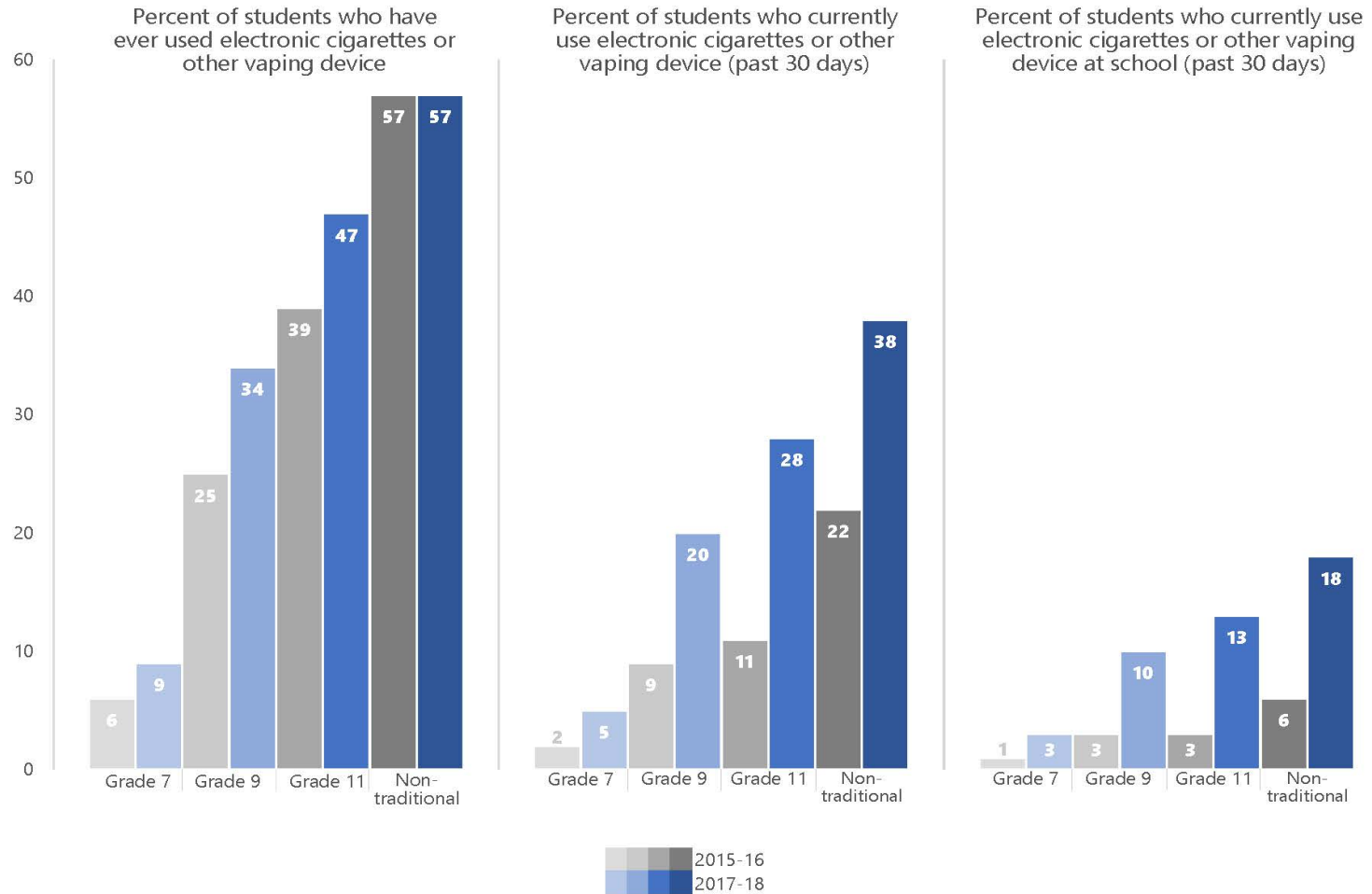


LET'S TALK VAPING



CALIFORNIA HEALTHY KIDS SURVEY

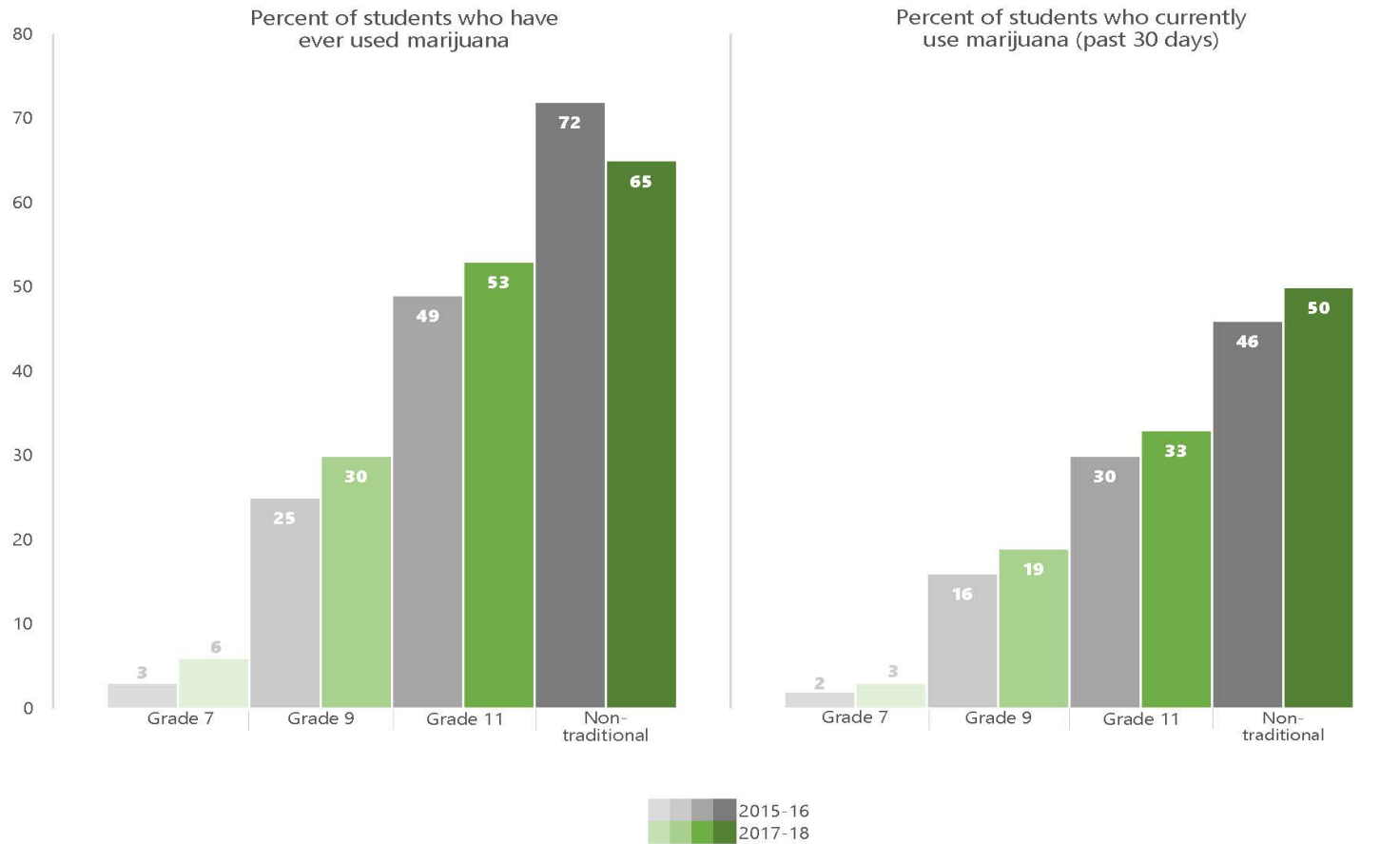
Electronic Cigarette Use Prevalence & Patterns



Note: 2015-16 N = 2,278 Grade 7, 1,981 Grade 9, 1,489 Grade 11, 75 Non-traditional.
 2017-18 N = 1,802 Grade 7, 1,984 Grade 9, 1,416 Grade 11, 119 Non-traditional.
 Non-traditional includes continuation, community day, and other alternative school types.

