BRIEF REPORT

E-Cigarette Availability and Promotion Among Retail Outlets Near College Campuses in Two Southeastern States

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ABSTRACT

Introduction: E-cigarettes are relatively new products that simulate the smoking experience. This descriptive study assessed changes in e-cigarette availability and promotions among retailers in 11 college communities in North Carolina and Virginia during a 1-year period.

Methods: During the spring of 2012 and 2013, observers completed assessments in 320 tobacco-selling retailers, including grocery and convenience stores, pharmacies, and tobacco shops. Assessors collected e-cigarette availability, advertising, price, and promotions.

Results: E-cigarette availability increased among retailers from 24.7% in 2012 to 59.9% in 2013. They were available in the form of disposables and reusable kits and were most frequently available in tobacco shops, convenience stores, and pharmacies. The average price for disposables was \$9.70 (*SD* = 1.07) in 2012 and \$9.61 (*SD* = 2.10) in 2013; the average price for kits was \$39.58 (*SD* = 15.79) in 2012 and \$32.59 (*SD* = 18.65) in 2013. The presence of interior advertising increased from 12.7% to 50.6% ($p < .0001$), and the presence of exterior advertising increased from 7.6% to 22.8% ($p = .0002$). Convenience stores with gas (16.4%–70.4%; $p < .0001$) and without gas (6.0%–48.4%; $p < .0001$) had significant increases in the presence of interior advertising. Convenience stores with gas also had a significant increase in the presence of exterior advertising (8.2%–33.3%; $p < .0001$). Only 3% of retailers offered price promotions.

Conclusions: Availability of e-cigarettes, including rechargeable kits and disposables, more than doubled during the study. The presence of interior and exterior advertising also significantly increased. Results underscore the need for further surveillance to understand how these environmental characteristics impact individual exposure and use of e-cigarettes.

INTRODUCTION

E-cigarettes, designed to simulate the smoking experience, look and feel like traditional cigarettes. Users inhale and exhale a vapor with varying levels of nicotine, flavorants, and other chemicals (American Legacy Foundation, 2012; Stafford, 2012). Even though they account for less than 1% of the U.S. cigarette market, e-cigarette sales generated approximately \$300 million in sales in 2012 and are projected to reach \$1 billion in 2013, now that major tobacco companies have entered the market (Burritt, 2013; Sanburn, 2013).

E-cigarettes can be purchased as a single disposable or in reusable kits. Disposables are ready to use out of the package, whereas kits allow consumers to reuse components and contain

a rechargeable battery, charger, and cartridge refill (Lorillard Technologies, 2013; White Cloud Electronic Cigarettes, 2013). Replacement cartridges are also available in a variety of flavors (Cobb, Brookover, & Cobb, 2013; Wollscheid & Kremzner, 2009).

E-cigarettes have been marketed to tobacco smokers as a cessation aid (Food and Drug Administration, 2013) and for use in places where smoking is restricted (Benowitz & Goniewicz, 2013; Henningfield & Zaatari, 2010; Richardson, Ganz, Stalgaitis, Abrams, & Vallone, 2013). Manufacturers claim e-cigarettes are more cost-effective and socially acceptable compared with conventional cigarettes (Cobb et al., 2013; Pozin, 2013). Although e-cigarettes will be regulated as tobacco products, the FDA has yet to issue rules that will impact how

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they are advertised and promoted (Tobacco Control Legal Consortium, 2013), thus providing opportunities for manufacturers to access mainstream outlets. E-cigarettes were initially only available online and in mall kiosks (Food and Drug Administration, 2009). Now, they are sold in traditional retailers like supermarkets and convenience stores (Convenience Store News, 2011). Advertising has also expanded from its online origins to print ads and television commercials (Sebastian & McDermott, 2013), making e-cigarette ads more widely distributed than other noncombustible tobacco products in the United States (Richardson et al., 2013).

Despite the growing e-cigarette literature, no studies have examined their availability and marketing in the United States. One observational study was conducted in the United Kingdom and found widespread availability and point-of-sale advertising in retailers that sold tobacco and alcohol (Hsu, Myers, Ribisl, & Marteau, 2013). The extensive literature on conventional cigarettes suggests environmental factors, such as advertising and price, can influence initiation, progression, and cessation of tobacco use (Carter, Phan, & Mills, 2013; Forster & Wolfson, 1998; McLaughlin, 2010; Warner, 2006; Wilson et al., 2012). Research also suggests that college students are targeted by tobacco companies, as this is the youngest population they can legally market to (Campaign for Tobacco-Free Kids, 2005; Katz & Lavac, 2002; Rigotti, Moran, & Wechsler, 2005). Given the limited research on e-cigarettes, surveillance of the point-of-purchase environment is needed.

