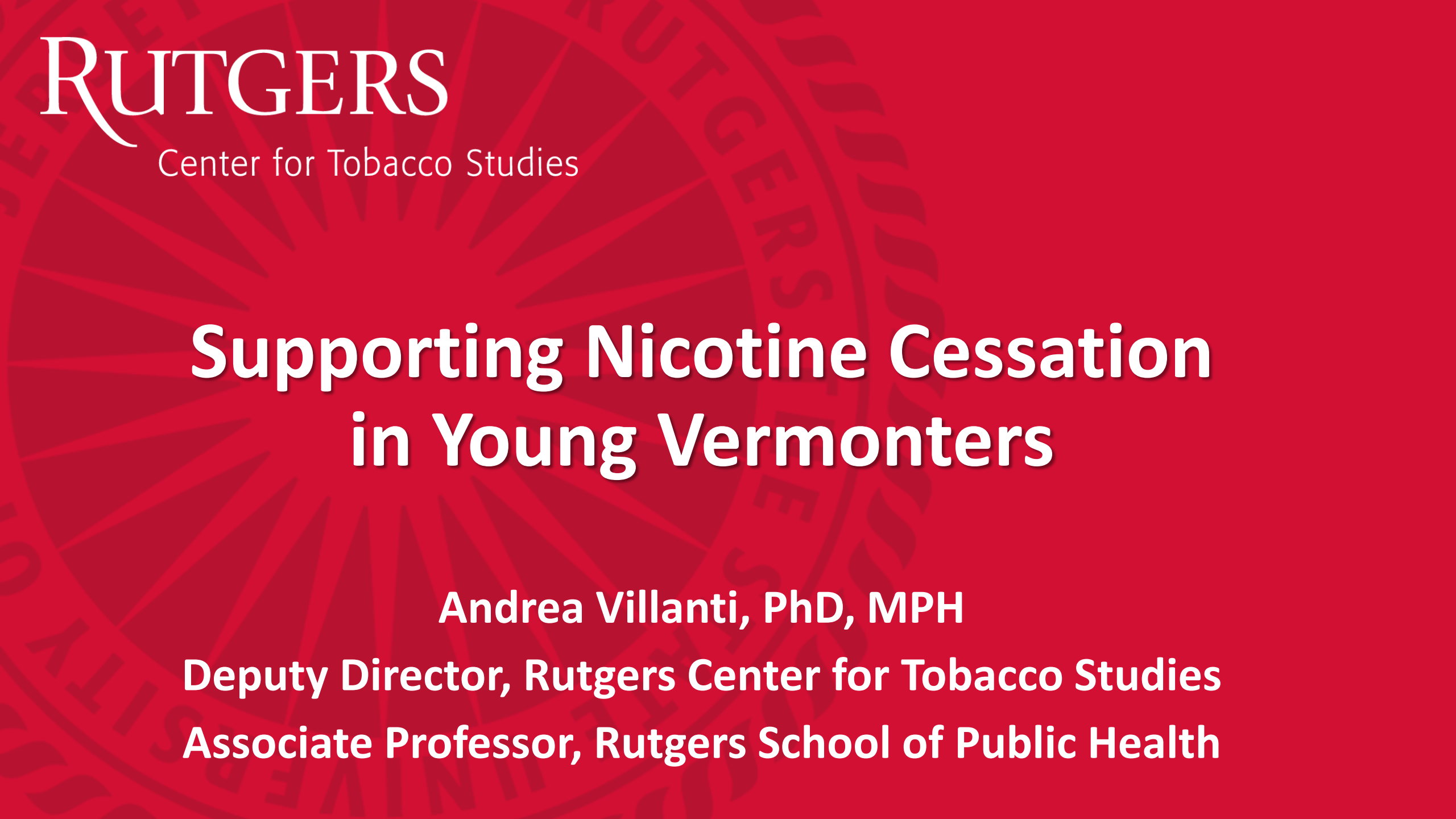


The background of the slide features a large, faint, circular watermark of the Rutgers University seal. The seal contains the text "RUTGERS UNIVERSITY" and "EST. 1823" around a central emblem. The text "RUTGERS" is prominently displayed in a large, white, serif font at the top left of the slide.

RUTGERS

Center for Tobacco Studies

Supporting Nicotine Cessation in Young Vermonters

Andrea Villanti, PhD, MPH

Deputy Director, Rutgers Center for Tobacco Studies

Associate Professor, Rutgers School of Public Health

- Funding from NIH, FDA, and HRSA
- No other financial relationships to disclose.
- No industry funding; no off-label medications use discussed
- The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Food and Drug Administration.

- Professional experience
 - Deputy Director, Rutgers Center for Tobacco Studies and tenured Associate Professor in the Rutgers School of Public Health
 - Adjunct Associate Professor in Psychological Sciences and Psychiatry at UVM; Co-director, Surveillance & Evaluation Core of UVM Center on Rural Addiction
- Vermonter and committed to public health in Vermont
- Parent with pre-teens in Vermont schools!

WHAT WORKS IN NICOTINE CESSATION?

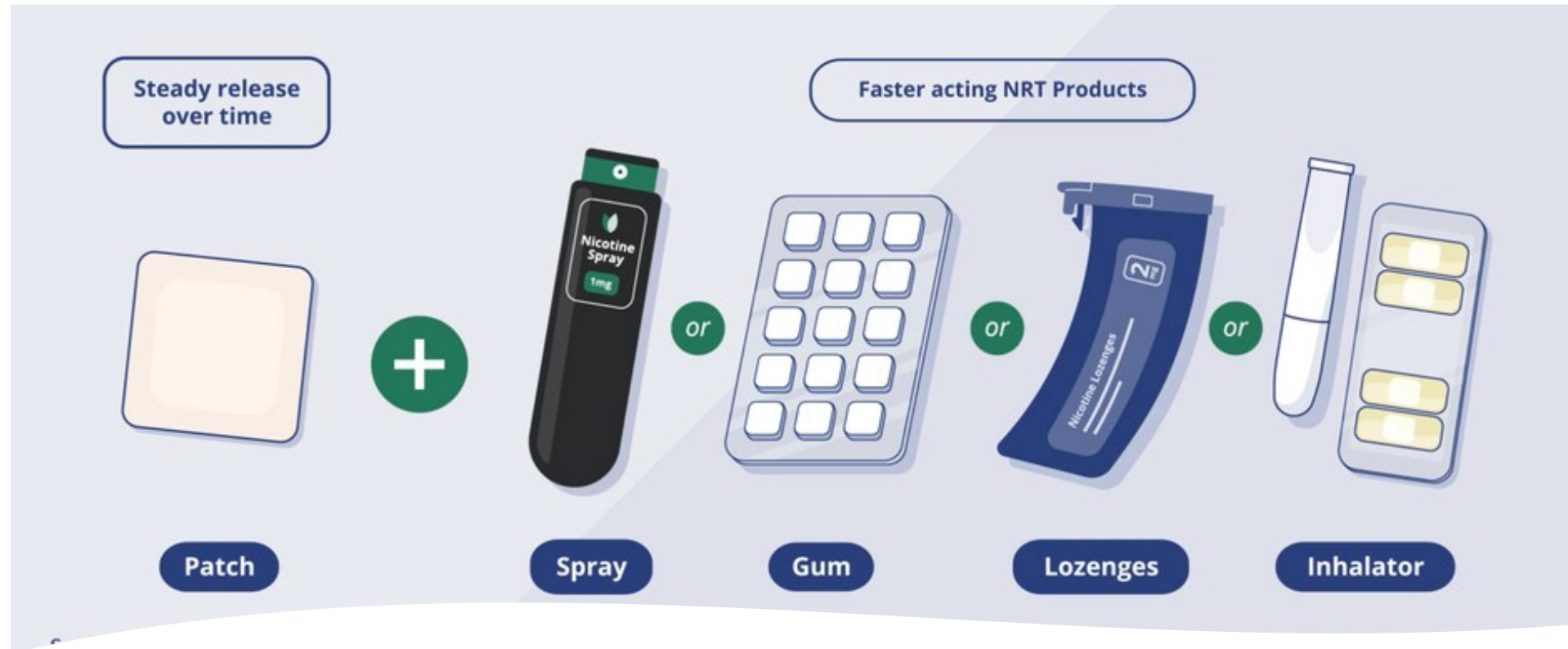
Community Guide to Preventive Services

Intervention	Outcomes Addressed	CPSTF Finding
Comprehensive Tobacco Control Programs	Cessation Initiation Secondhand Smoke Exposure	Recommended August 2014
Smoke-Free Policies	Cessation Initiation Secondhand Smoke Exposure	Recommended November 2012
Interventions to Increase the Unit Price for Tobacco Products	Cessation Health Disparities Initiation	Recommended November 2012
Mass-Reach Health Communication Interventions	Cessation Initiation	Recommended April 2013
Reducing Out-of-Pocket Costs for Evidence-Based Cessation Treatments	Cessation	Recommended August 2012
Quitline Interventions	Cessation	Recommended August 2012
Mobile Phone-Based Cessation Interventions	Cessation	Recommended December 2011
Internet-Based Cessation Interventions	Cessation	Recommended December 2019
Mass Media - Cessation Contests	Cessation	Insufficient Evidence May 2000

<https://www.thecommunityguide.org/>

Borrowing from tobacco cessation research:

- Set a quit date!
- Make it hard to access a vape.
- Identify high risk for vaping situations and be prepared.
- Wait out cravings by distracting with other activities, especially those incompatible with vaping.
- Keep your hands busy; keep your mouth busy (e.g., gum).
- Review quit reasons frequently.
- Avoid others while they are vaping.
- Reach out to family, friends and physician for support.
- For adults (18+), use FDA-approved medications (nicotine replacement therapy, bupropion, varenicline).



Question:

Can someone under 21 buy nicotine replacement products at a pharmacy?

