Emerging Issues in Tobacco Control: The Rise of Electronic Products and Implications for Policy, Planning, and Practice

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Next Generation Tobacco: The Impact of E-Cigarettes on Kentucky’s Future Health ● December 10, 2018
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The Good News: Cigarette Smoking Is Down

Source: Adult cigarette smoking prevalence data are from the National Health Interview Survey (NHIS).
High school cigarette smoking prevalence data are from the National Youth Risk Behavior Survey.
The Bad News: The Landscape Is Evolving
E-cigarettes: A Rapidly Diversifying Class
The E-cigarette Landscape is Volatile

The Rise of JUUL

An increasingly popular e-cigarette, called JUUL, is shaped like a USB flash drive.

JUUL craze getting teens hooked on high levels of nicotine, health officials fear

‘I Can’t Stop’: Schools Struggle With Vaping Explosion

Juuling, ‘peanut butter cup’-flavored vapes: Young adults experiment with e-cigarettes

Juul emerges as vape of choice among teens
What Are “Heat Not Burn” Products?

Contain Tobacco

Throat Hit Similar to Cigarettes

HeatStick

Filter
Polyactic acid filter
Hollow section
Tobacco plug
Youth E-cigarette Initiation and Use

Advertising  Flavors  Nicotine
Youth Exposure to E-cigarette Advertising

E-CIGARETTE ADS REACH NEARLY 4 IN 5 U.S. MIDDLE AND HIGH SCHOOL STUDENTS

More than 20 million youth saw e-cigarette ads in 2016.

PERCENT OF STUDENTS EXPOSED TO E-CIGARETTE ADS

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
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<tr>
<td>2014</td>
<td>68.9</td>
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<td>2015</td>
<td>73.0</td>
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<td>2016</td>
<td>78.2</td>
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YOUTH EXPOSURE TO E-CIGARETTE ADS, 2016

- **Retail Stores**: 68.0% (17.7 million)
- **Television**: 37.7% (9.7 million)
- **Internet**: 40.6% (10.6 million)
- **Newspapers & Magazines**: 23.9% (6.2 million)

Efforts to reduce youth exposure to e-cigarette ads are important to prevent and reduce youth use of these products.

Source: National Youth Tobacco Survey
"We don’t think a lot about addiction here because we’re not trying to design a cessation product at all...anything about health is not on our mind”

JUUL R&D Engineer, quoted in The Verge, April 2015

Use of Flavors is Prominent Among Youth

85% of e-cigarette users ages 12-17 use flavors

menthol
alcohol
candy
fruit
chocolate
sweets

JUUL FLAVOR MULTIPACK
4 Pods
5.0% Strength

- Cool Mint
- Virginia Tobacco
- Creme Brulee
- Mango

Image of JUUL pods with different flavors.
What Are They?

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What Can We Do About It?
Ever Use of E-cigarettes Among Adults, by Cigarette Smoking Status—U.S., 2010-2017

Source: CDC. Styles Survey. 2010-2017
Current E-cigarette Use Among Adults, by Age, National Health Interview Survey, U.S., 2016

A Majority of Adult E-cigarette Users Also Smoke Conventional Cigarettes

Cigarette smoking status among current adult e-cigarette users, by age group

Current e-cigarette users: Persons who reported using e-cigarettes or some other electronic “vaping” product “some days” or “every day”. 

Current E-cigarette Use Among U.S. Adults, BRFSS, 2017
Current Use of E-cigarettes and Any Tobacco Product Among Middle and High School Students—NYTS, US, 2011–2018

JUUL use, access points, and misperceptions among young people

10
11
8

15-17
18-21

Ever Use
Current Use

63% of JUUL users ages 15-24 did not know nicotine is always in the device

3 in 4 youth who used JUUL say they got the device from a physical retail location

1 in 5 middle and high school students have seen JUUL used at school

What Are They?

Why Are They Popular?

Who’s Using Them?

Are They Safe?

What Can We Do About it?
Net Public Health Benefit or Harm?

Youth Initiation

Adult Cessation
Is there a potential benefit for e-cigarettes?
Answer: Under certain circumstances

- Complete long term substitution by established smokers
- Assist in rapid transition to a society with little or no use of combustible products
- Short-term use if shown to produce successful & permanent cessation of combustible products

“Cutting back” is not enough—even a few cigarettes per day is dangerous
E-Cigarette Use As A Smoking Cessation Tool in Adults

“The long-term safety of e-cigarettes is unknown.”

“Overall, the USPSTF found the evidence on the use of ENDS as a smoking cessation tool in adults, including pregnant women, and adolescents to be insufficient.”

