

CORRECTIONAL SERVICE CANADA

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RESEARCH REPORT

Overdose Incidents in Federal Custody, 2018/2019

2020 N° SR-20-01

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Overdose Incidents in Federal Custody, 2018/2019

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Executive Summary

Key words: *substance use; prison drug use; prison overdose incidents; offender health; opioids*

As part of an ongoing effort to track overdose incidents in federal custody (McKendy, Biro & Keown, 2019; McKendy et al., 2020), this report provides an overview of overdose incidents that occurred in federal custody during the 2018/2019 fiscal year period. Information is presented regarding the prevalence and nature of overdose incidents, the circumstances under which overdose incidents occur, patterns in staff and medical responses, and the characteristics of offenders involved. Overview information is presented for all cases; however, suspected fatal overdoses are excluded from detailed analysis due to the unavailability of investigation findings at the time of writing.

In 2018/2019, 110 non-fatal overdose incidents and six suspected overdose deaths occurred. This represents a 30% increase from the previous fiscal year (2017/2018), when 89 incidents occurred, and a continued increase from 2012/2013 (the first year of systematic recording) when 40 incidents took place. However, the number of incidents declined throughout the fiscal year, with 38 incidents in the first fiscal year quarter, compared to 16 incidents in the fourth quarter. While in previous years, there was a disproportionate number of incidents in the Prairie region, 2018/2019 saw a notable increase in the number of incidents in the Ontario and Quebec regions, with 38 and 24 incidents respectively (compared to 17 and 13 in 2017/2018). Institutions with the highest number of incidents were Collins Bay Institution ($n=21$), Drumheller Institution ($n=16$) and Donnacona Institution ($n=12$).

Detailed analysis of non-fatal cases in 2018/2019 indicates that opioids continue to be the most common category of substance involved in overdose incidents, suspected or confirmed in 61% ($n=67$) of non-fatal cases in 2018/2019. As in the previous fiscal year, fentanyl was the most common drug identified in incidents, suspected or confirmed in 34% ($n=37$) of cases. Non-opioid prescription medications were the second most common category of substance involved in non-fatal incidents, identified in 24% ($n=26$) of cases. Stimulants were suspected or confirmed in 14% ($n=15$) of cases, while cannabis (including synthetic cannabis) was noted in 15% ($n=16$) of cases. In terms of medical response, 2018/2019 saw a continued increase in the use of naloxone, a medication used to temporarily reverse the effects of an opioid overdose, noted to be used in 73% ($n=80$) of non-fatal overdose incidents.

The profile of offenders involved in overdose incidents in 2018/2019 was similar to that in previous years; offenders tended to be male (95%, $n=104$), White (58%, $n=64$) or Indigenous (34%, $n=37$), and in their twenties or thirties (75%, $n=82$). They were often medium security offenders (54%, $n=59$), serving short to medium sentences (i.e., less than six years; 54%, $n=59$), often for a major index offence of robbery (31%, $n=34$). Drug offences were also common among offenders involved in overdose incidents; 57% ($n=63$) had a current or previous drug-related conviction. Consistent with findings in previous years, offenders involved in overdose incidents tended to have complex risk and needs profiles and often had patterns of institutional adjustment concerns.

The findings outlined in this report contribute to the growing body of knowledge on trends and themes in overdose incidents in federal custody, including the circumstances surrounding incidents and the profile of offenders involved. CSC continues to pursue a variety of programs and measures to enhance offender safety and improve offender health outcomes, including preventive measures and systematic drug identification practices, correctional programs targeting substance use, health supports for those with substance use disorders, and measures to reduce the harms associated with substance use. Underpinned by the goal of improving offender health outcomes, various sectors within the Service, including Incident Investigations Branch, Preventive Security and Intelligence, Health Services and the Research Branch continue to undertake complementary efforts to better understand and respond to drug use and overdose incidents among federal offenders.

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Introduction

As Canada continues to grapple with an opioid-related drug crisis (Government of Canada, 2019a), overdose incidents remain a key public health concern. The federal government recently reported that 4,460 opioid-related deaths occurred in 2018, with fentanyl and fentanyl-related substances responsible for a majority of deaths (Government of Canada, 2019a). The rise in overdose deaths has caused Canadian life expectancy to stop increasing for the first time in four decades, with an actual decline in British Columbia (Statistics Canada, 2019). Non-fatal overdose incidents have also increased; illustratively, hospitalizations for opioid poisoning rose 27% between 2013 and 2017 in Canada (Canadian Institute for Health Information, 2018).

The federal custodial population is at risk of overdose due to the high presence of individuals who experience substance use issues (Weekes, Thomas & Graves, 2004; Ternes & Johnson, 2011) and the availability of illicit substances inside correctional institutions (Hopley & Brunelle, 2016; van der Meulen, 2017). Despite preventive measures (e.g. drug detection strategies) and treatment programs (e.g. Opioid Agonist Therapy), overdose incidents remain a growing concern for the Correctional Service of Canada (McKendy, Biro & Keown, 2019; McKendy et al., 2020).

Two previous CSC research reports have tracked trends relating to overdose incidents in federal institutions since 2012/2013 (McKendy, Biro & Keown, 2019; McKendy et al., 2020). These reports demonstrate that, in parallel to community trends, overdose incidents in federal custody have undergone a notable increase, largely as a result of opioid-related incidents. Considerable regional variation was noted, with a disproportionate number of incidents occurring in the Prairie Region.

The current report builds on the two previous reports, presenting an overview of overdose incidents in the subsequent period (2018/2019), and represents continued efforts on the part of CSC to better understand and respond to this key public health issue. Overview information is presented for all cases; however, suspected fatal overdoses are excluded from detailed analysis due to the unavailability of investigatory findings at the time of writing.

Method

For this report, all reported overdose incidents that occurred in federal custody in 2018/2019 with sufficient information for analysis were examined. A non-fatal overdose incident was defined as an incident where the consumption of drugs necessitated life-saving medical intervention (e.g., the administration of naloxone or cardiopulmonary resuscitation) and/or resulted in a designation of serious bodily injury. Incidents that involved only medical observation, but no intervention, were excluded. Suspected fatal overdose incidents in 2018/2019 were included in overview tables but excluded in detailed analysis due to the unavailability of investigatory findings at the time of writing. Confirmed overdose deaths will be included in subsequent reports.

To identify all potential cases meeting inclusion criteria, a data extraction of CSC's offender database, the Offender Management System (OMS), was conducted to identify all incidents falling under the categories of "overdose interrupted", "suspected overdose interrupted", "suicide attempt", "medical emergency", "under the influence," and "other". All resulting cases were manually screened to identify cases for inclusion¹. Data were recorded on the circumstances and details of the overdose incident, as well as the characteristics of the offenders involved.

Substances identified in the current analysis include those that were confirmed or suspected in incidents. Confirmed substances were those that were identified in laboratory tests using bodily samples from the offender. Suspected substances were those identified: (1) through tests taken from substances seized from the offender's cell or person; (2) in statements provided by the offender involved in the incident and/or; (3) through intelligence-gathering by staff.

Information was collected for each unique offender incident using incident reports and offender case files. Cases were entered into survey software and subsequently exported into statistical software for analysis. Frequency distributions were run to determine the variables containing enough information for analysis; further statistical analysis was conducted where appropriate.

