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## Drug Overdose Deaths in Alaska, 2009–2015

### Background

In 2012, Alaska's prescription opioid pain reliever (OPR) overdose death rate was more than double the rate in the United States (10.5 vs. 5.1 per 100,000 persons, respectively), and Alaska's heroin-associated overdose death rate was over 50% higher than the national rate (3.0 vs. 1.9 per 100,000 persons, respectively).<sup>1,2</sup> This *Bulletin* provides an update on drug overdose deaths in Alaska during 2009–2015.

### Methods

The Alaska Bureau of Vital Statistics mortality database was queried to characterize the epidemiology of deaths due to drug overdose using International Classification of Disease, 10<sup>th</sup> Revision (ICD-10) Codes for drug poisoning.\* The analysis included all overdose deaths that occurred in Alaska; it did not include Alaska residents that died out-of-state. Age-adjusted death rates were calculated for 2009–2014 using Alaska Population Estimates (the most recent population data available through 2014) and 2000 U.S. Census data.

### Results

During 2009–2015, 774 drug overdose deaths were entered into the Alaska mortality database. Overall, 512 (66%) decedents had a prescription drug noted as the primary or a contributing cause of death. Of the 311 illicit drug\* overdose deaths that were recorded in the database, 128 (41%) noted heroin as either the primary or a contributing cause of death. During 2009–2015, the average annual age-adjusted drug overdose death rate was 15.0 per 100,000 persons (range: 10.5–17.9 per 100,000 persons; Table).

During 2009–2014, rates by sex were 17.0 per 100,000 males and 12.9 per 100,000 females. Rates by race were highest among American Indian/Alaska Native (AI/AN) people, followed by Whites, Blacks, and Asian/Pacific Islanders (20.2, 15.3, 11.8, and 4.0 per 100,000 persons, respectively). Rates by age-group were highest for adults aged 45–54 and 35–44 years (28.6 and 28.5 per 100,000 persons, respectively). Rates by region were highest in Anchorage/Mat-Su (17.5 per 100,000 persons), followed by the Gulf Coast, Interior, Southeast, Southwest, and Northern regions (16.2, 12.6, 11.7, 7.3<sup>‡</sup>, and 6.3<sup>‡</sup> per 100,000 persons, respectively).

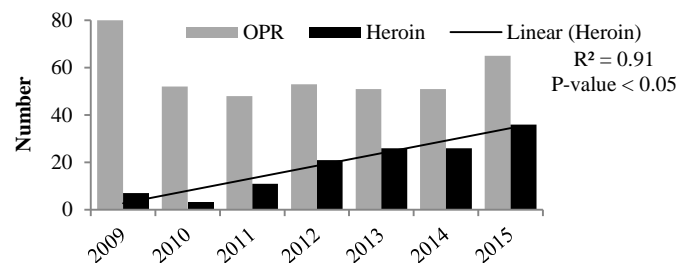
In 2010, the rate of OPR-associated overdose deaths declined considerably (from 11.2 per 100,000 persons in 2009 to 7.3 per 100,000 persons in 2010); however, the rates have not changed substantially since then (Figure). By comparison, since 2010, the number of heroin-associated overdose deaths increased more than 10-fold from <5 deaths in 2010 to 34 deaths in 2015 (Figure).

### Discussion

This report highlights a number of important points. First, consistent with national trends, heroin overdose deaths have continued to increase steadily every year in Alaska since 2010.<sup>3</sup> Moreover, drug overdose death rates remained highest among males and middle-aged adults, and the regional distribution of drug overdose deaths was considerably higher in regions with urban centers and growing populations, although all Alaska regions were affected.

