Teen vaping study reveals how schools influence e-cigarette use, outlines prevention strategies
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When e-cigarettes hit the U.S. market in 2007, they were promoted as a safer, healthier alternative to traditional, combustible cigarettes. The unintended consequence of vaping devices and e-cigarettes, however, is a new generation of vapers—teenagers—becoming addicted to nicotine.

"In just one year, from 2017 to 2018, the number of high school students using e-cigarettes nearly doubled," said Adam Lippert, Ph.D., assistant professor in the department of sociology at the University of Colorado Denver.

In a new study published in the Journal of Youth and Adolescence, Lippert and his co-authors examined data from 65,000 middle and high school students to learn how environmental, social and cultural factors spurred the uptick. Schools emerged as critical contexts that shape youth health-related behavior.

"Youth attending schools with high rates of vaping are more likely to believe that e-cigarettes are harm-free and less addictive than traditional, combustible cigarettes, regardless of if they smoke or not," said Lippert. "Students teach one another about 'vaping tricks,' how to use the device(s) properly and why it shouldn't be considered taboo. The misconception among teens that e-cigarettes are safe is cause for alarm."

Recent research notes that nicotine exposure can harm brain development, which continues until age 25.

Schools and vaping access

In the study, Lippert discovered that immediately following the introduction of e-cigarettes to the U.S., schools seemed to play a large role in teen e-cigarette use; students needed schools to access devices. This changed over time as teen vaping became less of an unorthodox, hush-hush practice, and was near normalized in many schools.

Teen vaping leveled off for a time and then surged again starting in 2015 when new vaping technologies like the Juul device, with a discreet design, an array of flavors and youth-oriented marketing, were introduced and embraced by teens across the nation.

"We found that broader social influences such as advertising, celebrity endorsements and the media normalized vaping for students initially," said Lippert. "With the introduction of new devices and flavors, however, adolescents appear to have relied on local resources within their schools to begin vaping."

Peer influence on vaping

When students were exposed to new, faddish
vaping options, such as the Juul device, schools came back into the picture as contributors to e-cigarette use. Youth needed access to the vaping device itself, school norms that allowed teen vaping and peers to model vaping practices after.

While the government is acting to ban flavored e-cigarettes and restrict youth-oriented advertising, schools remain an important battleground to keep youth from becoming addicted to nicotine through vaping.

School-level preventative measures

On a broad scale, schools regulate access to the devices themselves, so when the social environment within a school is subpar at discouraging unwanted behavior, students are far more likely to use nicotine.

"If authority figures are unable to control teens' behavior or educate youth on vaping and nicotine addiction risks, the chances are even higher that a student will start using e-cigarettes," said Lippert.

Lippert urges schools to re-examine their relationship with teen vaping, and make prevention measures a priority.

He recommends school-level preventative measures such as greater restrictions on retail sales and consumption of e-cigarettes near school property.

Opportunity for health education

"The good news is this: we have an opportunity to positively influence teenage vaping usage through tactics such as educational campaigns focused on the potential for nicotine addiction and the health risks involved in using e-cigarettes," said Lippert. "The need is clear for health education programs in schools that are better able to define the addictive potential of e-cigarette use and halt this upsurge in adolescent usage."

Lippert notes that while his study finds schools to be breeding grounds for teenage vaping, it isn't fair to think of them as absolute failures in controlling e-cigarette use.

"Rather, schools can be very effective at getting the message out that e-cigarette use is a serious risk to teen health," said Lippert. "With the right resources, schools can be a strong partner in the fight against adolescent nicotine use."


Provided by University of Colorado Denver