

2017 Overdose Death Report

Summary:

- The number and rate of drug & alcohol caused deaths has increased over the past decade.
- Heroin and/or prescription opioids are involved in most overdose deaths.
- Fentanyl-related deaths increased between 2016 and 2017.
- Methamphetamine-involved deaths increased significantly in recent years.
- Most overdose deaths are attributed to multiple drugs.

METHODS

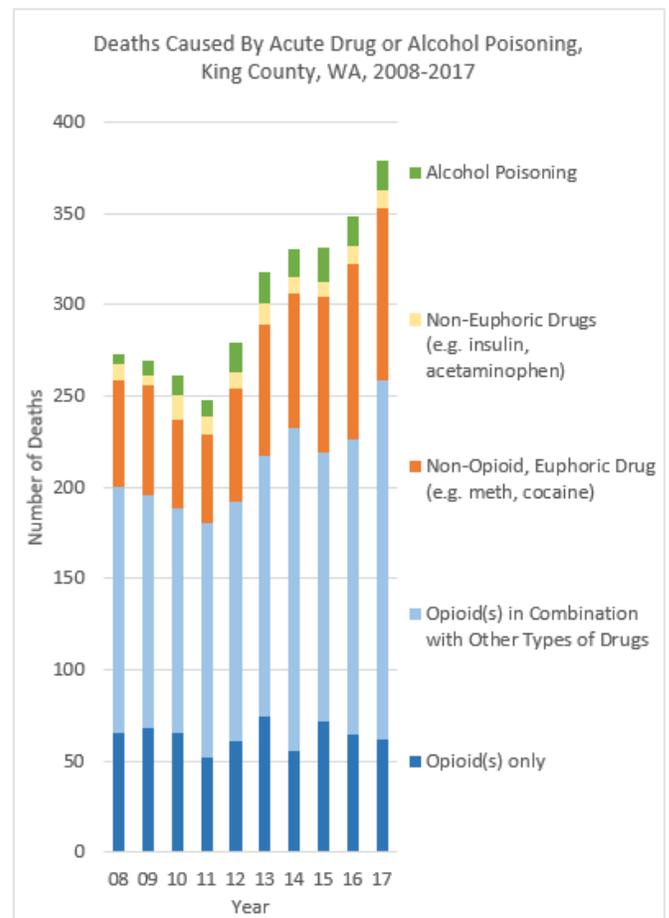
The King County Medical Examiner's Office (MEO) investigates deaths that occur in King County that are unexpected, sudden, violent, suspicious, and/or lack a known cause. Drug overdose deaths typically meet at least one of these criteria and are thus investigated by the MEO. This report describes deaths that occurred between 2008-2017 that were investigated by the MEO and attributed to acute drug or alcohol poisoning. All of the deaths described in this report underwent autopsy and toxicology testing, which determines which drugs were present at time of death. Race/ethnicity was determined post-mortem, based upon information provided by next of kin and physical examination. A national evaluation of death certificate data¹ concluded that misclassification of race/ethnicity is uncommon for non-Hispanic White, Black, Asian, and Hispanic decedents; misclassification is more common for American Indian/Alaskan Native¹ decedents, potentially causing mortality to be underestimated in this sub-group. For rate estimates, deaths investigated by the King County MEO served as the numerator and population estimates published by the Washington State Office of Financial Management served as the denominator.

DRUG & ALCOHOL CAUSED DEATHS INCREASED OVER THE PAST DECADE

The number of confirmed drug and alcohol deaths investigated by the King County MEO has increased over the past decade: from 272 in 2008 to 383 in 2017. The corresponding 2008 and 2017 rates (which adjusts for population growth) are 14.4 and 17.8 drug and alcohol caused deaths per 100,000, respectively.