CALIFORNIA HEALTHY KIDS SURVEY

Marijuana Use Prevalence & Patterns



Note: 2015-16 N= 2,278 Grade 7, 1,981 Grade 9, 1,489 Grade 11, 75 Non-traditional.
2017-18 N= 1,802 Grade 7, 1,984 Grade 9, 1,416 Grade 11, 119 Non-traditional.
Non-traditional includes continuation, community day, and other alternative school types.

WHAT ARE E-CIGARETTES? EARLY GENERATION



NEW GENERATION



CANNABIS VAPORIZERS

Vaporizers vs. Dab Pens
Cannabis Oil
Waxes/Concentrates

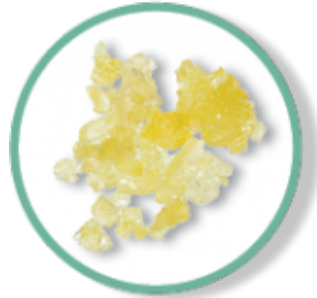


CANNABIS CONCENTRATES



CRUMBLE

Dried oil with a honey-comb consistency



CRYSTALLINE/ SUGAR

Isolated cannabinoids in their pure crystal structure.



DISTILLATE

Refined cannabinoid oil free of taste, smell and flavor.



ROSIN

End product of cannabis being squeezed under heat and pressure.



BUBBLE HASH

A process using ice and mesh screens pull out whole trichomes into a paste.



SHATTER

A golden, translucent, and brittle concentrate made with solvents.



BADDER/BUDDER

Whipped under heat, this concentrate has a cake batter-like texture.



DRY SIFT/KIEF

Flower is ground and sifted, leaving behind complete trichome glands.

TODAY'S CANNABIS

THC Levels steadily increasing past 30 years

- Smoked Cannabis \approx 11% THC potency (compared to 3% in 1990s)
- Medical-grade cannabis plant \approx up to 35% THC
- Concentrates (shatter, honey oil, wax, etc.) 40% – 80% THC

TOBACCO/NICOTINE BACKGROUND

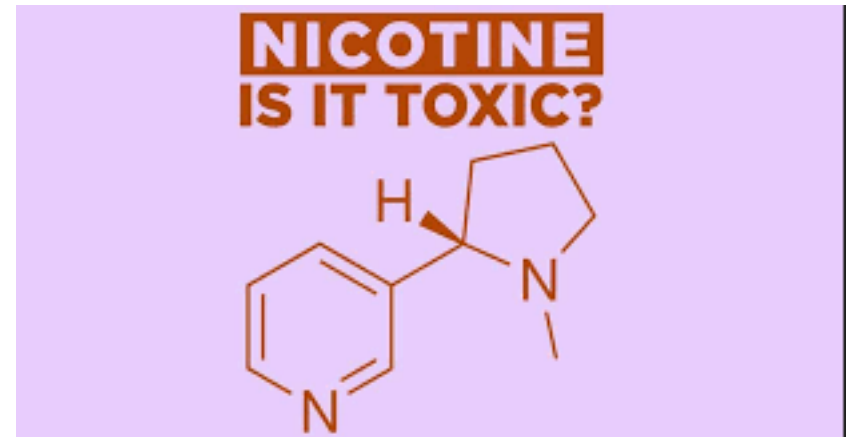


NICOTINE

In 1763 Nicotine was first commercially marketed as an insecticide
[*Black Leaf 40: insecticide with 40% nicotine concentration*]

Nicotine happens to be one of the most potent poisons there are.

Nicotine is toxic to any organ in the body, including the brain. It alters neurocognition.



