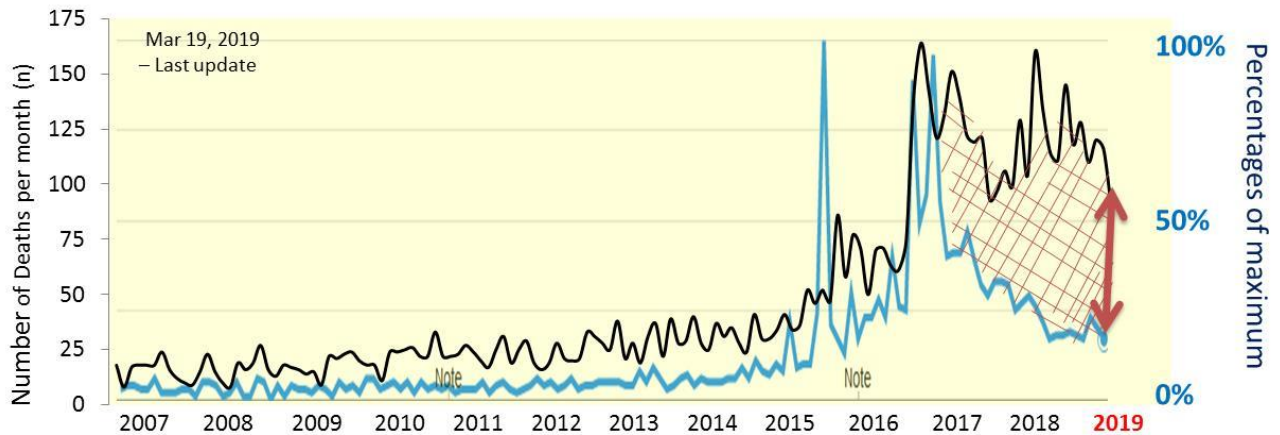


**BCTOX's Toxicology Surveillance; Drug Overdose Deaths and Public interest in Fentanyl in BC  
 Mar 19, 2019**

Public interest in fentanyl is declining in BC; opioid overdose deaths are still high. Reza Afshari



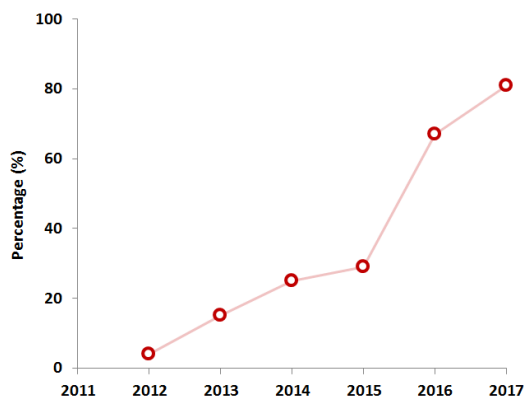
**Opioid overdose deaths per month as compared to public sentiments from 2007 to Nov 30, 2018 in BC (graphs are superimposed).**

— Opioid overdose deaths in BC (Jan 2007 to Jan 2019 [last update 19 March 2019]); suggests a sharp increase that has reached a plateau. Data from BC Coroners Service. --- Is this a new norm?  
 — Public interest in fentanyl in BC's major cities (Jan 2007 to Jan 2019); suggests a sharp increase followed by a sharp decrease. Data from google trends. --- Is this social fatigue?

As can be seen, public are continuously less interested in fentanyl in 2018 that may imply a decline in public outraged with the concept. This decline has happened despite the fact that opioid overdose deaths are still high. --- Intervention should be shifted to keep engaged the public with the dangers of opioid overdoses as a part of risk management.

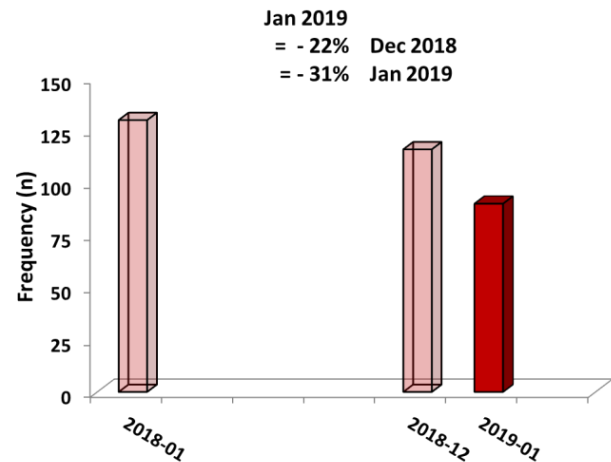
**Fentanyl Detected Illicit Drug Overdose Deaths in BC  
 (2012- 2017 July)**

Data from (BC Coroners Service 2017-12-31) - ] (accessed Feb 20, 2018) [BCTOX graph]



**Estimation of Illicit drug overdose attributed deaths in  
 BC in Jan 2010 (Apr 19, 2019)**

The number of Illicit drug overdose deaths in Jan 2019 was 90 (Data from the BC Coroners Services (accesed 2019-04-19), which is 31% less than Jan 2018, and 22% less than last month [BCTOX graph]



**Public interest in fentanyl in BC's major cities:  
 Cumulative results starting from Aug 2018**

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British Columbia as the ground zero of fentanyl overdose tragedy faced increased number of opioid overdose induced deaths in particular since 2015.<sup>1</sup>

Following the increase number of deaths, public health emergency was announced in Apr 14, 2016 in the province. The number of deaths dramatically increased during December 2016.