A. Yes

B. No

Little is known about efficacy of FDA-approved cessation medications in young people

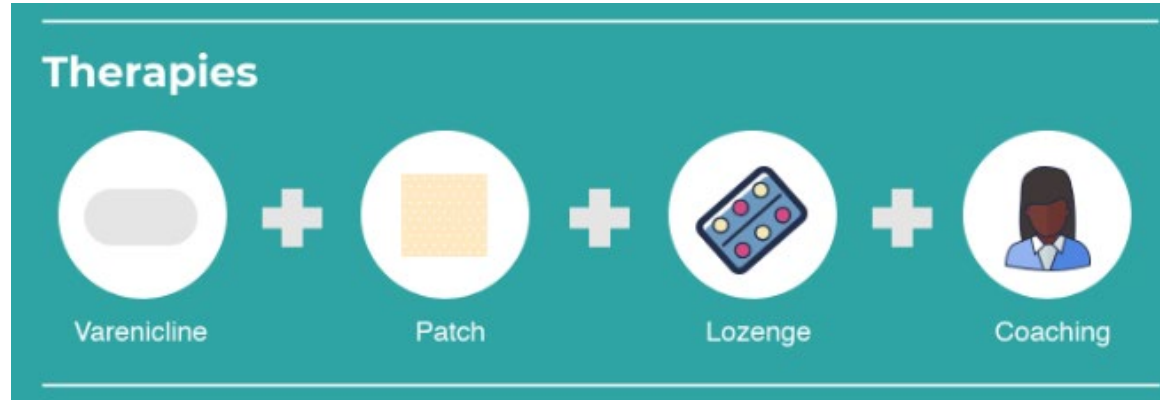
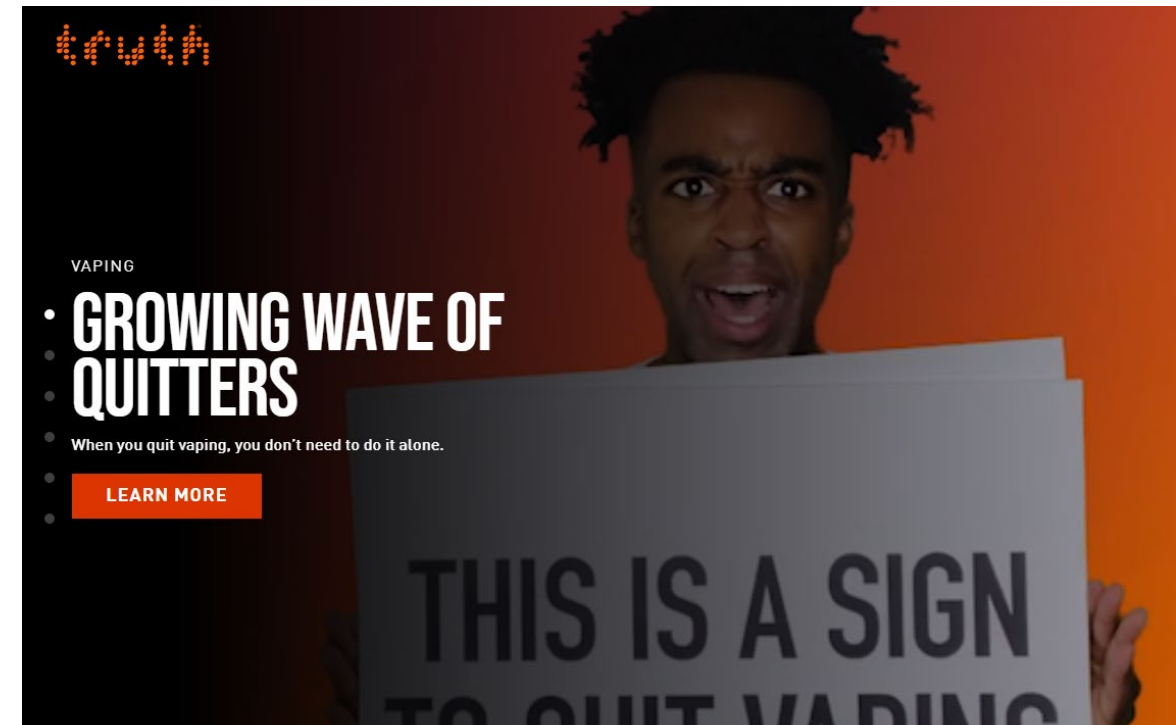


Image: <https://ctri.wisc.edu/2019/05/01/innovative-therapy-offers-three-meds-to-quit-smoking-with-mild-side-effects/>

- Adolescents are generally not recommended to use FDA-approved medications.
- Young adults are able to use FDA-approved medications, but generally **don't**.

- Free quit vaping text message program
- In five weeks (Jan – Feb 2019):
 - 13,421 teens and 13,750 young adults had already joined
 - At two-week assessment, 61% of respondents indicated they had reduced or stopped using e-cigarettes altogether.



JAMA Internal Medicine

RCT: Effectiveness of a Vaping Cessation Text Message Program Among Young Adult e-Cigarette Users

POPULATION

1253 Men, 1303 Women
26 Nonbinary or other gender



Young adults aged 18-24 y who vaped nicotine in the past 30 d and were interested in quitting

Mean (SD) age, 20.4 (1.7) y

INTERVENTION

2588 Individuals randomized



1284 Assessment-only control

Monthly assessment of e-cigarette use and abstinence via incentivized text message for 6 mo

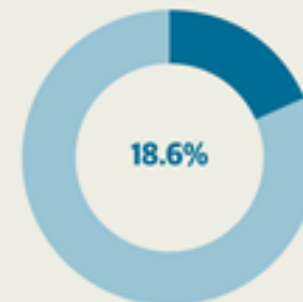
1304 This is Quitting intervention

Assessment-only control plus automated, youth-tailored, interactive text message program for vaping cessation that delivers social support and cognitive and behavioral coping skills training

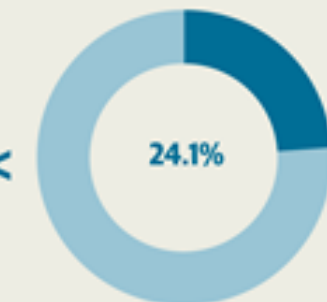
FINDINGS

Young adults who received the This is Quitting intervention had significantly higher vaping abstinence rates at 7 mo compared with those in the control group (odds ratio, 1.39; 95% CI, 1.15-1.68)

Assessment-only control



This is Quitting intervention



<

Point prevalence abstinence at 7 mo:

Assessment-only control:
18.6% (95% CI, 16.7%-20.8%)

This is Quitting intervention:
24.1% (95% CI, 21.8%-26.5%)

SETTINGS / LOCATIONS



National recruitment to an online study in the US

PRIMARY OUTCOME

30-d Point prevalence abstinence from vaping, as measured by self-reported abstinence from e-cigarette use 7 mo after randomization, analyzed under intent to treat



4:40 📶 87%
← Truth - Quit JUUL 📞 🔍 ⋮

Tuesday, Feb 26 • 8:06 AM

T Hey! I'm from truth and here to help you quit JUUL or any other e-cigarette. Ready to quit? Text back your quit date (mm/dd) for 6 wks of 1/day tips. Not sure yet? That's cool too - let's do 2 weeks together to help you figure it out. HELP for help, STOP to cancel. StdMsgRatesApply. Reply MORE for more info.

04/01

T Awesome, I've got your quit date as April 1, 2019. ~1 msg/day for 30 days to see you through this (a few more on quit day and the few days before/after) + how to cut down to quit if your quit date is more than a month away.

Wednesday, Feb 27 • 3:50 PM

Abigail says "Giving yourself a reason to quit is a good motivation!" Back to you

+ ➤ SMS

- Vermont:

- <https://802quits.org/>
- <https://vt.mylifemyquit.org/index>
- Text "Start My Quit" to 36072

- National:

- <https://smokefree.gov/>
- <https://teen.smokefree.gov/>
- <https://www.becomeanex.org/>
- <https://truthinitiative.org/quitecigarettes>



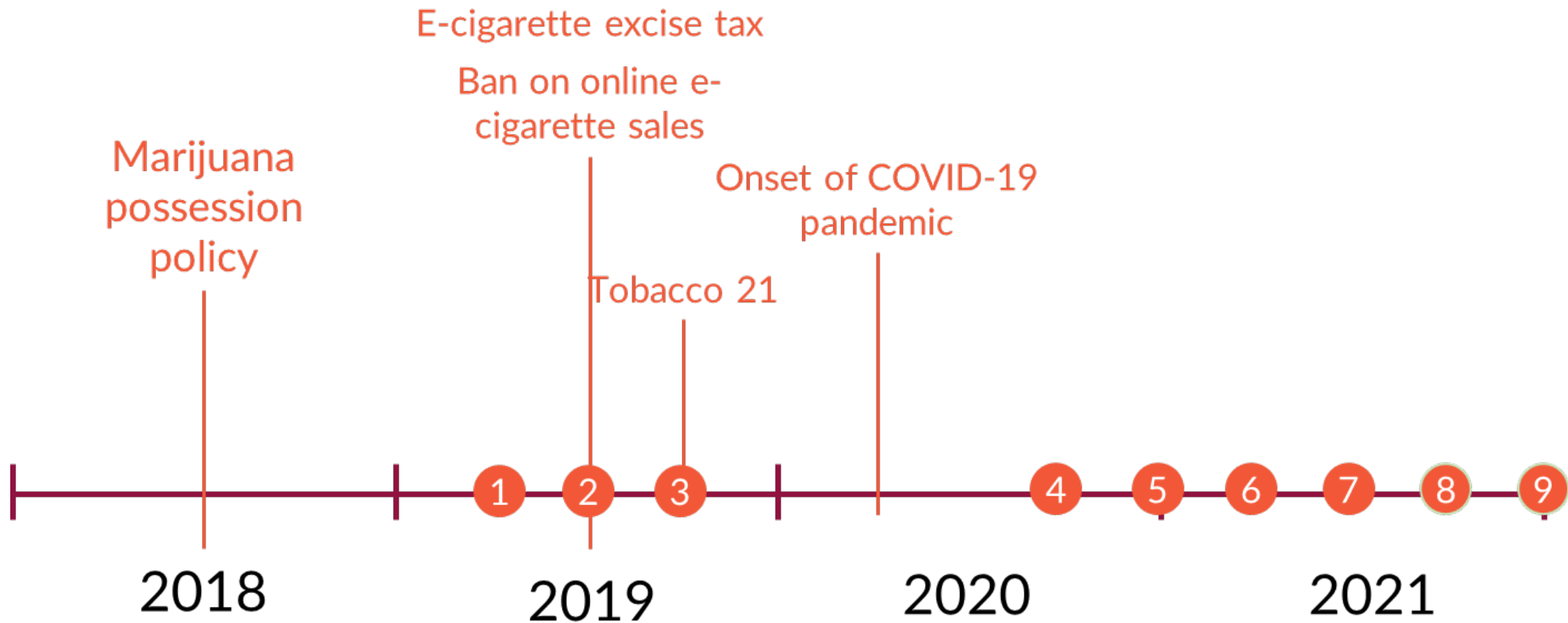
To understand the impact of state-level policies and communication campaigns on substance use beliefs and behaviors in young Vermonters.

