

# E-cigarettes

Steve Kelder, PhD, MPH



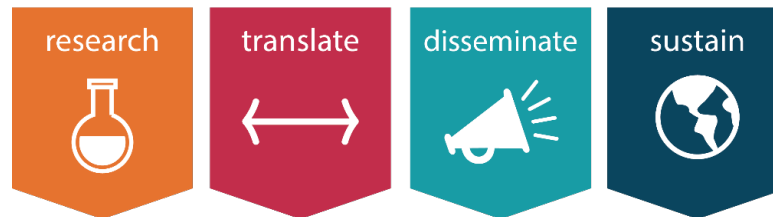


MICHAEL & SUSAN DELL  
CENTER *for* HEALTHY LIVING

**Healthy children in a healthy world.**

We advance health and healthy living for children and families through cutting-edge research, innovative community-based programs, and dissemination of evidence-based practices.

STRATEGIC PLAN GOALS



# Three converging **vulnerabilities** for adolescent nicotine dependence.

1. The physiologic reality of high neuroplasticity in motivational circuits and immaturity of control circuits. Children are more vulnerable to addiction than adults.
2. The social reality of ubiquitous visual and auditory cues to use and enjoy e-cigarettes in marketing and promotions. Children rarely see or hear counterpoints to marketing.
3. The environmental reality of local access, on-line purchasing and thousands of desirably flavored e-cigarette products. Kids are able to buy on-line or at convenience stores.

# JUUL has upended what we thought we knew about E-cigarettes

1. Kids who use JUUL don't consider themselves smokers, or vapers. They call it 'JUULing'. Adults might not ask the right questions.
2. In August 2018, JUUL had a 72% market share. Our kids are smoking JUUL.
3. JUUL delivers the highest dose of nicotine available at 59 mg/ml, nearly three times as high as the European Union the nicotine equivalent to 1-2 packs of cigarettes.
4. JUUL nicotine level is more than double most other e-cigarette cartridges.
5. JUUL delivers nicotine to the brain 1.25–2.7 times faster than competing e-cigarette products;
6. Exposure to nicotine during the fetal and formative years of human brain development is considered neurotoxic.

# The Great Public Health Debate

## Harm Reduction

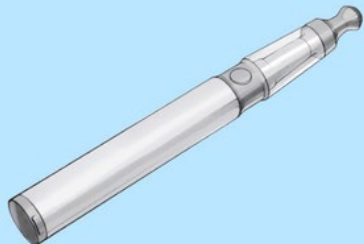
- Cigarette smoking is very dangerous.
- E-cigarettes deliver nicotine without the tar, carcinogens, etc.



## Potential Harms

- E-cigarettes have nicotine.
- Young people are attracted to the novelty and flavors.
- Long term harmful consequences are not known.

# The Great Public Health Debate



**E-CIGARETTES**  
CANNOT SIMPLY BE CATEGORIZED AS  
EITHER **BENEFICIAL** OR **HARMFUL**.

WHAT DOES THE SCIENCE SAY?



Read the report at  
[nationalacademies.org/eCigHealthEffects](https://nationalacademies.org/eCigHealthEffects)



#eCigHealthEffects

# Two Comprehensive Reports



## 2018 NAS Report



## E-Cigarette Use Among Youth and Young Adults

A Report of the Surgeon General

## 2016 CDC Report



U.S. Department of Health and Human Services



# 2016 CDC Report

## E-Cigarette Use Among Youth and Young Adults

A Report of the Surgeon General



U.S. Department of Health and Human Services

- Nicotine exposure during adolescence can cause addiction and can harm the developing brain.
- Hazardous compounds have been found in ENDS liquids, or in the heated aerosol produced by ENDS, including formaldehyde, acetaldehyde, acrolein, which are known cancer producing toxicants.
- Nicotine can cross the placenta and has known effects on fetal and postnatal development.
- Therefore, nicotine delivered by e-cigarettes during pregnancy can result in harmful consequences, including
  - Sudden infant death syndrome (SIDS)
  - Altered corpus callosum
  - Deficits in auditory processing
  - Obesity

[https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm)