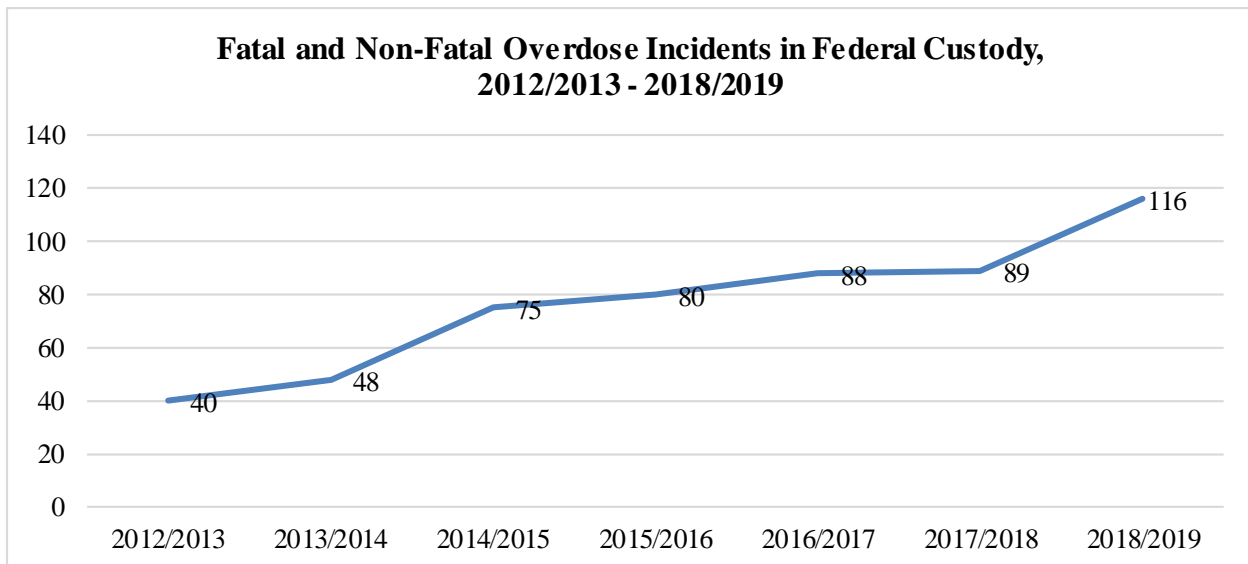
¹ The incident numbers reported herein may differ than those reported elsewhere due to the expanded scope of this study as well as inclusion criteria.

Results

Overdose Incidents in Federal Custody, 2018/2019

In 2018/2019, there were 116 reported overdose incidents in federal custody, including 110 non-fatal incidents and six suspected fatal overdose incidents. This number represents a 30% increase from 2017/2018 (89 incidents), and a continued increase from 2012/2013 (40 incidents), the first year of systematic recording. The number of incidents in 2018/2019 declined throughout the fiscal year, with 38 incidents in the first quarter, compared to 16 incidents in the fourth quarter (See Figure 3). As illustrated in Figure 2, there has been a notable increase in the number of incidents that occurred in the Ontario and Quebec regions², with 38 and 24 incidents respectively in 2018/2019 (compared to 17 and 13 in 2017/2018). Incident numbers in all other regions were similar to those in the previous year. Institutions with the highest number of overdose incidents were Collins Bay Institution in Ontario ($n=21$), Drumheller Institution in the Prairie region ($n=16$)³ and Donnacona Institution in Quebec ($n=12$).

Figure 1. Overdose Incidents in Federal Custody, 2012/2013 – 2018/2019

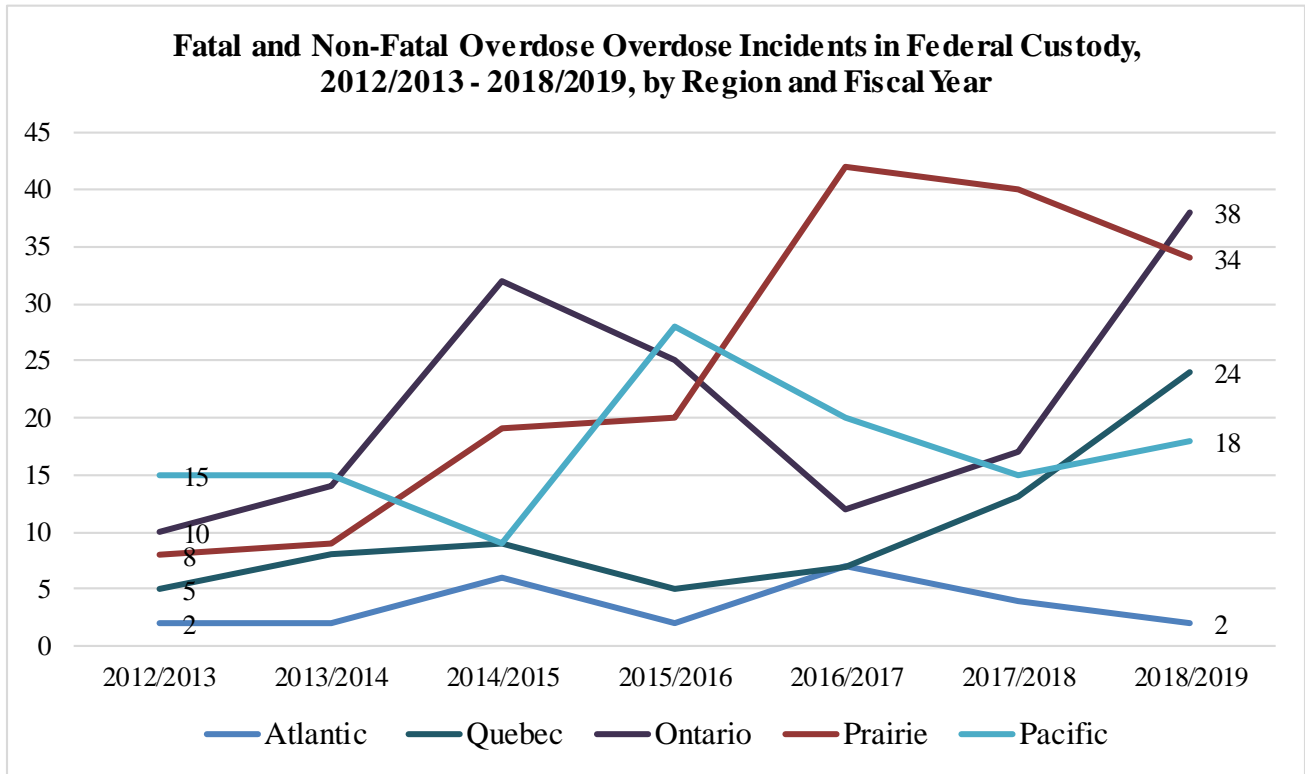


Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

² Note that the number of community overdose incidents has also seen an increase in Ontario and Quebec; see: Ontario Agency for Health Protection and Promotion et al., 2019; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2019.

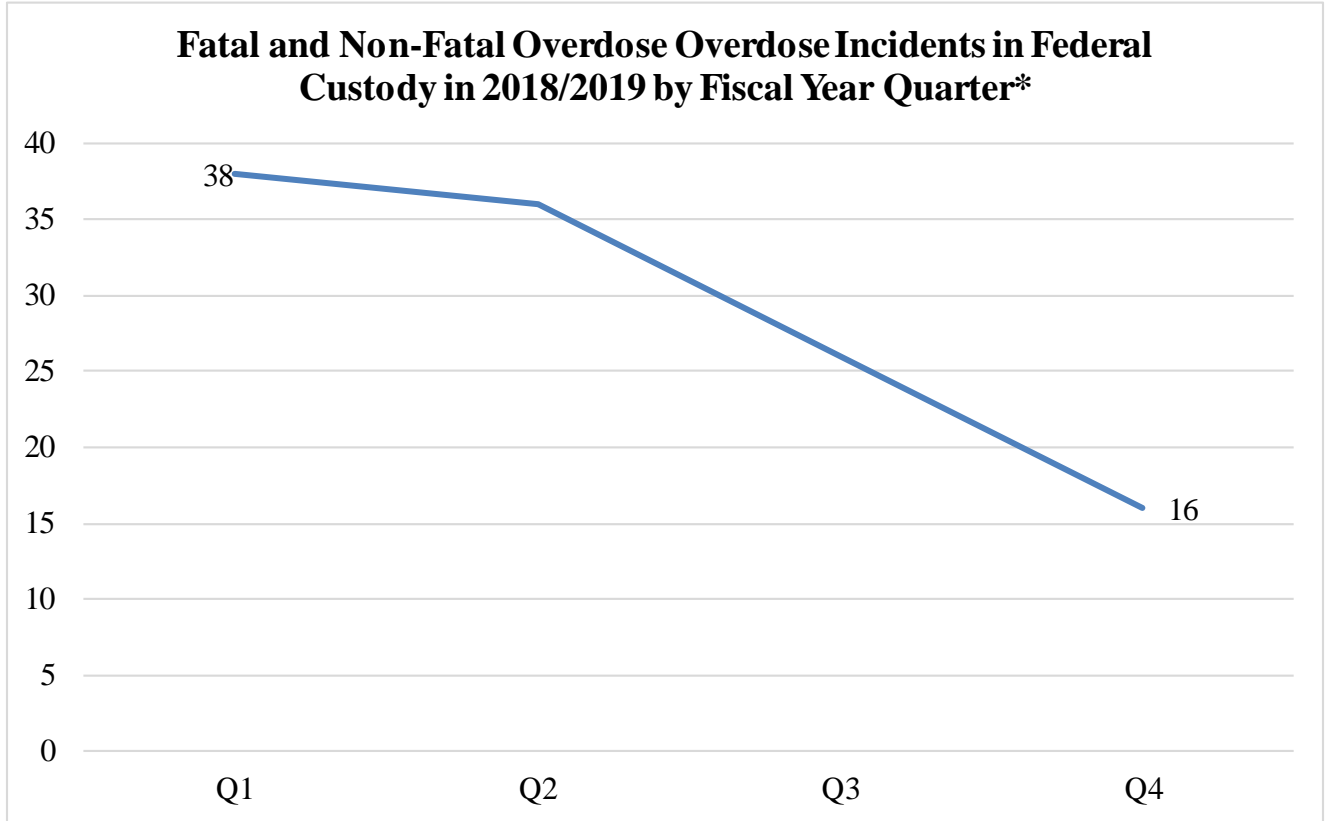
³ The majority of incidents at Drumheller Institution took place in the earlier part of the fiscal year, with no incidents in 2018/2019 occurring after September 2018.