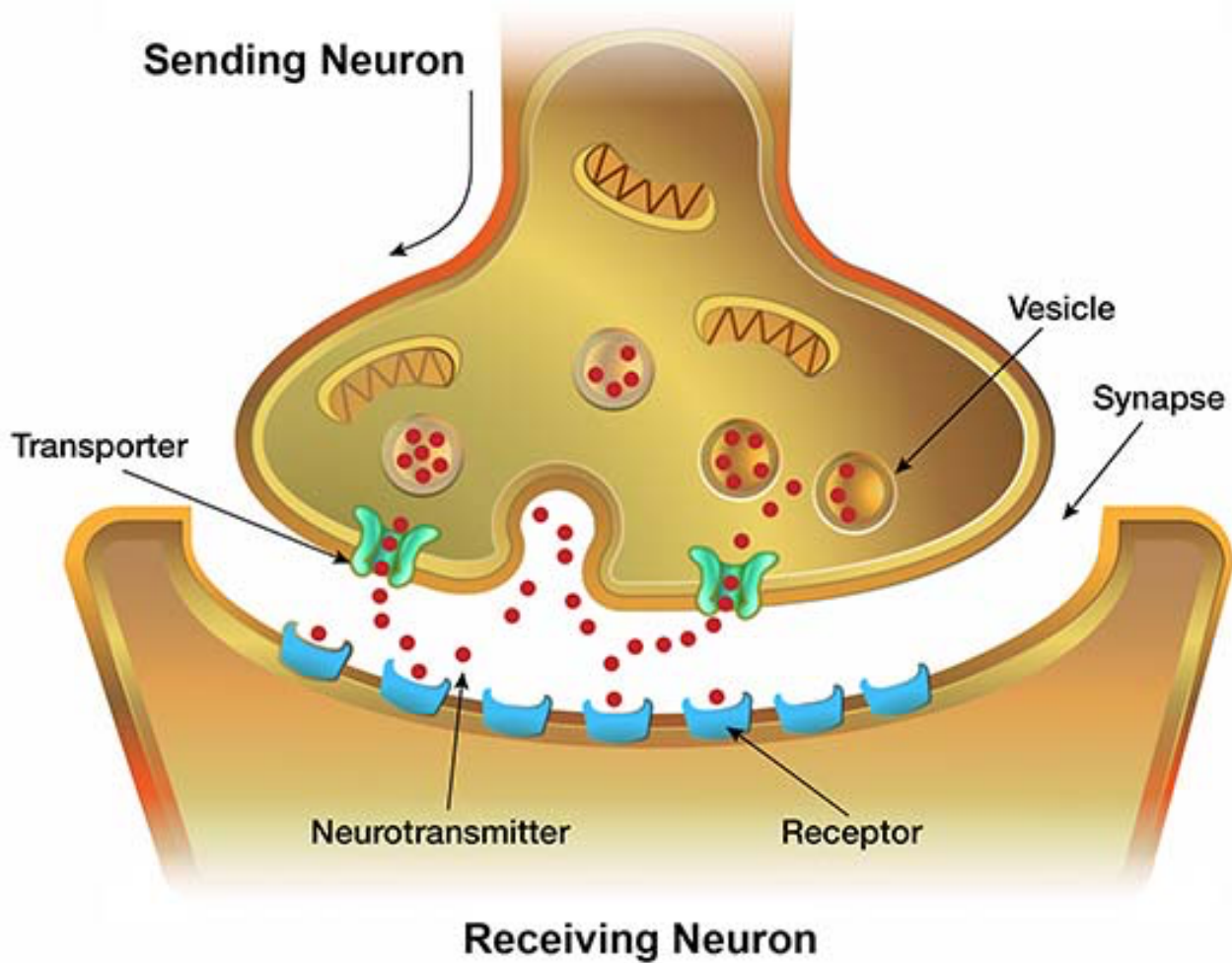
ENVIRONMENTAL IMPACTS

Nicotine/Cannabis products are documented as “hazardous waste”

- Waterways & Drinking Water
- Animals
- Pesticides (Cannabis)



NERVOUS SYSTEM



BRAIN

“Thinking about Thinking”

Higher Reasoning
Executive Function

Prefrontal Cortex

9 Functions of the Prefrontal Cortex

1. Empathy
2. Insight
3. Response Flexibility
4. Emotion Regulation
5. Body Regulation
6. Morality
7. Intuition
8. Attuned Communication
9. Fear Modulation



Limbic Brain

1. Fight, flight, freeze stress response
2. Thinks, "Am I safe? Do people want me?"
3. Emotions live here

HEALTH IMPACTS

Vaping

vs.

