



Welcome

The Center for State, Tribal, Local, and Territorial Support
presents the

CDC *Vital Signs* Town Hall on
**Surge in Youth Tobacco Product Use: Causes and Public Health
Implications**

February 12, 2019
2:00–3:00 PM (EST)

Agenda

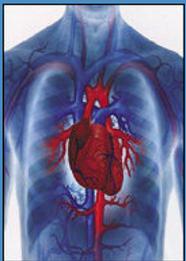
Time	Agenda Item	Speaker(s)
2:00 pm	Welcome & Introduction	José T. Montero, MD, MHCDS Director, Center for State, Tribal, Local, and Territorial Support, CDC
2:05 pm	Vital Signs Overview	Andrea Gentzke, PhD, MS Health Scientist, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC
2:15 pm	Presentations	Robin Koval CEO and President, Truth Initiative Laura Oliven, MPP Minnesota Tobacco Control Manager, Minnesota Department of Health
2:35 pm	Q&A and Discussion	Dr. José T. Montero
2:55 pm	Wrap-up	
3:00 pm	End of Call	



Vital^{CDC}**signs**[™] 
TOWN HALL TELECONFERENCE



to support STLT efforts and build momentum around the monthly release of CDC *Vital Signs*



Vital Signs:

Tobacco Product Use Among Middle and High School Students - United States, 2011-2018

Town Hall Briefing
February 12, 2019

ANDREA GENTZKE, PHD

OFFICE ON SMOKING AND HEALTH

CENTERS FOR DISEASE CONTROL AND PREVENTION

Introduction

Tobacco product use is the leading cause of preventable disease and death in the United States

Nearly all tobacco product use begins during youth and young adulthood

Recent changes to the tobacco product landscape have shifted the types of products used by youths

The Surgeon General has concluded that exposure to nicotine during adolescence can cause addiction and harm the developing adolescent brain

Methods

National Youth Tobacco Survey (NYTS)

- Nationally representative, annual survey of U.S. students in grades 6-12
- 2018 NYTS:
 - March - May, 2018, 20,189 participants (response rate: 68%)
- Seven tobacco products assessed:
 - Cigarettes, E-cigarettes, Cigars, Smokeless Tobacco, Hookah, Pipe Tobacco, Bidis

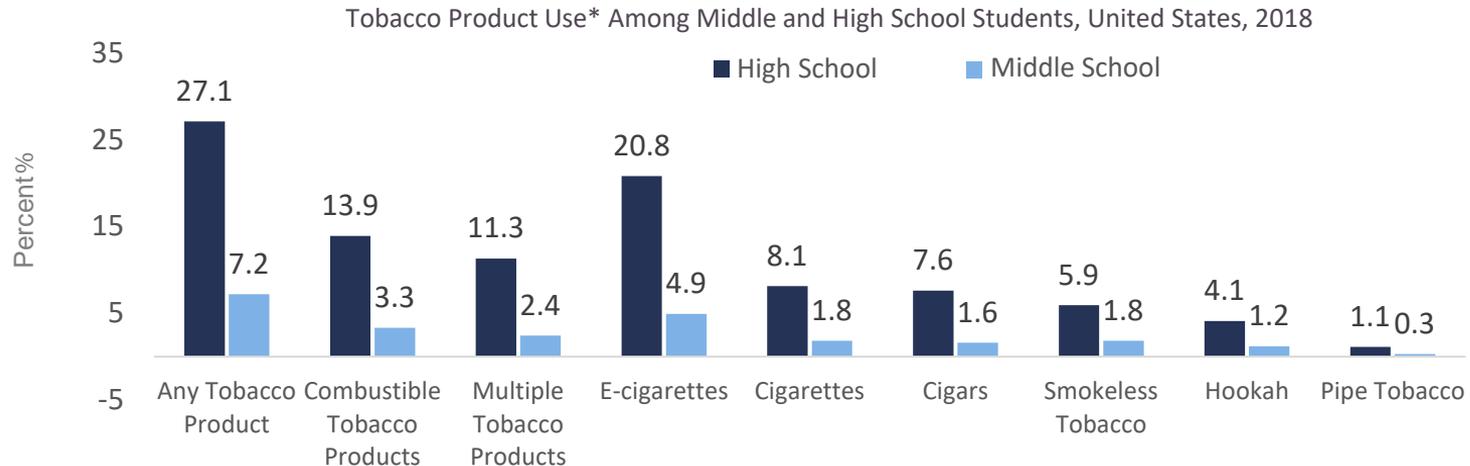
Measures Assessed:

Current Use	Each product, reported use on ≥ 1 of the past 30 days
Frequent Tobacco Product Use	Reported use on ≥ 20 of the past 30 days (among product users)
Any Tobacco Product Use	Current use of ≥ 1 of the seven tobacco products assessed
Combustible Tobacco Product Use	Current use of Cigarettes, Cigars, Hookah, Pipe Tobacco, Bidis
Multiple Tobacco Product Use	Current use of ≥ 2 of the seven tobacco products assessed

Prevalence of Tobacco Product Use United States, 2018

More than 1 in 4 high school students (27.1%, 4.04 million) and about 1 in 14 middle school students (7.2%, 840,000) currently used any tobacco product

E-cigarettes were the most commonly used tobacco product among high school (20.8%, 3.05 million) and middle school (4.9%, 570,000) students



*In 2018, bidis was not reported separately by school level, but are included in summary measures to maintain consistency across years.

