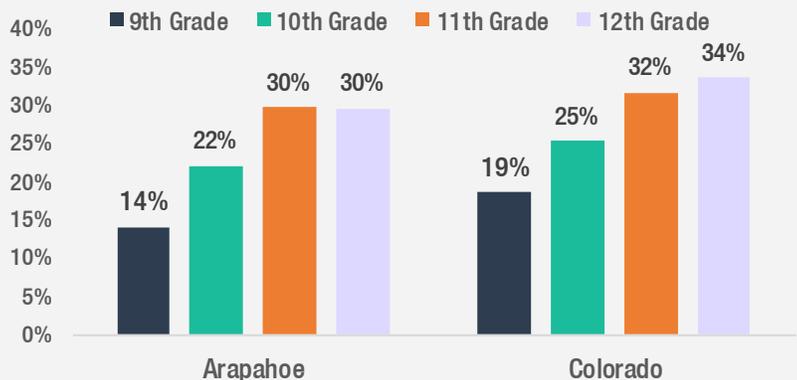


243% increase in youth vaping Arapahoe County, Colorado 2013-2017

In 2017, according to the Healthy Kids Colorado Survey, 44.2% of high school students throughout Colorado reported ever having used an electronic vapor product, compared to 15.9% who have ever used a conventional cigarette. In Arapahoe County, there is a similar trend. In 2017, 23.7% of high school students in Arapahoe County reported current electronic vapor product use compared to 5.7% current conventional cigarettes use. Additionally, 39.1% of Arapahoe County high school students reported ever using electronic vapor products. Although this is still a high percentage, Arapahoe County has statistically lower percentages of reporting ever using electronic vapor products. The age distribution of use is important to highlight, as older high school students report higher current use (Figure 1). As access occurs through peers that can legally acquire tobacco products, age is an important component of access among high school students. Preventing youth initiation is critically important for curbing adult use, as many adult cigarette smokers first initiate during their adolescence.¹

Another important issue is perceived risk of harm of electronic vapor products by Arapahoe County youth. Among high school students, 87.7% think smoking cigarettes every day puts an individual at moderate/severe risk, compared to only 53.7% who think vaping everyday puts an individual at moderate/severe risk. Electronic vapor products have steadily become known as a “healthier” alternative to standard cigarettes. This undocumented reputation has increased their popularity as an alternative to other tobacco products.²

Figure 1: Current Electronic Vapor Product Use Among High School Students Arapahoe County and Colorado by Grade Level, 2017



Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment, 2017

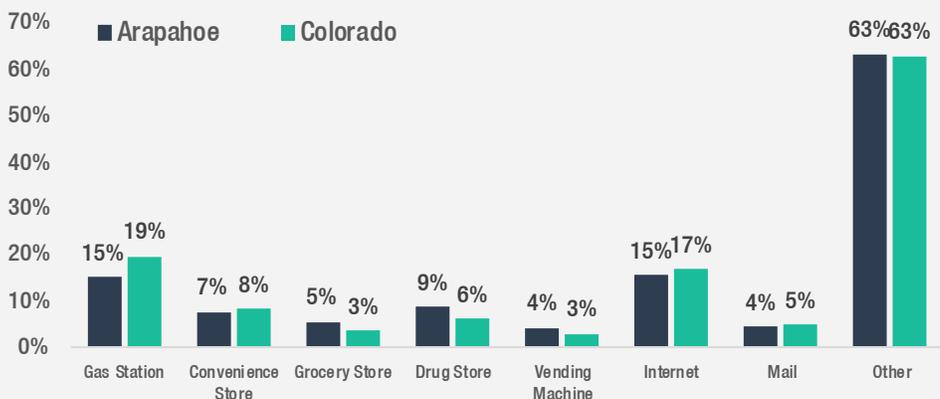
50% of Arapahoe County High School seniors have used a vaping product, 2017

Where are high school students getting their electronic vapor products?

Arapahoe County, Colorado 2017

In 2017, 15% of Arapahoe County high schoolers reported that, among those who acquired their own electronic vapor products, they purchased them at gas stations. Of Arapahoe County high school students, 56.3% reported that it would be easy or very easy to get electronic vapor products if they wanted, compared to 58.4% reported across Colorado. Data in Arapahoe County on youth access aligns with Colorado reported averages.

Figure 2: Locations of Sale and Youth Access to Electronic Vapor Products Arapahoe County and Colorado, 2017



22% of Arapahoe County High Schoolers purchased electronic vaping products at either a gas station or convenience store, 2017

