



Evidence-Based Strategies for Youth Vaping Prevention



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SAMHSA
Substance Abuse and Mental Health
Services Administration



Welcome!

This presentation offers evidence-based communication strategies for youth vaping prevention.

This presentation includes links to nonfederal websites. When leaving the SAMHSA.gov website for a nonfederal website, you will see the “Exit Disclaimer” graphic next to the link. [🔗](#)

Important: Download and open the presentation in the PowerPoint app to access the full interactive experience.





You will learn about:

- 1 The prevalence of vaping and health risks among youth and young adults;
- 2 Types of vaping devices and vaping compound formulations;
- 3 Challenges in reaching youth and young adults who vape;
- 4 Common misconceptions about vaping;
- 5 Evidence-based messaging strategies for vaping prevention;
- 6 Perceived message effectiveness; and
- 7 Anti-vaping campaign examples and outcomes.

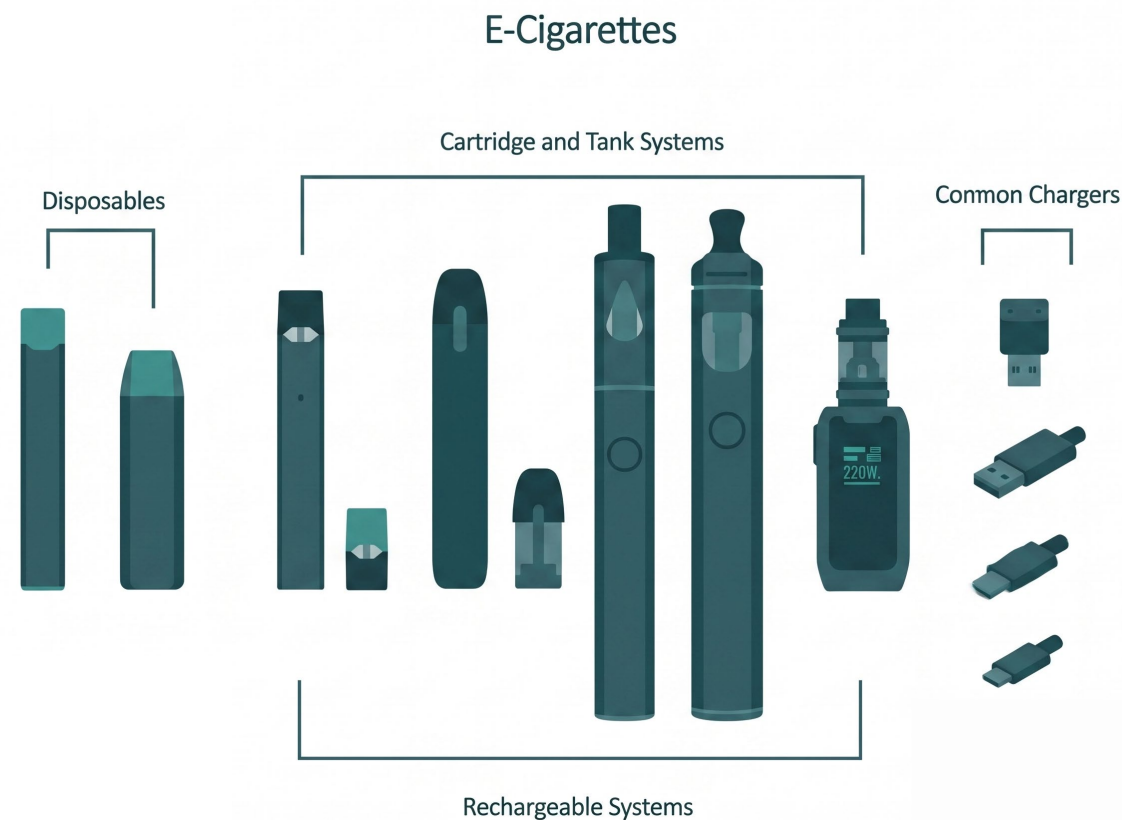
Device Types



Vaping is the use of a device to heat a nicotine-based liquid, turning it into an aerosol that a person can inhale.¹