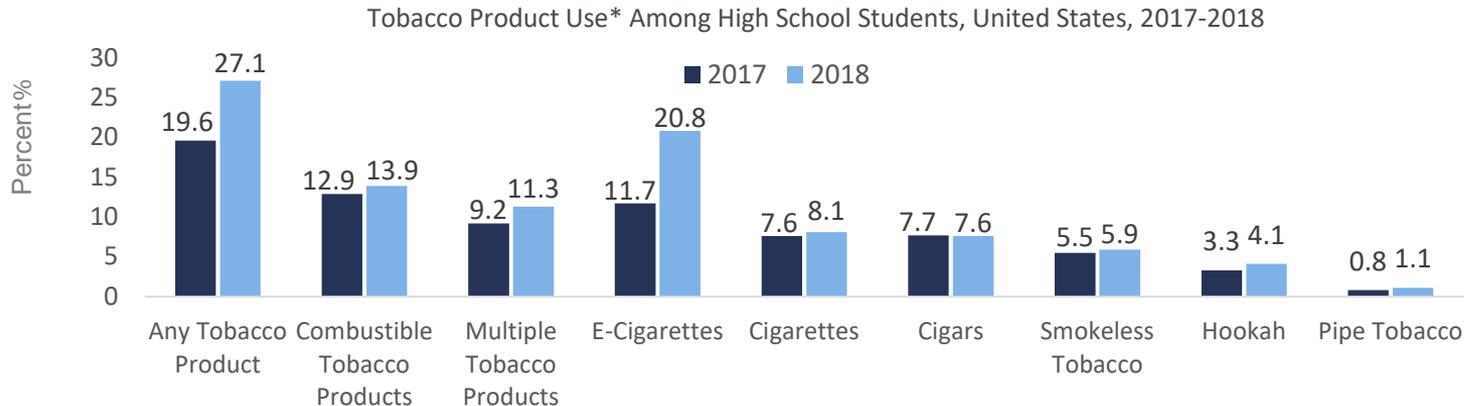
U.S. High School Students: Change in Tobacco Product Use, 2017-2018

High School - statistically significant changes during 2017-2018:

Any tobacco product use increased by 38.3% (19.6% to 27.1%)

Multiple tobacco product use increased by 22.8% (9.2% to 11.3%)

E-cigarette use increased by 77.8% (11.7% to 20.8%)



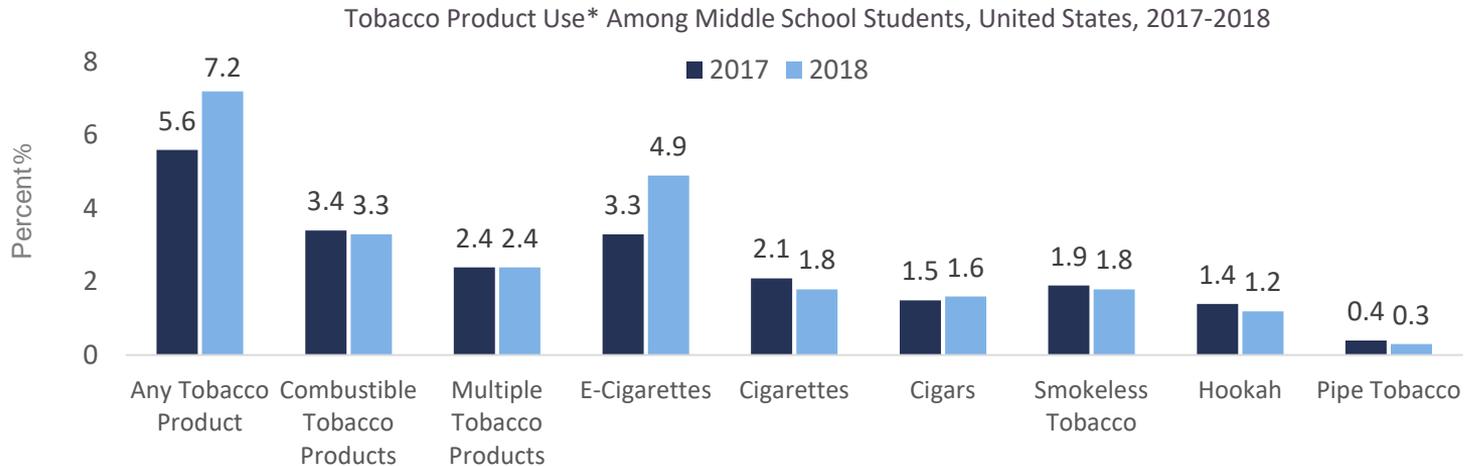
*In 2018, bidis was not reported separately by school level, but are included in summary measures to maintain consistency across years.