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

www.uspreventiveservicestaskforce.org
Potential Health Risks of E-cigarettes

Leads to initiation of combustible tobacco use among non-smokers, particularly children

Leads to relapse among former smokers

Diminishes the chances that a smoker will quit

Discourages smokers from using proven quit methods

Exposes children, pregnant women, and non-users to secondhand aerosol

Glamorizes or renormalizes tobacco use

Results in poisonings among users or non-users
Sales Data Tell Another Story…

Percentage of products that contained nicotine

- 99.6% of disposable e-cigarette sales
- 100% of rechargeable sales
- 99.5% of refill sales

Percentage that contained nicotine by product type

- 99.6% of all e-cigarette products sold
- 99.4% of flavored e-cigarette products
- 99.9% of non-flavored e-cigarette products

Nicotine salts allow particularly high levels of nicotine to be inhaled more easily and with less irritation than free base nicotine.
Your Gut Can Handle More Than Your Lungs

Some e-cigarette manufacturers claim flavorings are safe because they meet the FDA definition of “Generally Recognized as Safe” (“GRAS”)

GRAS does not apply to products that are not food
E-cigarettes and Cannabinoids

**Conclusion:** Nearly 1 in 11 U.S. students, including 1/3 of those who ever used e-cigarettes, had used cannabis in e-cigarettes in 2016.

**Conclusion:** E-cigarette products can be used as a delivery system for cannabinoids and potentially for other illicit drugs.

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Major Conclusion

“Action can be taken at the national, state, local, tribal, and territorial levels to address e-cigarette use among youth and young adults. **Actions could include incorporating e-cigarettes into smoke-free policies**, preventing access to e-cigarettes by youth, price and tax policies, retail licensure, regulation of e-cigarette marketing likely to attract youth, and educational initiatives targeting youth and young adults.”
Public Health Actions to Address E-Cigarettes

Federal Regulation

Family Smoking Prevention and Tobacco Control Act

- Signed into law on June 22, 2009
- Granted FDA the authority to regulate tobacco products
- Enhanced the ability to intensify policy to reduce tobacco industry influence:
  - Manufacturing
  - Marketing
  - Sale

State, Local, Territory

Potential Sub-National Action:

- Including e-cigarettes in smokefree indoor air policies
- Restricting youth access to e-cigarette in retail settings
- Licensing retailers
- Establishing specific package requirements
- Setting price policies
New FDA Rules for E-cigarette Sales

FDA RULES FOR ELECTRONIC NICOTINE DELIVERY SYSTEM (ENDS) SALES
(Including e-cigarettes, vape pens, e-hookahs, e-cigs, personal vaporizers, and electronic pipes.)
Are you taking the necessary steps to prevent underage tobacco use?

- Check photo I.D. of everyone under age 27 who attempts to purchase ENDS.
- Only sell ENDS to customers age 18 and older.*
- Do NOT give away free samples of ENDS, including their components and parts.
- Do NOT sell e-cigarettes in a vending machine unless in an adult-only facility.**

PROVIDED BY THE FDA CENTER FOR TOBACCO PRODUCTS
Examples of ENDS include e-cigarettes, vape pens, e-hookahs, e-cigs, personal vaporizers, and electronic pipes.
This flyer provides a snapshot of some of the new requirements for ENDS. See our website www.fda.gov/tobacco for a full list of requirements that may apply to you.

*Retailers must also follow state or local tobacco laws, even if they are more restrictive. For example, in some states the minimum age is 19.
**An adult-only facility is one in which minors are neither present nor permitted to enter at any time.
States With & Without Laws Prohibiting Smoking & Use of E-cigarettes in Indoor Areas of Private Worksites, Restaurants, & Bars – U.S., September 2018

Source: Centers for Disease Control and Prevention. STATE System. 2018.
Including 6 with Statewide T-21 laws

340+ Cities & Counties in 21 States

But Challenges Remain

- Diversification of Landscape
- Disparities
- Dollars
- Disruptive Players
As the tobacco product landscape continues to diversify, it’s important to modernize tobacco control strategies to adapt.

E-cigarettes are a tobacco product that produces an aerosol by heating a liquid that typically contains nicotine, flavorings, and other chemicals.

Several factors have contributed to the popularity of e-cigarettes, including advertising and the vast array of available flavors.

E-cigarette use is higher among young people than adults. As of 2014, e-cigarettes were the most commonly used tobacco product among U.S. youth.

Youth use of e-cigarettes is unsafe. Adult smokers must completely quit to realize benefits from e-cigarettes.
For more information, contact CDC
1-800-CDC-INFO (232-4636)

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