2018 Overdose Death Report

Public Health
Seattle & King County

Summary:

- **The number and rate of drug & alcohol caused deaths continues to increase.**
- **In 2018, 67% of overdose deaths involved an opioid and 54% involved a stimulant.**
- **Compared to 2017, the number of overdose deaths in 2018 that involved:**
  - **Heroin & prescription opioids was stable**
  - **Fentanyl nearly doubled**
  - **Methamphetamine increased by 19%**
- **Most overdose deaths involved 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 death cases typically meet at least one of these criteria and are thus investigated by the MEO. This report describes MEO-investigated deaths that occurred between 2009-2018 attributed to acute drug or alcohol poisoning. All of the deaths described in this report underwent autopsy and toxicology testing, which determines drugs present at the time of death. In this report, the term "involved" indicates that intoxication from the specified drug was listed as a cause of death.

Race and ethnicity were classified according to information provided by next of kin; if a next of kin was not identified, then race/ethnicity determined through post-mortem physical examination. A national evaluation of death certificate data[i] 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 Native[i] 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.

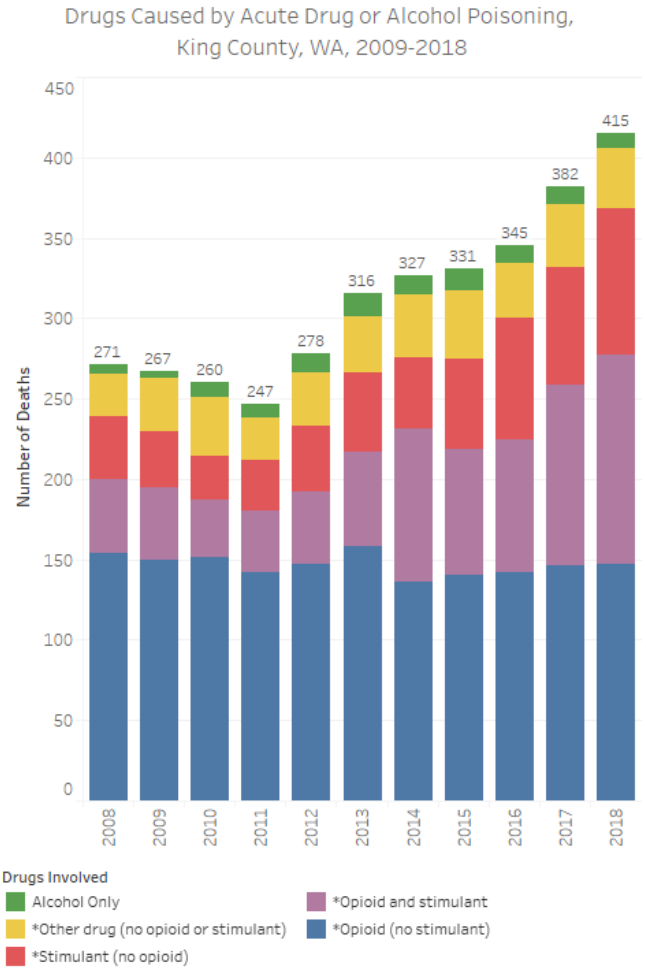
DRUG & ALCOHOL CAUSED DEATHS INCREASED OVER THE PAST DECADE

The number of confirmed drug and alcohol deaths investigated by the King County MEO has increased over the past decade: from 265 in 2009 to 414 in 2018. The corresponding 2009 and 2018 rates (which adjusts for population growth) are 13.9 and 18.9 drug and alcohol caused deaths per 100,000 residents, respectively.

[i]Arias 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.

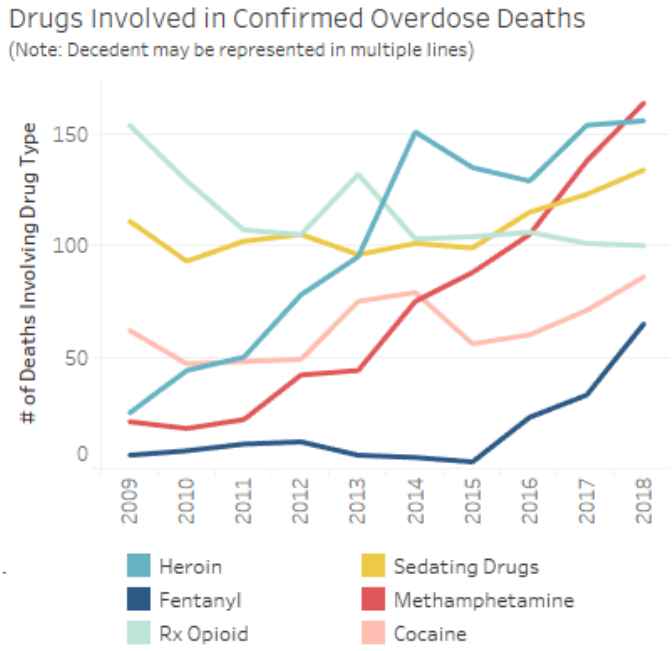
TYPES OF DRUGS INVOLVED IN FATAL OVERDOSE