Categories are not mutually exclusive

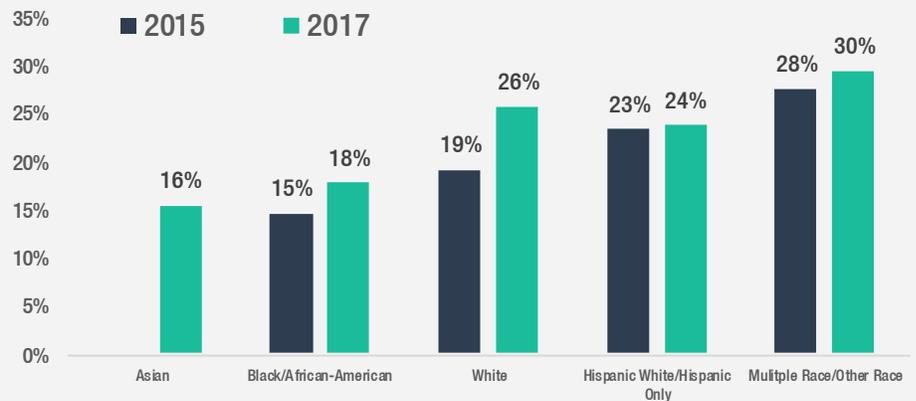
Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment, 2017

Risk and Protective Factors for Arapahoe County Youth

In both 2015 and 2017, youth identifying as multi-racial had the highest percentage of reported use of electronic vapor products by race and ethnicity (Figure 3). In 2017, students who identified as multi-racial or other race had a statistically higher percentage of reported current use compared to students who identified as Black/African-American or Asian, putting them at greater risk for cigarette use later in life. Understanding the risk and protective factors associated with tobacco use can help detect the causes of initiation among youth in our communities. Several risk and protective factors of note are mental health, alcohol use, and marijuana use.

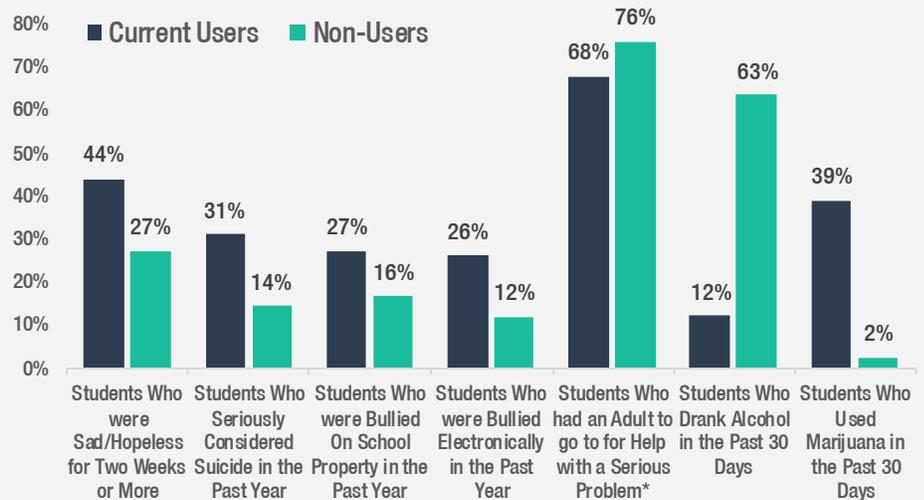
Good mental health has positive influences on one's own health behaviors. However, in 2017, high school students who reported current substance use reported negatively on several mental health indicators. In Arapahoe County, high school students who currently used electronic vapor products were more likely to report feeling sad or hopeless for two weeks or more compared to students who did not use electronic vapor products. High school students who vaped were also more likely to report that they had seriously considered suicide in the last year, been bullied on school property, and been bullied electronically. Current vaping was also much more likely to predict drinking alcohol in the past month compared to students who did not use vape products. These students were also more likely to report current marijuana use (Figure 4). These health indicators can help us understand the impact mental health may have on a high school student's substance use, as good mental health may keep students from adopting a substance use habit, like vaping, drinking alcohol, or smoking marijuana. Being aware of certain health behaviors can help us understand students who may also be struggling with mental health issues and looking for substance use as an outlet for these issues.

Figure 3: Percentage of Students Who Have Ever Used an Electronic Vapor Product, Arapahoe County and Colorado by Race/Ethnicity, 2015 and 2017



Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment

Figure 4: Mental Health Indicators for Electronic Vapor Product Use by High School Students, Arapahoe County and Colorado, 2017



Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment

Summary and Next Steps



Youth access to tobacco products, especially electronic vapor products, is an important public health issue impacting our younger generations. We have found that different groups appear to have higher rates of vaping compared to others. These differences causes greater health burdens on adults populations as substance use habits become life-long. As initiation is concerned, 90% of current smokers began smoking before the age of 18, while 99% began before the age of 26.³ Youth initiation, then, must be a top priority to help decrease adult smoking rates. Reducing underage sales through retailers and limiting opportunities to receive from peers may help curb youth initiation rates.

¹ Margolis, K. A., et al. (2016). "E-cigarette curiosity among U.S. middle and high school students: Findings from the 2014 national youth tobacco survey." *Prev Med* 89: 1-6.

² Arnold, C. (2014). "Vaping and health: what do we know about e-cigarettes?" *Environ Health Perspect* 122(9): A244-249.

³ Farber, H. J., Pakhale, S., & Neptune, E. R. (2016). Tobacco 21: An Important Public Policy to Protect Our Youth. *Ann Am Thorac Soc*, 13(12), 2115-2118. doi:10.1513/AnnalsATS.201604-253AR