Smoking

- Aerosol (not water vapor)
 - “Ghosting”
- Nicotine derived from Tobacco into a liquid
- No longitudinal studies conducted thus far
- Appealing to Younger Ages

- Smoke (combustion causes tar)
- Tobacco/Cannabis
- Longitudinal studies linking it to cancer
- Targets minority populations
- Social stigmas against smoking tobacco

CIGARETTE CHEMICALS

- 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
- Fluorine
- Anthracene
- Pyrene
- Acenaphthylene
- Acenaphthene
- Fluoranthene
- Benz(a)anthracene
- Chrysene
- Retene
- Benzo(a)pyrene
- Indeno(1,2,3-cd)pyrene

- Benzo(ghi)perylene
- Acetone
- Acrolein
- Silver
- Nickel
- Tin
- Sodium
- Strontium
- Barium
- Aluminum
- Chromium
- Boron
- Copper
- Selenium
- Arsenic
- Nitrosamines
- Polycyclic aromatic hydrocarbons

- Cadmium
- Silicon
- Lithium
- Lead
- Magnesium
- Manganese
- Potassium
- Titanium
- Zinc
- Zirconium
- Calcium
- Iron
- Sulfur
- Vanadium
- Cobalt
- Rubidium

WHICH CHEMICALS ARE FOUND IN E-CIG/VAPE PEN AEROSOL?

- 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)perylene
- Acetone
- Acrolein
- Silver
- Nickel
- Tin

- **Cadmium**
- Silicon
- Lithium
- **Lead**
- Magnesium
- Manganese
- Potassium
- Titanium
- Zinc
- Zirconium
- Calcium
- Iron
- Sulfur
- Vanadium
- **Cobalt**
- Rubidium

All of these have been found in e-cigarette/vape pen aerosol

- Benz(a)anthracene
- Chrysene
- Retene
- Benzo(a)pyrene
- Indeno(1,2,3-cd)pyrene

- Copper
- Selenium
- Arsenic
- Nitrosamines
- Polycyclic aromatic hydrocarbons

Compounds in yellow are from FDA 2012, Harmful and Potentially Harmful Substances – Established List

JUUL

All JUULs Contain Nicotine

A Single Pod = 1 Pack of Cigarettes



JUUL pods contain:

- Glycerol
- Propylene Glycol
- Natural Oils
- Benzoic Acid



CORPORATIONS, MARKETING TO YOUTH & REGULATIONS

WHO OWNS WHAT?

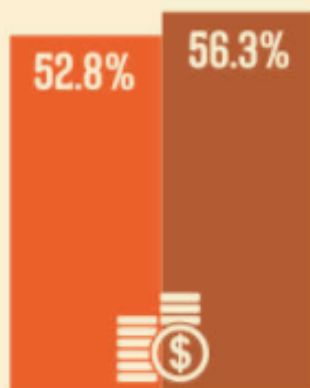


WHO OWNS WHAT?

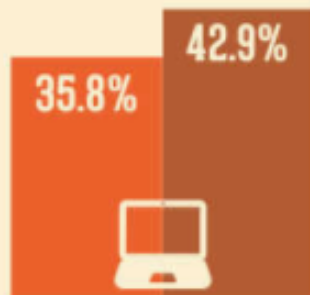
(continued)

- **JUUL** – (previously PaxLab) 35% is owned by Altria (previously Philip Morris) 30+ Billion \$\$ Company
73% Market Share
- **MarkTen** – Altria (previously Philip Morris)
Owns Marlboro, Parliament, Virginia Slims
- **Logic** – Japan Tobacco International
Largest e-cigarette market share in the world
- **Vuse** – RJ Reynolds
Owns Camel, Newport
9% Market Share
- **Blu** – Imperial
Owns Kool, Salem, Winston

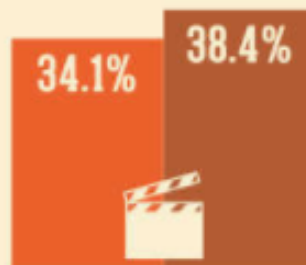
E-CIGARETTE MARKETING TO YOUTH



RETAIL ADS



INTERNET ADS



TV/MOVIE ADS



NEWSPAPER & MAGAZINE ADS

MIDDLE SCHOOL STUDENTS

HIGH SCHOOL STUDENTS



National Institute
on Drug Abuse

1. [MTF, 2015](#); 2. [Leventhal, 2015](#); 3. [Singh, 2016](#)

