Substance-Use Disorders and Poverty as Prospective Predictors of First-Time Homelessness in the United States

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Objectives. We examined whether substance-use disorders and poverty predicted first-time homelessness over 3 years.

Methods. We analyzed longitudinal data from waves 1 (2001–2002) and 2 (2004–2005) of the National Epidemiologic Survey on Alcohol and Related Conditions to determine the main and interactive effects of wave 1 substance use disorders and poverty on first-time homelessness by wave 2, among those who were never homeless at wave 1 (n = 30 558). First-time homelessness was defined as having no regular place to live or having to live with others for 1 month or more as a result of having no place of one's own since wave 1.

Results. Alcohol-use disorders (adjusted odds ratio [AOR] = 1.34), drug-use disorders (AOR = 2.51), and poverty (AOR = 1.34) independently increased prospective risk for first-time homelessness, after adjustment for ecological variables. Substance-use disorders and poverty interacted to differentially influence risk for first-time homelessness ($P < .05$), before, but not after, adjustment for controls.

Conclusions. This study reinforces the importance of both substance-use disorders and poverty in the risk for first-time homelessness, and can serve as a benchmark for future studies. Substance abuse treatment should address financial status and risk of future homelessness. (*Am J Public Health.* 2013;103: S282–S288. doi:10.2105/AJPH.2013.301302)

Approximately 3.5 million Americans experience an episode of homelessness in a given year, with about 75 000 experiencing homelessness on any given night.[1,2] In addition to intense distress, homelessness is associated with increased risk for morbidity and mortality.[3–5] Thus, homelessness is a significant public health concern, as is understanding its risk factors in the general population. In the United States, homelessness is associated with poverty.[6–10] In cross-sectional studies, alcohol and drug problems are also associated with homelessness,[6–8,11] although the strength of association varies widely across studies.

Several issues limit our understanding of the relationships between substance-use disorders and poverty to homelessness in the general population. Most research has focused on recipients of services in homeless shelters, psychiatric facilities, substance abuse treatment, emergency rooms, and other settings,[10,12] potentially overrepresenting long-term and recurrent homeless individuals and underrepresenting those who are homeless for short periods of time and those who are homeless for the first time. Geographic and measurement differences across studies may explain the wide variation in the estimates of substance-use disorders among homeless individuals.[13,14] Also, most associations between substance-use disorders and homelessness have been identified in cross-sectional studies. This limits the ability to draw causal inferences about the effects of substance-use disorders on homelessness because of the possibility of reverse causation. The few longitudinal studies of adults used narrow subsamples of homeless individuals.[8–11]

Homelessness does not occur in a vacuum, solely the result of individual traits and behaviors, but rather in a broader social and economic context. Homelessness has been conceptualized from the ecological perspective[15–17] as the product of the dynamic interplay between individuals and their environments. The model emphasizes the context in which homeless people live and the complex interactions between personal, social, and economic systems, positing that personal vulnerability is exacerbated by the loss of social and financial support systems and lack of effective social policies required for individuals to survive in a complex society.

Thus, in an ecological perspective, substance-use disorders and poverty are each conditions likely to increase the risk for first-time homelessness. Although the role of limited financial resources among those in poverty in becoming homeless seems obvious, not all individuals in poverty in the United States are homeless. Substance-use disorders in the general population are associated with considerable impairment in psychosocial functioning.[4,5] The impaired functioning associated with substance-use disorders may limit the ability of those in poverty to manage psychosocial and limited financial resources to retain housing. Thus, a better understanding of the relationships among substance-use disorders, poverty, and the subsequent occurrence of first-time adult homelessness is needed.

However, no studies have prospectively examined the independent and combined effects of substance-use disorders and poverty on the risk for first-time homelessness, including whether poverty moderates the relationship between substance-use disorders and subsequent first-time homelessness. Prospective, conceptually based, general population studies using standardized diagnostic measures that can control for relevant covariates are necessary to establish temporality between substance-use disorders, poverty, and first-time homelessness. Such studies are needed to inform public health policy and clinical interventions to reduce poverty and homelessness, as well as efforts to address substance-use disorders among homeless individuals.

