

merchants was 34 percent after 3 months and 30 percent after 1 year.⁴² Underage buying increased from 30 percent 3 months after the ordinance had been enacted to 48 percent after 1 year.⁴³ Further, in those locations where locking devices were not placed on vending machines, underage buying was successful 91 percent of the time.⁴⁴ The study concluded that the use of locking devices on vending machines was less effective than a vending machine ban.

In 1994, CDC examined minors' access to cigarette vending machines in Texas. CDC noted that Texas law requires cigarette vending machine owners to post signs on their machines stating that sales to persons under the age of 18 are illegal. Despite these laws, minors between the ages of 15 and 17 successfully bought cigarettes from vending machines 98 percent of the time.⁴⁵

Laws restricting placement of vending machines also appear to be ineffective. In one study, 14-year-old children were able to purchase cigarettes from vending machines 77 percent of the time despite State laws requiring the machines to be "in the immediate vicinity, plain view and control of an employee" and to bear signs concerning illegal purchases by minors.⁴⁶ Six surveys conducted in bars, taverns, private clubs, and liquor stores in five states found that minors were able to successfully purchase cigarettes in vending machines between 70 percent and 100 percent of the time, about the same rate as elsewhere.⁴⁷ In these surveys, the sales rates for "adult only" locations were similar to the rates for vending machine cigarette sales located elsewhere in the communities, indicating that restricting cigarette vending machines to places such as bars and liquor stores does not serve as an impediment to young people buying cigarettes. Additionally, according to the vending machine industry's research, 77.5 percent of all cigarette vending machines are already in "adult" areas such as bars, lounges, offices, college campuses, and industrial plants.⁴⁸ Therefore, it is likely that restricting cigarette vending machines to these areas would have a minimal effect on reducing sales to young people.

Studies also have shown that the use of vending machines by young people appears to be highest in those areas with strong access restrictions. In Santa Fe, New Mexico, where selling to minors was not against the law, vending machines were used 18 percent of the time by teen smokers.⁴⁹ By contrast, in Vallejo, California, where local merchants were actively requiring photographic identification, a survey found that teen smokers used vending

machines 56 percent of the time (thereby making vending machines the most common source of cigarettes for young people.⁵⁰) Therefore, if access restrictions are imposed such as requiring retailers to verify age, it is likely that vending machines may become an even more important source of cigarettes for young people.

Because minors, especially very young children who try smoking, rely on vending machines to purchase tobacco products, and because State and local laws restricting placement of, or requiring locking devices on, vending machines appear to be ineffective, the agency believes that the only practical approach to curtailing young people's access to such products is to eliminate vending machines and other impersonal modes of sale. Moreover, government enforcement of vending machine locking devices would entail a greater regulatory burden than enforcing a complete ban because authorities would need to ensure the devices were installed and operating properly, and that store employees were using them correctly.⁵¹

Consequently, proposed § 897.16(c) would require retailers to hand the product to the consumer. This proposed requirement would have the added effect of preventing persons younger than 18 from evading the proposed rule's age requirement by shifting their purchasing patterns from stores to vending machines or mail orders. Further, the agency notes that this aspect of the proposed rule is consistent with recommendations from the IOM,⁵² the Public Health Service,⁵³ a working group of State attorneys general,⁵⁴ and findings by the Office of the Inspector General, DHHS.⁵⁵

Finally, data from the vending machine industry show that cigarettes account for a small and declining portion of total vending machine revenues.⁵⁶ Using industry data from 1993, calculations indicate that daily sales from cigarette vending machines average approximately \$10 per machine/per day.⁵⁷ In 1993, cigarettes comprised 4.7 percent of total vending machine revenues compared to 45.5 percent in 1960.⁵⁸ Between 1992 and 1993, vending machine revenues from cigarettes dropped 25 percent.⁵⁹ While total revenues from cigarette vending machines have been decreasing, revenues from most other product categories sold in vending machines, such as juice and other cold drinks, rose dramatically.⁶⁰ Further, the number of cigarette vending machines decreased significantly from 373,800 to 181,755 between 1988 and 1993.⁶¹ Recognizing that more and more states and localities

have enacted restrictions or bans on cigarette vending machines, machines are being produced that can be converted to dispense other products.⁶² Furthermore, according to the National Automatic Merchandising Association, the association representing the vending machine industry, virtually no new shipments of cigarette vending machines have been made since 1990, compared with 32,065 shipments in 1976.⁶³

ii. *Self-service displays.* Proposed § 897.16(c) would also prohibit self-service displays. Self-service displays enable young people to quickly, easily, and independently obtain tobacco products. This restriction is intended to prevent young people from helping themselves to tobacco products and to increase the direct interaction between the sales clerk and the underage customer. This restriction is also consistent with the 1994 IOM Report's recommendation. IOM reviewed surveys of grade school students in New York, and Wisconsin, and noted that many students—over 40 percent of daily smokers in Erie County, NY and Fond du Lac, WI—shoplifted cigarettes from self-service displays.⁶⁴ IOM found that eliminating self-service displays would make it more difficult for children to obtain cigarettes, especially if the children had to purchase the cigarettes from a store clerk (as would be required under this proposal). IOM further noted that "placing the products out of reach reinforces the message that tobacco products are not in the same class as candy or potato chips."⁶⁵

A California study compared smoking prevalence among minors in five counties before and after the institution of ordinances prohibiting self-service merchandising (display and sale) and requiring only vender-assisted sales. The rate of tobacco sales to minors in the five counties dropped 40 to 80 percent and the decrease was still in evidence 2 years after the survey. Moreover, the study found that the ban on self-service significantly increased the checking of young purchasers' identification by retail clerks and, in particular, discouraged younger adolescents from attempting to buy tobacco.⁶⁶

iii. *Mail-order sales.* In addition to prohibiting the sale of tobacco products in vending machines and the use of self-service displays, proposed § 897.16(c) would prohibit mail-order sales and redemption of mail-order coupons. Mail-order sales provide no face-to-face interaction to verify the age of the consumer. The current industry practice merely requires that the customer provide a birth date or check a box on