



ACCEPT **Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics** **Agenda**

Webex link to join from PC, Mac, iOS or Android:

<https://uwmadison.webex.com/uwmadison/j.php?MTID=m6dfbe50f3c56cb4719e74b72b73ef916>

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Session Date: Friday, May 21, 2021

Didactic Topic and Presenter:

E-cigarettes and Vaping:

Balancing Cigarette Harm Reduction and Youth Public Health

Jesse Kaye, PhD

UW Center for Tobacco Research and Intervention

William S. Middleton Memorial Veterans Hospital

Content Experts:

Ritu Bhatnagar, MD; Lindsey Peterson, MS, CRC; Sheila M. Weix, MSN, RN, CARN

-
- 12:15 PM: Attendance text-in – Introductions
 - 12:25 PM: Case Presentation
 - Presenter: Rebecca Kellum, MD
 - 1 PM: Didactic Presentation
 - Presenter: Jesse Kaye, PhD
 - 1:15 PM: End of Session

Funding for this service was made possible by 435200-G-18-11448-285932-880 from Wisconsin Department of Health Services. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government or the State of Wisconsin.

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**ECHO ACCEPT
Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics
2020-2022**

**Microdosing as an Approach to Buprenorphine Initiation
5/21/2021**

Didactic Presenter: Jesse Kaye, PhD
Case Presenter: Rebecca Kellum, MD

Provided by the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP)

Intended Audience:

Nurses, Nurse Practitioners, Pharmacists, Physicians, Physician Assistants, Pharmacy Technicians, Psychologists, Social Workers, Patient/Caregivers, Students

Objectives:

As a result of this educational regularly scheduled series, learners as members of the healthcare team will be able to:

- 1) Analyze the harm reduction potential of e-cigarettes compared to combustible cigarettes
- 2) Explain the clinical and public health concerns associated with e-cigarettes
- 3) Identify free tobacco treatment referrals and resources to extenders your clinical practice

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Name	Role	Financial Relationship Disclosures	Discussion of Unlabeled/Unapproved uses of drugs/devices in presentation?	COI completion date
Randall Brown	RSS Chair	No relevant financial relationships to disclose	Yes	3/11/21
Nada Rashid	RSS Coordinator	No relevant financial relationships to disclose	No	3/11/21
Kathleen Maher	Planner	No relevant financial relationships to disclose	No	3/15/21
Ritu Bhatnagar	Planner	No relevant financial relationships to disclose	Yes	3/12/21
Paul Hutson	Planner	No relevant financial relationships to disclose	Yes	3/11/21
Susan Mindock	Planner	No relevant financial relationships to disclose	No	3/11/21
Lindsey Peterson	Planner	No relevant financial relationships to disclose	No	3/11/21
Sheila Weix	Planner	No relevant financial relationships to disclose	No	3/11/21
Jesse Kaye, PhD	Presenter	No relevant financial relationships to disclose	Yes	4/29/21
Rebecca Kellum, MD	Presenter	No relevant financial relationships to disclose	No	5/19/21

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ACCEPT

Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics

Patient Case Presentation Form

***Please do not attach any patient-specific files or include any Protected Health Information.**

1. Date: 5/21/21
2. Presenter Name: Rebecca Kellum, MD
3. Presenter Organization: UW/SSM Health
4. ECHO ID: 7488
5. Have you presented this patient during this teleECHO clinic before? ☒ Yes ☐ No
6. Please state your main question for this case:
 - a. strategies when a patient has cycled through inpatient and residential treatment numerous times
 - b. strategies when stimulant use disorder and eating disorder are directly connected

PLUS -- an unusual complication of nicotine, amphetamine and/or cannabis use

Patient Demographic Information:

7. Age: 34
8. Sex: cis-female
9. Education/Literacy: some college
10. Income source: administrative work

11. Substance Use History:

- Diagnosed with OCD in 5th grade, then depression and anxiety in her late teens.
- late teens: treated for headaches and insomnia (butalbital, fioricet; later triptan); ADD, fatigue (strattera, concerta); OCP for acne and contraception;
- Age 19: found unresponsive, hypothermic in her car with alcohol intoxication. UDS positive for amphetamines.
- Age 22: first residential treatment for alcohol use disorder. Requesting stimulants to treat her hypersomnolence.
- subsequently diagnosed with an eating disorder, multiple STIs
- 2014: psychiatric hospitalization for suicide via overdose on ssri; then admitted to mental health clinic; reported to be "chronic alcoholic and habitual relapser, having participated in multiple AODA residential and IOP treatments with minimal success. Poor history of following through with aftercare recommendations."