Therefore, we used data from a large, longitudinal, nationally representative survey of

adults that employed standardized diagnostic measures to determine the main and interactive effects of substance-use disorders and poverty at a baseline interview on first-time homelessness by 3-year follow-up. Guided by the ecological perspective of homelessness, we analyzed baseline and follow-up data from individuals who initially were never homeless to test the following hypotheses, controlling for relevant personal, social, and economic covariates: (1) baseline poverty would increase the likelihood of first-time homelessness at any point during the 3-year follow-up, (2) current (past year) substance-use disorders at baseline would increase the likelihood of first-time homelessness at any point over the 3-year follow-up, and (3) baseline poverty and substance-use disorders would interact to differentially increase risk for first-time homelessness during the 3-year follow-up.

METHODS

The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) is a longitudinal survey of a US representative sample with face-to-face interviews conducted in 2001–2002 (wave 1; n = 43 093) and reinterviews in 2004–2005 (wave 2; n = 34 653).[18] The target population included individuals, ages 18 years and older, residing in households and group quarters. The survey response rate was 81%. Non-Hispanic Blacks, Hispanics, and young adults (ages 18–24 years) were oversampled, with data adjusted for oversampling and nonresponse. The weighted data were then adjusted to represent the US civilian population based on the 2000 census. Field methods included extensive interviewer training, supervision, and quality control.[18] Wave 2 design involved reinterviews[19] with 34 653 of the 43 093 respondents from wave 1. Of the 8440 wave 1 respondents who were not included in wave 2, 3134 were not eligible for a wave 2 interview because they were institutionalized, mentally or physically impaired, on active duty in the armed forces throughout the wave 2 interview period, deceased, or deported. The remaining respondents (n = 5306) were eligible for a wave 2 interview but were not reinterviewed because they were could not be located, or less often, they refused. Nonrespondents were similar to those reinterviewed in terms of alcohol and drug-use disorders, although at baseline, significantly more nonrespondents were in poverty, younger, Hispanic, male, less educated, unmarried, urban, in states with high costs of living, Southern, and without psychiatric disorders. The wave 2 response rate was 86.7%, reflecting 34 653 completed interviews. The cumulative response rate at wave 2 was the product of wave 2 and wave 1 response rates (70.2%). The mean interval between wave 1 and wave 2 interviews was 36.6 (SE = 2.62) months. Wave 2 data were weighted to reflect design characteristics of the NESARC and then adjusted to be representative of the civilian population of the United States. Specific aspects of methodology, sampling, and weighting procedures for the NESARC are described in detail elsewhere.[18] For the present study, we limited the sample to those who had never been homeless, as reported at wave 1 (n = 30 558).

Measures

First-time homelessness. Two items were used to determine first-time homelessness between wave 1 and wave 2: (1) "Since the last interview, did you ever have a time lasting 1 or more months when you had no regular place to live?" and (2) "Since the last interview, did you ever have a time lasting 1 or more months when you had to live with others because you had no place of your own?" Participants who answered "yes" to either question were classified as experiencing first-time homelessness.

Poverty. Baseline poverty was calculated using 2001 federal poverty guidelines, determined by household income and family size.[20] For the 48 continental US states, the poverty level was defined as ($5570 + [number of persons in the respondent's household × $3020]). Thus, for example, a family of 4 was considered to be in poverty if the respondent's household income was less than $5570 + (4 × 3020) = $17 650 per year. Formulations for Alaska and Hawaii were slightly higher, following federal guidelines.

Substance-use disorders. We measured past-year substance-use disorders at baseline by the National Institute on Alcohol Abuse and Alcoholism Alcohol Use Disorder and Associated Disabilities Interview Schedule—*Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM-IV*) Version (AUDADIS-IV).[21] This fully structured instrument was designed for experienced lay interviewers. Computer diagnostic programs implemented the *DSM-IV* criteria for diagnosis using AUDADIS-IV data. Test–retest reliability of AUDADIS-IV alcohol and drug-use disorder diagnoses ranges from good to excellent ($\kappa = 0.70–0.84$). We created 4 variables for analyses: (1) alcohol-use disorders (alcohol abuse or dependence) only, (2) drug-use disorders (drug abuse or dependence) only, (3) both alcohol- and drug-use disorders, and (4) neither alcohol- nor drug-use disorders. Diagnoses of alcohol abuse and dependence were combined, as were diagnoses of drug abuse and dependence, because both abuse and dependence are associated with current and lifetime homelessness.[4,5]

Control variables. Gender, age, race/ethnicity, education level, marital status, having any psychiatric disorder (AUDADIS-IV),[21] geographical region, urbanicity, and state cost of living[22–24] were included as ecological controls because they are likely to be associated with substance-use disorders and poverty, and might influence estimates of substance-use disorders and poverty among homeless individuals.

