Clinical toxicology and Drug and Poison Information Centre

BC Drug and Poison Information Centre

Brirtish Columbia

The most common drug-related generic categories & generic substances from Jan to Aug 2017 were analgesics, sedative/ hypnotics/antipsychotics, stimulants and street drugs, cardiovascular drugs, vitamins, hormones and hormone antagonists, dietary supplements/herbals/homeopathic, antihistamines, topical preparations and antimicrobials.

The Poison Information (24-Hour Line) is available: 604-682-5050 for the lower mainland and 1-800-567-8911 for outside lower mainland.

Differences in Strategies for Reducing Opioid-Overdose Deaths in Canada and States

Unlike Canada where the overdose-reversal drug naloxone available without a prescription, in 36 US states possession of naloxone without a prescription illegal.

Medically supervised injection facilities is Canada is legally approved; there are few if any in the States.

Rates of criminal-justice involvement remain lower in Canada than rates in the United States [but increasing]. [1]

Reasons for refusing or accepting emergency department-based take-home naloxone in BC

➢ **Reasons for refusing**

- ✓ Not at risk of overdose
- ✓ Their ED visit was not the right time or place for take-home naloxone.

➢ **Reasons for accepting**

- ✓ Wanted to save the lives of others.

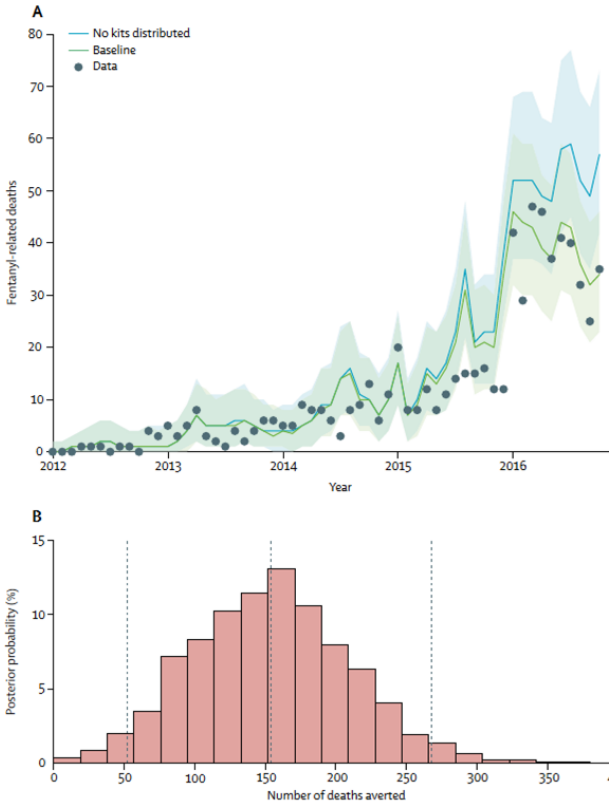
--- Those refusing emergency department-based take-home naloxone may accept elsewhere if referred to appropriate community services for overdose risk education and take-home naloxone distribution.[2]

Estimated number of deaths averted from Jan 1 to Oct 31, 2016, for the retrospective scenarios. The scenarios were: the actual number of take-home naloxone kits that were distributed (baseline); the rate of fentanyl in the supply was the same as in 2015; all the kits distributed in 2016 were instead distributed on Jan 1, 2016; the population of people who use drugs was halved; and the kits were distributed on Jan 1, 2016, and the at-risk population was reduced by a half. Middle line is the median, shaded area is the 50% credible interval, whiskers show the 95% credible interval, and diamonds show the 5% outliers. (figure adopted from Irvine MA, et al.) [3]

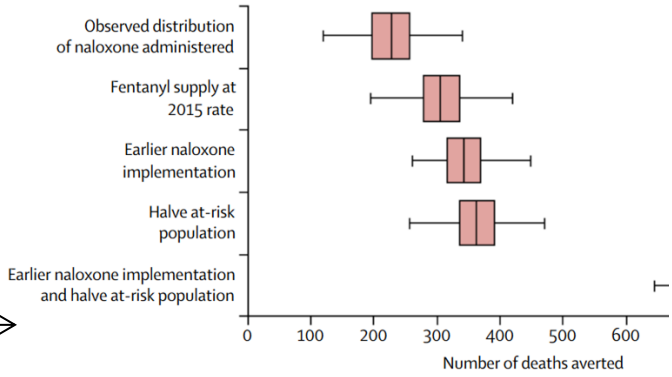
298 deaths were averted by the take-home naloxone program in BC

499 ambulance-attended overdoses and 2,121 illicit drug-related deaths (677 [32%] deaths related to fentanyl) were recorded between 2012 and 2016, mostly since January, 2016. In the same period, 19,074 take-home naloxone kits were distributed.

