Three quarters of teens who vape report using nicotine, marijuana, or multiple substances

A new study in the American Journal of Preventive Medicine provides data that highlight disturbing trends in teen e-cigarette use

Ann Arbor, December 16, 2019 – More teens who vape are using addictive or mind-altering substances than previously believed, according to a new study in the American Journal of Preventive Medicine, published by Elsevier. The data paint a different picture than previous research because of the significantly higher proportion (75 percent) of teens who vape using nicotine, marijuana, or multiple substances and not just flavoring. These findings add to growing public health concerns about youth vaping.

“Our study provided a more nuanced view of youth e-cigarette use behaviors than earlier studies. We found that youth were more likely to report vaping nicotine and marijuana than ‘just flavoring’ only, and that cigarette smoking intensity was associated with an increasing proportion of students reporting vaping nicotine only,” explained co-investigator Hongying Dai, PhD, Associate Professor, College of Public Health, University of Nebraska Medical Center, Omaha, NE, USA.

This study examined patterns of youth vaping nicotine, marijuana, and just flavoring in the past 30 days by analyzing data from the 2017 Monitoring the Future (MTF) cross-sectional study. Of the 14,560 teens participating in that study, 12 percent reported vaping within the prior 30 days, with 7.4 percent using nicotine and 3.6 percent, marijuana. Of that group, only 24.9 percent reported vaping just flavoring only, while a majority (75.1 percent) reported vaping nicotine, marijuana, or multiple substances.

Current cigarette smoking intensity was associated with an increased risk of reporting vaping all three substances. Compared with 8th graders, more 10th and 12th graders reported vaping nicotine, marijuana, and just flavoring during the study period. Female students were also less likely to report vaping these three substances than male students. Fewer non-Hispanic blacks reported vaping nicotine and just flavoring than non-Hispanic whites. Hispanics were also less likely to report vaping nicotine.

The prevalence of e-cigarette use among US youth increased dramatically during 2017-2019, partly due
to the rising popularity of products with nicotine salt and pod-based products like JUUL, and a large number of flavors appealing to adolescents. The nationwide increases in use led the US Surgeon General to issue an advisory about the epidemic in 2018, but much more needs to be done to reverse the upward trend. Due to the recent spate of vaping-related lung injuries, calls for restrictions on flavored vaping products and e-cigarette use have become more urgent. Identifying substances vaped by youth is critical to formulating, implementing, and evaluating population-wide strategies and interventions to curb youth use of these products.

“Continuous surveillance of youth behaviors and strategies and interventions to reduce youth e-cigarette use are needed. The truth is that no form of tobacco is safe,” added co-investigator Mohammad Siahpush, PhD, College of Public Health, University of Nebraska Medical Center, Omaha, NE, USA.

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Notes for editors

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Full text of this article is available to credentialed journalists upon request; contact Jillian B. Morgan at +1 734 936 1590 or ajpmmedia@elsevier.com. Journalists wishing to interview the authors should contact Hongying Dai at daisy.dai@unmc.edu.

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