Data Analysis

Descriptive proportions of baseline substance-use disorders, poverty, and controls were summarized by first-time homelessness status at wave 2. The proportion of individuals experiencing first-time homelessness was calculated with 95% confidence intervals (CIs) for subgroups formed by crossing poverty with substance-use disorders (alcohol-use disorder, drug-use disorder, both alcohol- and drug-use disorders, no alcohol or drug disorder). Bivariate associations between each predictor and first-time homelessness were estimated using odds ratios (ORs), obtained from separate logistic regressions. Multivariable logistic regression was used to obtain adjusted odds ratios (AORs), representing the unique effects of substance-use disorders and poverty

on first-time homelessness, adjusted for all control variables.

To investigate whether the relationship between substance-use disorders and first-time homelessness was different among those in poverty versus those not in poverty, the interaction effect between substance-use disorders and poverty on the risk for first-time homelessness was conducted on the additive (risk difference [RD]) scale rather than the multiplicative (OR) scale, because it more closely represents synergy from a causal framework perspective.[25,26] Specifically, interaction contrasts (ICs) were formed,[26] comparing RD or adjusted RD (ARD) of first-time homelessness for substance-use disorders by poverty. Unadjusted and adjusted ICs for each substance-use disorder category were computed using the marginal predicted RD[27] obtained from logistic regression, including the cross product of poverty and the 4-category substance-use disorder variable and control variables for adjusted estimates. The IC was tested against zero using a Wald-type *t*-test, where a significantly positive IC ($P<0.05$) indicated whether a particular substance-use disorder differentially influenced risk for first-time homelessness when poverty was present versus when it was not. To adjust for the complex sample characteristics of the NESARC, all analyses were conducted using SUDAAN version 11.0 (RTI, Research Triangle Park North Carolina), which uses Taylor series linearization to account for the design effects of the NESARC and also implements ARDs and ICs through the new PRED_EFF command.

TABLE 1—Baseline (Wave 1) Characteristics of Sample and Homelessness Status at Wave 2, by Predictors of First-Time Homelessness and Control Variables: National Epidemiologic Survey on Alcohol and Related Conditions, United States, 2001–2005

Variable	Never Homeless, 2001–2005 (n = 29 336), %	First-Time Homeless, 2001–2005 (n = 1222), %
% of full wave 2 sample	85.10	3.70
% of those not previously homeless at wave 1	95.80	4.20
Main predictors		
Poverty	12.5	24.8
Alcohol- and drug-use disorders		
Neither alcohol- nor drug-use disorder	92.4	81.8
Alcohol-use disorder only	6.4	12.6
Drug-use disorder only	0.6	2.9
Both alcohol- and drug-use disorders	0.6	2.7
Control variables		
Age, y		
18–29	20.3	54.3
30–39	19.4	20.6
40–49	20.5	12.7
≥ 50	38.9	12.5
Race		
Non-Hispanic White	71.3	65.2
Non-Hispanic Black	10.7	17.0
Native American	1.9	1.7
Asian/Pacific Islander	4.6	2.9
Hispanic	11.5	13.2
Gender		
Male	47.1	49.9
Female	52.9	50.1
Education		
< high school	13.9	19.1
High school graduate	28.9	29.9
At least some college	57.2	51.1
Married or live as married	64.9	37.7
Live in urban area	79.7	81.8
State cost of living above average	57.7	56.3
Region		
Northeast	20.5	15.9
Midwest	23.1	20.6
South	35.5	39.1
West	21.0	24.3
Any psychiatric disorder	16.5	35.5

RESULTS

Of the total sample (n = 30 558), 1918 (6.64%) individuals had an alcohol-use disorder only, with 1185 (4.14%) diagnosed for abuse only, and 733 (2.50%) for dependence only. For drug-use disorders only (n = 201; 0.71%), 168 (0.61%) individuals were diagnosed with abuse and 36 (0.10%) with dependence. For both alcohol- and drug-use disorders (n = 203; 0.72%), 32 (0.11%) individuals had both alcohol and drug dependence, 62 (0.18%) had both alcohol and drug abuse, 80 (0.33%) had alcohol dependence and drug abuse, and 10 (0.03%) had alcohol abuse and drug dependence.