U.S. Middle School Students: Change in Tobacco Product Use, 2017-2018

Middle school - statistically significant changes during 2017-2018:

Any tobacco product use increased by 28.6% (5.6% to 7.2%)

E-cigarette use increased by 48.5% (3.3% to 4.9%)



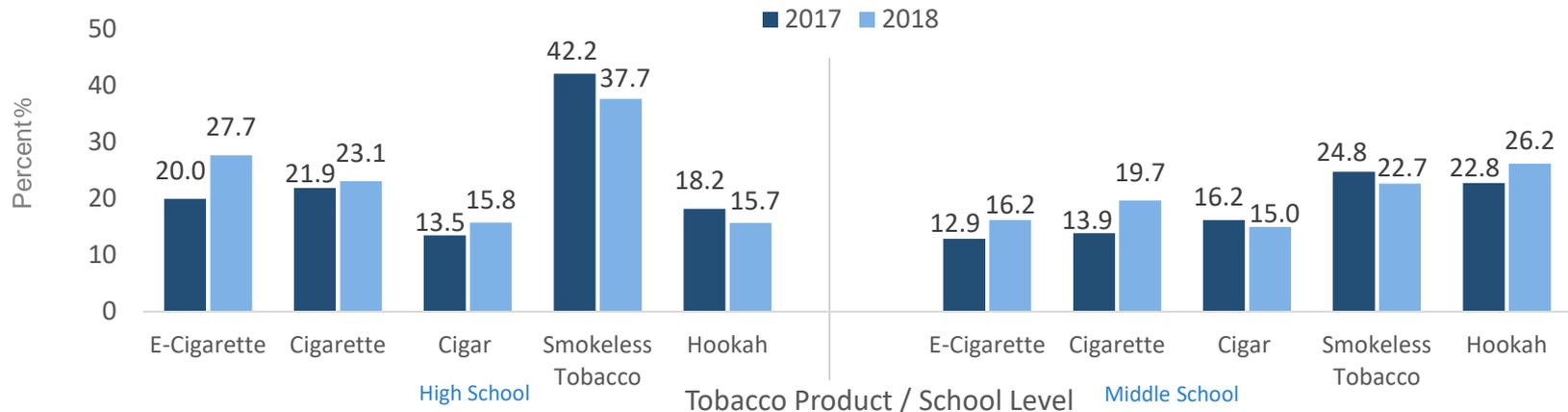
*In 2018, bidis was not reported separately by school level, but are included in summary measures to maintain consistency across years.

Frequent Tobacco Product Use United States, 2017-2018

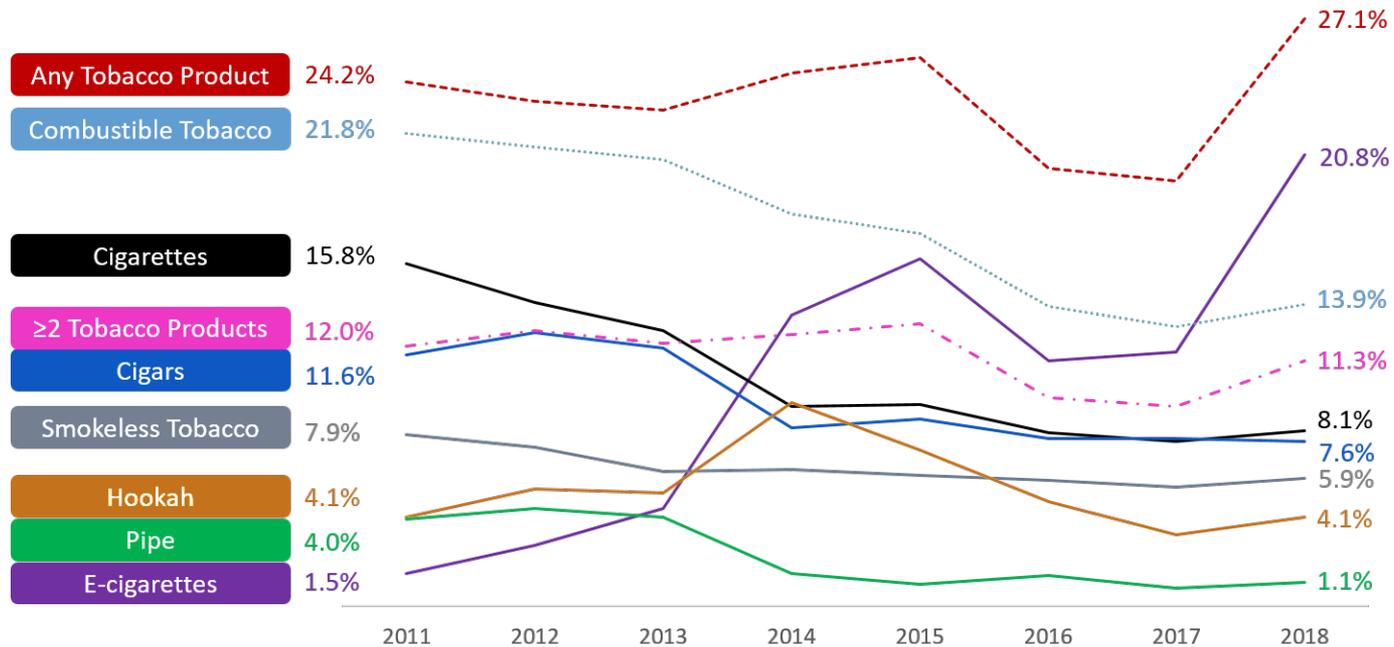
During 2017-2018, frequent e-cigarette use increased by 38.5% (from 20.0% to 27.7%) among high school student e-cigarette users

