholesterol					
Yes	24.5	15.5	14.4	18.6	<0.001
No	75.5	84.5	85.6	81.4	
Diabetes mellitus					
Yes	14.8	9.9	11.8	11.3	<0.001
No	85.2	90.1	88.2	88.7	

*Chi-square for counts, t-test for continuous variables.

Wave 1 data were collected from September 2013 to December 2014

Table S2. Adjusted odds ratios for myocardial infarction (MI) at Wave 2, excluding respondents who had a MI at Wave 1.

Variables	AOR (95% CI)	P-value
E-cigarette user at wave 1		
Never	Reference	
Former	1.10 (0.56, 2.18)	0.775
Some day	2.12 (0.64, 7.08)	0.225
Every day	-	-
Cigarette smoker at wave 1		
Never	Reference	
Former	3.40 (0.66, 17.50)	0.147
Some day	6.66 (1.30, 34.00)	0.025
Every day	3.05 (0.57, 16.49)	0.198
High blood pressure		
Yes	1.74 (0.80, 3.79)	0.165
High cholesterol		
Yes	0.82 (0.37, 1.85)	0.642
Diabetes mellitus		
Yes	1.64 (0.56, 4.82)	0.372
Age	1.06 (1.03, 1.08)	<0.001
Body Mass Index	1.01 (0.99, 1.04)	0.289
Sex		
Female	0.47 (0.22, 1.03)	0.062
Poverty level/income		
At or above poverty	1.23 (0.54, 2.81)	0.616
Race/ethnicity		
White	Reference	
Black	1.07 (0.50, 2.26)	0.870
Asian	-	-
Other	1.46 (0.40, 5.37)	0.568
Education		
Less than high school	2.20 (0.51, 9.53)	0.299
High school or equivalent	Reference	
Some college and associate	0.93 (0.43, 2.01)	0.864
Bachelor and advanced degree	0.10 (0.02, 0.59)	0.012
Sample size	25,820	
VIF	<1.2	

Adjusted Odds Ratio adjusts for cigarette smoking (former, some day and every day), age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.
VIF: Variance Inflation Factor

Table S3. Adjusted odds ratio for myocardial infarction at Wave 1 baseline including experimental e-cigarette users and smokers as some day users.

Variables	AOR (95% CI)	P-value
E-cigarette user		
Never	Reference	
Former	1.27 (0.95, 1.69)	0.113
Some day	1.62 (1.04, 2.54)	0.037
Every day	2.20 (1.20, 4.05)	0.013
Cigarette smoker		
Never	Reference	
Former	1.47 (1.01, 2.14)	0.047
Some day	2.22 (1.37, 3.60)	0.002
Every day	2.94 (1.91, 4.51)	<0.001
High blood pressure		
Yes	2.09 (1.60, 2.72)	<0.001
High cholesterol		
Yes	3.10 (2.40, 3.99)	<0.001
Diabetes mellitus		
Yes	1.46 (1.09, 1.97)	0.013
Age in years	1.07 (1.06, 1.08)	<0.001
Body Mass Index	1.02 (1.00, 1.03)	0.026
Sex		
Female	0.28 (0.20, 0.40)	<0.001
Poverty level/income		
At or above poverty	0.73 (0.52, 1.02)	0.069
Race/ethnicity		
White	Reference	
Black	0.83 (0.63, 1.09)	0.186
Asian	0.32 (0.08, 1.23)	0.101
Other	1.34 (0.84, 2.12)	0.217
Education		
Less than high school	1.52 (1.08, 2.14)	0.020
High school or equivalent	Reference	
Some college and associate	1.01 (0.77, 1.33)	0.923
Bachelor and advanced degree	0.64 (0.45, 0.89)	0.011
Sample size	32,320	
VIF	<1.1	

Adjusted Odds Ratio adjusts for cigarette smoking (former, some day and every day), age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

Table S4. Adjusted odds ratios for current (every day or some day) e-cigarette use at Wave 2.*

Variables at Wave 1	Among overall follow up sample		Among every day cigarette smoker at wave 1‡		Among current cigarette smoker at wave 1‡	
	AOR (95% CI)	P-value	AOR (95% CI)	P-value	AOR (95% CI)	P-value
MI						
No	Reference		Reference		Reference	
Yes	1.45 (0.94, 2.25)	0.099	1.52 (0.90, 2.56)	0.121	1.40 (0.86, 2.28)	0.173
High blood pressure						
Yes	1.32 (1.12, 1.55)	0.001	1.16 (0.96, 1.41)	0.125	1.16 (0.97, 1.38)	0.114
High cholesterol						
Yes	0.91 (0.74, 1.12)	0.384	1.08 (0.83, 1.42)	0.567	1.13 (0.89, 1.44)	0.303
Diabetes mellitus						
Yes	0.93 (0.72, 1.18)	0.543	1.03 (0.81, 1.32)	0.789	1.05 (0.83, 1.31)	0.697
Age	0.97 (0.96, 0.98)	<0.001	0.97 (0.96, 0.97)	<0.001	0.97 (0.96, 0.98)	<0.001
Body Mass Index	1.00 (0.99, 1.00)	0.359	1.00 (0.99, 1.01)	0.806	1.00 (0.99, 1.01)	0.981
Sex						
Female	0.83 (0.73, 0.94)	0.006	1.10 (0.91, 1.33)	0.317	1.06 (0.90, 1.25)	0.482
Poverty level/income						
At or above poverty	0.91 (0.78, 1.05)	0.202	1.29 (1.09, 1.53)	0.004	1.19 (1.02, 1.39)	0.032
Race/ethnicity						
White	Reference		Reference		Reference	
Black	0.38 (0.30, 0.48)	<0.001	0.35 (0.24, 0.51)	<0.001	0.39 (0.27, 0.55)	<0.001
Asian	0.55 (0.39, 0.78)	0.001	0.69 (0.51, 1.52)	0.363	0.69 (0.36, 1.33)	0.279
Other	1.05 (0.84, 1.31)	0.659	1.07 (0.75, 1.51)	0.721	1.12 (0.84, 1.49)	0.451
Education						
Less than high school	0.89 (0.65, 1.21)	0.449	1.13 (0.77, 1.67)	0.532	1.07 (0.75, 1.53)	0.705
High school or equivalent	Reference		Reference		Reference	
Some college and associate	1.06 (0.90, 1.24)	0.475	1.42 (1.18, 1.69)	<0.001	1.31 (1.09, 1.56)	0.004
Bachelor and advanced degree	0.38 (0.31, 0.47)	<0.001	1.52 (1.08, 2.13)	0.018	1.18 (0.90, 1.54)	0.234
Number of new e-cigarette users between Waves 1 and 2	1,990		776		946	
Sample size	26,447		7,378		9,284	
VIF	<1.2		<1.1		<1.1	

*Former e-cigarette users excluded from the analysis.

‡ Excluding e-cigarette users

Adjusted Odds Ratio adjusts for age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

Table S5. Cross-sectional associations between conventional cigarette smoker and myocardial infarction at Wave 1 baseline among daily cigarette only users and daily dual users.

Variables	AOR (95% CI)	P-value
Cigarette smoker		
Never cigarette and e-cigarette user	Reference	
Every day cigarette smoker and never e-cigarette user	2.86 (1.70, 4.79)	<0.001
Every day cigarette and every day e-cigarette user	5.06 (1.99, 12.83)	<0.001
High blood pressure		
Yes	1.80 (0.95, 3.42)	0.073
High cholesterol		
Yes	3.11 (2.03, 4.77)	<0.001
Diabetes mellitus		
Yes	1.54 (0.93, 2.55)	0.095
Age in years	1.06 (1.04, 1.08)	<0.001
Body Mass Index	1.02 (0.99, 1.04)	0.260
Sex		
Female	0.24 (0.12, 0.50)	<0.001
Poverty level/income		
At or above poverty	0.80 (0.45, 1.43)	0.457
Race/ethnicity		
White	Reference	
Black	0.81 (0.47, 1.41)	0.456
Asian	0.16 (0.02, 1.14)	0.071
Other	0.64 (0.24, 1.74)	0.387
Education		
Less than high school	0.83 (0.44, 1.55)	0.557
High school or equivalent	Reference	
Some college and associate	0.90 (0.51, 1.61)	0.734
Bachelor and advanced degree	0.45 (0.18, 1.09)	0.082
Sample size	10,230	
VIF	<1.6	

VIF: Variance Inflation Factor

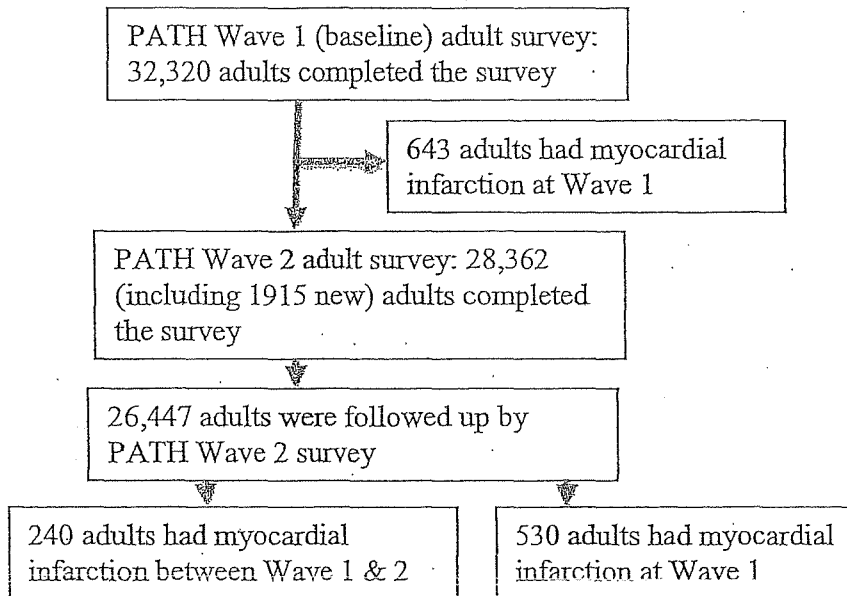
Table S6. Adjusted odds ratios for myocardial infarction at Wave 1.

