CORRECTIONAL SERVICE CANADA

CHANGING LIVES, PROTECTING CANADIANS.



RESEARCH REPORT

Overdose Incidents in Federal Custody, 2012/2013 – 2016/2017

2018 Nº SR-18-02

Ce rapport est également disponible en français. Pour en obtenir un exemplaire, veuillez vous adresser à la Direction de la recherche, Service correctionnel du Canada, 340, avenue Laurier Ouest, Ottawa (Ontario) K1A 0P9.

This report is also available in French. Should additional copies be required, they can be obtained from the Research Branch, Correctional Service of Canada, 340 Laurier Ave. West, Ottawa, Ontario K1A 0P9.



$Overdose\ Incidents\ in\ Federal\ Custody,\ 2012/2013-2016/2017$

Laura McKendy

Stephanie Biro

&

Leslie Anne Keown

Correctional Service of Canada

November 2018

Acknowledgements

Special thanks to Shanna Farrell-MacDonald and Claude Girouard for assistance with data pulls, An-Tâm Tremblay, Harold Boudreau, Jonathan Smith, Alka Bhalla, Teresa Merserau, Kimberley Gibner, Terri Scott, Olivia Varsaneux, Maria Hill and Ashley Vachon for subject matter expertise, assistance and editorial support, and Chloe Pedneault, Claudia Sosa and Tara Beauchamp for data coding and research support.

Executive Summary

Key words: prison overdoses; substance misuse; prison drug use; deaths in custody; offender health; opioids

The rise of drug overdose incidents, specifically those involving opioids, is a growing concern for Canadian society (British Columbia Coroners Service Death Review Panel, 2018; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2018; Health Canada, 2017). While numerous reports have documented trends in the community, limited detailed data is available on trends in overdose incidents among custodial populations. This report furthers knowledge on this topic by examining all overdose incidents in federal custody over a five-year period (2012/2013 – 2016/2017), identifying the prevalence and nature of overdose incidents, the circumstances under which overdose incidents occur, the characteristics of offenders who experience overdose incidents, and patterns in the nature of staff and medical responses.

Over the five-year period under examination, 330 incidents were identified for analysis. Most of these overdose incidents were unintentional and non-fatal. More specifically, over three-quarters of cases (77%) were identified as unintentional non-fatal overdose incidents, 15% were intentional non-fatal overdose incidents, and 7% were identified as fatal overdose incidents, either intentional or non-intentional. Overdose incidents have seen a notable increase in the Prairie region; in 2016/2017, 48% (42) of all overdose incidents occurred in this region, compared to 20% (8) in 2012/2013.

In terms of the substances involved in overdose incidents, differences were observed across incident types. Opioids were most common in fatal overdoses and unintentional non-fatal overdose incidents, accounting for 91% and 57% of incidents respectively. Contrastingly, intentional non-fatal overdose incidents seldom involved opioids and most often involved prescription medications (e.g., anticonvulsants, antidepressants, cardiovascular medications), identified in 85% of cases.

Over the five-year period examined, overdose incidents involving opioids increased in raw numbers (from 19 in 2012/2013 to 50 in 2016/2017), with a moderate increase as a percentage of all overdose incidents (from 48% to 57%). Notably, the percentage of those involving fentanyl increased from 3% (1) in 2012/2013, to 26% (23) in 2016/2017. At the same time, the percentage of overdose incidents involving heroin decreased from 25% (10) in 2012/2013, to 13% (11) in 2016/2017. When it came to fatal overdose incidents, fentanyl was the most common substance found, noted in 36% (8) of cases across the five-year period.

While variation exists, certain characteristics were common among offenders who overdosed. They tended to be male (92%), Caucasian (58%) or Indigenous (36%), aged 25-34 (39%), classified as medium security (72%), serving relatively short (under 4 year) sentences (41%), with a major index offence of robbery (31%). Offenders typically had institutional histories riddled with security and discipline incidents, particularly incidents involving drugs, other contraband (excluding tobacco), and disobedience.

Indigenous offenders were involved in 119 (36%) of overdose incidents over the five-year period examined. Indigenous representation was highest in the Pacific region (46%) and was higher

among women (52%) relative to men (35%). Overdose incidents involving Indigenous offenders were somewhat less likely to involve opioids compared to incidents involving non-Indigenous offenders (45% versus 56%).

Over the five-year period examined, 21 overdose incidents occurred involving women; all were non-fatal and most (71%) were unintentional. Overdose incidents involving women typically involved prescription medications (86%), while none involved opioids. Overdose incidents involving women were most common in the Ontario and Pacific regions; nine incidents (43% of all cases) occurred in both of these regions. All women involved in overdose incidents had an identified mental health disorder, while 95% (20) had histories of substance abuse.