Preventive measures to reverse the drug addiction and overdose death epidemic need to be implemented statewide, including adoption of new guidelines for management of chronic pain and increasing the availability of naloxone to reverse potentially fatal respiratory depression cause by opioid overdose.<sup>1,3-5</sup> The Substance Abuse and Mental Health Services Administration (SAMHSA) provides assistance to states to enhance and maximize prescription drug monitoring programs. It also offers a range of services and support to help states and local communities implement prevention programs, improve access to treatment and rehabilitation services, and expand education and law enforcement initiatives.<sup>6</sup>

**Figure. Overdose Deaths Associated with OPR or Heroin — Alaska, 2009–2015**



### References

- Alaska Epidemiology *Bulletin-Recommendations and Reports*. "Health Impacts of Heroin Use in Alaska." No. 1, July 14, 2015. Available at: [http://www.epi.alaska.gov/bulletins/docs/rr2015\\_01.pdf](http://www.epi.alaska.gov/bulletins/docs/rr2015_01.pdf)
- CDC Wide-ranging Online Data for Epidemiologic Research (CDC WONDER). Available at: <http://wonder.cdc.gov>
- CDC. Increases in drug and opioid overdose death — United States, 2000–2014. *MMWR*;64(50):1378-82. Available at: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s\\_cid=mm6450a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s_cid=mm6450a3_w)
- CDC. CDC Guideline for prescribing opioids for chronic pain—United States, 2016. *MMWR Recomm Rep* 2016;65:1-49. Available at: <http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm>
- Compton WM, et al. Relationship between nonmedical prescription-opioid use and heroin use. *N Eng J Med* 2016;374(2):154-163.
- SAMHSA. SAMHSA's recovery support efforts. Available at: <http://www.samhsa.gov/recovery/samhsas-efforts>

**Table. Alaska Drug Overdose Deaths, by Drug Category — Alaska, 2009–2015**

| Category                           | Number of Deaths Per Year (Age-Adjusted Rate of Overdose Deaths per 100,000 Pop. Per Year) <sup>†</sup> |                 |            |            |            |            |                   |
|------------------------------------|---|-----------------|------------|------------|------------|------------|-------------------|
|                                    | 2009  | 2010            | 2011       | 2012       | 2013       | 2014       | 2015 <sup>‡</sup> |
| Prescription Drugs*                | 104 (14.4)  | 60 (8.5)        | 58 (7.8)   | 76 (10.5)  | 69 (9.1)   | 71 (10.0)  | 83 (11.0)         |
| Opioid Pain Relievers*             | 80 (11.2)   | 52 (7.3)        | 48 (6.4)   | 53 (7.3)   | 51 (6.7)   | 51 (7.2)   | 65 (8.5)          |
| Illicit Drugs*                     | 36 (5.1)  | 21 (2.8)        | 40 (5.2)   | 55 (7.1)   | 51 (7.0)   | 55 (7.4)   | 59 (7.8)          |
| Heroin*                            | 7 (1.0)   | NR <sup>‡</sup> | 11 (1.4)   | 21 (2.7)   | 26 (3.5)   | 26 (3.5)   | 36 (4.7)          |
| Unspecified Drugs*                 | 7 (9.0)   | NR <sup>‡</sup> | 16 (2.2)   | 24 (3.5)   | 15 (2.0)   | 20 (2.5)   | 19 (2.5)          |
| Total Overdose Deaths <sup>‡</sup> | 131 (17.9)  | 76 (10.5)       | 104 (13.9) | 125 (17.0) | 106 (14.2) | 123 (16.7) | 121 (16.0)        |

\*Drug category queried by ICD-10 Codes for 1) Underlying Causes X40-44, X60-64, X85, and Y10-14, and 2) Contributory Causes for prescription drugs (T36-39, T40.2-40.4; T41-43.5; and T43.7-50.8), OPRs (T40.2-40.4), illicit drugs (T40.1, heroin; T40.5, cocaine; T40.7, cannabis; T40.8, LSD, T40.9, hallucinogens; and T43.6, stimulants), and unspecified drugs (T50.9 without any other drugs listed).

<sup>†</sup>Rates based on <20 occurrences are statistically unreliable and should be used with caution; rates based on ≤5 occurrences were not reported (NR).

<sup>‡</sup>The 2015 data are preliminary and therefore subject to change; the rates were computed using 2014 population estimates.

<sup>§</sup>Individual overdose deaths counted in the Total Overdose Deaths row may belong to multiple drug categories (e.g., heroin and OPR) simultaneously.