Table 1 presents demographic characteristics of the sample, measured at wave 1, by wave 2 homelessness status (never homeless, first-time homeless). Of those never homeless by wave 2 (n = 29 336), 12.5% were in poverty at wave 1, 6.4% had alcohol-use disorders, 0.6% had drug-use disorders, and 0.6% had both alcohol- and drug-use disorders. Of those homeless for the first time between wave 1 and wave 2 (n = 1222), 24.8% were in poverty at wave 1, 12.6% had alcohol-use

TABLE 2—First-time Homelessness at Wave 2, by Substance Use Disorders and Poverty at Wave 1: National Epidemiologic Survey on Alcohol and Related Conditions, United States, 2001–2005

Variables	Not In Poverty, % (95% CI)	In Poverty, % (95% CI)	Overall, % (95% CI)
Substance-use disorders			
No alcohol- or drug-use disorder	3.3 (3.0, 3.6)	6.5 (5.6, 7.7)	3.7 (3.4, 4.0)
Alcohol-use disorder only	6.2 (5.0, 7.7)	18.7 (13.3, 25.5)	7.9 (6.6, 9.4)
Drug-use disorder only	12.4 (7.5, 19.8)	34.7 (20.8, 51.7)	17.1 (11.8, 24.2)
Both alcohol- and drug-use disorder	13.3 (8.0, 21.1)	21.0 (11.0, 36.5)	15.5 (10.1, 23.1)
Overall	3.6 (3.3, 3.9)	7.9 (6.9, 9.1)	4.2 (3.9, 4.5)

Note. CI = confidence interval.

disorders, 2.9% had drug-use disorders, and 2.7% had both alcohol- and drug-use disorders.

By wave 2, 7.9% (95% CI = 6.9, 9.1) of those in poverty at baseline experienced first-time homelessness compared with 3.6% (95% CI = 3.3, 3.9) among those not in poverty at baseline. Over one third (34.7%; 95% CI = 20.8, 51.7) of individuals who experienced both poverty and drug-use disorders at baseline experienced homelessness by wave 2. Table 2 shows that the incidence of first-time homelessness was greater for those in each substance-use disorder category compared with those with no substance-use disorder. After adjusting for potential confounders (Table 3), poverty still significantly increased the odds for first-time homelessness (AOR = 1.34; 95% CI = 1.09, 1.64), as did alcohol-use disorders (AOR = 1.33; 95% CI = 1.06, 1.67) and drug-use disorders (AOR = 2.51; 95% CI = 1.53, 4.11).

Tests of the differential effects of substance-use disorders on first-time homelessness by poverty status are presented in Table 4. Unadjusted, substance-use disorders and first-time homelessness were more strongly associated in the presence of poverty than in its absence. Specifically, the RD for the effect of alcohol-use disorders on first-time homelessness was significantly greater among those in poverty (RD = 12.1%; $P < .001$) than among those not in poverty (RD = 2.9%; $P < .001$; IC = 9.2%; $P < .01$). The RD for the effect of drug-use disorders on first-time homelessness was even more pronounced when in poverty (RD = 28.1%; $P < .001$) than when not (RD = 9.1; $P < .01$; IC = 19.0%; $P < .05$). Adjustment for controls attenuated these differential effects; of those in poverty at wave 1, the presence of alcohol-use disorders differentially increased the risk for first-time homelessness by 3.6% ($P < .05$), and the presence of drug-use disorders increased the risk by 12% ($P < .05$). However, these adjusted differential effects were not significantly different than the substance-use disorder effects found in those not experiencing poverty at wave 1.

DISCUSSION

Both substance-use disorders and poverty independently increased prospective risk of adult first-time homelessness. They interacted to differentially increase risk for first-time homelessness before, but not after, adjustment for confounding variables. Specifically, alcohol-use disorders, drug-use disorders, and poverty were each found to prospectively predict risk for first-time homelessness. Having both alcohol- and drug-use disorders did not significantly influence the likelihood of first-time homelessness. Nevertheless, findings from unadjusted logistic regression models remained viable in terms of developing policies and practices related to homelessness, substance abuse, and poverty.

The finding that having both alcohol- and drug-use disorders did not significantly influence the likelihood of first-time homelessness might be because of an antagonistic (vs synergistic) interaction effect between alcohol-use disorders and drug-use disorders in relation to first-time homelessness. That is, the combined effect of both substance-use disorders on first-time homelessness was expected to be greater than the effect of each alone. However, the opposite proved to be the case. This result might be caused by the much smaller sample size of those with drug-use disorders or loss at follow-up of those in poverty and with both alcohol and drug disorders. The result might also reflect the influence of substance abuse treatment during the 3-year follow-up period that might have increased functioning (including the ability to cope financially), thereby decreasing the effect of the wave 1 substance status and its influence on housing stability.