www.pacevt.org



pace_vt

PACE Vermont data collection (2019 – 2021)



Quitting behavior in young Vermonters (ages 12-25), Summer 2021

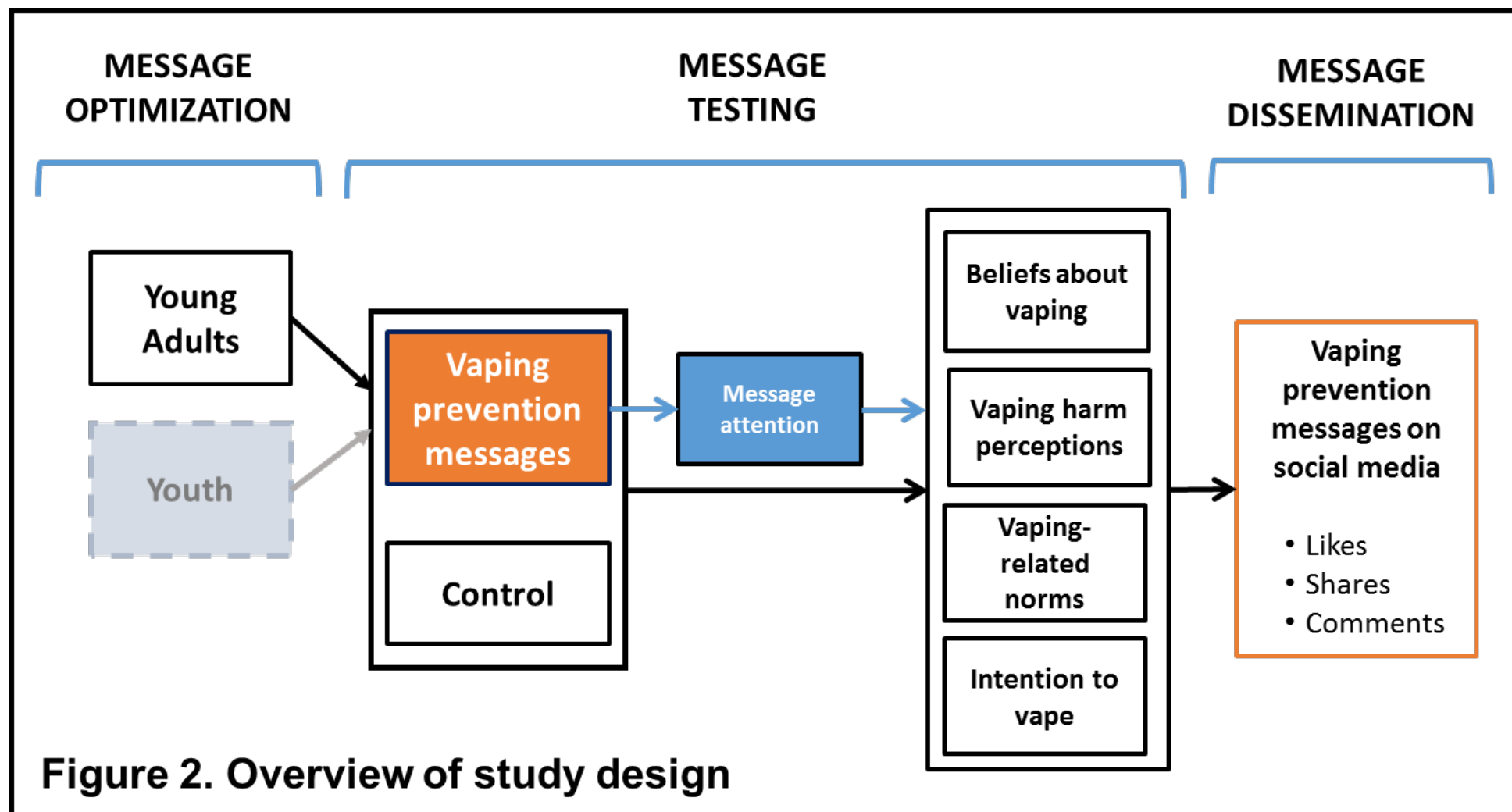
	Cigarettes	EVPs	Alcohol	Marijuana	Other substances
Ever use	171 (29%)	292 (50%)	438 (75%)	319 (54%)	104 (18%)
Past 30-day use	56 (10%)	85 (15%)	334 (57%)	150 (26%)	-
Quit or cut down					
Past year	30 (18%)	51 (18%)	67 (15%)	52 (16%)	3 (3%)
Past month	22 (73%)	35 (66%)	43 (61%)	34 (63%)	-

Reasons for quitting/cutting down

	Cigarettes n = 30 (18%)	EVPs n= 51 (18%)	Alcohol n = 67 (15%)	Marijuana n = 52 (16%)
Reasons for quitting/cutting down				
Health	24 (80%)	42 (82%)	56 (84%)	27 (52%)
Money/cost	13 (43%)	41 (80%)	33 (49%)	18 (35%)
Difficulty obtaining	1 (3%)	6 (12%)	0 (0%)	4 (8%)
Don't like the taste or smell	8 (27%)	2 (4%)	6 (9%)	2 (4%)
Negative experience while using	2 (7%)	5 (10%)	15 (22%)	14 (27%)
Freedom from addiction	10 (33%)	21 (41%)	8 (12%)	13 (25%)
Perform better in school, work, sports	4 (13%)	12 (24%)	18 (27%)	13 (25%)
For another person	6 (20%)	2 (4%)	2 (3%)	4 (8%)
I don't like it anymore	3 (10%)	5 (10%)	2 (3%)	7 (13%)
Other	1 (3%)	1 (2%)	6 (9%)	6 (12%)

**MESSAGING ON
VAPING**

Effects of Vaping Prevention Messages





ELSEVIER

Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh



Identifying message content to reduce vaping: Results from online message testing trials in young adult tobacco users

Andrea C. Villanti^{a,*}, S. Elisha LePine^a, Julia C. West^a, Tess Boley Cruz^b, Elise M. Stevens^c,
Haley J. Tetreault^a, Jennifer B. Unger^b, Olivia A. Wackowski^d, Darren Mays^e

^a Vermont Center on Behavior and Health, Department of Psychiatry, University of Vermont, USA

^b Department of Preventive Medicine, Keck School of Medicine, University of Southern California, USA

^c Harvard TH Chan School of Public Health and Dana-Farber Cancer Institute, Harvard University, USA

^d Center for Tobacco Studies, School of Public Health, Rutgers, the State University, USA

^e Department of Internal Medicine, Wexner Medical Center, Center for Tobacco Research, The Ohio State University Comprehensive Cancer Center, USA

Phase 1:

- 200 participants in Amazon Mechanical Turk
- Identify a smaller group of messages to be tested in Phase 2
- Identify images to be paired with messages in Phase 2

Phase 2:

- 769 participants in Amazon Mechanical Turk
- Test message/image pairs consistent with Instagram-type posts

Perceived message effectiveness (PME)

- Shown to be superior to message perceptions in estimating the likely impact of a vaping prevention message ([Noar et al., 2020](#)).
- Previous studies in tobacco control have identified effective messages as those scoring above the midpoint on message perceptions scales ([Davis et al., 2013](#); [Duke et al., 2014](#); [Zhao et al., 2016](#)).

PME 3-item scale	Response options
This message discourages me from wanting to vape.	1 – Strongly disagree 2 3 4 5 – Strongly agree
This message makes me concerned about the health effects of vaping.	1 – Strongly disagree 2 3 4 5 – Strongly agree
This message makes vaping seem unpleasant to me.	1 – Strongly disagree 2 3 4 5 – Strongly agree

INTERVENTION messages

RCT:

- 6 Harm Messages
- 2 Addiction Messages

All message/image combinations selected for the trial had mean PME above the scale midpoint (i.e., 3.00) in the Phase 2 experiment.

	0 Added	+Social	+Flavor
HARM (Mean PME, SD)	h4a (4.00, 0.88) 	hs5a (3.56, 1.17) 	hf3a (3.74, 0.92) 
	h3b (3.72, 0.97) 	hs3b (3.34, 0.87) 	hf1b (3.71, 0.96) 
ADDICTION (Mean PME, SD)		as6b (3.67, 0.95) 	af2b (3.53, 1.14) 

CONTROL messages

1	2	3	4
Indoor tanning and Ultraviolet (UV) radiation from the sun cause skin cancer and premature aging.	In order for the skin to tan - by sun or tanning lamps - the skin has to be damaged. Tanning is your skin's response to injury.	UV radiation from the sun is just as strong on cloudy and partly cloudy days.	Indoor tanning beds, booths, and lamps emit UV radiation at much higher levels than typical sunlight.
5	6	7	8
Conditions such as snow, water, or even reflections off of buildings intensify the sun's UV radiation.	Wearing sunscreen alone does NOT prevent skin cancer.	Limit sun exposure, wear protective clothing, and avoid indoor tanning to reduce your risk of skin cancer.	Sunburns are damaging for all ages. Apply a thick layer of sunscreen with an SPF of 30 or higher to prevent sunburns and skin cancer.

Adapted from Darren Mays (personal communication).



Vape Messaging Study

Who can participate?

Vermont young adults aged 18-24

What's involved?

Two 10-15 minute surveys over 1 month

Payment

\$25 for completing both surveys

- \$10 online gift card after the first survey
- \$15 online gift card after the second survey

Study Goal

To identify messages to prevent or reduce vaping in young adults.