These devices have many names:

- Electronic nicotine delivery systems (ENDS)
- E-cigarettes or e-cigs
- E-cigars
- E-pipes
- Cigalikes
- E-hookahs
- Mods
- Vapes
- Vape pens
- Tank systems
- Rebuildable dripping atomizers



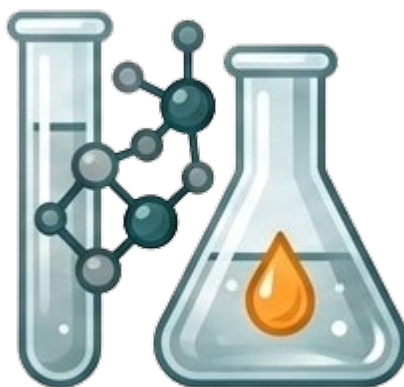


Vaping was marketed as a safer way to consume nicotine than smoking traditional cigarettes.

Vaping aerosol contains fewer chemicals than smoke from cigarettes, but it still has substances that can be harmful. In addition to nicotine, the aerosol can include cancer-causing chemicals, heavy metals, and flavorings that have been linked to lung disease.²



Formulations, Flavors, and Appearance



Factors like nicotine concentration, chemical formulations, flavors, and device appearance are continually changing.^{[3-5](#)}

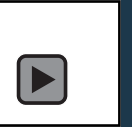
People may use vaping to inhale substances other than nicotine, such as:

- Tetrahydrocannabinol (THC),^{[3](#)}
- Cannabidiol (CBD),^{[3](#)}
- Melatonin,^{[6](#)}
- Opioids,^{[6](#)} and
- Other substances.^{[6](#)}





Youth Vaping Rates



The federal government raised the tobacco sale age to 21 in 2019.
Nonetheless, vaping rates remain high among youth and young adults.⁷

6.0%

of youth **ages 12–17**
vaped nicotine in the past month

23.7%

of young adults **ages 18–25**
vaped nicotine in the past month

Addictiveness of Vaping



Vaping is linked to addiction and negative health effects.^{[1](#)}



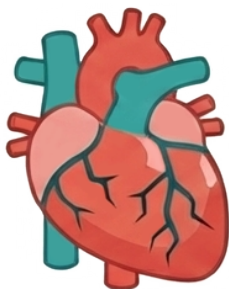
The nicotine concentration in e-cigarettes has increased over time, and so has the number of puffs in certain e-cigarettes. Both may make vaping more addictive.^{[8](#)}



Some evidence suggests that young people who begin vaping may go on to use combustible cigarettes.^{[9](#)}



Click each icon to hear about the health risks associated with vaping:



Heart, Lung, and
Reproductive Damage^{[10,11](#)}



Cancer Risk^{[12](#)}



Cognitive
Effects^{[13](#)}



Other Substance
Use^{[14](#)}



Stress, Anxiety,
and Depression^{[15](#)}



Pollution and
Waste^{[16,17](#)}

Challenges in Reaching Youth and Young Adults Who Vape



Several factors complicate the prevention of youth vaping. Click on each box on the left to learn more.

Easily Accessed¹⁸

Young people can easily obtain vaping products by buying from various in-person and online retailers or sharing with friends.¹⁸ Promotions and deals that lower vaping product prices can increase their appeal to youth.



Targeted Marketing¹⁸⁻²²

Vape marketing that focuses on youth is widespread,^{18,19} and exposure can increase young people's curiosity about and willingness to vape.²⁰ Vaping ads often appear on websites, TV, and streaming services, and in movies and print media. Many YouTube channels and social media accounts focus on vaping.



