



**RESEARCH SUMMARY**  
Date Compiled: October 2021

**Key takeaways from included research:**

- Individuals with substance use disorders (SUDs) are at increased risk for COVID-19 infection and for adverse outcomes of the infection. Though vaccines are highly effective against COVID-19, their effectiveness in individuals with SUDs might be curtailed by compromised immune status and a greater likelihood of exposures.
- Researchers utilized a random sample to estimate the prevalence, child traits, and maternal risk for fetal alcohol spectrum disorders (FASD) in a Southeastern United States county. The prevalence of FASD was 71.4 per 1,000 or 7.1%. The study authors concluded that careful and detailed clinical evaluation of children from small random samples can be useful for estimating the prevalence and traits of FASD in a community.
- Doubling current alcohol excise duties could avoid just under 6% (or 10,700 cases and 4,850 deaths) of new alcohol-attributable cancers within the WHO European Region.
- A sample of TikTok videos was collectively viewed 291,999,100 times. The vast majority (98%) of videos expressed pro-alcohol sentiment. Consuming multiple drinks quickly was depicted in more than half of videos (61%) and 69% of videos conveyed positive experiences with alcohol.

**INCREASED RISK FOR COVID-19 BREAKTHROUGH INFECTION IN FULLY VACCINATED PATIENTS WITH SUBSTANCE USE DISORDERS IN THE UNITED STATES BETWEEN DECEMBER 2020 AND AUGUST 2021**  
**October 2021**

**Abstract**

Individuals with substance use disorders (SUDs) are at increased risk for COVID-19 infection and for adverse outcomes of the infection. Though vaccines are highly effective against COVID-19, their effectiveness in individuals with SUDs might be curtailed by compromised immune status and a greater likelihood of exposures, added to the waning vaccine immunity and the new SARS-CoV-2 variants. In a population-based cohort study, we assessed the risk, time trends, outcomes and disparities of COVID-19 breakthrough infection in fully vaccinated SUD patients starting 14 days after completion of vaccination. The study included 579,372 individuals (30,183 with a diagnosis of SUD and 549,189 without such a diagnosis) who were fully vaccinated between December 2020 and August 2021, and had not contracted COVID-19 infection prior to vaccination. We used the TriNetX Analytics network platform to access de-identified electronic health records from 63 health care organizations in the US. Among SUD patients, the risk for breakthrough infection ranged from 6.8% for tobacco use disorder to 7.8% for cannabis use disorder, all significantly higher than the 3.6% in non-SUD population ( $p < 0.001$ ). Breakthrough infection risk remained significantly higher after controlling for demographics (age, gender, ethnicity) and vaccine types for all SUD subtypes, except for tobacco use disorder, and was highest for cocaine and cannabis use disorders (hazard ratio, HR=2.06, 95% CI: 1.30-3.25 for cocaine; HR=1.92, 95% CI: 1.39-2.66 for cannabis). When we matched SUD and non-SUD individuals for lifetime comorbidities and adverse socioeconomic determinants of health, the risk for breakthrough infection no longer differed between these populations, except for patients with cannabis use disorder, who remained at increased risk (HR=1.55, 95% CI: 1.22-1.99). The risk for breakthrough infection was higher in SUD patients who received the Pfizer than the Moderna vaccine (HR=1.49, 95% CI: 1.31-1.69). In the vaccinated SUD population, the risk for hospitalization was 22.5% for the breakthrough cohort and 1.6% for the non-breakthrough cohort (risk ratio, RR=14.4, 95% CI: 10.19-20.42), while the risk for death was 1.7% and 0.5% respectively (RR=3.5, 95% CI: 1.74-7.05). No significant age, gender and ethnic disparities for breakthrough infection were observed in vaccinated SUD patients. These data suggest that fully vaccinated SUD individuals are at higher risk for breakthrough COVID-19 infection, and this is largely due to their higher prevalence of comorbidities and adverse socioeconomic determinants of health compared with non-SUD individuals. The high frequency of comorbidities in SUD patients is also likely to contribute to their high rates of hospitalization and death following breakthrough infection.

**Source:** Wang, L et al. (2021) Increased risk for COVID-19 breakthrough infection in fully vaccinated patients with substance use disorders in the United States between December 2020 and August 2021. *World Psychiatry*. <https://doi.org/10.1002/wps.20921>.

**Estimating the Community Prevalence, Child Traits, and Maternal Risk Factors of Fetal Alcohol Spectrum Disorders (FASD) from a Random Sample of School Children**  
**October 2021**

**Abstract**

**Objective:** Utilize a random sample to estimate the prevalence, child traits, and maternal risk for fetal alcohol spectrum disorders (FASD) in a Southeastern United States county.

**Methods:** From all first-grade students ( $n = 1073$ ) a simple random sample was drawn, and 32 % ( $n = 231$ ) were consented. All 231 children were examined for dysmorphology and growth, 84 were tested and rated on neurobehavior, and 72 mothers were interviewed for maternal risk.

