

# Letters

## RESEARCH LETTER

### US Children Living With a Parent With Substance Use Disorder

The US substance use landscape consists of over 100 000 overdose deaths annually since 2020<sup>1</sup> and, in 2023 alone, over 46 million adults with a past-year *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition; *DSM-5*)-defined substance use disorder (SUD).<sup>2</sup> Despite attempts to estimate the number of children exposed to parental substance use and *DSM-IV*-defined SUD,<sup>3,4</sup> recent research indicates that past-year prevalence estimates of SUD using *DSM-IV* criteria are substantially higher when using *DSM-5* criteria,<sup>5</sup> resulting in a key knowledge gap. Children ex-

posed to parental SUD are more likely to develop adverse health outcomes than their peers without parental SUD exposure, including early substance use initiation, substance-related problems, and mental health disorder.<sup>6</sup> We aimed to estimate the number of US children living in the same household as at least 1 parent or primary caregiver with a *DSM-5*-defined SUD.

**Methods** | This cross-sectional study used nationally representative data from the 2023 National Survey on Drug Use and Health (NSDUH) of the civilian, noninstitutionalized US population aged 12 years or older.<sup>2</sup> The University of Michigan and Texas State University Institutional Review Boards deemed this study exempt from review and informed consent because secondary, deidentified data were used. We followed the **STROBE** reporting guideline.

Table. Estimates of Parental *DSM-5*-Defined SUD or SUD and Mental Illness and Children Living With Parents With These Diagnoses

Parental characteristic	Weighted estimates, No. (95% CI) Parental SUD or comorbid SUD and mental illness	Children living with a parent with SUD or comorbid SUD and mental illness
Sex		
Women	19 313 084 (18 137 861-20 488 306)	9 454 913 (8 114 991-10 893 917)
Men	26 730 570 (24 924 781-28 536 359)	9 527 272 (8 030 578-11 147 577)
Race and ethnicity <sup>a</sup>		
American Indian or Alaska Native	339 473 (216 698-462 247)	207 309 (68 418-418 625)
Asian	1 490 754 (1 135 814-1 845 694)	409 292 (167 436-741 401)
Black, non-Hispanic	5 816 495 (5 213 172-6 419 818)	2 975 460 (2 303 843-3 731 094)
Hispanic or Latino	7 510 295 (6 595 367-8 425 224)	3 459 331 (2 486 461-4 585 197)
White, non-Hispanic	29 150 923 (27 434 030-30 867 817)	11 254 408 (9 752 227-12 861 644)
Multiracial	1 405 281 (1 192 123-1 618 438)	553 789 (323 630-836 217)
Household income, \$		
<20 000	8 048 143 (7 221 309-8 874 978)	2 353 286 (1 758 893-3 028 430)
20 000-49 999	12 552 665 (11 591 702-13 513 627)	4 615 781 (3 686 114-5 641 000)
50 000-74 999	6 876 240 (6 123 227-7 629 253)	2 816 716 (2 064 238-3 678 403)
≥75 000	18 566 606 (17 081 209-20 052 003)	9 187 880 (7 692 818-10 815 120)
Urbanicity of residence <sup>b</sup>		
Large metropolitan: >1 million population	25 738 690 (23 962 948-27 514 433)	10 702 822 (9 256 877-12 253 627)
Small metropolitan: <1 million population	14 864 338 (13 608 241-16 120 436)	5 624 401 (4 591 732-6 759 968)
Nonmetropolitan	5 440 625 (4 720 902-6 160 348)	2 651 344 (1 979 824-3 420 674)
Past-year <i>DSM-5</i> -defined SUD diagnosis		
Any	46 043 654 (43 546 977-48 540 331)	18 968 894 (16 806 368-21 261 446)
Mild	25 750 564 (24 078 155-27 422 973)	11 319 701 (9 641 221-13 129 220)
Moderate or severe	20 293 090 (18 996 532-21 589 648)	7 643 244 (6 468 786-8 911 360)
Multiple	9 510 975 (8 622 044-10 399 905)	3 409 675 (2 568 782-4 358 248)
Comorbid SUD and mental illness <sup>c</sup>	15 722 088 (14 658 920-16 785 256)	6 148 289 (5 012 046-7 389 039)
Any SUD, excluding SUD from appropriate medication use <sup>d</sup>	42 904 676 (40 559 694-45 249 658)	18 107 833 (16 062 272-20 275 485)

Abbreviations: *DSM-5*, *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition); SUD, substance use disorder.

