

Asking for Identification and Retail Tobacco Sales to Minors

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abstract

BACKGROUND AND OBJECTIVES: A previous single-county study found that retail stores usually asked young-looking tobacco customers to show proof-of-age identification, but a large proportion of illegal tobacco sales to minors occurred after the customers had shown identification proving they were too young to purchase tobacco. We sought to investigate these findings on a larger scale.

METHODS: We obtained state reports for federal fiscal years 2017 and 2018 from a federal agency that tracks tobacco sales to supervised minors conducting compliance checks in retail stores. We used descriptive and multivariable logistic regression methods to determine (1) how often stores in 17 states requested identifications, (2) what proportion of violations occurred after identification requests, and (3) if violation rates differed when minors were required versus forbidden to carry identification.

RESULTS: Stores asked minors for identification in 79.6% (95% confidence interval: 79.3%–80.8%) of compliance checks ($N = 17\,276$). Violations after identification requests constituted 22.8% (95% confidence interval: 20.0%–25.6%; interstate range, 1.7%–66.2%) of all violations and were nearly 3 times as likely when minors were required to carry identification in compliance checks. Violations were 42% more likely when minors asked for a vaping product versus cigarettes.

CONCLUSIONS: Stores that sell tobacco to underage customers are more likely to be detected and penalized when youth inspectors carry identification during undercover tobacco sales compliance checks. The new age-21 tobacco sales requirement presents an opportunity to require identifications be carried and address other long-standing weaknesses in compliance-check protocols to help combat the current adolescent vaping epidemic.

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WHAT'S KNOWN ON THIS SUBJECT: In a single-county study, it was found that tobacco retailers often sold to underage customers despite viewing proof of the customers were legally underage. It is unknown whether this pattern is widespread.

WHAT THIS STUDY ADDS: We analyzed federal monitoring data from 17 states, representing ~100 000 tobacco retailers, and found that sales violations after identification requests constituted approximately one-fourth of all violations. Violation rates were higher when states required undercover youth inspectors to carry identification.

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When young-looking retail customers ask for a tobacco product, United States and state laws require the store to perform 2 steps: (1) examine proof-of-age identification and (2) refuse to sell if the customer is <18 years of age¹ (19 or 21 years in some jurisdictions^{2,3}; as of December 20, 2019, federal law raised the minimum age for tobacco sales to 21).⁴ The laws⁵ and their enforcement have reduced tobacco sales to minors and adolescent smoking,⁶ but violations remain frequent enough to fuel the current epidemic of adolescent vaping.^{7,8}

In a study of cigarette sales to undercover youth inspectors by a sample of 200 stores in Jefferson County, Colorado,⁹ the authors found that clerks usually fulfilled the first step, namely, they asked to see identification in 92.6% of >1000 compliance checks. The Jefferson County minors carried and were allowed to present their own identifications if asked, an inspection strategy that typically increases the detection of violation rates.^{10,11} More than two-thirds (69.2%) of violations in the study occurred after minors presented identifications showing they were too young to be sold cigarettes legally. The authors of the study concluded that retailers often sell tobacco to minors despite being shown the customer's age.

In this study, we examined the results of federally required tobacco purchase attempts by undercover minors in 17 states to answer 3 questions. (1) What is the prevalence of identification requests? (2) What proportion of sales violations occur after identification requests? (3) Do violation rates differ when minors are required versus forbidden to carry age-accurate identification?

METHODS

We obtained and analyzed secondary data that US states submit annually to the Substance Abuse and Mental Health Services Administration in a required report of retailer compliance with underage tobacco sales laws. The report includes an estimated retailer violation rate (RVR) based on compliance checks in random samples of retail stores. Starting with federal fiscal year (FFY) 2017 (October 1, 2016–September 30, 2017), the report included an optional data field, “Clerk asked Youth Inspector for identification (yes/no),” to track identification requests. The annual reports also indicate whether youth inspectors are required or forbidden to carry identification when conducting compliance checks.