No other statistically significant changes in frequent use were observed

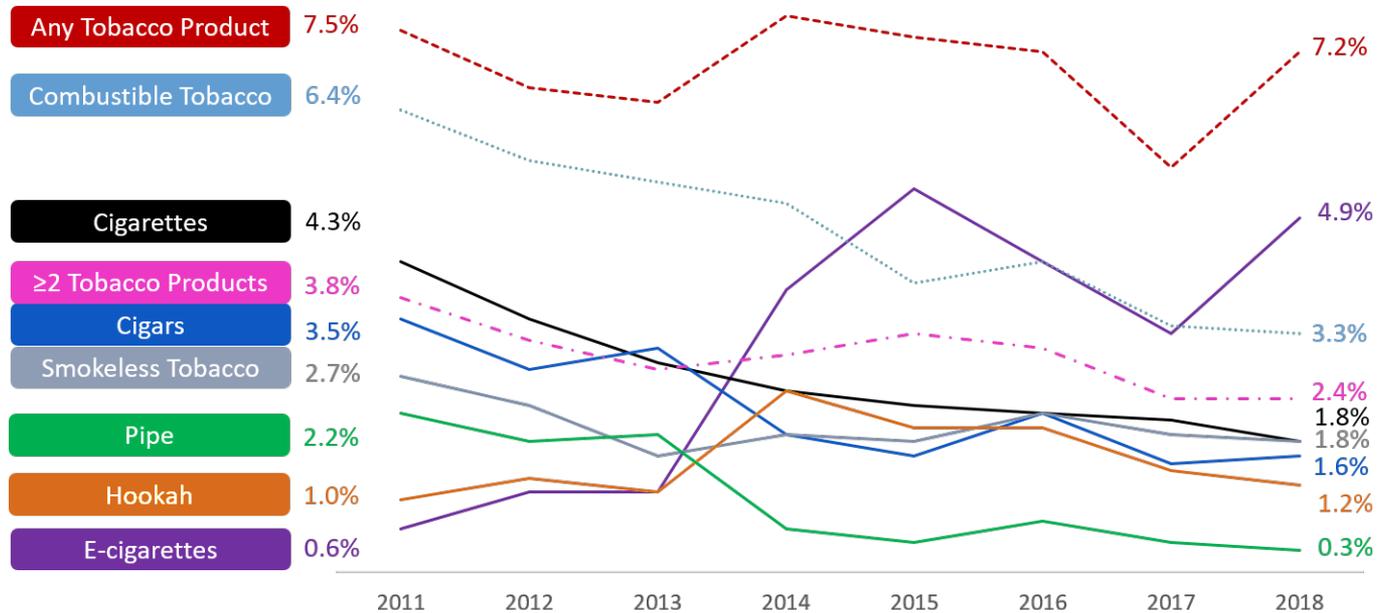
Frequent use of select tobacco products among U.S. middle and high school students, 2017-2018



U.S. High School Students: Trends in Tobacco Product Use, 2011-2018



U.S. Middle School Students: Trends in Tobacco Product Use, 2011-2018



Discussion

The types of tobacco products used by youth has changed over time

- Declines in cigarette smoking stalled in recent years
- E-cigarettes have been the most commonly used tobacco product since 2014

During 2017-2018, current e-cigarette use increased by 77.8% among high school students and 48.5% among middle school students

- No significant changes in current use of combustible tobacco products
- About 1.5 million more youth used e-cigarettes in 2018 than 2017
- Frequent e-cigarette use increased by 38.5% among high school student users

The increase in e-cigarette use among youth is consistent with observed increases in sales of the e-cigarette JUUL, a USB-shaped e-cigarette device

- JUUL has a high nicotine content, can be used discreetly and is available in flavors

This increase in e-cigarette use during 2017–2018 erased the progress in reducing e-cigarette use, as well as any tobacco product use, that had occurred in prior years

Key Takeaways

1

Current e-cigarette use increased considerably during 2017-2018. E-cigarettes were the driver of the observed increase in any tobacco product use among youth.

2

In 2018, about 1 in 4 high school students and 1 in 14 middle school students (a total of 4.9 million U.S. youth) reported current use of any tobacco product.

3

In addition to more youths using e-cigarettes overall, current e-cigarette users in high school are using them more frequently in 2018 than 2017.

4

The sustained implementation of proven population-based strategies, in coordination with tobacco product regulation by FDA, can reduce all forms of tobacco product use and initiation among U.S. youth.

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Citation:

Gentzke AS, Creamer M, Cullen KA, Ambrose BK, Willis G, Jamal A, King B. *Vital Signs: Tobacco Product Use Among Middle and High School Students – United States, 2011-2018*. *MMWR* 2019.