This short survey was performed to evaluate the public interest in fentanyl from Aug 2015 to August 2017 among different major cities in BC.<sup>2</sup>

Google Trends©(GT), an online tracking system of Internet weekly hit-search volumes (Google Inc.) were utilised to extract the data. GT collects, categorizes and connects data to a topic. Characteristics include real world based on search terms in categories of importance, interest by region, interest over time, removed personal information, eliminated repeated searches from the same person over a short period of time, unbiased random samples, and very low volume searches are counted as zero.<sup>3</sup>

Results are shown in figure 1. As can be seen, following publicizing fentanyl potential to kill among “teenagers” and due to “recreational use” of fentanyl in early August 2015, a dramatic increase in public interest observed. However for 7 months this interest was relatively focused in Vancouver alone (○; figure 1).

Later Surrey, Victoria and Burnaby joined the list of cities in BC in which searches for fentanyl passed 1% of all individual term searches. It is clear by overlapping the number of deaths in BC (----) on the original graph (figure 1) that Kelowna, Kamloops, Richmond and Coquitlam were joined the list of cities coincide with the sharp increase in December 2016.

Fentanyl popularised in searches in Nanaimo, Maple Ridge, Abbotsford, Prince George, North Vancouver and West Minister in the following months.

Public interest in fentanyl- cumulative results starting from Aug 2018

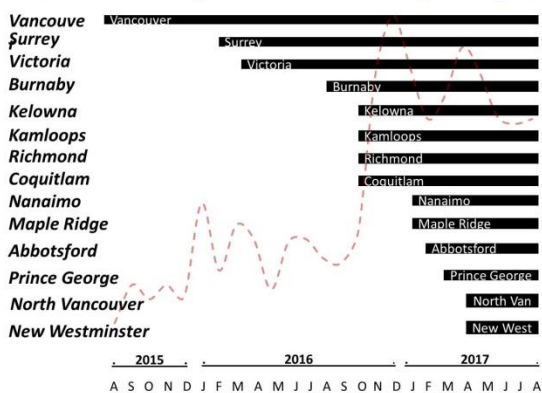


Figure 1. Public interest in fentanyl in BC's major cities: Cumulative results starting from Aug 2018 (data from google trends).

(----) Number of opioid overdose induced deaths in BC,  
 (■) Search interests appeared in google trends. Results are relative to the highest point on the chart for the given region and time.

In addition, public interest in fentanyl gradually declined after a few months. Figure 2 compares the rank of searches in different cities. As can be seen, fentanyl popularity in Vancouver (○), Surrey (—) and Burnaby (--) have declined over this period.

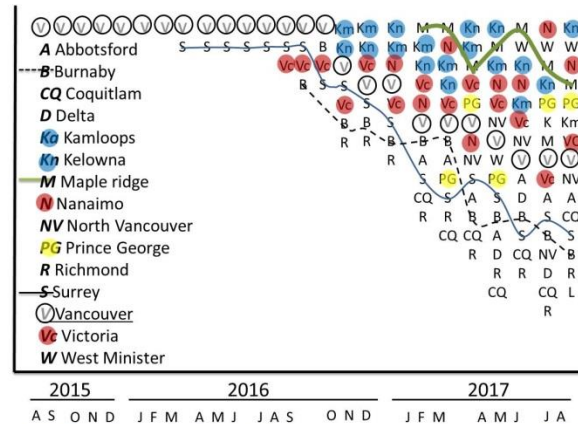


Figure 1. Public interest in fentanyl in BC's major cities: Cumulative results starting from August 2018 (data from google trends).

While this pattern may suggest a real sense of security due to declining the number of deaths in a particular geographic area and thus reflective of a real sense of security, it could suggest a diminishing public interest or fatigue in public.

These results have implication for risk management in public health.

**References**

1. Tyndall, M. An emergency response to the opioid overdose crisis in Canada: a regulated opioid distribution program. CMAJ 190, E35-E36, doi:10.1503/cmaj.171060 (2018).
2. Afshari R. in Shifting pattern of public interest in environmental & clinical toxicological issues in BC. BCCDC's Grand Rounds. <http://mediasite.phsa.ca/Mediasite/Play/998f14659f62451683fa20158d7b68f11d> (PHSA, June 26, 2018).
3. Google Trends. Interest over time. <https://trends.google.com/trends/>