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Youth use of ENDS escalating over time

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Electronic nicotine delivery systems (ENDS) are handheld devices that produce an aerosolized mixture from a solution typically containing concentrated nicotine, flavoring chemicals, and propylene glycol to be inhaled by the user. ENDS are marketed under a variety of names: electronic cigarettes, e-cigarettes, c-cigs, electronic cigars, e-cigars, electronic hookahs, e-hookah, hookah sticks, personal vaporizers, mechanical mods, vape pens and vaping devices (Walley 1-2).

In 2014, more youth reported using ENDS than any other tobacco product and use of these products are rapidly increasing among youth. In addition, there is concern that the marketing industries are specifically targeting youth with its flavors and designs. ENDS could renormalize and glamorize tobacco use.

National data released by the U.S. Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) show that youth use of electronic cigarettes exceeds use of cigarettes for the second year in a row, with 16.0 percent of high schoolers and 5.3 percent of middle schoolers reporting current use in 2015. Since 2011 there has been a ten-fold increase in ENDS use among high schoolers (the rate was just 1.5 percent in 2011) and a nearly five-fold increase in use among middle schoolers from 1.1% to 5.3% (“Electronic Cigarettes: Use Among Adults and Youth.”). In Androscoggin County, a total 25.2% of high school students surveyed said they have ever used an electronic vapor product. Additionally, during the past 30 days, 13.2% of high school students in Androscoggin County have used an electronic vapor product (“Maine Integrated Youth Health Survey, 2015”). This trend in youth use of e-cigarettes raises concern that e-cigarettes could be a gateway to use of traditional cigarettes, leading to nicotine addiction for some youth. Youth are especially vulnerable to the addictive effects of nicotine because it is a critical period of growth and development (“Electronic Cigarettes: Use Among Adults and Youth.”).

The tobacco industry documents reveal a deliberate strategy to add flavors known to appeal to younger people. Despite assurances that they no longer target youth either directly or indirectly, tobacco companies have a range of candy flavored tobacco products, such as bubble gum, candy corn, peppermint patty and tutti fruti. The Centers for Disease Control and Prevention found 63% of students who currently use e-cigarettes have used flavors and 7 out of 10 middle and high school students who currently use tobacco have used a flavored product. Studies have

shown flavored cigarettes can promote youth initiation and help young occasional smokers to become daily smokers by reducing or masking the natural harshness and taste of tobacco smoke (Carpenter, Carrie, et al 1601). The devices come in a variety of shapes and sizes, some look like traditional cigarettes while others look like a pen or small flashlight, which can mask the potential dangers of these evolving products.

There is limited data available regarding the reasons for youth e-cigarette initiation and ongoing use. Ronald Peters suggested that “youth use e-cigarettes because they can be ‘smoked quickly,’ are ‘smokeless’ and are ‘easy to conceal.’ In addition, e-cigarettes are often perceived as less harmful than traditional tobacco products or as safe” (300). The marketing industry promotes e-cigarettes as a healthier alternative to traditional cigarettes. ENDS marketing have included unproven claims of safety and use for smoking cessation, as well as statements that they are exempt from clean air policies that restrict smoking (“Electronic Nicotine Delivery Systems”). Youth have also found a creative way to use e-cigarettes to smoke marijuana. Some e-cigarette products are designed specifically to aerosolize marijuana or hashish concentrates and oils. (Durmowicz). Fox and Edwards note that “the smell of vaping marijuana isn’t as strong as smoking it, plus the similarity in appearance of hash oil and nicotine solutions makes this an inconspicuous way of using marijuana. There is also concern that the THC concentration of vaporized hash oil and waxes can exceed that of dried cannabis by four to 30 times.” Youth are able to use marijuana in a way that is less detectable, which may remove the fear of getting punished or caught.