Vaping Prevention Message Testing Trial

- June – August 2020
 - Recruitment via social media
- August 14 – 31, 2020
 - First survey distributed
- September 14 – 30, 2020
 - Follow-up survey distributed



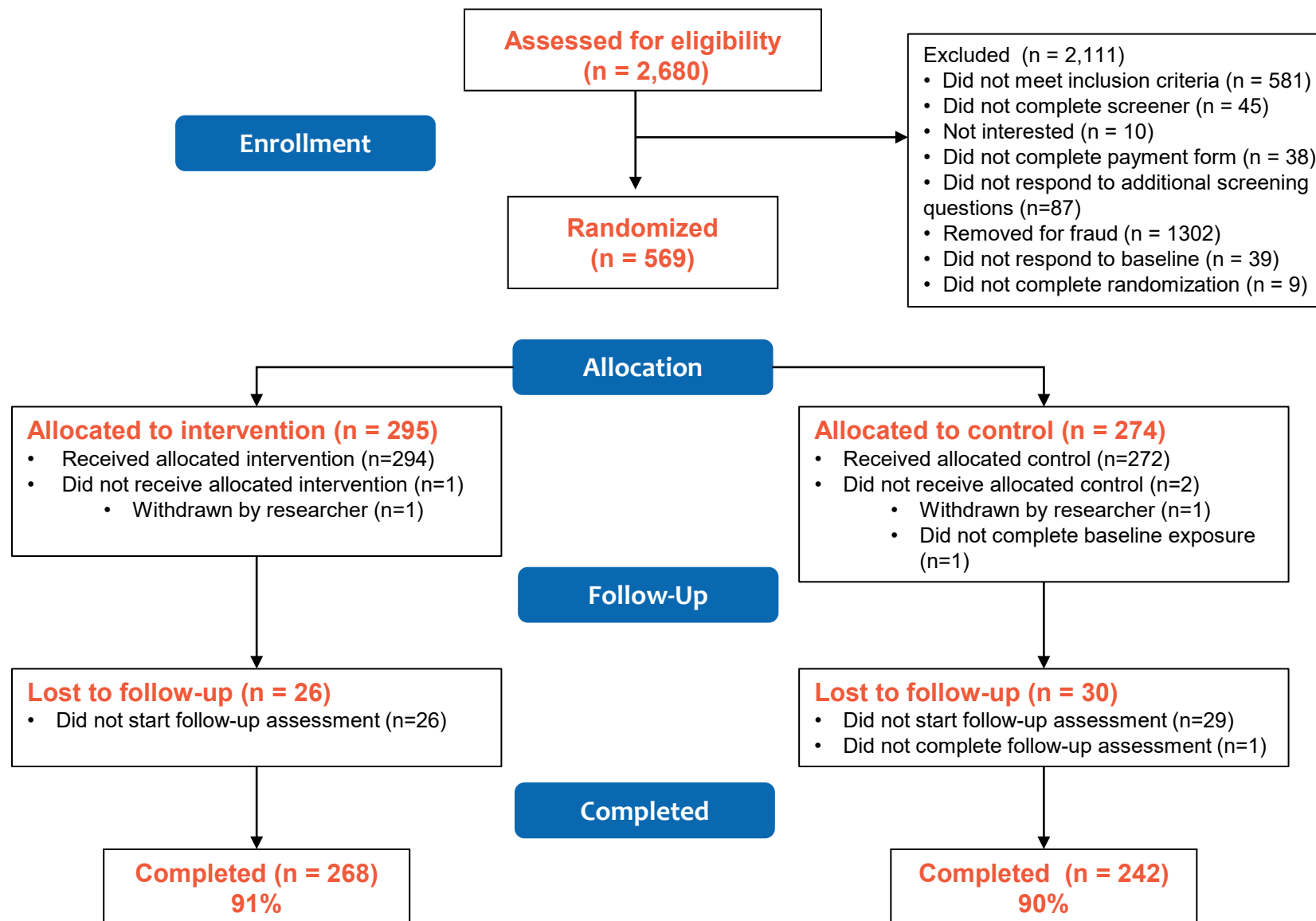
International Journal of
*Environmental Research
and Public Health*



Article

Effects of Vaping Prevention Messages on Electronic Vapor Product Beliefs, Perceived Harms, and Behavioral Intentions among Young Adults: A Randomized Controlled Trial

Andrea C. Villanti ^{1,2,3,*} , Olivia A. Wackowski ^{1,2}, S. Elisha LePine ^{3,4}, Julia C. West ^{3,5}, Elise M. Stevens ⁶, Jennifer B. Unger ⁷  and Darren Mays ^{8,9} 



Response to study messages

	Control n (%)	Intervention n (%)	Total n (%)	p-value
➡ Dwell time on messages in seconds (mean (SD))	133.13 (138.79)	162.89 (164.05)	148.59 (153.02)	0.02
➡ Message perceptions, 1 - 5 scale (mean (SD))				
Relevance	3.19 (1.12)	2.58 (1.26)	2.88 (1.23)	<0.001
Likeability	3.28 (0.93)	3.22 (0.96)	3.25 (0.94)	0.52
Overall message rating , 1 - 6 scale (mean (SD))	3.97 (1.10)	3.95 (1.27)	3.96 (1.19)	0.83
➡ Perceived message effectiveness, 1 - 5 scale (mean (SD))	2.54 (1.32)	3.72 (0.97)	3.15 (1.29)	<0.001
Messages provide new information				0.071
No	124 (45.6)	112 (38.1)	236 (41.7)	
Yes	148 (54.4)	182 (61.9)	330 (58.3)	
➡ Messages' effect on curiosity to vape				<0.001
No effect	192 (70.6)	120 (40.8)	312 (55.1)	
Increase	4 (1.5)	9 (3.1)	13 (2.3)	
Decrease	76 (27.9)	165 (56.1)	241 (42.6)	
➡ Messages' effect on desire to quit/cut down vaping				<0.001
No effect	204 (75.0)	162 (55.1)	366 (64.7)	
Increase	40 (14.7)	100 (34.0)	140 (24.7)	
Decrease	28 (10.3)	32 (10.9)	60 (10.6)	

Response to study messages

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This message makes vaping seem unpleasant to me.	1 – Strongly disagree 2 3 4 5 – Strongly agree

Study outcomes: Post-exposure

Main outcomes	Post exposure
EVP-related beliefs	
Nicotine is the main substance in electronic vapor products that makes people want to vape.	88% (No difference)
One 5% vape pod can contain as much nicotine as an entire pack of cigarettes.	75% (No difference)
Addiction to nicotine is something that I am concerned about.	74% (No difference)
EVP-related harm perceptions	
Absolute harm	(No difference)
Relative to smoking cigarettes	(No difference)
Relative to vaping marijuana/THC	(No difference)
Flavored tobacco/EVPs relative to unflavored	(No difference)

Study outcomes: 1-month follow-up

Main outcomes	Post exposure	1-month follow-up
EVP-related beliefs		
Nicotine is the main substance in electronic vapor products that makes people want to vape.	(No difference)	(No difference)
One 5% vape pod can contain as much nicotine as an entire pack of cigarettes.	(No difference)	(No difference)
Addiction to nicotine is something that I am concerned about.	(No difference)	(No difference)
EVP-related harm perceptions		
Absolute harm	(No difference)	(No difference)
Relative to smoking cigarettes	(No difference)	(No difference)
Relative to vaping marijuana/THC	(No difference)	(No difference)
Flavored tobacco/EVPs relative to unflavored	(No difference)	(No difference)

*Also, no difference in models adjusted for awareness of UNHYPED at baseline.

Study outcomes: 1-month follow-up

Main outcomes	1-month follow-up
Behavioral intentions	
Try EVP soon	(No difference)
Try EVP in next year	(No difference)
Try cigarette soon	(No difference)
Try cigarette in next year	(No difference)
Behavior	
Trial since baseline (never users)	
EVPs	(No difference)
Cigarettes	(No difference)
Past 30 day use	
EVPs	(No difference)
Cigarettes	(No difference)
Cigars, Smokeless, Hookah	(No difference)

*Also, no difference in models adjusted for awareness of UNHYPED at baseline.

Study outcomes: 1-month follow-up

Manipulation checks	Post exposure	1-month follow-up
Beliefs		
Nicotine is a cause of cancer.	69% intervention vs. 59% control (p = 0.03)	(No difference)
A tobacco product that says it has no additives is less harmful than a regular tobacco product.	(No difference)	17% intervention vs. 12% control (p = 0.03)
A tobacco product that says it is organic is less harmful than a regular tobacco product.	(No difference)	(No difference)

*Also, no difference in models adjusted for awareness of UNHYPED at baseline.

