

Police attendance following the BC Emergency Health Services policy to not routinely notify police of overdose events and concerns regarding police attendance

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Data Providers:

BC Emergency Health Services (BCEHS)
BC Take Home Naloxone program

*Analysis led by the BC Centre for Disease Control in collaboration with
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Summary of findings:

Police notification of overdose

The BC Emergency Health Services (BCEHS) dispatch centre data identified a decline in police notification of overdose events after the BCEHS policy to not routinely inform police of overdose was implemented in June 2016. Police notification of overdose events declined from 48% in the pre-policy period to 19% in the post-policy period.

Police attendance at overdose

Findings from the naloxone administration forms included with the Take Home Naloxone (THN) kits showed a significant decline in reported police attendance at overdose events in the post BCEHS policy period. Reported police attendance at overdose events declined from 56% in the pre-policy period to 38% in the post-policy period. However, if Vancouver Coastal was excluded (as Vancouver Police Department has had a non-attendance at overdose policy since 2006); the proportion where police were reported to have attended an overdose went from 71% (64/90) pre-policy to 39% (342/872) post-policy.

Reasons for not calling 9-1-1

The THN administration forms showed a decline in the proportion of respondents who gave the reason for not calling 911 as '*concerns about police presence*' after the BCEHS policy was introduced; this decline continued after the Good Samaritan Drug Overdose Act was enacted in May 2017. Between January-June 2016, 35% of respondents reported the reason for not calling 911 was '*concerns about police presence*', this declined to 15% between January-June 2017, and to 10% between July-December 2017.

Introduction:

A public health emergency was declared in British Columbia (BC) in April 2016 due to a rise in opioid-related overdose events and overdose deaths [1] . The introduction and scale-up of harm reduction efforts in BC included an expansion of take home naloxone kit distribution [2]; development of observed consumption sites and increased access to opioid agonist treatment [3,4] . Despite these harm reduction and treatment initiatives being effective in averting deaths [3] ; overdose events and illicit drug toxicity deaths in BC remain elevated [5,6].

Opioid overdose events present serious medical concerns and require rapid medical intervention to avoid severe consequences such as anoxic brain injury and death [7,8] . Nevertheless, prior studies have concluded that more than half of bystanders reported concerns of facing legal prosecution by the police as a reason to delay or to not contact emergency services (call 911) at overdose events [8]. Therefore, in June 2016 the BC Emergency Health Services (BCEHS) introduced a policy to not routinely inform police in the event of an overdose in order to decrease police attendance at overdose events. Police are still informed in cases of death, attempted suicide or where there are safety concerns for the public or for first responders.

In May 2017, the Government of Canada introduced the Good Samaritan Drug Overdose Act. The Act aims to encourage bystander response by providing legal protection for anyone at the scene of an overdose for simple possession (possession for personal use) of an illegal substance.

Study Objectives:

This study explores:

Changes after the implementation of the BCEHS policy in:

- 1) Police notification by the BCEHS dispatch operations centres for calls determined to be Card 23 ingestion poisoning (overdose) and;
- 2) Police attendance at overdose events using BC take-home naloxone (THN) program data

Reported reasons for not calling 911 using BC THN program data

Methods

Study Design:

Data for this evaluation were derived from the BC Emergency Health Services Medical Priority Dispatch System (MPDS) and the naloxone administration forms from BC THN program data.

The BC THN administration forms are available in the THN kit, at THN distribution sites and online. Individuals who administer naloxone using a BC THN kit are requested to complete a form each time a THN kit is used and return the form to the BCCDC either directly or through THN distribution sites via email or fax. The form collects information regarding the date and location of the overdose, if 911 was called, and if police attended.

Study variables and analytic sample:

Police notification of overdose:

Police notification of overdose events was assessed using the number and the proportion of Medical Priority Dispatch System (MPDS) Card 23 events where the BC Emergency Health Services dispatch centre reported police were notified. The study sample comprised of all BCEHS MPDS Card 23 events reported from January 2014 to September 2020.