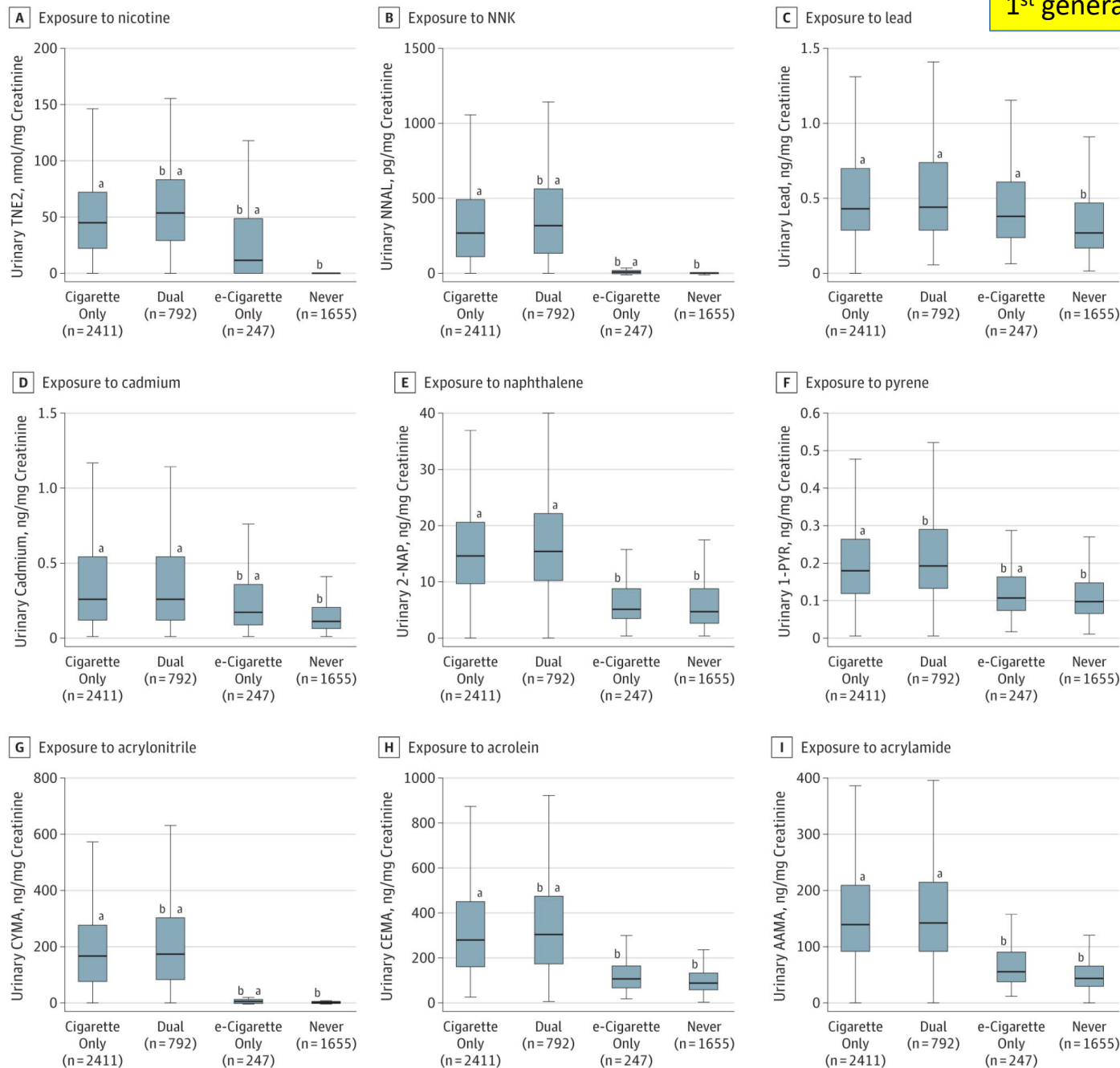


# 2018 NAS Report



- There is substantial evidence that e-cigarette use increases risk of ever using combustible tobacco cigarettes among youth and young adults.
- Among dual users, there is moderate evidence that e-cigarette use increases the frequency, intensity, and duration of subsequent combustible tobacco cigarette smoking.
- There is insufficient evidence from randomized controlled trials about the effectiveness of e-cigarettes as cessation aids compared with no treatment or to Food and Drug Administration–approved smoking cessation treatments.

<https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes>



[https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm)

## Smoking & Tobacco Use

- Home
- Office on Smoking and Health (OSH) +
- Quit Smoking +
- Basic Information -
- Health Effects +
- Secondhand Smoke
- Smokeless Products
- Electronic Cigarettes -
  - About Electronic Cigarettes (E-Cigarettes)
  - Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults
- Youth Tobacco Prevention
- Tobacco Products +
- Healthy People +
- Related Resources +
- Tobacco-Related Disparities +
- Data and Statistics +
- State and Community Resources +
- Global Tobacco Control +
- Multimedia & Tools +

 **Get Email Updates**

To receive email updates about *Smoking & Tobacco Use*, enter your email address:

What's this?

[Home](#) > > [Basic Information](#)

### Electronic Cigarettes



#### Electronic Cigarettes

What's the bottom line on the risks of e-cigarettes?

Get the facts now.



Get the facts about electronic cigarettes, their health effects and the risks of using e-cigarettes.

E-cigarettes are sometimes called "e-cigs," "vapes," "e-hookahs," "vape pens," and "electronic nicotine delivery systems (ENDS)." Some e-cigs like regular cigarettes, cigars, or pipes. Some look like USB flash drives, pens, and other everyday items.



#### ABOUT ELECTRONIC CIGARETTES

Learn more about e-cigarettes and their effect on your health.