Acknowledgements:

Pamela Lemos, Joel London, Michael Tynan, Linda Neff (Office on Smoking and Health, CDC)
Lynn Sokler, Rich Schieber, Brandy Peaker, Shannon Omisore (Vital Signs Program, CDC)





Tackling the Youth E-Cigarette Epidemic

Robin Koval

President and CEO

February 12, 2019

About Truth Initiative

America's largest nonprofit public health organization dedicated to achieving a culture where all youth and young adults reject tobacco

- **truth**[®] campaign
- Truth Initiative Schroeder Institute[®]
Research and policy studies
- Community activism and engagement
- Innovation in tobacco dependence treatment



**truth
initiative**[®]

**INSPIRING
TOBACCO-FREE
LIVES**

The rise of vaping

E-cigarettes are **turning back the clock** on progress in the fight against tobacco and **addicting a new generation to nicotine**:

- When Truth Initiative began **28%** of high school teens smoked – now it's down to **8.1%**.
- Today, **20%** of high school students vape.

“Youth who vape are 4X more likely to begin smoking deadly cigarettes.”



Research

- There is a huge knowledge gap among youth, adults, parents and educators when it comes to e-cigarettes.
- The Truth Initiative Schroeder Institute has conducted groundbreaking research on multiple youth e-cigarette topics, including four peer-reviewed published studies.
- Studies, fact sheets and relevant articles can be found at truthinitiative.org.

BEHIND THE EXPLOSIVE GROWTH OF JUUL

**SOCIAL INFLUENCES AND
FLAVORS DRIVE RISING TEEN
USE OF THE TOP E-CIGARETTE**



Research findings

- 63% of JUUL users did not know that this product always contains nicotine.
- 15- to 17-year-olds have over 16 times greater odds of being current JUUL users compared with those between 25 and 34 years old.
- 56% of 15- to 17-year-old JUUL users used the device three or more times a month.
 - 25% used JUUL 10 or more times a month.

Youth e-cigarette use is **NOT** mere youthful curiosity and experimentation

Odds of using JUUL

15- to 17-year-olds are

16x

more likely to use
JUUL compared with
those aged 25-34.



truth[®] campaign

- **Safer ≠ Safe** shares key facts about e-cigarettes:
 - Youth who vape are **4 times** more likely to begin smoking cigarettes.
 - One JUUL pod is equivalent to the nicotine of a pack of cigarettes.
- Generated **54 million** video views and **1.7 million** social engagements in the first week
- To date, the campaign generated **166 million** views and **3.7 million** social engagements.
- **1.3 million** visits to thetruth.com and more than **200 thousand** web interactions with our fact-based activities including our **Safer ≠ Safe** quiz.



truth[®] Altria + JUUL news



Breaking: the company that once said they're "not Big Tobacco" is joining forces with... Big Tobacco. The makers of Marlboro just purchased a minority stake in JUUL for \$12 Billion. We saw this one coming.

bit.ly/2T15HOg



Never thought we'd see these two getting cozy for the holidays. But uhhhh, I guess money really can buy you love - or at least a "significant" stake in JUUL. nyti.ms/2A5Xvoz



Quitting e-cigarettes

- First-of-its kind, text messaging youth e-cigarette quitting program
 - Anonymous
 - Messages tailored by age group to give appropriate recommendations for teens, young adults and parents

Text QUIT to (202) 804-9884

- Users can also opt-in online at BecomeAnEX.org or through the This is Quitting app.



School curriculum

- A Truth Initiative study of **1,500+ teachers and administrators of middle/ high schools** showed that many lacked knowledge about the harms and addictive properties of e-cigarettes, including JUUL.
- **Less than half** (47 percent) of those surveyed **recognized a photo of a JUUL**.
- **66%** of those teachers and administrators said they had communicated with parents regarding JUUL and vaping.
- A survey of parents found that only **26% of parents** recalled receiving e-cigarette communication from their schools.



The solution

Regulation, prevention, education and innovation are key in arresting and reversing youth vaping.