Overall, overdose incidents tended to occur when offenders were well into their sentence. At the time of incident, offenders had served, on average, 41% of their current sentence, or an average of 4.9 years. The average length of time between the most recent admission date and incident date was 3.2 years. However, variation was observed across incident type; those involved in fatal incidents had served more time (7.8 years) and had been out of the community longer (4.5 years) compared to those involved in non-fatal incidents.

In terms of potential risk factors, offenders involved in overdose incidents often had histories of substance misuse and mental illness. More specifically, 95% of offenders had issues related to drugs, while 54% had issues with alcohol. In 81% of cases, substance misuse was identified as a factor linked to criminal offending. Mental illness was particularly common among those involved in intentional non-fatal overdose incidents; 92% had at least one mental health disorder identified, while 89% had histories of self-injurious/suicidal behaviour.

A disproportionate number of incidents occurred at a single medium security men's institution in the Prairie region, Drumheller Institution. An institutional-level analysis suggests that the experience of Drumheller is more closely tied to the opioid crisis in the community; over three-quarters (77%) of overdose incidents at Drumheller Institution involved opioids, compared to 47% at all other institutions. Fentanyl was identified in 34% of overdose incidents at Drumheller, compared to 8% at all other institutions. Overall, the number of overdose incidents at Drumheller increased from five incidents in 2012/2013, to 25 in 2016/2017. Despite a higher number of overdose incidents, Drumheller had a smaller percentage of deaths (i.e. 2%) and much higher usage of naloxone. The medication, which can temporarily reverse an opioid overdose, was used in 91% of cases at Drumheller, compared to 34% at all other institutions.

The findings outlined in this report suggest that the community opioid crisis may be paralleled in custodial settings. As this crisis continues to affect the federal offender population, CSC remains committed to efforts to curb prison drug use and reduce the likelihood of overdose incidents. The widespread availability of naloxone in institutions, as well as CSC's take-home naloxone kit program, Opioid Substitution Treatment (OST) program, substance misuse programs, and the Prison Needle Exchange Program (PNEP), constitute efforts to reduce the potential harms associated with drug use and improve offender health outcomes. This report will further assist in CSC's goal of achieving safe custodial environments by contributing to knowledge on recent trends surrounding fatal and non-fatal drug overdose incidents in custody.

Table of Contents

Acknowledgements	ii
Executive Summary	iii
List of Tables	v
List of Figures	vi
List of Images	vi
Introduction	1
Methodology	4
Results	7
Overview of overdose incidents in federal custody, 2012/2013 – 2016/2017	7
Incident details of overdose incidents in federal custody, $2012/2013 - 2016/2017$	9
Special Topic: The opioid crisis in federal institutions	13
Compliance issues and recommendations outlined in investigations of overdose incide	ents in
federal custody, 2012/2013 – 2016/2017	14
Profile of offenders involved in overdose incidents in federal custody, 2012/2013 -	
2016/2017	16
Criminal profile of offenders involved in overdose incidents in federal custody, 2012/	2013
- 2016/2017	17
Institutional history of offenders involved in overdose incidents in federal custody,	
2012/2013 – 2016/2017	18
Special Topic: Overdose incidents at women's institutions	20
Mental health information of offenders involved in overdose incidents in federal custo	ody,
2012/2013 – 2016/2017	20
Special Topic: Overdose incidents among Indigenous offenders	22
Special Topic: Overdose incidents at Drumheller Institution	23
Discussion	24
References	26
Appendix –Tables	30

List of Tables

Table 1 Type of incident by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017	30
Table 2 Type of incident by region for overdose incidents in federal custody, 2012/2013 – 2016/2017	30
Table 3 Overdose incidents by region and fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017	
Table 4 Incident details by fiscal year for overdose incidents in federal custody, 2012/2013-2016/2017	32
Table 5 Incident details by region for overdose incidents in federal custody, 2012/2013-2016/2017	33
Table 6 Further incident details by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017	
Table 7 Further incident details by region for overdose incidents in federal custody, 2012/2013 2016/2017	35
Table 8 Compliance issues by fiscal year for overdose incidents in federal custody, 2012/2013 - 2016/2017	
Table 9 Recommendations by fiscal year for overdose incidents in federal custody, 2012/2013 - 2016/2017	_
Table 10 Compliance issues by region for overdose incidents in federal custody, 2012/2013 – 2016/2017	
Table 11 Recommendations by region for overdose incidents in federal custody, 2012/2013 – 2016/2017	
Table 12 Profile of offenders involved in overdose incidents by fiscal year for overdose incident in federal custody, 2012/2013 – 2016/2017	ts
Table 13 Profile of offenders involved in overdose incidents by region for overdose incidents in federal custody, 2012/2013 – 2016/2017	!
Table 14 Sentence information for offenders involved in overdose incidents by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017	
Table 15 Sentence information for offenders involved in overdose incidents by region for overdose incidents in federal custody, 2012/2013 – 2016/2017	
Table 16 Criminal profile of offenders involved in overdose incidents in federal custody by fisco year, 2012/2013- 2016/2017	al
Table 17 Criminal profile of offenders involved in overdose incidents in federal custody by region, 2012/2013- 2016/2017	
Table 18 Institutional history by region for offenders involved in overdose incidents in federal custody, 2012/2013- 2016/2017	
Table 19 Mental health information by region for offenders involved in overdose incidents in federal custody, 2012/2013- 2016/2017	
J	