TYPES OF DRUGS INVOLVED IN FATAL OVERDOSE

In 2017, 49% of drug and alcohol-caused deaths involved opioids in combination with other substances; 19% involved opioids alone; 25% involved non-opioid euphoric

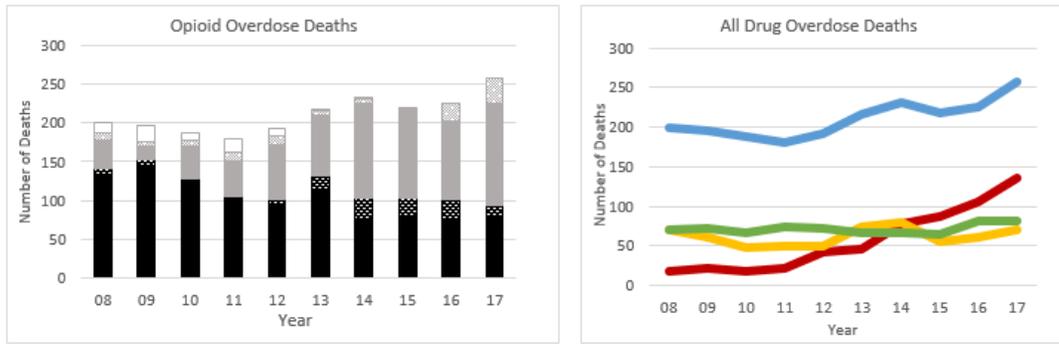


drugs, such as methamphetamine or cocaine; 4% were attributed to non-euphoric drugs, such as insulin and acetaminophen; and 3% were attributed to acute alcohol poisoning. These relative proportions have been stable over time.

Opioid-involved deaths: The number and rate of opioid-involved overdose deaths increased from 200 (10.6 deaths per 100,000) in 2008 to 260 (12.0 deaths per 100,000) in 2017. The percentage of opioid overdoses involving heroin

¹Arias et al. The validity of race and Hispanic-origin reporting on death certificates in the United States: An update. National Center for Health Statistics. Vital Health Stat 2(172). 2016.

Description of the Drugs Involved in Overdoses that Occurred in King County, WA, 2008-2017



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	#	#	#	#	#	#	#	#	#	#
Opioid	200	196	188	180	192	217	232	219	226	260
Prescription (Rx) Opioid	133	144	125	102	93	114	75	80	76	80
Rx Opioid & Heroin	9	9	4	3	8	18	28	24	26	15
Heroin	36	16	40	46	70	77	123	111	101	132
Any Fentanyl-Type Drugs	9	6	8	11	12	6	5	3	23	33
Unspecified Opioid	13	21	11	18	9	2	1	1	0	0
Methamphetamine	18	21	18	22	43	46	78	88	106	139
Cocaine	71	62	48	49	49	75	79	56	61	71
Benzodiazepine	70	72	67	75	73	66	66	64	82	82
Total # of Deaths Caused by Acute Drug or Alcohol Poisoning	272	266	262	245	278	317	331	331	348	383
Estimated Rate of Acute Drug or Alcohol Poisoning Deaths (# of deaths per 100,000 KC residents)	14.4	14.1	13.5	12.8	14.3	16.0	16.4	16.1	16.5	17.6

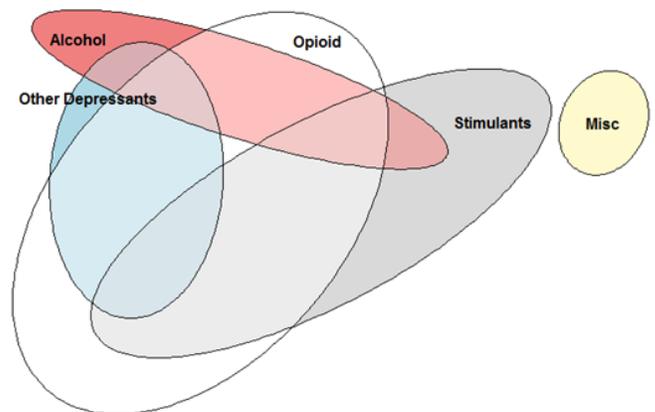
increased from 23% in 2008 to 59% in 2017. Conversely, the percentage of opioid overdoses involving prescription opioids decreased from 73% to 39% between 2008 and 2017.