Authors estimated that 298 deaths (95% credible interval [CrI] 91-474) were averted by the take-home naloxone programme. Of these deaths, 226 (95% CrI 125-340) were averted in 2016.



Total naloxone impact on fentanyl-related deaths (A) Comparison of the number of fentanyl-related deaths between the actual distribution of take-home naloxone kits (baseline) and a counterfactual scenario in which no kits were distributed. Shaded area shows the respective 95% credible interval. (B) Estimated number of fentanyl-related deaths averted during the study period due to distribution of take-home naloxone kits. Dashed lines are the median and 95% credible intervals. (figure adopted from Irvine MA, et al.) [3]



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Fentanyl urine testing in in rural BC

In a pilot study, "24 participants completed the urine test and first interview. Among them 4 had a positive fentanyl urine test.

Later, 15 clients completed the second questionnaire, 10 of whom reported introducing a behavior change after testing and the remaining 5 indicated being already engaged in harm reduction practices.

All four clients who tested positive completed the second questionnaire; all but one indicated adopting behaviors towards overdose prevention."[4]

Hospitalization among street-involved *youth* who use illicit drugs in Vancouver BC

From January 2005 to May 2016, 1,216 youth participated in the study and 373 (31%) reported hospitalization in the previous 6 months.[5]

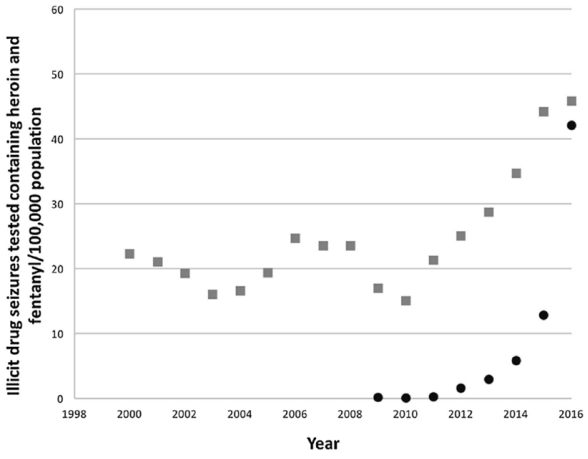
- **The top reported medical reasons for hospital admission were:**
  - ✓ Mental illness (38%),
  - ✓ Physical trauma (13%),
  - ✓ Drug-related issues (13%)

- **Factors significantly associated with hospitalization were:**
  - ✓ Past diagnosis of a mental illness
  - ✓ Frequent cocaine use
  - ✓ Non-fatal overdose (AOR = 1.76; 95% CI 1.37-2.25),
  - ✓ Homelessness (AOR = 1.40; 95% CI 1.16-1.68) (all $p < 0.05$).

Fentanyl and heroin contained in seized illicit drugs and overdose-related deaths in BC

Fentanyl is increasingly being found combined with other opioid and non-opioid illicit drugs. Investigators found the following associations:

- ✓ The number of seized fentanyl samples and total overdose deaths ($R^2 = 0.97$)
- ✓ Seized fentanyl and fentanyl-detected overdose deaths ($R^2 = 0.99$),
- ✓ The number of seized heroin samples and total overdose deaths ($R^2 = 0.78$).



Illicit drug seizures tested and containing heroin and fentanyl in British Columbia from 2006 to 2016. *Data obtained from the Health Canada Drug Analysis Service. Circle=fentanyl, square=heroin (figure adopted from Baldwin N, et al.)[6]

Willingness to test urine in BC

Willingness of people who inject drugs for drug checking offered within supervised injection services were studied among 180 subjects. [7]

Positive associated with willingness to frequently check drugs at supervised injection services exists for:

- ✓ Female gender (Adjusted Odds Ratio 95% CI = 2.31 (1.20-4.46)),
- ✓ Homelessness (2.36 (1.14-4.86)),
- ✓ Drug dealing (2.16 (1.07-4.33))

References

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7. Kennedy MC, Scheim A, Rachlis B, et al. Willingness to use drug checking within future supervised injection services among people who inject drugs in a mid-sized Canadian city. Drug Alcohol Depend 2018;**185**:248-52.