Police attendance at overdose events:

Police attendance at an overdose was assessed from a question on the THN kit form. Over time the form had minor changes to the question assessing police attendance. From August 2012 to March 2015 and again December 2016 to May 2018 the question was “Did police attend” or “Did the police come to the overdose?” Between March 2015 and December 2016 the question asked the order of police arrival (compared to ambulance and fire-fighters); any answer i.e. 1st, 2nd or 3rd to police arrival was considered affirmation of police attending (Appendix A).

The sample to assess police attendance at overdose events was limited to respondents who reported, “yes” to the question “was 911 called” which was later changed to “did anyone call 911?” at the overdose event from November 1, 2015 to May 31, 2018 (i.e. seven months before and 24 months after the BCEHS policy was implemented).

Few responses (n=169) were received from January 1, 2015 to October 30, 2015 and many of these had missing data for the question assessing police attendance at overdose events; therefore, only data from Nov 1, 2015 onwards were included in this analysis. Respondents with missing data or who answered: “prefer not to say” or “don’t know” were excluded from the analysis. The final analytical sample included respondents who affirmed or denied police attendance at an overdose.

Reasons for not calling 911

If a person reports not calling 911 on the THN administration form they are asked for the reason why they did not call. Reasons given were grouped into “situation seemed under control/person was OK”; “concerns about police presence” and “other” reasons which included no phone or cell service, person who overdosed requested 911 not be called, prefer not to say and other.

Statistical Analysis:

Police notification of overdose:

A descriptive analysis was conducted using BCEHS dispatch data to assess the proportion of Police notified Card 23 events (denominator was the total MDPS Card 23 events) where police were notified provincially by month.

Police attendance at overdose events:

First, a descriptive analysis was conducted to: (1) assess the proportion of overdose events where police attended each month before and after the BCEHS policy was implemented; (2) explore the distribution of police attendance across different health authorities.

Reasons for not calling 911

A descriptive analysis was conducted on reasons for not calling 911. Data were collated based on date of overdose response for six-month periods from January 1st 2016 to December 2018.

Results:

Police notification of overdose events

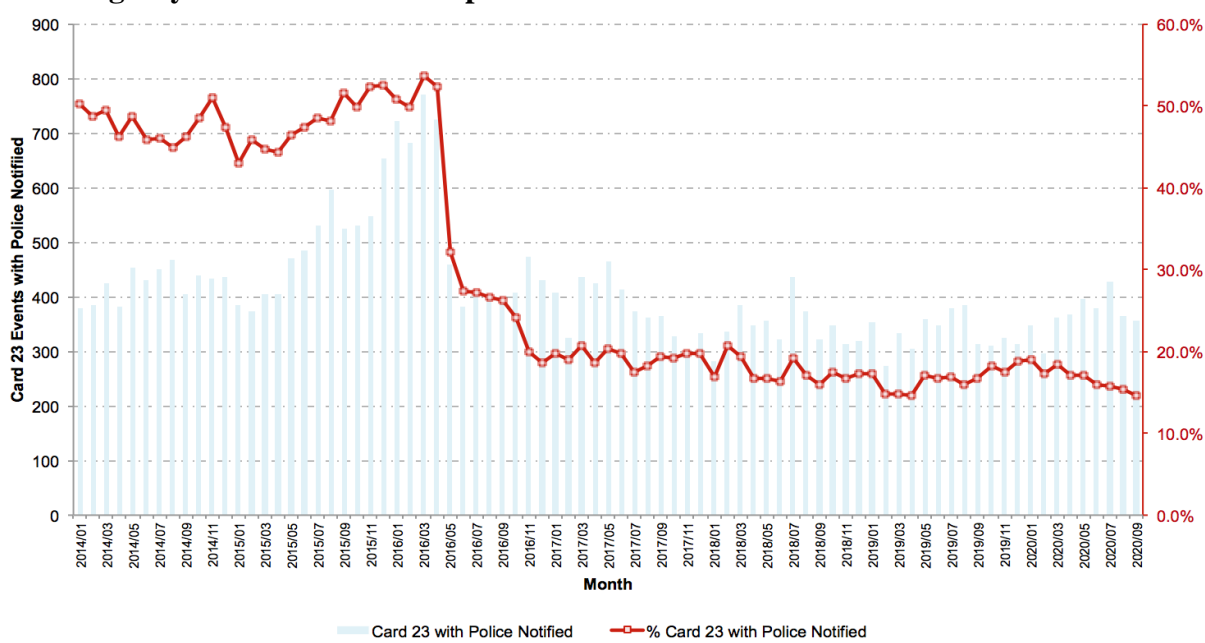
Study Sample:

The study sample comprised of 133,347 total MPDS Card 23 (overdose calls) received from January 2014-September 2020.