<sup>a</sup> Race and ethnicity were coded in the National Survey on Drug Use and Health using US Census guidelines, where Hispanic or Latino ethnicity is the predominant category. Sample sizes for individuals identified as Native Hawaiian or Other Pacific Islander were too small for stable estimation.

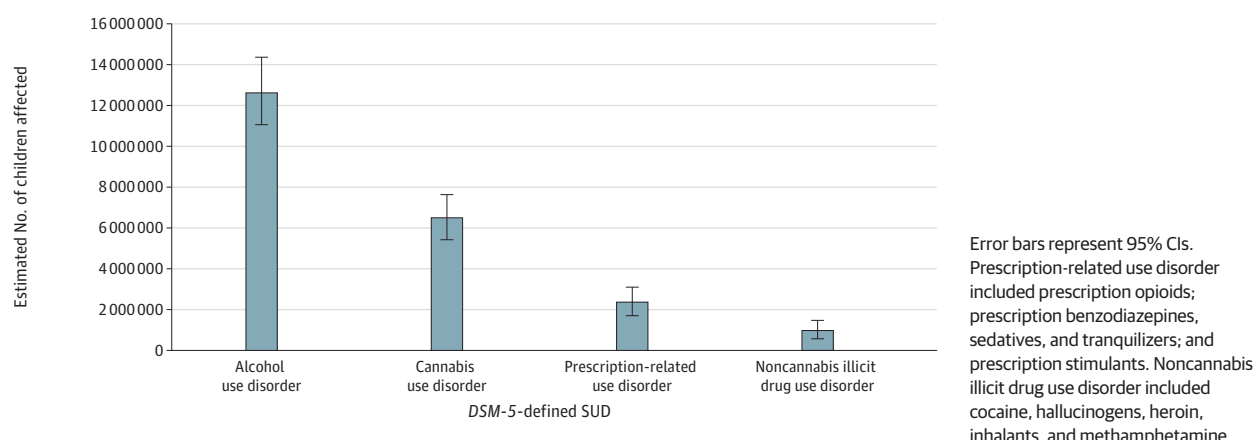
<sup>b</sup> Urbanicity was obtained from the US Department of Agriculture Rural-Urban

Continuum Codes for county of residence.

<sup>c</sup> Mental illness is defined in *DSM-5* as major depressive disorder or serious psychological distress, as assessed by the 6-item Kessler Screening Scale for Psychological Distress (score range: ≥13 indicating serious distress).

<sup>d</sup> This category excludes those with SUD in the National Survey on Drug Use and Health who denied misuse (ie, use without prescription or in ways not instructed by the prescribing clinician) of the medication class.

**Figure. US Children Living With Parents With a Substance-Specific *DSM-5*-Defined Substance Use Disorder (SUD)**



Only 1 adult was interviewed in selected households. These adults reported their relationships to other household members, with options including son or daughter, which could be specified as step, foster, or adoptive youth. Respondents' children (younger than 18 years) were included, and this value was truncated at 3 or more offspring in the public NSDUH files.

Reliability for the number of individuals living in the respondent's household was excellent ( $\alpha = .95$ ). Weighted counts and 95% CIs of youth exposed to parental *DSM-5*-defined SUD in the household were estimated and included past-year use disorders in alcohol; cannabis; cocaine; hallucinogens; heroin; inhalants; methamphetamine; and prescription opioids, benzodiazepines, sedatives, tranquilizers, and stimulants. Data analysis was performed with Stata 18.5 (StataCorp).

**Results** | Based on the 2023 NSDUH total weighted number of 62 637 851 parents (35 413 344 females [56.5% of parents]), an estimated 18 968 894 (95% CI, 16 806 368-21 261 446) children lived with at least 1 parent meeting *DSM-5* SUD criteria, including children with a parent with moderate or severe SUD (7 643 244; 95% CI, 6 468 786-8 911 360) or multiple SUDs (3 409 675; 95% CI, 2 568 782-4 358 248) (Table). Additional estimates were based on parental sex, race and ethnicity, household income, and urbanicity of residence. An estimated 6 148 289 (95% CI, 5 012 046-7 389 039) children lived with a parent with comorbid SUD and mental illness (defined in *DSM-5* as major depressive disorder and/or serious psychological distress). Parental SUDs consisted of alcohol use disorder primarily, followed by cannabis, prescription-related, and then noncannabis drug use disorders (Figure).

