

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

Reza Afshari\*, Environmental Health Services, BC Centre for Disease Control, BC. [Reza.Afshari@bccdc.ca](mailto:Reza.Afshari@bccdc.ca) [Editorial 2018-11-30]

### 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 industry<sup>1</sup>. 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!**

### 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  $15 \times 10^{-5}$  population toxic exposure-induced deaths in March alone, including  $2.4 \times 10^{-5}$  acute and  $13 \times 10^{-5}$  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)

### Reference

1. Liverman CT, Ingalls CE, Fulco CE, et al. Toxicology and Environmental Health Information Resources: The Role of the National Library of Medicine. Institute of Medicine (US) Committee on Toxicology and Environmental Health Information Resources for Health Professionals; Washington (DC): National Academies Press (US). 1997.
2. BC Coroners Service-2018-06-13. Suicide Deaths in BC 2006-2016. Ministry of Public Safety and Solicitor General. .

#### ➢ Elizabeth May's engagement!

BCTOX congratulates Green party Leader Elizabeth May on her engagement. --- Thank you Elizabeth for your work preventing environmental pollution! CASTANET ([Read more](#))

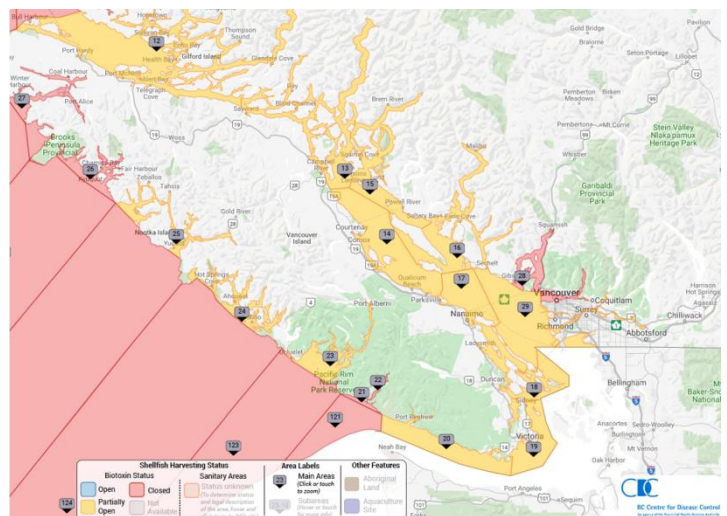
## Shellfish Safety, Nov 2018, BC

One of the biggest concerns surrounding shellfish consumption are biotoxins such as Saxitoxin, Domoic acid and Okadaic acid that can survive cooking. The BC Centre for Disease Control (BCCDC) has developed a webpage on [Shellfish Harvesting & Control](#) that includes a wide range of information regarding shellfish harvesting and poisoning

A [brochure](#) on how to avoid getting sick from shellfish you've harvested from the beach is also available that provides information on cooking shellfish, BC programs for ensuring shellfish quality and safety, advice for harvesters, and storing shellfish.

BCCDC has also developed a shellfish harvesting mapping tool that reports on shellfish openings and closures of areas where shellfish can be harvested that include biotoxin and sanitary contamination closures. The map is freely accessible to the general public.

<http://maps.bccdc.org/shellfish/>



This tool is user friendly. You may zoom in on the area that you are looking for. --- This map is being frequently updated (the data is not BCCDC's).

Fisheries and Oceans Canada (DFO) is provided data for bivalve shellfish contamination [closures](#). They stated that "It is both illegal and unsafe to harvest shellfish from closed or contaminated areas."

Information on Paralytic Shellfish Poisoning could be obtained from the [Website](#). --- Basically, clinical illness\* within 12 hours of consumption of at risk shellfish\*\* and in the absence of other known causes is defined as a "probable case".

\* Clinical illness is defined as: neurological symptoms such as paresthesia and/or paralysis involving the mouth and extremities, which may be accompanied by gastrointestinal symptoms.

\*\* At risk shellfish include filter feeding molluscan bivalve shellfish: clams, mussels, scallops (digestive tissues), oysters, cockles, and whelks and the hepatopancreas of crab according to [BCCDC](#).

## Summary of Toxicology News for First Nations Populations, Nov 2018, BC

- **Contaminated water supply, low reservoir level leads to local state of emergency in Ahousaht.**  
([Read more](#))

## Summary of Toxicology News for Fraser Health, Nov 2018, BC

- **Fraser Health authority warns of overdose spike in north Surrey, B.C.**

CBC ([Read more](#))

\*\*\*\*\*

- **25% of those employed in B.C. prior to a fatal overdose worked in construction**



Photo is [unrelated](#) to the text

Based on a report by Statistics Canada on Nov. 13 ([click here](#)), nearly 25 per cent of those employed in B.C. prior to a fatal overdose worked in construction.

26% were employed in the five years prior to their death. In addition to construction, 13% worked in building maintenance, waste management and other support service industries.

([Read more](#))

- **Science World offering "harm reduction 101" forum for Vancouver residents fighting the fentanyl crisis**

@ 6:30 p.m. - December 4 ([Click here](#))

A panel discussion by B.C. Centre for Disease Control; Canadian Drug Policy Coalition, Fraser Health Authority and an emergency paramedic.

