

Youth Tobacco Sale Compliance Checks: Impact on Vendor Practices and Community Policy

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Background

Each day in the United States, 3,000 children under the age of 18 begin to smoke¹. In Wisconsin, approximately 120 children start to smoke each day, 30 of whom will eventually die of diseases caused directly by their tobacco use². In our state, more than 100,000 children are addicted to tobacco products and smoke approximately 14 million packs of cigarettes per year².

These statistics are even more disturbing given that the sale of tobacco products to children under the age of 18 is illegal in Wisconsin and the other 49 states¹. The ability of children to illegally purchase cigarettes has been cited as one of the major factors that promotes tobacco addiction among children¹. One strategy to publicize and limit youth access has been the use of compliance checks involving supervised attempts by underage youth to purchase tobacco products³. This strategy has been used to document the ready availability of cigarettes to minors¹.

The purposes of this study were threefold: first, to evaluate the likelihood that minors could purchase cigarettes within Dane County, Wis; second, to evaluate the impact of vendor education and compliance check feedback on the subsequent likelihood of minors purchasing cigarettes; and, third, to report on community action taken, in part, as a result of these compliance checks.

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Methods

Part 1 -- Baseline Compliance Checks:

At baseline in 1993, letters explaining Wisconsin statutes banning the sale of tobacco products to minors (Table 1) were mailed to all tobacco vendors in Dane County, Wis, a county including the state capital (Madison), suburban, and rural communities. Twenty-four adolescents, aged 12-15 years old volunteered to participate in compliance checks. After parental informed consent for their participation was obtained, the 24 adolescents were trained regarding the dangers of smoking, the purpose of the compliance checks, and the standardized procedures for the compliance checks.

Adolescents aged 12-15 were selected to minimize any potential confusion with persons 18 or older, the legal age for purchasing tobacco products. To further ensure that these young adolescents were

not mistaken as young adults, two steps were taken: a) each adolescent was evaluated by an attorney who certified that the adolescent appeared his or her actual age, and b) the adolescents were video- and audio-taped during compliance checks to ensure that they complied with instructions to report their age honestly if asked by a clerk.

One hundred fifty-three vendors in Dane County, Wisconsin, were selected to serve as the compliance check sites. Following their identification, unannounced baseline compliance checks were conducted over two successive evenings to prevent vendors from informing each other of the process and altering their behavior. Adolescents working in groups of two or three entered each of the 153 establishments and attempted to

Continued on next page

Table 1: State of Wisconsin Youth Access Ordinances

- Tobacco sales to anyone under age 18 are prohibited. Tobacco product give-aways and nominal cost sales of tobacco are also prohibited (Wisconsin Statutes, Section 134.66)
- Signs stating that the sale of tobacco to minors is unlawful must be posted on the premises wherever tobacco products are sold. Vending machines must have signage that states the sales of tobacco to anyone under the age of 18 is prohibited.
- All cigarettes and other tobacco products must be sold in a package or container to which a state tax stamp is affixed. This statute prohibits the sale of single cigarettes.
- Vending machines must be placed in plain sight of an employee and should be inaccessible to the public when the establishment is closed.
- All vendors must be licensed to sell tobacco products.

purchase a package of cigarettes. They attempted to purchase cigarettes from three different modes of sale: from a clerk, who provided the cigarettes from a source not accessible to the adolescents; from a self-service displays, where the adolescents selected a package of cigarettes then brought it to a cash register; and, from a cigarette vending machine. When attempting to purchase at a vending machine, the adolescents first approached the clerk to request change to use the vending machine. No compliance checks were made at primarily adult establishments such as bars or hotels.

If asked their age by a vendor, the adolescents were instructed to answer honestly. If asked for whom they were purchasing the cigarettes, the adolescents were instructed to respond that they were buying the cigarettes for themselves. For all compliance checks, the adolescents were supervised by at least one adult supervisor who was in a vehicle outside the compliance check site to ensure correct data collection and take control of cigarettes.

Part 2 -- Vendor Notification and Education: Following completion of the baseline compliance checks, the results were made available to the local media via a press release and news conference. The announcement generated significant local media coverage including prominent articles in the local newspapers as well as extensive local television and radio coverage.

