

## Supplementary Online Content

Han B, Compton WM, Jones CM, Einstein EB, Volkow ND. Methamphetamine use, methamphetamine use disorder, and associated overdose deaths among US adults. *JAMA Psychiatry*. Published online September 22, 2020. doi:10.1001/jamapsychiatry.2021.2588

**eTable.** Bivariable Multinomial Logistic Regression Results Show Correlates of Past-Year Methamphetamine Use, Use Disorder, and Injection Among Adults Aged 18-64 in the U.S. (N=195,711)

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable.** Bivariable Multinomial Logistic Regression Results Show Correlates of Past-Year Methamphetamine Use, Use Disorder, and Injection Among Adults Aged 18-64 in the U.S. (N=195,711)

Correlates	Methamphetamine use, but no use disorder, no injection vs. no use Risk Ratio (95% CI) n=194,554	Methamphetamine use disorder, but no injection vs. no use Risk Ratio (95% CI) n=194,465	Methamphetamine injection (regardless of use disorder) vs. no use Risk Ratio (95% CI) n=194,240
<b>Year</b>			
2015	0.95 (0.73-1.22)	<b>0.68 (0.46-0.99)</b>	0.89 (0.61-1.30)
2016	0.76 (0.57-1.01)	<b>0.49 (0.35-0.68)</b>	1.07 (0.67-1.69)
2017	<b>0.71 (0.52-0.95)</b>	0.79 (0.55-1.15)	1.29 (0.92-1.81)
2018	0.89 (0.63-1.26)	0.90 (0.70-1.15)	1.16 (0.74-1.81)
2019 (ref)	1.0	1.0	1.0
<b>Age</b>			
18-23 (ref)	1.0	1.0	1.0
24-34	0.93 (0.74-1.17)	<b>1.49 (1.15-1.93)</b>	<b>2.58 (1.86-3.58)</b>
35-49	<b>0.75 (0.59-0.95)</b>	1.16 (0.86-1.56)	<b>1.91 (1.33-2.76)</b>
50-64	<b>0.57 (0.43-0.78)</b>	<b>0.59 (0.40-0.88)</b>	1.05 (0.67-1.63)
<b>Sex and Sexual Orientation</b>			
Gay men	<b>5.47 (3.02-9.92)</b>	<b>4.72 (2.34-9.54)</b>	<b>11.64 (6.47-20.95)</b>
Lesbian women	1.60 (0.70-3.68)	1.49 (0.64-3.44)	1.12 (0.47-2.65)
Bisexual men	<b>4.74 (2.31-9.71)</b>	<b>5.37 (2.88-10.00)</b>	<b>3.46 (1.38-8.67)</b>
Bisexual women	<b>3.10 (2.06-4.66)</b>	<b>4.30 (3.03-6.11)</b>	<b>7.95 (4.97-12.69)</b>
Men, unknown orientation	1.06 (0.41-2.75)	<b>4.67 (2.03-10.74)</b>	3.08 (0.86-11.01)
Women, unknown orientation	1.20 (0.54-2.65)	0.68 (0.17-2.67)	0.37 (0.09-1.54)
Heterosexual men	<b>1.70 (1.32-2.20)</b>	<b>1.94 (1.54-2.44)</b>	<b>2.41 (1.82-3.19)</b>
Heterosexual women (ref)	1.0	1.0	1.0
<b>Race/Ethnicity</b>			
NH white	<b>2.93 (1.80-4.75)</b>	<b>3.11 (1.85-5.25)</b>	<b>5.64 (3.71-8.59)</b>
NH Black (ref)	1.0	1.0	1.0
NH AIAN	<b>5.83 (3.07-11.04)</b>	<b>14.71 (5.96-36.27)</b>	<b>14.32 (8.17-25.09)</b>
NH NHOPI	1.79 (0.56-5.75)	<b>6.22 (2.17-17.80)</b>	<b>9.57 (2.57-35.55)</b>
NH Asian	<b>0.42 (0.18-0.96)</b>	0.62 (0.19-2.01)	0.40 (0.06-2.74)
NH more than one race	<b>2.83 (1.45-5.52)</b>	<b>5.23 (2.45-11.14)</b>	<b>8.14 (3.77-17.53)</b>
Hispanic	<b>1.65 (1.01-2.69)</b>	<b>3.42 (1.82-6.41)</b>	<b>2.45 (1.44-4.17)</b>
<b>Education</b>			
< High school education	<b>4.19 (2.87-6.11)</b>	<b>9.96 (5.97-16.61)</b>	<b>10.40 (5.63-19.22)</b>
High school education	<b>3.41 (2.28-5.11)</b>	<b>7.71 (4.69-12.67)</b>	<b>9.47 (5.13-17.47)</b>
Some college	<b>2.47 (1.68-3.61)</b>	<b>5.32 (3.30-8.56)</b>	<b>6.26 (3.38-11.60)</b>
≥College (ref)	1.0	1.0	1.0
<b>Family Income</b>			
<\$20,000	<b>4.23 (3.09-5.80)</b>	<b>7.43 (5.42-10.19)</b>	<b>7.63 (5.17-11.27)</b>
\$20,000-\$49,999	<b>2.56 (1.97-3.32)</b>	<b>4.16 (3.01-5.75)</b>	<b>3.34 (2.25-4.97)</b>
\$50,000-\$74,999	<b>1.45 (1.03-2.05)</b>	<b>2.48 (1.63-3.76)</b>	<b>1.99 (1.02-3.89)</b>
\$75,000 (ref)	1.0	1.0	1.0
<b>Employment Status</b>			
Full-time employment (ref)	1.0	1.0	1.0
Part-time employment	1.24 (0.91-1.68)	1.39 (0.92-2.09)	1.16 (0.74-1.82)
Unemployment	<b>3.39 (2.59-4.44)</b>	<b>4.22 (3.16-5.62)</b>	<b>5.60 (4.19-7.48)</b>
Other	<b>2.09 (1.62-2.69)</b>	<b>2.41 (1.76-3.29)</b>	<b>2.40 (1.70-3.40)</b>
<b>Health Insurance</b>			
Private-only (ref)	1.0	1.0	1.0
Uninsured	<b>3.47 (2.62-4.59)</b>	<b>6.24 (4.61-8.45)</b>	<b>7.49 (4.75-11.81)</b>
Medicaid only	<b>4.25 (3.34-5.41)</b>	<b>8.44 (6.20-11.48)</b>	<b>8.84 (6.21-12.58)</b>
Other	<b>2.91 (2.13-3.98)</b>	<b>3.18 (2.12-4.78)</b>	<b>3.77 (2.40-5.94)</b>
<b>Marital Status</b>			
Married (ref)	1.0	1.0	1.0
Widowed	<b>2.27 (1.13-4.56)</b>	<b>3.41 (1.77-6.57)</b>	<b>5.53 (2.34-13.68)</b>
Divorced/separated	<b>5.16 (3.78-7.03)</b>	<b>5.29 (3.74-7.49)</b>	<b>7.86 (5.24-11.78)</b>
Never married	<b>3.31 (2.68-4.08)</b>	<b>4.51 (3.64-5.58)</b>	<b>4.38 (3.03-6.34)</b>