List of Figures

Figure 1. Overdose Incidents in Federal Custody, 2012/2013 – 2016/2017	/
Figure 2. Overdose Incidents in Federal Custody, 2012/2013 – 2016/2017 by Region	8
Figure 3. Federal Institutions with 15 or more Overdose Incidents, 2012/2013 – 2016/2017	9
Figure 4. Substances Involved in Overdose Incidents	. 11
Figure 5. Use of Naloxone in Overdose Incidents by Fiscal Year	. 12
Figure 6. Opioid Overdose Incidents in Federal Custody	. 13
Figure 7. Compliance Issues Identified in Investigations	. 15
Figure 8. Offender Institutional Incidents Prior to Overdose	. 19
Figure 9. Overdose Incidents Involving Indigenous and Non-Indigenous Offenders	. 22
List of Images	
Image 1. Carfentanil (seized at Grande Cache Institution)	. 11
Image 2. Narcan TM nasal spray (demonstration model)	
Image 3. Heroin mixed with fentanyl (seized at Drumheller Institution)	
<i>Image 4.</i> Fentanyl (seized at Drumheller Institution).	. 23

Introduction

Since 2016, Canada has been in the midst of an opioid crisis. In 2016, there were over 2,800 suspected opioid-related deaths reported in Canada (Health Canada, 2017). In 2017, nearly 4,000 opioid-related deaths were reported in the country, most of which were accidental (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2018). Fentanyl, a substance 50 to 100 times the potency of morphine, is becoming more prominent as a substance in opioid-related deaths, accounting for 55% of such deaths in 2016, up to 72% in 2017. In many cases, fentanyl is hidden in other substances and is unknowingly consumed by drug users (Health Canada, 2017).

Given the connection between substance misuse and criminal offending (Hopley & Brunelle, 2016; Weekes, Thomas, & Graves, 2004), the impact of the opioid crisis may be particularly pronounced among persons involved with the criminal justice system (British Columbia Coroners Service Death Review Panel, 2018). Despite preventive measures (e.g., drug detection technology and drug detector dogs) and deterrent strategies (e.g., random urinalysis testing), illicit substances do make their way into Canadian prisons (Hopley & Brunelle, 2016; van der Meulen, 2017), a dangerous consequence being incidents of overdose.

Limited research has been conducted on the topic of overdose incidents in custodial settings. Researchers have, however, explored substance use patterns in different prison contexts. While some contradictory findings have been produced 1, certain factors have been linked to prison drug use. These include: history of drug use (Rowell et al., 2012; Borrill et al., 2003; Baltieri, 2014; Sánchez, Fearn, & Vaughn 2017); age (Rowell-Cunsolo et al., 2016; Baltieri, 2014; Sánchez, Fearn, & Vaughn 2017; Lukasiewicz, 2007); history of prison misconduct (Conner & Tewksbury, 2016; Lukasiewicz et al., 2007); history of alcohol use (Borrill et al., 2003); sentence length (Rowell et al., 2012; Andía et al., 2005); length of time served/incarcerated (Health Protection and Research Organization, 2011; Rowell-Cunsolo et al., 2016); race (Borrill et al., 2003); level of education (Borrill et al., 2003;

⁻

¹ For example, Rowell-Cunsolo and colleagues (2016) found drug use more common among offenders who had been incarcerated for less than one year, whereas research by HPRO (2011) found drug use less common among those who had been incarcerated for less than one year.

Lukasiewicz, 2007); criminal history (Baltieri, 2014; Lukasiewicz, 2007); history of experiencing/witnessing violence (Borrill et al., 2003); history of unemployment (Borrill et al., 2003); psychotic symptoms (Borrill et al., 2003); separation from parent during childhood (Lukasiewicz, 2007); and gang affiliation (Andía et al., 2005). In terms of motivations for prison drug use, some researchers have found that drugs are consumed to pass the time (Cope, 2003; Gillespie, 2005; Baker, 2015) and to cope with stress (Wheatley, 2007). Of course, many offenders come to correctional facilities with pre-existing substance misuse issues (Weekes, Thomas, & Graves, 2004).

