

# Making the Connection: Tobacco Product Use Behaviors and Academic Grades

Data from the 2019 national Youth Risk Behavior Survey (YRBS) show that students with higher grades are less likely to use tobacco products compared to students with lower grades. It is important to remember that these associations do not prove causation. School health professionals, school officials, and other decision makers can use this fact sheet to better understand the connection between tobacco product use and grades and reinforce policies and practices that discourage tobacco product use in schools.

## Key Findings

Compared to students with lower grades, **students with higher grades are**

**less likely to**



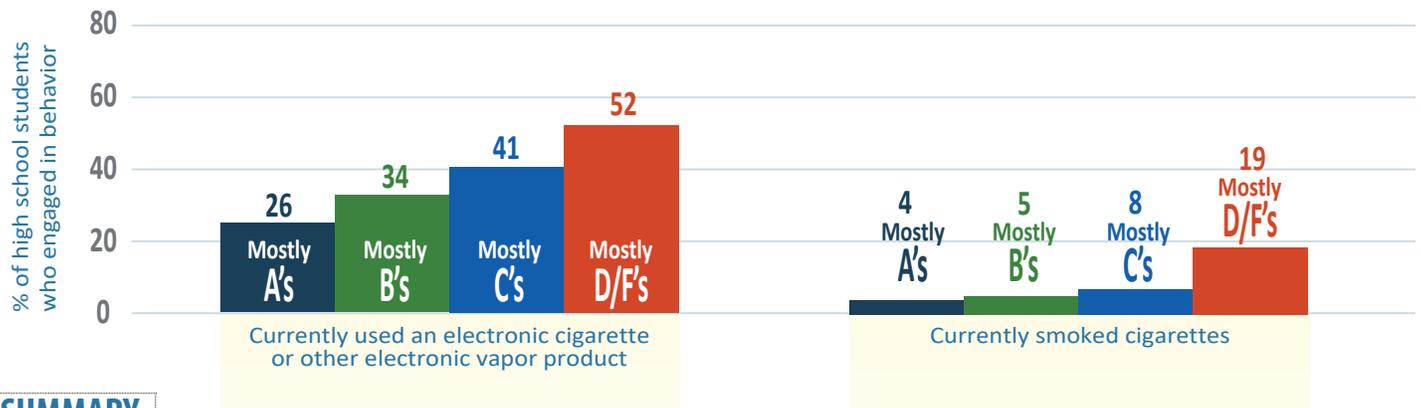
- Use an electronic cigarette or other electronic vapor products.
- Smoke cigarettes.



- Smoke cigars.
- Use smokeless tobacco.

**FIGURE**  
**1A**

**Tobacco Product Use Behaviors, by Type of Academic Grades Earned**  
- United States, Youth Risk Behavior Survey, 2019



## SUMMARY



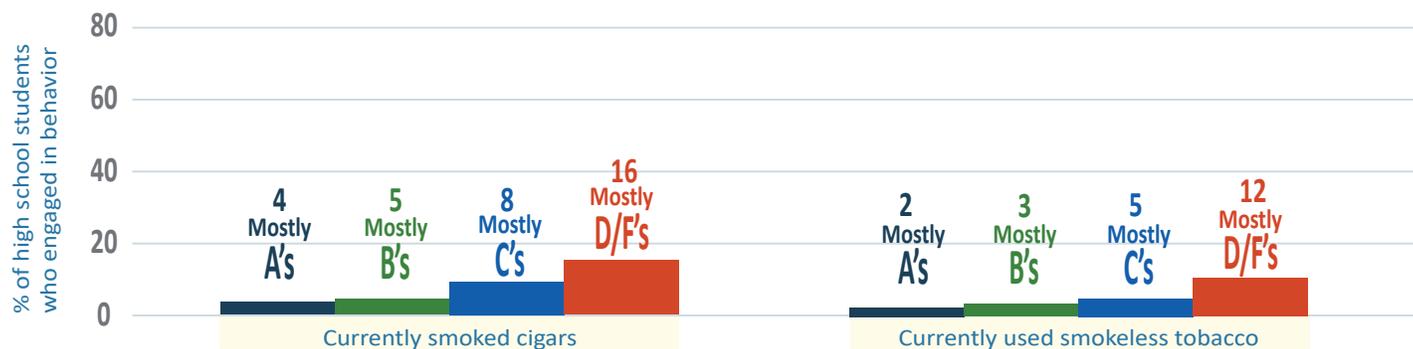
**26%** of US high school students with mostly A's **currently used an electronic cigarette or other electronic vapor products** (including e-cigars, vape pens, e-hookahs, and hookah pens, and mods [such as JUUL, Vuse, MarkTen, and blu], on at least 1 day during the 30 days before the survey), compared to **52%** of students with mostly D/F's.

**4%** of US high students with mostly A's **currently smoked cigarettes** (on at least 1 day during the 30 days before the survey), compared to **19%** of students with D/F's.

\*Figure 1A and Figure 1B illustrate the percentage of students who engaged in each health-related behavior, by type of grades mostly earned in school (mostly A's, B's, C's, D's/F's) (row proportions). The percentage of students who did not engage in each health-related behavior are not shown. However, the percentages of students who did and did not engage in each health-related behavior, by type of grades mostly earned in school, sum to 100%. Logistic regression analyses (not shown) controlling for sex, race/ethnicity, and grade in school confirmed a significant association between tobacco product use behaviors and academic grades.

**FIGURE 1B**

**Tobacco Product Use Behaviors, by Type of Academic Grades Earned**  
- United States, Youth Risk Behavior Survey, 2019



**SUMMARY**



**4%** of US high school students with mostly A's **currently smoked cigars** (cigars, cigarillos, or little cigars, on at least 1 day during the 30 days before the survey), compared to **16%** of students with mostly D/F's.

**2%** of US high students with mostly A's **currently used smokeless tobacco** (chewing tobacco, snuff, dip, snus, or dissolvable tobacco products [such as Copenhagen, Grizzly, Skoal, or Camel Snus], not counting any electronic vapor products, on at least 1 day during the 30 days before the survey), compared to **12%** of students with mostly D/F's.

**Conclusions**

These results from the YRBS survey provide evidence of a significant association between tobacco product use and academic grades. Further research is warranted to determine whether lower grades in school lead to tobacco product use behaviors, if tobacco product use behaviors lead to lower grades, or some other factors lead to these tobacco product use behaviors.

There is a close relationship between health and education. By working together, education and health agencies, parents, and communities can ensure that students are healthy and ready to learn in school. Find out more about the connection between health and academic achievement on [CDC's Healthy Schools Health and Academics website](#).

**About the Data**

The [Youth Risk Behavior Surveillance System](#) (YRBSS) monitors priority health-related behaviors that contribute to the leading causes of death, disability, and social problems among youth and adults in the United States. It is conducted every 2 years during the spring and provides data representative of 9th through 12th grade students in public and private schools throughout the nation. In 2019, students completing the YRBS were asked, "During the past 12 months, how would you describe your grades in school?" and given seven response options (Mostly A's, Mostly B's, Mostly C's, Mostly D's, Mostly F's, None of these grades, Not sure). In 2019, 38.0% of students received mostly A's, 37.1% received mostly B's, 16.0% received mostly C's, 4.6% received mostly D's or F's, and 4.3% reported receiving none of these grades or not sure.



For more information, visit the [CDC's Healthy Schools website](#) or call 800-CDC-INFO (800-232-4636).