Letters

RESEARCH LETTER

ADOLESCENT AND YOUNG ADULT HEALTH

Online Electronic Cigarette Marketing—Violation of Self-regulated Standards by Tobacco Companies

Adolescents cannot easily access information about leading cigarette brands owing to the strict age-verification gates major tobacco companies maintain on their websites—a require-

ment of the 1998 Master Settlement Agreement. These gates require viewers to verify they are 21 years or older by supplying their name, address, birthdate, last 4 digits of their Social Security number, and driver license number. We do not yet know whether age-verification gates on entry to leading electronic cigarette (e-cigarette) brand websites are equally stringent. In this article, we address this gap by characterizing these age-verification gates. If gates are weak, adolescents could

Company	Share, %	Brand	Stringency of Age Gate at Entry					
			None	Warning	Click/Check	Birthdate	Register	Corporate Social Responsibility Statement
Imperial Tobacco	46.9	Blu			Х			"We play our part by not directing the marketing of our products to anyone under the age of 18, or higher minimum age where specified locally, or to non-smoker This is part of our responsible marketing approach." (http://www.imperial-tobacco.com/cr)
ECIG	15.0	El Rey	Х					"no part of our website is structured to attract anyone under 18." (http://ecig.co/important-information/)
		Fin			Х			"FIN electronic cigarette products are marketed to existing adult smokers only. We take all necessary precautions to ensure our customer is an existing smoke of traditional cigarettes." (https://www.fincigs.com/ble/about-us/)
		Vapestick			X			None
		VIP			Χ			None
Ballantyne Brands	14.8	Mistic			Х			None
NJOY Inc	9.1	NJOY			X			"NJOY's mission is to end smoking-related death and disease by offering preferred alternatives to adult smokers and vapers around the world." (https://www.njoy.com/mission)
CB Distributor	5.0	21st Century Smoke	Х					None
Nicotek	2.2	Metro			Х			None
Vapor Corp	1.9	Smoke 51			Χ			None
		Krave		Χ				None
		VaporX		Х				None
Japan Tobacco International	1.5	Logic				X		"We do not market tobacco products to minors, nor do we encourage anyone to take up smoking—or discourag anyone from quitting." (http://www.jt.com/csr/report /index.html)
Altria	1.2	MarkTen			Х			"Examples of our tobacco companies' marketing practices include: connecting with adult tobacco consumers through direct mail and websites." (http://www.altria.com/Interactive/2014CRReport /index.html#)
Reynolds American	0.8	Vuse			X			"R. J. Reynolds has stringent age-verification standards and safeguards to prevent its marketing and promotion materials from going to anyone under the age of 21 to purchase tobacco products. And its track record is extraordinarily good, with an accuracy rate of nearly 10 percent." (http://www.reynoldsamerican.com/Transforming-Tobacco/Three-Pillars-of-Focus/Youth-Tobacco-Prevention/default.aspx)
VMR Products	0.5	V2Pro					Χ	None
		Vapor Couture		Х				None
		V2		Χ				None
GS Vapors	0.2	GreenSmoke		Х				None

Abbreviations: ECIG, Electronic Cigarettes International Group; ellipses, not applicable.

easily access information about these novel products, watch videos on vaping, and even purchase e-cigarettes.¹

Methods | We focused on the leading 12 e-cigarette companies and their 19 brands, which captured 98% of the retail market share in 2014 (Table). The categories of age-verification gates on website entry included a warning statement that viewers must be of legal purchasing age; a click or check that viewers were 18 years or older; a box for viewers to enter their birthdate; and registration, in which viewers enter their birthdate, address, and last 4 digits of their Social Security number.

The Dartmouth College Committee for the Protection of Human Subjects determined that the regulatory definition of human subjects research (45 CFR 46.102[f]) did not apply to this study; thus, institutional review board review of this study was determined to not be required.