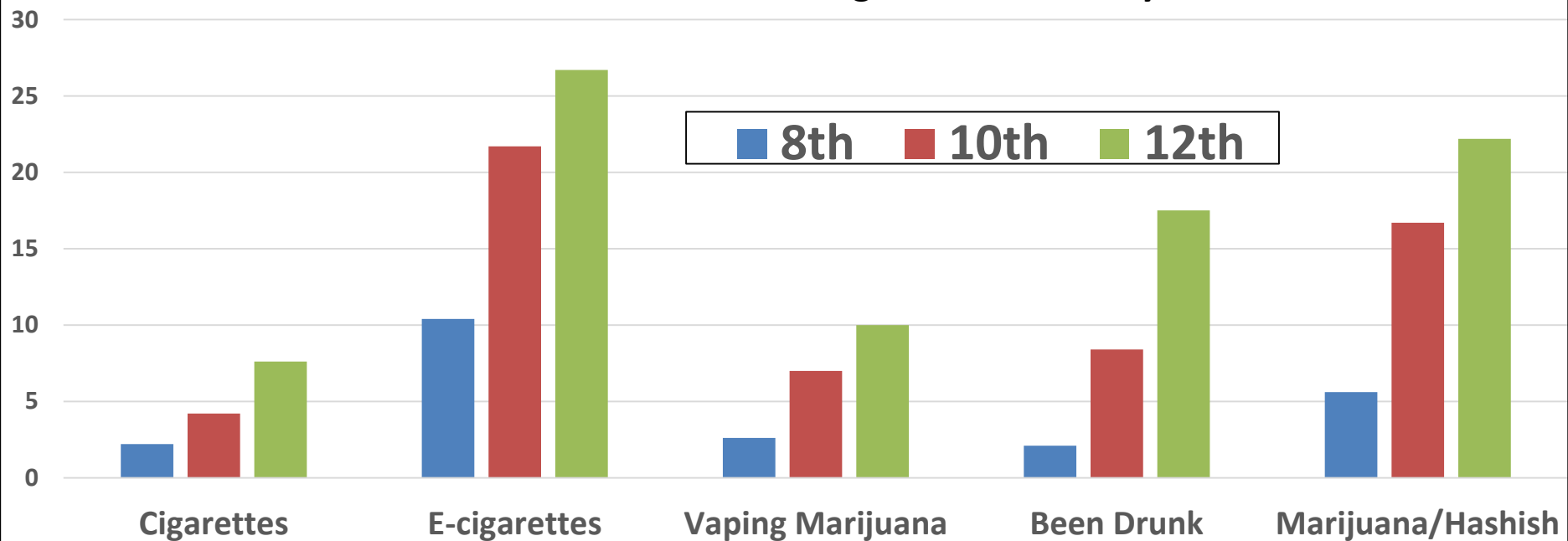


#### E-CIGARETTES AND YOUNG PEOPLE

The use of e-cigarettes is unsafe for kids, teens, and young adults.

# In the past 30 days, have you used:

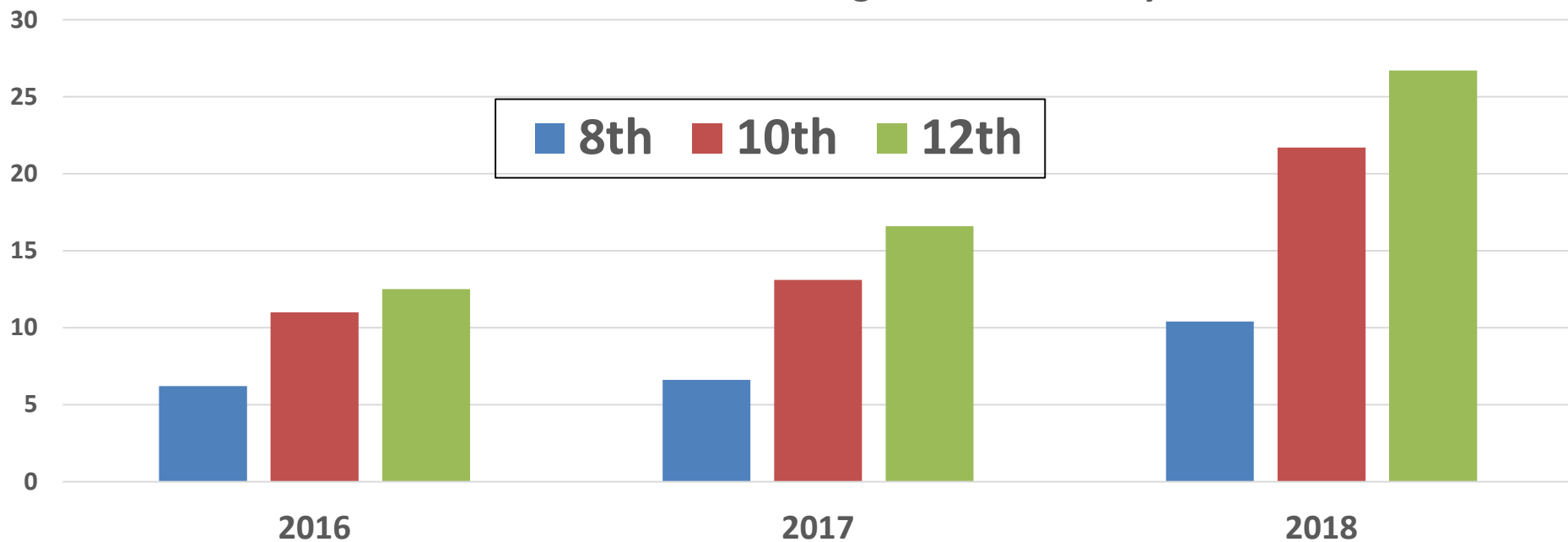
**Data From 2018 Monitoring the Future Study**