In 2018, 67% of drug and alcohol-caused deaths involved an opioid and 54% involved a stimulant. Deaths involving a combination of opioids and stimulants has significantly increased from 17% in 2009 to 32% in 2018 (p<.0001).



*May also include sedating drugs and/or alcohol.
Opioid= Fentanyl, Heroin, and/or Prescription Opioids
Stimulant=Methamphetamine and/or cocaine

2018 overdose deaths not involving opioids or stimulants (11%) were attributed to alcohol poisoning (n=9), non-euphoric drugs (e.g., acetaminophen, n=6), or other medications (e.g., anti-depressants, benzodiazepines, and other depressants, n=31).



Note: Across all years, 20-25% of drug overdose deaths also involve alcohol

Opioid-involved overdose deaths: Compared to 2017, the number of heroin and prescription opioid involved deaths was stable. The longer-term trends were more dynamic, with heroin-involved deaths increasing and prescription opioid-involved deaths decreasing. In 2018, 277 deaths involved opioids, including 156 deaths that involved heroin (38% of all alcohol/drug-caused deaths), 100 involved prescription opioids (24% of all alcohol/drug-caused deaths), and 65 involved fentanyl (16% of all alcohol/drug-caused deaths).

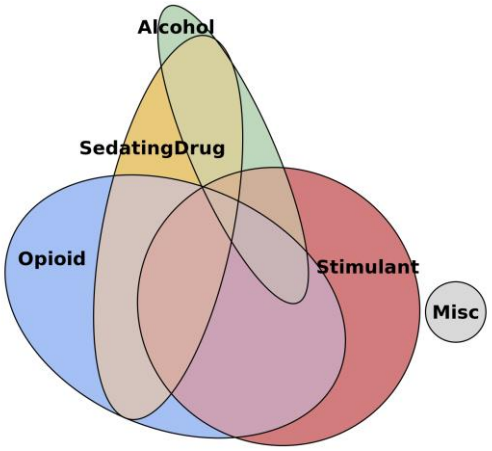
Fentanyl-involved overdose deaths: The number of overdose deaths involving fentanyl has substantially increased in recent years, from 23 deaths in 2016, to 33 deaths in 2017, and to 66 deaths in 2018. The majority (82%) of fentanyl overdoses in 2018 were in combination with other drugs: 16 were in combination with other opioids, 24 with stimulants, and 24 with sedating medications. Among fentanyl-involved deaths, pills were found adjacent to 36 decedents, powder adjacent to 11 decedents, and syringes adjacent to 5 decedents.

Stimulant-involved overdose deaths: In 2018, 221 deaths involved stimulants, including 163 deaths (40% of all alcohol/drug-caused deaths) that involved methamphetamine and 86 deaths that involved cocaine (21% of all alcohol/drug-caused deaths). The rate of methamphetamine--involved deaths has increased significantly from 4.2 to 10.1 deaths per 100,000 between 2009 and 2018.

Alcohol-involved overdose deaths: Similar to prior years, 20% of 2018 drug overdose deaths also involved alcohol and 9 alcohol poisoning deaths occurred.

THE MAJORITY OF OVERDOSE DEATHS INVOLVE MULTIPLE DRUG TYPES.

Of drug or alcohol caused deaths in 2018, 77% involved multiple substances. In this Venn diagram, the ovals and overlapping areas are proportionate to the number of overdoses attributed to the type of drug(s) present at time of death.



DISPARITIES IN OVERDOSE MORTALITY.

We combined 2017 and 2018 data to enhance the stability of sub-group estimates. Decedent characteristics by drug class and by year can be viewed on the dashboard.

In 2017-2018, two-thirds of drug and alcohol caused deaths occurred among people between the ages of 30 and 59. The rate of drug and alcohol caused deaths among men was twice that estimated for women. Despite constituting less than 1% of the King County population, 16% 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.