thank you

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truthinitiative.org



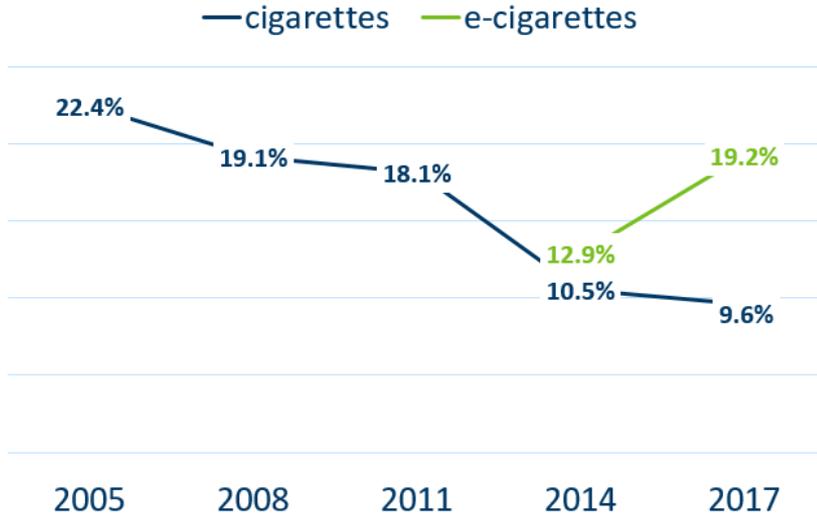


A Comprehensive State Response to the Youth E-cigarette Use Epidemic

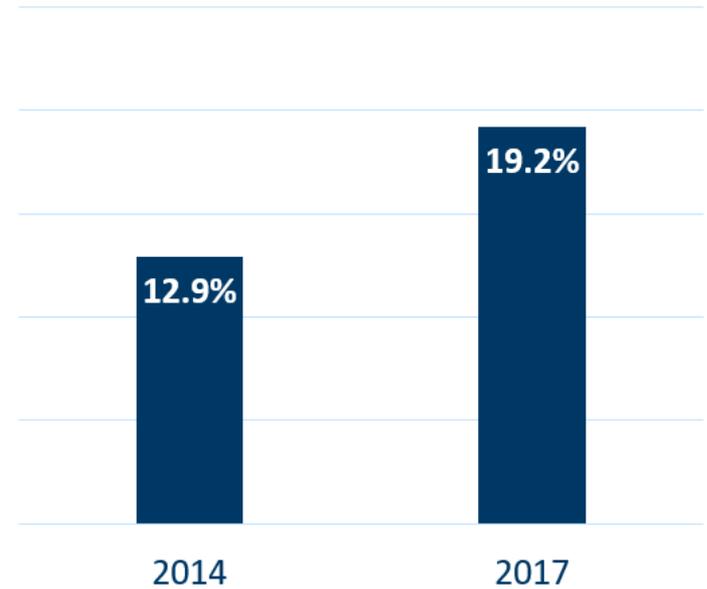
Laura Oliven | Tobacco Control Manager

A Youth Epidemic

Percent of high school students who used various tobacco products in the past 30 days, by type of product: 2005-2017

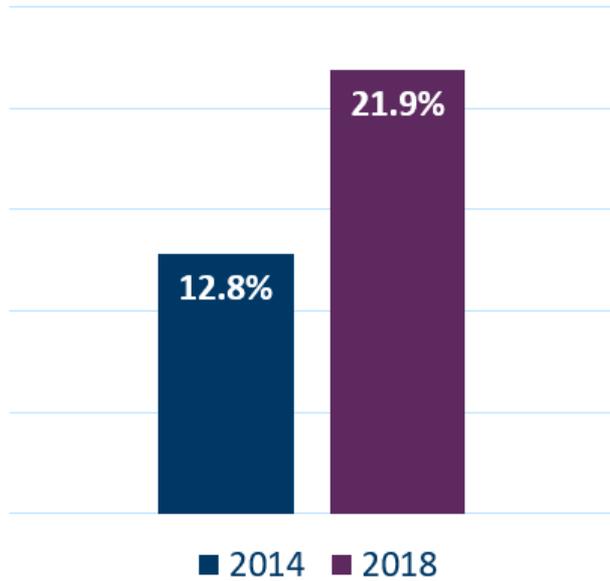


Percent of high school students who used e-cigarettes in past 30 days



A Sharp Increase in Young Adult E-cigarette Use

Percent of 18-24 year olds who use e-cigarettes



Three in four young adult e-cigarette users are never smokers.



Nicotine Addiction Advisory

m DEPARTMENT OF HEALTH

Health Advisory

NICOTINE AND THE ESCALATING RISK OF ADDICTION FOR YOUTH

October 8, 2018

Youth e-cigarette use has risen dramatically in Minnesota in the last three years, with an almost 50 percent increase in high school student e-cigarette use since 2014.¹ This is a major public health concern. Youth use of nicotine increases their risk of addiction, and can make them more susceptible to addiction to tobacco products and other substances in the future. The Minnesota Department of Health recommends immediate action requiring the participation of parents, educators, health care providers, and policy makers.

Nicotine primes the adolescent brain for addiction.

Addiction is a form of learning, where the brain learns to connect a stimulus (for example, smoking a cigarette or e-cigarette) with a response (feelings of pleasure and calming of cravings).² Each time a new skill or memory is learned, stronger connections—or synapses—are built between brain cells. Young people build synapses faster than adults. Nicotine changes the way these synapses are formed. Youth exposed to nicotine are at higher risk for addiction than are adults because youth brains are still forming and making permanent connections.^{3,4,5} Studies show that symptoms of nicotine addiction can appear among youth within only a few days or weeks after smoking initiation.^{6,7} The use of nicotine in e-cigarettes—nearly all of which contain nicotine^{8,9,10}—and other tobacco products primes the adolescent brain for addiction. This could have significant public health consequences, including potentially increasing the risk for youth of future addiction.⁷

Youth who are exposed to nicotine are more likely to use other substances.

Receptors in the brain are stimulated by exposure to nicotine, which triggers a rewarding effect on the brain. These receptors respond to and enhance the effects of nicotine and other drugs. The more adolescents are exposed to nicotine, the greater the sense of enjoyment because the effects of nicotine and other drugs are made stronger by repeated exposure. This effect increases the likelihood that youth will develop a dependence on those drugs.^{11,12} For example, studies have found that young adults who smoke cigarettes or who use e-cigarettes are much more likely to binge drink than non-smokers.^{13,14} More recent studies have identified similar patterns between use of nicotine and use of other drugs, including marijuana, cocaine, and methamphetamines.^{15,16,17,18,19,20}

New e-cigarette technologies pose greater risks for youth.

