

Eliminating Tobacco Retailers Near Schools May Reduce Teen Smoking

Current research indicates that controlling or minimizing the amount of alcohol outlets in a specific area may reduce a variety of alcohol-related problems. Unfortunately few studies exist on the possible impact of controlling or reducing the number of tobacco retailers in a given area. Some research suggests that the density and proximity of tobacco retailers may influence tobacco use initiation among youth if they have easy access. The *American Journal of Public Health* recently published a study contributing to this body of research. A 2009 article, *Density of tobacco retailers near schools: Effects on tobacco use among students, examines the relationship between the density and proximity of tobacco retailers near schools and adolescent cigarette smoking.*

How did they do it?

The researchers, William J. McCarthy, Ritesh Mistry and Minal Patel from the University of California, Los Angeles, along with Yao Lu from Columbia University and Hong Zheng and Barbara Dietsch from WestEd, analyzed California Student Tobacco Survey data and California Board of Equalization data to test the link between students' smoking and the density and proximity of tobacco retailers near their schools.

The Student Survey data, collected between October 2003 and March 2004, gathered information from 19,306 middle and high school students from 245 schools in the state.

Students answered questions about their own tobacco use, the tobacco use of their peers, their access to tobacco products, and a variety of other questions including demographic information. Using 2006 data from the Board of Equalization researchers measured retailer density and proximity to schools. To determine the number of tobacco retailers within a 1-mile radius around each school, they entered the addresses of the schools and businesses in the student survey sample into a geographic information system (GIS).

What did they find?

The researcher found that a small percentage of students in this sample (around 9%) reported smoking in the past 30 days and most of these students were experimental smokers. (In this study

experimental smoking is defined as having smoked at least one cigarette in the past 30 days but not having smoked 100 cigarettes or more in their lifetime. Established smoking is defined as having smoked at least one cigarette in the past 30 days as well as having smoked 100 cigarettes or more in their lifetime.)

Access to and perceived access to cigarettes: The study indicated that the majority of students who smoked in the past 30 days acquired their cigarettes through social sources as opposed to retail settings. Interestingly, students who obtained cigarettes primarily by purchasing them reported having easier access to cigarettes than students that reported acquiring cigarettes from other sources.

Results from the study found that the majority of youth smokers cited gas stations (24.3%) and convenience stores (22.8%) as major purchase sites for cigarettes. Students from rural areas more frequently bought cigarettes from gas stations rather than convenience stores, while students from urban areas reported buying tobacco from both gas stations and convenience stores equally.

Tobacco retailer density and adolescent smoking behaviors: This study found a significant relationship between tobacco retailer density (within 1 mile of a school) and experimental smoking among urban high school students. This effect was weaker among Asian and African American high school students when compared to Caucasian students. No relationship was found between tobacco retailer density and established smoking, the smoking behavior of middle school students, or smoking among students residing in rural areas. It is possible that these results reflect the fact that high school students are more likely to be able to purchase cigarettes at a store than middle school students. Experimental smokers with fewer tobacco retailers near their school were more likely to report obtaining cigarettes via social sources when compared to students with a higher density of tobacco retailers near their school.

Tobacco retailer proximity and adolescent smoking behaviors: In this sample, unlike the correlation between smoking and retailer density, the researchers found no relationship between proximity of tobacco retailers to schools and smoking among adolescents.

Source: McCarthy WJ, Mistry R, Lu Y, Patel M, Zheng H & Dietsch B (2009) Density of tobacco retailers near schools: Effects on tobacco use among students. *American Journal of Public Health*. 99(11): 2006-2013.

What Coalitions Can Do

- ✓ **Assess and map the tobacco environments surrounding the schools in your community**— The research suggests that having several retailers close to a school could influence students' smoking initiation, particularly among high school students. Use GIS mapping to analyze these areas as part of your community assessment.
- ✓ **Track both the retail settings and social venues where young people obtain tobacco products**— Find out if the tobacco retailers near your local schools are selling tobacco products to young people. In this study, students who purchased cigarettes in retail settings most often reported obtaining cigarettes at gas stations and convenience stores. It is important to determine if such sales exist in your community and to track the ways young people obtain tobacco through social venues.
- ✓ **Consider zoning restrictions and conditional use permits**— Community coalitions are increasingly implementing such policies as part of their comprehensive plan. Leveraging such restrictions could be a key factor in limiting the sale of tobacco near schools.

Additional Resources:

The state of California has provided significant resources to communities interested in restricting the location and operation of tobacco retailers. For more information, visit: [Public Health Law and Policy](#), the [American Journal of Public Health](#) and [The Marin Institute](#).