**Discussion** | Nearly 19 million children were estimated to be living in a household with at least 1 parent with SUD, accounting for one-quarter of all US children in 2023. Children in such households are more likely to develop adverse health outcomes than their peers without exposure to parental SUD.<sup>5</sup> This study adds new information based on *DSM-5* criteria, estimating that 6.1 million children lived with parents with comorbid SUD and mental illness; these youths are particularly susceptible to multiple adverse childhood experiences.<sup>6</sup>

Study limitations included those common to large-scale national surveys, such as potential sampling bias, selection bias, and self-report bias. Additionally, the number of offspring in the household was truncated at 3, suggesting that estimates represented the lower bound of youths exposed to parental SUD. Direct comparison of the impact of *DSM-IV*-defined vs *DSM-5*-defined parental SUD severity is an important step for future research.

These findings signal the need for more attention at the federal, state, and local levels on the children and families affected by addiction. Evidence-based, family-based treatments for SUD and mental illness can prevent adverse health consequences in this population.

Sean Esteban McCabe, PhD

Vita V. McCabe, MD

Ty S. Schepis, PhD

**Author Affiliations:** Center for the Study of Drugs, Alcohol, Smoking, and Health, University of Michigan School of Nursing, Ann Arbor (S. E. McCabe, V. V. McCabe, Schepis); Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor (S. E. McCabe); Department of Psychiatry, University of Michigan, Ann Arbor (V. V. McCabe); Department of Psychology, Texas State University, San Marcos (Schepis).

**Accepted for Publication:** March 12, 2025.

**Published Online:** May 12, 2025. doi:10.1001/jamapediatrics.2025.0828

**Corresponding Author:** Sean Esteban McCabe, PhD, University of Michigan, 400 N Ingalls, Ann Arbor, MI 48109-5482 (plius@umich.edu).

**Author Contributions:** Drs S. McCabe and Schepis had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

**Concept and design:** All authors.

**Acquisition, analysis, or interpretation of data:** All authors.

**Drafting of the manuscript:** S. McCabe.

**Critical review of the manuscript for important intellectual content:** All authors.

**Statistical analysis:** S. McCabe, Schepis.

**Obtained funding:** S. McCabe, Schepis.

**Administrative, technical, or material support:** S. McCabe, V. McCabe.

**Supervision:** S. McCabe.

**Conflict of Interest Disclosures:** Dr S. McCabe reported receiving grants from the National Institute on Drug Abuse (NIDA) of the National Institutes of Health (NIH) during the conduct of the study. Dr Schepis reported receiving grants from the NIDA/NIH and a faculty fellowship (partial salary support) from the Texas State University Translational Health Research Center during the conduct of the study.

**Funding/Support:** This work was supported by grants R01DA031160 and R01DA043691 from the NIDA/NIH.

**Role of the Funder/Sponsor:** The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

**Data Sharing Statement:** See the [Supplement](#).

1. Garnett MF, Miniño AM. Drug overdose deaths in the United States, 2003-2023. NCHS Data Brief, no 522. National Center for Health Statistics. December 19, 2024. Accessed February 13, 2025. doi:10.15620/cdc/170565.

2. Center for Behavioral Health Statistics and Quality. Results from the 2023 National Survey on Drug Use and Health: detailed tables. 2025. Accessed January 27, 2025. <https://www.samhsa.gov/data/report/2023-nsduh-detailed-tables>

3. Ghertner R. National and state estimates of children living with parents using substances, 2015-2019. US Department of Health and Human Services, Office

of the Assistant Secretary for Planning and Evaluation. November 14, 2022. Accessed November 11, 2024. <https://aspe.hhs.gov/reports/children-living-parents-using-substances>

4. Lipari RN, Van Horn SL. Children living with parents who have a substance use disorder. The CBHSQ Report. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. August 24, 2017. Accessed January 27, 2025. [https://www.samhsa.gov/data/sites/default/files/report\\_3223/ShortReport-3223.pdf](https://www.samhsa.gov/data/sites/default/files/report_3223/ShortReport-3223.pdf)

5. Compton WM, Einstein EB, Han B. 12-month prevalence estimates of substance use disorders using DSM-5 versus DSM-IV criteria among U.S. nonelderly adults with substance use. *Am J Psychiatry*. 2024;181(11):1018-1021. doi:10.1176/appi.ajp.20231060

6. Jääskeläinen M, Holmila M, Notkola IL, Raitasalo K. Mental disorders and harmful substance use in children of substance abusing parents: a longitudinal register-based study on a complete birth cohort born in 1991. *Drug Alcohol Rev*. 2016;35(6):728-740. doi:10.1111/dar.12417