Availability of Tobacco Products to Minors

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Availability of tobacco products is a key factor in the initiation of smoking or use of smokeless tobacco by minors. Existing laws limiting such use are usually not enforced. The ability of minors to purchase tobacco products in Wichita, Kansas, was compared with results in previous reports. In a variety of retail stores, access to both cigarettes and smokeless tobacco was found to be significantly less than that found in other studies. Vending machines, however, were universally accessible. Sufficient retail outlets allowed purchase to ensure that minors who are determined to buy could supply themselves with tobacco. Strategies to limit the access of tobacco to minors are discussed. J FAM PRACT 1990; 30:174-176.

E ach year approximately 390,000 Americans die from tobacco-related illness, more deaths than all other drug- and alcohol-related deaths combined, and more than the total American military fatalities in World War I, World War II, and Vietnam. Costs to society amount to an astounding \$53 billion every year. Each of these deaths represents an average 11.5 years of potential life lost because of tobacco use.

Of the 54 million Americans who smoke, 5 90% began smoking as a teenager (average age 13 to 14 years).6 Approximately 1 million young persons each year become regular smokers7 in spite of legal proscriptions on the purchase of tobacco products in 43 of the 50 states.1 Recent studies have shown that adolescents aged 11 to 16 years are able to purchase cigarettes from 63% to 91% of the stores and 86% to 100% of the cigarette vending machines attempted. According to a 1989 report of the US Surgeon General, an 11-year-old girl in central Massachusetts achieved a 75% purchase rate. Altman et al8 reported a purchase rate of 74% by minors (aged 14 to 16 years) in Santa Clara County, California. The Decatur, Illinois, Doctors Ought to Care (DOC) chapter reported a 63% purchase rate for an 11-year-old and 78% purchase rate for a 16-year-old.9 Two foreign studies reflect similar results, with a 79% to 87% purchase rate in Manitoba¹⁰ and a 91% purchase rate by 16-year-olds in Avon, England.11

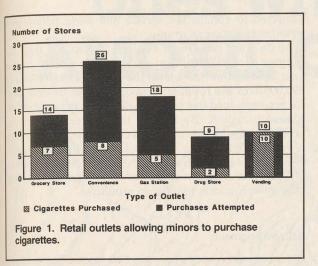
This study was designed to determine the availability of tobacco products to minors in this central Kansas community, and to see whether there is a difference in purchase rates between the various types of retail outlets and areas of the community.

METHODS

In December 1988 two minors, aged 12 and 15 years, visited 67 retail stores in Wichita, Kansas, that sell tobacco products over the counter, and 10 publicly available cigarette vending machines. This survey represents at least 20% of the grocery stores, convenience stores, gas stations, and drugstores in the community. The stores were selected randomly in each of the four quadrants of the city with an attempt to achieve proportional representation from the different geographical locations and the types of retail outlets. In each purchase attempt the minor would enter the store alone and pick a pack of cigarettes from an open display or proceed to the counter to ask the cashier for a pack of Marlboro cigarettes (previously determined to be a favorite brand for teenage smokers).12 Upon presenting the cigarettes to the cashier, the cashier would either ring up the sale on the cash register or refuse the sale. After determining that the sale was rung up, the minor would discover that he lacked the necessary money to pay for the cigarettes and would leave the store to "get some change," never to return. The minor would then return to the car and report simply whether a sale had taken place. For the purposes of this study, the ringing up of the cigarettes on the cash register constituted a successful sale. It is also important to note that no attempt was

Submitted, revised, August 14, 1989.

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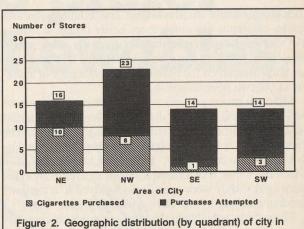
made to recruit minors looking older than their chronological age.

During this same period, the minors visited 10 retail outlets with publicly available cigarette vending machines. They were selected randomly as previously detailed. The minors would enter the establishment, locate the cigarette vending machine, and then approach the cashier and request change for the cigarette vending machine. Upon receiving change, the minor would walk up to the cigarette vending machine, place the coins in the machine, and hit the coin return lever instead of the selection button. In this way, the time required to purchase the cigarettes was simulated and yet no state laws prohibiting tobacco sales to minors were violated.

In a separate but similar survey, two minors, aged 14 and 16 years, visited 20 retail outlets in all areas of the community attempting to purchase smokeless tobacco. The method for this sampling was essentially identical to that detailed above except the the minors requested a can of Skoal Bandits.

RESULTS

Twenty percent of retail outlets in this community of 280,000 in central Kansas were sampled: 14 of the 53 grocery stores, 26 of the 113 convenience stores, 18 of the 86 gas stations, and 9 of the 23 drugstores. Minors were able to purchase cigarettes frequently, with some variation between types of outlet (Figure 1). Grocery stores allowed cigarette purchase 50% of the time and convenience stores 31%, gas stations 28%, and pharmacies 22% percent of the time. Only three of the 20 retail outlets (two convenience stores and one gas station) would sell smoke-



which minors purchased cigarettes.

less tobacco to the minors involved with this facet of the study.

Differences were found in the geographic distribution of cigarette sales within this city (Figure 2), which correlates with socioeconomic patterns.

