

## E-Cigarettes

March 2015

### POSITION:

The American Lung Association:

- Supports including e-cigarettes in smokefree laws and ordinances.
- Supports state laws that would prohibit the sale of any flavored e-cigarette product.
- Supports taxing e-cigarettes at a rate equivalent with all tobacco products, including cigarettes.
- Supports eliminating e-cigarette sales to youth, otherwise restricting youth access to e-cigarettes and requiring e-cigarette retailers to be licensed. E-cigarettes should be defined as tobacco products.
- Opposes creating new definitions for “vapor products” and/or “alternative nicotine products” in state laws. This tactic, which the tobacco industry is promoting in numerous states, has the potential to undermine existing tobacco control laws, including smokefree laws and tobacco taxes.

### Background

- On April 24, 2014, the U.S. Food and Drug Administration (FDA) issued its proposal to begin oversight over e-cigarettes as tobacco products. Comments were due to FDA on August 8, 2014. The American Lung Association has urged FDA to finalize this regulation no later than April 24, 2015.
- According to the FDA, electronic cigarettes, or e-cigarettes, are devices that allow users to inhale a vapor containing nicotine or other substances.<sup>1</sup>
- Unlike traditional cigarettes, e-cigarettes are generally battery-operated and use an atomizer to heat liquid from a cartridge until it becomes a chemical-filled aerosol.
- E-cigarettes are often available in flavors that may appeal to children and teens, including cotton candy, bubble gum, chocolate, strawberry and mint.<sup>2</sup>
- There are almost 500 different brands of e-cigarettes on the market today, and e-cigarettes come in 7,700 different flavors.<sup>3</sup>
- The class of e-cigarettes also includes e-hookahs, e-pens, e-cigars and other electronic products, all of which would be subject to FDA oversight.

### Who Uses E-Cigarettes?

- An increasing number of youth:
  - According to CDC, the number of students in grades 6-12 reporting having ever used an e-cigarette more than doubled from 3.3 percent to 7.7 percent from 2011 to 2013.<sup>4,5</sup> Recent use of e-cigarettes among high school students tripled from 1.5 percent to 4.5 percent in this time frame, including a 61 percent from 2.8 percent in 2012.<sup>6,7</sup>
  - Another national study, “Monitoring the Future,” found recent e-cigarette use among teens exceeded traditional cigarette smoking in 2014 for the first time ever. E-cigarette use among 8th and 10th graders was double that of traditional cigarette smoking.<sup>8</sup>
- Adults: According to CDC, during 2010 to 2013, adults reporting that they have ever used an e-cigarette increased among every demographic group except those aged 18-24 years old, Hispanics, non-Hispanic Others, and those living in the Midwest.<sup>9</sup>
- Former and current smokers: In 2013, close to one in ten former and more than one in three current cigarette smokers had used an e-cigarette, which was an increase compared to 2011 for both groups. E-cigarette use among those who never had smoked cigarettes was a much lower 1-2 percent and did not increase over this period.<sup>10</sup>
- Current smokers: From 2010-2011, 72.0 percent of people who recently used e-cigarettes also currently smoked conventional cigarettes. That number rose to 76.8 percent during 2012-2013.<sup>11</sup>
- Additional and on-going research is needed to understand the full public health impact of e-cigarettes, including their impact on youth initiation, and whether current smokers are switching to these products instead of quitting or are using them in conjunction with regular cigarettes.

## What are the Health Effects of E-Cigarettes?

- The health consequences of the use of e-cigarettes and exposure to secondhand e-cigarette emissions are unknown. There is currently no scientific evidence establishing the safety of e-cigarettes.
- In initial lab tests conducted in 2009, FDA found detectable levels of toxic cancer-causing chemicals, including an ingredient used in anti-freeze, in two leading brands of e-cigarettes and 18 various cartridges.<sup>12</sup> The lab tests also found that cartridges labeled as nicotine-free had traceable levels of nicotine.
- There is no evidence that shows the aerosol emitted by e-cigarettes is safe for non-users to inhale. In fact, two initial studies have found formaldehyde, benzene and tobacco-specific nitrosamines (a carcinogen) coming from the secondhand emissions from e-cigarettes. The use of e-cigarettes in public places and workplaces may also complicate efforts to enforce and comply with smokefree laws. The American Lung Association supports including the use of e-cigarettes in worksites and public places under smokefree laws.

