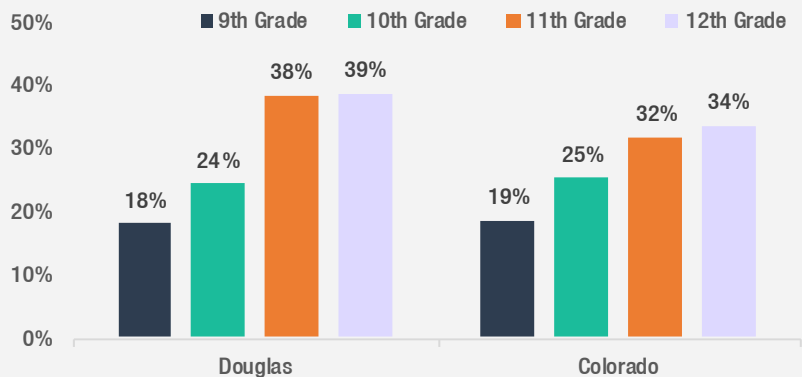


257% increase in youth vaping
Douglas County, Colorado 2013-2017

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 Douglas County, there is an increasing trend. In 2013, 11.5% of high school students reported ever using an electronic vapor product compared to 41.1% in 2017. The age distribution of use is also important to highlight, as older high school students report higher current use, with Douglas County having a statistically higher percentage of students within grades 11 and 12 who currently vape compared to the state averages (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 Douglas County youth. Among high school students, 85.5% think smoking cigarettes every day puts an individual at moderate/severe risk, compared to only 50.4% 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 Douglas County and Colorado by Grade Level, 2017



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

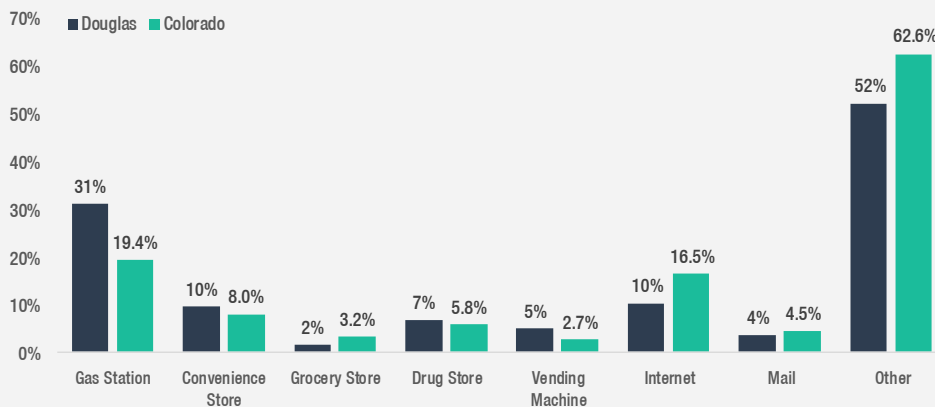
52% of Douglas County High School seniors have ever used a vaping product, 2017

Where are high school students getting their electronic vapor products?

Douglas County, Colorado 2017

According to the Healthy Kids Colorado Survey for 2017, 31% of high schoolers reported that, among those who acquired their own electronic vapor products, they purchased them at gas stations. This differs significantly from the 19% who reported access at gas stations by all Colorado students. This aligns with perceived ease of access among Douglas County youth, which was statistically different compared to Colorado. Of Douglas County high school students, 65.3% reported that it would be easy or very easy to get electronic vapor products if they wanted, compared to 58.4% reported across Colorado.

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



41% of Douglas County High Schoolers purchased electronic vaping products at either a gas station or convenience store, 2017

Categories are not mutually exclusive

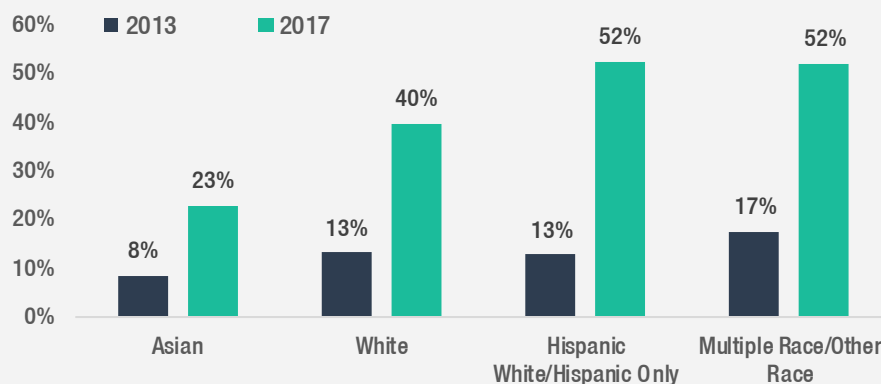
Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment, 2017

Risk and Protective Factors for Douglas County Youth

In both 2013 and 2017, youth identifying as Hispanic or multi-racial had the highest percentage of reported use of electronic vapor products by race/ethnicity (Figure 3), 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 and alcohol use. Good mental health, then, can help us understand positive influences on one's own health behaviors.

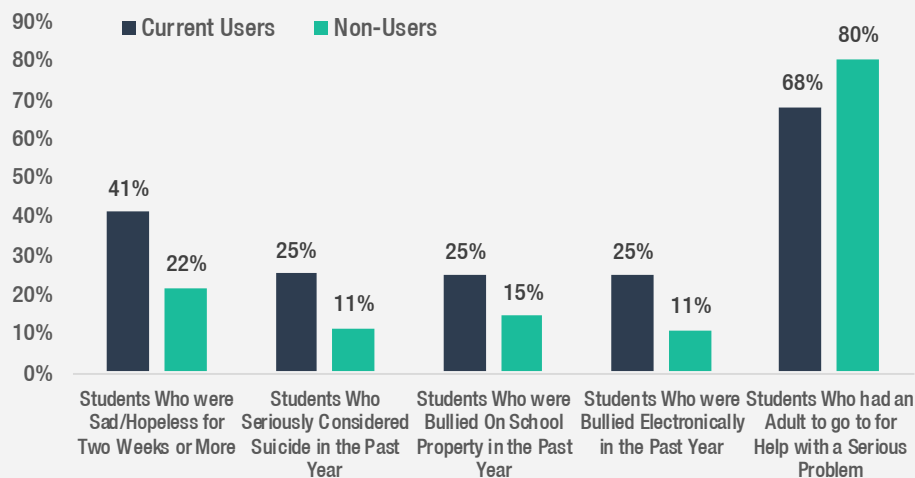
High school students who used electronic vapor products were more likely to report feeling sad or hopeless for two weeks or more (41%) compared to students who did not use electronic vapor products (22%) in Douglas County. High school students who vaped were also more likely to report they had seriously considered suicide in the last year, been bullied on school property, and been bullied electronically. Students who vaped were also less likely to report having an adult to turn to for help with a serious problem (Figure 4). Current vaping was also much more likely to predict drinking alcohol in the past month (69%) compared to student who did not use vape products (9%), a significant difference showing use of more than one substance in this population. These mental 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.

Figure 3: Percentage of Students Who Have Ever Used an Electronic Vapor Product, Douglas County and Colorado by Race/Ethnicity, 2013 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 in Douglas County, Douglas County 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. Specifically in Douglas County, high school students believe they have an easy route to these tobacco products through retailers like gas stations. 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