Correlates	Methamphetamine use, but no use disorder, no injection vs. no use Risk Ratio (95% CI) n=194,554	Methamphetamine use disorder, but no injection vs. no use Risk Ratio (95% CI) n=194,465	Methamphetamine injection (regardless of use disorder) vs. no use Risk Ratio (95% CI) n=194,240
No. of Times Moved, PY			
0 (ref)	1.0	1.0	1.0
1	<b>1.88 (1.40-2.50)</b>	<b>1.64 (1.28-2.11)</b>	<b>2.57 (1.69-3.93)</b>
2	<b>2.07 (1.41-3.03)</b>	<b>3.43 (2.70-4.35)</b>	<b>5.38 (3.69-7.84)</b>
3	<b>3.32 (2.50-4.43)</b>	<b>6.19 (4.55-8.43)</b>	<b>16.14 (11.95-21.81)</b>
Metropolitan Status			
Large metro (ref)	1.0	1.0	1.0
Small metro	<b>1.45 (1.13-1.86)</b>	<b>1.32 (1.01-1.74)</b>	<b>1.86 (1.33-2.60)</b>
Nonmetro	<b>1.65 (1.30-2.10)</b>	<b>1.72 (1.27-2.32)</b>	<b>3.42 (2.46-4.74)</b>
PY Probation/Parole			
Yes	<b>6.58 (5.00-8.66)</b>	<b>16.52 (13.38-20.41)</b>	<b>23.11 (17.50-30.53)</b>
No (ref)	1.0	1.0	1.0
Hypertension			
Yes	0.87 (0.58-1.28)	1.27 (0.87-2.58)	0.80 (0.52-1.22)
No (ref)	1.0	1.0	1.0
Heart Disease			
Yes	1.38 (0.96-1.97)	1.29 (0.82-2.02)	<b>1.74 (1.10-2.75)</b>
No (ref)	1.0	1.0	1.0
Diabetes Mellitus			
Yes	0.83 (0.55-1.26)	0.93 (0.58-1.49)	<b>0.53 (0.33-0.86)</b>
No (ref)	1.0	1.0	1.0
COPD			
Yes	<b>4.03 (2.79-5.82)</b>	<b>3.75 (2.72-5.17)</b>	<b>3.88 (2.12-7.11)</b>
No (ref)	1.0	1.0	1.0
Cancer			
Yes	1.14 (0.58-2.24)	1.43 (0.81-2.51)	1.23 (0.66-2.29)
No (ref)	1.0	1.0	1.0
Asthma			
Yes	<b>1.37 (1.01-1.85)</b>	<b>1.38 (1.00-1.89)</b>	1.06 (0.68-1.66)
No (ref)	1.0	1.0	1.0
HIV/AIDS			
Yes	<b>5.71 (1.74-18.68)</b>	<b>12.52 (6.09-25.75)</b>	<b>17.64 (8.22-37.84)</b>
No (ref)	1.0	1.0	1.0
Hepatitis B or C			
Yes	<b>6.71 (4.06-11.08)</b>	<b>4.56 (2.56-8.11)</b>	<b>26.95 (20.23-35.91)</b>
No (ref)	1.0	1.0	1.0
Past-year STI			
Yes	<b>3.56 (2.49-5.08)</b>	<b>4.00 (2.72-5.88)</b>	<b>4.99 (3.30-7.55)</b>
No (ref)	1.0	1.0	1.0
PY Major Depressive Episode			
Yes	<b>2.42 (1.86-3.15)</b>	<b>4.91 (4.08-5.92)</b>	<b>4.90 (3.62-6.64)</b>
Did not answer	<b>3.00 (1.71-5.27)</b>	<b>3.25 (1.67-6.32)</b>	<b>4.04 (2.10-7.77)</b>
No (ref)	1.0	1.0	1.0
PY Serious Thoughts of Suicide			
Yes	<b>4.11 (3.07-5.50)</b>	<b>6.32 (4.74-8.42)</b>	<b>7.75 (5.48-10.95)</b>
Did not answer	<b>4.13 (2.26-7.52)</b>	<b>4.69 (2.26-9.70)</b>	<b>2.63 (1.45-4.77)</b>
No (ref)	1.0	1.0	1.0
PY Suicide Plan			
Yes	<b>5.03 (3.44-7.35)</b>	<b>7.71 (5.62-10.58)</b>	<b>9.78 (6.64-14.41)</b>
Did not answer	<b>3.76 (2.09-6.78)</b>	<b>4.00 (1.93-8.29)</b>	<b>2.30 (1.32-4.01)</b>
No (ref)	1.0	1.0	1.0
PY Suicide Attempt			
Yes	<b>6.33 (4.27-9.38)</b>	<b>6.79 (4.72-9.77)</b>	<b>13.03 (8.51-19.95)</b>
Did not answer	<b>3.66 (2.02-6.64)</b>	<b>3.81 (1.85-7.84)</b>	<b>2.22 (1.19-4.13)</b>
No (ref)	1.0	1.0	1.0