Researchers have also examined overdose incidents following release from custody, during which time offenders are said to be at a heightened risk of drug overdose (Binswanger et al., 2012; Merrall et al., 2010; Krinsky et al., 2009). In the Canadian context, Kinner and colleagues (2012) explored the risk factors associated with non-fatal overdose incidents among recently incarcerated substance users. They found the following variables to be associated with non-fatal overdose incidents: daily use of substances including heroin, benzodiazepines, cocaine and methamphetamine, "binge" drug use, public injection drug use, and a history of non-fatal overdose. They also identified protective factors against non-fatal overdose incidents; these included older age, receipt of methadone treatment, and HIV seropositivity. Other variables that have been linked to overdose incidents among released offenders include: length of incarceration (Winter et al., 2015; Bukten et al., 2017; Binswanger et al., 2011); age (Binswanger et al., 2007); history of unemployment (Winter et al., 2015); history of homelessness (Lim et al., 2012); family history (Winter et al., 2015); drug use history (Winter et al., 2015) and mental health history (Winter et al., 2015).

While minimal research has been conducted on overdose incidents in custody, some exceptions exist. In the American context, Fuh and colleagues (2016) examined overdose incidents requiring outside hospital care in the state of Ohio. Over the three-year period examined, they found that overdose incidents tended to be intentional rather than accidental and most often involved prescription medications, including anticonvulsants (e.g. Phenytoin, Carbamazepine, Divalproex), antidepressants (e.g. Sertraline, Amitriptyline), and cardiovascular medications (e.g. Metoprolol, Lisinopril, Hydrochlorothiazide).

In the Canadian context, initial research conducted by CSC (Weekes & De Moor, 2015) on investigated fatal and non-fatal overdose incidents among federally-incarcerated men between

2011/2012 and 2013/2014 found that opiates, including prescription medications, accounted for over half of incidents, while a mixture of substances was present in a quarter of cases.

CSC has also released findings on fatal drug overdose incidents in the context of its *Annual Report on Deaths in Custody*. As the 2015/2016 *Annual Report* (Correctional Service of Canada, 2017) notes, overdose deaths in custody have increased as a proportion of non-natural deaths. The report also notes that fentanyl has become more common in overdose deaths in custody; between 2014/2015 and 2015/2016, fentanyl was identified as a standalone or contributing substance in 69% (9) of fatal overdose incidents. These findings suggest that the community opioid crisis may be paralleled in institutional settings.

The current project seeks to further knowledge on overdose incidents in federal custody. To this end, all fatal and non-fatal overdose incidents between 2012/2013 and 2016/2017 with sufficient information were analyzed, with the goal of identifying the prevalence and nature of overdose incidents, the characteristics of offenders who experience overdoses, the circumstances under which overdose incidents occur, and patterns in the nature of staff and medical responses.

Methodology

For this report, all fatal and non-fatal overdose incidents that occurred between 2012/2013 to 2016/2017 with sufficient information for analysis were included. An overdose was defined as an incident where the consumption of drugs necessitated medical intervention to prevent death and/or serious injury (e.g., administration of naloxone, cardiopulmonary resuscitation, or other type of medical intervention by institutional staff, paramedics, or outside medical personnel).² The purpose of this research is to better understand the nature and scope of overdose incidents, the circumstances surrounding overdose incidents, the profile of offenders involved in fatal and non-fatal overdose incidents, and institutional and medical responses to overdose incidents.

A multi-step approach was taken to identify incidents for inclusion. First, all overdose incidents that were investigated in a Board of Investigation or Local Investigation were identified and included. As per the *Corrections and Conditional Release Act*³, incidents resulting in serious bodily injury are subject to investigation by the Service. To expand the scope of cases beyond those subject to a formal investigation so as to develop a fuller picture of the issue, a data extraction of CSC's offender database, the Offender Management System (OMS), was conducted to identify all incidents that could be overdose-related. Incident reports labelled as "overdose interrupted", "suspected overdose interrupted", "suicide attempt", "medical emergency", "under the influence" and "other" were extracted and manually screened to identify cases for inclusion. All cases that met the above-noted definition of an overdose incident were included.

A coding sheet was developed using the insights of previous studies and based on the availability of information relating to the incidents under examination. The data coded relates to: (1) information about the overdose incident (e.g. institution, date, time, suspected and confirmed substances involved, how the substance was obtained, seizure of items, nature of medical intervention, possible precipitating factors and, where applicable, compliance issues and

.