- previous medications: fluoxetine, escitalopram, sertraline, duloxetine, venlafaxine, fluvoxamine; strattera, concerta; gabapentin, hydroxyzine, naltrexone, disulfiram
- behavioral treatment: multiple courses of inpatient, residential, IOP; intermittent AODA counseling; brief AA
- one hospitalization for suicide attempt 2014 (SSRI overdose)
- became my primary care patient in 2017. engaged in several attempts to resume residential treatment for AUD, stimulant use (adderall, cocaine) which she reported using primarily for weight control.
- 3/2020: 3 weeks of progressive digital ischemia fingers and toes. At that time, also using intra-nasal cocaine and vaping tobacco. CTD work-up negative. Stopped OCP (pt declined alternative means for contraception). started amlodipine, nitropaste. she declined bupropion, chantix. Vascular evaluation: confirmed thromboangiitis obliterans (Buerger's disease).
- attempted readmission to Rogers for stimulant use disorder, eating disorder -- not successful. Pt infrequently returned for care. Will occasionally call for care related to sexual health.
- 4/2021 -- has entered sober living in another state. requesting refill for gabapentin

12. Consequences of Substance Use:

- Social/occupational/educational:
 - job interruption for treatment
- Physical (including evidence of tolerance/withdrawal):
 - excruciating pain in ischemic fingertips

13. Interventions that have been tried:

- previous medications: fluoxetine, escitalopram, sertraline, duloxetine, venlafaxine, fluvoxamine; strattera, concerta; gabapentin, hydroxyzine, naltrexone, disulfiram
- behavioral treatment: multiple courses of inpatient, residential, IOP ; intermittent AODA counseling; brief AA

14.

Current Addiction and Mental Health-related Medications:	Medical/Behavioral Health Diagnosis:
<ul style="list-style-type: none"> • gabapentin 300mg tid 	<ul style="list-style-type: none"> • OCD, MDD, anxiety, ADD, eating disorder • alcohol use disorder, stimulant use disorder, nicotine use disorder, cannabis use/disorder

15.

Patient Strengths/protective factors:	Risk factors:
<ul style="list-style-type: none"> • she keeps trying; can be resourceful when seeking care • family support 	<ul style="list-style-type: none"> • stimulant use and eating disorder closely connected • difficulty following through on outpatient treatment recommendations

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16. Patient Goals/Motivations for Treatment:

- can't finish anything when drinking.
- wants to spend time with her boyfriend and dog

17. Proposed Diagnoses:

- OCD, MDD, anxiety, ADD, eating disorder
- alcohol use disorder, stimulant use disorder, nicotine use disorder, cannabis use/disorder
- Thromboangiitis obliterans vs cannabis vasculitis

18. Proposed Treatment Plan:

- explore and support interest in behavioral treatment (CBT, AODA counseling, AA)
- reconsider pharmacotherapy

By initialing here ____RK____ you have acknowledged that Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any ECHO clinician and any patient whose case is being presented in a teleECHO clinic.

DSM 5 Criteria for Substance Use Disorder

A use disorder is characterized by maladaptive use resulting in repetitive consequences over the previous 12 months. A minimum of 2-3 criteria is required for a mild substance use disorder diagnosis, while 4-5 is moderate, and 6-7 is severe (American Psychiatric Association 2013)

1. Taking the substance in larger amounts and for longer than intended
2. Wanting to cut down or quit but not being able to do it
3. Spending a lot of time obtaining the substance