Figure 2. Overdose Incidents in Federal Custody, 2012/2013 – 2018/2019 by Region and Fiscal Year



Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

Figure 3. Overdose Incidents in Federal Custody in 2018/2019, by Region and Fiscal Year Quarter



Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

* Q1=April 1st, 2018 – June 30th, 2018; Q2= July 1st, 2018 – September 30th, 2018; Q3= October 1st, 2018 – December 31st, 2018; Q4=January 1st, 2019 – March 31st, 2019.

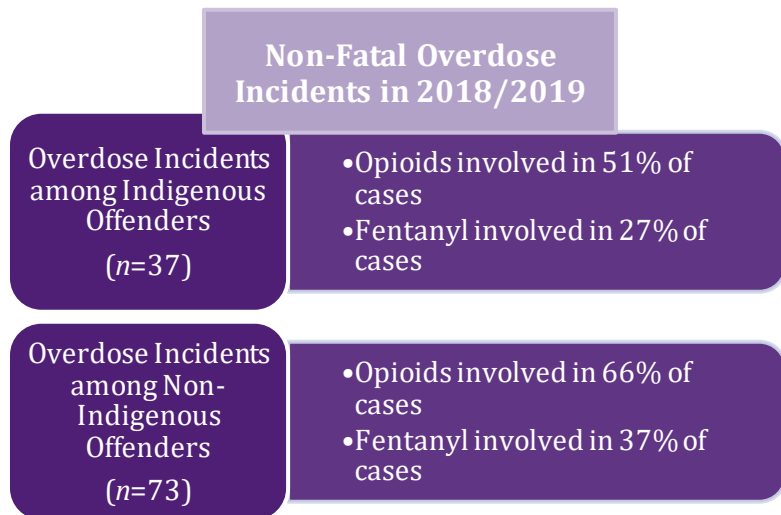
Incident Details of Non-Fatal Overdose Incidents in Federal Custody, 2018/2019

In 2018/2019, opioids were the most common category of substance involved in overdose incidents, suspected or confirmed as a standalone or contributing substance in 61% ($n=67$) of non-fatal cases⁴. In terms of specific drugs, fentanyl continues to be the most common, suspected or confirmed in 34% ($n=37$) of cases, followed by heroin, noted in 16% ($n=17$) of cases. Non-opioid prescription medications were the second most common category of substance involved in non-fatal overdose incidents, identified as a standalone or contributing substance in 24% ($n=26$) of cases. Stimulants were suspected or confirmed as a standalone or contributing substance in 14% ($n=15$) of cases, while cannabis (including synthetic cannabis) was noted as a standalone or contributing in 15% ($n=16$) of cases. As illustrated in [Figure 4](#), the rise in overdose incidents in federal custody appears to be largely driven by cases involving opioids.

Image 1. Carfentanil seized at Warkworth Institution in April 2019

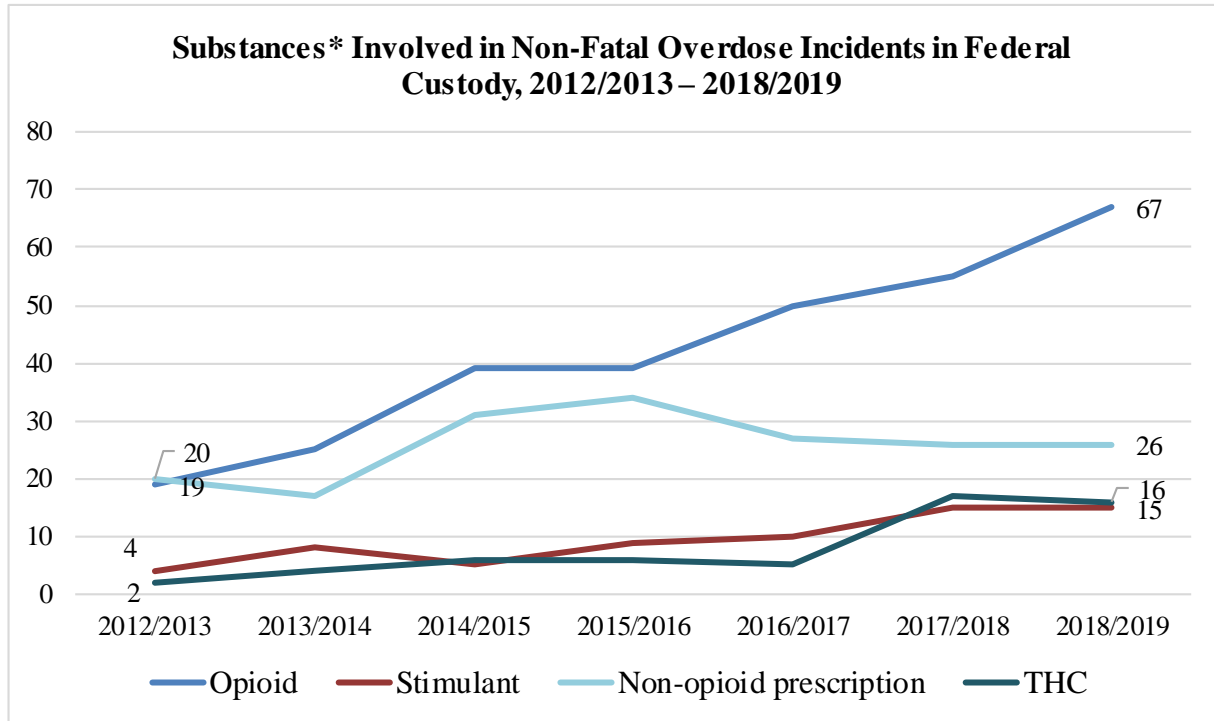


Source: CSC Preventive Security and Intelligence.



⁴ In many cases, more than one substance was identified; all recorded substances in a given case were utilized in analysis.