We assessed the change in availability, advertising, price, and promotion of e-cigarettes among retailers near college campuses in North Carolina (NC) and Virginia (VA) between 2012 and 2013.

METHODS

Point-of-purchase assessments were conducted during the study, *Smokeless Tobacco Use among College Students* (Spangler et al., 2014; Wolfson et al., 2014). We assessed the environmental landscape of tobacco promotion around college campuses by completing assessments at 15 tobacco retailers in each community. Of the 11 colleges participating in the study, 7 were in NC and 4 in VA. Five were in rural communities, four in suburban communities, and two in urban communities.

Sampling

Because NC and VA do not have tobacco licensure, a list of potential tobacco retailers was created. We followed procedures used by the NC Department of Public Safety to conduct state tobacco compliance checks. We searched the state's Alcohol Beverage Control (ABC) Commission database for retailers with active off-premise alcohol permits to identify potential tobacco retailers because tobacco is typically sold in outlets that sell alcohol. Additionally, tobacco company Web sites were searched to identify retailers selling tobacco products. These lists were combined, resulting in a final list of 580 retailers in 2012 and 598 retailers in 2013 that included convenience stores, pharmacies, and tobacco shops.

We adapted sampling methodologies used in measuring outlet density around college campuses (Scribner et al., 2008), as well as retail tobacco assessments (Henriksen et al., 2008; Wakefield et al., 2002). Using GIS software (ESRI, 2012),

retailers were geocoded, and 1-, 2-, and 5-mile radii were drawn around campus perimeters. We drew a random sample of 15 retailers located close to campus in the 1-mile radius. Then, an additional 15 retailers were randomly selected and served as replacement stores. If there were not enough retailers in the 1-mile radius, sample was randomly drawn from the 2 and 5-mile radii, as needed. In 2012, six communities had adequate sample in the 1-mile radius; three required sample from the 1- and 2-mile radii; and two required sample from the 1-, 2-, and 5-mile radii. In 2013, three communities had adequate sample in the 1-mile radius; six had adequate sample in 1- and 2-mile radii; and two required sample from 1-, 2-, and 5-mile radii.

Procedures

Teams of two trained assessors annually conducted paper-and-pencil assessments. Assessments took 10–15 min per retailer to complete. Consent from the retailer was not required; however, assessments were discontinued if assessors were asked to leave.

The type of outlet was recorded, as well as availability of e-cigarettes; brands available (using checklist); price of product (before tax), by type (disposable vs. kits) and brand (if more than one brand available, then recorded price for top brand); promotions (i.e., buy one get one free); and presence of interior and exterior advertising (Feighery, Schleicher, Boley Cruz, & Unger, 2008; Henriksen et al., 2008; Wakefield et al., 2002).

Descriptive and Pearson's chi-square test analysis were performed. For small cell sizes, a Fisher's exact test was performed. To determine the mean difference between product prices within category, Student's *t* tests were performed. Analyses were conducted using SAS 9.2.

RESULTS

In 2012, the total sample was 198 retailers. Of those, 7 (3.5%) refused data collection, 9 (4.5%) were not visited due to operating hours or the retailer could not be located with the given address, and 24 (12.1%) were ineligible (i.e., retailer no longer in business or did not carry tobacco products). Completions ranged from 12 to 15 retailers per community. In 2013, the total sample was 199 retailers. Of those, 6 (3.0%) refused data collection, 9 (4.5%) were not visited, and 22 (11.1%) were ineligible. Completions ranged from 14 to 15 retailers per community. Assessments were completed at 158 retailers in 2012 and 162 retailers in 2013.

Availability

E-cigarette availability increased from 24.7% (39/158) of retailers that sold at least one brand in 2012 to 59.9% (97/162) in 2013 ($p < .0001$) (Table 1). Over 20 brands were available including Blu, Krave, Mystic, NJoy, and Logic.

