

Awareness of Electronic Cigarettes and Perceptions of Harmfulness

The American Association for Cancer Research and the American Society for Clinical Oncology recently released a joint statement cautioning the public on the use of electronic nicotine delivery systems (which include electronic cigarettes, also called e-cigarettes), their potential harms, and the unsubstantiated benefits of their use. They join a growing list of influential organizations, including the World Health Organization, American Heart Association, American Lung Association, and others, that have expressed concern about the expanding e-cigarette marketplace, the proliferation of new products, the rising number of youth and adults who have tried or use e-cigarettes, and the lack of federal oversight of these products.

Currently, e-cigarettes are not regulated under the Family Smoking Prevention and Tobacco Control Act of 2009; therefore, many of the regulations that apply to regular cigarettes (such as banning television advertising) do not apply to e-cigarettes. E-cigarette companies are not required to disclose the ingredients contained in the e-liquid or the aerosol produced from using their product, nor are they required to include health warning labels as regular cigarettes do. Although some smokers report using e-cigarettes as a cessation aid, the effectiveness of these products in helping people to quit and whether they serve to delay or hinder cessation efforts is not yet clear.

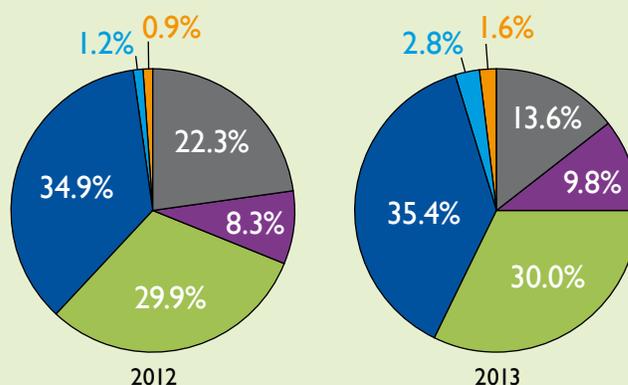
In this HINTS *Brief*, we explore e-cigarette awareness, use, and perceived harmfulness and suggest strategies for provider-patient discussions and health communication interventions.

HINTS has explored the public's perception and use of tobacco products since it was first administered in 2003. In 2012, HINTS began collecting data on the public's awareness of e-cigarettes and perceptions of harmfulness. Since then, awareness of e-cigarettes has grown. Using HINTS data, the proportion of U.S. adults reporting they had never heard of e-cigarettes dropped from 22.3% in 2012 to 13.6% in 2013.

Quick Facts

- E-cigarettes are battery-operated devices designed to deliver nicotine in an aerosolized form (commonly called vapor) to users by heating a solution that typically contains propylene glycol and/or glycerol, nicotine, and flavoring agents.
- The percentage of adults who have used an e-cigarette rose from 3.3% in 2010 to 8.5% in 2013. Current cigarette smokers who have ever used an e-cigarette increased from 9.8% in 2010 to 36.5% in 2013.
- More than 263,000 middle and high school students who had never smoked a regular cigarette had tried electronic cigarettes in 2013. This number reflects a threefold increase, from about 79,000 in 2011.

Compared to smoking regular cigarettes, would you say that electronic cigarettes are:*



- Much less harmful | 8.3% in 2012 vs. 9.8% in 2013
- Less harmful | 29.9% in 2012 vs. 30.0% in 2013
- Just as harmful | 34.9% in 2012 vs. 35.4% in 2013
- More harmful | 1.2% in 2012 vs. 2.8% in 2013
- Much more harmful | 0.9% in 2012 vs. 1.6% in 2013
- I have never heard of e-cigarettes | 22.3% in 2012 vs. 13.6% in 2013

*Percentages do not add to 100% due to missing data.

Awareness and Perceived Harmfulness of E-cigarettes and Associations with Smoking Cessation

Using HINTS 4 Cycle 2 data (collected October 2012 to January 2013), Tan and Bigman examined awareness and perceived harmfulness of e-cigarettes as compared with regular cigarettes and also examined associations between e-cigarette awareness and intentions or attempts to quit smoking. Findings on awareness were compared with results from other national surveys conducted between 2009-2012.

Awareness of e-cigarettes

Awareness of e-cigarettes among U.S. adults has risen dramatically from 2009, when 16% of adults reported having heard of e-cigarettes, to the more than three-quarters (77%) of HINTS respondents in 2012 who indicated that they had heard of e-cigarettes.

Perceptions of e-cigarette harmfulness

By comparing HINTS findings to a previous survey, study authors found that, among current smokers aware of e-cigarettes, there was a decline (85% in 2010 to 65% in 2012) in the proportion who believed that e-cigarettes are less harmful than regular cigarettes. The study found that older respondents were less likely to believe that e-cigarettes are less harmful than regular cigarettes, as compared with respondents aged 18–34 years. Those who had college or higher education were more than twice as likely as those with high school or lower education to believe e-cigarettes were less harmful. Compared to non-smokers, current smokers were two and a half times more likely to say that e-cigarettes were less harmful.

Association with past-year quit attempts and intentions to quit

Analyzing HINTS results, this study did not find an association between awareness of e-cigarettes and current smokers' quit attempts in the past year or their intention to quit in the next 6 months. Among those current smokers who were aware of e-cigarettes, perceived harmfulness of e-cigarettes was also not associated with previous quit attempts or intentions to quit.

How Can This Inform Your Work?

Awareness of e-cigarettes is widespread among adults and growing steadily among adolescents. Health communication professionals and health care providers should be prepared to provide accurate information or counseling to the public as use of e-cigarettes continues to rise.

- As awareness and use of e-cigarettes increases, education is needed to help the public understand the current evidence and what it tells us about the potential benefits and harms of using e-cigarettes.

- Increasingly, youth have tried or use e-cigarettes. Using tobacco products, whether regular cigarettes, smokeless tobacco, or electronic nicotine delivery systems such as e-cigarettes, is harmful for adolescents.
- Health communication professionals should develop effective evidence-based messaging and campaigns concerning e-cigarettes.
- Health care providers who counsel adult patients on smoking cessation should direct patients to cessation counseling and FDA-approved medications. Refer smokers to 1-800-QUIT-NOW and smokefree.gov for additional cessation counseling and resources.

About HINTS hints.cancer.gov

The National Cancer Institute (NCI) created the Health Information National Trends Survey (HINTS) to monitor changes in the rapidly evolving field of health communication. The survey data can be used to understand how adults use different communication channels to obtain health information for themselves and their loved ones. It can also help to create more effective health communication strategies across populations.

NCI fielded the first HINTS survey in 2002–2003, surveying 6,369 Americans. Subsequent surveys followed in 2005 (5,586 Americans surveyed), 2008 (7,674 Americans surveyed), 2011–2012 (3,959 Americans surveyed), 2012–2013 (3,630 Americans surveyed), and 2013 (3,185 Americans surveyed).

HINTS *Briefs* provide a snapshot of noteworthy, data-driven research findings. They introduce population-level estimates for specific questions in the survey and summarize significant research findings resulting from analyses of how certain demographic characteristics influence specific outcomes. Many *Briefs* summarize research findings from recent peer-reviewed journal articles using HINTS data.

For More Information on Cancer

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- Visit <http://cancer.gov>
- Order NCI publications at <https://pubs.cancer.gov/ncipl/home.aspx>
- Visit [Facebook.com/cancer.gov](https://www.facebook.com/cancer.gov) and <http://www.youtube.com/ncigov>

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