Following the dissemination of results, all 153 vendors were notified by letter whether or not adolescents were able to successfully purchase cigarettes within their establishment. Additionally, all vendors were provided with signs to indicate that the establishment would not sell tobacco products to minors and information regarding the appropriate placement to maxi-

	% Successful Cigarette Purchases	
	Baseline (n = 153)	Follow-up (n = 137)
Overall	26.8%	23.4%
Boys	28.8%	14.3%
Girls	13.5%	28.4%
	(p < .05)	(p = .10)
Younger Adolescents (12-13)	15.9%	31.6%
Older Adolescents (14-15)	48.1%	35.0%
	(p < .001)	(p = .75)
Type of Access to Cigarettes:		
Customer Asks Clerk	23.5%	21.7%
Customer Self-Serve	31.3%	15.4%
Vending Machines	30.0%	53.3%
	(p = .60)	(p = .23)
Did Vendor Ask Age of Customer?		
Yes	7.9%	4.2%
No	33.9%	30.9%
	(p < .002)	(p < .01)
Did Vendor Ask for Customer ID?		
Yes	1.4%	2.9%
No	50.6%	49.2%
	(p < .001)	p < .001)
Madison Locations	38.5%	26.7%
Non-Madison Dane County Locations	14.7%	17.6%
	(p < .001)	(p = .22)

mize their impact. Finally, vendors were offered on-site training for employees and managers. The training consisted of a review of current Wisconsin statutes related to the purchased of tobacco products by minors, ways to improve vendor compliance, and problem-solving techniques such as how to deal with threatening customers. All 153 vendors received these written materials; only four of the vendors (2.6%) elected to attend the training.

Part 3 -- Follow-up Compliance Checks: Approximately one year after the baseline measures, a second series of compliance checks was completed to assess the impact of the initial interventions. The meth-

ods followed during these follow-up checks were identical to the baseline checks described above. The same adolescents who participated in the baseline checks participated in the follow-up checks except for those who were ineligible due to turning 16. For the follow-up checks, attempts were made to purchase cigarettes at 137 vendors, including 60 from the baseline survey.

Results

Baseline Compliance Checks: Of the 153 attempts to purchase cigarettes, 41 (26.8%) adolescents were successful. At baseline, males were more successful in their efforts to purchase than were females (28.8%

vs. 13.5%, $p < 0.05$, $2 = 4.06$). Older (14-15 years old) adolescents were more successful in their attempts to purchase than were younger (12-13 years old) adolescents (48.1% vs. 15.9%, $p < .001$, $2 = 13.95$). Finally, no reliable differences were observed in successful purchase efforts based on mode of sale -- self-service displays (31.3%), vending machines (30.0%) and clerks (23.5%) ($p = .59$, $2 = 1.05$) (Table 1).

When vendors attempted to determine the age of the adolescents, the rates of successful purchases declined. Successful purchase rates were much lower when vendors asked the adolescent their age (7.9%) versus when they did not (33.9%) ($p < .002$, $x2 = 9.68$). Similarly, successful purchase rates were much lower when vendors asked for customer age documentation (1.4%) versus when such documentation was not requested (50.6%) ($p < .001$, $x2 = 45.05$). Finally, successful purchase rates were significantly higher among urban Madison vendors (38.5% versus non-Madison Dane County vendors (14.7%) ($p < .001$, $x2 = 11.03$).

Follow-up Compliance Checks: Of the 137 attempts to purchase cigarettes during the follow-up survey, 32 (23.4%) adolescents were successful. This percentage was not significantly different from the baseline successful purchase rate of 26.8% ($p = .50$, $x2 = 0.45$). Females were more successful in their efforts to purchase than were males although the difference was not statistically significant (28.4% vs. 14.3%, $p = 0.10$, $2 = 4.06$). Older (14-15 years old) adolescents were not significantly more successful in their attempts to purchase than were younger (12-13 years old) adolescents (35.0% vs. 31.6%, $p = .75$, $2 = 0.10$). Finally, adolescents attempting to purchase cigarettes via vending machines were more successful at these efforts (53.3%) than during their attempts with clerks (21.7%) or at self-serve dis-

plays (15.4%) ($p < .05$, $2 = 9.80$) (Table 1).

