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Tobacco Advertising and ID Checks in Columbus, OH in Advance of Tobacco 21

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Abstract

Purpose: In autumn 2017, Columbus, OH, joined numerous other U.S. locations in raising their legal sales age for purchasing tobacco to 21 (i.e., becoming “T21”). The present study sought to establish a baseline for ID checks in Columbus prior to T21 enforcement, and to examine whether store type and marketing were associated with better rates of ID checks.

Design: Fieldworkers aged 20–21 visited a random sample of 110 tobacco retailers during summer 2017 (drawn from >10,000 licensed retailers in the county). After collecting store-related information, they attempted to purchase cigarettes and recorded whether their ID was checked (federal law requires ID checks for anyone who looks under age 27).

Setting: Columbus, OH.

Measures: Store type, external tobacco advertising, ID check outcome.

Analysis: Descriptive and inferential statistics.

Results: Among stores where cigarettes were purchased, 61.1% did not conduct ID checks. Absent ID checks were associated with the store being a convenience store or tobacco shop [$\chi^2(2)=4.45$, $p=.035$], and having a greater amount of external advertising [$t(93)=2.00$, $p=.049$].

Conclusion: Overall, the low rate of ID checks for young adults purchasing tobacco in Columbus is concerning. Continued monitoring of retailer compliance will be important as retailers adjust to the arrival of T21. Targeted enforcement and additional outreach with tobacco shops, convenience stores, and stores with a high amount of external advertising may be particularly needed.

Keywords

youth tobacco use; T21; policy; marketing; prevention

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Purpose

In the last decade, over 360 U.S. states, cities, and counties have passed “T21” legislation, raising the minimum legal sales age (MLSA) for tobacco to 21. The goal of T21 is to delay, prevent, or reduce youth tobacco initiation and use. Yet for T21 to be successful, there must be good implementation. Early evaluations of T21 show a wide variation in retailer compliance—specifically, how frequently retail staff check the IDs of young customers and refuse sale to those underage.^{1,2} Knowing which store characteristics identify those more likely to be noncompliant with MLSA policies may help determine where to direct education and enforcement efforts. Likewise, assessment of status quo MLSA compliance practices prior to T21 could be useful in determining what is needed for a successful adjustment to T21.

Two means by which tobacco control research has previously characterized tobacco retailers is store type (e.g., convenience store, grocery) and the extent of external tobacco marketing. Tobacco marketing outside tobacco retailers is a particular issue, as adolescent exposure to tobacco marketing increases the likelihood of subsequent smoking initiation.^{3,4} Some research also indicates that ID checks and tobacco marketing vary by store type, and are particularly concerning among convenience stores and tobacco shops.^{5–7} Therefore, as communities prepare for the introduction of T21, the association that MLSA compliance has with store types and external marketing warrants attention.

In December 2016, Columbus, OH passed its first ordinances toward becoming T21, with enforcement beginning in autumn 2017. In advance of T21 enforcement, our team evaluated the current MLSA compliance and advertising practices of the city’s retailers. Given the prior research on retailer type and marketing, we hypothesized that convenience stores and tobacco shops would have (1) greater external advertising and (2) lower rates of ID checks than other types of tobacco retailers. In an exploratory analysis, we sought to examine the relation between ID checks and tobacco advertising.

Methods

Design

Our sample of stores was drawn from a broader group of audited stores in Franklin County, OH (where Columbus is located). These stores were randomly selected from a list of all licensed tobacco retailers in Franklin County through proportional sampling, stratified by location in the county. Only stores within Columbus city limits were used for the present analyses, providing us with 110 stores to audit. Columbus is a diverse, urban area of 837,038 residents, of whom 57.5% are non-Hispanic White.⁸

Stores were audited by undergraduate fieldworkers during the summer of 2017. At the time of data collection, the MLSA in Columbus was 18 and clerks were federally required to ID anyone who looked under the age of 27. As all undergraduate fieldworkers were aged 20–21, they clearly were of an age that required an ID check.