<http://monitoringthefuture.org/data/18data.html#2018data-drugs>

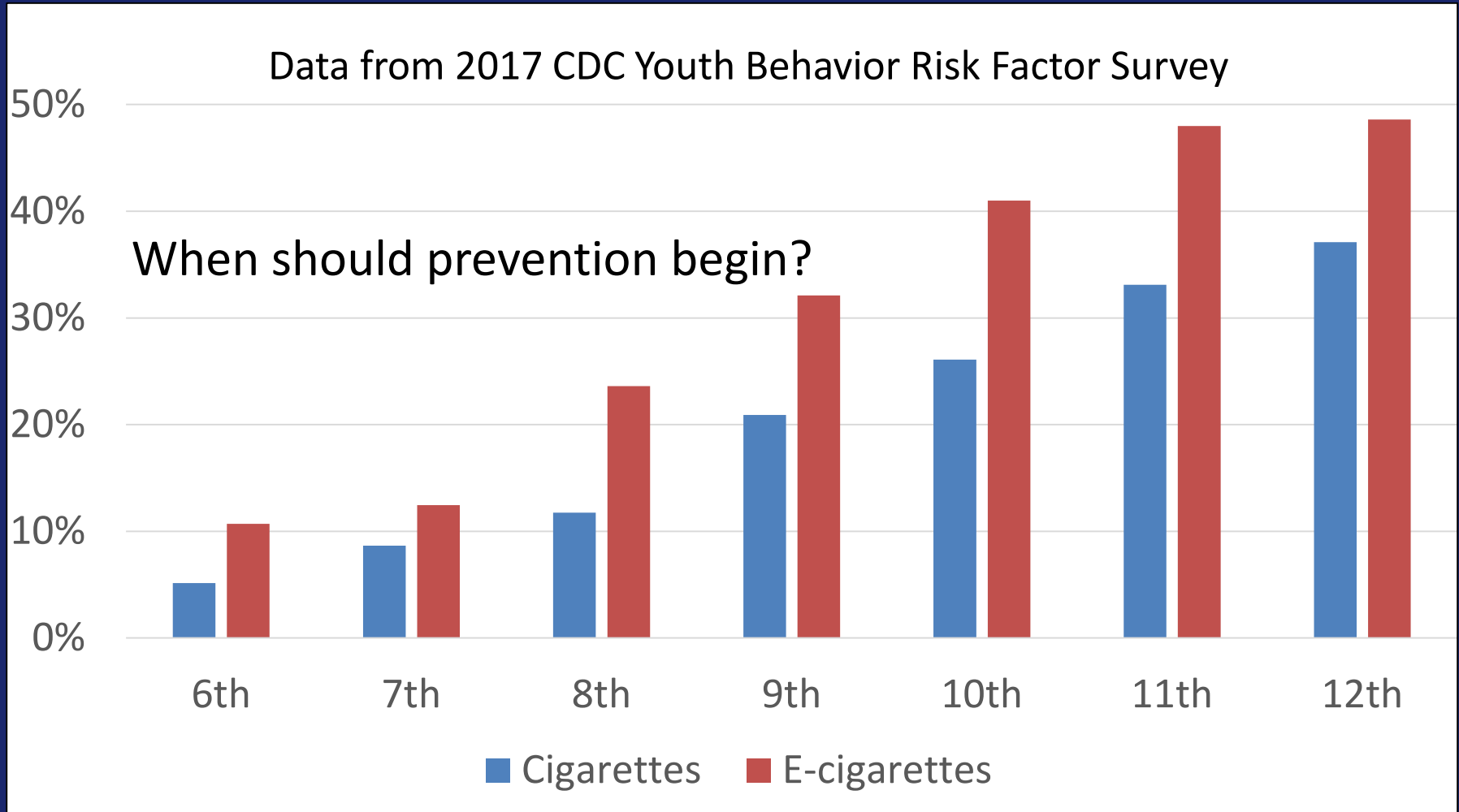
# In the past 30 days, have you used an e-cigarette?