Fentanyl-involved deaths: In 2017, 33 overdose deaths involved fentanyl, up from 23 deaths that occurred in 2016. It is not possible to interpret long-term trends regarding fentanyl, given changes in toxicology testing protocols. Prior to 2016, only cases suspected to involve fentanyl had specimens tested for fentanyl. Of the 33 deaths involving fentanyl in 2017, 66% also involved other drugs: 11 involved other opioids, 12 involved stimulants, and 8 involved benzodiazepines. Death scene investigations suggest that fentanyl can be consumed in a variety of formats, including: powders, pills, and mixed with other drugs (e.g. heroin).

Stimulant-involved deaths: In 2017, 187 deaths involved stimulants, including 139 deaths (36% of all alcohol/drug-caused deaths) that involved methamphetamine and 71 deaths that involved cocaine. Whereas the rate of opioid-involved deaths has increased modestly over time, the rate of methamphetamine-involved deaths has increased significantly from 1.0 to 6.3 deaths per 100,000 between 2008 and 2017. In contrast, the rate of deaths involving cocaine has remained stable over the past decade.

THE MAJORITY OF OVERDOSE DEATHS INVOLVE MULTIPLE DRUG TYPES.

Of the opioid overdoses that occurred in 2017, 76% also involved stimulants, alcohol, and/or other depressants. Of stimulant-involved deaths in 2017 (n=187), 65% also involved opioids, alcohol, and/or other depressants. The number of deaths involving a combination of opioids and methamphetamine increased from 6 to 84 between 2008



Drug Combinations Involved in Overdose Deaths that Occurred in 2017, King County, WA

Note: Ovals and overlapping areas are proportionate to the number of overdoses attributed to the type of drug(s) present at time of death.

and 2017. This coincided with an increasing percentage of needle exchange clients reporting the use of heroin and methamphetamine in combination.

OVERDOSE DISPROPORTIONATELY IMPACTS MEN, MIDDLE-AGED ADULTS, SOME RACIAL/ETHNIC MINORITIES, AND PEOPLE EXPERIENCING HOMELESSNESS.

In 2016-2017, 88% of drug and alcohol caused deaths occurred among people between the ages of 25 and 64. The rate of drug and alcohol caused deaths among men was almost twice that estimated for women. Despite constituting less than 1% of the King County population, 14% of all drug and alcohol-caused deaths occurred among people presumed homeless-- that is, they were living on the streets or in a shelter, vehicle, or abandoned building at the time immediately preceding their death.

Decedents' demographic background varied by the type of drugs involved in the overdose. Opioid overdoses that did not involve stimulants more commonly occurred among

Characteristics of People with Drug or Alcohol Caused Deaths in King County in 2016-17, by Type of Drugs Involved

	Alcohol & Drug-Caused Deaths		
	#	%	Rate (# of deaths per 100,000 residents ^A per year)
Overall	727	100%	17.1
Age			
15-24	46	6%	8.7
25-44	303	42%	21.9
45-64	331	46%	30.6
65+	47	7%	8.9
Sex			
Male	481	66%	22.6
Female	246	34%	11.5
Race/Ethnicity			
White, non-Hispanic	579	80%	22.2
Black, non-Hispanic	78	11%	28.9
Asian, non-Hispanic	28	4%	4.0
Hispanic	23	3%	5.4
Am. Indian/AK Native, non-Hispanic	33	5%	121.8
Overdose Location			
SeaTac/Tukwila	29	4%	30.3
Seattle	385	53%	27.5
Kent	50	7%	19.9
Federal Way	33	5%	17.4
Auburn	27	4%	17.3
Burien/Des Moines	26	4%	16.0
Kirkland	23	3%	13.5
Renton	25	3%	12.3
Bellevue	24	3%	8.6
Homeless*	102	14%	N/A

*Given uncertainty around the estimated number of homeless individuals living in King County, a rate could not be estimated.