Pairs of fieldworkers visited each retailer together during daylight hours and used an application on their smartphones to collect data (use of the app allowed for discrete data collection). Fieldworkers were trained extensively on how to conduct the audits and achieved good internal reliability (κ statistics $>.6$) during training with practice stores in the community. As described further below, at the end of each audit, one fieldworker also attempted to purchase a pack of cigarettes. Fieldworkers rehearsed their purchasing script in front of the lead investigator during training.

Of the 110 stores selected for the audit, 7 could not be observed because they were out of business, not open to the public, or no longer sold tobacco. After these exclusions, a final sample of 103 varied retailers was available for the present analyses.

Measures

Store Type and Tobacco Advertising.—Audit items were based on previous work.⁹ Fieldworkers recorded the type of store being audited (e.g., gas station, grocery store). They also observed external tobacco advertising on retailers' buildings (e.g., windows, doors) and site (e.g., parking lot, fuel pumps), and, unless there was no tobacco advertising, recorded whether the advertising was *discreet* (few advertisements that most customers would not readily notice), *in your face* (numerous and/or very large advertisements that were immediately obvious), or *moderate* (which fell between these two extremes). Both building and site were rated separately (from 1=*no advertisements* to 4=*in your face*) and these two ratings were averaged to provide each retailer with an external advertising score.

ID Checks.—Fieldworkers bought cigarettes at 95 of the 103 audited stores; they were unable to buy cigarettes at 8 of the stores because they were either hookah/vape shops ($n=7$) or the clerk was unable to make the sale ($n=1$). At each store, a fieldworker asked the clerk for the price of their cheapest pack of cigarettes. Once the clerk responded, the fieldworker said "Great. I'll take those." If the clerk asked for ID, the student provide his/her driver's license and subsequently recorded that he/she was asked for identification; if the clerk did not ask for ID, or only verbally asked the fieldworker for his/her age or birthday, the student subsequently recorded this as a lack of ID check. Purchased cigarettes were returned to the laboratory for disposal.

Analyses

Audited stores were categorized into four groups: convenience stores and tobacco shops, grocery stores and mass merchandisers, hookah and vape shops, and "other" (drug stores, alcohol stores, bars, and restaurants). An ANOVA was used to compare external tobacco advertising across store types. Chi-square tests were used to find differences in ID checks between grocery stores/mass merchandisers and convenience stores/tobacco shops. The "other" category was excluded from this comparison because the sample size was too small. Finally, an independent t-test was used to determine whether external tobacco advertising scores differed between stores that did (vs. did not) conduct ID checks.

Results

Tobacco Advertising

Advertising scores significantly varied across store type [$F(3, 99)=7.93, p<.001$]. Bonferroni post-hoc comparisons indicated a higher advertising score among the convenience stores/tobacco shops ($M=1.9, SD=0.72$) compared to the grocery stores/mass merchandiser ($M=1.2, SD=0.31$) and the hookah/vape groups ($M=1.1, SD=0.23; p<.01$; see Table 1). There were no other differences in advertising by store type.

ID Checks

Among the 95 stores where purchases were made, employees requested identification at 38.9% of the retailers. Chi-square analyses indicated that ID checks were more common among the grocery stores/mass merchandisers compared to the convenience stores/tobacco shops [64.3% vs. 34.2% checked IDs, respectively; $\chi^2(2)=4.45, p=.035$]. An exploratory test of the relation between ID checks and advertising indicated there was greater advertising at the stores that did not check for IDs [$t(93)=2.00, p=.049$].

