

**Table 1. Number, crude and age-adjusted rates of drug overdose deaths involving fentanyl, hydrocodone, hydromorphone, oxycodone and oxymorphone, by Health and Human Services Region: United States, 2019-2021**

Public Health Region <sup>2</sup>		Fentanyl <sup>1</sup>								
		2019			2020			2021		
		Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>
U.S. Total		35,436	10.79	11.15	55,785	16.83	17.38	69,943	21.07	21.64
Region 1	CT, ME, MA, NH, RI, VT	3,699	24.91	26.05	4,127	27.33	28.32	4,770	31.60	32.21
Region 2	NJ, NY, and NYC	4,538	16.00	16.05	6,017	20.44	20.46	6,956	23.90	23.65
Region 3	DE, DC, MD, PA, VA, WV	6,548	21.20	21.75	9,135	29.22	29.90	9,859	31.57	32.01
Region 4	AL, FL, GA, KY, MS, NC, SC, TN	7,267	10.85	11.59	13,260	19.71	21.01	17,345	25.58	27.25
Region 5	IL, IN, MI, MN, OH, WI	8,057	15.33	16.10	11,663	21.99	23.11	13,250	25.04	26.07
Region 6	AR, LA, NM, OK, TX	966	2.26	2.33	2,335	5.44	5.61	4,200	9.70	9.97
Region 7	IA, KS, MO, NE	1,056	7.47	8.06	1,602	11.25	12.08	2,082	14.60	15.66
Region 8	CO, MT, ND, SD, UT, WY	356	2.90	2.92	802	6.47	6.58	1,318	10.54	10.70
Region 9	AZ, CA, HI, NV	2,507	4.89	4.93	5,840	11.40	11.48	8,131	15.91	15.90
Region 10	AK, ID, OR, WA	442	3.08	3.12	1,004	6.90	7.14	2,032	13.90	14.00

  

Public Health Region <sup>2</sup>		Hydrocodone								
		2019			2020			2021		
		Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>
U.S. Total		2,276	0.69	0.65	2,557	0.77	0.73	2,523	0.76	0.72
Region 1	CT, ME, MA, NH, RI, VT	47	0.32	0.29	44	0.29	0.26	58	0.38	0.36
Region 2	NJ, NY, and NYC	94	0.33	0.30	114	0.39	0.37	107	0.37	0.34
Region 3	DE, DC, MD, PA, VA, WV	106	0.34	0.32	163	0.52	0.50	136	0.44	0.42
Region 4	AL, FL, GA, KY, MS, NC, SC, TN	581	0.87	0.82	642	0.95	0.92	668	0.99	0.95
Region 5	IL, IN, MI, MN, OH, WI	465	0.88	0.87	513	0.97	0.94	472	0.89	0.86
Region 6	AR, LA, NM, OK, TX	336	0.79	0.77	416	0.97	0.95	406	0.94	0.92
Region 7	IA, KS, MO, NE	113	0.80	0.76	97	0.68	0.70	91	0.64	0.63
Region 8	CO, MT, ND, SD, UT, WY	102	0.83	0.81	80	0.65	0.60	88	0.70	0.66
Region 9	AZ, CA, HI, NV	332	0.65	0.59	384	0.75	0.69	388	0.76	0.68
Region 10	AK, ID, OR, WA	100	0.70	0.61	104	0.72	0.67	109	0.75	0.67

  

