Addressing E-Cigarette Use in San Mateo County
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By Craig A. Wingate MPH, MSC
Public Health Educator
SMC Tobacco Prevention Program
Presentation Overview

• Tobacco Prevention Program Overview
• Addressing E-cigarette Use in San Mateo County
• E-cigarettes Up Close
• Dangers of Vaping
• Want to Help?
• Questions
• Close
Tobacco Prevention Program (TPP)
TPP Organizational Chart

Project Director
Francesca Lomotan

Coalition Coordinator
Mayra Amador

Community Program Specialist II
New Hire

Public Health Educator
Craig A. Wingate

Subcontractor
Priority Populations External Evaluator

Youth Subcontractor
2017 – 2021 Priority Areas

• Increase the number of smoke-free multi-unit housing policies

• Assist with the implementation of adopted smoke-free multi-unit housing policies

• Engage youth in tobacco-free education and policy

• Amend or adopt tobacco retail license ordinances
ADDRESSING E-CIGARETTE USE IN SAN MATEO COUNTY
E-cigarette use among youth is rising as e-cigarette advertising grows.
E-cigarette Use: 2017 - 2018

78% Increase Among High School Students

11.7% 2017
20.8% 2018

48% Increase Among Middle School Students

3.3% 2017
4.9% 2018
San Mateo & San Francisco County | California

20.8% | 10.9%
Flavored cigarettes were “starter products” for youth and thus, Congress banned the manufacture of flavored cigarettes in 2009, with the exception of menthol.

Top reasons teens report trying e-cigarettes:
- Curiosity (54%)
- Appealing flavors (44%)
- Peer influences (32%)


Flavors help mask the naturally harsh taste of tobacco, making flavored products more appealing to youth and easier to initiate and sustain tobacco use

Kostygina, G., S.A. Glantz, and P.M. Ling, 2014

The FDA and Surgeon General have warned that flavored tobacco products help new users establish habits that lead to long term addiction

U.S. Department of Health and Human Services, 2012; Food and Drug Administration, 2011
E-cigarette Flavors
Definitions

GAS: a substance with indefinite expansion. When you let a gas out of its bottle, it will usually keep spreading out until it's completely mixed with the air.

VAPOR: it can mean the same as gas, but it may also be used to describe a visible exhalation, such as steam or fog. "Vapor" isn't as precise a term as "gas" or "aerosol."

AEROSOL: a mixture of liquid particles suspended in a gas. Instead of just mixing with the air like a pure gas, aerosols can leave drops behind.
# E-Cig Aerosol Composition

<table>
<thead>
<tr>
<th>Compounds in yellow are from FDA 2012, Harmful and Potentially Harmful Substances – Established List</th>
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<tbody>
<tr>
<td>Compounds in green are Harmful and Potentially Harmful Substances in e-cigarette aerosol.</td>
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</tbody>
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- Propylene glycol
- Glycerin
- Flavorings (many)
- Nicotine
- NNN
- NNK
- NAB
- NAT
- Ethylbenzene
- Benzene
- Xylene
- Toluene
- Acetaldehyde
- Formaldehyde
- Naphthalene
- Styrene
- Benzo(b)fluoranthene
- Chlorobenzene
- Crotonaldehyde
- Propionaldehyde
- Benzaldehyde
- Valeric acid
- Hexanal
- Benzo(ghi)perylenene
- Acetone
- Acrolein
- Silver
- Nickel
- Tin
- Cadmium
- Silicon
- Lithium
- Lead
- Magnesium
- Manganese
- Potassium
- Titanium
- Zinc
- Zirconium
- Calcium
- Iron
- Sulfur
- Vanadium
- Selenium
- Cobalt
- Rubidium

All of these have been found in e-cig aerosol.
Menthol decreases the metabolism of nicotine and increases the amount of the addictive substance in the blood, making cigarettes even more dangerous and difficult to quit.
E-CIGARETTES UP CLOSE
E-Cigarettes & Vape Pens Generations

Cig-a-Like
E-cigarettes came onto the market around 2007. Most delivered nicotine and were disposable.

Variations
Variations on the first e-cigarettes included products like e-hookah and rechargeable versions.

Vape Pens
These have batteries that can reach higher temperatures, have refillable e-liquid cartridges, and allow users to regulate the frequency of inhalations.

Mods
Large size, modifiable e-cigarettes allow for more aerosol, nicotine, and other chemicals to be breathed into the lungs, at a faster rate.

Pod-Based
These e-cigarettes are shaped like USBs and contain pods with higher amounts of nicotine than previous generations.

Tobacco Prevention Toolkit
Division of Adolescent Medicine, Stanford University
For more information go to: www.tobaccoventiontoolkit.stanford.edu
Salt-based nicotine
41.3 milligrams of nicotine
Pods not made to be refilled

Freebase nicotine
25 milligrams of nicotine
Refillable tank
1 Pack of Cigarettes ≈ 20 mg of nicotine
1 JUUL pod ≈ 41.3 mg of nicotine
1 PHIX pod ≈ 75 mg of nicotine
1 Suorin pod ≈ 90 mg of nicotine

ALL PODS CONTAIN HIGH LEVELS OF NICOTINE
The Usual Suspects
DANGERS OF VAPING
The Body on Nicotine

- Rewires and changes the brain
- Heart beats faster due to “fight or flight” response
- Trouble breathing & damage to lungs
- Increased acid reflux
WANT TO HELP?
Ways You Can Help

• Contact your elected official
• Speak at City Council meeting
• Submit letters to the editor
• Post on social media
• Educate your community
• Join the San Mateo County Tobacco Education Coalition
Tobacco Education Coalition (TEC)

smchealth.org/TobaccoEducationCoalition
facebook.com/TobaccoEducationCoalition
What we do...

- Advocacy
- Education
- Policy promotion
- Cessation promotion
- Research/data collection
- Law Enforcement decoy program
Join the Tobacco Education Coalition

• Four meetings a year
• Lunch provided!
• Help eliminate the #1 cause of Chronic Disease in San Mateo County
• Network with other community partners

Call or Email to Join!
tobaccoprevention@smcgov.org
(650) 573-3777
QUESTIONS