Figure 4. Substances Involved in Overdose Incidents, 2012/2013 - 2018/2019

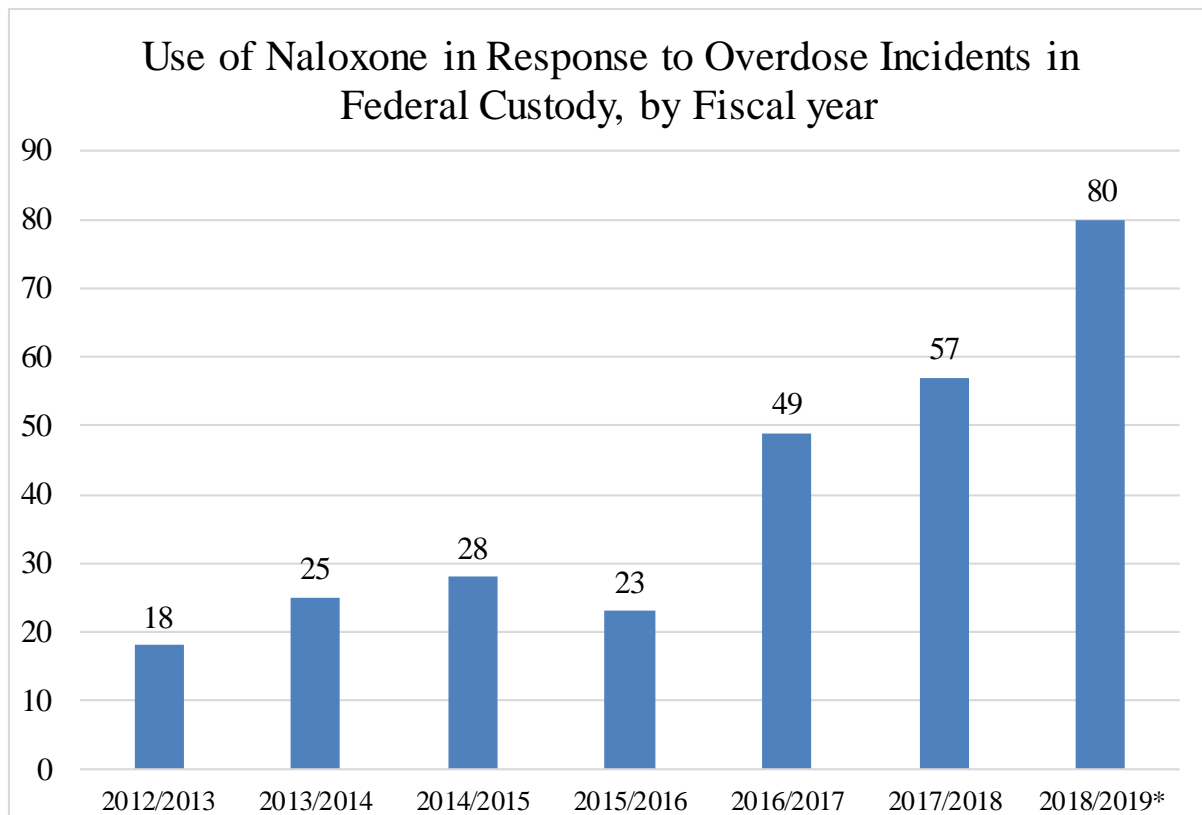


Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes. Substances include all those suspected and/or confirmed in incidents.

There was some variation in terms of when and where non-fatal overdose incidents occurred. In terms of time of year, incidents were most common in the month of September, when 18% ($n=20$) of cases occurred, and least common in January, when 4% ($n=4$) of cases occurred. With respect to time of day, incidents were most common in the evening (after 6:00 PM to 11:59 PM), when 46% ($n=50$) of cases took place. A majority of overdose incidents occurred in the offender’s cell (59%, $n=65$). In some instances, there were “clusters” of overdose incidents; for example, Collins Bay Institution had 12 incidents between April and May of 2018, while Drumheller Institution had eight incidents in June of 2018.

In terms of medical response, CPR was used in 16% ($n=17$) of cases, an ambulance was called in 86% ($n=95$) of cases, and external hospital care was provided in 89% ($n=98$) of cases. Naloxone, a medication used to temporarily reverse the effects of an opioid overdose, was utilized in 73% ($n=80$) of cases (a continued increase from previous years). Naloxone was most often administered by correctional staff (66%, $n=53$), followed by CSC medical staff (34%, $n=27$), and was noted to be medically effective in 78% ($n=62$) of cases in which it was utilized.

Figure 5. Use of Naloxone in Response to Overdose Incidents in Federal Custody by Fiscal Year



*Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes. *Only non-fatal incidents are included.*

Naloxone is a medication that can temporarily reverse the effects of an overdose caused by opioids (e.g., fentanyl, heroin, morphine). The intent of managing an opioid emergency with naloxone is to move the continuum of care forward prior to the arrival of emergency medical services. When effective, the medication can restore breathing within two to five minutes of administration. Naloxone is only active in the body for 20 to 90 minutes, whereas opioids may last longer; this means that more than one dose may be necessary (Government of Canada, 2019b).

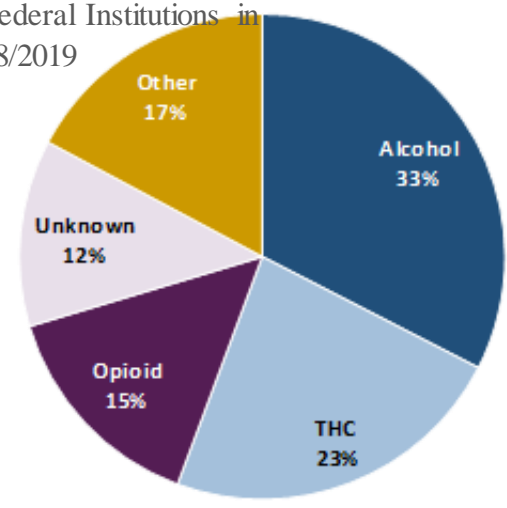
Special Topic: Opioid Seizures in Federal Institution, 2018/2019

There were **530** opioid seizures* in federal institutions in 2018/2019, compared to **119** in 2009/2010.

Much like in the community, opioid related trends in federal custody are regionally varied.

*Suboxone was by far the most common opioid substance seized in 2018/2019. Other substances seized included fentanyl, heroin, morphine and oxycodone.

Figure 6. Types of Drugs Seized in Federal Institutions in 2018/2019



Source: CSC Performance Measurement and Management Reports (PMMR).

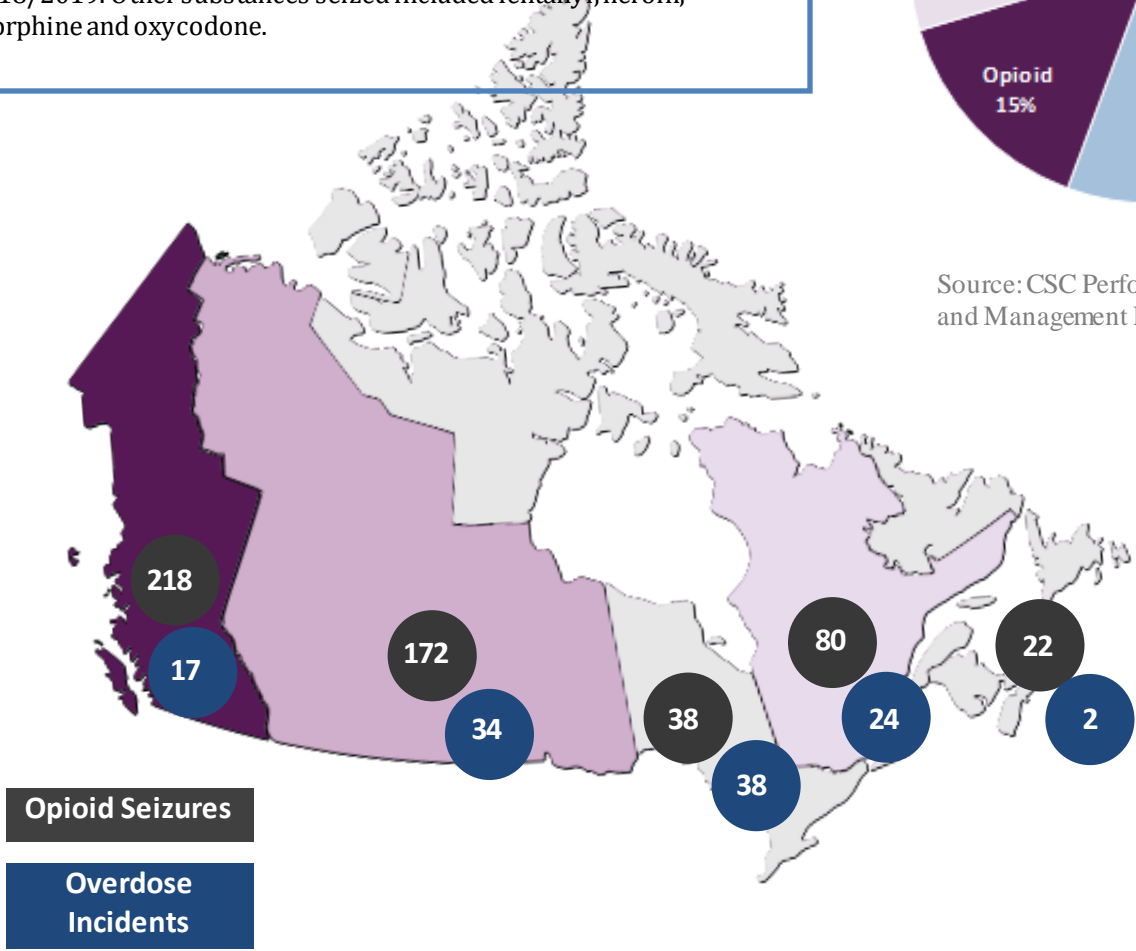


Figure 7. Opioid Seizures* and Overdose Incidents in Federal Institutions, 2018/2019
 *Source: CSC Performance Measurement and Management Reports (PMMR).

