E-Cigarettes, Cessation and Harm Reduction: What’s the Prognosis?

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What are E-Cigarettes?

• Using e-cigarettes, or “vaping,” refers to use of wide variety of **electronic, battery-operated devices** that aerosolize, but do not burn, liquids (“e-liquid, “e-juice”) to release nicotine and other substances.

• Nicotine-containing e-cigarettes are regulated as “tobacco products” by FDA because the nicotine is derived from the tobacco plant. However, **they do not contain or burn tobacco.**

• E-cigarettes look like cigarettes, cigars, pipes, pens, USB flash drives (e.g., JUUL), and take other forms.
Issues of Concern

1. Harm reduction for adults who smoke?
   • “E-cigarettes have the potential to benefit adult smokers who are not pregnant if used as a complete substitute for regular cigarettes and other smoked tobacco products. ... E-cigarettes are not safe for youth, young adults, pregnant women, or adults who do not currently use tobacco products.” (CDC)

2. Cessation for adults who smoke?
   • “While e-cigarettes have the potential to benefit some people and harm others, scientists still have a lot to learn about whether e-cigarettes are effective for quitting smoking.” (CDC)
   • “No e-cigarette has been approved by the Food and Drug Administration as a safe and effective cessation product.” (ACS)

3. Rapid increases in youth vaping (CDC and FDA - NYTS data)

- Epidemic emerged in 2018, when e-cigarette use by teens jumped 78%
- Vast majority of 6.2 million HS and MS tobacco product users are using e-cigarettes
- More than half (57.8%) of HS and MS tobacco product users report seriously thinking about quitting all tobacco products

### Percentage of Current (Past 30-day) Tobacco Product Use, 2019

<table>
<thead>
<tr>
<th>Tobacco Product</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-cigarettes</td>
<td>10.5</td>
<td>27.5</td>
</tr>
<tr>
<td>Cigars</td>
<td>2.3</td>
<td>5.8</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>2.3</td>
<td>5.8</td>
</tr>
<tr>
<td>Smokeless Tobacco</td>
<td>1.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Hookahs</td>
<td>1.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Pipe Tobacco</td>
<td>NA</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control & Prevention, Food and Drug Administration (National Youth Tobacco Survey), [https://www.cdc.gov/mmwr/volumes/68/ss/ss6812a1.htm](https://www.cdc.gov/mmwr/volumes/68/ss/ss6812a1.htm).
4. Adult e-cigarette prevalence is much lower than youth prevalence but still significant

- In 2018, prevalence of 4.5% (10.8 million) current adult e-cigarette users in U.S.
- Of these, 15% never-cigarette smokers
- Prevalence of 9.2% (2.8 million) current e-cigarette use among age 18-24
- More than half of current e-cigarette users (51.2%) younger than age 35
- Age-standardized prevalence of e-cigarette use highest among men, LGBT persons, current combustible cigarette smokers, and those with chronic health conditions

Issues of Concern

5. Recent emergence of severe pulmonary illnesses linked to vaping

- As of November 20, 2019, there were 2,290 cases of e-cigarette, or vaping, product use associated lung injury (EVALI) had been reported to CDC from 49 states (all except Alaska), District of Columbia, and 2 U.S. territories (Puerto Rico and U.S. Virgin Islands).

- 47 deaths had been confirmed in 25 states and District of Columbia

Sources: Centers for Disease Control & Prevention, [https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html); Centers for Disease Control & Prevention, [https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm).
“CDC has identified vitamin E acetate as a chemical of concern among people with e-cigarette, or vaping, product use associated lung injury (EVALI). Recent CDC laboratory testing of bronchoalveolar lavage (BAL) fluid samples (fluid samples collected from the lungs) from 29 patients with EVALI submitted to CDC from 10 states found vitamin E acetate in all of the samples. Vitamin E acetate is used as an additive, most notably as a thickening agent in THC-containing e-cigarette, or vaping, products. ... While it appears that vitamin E acetate is associated with EVALI, evidence is not yet sufficient to rule out contribution of other chemicals of concern to EVALI. ”

“CDC recommends that people should not use THC-containing e-cigarette, or vaping, products, particularly from informal sources like friends, or family, or in-person or online dealers. While this investigation is ongoing, vitamin E acetate should not be added to e-cigarette, or vaping, products.”

Must Not Lose Focus on Primacy of Ending Smoking

- Cigarette smoking accounts for an estimated 98% of all tobacco-related deaths
- As urged by the U.S. Surgeon General, we must eliminate combustible tobacco use – including “dual” use with other tobacco products – to substantially reduce cancer and other diseases

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