Further analyses showed that poverty somewhat increased risk for loss at follow-up (n = 1546 [26.3%]; OR = 1.69; 95% CI = 1.56, 1.84), yet such risk was not increased by alcohol-use disorders (n = 429; 17.7%), drug-use disorders (n = 50; 18.3%), or both alcohol and drug disorders (n = 58; 23.0%). In addition, poverty somewhat increased the likelihood of receiving substance abuse treatment by wave 2 (n = 86 [2.1%]; OR = 1.49; 95% CI = 1.17, 1.89), whereas having both alcohol- and drug-use disorders at wave 1 substantially increased the likelihood of receiving treatment by wave 2 (n = 37 [17.5%]; OR = 15.45; 95% CI = 10.93, 21.84) compared with those with alcohol (n = 113; 6.6%) or drug (n = 15; 11.0%) disorder alone. Future studies on specific substance use disorders and homelessness should consider the influence of poverty on study attrition and the effects of poverty and substance-use disorders on receiving substance abuse treatment.

To better understand study findings on the influences of substance-use disorders and poverty on adult first-time homelessness, housing policies related to substance use disorders should be considered. Passage of Public Law 104–121 in 1996 terminated Supplemental Security Income benefits for individuals disabled primarily by a substance-use disorder. Some of the respondents might have lost such a source of income, or never had it available to them. The Housing Opportunity Extension Act of 1996 required public housing agencies to use leases that allow for tenant eviction if

TABLE 3—Associations Between First-time Homelessness at Wave 2 and Poverty, Substance-Use Disorders, and Control Variables at Wave 1: National Epidemiologic Survey on Alcohol and Related Conditions, United States, 2001–2005

Variable	Unadjusted OR (95% CI)	Adjusted[a] OR (95% CI)
Main predictors		
Poverty	2.31 (1.94, 2.75)	1.34 (1.09, 1.64)
Alcohol- and drug-use disorders (Ref = neither disorder)[b]		
Alcohol-use disorder only	2.23 (1.80, 2.77)	1.33 (1.06, 1.67)
Drug-use disorder only	5.39 (3.44, 8.43)	2.51 (1.53, 4.11)
Both alcohol- and drug-use disorders	4.78 (2.89, 7.91)	1.55 (0.87, 2.79)
Control variables		
Age (Ref = ≥ 50), y		
18–29	8.53 (6.92, 10.51)	6.40 (5.08, 8.07)
30–39	3.39 (2.68, 4.28)	3.53 (2.79, 4.48)
40–49	1.97 (1.49, 2.59)	2.09 (1.58, 2.76)
Race (Ref = Non-Hispanic White)		
Non-Hispanic Black	1.74 (1.43, 2.12)	1.12 (0.90, 1.39)
Native American	0.98 (0.58, 1.64)	0.80 (0.47, 1.37)
Asian/Pacific Islander	0.69 (0.47, 1.01)	0.52 (0.36, 0.77)
Hispanic	1.25 (0.99, 1.57)	0.66 (0.53, 0.84)
Gender (Ref = male)		
Female	0.90 (0.77, 1.04)	0.99 (0.84, 1.17)
Education (Ref = at least some college)		
< high school	1.54 (1.25, 1.89)	1.70 (1.35, 2.14)
High school graduate	1.16 (0.99, 1.36)	1.21 (1.02, 1.42)
Married or live as married	0.33 (0.28, 0.38)	0.56 (0.47, 0.67)
Live in urban area	1.14 (0.94, 1.38)	1.09 (0.89, 1.34)
State cost of living above average	0.95 (0.82, 1.10)	1.10 (0.90, 1.34)
Region (Ref = Northeast)		
Midwest	1.15 (0.93, 1.42)	1.11 (0.89, 1.37)
South	1.42 (1.17, 1.72)	1.44 (1.13, 1.84)
West	1.49 (1.20, 1.86)	1.58 (1.25, 2.00)
Any psychiatric disorder	2.77 (2.38, 3.23)	2.08 (1.77, 2.44)

Note. CI = confidence interval; OR = odds ratio.
[a]Model simultaneously controls for all variables in the table.
[b]Raw sample sizes in each category: only alcohol-use disorder (n = 2364), only drug-use disorder (n = 282), both alcohol- and drug-use disorder (n = 330), neither disorder (n = 27 582).

the tenant, family member, or guests engage in a drug-related crime. First-time homelessness might be caused, in part, by the overall lack of affordable housing in the country as well. Policies are needed to assure socioeconomic well-being, stable housing, and access to services for those with substance-use disorders and those in poverty. Congruent with the ecological perspective, interventions to treat substance-use disorders and prevent homelessness should consider the environmental contexts in which both occur.