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4. Craving or a strong desire to use
5. Repeatedly unable to carry out major obligations at work, school, or home due to use
6. Continued use despite persistent or recurring social or interpersonal problems caused or made worse by use
7. Stopping or reducing important social, occupational, or recreational activities due to opioid use
8. Recurrent use in physically hazardous situations
9. Consistent use despite acknowledgment of persistent or recurrent physical or psychological difficulties from using
10. *Tolerance as defined by either a need for markedly increased amounts to achieve intoxication or desired effect or markedly diminished effect with continued use of the same amount. (Does not apply for diminished effect when used appropriately under medical supervision)
11. *Withdrawal manifesting as either characteristic syndrome or the substance is used to avoid withdrawal (Does not apply when used appropriately under medical supervision)



E-cigarettes and Vaping: Balancing Cigarette Harm Reduction and Youth Public Health

Jesse Kaye, PhD

UW Center for Tobacco Research and Intervention

William S. Middleton Memorial Veterans Hospital

May 21, 2021

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Acknowledgements

- ▶ No conflicts of interest.
- ▶ Views presented today are my own.
- ▶ I will discuss both FDA-approved tobacco smoking cessation medications *and* harm reduction perspectives on e-cigarettes.

Learning Objectives

- ▶ Analyze the harm reduction potential of e-cigarettes compared to combustible cigarettes
- ▶ Explain the clinical and public health concerns associated with e-cigarettes
- ▶ Identify free tobacco treatment referrals and resources to extenders your clinical practice

