

## **Drug-Poisoning Deaths Involving Opioid Analgesics and Heroin: Idaho Residents, 2000–2015**

In the United States, all death certificates must list a single underlying cause of death, defined as the disease, injury, or condition that directly led to the death. The underlying cause of death is used in mortality reporting. However, it is becoming more common practice to incorporate multiple-cause-of-death data as well. The National Center for Health Statistics' (NCHS) multiple-cause-of-death program provides the Idaho Bureau of Vital Records and Health Statistics with multiple-causes-of-death, or other diseases, injuries, or conditions listed on the death certificate that, in addition to the underlying cause, contributed to death. Analysis of the underlying cause of death, in conjunction with contributing causes, can provide more detail on the death, in this case reported opioid analgesic (also called opioid pain relievers) and heroin involvement in drug-poisonings (also called drug overdoses).

Underlying and contributing causes of death were classified using the International Classification of Diseases, Tenth Revision (ICD-10). ICD-10, created by the World Health Organization, is a system that assigns alphanumeric codes to diseases, injuries, or conditions that were underlying or contributing causes of death. This standardized classification system allows for direct comparison of mortality for diseases, injuries, or conditions between states and national data.

We examined Idaho resident deaths from 2000 to 2015, where drug poisoning was listed on the death certificate as the underlying cause of death. Drug-poisoning deaths were identified using underlying cause of death codes X40–X44, X60–X64, X85, and Y10–Y14. These deaths were further subdivided into deaths with reported involvement of opioid analgesics and/or heroin. Drug-poisoning deaths involving opioid analgesics were drug-poisoning deaths with a multiple cause code of T40.2, T40.3, or T40.4. Drug-poisoning deaths involving heroin were drug-poisoning deaths with a multiple cause code of T40.1. In Idaho, seven drug poisoning deaths involved both opioid analgesics and heroin.

These data have at least two limitations. Some drug-poisoning deaths lacked information on the specific drugs involved; the death certificate certifier is not required to include this information. It is possible that some of these deaths may have involved opioid analgesics and/or heroin. Further, multiple-cause-of-death data, including possible involvement of heroin and opioid analgesics, were not available for Idaho residents who died out-of-state from 2000 to 2010. Because of these factors, the data presented in this report likely underestimate the number of deaths and mortality rates for drug-poisoning deaths that involved heroin and opioid analgesics. For Idaho residents, the underlying cause of death is always provided on the death certificate, whether the death occurred in-state or out-of-state, so the underlying cause of death data from 2000 to 2015 were not affected.

**Table 1.** Number and percent of drug-poisoning deaths reporting involvement of opioid analgesics and heroin by manner of death: Idaho residents, 2000-2015.

Manner of Death	Involving opioid					
	Drug poisoning		analgesics		Involving heroin	
	n	%	n	%	n	%
Accident	1,490	63%	631	71%	64	93%
Suicide	489	21%	122	14%	2	3%
Undetermined Intent	368	16%	137	15%	3	4%
Homicide	10	<1%	2	<1%	0	-
<b>Total</b>	<b>2,357</b>	<b>100%</b>	<b>892</b>	<b>100%</b>	<b>69</b>	<b>100%</b>

Seven drug-poisoning deaths involved both opioid analgesics and heroin. Deaths involving both opioid analgesics and heroin were included in both the opioid analgesic and heroin categories for the given manner of death.

**Table 2.** Number and age-adjusted mortality rates for drug-poisoning deaths that reported involvement of opioid analgesics and heroin: Idaho residents and the United States, 2000–2015.

Year	Drug poisoning											
	All		Involving opioid analgesics <sup>+</sup>				Involving heroin <sup>+</sup>					
	Idaho		United States <sup>1</sup>		Idaho		United States <sup>1</sup>		Idaho <sup>#</sup>		United States <sup>1</sup>	
n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate	
2000	64	5.1	17,415	6.2	20	1.6	4,400	1.6	1	0.1	1,842	0.7
2001	99	7.9	19,394	6.8	39	3.1	5,528	1.9	6	0.5	1,779	0.6
2002	116	9.0	23,518	8.2	38	3.0	7,456	2.6	4	0.3	2,089	0.7
2003	102	7.8	25,785	8.9	45	3.5	8,517	2.9	2	0.1	2,080	0.7
2004	98	7.3	27,424	9.4	38	2.8	9,857	3.4	5	0.3	1,878	0.6
2005	110	7.9	29,813	10.1	36	2.6	10,928	3.7	3	0.2	2,009	0.7
2006	128	9.0	34,425	11.5	57	4.0	13,723	4.6	4	0.3	2,088	0.7
2007	120	8.2	36,010	11.9	50	3.4	14,408	4.8	3	0.2	2,399	0.8
2008	148	9.9	36,450	11.9	64	4.3	14,800	4.9	1	0.1	3,041	1.0
2009	174	11.9	37,004	11.9	62	4.2	15,597	5.1	1	0.1	3,278	1.1
2010	180	12.0	38,329	12.3	72	4.8	16,651	5.4	1	0.1	3,036	1.0
2011	192	12.8	41,340	13.2	76	5.1	16,917	5.4	2	0.1	4,397	1.4
2012	183	12.0	41,502	13.1	84	5.5	16,007	5.1	1	0.1	5,925	1.9
2013	209	13.5	43,982	13.8	69	4.3	16,235	5.1	6	0.4	8,257	2.7
2014	211	13.7	47,055	14.7	66	4.3	18,893	5.9	12	0.8	10,574	3.4
2015	223	14.6	*	*	76	5.1	*	*	17	1.1	*	*

Rates are per 100,000 population.

<sup>#</sup>Rates are unreliable when the rate was calculated with a numerator (number of deaths) of less than 20.

<sup>+</sup>Data on the contribution of heroin and opioid analgesics to death was not available for Idaho residents who died out-of-state from 2000-2010.

<sup>1</sup>Data for the United States were not available for 2015.

A small subset of drug-poisoning deaths involved both opioid analgesics and heroin for both Idaho (7 deaths) and the United States. Deaths involving both opioid analgesics and heroin were included in both the opioid analgesics and heroin categories.

#### Reference

1. National Center for Health Statistics. Number and age-adjusted rates of drug-poisoning deaths involving opioid analgesics and heroin: United States, 2000–2014. Division of Vital Statistics, Mortality Data. December 2015. Accessed at- [https://www.cdc.gov/nchs/data/health\\_policy/AADR\\_drug\\_poisoning\\_involving\\_OA\\_Heroin\\_US\\_2000-2014.pdf](https://www.cdc.gov/nchs/data/health_policy/AADR_drug_poisoning_involving_OA_Heroin_US_2000-2014.pdf)

**Contact** For more information on this report, contact the Bureau of Vital Records and Health Statistics at (208) 334-6571.

**Prepared by** This report was prepared by Briana Coles, MPH, Senior Research Analyst, of the Idaho Department of Health and Welfare.

**Suggested citation** *Drug-Poisoning Deaths Involving Opioid Analgesics and Heroin: Idaho Residents, 2000–2015*, Idaho Department of Health and Welfare, Division of Public Health, Bureau of Vital Records and Health Statistics, August 2017.