Disposables and rechargeable kits were available both years, but the increase in availability of disposables was greater than that of the kits. Disposables were available in 8.2% of retailers in 2012 and 57.4% in 2013 ($p < .0001$), whereas kits were available in 19.0% of retailers in 2012 and 32.1% in 2013 ($p = .007$).

Table 1. E-Cigarette Availability, Advertising, and Promotions by Store Type and Year

Store type	Availability		Interior advertising		Exterior advertising		Promotions	
	2012	2013	p value	2012	2013	p value	2012	2013
All stores	24.7% (39/158)	59.9% (97/162)	<.0001	12.7% (20/158)	50.6% (82/162)	<.0001	7.6% (12/158)	22.8% (37/162)
Tobacco shops	80.0% (4/5)	100% (2/2)	—	80.0% (4/5)	100% (2/2)	—	40.0% (2/5)	100% (2/2)
Convenience (with gas)	17.4% (20/73)	77.8% (63/81)	<.0001 ^a	16.4% (12/73)	70.4% (57/81)	<.0001 ^a	8.2% (6/73)	33.3% (27/81)
Convenience (without gas)	24.2% (8/33)	56.7% (17/30)	.009 ^a	6.0% (2/33)	48.4% (15/31)	<.0001 ^b	12.1% (4/33)	26.7% (8/30)
Pharmacy	30.0% (6/20)	52.0% (13/25)	.14 ^b	10.0% (2/20)	32.0% (8/25)	.15 ^b	0% (0/20)	0% (0/25)
Supermarket	5.0% (1/20)	10.5% (2/19)	—	0% (0/20)	5.3% (1/19)	—	0% (0/20)	0% (0/19)
Other (i.e., bar/liquor/large discount/restaurant)	0% (0/7)	0% (0/5)	—	0% (0/7)	0% (0/5)	—	0% (0/7)	0% (0/5)

Notes. Dashes = cell size too small for analysis.

^aPearson's chi square.

^bFisher's exact test.

Products were observed most frequently in convenience stores, tobacco shops, and pharmacies. The only store types where a statistically significant increase in availability was found was convenience stores with ($p < .0001$) and without gas ($p = .009$). Of the 111 retailers visited in both years, only 2 no longer sold the products.

Advertising

Interior ads were observed in 12.7% of retailers in 2012 and 50.6% of retailers in 2013 ($p < .0001$). Exterior ads increased from 7.6% of retailers to 22.8% of retailers ($p = .0002$). Stratifying by store type, we found significant increases (all p values $< .0001$) in interior and exterior advertising among convenience stores with gas and interior advertising among convenience stores without gas.

Promotions

Promotions were infrequent. In 2012, one retailer (0.6%) promoted a “special price” for e-cigarettes and none offered multipack discounts or free-with-purchase promotions. In 2013 “special price” promotions were observed in five retailers (3.1%), free-with-purchase promotions in one retailer (0.6%) and no multipack discounts.

Price

Disposable e-cigarette prices were the cheapest, ranging from \$7.99–\$11.99 in 2012 (mean = \$9.70, $SD = 1.07$) to \$4.99–\$19.99 in 2013 (mean = \$9.61; $SD = 2.10$). Kits varied in price, depending on the number of accessories included. In 2012, prices ranged from \$19.95–\$69.99 (mean = \$39.58; $SD = 15.79$) to \$14.99–\$79.99 in 2013 (mean = \$32.59; $SD = 18.65$). Changes in price from 2012 to 2013 were nonsignificant for both disposables ($p = .86$) and kits ($p = .14$).

DISCUSSION

E-cigarettes have become widely available through traditional retailers surrounding colleges. Once only accessible online or in small specialty stores, e-cigarettes are now in a variety of mainstream markets. Although less than a quarter of the retailers visited in 2012 carried e-cigarettes, we found over a two-fold increase, with 60% of retailers carrying them just 1 year later.

Convenience stores had the greatest increase in availability and advertising, among store types. This could be due to cheaper disposables that may make e-cigarettes more attractive to convenience store customers compared with expensive kits (Convenience Store News, 2011). E-cigarettes are considered a growth category for convenience stores, as sales are predicted to continue increasing (Berk, 2012). Also worth noting is half of the pharmacies visited in 2013 carried the products, an increase from 2012. This is an important venue to monitor because pharmacy-based cigarette sales have increased in recent years (Seidenberg, Behm, Rees, & Connolly, 2012), highlighting the opportunity for successful e-cigarette sales in this venue.