Profile of Offenders Involved in Non-Fatal Overdose Incidents in Federal Custody, 2018/2019

There were 106 unique offenders involved in the 110 non-fatal overdose incidents in custody in 2018/2019, with four individuals involved in two incidents. At the time of the incident, offenders had served a median of 1.9 years of their sentence. However, length of time served varied by sentence length. For example, those serving sentences of ten years or more had served an average of 7.6 years at the time of incident, whereas those serving sentences of less than four years had served an average of less than one year (346 days) at the time of the incident.

As in previous years, individuals involved in non-fatal overdose incidents in 2018/2019 tended to be male (95%, $n=104$), White (58%, $n=64$) or Indigenous (34%, $n=37$) in their twenties or thirties (75%, $n=82$), with less than a high school level of education (67%). Many were medium security offenders (54%, $n=59$), serving short to medium length sentences (i.e., less than six years; 54%, $n=59$), often for a major index offence of robbery (31%, $n=34$). Drug offences were also common among offenders involved in overdose incidents; 57% ($n=63$) had a current or previous drug-related conviction.

Case file information indicates offenders involved in non-fatal overdose incidents in 2018/2019 tended to have complex needs, consistent with analyses in previous years. Substance use histories were present in 98% ($n=108$) of cases, and a link between substance use and offending was evident in 86% ($n=94$) of cases.⁵ Mental health issues were also noted in 66% ($n=73$) of cases, and a history of self-harm was noted in 45% ($n=49$) of cases. Offenders involved in overdose incidents also tended to have high static risk⁶ (66%, $n=73$), a measure related to criminal history. Excluding their current offences, 90% ($n=99$) had prior criminal convictions as an adult, while 57% ($n=63$) had a youth criminal record. On the reintegration potential measure, offenders involved in overdose incidents tended to score low (48%, $n=53$) or medium (45%, $n=49$), which is similar to the general offender population (See Figure 8).

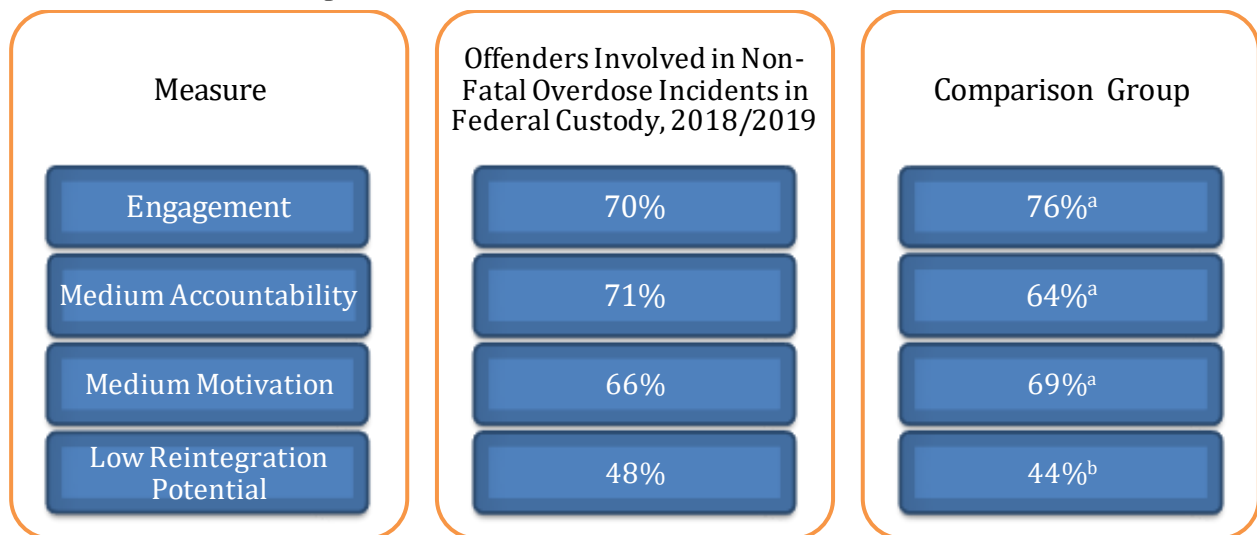
Measures relating to accountability, motivation, and engagement (AME), which pertain to readiness for treatment (Mathias & Wormith, 2017), were also examined. As illustrated in Figure 8, offenders involved in overdose incidents did not look meaningfully different from the general

⁵ Link between substance use and offending was determined based on results from the Computerized Assessment of Substance Abuse (CASA) where available, and/or case file documents.

⁶ The Static Factors Assessment (SFA), a component of the Offender Intake Assessment (OIA), measures criminal history, offence severity and sex offence history.

offender population when it came to these measures. On the accountability measure, a tool used to assess the extent to which the offender is involved in addressing problematic behaviours as identified in their correctional plan (Correctional Service Canada, 2018), offenders involved in overdose incidents tended to be rated medium (71%, $n=78$). Likewise, they tended to be rated medium on the motivation scale (66%, $n=72$), a measure indicating an offender’s desire and willingness to change (Correctional Service Canada, 2018). In terms of engagement, 70% ($n=77$) were noted to be engaged with their correctional plan.

Figure 8. Risk/Need Measures for Offenders Involved in Overdose Incidents in 2018/2019 and the General Offender Population

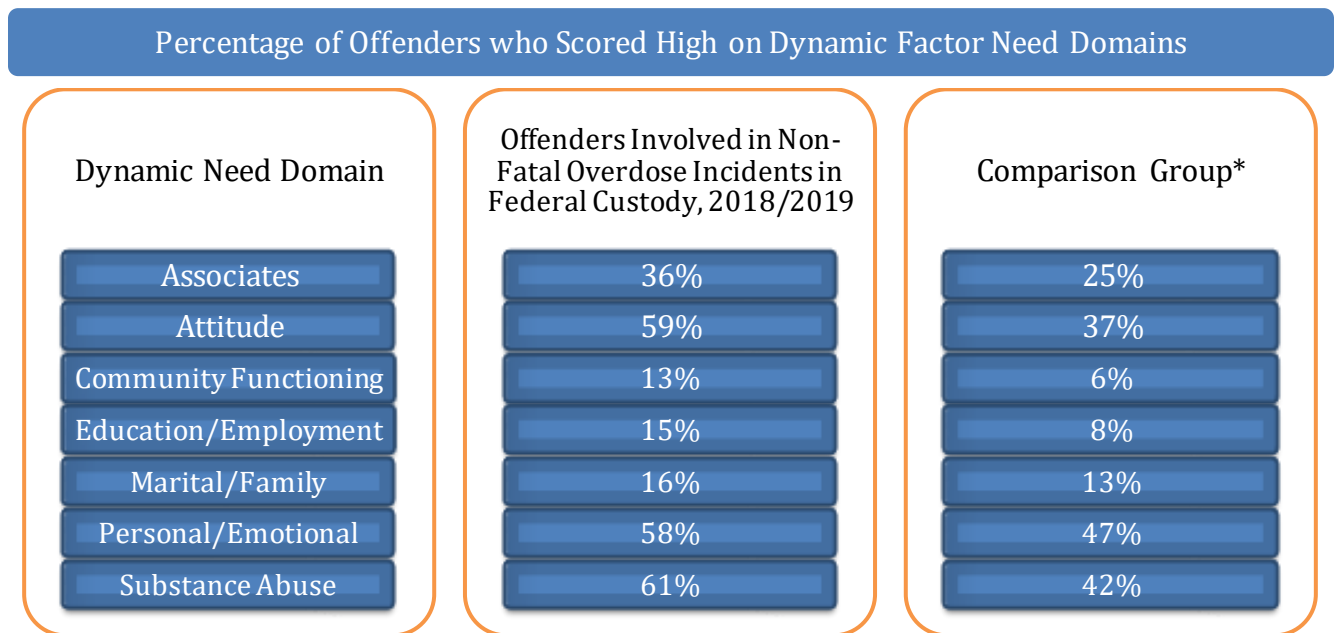


^aComparison data retrieved from Mathias and Wormith (2017).

^bComparison data retrieved from an in-custody snapshot 07/04/2019.

