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### Title

Vape-only versus vape-and-smoke shops: sales to minors in four states

### Permalink

<https://escholarship.org/uc/item/Ofm0g7ff>

### Journal

Tobacco Control, 30(4)

### ISSN

0964-4563

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### Publication Date

2021-07-01

### DOI

10.1136/tobaccocontrol-2019-055567

Peer reviewed

## Vape-only versus vape-and-smoke shops: sales to minors in four states

### INTRODUCTION

Reducing access to tobacco via robust age of sale enforcement is an important component of comprehensive tobacco control, yet underage sales violations occur among tobacco retailers.<sup>1 2</sup> Vape shops specialise in sales of electronic cigarettes (e-cigarettes), e-liquids and devices. Some vape shops sell combustible tobacco ('vape-and-smoke shops') whereas others sell only non-combustible vaping-related products and no other type of tobacco product such as snuff ('vape-only shops'). Some claim that vape-only shops take a more public health orientation, emphasising combustible tobacco cessation among adults, harm reduction goals and would not sell to minors.<sup>3 4</sup> However, if shops are vape-only primarily to project a positive public image and focus on novel products, a similar frequency of violations of sales to minors laws might be observed across shop type. If so, consistent regulations and enforcement would be needed across shop type. Retail sales of e-products to minors that differentiates vape-only from vape-and-smoke shops has not been researched, but one study found that more last-30-day e-cigarette-using youth obtained their product from 'vape shop or other store that only sells e-cigarettes' (16.5%) compared with other retail locations such as 'gas station/convenience store' (9.8%).<sup>5</sup>

### METHODS

FDA conducts inspections of tobacco product retailers, making use of undercover minor and inspector operations, and reports these results in an online Compliance Inspection Database.<sup>4</sup> The database includes shop names, locations, date of inspection, which violations, if any, occurred and outcomes (eg, fines). We examined all retailer inspections that

occurred from 1 January 2017 through 31 October 2019 in California, Florida, Illinois and New York. We chose these states for geographical variation (representing the West Coast, South, Midwest and Northeast) and because they reflect different levels of regulation of e-cigarettes. Florida was the only state that did not have e-cigarette-focused laws on taxation or product packaging, with a minimum purchase age of 18 (compared with 21 years of age in the other three states). Both Florida and Illinois did not have laws requiring licenses for retail sales of e-cigarettes, whereas the other two states did. Thus, e-cigarette regulation was relatively lax overall in Florida and Illinois, though all states had laws restricting youth access.<sup>6</sup> We adapted previous methods<sup>3 7 8</sup> to identify vape shops as a specific type of retailer. Specifically, we generated 14 key vape-related single words (eg, vape, vaping, vapor, vapors, e-cig, cloud) and identified vape shops in the database using the vape-related key words, removing any duplicates (ie, the same shop and same date). Next, the coder (AG) used Yelp webpages to separate 'vape-only shops' from 'vape-and-smoke shops'.<sup>8</sup> Phone calls to six randomly selected shops from each state and each type of shop (n=48 calls) were conducted by a data collector blind to the purposes of the study, confirming the Yelp coding as being accurate regarding whether or not the vape shops sold combustible products or any other type of tobacco product (ie, no calls were inconsistent with the Yelp coding).

### RESULTS

A total of 1099 FDA inspections were identified: 726 at vape-only shops and 373 at vape-and-smoke shops. These inspections revealed 156 violations related to underage e-cigarette/e-liquid products sales at these shops. Violations were more common in Illinois (25 (26.0%)) compared with other three states (approximately 11% in the other three states,  $\chi^2$  (3, 38.58),  $p < 0.0001$ ). We found no difference in underage sales by shop type

in the overall sample (14.3% at vape-only shops vs 14.1% at vape-and-smoke shops,  $p = 0.94$ ) and within each state (see [table 1](#)). Supplementary analyses revealed that in the vape-and-smoke shops, an additional 28 violations were found pertaining to sales of combustible tobacco to minors (23 sales in Florida and 5 sales in Illinois).

### DISCUSSION

Comparison of violations of sales to minors laws between vape-only shops and vape-and-smoke shops fail to show notable differences in underage sales. These results are bound by locations where inspections occurred, and violations are higher in some other work.<sup>1</sup> Also, there may be some variation in use of decoys (eg, gender or age) across these states, though details on the FDA protocol are not available. All currently used decoys are under 18 years of age.<sup>9</sup> There are other sources of variation that could have impacted the results (eg, an underage deterrent mail intervention was completed in California in March of 2019). Still, across e-cigarettes and combustible cigarettes, relatively more underage sales violations occurred in Illinois and Florida, states that did not require retailer licensing to sell e-cigarette products.<sup>6</sup> Retailer licensing is needed across states to enhance compliance and enforcement with age of sale laws. Vape-only shops failed to demonstrate generalised promotion of public health compared with vape-and-smoke shops. While some vape-only shops may assist older, former combustible cigarette smokers to move to e-cigarettes, and eventually quit all tobacco products, such shops must comply with age of sale laws if they wish to be perceived as playing an important role in helping cigarette smokers quit.

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**Table 1** Number of violations involving eElectronic nicotine delivery devices/e-liquid products by state and shop type

State	Number of vape-only shops	Violations at vape-only shops*	Number of vape-and-smoke shops	Violations at vape-and-smoke shops*	$\chi^2$ statistics†	P value†
CA	134	12 (8.96%)	86	12 (13.95%)	1.35	0.25
FL	237	16 (6.75%)	115	10 (9.62%)	0.84	0.36
IL	246	65 (26.42%)	131	28 (21.37%)	1.17	0.28
NY	120	12 (10.00%)	41	1 (2.44%)	2.35	0.13

\*Data are expressed as number (%).

†For the difference between vape-only and vape-and-smoke shops within each state.

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**Contributors** All authors took an active role in the manuscript. SS took the conceptual lead and wrote much of the text. AG did most of the coding and all of the data analysis, and edited the writing. CDD referred us to the website, provided an overview on types of analyses we could do and assisted in the writing throughout. We all share the four criteria for authorship. The manuscript represents valid work and has not been published nor is being considered for publication elsewhere. Our data from the FDA Compliance Dataset are on an Excel file and are readily available.

**Funding** Research reported in this publication was supported by a California Tobacco-Related Disease Research Program Award (TRDRP Grant No. 26IR-0016, Steve Sussman, PI) and a National Cancer Institute and FDA Center for Tobacco Products (CTP) Award (NCI/FDA Grant No. U54CA180905, Mary Ann Pentz and Adam Leventhal, PIs). Effort by CDD was supported in part by funding from NCI/FDA (U54CA046070).

**Disclaimer** TRDRP, NIH or the FDA had no role in the design and conduct of the study; collection, management, analysis and interpretation of the data; preparation, review or approval of the manuscript; and decision to submit the manuscript for publication.

**Competing interests** None declared.

**Patient consent for publication** Not required.

**Provenance and peer review** Not commissioned; externally peer reviewed.

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**To cite** Sussman S, Galimov A, Delnevo CD. *Tob Control* Epub ahead of print: [please include Day Month Year]. doi:10.1136/tobaccocontrol-2019-055567

Received 12 December 2019

Revised 26 February 2020

Accepted 6 March 2020

*Tob Control* 2020;0:1–2.

doi:10.1136/tobaccocontrol-2019-055567

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