Public Health Region <sup>2</sup>		Hydromorphone								
		2019			2020			2021		
		Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>
U.S. Total		569	0.17	0.17	588	0.18	0.17	625	0.19	0.18
Region 1	CT, ME, MA, NH, RI, VT	33	0.22	0.21	40	0.26	0.23	27	0.18	0.17
Region 2	NJ, NY, and NYC	41	0.14	0.13	56	0.19	0.17	77	0.26	0.23
Region 3	DE, DC, MD, PA, VA, WV	49	0.16	0.15	71	0.23	0.23	53	0.17	0.16
Region 4	AL, FL, GA, KY, MS, NC, SC, TN	163	0.24	0.24	166	0.25	0.24	178	0.26	0.26
Region 5	IL, IN, MI, MN, OH, WI	73	0.14	0.14	69	0.13	0.12	63	0.12	0.11
Region 6	AR, LA, NM, OK, TX	42	0.10	0.10	37	0.09	0.08	54	0.12	0.12
Region 7	IA, KS, MO, NE	18	*	*	17	*	*	16	*	*
Region 8	CO, MT, ND, SD, UT, WY	32	0.26	0.26	33	0.27	0.26	31	0.25	0.25
Region 9	AZ, CA, HI, NV	94	0.18	0.17	66	0.13	0.12	84	0.16	0.15
Region 10	AK, ID, OR, WA	24	0.17	0.15	33	0.23	0.21	42	0.29	0.28

Public Health Region <sup>2</sup>	Oxycodone								
	2019			2020			2021		
	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>
U.S. Total	4,624	1.41	1.37	5,121	1.54	1.51	5,060	1.52	1.47
Region 1 CT, ME, MA, NH, RI, VT	326	2.20	2.04	306	2.03	1.90	313	2.07	1.85
Region 2 NJ, NY, and NYC	483	1.70	1.62	561	1.91	1.86	542	1.86	1.79
Region 3 DE, DC, MD, PA, VA, WV	559	1.81	1.77	633	2.02	1.95	609	1.95	1.87
Region 4 AL, FL, GA, KY, MS, NC, SC, TN	1,330	1.99	1.95	1,462	2.17	2.16	1,544	2.28	2.23
Region 5 IL, IN, MI, MN, OH, WI	558	1.06	1.04	614	1.16	1.15	607	1.15	1.13
Region 6 AR, LA, NM, OK, TX	303	0.71	0.70	361	0.84	0.84	370	0.85	0.84
Region 7 IA, KS, MO, NE	165	1.17	1.20	158	1.11	1.12	163	1.14	1.20
Region 8 CO, MT, ND, SD, UT, WY	274	2.23	2.27	300	2.42	2.42	252	2.02	2.01
Region 9 AZ, CA, HI, NV	452	0.88	0.84	533	1.04	1.00	467	0.91	0.84
Region 10 AK, ID, OR, WA	174	1.21	1.13	193	1.33	1.24	193	1.32	1.21

Public Health Region <sup>2</sup>	Oxymorphone								
	2019			2020			2021		
	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>	Number	Crude rate	adjusted rate <sup>3</sup>
U.S. Total	575	0.18	0.17	565	0.17	0.16	539	0.16	0.15
Region 1 CT, ME, MA, NH, RI, VT	33	0.22	0.21	22	0.15	0.13	28	0.19	0.15
Region 2 NJ, NY, and NYC	45	0.16	0.16	90	0.31	0.29	83	0.29	0.28
Region 3 DE, DC, MD, PA, VA, WV	91	0.29	0.28	91	0.29	0.28	72	0.23	0.21
Region 4 AL, FL, GA, KY, MS, NC, SC, TN	219	0.33	0.32	174	0.26	0.25	190	0.28	0.27
Region 5 IL, IN, MI, MN, OH, WI	55	0.10	0.10	51	0.10	0.09	57	0.11	0.10
Region 6 AR, LA, NM, OK, TX	33	0.08	0.08	24	0.06	0.06	23	0.05	0.06
Region 7 IA, KS, MO, NE	*	*	*	*	*	*	*	*	*
Region 8 CO, MT, ND, SD, UT, WY	24	0.20	0.19	34	0.27	0.27	23	0.18	0.18
Region 9 AZ, CA, HI, NV	54	0.11	0.10	53	0.10	0.10	47	0.09	0.09
Region 10 AK, ID, OR, WA	14	*	*	18	*	*	11	*	*

\* Sub-national counts between 1-9 are suppressed in accordance with NCHS confidentiality standards. Estimates based on counts less than 20 are suppressed in accordance with NCHS standards of reliability as specified in NCHS Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf).)