Regulatory Environment²³

Vaping regulations are complex and frequently changing.²³ State and local vaping policies vary widely, leading to uneven youth protections. The FDA has authorized few e-cigarettes, yet many youth-focused products are still sold, as regulators struggle to keep up with the rapidly changing market.



Peer Pressure^{19,24}

Peers play a major role in youth decisions to start or continue vaping.¹⁹ In fact, the most common reason middle and high school students try e-cigarettes is that their friends are using them. Having friends who vape can make it easier for youth to try vaping and share products. Some young people perform vaping tricks, such as blowing large vape rings, even entering vaping competitions.²⁴



Vaping Misconceptions¹

Confusion persists about the harms of vaping versus smoking traditional cigarettes.¹ Without clear messaging, many youth may see vaping as safe. As a result, they may ignore the significant risks vaping still carries when considering whether to vape.¹



Role of Social Norms and Information: Source of the Message



Who shares the message—and how—may be as important as the message itself. Click the boy to explore effective messaging techniques, then click him again to uncover additional messaging insights.



Confronting and Challenging Social Norms



1

Peer influence shapes social norms around vaping.

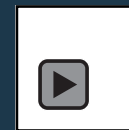
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Confronting social norms can change vaping-related attitudes and behaviors.^{[27](#)}

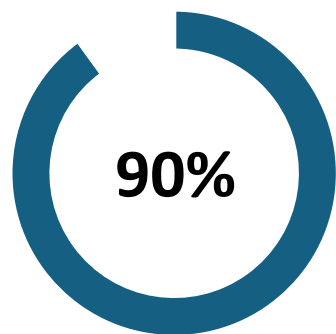
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Anti-vaping messages that **challenge social norms** often focus on the gap between how young people think vaping makes them look and how their peers actually view them.^{[27](#)}





Social Media Usage (Ages 13-17)²⁷⁻²⁹




Report using
social media

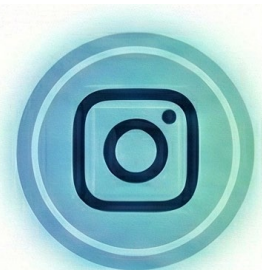



Report using
it daily

Popular Platforms



TikTok



Instagram



YouTube



Snapchat

Low-Cost Communication Channels



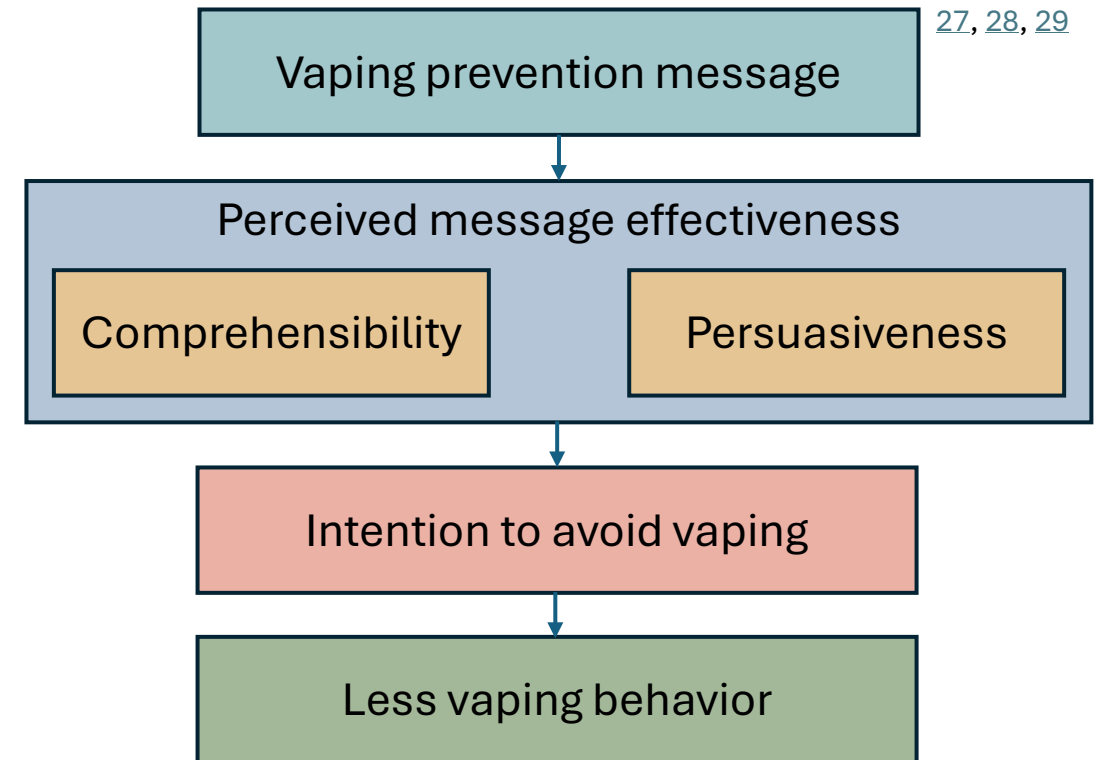
Consider these and other popular platforms as low-cost channels to reach young people about vaping prevention.