As during the baseline testing, when vendors attempted to determine the age of the adolescents, the rates of successful purchases declined. Successful purchase rates were much lower when vendors asked the adolescent their age (4.2%) versus when they did not (30.9%) ($p < .01$, $x2 = 7.18$). Similarly, successful purchase rates were much lower when vendors asked for customer age documentation (2.9%) versus when such documentation was not requested (49.2%) ($p < .001$, $x2 = 37.58$). However, in contrast to the baseline checks, no differences significant differences in successful purchase rates were noted between urban Madison vendors (26.7%) and non-Madison Dane County vendors (17.6%) ($p = .22$, $x2 = 1.48$) (Table 2).

Of the 60 vendors surveyed twice (both at baseline and follow-up) 24 (40.0%) permitted purchases at baseline while 11 (18.3%) permitted purchases at follow-up. Among the 24 who permitted purchases at baseline, only six (25%) permitted sales at follow-up ($p = .07$, $x2 = 3.20$).

Discussion

This study demonstrates that young adolescents are successful in approximately 25% of their attempts to purchase cigarettes in Dane County, Wis. While previous compliance checks have reported on rates of successful teenager purchase of tobacco^{1,4,7}, this is the first study to use exclusively younger adolescents (aged 12-15 years old) and include provisions to ensure that the adolescents both looked their age and answered honestly when asked their age.

Moreover, the study demonstrates that the provision of vendor notification and signage, an offer of training, and media coverage regarding illegal purchase of cigarettes by minors had a modest im-

pact on rates of sale among vendors who were surveyed on two separate occasions.

These findings are disturbing in that they provide additional evidence that Wisconsin state laws prohibiting the sale of tobacco products to minors are not consistently followed. These findings are also consistent with national data documenting that young people purchase an estimated 1.26 billion dollars worth of tobacco products each year⁸. The present study also provides evidence similar to the 1994 Surgeon General's Report summarizing the results of 13 compliance checks which estimated that minors were successful in purchasing tobacco products approximately 67% of the time¹. The lower rate of successful purchases in this Wisconsin study (approximately 25%) may be a result of 1) our use of younger adolescents (aged 12-15); 2) that the adolescents honestly reported their ages when asked; and 3) requiring the adolescents to request change to purchase cigarettes from vending machines (the latter being the most common point of purchase for young smokers^{1,6}).

Compliance with statutes prohibiting the sale of tobacco products to minors is essential if we are to prevent another generation of children in Wisconsin from becoming addicted to tobacco. One means to promote compliance by tobacco vendors is the widespread use of compliance checks with effective penalties for vendors who sell tobacco products to minors. In response to citizen concerns regarding the ready availability of tobacco products to minors, the City of Madison has established a locally supported youth access ordinance (Table 3) which is enforced by the Madison Department of Health. As part of this ordinance, compliance checks are required at regular intervals with provisions to

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issue citations for vendors in non-compliance. Moreover, mandatory vendor education is now provided to violators of the ordinance. It is hoped that such action will decrease the ready access to tobacco products by minors. Finally, the recently announced Food and Drug Administration Agency proposals to protect children from tobacco addiction include a partial ban of vending machines which should further limit youth access to tobacco products⁸.

Acknowledgments

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Table 3: City of Madison Tobacco Youth Access Ordinance

Key Points:

- Sale of tobacco products to anyone under the age of 18 is prohibited including sales from clerks, self-service establishments, and/or vending machines.
- All vendors will pay a \$50.00 per year compliance check fee in addition to the required licensing fee. No vendor will be issued a license to sell tobacco products without paying the compliance check fee.
- All tobacco vendors will be regularly checked by a contracted agency to verify compliance with the city law.
- Vending machines must be in plain sight of an employee and may not be accessible after the establishment is closed.
- Retailers shall place readily visible signage stating that sales of tobacco products to a person under the age of 18 is unlawful.
- Compliance checks will be conducted at regular intervals set by the contracted agency. Citations of non-compliance will be issued by the Department of Public Health when vendors selling tobacco products to minors are identified by the contracted agency.

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