<sup>1</sup> Includes drug overdose deaths involving fentanyl, fentanyl analogs, and fentanyl metabolites.

<sup>2</sup> U.S. Department of Health and Human Services (HHS) regions by state of residence: Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), Region 2 (New Jersey, New York, and New York City), Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia), Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee), Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin), Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), Region 7 (Iowa, Kansas, Missouri, and Nebraska), Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming),

<sup>3</sup> Age-adjusted death rates (deaths per 100,000 standard population) were calculated using the direct method and adjusted to the 2000 standard population.

NOTES: Drug overdose deaths were identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Specific drugs were identified from the death certificate literal text using the Drug Mentioned with Involvement (DMI) methods. Deaths may involve other drugs in addition to the referent drug group. As the DMI text methods continue to improve over time, the reporting of drug overdose deaths involving specific drugs may be different from previous reports. Deaths involving more than one referent drug group (e.g., a death involving both fentanyl and hydrocodone) were counted in both totals. To avoid counting the same death multiple times, the numbers and percentages for drug-specific deaths should not be summed. Caution should be used when comparing numbers and rates across years and regions. In 2019, 2020, 2021, the reporting of at least one specific drug varied by region (Region 1, 99.2, 99.5, 99.3; Region 2, 98.0, 98.1, 98.0; Region 3, 91.5, 93.6, 94.4; Region 4, 93.7, 93.6, 94.8; Region 5, 94.6,

SOURCE: NCHS National Vital Statistics System, 2019-2021.

**Table 2. Number and rate of drug overdose deaths involving fentanyl, hydrocodone, hydromorphone, oxycodone and oxymorphone, by age group and sex: United States, 2019-2021**

	2019					
	Total		Female		Male	
	Number	Crude Rate	Number	Crude Rate	Number	Crude Rate
<b>Fentanyl<sup>1</sup></b>						
All Ages	35,436	10.79	9,500	5.70	25,936	16.04
<15 years	48	0.08	21	0.07	27	0.09
15 - 24 years	3,014	7.06	855	4.09	2,159	9.89
25 - 34 years	10,504	22.83	2,900	12.82	7,604	32.51
35 - 44 years	9,247	22.19	2,361	11.31	6,886	33.11
45 - 54 years	6,819	16.69	1,831	8.85	4,988	24.74
55 - 64 years	4,824	11.37	1,328	6.05	3,496	17.06
65+ years	974	1.80	201	0.67	773	3.21
<b>Hydrocodone</b>						
All Ages	2,276	0.69	1,126	0.68	1,150	0.71
<15 years	4	*	-	-	4	*
15 - 24 years	75	0.18	25	0.12	50	0.23
25 - 34 years	301	0.65	125	0.55	176	0.75
35 - 44 years	425	1.02	200	0.96	225	1.08
45 - 54 years	526	1.29	273	1.32	253	1.25
55 - 64 years	615	1.45	315	1.44	300	1.46
65+ years	330	0.61	188	0.63	142	0.59
<b>Hydromorphone</b>						
All Ages	569	0.17	300	0.18	269	0.17
<15 years	1	*	1	*	-	-
15 - 24 years	21	0.05	7	*	14	*
25 - 34 years	85	0.18	38	0.17	47	0.20
35 - 44 years	123	0.30	68	0.33	55	0.26
45 - 54 years	116	0.28	60	0.29	56	0.28
55 - 64 years	138	0.33	79	0.36	59	0.29
65+ years	85	0.16	47	0.16	38	0.16
<b>Oxycodone</b>						
All Ages	4,624	1.41	2,061	1.24	2,563	1.59
<15 years	7	*	4	*	3	*
15 - 24 years	208	0.49	54	0.26	154	0.71
25 - 34 years	748	1.63	272	1.20	476	2.03
35 - 44 years	980	2.35	409	1.96	571	2.75
45 - 54 years	1,106	2.71	548	2.65	558	2.77
55 - 64 years	1,141	2.69	531	2.42	610	2.98
65+ years	432	0.80	241	0.80	191	0.79
<b>Oxymorphone</b>						
All Ages	575	0.18	247	0.15	328	0.20
<15 years	-	-	-	-	-	-
15 - 24 years	29	0.07	8	*	21	0.10
25 - 34 years	117	0.25	37	0.16	80	0.34
35 - 44 years	122	0.29	57	0.27	65	0.31
45 - 54 years	128	0.31	55	0.27	73	0.36
55 - 64 years	134	0.32	67	0.31	67	0.33
65+ years	45	0.08	23	0.08	22	0.09