Variables	MI 2007 or later		Entire sample	
	AOR (95% CI)	P-value	AOR (95% CI)	P-value
E-cigarette use				
Never	Reference		Reference	
Former	1.27 (0.85, 1.88)	0.250	1.25 (0.93, 1.69)	0.147
Some day	1.52 (0.43, 5.30)	0.515	1.99 (1.11, 3.58)	0.024
Every day	1.90 (0.69, 5.22)	0.216	2.25 (1.23, 4.11)	0.010
Cigarette use				
Never	Reference		Reference	
Former	1.62 (0.97, 2.68)	0.066	1.48 (1.01, 2.15)	0.047
Some day	2.34 (1.16, 4.75)	0.020	2.38 (1.40, 4.06)	0.002
Every day	3.22 (1.91, 5.42)	<0.001	2.95 (1.91, 4.56)	<0.001
High blood pressure				
Yes	2.24 (1.35, 3.72)	0.002	2.08 (1.56, 2.77)	<0.001
High cholesterol				
Yes	2.32 (1.54, 3.51)	<0.001	3.01 (2.31, 3.92)	<0.001
Diabetes mellitus				
Yes	1.24 (0.76, 2.03)	0.384	1.49 (1.09, 2.03)	0.013
Age in years	1.06 (1.04, 1.07)	<0.001	1.07 (1.06, 1.08)	<0.001
Body Mass Index	1.02 (1.01, 1.03)	<0.001	1.02 (1.00, 1.03)	0.016
Sex				
Female	0.33 (0.21, 0.53)	<0.001	0.27 (0.18, 0.39)	<0.001
Poverty level/income				
At or above poverty	0.76 (0.45, 1.28)	0.307	0.72 (0.49, 1.04)	0.086
Race/ethnicity				
White	Reference		Reference	
Black	1.03 (0.65, 1.64)	0.903	0.86 (0.63, 1.16)	0.324
Asian	0.18 (0.03, 1.24)	0.086	0.31 (0.07, 1.38)	0.127
Other	1.67 (0.78, 3.56)	0.189	1.37 (0.83, 2.25)	0.226
Education				
Less than high school	1.63 (0.80, 3.33)	0.185	1.49 (1.05, 2.13)	0.030
High school or equivalent	Reference		Reference	
Some college and associate	1.21 (0.74, 1.95)	0.447	0.97 (0.72, 1.29)	0.814
Bachelor and advanced degree	0.65 (0.37, 1.13)	0.131	0.62 (0.44, 0.87)	0.007
Sample size	31,815		32,320	
Number of MI's (total)	284		699	
Number of MI's (among ecig users)	Never =181 Former= 61 Some day =10 Every day =6		Never =433 Former= 128 Some day =19 Every day =19	
VIF	<1.2		<1.1	

Adjusted Odds Ratio adjusts for cigarette smoking (former, some day and every day), age, body mass index, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

Figure S1. Flow diagram for sample.





NATIONAL FEDERATION OF FILIPINO AMERICAN ASSOCIATIONS
2429 OCEAN AVENUE AVENUE SAN FRANCISCO, CALIFORNIA 94127 Phone 415 564 6262

June 6, 2019

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

To the San Francisco Board of Supervisors -

Since 1997, the National Federation of Filipino American Associations (NaFFAA) has promoted the welfare and well-being of the four million Filipinos and Filipino Americans throughout the United States. That mission extends to the city of San Francisco, where I serve as the Region 8 Chair for NaFFAA. Having worked across a number of business sectors and diverse organizations, I have developed a keen sense of the best interests of the Filipino community in San Francisco and their businesses.

City Hall's proposal to ban the sale of vapor products will run counter to those interests. This ordinance will not succeed, and will result in particularly harsh consequences for our city's small business owners, especially those in minority communities like my fellow Filipinos. I oppose this legislation and I hope the Board will vote against it.

This ordinance will have serious negative impacts on small business owners across the city. The San Francisco Small Business Commission – which estimated that businesses could lose \$70,000–\$90,000 a year in sales if the ban passes – voted 6-1 against the proposal. If that's not enough of a sign that this legislation is a bad idea, consider the fact that there are hundreds of retail locations across the city. Most of these are owned by minorities and immigrants. This ban would deprive those individuals of a major source of income, particularly when they are among the most vulnerable

Additionally, tobacco cigarette smoking prevalence is particularly high among Filipinos in America, according to the Centers for Disease Control and Prevention. As our community works to improve its health and quit smoking, nicotine alternatives such as vapor products will be crucial in helping all San Franciscans quit. The Board should not deprive responsible adults of the products they want and need to improve their quality of life.

The Filipino community is as concerned as any in the city about preventing youth access to vapor products. I just believe that this is not the right way to do it. I encourage the Board to work with small business owners and community members to develop commonsense policies that achieve their goals – not put undue burdens on our city's minority communities. I encourage the Board not to pass this ordinance.

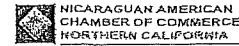
Sincerely,

Rudy Asercion
Region 8 Chair

The National Federation of Filipino American Associations (NaFFAA) is a private, non-profit tax-exempt organization established in 1997 to promote the active participation of Filipino Americans in civic and national affairs. NaFFAA is the largest national affiliation of Filipino American institutions, organizations and individuals. Its thirteen-member regions cover the continental United States, Alaska, Hawaii, Guam, the Marianas Islands, and American Samoa. NaFFAA partners with local affiliate organizations and national coalitions in monitoring legislation and public policy issues affecting Filipino Americans and advocating for issues of common concern.

EXECUTIVE BOARD

Carlos Solórzano-Cuadra
CEO
Multi Visión Latina, LLC
Business Consulting &
PR



Victor Reyes-Umana
Chairman of the Board
Bodega del Sur Winery

Hispanic Chambers of Commerce of San Francisco
Cámaras de Comercio Hispanas de San Francisco

A. Raul Hernandez
CFO/Treasurer
Hood & Strong, LLC

June 4, 2019

Alvaro Bonilla
Secretary
AB Contracting

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

DIRECTORS

To the Board of Supervisors,

Martha Vaughan
Futura Realty

The Hispanic Chambers of Commerce of San Francisco (HCCSF), works to promote and facilitate business in the San Francisco and Bay Area. We write to you today regarding the Board of Supervisors' proposed legislation to ban the sale of vapor products in the city of San Francisco. The HCCSF opposes this ordinance due to major, long-lasting negative consequences it will have for San Francisco small businesses.

Miriam Chaname
IC Taxes & Immigration
Services

Randy Olson-Gallegos
Olson Consulting

The San Francisco Small Business Commission recently voted 6-1 in opposition to the ban. The HCCSF fully support the Commission and its position on small business issues in the city. Their recent vote should serve as a clear signal to all of City Hall that the ordinance is ill advised.

Carlos Bonilla
C&P Auto Body

Guillermo Moran
Eco-Delight Coffee
Roasting Company

Further, the HCCSF have a number of concerns relative to the potential effectiveness of this proposed ban on vapor products. It is unlikely that this ban would have the intended effect on reducing youth use. Minors will simply go outside the city limits and find a way to access the products they want. By allowing this ban to move forward and given the close proximity of other localities that will continue to sell vapor products, it will simply harm business owners inside San Francisco city limits – and push their customers outside the city.

Antonio Lau
InovaNow
IT & Web Services

Gabriela Sapp, MBA
Growth Solutions

This legislation will have harmful economic consequences for San Francisco small business owners. According to the Small Business Commission, retail store owners could lose as much as \$70,000 to \$90,000 a year in sales. This would be potentially devastating to the hundreds of independent store owners in San Francisco, the majority of which are minorities and immigrants.

Manuel Cosme Jr.
Payroll Partners, Inc.
Legislative Committee
Chair

Ultimately, this legislation will continue to reinforce the truth that the city and county of San Francisco are not friendly to businesses. City Hall has a long track record of imposing costly regulations that are overly burdensome on small business owners, and the vapor ban would be no different. The HCCSF recently attended a meeting in which a city supervisor stated that he does not care for businesses. To hear this statement from a representative of our city, a civil servant to the entire district, was incredibly disappointing but not terribly surprising.

Frank Ayala
Ayala Realty & Investments

Alex Maitez
Bay Area Homes

ADVISORS

The HCCSF supports the Board's goal of reducing youth access to vapor products. There is simply a better way to do so than an outright ban – through careful analysis of these issues, we can write commonsense policies that prevent youth access while allowing businesses to stay open. For these reasons, we urge the Public Safety and Neighborhood Services Committee to vote "no" on the vapor ban.

Adam Thongsavat
Airbnb

Astrid Acero-Lopez
Medicare Plans Broker

Sincerely yours;

Carlos Solórzano-Cuadra

Eduardo Arenas
EAB Brokerage

Roberto Barragán
Northern California
Community Loans

CEO
Hispanic Chambers of Commerce
Of San Francisco (HCCSF)

Sandra Beaton
Beaton Global Connections

Office: 415.735.6120 - E-mail: carlos@hccsf.com Cc: Board of Directors

Servio Gomez
Back to The Picture

3597 Mission Street ♦ San Francisco ♦ CA ♦ 94110
415-735-6120 ♦ 415-259-1498

Manuel Rosales
The Latino Coalition

E-mail info@hccsf.com ♦ www.hccsf.com

Karla Garcia
Bris's Creations



Arab Cultural and Community Center
2 Plaza Street, San Francisco, CA 94116

BOARD MEMBERS

Souhil Zaim

(President)

Donia Rashed

(Vice President)

Raghda Eldessouki

(Secretary)

Amal Shibli

Aiya Rashid

Altayeb Abdulrahim

(Ex Officio)

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Public Safety & Neighborhood Services Committee
Item 6, Leg. 190312

Honorable Supervisors,

The Arab Cultural and Community Center (ACCC) was established in 1973 in San Francisco. We serve 6,000 people a year with direct social service, youth and cultural programming. The Arab community is diverse in income, ethnicity and religion, but our programming has inevitably had to direct attention to those fleeing war since the 1990's. We are a diaspora that have found a home for generations in San Francisco and, where many have become established, we still have considerable demographics of low-income residents and vulnerable populations. The Middle Eastern, Arab, Muslim, and South Asian communities have been living in a real state of fear, especially in the current climate and with laws coming down from the Federal level. One of our member trade organizations is the Arab American Grocer Association (AAGA). This industry has been suffering as workers and operators face increased criminalization of the corner market industry with constant sting operations, predatory lawsuits, difficulty in understanding new laws, and increased enforcement from State and Local regulatory bodies. As exemplified in a recent Immigrant Rights Commission Hearing, many members of our Yemeni community, who also make up a large demographic of our store owners, are battling restrictions in sending money to family still in their country of origin. We ask you understand this context as it relates to the onslaught of legislation that targets and devalues this industry. We are writing as a Community Organization in San Francisco to express our concern and opposition to Ordinance 190312 unless there are substantial amendments and protections for our compliant brick and mortar businesses. We stand alongside the proposed health goals, but ask that the City does a better job of working with our communities in aligning needs, and meaningfully transition a low-income immigrant workforce that relies on this sector.

Thank you.

ACCC Board

TO:
Supervisors Walton, Mandelman, Stefani
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

FROM:
Amit Jung Oli
Name
hightashburytobacco@gmail.com
Address
1827 Haight St, San Francisco,
CA 94106

I oppose ban to e-cigs coz my customer
are telling me that flavor e-cigs / e-cigs
help them to get out of combustion smo-
king. It actually helping people to
feel better about their health. Some
people say it's strange city to ban
good & allow traditional one.

