

E-Cigarettes and Vaping

Research Paper – October 2019

Background

E-cigarettes entered the U.S. marketplace in 2007. Use has increased rapidly since then. They have been the most [commonly used tobacco product among U.S. youth](#) since 2014.

According to the U.S. Surgeon General, use among middle and high school students increased 900% during 2011-2015, before declining for the first time during 2015-2017. In 2018, e-cigarette use increased 78% among high school students and 48% among middle school students, leading to a 36% spike in overall tobacco use among youth.

In 2018, more than 3.6 million U.S. youth, including one in five high school students and one in 20 middle school students, used e-cigarettes. The increase in youth e-cigarette use in 2018 coincides with Altria's [major investment in JUUL](#), the e-cigarette retail giant that [dominates the U.S. market](#). Altria is the U.S. side of Phillip Morris International.

The 2018 Iowa Youth Survey indicates that for Iowa sixth-, eighth- and 11th-graders, e-cigarettes are the most used tobacco product. They are used by nine in 10 tobacco users in these grades.

In particular, 23% of 11th-grade respondents reported using e-cigarettes (including vape-pens, JUUL and hookah-pens, among others) one day or more. Eight percent of eighth-graders and 2% of sixth-graders reported using e-cigarettes at least one day or more. Overall, vaping is up 78%.

While scientists and the public are well aware of the consequences of tobacco use on lung health, new findings suggest that [teenage brains affected by nicotine are especially susceptible to substance abuse, attention disorders and impulse control issues](#).

Concerns about e-cigarettes (vaping) include the consequences of:

- Exposure and addiction to nicotine on the developing brain.
- Exposure to toxicants in the inhaled and exhaled aerosol.
- The increased propensity to take up regular cigarettes.
- Serious negative health effects.

Increasing evidence shows that e-cigarettes increase the risk of future cigarette smoking among youth. Although sometimes framed as cessation devices, research with youth has found strong associations between the use of e-cigarettes and use of other tobacco products.



Many of the young people who start cigarette smoking after using e-cigarettes did **not** have a high risk of smoking to begin with, suggesting that **e-cigarettes are addicting a new group of youth**.

Much of the recent growth in e-cigarette use by youth has been attributed to a new generation of devices that look like USB flash drives. JUUL has many of these devices.

Despite the [\\$274.2 million in tobacco revenue](#) that Iowa took in from tobacco tax and the Master Settlement Agreement in FY19, Iowa invested only \$4 million in tobacco prevention, a mere 1.5% of the revenue and 13.4% of what the Centers for Disease Control and Prevention (CDC) recommend for our state.

For every \$1 Iowa spends on tobacco prevention, the tobacco industry spends \$26.60 on marketing its products.

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The toll of tobacco in Iowa can be measured in 5,100 lost lives, \$128 billion in annual health care costs and \$816 per household in state and federal tax burden from smoking-caused government expenditures.

Nationwide, as of October 11, there were 1,299 reported cases of severe respiratory illnesses associated with vaping, including 26 deaths. Iowa has seen 43 cases, with more currently under investigation. No deaths have been reported in Iowa. Iowa statistics are available through the [Iowa Department of Public Health](#).

Iowa History

Iowa passed legislation regarding e-cigarettes in 2014. [HF 2109](#) defined “vapor products” (e-cigarettes) and created a definition of “alternative nicotine products” in Iowa Code.

The legislation also banned the sale to, use by and possession by minors. Both nicotine and non-nicotine solutions used in e-cigarettes are included in the definition. Penalties for noncompliance with the restrictions on the possession, use and sale of these products align with those applied to similar restrictions on cigarettes and tobacco products.

The law applies the same retail permitting process and regulation by the Alcoholic Beverages Division to these products. Vapor products and alternative nicotine products are exempt from tobacco/cigarette taxes and are not included in the Smokefree Air Act.

Steps taken by other states

- 21 states have included e-cigarettes in their legal definition of tobacco products, making them subject to the same regulations.
- 15 states tax the sale of e-cigarettes.
- 29 states have laws that require product packaging of e-cigarettes.
- 24 states, including Iowa, require state licenses for the sale of e-cigarettes.
- 49 states restrict legal youth access to e-cigarettes. In Iowa, an individual must be 18 to purchase an e-cigarette, matching the lowest threshold in the United States. Four states set the bar at 19, and 16 states set it at age 21.

Public Health Advocates offer the following policy actions for consideration

Increase the price of tobacco products (including e-cigarettes) through regular and significant tobacco tax increases of at least \$1.50 per pack of cigarettes with an equivalent rate on other tobacco products.

A \$1.50 increase in the cigarette tax will reduce Iowa’s youth smoking rate by 16.4%, prevent 15,900 kids under 18 from becoming adult smokers, help 20,400 current adult smokers quit, prevent 10,100 smoking-caused deaths and save the state more than \$754 million in long-term health care costs.

Strengthen [Iowa’s Smokefree Air Act](#). The law from 2008 prohibits smoking in almost all public places and enclosed areas within places of employment, as well as some outdoor areas. However, the law fails to protect Iowa’s casino workers. It should be expanded to cover non-tribal casinos and include e-cigarettes.

Fund \$30.1 million for evidence-based tobacco prevention and cessation programs [per CDC recommendations](#).

Ensure that any tobacco policy ([including Tobacco 21](#)) **is based on a strong, comprehensive definition of tobacco products and includes all current and known products** (cigarettes, cigars, smokeless tobacco, pipes, rolling papers,

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electronic smoking devices and other related devices), and is broad enough to encompass future products. This will aid in compliance and enforcement, and close industry-supported loopholes to exclude certain products.

Restrict the sale of all flavored tobacco products to make them less attractive to youth.

Limit the quantity and location of tobacco retailers.

Increase tobacco cessation coverage in Medicaid and private insurance plans, and increase funding to hard-hitting media campaigns focused on cessation. Several large retailers have already begun to alter requirements surrounding tobacco purchases or have pledged to stop selling e-cigarette products altogether.

Resources:

- [Centers for Disease Control and Prevention](#)
- [Food and Drug Administration](#)
- [Iowa Youth Survey](#)
- [Iowa Code Chapter 453A](#)
- [U.S. Surgeon General](#)
- [A Public Health Perspective on Vaping](#), Jeneane Moody, Des Moines University
- [Cancer Action Network](#)

IDPH Recommendations for the Public

- Since the specific compounds or ingredients causing lung injury are not yet known, the only way to assure that you are not at risk is to refrain from using e-cigarettes or vaping products.
- Anyone who uses e-cigarettes should not buy them off the street (e.g., e-cigarette products with THC, other cannabinoids), and should not modify e-cigarette products or add any substances to them that are not intended by the manufacturer.
- E-cigarettes should not be used by youth, young adults or pregnant women, or by adults who do not currently use tobacco products. If you use e-cigarettes, monitor yourself for symptoms (e.g., cough, shortness of breath, chest pain) and promptly seek medical attention if you have concerns.
- Adult smokers who are attempting to quit should use evidence-based treatments, including counseling and FDA-approved medications. If you need help quitting tobacco products, including e-cigarettes, call 1-800-QUIT-NOW or visit [Quitline Iowa](#).
- If you are concerned about harmful effects from e-cigarettes, call your local poison control center at 1-800-222-1222.
- All are encouraged to submit to the FDA detailed reports of any unexpected tobacco or e-cigarette-related health or product issues via the online Safety Reporting Portal: www.safetyreporting.hhs.gov.