Perceived Message Effectiveness



Perceived message effectiveness (PME) refers to audience perceptions of a message.³⁰ It indicates the message's potential to influence the attitudes, beliefs, and behaviors of the audience.

Messages with higher PME have greater impact on beliefs, attitudes, and behavior.³⁰

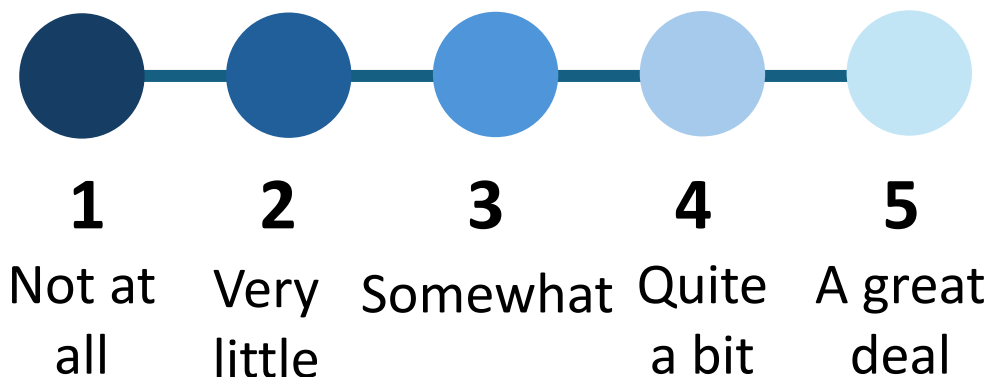




The University of North Carolina's PME Scale for Youth helps you assess the effectiveness of your campaign's messaging. The scale asks adolescents ages 12–17³¹:

How much does this message...

1. Make you worry about what vaping will do to you?
2. Make you think vaping is a bad idea?
3. Discourage you from vaping?





Effective anti-vaping messages highlight:

- Potential exposure to harmful chemicals³²;
- Negative physical health effects^{29,33};
- Mental health effects³⁴;
- The high potential for addiction^{29,33}; and
- Graphic imagery and warning symbols.²⁹

A study found that messages linking vaping with cigarette smoking had higher perceived message effectiveness than those that did not.²⁹

Messaging Strategies That Don't Work



In vaping prevention campaigns for youth and young adults, avoid messages that:

- Address **flavor** or related imagery²⁹;
- Include **statistics**²⁹; or
- Use **hashtags, bright colors, or memes**.²⁹

⚡ AVOID

Flavor



Statistics



Hashtags, Bright Colors, Memes



Other Messages To Avoid



You should also avoid messages that:

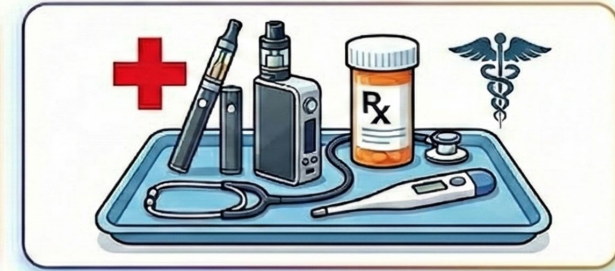
- Are in the first person (“I” or “we” statements), such as “we shouldn’t vape”;
- Use the word “**teen**”²⁹;
- Highlight the use of e-cigarettes as **medical devices**²⁷;
- Discuss the potential for **burns and injuries** related to vaping²⁷; or
- Talk about **counterfeit** or **fake products**.²⁷

AVOID

First-person address, or “teen”



Vaporizers as medical devices



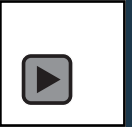
Burns and injuries



Counterfeit products



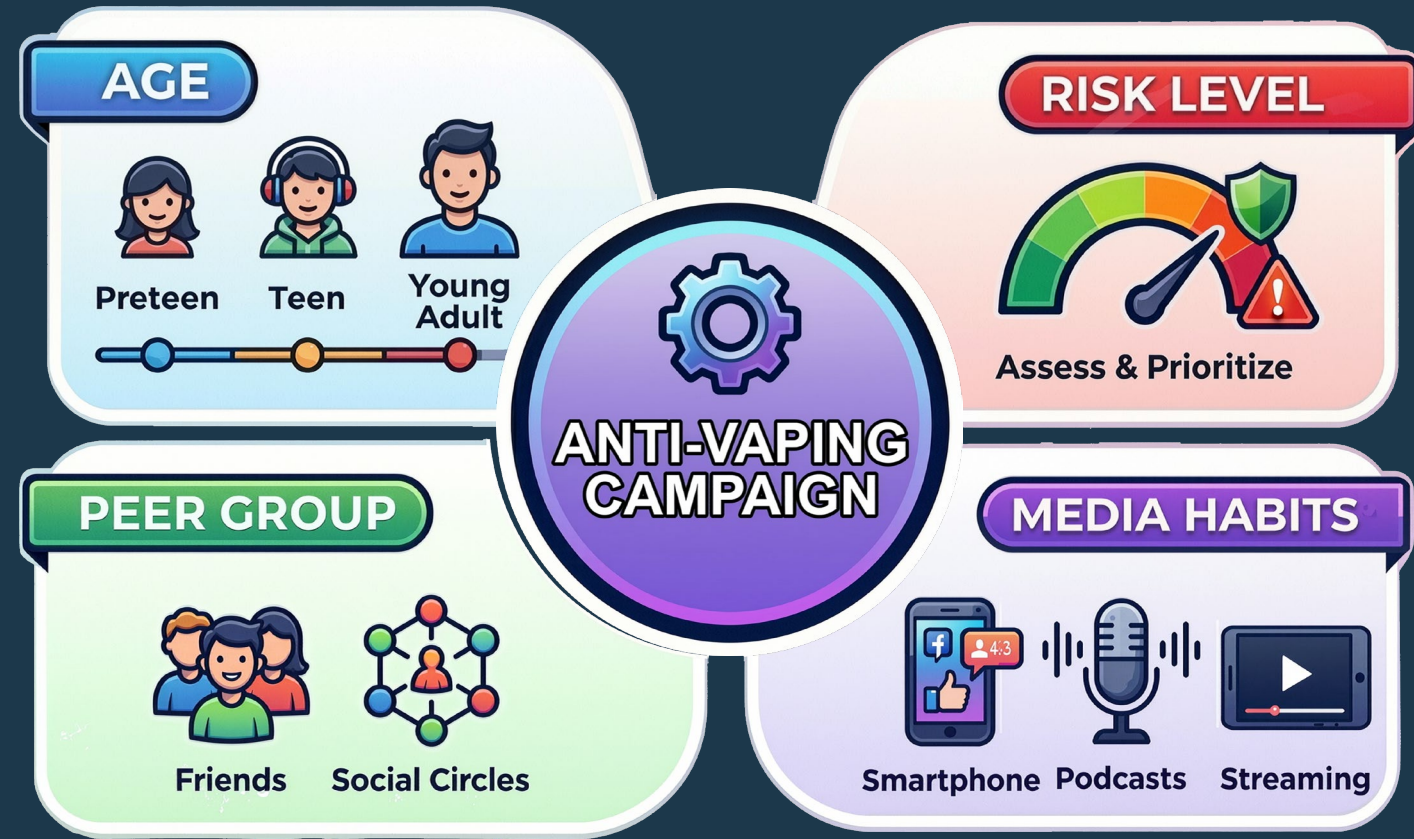
Additional Considerations for Designing Focused Campaigns: Segmenting Audiences



