

Adult Tobacco Survey: Dual/poly-use of e-cigarettes with other tobacco products and other focused analyses

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Introduction

- In a relatively short time, e-cigarettes have changed the landscape for tobacco users and public health practitioners both in the U.S. and around the world.
- Sales in the U.S. have doubled every year since 2008 with projections of nearly \$1.8 billion in 2013.
- At this point, there is little consensus among health practitioners as to the approach to take with e-cigarettes; some countries have banned the sale of e-cigarettes entirely, some have banned the sale of e-cigarettes that contain nicotine, others are promoting them as cessation devices, and still others are neither promoting nor regulating them until a consensus can be reached.
- While it is generally accepted that e-cigarettes are less harmful to health compared to traditional, combustible cigarettes, the long-term health effects from use are still unknown.
- Understanding who is using, as well as how and why current tobacco users are using e-cigarettes, is paramount to developing and implementing effective policies regulating the manufacture, distribution, and sale of e-cigarettes.

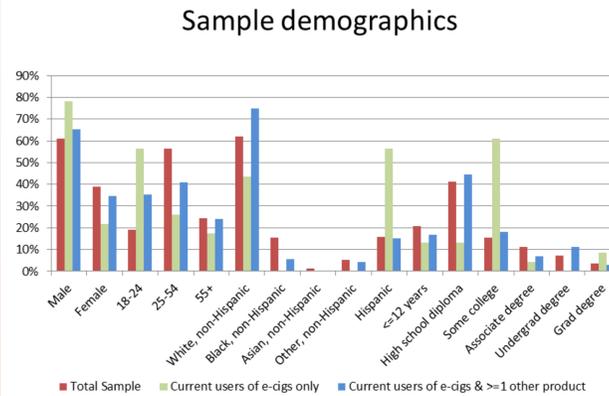
Aim

- Few studies to date have specifically examined dual/poly use of e-cigarettes with other tobacco products.
- This study expands the current literature on the prevalence of e-cigarette use in the population as one of the first studies to examine both dual/poly use of e-cigarettes with other tobacco products and reasons for this use.
- The objective of this study is to characterize patterns and reasons for use among e-cigarette only users and users of e-cigarettes and at least one other tobacco product to evaluate differences in demographic characteristics, reasons for use, purchase behaviors, and intentions to use and quit.

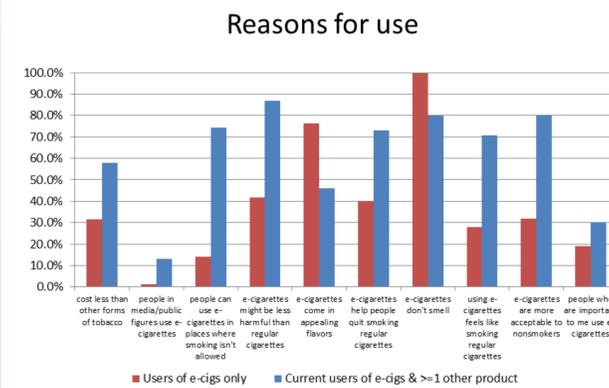
Methods

- Random-digit dial telephone survey was conducted from November 2012-April 2013 with 1,444 adult (18+) tobacco users in the U.S. residing in zip codes associated with school enrollment zones for traditional public high schools participating in the 2012 Monitoring the Future school-based surveys of 8th, 10th and 12th grade students.
- Eligible participants reported use of at least one tobacco product (including e-cigarettes) in the past 12 months from survey date.
- The survey consisted of a 45-minute interview; response rate was 26% (AAPOR 2009)
- The data presented are weighted to adjust for the probability of selection and the distribution of age, race/ethnicity, gender, education, and marital status of U.S. adult smokers, using estimates from the National Adult Tobacco Survey 2009-2010.
- The interviewer asked screening questions for each household member (i.e. age, gender, tobacco use status) and the next birthday method was employed to select the survey respondent, who was then asked about tobacco use in the past 12 months.
- The survey instrument included questions on the following subjects:
 - tobacco product use history
 - current tobacco product use
 - beliefs about tobacco use and health risks
 - salience and reactions to health warning labels
 - price of tobacco products
 - location and frequency of product purchases
 - quitting intentions and behavior
- Participants were asked about ever and current use of a total of ten tobacco products
 - Cigarettes
 - E-cigarettes
 - Traditional cigars
 - Cigarillos
 - Little filtered cigars
 - Pipe
 - Hookah
 - Snus
 - Smokeless tobacco
 - Dissolvable tobacco
- Those who reported current use (self-reported 'every day' or 'someday' use) of each product were then asked a more extensive series of questions regarding frequency, patterns, brand preferences, purchase price and location, reasons for use, and switching and quitting intentions.