5582
Supervisors Walton, Mandelman, Stefani
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

FROM:
Roger Boyd
Name
25 Van Ness Ste 340
Address
SF. CA 94102

Please stop the Ban on Vaping
It is my choice 2 smoke because im
an adult... see marijuana is legal
yet we cant buy a better nicotine
product if your going to Ban Smoking
Ban Cigarettes completely

TO:
Supervisors Walton, Mandelman, Stefani
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

FROM: Citizen Four
Name SF, CA
Address

Our bodies, our choice!
Get government out of
our stores and our lives!

5563
Supervisors Walton, Mandelman, Stefani
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

FROM: SHANKAR K.C
Name 1589 Hayes St SF 94117
Address

~~Get out~~
Because I support freedom of
choice. I have better experience
on e-cigs rather than
traditional cigarettes.



University of California
San Francisco

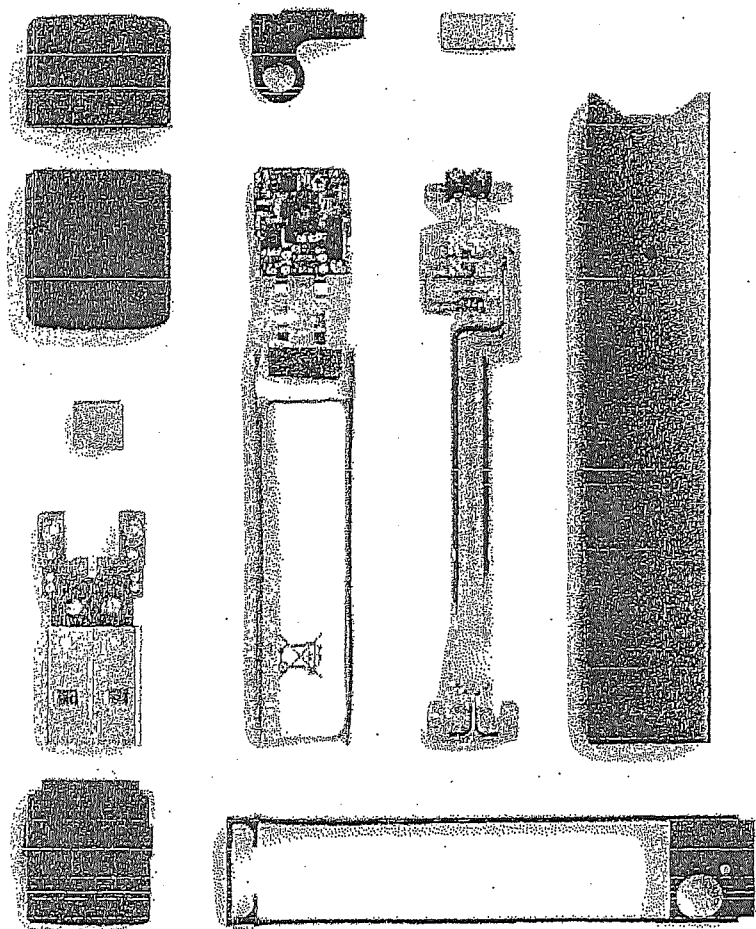
Toxic JUUL Waste at High Schools, Public Parks and Beaches

Jeremiah Mock, MSc, PhD
Associate Professor
University of California, San Francisco
Institute for Health & Aging
jeremiah.mock@ucsf.edu

Methods

- Purposefully selected 12 public high schools in the San Francisco Bay Area, stratified by demographics of student populations
- Conducted systematic collections of waste in parking lots and perimeter areas on one day
- Recorded locations of items
- Identified and classified items

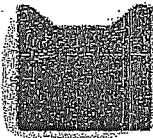
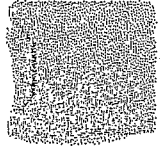
JUUL Device

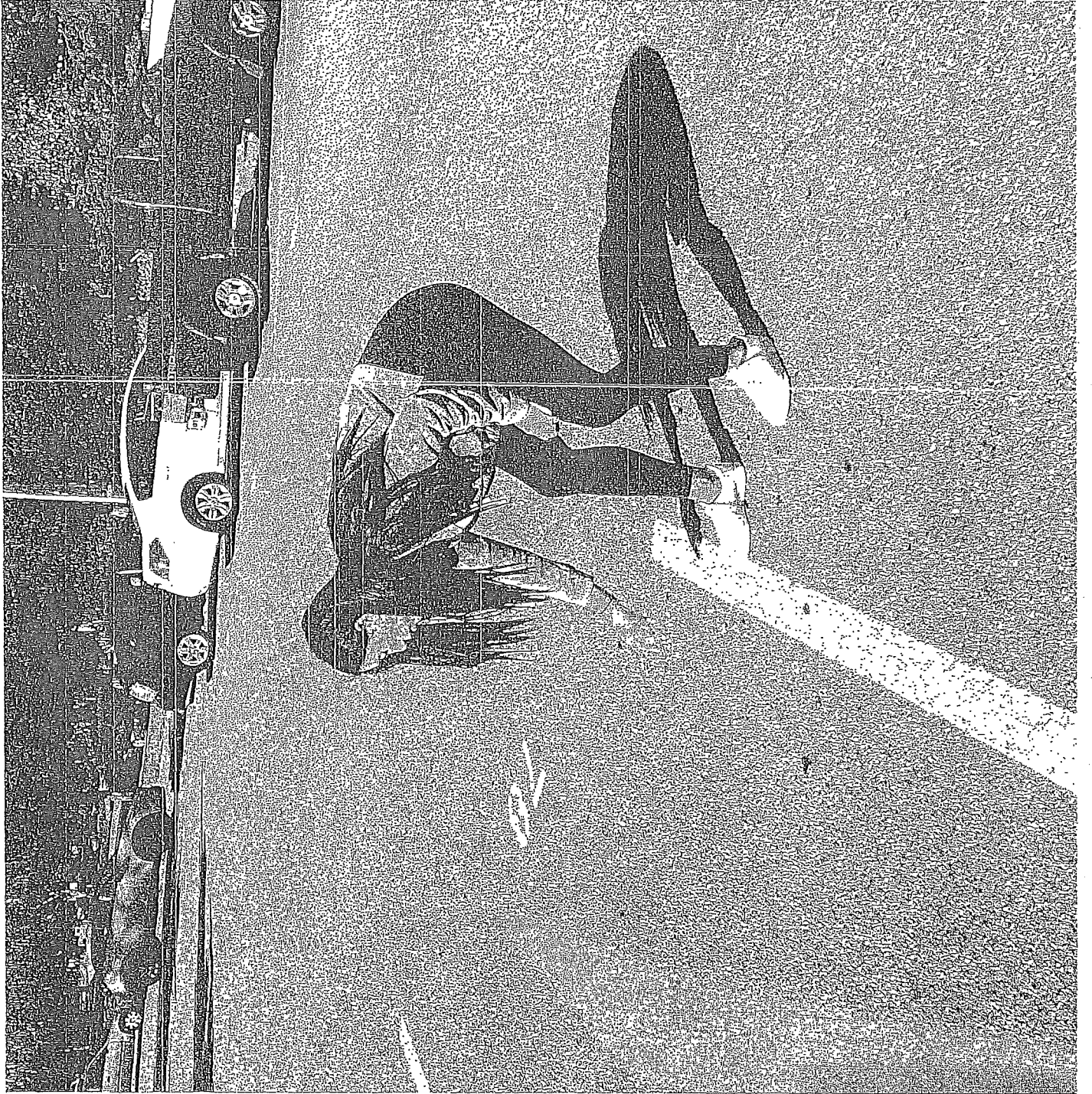


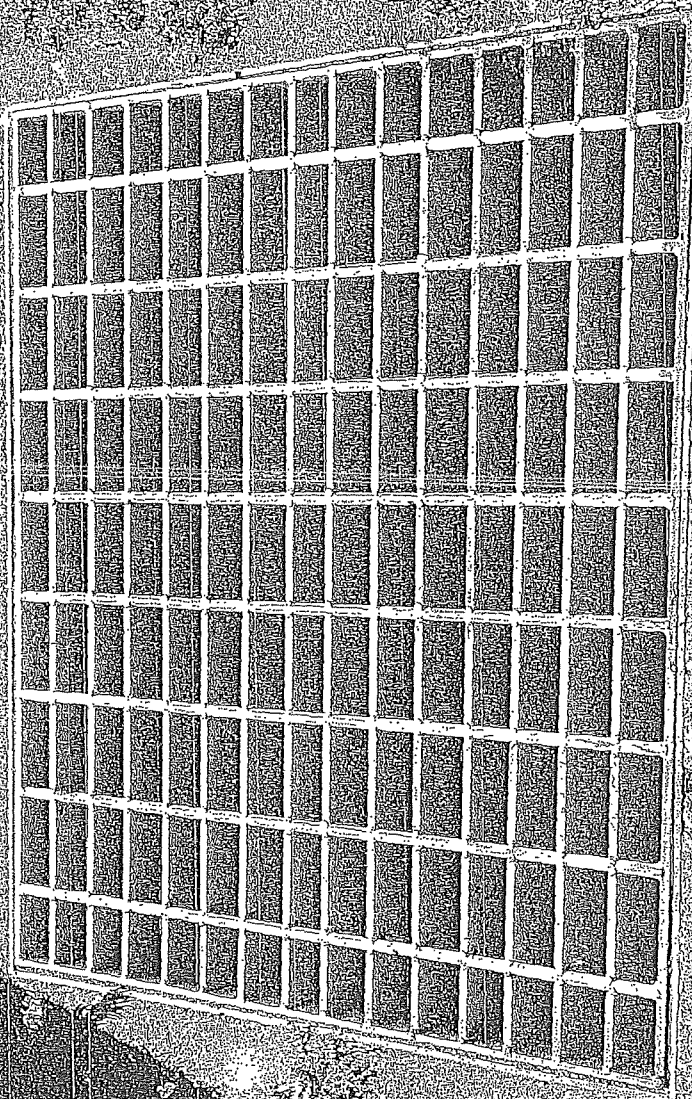
1. Painted metal case
2. Plastic internal case and parts
3. Microprocessor circuit board and temperature regulation system – toxic metals, likely including lead and mercury
4. LED lamp
5. Lithium-ion battery – hazardous waste, fire risk, cannot be disposed in trash.