We obtained data for FFYs 2017 and 2018 through a Freedom of Information Act request; data for FFY 2019 were unavailable at the time of the request. Seventeen states completed the optional identification-request field, either in 2018 only ($n = 5$ states) or both 2017 and 2018 ($n = 12$ states). We also obtained information about which states require (22 states) or forbid (27 states) youth inspectors to carry identification during compliance checks (one state allows it under some circumstances). Observations used in analyses ($N = 17\,276$) included 157 (0.9%) with missing identification-request data that were coded 0 (identification not asked). Five observations were excluded because the minor was aged 18; observations were limited to those in which minors were aged 15 to 17, which is legally too young to be sold tobacco at the time.

In analyses, we used state-level poststratification weights that we calculated as the multiplicative inverse of sampling fractions included in state

reports. Within-state sampling designs were incorporated for states that use stratified and/or clustered sampling designs. Weighted estimates represent ~80 000 retail tobacco sellers in FFY 2017 and 100 000 in FFY 2018. Analyses used Stata svy programs (version 15.1; Stata Corp, College Station, TX).

Descriptive analyses estimated proportions of compliance checks without identification requests and RVRs for all visits and for visits with and without identification requests. We used multivariable logistic regression to model factors contributing to identification-request failures and sales violations. Potential factors included year, minor age and sex, store type, type of tobacco requested, and whether the state required or forbade minors to carry identification; identification request was included for modeling on sales violations. We began model building by comparing competing assumptions: that state by year was a random effect, which best matches the data structure, or that state was a fixed effect with 17 levels. Variable coefficients were substantially the same in both models, and for parsimony and fidelity to data structure, we report results of a mixed-effect model including state by year as a random effect. Regression results are reported as adjusted odds ratios (aORs).

RESULTS

Identification was requested in 79.6% of compliance checks (95% confidence interval [CI]: 78.9%–80.4%); excluding one state with a low outlier rate (21.2%; 95% CI: 18.7%–23.6%), identification was requested 88.1% of the time (95% CI: 87.3%–88.8%; data not shown in tables). The identification-request rate did not differ significantly by study year among

combined states that provided both years' data (78.0% vs 77.8%; $P = .81$); rates differed significantly between years for only one state (95.3% to 88.0%; $P = .0003$). The FFY 2018 rate of identification requests was significantly higher among states that reported only FFY 2018 data versus states that reported both years' data (86.8% vs 73.0%; $P < .0001$).

The overall RVR was 9.3% (95% CI: 8.7%–9.9%; interstate range, 3.4%–18.0%). Sales after identification requests accounted for nearly one-fourth of all violations (22.8%; 95% CI: 20.0%–25.6%; interstate range, 1.7%–66.2% of violations), and it accounted for one-third or more of violations in half of the states (Table 1). Excluding the state with a low identification-request rate, sales after identification requests accounted for more than one-fourth of violations (28.5%; 95% CI: 25.2%–31.9%).

The group of states that required minors to carry identification ($n = 4$) had a significantly higher identification-request rate than

the group that forbade carrying identification ($n = 13$), although overall RVRs were similar (Table 2). Violations in the carry-identification group were >3 times as likely after identification requests (5.7% vs 1.8%; $P < .0001$) and constituted more than half (52.6%) of all violations. Adjusted for other factors, carrying identification was associated with >3 times the likelihood of being asked to show identification (aOR 3.69; 95% CI 1.60–8.50) and more than twice the likelihood of being sold tobacco (aOR 2.73; 95% CI 1.71–4.36; Table 3). Purchase attempts of vaping products were 35% less likely than cigarette purchase attempts to trigger an identification request (aOR 0.65; 95% CI 0.51–0.83) and 42% more likely to result in a sales violation (aOR 1.42; 95% CI 1.05–1.91). All store types were nominally less likely, with most being significantly less likely, to commit a sales violation than convenience stores. Sex, age, and year of inspections did not predict identification requests or sales violations.