Vaping prevention messages - Discussion

- Findings suggested that the intervention produced the desired response on message-related outcomes of perceived message effectiveness, reduced curiosity about vaping, and increased desire to quit or cut down on EVPs.
- However, there was no impact of the intervention on EVP-related beliefs or harm perceptions.
- Findings suggested that higher PME may be prospectively associated with lower odds of believing that nicotine is not a cause of cancer.
 - May have inadvertently created mental maps between nicotine and cancer and between vape additives and health harms.
- These findings highlight that prevention messages addressing the harms of nicotine and other constituents in EVPs should be rigorously tested to ensure that they do not contribute to false beliefs about nicotine, EVPs, and other tobacco products



CURRENT METHODS OF QUITTING

Quitting behavior in young Vermonters (ages 12-25), Summer 2021

	Cigarettes	EVPs	Alcohol	Marijuana	Other substances
Ever use	171 (29%)	292 (50%)	438 (75%)	319 (54%)	104 (18%)
Past 30-day use	56 (10%)	85 (15%)	334 (57%)	150 (26%)	-
Quit or cut down					
Past year	30 (18%)	51 (18%)	67 (15%)	52 (16%)	3 (3%)
Past month	22 (73%)	35 (66%)	43 (61%)	34 (63%)	-

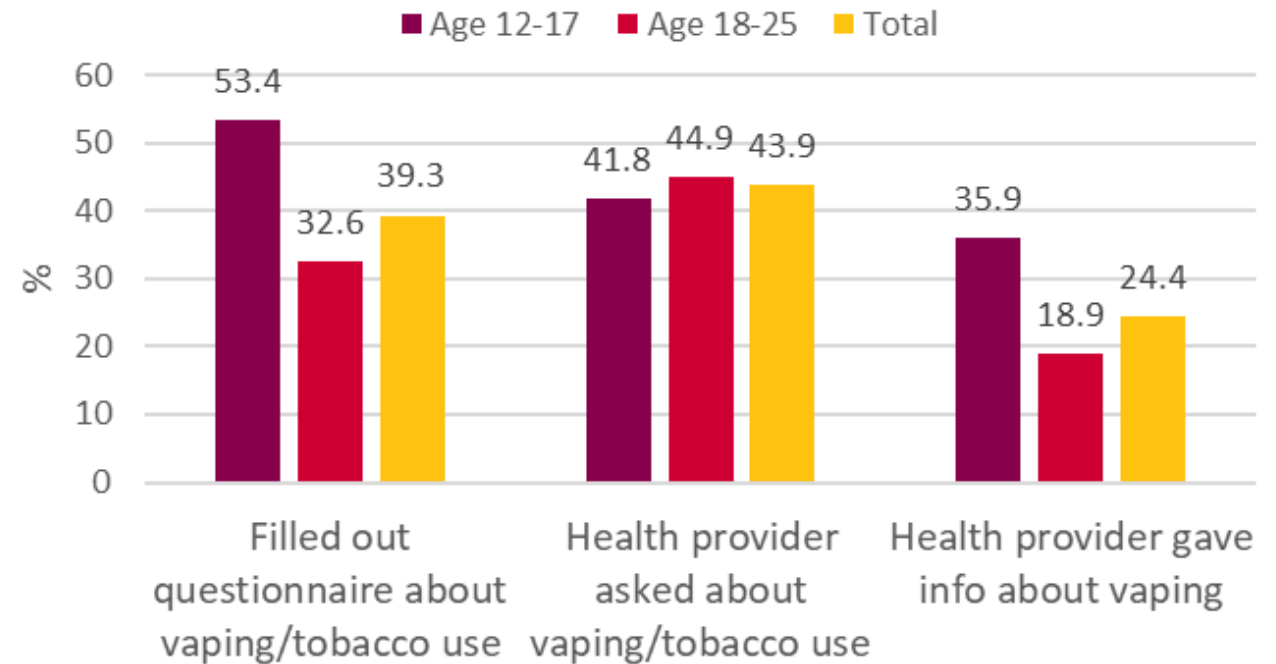
Methods used for quitting/cutting down

	Cigarettes n = 30 (18%)	EVPs n= 51 (18%)	Alcohol n = 67 (15%)	Marijuana n = 52 (16%)
Methods used for quitting/cutting down				
Quitting on your own	25 (83%)	39 (76%)	63 (94%)	47 (90%)
Counseling with SUD specialist	1 (3%)	-	1 (1%)	-
Talking with school counselor or mental health professional	2 (7%)	5 (10%)	2 (3%)	4 (8%)
VT Helplink	1 (3%)	5 (10%)	a	a
Text message program	-	-	-	-
Online/web-based program	1 (3%)	-	-	-
Talking with primary care provider	-	1 (2%)	1 (1%)	1 (2%)
Talking with other doctor	-	-	-	-
Medication	-	-	-	-
Calling a quitline	2 (7%)	-	a	a
Using NRT	1 (3%)	3 (6%)	a	a

Screening for Vaping and Tobacco Use

Fewer than half of PACE participants in Spring 2021 reported being asked by their health care provider about vaping/tobacco use or given information about vaping during a health care visit.

Figure 1. Health care provider screening and communication about vaping/tobacco use at health supervision visits*



*At the last visit, if in the last 2 years, and either health supervision visit (check-up or physical) or visit for sports, camp, college, or work



4:40 📶 87%
← Truth - Quit JUUL 📞 🔍 ⋮

Tuesday, Feb 26 • 8:06 AM

T Hey! I'm from truth and here to help you quit JUUL or any other e-cigarette. Ready to quit? Text back your quit date (mm/dd) for 6 wks of 1/day tips. Not sure yet? That's cool too - let's do 2 weeks together to help you figure it out. HELP for help, STOP to cancel. StdMsgRatesApply. Reply MORE for more info.

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- <https://www.becomeanex.org/>
- <https://truthinitiative.org/quitecigarettes>



Contents lists available at [ScienceDirect](#)

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed



Tailored text message and web intervention for smoking cessation in U.S. socioeconomically-disadvantaged young adults: A randomized controlled trial

Andrea C. Villanti^{a,*}, Catherine Peasley-Miklus^a, Sarah Cha^b, Jonathan Schulz^a,
Elias M. Klemperer^a, S. Elisha LePine^a, Julia C. West^{a,c}, Darren Mays^d, Robin Mermelstein^e,
Stephen T. Higgins^{a,c}, Amanda L. Graham^{b,f,g}

^a Vermont Center on Behavior and Health, Department of Psychiatry, University of Vermont, United States

^b Innovations Center, Truth Initiative, United States

^c Department of Psychological Science, University of Vermont, United States

^d Center for Tobacco Research, The Ohio State University James Comprehensive Cancer Center, Department of Internal Medicine, The Ohio State University, United States

^e Department of Psychology and Institute for Health Research and Policy, University of Illinois at Chicago, United States

^f Department of Medicine, Mayo Clinic College of Medicine and Science, United States

^g Department of Oncology, Georgetown University Medical Center/Cancer Prevention and Control Program, Lombardi Comprehensive Cancer Center, United States

Study Timeline



Participants and Procedures

- 343 SDYA aged 18-30 who reported smoking “every day” or “some days,” had access to a smartphone and reported interest in quitting in the next 6 months were recruited nationally from online ads between April 2020 and June 2020.
- Participants were randomized to referral to online cessation resources (control; n=171) or a 12-week web and text message smoking cessation intervention (n=172; NCT04379388).

Measures and Analyses

- Primary outcomes were self-reported past 30-day point prevalence abstinence (PPA) and confidence to quit smoking assessed in all participants at 12-weeks
- Secondary outcomes included past 7-day PPA and readiness rulers.
- Intent to treat analyses examined relationships between study condition and outcomes at 12 weeks.

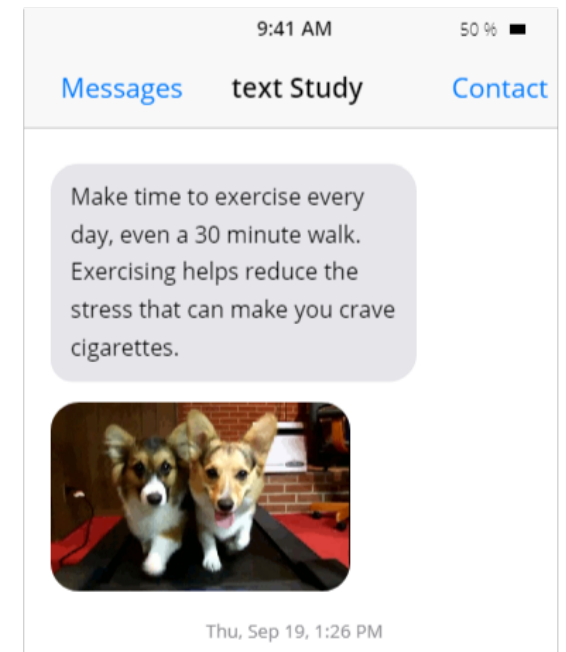
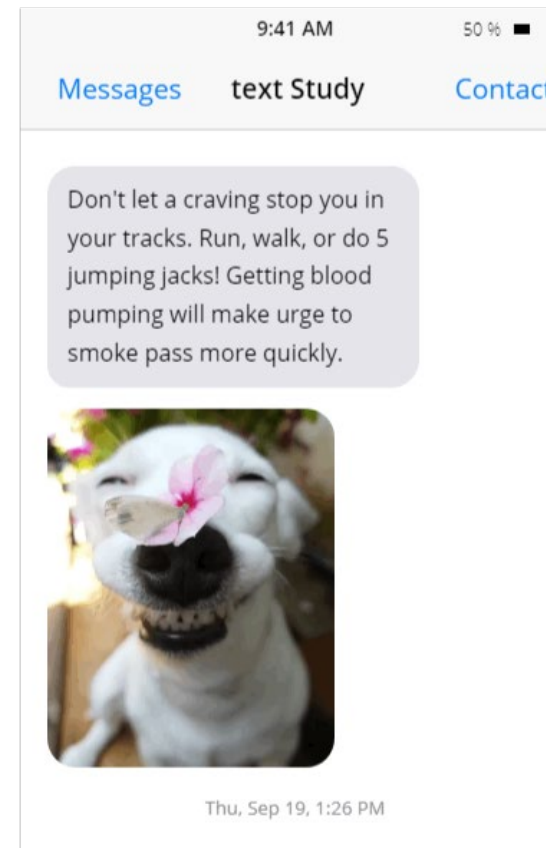


• Daily text messages

- Up to 5 messages per day
- Content varied according to the specific themes identified in the formative research.
 - Barriers to cessation raised by SDYAs
 - Stress management
 - Lack of alternative coping strategies
 - Personal reasons for quitting.
- Keywords
 - “CRAVE,” “MOOD,” “COPE,” “SLIP,” or “MORE” to receive additional content via text message
 - “STOP” to opt-out of study messages.