² Incidents were excluded if the offender involved was monitored by health personnel but received no medical treatment. Incidents only involving 'brew' (prison-made alcohol) were also excluded.

³ Section 19(1) of the *Corrections and Conditional Release Act* (S.C. 1992, c. 20) states: "Where an inmate dies or suffers serious bodily injury, the Service shall, whether or not there is an investigation under section 20, forthwith investigate the matter and report thereon to the Commissioner or to a person designated by the Commissioner".

⁴ The incident numbers reported herein may be higher than those reported elsewhere due to the expanded scope of this study.

recommendations identified in investigations); and (2) characteristics of the offenders involved in overdose incidents (e.g. age, gender, ethnicity, level of education, previous experience of incarceration, index offence, sentence length, time served at time of incident, security level, criminal history, institutional history, as well as substance abuse, mental health, and physical health histories).

Cases were identified as one of four sub-types of overdose incidents. Unintentional non-fatal overdose incidents were those that did not result in death and no indicators of suicidal intent were present. Intentional non-fatal overdose incidents were those that did not result in death, but an indication of suicidal intent was present (such as a suicide note). Fatal overdoses were those that resulted in death and may have been intentional or unintentional. Other types of overdose incidents were those that did not fall in the above three categories, such as accidental overdose caused by an error on the part of healthcare staff (e.g. incorrect medication dosage). While analysis across incident types is presented throughout this report, corresponding tables have not been included due to the possibility of identifying information given low numbers in the "fatal" and "other" categories.

Substances identified in this report 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; (2) in statements provided by the offender involved in the incident and/or; (3) through intelligence-gathering by staff. In 65% of cases, a confirmed substance was not identified in reports, therefore, the suspected substance is noted in a majority of cases. It is important to note that information on suspected substances is not always reliable for various reasons. For example, substances seized from the offender's cell may not have been the substance consumed by the offender, and offender statements and intelligence information may be inaccurate. The significant reliance on suspected substances in this study raises possible data reliability issues when it comes to substance identification. An area for improvement would lie in establishing new procedures that allow for laboratory testing of drug or bodily samples following overdose incidents.

-

⁵ Given that overdose incidents were assumed to be unintentional unless a clear indication of suicidal intent was present, it is possible that the number of intentional cases is underestimated in this report.

⁶ Fatal overdose incidents were not distinguished as intentional or non-intentional due to low numbers as well as a lack of information regarding intentionality.

A total of 330 cases were identified for analysis. Data were collected for each unique offender incident⁷ using information from investigations, incident reports, and OMS. Cases were entered into survey software and subsequently exported into statistical software (SPSS) for analysis. Frequency distributions were run to determine the variables containing enough information for analysis; further statistical analysis was conducted where appropriate.

-

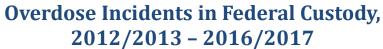
⁷ Data were collected on each unique incident for offenders who were involved in more than one overdose incident in the period under examination.

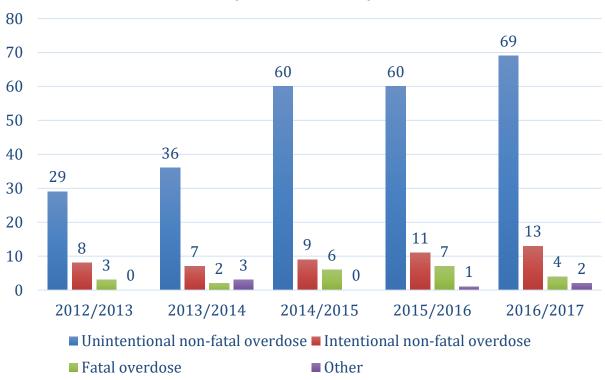
Results

Overview of overdose incidents in federal custody, 2012/2013 – 2016/2017

Between 2012/2013 and 2016/2017, 330 overdose incidents were identified for analysis. During this time period, the number of overdose incidents increased from 40 in 2012/2013, to 88 in 2016/2017 (see Table 1). The most common type of incident was unintentional non-fatal overdose, accounting for 77% (254) of cases. Intentional non-fatal overdose incidents accounted for 48 (15%) of cases, while fatal overdoses accounted for 7% (22) of cases. The highest number of fatal overdose incidents occurred in 2015/2016, when seven deaths occurred.