Segment audiences by^{35,36}:

- Age;
- Risk level;
- Peer group; and
- Media habits.

Resistance to peer influence increases between ages 14 and 18.



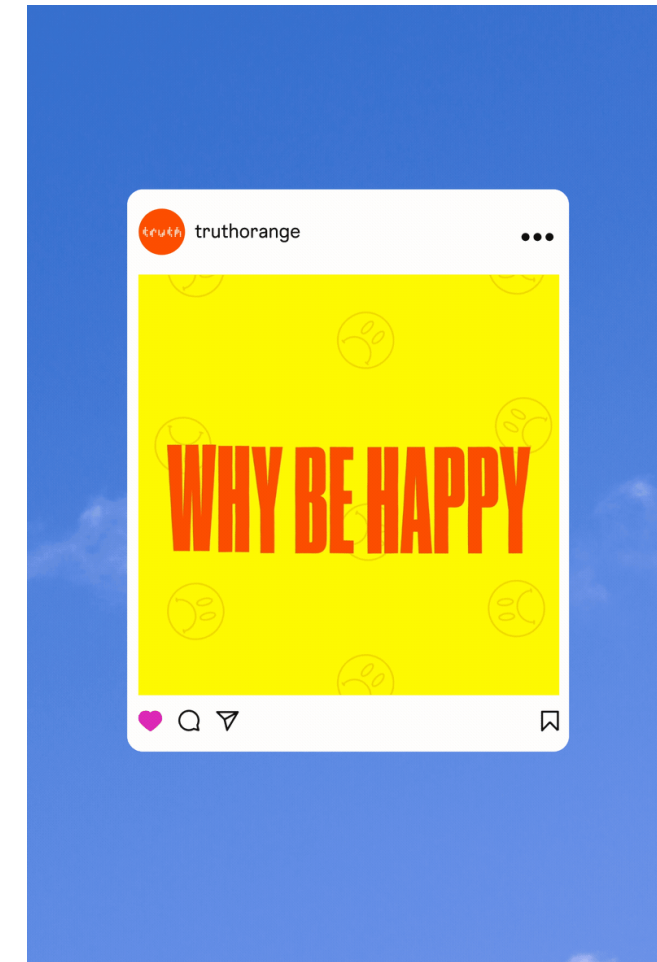
Additional Considerations for Designing Focused Campaigns: Highlighting Mental Health



Discussing **mental health and related topics** is also an effective approach.^{[34,38-40](#)}

Truth Initiative highlighted associations between vaping nicotine and mental health challenges. Exposure to messaging about the link between mental health and vaping reduced youth's intentions and actual e-cigarette use.^{[34](#)}

Click the image to view an ad from Truth Initiative's Depression Stick campaign. [↗](#)



FDA's "The Real Cost" E-Cigarette Prevention Initiative: Campaign Review

The campaign educates U.S. youth ages 12–17 about the dangers of vaping.

