Supplementary Online Content

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**eTable.** Multivariable Multinomial Logistic Regression Factors Associated With Past-Year Opioid Use Disorder and Buprenorphine Misuse Status Among US Adults With Past-Year Buprenorphine Use

This supplementary material has been provided by the authors to give readers additional information about their work.
### eTable. Multivariable Multinomial Logistic Regression Factors Associated With Past-Year Opioid Use Disorder and Buprenorphine Misuse Status Among US Adults With Past-Year Buprenorphine Use

| Age          | OUD: Misuse vs. No misuse | No OUD: Misuse vs. No misuse | Misuse & OUD vs. No Misuse & No OUD | Misuse: OUD vs. No OUD | No Misuse: OUD vs. No OUD | Misuse, No OUD vs. No Misuse & No OUD |
|--------------|----------------------------|----------------------------|-------------------------------------|------------------------|--------------------------|--------------------------------------|
| 18-23        | 2.0 (0.84-4.98)            | 2.0 (0.87-4.78)            | 1.7 (0.73-4.09)                     | 0.8 (0.35-2.05)        | 0.8 (0.34-2.12)           | 2.4 (1.01-5.81)                     |
| 24-34        | 2.9 (1.42-5.77)            | 2.1 (1.08-4.22)            | 2.8 (1.41-5.61)                     | 1.3 (0.62-2.77)        | 1.0 (0.45-2.13)           | 2.2 (1.08-4.40)                     |
| 35-49        | 2.3 (1.20-4.52)            | 1.6 (0.88-2.82)            | 2.4 (1.23-4.64)                     | 1.5 (0.69-3.32)        | 1.0 (0.44-2.38)           | 1.5 (0.64-3.68)                     |
| ≥50+         | 1.0                        | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| Sex          |                            |                            |                                     |                        |                          |                                      |
| Men          | 0.8 (0.53-1.25)            | 1.1 (0.69-1.68)            | 1.1 (0.73-1.68)                     | 1.0 (0.63-1.67)        | 1.4 (0.92-2.02)           | 0.8 (0.48-1.31)                     |
| Women+       | 1.0                        | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| Race/Ethnicity |                      |                            |                                     |                        |                          |                                      |
| NH White+    | 1.0                        | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| NH Black     | 1.5 (0.78-2.82)            | 1.0 (0.36-2.59)            | 2.2 (0.80-6.23)                     | 2.3 (0.81-6.68)        | 1.5 (0.49-4.65)           | 0.6 (0.21-1.91)                     |
| Hispanic     | 0.7 (0.38-1.45)            | 1.3 (0.64-2.56)            | 0.9 (0.51-1.61)                     | 0.7 (0.39-1.30)        | 1.2 (0.63-2.41)           | 1.0 (0.48-2.25)                     |
| NH other     | 0.9 (0.41-1.87)            | 1.2 (0.54-2.70)            | 1.2 (0.53-2.57)                     | 1.0 (0.38-2.48)        | 1.3 (0.63-2.87)           | 0.9 (0.38-2.12)                     |
| Family Income |                        |                            |                                     |                        |                          |                                      |
