



Mental Health and Substance Use Among Homeless Adolescents in the United States

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INTRODUCTION

- **1 in 30** adolescents experience homelessness annually in the United States
- The experience of homelessness among adolescents occurs in the context of tremendous **stress, trauma, and deprivation** – all of which have been associated with poor mental health and substance use outcomes
- Estimates of psychiatric burden among homeless adolescents from **multi-state and representative** surveys are unavailable

METHODS

- **2019 Youth Risk Behavioral Survey (YRBS)** was used to obtain data on characteristics, housing status, and mental health and substance use outcomes of high-school students in 22 US states (**65% response rate**).
- Characteristics of homeless and non-homeless adolescents were compared using χ^2 tests.
- Outcomes were compared using multivariable logistic regression models that adjusted for age, sex, race and ethnicity, sexual orientation, and state of residence. Results were presented as adjusted risk differences and adjusted risk ratios.
- Survey weights provided by the YRBS were applied to account for non-response and generate representative state-level estimates.

RESULTS

- Identified **4,523** homeless and **105,684** non-homeless adolescents across 22 states.
- Overall weighted prevalence of adolescent homelessness was **5.6% (95% CI: 4.3-6.9)**.
- Homeless adolescents were more likely to be **male** (62.3% vs 50.0%, $p < 0.001$), **African American/Black** (20.2% vs 12.6%, $p < 0.001$), **Hispanic** (38.1% vs 25.0%, $p = 0.01$), identify as **gay/lesbian** (7.6% vs 2.5%, $p < 0.001$) or **be unsure of their sexual orientation** (10.7% vs 4.2%, $p < 0.001$).
- Homeless adolescents were **1.41 times (95% CI: 1.26-1.57)** more likely to report persistent sadness or hopelessness in the past two weeks, **2.15 times (95% CI: 1.88-2.45)** more likely to have seriously considered suicide, **2.34 times (95% CI: 2.01-2.71)** more likely to have planned suicide, and **2.70 times (95% CI: 2.14-3.40)** more likely to have attempted suicide during the 12 months before the survey.
- Homeless adolescents were **4.64 times (95% CI: 4.12-5.24)** more likely to currently smoke cigarettes, **2.04 times (95% CI: 1.74-2.40)** more likely to currently engage in binge drinking, and **8.17 (95% CI: 6.94-9.62)**, **7.05 (95% CI: 3.86-12.85)**, and **13.14 (95% CI: 10.16-17.00) times** more likely to have lifetime cocaine, methamphetamine, and heroin use, respectively.

Characteristic	Homeless Adolescents (N = 4,523)	Non-Homeless Adolescents (N = 105,864)	P Value
Age, years (n, %)			
≤12	247 (2.8)	320 (0.2)	<0.001
13	83 (0.9)	294 (0.3)	
14	509 (11.1)	17,758 (14.9)	
15	1,010 (21.1)	28,816 (24.7)	
16	1,056 (26.4)	26,771 (25.6)	
17	969 (21.6)	23,144 (23.7)	
18	612 (16.1)	8,507 (10.6)	
≥18	612 (16.1)	8,507 (10.6)	
Sex (n, %)			
Female	1,675 (37.7)	53,925 (50.0)	<0.001
Male	2,567 (62.3)	51,221 (50.0)	
Race and Ethnicity (n, %)			
African American/Black	706 (20.2)	12,633 (12.6)	<0.001
American Indian/Alaska Native	143 (1.5)	1,893 (1.3)	
Asian	168 (2.2)	4,854 (6.1)	
Hispanic	1,151 (38.1)	17,304 (25.0)	
Native Hawaiian/Other Pacific Islander	253 (1.9)	1,873 (0.6)	
White	1,403 (32.4)	58,413 (49.9)	
Multiple Races (Non-Hispanic)	271 (3.5)	6,268 (4.4)	
Not Sure	271 (3.5)	6,268 (4.4)	
Sexual Orientation (n, %)			
Heterosexual	2,497 (70.7)	81,255 (84.4)	<0.001
Gay/Lesbian	398 (7.6)	2,445 (2.5)	
Bisexual	487 (11.1)	8,650 (8.9)	
Not Sure	484 (10.7)	4,074 (4.2)	
Not Sure	484 (10.7)	4,074 (4.2)	

Outcomes	Weighted Prevalence, % (95% CI)		Adjusted Risk Difference, % (95% CI)	Adjusted Risk Ratio (95% CI)
	Homeless Adolescents	Non-Homeless Adolescents		
Mental Health				
Persistent Sadness or Hopelessness	53.0 (44.9-61.0)	37.2 (35.6-38.8)	15.2 (8.9-21.5)	1.41 (1.26-1.57)
Seriously Considered Suicide	44.4 (32.6-56.8)	19.2 (17.2-21.4)	22.3 (14.8-29.9)	2.15 (1.88-2.45)
Planned Suicide	41.8 (29.9-54.6)	16.1 (14.0-18.3)	21.7 (14.0-29.4)	2.34 (2.01-2.71)
Attempted Suicide	28.0 (24.2-32.2)	8.0 (7.4-8.7)	13.5 (8.6-18.4)	2.70 (2.14-3.40)
Substance Use				
Current Alcohol Use	37.0 (30.0-44.7)	24.1 (23.0-25.2)	10.9 (4.5-17.2)	1.46 (1.21-1.76)
Current Cigarette Use	28.7 (25.6-32.0)	5.3 (4.9-5.8)	18.9 (16.0-21.8)	4.64 (4.12-5.24)
Current Electronic Cigarette Use	45.2 (40.2-50.4)	22.6 (21.1-24.2)	21.2 (15.8-26.5)	1.93 (1.68-2.21)
Current Marijuana Use	31.6 (23.6-40.9)	18.4 (17.2-19.7)	11.1 (2.7-19.4)	1.60 (1.20-2.12)
Current Binge Drinking	21.4 (16.9-26.7)	10.3 (9.6-11.1)	10.4 (7.0-13.8)	2.04 (1.74-2.40)
Lifetime Cocaine Use	32.2 (28.7-36.0)	2.9 (2.6-3.2)	18.8 (15.9-21.6)	8.17 (6.94-9.62)
Lifetime Methamphetamine Use	36.0 (27.2-45.8)	3.0 (1.6-5.5)	19.3 (15.3-23.3)	7.05 (3.86-12.85)
Lifetime Heroin Use	28.0 (24.8-31.5)	1.3 (1.1-1.5)	13.8 (11.2-16.4)	13.14 (10.16-17.00)
Lifetime Ecstasy Use	32.9 (27.7-38.4)	3.6 (2.6-4.9)	17.3 (13.6-21.0)	5.81 (3.89-8.66)
Lifetime Injection Drug Use	28.1 (22.8-34.1)	2.4 (1.4-4.2)	14.6 (10.6-18.7)	6.65 (3.49-12.69)
Lifetime Prescription Opioid Misuse	31.3 (24.7-38.8)	12.9 (11.8-14.1)	14.8 (7.4-22.2)	2.18 (1.65-2.87)

CONCLUSIONS

- Homeless adolescents experience **substantially worse mental health and substance use outcomes** than their housed counterparts
- Disproportionate representation of **racial, ethnic, and sexual minorities** in this population reflects systemic racism and homophobia
- Healthcare providers, schools, and community agencies should be trained to **identify and refer homeless adolescents to evidence-based mental health and substance use interventions**
- Policy makers must also invest in social protections and child welfare systems to address **the upstream determinants of early homelessness**

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