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Past-Month Nicotine Dependence			
Yes	<b>6.67 (5.53-8.03)</b>	<b>8.98 (6.95-11.59)</b>	<b>8.01 (13.03-24.89)</b>
No (ref)	1.0	1.0	1.0
PY Alcohol Use Disorder			
Yes	<b>4.30 (3.36-5.50)</b>	<b>5.44 (4.37-6.77)</b>	<b>3.83 (2.66-5.51)</b>
No (ref)	1.0	1.0	1.0
PY Cannabis Use Disorder or Use Cannabis Daily/Near Daily			
Yes	<b>12.91 (10.13-16.47)</b>	<b>15.41 (11.35-20.92)</b>	<b>14.88 (10.43-21.23)</b>
No, but PY use	<b>7.68 (6.00-9.83)</b>	<b>8.17 (5.67-11.75)</b>	<b>20.59 (7.60-14.76)</b>
No PY use (ref)	1.0	1.0	1.0
PY Cocaine Use			
Yes	<b>18.32 (15.09-22.24)</b>	<b>14.88 (12.21-18.14)</b>	<b>19.21 (14.11-26.16)</b>
No (ref)	1.0	1.0	1.0
PY Hallucinogen Use			
Yes	<b>12.02 (9.78-14.77)</b>	<b>9.25 (7.49-11.42)</b>	<b>14.31 (10.29-19.89)</b>
No (ref)	1.0	1.0	1.0
Past-Year Heroin Use or Rx. Opioid Misuse			
Yes	<b>10.73 (8.56-13.45)</b>	<b>13.29 (10.72-16.47)</b>	<b>46.01 (33.89-62.45)</b>
No (ref)	1.0	1.0	1.0
Past-Year Rx. Tranquilizer/Sedative Misuse			
Yes	<b>9.87 (7.95-12.25)</b>	<b>12.17 (9.58-15.45)</b>	<b>20.52 (15.51-27.14)</b>
No (ref)	1.0	1.0	1.0
Past-Year Rx. Stimulant Misuse			
Yes	<b>9.64 (7.87-11.80)</b>	<b>8.40 (6.56-10.76)</b>	<b>17.56 (12.83-24.04)</b>
No (ref)	1.0	1.0	1.0
PY Cocaine Injection			
Yes	*	*	<b>279.80 (210.85-371.29)</b>
No (ref)	1.0	1.0	1.0
PY Heroin Injection			
Yes	<b>17.35 (10.83-27.80)</b>	<b>11.52 (5.64-23.52)</b>	<b>272.04 (206.64-356.41)</b>
No (ref)	1.0	1.0	1.0

Source: The 2015-2019 National Surveys on Drug Use and Health. CI=confidence interval; PY=past year; NH=Non-Hispanic; AIAN=American Indian or Alaska Native; NHOPI=Native Hawaiians/Other Pacific Islander; STI=sexually transmitted infection; Rx=prescription. Each **bolded** estimate is statistically significantly different from the estimate of the reference group within the same cell. \*: This estimate was suppressed due to low statistical precision.