2020

	Total		Female		Male	
	Number	Crude Rate	Number	Crude Rate	Number	Crude Rate
<b>Fentanyl<sup>1</sup></b>						
All Ages	55,785	16.83	14,715	8.80	41,070	25.01
<15 years	101	0.16	43	0.14	58	0.18
15 - 24 years	5,415	12.59	1,438	6.83	3,977	18.12
25 - 34 years	15,836	34.67	4,187	18.58	11,649	50.31
35 - 44 years	14,743	34.36	3,882	18.22	10,861	50.30
45 - 54 years	10,515	25.58	2,831	13.76	7,684	37.43
55 - 64 years	7,539	17.50	1,991	9.06	5,548	26.31
65+ years	1,626	2.99	343	1.15	1,283	5.23
<b>Hydrocodone</b>						
All Ages	2,257	0.77	1,180	0.71	1,377	0.84
<15 years	2	*	-	-	2	*
15 - 24 years	101	0.23	25	0.12	76	*
25 - 34 years	356	0.78	137	0.61	219	0.95
35 - 44 years	533	1.24	231	1.08	302	1.40
45 - 54 years	571	1.39	284	1.38	287	1.40
55 - 64 years	671	1.56	328	1.49	343	1.63
65+ years	323	0.59	175	0.59	148	0.60
<b>Hydromorphone</b>						
All Ages	588	0.18	295	0.18	293	0.18
<15 years	2	*	1	*	1	*
15 - 24 years	18	*	8	*	10	*
25 - 34 years	94	0.21	44	0.20	50	0.22
35 - 44 years	120	0.28	58	0.27	62	0.29
45 - 54 years	136	0.33	67	0.33	69	0.34
55 - 64 years	163	0.38	87	0.40	76	0.36
65+ years	55	0.10	30	0.10	25	0.10
<b>Oxycodone</b>						
All Ages	5,121	1.54	2,195	1.31	2,926	1.78
<15 years	9	*	5	*	4	*
15 - 24 years	265	0.62	76	0.36	189	0.86
25 - 34 years	840	1.84	301	1.34	539	2.33
35 - 44 years	1,159	2.70	483	2.27	676	3.13
45 - 54 years	1,204	2.93	570	2.77	634	3.09
55 - 64 years	1,194	2.77	545	2.48	649	3.08
65+ years	448	0.82	215	0.72	233	0.95
<b>Oxymorphone</b>						
All Ages	565	0.17	256	0.15	309	0.19
<15 years	-	-	-	-	-	-
15 - 24 years	30	0.07	9	*	21	0.10
25 - 34 years	97	0.21	40	0.18	57	0.25
35 - 44 years	107	0.25	44	0.21	63	0.29
45 - 54 years	143	0.35	65	0.32	78	0.38
55 - 64 years	138	0.32	72	0.33	66	0.31
65+ years	49	0.09	26	0.09	23	0.09