Descriptive Analysis:

From January 2014-May 2016 (pre-policy period) the monthly average of overdose events where police were notified by the dispatch center was 47.8% compared to 18.5% from June 2016 – September 2020 (post policy period). Figure 1 shows the decline in police notification of overdose events in the post-policy period.

Figure1. Card 23; Ingestion poisoning (overdose) events where police were notified as determined by BC Emergency Health Services' dispatch center



Police attendance at overdose events

Study Sample:

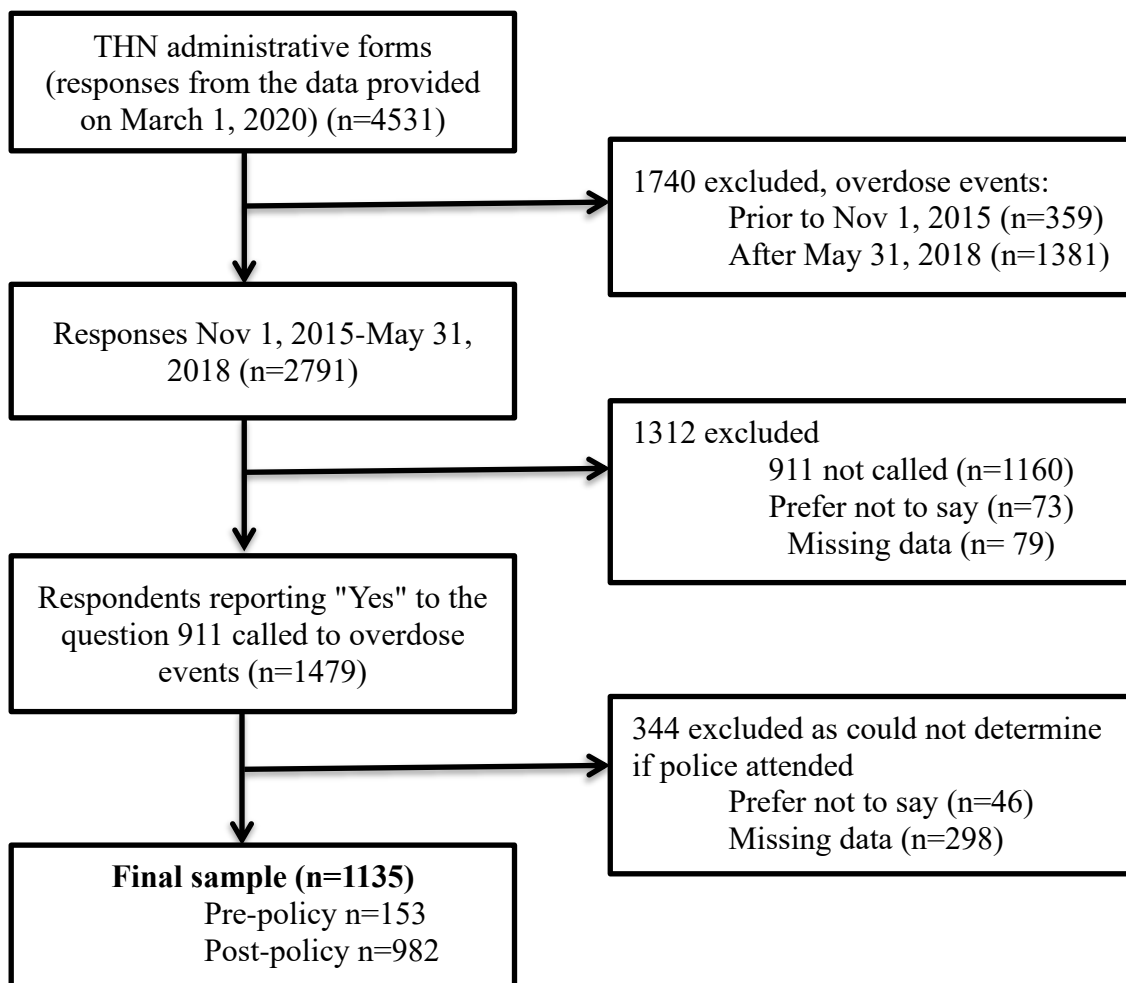
A total of 4,531 administration forms have been returned to BCCDC from the program initiation in 2012 to March 1, 2020. **Figure 2** shows 38.4% of these were excluded because the date of overdose was either prior to November 1, 2015 (n= 359) or after May 31, 2018 (n= 1381). Of 2,791 forms for events between November 1, 2015 to May 31, 2018, a total of 1312 (47.0%) responses to the question whether 911 was called were excluded either because: 1) 911 was not called (n=1160); 2) response was “prefer not to say” (n=73); or 3) data were missing (n=79). Of the 1,479 respondents who reported 911 was called, 344 (23.3%) were excluded either because: 1) data regarding police attendance was missing (n=298); or 2) respondents reported “prefer not to say” (n=46) to the question of police attendance. The final sample included 1,135 respondents.