• Weekly check-in survey via text

- Assess smoking status
- Usefulness of message content
- Actions resulting from the text messages
- Satisfaction with intervention



CONSORT Diagram

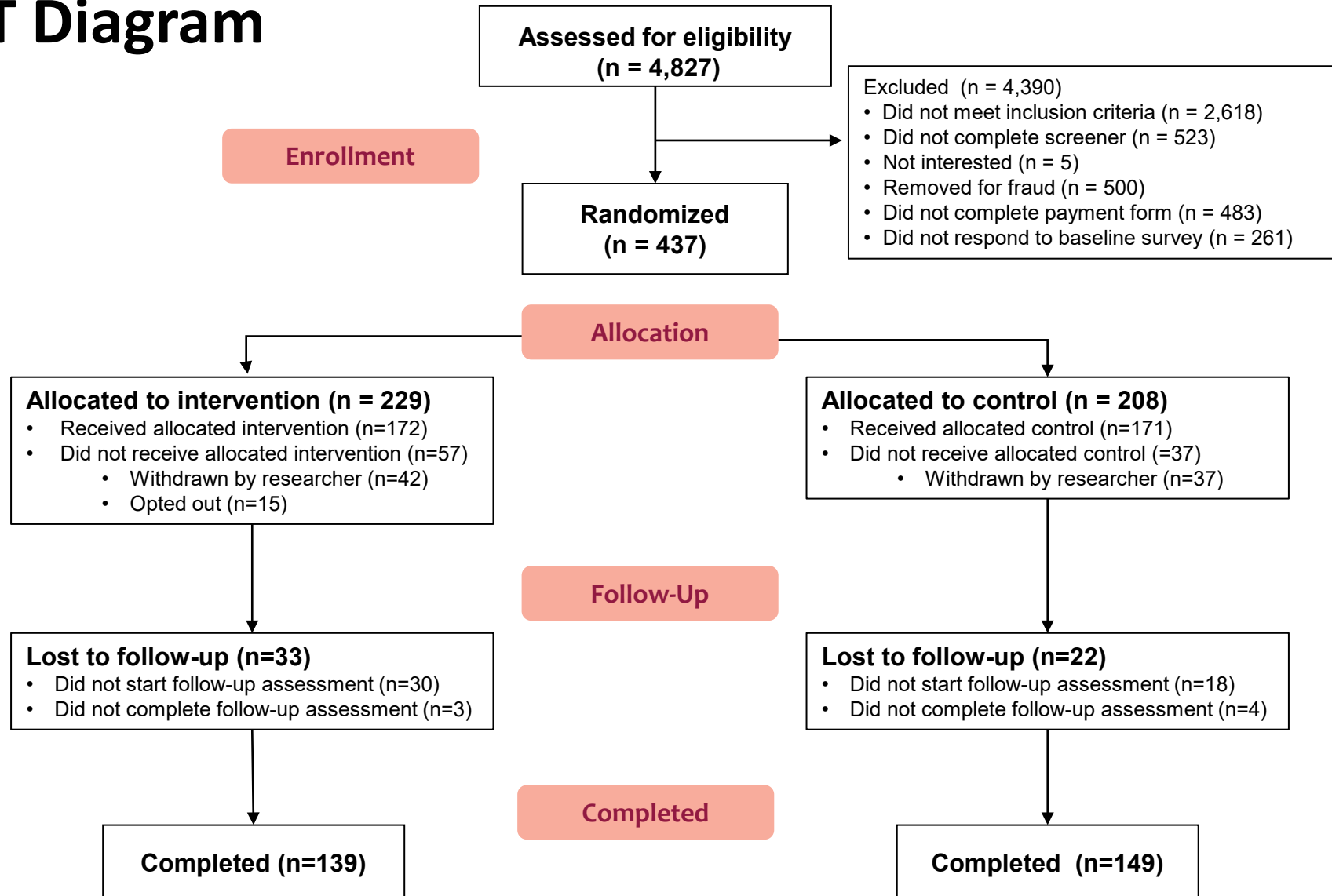
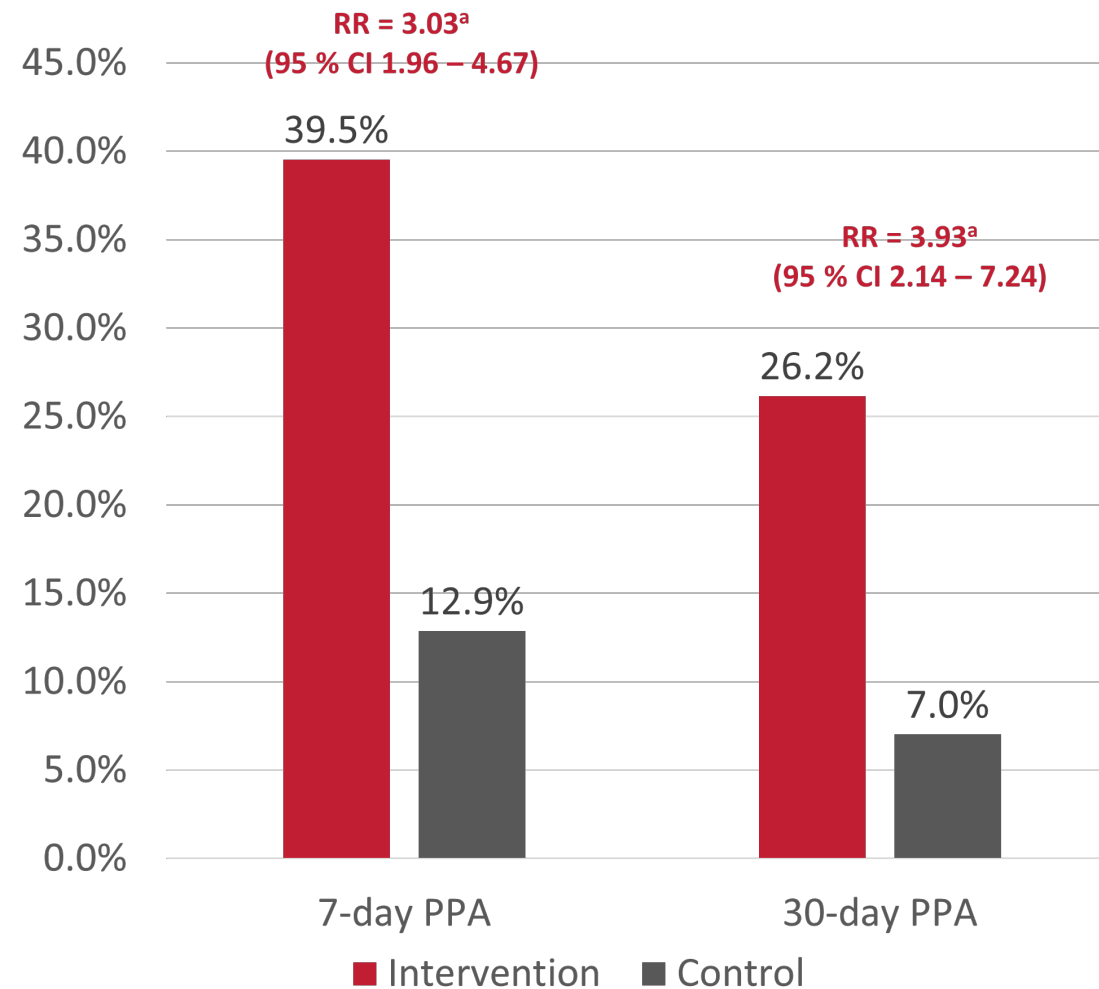
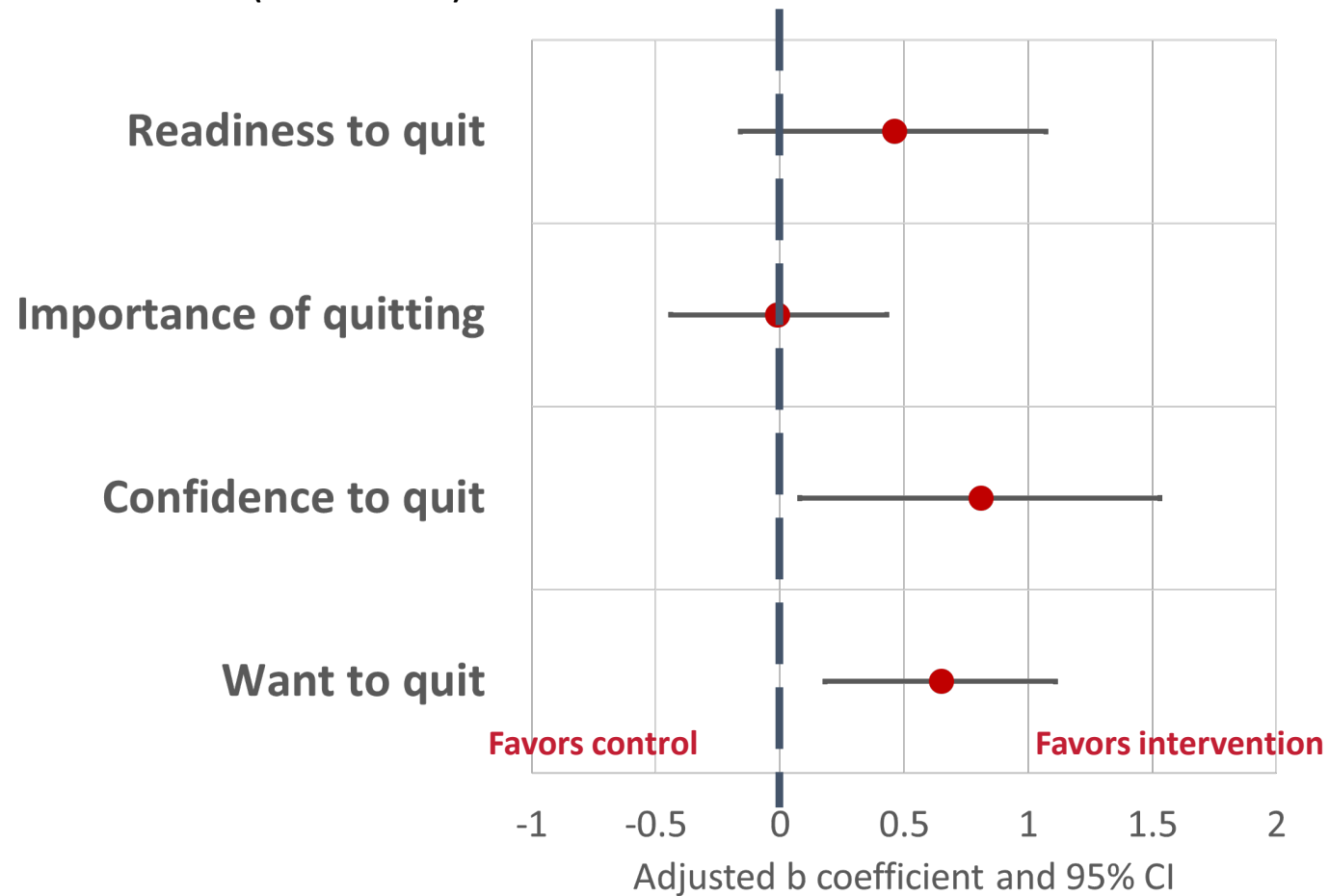


Figure 2. Point prevalence abstinence outcomes at end-of-treatment (12 weeks) by study condition (n = 343)



^a Intent to treat analyses use Poisson models with robust variance and control for variables with imbalance across study conditions (i.e., Hispanic ethnicity, current enrollment in school, past 30-day alcohol use, readiness to quit, Nondaily Smoking Cessation Motivation scale score, and past 30-day electronic vapor product, snus, and nicotine replacement therapy use at baseline).