The increase in availability of disposables was larger than that of the kits, an important finding because disposables cost less, allowing consumers to try e-cigarettes without making a significant financial investment. Youth may also be more likely to experiment with disposables because they can use

them without having to keep up with batteries and chargers. Further research is needed to determine whether e-cigarette use is inversely related to price, as seen with conventional tobacco (Chaloupka, Cummings, Morley, & Horan, 2002; Slater, Chaloupka, Wakefield, Johnston, & O'Malley, 2007), because e-cigarette use and awareness have increased as the cheaper disposables have become more available.

E-cigarette advertising among retailers appears to be following the traditional tobacco patterns (Rogers, Biener, & Clark, 2010; Wakefield et al., 2002). More interior ads were found compared with exterior ones, taking advantage of the prime advertising space near checkout counters, where impulse buying occurs (U.S. Department of Health and Human Services, 2012). The increase in advertising among convenience stores is especially concerning because they are frequented by two thirds of teenagers on a weekly basis (Henriksen, Feighery, Wang, & Fortmann, 2004). Coupled with e-cigarettes' characteristics that may increase appeal among youth (i.e., novel products, flavored, low cost), the lack of a federal age restriction to purchase them, and the susceptibility of this population to social and environmental cues (U.S. Department of Health and Human Services, 2012), surveillance is needed to ensure e-cigarette marketing is not targeting youth. Several states are addressing this gap by passing or considering laws that create a minimum age of sale for e-cigarettes and use restrictions in public places (Tobacco Control Legal Consortium, 2013; University of Maryland Law School, 2012; Wyatt, 2011).

Although we found few promotions, this area should also be monitored because tobacco companies have successfully used price-reducing promotions to attract younger users in the past (Chaloupka et al., 2002). This strategy may be implemented with their e-cigarette marketing.

Limitations

The results must be considered in light of the study's limitations. First, our study was geographically restricted to NC and VA and included a small sample of retailers from each community, limiting its generalizability to other states and the ability to test community differences. Our strategy to identify potential tobacco retailers may have missed some likely to sell e-cigarettes, and because we included retailers within 5 miles of campus, our findings may not be generalizable to retailers located farther from college campuses. Our study is the first of our knowledge to assess changes in availability, advertising, price, and promotions for e-cigarettes in the United States, and the repeated cross-sectional design allowed changes to be assessed over time. It highlights the growing availability and promotion of e-cigarettes and the need to monitor e-cigarette marketing practices.

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DECLARATION OF INTERESTS

None declared.