Descriptive analysis:

Among the final study sample of 1,135 respondents, 153 (13.5%) were from the pre-policy period and 982 (86.5%) were from post-policy period. Almost 60% (n=678) of respondents reported that police did not attend the overdose event.

The THN administration forms identified a decline in police attendance at overdose events after the BCEHS policy was implemented. From Nov 1 2015-May 31 2016 (pre-policy) the overall average of overdose events where police attended was 55.6% compared to 37.9% from June 1 2016-May 31 2018 (post-policy) (See Table 1).

Figure 2. Study sample from THN Administration forms to assess police attendance at overdose



A large proportion of respondents from the study sample were from Fraser Health (41.8%). In the pre policy period Vancouver Coastal Health had the lowest reported police attendance at 33.3% (n=21/63) compared to 71.1% (n=64/90) in the other regions combined. Furthermore, compared to the pre-policy period, the proportion of overdose events attended by police decreased in the post policy period decreased in all Health Authorities (Table 1)

Table 1: Reported police attendance at overdose events pre and post policy - data from take home naloxone administration forms November 1, 2015 to May 31, 2018

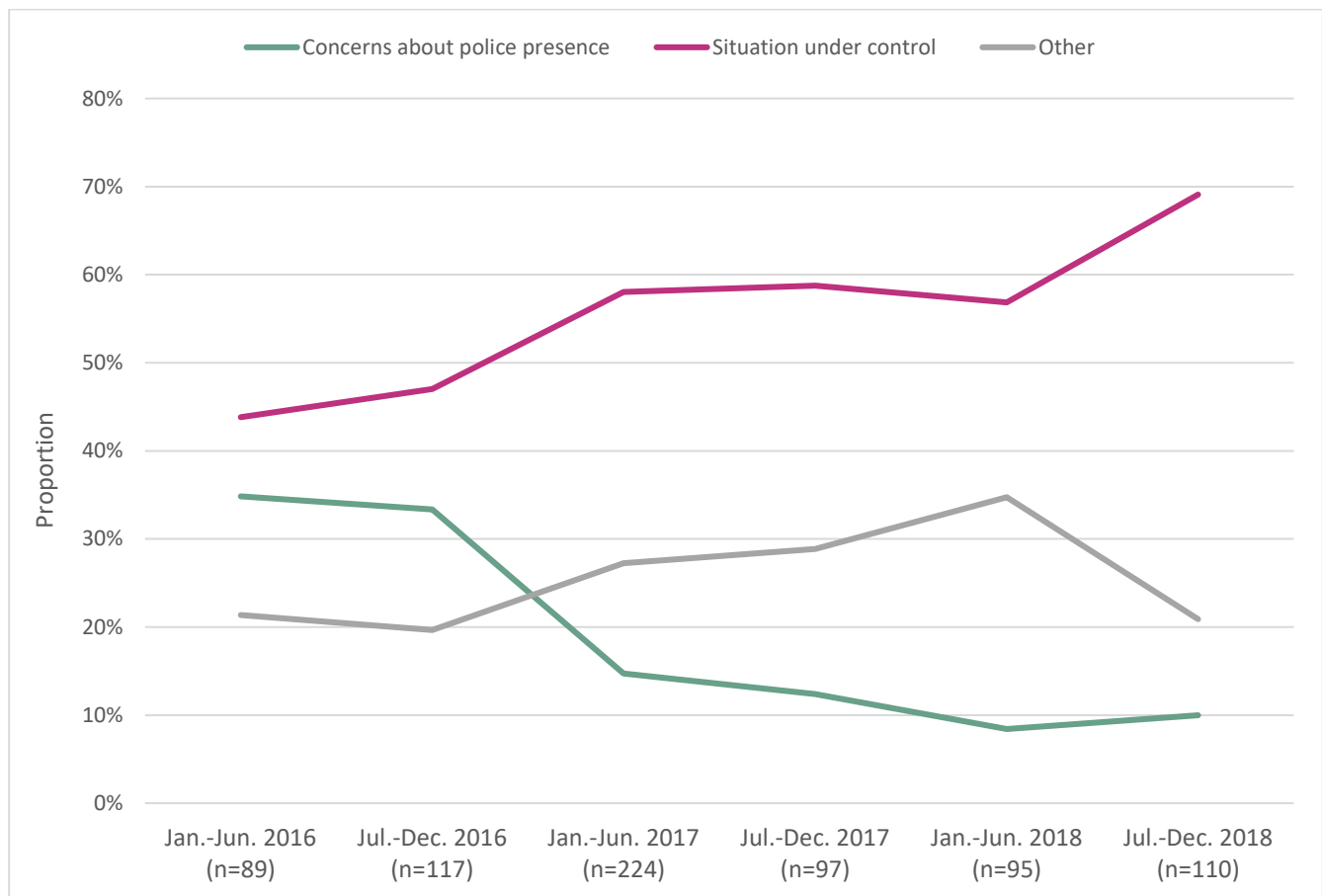
Health Authority	Overdose events in pre-policy period (Nov 1, 2015-May 31, 2016)		Overdose events in post-policy period (June 1, 2016 –May 31, 2018)	
	Total events (n, %)	Police attendance	Total events (n, %)	Police attendance
Fraser	57 (37.3%)	37 (64.9%)	417 (42.4%)	191 (45.8%)
Interior	6 (3.9%)	5 (83.3%)	94 (9.6%)	32 (34.0%)
Island	16 (10.5%)	12 (75.0%)	40 (4.1%)	16 (40.0%)
Northern	11 (7.2%)	10 (90.9%)	85 (8.7%)	25 (29.4%)
Vancouver Coastal	63 (41.2%)	21 (33.3%)	110 (11.2%)	30 (27.3%)