Click each image to view The Real Cost campaign websites. [↗](#)



The Real Cost Campaign

FDA's award-winning public education campaign, "The Real Cost," recognizes its 10th anniversary and continues to prevent youth from starting using tobacco products. The e-cigarette and cigarette prevention campaigns focus on educating youth about the negative health effects and risks of vaping and smoking.



"The Real Cost" campaign was developed based on extensive research and uses a mix of [cost-effective](#) marketing and advertising tactics across teen-relevant communication channels to reach youth audiences.

as prioritized its public education efforts to further reduce e-
g youth. To determine the e-cigarette prevention campaign
measure teens:

campaign ads

the harms of using e-cigarettes

the negative consequences of vaping/nicotine

The Real Cost E-Cigarette Prevention Campaign

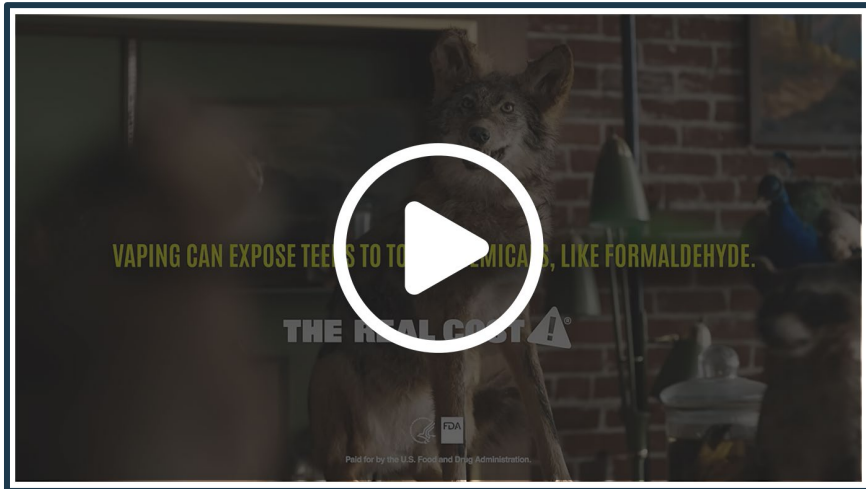
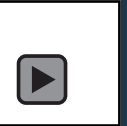


The Real Cost Cigarette Prevention Campaign





FDA's "The Real Cost" E-Cigarette Prevention Initiative: Key Messages



Messages conveyed through video ads on digital and social media highlight³²:

- Exposure to toxic metals;
- Lung damage;
- Dangerous ingredients;
- The connection between vaping and anxiety;
- Disappointing important people in one's life; and
- Addiction and loss of control.

Click each image to reveal messages from the campaign. [↗](#)

FDA's "The Real Cost" E-Cigarette Prevention Initiative: Marketing Strategies



This campaign uses various marketing strategies to reach youth, including⁴¹:

- Video advertising;
- Digital and streaming platforms;
- Social media platforms;
- Streaming audio advertising;
- Gaming platforms;
- Media partnerships with youth-focused content; and
- The campaign's website.

Click each image to view the campaign materials. [↗](#)





FDA's "The Real Cost" E-Cigarette Prevention Initiative: Campaign Example



“My anxiety got really bad after I started vaping...soon I realized it was holding kind of a power over me. I was always craving more and more. When I quit vaping, I had a lot more energy. I’m someone that has done it, and it’s not worth the consequences that are gonna come.”

Click the image to play the video. [↗](#)



FDA's "The Real Cost" E-Cigarette Prevention Initiative: Campaign Effectiveness



FDA NEWS RELEASE

FDA Educational Efforts Prevented Nearly 450,000 Youth from Starting E-Cigarette Use in One Year

Ads Helped Reduce Youth E-Cigarette Use to Lowest Level in a Decade

For Immediate Release: March 14, 2025

Today, a study co-authored by U.S. Food and Drug Administration scientists was released showing the agency's youth e-cigarette prevention campaign, "The Real Cost," successfully reduced e-cigarette use among youth. The campaign, which launched in 2018 under the leadership of President Trump, was found to have prevented an estimated 444,252 American youth (age 11 to 17 at study recruitment) from starting to use e-cigarettes between 2023 and 2024.