Discussion

This study sought to evaluate the current MLSA compliance and advertising practices of Columbus tobacco retailers in advance of the city implementing T21. Findings indicated that, overall, only 38.9% of retailers checked our fieldworkers' IDs during tobacco purchases. This compliance rate is concerning, although similar to what was found elsewhere prior to T21 implementation.² Consistent with Hypothesis 1, tobacco shops and convenience stores had significantly greater external advertising than grocery stores/mass merchandisers and hookah/vape stores. Consistent with Hypothesis 2, tobacco shops and convenience stores had significantly worse rates of ID checks than grocery stores and mass merchandisers. Finally, we found that there was greater tobacco advertising at retailers where fieldworkers were not asked for their ID. Overall, the present findings suggest that there are, in fact, some store characteristics (i.e., being a tobacco shop or convenience store, having substantial external tobacco marketing) that indicate a retailer's likelihood of noncompliance with MLSA policies. As Columbus adjusts to T21, it is possible such stores may require more attention from enforcement officials (for Columbus, this is the city's Department of Health).

This study is among the first to demonstrate an association between tobacco marketing and tobacco ID checks. Such a finding brings together two areas of focus in tobacco control. It also indicates that particular stores provide a double threat to their communities, as tobacco marketing encourages initiation among non-users, and underage sales that result from a lack of ID checks encourage continued use among those already experimenting.

Data for this study were collected in Columbus and findings may not generalize to other T21 locations. Likewise, our purchasing attempts were conducted by young adults aged 20–21, and rates of ID checks may be different with younger fieldworkers. Nevertheless, as store clerks were federally required to ID anyone who looked under the age of 27, the low rate of ID checks is still a concern.

Ultimately, this study established a baseline for retailer compliance with T21 in Columbus. Continued monitoring of retailer compliance will be important as retailers throughout the country adjust to the arrival of T21. In particular, since tobacco shops and convenience stores had the lowest rates of ID checks in this study, targeted enforcement and additional outreach with these merchants may be warranted to increase T21 compliance. As this study focused on cigarette purchases, monitoring of ID checks in hookah and vape shops will also be an important future research direction.

Within Columbus, numerous steps were undertaken to strengthen enforcement of T21. These efforts included ensuring that *all* tobacco retailers: were licensed; received educational outreach in advance of enforcement; underwent compliance checks; and received penalties for non-compliance (escalating from a warning notice, to a \$500 fine, to a \$1000 fine with the risk of a suspended license). These efforts have the potential to achieve acceptable levels of retailer compliance with T21. There are very optimistic expectations for T21, yet good compliance is necessary for the policy to realize its full potential.

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So What?

- What is already known on this topic?
 - Retailer compliance with minimum legal sales age (MLSA) laws varies widely.
- What does this article add?
 - Lack of ID checks are associated with the store being a convenience store or tobacco shop, and having a greater amount of external tobacco advertising.
- What are the implications for health promotion practice or research?
 - As communities across the country raise their MLSA to 21, targeted enforcement and additional outreach with tobacco shops, convenience stores, and stores with a high amount of external advertising may be particularly needed. Although enforcement bodies vary by location, current recommendations are for Tobacco 21 enforcement to be led by public health departments (rather than police departments).¹⁰

External tobacco advertising and rates of ID checks across store type in Columbus, OH. Advertising scores ranged from 1 (*no tobacco advertising*) to 4 (*in your face*).

Table 1.

Store Type	Percent of Stores in Sample	External Advertising Score M (SD)	Percent of Stores that Checked IDs
Convenience Stores & Tobacco Shops	70.9%	1.9 (0.72) ^a	34.2% ^a
Grocery Stores & Mass Merchandisers	14.6%	1.2 (0.31) ^b	64.3% ^b
Hookah and Vape Shops	7.8%	1.1 (0.23) ^b	--
Other (bars, restaurants, alcohol stores, etc.)	6.8%	1.6 (0.63) ^{a,b}	28.6% ^{a,b}

^{a,b} Values in a column that do not share a superscript differ significantly, $p < .001$.

-- Hookah and vape shops were excluded from analyses because cigarettes could not be purchased at the majority of these locations.