Followed by an hour-long class titled "Harm Reduction 101"

A training session on overdose response and learn how to use naloxone.



Straight ([Read more](#))

## Summary of Toxicology News for Interior Health, Nov 2018, BC

- **Chlorine added to water at Interior Health's direction**

Osoyoos; Interior Health would like to go to a full water treatment program eventually. In the mean time they asked to do is inject a little bit of chlorine into our system.

"chlorine is a disinfectant added to drinking water to reduce or eliminate microorganisms, such as bacteria and viruses, which can be present in water supplies."

Osoyoos Today ([Read more](#))

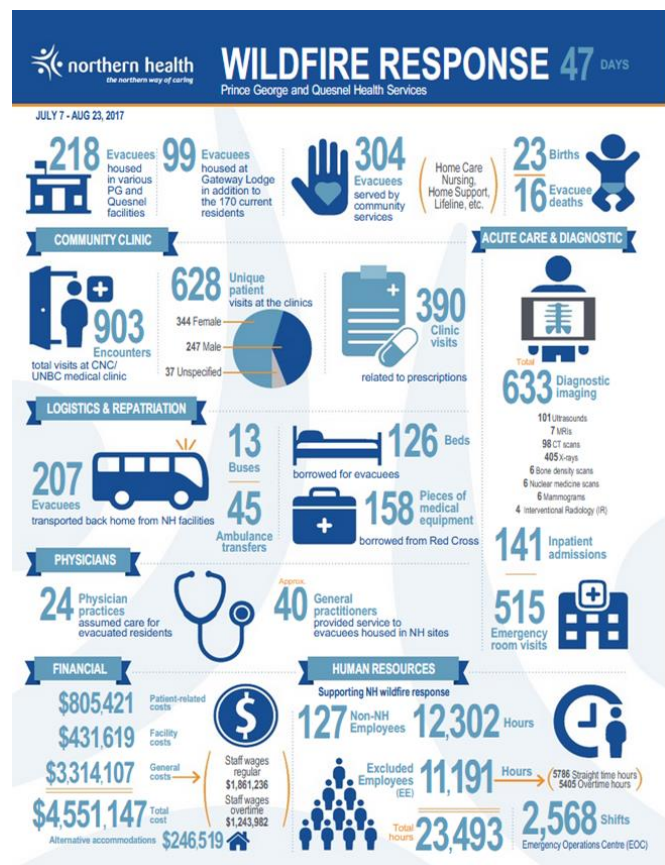
- **Interior Health is asking anyone who does choose to use is advised to take these steps:**

- Don't mix different drugs
- Don't take drugs when you are alone
- Keep an eye out for your friends
- Use less and pace yourself
- Carry a naloxone kit and know how to use it
- Recognize the signs of an overdose
- If someone is experiencing an overdose or is witnessing an overdose, follow the SAVE ME steps and call 911 immediately.
- Consider treatment options & talk with your healthcare provider.

([Read more](#))

## Summary of Toxicology News for Northern Health, Nov 2018, BC

- ✓ **Northern Health infographic shows response to 2017 wildfires.**



QuesnelCaribooObserver ([Read more](#))



## Summary of Toxicology News for Vancouver Coastal Health, Nov 2018, BC

### ➤ Death of two dozen children with drug overdoses

Two dozen children between the ages of 10 and 18 died of drug overdoses last year. British Columbia's children's watchdog has called for comprehensive change. ([Click here](#))

([Read more](#))

### ➤ Vancouver recovery home is 30 years old now

Vancouver recovery home celebrates 30 years of helping youth overcome substance abuse .



CBC ([Read more](#))

### ➤ Vancouver launches opioid emergency task force

The task force includes health experts, Indigenous leaders, and people with experience. It was approved unanimously by city council on Nov. 14. and launched Tuesday.

Vancouver Sun ([Read more](#))

### ➤ Vancouver Coastal Health issues botulism warning over Richmond-made sauce.

“The health authority said investigators have discovered that Betty’s King Sauce, sold in six-ounce jars, is being prepared in a Richmond home, which is not an approved or inspected facility.”

([Read more](#)) or ([Read more](#))



Photo adopted from [Global News](#)

## Summary of Toxicology News for Vancouver Island, Nov 2018, BC

### ➤ Overdose deaths in Vancouver Island

Area	Frequency	Death rate per 100,000 people
North Vancouver Island	20	21
Central Vancouver Island	67	32
South Vancouver Island	97	33



CHEK ([Read more](#))

### ➤ VIU researchers develop method for detecting lethal fentanyl levels

“Chris Gill et al, have developed a drug-testing method that, within minutes, could tell an opioid user whether the drugs they’re about to take contain a lethal dose of fentanyl.



Vancouver Sun ([Read more](#))

### ➤ Mobile harm reduction team on the road to fight overdose crisis in Campbell River

Outreach team responding to rash of overdoses taking place in private homes.

CRM ([Read more](#))

### ➤ Canadian life expectancies and overdose

--- “While Canadian life expectancies are rising, in B.C., they have dropped because of opioid overdoses. Last year, drug overdoses led to more deaths than suicides, homicides and motor vehicle accidents combined.”

([Read more](#))