

BCTOX's Toxicology News Surveillance System in BC and Health Regions in June 2018

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Public Health & Environmental Toxicology: What is BCTOX & why?

Health professionals (HP) including policymakers, health educators and researchers need to be regularly updated on environmental toxicology issues to keep up with rapidly evolving toxicology information, emerging health risks from environmental chemicals and to manage issues that are locally highlighted in the popular press and news media.

Environmental toxicology training is limited during education, and when HPs enter the field, they lack information on the responsibilities for regulation and risk communication among local, provincial and federal agencies, as well as their relations to international organizations, scholarly articles, and private sectors, including industry¹. All of these factors lead to avoidable confusion.

BCTOX acts as a local up-to-date resource to answer current toxicology issues. The business model of BCTOX is flexible in order to maximise its applicability. BCTOX is also still developing, and will be determining its future directions along the way.

BCTOX acts like a pendulum. It mobilises your interventions to other places where they can also be used, and also back-translates the health activities that have had a "life outside of the health system" and have made societal impacts. While BCTOX is not official and not liable for the reported news from media, it is BC-related and full of concise information that is handpicked and fun to read. BCTOX keeps you engaged with toxicology news in BC. *BCTOX is full of inspiring ideas dedicated to B.C.*

➤ Rate of Suicide Deaths in BC by Health Authority.

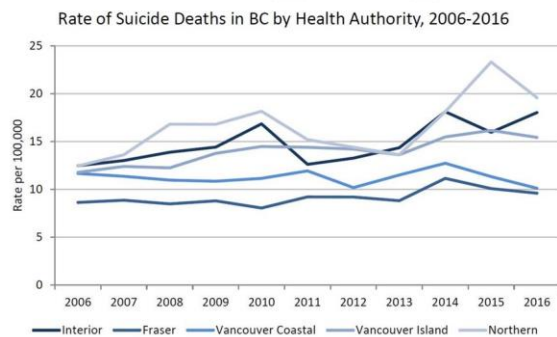


Figure adopted from BC Coroners Service²

Major toxicological statistics June 2018

Mortalities In total, around 700 premature deaths could be attributed to toxic exposures in BC in May including:

- **ACUTE exposures;** [estimated]≈
≈120 due to illicit drug overdose
10 due to suicides (CO, drugs and alcohol)
- **CHRONIC current and past exposures;** [estimated] ≈
 - 500 due to smoking and tobacco use,
 - 81 (air pollution),
 - 11 (radon)
 - 7 (asbestos)

These are equal to overall $15 \cdot 10^{-5}$ population toxic exposure-induced deaths in March alone, including $2.4 \cdot 10^{-5}$ acute and $13 \cdot 10^{-5}$ chronic toxicities (estimations are subject to assumptions and limitations, and overlaps are possible (see BCTOX 2(8): 103)).

Morbidities Around 2200 calls were made to BC-DPIC (estimated from August 2017)

Sola dosis facit venenum

Only the dose makes the poison!

Paracelsus (1493 – 1541 CE)

Summary of Toxicology News for First Nations Populations, June 2018, BC

➤ Penticton Indian Band and illegal drugs

The Penticton Indian Band will not be tolerating the use of illegal drugs within its boundaries.³

[\(Read more\)](#)

➤ Six time higher suicide rates among First Nations youth⁴

First Nations people are hugely overrepresented in suicide

Canada-wide, 25% of Indigenous adults have contemplated ending their lives.

And suicides among First Nations youth aged 15 to 24 are six times higher than the rate among non-Indigenous Canadians.

In BC, the number to call for help is 1-800-SUICIDE (1-800-784-2433).

Who can play a role in prevention?

- ✓ Ministry of Mental Health and Addictions
- ✓ Media
- ✓ Controlling prescription drugs with suicide as their side effects

[\(Read more\)](#)

➤ BC introduced two new 'bold' rules this week that could change the way salmon farming is done in the province⁵

Government did not give First Nations a veto over salmon farms [?]

[\(Read more\)](#)

➤ Kinder Morgan

--- First Nations lose bid to reopen Trans Mountain appeal court file

[\(Read more\)](#)

--- Activists form 'human drawbridge' under bridge to stop tanker



Photo from CTV News [\(Read more\)](#)

➤ Squamish Nation, City of Vancouver to appeal Trans Mountain court ruling



A sign warns of an underground pipeline as people construct a "watch house" near a gate leading to Kinder Morgan's property during a protest against the company's Trans Mountain pipeline expansion in Burnaby. Photo from Global News

[\(Read more\)](#)

Summary of Toxicology News for Fraser Health, June 2018, BC

➤ Fentanyl deaths

124 people died in April due to opioid overdose in BC (four deaths a day) mostly involving fentanyl, which is often laced into street drugs such as heroin.

Most of the deaths occurred in the Fraser Health region (Burnaby to White Rock and Hope). A slight increase in overdose deaths in this region, while the number of suspected overdose deaths involving illicit drugs in BC decreased by 23% in April.⁶

[\(Read more\)](#)

➤ Fraser Health's first safe consumption site is one year old in June

"After more than 60,000 visits and hundreds of overdose reversals, not a single death reported at 135A Street site."