**Results:** Significant differences ( $\alpha = .05$ ) between the physical traits of children diagnosed with FASD and the entire sample were height, weight, head circumference, body mass index, and total dysmorphology scores, and all three cardinal features of fetal alcohol syndrome: palpebral fissure length, smooth philtrum, and narrow vermilion. Intellectual function and inhibition were not significantly different between FASD and typically-functioning children, but two executive function measures and one visual/spatial measure approached significance ( $\alpha = .10$ ). Three behavioral measures were significantly worse for the FASD group: parent-rated problems of communication, daily living, and socialization. Significant maternal risk factors reported were postpartum depression, frequency of drinking, and recovery from problem drinking. The prevalence of FASD was 71.4 per 1,000 or 7.1 %. This rate falls clearly within the prevalence range identified in eight larger samples of other communities in the Collaboration on FASD Prevalence (CoFASP) study in four regions of the United States.

**Conclusion:** Careful and detailed clinical evaluation of children from small random samples can be useful for estimating the prevalence and traits of FASD in a community.

**Source:** May, PA et al. (2021) Estimating the community prevalence, child traits, and maternal risk factors of fetal alcohol spectrum disorders (FASD) from a random sample of school children, *Drug and Alcohol Dependence*, 227. [doi.org/10.1016/j.drugalcdep.2021.108918](https://doi.org/10.1016/j.drugalcdep.2021.108918).

## **MODELLING THE IMPACT OF INCREASED ALCOHOL TAXATION ON ALCOHOL-ATTRIBUTABLE CANCERS IN THE WHO EUROPEAN REGION** **September 2021**

### **Abstract**

**Background:** Reducing the alcohol-attributable cancer burden in the WHO European Region is a public health priority. This study aims to estimate the number of potentially avoidable cancers in countries of the WHO European Region in 2019 for three scenarios in which current excise duties on alcoholic beverages were increased by 20%, 50%, or 100%.

**Methods:** Mean prices and excise duties for beer, wine, and spirits in the Member States of the WHO European Region in 2020 were used as the baseline scenario. We assumed that increases in excise duties (20%, 50%, and 100%) were fully incorporated into the consumer price. Beverage-specific price elasticities of demand, with lower elasticities for heavy drinkers, were obtained from a meta-analysis. Model estimates were applied to alcohol exposure data for 2009 and cancer incidence and mortality rates for 2019, assuming a 10-year lag time between alcohol intake and cancer development and mortality.

**Findings:** Of 180,887 (95% Confidence interval [CI]: 160,595-201,705) new alcohol-attributable cancer cases and 85,130 (95% CI: 74,920-95,523) deaths in the WHO European Region in 2019, 5-9% (95% CI: 5-6-6-4) and 5-7% (95% CI: 5-4-6-1), respectively, could have been avoided by increasing excise duties by 100%. According to our model, alcohol-attributable female breast cancer and colorectal cancer contributed most to the avoidable cases and deaths.

**Interpretation:** Doubling current alcohol excise duties could avoid just under 6% (or 10,700 cases and 4,850 deaths) of new alcohol-attributable cancers within the WHO European Region, particularly in Member States of the European Union where excise duties are in many cases very low.

**Source:** Kilian, C et al. (2021) Modelling the impact of increased alcohol taxation on alcohol-attributable cancers in the WHO European Region. *The Lancet Regional Health Europe*. [doi.org/10.1016/j.lanepe.2021.100225](https://doi.org/10.1016/j.lanepe.2021.100225).

## **#ALCOHOL: PORTRAYALS OF ALCOHOL IN TOP VIDEOS ON TIKTOK** **September 2021**

### **Abstract**

**Objective:** The purpose of this study was to characterize the content and themes present in user-generated TikTok videos portraying alcohol.

**Method:** We captured the 100 most popular videos including the #alcohol hashtag on the popular social networking site TikTok. We used an iterative process to codebook development, resulting in codes for user sentiment toward alcohol, type of alcohol depicted, brand references, degree of alcohol use, and positive/negative associations with alcohol use. Videos were independently double coded, evaluated for inter-rater agreement, and adjudicated if differences were present.

**Results:** The videos in our sample were collectively viewed 291,999,100 times. The vast majority (98%) of videos expressed pro-alcohol sentiment. Nearly half of videos (41%) were guide videos demonstrating drink recipes. The majority of videos (72%) included liquor. Consuming multiple drinks quickly was depicted in more than half of videos (61%), whereas intoxication (13%) was exhibited less frequently. Positive associations with alcohol were prevalent; 69% of videos conveyed positive experiences with alcohol, 55% of videos contained humor, and 45% included associations of alcohol with camaraderie. Negative associations with alcohol were rarely portrayed (4%).

**Conclusions:** Top alcohol-related videos on TikTok are heavily viewed. Their contents demonstrate a propensity to promote rapid consumption of multiple drinks and to juxtapose alcohol use with positive associations such as humor and camaraderie, while rarely depicting negative outcomes associated with hazardous alcohol use.

**Source:** Russell, AM et al. (2021) #Alcohol: Portrayals of alcohol in top videos on TikTok. *Journal of Studies on Alcohol and Drugs*, 82:5, 615-622. [doi.org/10.15288/jsad.2021.82.615](https://doi.org/10.15288/jsad.2021.82.615).