Results from the Dynamic Factor Identification and Assessment (DFIA) or the Dynamic Factor Identification and Assessment-Revised (DFIA-R) were also examined for offenders involved in non-fatal overdose incidents in custody in 2018/2019.⁷ The DFIA-R (previously the DFIA) is used at intake to identify criminogenic needs in relation to seven risk areas (employment and education, marital/family, associates, substance abuse, community functioning, personal/emotional and attitude; Correctional Service Canada, 2018). In terms of dynamic need domains linked to criminal offending, a majority of offenders had personal/emotional (76%, $n=83$), substance use (74%, $n=81$), attitude (71%, $n=78$), and associates (61%, $n=67$) identified. Regarding level of need, offenders involved in overdose incidents were more likely than those in the general offender population⁸ to have high need. Notable differences were evident in relation to the attitude domain (59% of offenders involved in overdose incidents scored high need, compared to 37% of offenders in a comparison group) and the substance abuse domain (61% versus 42%).

Figure 9. Dynamic Needs for Offenders Involved in Overdose Incidents in 2018/2019 and a Comparison Group.



*For a description of the comparison group, please refer to: Stewart et al. (2017).

⁷ Results were available for 102 offenders involved in non-fatal overdose incidents in 2018/2019.

⁸ For a description of the comparison group, please refer to: Stewart et al. (2017).

The institutional histories of offenders involved in non-fatal overdose incidents in 2018/2019 were also examined. In general, offenders tended to have problematic institutional adjustment patterns, as measured by previous incidents, institutional charges and segregation placements. In terms of incidents, offenders were often previously involved⁹ in fights/assaults (65%, *n*=71), disciplinary issues (59%, *n*=65) and possession of contraband/unauthorized items (81%, *n*=89). Offenders also often had multiple institutional charges (median = 13), for infractions such as “Possess unauthorized item” (72%, *n*=79), “Disobey written rule” (67%, *n*=74), “Possess/deals in contraband” (61%, *n*=67), and “Disobey order” (50%, *n*=55). Substance-related charges were also common, including “Fails/refuses urine sample” (41%, *n*=45) and “Takes intoxicant into body” (41%, *n*=45).

Among offenders involved in non-fatal overdose incidents in federal custody in 2018/2019:

41% had a previous charge for “takes intoxicant”

41% had a previous charge for “fails/refuses urine sample”

25% had a positive urinalysis within one year prior to the overdose incident

11% had a previous overdose incident during a federal sentence

⁹ Involvement includes different role qualifiers, such as instigator, victim, associate and unknown.

Conclusion

The findings outlined in this report indicate that the number of overdose incidents in federal custody continues to rise, particularly those involving opioids. Whereas a disproportionate number of incidents occurred in the Prairie region in previous years, 2018/2019 saw a notable increase in the number of incidents in the Ontario and Quebec regions, reflective of community trends. Importantly, the number of incidents declined throughout the fiscal year, particularly in the Ontario and Prairie regions, where most incidents occurred. As in previous years, fentanyl remains the most common substance identified in overdose incidents.

In response to this public health issue, CSC continues to employ a multi-faceted approach consistent with the principles informing the Federal Action on Opioids, namely: prevention; treatment; harm reduction; and enforcement (Government of Canada, 2019c). Correctional programming and institutional supports are in place to help offenders address the root causes of substance use issues. Participation in Opioid Agonist Therapy (OAT), a treatment for opioid substance use disorders, continues to grow, with nearly 2,000 participants in 2018/2019. CSC is also working to reduce the harms associated with substance use through strategies such as the Prison Needle Exchange Program (PNEP), an overdose prevention service at Drumheller Institution, and the institutional and take-home naloxone programs (Pant & Severn, 2018).

CSC's Preventive Security and Intelligence Branch has also improved strategies for drug identification in partnership with Health Canada's Drug Analysis Services (DAS) under the *Critical Drug Analysis Process (CDAP)*, which uses new technology in forensic drug analysis to establish the composition and purity of substances suspected of causing an overdose or staff exposure. In addition, CSC's Incident Investigations Branch continues to investigate fatal and non-fatal overdose incidents in federal institutions and is currently identifying areas of improvement and gaps in services when it comes to offender substance use needs. In furthering the goal of promoting offender health and safety, the Research Branch at CSC continues to closely track overdose incidents in custody to identify and analyze trends in a systematic and timely fashion.

References

- Canadian Institute for Health Information. (2018). Opioid-related harms in Canada. Ottawa, ON: Canadian Institute for Health Information. Available online: <<https://www.cihi.ca/sites/default/files/document/opioid-related-harms-report-2018-en-web.pdf>>.
- Correctional Service of Canada (2018). *Commissioner's Directive (CD) number 705-6: Correctional planning and criminal profile*. Ottawa, ON: Correctional Services Canada.
- Government of Canada. (2019a). National report: Apparent opioid-related deaths in Canada. Available online: <<https://health-infobase.canada.ca/datalab/national-surveillance-opioid-mortality.html>>.
- Government of Canada. (2019b). *Naloxone*. Available online: <<https://www.canada.ca/en/health-canada/services/substance-use/problematic-prescription-drug-use/opioids/naloxone.html>>.
- Government of Canada. (2019c). *Federal action on opioids*. Available online: <<https://www.canada.ca/en/health-canada/services/substance-use/problematic-prescription-drug-use/opioids/federal-actions.html>>.
- Hopley, A.A.B., & Brunelle, C. (2016). Substance use in incarcerated male offenders: Predictive validity of a personality typology of substance misusers. *Addictive behaviors*, 53, 86-93.
- Mathias, K. & Wormith, J. S. (2017). *An examination of the validity of accountability, motivation and engagement assessment*. Research Report R-399. Ottawa, ON: Correctional Service of Canada.
- McKendy, L., Biro, S. & Keown, L.A. (2019). *Overdose incidents in federal custody, 2012/2013 – 2016/2017*. Research Report SR-18-02. Ottawa, ON: Correctional Service of Canada.
- McKendy, L., Biro, S., Keown, L.A., Miron, M., Baglole, S. (2020). *Overdose incidents in federal custody, 2017/2018*. Research Report. Ottawa, ON: Correctional Service of Canada.
- Ontario Agency for Health Protection and Promotion (Public Health Ontario); Office of the Chief Coroner; Ontario Forensic Pathology Service; Ontario Drug Policy Research Network. (2019). *Opioid mortality surveillance report: Analysis of opioid-related deaths in Ontario July 2017-June 2018*. Toronto, ON: Queen's Printer for Ontario.
- Pant, S. & Severn, M. (2018). *Funding and management of naloxone programs in Canada*. (Environmental scan; no. 67). Ottawa, ON: The Canadian Agency for Drugs and Technologies in Health.

- Special Advisory Committee on the Epidemic of Opioid Overdoses. (2019). *National report: Opioid-related harms in Canada web-based report*. Ottawa, ON: Public Health Agency of Canada. Available online: <<https://health-infobase.canada.ca/substance-related-harms/opioids>>.
- Statistics Canada. (2019). *Changes in life expectancy by selected causes of death, 2017*. Ottawa, ON: Statistics Canada. Available online: <<https://www150.statcan.gc.ca/n1/daily-quotidien/190530/dq190530d-eng.htm>>.
- Stewart, L. A., Wardrop, K., Wilton, G., Thompson, J., Derkzen, D., & Motiuk, L. (2017). *Reliability and validity of the Dynamic Factors Identification and Analysis-Revised*. Research Report R-395. Ottawa, ON: Correctional Service of Canada.
- Ternes, M., & Johnson, S. (2011). *Linking type of substance use and type of crime in male offenders* (RS11-6). Ottawa, ON: Correctional Service Canada.
- van der Meulen, E. (2017). "It goes on everywhere": Injection drug use in Canadian federal prisons. *Substance Use & Misuse*, 52(7), 884-891.
- Weekes, J., Thomas, G., & Graves, G. (2004). *Substance abuse in corrections: Frequently asked questions*. Ottawa, ON: Canadian Centre on Substance Abuse.