^ASource: <https://ofm.wa.gov/washington-data-research/population-demographics/population-estimates>.

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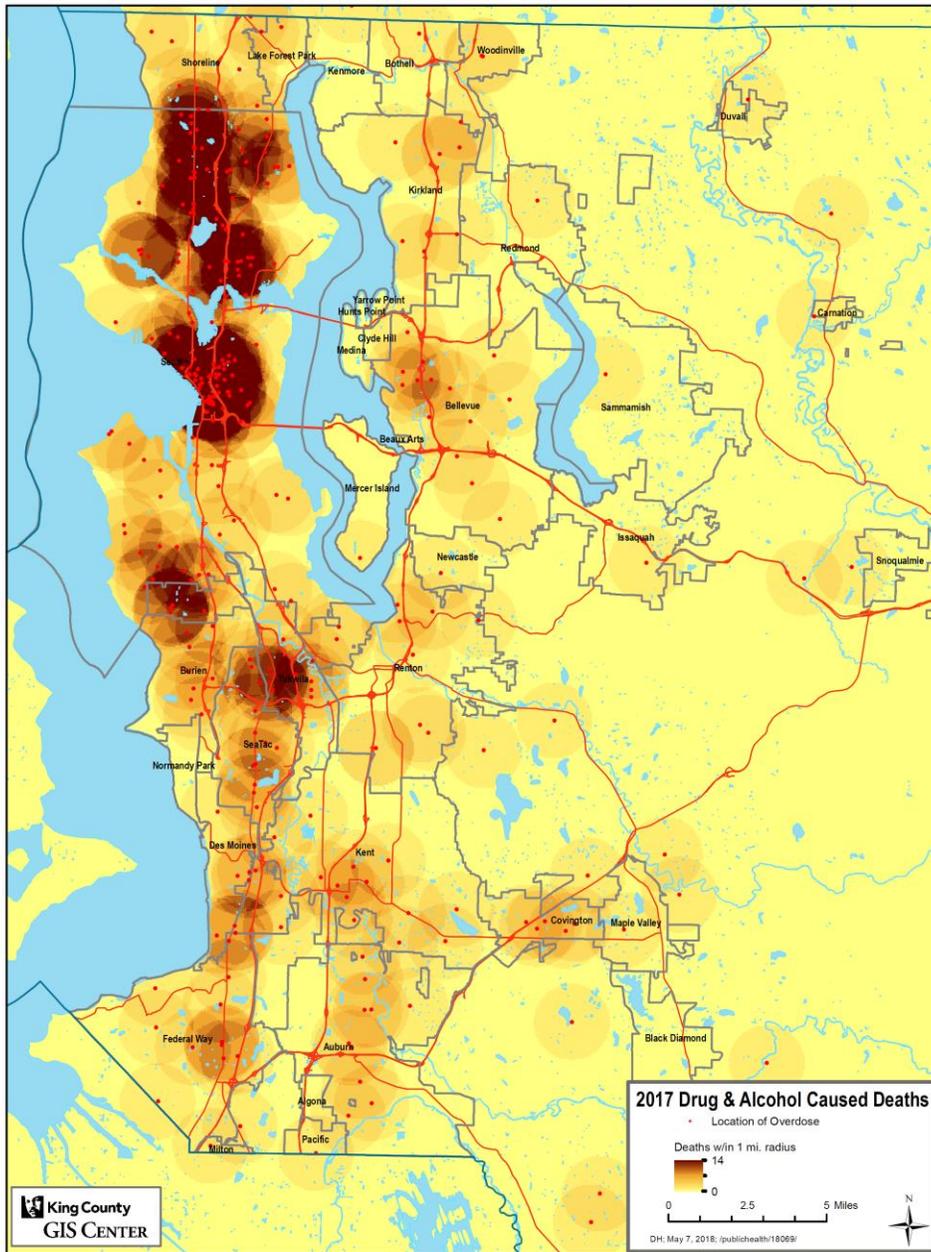
	Opioid-Involved Deaths (No Stimulants)	Opioid- & Stimulant-Involved Deaths	Stimulant-Involved Deaths (No Opioids)
Overall (% of all drug/alcohol deaths)	289 (40%)	195 (27%)	147 (20%)
Median Age (25 th -75 th percentiles)	47 (34-56)	44 (33-53)	49 (40-56)
Male	185 (64%)	139 (71%)	105 (71%)
Race/Ethnicity			
White, non-Hispanic	247 (85%)	151 (77%)	97 (66%)
Black, non-Hispanic	20 (7%)	22 (11%)	31 (21%)
Asian, non-Hispanic	8 (3%)	9 (5%)	5 (3%)
Hispanic	9 (3%)	9 (5%)	5 (3%)
Am. Indian/AK Native, NH	10 (3%)	10 (5%)	10 (7%)
Suicide	26 (9%)	5 (3%)	5 (3%)
Homeless	26 (9%)	42 (22%)	23 (16%)
Occurred in Public Setting	51 (18%)	73 (38%)	44 (30%)
Alcohol present	72 (25%)	32 (16%)	17 (12%)
Other depressant present	111 (38%)	53 (27%)	7 (5%)