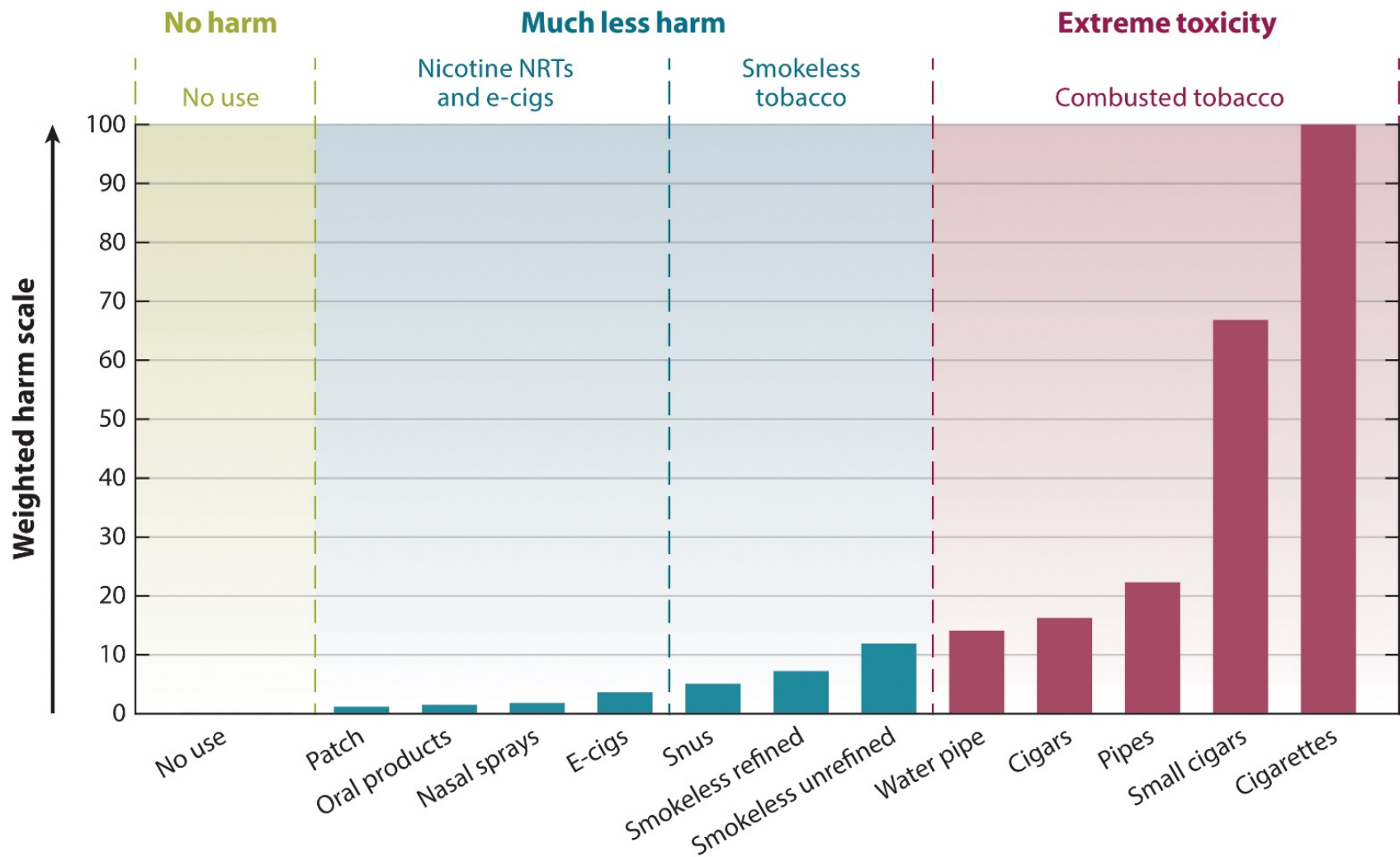
Overview

- ▶ E-cigarettes and vaping are complex and controversial!
- ▶ Harm reduction/minimization perspectives
- ▶ Youth vaping epidemic
- ▶ Tobacco treatment resources

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Harm minimization



A Abrams DB, et al. 2018.
Annu. Rev. Public Health. 39:193–213

Public Health Consequences of E-Cigarettes



HARM REDUCTION

Conclusion 18-1. There is *conclusive evidence* that completely substituting e-cigarettes for combustible tobacco cigarettes reduces users' exposure to numerous toxicants and carcinogens present in combustible tobacco cigarettes.

Conclusion 18-2. There is *substantial evidence* that completely switching from regular use of combustible tobacco cigarettes to e-cigarettes results in reduced short-term adverse health outcomes in several organ systems.

Public Health Consequences of E-Cigarettes



INITIATION AND CESSATION

Conclusion 17-1. Overall, there is *limited evidence* that e-cigarettes may be effective aids to promote smoking cessation.

Conclusion 17-2. There is *moderate evidence* from randomized controlled trials that e-cigarettes with nicotine are more effective than e-cigarettes without nicotine for smoking cessation.

Conclusion 17-3. 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.

Conclusion 17-4. While the overall evidence from observational trials is mixed, there is *moderate evidence* from observational studies that more frequent use of e-cigarettes is associated with an increased likelihood of cessation.

<https://www.nap.edu/read/24952/chapter/1>

Can electronic cigarettes help people stop smoking, and do they have any unwanted effects when used for this purpose?

- ▶ “Nicotine e-cigarettes probably do help people to stop smoking for at least six months. They probably work better than nicotine replacement therapy and nicotine-free e-cigarettes.”
- ▶ “They may work better than no support, or behavioral support alone, and they may not be associated with serious unwanted effects.”
- ▶ “However, we need more, reliable evidence to be confident about the effects of e-cigarettes, particularly the effects of newer types of e-cigarettes that have better nicotine delivery.”

Hajeck et al., NEJM, 2018
Cochrane Review, 2021

Editorial

What We Do Not Know About e-Cigarettes Is a Lot

Timothy B. Baker, PhD; Michael C. Fiore, MD, MPH, MBA

- ▶ How effective are e-cigarettes in increasing cigarette cessation and long-term abstinence in those making aided and unaided quit attempts?
- ▶ How do they compare with the most effective Food and Drug Administration pharmacotherapies for cessation: varenicline and combination nicotine replacement therapy?