Data From 2018 Monitoring the Future Study



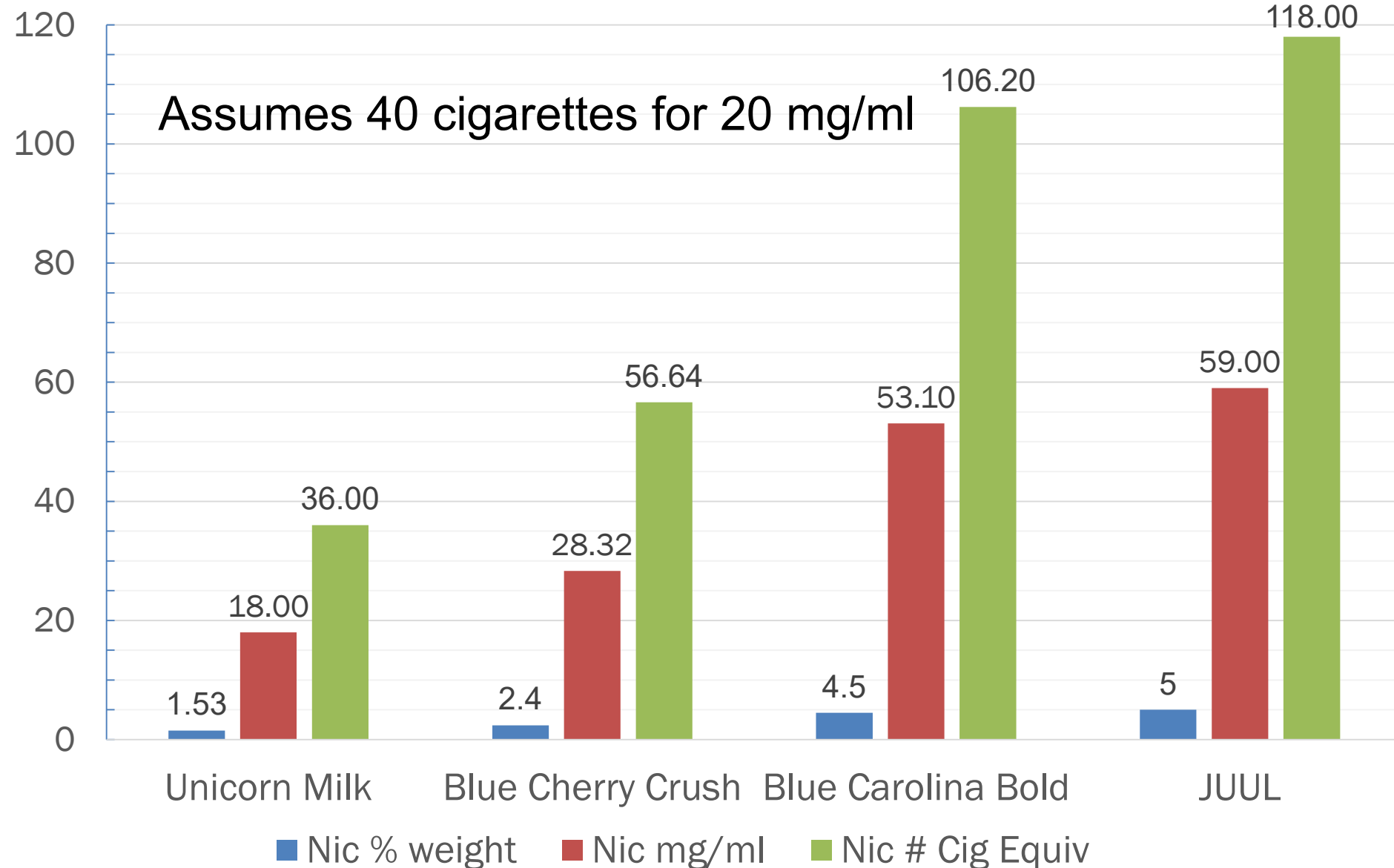
<http://monitoringthefuture.org/data/18data.html#2018data-drugs>

# Have you **ever** used....



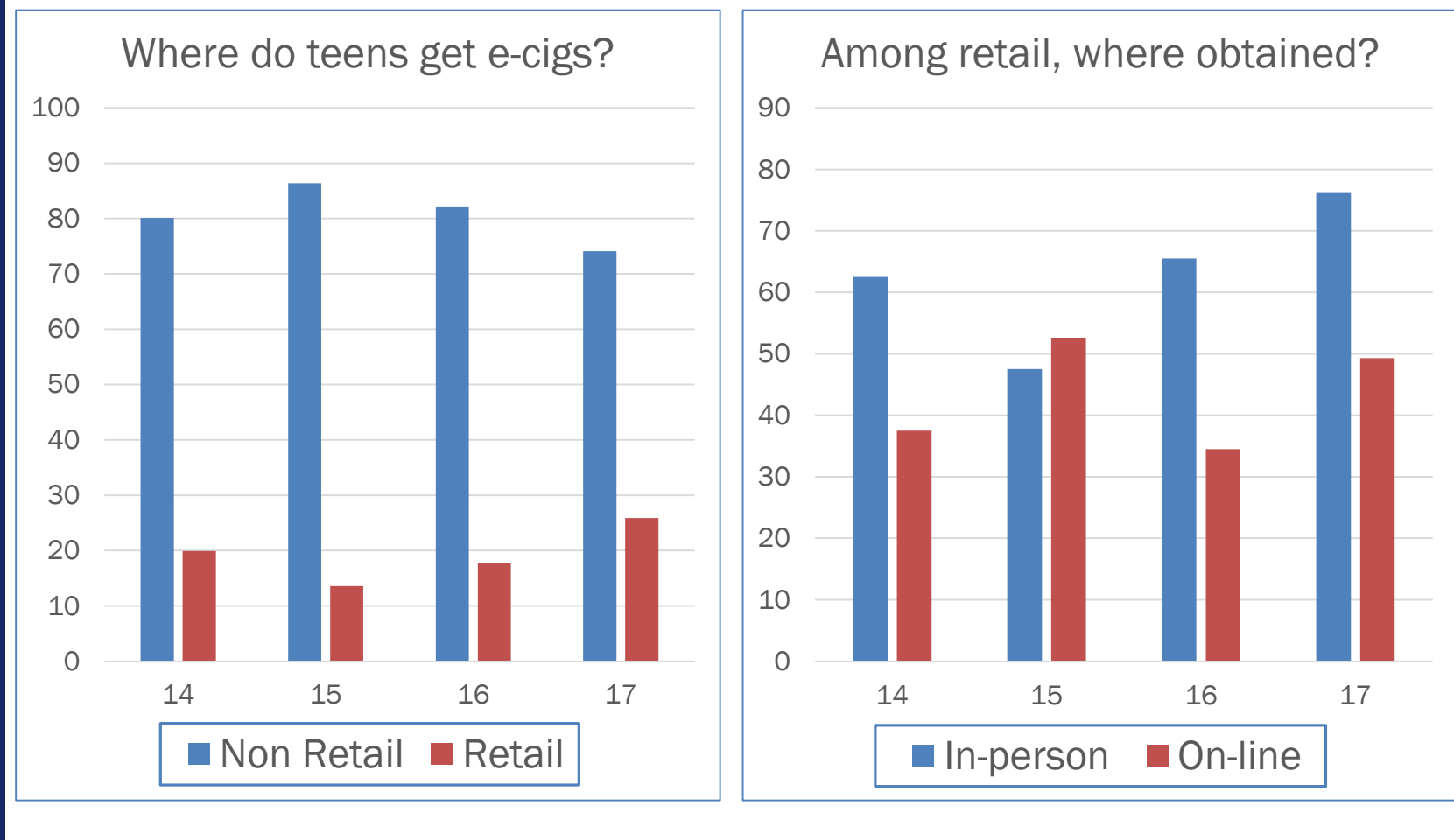
<https://nccd.cdc.gov/youthonline/App/Default.aspx>