Figure 1. Overdose Incidents in Federal Custody, 2012/2013 – 2016/2017

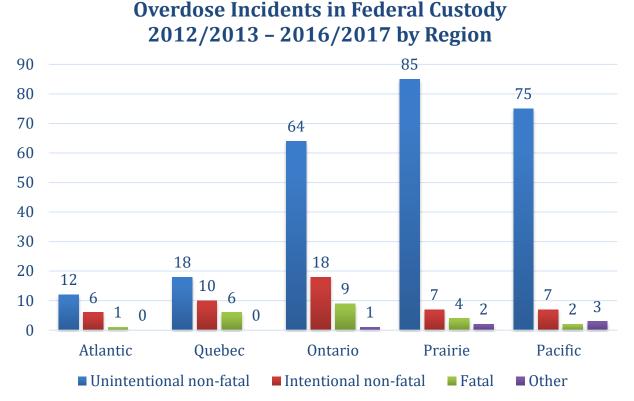




Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes.

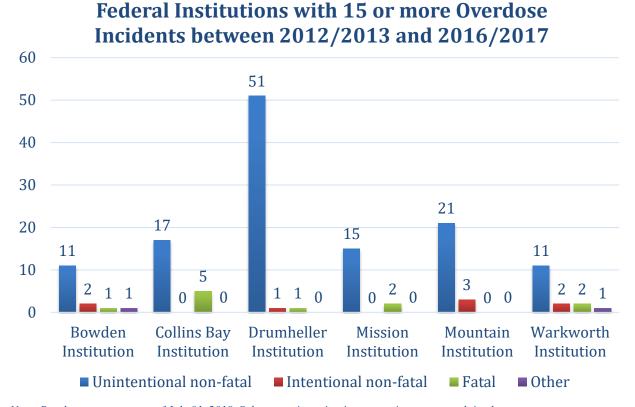
There was variation across fiscal years in terms of regional differences; overall, however, overdose incidents were most frequent in the Prairie region, where 30% (98) of all incidents occurred, and the Ontario and Pacific regions, where 28% (92) and 26% (87) of incidents occurred respectively (see Table 2). Overdose incidents have seen a notable increase in the Prairie region; in 2016/2017, 48% (42) of all incidents in this fiscal year occurred in this region, compared to 20% (8) in 2012/2013 (see Table 3). Drumheller Institution, a medium security men's institution in the Prairie region, had the highest number of overdose incidents, with 53 cases over the five-year period (see Special Topic on page 23). Ontario had the highest number of fatal overdose incidents. However, as a percentage of all overdose incidents, overdose deaths were most common in the Quebec region (18%). Collins Bay Institution, a men's multilevel facility in the Ontario region, had the most deaths per institution both in terms of raw numbers (5) and as a percentage of all overdose incidents at the institution (23%).

Figure 2. Overdose Incidents in Federal Custody, 2012/2013 – 2016/2017 by Region



Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes.

Figure 3. Federal Institutions with 15 or more Overdose Incidents, 2012/2013 – 2016/2017



Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes.

Incident details of overdose incidents in federal custody, 2012/2013 – 2016/2017

In the five-year period under examination, opioids were the most common substance identified in overdose incidents, suspected or confirmed as either a standalone or a contributing substance in 52% of cases (see Table 4). The most common substances⁸ confirmed or suspected in overdose incidents were heroin (15%), fentanyl (12%) and methadone (11%). Prescription medications⁹ (e.g., antidepressants, anticonvulsants and cardiovascular medications) were the second most common type of substance involved in overdose incidents, suspected or confirmed in 39% of cases. Examples of suspected or confirmed medications involved in overdose incidents include Hydrochlorothiazide (19), Carbamazepine (19), Gabapentin (16) and Amitriptyline (13).

⁸ In many cases, multiple substances were identified in overdose incidents; all noted substances were included for analysis.

⁹ Prescription medications refer to those that are prescribed by healthcare staff; the medication may or may not have been prescribed to the offender involved in the overdose incident.

Stimulants (e.g., cocaine, amphetamines, methamphetamines, ecstasy) were suspected or confirmed in 11% of cases.

Over the five-year period, the most common substances involved in overdose incidents underwent change (see Table 4). Overdose incidents involving opioids increased in raw numbers (from 19 in 2012/2013 to 50 in 2016/2017), with a moderate increase as a percentage of all overdose incidents (from 48% to 57%). The percentage of those involving fentanyl increased from 3% (1) in 2012/2013, to 26% (23) in 2016/2017. At the same time, the percentage of overdose incidents involving heroin decreased from 25% (10) in 2012/2013, to 13% (11) in 2016/2017. Overdose incidents involving prescription medications increased in raw numbers but decreased as a percentage of all overdoses, from 50% (20) in 2012/2013 to 31% (27) in 2016/2017.

Opioids were most commonly involved in fatal overdose incidents, identified in 91% (20) of cases, followed by unintentional non-fatal overdose incidents (57%). However, non-fatal intentional overdose incidents seldom involved opioids; rather, prescription medications were most common, identified in 85% of cases (compared to 32% of unintentional non-fatal overdose incidents and 27% of overdose death incidents). Examples of substances involved in intentional non-fatal overdose incidents include Acetaminophen (Tylenol) (11%), Amitriptyline (11%), and insulin (11%).

