



## PREVENTION OPPORTUNITIES UNDER THE BIG SKY

### E-cigarettes: Another nicotine delivery device

Tobacco use remains the leading cause of preventable death in the United States, accounting for more than 1,000 premature deaths each day in the U.S.<sup>1</sup> and almost 1,400 deaths per year in Montana.<sup>2</sup> Over 14%<sup>3</sup> of Montana adults currently smoke cigarettes. In a never ending effort to expose Montanans to nicotine and other tobacco products, the tobacco industry is marketing another nicotine delivery device, the e-cigarette. This device allows users to mimic the act of smoking while inhaling nicotine. Instead of burning tobacco, users inhale vapor consisting of nicotine, flavor additives, and other chemicals. When users inhale from one end of an e-cigarette, a battery operated device heats a solution into a vapor.

Use of electronic cigarettes doubled among U.S. middle and high school students from 2011 to 2012,<sup>4</sup> and quadrupled among U.S. adults from 2009 to 2010.<sup>5</sup> The federal government currently has no authority to regulate e-cigarettes, although the FDA has proposed rules that would allow regulation similar to that for other tobacco products. Not surprisingly, although troublingly, testing has shown the presence of tobacco specific impurities and tobacco specific carcinogens in commonly available brands of e-cigarettes.<sup>6</sup> This issue of *Montana Public Health* describes the prevalence of use of e-cigarettes among Montana adults.

#### Asking Montanans about tobacco use

Data for this report were collected in the 2013 Montana Adult Tobacco Survey (ATS). The ATS is a population-based telephone survey of Montana adults conducted by the Montana Department of Public Health and Human Services in collaboration with the Centers for Disease Control and Prevention. Participants were selected anonymously through random-digit telephone dialing and over 5,000 Montanans participated in the survey. The 2013 ATS was conducted from January through June, 2013.

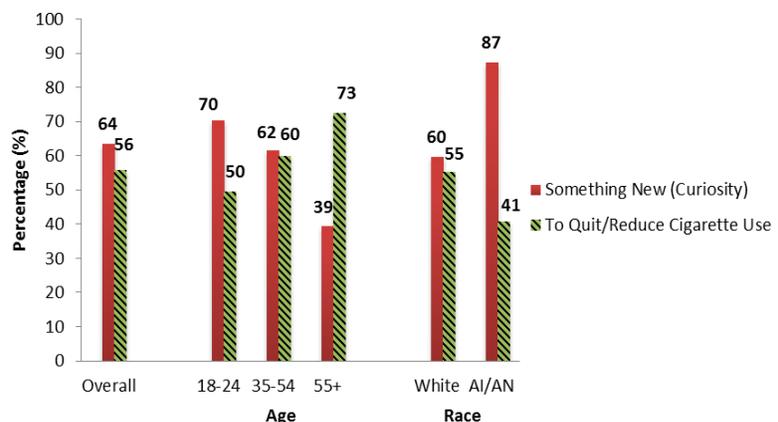
#### What Montanans said

Overall, less than 2% of adult respondents reported current use of e-cigarettes. However, 11% of Montana adults reported they had ever used electronic cigarettes and the prevalence varied significantly among age groups. The median age of adults who reported use of e-cigarettes was 31 years and 71% of e-cigarette users were current cigarette smokers (data not shown). E-cigarette use was highest among persons aged 18–34, 22.5%, more than twice the prevalence reported by persons aged 35–54, 9.8%, and five times the prevalence reported by persons aged 55 years or more, 4.1%. More than half (55.6%) of current cigarette smokers reported ever using electronic cigarettes, markedly higher than the prevalence of e-cigarette use reported by non-cigarette users (3.8%). There was no significant difference in the prevalence of e-cigarette use by gender or by race (Table).

Table. Electronic cigarette (e-cig) use among Montana adults, Adult Tobacco Survey, 2013 (N=5,135)

	%	95% CI
<b>Current e-cig use</b>	1.3	0.7–1.9
<b>Ever e-cig use</b>	11.2	9.1–13.2
<b>Age (years)</b>		
18–34	22.5	16.4–28.6
35–54	9.8	6.8–12.8
55+	4.1	2.8–5.4
<b>Sex</b>		
Male	11.7	8.4–15.0
Female	10.7	8.1–13.2
<b>Race</b>		
White	10.5	8.3–12.6
AI/AN	18.8	11.6–26.0
<b>Current cig user</b>		
Yes	55.6	45.8–65.4
No	3.8	2.7–4.9

Figure 2. Reasons for trying electronic cigarettes among Montana adults by age and race, Montana ATS, 2013



## Why try e-cigarettes?

Respondents reported trying e-cigarettes for several reasons. The two most common reasons reported were to try something new (curiosity) and to quit/reduce cigarette use. These responses varied significantly by age group.

A majority of younger adult e-cigarette users (70%) reported they wanted to try something new. In contrast, most older adult e-cigarette users (73%) reported they wanted to quit or reduce cigarette use. Curiosity was also the most frequent reason reported by both white and American Indian e-cigarette users (Figure).

### Recommendations: Information for health care providers to share with patients

- Because e-cigarettes are unregulated, amounts of nicotine may vary between brands or even within a brand, potentially harmful constituents may be present, and the heating and charging components may differ in quality. Over 300 different brands are available online; it is not possible for consumers to know what these products contain.
- Although some e-cigarettes have been marketed as smoking cessation aids in the past, there is no conclusive scientific evidence that e-cigarettes promote successful long-term quitting. However, there are proven cessation strategies and treatments, including counseling and FDA-approved cessation medications, readily available to persons who wish to quit smoking.
- When asking patients about tobacco use, providers should ask specifically about e-cigarette use.
- Montana DPHHS recommends against the use of e-cigarettes. If a tobacco user wants to quit, they can call 1-800-QUIT-NOW for free assistance as well as FDA approved nicotine replacement therapy options and cessation medications at a free or reduced cost.

For more information, contact the Montana Tobacco Use Prevention Program at 406-444-0927.

### References:

<sup>1</sup> Centers for Disease Control and Prevention. Tobacco Use. Targeting the Nation's Leading Killer: At A Glance 2010.

<http://www.cdc.gov/chronicdisease/resources/publications/aag/osh.htm>.

<sup>2</sup> Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000–2004. *Morbidity and Mortality Weekly Report* 2008;57(45):1226–8.

<sup>3</sup> Montana Adult Tobacco Survey, 2013.

<sup>4</sup> Centers for Disease Control and Prevention. Electronic Cigarette Use Among Middle and High School Students — United States, 2011–2012. *Morb Mortal Wkly Rep* 2013;62:729-30.

<sup>5</sup> Regan AK, et al. Electronic nicotine delivery systems: adult use and awareness of the 'e-cigarette' in the USA. *Tob Contol* 2013;22:19-23.

<sup>6</sup> Vansickel AR, et al. A clinical laboratory model for evaluating the acute effects of electronic "cigarettes" nicotine delivery profile and cardiovascular and subjective effects. *Cancer Epidemiology Biomarkers Prev.* 2010. 19:1945-1953.

2,110 copies of this public document were published at an estimated cost of \$0.43 per copy, for a total cost of \$1434.48, which includes \$463.88 for printing and \$970.60 for distribution.