DISCUSSION

More than three-fourths of US tobacco retailers are asking underage tobacco “customers” conducting federally approved compliance checks to show proof of age as required by law, but approximately one-fourth of violations occur after identification is requested. Among states that require compliance-check minors to carry identification, more than half of all sales violations occur after identification requests. In the context of extensive previous findings that federally approved compliance checks underestimate tobacco sales to minors and prevalence of stores that sell tobacco underage, the current results suggest that minors in these compliance checks should carry identification to increase both the rate of identification requests and the rate of detecting violations.

In this study, we also found that retailers were less likely to ask for identification, and more likely

TABLE 1 Retailer Requests for Proof-of-Age Identification and RVRs in Underage Tobacco-Sales Compliance Checks ($N = 17\,276$) From 17 States That Submitted Optional Data in Annual Federal Reports, FFYs 2017 and 2018

Coded State	FFY 2017			FFY 2018			Combined Years		
	Estimated Store Population (Weighted n)	Asked for Identification, %	RVR, %	Estimated Store Population (Weighted n)	Asked for Identification, %	RVR, %	Asked for Identification, %	RVR, %	Violations After Identification Request, %
All	80 416	78.0	10.0	108 312	80.8	8.8	79.6	9.3	22.8
A	739	98.4	5.4	745	96.2	4.8	97.3	5.1	66.2
B	5966	92.9	14.1	6013	93.4	9.1	93.1	11.5	56.0
C	3436	91.7	8.7	3341	91.8	10.5	91.7	9.6	53.1
D	2194	94.4	10.0	2200	95.6	7.8	95.0	9.0	52.7
E	—	—	—	8516	90.9	10.7	90.9	10.7	48.4
F	12 738	82.2	14.3	10 389	78.9	18.5	80.5	16.4	46.6
G	3167	87.4	4.2	3425	90.0	3.2	88.7	3.7	41.2
H	—	—	—	1085	96.6	3.4	96.6	3.4	33.3
I	5463	91.5	5.4	5495	90.8	3.7	91.2	4.6	23.2
J	2551	95.3	4.5	2835	88.1	9.9	91.1	7.6	21.1
K	5087	89.8	7.7	4933	86.8	13.0	88.3	10.3	20.3
L	502	89.0	11.7	535	92.3	4.5	90.6	8.1	18.4
M	—	—	—	4695	91.2	5.9	91.1	5.9	14.3
N	29 342	82.1	10.3	28 095	83.6	5.7	82.9	8.0	12.9
O	—	—	—	5981	85.9	7.1	85.9	7.1	11.4
P	—	—	—	4811	82.0	18.0	82.0	18.0	10.4
Q	8887	22.0	17.8	8871	20.4	13.6	21.2	15.7	1.7

—, no data available.

TABLE 2 Identification-Request Rates and RVRs by Minor Allowed Versus Forbidden To Carry Identification in Tobacco Sales Compliance Checks (*N* = 17 276) From 17 States Submitting Optional Data in FFYs 2017 and 2018

Identification-Carry Condition	Identification-Request Rate	RVR After Identification Request	RVR With No Identification Request	Overall RVR	Proportion of Violations After Identification Request
Required (4 states), %	92.9	5.7	67.2	10.0	52.6
Forbidden (13 states), %	76.5	1.8	32.9	9.1	15.0
<i>P</i>	<.0001	<.0001	<.0001	.23	<.0001

to sell, when minors attempted to buy vaping products. This problem, that of easier access to vaping products than to combustible cigarettes, adds urgency to the need for more realistic compliance-check protocols to reduce the adolescent vaping epidemic.

Standards adopted by US motor vehicle administrators require that driver licenses and identifications be vertical for individuals younger than age 21 and horizontal for ages ≥ 21 ,¹² enabling stores to visually determine if a customer is old enough to purchase alcohol. Results in our study as well as previous studies^{10,11,13} reveal

that vertical identifications have not prevented underage tobacco sales, possibly because the vertical orientation signified the bearer was younger than 21 although the sales age for tobacco was 18.

