Supplemental Table 1. ICD-9/ICD10 Codes used to identify opioid overdose

| **Code** | **Description** | **ICD-9-CM Code** | **ICD-10-CM Code** |
| --- | --- | --- | --- |
| 96500 | Poisoning by opium (alkaloids), unspecified  | X |  |
| 96501 | Poisoning by heroin  | X |  |
| 96502 | Poisoning by methadone  | X |  |
| 96509 | Poisoning by other opiates and related narcotics  | X |  |
| E8500 | Accidental poisoning by heroin  | X |  |
| E8501 | Accidental poisoning by methadone  | X |  |
| E8502 | Accidental poisoning by other opiates and related narcotics  | X |  |
| T400x | Poisoning by opium |  | X |
|  T401x | Poisoning by heroin |  | X |
| T402x | Poisoning by other opioids |  | X |
| T403x | Poisoning by methadone |  | X |
| T404x | Poisoning by synthetic narcotics |  | X |

Supplemental Table 2: Fatal opioid overdose unadjusted incidence rate following release from the Oregon Department of Corrections from 2014 to 2017.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Factor** | **Fatal Events** | **Person-Years** | **Events per 100,000 person years** | **95% CI** |
| **Total**  | 65 | 53,327.3 | 121.9 | (100.4-144.6) |
| **Sex** |  |  |  |  |
| Male | 53 | 46,251.6 | 114.6 | (94.0- 136.9) |
| Female | 12 | 7,075.7 | 169.6 | (144.5- 196.5) |
| **Age** |  |  |  |  |
| <26 | <11\* | \* | 98.5 | (79.6-119.4) |
| 26-64 | 54 | 44,336.7 | 121.8 | (100.4-144.6) |
| >64 | <11\* | \* | 344.8 | (308.6-382.3) |
| **SUD treatment need** |  |  |  |  |
| Yes | 53 | 35,585.4 | 148.9 | (125.1-173.9) |
| No | 12 | 17,741.9 | 67.6 | (51.9-85.1) |
| **Drug offense**  |  |  |  |  |
| Yes (Only or some) | 18 | 9,327.0 | 193.0 | (165.8-221.2) |
| No (None or NA) | 47 | 44,000.3 | 106.8 | (86.8-128.2) |
| **Mental health treatment need** |  |  |  |  |
| No | 51 | 42,614.9 | 119.7 | (98.6-142.4) |
| Yes | 14 | 10,712.4 | 130.7 | (108.6-154.4) |
| **Time since release** |  |  |  |  |
| 1-14 days | <11\* | \* | 857.5 | (800.6-916.4) |
| >14 days | >54\* | \* | 112.1 | (92.2-134.8) |

\*Suppressed for low sample size; NA = not available; SUD = substance use disorder;

Supplemental Table 3: Proportional Hazards Model of factors associated with fatal opioid overdose following release from the Oregon Department of Corrections from 2014 to 2017.

|  |  |  |
| --- | --- | --- |
|  | **Unadjusted** | **Adjusted** |
|  | HR (95% CI) | p-value | aHR (95% CI)\* | p-value |
| **Sex** |  |  |  |  |
| Female | 1.48 (0.79-2.76) | 0.22 | 1.27 (0.66-2.46) | 0.47 |
| Male | Reference |  | Reference |  |
| **Age** |  |  |  |  |
| <26 | 0.29 (0.08-1.10) | 0.07 | 0.21 (0.06-0.81) | 0.02 |
| 26-64 | 0.36 (0.11-1.15) | 0.08 | 0.25 (0.08-0.81) | 0.02 |
| >64 | Reference |  | Reference |  |
| **SUD treatment need** |  |  |  |  |
| Yes | 2.20 (1.18-4.11) | 0.01 | 2.21 (1.16-4.20) | 0.02 |
| No | Reference |  | Reference |  |
| **Drug offense**  |  |  |  |  |
| Yes (Only or some) | 1.81 (1.05-3.12) | 0.03 | 1.68 (0.97-2.92) | 0.06 |
| No (None or NA) | Reference |  | Reference |  |
| **Mental health treatment need** |  |  |  |  |
| Yes | 1.09 (0.60-1.97) | 0.78 | 0.98 (0.54-1.84) | 0.98 |
| No | Reference |  | Reference |  |

HR = hazard ratio; NA= not available; SUD = substance use disorder