Further, homeless adults with alcohol- and drug-use disorders tend to spend significantly higher proportions of their income on alcohol and drugs than those in poverty, housed or not. Thus, substance abuse treatment should address how current financial status and spending patterns might increase future risk of homelessness. Because more than half of those who experienced first-time homeless were 18 to 29 years old, the relationship between current financial status and spending patterns and future likelihood of homelessness should be emphasized in treatment of young adults.

In considering these findings, strengths and limitations should be kept in mind. Concerning limitations, the NESARC is based on respondent self-report that could be affected by recall bias and social desirability. However, the NESARC measures were reliable, consisting of a carefully structured interview to assess aspects of clinical history that were validated with psychiatrist evaluations.[28] Also, loss at follow-up or receiving treatment might have affected results for those in poverty. Thus, findings from unadjusted logistic regression models were important to consider in developing policies and practices related to homelessness, substance abuse, and poverty. Strengths included the use of well-validated diagnostic measures, a wide variety of salient covariates for use in multivariate analyses, and large representative samples, with broad geographic coverage, of first-time and never-homeless adults.

To guarantee housing and services for impoverished individuals with substance-use disorders, the disconnect among practice, programming, and policy arenas of substance-use disorders, income support, and housing must be resolved at the systems and individual levels. Service delivery systems focused on substance-use disorders or housing instability operate in relative isolation—each system with its own priorities, etiological views, treatment philosophies, therapeutic styles, administrative structures, funding streams, and policies.[29,30] Because of this separation of systems, cross training among providers has been limited. This leaves many providers ill-equipped to effectively identify and treat co-occurring problems, and often leaves individuals with co-occurring problems untreated.[30–32] Hopefully, study findings will draw attention to the need for more integrated service delivery and policy systems.

This was the first study to prospectively examine the joint influences of substance-use disorders and poverty on first-time adult homelessness in national data. Findings indicated that substance-use treatment should address patients' financial status and risk of future homelessness. Given changes in US income distribution, this study reinforced the

TABLE 4—Effects of Substance-Use Disorders, by Poverty and Test for Differential Effects: National Epidemiologic Survey on Alcohol and Related Conditions, United States, 2001–2005

Variable	Effect When Not in Poverty		Effect When in Poverty		Differential Effect[a] of AUD/DUD When in Poverty	
	RD % (SE)	*P*	RD % (SE)	*P*	IC % (SE)	*P*
Unadjusted[b] (Ref = neither disorder)						
Alcohol-use disorder only	2.9 (0.7)	<.001	12.1 (3.1)	<.001	9.2 (3.2)	.005
Drug-use disorder only	9.1 (3.0)	.004	28.1 (8.0)	<.001	19.0 (8.4)	.028
Both alcohol- and drug-use disorder	10.0 (3.2)	.003	14.5 (6.4)	.027	4.5 (6.6)	.499
Adjusted[c] (Ref = neither disorder)						
Alcohol-use disorder only	0.6 (0.5)	.257	3.6 (1.5)	.017	3.1 (1.6)	.052
Drug-use disorder only	3.0 (1.8)	.092	11.4 (5.2)	.03	8.8 (5.4)	.112
Both alcohol- and drug-use disorder	2.0 (1.6)	.233	2.2 (2.7)	.424	0.3 (3.0)	.918

Note. AUD/DUD = alcohol-use disorder/drug-use disorder; IC = interaction contrast; RD = risk difference.
[a]Differential effect (i.e., IC) is the difference in RD (e.g., 9.2 = 12.1 – 2.9).
[b]Unadjusted effects can be obtained by taking differences in incidence rates in Table 2.
[c]Adjusted effects represent expected risk differences if each AUD/DUD by poverty strata was fixed to have all of the control variables to be equal.

importance of poverty and substance use disorders in the risk for homelessness, and could serve as a benchmark for future studies on the etiology of homelessness. ■

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Contributors

R. G. Thompson Jr, conceptualized and designed the study, drafted the initial article, and approved all versions for publication. M. M. Wall and E. Greenstein completed data coding and analyses, and contributed to the drafting of the Methods section and general editing. B. F. Grant provided consultation on data coding and methods, and drafted the sample description and procedures. D. S. Hasin helped conceptualize and design the study, and provided critical revisions of intellectual content.

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Human Participant Protection

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