| <$20,000     | 1.1 (0.58-1.88)            | 1.9 (1.14-3.27)            | 1.0 (0.50-1.83)                     | 0.5 (0.24-1.01)        | 0.9 (0.50-1.65)           | 2.1 (1.12-4.04)                     |
| $20,000-$49,999 | 1.1 (0.62-1.82)          | 1.3 (0.77-2.29)            | 0.8 (0.46-1.48)                     | 0.6 (0.34-1.15)        | 0.8 (0.44-1.37)           | 1.7 (0.90-3.24)                     |
| $50,000-$74,999 | 2.0 (0.91-4.28)         | 1.2 (0.62-2.36)            | 1.0 (0.51-1.83)                     | 0.8 (0.38-1.69)        | 0.5 (0.24-0.99)           | 2.5 (1.13-5.30)                     |
| ≥$75,000+    | 1.0                        | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| Metropolitan Statistical Area |                  |                            |                                     |                        |                          |                                      |
| Large metro+ | 1.0                        | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| Small metro  | 1.5 (0.98-2.22)            | 1.4 (0.86-2.12)            | 1.0 (0.59-1.53)                     | 0.7 (0.37-1.32)        | 0.7 (0.42-1.00)           | 0.5 (0.31-0.94)                     |
| Non-metro    | 1.8 (1.04-2.99)            | 1.4 (0.85-2.37)            | 1.0 (0.60-1.51)                     | 0.7 (0.40-1.13)        | 0.5 (0.31-0.94)           | 2.6 (1.52-4.59)                     |
| Suicide Plan |                            |                            |                                     |                        |                          |                                      |
| Yes          | 0.5 (0.23-1.14)            | 4.1 (1.69-9.83)            | 2.5 (1.06-5.76)                     | 0.6 (0.25-1.46)        | 4.8 (2.45-9.39)           | 0.9 (0.36-2.03)                     |
| No+          | 1.0                        | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| Tobacco Use & Disorder |                  |                            |                                     |                        |                          |                                      |
| PM nicotine dependence (ND) | 1.2 (0.63-2.44)        | 1.4 (0.75-2.61)            | 3.0 (1.47-6.28)                     | 2.2 (0.99-4.67)        | 2.5 (1.32-4.57)           | 0.6 (0.27-1.22)                     |
| PY tobacco use, no PM ND  | 0.9 (0.46-1.79)          | 1.0 (0.56-1.95)            | 1.8 (0.92-3.52)                     | 1.7 (0.83-3.62)        | 2.0 (1.06-3.70)           | 0.5 (0.24-1.16)                     |
| No PY tobacco use+ | 1.0                      | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |
| Alcohol Use & Disorder |                  |                            |                                     |                        |                          |                                      |
| PY alcohol use disorder | 1.6 (0.94-2.75)          | 1.8 (1.02-3.22)            | 1.0 (0.59-1.73)                     | 0.6 (0.29-1.07)        | 0.6 (0.34-1.15)           | 2.9 (1.61-5.16)                     |
| PY alcohol use, no disorder | 1.5 (0.97-2.33)          | 1.7 (1.06-2.85)            | 1.2 (0.76-1.74)                     | 0.7 (0.38-1.14)        | 0.8 (0.49-1.19)           | 2.3 (1.25-4.12)                     |
| No PY alcohol use + | 1.0                      | 1.0                        | 1.0                                 | 1.0                    | 1.0                      | 1.0                                 |

