Background: Among adolescents, use of alcohol, tobacco, and marijuana have been associated with numerous health risks and compromised education outcomes. The purpose of this study was to examine the relationship between substance use, selected demographics and academic achievement among middle school aged youth in an urban Midwestern county. Methods: Secondary analyses were conducted based on data from the 2012 Cuyahoga County Youth Risk Behavior Survey (YRBS). Univariate analyses were conducted to provide a descriptive profile, bivariate analyses assessed associations between variables, and multivariate analyses were conducted to establish odds ratios.

Results: Ever or current use of alcohol was the most prevalent drug, alone or in combination with other drugs. The exception to this finding was related to the current use of marijuana and tobacco use. Academic achievement was significantly associated with sex, race, and SES. There was a significant association with ever or current use of alcohol, tobacco, and marijuana with grade level and race. High academic achievers were more likely to be never or not current users of drugs. Low academic achievers were between 1.7-2.4 times more likely to be current or ever users of drugs. Further, low academic achievers were between 2-3 times more likely to be ever or current poly drug users. Conclusions: Use of alcohol, tobacco, or marijuana is associated with lower
academic achievement. Exploration into the use of alcohol, particularly related to perception of risk and parental permissiveness should be explored. Multi-product and multi-drug use related to the use of little cigars among this population should be further explored. Finally, research related to other categories of risk behavior and their relationship to academic achievement have the potential to improve both health and educational outcomes.