Pods

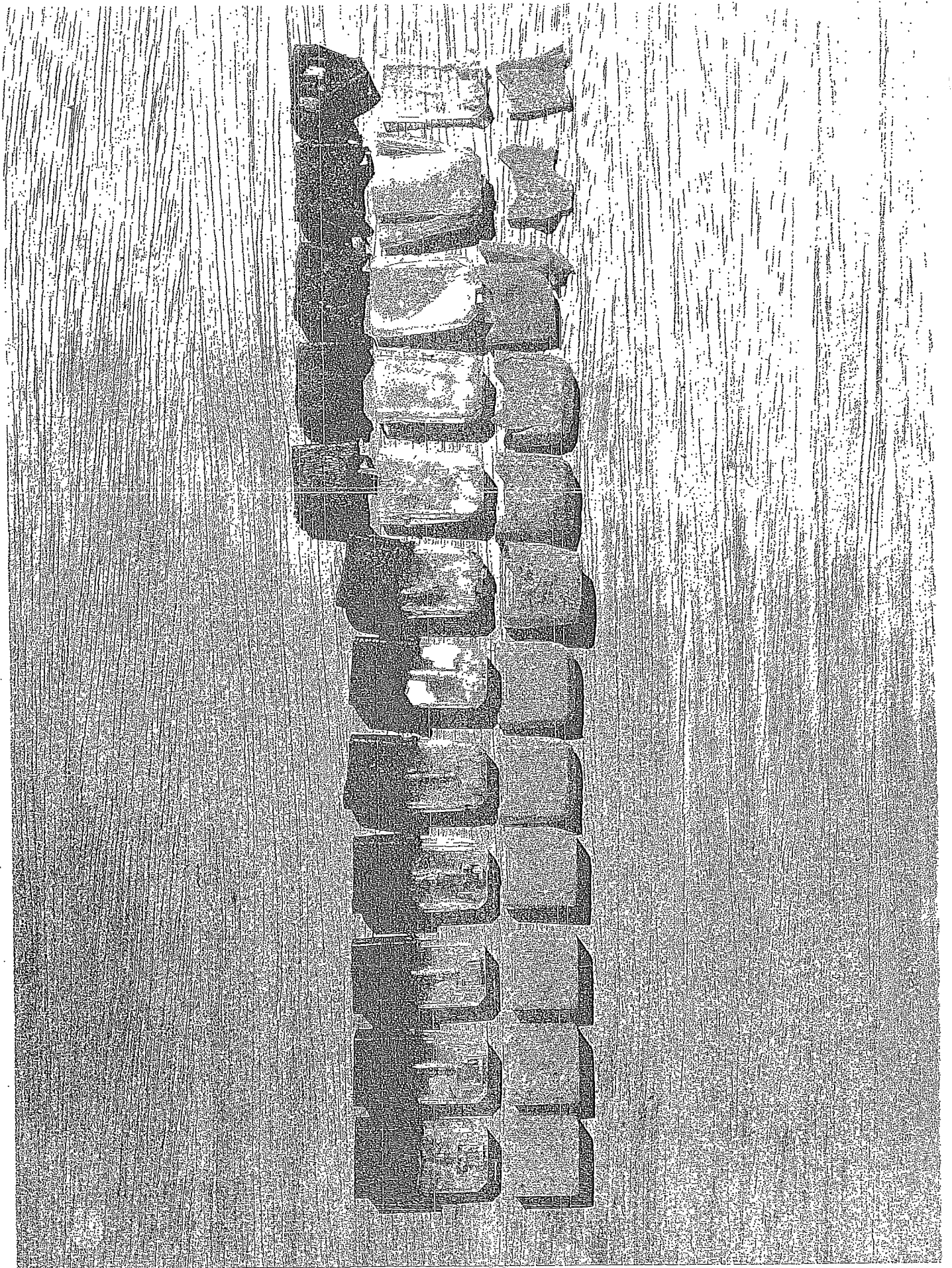
1. Plastic caps
2. Gold-plated contact
3. Metal pipe
4. Silicon seal
5. Polycarbonate plastic chamber
6. Glycerol, propylene glycol, benzoic acid, and flavorants
7. Nicotine salts – EPA- regulated toxic substance – poisonous to humans and animals, adverse ecological effects on insects and aquatic species.







NO DUMPING
DRAINS TO DAY

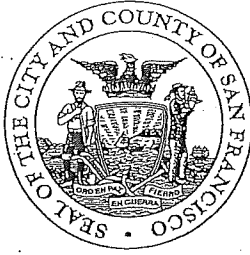






Waste Item	171 JUUL and JUUL-like items collected at 12 schools
Device	0
Pod new	25
Pod weathered	22
Black pod cap	49
Cap Classic Tobacco	1
Cap Virginia Tobacco	1
Cap Mint	38
Cap Mango	19
Cap Cucumber	7
Cap Menthol	1
Cap Cream	3
Cap Fruit	2
JUULCool Mint 5% 4-pack	0
JUULMango 5% 4-pack	1
JUULUnkown 4-pack	1

BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

MEMORANDUM

TO: Kiely Hosmon, Director, Youth Commission

FROM: John Carroll, Assistant Clerk,
Public Safety and Neighborhood Services Committee

DATE: March 27, 2019

SUBJECT: LEGISLATIVE MATTER INTRODUCED

The Board of Supervisors' Public Safety and Neighborhood Services Committee has received the following ordinance, introduced by Supervisor Walton on March 19, 2019. This item is being referred for comment and recommendation.

File No. 190312

Ordinance amending the Health Code to prohibit the sale by tobacco retail establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration (FDA) approving their marketing; and prohibiting the sale and distribution to any person in San Francisco of flavored tobacco products and electronic cigarettes that require, but have not received, an FDA order approving their marketing.

Please return this cover sheet with the Commission's response to John Carroll, Assistant Clerk, Public Safety and Neighborhood Services Committee.

RESPONSE FROM YOUTH COMMISSION Date: April 16, 2019

No Comment
 Recommendation Attached



Chairperson, Youth Commission

Youth Commission
City Hall ~ Room 345
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4532



(415) 554-6446
(415) 554-6140 FAX
www.sfgov.org/youth_commission

YOUTH COMMISSION MEMORANDUM

TO: John Carroll, Clerk, Public Safety and Neighborhood Services Committee
FROM: Youth Commission
DATE: Tuesday, April 16, 2019
RE: Referral response to BOS File No. 190312 – [Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes]

At our Monday, April 15, 2019, meeting, the Youth Commission voted unanimously to support the following motion:

To support BOS File No. 190312 – [Health Code - Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes]

Youth Commissioners thank the Board of Supervisors for their attention to this issue. If you have any questions, please contact our office at (415) 554-6446, or your Youth Commissioner.

A handwritten signature in dark ink, appearing to read "Bahlam Vigil".

Bahlam Vigil, Chair
Adopted on April 15, 2019
2018-2019 San Francisco Youth Commission

BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

MEMORANDUM

TO: Dr. Grant Colfax, Director, Department of Public Health
Mark Morewitz, Commission Secretary, Health Commission

FROM: John Carroll, Assistant Clerk,
Public Safety and Neighborhood Services Committee,
Board of Supervisors

DATE: March 27, 2019

SUBJECT: LEGISLATION INTRODUCED

The Board of Supervisors' Public Safety and Neighborhood Services Committee has received the following proposed legislation, introduced by Supervisor Walton on March 19, 2019:

File No. 190312

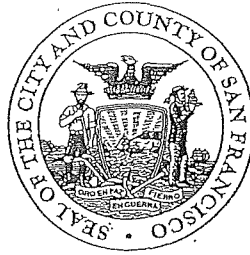
Ordinance amending the Health Code to prohibit the sale by tobacco retail establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration (FDA) approving their marketing; and prohibiting the sale and distribution to any person in San Francisco of flavored tobacco products and electronic cigarettes that require, but have not received, an FDA order approving their marketing.

If you have any comments or reports to be included with the file, please forward them to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

c: Greg Wagner, Department of Public Health
Dr. Naveena Bobba, Department of Public Health
Sneha Patil, Department of Public Health

5566

BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

MEMORANDUM

TO: Regina Dick-Endrizzi, Director
Small Business Commission, City Hall, Room 448

FROM: John Carroll, Assistant Clerk, Public Safety and Neighborhood Services
Committee, Board of Supervisors

DATE: March 27, 2019

SUBJECT: REFERRAL FROM BOARD OF SUPERVISORS
Public Safety and Neighborhood Services Committee

The Board of Supervisors' Public Safety and Neighborhood Services Committee has received the following legislation, which is being referred to the Small Business Commission for comment and recommendation. The Commission may provide any response it deems appropriate within 12 days from the date of this referral.

File No. 190312

Ordinance amending the Health Code to prohibit the sale by tobacco retail establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration (FDA) approving their marketing; and prohibiting the sale and distribution to any person in San Francisco of flavored tobacco products and electronic cigarettes that require, but have not received, an FDA order approving their marketing.

Please return this cover sheet with the Commission's response to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, California 94102.

RESPONSE FROM SMALL BUSINESS COMMISSION - Date: _____

- No Comment
- Recommendation Attached

Chairperson, Small Business Commission

BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

MEMORANDUM

TO: Kiely Hosmon, Director, Youth Commission

FROM: John Carroll, Assistant Clerk,
Public Safety and Neighborhood Services Committee

DATE: March 27, 2019

SUBJECT: LEGISLATIVE MATTER INTRODUCED

The Board of Supervisors' Public Safety and Neighborhood Services Committee has received the following ordinance, introduced by Supervisor Walton on March 19, 2019. This item is being referred for comment and recommendation.

File No. 190312

Ordinance amending the Health Code to prohibit the sale by tobacco retail establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration (FDA) approving their marketing; and prohibiting the sale and distribution to any person in San Francisco of flavored tobacco products and electronic cigarettes that require, but have not received, an FDA order approving their marketing.

Please return this cover sheet with the Commission's response to John Carroll, Assistant Clerk, Public Safety and Neighborhood Services Committee.

RESPONSE FROM YOUTH COMMISSION Date: _____

No Comment
 Recommendation Attached

Chairperson, Youth Commission

Carroll, John (BOS)

From: Gee, Natalie (BOS)
Sent: Friday, June 07, 2019 9:34 AM
To: Carroll, John (BOS)
Subject: FW: Letter of evidence on e-cigarettes
Attachments: San Francisco - E-Cigarette Letter of Evidence - June 3 2019.pdf
Categories: 2019.06.07 - PSNS, 190312


Good morning John,

Can you please add this to File No. 190312?

Thank you!

Natalie Gee 朱凱勤, Chief of Staff
Office of District 10 **Supervisor Shamann Walton**
1 Dr. Carlton B. Goodlett Pl, San Francisco | Room 282
Direct: 415.554.7672 | **Office:** 415.554.7670
Sign up for Supervisor Walton's [monthly newsletter!](#)
Follow Supervisor Walton on [Facebook](#).

From: Mahoney, Margaret (Maggie)-(CDC/DDNID/NCCDPHP/OSH) (CTR) [mailto:och5@cdc.gov]
Sent: Monday, June 03, 2019 8:35 AM
To: Smith, Derek (DPH) <derek.smith@sfdph.org>
Cc: King, Brian a. (CDC/DDNID/NCCDPHP/OSH) <iyn3@cdc.gov>; Gee, Natalie (BOS) <natalie.gee@sfgov.org>
Subject: Letter of evidence on e-cigarettes

 This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hi Derek,

Attached please find a letter of evidence on e-cigarettes. We hope that this is helpful.