2021

	Total		Female		Male	
	Number	Crude Rate	Number	Crude Rate	Number	Crude Rate
<b>Fentanyl<sup>1</sup></b>						
All Ages	69,943	21.07	19,096	11.40	50,847	30.93
<15 years	183	0.30	90	0.30	93	0.30
15 - 24 years	5,917	13.73	1,756	8.33	4,161	18.92
25 - 34 years	18,573	40.82	5,003	22.29	13,570	58.86
35 - 44 years	18,899	43.54	5,098	23.66	13,801	63.14
45 - 54 years	13,298	32.68	3,675	18.04	9,623	47.38
55 - 64 years	10,595	24.75	2,919	13.37	7,676	36.62
65+ years	2,469	4.42	553	1.81	1,916	7.60
<b>Hydrocodone</b>						
All Ages	2,523	0.76	1,225	0.73	1,298	0.79
<15 years	2	*	2	*	-	-
15 - 24 years	71	0.16	26	0.12	45	0.20
25 - 34 years	344	0.76	146	0.65	198	0.86
35 - 44 years	525	1.21	258	1.20	267	1.22
45 - 54 years	556	1.37	261	1.28	295	1.45
55 - 64 years	651	1.52	353	1.62	298	1.42
65+ years	374	0.67	179	0.58	195	0.77
<b>Hydromorphone</b>						
All Ages	625	0.19	299	0.18	326	0.20
<15 years	-	-	-	-	-	-
15 - 24 years	19	*	4	*	15	*
25 - 34 years	85	0.19	36	0.16	49	0.21
35 - 44 years	140	0.32	75	0.35	65	0.30
45 - 54 years	132	0.32	66	0.32	66	0.32
55 - 64 years	168	0.39	82	0.38	86	0.41
65+ years	81	0.15	36	0.12	45	0.18
<b>Oxycodone</b>						
All Ages	5,060	1.52	2,194	1.31	2,866	1.74
<15 years	9	*	5	*	4	*
15 - 24 years	179	0.42	57	0.27	122	0.55
25 - 34 years	840	1.85	270	1.20	570	2.47
35 - 44 years	1,046	2.41	477	2.21	569	2.60
45 - 54 years	1,220	3.00	559	2.74	661	3.25
55 - 64 years	1,216	2.84	558	2.55	658	3.14
65+ years	550	0.98	268	0.87	282	1.12
<b>Oxymorphone</b>						
All Ages	539	0.16	230	0.14	309	0.19
<15 years	1	*	-	-	1	*
15 - 24 years	17	*	3	*	14	*
25 - 34 years	85	0.19	32	0.14	53	0.23
35 - 44 years	108	0.25	48	0.22	60	0.27
45 - 54 years	130	0.32	58	0.28	72	0.35
55 - 64 years	139	0.32	63	0.29	76	0.36
65+ years	59	0.11	26	0.08	33	0.13

- Quantity zero.

\* Estimates based on counts less than 20 are suppressed in accordance with NCHS standards of reliability as specified in NCHS Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf).)

1 Includes drug overdose deaths involving fentanyl, fentanyl analogs, and fentanyl metabolites.

NOTES: Drug overdose deaths were identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Specific drugs were identified from the death certificate literal text using the Drug Mentioned with Involvement (DMI) methods. As the DMI text methods continue to improve over time, the reporting of drug overdose deaths involving specific drugs may be different from previous reports. Deaths may involve other drugs in addition to the referent drug group. Deaths involving more than one referent drug group (e.g., a death involving both fentanyl and hydrocodone) were counted in both totals. To avoid counting the same death multiple times, the numbers and percentages for drug-specific deaths should not be summed. Caution should be used when comparing numbers across years. The reporting of at least one specific drug in the literal text varied by year (2019, 93.7%; 2020, 94.4%; 2021, 95.2%). Counts of death for unknown age are not included in table.

SOURCE: NCHS National Vital Statistics System, 2019–2021.