Figure 3. Change in readiness rulers from baseline to end of treatment (12 weeks) in intervention vs. control ^a



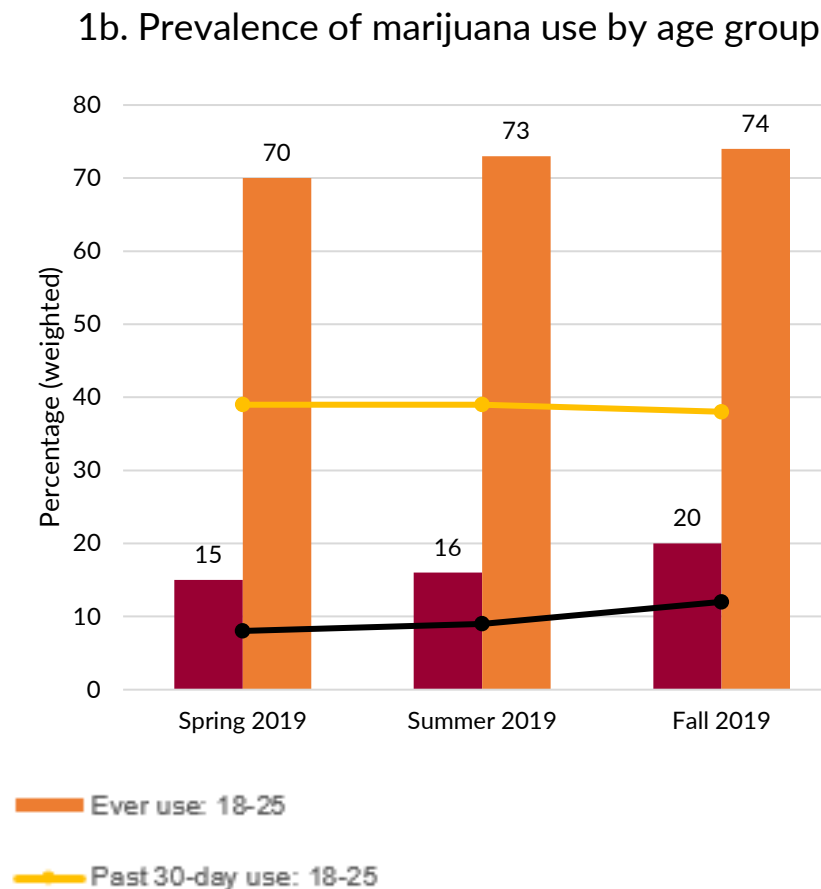
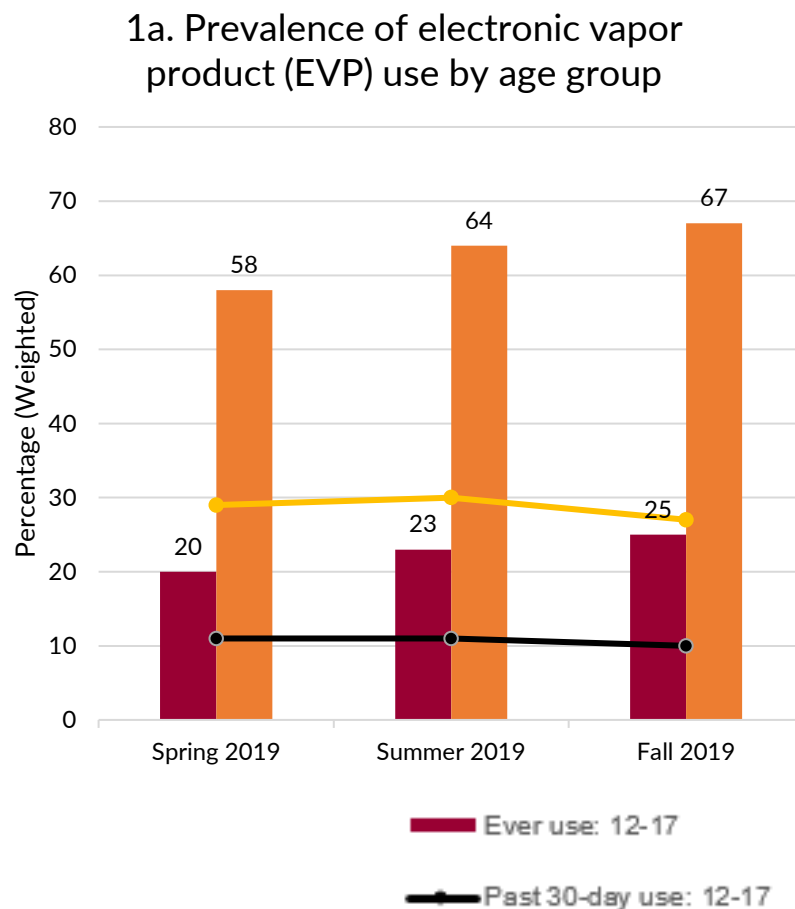
^aAnalyses limited to participants who reported past 7-day or past 30-day cigarette use at follow-up and control for baseline assessments of these outcomes

- Results from this study demonstrate strong effects of a brief, low-touch tailored text message smoking cessation intervention on smoking abstinence, reduction in days smoked, and confidence to quit at 12 weeks.
- Even if abstinence from this short-term intervention is not sustained, increasing quit attempts in this group may improve quit success in the future, as well as overall population quit rates.



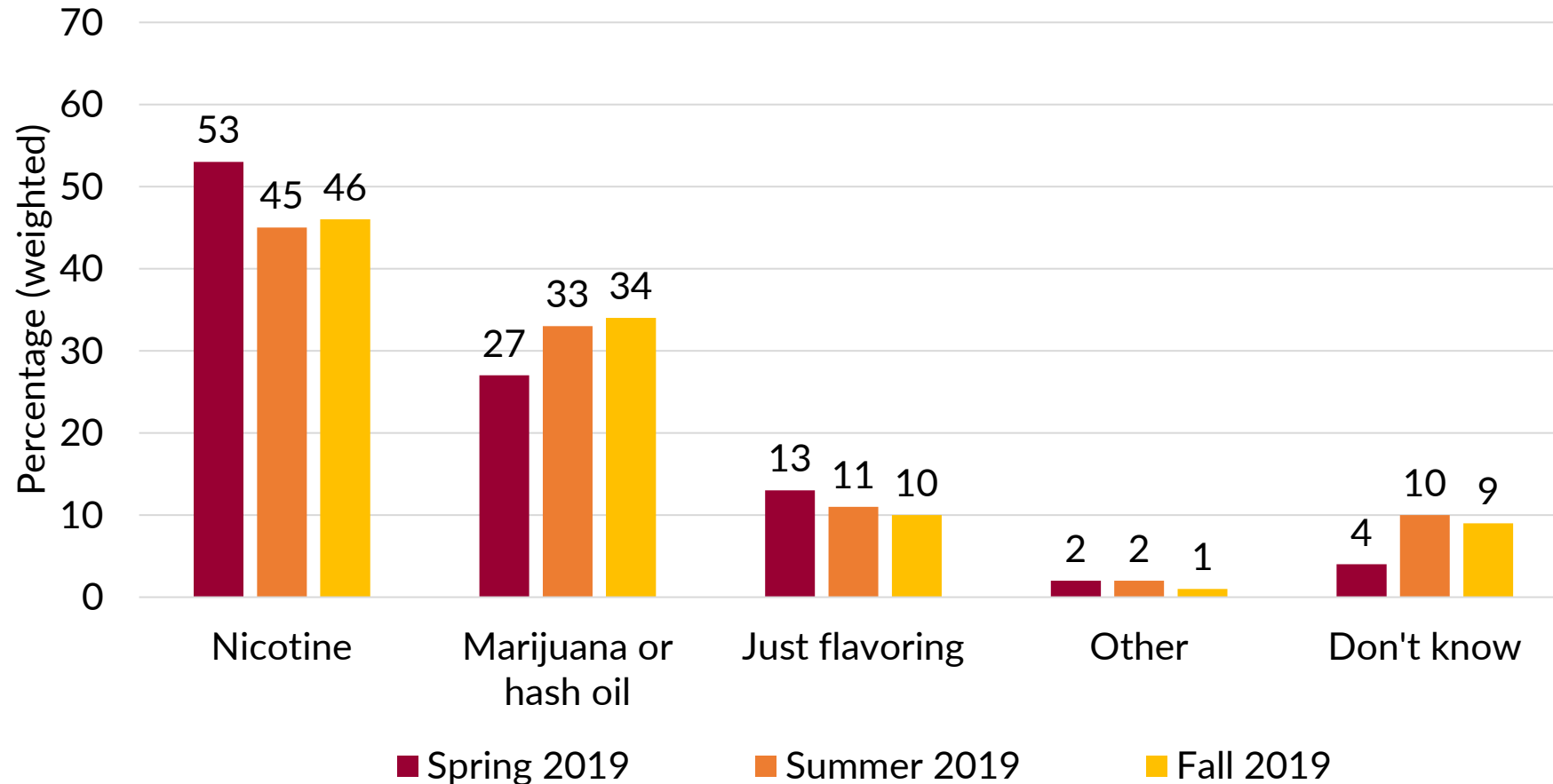
**OTHER
CONSIDERATIONS?**

Ever and past 30-day electronic vapor product (EVP) and marijuana use by age group, PACE Vermont pilot study, 2019