Sincerely,

Maggie Mahoney, JD
Public Health Analyst
Carter Consulting, Inc.
Policy, Strategy, and Translation Team
CDC Office on Smoking and Health
MMahoney@cdc.gov
404-718-6708

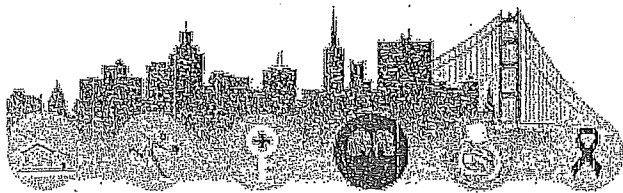
From: Smith, Derek (DPH) <derek.smith@sfdph.org>
Sent: Tuesday, May 21, 2019 4:03 PM
To: King, Brian a. (CDC/DDNID/NCCDPHP/OSH) <iyn3@cdc.gov>
Cc: Gee, Natalie (BOS) <natalie.gee@sfgov.org>
Subject: Request for letter of evidence on e-cigarettes

Dear Mr. King-

I would like to request a letter of evidence from the Centers for Disease Control and Prevention on the topic of health impacts of electronic cigarettes. Of greatest interest to our community is the effect on youth, the biological impacts of e-cigarettes, general nicotine harms, and any knowledge your agency has gained regarding youth pathway to nicotine addiction. Our community is looking to get a full picture of the impact of e-cigarettes from our national health authority and truly values the perspective of the CDC. If you could kindly address such a letter of evidence to our Supervisor Shamann Walton or his chief of staff Natalie Gee (copied here), it would be most helpful. Thankful for your expertise and perspective to inform our local health promotion work with special focus on our most precious asset- our youth.

Best regards,
Derek

Derek R. Smith, MSW, MPH
Director- Tobacco Free Project
Community Health Equity & Promotion Branch
San Francisco Department of Public Health
25 Van Ness, 5th Floor
San Francisco, CA 94102
628.206.7640
derek.smith@sfdph.org
www.sftobaccofree.org



POPULATION HEALTH DIVISION
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH



June 3, 2019

Office on Smoking and Health
Centers for Disease Control and Prevention
4770 Buford Highway
MS S107-7
Atlanta, Georgia 30341-3717

Supervisor Shamann Walton
City and County of San Francisco
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco, Ca. 94102-4689

Mr. Walton:

Per your request, I am submitting this statement of the scientific evidence regarding electronic cigarettes (e-cigarettes). For the record, I am not submitting this statement for or against any specific legislative proposal; this statement is not intended to be used as testimony by any federal employee in furtherance of a deposition, trial, or similar proceeding for a private litigation matter (where the United States Government is not a party); and this statement is not intended to act as an endorsement or appearance of endorsement of any specific entity or proposal.

E-cigarettes were first introduced in the United States around 2007, and since that time, their use has increased, particularly among youth and young adults.^{1,2} E-cigarettes are known by many different names and come in many different shapes and sizes. Some e-cigarettes are made to look like regular cigarettes, cigars, or pipes. Larger devices such as tank systems, or “mods,” do not resemble other tobacco products. Other e-cigarettes mimic the shapes of everyday items such as USB sticks, pens, and highlighters. Regardless of their shape or size, most e-cigarettes have a battery, a heating element, and a place to hold a liquid.³ More recently, other forms of electronic tobacco products have also entered or been approved to enter the U.S. marketplace. This includes an electronic heated tobacco product, IQOS, which FDA authorized for sale in the U.S. in 2019.⁴

The Health Risks of E-Cigarette Use

The health risks posed by different tobacco products are not identical. Cigarettes and other combusted tobacco products cause most of the burden of death and disease from tobacco use in the U.S.⁵ However, the use of e-cigarettes is not safe for youth, young adults, pregnant women, or adults who do not currently use tobacco products.⁶

E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine—the addictive drug in regular cigarettes, cigars, and other tobacco products— as well as flavorings, and other chemicals that

help to make the aerosol.⁷ Users inhale this aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales into the air.⁸ In addition to involuntarily exposing non-users, including youth, to these chemicals, if the products are altered, they can also expose bystanders to other psychoactive substances such as marijuana.⁹

The Surgeon General has concluded that “[e]-cigarette aerosol is not harmless. It can contain harmful and potentially harmful constituents, including nicotine.”¹⁰ It can expose users to a variety of chemicals and other toxicants produced or emitted during the heating/aerosolization process, including ultrafine particles and heavy metals, volatile organic compounds, and cancer-causing chemicals.^{11,12} E-cigarette flavorings are generally recognized as safe when eaten, but can cause adverse health effects when inhaled. One flavoring, diacetyl, is a chemical linked to serious lung disease.¹³ A recent study showed that adolescents who used e-cigarettes with fruit flavorings were exposed to significantly higher levels of carcinogens compared to adolescents who used non-flavored e-cigarettes.¹⁴

Health Risks of Nicotine Exposure Among Youth and Young Adults

Nicotine is highly addictive. Adolescents are especially vulnerable to the addictive effects of nicotine, which harms adolescent brain development.^{15,16} This is important because brain development continues until approximately age 25.³ Nicotine exposure during certain periods of development can impair the development of brain circuits and neurons, changing the way the brain works.^{17,18,19} Nicotine exposure during adolescence may have lasting adverse consequences for brain development, including cognitive maturation and effects on working memory and attention.^{20,21,22,23,24} Animal models suggest that adolescent exposure to nicotine increases susceptibility to addiction to other substances, including alcohol, cocaine, methamphetamine, and opioids.^{25,26} In addition, youth who initiate the use of nicotine through e-cigarettes could be at increased risk for using other tobacco products, such as regular cigarettes, in the future.^{27,28,29}

New types of e-cigarettes—such as JUUL, which currently has the greatest market share of any e-cigarette in the United States—use a new form of nicotine formulation called nicotine salts.^{30,31} Nicotine salts allow particularly high levels of nicotine to be inhaled more easily and with less irritation than the free-base nicotine that has typically been used in most tobacco products, including e-cigarettes.³² This is of particular concern for young people, because it could make it easier for them to initiate the use of nicotine through these products and also make it easier to progress to regular e-cigarette use and nicotine dependence.³³ Of additional concern is the fact that a majority of youth and young adult JUUL users do not know that JUUL always contains nicotine.³⁴

Almost all adult tobacco product users begin using these products as youth or young adults. For example, nearly 9 out of 10 cigarette smokers first tried smoking by age 18, and after age 25, almost no smokers began smoking or transitioned to daily smoking.³⁵ Therefore, focusing on preventing youth and young adult initiation is a critical component to addressing the burden of tobacco product use on the population.

Health Risks of Nicotine Exposure Among Pregnant Women

Although e-cigarette aerosol generally has fewer harmful substances than cigarette smoke, e-cigarettes and other products containing nicotine are not safe to use during pregnancy. The 2016 Surgeon General’s Report concluded that the use of products containing nicotine—including e-cigarettes—by

pregnant women can result in pre-natal and post-natal harm, including damage to brain and lung development. For example, nicotine delivered during pregnancy could result in sudden infant death syndrome, as well as altered development of the corpus callosum, deficits in auditory processing, and increased risk for obesity.³⁶ Pregnant women who smoke are encouraged to talk to their health care provider about the risks and benefits of Food and Drug Administration (FDA)-approved medications.³⁷

Evidence Related to E-cigarettes for Adult Smoking Cessation

Adults who smoke may have the potential to reduce their risk of smoking-attributable disease and death if they completely transition to non-combustible tobacco products, such as e-cigarettes. However, a majority of e-cigarette users continue to engage in dual use of both e-cigarettes and cigarettes, which is not an effective way to fully safeguard your health from the risks of smoking.³⁸

The current evidence is insufficient to recommend e-cigarettes for quitting combustible tobacco smoking.^{39,40} To date, the few studies on the issue are mixed. A Cochrane Review found evidence from two randomized controlled trials that e-cigarettes with nicotine can help smokers stop smoking in the long term compared with placebo (non-nicotine) e-cigarettes,⁴¹ and a more recent trial in the United Kingdom found that e-cigarettes were more effective than nicotine replacement therapy when both products were accompanied by behavioral support.⁴² However, there are limitations to the existing research, including the small number of trials, small sample sizes, limited generalizability to the U.S. population, and wide margins of error around the estimates.

E-cigarette manufacturers who wish to market their products for smoking cessation can apply to the FDA Center for Drug Evaluation and Research for approval. However, to date, no tobacco product has received FDA approval as a smoking cessation aid.

Patterns of E-Cigarette Use

In the United States, adults are less likely than youth to use e-cigarettes. In 2017, 2.8% of U.S. adults were current e-cigarette users.⁴³ In 2015, among adult e-cigarette users overall, 58.8% also were current regular cigarette smokers, 29.8% were former regular cigarette smokers, and 11.4% had never been regular cigarette smokers.⁴⁴ Among current e-cigarette users aged 45 years and older in 2015, most were either current or former regular cigarette smokers, and 1.3% had never been cigarette smokers. In contrast, among current e-cigarette users aged 18–24 years, 40.0% had never been regular cigarette smokers.⁴⁵

E-cigarettes have been the most commonly used tobacco product among U.S. youth since 2014.^{46,47} Current e-cigarette use increased 78% among high school students from 2017 (11.7%) to 2018 (20.8%).⁴⁸ In 2018, more than 3.6 million U.S. middle and high school students used e-cigarettes in the past 30 days, including 4.9% of middle school students and 20.8% of high school students.⁴⁹ Due to this increase, the U.S. Surgeon General issued an e-cigarette advisory in December 2018 that called e-cigarette use among U.S. youth an epidemic.⁵⁰ The advisory was only the fifth advisory from the U.S. Surgeon General in the past two decades, and the first ever on tobacco product use.

The use of multiple tobacco products among youth is common,⁵¹ with e-cigarettes the most commonly used product in combination with other tobacco products.⁵² In 2017, about 9 of every 100

high school students (9.2%) and about 2 of every 100 middle school students (2.4%) reported current use of two or more tobacco products.⁵³

Any tobacco use by youth might lead to nicotine dependence,⁵⁴ and youth who use multiple tobacco products are at higher risk for developing nicotine dependence.⁵⁵ The prevalence of youth reporting symptoms of nicotine dependence was 2-3 times higher for multiple product users than that for single product users.⁵⁶ Given that nicotine dependence is a major determinant of whether a person becomes a long-term user of tobacco products, reducing experimentation by youth and initiation of all forms of tobacco product use is important to preventing future dependency on, and more frequent use of, these products.^{57,58}

Youth Vulnerability to Tobacco Marketing and Flavors

Advertising and flavors are two key drivers of increased e-cigarette use among young people.