Results



- A total of 44% (n=80) of current and former e-cigarette users reported using e-cigarettes 12 months ago, while a total of 92% of current and former cigarette smokers reported smoking cigarettes 12 months ago.



- Dual/poly users' last e-cigarette purchase was more likely in-person at a gas station, convenience store, supermarket, grocery store, or drug store, while e-cigarette only users were more likely to report their last e-cigarette purchase was by telephone

Purchasing behaviors	Users of E-cigarettes only (n=23)		Users of E-cigarettes and other products (n=72)	
	n	%	n	%
The last time you bought e-cigarettes/e-juice, how did you buy them?				
In person	7	32.6	46	64.2
From the Internet	2	8.9	13	18.4
By telephone	13	56.9	2	3.1
They were given to me, not purchased	0	1.6	10	13.9
Last purchase was on an Indian reservation?	0	0.0	1	1.4
Last purchase was outside of the US?	0	0.0	0	0.0
Where was your last purchase? (among those who last purchased in person)				
Mall Kiosk	0	0.0	1	2.1
Convenience store, gas station	0	0.0	25	54.5
Supermarket, grocery store, drug store	1	8.1	11	24.8
Tobacco specialty store, tobacconist	7	91.9	8	17.9
Somewhere else	0	0.0	0	0.6
Own an e-cigarette that uses cartridges and is rechargeable	9	40.4	49	68.8
How much did you pay for your e-cigarette? (among those who own one)				
Less than \$10	0	0.0	8	15.9
\$10.01-\$20.99	3	36.3	14	28.0
\$21.00-\$100.00	6	63.7	26	52.1
More than \$100	0	0.0	1	1.3

Note: Data are weighted to the age, race/ethnicity, gender, education, and marital status of current tobacco users in the US, and to the number of adults in the household. Numbers may not add up exactly due to rounding. Percentages in bold indicate a p-value of <0.05 from a chi square test

Conclusions

- Nearly half of current e-cigarette users reported initiation of e-cigarette use in the past 12 months.
- 35% of respondents reported quitting cigarettes in the past year and starting use of e-cigarettes, while no respondents reported quitting e-cigarettes to start cigarette smoking.
- More than 75% of current e-cigarette users in the survey also reported current use of at least one other tobacco product.
- Results suggest that consumers of e-cigarettes are using these products in conjunction with, rather than as replacements for, other tobacco products.
- Reasons for use suggest that e-cigarette only users may be using them for cosmetic reasons (e.g., smell, flavor) while dual/poly users may be using them for pragmatic reasons (e.g., less harmful, indoors).

Additional focused analyses with survey data

- Prevalence of use of flavors and how use and perceptions of flavored tobacco products are related to quitting behaviors and attitudes
- Exploration of possible relationship between use rates for a tobacco product and associated advertising and marketing for that product (could also include Nielsen market tracking data and point-of-sale and community observational data)
- Evaluation of relationships between strong clean indoor air policies and product use or high tax policies and product use to explore if product use varies by policy environment
- Exploration of tax avoidance, including where product was purchased, how it was purchased (in person, internet), and how much was paid; could also explore proximity to other states and Native American reservations

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