Appendix

Table 1

Overdose Incidents in Federal Custody, 2012/2013 – 2018/2019, by Region and Fiscal Year

Region	Fiscal Year							Total
	12/13	13/14	14/15	15/16	16/17	17/18	18/19	
Atlantic	2	2	6	2	7	4	2	25 (5%)
Quebec	5	8	9	5	7	13	24	71 (13%)
Ontario	10	14	32	25	12	17	38	148 (28%)
Prairie	8	9	19	20	42	40	34	173 (32%)
Pacific	15	15	9	28	20	15	18	120 (22%)
Total	40	48	75	80	88	89	116	536 (100%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

Table 2

Sub-Types of Overdose Incidents in Federal Custody, 2012/2013 – 2018/2019, by Fiscal Year

Incident Type	Fiscal Year							Total
	12/13	13/14	14/15	15/16	16/17	17/18	18/19	
Unintentional Overdose	29	36	60	60	69	70	94	418 (78%)
Interrupted								
Intentional Overdose	8	7	9	11	13	14	16	78 (15%)
Interrupted								
Death	3	2	6	8	4	5	6	34 (6%)
Other	0	3	0	1	2	0	0	6 (1%)
Total	40	48	75	80	88	89	116	536 (100%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

Table 3

Incident Details of Non-Fatal Overdose Incidents in Federal Custody, 2018/2019, by Region

Detail	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
Location of incident						
Offender's cell	2	13	19	23	8	65 (59%)
Offender's segregation cell	0	1	3	4	2	10 (9%)
Other	0	9	13	7	6	35 (32%)
Time of incident						
12:00 AM - 06:00 AM	0	2	2	4	1	9 (8%)
6:01 AM - 12:00 PM	0	4	6	6	5	21 (19%)
12:01 PM - 6:00 PM	0	6	13	7	4	30 (27%)
6:01 PM - 11:59 PM	2	11	14	17	6	50 (46%)
Day of week						
Sunday	0	5	4	5	2	16 (15%)
Monday	0	1	6	3	3	13 (12%)
Tuesday	0	3	6	7	3	19 (17%)
Wednesday	2	1	3	3	4	13 (12%)
Thursday	0	8	7	4	2	21 (19%)
Friday	0	3	6	7	0	16 (15%)
Saturday	0	2	3	5	2	12 (11%)
Month						
Dec.-Feb.	2	5	3	5	4	19 (17%)
March-May	0	2	16	6	1	25 (23%)
June-Aug.	0	5	5	14	5	29 (27%)
Sept.-Nov.	0	11	10	9	6	36 (33%)
Substance involved (all that apply) ^a						
Opioid ^b	2	16	22	21	6	67 (61%)
Fentanyl	0	11	14	10	2	37 (34%)
Heroin	0	5	5	5	2	17 (16%)
Suboxone	2	0	1	5	2	10 (9%)
Stimulant	0	0	4	8	3	15 (14%)
Prescription medication	0	5	7	12	2	26 (24%)
Cannabis	0	3	8	5	0	16 (15%)
Unsure	0	3	3	3	6	15 (14%)
Substances seized	2	8	13	13	5	41 (37%)
Drug paraphernalia seized	2	5	13	13	5	38 (35%)
Events following incident						
Offender transferred	0	8	8	12	4	32 (29%)
Change in offender security	0	2	4	7	4	17 (16%)
Offender institutionally charged	0	10	14	18	5	47 (43%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

^aSubstances identified include those that were confirmed through tests administered to the offender or otherwise suspected (e.g., based on tests of seized substances or intelligence information). As all substances identified are included, column totals may exceed the total number of cases.

^bOnly the three most common opioid substances are identified in this table.

Table 4

Incident Details of Overdose Incidents in Federal Custody, 2012/2013- 2018/2019, by Fiscal Year

Detail	Fiscal Year							Total
	12/13	13/14	14/15	15/16	16/17	17/18	18/19	
Count*	40	48	75	80	88	89	110	530
Time of incident								
12:00 AM - 06:00 AM	2	2	6	10	3	7	9	39 (7%)
6:01 AM - 12:00 PM	15	17	16	18	27	24	21	138 (26%)
12:01 PM - 6:00 PM	13	11	24	32	31	29	30	170 (32%)
6:01 PM - 11:59 PM	10	18	29	20	27	28	50	182 (34%)
Not indicated	0	0	0	0	0	1	0	1 (<1%)
Day of week								
Sunday	6	6	10	10	11	10	16	69 (13%)
Monday	5	4	9	10	14	13	13	68 (13%)
Tuesday	2	9	6	12	5	12	19	65 (12%)
Wednesday	7	8	10	16	12	11	13	77 (15%)
Thursday	7	11	15	11	23	8	21	96 (18%)
Friday	8	5	14	11	12	18	16	84 (16%)
Saturday	5	5	11	10	11	17	12	71 (13%)
Substance involved (all that apply) ^a								
Opioid ^b	19	25	39	39	50	55	67	294 (56%)
Fentanyl	1	3	4	12	23	42	37	122 (23%)
Heroin	10	12	0	15	11	11	17	76 (14%)
Methadone/Suboxone	5	9	0	10	12	8	10	54 (10%)
Stimulant	4	8	5	9	10	15	15	66 (13%)
Prescription medication	20	17	31	34	27	27	26	182 (34%)
Cannabis	2	4	6	6	5	17	16	56 (11%)
Unsure	2	3	6	10	13	5	15	54 (10%)
Substances seized	7	14	16	16	38	33	41	165 (31%)
Drug paraphernalia seized	11	6	14	10	27	38	38	144 (27%)
Events following incident								
Offender transferred	12	16	21	16	22	25	32	144 (27%)
Change in offender security level	5	7	6	9	12	16	17	72 (14%)
Offender institutionally charged	10	16	18	26	36	40	47	193 (36%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 5

Medical Response to Overdose Incidents in Federal Custody, 2012/2013 – 2017/2018, by Fiscal Year

Detail	Fiscal Year							Totals
	12/13	13/14	14/15	15/16	16/17	17/18	18/19	
Count*	40	48	75	80	88	89	110	530
CPR was used	6	5	13	15	17	17	17	90 (17%)
AED was used	4	4	9	12	11	13	15	68 (13%)
Naloxone was used	18	25	28	23	49	57	80	280 (53%)
Ambulance called	34	40	63	72	74	79	95	457 (86%)
Internal medical care	26	28	49	52	45	53	57	310 (58%)
External medical care	35	43	72	74	75	81	98	478 (90%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 6

Profile of Offenders Involved in Non-Fatal Overdose Incidents in 2018/2019, by Region

Characteristic	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
Age						
18-24	0	3	2	6	3	14 (13%)
25-34	2	10	18	16	7	53 (48%)
35-44	0	4	7	6	4	21 (19%)
45-54	0	5	5	5	2	17 (16%)
55+	0	1	3	1	0	5 (5%)
Ethnicity						
White	2	17	20	19	6	64 (58%)
Indigenous	0	4	11	13	9	37 (34%)
Other	0	2	4	2	1	9 (8%)
Marital Status						
Non-Partnered	1	13	14	20	11	59 (54%)
Partnered	1	8	13	12	4	38 (35%)
Not indicated	0	2	8	2	1	13 (12%)
Level of education						
Less than high school	1	16	24	25	8	74 (67%)
High school	1	4	10	9	8	32 (29%)
More than high school	0	3	1	0	0	4 (4%)
Security level						
Minimum	0	0	3	4	3	10 (9%)
Medium	2	8	24	20	5	59 (54%)
Maximum	0	11	8	6	8	33 (30%)
Not yet determined	0	4	0	4	0	8 (7%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 7

Sentence Information for Offenders in Federal Custody Involved in Non-Fatal Overdose Incidents in 2018/2019, by Region

Sentence information	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
First time federal offender?	0	13	20	18	11	62 (56%)
Sentence length						
2 – less than 4 years	2	8	13	9	3	35 (32%)
4 – less than 6 years	0	4	6	10	3	23 (21%)
6 – less than 10 years	0	2	6	8	3	19 (17%)
Over 10 years	0	5	4	5	3	17 (16%)
Indeterminate	0	4	6	2	4	16 (15%)
Major index offence						
Homicide-related	0	6	8	6	5	25 (23%)
Sexual	0	0	0	2	0	2 (2%)
Assault	2	3	3	2	2	12 (11%)
Robbery	0	4	12	13	5	34 (31%)
Other violent	0	0	1	1	1	3 (3%)
Property	0	2	4	5	2	13 (12%)
Drug	0	6	6	5	1	18 (16%)
Other non-violent	0	2	1	0	0	3 (3%)
Current Offences - All						
Homicide-related	0	6	8	6	5	25 (23%)
Sexual	0	0	0	3	0	3 (3%)
Assault	2	7	6	9	6	30 (27%)
Robbery	0	4	14	14	6	38 (35%)
Other violent	0	7	14	13	5	39 (36%)
Property	2	13	10	16	6	47 (43%)
Drug	1	10	9	13	3	36 (33%)
Other non-violent	1	18	25	20	9	73 (66%)
Time served						
Less than 1 year	2	5	8	12	0	27 (25%)
1 year – 4 years	0	11	15	14	9	49 (45%)
Over 4 years	0	7	12	8	7	34 (31%)
Time between most recent admission and incident						
Less than 1 year	2	7	17	16	5	47 (43%)
1 year – 4 years	0	10	7	13	7	37 (34%)
Over 4 years	0	6	11	5	4	26 (24%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 8