Studies have shown that these messages **successfully raised awareness** of the dangers of vaping among youth.³²



Youth exposed to the campaign ads were **less likely to initiate e-cigarette use** than those who did not see the ads.⁴⁴

Interactive Exercise: Reviewing the Examples



Now, you'll review messages from a few anti-vaping campaigns and assess what made them effective in reaching youth.

Click the thumbnails to watch video messages focused on youth. [↗](#)



Interactive Exercise: Campaign Approaches



Click each campaign thumbnail to learn more about the approaches that helped the campaign resonate with youth.



EMPOWER
Vape-Free
YOUTH™

The Centers for Disease Control and Prevention's (CDC) "Empower Vape-Free Youth"⁴⁰:

- The developing brain is more vulnerable to nicotine addiction than the adult brain. Using nicotine adolescence may also put youth at risk for addiction to other substances in the future.
- Vape aerosol can contain harmful and potentially harmful substances, such as heavy metals and cancer-causing chemicals.
- Students might vape when stressed or anxious, creating a cycle of nicotine addiction.



truth

Truth Initiative's "It's Messing With Our Heads"^{34,46}

- Nicotine in vapes can amplify feelings of depression and anxiety.
- Vapes contain toxic chemicals that can affect the nervous system and may potentially contribute to the observed association between vapes and depression.
- The more you vape...The worse you can feel. Studies show that quitting nicotine can reduce feelings of depression.



RETHINK
VAPE.ORG



Macon & Joan Brock Virginia Health Sciences at Old Dominion University's "Rethink Vape"⁴⁷

- If you vape, you're breathing toxic chemicals. Sure, it might be less risky than smoking, but substances like formaldehyde, benzene, lead, and harmful ultrafine particles have been found in the vapor.
- If you vape, you're playing with fire. Sure, it might be less risky than smoking, but 3 out of 4 vape juices still contain chemicals linked to lung disease.



Treatment Options and Resources for Youth



The campaign recommendations we've covered in this presentation are primarily for youth who are **at risk of vaping** or who have started vaping but **aren't yet addicted**.

! If your campaign's primary audience will include **youth who are addicted**, messaging should provide treatment options and resources for quitting.





Treatment approaches that may be considered in consultation with a healthcare provider include:

Screening and assessment

- Screening, brief intervention, and referral to treatment

Psychotherapies

- Cognitive-behavioral therapy⁴⁸
- Motivational interviewing⁴⁸
- Peer support^{49,50}
- Technology-based interventions⁵¹



Putting It All Together: Source of the Message and Effective Channels

You learned that:

- **Peers** may be the most credible source to deliver anti-vaping messages;
- **Social media platforms** are popular among young people and offer low-cost, high-use channels to reach them about vaping; and
- **PME** can help you determine how well your messages may affect attitudes, beliefs, and behaviors among your primary audience.



Putting It All Together: Messaging Themes

You learned that:

- Effective messaging themes include highlighting **exposure to harmful chemicals** and the **negative physical and mental health effects** of vaping;
- Less effective messaging themes to reach youth include discussing **vaping flavors** or related imagery or using first-person language; and
- Anti-vaping campaigns should **segment audiences** by age, risk level, peer group, and media habits.



Resources

The following resources provide more information on vaping and vaping prevention messaging:

[Reducing Vaping Among Youth and Young Adults | SAMHSA](#)

[Youth Vaping Prevention Campaign Toolkit | Ad Council](#) 

[Media and Strategic Communication | CDC](#)

[Media Campaign Resource Center | CDC](#)

[Vaping Prevention Resource | UNC Chapel Hill](#) 

[Smokefree Teen | National Cancer Institute](#)

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