Given the available data on the health impacts of ENDS, several policy levers are appropriate to protect public health. Under Maine law, ENDS are considered a tobacco product and therefore cannot be sold to minors which will help prevent youth access. ENDS are included in Maine indoor smoking laws. Smoking is prohibited in all indoor public places and workplaces (including company vehicles) in Maine. This includes the following: restaurants, bars, beano and bingo halls, movie theaters, malls and daycares. This law preserves clean indoor air standards and protects bystanders from exposure to secondhand ENDS aerosol. The tobacco industry promotes ENDS as an alternative to smoking that can be used anywhere cigarette smoking is not allowed. We can help by supporting tobacco-free norms and supporting enforcement of smoke-free laws (“Electronic Cigarettes – Public Health Concerns”).

In 2016, the FDA finalized a rule – *Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act* – which extends the FDA’s authority to include the regulation of electronic nicotine delivery systems (such as e-cigarettes and vape pens), all cigars, hookah (waterpipe) tobacco, pipe tobacco and nicotine gels, among others.

This action is a milestone in consumer protection – going forward, the FDA will be able to:

- Review new tobacco products not yet on the market;
- Help prevent misleading claims by tobacco product manufacturers;
- Evaluate the ingredients of tobacco products and how they are made; and
- Communicate the potential risks of tobacco products.

This final rule went into effect on August 8, 2016 (“Compliance, Enforcement & Training”).

More research is needed to understand the risks of ENDS and the impact of these products on public health. The increasing use of ENDS among youth and adults threatens nearly fifty years of public health gains in effective tobacco free education and messaging preventing youth initiation, changing norms and standards for tobacco use, and eliminating exposure to secondhand smoke (especially children). We need to continue to implement tobacco control strategies with the focus of preventing youth initiation. These strategies could be effective in the prevention of youth ENDS use and denormalizing tobacco use.

Healthy Androscoggin (HA) has helped strengthen organizations, businesses and schools smoke-free rules by developing policies that include electronic nicotine delivery systems. In addition, HA has provided community education to increase knowledge of the risks of ENDS use. For more information, contact Healthy Androscoggin at (207) 795-5990 or visit our website, www.healthyandroscoggin.org.

Work Cited

- Carpenter, Carrie, et al. "New Cigarettes Brans With Flavors That Appeal to You: Tobacco Marketing Strategies." *Health Affairs*, vol. 24, no. 6, pp. 1601-1610.
- "Compliance, Enforcement & Training." *U.S. Food & Drug Administration*, October 2015. Web 22 June 2016.
- Durmowicz, Elizabeth. "The Impact of Electronic Cigarettes on the Pediatric Population." *Open Access from BMJ, Tobacco Control*, May 2014. Web 22 June 2016.
- "Electronic Cigarettes – Public Health Concerns." *The Breathe Easy Coalition and the Maine Center for Disease Control and Prevention*. Web 22 June 2016.
- "Electronic Cigarettes: Use Among Adults and Youth." *Campaign for Tobacco-Free Kids*, June 2016. Web 22 June 2016.
- "Electronic Nicotine Delivery Systems: Key Facts CDC Office on Smoking and Health." *Centers for Disease Control and Prevention*. Web 22 June 2016.
- Fox, Maggie and Edwards Erika. "High School Kids Use E-Cigarettes to Smoke Cannabis: Study." *NBC – News*, September 2015. Web 22 June 2016.
- "Maine Integrated Youth Health Survey, 2015." *Maine Department of Health and Human Services and Maine Department of Education*, November 2015, pp. 184-189.
- Marynak, Kristy, et al. "State Laws Prohibiting Sales to Minors and Indoor Use of Electronic Nicotine Delivery Systems." *Centers for Disease Control and Prevention – Morbidity and Mortality Weekly Report*, November 2014. Web 22 June 2016.
- Peters, Ronald, et. al. "The Social Norms and Beliefs of Teenage Male Electronic Cigarette Use" *Journal of Ethnicity in Substance Abuse*, vol. 12, no. 4, pp. 300-307.
- Walley, Susan C. and Jenessen, Brian P. "Electronic Nicotine Delivery Systems." *American Academy of Pediatrics*, vol. 136, no. 5, 2015, pp. 1-7.