DISCUSSION

When compared with previous studies of access to tobacco products by minors, this study found lower purchase rates than in Massachusetts, California, Illinois, Manitoba, and Great Britain, Minors in central Kansas were able to purchase tobacco in 34% of attempts, compared with 63% to 91% purchase rates by others. 1,9-11 One explanation for the great difference in the purchase rates compared with other areas could be the conservative attitudes in this region regarding tobacco, drugs, and alcohol. It is commonly held that people living in Kansas have been traditionally less tolerant than those in other parts of the country regarding the use and abuse of alcohol and drugs. Another factor might be that smoking is becoming less socially acceptable in US society.

On the other hand, that one third of local retail stores will sell cigarettes to minors shows that tobacco products are readily available to them. Even when rejected, they need only travel a short distance to find a store or a vending machine that will provide them with cigarettes. Thus a relatively large number of outlets do not adhere to Kansas law, which prohibits the sale of tobacco products to those under the age of 18 years.

There also appears to be some variation in purchase rate related to the character of the neighborhood where the purchase was attempted. In the northeast quadrant of the community, where a large proportion of the city's

socioeconomically disadvantaged and ethnic minorities reside, cigarettes are much more easily obtained than in the southeast quadrant, which is typically made up of blue-collar, working-class neighborhoods. This finding is not surprising given the difference in prevalence of smoking in the two populations.¹³

Although grocery stores sold cigarettes to the minors 50% of the time, the only dramatic difference in success related to source is reflected in vending machines. The minors were able to purchase cigarettes from vending machines in every attempt. In fact, on two occasions in which the minor was refused a sale of cigarettes by retail store clerks, they were specifically referred to a cigarette vending machine by the clerk who refused the sale.

These findings highlight that tobacco products currently are readily available to minors, whether through retail stores or through cigarette vending machines. Although there are laws established to prevent the sale of tobacco products to minors, they are apparently only variably effective or not adequately enforced. Furthermore, access to cigarettes through vending machines can be controlled only by making the vending machines inaccessible to minors, either by eliminating the machines altogether or by instituting an electronic disabling system, as is currently required in King County, Washington. This system makes it impossible for a person to purchase cigarettes from the machine until the clerk is certain of the purchaser's age.8

Although it is unreasonable to expect that sale of tobacco products to minors can be completely eliminated, work can be done to limit significantly the availability of those products. A model law now in effect in King County, Washington, cited by Altman et al,8 could serve as a guide for legislative initiatives to decrease the accessibility of tobacco products to minors. Its provisions are as follows: (1) vending machines must be electronically disabled until a store clerk is certain that the purchaser is of age; (2) all tobacco merchants must have a license, and the license fee will be used to pay for four blind inspections each year in which a supervised minor will attempt to buy tobacco; (3) the sale of individual cigarettes will be banned; (4) the penalties for selling tobacco to minors will be \$100 for the first offense, \$500 and 90-day suspension of the tobacco license for the second offense, and \$1000 and suspension of the license for 9 to 18 months for the third offense; and (5) minors caught buying cigarettes can be

subjected to community service and participation in a smoking-cessation program.

Much work remains to be done to succeed with the Surgeon General's call for a smoke-free society by the year 2000 and put an end to the needless yearly loss of 390,000 lives as a result of tobacco use. The greatest hope for accomplishing this goal is to direct the nation's efforts toward its youth. By limiting their access to tobacco products, a major step can be taken to assist young people to remain tobacco-free. This goal can be attained using a two-pronged approach of public and merchant education, and strict enforcement of present and proposed laws limiting minors' access to tobacco products.

Acknowledgment

This project was funded by a grant from DOC (Doctors Ought to Care).

References

- Reducing the Health Consequences of Smoking—a Report of the Surgeon General. Public Health Service, Office on Smoking and Health (Rockville, Md). DHHS publication No. (CDC) 89-8411. Government Printing Office, 1989
- Pollin, W: The role of the addictive process as a key step in causation of all tobacco-related diseases. JAMA 1984; 252:2874
- Rice DP, Hodgson TA, Sinsheimer P, et al: The economic costs of the health effects of smoking. Milbank Q 1984; 64:489–532
- Centers for Disease Control. Leads from the MMWR: State-specific estimate of smoking-attributable mortality and years of potential life lost—US. JAMA 1989; 261:23–25
- Koop CE: The quest for a smoke-free young America by the year 2000. J School Health 1986; 56:8–9
- Johnston LD, O'Malley PM, Bachman JG: Psychotherapeutic, licit and illicit use of drugs among adolescents. J Adolesc Health Care 1987; 8:36–51
- Pierce JP, Fiore MC, Novotny TE, et al: Trends in cigarette smoking in the US—Educational differences are increasing. JAMA 1989; 261:56–60
- Altman DG, Foster V, Rasenick L, et al: Reducing the illegal sale of cigarettes to minors. JAMA 1989; 261:80–83
- 9. Minors easily buy tobacco. DOC News Views 1988; 2(Spring):10
- Stanwick RS, Fish DG, Manfreda J, et al: Where Manitoba children obtain their cigarettes. Can Med Assoc J 1987; 137:405–408
- 11. Naidoo J, Platts C: Smoking prevention in Bristol: Getting maximum results using minimum resources. Health Educ J 1985; 44:39–42
- Goldstein AO, Fisher PM, Richards JW, et al: Relationship between high school student smoking and recognition of cigarette advertisements. J Pediatrics 1987; 110:488–490
- Pierce JP, Fiore MC, Novotny TE, et al: Trends in cigarette smoking in the US—Projections to the year 2000. JAMA 1989; 261:61–65