Mental Health and Substance Use History Information for Federal Offenders Involved in Non-Fatal Overdose Incidents in Custody in 2018/2019, by Region

Factor	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
At least one mental health disorder identified	2	16	20	21	14	73 (66%)
Mental health disorder(s) identified						
Mood disorder	0	6	13	16	7	42 (56%)
Psychotic disorder	0	0	2	3	3	8 (11%)
Anxiety disorder	1	6	11	11	8	37 (49%)
Personality disorder	1	7	11	3	4	26 (35%)
Neurocognitive/ neurodevelopmental	2	9	10	8	8	37 (49%)
History of self-harm/ suicide	0	10	20	13	6	49 (45%)
History of substance abuse	2	23	34	34	15	108 (98%)
Opiates	0	13	23	16	8	60 (57%)
Stimulants	2	15	25	32	9	83 (78%)
Cannabis	2	18	25	28	9	82 (77%)
Hallucinogens	0	3	4	6	3	16 (15%)
Depressants/ downers	0	5	1	2	0	8 (8%)
Link between offending and substance misuse	2	18	29	30	15	94 (86%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 9

Criminal Profile of Federal Offenders Involved in Non-Fatal Overdose Incidents in Custody in 2018/2019, by Region

Factor	Region					Total
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
Security threat group (STG) affiliation	0	1	4	9	4	18 (16%)
Young offender record	0	11	22	20	10	63 (57%)
Prior adult criminal record	2	21	32	31	13	99 (90%)
Previous offences (all that apply)						
Property	2	16	26	25	12	81 (74%)
Homicide-related	0	1	1	0	0	2 (2%)
Assault	0	9	20	19	10	58 (53%)
Sexual	0	0	2	2	0	4 (4%)
Robbery	1	6	14	11	8	40 (36%)
Drug	1	14	17	14	7	53 (48%)
Other non-violent	2	18	28	29	13	90 (82%)
Other violent	1	6	15	16	4	42 (38%)
None	0	1	2	3	0	6 (6%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

**Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.*

Table 10

Risk/Need Measures for Federal Offenders Involved in Non-Fatal Overdose Incidents in Custody in 2018/2019, by Region

Factor	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
Static Factor Rating						
High	0	18	23	18	14	73 (66%)
Medium	2	3	12	13	2	32 (29%)
Low	0	0	0	1	0	1 (1%)
Not indicated	0	2	0	2	0	4 (4%)
Accountability						
High	0	0	1	4	3	8 (7%)
Medium	2	17	29	21	9	78 (71%)
Low	0	4	5	5	4	18 (16%)
Not indicated	0	2	0	4	0	6 (6%)
Motivation						
High	0	0	2	5	6	13 (12%)
Medium	0	16	26	22	8	72 (66%)
Low	2	5	7	3	2	19 (17%)
Not indicated	0	2	0	4	0	6 (6%)
Responsivity						
Yes	0	1	12	7	3	23 (21%)
No	2	20	23	23	13	81 (74%)
Not indicated	0	2	0	4	0	6 (6%)
Engagement						
Yes	0	16	27	23	11	77 (70%)
No	2	5	8	7	5	27 (25%)
Not indicated	0	2	0	4	0	6 (6%)
Reintegration potential						
High	0	0	1	1	0	2 (2%)
Medium	2	6	19	16	6	49 (45%)
Low	0	15	15	13	10	53 (48%)
Not indicated	0	2	0	4	0	6 (6%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 11

Dynamic Factor Domain Need Level for Federal Offenders Involved in Non-Fatal Overdose Incidents in Custody in 2018/2019, by Region

Factor	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
Overall Dynamic Need						
High	2	20	30	25	15	92 (84%)
Moderate	0	1	5	5	1	12 (11%)
Low	0	0	0	0	0	0 (0%)
Not indicated	0	2	0	4	0	6 (5%)
Education/Employment						
High	0	1	7	5	3	16 (15%)
Moderate	1	12	21	19	10	63 (57%)
Low/no/asset	1	8	6	6	3	24 (22%)
Not indicated	0	2	1	4	0	7 (6%)
Personal/Emotional						
High	0	14	19	19	12	64 (58%)
Moderate	1	5	13	11	2	32 (29%)
Low/no	1	2	3	0	2	8 (7%)
Not indicated	0	2	0	4	0	6 (6%)
Substance Abuse						
High	1	12	24	19	11	67 (61%)
Moderate	1	4	5	8	4	22 (20%)
Low/no	0	5	6	3	1	15 (14%)
Not indicated	0	2	0	4	0	6 (6%)
Marital/Family						
High	0	3	7	3	4	17 (16%)
Moderate	1	1	12	8	3	25 (23%)
Low/No/Asset	1	17	16	19	9	62 (56%)
Not indicated	0	2	0	4	0	6 (6%)
Attitude						
High	2	16	21	13	13	65 (59%)
Moderate	0	2	10	8	1	21 (19%)
Low/no/asset	0	3	4	9	2	18 (16%)
Not indicated	0	2	0	4	0	6 (6%)
Associates						
High	0	6	11	12	10	39 (36%)
Moderate	2	9	21	14	5	51 (46%)
Low/no/asset	0	6	3	4	1	14 (13%)
Not indicated	0	2	0	4	0	6 (6%)
Community Functioning						
High	0	1	4	3	6	14 (13%)
Moderate	0	2	15	14	2	33 (30%)
Low/no/asset	2	18	16	13	8	57 (52%)
Not indicated	0	2	0	4	0	6 (6%)

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

Table 12

Institutional History of Federal Offenders Involved in Non-Fatal Overdose Incidents in Custody in 2018/2019, by Region

Factor	Region					Totals
	Atlantic	Quebec	Ontario	Prairie	Pacific	
Count*	2	23	35	34	16	110
Completed correctional programming ^a	2	19	32	28	14	95 (86%)
Completed any educational programming ^b	1	8	24	18	6	57 (52%)
Previously held institutional employment	2	20	30	26	15	93 (85%)
History of segregation	1	17	25	22	12	77 (70%)
Positive urinalysis in year prior to incident	0	10	6	7	4	27 (25%)
Refused urinalysis in year prior	0	5	3	7	1	16 (15%)
Involvement in institutional incidents (any role)						
Fight/assault	1	14	21	25	10	71 (65%)
Disciplinary problems	1	9	29	15	11	65 (59%)
Contraband/unauthorized item	2	17	31	26	13	89 (81%)
Institutional charges						
Participate in disturbance	1	4	4	7	3	19 (17%)
Jeopardize security	2	7	7	14	5	35 (32%)
Damage/destroy property	1	9	9	6	4	29 (26%)
Disobey order	2	14	17	15	7	55 (50%)
Disobey written rule	2	20	25	17	10	74 (67%)
Disrespect or provoke violence toward staff	1	11	9	7	3	31 (28%)
Disrespect/Abusive to staff	0	8	8	7	2	25 (23%)
Fails/refuses urine sample	0	12	9	16	8	45 (41%)
Fights/assault/threatens	0	12	7	12	7	38 (35%)
Possess unauthorized item	2	18	25	24	10	79 (72%)
Possess/deals in contraband	2	15	21	18	11	67 (61%)
Prohibited area	1	7	2	1	3	14 (13%)
Refuses/leaves work	0	11	2	2	1	16 (15%)
Takes intoxicant into body	2	15	16	8	4	45 (41%)
Institutional Charges						
Mean	24	48	25	20	37	30
Median	24	28	13	8	26	13

Note: Results are accurate as of April 01, 2019. Subsequent investigations or reviews may result in changes.

*Suspected fatal cases in 2018/2019 have been excluded due to the unavailability of investigatory findings at the time of writing.

^aIncludes any correctional programming with a status of successful completion.

^bIncludes any educational programming (e.g., high school credits) with a status of successful completion.