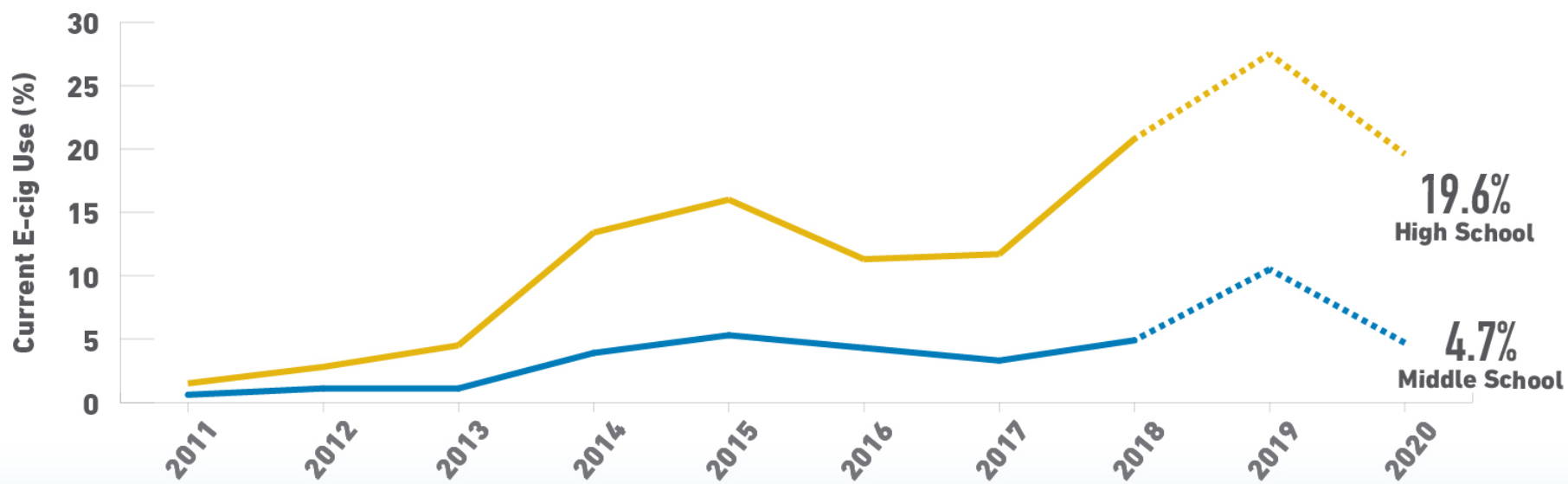
Clinical & Public Health Concerns

- ▶ “Dual use” (combustible + e-cigarette)
- ▶ Unknown long-term health effects
- ▶ Second-hand exposure
- ▶ Big Tobacco (e.g., investment, marketing, lobbying)
- ▶ Limited regulations and loopholes (e.g., disposable pods to avoid flavor ban, nicotine concentration)
- ▶ U.S. research roadblocks (e.g., FDA regulated tobacco product vs pharmaceutical product)
- ▶ EVALI (vitamin E acetate in THC containing e-cigs)
- ▶ Youth