[\(Read more\)](#)

➤ Vancouver's drug problem is a student problem too⁷

With high number of overdose deaths and a lack of clean drugs in the city, knowledge is "key".

--- One in 30 university students have experimented with street drugs while enrolled at UBC [BCTOX---a study from 2013].

- ✓ A city-wide issue
- ✓ A campus problem
- ✓ A problem that hits close to home

--- Stay safe when clean drugs are sparse from: [UBC-Student Services-Health & wellness-Self-help resources-Drugs & alcohol.](#)

- ✓ "Educate yourself on drug use, effects, and risk.
- ✓ Never use alone
- ✓ Go slowly, with low doses
- ✓ Don't mix different drugs, or mix drugs with alcohol
- ✓ Carry a naloxone kit and know how to use it in case of an emergency
- ✓ Know the signs of an overdose (see below), and what to do in case one happens
- ✓ Stay hydrated
- ✓ Let someone know where you are and when you should be home/finished
- ✓ If you're worried about yourself or someone else, seek help immediately
- ✓ Consider using drugs at a safe-injection site, where your drugs can be tested for fentanyl
- ✓ Trust your instinct: if something doesn't feel right, take a step back to consider the situation. Ask questions about what you're being offered. Don't accept drugs from someone who you don't know or don't trust"

[\(Read more\)](#)

➤ Weather

➤ Heat warning

Heat wave prompts warning for Metro Vancouver, Fraser Valley.

[\(Read more\)](#)

➤ Public Weather Alerts for British Columbia

[\(Read more\)](#)

➤ CTV Vancouver's new (and free) weather app!

[\(Read more\)](#)

Summary of Toxicology News for Interior Health, June 2018, BC

➤ Interior Health had the highest rate of suicide deaths in BC after Northern Health

Interior Health had the highest rate of suicide deaths in BC after Northern Health (18 deaths per 100,000 individuals) in 2016.⁸

The overall rate of suicide deaths in BC was 13 deaths per 100,000 in 2016.²

➤ Overdose death rate holding steady [?] within Interior Health⁹

Overdose death rate holding steady within Interior Health Authority (down from 22 in March to 17 in April).

"The health authority has recorded 31.1 overdose deaths per 100,000 population in 2018, just slightly lower than the provincial average of 31.5."

➤ Less standing water means fewer mosquito bites¹⁰

Reducing the risk

- ✓ Prevent mosquito breeding around your home (anything that can hold water can be a mosquito breeding area).
- ✓ Install screens on windows.
- ✓ Avoid outdoor activities at dusk and dawn (at this time of day mosquitoes that can carry the West Nile virus are most active).
- ✓ Wear protective clothing including long-sleeved shirt.
- ✓ Use mosquito repellent (apply to areas of exposed skin).



Photo adopted from The Nelson Daily¹⁰

Summary of Toxicology News for Northern Health, June 2018, BC

- **Northern Health had the highest rate of suicide deaths in BC⁸**

Northern Health had the highest rate of suicide deaths in BC (20 deaths per 100,000 individuals) in 2016.

- **Northern Health records lowest amount of drowning deaths in BC¹¹**

66 out of 666 deaths have been recorded province-wide took place within the Northern Health region between 2008-2016.

Northern Health records lowest amount of drowning deaths in BC at 66. --- Lowest in terms of total numbers but that is 66 deaths too many.

In over a third of the deaths had alcohol or drugs detected in the post-testing.

People use lakes, rivers, going for swims, boating activity or going kayaking Should

- ✓ Wear a PFD
- ✓ Do not mix alcohol with any activity on the water

Summary of Toxicology News for Vancouver Coastal Health, June 2018, BC

- **No regular lead testing for drinking water in BC daycares¹²**

Two years after BC began requiring schools to test for lead in their drinking water, daycares are yet to compel. Although babies and young children are considered most vulnerable.¹²

BC is lagging behind Ontario, Oregon and Washington state.

According to The Star, 55% of Vancouver daycares were in buildings constructed before 1990.

- **Proposed rules for chronic pain treatments could create 'crisis' for patients**

[\(Read more\)](#)

- **One B.C. community hits 37 degrees as heat wave sees 6 places reach record highs**

[\(Read more\)](#)

--- **WOODS CROSS, Utah** – Stars of the Discovery Channel show “Diesel Brothers” have been ordered not to modify vehicles in ways that could lead to greater pollution.

[\(Read more\)](#)

Summary of Toxicology News for Vancouver Island, June 2018, BC

- **Toxic shock syndrome killed teenager¹³**

Toxic shock syndrome killed teen in her sleep during school trip according to BC coroner. --- A strain of *Staphylococcus aureus* on a tampon found in place, as well as other symptoms consistent with toxic shock syndrome.

Toxic shock syndrome is due to toxins made by certain strains of *Staphylococcus aureus* bacteria that get into the bloodstream. Initially it resembles flu with high fever, nausea, vomiting, diarrhea, dizziness, fainting and disorientation.¹³



Photo is unrelated to the incident and is adopted from dailyhunt.in

- **Largest Island Health supervised consumption site¹⁴**



Photo from [April Lawrence](#)

[\(Read more\)](#)

Reference

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