What are opioids?

When medically prescribed, opioids are intended to treat pain. When abused, opioids are a dangerous substance.

In 2017, there were 3,987 opioid-related deaths in Canada*

Opioids include substances such codeine, fentanyl, heroin, morphine, oxycodone, hydromorphone and methadone.

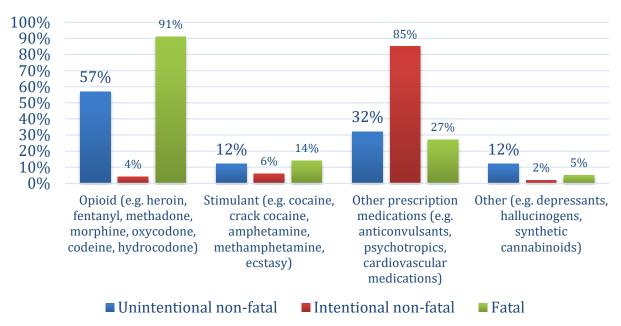
*Source: Public Health Agency of Canada (2017)

Most (79%) overdose incidents occurred in the offender's cell, with 13% occurring in an administrative segregation unit cell (see Table 4). Offenders were typically discovered by staff members. There was considerable variation as to when overdose incidents occurred; however, incidents were most common on Thursdays (when around 20% of overdose incidents occurred),

in the month of June (14%), and in the afternoon period¹⁰ (33%). Fatal overdose incidents were considerably more likely than non-fatal incidents to occur in the middle of the night¹¹ (i.e. 27% versus 6%).

Figure 4. Substances Involved in Overdose Incidents

Substances Involved in Overdose Incidents*



Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes. *Substances identified include those that were confirmed through laboratory test results from samples taken from the offender or substances otherwise suspected (e.g. based on tests of seized substances, offender statements and/or intelligence information).



Opioids were involved in 50% of non-fatal overdose incidents and 91% of fatal overdoses.

Image 1. Carfentanil (seized at Grande Cache Institution).

Source: Preventive Security and Intelligence Division, CSC.

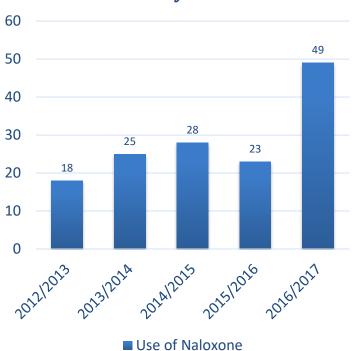
¹⁰ After 12:00 PM until 6:00 PM.

¹¹ Between 12:00 AM and 6:00 AM.

In terms of the medical response, cardiopulmonary resuscitation (CPR) was provided in 17% of cases, an automated external defibrillator (AED) was employed in 12% of cases, and naloxone was given in 43% of cases (see Tables 6 and 7). Naloxone was most often administered by CSC medical personnel only (45%). In a majority of cases, an ambulance was called (86%) and external medical attention at a hospital was provided (91%). Internal medical attention provided by institutional healthcare staff was provided in 60% of cases. In terms of measures taken following the incident, 26% of offenders were transferred to another institution, 12% had a change to their offender security level (OSL), and 32% received institutional charges.

Figure 5. Use of Naloxone in Overdose Incidents by Fiscal Year

Use of Naloxone in Overdose Incidents by Fiscal Year





 $Image\ 2$. NarcanTM nasal spray (demonstration model)

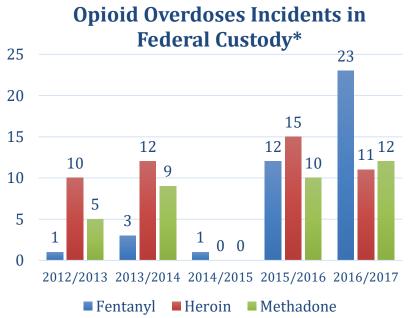
Naloxone use in CSC

Naloxone is a harm reduction intervention used for the prevention of opioid overdose deaths and is a standard of care for temporarily reversing opioid overdoses. 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. Previously, naloxone was only accessible by CSC medical staff in the form of injectable naloxone. In fall of 2016, CSC acquired the nasal spray version of naloxone (Narcan $^{\text{\tiny M}}$) to be stored in the Correctional Manager's office for use by correctional officers. Narcan $^{\text{\tiny M}}$ nasal spray is also now available for use by nurses in addition to the injectable version.