# Equivalents across differing brands and nicotine concentrations





# 2017 Youth Behavior Risk Factor Survey



Mantey, Kelder, Baroso, Kelder. Retail Access to E-Cigarettes and Frequency of E-Cigarette Use Behaviors in High School Students. Tobacco Regulatory Science, 2019 (In press).

# CATCH<sup>®</sup>

## MY BREATH

E-CIGARETTE & JUUL PREVENTION PROGRAM

**Questions?  
Contact CATCH:**

**Marcella Bianco**

CATCH My Breath Program Director

Email: [catchmybreath@catch.org](mailto:catchmybreath@catch.org)

Phone: (855) 500-0050 x 802

**CATCH<sup>®</sup>**  
GLOBAL FOUNDATION

**Thank You!**



**CONNECT  
WITH US**

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**Inquiries:** [catchmybreath@catch.org](mailto:catchmybreath@catch.org)

**Technical support:** [support@catch.org](mailto:support@catch.org)

 [twitter.com/CATCHhealth](https://twitter.com/CATCHhealth)

 [facebook.com/CATCHhealth](https://facebook.com/CATCHhealth)

 [youtube.com/CATCHhealth](https://youtube.com/CATCHhealth)

 **CATCH.org**

**CATCHmybreath.org**

# TESTIMONIAL FROM SENIOR IN IL

## CATCH MY BREATH

Handout 4

Session 4


Your Life. Your Choice.

What is your choice regarding E-cigarettes?

I choose to do it but after recent  
thoughts and ideas in this class have chosen  
to stop.

What are your reasons for your choice?

Safety concerns. Do not know long term effects



# Now Available FREE for Middle & High Schools



- ▶ Meets Nat'l Academic and Common Core Standards
- ▶ Meets SHAPE Health Education Standards

# CATCH My Breath Table of Contents



## Program Overview

Information about classroom sessions, curriculum goals and rationale, scope & sequence, standards, and acknowledgements.

PAID



## Training

A 55-minute training webinar with coordinating slides for educators implementing CATCH My Breath.

PAID



## Session 0: Getting Ready to Start the Program

Selecting and training Peer Group Facilitators.

PAID



## Session 1: Consequences of E-cigarette Use

Students will describe the health hazards and negative consequences associated with E-cigarette use.

PAID



## Session 2: Making Our Own Choices

Students will discover that nonsmokers are the majority, analyze advertising methods, identify reasons teens may use E-cigarettes, and identify positive alternatives to using E-cigarettes.

FREE



## Session 3: Don't Let Them Lie and Win

Students will analyze how nicotine addiction would affect their personal identity/goals and develop a social media project that addresses misconceptions and promotes the benefits of being E-cigarette-free.

PAID



## Session 4: Your Life. Your Choice.

Students will recognize high-risk situations and places, demonstrate refusal skills, present their social media project, and make a personal goal regarding E-cigarette use.

PAID



## Parent Resources

Resources for parents, including a parent handout, letter (to be sent home at the beginning of the program), videos, fact sheets, and more.

FREE



## Teacher 411: Educator Resources

Background information on E-cigarettes with resources for teachers / tobacco educators who will be implementing CATCH My Breath. Includes policy templates, infographics, social media, and toolkits.

PAID



## Evaluation Tools

Sample student pre-and post-survey, as well as a teacher feedback survey.

PAID



## Intercom Announcements

Announcements to be used during Red Ribbon Week or other tobacco awareness events.

PAID



## ASPIRE

For further tobacco prevention: ASPIRE is an evidence-based, youth-oriented tobacco prevention curriculum developed by researchers at The University of Texas MD Anderson Cancer Center.