## Can E-Cigarettes Help Someone Quit Smoking?

- The FDA has not approved any e-cigarettes as a safe or effective method to help smokers quit. The U.S. Public Health Service has found that the seven therapies approved by the U.S. Food and Drug Administration in combination with individual, group or phone cessation counseling is the most effective way to help smokers quit. Until and unless the FDA approves a specific e-cigarette for use as a tobacco cessation aid, the American Lung Association does not support any direct or implied claims that e-cigarettes help smokers quit.
- A 2014 study published in the journal *Cancer* found that among cancer patients enrolled in a smoking cessation program, e-cigarette users were as likely or less likely as individuals who did not use e-cigarettes to still be smoking.<sup>13</sup>

## Why Are E-cigarettes Tobacco Products?

- In 2010, the U.S. Court of Appeals for the District of Columbia determined that e-cigarettes should be regulated as tobacco products except when a product makes a therapeutic (quit smoking) claim.
- E-cigarette companies sued FDA to be regulated as tobacco products.
- The nicotine used in e-cigarettes is derived from tobacco.
- E-cigarette marketing mirrors strategies used by cigarette companies in the past, which they are no longer allowed to use because they appeal to youth.
- FDA has not found e-cigarettes safe and effective in helping smokers quit.

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<sup>1</sup> U.S. Food and Drug Administration. "E-Cigarettes: Questions and Answers." September 9, 2010. Available at: <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm225210.htm>.

<sup>2</sup> U.S. Food and Drug Administration. "FDA Warns of Health Risks Posed by E-Cigarettes." July 23, 2009. Available at: <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm173401.htm>.

<sup>3</sup> Zhu SH et al. "Four hundred and sixty brands of e-cigarettes and counting: implications for product regulation." *Tobacco Control*. July 2014; 23 Suppl 3:ii3-ii9.

<sup>4</sup> Centers for Disease Control and Prevention. "Electronic Cigarette Use Among Middle and High School Students — United States, 2011–2012." *Morbidity and Mortality Weekly Report*. September 6, 2013; 62(35):729-30.

<sup>5</sup> Centers for Disease Control and Prevention. National Youth Tobacco Survey Raw Data, 2013. Analysis by the American Lung Association Research and Health Education Division using SPSS software.

<sup>6</sup> Centers for Disease Control and Prevention. "Electronic Cigarette Use Among Middle and High School Students — United States, 2011–2012." *Morbidity and Mortality Weekly Report*. September 6, 2013; 62(35):729-30.

<sup>7</sup> Centers for Disease Control and Prevention. "Tobacco Use Among Middle and High School Students — United States, 2013." *Morbidity and Mortality Weekly Report*. November 14, 2014; 63(45):1021-6.

<sup>8</sup> Johnston, LD, O'Malley, PM, Miech, RA, Bachman, JG, Schulenberg, JE. "Monitoring the Future national results on adolescent drug use: Overview of key findings, 2014." 2015. Ann Arbor, Mich.: Institute for Social Research, the University of Michigan.

<sup>9</sup> King, BA, Patel R, Nguyen K, Dube S. "Trends in Awareness and Use of Electronic Cigarettes Among U.S. Adults, 2010-2013." *Nicotine & Tobacco Research*. September 2014; ntu191v3-ntu191.

<sup>10</sup> King, BA, Patel R, Nguyen K, Dube S. "Trends in Awareness and Use of Electronic Cigarettes Among U.S. Adults, 2010-2013." *Nicotine & Tobacco Research*. September 2014; ntu191v3-ntu191.

<sup>11</sup> King, BA, Patel R, Nguyen K, Dube S. "Trends in Awareness and Use of Electronic Cigarettes Among U.S. Adults, 2010-2013." *Nicotine & Tobacco Research*. September 2014; ntu191v3-ntu191.

<sup>12</sup> U.S. Food and Drug Administration. "Summary of Results: Laboratory Analysis of Electronic Cigarettes Conducted by FDA." July 22, 2009. Available at: <http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm173146.htm>.

<sup>13</sup> Borderud, S. P., Li, Y., Burkhalter, J. E., Sheffer, C. E. and Ostroff, J. S. (2014), Electronic cigarette use among patients with cancer: Characteristics of electronic cigarette users and their smoking cessation outcomes. *Cancer*. doi: 10.1002/cncr.28811