All-cause and cause-specific mortality in people using extra-medical opioids

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3 Waves of the Rise in Opioid Overdose Deaths

- **Wave 1:** Rise in Prescription Opioid Overdose Deaths
- **Wave 2:** Rise in Heroin Overdose Deaths
- **Wave 3:** Rise in Synthetic Opioid Overdose Deaths

**Other Synthetic Opioids**
- e.g., Tramadol and Fentanyl, prescribed or illicitly manufactured

**Commonly Prescribed Opioids**
- Natural & Semi-Synthetic Opioids and Methadone

**Heroin**

Major Causes of Unnatural Deaths in BC

- Illicit Drug
- Suicide
- Motor vehicle incident
- Homicide

Deaths vs. Year from 2010 to 2017
Record number of drug deaths in Scotland
There were more than 1,000 drug-related deaths in 2018, with cases involving benzodiazepines increasing rapidly.

- Total drug deaths
- Deaths involving heroin or other opiates
- Benzodiazepines, such as "street valium" or fake xanax

Note: Many cases involve more than one type of drug

Source: National Records of Scotland
Opioid overdose deaths per 100,000, Australia
Figure 4: Mortality caused by opioid poisoning in the Netherlands per 100 000 inhabitants
Mortality among regular or dependent users of heroin and other opioids: a systematic review and meta-analysis of cohort studies

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Aim: estimate all-cause and cause-specific mortality rates and excess mortality
97 cohorts – 117 publications
28 countries (5 LMIC)
N 35 – 306,786
person-years 29 - 687,673
All-cause crude mortality rate: 1.7 per 100 py
All-cause deaths occur at 10 x expected rate
Drug-related deaths: highest cause-specific mortality
0.5 per 100 py
40-60 x expected rate
Excess mortality across causes:

AIDS-related 19 x

Liver-related 9 x
Excess mortality across causes:

Suicide 8 x

Unintentional injuries 7 x

Violence 10 x
Excess mortality across causes:

- Respiratory 11 x
- Cardiovascular 5 x
- Cancer 3 x
Poisoning 32%
NCD 24%
Infectious diseases 20%
Trauma 18%
Unknown 7%
Poisoning 32%

Other NCD 13%

Cancer 7%

Liver 5%

HIV 15%

Other ID 4%

Suicide 8%

Other trauma 10%

Unknown 7%
Multiple strategies to address multiple exposures