

ADAI INTRAMURAL CANNABIS STUDIES

"We don't speak English at home": Immigration, acculturation, and cannabis and tobacco use among WA state youth.

Bia Carlini, Robin Harwick, Jason Williams

This project explores current cannabis and tobacco use among ethnic groups further distinguished by language spoken at home (English vs. non-English). Language spoken at home is a proxy for family acculturation. Low acculturation has been associated with lower prevalence of high-risk behaviors such as substance use. Methods: Statistical and trend analysis of variables of interest from the Healthy Youth Survey: Self report cannabis and tobacco use (last 30 days), ethnicity/race and language spoken at home (proxy for acculturation). Results: For adolescents who spoke a language other than English at home, Hispanic and Asian youth were significantly less likely to use cannabis or tobacco, American Indian/Alaska Native, Black, and Multi-ethnic (non-Hispanic) youth were more likely to use tobacco but not cannabis. Non-Hispanic whites were more likely to report both current cannabis and tobacco use than white youth in predominantly English-speaking homes. Conclusions: The intersectionality of race/ethnicity and acculturation resulted in diverse risk profiles. Prevention and intervention should consider acculturation level and race/ethnicity when designing interventions to reduce substance use among youth. Study manuscript submitted for publication and under review at the *Journal of Immigrant Health*

"Food hardship as a strong predictor of tobacco and cannabis use among youth in WA state

Robin Harwick, Bia Carlini, Jason Williams

This brief report examines data from The Healthy Youth Survey to understand the likelihood of tobacco and cannabis use for students in Washington state who experienced poverty as measured by participating in the free and reduced lunch (FRL) program or reported food hardship. We conducted descriptive and exploratory statistics and trend analysis of the data to understand differences in substance use between ethnic/racial groups by poverty status. While historically research has documented that experiencing poverty and being from marginalized ethnic/racial minorities are risk factors for substance use among youth, our study is unique because few studies look at the intersection of racial/ethnic differences and poverty and their impact on substance use. Our results align with previous research when the intersectional analysis was by ethnicity and FRL – White students reported significantly higher tobacco and cannabis use, and Black and Mixed-race students had a significantly higher likelihood of cannabis use if they received FRL. However, when the intersectional analysis utilized perceived food hardship and cannabis and tobacco use there were significantly higher rates of use within all race/ethnic categories. Therefore, FRL status may not be a sensitive enough measure to predict tobacco and cannabis use and we recommend additional screening for food hardship. Study manuscript submitted for publication and under review at *Children and Youth Services Review*

Cannabis Industry marketing violations in WA: an analysis of public records

Bia Carlini, Sharon Garrett, Caislin Firth, Ilana Pinsky.

The purpose of this study was to describe marketing violations from the cannabis industry in Washington State. Methods: The study team obtained records of all Washington State cannabis marketing violations from October 2014 to September 2015, immediately following the legal cannabis market opening, and May 2017 to July 2019. A code book was developed based on the Washington State regulations related to marijuana advertising. Each marketing violation was coded according to ad characteristics including ad size, location, or type; content; business practices; and lack of mandatory health warnings. Results: A total of 328 violations were analyzed, from 183 different businesses. Marketing violations occurred most frequently in content posted online or directly in front of cannabis stores. Community members were as likely to identify violations as officers from the Washington State Liquor and Cannabis Board (WSLCB), the state agency in charge of regulation and enforcement of cannabis businesses. Very few violations were reported from competing members of the cannabis industry. Violations reported by the community were mostly related to content appealing to minors, whereas WSLCB officers were more likely to identify violations related to ad location in public spaces and ad size. Conclusions: This study shows the conflict between prevention and profit in the nascent cannabis industry and the importance of community involvement in the regulation of cannabis marketing. Study manuscript submitted for publication and under review at the *Journal of Studies on Alcohol and Other Drugs*.

"I don't do drugs, just weed"- Cannabis-only vs. cannabis and other drugs use – an analysis of a national survey data.

Bia Carlini & Gillian Schauer

The prevalence of adults who consume cannabis while abstaining from other substances is not known in the USA. This study used nationally representative data to estimate the prevalence and explore the demographic characteristics, cannabis use behaviors, and self-reported health of US adults with past 30-day cannabis-only use, as compared with adults who used cannabis as well as other substances. Methods: Data came from adults 18 years and older who responded to the 2017 or 2018 National Survey on Drug Use and Health and reported past 30-day cannabis use ($n = 12,143$). Cannabis-only use was defined as past 30-day cannabis use with no past 30-day use of other substances (alcohol, tobacco, other illicit substances, non-prescribed controlled medications). Weighted frequencies and 95% confidence intervals (CI) were computed for all sociodemographic and cannabis-related variables, overall, and across the two categories of cannabis consumers, stratified by age. Results: The prevalence of past 30-day cannabis-only use among US adults was 0.9% (95% CI: 0.8, 1.0) and varied by age (2.0% of 18–25 years old; 0.7% of 26–49 year olds, and 0.6% of those ≥ 50 years). Among adults with any past 30-day cannabis use, 8.4% (95% CI: 7.6, 9.2; $n = 980$) reported cannabis-only use. Age was significantly associated with past 30-day cannabis-only use, with adults 18–25 years and 26–49 years having higher odds of cannabis-only use compared with older adults. Past year cannabis dependence was lowest among cannabis-only consumers aged ≥ 50 years (0.2%; 95% CI: 0.1, 0.5) and highest among young adult cannabis and other substance consumers (16.7%; 95% CI: 15.3, 18.2). Past year prevalence of any mental illness was generally similar across cannabis use groups and by age. Conclusions: The prevalence of adult cannabis-only use in the US is low — most cannabis consumers report using other substances in the past 30 days as well. While cannabis-only use among older adults is rare, it does not appear to be accompanied by a high prevalence of

dependence. These findings should guide future research and policymaking. Study manuscript submitted for publication and under review at the Journal of Cannabis Research.