Overview

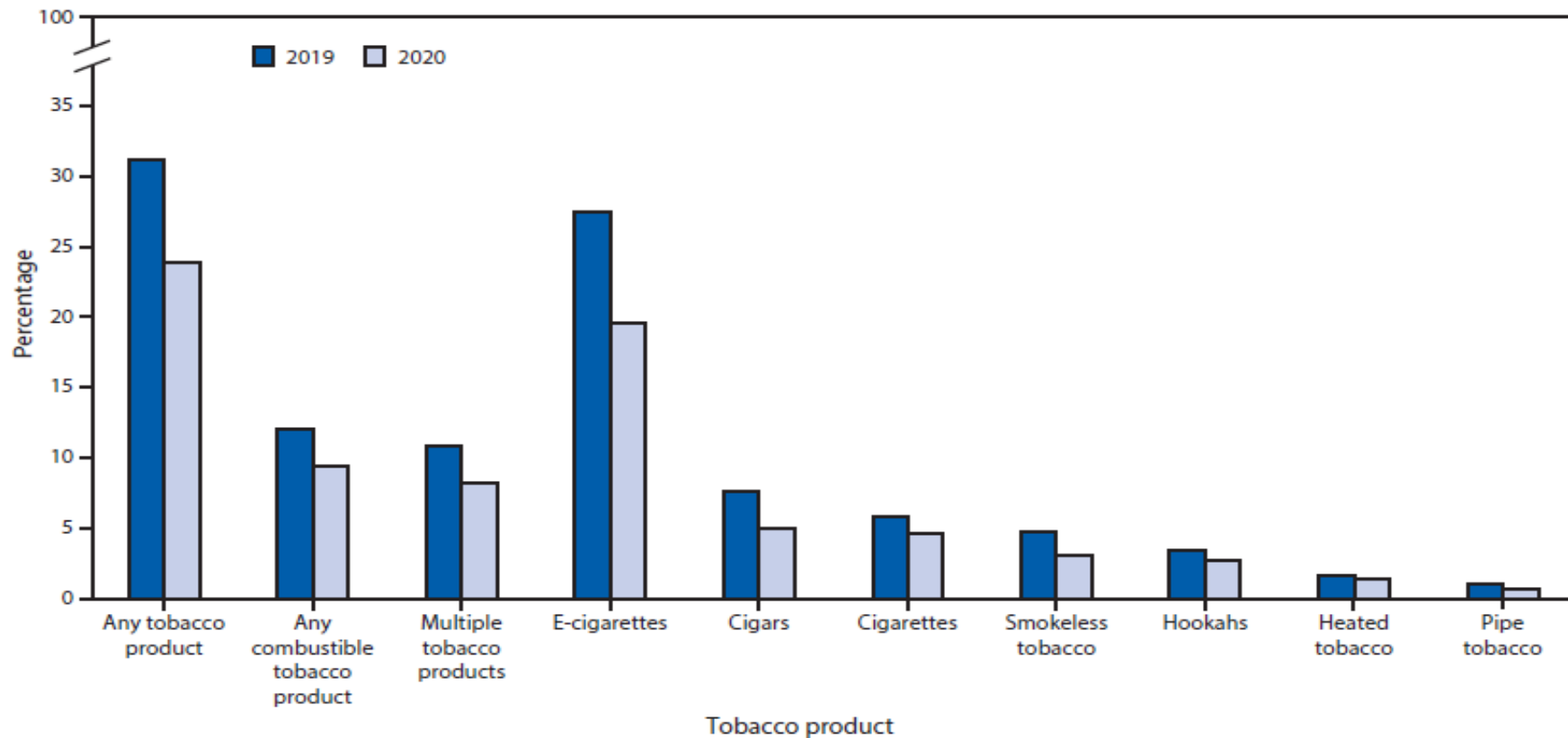
- ▶ E-cigarettes and vaping are complex and controversial!
- ▶ Harm reduction/minimization perspectives
- ▶ Youth vaping epidemic
- ▶ Tobacco treatment resources

2020 National Youth Tobacco Survey



Tobacco Product Use Among Middle and High School Students — United States, 2020

FIGURE 1. Percentage of current use of selected tobacco products,* any tobacco product,[†] any combustible tobacco product,[§] and multiple tobacco products^{||} among high school students — National Youth Tobacco Survey, United States, 2019 and 2020**



Wisconsin High School Tobacco Use

22% of Wisconsin students have tried some form of tobacco.



Almost **half** (46%) of high school students have tried an **electronic vapor product**.



Almost **1 in 5** (19%) high school students have tried a **cigarette**.

46% of tobacco users have **tried to quit** in the last year.

Dual tobacco use with electronic vapor products continues to be a problem.



60% of vapers have **tried** cigarettes.

30% of vapers **currently** smoke cigarettes.

96% of cigarette smokers have **tried** vaping.

95% of cigarette smokers **currently** vape.



Current use of tobacco varies by product type.



Smokeless tobacco

3%

Cigar/cigarillos

5%

Cigarettes

6%

Electronic vapor products

21%



Conclusions

- ▶ E-cigarette landscape continues to rapidly evolve (e.g., device types, nicotine content, e-liquid/juice, flavors, FDA regulations)
- ▶ First-line tobacco cessation treatment include 7 FDA-approved medications (*not e-cigs*) and counseling
- ▶ E-cigarettes are likely less harmful than combustible cigarettes when ***completely substituted***
- ▶ E-cigarettes with nicotine ***may*** help people stop smoking cigarettes
- ▶ Many public health concerns remain! (e.g., rising youth rates, gateway effects, dual e-cig/cigarette use, long-term health effects, relative efficacy for smoking cessation)

Overview

- ▶ E-cigarettes and vaping are complex and controversial!
- ▶ Harm reduction/minimization perspectives
- ▶ Youth vaping epidemic
- ▶ Tobacco treatment resources