ADVERTISING

**For ALL of us
SMOKERS WANTING
SATISFACTION...
THIS IS WHAT IT
LOOKS LIKE.**

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- FEATURING Pre-filled blu Tanks⁺
- Rapid Battery Charging
- Enhanced Flavor and Draw

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JUUL

VAPORIZED

#SMOKINGEVOLVED



JUUL

VAPORIZED

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blu ELECTRONIC CIGARETTES

Take back your freedom with blu eCigs, the new alternative to traditional cigarettes.

- Smokes Nicotically Anywhere
- No Tobacco Smells, Only Vapor
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SLIM. CHARGED. READY TO GO.

AVAILABLE NATIONWIDE!

Visit us at blucigs.com/store-locator



ADVERTISING → NORMALIZATION

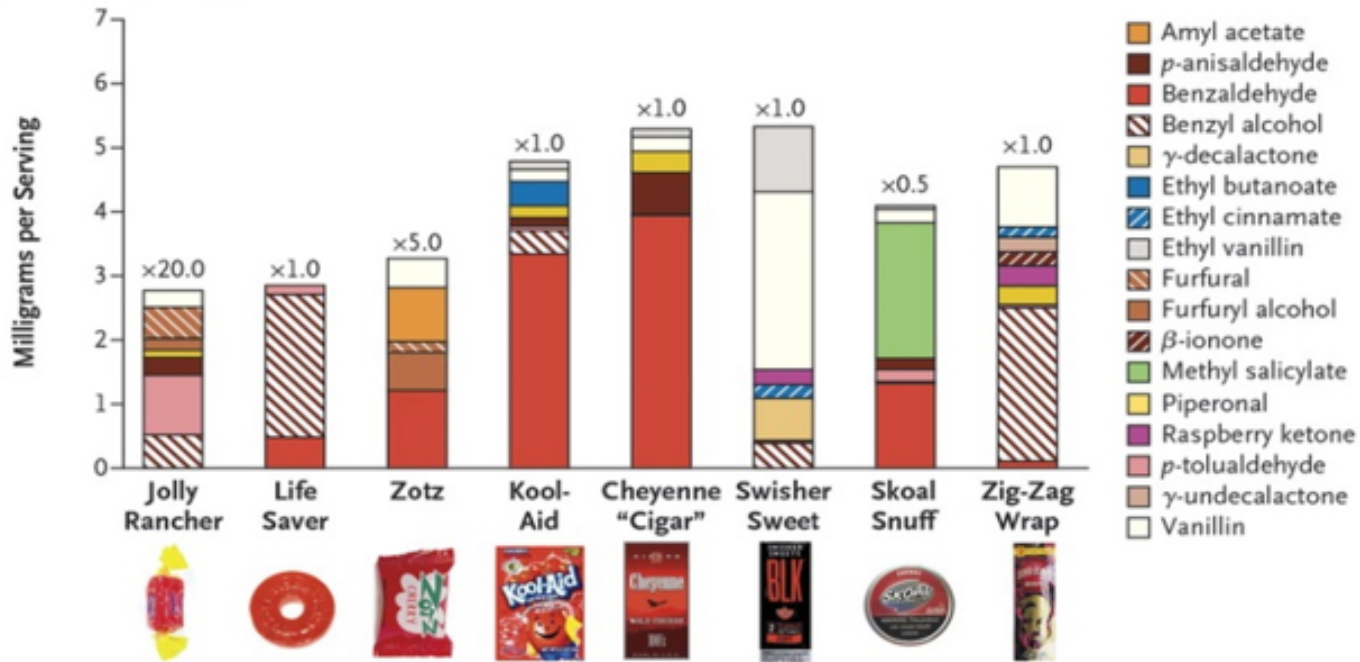


WARNING: This product contains nicotine. Nicotine is an addictive chemical.



