

Data Brief 356. Drug Overdose Deaths in the United States, 1999–2018

Data table for Figure 1. Age-adjusted drug overdose death rates, by sex: United States, 1999–2018

Year	Total		Male		Female	
	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000
1999	16,849	6.1	11,258	8.2	5,591	3.9
2000	17,415	6.2	11,563	8.4	5,852	4.1
2001	19,394	6.8	12,658	9.0	6,736	4.6
2002	23,518	8.2	15,028	10.6	8,490	5.8
2003	25,785	8.9	16,399	11.5	9,386	6.4
2004	27,424	9.4	17,120	11.8	10,304	6.9
2005	29,813	10.1	18,724	12.8	11,089	7.3
2006	34,425	11.5	21,893	14.8	12,532	8.2
2007	36,010	11.9	22,298	14.9	13,712	8.8
2008	36,450	11.9	22,468	14.9	13,982	8.9
2009	37,004	11.9	22,593	14.8	14,411	9.1
2010	38,329	12.3	23,006	15.0	15,323	9.6
2011	41,340	13.2	24,988	16.1	16,352	10.2
2012	41,502	13.1	25,112	16.1	16,390	10.2
2013	43,982	13.8	26,799	17.0	17,183	10.6
2014	47,055	14.7	28,812	18.3	18,243	11.1
2015	52,404	16.3	32,957	20.8	19,447	11.8
2016	63,632	19.8	41,558	26.2	22,074	13.4
2017	70,237	21.7	46,552	29.1	23,685	14.4
2018	67,367	20.7	44,941	27.9	22,426	13.6

NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14.

SOURCE: NCHS, National Vital Statistics System, Mortality.

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Data table for Figure 2. Change in age-adjusted drug overdose death rates, by state: United States, 2017 and 2018

State	2017		2018		Percent change in rate from 2017 to 2018	Significant change
	Number	Deaths per 100,000	Number	Deaths per 100,000		
Alabama	835	18.0	775	16.6	-7.78	No
Alaska	147	20.2	110	14.6	-27.72	Yes
Arizona	1,532	22.2	1,670	23.8	7.21	No
Arkansas	446	15.5	444	15.7	1.29	No
California	4,868	11.7	5,348	12.8	9.40	Yes
Colorado	1,015	17.6	995	16.8	-4.55	No
Connecticut	1,072	30.9	1,069	30.7	-0.65	No
Delaware	338	37.0	401	43.8	18.38	Yes
District of Columbia	310	44.0	254	35.4	-19.55	Yes
Florida	5,088	25.1	4,698	22.8	-9.16	Yes
Georgia	1,537	14.7	1,404	13.2	-10.20	Yes
Hawaii	203	13.8	213	14.3	3.62	No
Idaho	236	14.4	250	14.6	1.39	No
Illinois	2,778	21.6	2,722	21.3	-1.39	No
Indiana	1,852	29.4	1,629	25.6	-12.93	Yes
Iowa	341	11.5	287	9.6	-16.52	Yes
Kansas	333	11.8	345	12.4	5.08	No
Kentucky	1,566	37.2	1,315	30.9	-16.94	Yes
Louisiana	1,108	24.5	1,140	25.4	3.67	No
Maine	424	34.4	345	27.9	-18.90	Yes
Maryland	2,247	36.3	2,324	37.2	2.48	No
Massachusetts	2,168	31.8	2,241	32.8	3.14	No
Michigan	2,694	27.8	2,591	26.6	-4.32	No
Minnesota	733	13.3	636	11.5	-13.53	Yes
Mississippi	354	12.2	310	10.8	-11.48	No
Missouri	1,367	23.4	1,610	27.5	17.52	Yes
Montana	119	11.7	125	12.2	4.27	No
Nebraska	152	8.1	138	7.4	-8.64	No
Nevada	676	21.6	688	21.2	-1.85	No
New Hampshire	467	37.0	452	35.8	-3.24	No
New Jersey	2,685	30.0	2,900	33.1	10.33	Yes
New Mexico	493	24.8	537	26.7	7.66	No
New York	3,921	19.4	3,697	18.4	-5.15	Yes
North Carolina	2,414	24.1	2,259	22.4	-7.05	Yes
North Dakota	68	9.2	70	10.2	10.87	No
Ohio	5,111	46.3	3,980	35.9	-22.46	Yes
Oklahoma	775	20.1	716	18.4	-8.46	No
Oregon	530	12.4	547	12.6	1.61	No
Pennsylvania	5,388	44.3	4,415	36.1	-18.51	Yes
Rhode Island	320	31.0	317	30.1	-2.90	No
South Carolina	1,008	20.5	1,125	22.6	10.24	Yes
South Dakota	73	8.5	57	6.9	-18.82	No
Tennessee	1,776	26.6	1,823	27.5	3.38	No
Texas	2,989	10.5	3,005	10.4	-0.95	No
Utah	650	22.3	624	21.2	-4.93	No
Vermont	134	23.2	153	26.6	14.66	No
Virginia	1,507	17.9	1,448	17.1	-4.47	No
Washington	1,169	15.2	1,164	14.8	-2.63	No
West Virginia	974	57.8	856	51.5	-10.90	Yes
Wisconsin	1,177	21.2	1,079	19.2	-9.43	Yes
Wyoming	69	12.2	66	11.1	-9.02	No

NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. The age-adjusted drug overdose death rate in the United States in 2018 was 20.7 per 100,000 standard population.