The estimated rate of drug and alcohol-caused deaths was 4 times greater among American Indian/Alaskan Native than that estimated for (non-Hispanic) whites. Although AI/AN constitute only 0.6% of the King County population[i],

[i] Washington State Office of Financial Management, Forecasting Division, single year intercensal estimates 2001-2009; 2011 – 2018, Community Health Assessment Tool (CHAT), March 2019.

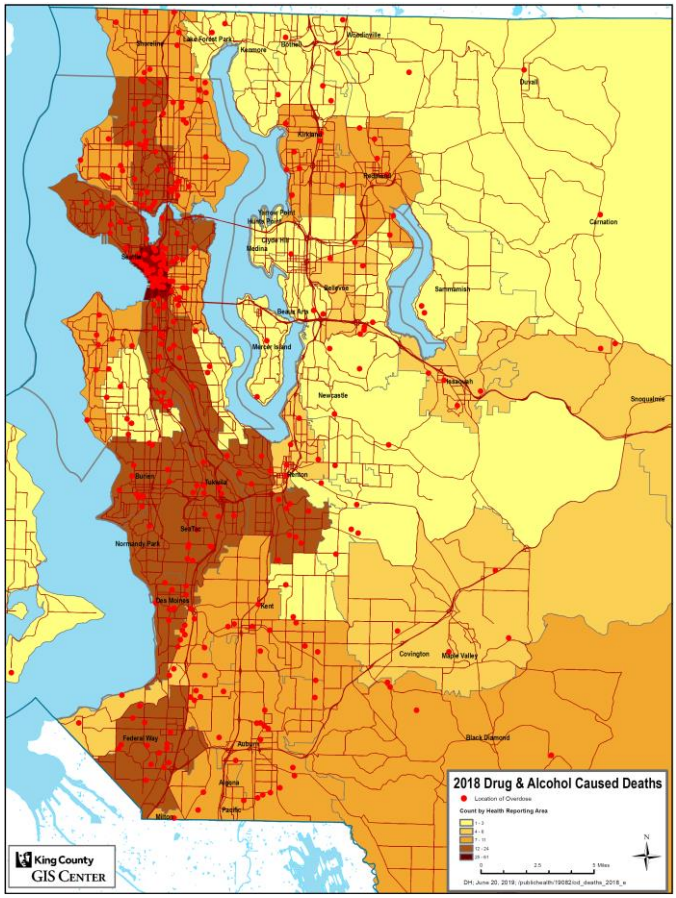
Characteristics of People with Drug or Alcohol Caused Deaths in King County, 2017-18			
	#	%	Rate (# of Deaths per 100,000 residents[i])
Overall	798	100	18.4
Sex			
Male	538	67	24.8
Female	260	33	12.0
Age			
<30	137	17	14.7*
30-39	157	20	21.0
40-49	160	20	27.4
50-59	216	27	39.6
60+	128	16	22.5^
Race/Ethnicity			
White, NH	627	79	23.9
Black, NH	81	10	29.1
Asian, NH	33	4	4.5
Hispanic	19	2	4.3
Am Indian/AK Native	27	3	99.4
Homeless	127	16	N/A
Overdose Location			
SeaTac/Tukwila	32	4	32.8
Seattle	389	49	26.9
Auburn	38	5	26.7
Kent	45	6	17.6
Renton	36	5	14.7
Federal Way	35	4	13.0
Bellevue	30	4	10.5

N/A="Not Available"; there is too much uncertainty regarding the number of people living homeless in King County to be able to estimate the rate of overdose in this sub-population.
*The denominator was limited to residents ages 15-29.
^ The denominator was limited to residents ages 60-74.

this sub-group constituted 3% of all drug and alcohol caused deaths. The estimated rate of drug and alcohol caused deaths among (non-Hispanic) Black/African Americans was 22% higher than that estimate for (non-Hispanic Whites. Although Black/African Americans constitute 6.3% of the King County population[i], this sub-group constitute 10% of all drug and alcohol caused deaths.

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

In 2017-18, 49% of drug and alcohol caused deaths occurred in Seattle. The estimated rates of drug and alcohol-caused deaths were higher in SeaTac/Tukwila (32.8 per 100,000), Seattle (26.9), and Auburn (26.7) than other municipalities: Kent (17.6), Federal Way (13.0), Renton (14.7), and Bellevue (10.5).



FOR MORE INFORMATION, GO TO:

Mortality statistics don't capture the full extent of the overdose and substance use problem. For more comprehensive information about Public Health – Seattle & King County initiatives to address substance, go to www.kingcounty.gov/overdose.

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