FREE



## PE Supplement

A Physical Education Supplement for CATCH My Breath that is designed to be taught in the gym.

PAID



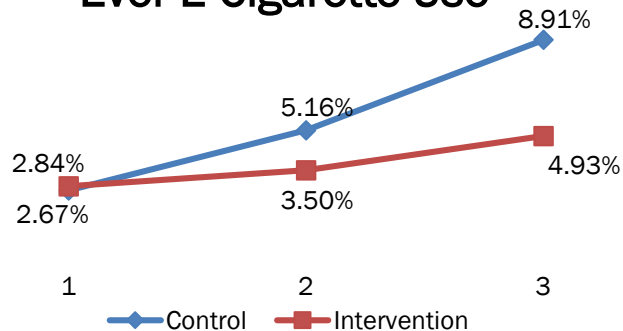
## Signage

A series of three posters to be used to reinforce messaging.

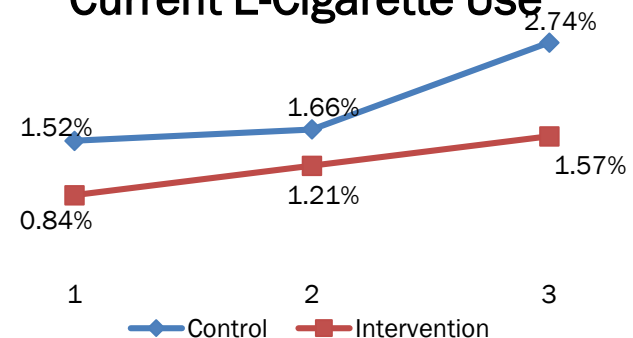
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# Results from CATCH My Breath Evaluation