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| Among Adults with Past-Year Buprenorphine Use | OUD: Misuse vs. No misuse | No OUD: Misuse vs. No misuse | Misuse & OUD vs. No Misuse & No OUD | Misuse: OUD vs. No OUD | No Misuse: OUD vs. No OUD | Misuse, No OUD vs. No Misuse, OUD |
|---------------------------------------------|---------------------------|-----------------------------|-------------------------------------|------------------------|--------------------------|-----------------------------|
| **Cannabis Use & Disorder**                 |                           |                             |                                     |                        |                          |                             |
| PY cannabis use disorder                    | 1.4 (0.65-3.05)           | 0.8 (0.38-1.49)             | 1.9 (0.97-3.56)                     | 2.5 (1.18-5.19)        | 1.3 (0.66-2.63)          | 0.6 (0.26-1.26)            |
| PY cannabis use, but no disorder            | 1.2 (0.78-1.90)           | 1.0                         | 1.0                                 | 1.0                    | 1.0                      | 1.0                        |
| No PY cannabis use+                         | 1.0                       |                             |                                     |                        |                          |                             |
| **Cocaine Use & Disorder**                  |                           |                             |                                     |                        |                          |                             |
| PY use or disorder                          | 2.3 (1.09-4.71)           | 4.0 (2.35-6.92)             | 9.8 (4.81-20.10)                    | 2.4 (1.30-4.59)        | 4.3 (1.81-10.38)         | 0.9 (0.41-2.10)            |
| Lifetime use, no PY use                     | 1.9 (1.02-3.59)           | 2.1 (1.37-3.28)             | 3.7 (2.14-6.45)                     | 1.8 (1.03-3.00)        | 1.9 (0.97-3.89)          | 1.1 (0.51-2.36)            |
| Never use+                                  | 1.0                       |                             |                                     |                        |                          |                             |
| **Rx Sed./Tranq. Misuse & Disorder**        |                           |                             |                                     |                        |                          |                             |
| PY misuse & disorder                        | 0.9 (0.46-1.66)           | 0.9 (0.57-1.50)             | 1.7 (1.09-2.72)                     | 1.9 (1.13-3.03)        | 2.0 (1.00-3.87)          | 0.5 (0.22-1.03)            |
| PY use, no misuse                           | 0.3 (0.16-0.64)           | 0.3 (0.19-0.47)             | 0.4 (0.23-0.71)                     | 1.4 (0.83-2.22)        | 1.3 (0.62-2.63)          | 0.8 (0.29-2.01)            |
| Lifetime use, no PY use                     | 0.6 (0.25-1.34)           | 0.7 (0.34-1.45)             | 0.5 (0.28-1.00)                     | 0.8 (0.35-1.61)        | 0.9 (0.45-1.86)          |                             |
| Never use+                                  | 1.0                       |                             |                                     |                        |                          |                             |
| **Rx. Stimulant Misuse & Disorder**         |                           |                             |                                     |                        |                          |                             |
| PY use disorder                             | 3.9 (1.34-11.23)          | 3.3 (0.91-12.35)            | 4.0 (1.37-11.60)                    | 1.2 (0.43-3.27)        | 1.0 (0.26-4.04)          | 3.3 (0.78-13.62)           |
| PY misuse, no disorder                      | 1.6 (1.00-2.62)           | 1.2 (0.68-2.16)             | 0.7 (0.36-1.38)                     | 0.6 (0.32-1.04)        | 0.4 (0.21-0.88)          | 2.8 (1.62-4.81)            |
| No PY misuse +                              | 1.0                       |                             |                                     |                        |                          |                             |
| **PY Hydrocodone Product Misuse**           |                           |                             |                                     |                        |                          |                             |
| Yes                                        | 0.8 (0.51-1.30)           | 4.3 (2.65-7.08)             | 4.9 (2.97-8.16)                     | 1.1 (0.74-1.75)        | 6.9 (3.10-11.73)         | 0.7 (0.39-1.32)            |
| No+                                        | 1.0                       |                             |                                     |                        |                          |                             |
| **PY Oxycodeone Product Misuse**            |                           |                             |                                     |                        |                          |                             |
| Yes                                        | 1.9 (1.18-3.05)           | 3.9 (2.31-6.46)             | 10.0 (5.77-16.23)                   | 2.5 (1.49-4.21)        | 5.1 (2.80-9.29)          | 0.8 (0.38-1.50)            |
| No+                                        | 1.0                       |                             |                                     |                        |                          |                             |
| **PY Substance Use Treatment**              |                           |                             |                                     |                        |                          |                             |
| Drug only                                   | 0.4 (0.27-0.67)           | 0.4 (0.21-0.58)             | 1.7 (1.05-2.82)                     | 4.9 (2.79-8.67)        | 4.0 (2.60-6.17)          | 0.1 (0.05-0.15)            |
| Both alcohol and drug                       | 1.0 (0.56-1.90)           | 0.7 (0.31-1.64)             | 2.6 (1.40-4.82)                     | 3.6 (1.84-7.10)        | 2.5 (1.17-5.43)          | 0.3 (0.14-0.58)            |
| None+                                      | 1.0                       |                             |                                     |                        |                          |                             |

Data source: 2469 respondents of 2015-2019 National Surveys on Drug Use and Health data. Misuse=buprenorphine misuse; OUD=opiod use disorder; PY=past year; PM=past month; Rx=prescription; Sed./Tranq=sedative or tranquilizer; Each *bolded* estimate is statistically significantly (P<0.05) different from the estimate of the reference group (with + sign). Other variables, which were presented in Table 2, but not in Table 3, were not significantly associated with the outcomes and were removed from this final multinomial logistic regression model. Age, sex, and race/ethnicity remained in the final model regardless of their statistical significance.