Adolescents are highly vulnerable to tobacco industry marketing, smoking imagery in movies, and peer influence, and are not able to fully appreciate the health risks they face in the future.⁵⁹ In 2006, U.S. District Court Judge Gladys Kessler concluded that, regarding the tobacco industry's marketing practices, "from the 1950s to the present, different defendants, at different times and using different methods, have intentionally marketed to young people under the age of twenty-one in order to recruit 'replacement smokers' to ensure the economic future of the tobacco industry."⁶⁰ In 2014, the Surgeon General stated that "the root cause of the smoking epidemic is also evident: the tobacco industry aggressively markets and promotes lethal and addictive products, and continues to recruit youth and young adult as new consumers of these products."⁶¹

In 2016, the U.S. Surgeon General concluded that e-cigarettes are marketed by using a wide variety of media channels and approaches that have been used in the past for marketing conventional tobacco products to youth and young adults.⁶² For example, in 2016, an estimated 4 in 5 (20.5 million) U.S. middle and high school students were exposed to e-cigarette advertisements from at least one source, a significant increase over 2014 and 2015. Nearly seven in 10 youths (17.7 million) were exposed to e-cigarette advertising in retail stores in 2016, while approximately two in five were exposed on the Internet or on television, and nearly one in four were exposed through newspapers and magazines.⁶³

Although manufacturers have consistently maintained that their flavored tobacco products are intended for adult smokers, data demonstrate that flavors in tobacco products increase the appeal of these products to youth, promote youth initiation, and may contribute to lifelong tobacco use.^{64,65} A study that looked at youth use of all tobacco products in 2017 found that among current tobacco users, 63.6% of middle and high school aged youth reported using at least one flavored (including menthol) product.⁶⁶ This study found the proportion of youth tobacco users who reported flavored product use increased significantly between 2016 and 2017, largely owing to an increase of flavored e-cigarettes. In 2017, the proportion of youth tobacco users who reported flavored product use was 58.7% for e-cigarettes, 49.0% for cigars, 48.6% for cigarettes, 44.5% for any smokeless tobacco, and 30.6% for hookah.⁶⁷

Another recent study showed that among high school students during 2017-2018, current use of any flavored e-cigarettes increased among current e-cigarette users (60.9% to 67.8%), and current use of menthol or mint flavored e-cigarettes increased among all current e-cigarette users (42.3% to 51.2%) and current exclusive e-cigarettes users (21.4% to 38.1%).⁶⁸ Another analysis of data from 2013-2014

found that the majority of youth ever-users reported that the first product they had used was flavored, including 81.0% of ever e-cigarette users; moreover, youth tobacco product users consistently reported product flavoring as a reason for use across all product types, including e-cigarettes (81.5%), hookahs (78.9%), cigars (73.8%), smokeless tobacco (69.3%), and snus pouches (67.2%).⁶⁹

Strategies to Prevent and Reduce E-Cigarette Use among Young People

The Family Smoking Prevention and Tobacco Control Act gave FDA the authority to undertake a number of actions to address e-cigarette use, including:

- Setting product standards, including prohibiting flavorings in e-cigarettes and reducing nicotine levels in products.
- Restricting the promotion, marketing, and advertising of e-cigarettes, including prohibiting brand-name sponsorship of events.
- Establishing minimum package sizes.
- Prohibiting self-service displays.⁷⁰

The Tobacco Control Act does not limit the authority of state, local, tribal, or territorial governments to enact any tobacco-related policies related to the sale, distribution, or possession of tobacco products; exposure to these products; or access to them. Thus, the U.S. Surgeon General stated, even if FDA fully exercises all of its existing authority over e-cigarettes, “State, local, tribal and territorial governments should implement population-level strategies to reduce e-cigarette use among youth and young adults,”⁷¹ including:

- Incorporating e-cigarettes and other electronic tobacco products in smoke-free and tobacco-free policies.
- Licensing retailers and restricting young peoples’ access to tobacco products, including e-cigarettes and other electronic tobacco products, in retail settings.
- Implementing price policies for tobacco products, including e-cigarettes and other electronic tobacco products.
- Reducing access to flavored tobacco products, including e-cigarettes and other electronic tobacco products.
- Curbing tobacco product advertising and marketing that is appealing to young people.
- Developing initiatives to educate people about the harms of e-cigarettes and other electronic tobacco products.^{72,73,74,75}

The most effective tobacco control policies have most often originated at the local level.^{76,77}

Summary

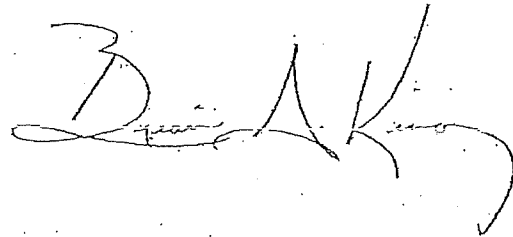
E-cigarettes have the potential to benefit adult smokers who are not pregnant if used as a complete substitute for regular cigarettes and other smoked tobacco products. While e-cigarettes have the potential to benefit some people and harm others, scientists still have a lot to learn about whether e-cigarettes are effective for quitting smoking. E-cigarettes are not safe for youth, young adults, pregnant women, or adults who do not currently use tobacco products.

Preventing youth and young adults from trying their first tobacco products, and reducing the number of youth and young adults that transition to become regular, daily tobacco product users into adulthood, are two key components to ending the tobacco epidemic. Youth and young adults are especially vulnerable to nicotine addiction, and the heavy marketing and use of flavorings used to sell tobacco products, including e-cigarettes.^{78,79}

The diversification of the tobacco product landscape – specifically the increase in e-cigarette use – is important to consider in the development of public health interventions to protect the public from known health risks. Scientific evidence on the health effects of e-cigarettes continues to emerge. However, there is sufficient scientific evidence to support the implementation of population-based policies to protect the public, especially young people, from risks associated with these products.

Thank you for your attention to this important public health issue.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian A. King". The signature is fluid and cursive, with a large initial "B" and "K".

Brian A. King, PhD, MPH
Deputy Director for Research Translation
Office on Smoking and Health
U.S. Centers for Disease Control and Prevention

- ¹ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ² U.S. Department of Health and Human Services. Surgeon General's Advisory on E-cigarette Use Among Youth. December 2018. Available at: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>.
- ³ U.S. Department of Health and Human Services. Surgeon General's Advisory on E-cigarette Use Among Youth. December 2018. Available at: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>.
- ⁴ U.S. Food & Drug Administration. FDA permits sale of IQOS Tobacco Heating System through premarket tobacco product application pathway. April 20, 2019. Available at: <https://www.fda.gov/news-events/press-announcements/fda-permits-sale-iqos-tobacco-heating-system-through-premarket-tobacco-product-application-pathway>.
- ⁵ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Printed with corrections, January 2014.
- ⁶ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ⁷ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ⁸ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ⁹ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ¹⁰ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ¹¹ U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ¹² Centers for Disease Control and Prevention. "Electronic Cigarettes." Available from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm. Accessed on May 10, 2019.
- ¹³ U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ¹⁴ Rubenstein ML, Delucchi K, Benowitz NL, Ramo DE. Adolescent Exposure to Toxic Volatile Organic Chemicals from E-Cigarettes. *Pediatrics*. 2018;141(4):e20173557. <https://doi.org/10.1542/peds.2017-3557>.
- ¹⁵ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
- ¹⁶ U.S. Department of Health and Human Services. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: 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; 2016.
- ¹⁷ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
- ¹⁸ England LJ, Bunnell RE, Pechacek TF, Tong VT, McAfee TA. Nicotine and the developing human: A neglected element in the electronic cigarette debate. *American Journal of Preventive Medicine* 2015. <http://dx.doi.org/10.1016/j.amepre.2015.01.015>.
- ¹⁹ Thompson BL, Levitt P, Stanwood GD. Prenatal exposure to drugs: effects on brain development and implications for policy and education. *National Review of Neuroscience* 2009; 10(4):303–312. <http://dx.doi.org/10.1038/nrn2598>.
- ²⁰ England LJ, Bunnell RE, Pechacek TF, Tong VT, McAfee TA. Nicotine and the developing human: A neglected element in the electronic cigarette debate. *American Journal of Preventive Medicine* 2015.

<http://dx.doi.org/10.1016/j.amepre.2015.01.015>.

²¹ Thompson BI, Levitt P, Stanwood GD. Prenatal exposure to drugs: effects on brain development and implications for policy and education. *National Review of Neuroscience* 2009; 10(4):303–312. <http://dx.doi.org/10.1038/nm2598>.

²² Poorthuis RB, Goriounova NA, Couey JJ, Mansvelde HD. Nicotinic actions on neuronal networks for cognition: general principles and long-term consequences. *Biochemical Pharmacology* 2009;78(7):668–676. <http://dx.doi.org/10.1016/j.bcp.2009.04.031>.

²³ Jacobsen LK, Krystal JH, Menci WE, Westerveld M, Frost SJ, Pugh KR. Effects of smoking and smoking abstinence on cognition in adolescent tobacco smokers. *Biological Psychiatry* 2005;57:56–66. <http://dx.doi.org/10.1016/j.biopsych.2004.10.022>.

²⁴ Musso F, Betteimann F, Vucurevic G, Stoeter P, Konrad A, Winterer G. Smoking impacts on prefrontal attentional network function in young adult brains. *Psychopharmacology (Berl)*. 2007;191:159–169. <http://dx.doi.org/10.1007/s00213-006-0499-8>.

²⁵ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

²⁶ Klein LC. Effects of adolescent nicotine exposure on opioid consumption and neuroendocrine responses in adult male and female rats. *Exp Clin Psychopharmacol* 2001;9:251–61.

²⁷ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Printed with corrections, January 2014.

²⁸ U.S. Department of Health and Human Services. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: 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; 2016.

²⁹ National Academies of Sciences, Engineering, and Medicine. 2018. Public Health Consequences of E-Cigarettes. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24952>.

³⁰ Centers for Disease Control and Prevention. Smoking & Tobacco Use. Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html. Last accessed May 22, 2019.

³¹ U.S. Department of Health and Human Services. Surgeon General’s Advisory on E-cigarette Use Among Youth. December 2018. Available at: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>

³² U.S. Department of Health and Human Services. Surgeon General’s Advisory on E-cigarette Use Among Youth. December 2018. Available at: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>

³³ U.S. Department of Health and Human Services. Surgeon General’s Advisory on E-cigarette Use Among Youth. December 2018. Available at: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>

³⁴ Truth Initiative. JUUL e-cigarettes gain popularity among youth, but awareness of nicotine presence remains low. <https://truthinitiative.org/news/juul-e-cigarettes-gain-popularity-among-youth>.

³⁵ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

³⁶ U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

³⁷ Centers for Disease Control and Prevention. E-Cigarettes and Pregnancy. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/substance-abuse/e-cigarettes-pregnancy.htm#quit>. Last visited May 29, 2019.

³⁸ U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

³⁹ National Academies of Sciences, Engineering, and Medicine. *Public Health Consequences of E-Cigarettes*. Washington, DC: The National Academies Press; 2018. doi: <https://doi.org/10.17226/24952>.

⁴⁰ Hartmann-Boyce J, McRobbie H, Bullen C, Begh R, Stead LF, Hajek P. Electronic cigarettes for smoking cessation. *Cochrane Database of Systematic Reviews*. 2016; 9(CD010216). doi: 10.1002/14651858.CD010216.pub3.