SOURCE: NCHS, National Vital Statistics System, Mortality.

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Data table for Figure 3. Age-adjusted drug overdose death rates involving opioids, by type of opioid: United States, 1999–2018

Year	Any opioid		Heroin		Natural and semisynthetic opioids		Methadone		Synthetic opioids other than methadone	
	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000	Number	Deaths per 100,000
1999	8,050	2.9	1,960	0.7	2,749	1.0	784	0.3	730	0.3
2000	8,407	3.0	1,842	0.7	2,917	1.0	986	0.4	782	0.3
2001	9,496	3.3	1,779	0.6	3,479	1.2	1,456	0.5	957	0.3
2002	11,920	4.1	2,089	0.7	4,416	1.5	2,358	0.8	1,295	0.4
2003	12,940	4.5	2,080	0.7	4,867	1.7	2,972	1.0	1,400	0.5
2004	13,756	4.7	1,878	0.6	5,231	1.8	3,845	1.3	1,664	0.6
2005	14,918	5.1	2,009	0.7	5,774	1.9	4,460	1.5	1,742	0.6
2006	17,545	5.9	2,088	0.7	7,017	2.3	5,406	1.8	2,707	0.9
2007	18,516	6.1	2,399	0.8	8,158	2.7	5,518	1.8	2,213	0.7
2008	19,582	6.4	3,041	1.0	9,119	3.0	4,924	1.6	2,306	0.8
2009	20,422	6.6	3,278	1.1	9,735	3.1	4,696	1.5	2,946	1.0
2010	21,089	6.8	3,036	1.0	10,943	3.5	4,577	1.5	3,007	1.0
2011	22,784	7.3	4,397	1.4	11,693	3.7	4,418	1.4	2,666	0.8
2012	23,166	7.4	5,925	1.9	11,140	3.5	3,932	1.2	2,628	0.8
2013	25,052	7.9	8,257	2.7	11,346	3.5	3,591	1.1	3,105	1.0
2014	28,647	9.0	10,574	3.4	12,159	3.8	3,400	1.1	5,544	1.8
2015	33,091	10.4	12,989	4.1	12,727	3.9	3,301	1.0	9,580	3.1
2016	42,249	13.3	15,469	4.9	14,487	4.4	3,373	1.0	19,413	6.2
2017	47,600	14.9	15,482	4.9	14,495	4.4	3,194	1.0	28,466	9.0
2018	46,802	14.6	14,996	4.7	12,552	3.8	3,023	0.9	31,335	9.9

NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Among deaths with drug overdose as the underlying cause, the following multiple cause-of-death codes indicate the drug type(s) involved: any opioid (T40.0–T40.4, T40.6), heroin (T40.1), natural and semisynthetic opioids (T40.2), methadone (T40.3), and synthetic opioids other than methadone (T40.4). Deaths involving more than one opioid category (e.g., a death involving both methadone and a natural and semisynthetic opioid such as oxycodone) are counted in both categories. Natural and semisynthetic opioids include drugs such as morphine, oxycodone, and hydrocodone; and synthetic opioids other than methadone include drugs such as fentanyl, fentanyl analogs and tramadol. Deaths may involve more than one drug. The percent of drug overdose deaths that identified the specific drugs involved varied by year ranging from 75%–79% from 1999 through 2013 and from 81%–92% from 2014 through 2018.

SOURCE: NCHS, National Vital Statistics System, Mortality.

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Data table for Figure 4. Age-adjusted drug overdose death rates involving stimulants, by type of stimulant: United States, 1999–2018

Year	Cocaine		Psychostimulants with abuse potential	
	Number	Deaths per 100,000	Number	Deaths per 100,000
1999	3,822	1.4	547	0.2
2000	3,544	1.3	578	0.2
2001	3,833	1.3	563	0.2
2002	4,599	1.6	941	0.3
2003	5,199	1.8	1,179	0.4
2004	5,443	1.9	1,305	0.4
2005	6,208	2.1	1,608	0.5
2006	7,448	2.5	1,462	0.5
2007	6,512	2.2	1,378	0.4
2008	5,129	1.7	1,302	0.4
2009	4,350	1.4	1,632	0.5
2010	4,183	1.3	1,854	0.6
2011	4,681	1.5	2,266	0.7
2012	4,404	1.4	2,635	0.8
2013	4,944	1.6	3,627	1.2
2014	5,415	1.7	4,298	1.4
2015	6,784	2.1	5,716	1.8
2016	10,375	3.2	7,542	2.4
2017	13,942	4.3	10,333	3.2
2018	14,666	4.5	12,676	3.9

NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Among deaths with drug overdose as the underlying cause, the following multiple cause-of-death codes indicate the drug type(s) involved: cocaine (T40.5), psychostimulants with abuse potential (T43.6). Psychostimulants with abuse potential include drugs such as methamphetamine, amphetamine, and methylphenidate. Deaths may involve more than one drug. The percent of drug overdose deaths that identified the specific drugs involved varied by year ranging from 75%–79% from 1999 through 2013 and from 81%–92% from 2014 through 2018.

SOURCE: NCHS, National Vital Statistics System, Mortality.