Popular e-cigarettes like JUUL have developed new technologies utilizing nicotine salts that are absorbed into the body more effectively and come in record-high levels of nicotine. According to the

Highlights damaging health consequences to young brains

Warns that early nicotine exposure increases susceptibility to long-term addiction

Includes opportunities for action by parents, health care providers, school staff, and policy makers

Partnership on Outreach to Schools



Letter to
Minnesota
Schools

Toolkit for
School Staff



Addressing Student Use of E-cigarettes and other Vaping Products

For the first time since 2000, overall youth tobacco use has increased in Minnesota. The rapid uptake of e-cigarettes and other vaping devices has suddenly reversed a trend of declining teen tobacco use in Minnesota, and recent data show one in five high school students use e-cigarettes, a nearly 50 percent increase since 2014.

This toolkit provides tools and resources for Minnesota school staff, including administrators, educators, teachers and health services staff, who are working to address the use of e-cigarettes and other vaping products in schools. This toolkit outlines opportunities for action that can be taken by various school staff, along with resources and tools to help.

E-cigarettes and other Vaping Products

E-cigarettes are battery-powered devices that allow users to inhale, or vape, aerosolized liquid (or juice). E-cigarettes, "vapes," vases or hookah pens, or pipes, and other vaping products recently surpassed conventional cigarettes as the most commonly used tobacco product among youth¹ so it is critical that public health officials and the general public understand the potential risks of using them.

Nearly all e-cigarettes contain nicotine.² Nicotine is highly addictive and can harm the developing adolescent brain.^{3, 4} Because the brain is still developing until about age 25, youth and young adult exposure to nicotine can lead to addiction and disrupt attention and learning.⁵ The amount of nicotine in e-cigs for youth.

Learn more about e-cigarettes and nicotine

- [Health Policy of Nicotine for Youth](#) - Minnesota Department of Health
- [Cigarettes and other Tobacco Products](#) - Minnesota Department of Health
- [Youth Tobacco Use Rises for First Time in 17 Years \(PDF\)](#) - Minnesota Department of Health
- [E-cigs 1.0: The Next Generation \(PDF\)](#) - Association for Measurers (PDF) - Minnesota



Find the letter and toolkit at
health.mn.gov/e-cigarettes

Back to School Media Push



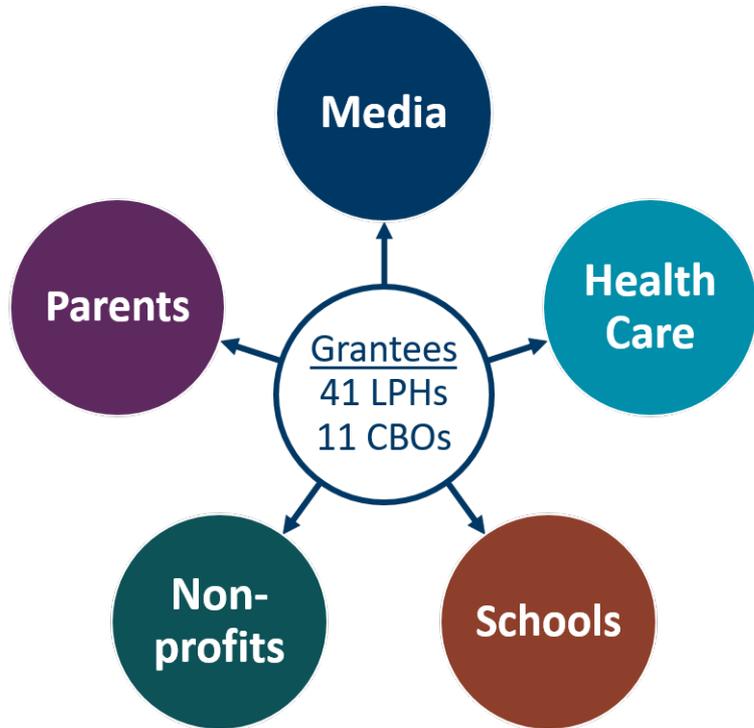
4 PSA's messaged to parents

- **Dangers of nicotine:** talk to your kids
- **Products like JUUL:** be aware of devices kids use
- **Industry targeting:** be aware of how your kids are targeted
- **Dangers of nicotine:** set an example by not using

Available at [youtube.com/user/MNDeptofHealth](https://www.youtube.com/user/MNDeptofHealth)



Outreach through Grantees and Partners



Grantee and Partner Toolkit

- Talking points
- Data highlights
- Q&A
- Sample communications
- Key resources

2018 Back to School Partner Toolkit

On September 12, 2018, the Minnesota Department of Health released a new health advisory on nicotine and the increasing risk of addiction for youth. Youth e-cigarette use has risen dramatically. Minnesota youth have more e-cigarettes, with an average 10 per cent increase in high school students in cigarette use in 2018. This is a major public health concern. Youth use of tobacco for reasons that are of addiction, and on health. This new report is dedicated to tobacco products and other substances in the future. The Minnesota Department of Health recommends an evidence-based approach requiring the participation of parents, educators, health care providers, and policy makers.