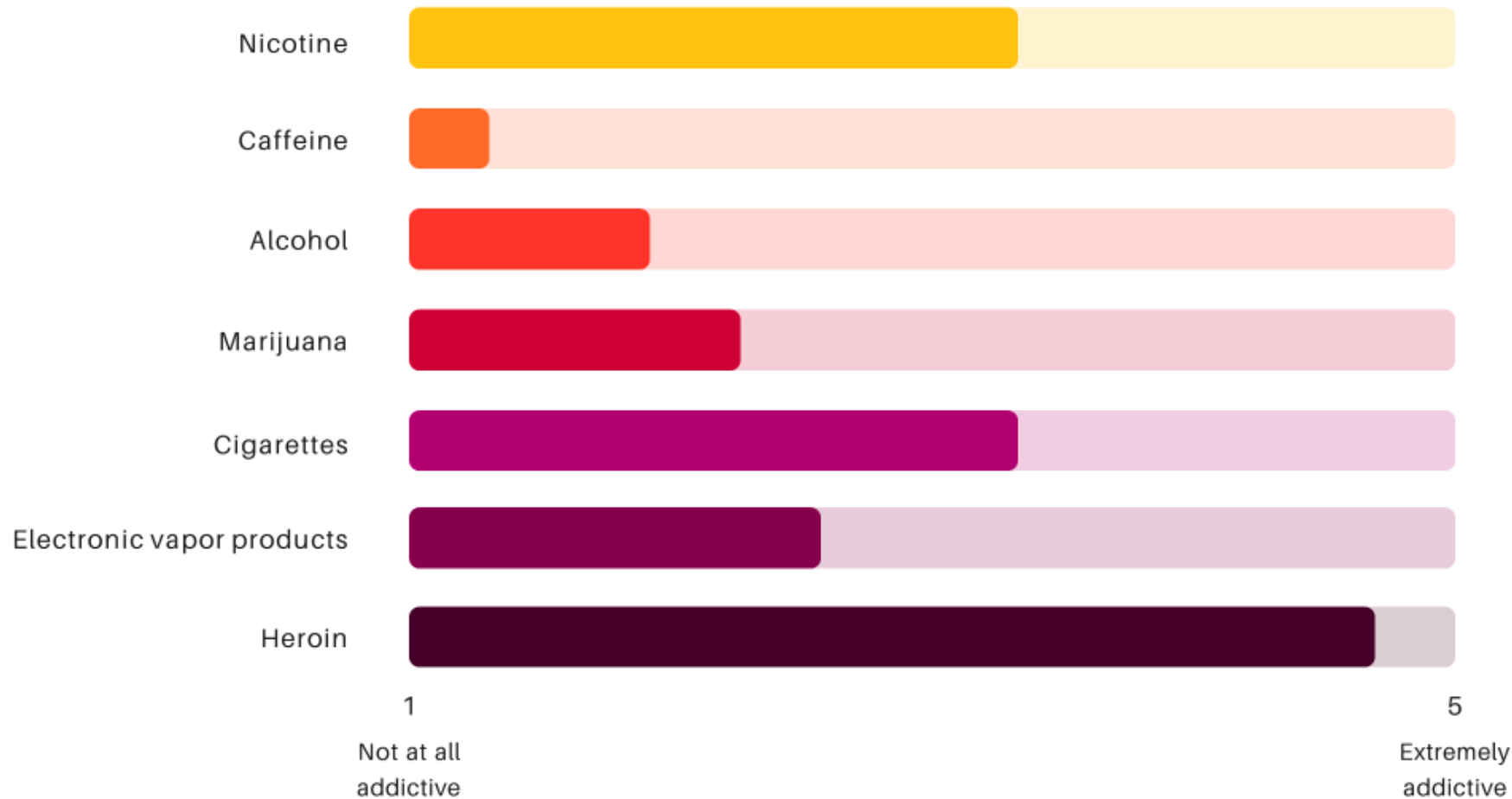


Last time you vaped... (weighted)

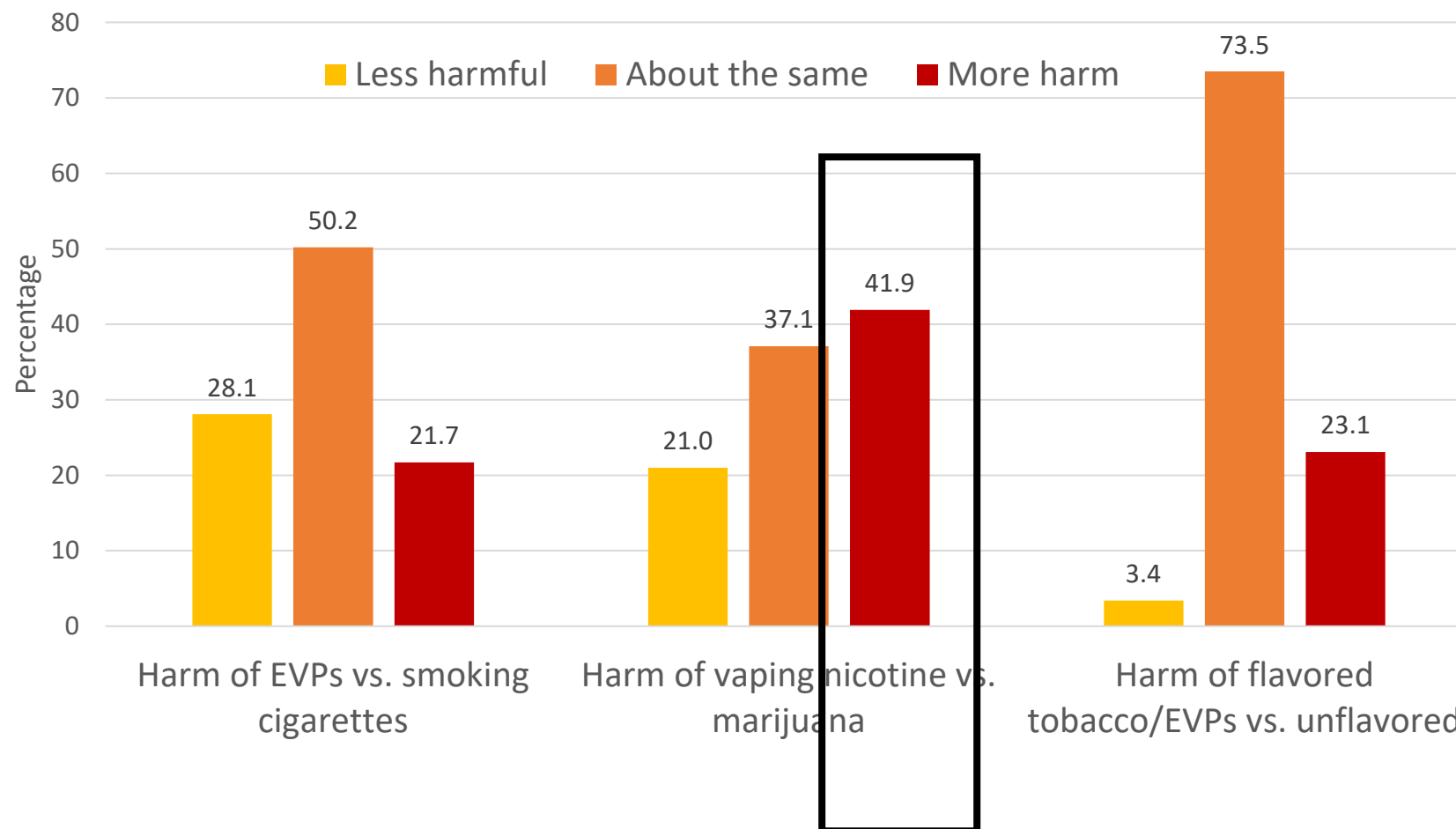
Last time you vaped, what was in the mist you inhaled?



How addictive do you think each of the following substances are?



Relative perceived harms of vaping, smoking, cannabis use



Preliminary data. Please do not cite or distribute.

VT: Adult use cannabis market and EVPs

<i>Vermont Annual Results and Key Data</i>		2021	2022	2023	2024	2025	2026
<u>Index</u>							
<i>Vermont Adult-</i>	Total Regulated Adult-use Market (\$)						
	Cannabis Flower	\$0	\$26,928,552	\$103,667,829	\$127,605,232	\$126,266,086	\$113,996,273
	Pre-rolls	\$0	\$2,805,057	\$10,798,732	\$13,292,212	\$13,152,717	\$11,874,612
	Concentrates	\$0	\$2,805,057	\$10,798,732	\$13,292,212	\$13,152,717	\$11,874,612
	Vaporizer Pens	\$0	\$14,025,287	\$53,993,661	\$66,461,058	\$65,763,587	\$59,373,059
	Edible Products	\$0	\$6,732,138	\$25,916,957	\$31,901,308	\$31,566,522	\$28,499,068
	Topical Products	\$0	\$1,683,034	\$6,479,239	\$7,975,327	\$7,891,630	\$7,124,767
	Other Accessories	\$0	\$1,122,023	\$4,319,493	\$5,316,885	\$5,261,087	\$4,749,845
	Total Vermont Adult-use Market	\$0	\$56,101,150	\$215,974,644	\$265,844,232	\$263,054,346	\$237,492,236

- Vaporizer pens comprise 25% of projected sales in all years.

<https://ccb.vermont.gov/reports>

- Ongoing tracking in PACE Vermont re: awareness, exposure, liking, impact on behavior
 - Opportunity to evaluate impact and inform future efforts

OUTLAST




**LET'S TALK
CANNABIS**

- Important to assess impacts of educational messaging on many outcomes
 - Does vaping prevention messaging reinforce misperceptions of nicotine (e.g., causes cancer)?
- Important to consider perceptions of different products, how they cluster, and potential spillover effects of public education
 - How does e-cigarette messaging impact perceptions of vaping cannabis?

Ongoing challenges

- Addressing co-use of substances
- Increasing reach and efficacy of prevention interventions into young adulthood
- Increasing reach, efficacy, and uptake of treatment interventions in young people