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REFERENCES

- American Legacy Foundation. (2012). Electronic cigarettes (ECigarettes) [Fact sheet]. Retrieved from www.legacyforhealth.org/content/download/582/6926/version/4/file/Fact_SheetECigarettes.pdf
- Benowitz, N., & Goniewicz, M. (2013). The regulatory challenge of electronic cigarettes. *Journal of the American Medical Association*, 310, 685–686. doi:10.1001/jama.2013.109501
- Berk, B. (2012, June). Tobacco retailers must be flexible with purchasing decisions. *Convenience Store News*. Retrieved from www.csnews.com/top-story-tobacco-tobacco-retailers-must-be-flexible-with-purchasing-decisions-61315.html
- Burritt, C. (2013, June). Big tobacco vs. small players as e-cigarette smoke-off begins. *BusinessWeek*. Retrieved from www.businessweek.com/articles/2013-06-20/big-tobacco-vs-dot-small-players-as-e-cigarette-smoke-off-begins
- Campaign for Tobacco-Free Kids. (2005). Tobacco company marketing to college students since the multistate settlement agreement was signed. Retrieved December 18, 2013, from www.tobaccofreekids.org/research/factsheets/pdf/0135.pdf
- Carter, O. B., Phan, T., & Mills, B. W. (2013). Impact of a point-of-sale tobacco display ban on smokers' spontaneous purchases: Comparisons from postpurchase interviews before and after the ban in Western Australia. *Tobacco Control*. Advance online publication. doi:10.1136/tobaccocontrol-2013-050991
- Chaloupka, F., Cummings, K., Morley, C., & Horan, J. (2002). Tax, price and cigarette smoking: Evidence from the tobacco documents and implications for tobacco company marketing strategies. *Tobacco Control*, 11(Suppl. 1), i62–i72. doi:10.1136/tc.11.suppl_1.i62
- Cobb, N. K., Brookover, J., & Cobb, C. O. (2013). Forensic analysis of online marketing for electronic nicotine delivery systems. *Tobacco Control*. Advance online publication. doi:10.1136/tobaccocontrol-2013-051185
- Convenience Store News. (2011, September). E-evaluating electronic cigarettes' potential in C-stores. Retrieved August 16, 2013, from www.csnews.com/top-story-tobacco-e-evaluating-electronic-cigarettes__potential_in_c_stores-59585.html
- Environmental Systems Research Institute (ESRI). (2012). *ArcGIS desktop: Release 10.1*. Redlands, CA: Author.
- Feighery, E. C., Schleicher, N. C., Boley Cruz, T., & Unger, J. B. (2008). An examination of trends in amount and type of cigarette advertising and sales promotions in California stores, 2002–2005. *Tobacco Control*, 17, 93–98. doi:10.1136/tc.2007.022046
- Food and Drug Administration. (2009). FDA and public health experts warn about electronic cigarettes. Retrieved August 16, 2013, from www.fda.gov/newsevents/newsroom/press-announcements/ucm173222.htm
- Food and Drug Administration. (2013). Public health focus—Electronic cigarettes (e-cigarettes). Retrieved September 30, 2013, from www.fda.gov/NewsEvents/PublicHealthFocus/ucm172906.htm
- Forster, J. L., & Wolfson, M. (1998). Youth access to tobacco: Policies and politics. *Annual Review of Public Health*, 19, 203–235. doi:10.1146/annurev.publhealth.19.1.203
- Henningfield, J. E., & Zaatari, G. S. (2010). Electronic nicotine delivery systems: Emerging science foundation for policy. *Tobacco Control*, 19, 89–90. doi:10.1136/tc.2009.035279
- Henriksen, L., Feighery, E. C., Schleicher, N. C., Cowling, D. W., Kline, R. S., & Fortmann, S. P. (2008). Is adolescent smoking related to the density and proximity of tobacco outlets and retail cigarette advertising near schools? *Preventive Medicine*, 47, 210–214. doi:10.1016/j.ypmed.2008.04.008
- Henriksen, L., Feighery, E. C., Wang, Y., & Fortmann, S. P. (2004). Association of retail tobacco marketing with adolescent smoking. *American Journal of Public Health*, 94, 2081–2083. Retrieved from www.ncbi.nlm.nih.gov/pmc/articles/PMC1448595/
- Hsu, R., Myers, A. E., Ribisl, K. M., & Marteau, T. M. (2013). An observational study of retail availability and in-store marketing of e-cigarettes in London: Potential to undermine recent tobacco control gains? *BMJ Open*, 3, e004085. doi:10.1136/bmjopen-2013-004085
- Katz, S. K., & Lavac, A. M. (2002). Tobacco related bar promotions: Insights from tobacco industry documents. *Tobacco Control*, 11(Suppl. 1), i92–i101. doi:10.1136/tc.11.suppl_1.i92
- Lorillard Technologies, Inc. (2013). How disposable cigarettes work. Retrieved September 30, 2013, from www.blucigs.com/disposables
- McLaughlin, I. (2010). License to kill? Tobacco retailer licensing as an effective enforcement tool. Tobacco Control Legal Consortium. Retrieved from <http://public-healthlawcenter.org/sites/default/files/resources/tclc-syn-retailer-2010.pdf>
- Pozin, I. (2013, April). Electronic cigarettes: Booming industry or health fiasco? *Forbes*. Retrieved August 13, 2013, from www.forbes.com/sites/ilyapozin/2013/04/11/electronic-cigarettes-booming-industry-or-health-fiasco/
- Richardson, A., Ganz, O., Stalgaitis, C., Abrams, D., & Vallone, D. (2013). Noncombustible tobacco product advertising: How companies are selling the new face of tobacco. *Nicotine & Tobacco Research*, 16, 606–614. doi:10.1093/ntr/ntt200
- Rigotti, N. A., Moran, S. E., & Wechsler, H. (2005). US college students' exposure to tobacco promotions: Prevalence and association with tobacco use. *American Journal of Public Health*, 95, 138–144. doi:10.2105/AJPH.2003.026054
- Rogers, J. D., Biener, L., & Clark, P. I. (2010). Test marketing of new smokeless tobacco products in four U.S. cities. *Nicotine & Tobacco Research*, 12, 69–72. doi:10.1093/ntr/ntp166
- Sanburn, J. (2013, January). Can electronic cigarettes challenge big tobacco? *Time*. Retrieved from <http://business.time.com/2013/01/08/can-electronic-cigarettes-challenge-big-tobacco/>
- Scribner, R., Mason, K., Theall, K., Simonsen, N., Schneider, S. K., Towvim, L. G., & DeJong, W. (2008). The contextual role of alcohol outlet density in college drinking. *Journal of Studies on Alcohol and Drugs*, 69, 112–120. Retrieved from www.jsad.com/jsad/article/The_Contextual_Role_of_Alcohol_Outlet_Density_in_College_Drinking/2209.html
- Sebastian, M., & McDermott, J. (2013, June). Is big tobacco back as a big advertiser? Rollout of e-cigarettes is spurring spending again, but regulation looms. *Ad Age*. Retrieved from <http://adage.com/article/media/big-tobacco-spending-ads-e-cigarettes/241993/>
- Seidenberg, A. B., Behm, I., Rees, V. W., & Connolly, G. N. (2012). Cigarette sales in pharmacies in the USA (2005–2009). *Tobacco Control*, 21, 509–510. doi:10.1136/tobaccocontrol-2011-050108
- Slater, S. J., Chaloupka, F. J., Wakefield, M., Johnston, L. D., & O'Malley P. M. (2007). The impact of retail cigarette marketing practices on youth smoking uptake. *Archives*