Resources

- ▶ Wisconsin Tobacco Quit Line
 - <https://quitline.wisc.edu/>
 - 1-800-QUIT-NOW or Text READY to 200-400
- ▶ SmokeFreeTeen
 - <https://teen.smokefree.gov/quit-vaping>
- ▶ Truth Initiative
 - <https://truthinitiative.org/thisisquitting>
 - <https://www.becomeanex.org/helping-a-child-quit-vaping/>

Resources

UW Center for Tobacco Research and Intervention

▶ E-cigarettes & Vaping

- <https://ctri.wisc.edu/providers/e-cigs-and-vaping/>

▶ Tobacco Treatment for Behavioral Health

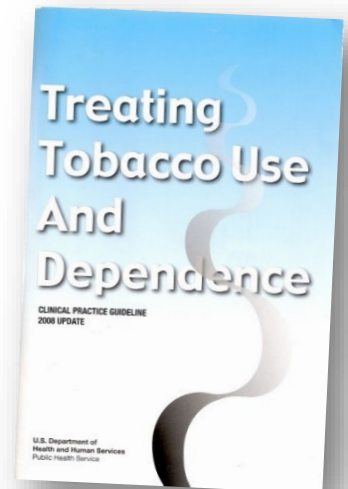
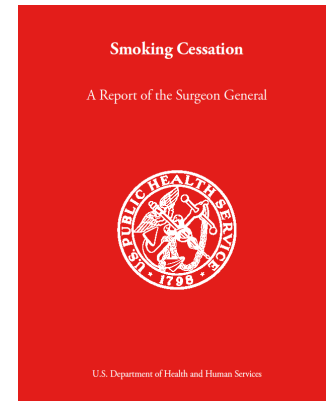
- [UW Continuing Ed \(8CE free\): The Bucket Approach](#)
- [Behavioral Health Resources](#)

▶ Outreach and Clinical Training

- [Contact CTRI Outreach Specialist](#)

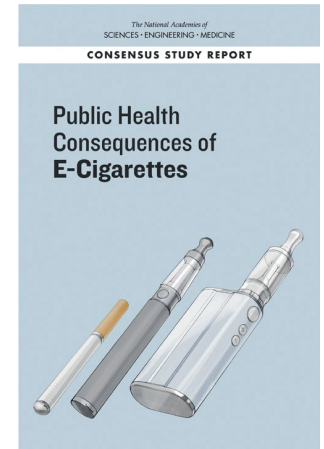
Resources

- ▶ 2020 Surgeon General Report: Smoking Cessation
 - https://www.cdc.gov/tobacco/data_statistics/sgr/2020-smoking-cessation/fact-sheets/adult-smoking-cessation-e-cigarettes-use/index.html
- ▶ US Public Health Service, Clinical Practice Guideline: Treating Tobacco Use and Dependence (2008 Update)
 - <https://www.ncbi.nlm.nih.gov/books/NBK63952/>



Resources

- ▶ The National Academies of Sciences Engineering and Medicine: Public Health Consequences of E-Cigarettes (2018)
 - <https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes>
- ▶ Cochrane Reviews: Electronic cigarettes for smoking cessation (Review, 2021)
 - https://www.cochrane.org/CD010216/TOBACCO_can-electronic-cigarettes-help-people-stop-smoking-and-do-they-have-any-unwanted-effects-when-used



Thank you

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Jesse.Kaye@va.gov

DSM-5 Substance Use Disorder ("Addiction")

- ▶ Tolerance
 - ▶ Withdrawal
- } **Physical Dependence ≠ Use Disorder**
- ▶ Larger amts/longer periods than intended
 - ▶ Persistent desire/failed attempts to quit/control use
 - ▶ Much time obtaining/using/recovering
 - ▶ Important activities sacrificed
 - ▶ Continued use despite known adverse effects
 - ▶ Failure to fulfill major obligations
 - ▶ Recurrent hazardous use
 - ▶ Craving
 - ▶ Ongoing use despite interpersonal problems

2-3 = mild

4-5 = moderate

≥ 6 = severe