⁴¹ Hartmann-Boyce J, McRobbie H, Bullen C, Begh R, Stead LF, Hajek P. Electronic cigarettes for smoking cessation. *Cochrane Database of Systematic Reviews*. 2016; 9(CD010216). doi: 10.1002/14651858.CD010216.pub3.

- ⁴² Hajek P, Phillips-Waller A, Przulj D, et al. A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy. *N Engl J Med* 2019; 380:629-637. DOI:10.1056/NEJMoa1808779.
- ⁴³ Wang T, Asman K, Gentzke AS, et al. Tobacco Product Use Among Adults — United States, 2017. *MMWR Morb Mortal Wkly Rep* 2018;67:1225-1232
- ⁴⁴ QuickStats: Cigarette Smoking Status Among Current Adult E-cigarette Users, by Age Group — National Health Interview Survey, United States, 2015. *MMWR Morb Mortal Wkly Rep* 2016;65:1177.
- ⁴⁵ QuickStats: Cigarette Smoking Status Among Current Adult E-cigarette Users, by Age Group — National Health Interview Survey, United States, 2015. *MMWR Morb Mortal Wkly Rep* 2016;65:1177.
- ⁴⁶ U.S. Department of Health and Human Services. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: 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; 2016.
- ⁴⁷ U.S. Department of Health and Human Services. Surgeon General's Advisory on E-cigarette Use Among Youth, December 18, 2018. Available from <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>.
- ⁴⁸ Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the Field: Increase in use of electronic cigarettes and any tobacco product among middle and high school students — United States, 2011–2018. *MMWR Morbidity & Mortality Weekly Report* 2018; 67(45):1276-1277.
- ⁴⁹ Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the Field: Increase in use of electronic cigarettes and any tobacco product among middle and high school students — United States, 2011–2018. *MMWR Morbidity & Mortality Weekly Report* 2018; 67(45):1276-1277.
- ⁵⁰ U.S. Department of Health and Human Services. Surgeon General's Advisory on E-cigarette Use Among Youth, December 2018. Available at: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>.
- ⁵¹ Anic GM, Sawdey MD, Jamal A, Trivers KF. Frequency of Use Among Middle and High School Student Tobacco Product Users — United States, 2015–2017. *MMWR Morb Mortal Wkly Rep* 2018;67:1353–1357. DOI: <http://dx.doi.org/10.15585/mmwr.mm6749a1>.
- ⁵² Gentzke AS, Creamer M, Cullen KA, et al. *Vital Signs: Tobacco Product Use Among Middle and High School Students — United States, 2011–2018*. *MMWR Morb Mortal Wkly Rep* 2019;68:157–164.
- ⁵³ Wang TW, Gentzke A, Sharapova S, et al. Tobacco Use Among Middle and High School Students — United States, 2011–2017. *MMWR Morbidity and Mortality Weekly Report*. 2018;67(22):629–633.
- ⁵⁴ Anic GM, Sawdey MD, Jamal A, Trivers KF. Frequency of Use Among Middle and High School Student Tobacco Product Users — United States, 2015–2017. *MMWR Morb Mortal Wkly Rep* 2018;67:1353–1357. DOI: <http://dx.doi.org/10.15585/mmwr.mm6749a1>.
- ⁵⁵ Apelberg BJ, Corey CG, Hoffman AC, et al. Symptoms of tobacco dependence among middle and high school tobacco users: results from the 2012 National Youth Tobacco Survey. *Am J Prev Med* 2014;47(Suppl 1):S4–14.
- ⁵⁶ Apelberg BJ, Corey CG, Hoffman AC, et al. Symptoms of tobacco dependence among middle and high school tobacco users: results from the 2012 National Youth Tobacco Survey. *Am J Prev Med* 2014;47(Suppl 1):S4–14.
- ⁵⁷ Anic GM, Sawdey MD, Jamal A, Trivers KF. Frequency of Use Among Middle and High School Student Tobacco Product Users — United States, 2015–2017. *MMWR Morb Mortal Wkly Rep* 2018;67:1353–1357. DOI: <http://dx.doi.org/10.15585/mmwr.mm6749a1>.
- ⁵⁸ U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta, Georgia: 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, 2000.
- ⁵⁹ U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.
- ⁶⁰ *U.S. v. Phillip Morris USA, Inc., et al.* No 99-CV-02496GK (U.S. Dist. Ct., D.C.), Final Opinion, p. 972, August 17, 2006.
- ⁶¹ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
- ⁶² U.S. Department of Health and Human Services. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: 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; 2016.
- ⁶³ Marynak K, Gentzke A, Wang TW, Neff L, King BA. Exposure to Electronic Cigarette Advertising Among Middle and High School Students — United States, 2014–2016. *MMWR Morb Mortal Wkly Rep* 2018;67:294–299. DOI: <http://dx.doi.org/10.15585/mmwr.mm6710a3>.
- ⁶⁴ U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults. A Report of the*

Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

⁶⁵ U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults*. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

⁶⁶ Dai H. Changes in Flavored Tobacco Product Use Among Current Youth Tobacco Users in the United States, 2014-2017. *JAMA Pediatr*. Published online January 07, 2019. doi:10.1001/jamapediatrics.2018.4595

⁶⁷ Dai H. Changes in Flavored Tobacco Product Use Among Current Youth Tobacco Users in the United States, 2014-2017. *JAMA Pediatr*. Published online January 07, 2019. doi:10.1001/jamapediatrics.2018.4595

⁶⁸ Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the Field: Increase in use of electronic cigarettes and any tobacco product among middle and high school students – United States, 2011-2018. *MMWR Morbidity & Mortality Weekly Report* 2018; 67(45):1276-1277.

⁶⁹ Ambrose BK, Day HR, Rostron B, et al. Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014. *JAMA*. 2015;314(17):1871-1873. doi:10.1001/jama.2015.13802

⁷⁰ U.S. Department of Health and Human Services. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: 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; 2016.

⁷¹ U.S. Department of Health and Human Services. *E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: 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; 2016.

⁷² U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

⁷³ Surgeon General's Advisory on E-cigarette Use Among Youth. December 2018. Available from: <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>

⁷⁴ Gentzke AS, Creamer M, Cullen KA, et al. *Vital Signs: Tobacco Product Use Among Middle and High School Students — United States, 2011–2018*. *MMWR Morb Mortal Wkly Rep* 2019;68:157–164.

⁷⁵ Public Health Law Center. *JUUL & The Guinea Pig Generation: Public Health Concerns about Use by Young People*. May 2018. Available from: <https://www.publichealthlawcenter.org/sites/default/files/resources/JUUL-and-the-Guinea-Pig-Generation-2018.pdf>

⁷⁶ National Cancer Institute. *State and local legislative action to reduce tobacco use*. Smoking and Tobacco Control Monograph No. 11. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute, 2000.

⁷⁷ The Task Force on Community Preventive Services. *The Guide to Community Preventive Services: What Works to Promote Health?* New York, NY: Oxford University Press, 2005.

⁷⁸ U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

⁷⁹ U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2012.

Carroll, John (BOS)

From: Gee, Natalie (BOS)
Sent: Friday, June 07, 2019 9:33 AM
To: Carroll, John (BOS)
Subject: FW: AHA Supports Supervisor Walton's Policy
Attachments: AHA Support Letter Walton Policy June 6.pdf

Categories: 2019.06.07 - PSNS, 190312


Good morning John,

Can you please add this to File No. 190312?

Thank you!

Natalie Gee 朱凱勤, Chief of Staff
Office of District 10 Supervisor Shamann Walton
1 Dr. Carlton B. Goodlett Pl, San Francisco | Room 282
Direct: 415.554.7672 | Office: 415.554.7670
Sign up for Supervisor Walton's [monthly newsletter!](#)
Follow Supervisor Walton on [Facebook.](#)

From: Blythe Young [mailto:Blythe.Young@heart.org]
Sent: Thursday, June 06, 2019 5:38 PM
To: Nick Day <nick@50p1.com>; Gee, Natalie (BOS) <natalie.gee@sfgov.org>
Subject: AHA Supports Supervisor Walton's Policy

 This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hi Nick and Natalie,

Wanted to make sure you had our official letter of support for the policy – this has been delivered all SF Supervisors.

Thanks!
Blythe



Blythe Young
Community Advocacy Director
American Heart Association
426 17th Street | Oakland | CA | 94612
O 510.903.4038 | M 707.834.4399



American
Heart
Association.

June 6th, 2019

Bay Area Division

426 17th St, Ste. 300, Oakland, CA 94612
Phone (510) 903-4050 Fax (510) 903-4049

www.heart.org

2018-2019

Board of Directors

Co-Chairs of the Board

Tammy Kiely
Dan Smoot

Co-Presidents

Michelle Albert, MD, MPH, FAHA
Calvin Kuo, MD, PhD

Chair Elect

Matthew Scanlan

Immediate Past Chair

Chris Tsakalakis

Immediate Past Presidents

Alden McDonald III, MD
Joseph Woo, MD

Leadership Development Chair

David Vliet, MBA

Members At Large

Susan Bailey, MD
Durga Bobba
Leslie Campbell, MD, FACC
Jay Clemens
Chuck Collins
Michael Corey
Mary Cranston
Glenn Egrie, MD
Mary A. Francis
Jason Hall
Mark Korth
Nicholas Leeper, MD
John Maa, MD
Kenneth Mahaffey, MD
Brian May
Nisha Parikh, MD
Bill Pearce
Graham Poles
Michael J. Roffler
Carol Ann Sattler, MD, PhD
Lynne Sterrett
Bob Swan
Frank Tataseo
Page West
James Woloszyn
Dana Weisshaar, MD
Joseph C. Wu, MD, PhD

Senior Vice President

Maria Olson

The American Heart Association supports the proposal to prohibit the sale of non-FDA approved e-cigarette and vaping products/devices in the City of San Francisco. This proposed policy will reduce access to the products that are the tobacco industry's key strategy for targeting and addicting new nicotine users; particularly youth.

Cigarette smoking is the leading cause of preventable disease and death in the United States, claiming on average 480,000 lives each year. Evidence shows that smoking increases the risk for heart disease and stroke. It increases the risk for blood clots, decreases the ability to exercise, and decreases the good cholesterol in our bodies. In California, approximately 1 in 10 young adults (18-24 years old) currently use e-cigarettes and mounting evidence shows that young people who start with e-cigarettes are likely to become the addicted cigarette smokers of tomorrow. The best way to prevent tobacco-related illness and death is to prevent people from starting to smoke in the first place.

The tobacco industry is actively and aggressively working to addict new young people, particularly those from communities of color, and their tools are e-cigarette and vaping products like Juul. They know that products formulated with nicotine salts make the inhalation of nicotine seamlessly smooth and highly appealing to youth.