- of *Pediatrics & Adolescent Medicine*, 161, 440–445. doi:10.1001/archpedi.161.5.440
- Spangler, J., Pockey, J. R., Sutfin, E. L., Song, E. Y., Reboussin, B. A., Wagoner, K. G., & Wolfson, M. (2014). Correlates of smokeless tobacco use among first year college students in North Carolina and Virginia. *Journal of American College Health*. doi: 10.1177/0017896913513746
- Stafford, N. (2012). Hanover bans e-cigarette use in civic offices amid calls for better safety data. *British Medical Journal*, 344(jan03 2), e3–e3. doi:10.1136/bmj.e3
- Tobacco Control Legal Consortium. (2013). Regulatory options for electronic cigarettes fact sheet. Retrieved from <http://publichealthlawcenter.org/sites/default/files/pdf/tclc-fs-regulatory-options-e-cigarettes-2013.pdf>
- U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the surgeon general*. Rockville, MD. Retrieved from www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/exec-summary.pdf
- U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the surgeon general*. Atlanta, GA: U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.
- Wakefield, M. A., Terry-McElrath, Y. M., Chaloupka, F. J., Barker, D. C., Slater, S. J., Clark, P. I., & Giovino, G. A. (2002). Tobacco industry marketing at point of purchase after the 1998 MSA billboard advertising ban. *American Journal of Public Health*, 92, 937–940. doi:10.2105/AJPH.92.6.937
- Warner, K. (2006). *Tobacco control policy*. San Francisco, CA: Jossey-Bass.
- White Cloud Electronic Cigarettes. (2013). Disposable E-cigs. Retrieved October 1, 2013, from www.whitecloud-electronic-cigarettes.com/disposable-ecigarettes/
- Wilson, L. M., Avila Tang, E., Chander, G., Hutton, H. E., Odelola, O. A., Elf, J. L., ... Apelberg, B. J. (2012). Impact of tobacco control interventions on smoking initiation, cessation, and prevalence: A systematic review. *Journal of Environmental and Public Health*, 961724. doi:10.1155/2012/961724
- Wolfson, M., Pockey, J. R., Reboussin, B. A., Sutfin, E. L., Egan, K. L., Wagoner, K. G., & Spangler, J. G. (2014). College students' interest in trying dissolvable tobacco products. *Drug and Alcohol Dependence*, 134, 309–313. doi:10.1016/j.drugalcdep.2013.10.025
- Wollscheid, K. A., & Kremzner, M. E. (2009). Electronic cigarettes: Safety concerns and regulatory issues. *American Journal of Health-System Pharmacy*, 66, 1740–1742. doi:10.2146/ajhp090127
- Wyatt, K. (2011). Colorado latest state considering e-cigarette limits. Retrieved September 30, 2013, from <http://denver.cbslocal.com/2011/03/06/colorado-latest-state-considering-e-cigarette-limits/>