With tobacco sales now restricted to customers aged 21 or older, stores no longer need to calculate age; vertical identifications provide a clear message that the customer is not old enough to buy tobacco. If youth inspectors universally carry identifications in federally approved compliance checks, this protocol and the age-21 sales threshold could increase

enforcement efficacy and simplify the store's obligation to refuse tobacco sales to individuals younger than age 21.

Our results are based on 17 states from which study-relevant data were accessible. Although the states were not randomly selected, they appear arbitrarily distributed across 7 of 9 US Census divisions (not covered: New England and South Central divisions) and 9 of 10 standard federal regions (not covered: region I). They contain 36.0% of the US population and reported a combined, weighted RVR (10.2%) similar to the overall US rates in 2017–2018 (9.7%–9.6%). Further research can determine if the results apply nationally.

TABLE 3 aORs of Asking for Proof-of-Age Identification and of Selling Tobacco to a Minor in Compliance Checks (*N* = 17 276) From 17 US States in FFYs 2017 and 2018

	Asked for Identification		Sold Tobacco to a Minor	
	aOR (95% CI)	<i>P</i>	aOR (95% CI)	<i>P</i>
Fixed effects				
Identification-carry required (ref = forbidden)	3.69 (1.60–8.50)	.003	2.73 (1.71–4.36)	<.001
Product type (ref = cigarettes)				
Small cigars and/or cigarillos	0.67 (0.37–1.21)	.182	1.81 (0.79–4.17)	.156
Smokeless tobacco	0.56 (0.30–1.05)	.071	1.67 (1.00–2.79)	.051
Ends	0.65 (0.51–0.83)	.001	1.42 (1.05–1.91)	.024
Other, missing	0.55 (0.29–1.04)	.067	1.30 (0.40–4.26)	.653
Business type (ref = gas station)				
Tobacco store	0.70 (0.51–0.96)	.027	0.80 (0.56–1.15)	.225
Restaurant	0.98 (0.77–1.26)	.872	0.73 (0.55–0.95)	.022
Hotel	1.29 (0.35–4.69)	.693	0.45 (0.31–0.64)	<.001
Grocery store	1.12 (0.89–1.41)	.336	0.79 (0.64–0.98)	.032
Drug store	1.53 (0.86–2.71)	.143	0.57 (0.67–0.89)	.015
Other, missing	0.88 (0.66–1.17)	.367	0.67 (0.51–0.89)	.006
2018 (ref = 2017)	1.10 (0.36–3.34)	.856	0.75 (0.39–1.42)	.362
Male (ref = female)	1.01 (0.76–1.33)	.957	0.85 (0.70–1.03)	.092
+1 y of age (ref = age 15)	0.73 (0.47–1.14)	.156	1.34 (0.97–1.84)	.070
Asked for identification	—	—	0.03 (0.02–0.06)	<.001
Random effect for state-year^c				
Variance of intercept	1.15 (0.44–2.98) ^a	—	0.39 (0.13–1.10) ^b	—

Adjusted for other covariates shown. ref, reference category; —, not applicable.

^a Residual intraclass correlation coefficient = 0.26 (95% CI: 0.12–0.46).

^b Residual intraclass correlation coefficient = 0.10 (95% CI: 0.04–0.24).

^c Data shown as variance (95% CI).

CONCLUSIONS

Stores that sell tobacco to underage customers are more likely to be detected and penalized when youth inspectors carry identification during undercover tobacco sales compliance checks. The new age-21 tobacco sales requirement presents an opportunity to require identifications be carried and address other long-standing weaknesses in compliance-check protocols to help combat the current adolescent vaping epidemic.

ABBREVIATIONS

aOR: adjusted odds ratio

CI: confidence interval

FFY: federal fiscal year

RVR: retailer violation rate

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