FLAVORED PRODUCTS

A Cherry Flavoring

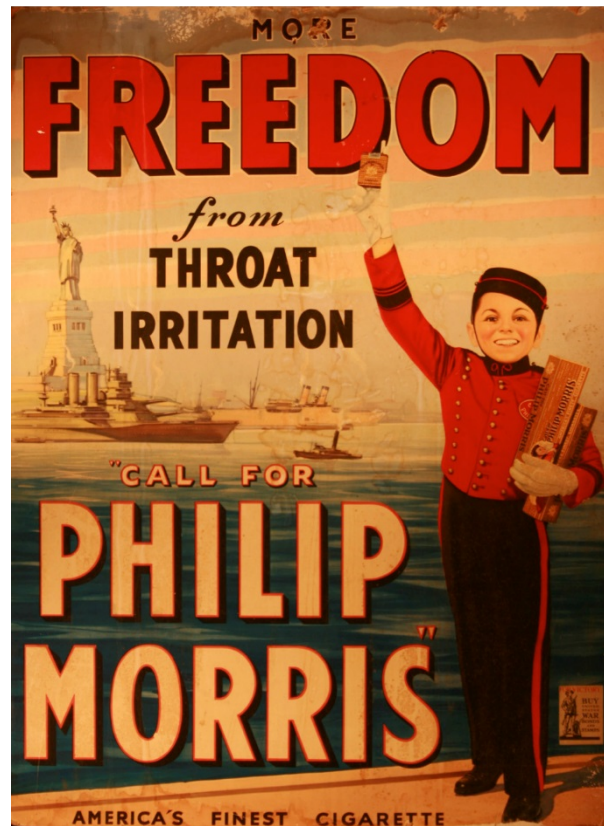


Serving Sizes

- 1 Jolly Rancher
- 1 Life Saver
- 1 Zotz
- 0.5 g Kool-Aid
- 1 Cheyenne "cigar"
- 1 Swisher Sweet
- 1 g Skoal snuff
- 1 Zig-Zag wrap

CIGARETTE VS. E-CIGARETTE ADS

Philip Morris Ad [1941]



Blu Ad [2013]



CIGARETTE VS. E-CIGARETTE ADS

Camel Ad [1993]



Veppo Ad [2013]



CIGARETTE VS. E-CIGARETTE ADS

Salem Ad [2000]



Fin Ad [2013]



LAWS & REGULATIONS

E-CIGARETTES & CANNABIS

E-CIGARETTE LAWS AND REGULATIONS

In 2016 the FDA passed the Deeming Law requiring all **NEW** E-cigarettes that are put on the market to meet the standards of the Food Drug and Cosmetic Act.

Many e-cigarette companies (JUUL, MarkTen, Blu, Logic & Vuse) had already been developed at this point and were grandfathered into the law.

The deeming law states that compliance for existing products (those listed above) have until 2022 to file for exemptions before they will test their products. **This Law has been postponed.**

All E-Cigs won't get regulated until 2022.

Local Laws

SIGNS YOUR TEENAGER MIGHT BE VAPING

- Fruity aroma or marijuana smell
- Unfamiliar handheld gadgets
- Batteries and chargers
- Discarded atomizers

WHAT CAN WE DO?

- **Talk- Start the Conversation around Vaping**
 - Timing is everything
 - Share the Facts
 - Talk about advertising
- **Teach school-based programs and activities**
 - Alcohol, Tobacco and other drug curriculum
 - Tobacco Use Prevention Education (TUPE) Peer Educators
 - Youth Internship opportunities
- **Resources**
 - School Counselors
 - TUPE Coordinators

WHERE TO GET HELP/ HOW TO QUIT

Counselors at your school

The California Cessation Hotline is: 1-800-No-Butts
NIH Smokefree Teen (App/Text/Counseling)

Resources:

- The Coalition Connection online resources
- MCOE TUPE
- Bay Area Community Resources
- Let's Talk Cannabis
- Smoke Free Marin

HOW TO GET INVOLVED

TUPE Peer Educator Program

Marin Prevention Network

Smoke-Free Marin Coalition

Jasmine Gerraty
jgerraty@bacr.org

QUESTIONS?