High-intensity and simultaneous alcohol and marijuana use among high school seniors in the United States.

Abstract
BACKGROUND: Simultaneous alcohol and marijuana (SAM) use poses threats to health, particularly among adolescents. These risks would be exacerbated to the extent that high-intensity drinking (e.g., 10+ drinks in a row) and marijuana use (e.g., 1+ joints per day) are associated with a higher likelihood of SAM use. The current study examines the extent to which the intensity of alcohol use and of marijuana use are associated with adolescent SAM use prevalence, and whether associations remain after controlling for key covariates known to associate with both alcohol and marijuana use; it identifies alcohol and marijuana use intensity levels associated with the highest risk of adolescent SAM use.

METHODS: Data come from nationally representative samples of US 12th graders who participated in the Monitoring the Future study from 2005 to 2014 (N = 24,203 respondents; 48.4% boys, 51.6% girls).

RESULTS: SAM use during the past year was reported by 20% of 12th graders overall. SAM use prevalence was strongly and positively associated with alcohol and marijuana use intensity even after controlling for covariates. High school seniors at highest risk for engaging in SAM use were those who reported 10+ drinks and those smoking at least 1 joint/day. Approximately 60% of those who had 10-14 or 15+ drinks in a row during the past 2 weeks and 76%-80% of those who had 1 or 2+ joints per day on average during the past 30 days reported SAM use.

CONCLUSIONS: Results suggest that high school seniors who consume high quantities of alcohol and marijuana are very likely to consume these substances so that their effects overlap.