Talking Points

Nicotine primes the adolescent brain for addiction.

- Because teen brains are still developing, adolescents can become addicted to nicotine more easily than adults.^{1,2,3}

Youth exposed to nicotine are more likely to use other substances.

Exposure to the brain is critical and by exposure to nicotine, which triggers a neurobiological effect on the brain, there is an increased risk of addiction to other substances. The more adolescents are exposed to nicotine, the greater the risk of addiction because the effects of nicotine are more of an addiction, change by repeated exposure. This effect increases the likelihood that you will develop a dependence on these drugs.⁴

New e-cigarette technologies pose greater risks for youth.

- Many all e-cigarettes contain nicotine, which can harm brain development as teens grow.
- Popular e-cigarettes like JUUL have developed new technologies utilizing nicotine salts that are absorbed into the bloodstream more quickly and come in more high levels of nicotine.
- E-cigarettes are often flavored like fruit and other flavors, have limited odor, and are easily hidden.

Youth e-cigarette use is at its highest point ever recorded.

- In 5 states of high school students use e-cigarettes, nearly 50 percent increase since 2015.
- Over 37% of high school students have ever used e-cigarettes, up 33% from 2015.
- This increase is supported by the Tobacco Industry's parent use of these products.

1. U.S. Surgeon General's Report on E-Cigarettes: The End of the Road? (2018).
2. U.S. Surgeon General's Report on E-Cigarettes: The End of the Road? (2018).
3. U.S. Surgeon General's Report on E-Cigarettes: The End of the Road? (2018).
4. U.S. Surgeon General's Report on E-Cigarettes: The End of the Road? (2018).

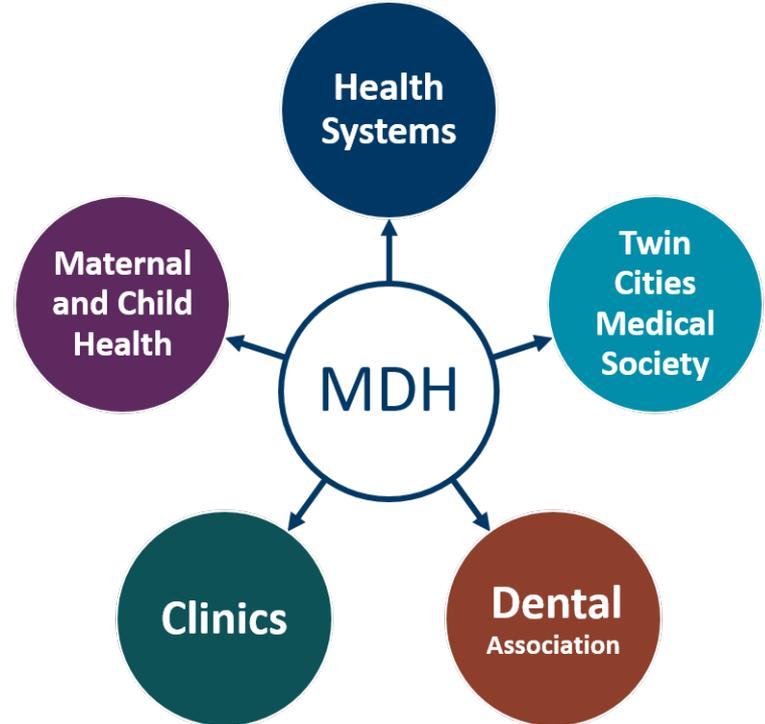
Outreach through Health Care

Partnership with medical and dental associations

Coordinated education efforts and media outreach

Presentations to health systems, plans, and clinics

Collaboration on new tools and resources for providers



Communities are taking action.



Amending clean indoor air laws to **restrict e-cigarette use indoors.**

Limiting the sale of flavored tobacco products, including e-cigarettes, to adult-only shops.

Raising the minimum age to buy tobacco to 21.

Increasing funding for comprehensive tobacco prevention and control.

Visit www.health.mn.gov/ecigarettes

- **Health Advisory:** Nicotine and the Escalating Risk of Addiction for Youth
- **School Toolkit:** Addressing Student Use of E-cigarettes and other Vaping Products
- **Factsheet:** E-cigarettes and Other Vaping Products
- And more...



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CDC Vital Signs Electronic Media Resources

- Become a fan on Facebook
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- Follow us on Twitter
www.twitter.com/CDCgov
- Syndicate Vital Signs on your website
<https://tools.cdc.gov/medialibrary/index.aspx#/media/id/305883>
- Vital Signs interactive buttons and banners
<https://www.cdc.gov/socialmedia/tools/buttons/vitalsigns>

Thank You

Provide feedback on this teleconference: CSTLTSFeedback@cdc.gov



Please mark your calendars for the next
Vital Signs Town Hall Teleconference

March 12, 2019

2:00–3:00 PM (EST)

For more information, please contact Centers for Disease Control and Prevention

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The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.