Missing	0	0	236 (24.0%)	78 (33.1%)
Total	153 (100%)	85 (55.6%)	982 (100%)	372 (37.9%)

Reasons for not calling 911

The findings from the analyses above confirm a decline in the police notification and police attendance at overdoses after the BCEHS policy to not routinely inform police was introduced. However, the question remained – did this policy and the introduction of the Good Samaritan Drug Overdose Act improve willingness of bystanders to call 911?

Analysis of THN administration forms showed concern about police attendance declined from 35% in the period of January-June 2016 to 10% in July-December 2018. See figure 3. To note, the numbers of forms included in the analysis were not sufficient to enable an analysis by health authority.

Figure 3. Descriptive analysis to examine concerns in relation to calling 911, before and after the implementation of the policy by BCEHS and GSDOA



NB: BC Emergency Health Services Policy introduced June 2016; GSDOA enacted in May 2017

This figure was developed based on a descriptive analysis conducted with THN administration forms reporting events occurring between January 2016 and December 2018

Discussion

BC is one of the first jurisdictions in Canada to introduce a province wide policy to address bystander reluctance to call 911 at overdose events. The findings from the BCEHS data show a decline in police notification of overdose events after policy implementation. In addition, the findings from the *naloxone administration forms* included with the THN kits show that in the post policy period there was significant decline in police attendance at overdose events. To our knowledge this is the first study in Canada, showing the contribution of such a policy change to decreasing police notification and attendance at overdose events.