women, had evidence of being intentional, and involved other depressants and/or alcohol. Deaths attributed to the combination use of opioids and stimulants occurred more commonly among homeless people; a larger proportion of these fatal overdoses occurred in public settings. Stimulant overdoses that did not involve opioids more commonly occurred among racial minorities.

The estimated rate of drug and alcohol-caused deaths was 5.5 times greater among American Indian/Alaskan Native (AI/AN) than that estimated for (non-Hispanic) whites. Although AI/AN constitute only 0.6% of the King County population¹, this sub-group constituted 5% of all drug and alcohol caused deaths. AI/AN constituted a larger proportion of the stimulant-involved overdose deaths than the opioid/non-stimulant deaths.

The estimated rate of drug and alcohol caused deaths among (non-Hispanic) Black/African Americans (28.5 per 100,000) was higher than that estimate for (non-Hispanic) whites (22.6 per 100,000). Although Black/African Americans constitute 6.3% of the King County population¹, this sub-group constituted 11% of all drug and alcohol caused deaths. Black/African Americans constituted a larger proportion of the stimulant-involved overdose deaths than the opioid/non-stimulant deaths.

<https://ofm.wa.gov/washington-data-research/population-demographics/population-estimates>



DRUG & ALCOHOL CAUSED DEATHS ARE CONCENTRATED IN WEST KING COUNTY.

In 2016-17, 53% of drug and alcohol caused deaths occurred in Seattle. The estimated rates of drug and alcohol-caused deaths were higher in SeaTac/Tukwila (30.3 per 100,000) and Seattle (27.5) than other municipalities: Kent (19.9), Federal Way (17.4), Auburn (17.3), Burien/Des Moines (16.0), Kirkland (13.5), Renton (12.3), and Bellevue (8.6).

FOR MORE INFORMATION, GO TO:

Mortality statistics don't capture the full extent of the overdose and substance use problem. For more information, go to:

Heroin & Prescription Opiate Addiction Task Force:
<https://www.kingcounty.gov/depts/community-human-services/mental-health-substance-abuse/task-forces/heroin-opiates-task-force.aspx>

Overdose prevention information & resources:
<http://stopoverdose.org/>

Drug Trends Reports:
https://ada.washington.edu/WAdata/King_County_cases.htm

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