



Factors Associated with Alcohol Use Among Native American High School Students Across the United States

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Background

- Alcohol is the most commonly used substance among teenagers in the United States.¹
- Underage drinking has been found to be associated with poor health and social outcomes.²
- Native American youth are twice as likely to have ever consumed and recently consumed alcohol compared to White youth.³
- High prevalence of alcohol use among Native Americans has been connected to European colonists who made large amounts of alcohol available, as well as social, systemic, and cultural factors.⁴
- Majority of current research has only looked at alcohol use among Native American youth in comparison to another race, but not within the same racial group.

Objective

- This study was conducted to examine factors and behaviors associated with alcohol use among Native American High School students (9th-12th) across the United States who currently drink alcohol compared to those who don't.

Methods

- Data Source:** 2021 CDC Youth Risk Behavior Surveillance System (YRBSS) Data
- Analysis:** Secondary data analysis and cross tabulation
- Statistical Tests:** Chi-squared or Fisher's exact test
- Study Population:** Native American High School students in the U.S. who currently drink (N=45) and those who do not (N=95). Currently drink = drank alcohol in the last 30 days.
- Location:** All states except Alaska, Minnesota, Oregon, Washington, and Wyoming. No representative data from California.

Limitations

- Cross Sectional data, difficult to determine whether alcohol use came first or the risk factors.
- Not specifically a study on alcohol use among Native American youth, not all necessary questions were asked.
- Self-Reported data, could lead to social desirability bias.

Figure 1: 2021 YRBS High School Participation Map



Table 1. Comparison of Substance Use Among Native American High School Students Who Currently Drink vs. Do Not Currently Drink, United States, N=140

	Currently Drink Alcohol (N=45)		Do Not Currently Drink Alcohol (N= 95)		P-value
	N	%	N	%	
Before the Age of 13:					
Had Their First Drink of Alcohol	19	51.35	11	11.58	0.0017
First Tried Cigarette Smoking	9	26.47	4	5.13	0.0095
Tried Marijuana For the First Time	12	31.58	2	2.04	0.0134
Ever Used:					
Select Illicit Drugs	10	38.46	4	7.41	0.0166
Cocaine	7	20.59	0	0	0.0094
Methamphetamines	6	15	0	0	0.038
Hallucinogenic Drugs	6	23.1	0	0	0.0345
Marijuana	24	70.59	11	12.22	0.0004
Currently Used Electronic Vapor Products	22	61.1	9	9.38	0.0004
Currently Smoked Cigarettes	9	23.68	0	0	0.0125
Currently Were Binge Drinking	13	46.43	0	0	0.0042

Table 2. Prevalence of Poor Mental Health, Violence, and Suicidality Among Native American High School Students Who Currently Drink vs. Do Not Currently Drink

	Currently Drink Alcohol (N= 45)		Do Not Currently Drink Alcohol (N= 95)		P-value
	N	%	N	%	
Felt Sad or Hopeless	25	64.1	28	28	0.0141
Reported that their mental health was most of the time or always not good during the COVID-19 pandemic	22	78.57	19	30.16	0.0111
Seriously Considered Attempting Suicide	18	46.15	17	17	0.0097
Made a plan about how they would attempt suicide	17	47.22	14	15.56	0.0012
Actually Attempted Suicide	14	38.89	9	10.47	0.0097
Were in a Physical Fight	16	55.17	18	24.66	0.0105
Experienced Sexual Violence by Anyone	12	38.7	4	5	0.0016

Results

- Current alcohol consumption is associated with first drinking and smoking before the age of 13 (P=0.0017, 0.0095, 0.0134).
- 61.1% of students who currently drink alcohol also vape (P=0.0004), 23.68% smoke cigarettes (P=0.0125) and 46.43% were currently binge drinking (P=0.0042).
- 64.1% of current drinkers felt sad or hopeless (P=0.0141), 78.57% struggled with their mental health during the COVID-19 pandemic (P=0.0111).
- Current alcohol use is associated with violence, with 55.17% (P=0.0105) having been in a physical fight and 38.7% having experienced sexual violence (P=0.0016).
- Suicidality is also highly associated, with 46.15% of students considering attempting suicide (P=0.0097), 47.22% making a plan about how they would attempt (P=0.0012), and 38.89% actually attempting suicide (P=0.0097).

Discussion

- Native American students who currently drink are at higher risk for additional substance use, poor mental health, suicidality, and violence.
- They were also more likely to have first ingested alcohol and smoked cigarettes and marijuana before the age of 13.

Recommendations

- Early Intervention Programs** : Implement early school-based programs to teach the risks of underage alcohol use and provide alternative coping mechanisms.
- Suicide Prevention + Mental Health Programs** : Develop programs that are culturally sensitive and accessible. Work on building resilience, coping skills, and a supportive environment where students feel safe seeking support.
- Cultural Activities and Traditions:** Incorporate cultural activities and teachings into school programs. Promote the positive aspects of cultural identity and traditions as protective factors against substance use.

Sources & Acknowledgments