Ending the sale of non-FDA approved e-cigarette and vaping products will help protect our community from nicotine addiction and is crucial to preventing tobacco-related death, disease and nicotine poisoning. The American Heart Association respectfully asks for your support of this vital health policy. We ask that you put the health of your constituents above tobacco industry profits and help ensure that all San Francisco residents have the healthy and prosperous lives they deserve.

Sincerely,

Michelle A. Albert, MD MPH
Co-President, Board of Directors
Bay Area Division, American Heart Association

Carroll, John (BOS)


From: Carroll, John (BOS)
Sent: Friday, June 07, 2019 9:27 AM
To: Mandelman, Rafael (BOS); Stefani, Catherine (BOS); Walton, Shamann (BOS)
Cc: Mundy, Erin (BOS); Herzstein, Daniel (BOS); Gee, Natalie (BOS); Calvillo, Angela (angela.calvillo@sfgov.org); Somera, Alisa (BOS); Board of Supervisors, (BOS)
Subject: FW: Comment Letters BOS File No. 190312 - June 7 Special PSNS Meeting Agenda Item No. 6
Attachments: Public Comment - Item 6 - 6/7 Meeting; Public Comment Item 6 (6/7 Meeting)
Categories: 190312

Good morning, Chair Mandelman and members of the Public Safety and Neighborhood Services Committee.

I am forwarding the two attached comment letters from my inbox, related to agenda item no 6 on today's special meeting agenda. These letters were sent direct to me, and are now added to the file.

Best to you,

John Carroll
Assistant Clerk
Board of Supervisors
San Francisco City Hall, Room 244
San Francisco, CA 94102
(415) 554-4445

 [Click here](#) to complete a Board of Supervisors Customer Service Satisfaction form.

The [Legislative Research Center](#) provides 24-hour access to Board of Supervisors legislation and archived matters since August 1998.

Disclosures: Personal information that is provided in communications to the Board of Supervisors is subject to disclosure under the California Public Records Act and the San Francisco Sunshine Ordinance. Personal information provided will not be redacted. Members of the public are not required to provide personal identifying information when they communicate with the Board of Supervisors and its committees. All written or oral communications that members of the public submit to the Clerk's Office regarding pending legislation or hearings will be made available to all members of the public for inspection and copying. The Clerk's Office does not redact any information from these submissions. This means that personal information—including names, phone numbers, addresses and similar information that a member of the public elects to submit to the Board and its committees—may appear on the Board of Supervisors website or in other public documents that members of the public may inspect or copy.

Carroll, John (BOS)

From: Board of Supervisors, (BOS)
Sent: Friday, June 07, 2019 9:07 AM
To: BOS-Supervisors; Carroll, John (BOS)
Subject: FW: E-Cigarette Legislation
Attachments: E-cig Ltr to Supes.pdf

Categories: 190311, 190312, 2019.06.07 - PSNS

From: Al Williams <al@awconsul.com>
Sent: Friday, June 7, 2019 8:37 AM
To: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>
Cc: Carroll, John (BOS) <john.carroll@sfgov.org>; Renato Guerrero <lalagunasf@gmail.com>; dontayeball <dontayeball@gmail.com>; Marcus Tartt <mtartt@rencenter.org>; Ellouise Patton <ellouise0959@gmail.com>; Marsha Maloof <marsha@pendergasssmith.com>
Subject: E-Cigarette Legislation

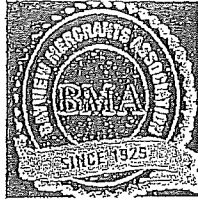
This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Please see attached letter from the Bayview Merchants Association.

Al



P O Box 460549
San Francisco, CA 94146-0549
415-467-4675
www.awconsul.com



3801 Third Street, Suite 1068
San Francisco, CA 94124

June 7, 2019

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689
Public Safety & Neighborhood Services Committee

Item 6, Leg. 190312 – Health Code Amendment

To the Board of Supervisors:

Bayview Merchants Association's (BMA) supports the proposed legislation to prohibit the sale by of tobacco retail establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration approving their marketing. However, BMA is greatly concerned about the adverse economic impact the current legislation and this amendment may have on small neighborhood businesses. BMA encourages the Board of Supervisors to take appropriate steps to limit the adverse economic impact of this legislation on small businesses throughout the City and to use revenue generated by the lease of City property to manufacturers of electronic cigarettes to mitigate those impacts.

Thank you for your consideration.

Sincerely,

Al Williams
BMA President

Cc: John Carroll, Clerk

Carroll, John (BOS)

From: Miriam Zouzounis <miriam.zouzounis@gmail.com>
Sent: Thursday, June 06, 2019 4:16 PM
To: Carroll, John (BOS)
Subject: Public Comment Item 6 (6/7 Meeting)
Attachments: ACCC Public Comment - Item 6.pdf

Categories: 2019.06.07 - PSNS, 190311, 190312



This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Thank you!



Arab Cultural and Community Center
2 Plaza Street, San Francisco, CA 94116

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

BOARD MEMBERS

Souhail Zaim

(President)

Donia Rashed

(Vice President)

Raghda Eldessouki

(Secretary)

Amal Shibli

Aiya Rashid

Altayeb Abdulrahim

(Ex Officio)

Public Safety & Neighborhood Services Committee
Item 6, Leg. 190312

Honorable Supervisors,

The Arab Cultural and Community Center (ACCC) was established in 1973 in San Francisco. We serve 6,000 people a year with direct social service, youth and cultural programming. The Arab community is diverse in income, ethnicity and religion, but our programming has inevitably had to direct attention to those fleeing war since the 1990's. We are a diaspora that have found a home for generations in San Francisco and, where many have become established, we still have considerable demographics of low-income residents and vulnerable populations. The Middle Eastern, Arab, Muslim, and South Asian communities have been living in a real state of fear, especially in the current climate and with laws coming down from the Federal level. One of our member trade organizations is the Arab American Grocer Association (AAGA). This industry has been suffering as workers and operators face increased criminalization of the corner market industry with constant sting operations, predatory lawsuits, difficulty in understanding new laws, and increased enforcement from State and Local regulatory bodies. As exemplified in a recent Immigrant Rights Commission Hearing, many members of our Yemeni community, who also make up a large demographic of our store owners, are battling restrictions in sending money to family still in their country of origin. We ask you understand this context as it relates to the onslaught of legislation that targets and devalues this industry. We are writing as a Community Organization in San Francisco to express our concern and opposition to Ordinance 190312 unless there are substantial amendments and protections for our compliant brick and mortar businesses. We stand alongside the proposed health goals, but ask that the City does a better job of working with our communities in aligning needs, and meaningfully transition a low-income immigrant workforce that relies on this sector.


Thank you.

ACCC Board:

Carroll, John (BOS)

From: Arab American Grocers Association (AAGA) <ArabGrocersAssn@gmail.com>
Sent: Tuesday, June 04, 2019 11:59 PM
To: Carroll, John (BOS)
Subject: Public Comment - Item 6 - 6/7 Meeting
Attachments: Item.6 - Arab American Grocers Association Public Comment.pdf

Categories: 190311, 190312, 2019.06.07 - PSNS

 This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hello,
Please see attached public comment for Item 6 on the upcoming Friday agenda. Thank you!

Best,
AAGA Board



Arab American Grocers
Association (AAGA)

1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Public Safety & Neighborhood Services Committee
Item 6, Leg. 190312

To the Board of Supervisors,

The Arab American Grocers Association represents over 400 businesses in San Francisco that have been consistent civic partners across generations while maintaining establishments that are vital to our communities and city culture. The factors facing this sector are many: workforce depletion via the gig economy, online retail, predatory lawsuits, construction, onerous fees, permits, and regulations and an environment of fear and confusion as a result of policies on the Federal level targeting a large demographic of those working in this sector, especially our newer immigrant communities fleeing war.

This is a highly regulated sector given the licenses we hold, and DPH, FDA and CDC data (as shown in the Small Business Commission Legislative Review - 190312) shows we are highly compliant. We experience non-stop sting operations from Federal, State and local entities, and SFPD is tasked to enforce things 3-4 times over. The data shows youth access to vapor products is not a point-of-sale retail issue, and we believe taking it out of the regulated market is a dangerous precedent that undoes our work as a City with over 25 laws regulating tobacco.

The Youth Risk Behavior Survey referenced in the legislation concludes 7.1% of high school students reported to currently use e-cigarettes, and 13.6% of those high school students reported that they usually bought from a store (although it was not specified whether 'store' was located in San Francisco", that would indicate that approximately less than 1% of all high school students have made an electronic cigarette purchase in a store. The remainder, access products through social networks and social media. Objectively, the mechanisms proposed in this legislation will not address the source, and instead only increase the prevalence of tobacco products on the black market – which we have seen qualitatively as merchants, has increased heavily since the Ban on Flavored Tobacco was passed last year.

We ask that you work with us on amendments and parallel legislation that would support mitigation and an adjustment assistance plan for affected business. Compromises proposed include keeping e-cigarette products in a lock-box, improved technology with age-checking technology, and a limit in the amount of product that can be purchased at a time. We have also asked that the City collect more data and devise a material plan to address our struggling corner store retail sector and our commercial corridors.

Thank you.

AAGA Board

Arab American Grocers Association (AAGA) - 200 Valencia St, San Francisco, CA 94103 -

ArabGrocersAssn@gmail.com
5589

Introduction Form

By a Member of the Board of Supervisors or Mayor

Time stamp
or meeting date
SUPERVISOR
SAN FRANCISCO

2019 MAR 19 PM 4:24
BY

I hereby submit the following item for introduction (select only one):

- 1. For reference to Committee. (An Ordinance, Resolution, Motion or Charter Amendment).
- 2. Request for next printed agenda Without Reference to Committee.
- 3. Request for hearing on a subject matter at Committee.
- 4. Request for letter beginning : "Supervisor [redacted] inquiries"
- 5. City Attorney Request.
- 6. Call File No. [redacted] from Committee.
- 7. Budget Analyst request (attached written motion).
- 8. Substitute Legislation File No. [redacted]
- 9. Reactivate File No. [redacted]
- 10. Topic submitted for Mayoral Appearance before the BOS on [redacted]

Please check the appropriate boxes. The proposed legislation should be forwarded to the following:

- Small Business Commission
- Youth Commission
- Ethics Commission
- Planning Commission
- Building Inspection Commission

Note: For the Imperative Agenda (a resolution not on the printed agenda), use the Imperative Form.

Sponsor(s):

Walton

Subject:

Health Code-Restricting the Sale, Manufacture, and Distribution of Tobacco Products, Including Electronic Cigarettes

The text is listed:

Ordinance amending the Health Code to prohibit the sale by tobacco retain establishments of electronic cigarettes that require, but have not received, an order from the Food and Drug Administration (FDA) approving their marketing; and prohibiting the sale and distribution to any person in San Francisco of flavored tobacco products and electronic cigarettes that require, but have not received, an FDA order approving their marketing.

Signature of Sponsoring Supervisor: [Handwritten Signature]

For Clerk's Use Only