Results | The stringency of age-verification gates varied across brands: 2 had no gate, 5 stated warnings, 10 required click/ checks, 1 required birthdate entry, and 1 required registration. Stringency also varied across brands within a company. Among Electronic Cigarettes International Group e-cigarettes, El Rey had no gate, while Vapestick, Fin, and VIP required click/checks. Three of 4 cigarette-selling companies (Altria, Imperial Tobacco, and Japan Tobacco) had less-stringent gates for their e-cigarette brand websites than their cigarette brand websites, which all required registration and proof of age (≥21 years).

Discussion | This study shows there is little serious age verification for entry into leading e-cigarette websites. Moreover, age-verification gates vary within and across major cigarette manufacturers despite strong claims of corporate social responsibility against marketing to adolescents. In the Marketing Responsibly section of its 2014 Corporate Responsibility Progress Report, Altria described marketing practices of its companies as "connecting with adult tobacco consumers through direct mail and websites." This statement is true for Altria's MarkTen e-cigarette website, which grants full access to all of its marketing and promotional material after viewers simply click they are 21 years or older, regardless of their actual age.

Altria is not alone in its inconsistent application of corporate social responsibility. Imperial Tobacco and Japan Tobacco reported similar statements against marketing to adolescents, which uniformly apply to their cigarette brand websites but not to those of their e-cigarette brands. Similarly, the corporate responsibility statements of exclusive e-cigarette companies are incongruent with the stringency of their age-verification gates. In contrast to these companies, Reynolds American consistently applies strict age-verification standards across all its cigarette and e-cigarette brands.

In conclusion, the absence of strong age-verification gates on e-cigarette websites allows adolescents to freely explore information about e-cigarette products that could appeal to this vulnerable population, such as flavored e-juice.³ The Food and Drug Administration should require stringent age-verification gates on entry once it deems regulatory authority over e-cigarettes. Doing so would limit youth access to e-cigarette websites, while not posing a barrier to adults seeking information. This regulation would protect the public health, especially for adolescents, by mitigating the potential harms of e-cigarettes, including initiation of cigarette smoking.³⁻⁶ Regardless of government regulation, tobacco companies ought to consistently apply their principles of corporate social responsibility across all products, not just cigarettes.

Samir Soneji, PhD Megan Gerling, BA JaeWon Yang, BA James Sargent, MD

Author Affiliations: Geisel School of Medicine at Dartmouth, Hanover, New Hampshire (Soneji, Gerling, Sargent); Children's National Medical Center, Washington, DC (Yang).

Corresponding Author: Samir Soneji, PhD, The Dartmouth Institute for Health Policy and Clinical Evaluation, WTRB, 1 Medical Center Dr, Lebanon, NH 03756 (samir.soneji@dartmouth.edu).

Published Online: March 7, 2016. doi:10.1001/jamapediatrics.2015.4501.

Author Contributions: Dr Soneji and Ms Gerling had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Soneji, Sargent.

Acquisition, analysis, or interpretation of data: Soneji, Gerling, Yang.

Drafting of the manuscript: Soneji, Gerling.

Critical revision of the manuscript for important intellectual content:
All authors

Statistical analysis: Soneji.

Obtained funding: Soneji.

Administrative, technical, or material support: Soneji, Yang.

Study supervision: Soneji, Sargent.

Conflict of Interest Disclosures: None reported.

- 1. Williams RS, Derrick J, Ribisl KM. Electronic cigarette sales to minors via the internet. *JAMA Pediatr*. 2015;169(3):e1563.
- 2. Gale Research. Market Share Reporter. 26th ed. Detroit, MI: Gale; 2016.
- **3.** Dutra LM, Glantz SA. Electronic cigarettes and conventional cigarette use among US adolescents: a cross-sectional study. *JAMA Pediatr*. 2014;168(7):
- 4. Grana R, Benowitz N, Glantz SA. E-cigarettes: a scientific review. *Circulation*. 2014:129(19):1972-1986.
- **5.** Primack BA, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Progression to traditional cigarette smoking after electronic cigarette use among us adolescents and young adults. *JAMA Pediatr*. 2015;169(11): 1018-1023.
- **6**. Leventhal AM, Strong DR, Kirkpatrick MG, et al. Association of electronic cigarette use with initiation of combustible tobacco product smoking in early adolescence. *JAMA*. 2015;314(7):700-707.