Our findings are in line with the pre-existing policy implemented by Vancouver Police Department (VPD) in June 2006, to not respond to routine overdose events unless requested by emergency health services [9]. As such, police attendance at overdose events in Vancouver Coastal Health (VCH) was lower than in other regions of BC before the BCEHS policy was implemented.

A prior analysis conducted on the BC THN administration forms reported the two most commonly reported reasons bystanders did not call 911 at an overdose event were: (1) bystanders thinking that the ‘situation was under control’; (2) concerns about police presence [10]. A further published analysis conducted on the BC THN administration forms found the proportion of respondents who reported concern about police attending overdose events as the reason for not calling 911 declined from 29.9% in 2016 to 8.3% in 2018 [11]. We repeated these analyses using six-month periods to approximate with the implementation of BCEHS policy and GSDOA enactment and observed a decrease in reported concern in police presence. This could be partially attributed to a decline in the police attendance following the BCEHS policy implementation and reduced concerns regarding arrest after the GSDOA was enacted. However, only half of people who use a harm reduction distribution site were aware of the GSDOA. Also, our sample size is small and many confounders should be considered. The prevalence of toxic fentanyl in the drug supply and overdoses increased; hence bystanders have had to develop experience responding to overdoses with THN.

A strength of this study is the use of two data sources, allowing for data on decline in police notification of overdose events to be corroborated by the findings from the BC THN administration forms. However, there are some limitations. Naloxone administration forms returned represent only a small proportion of the overdoses occurring and the naloxone kits administered across BC [11]. We do not know if those who completed the forms differed from those who did not, therefore our findings cannot be generalized beyond people who complete the forms. The information collected on the THN forms may be subject to recall or social desirability biases [11].

Further research is required to assess the efficacy of the policy in encouraging bystanders to call 911 at overdose events in BC. Qualitative interviews and quantitative surveys have been conducted with people who are at risk of experiencing or witnessing an overdose across BC. The analysis is underway to explore attitudes and concerns around calling 911, interactions with police officers at overdose events and understandings of the GSDOA.

A study conducted among the people who use drugs in Ontario, Canada, suggested that reducing the regular police attendance at overdose events would remove an important deterrent for the bystanders to call 911 [12]. Given the decrease in police notification and attendance at overdose events after the introduction of the policy by the BCEHS; a policy similar to the BCEHS could be introduced in other jurisdictions to reduce police attendance at overdoses and encourage lay responders to call 911.

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Appendix A Question: Was 911 called? Did Police attend?

August 2012:

Was 911 called? Yes

If yes: did the police attend? Yes No

March 2015:

Was 911 called? Yes

What order did first responders arrive in?

Firefighters	<input type="checkbox"/> 1 st	<input type="checkbox"/> 2 nd	<input type="checkbox"/> 3 rd	<input type="checkbox"/> did not come	<input type="checkbox"/> 911 not called	<input type="checkbox"/> prefer not to say
Ambulance	<input type="checkbox"/> 1 st	<input type="checkbox"/> 2 nd	<input type="checkbox"/> 3 rd	<input type="checkbox"/> did not come	<input type="checkbox"/> 911 not called	<input type="checkbox"/> prefer not to say
Police	<input type="checkbox"/> 1 st	<input type="checkbox"/> 2 nd	<input type="checkbox"/> 3 rd	<input type="checkbox"/> did not come	<input type="checkbox"/> 911 not called	<input type="checkbox"/> prefer not to say

Dec 2016:

Did anyone call 911? Yes

Did police come to the overdose?

Yes No Prefer not to say

August 2017:

Did anyone call 911? Yes

Did police come to the overdose?

Yes No Don't know Prefer not to say

May 2018

Did anyone call 911? Yes

Did police come to the overdose?

Yes No Prefer not to say