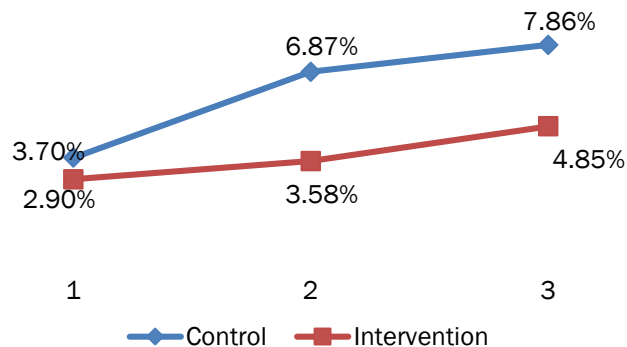
## Ever E-Cigarette Use



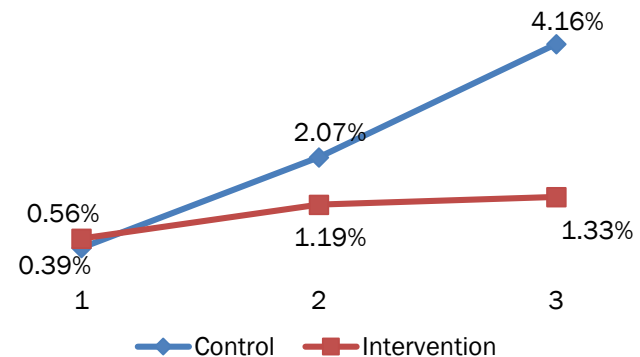
## Current E-Cigarette Use



## Ever Cigarette Use



## Current Cigarette Use





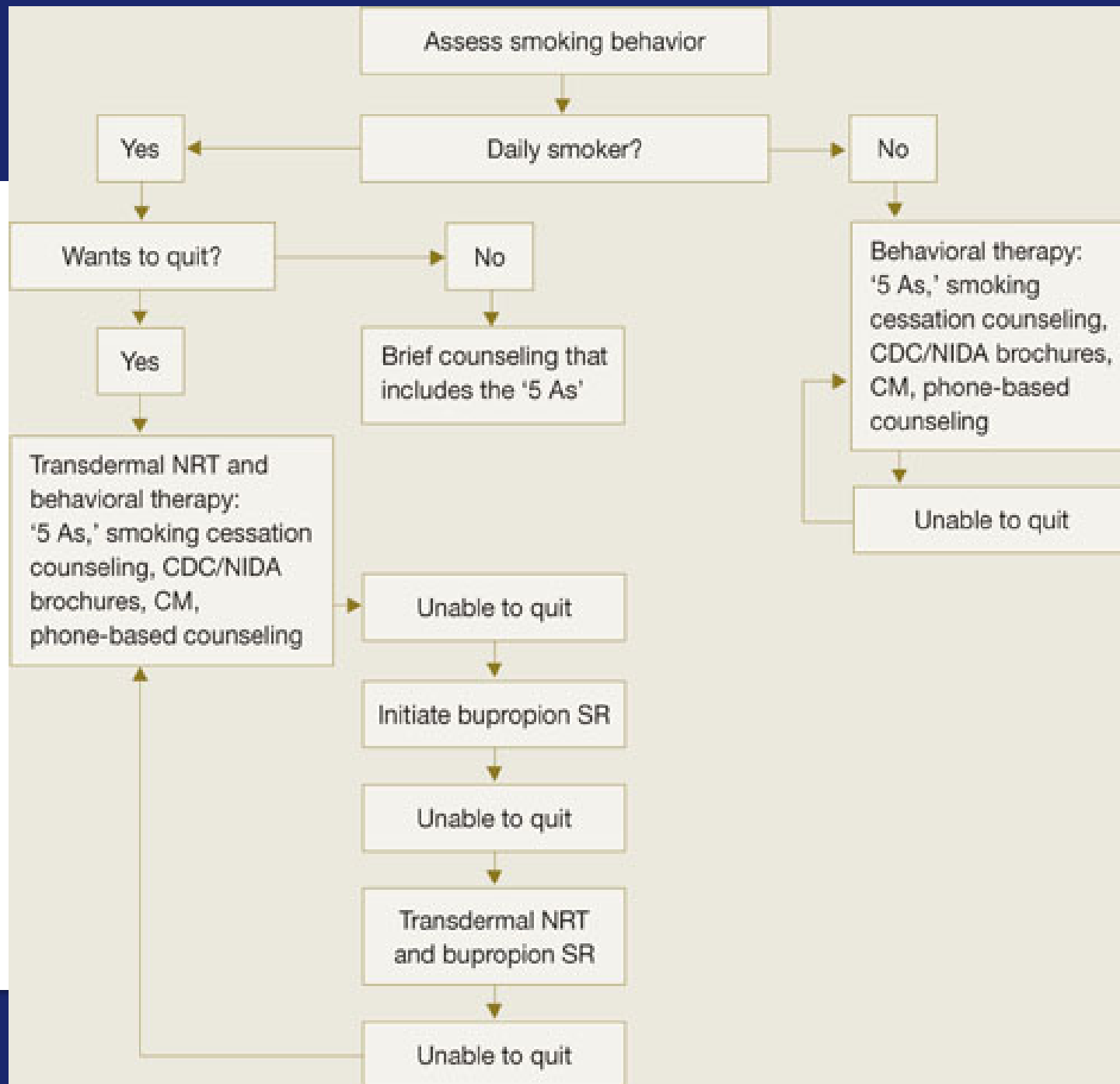
# A Word About Nicotine Dependent Teens

AAP: Recommend FDA-approved cessation products and refer patients to the state quitline (1-800-QUIT NOW), a text-based program (text QUIT to 47848), or an in-person cessation program.

Centers for Disease Control and Prevention, Youth Tobacco Prevention. [www.cdc.gov/tobacco/youth/index.htm](http://www.cdc.gov/tobacco/youth/index.htm).

Not On Tobacco model program. Substance Abuse and Mental Health Services Administration.  
[www.modelprograms.samhsa.gov/pdfs/model/Not\\_On\\_Tobacco.pdf](http://www.modelprograms.samhsa.gov/pdfs/model/Not_On_Tobacco.pdf).





**SB 97: Signed in May 2015. Health and Safety Code  
Sections 161.081-8; 161.251-6; 161.301-2; 161.356; 161.452-457**

- Prohibits sale, purchase, or use of e-cigarettes or nicotine containers to a minor under the age of 18. Upon conviction, a class C misdemeanor, including a fine up to \$500 may be imposed.
- Nicotine containers must be child-resistant.
- Retailers must post a sign.
- A retailer shall adequately supervise and train the retailers agents to prevent a violation.
- Conviction leads fine or awareness program. <https://legiscan.com/TX/text/SB97/2015>

## **Section 38.006. E-Cigarettes and Tobacco Products on School Property**

- The board of trustees of a school district shall:
  - Prohibit smoking or using e-cigarettes or tobacco as a school –related or school-sanctioned activity on or off school property.
  - Prohibit students from possessing e-cigarettes or tobacco products at a school-related or school sanctioned activity on or off school property.
  - Ensure that school personnel enforce the policies on school property.

# Section 28.004. E-Cigarettes and Tobacco Products on School Property

Westlake High School Student Handbook, 2017-18

## *Tobacco and E-Cigarettes Prohibited*

Students are prohibited from possessing or using any type of tobacco product, electronic cigarettes (e-cigarettes), or any other electronic vaporizing device, while on school property at any time or while attending an off-campus school-related activity.

The district and its staff strictly enforce prohibitions against the use of all tobacco products, e- cigarettes, or any other electronic vaporizing device, by students and all others on school property and at school-sponsored and school-related activities. [See the Student Code of Conduct and policies at FNCD and GKA.]

## **Section 28.004. E-Cigarettes and Tobacco Products on School Property**

- A school district must publish in the student handbook and district website a statement:
  - Of policies adopted to ensure adequate PA.
  - The number of times the SHAC has met in the preceding year.
  - Whether the district complies vending machine and food service regulations.
  - Whether the district has adopted and enforces policies and procedures for use of e-cigarettes and tobacco.

# Comptroller Rules

If the Comptroller finds, after notice and hearing, that a retailer has sold cigarettes, cigars and/or tobacco products to a minor, at a place of business for which a permit is issued, the Comptroller may suspend or revoke the permit for that place of business or assess an administrative fine in an amount up to \$1000 per violation. (Tax Code, [Sec. 154.1142](#) and [Sec. 155.0592](#))