Special Topic: The opioid crisis in federal institutions

- Between 2012/2013 and 2016/2017, opioids were the most common substance involved in overdose incidents, suspected or confirmed as a standalone or contributing substance in 52% of cases.
- Opioids were involved in 91% of overdose deaths, compared to 57% of unintentional non-fatal overdose incidents and 4% of intentional non-fatal overdose incidents.
- The most common opioids involved in overdose incidents were heroin (15%), fentanyl (12%) and methadone (11%). For overdose deaths, the most common substance involved was fentanyl (36%).
- The percentage of overdose incidents involving fentanyl increased from 3% (1) in 2012/2013, to 26% (23) in 2016/2017, while the percentage involving heroin decreased from 25% (10) in 2012/2013, to 13% (11) in 2016/2017.
- Opioids were most common in overdose incidents in the Prairie region, identified as a substance in 62% of cases, with fentanyl being the most common sub-type, noted in 22% of cases.

Figure 6. Opioid Overdose Incidents in Federal Custody



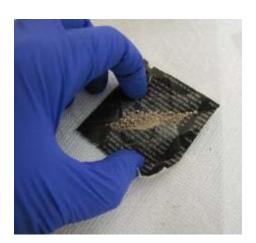


Image 3. Heroin mixed with fentanyl (seized at Drumheller Institution).

Source: Preventive Security and Intelligence Division, CSC.

Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes. *Substances identified include those that were confirmed through laboratory test results from samples taken from the offender or substances otherwise suspected (e.g. based on tests of seized substances, offender statements and/or intelligence information).

Compliance issues and recommendations outlined in investigations of overdose incidents in federal custody, 2012/2013 – 2016/2017

Institutional and staff compliance issues ¹² related to overdose incidents were analyzed for cases with a completed formal investigation, which represented 40% (132) of cases. The most common compliance issue in relation to overdose incidents related to documentation and reporting (e.g. completion of necessary forms), noted in 58% of cases that had an investigation. Other compliance issues related to security patrols (e.g., timing and quality), staff response to the overdose emergency, and searches (before or following the incident). Overdose deaths had the highest number of compliance issues; common issues of non-compliance related to documentation and reporting protocol (noted in 64% of cases), searches (noted in 23% of cases), staff response (noted in 46% of cases), security patrols/checks (noted in 59% of cases), availability and/or use of proper equipment (noted in 27% of cases), and management of evidence and/or incident scene (noted in 18% of cases). Recommendations outlined in investigations were also most common in relation to incidents involving death; the most common recommendation related to security policies and procedures (noted in 32% of cases).

⁻

¹² Counts of compliance issues are presented at the offender level rather than the incident level. In cases where incident investigations involved more than one offender, compliance issues were counted for each offender where appropriate.

Figure 7. Compliance Issues Identified in Investigations

Compliance Issues Identified in Investigations



Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes.

Profile of offenders involved in overdose incidents in federal custody,

2012/2013 - 2016/2017

Profile of Offenders Involved in Overdose Incidents

Unintentional non-fatal incidents

- Average age = 35
- 93% male
- 73% medium security offenders
- Most common index offence: robbery
- Served an average of 4.7 years (43% of their sentence)

Intentional non-fatal incidents

- Average age = 38
- 85% male
- 60% medium security offenders
- Most common index offence: homicide
- Served an average of 5.1 years (35% of their sentence)

Fatal incidents

- Average age = 39
- 100% male
- 73% medium security offenders
- Most common index offence: robbery
- Served an average 7.8 years (46% of their sentence)

Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes. Incarcerated offenders involved in overdose incidents tended to be male (92%), Caucasian (58%) or Indigenous (36%), aged 25-34 (39%), serving relatively short (under 4 year) sentences (41%) for robbery (31%; see Tables 12-15). A majority of offenders (60%) had less than a high school education. Offenders tended to be classified as medium security (72%) with scores of low on institutional adjustment (64%) and medium on security risk¹³ (67%). Slightly more than half (54%) of offenders were serving their first federal sentence.

In terms of regional variation, incarcerated offenders involved in overdose incidents were youngest in the Prairie region, with an average age of 31, and oldest in the Quebec region, with an average age of 42. Indigenous representation was highest in the Pacific region (46%) and lowest in the Quebec region (18%).

Offenders who overdosed in custody had served an average of 4.9 years at the time of the incident. However, those involved in fatal incidents had served more time compared to those involved in non-fatal incidents. More specifically, the average length of time served was 4.7 years for offenders involved in unintentional non-fatal overdose incidents, 5.1 years for

¹³ Institutional adjustment and security risk scales are components of the custody rating scale (CRS), CSC's tool for determining offender security classification. The institutional adjustment scale uses the following information to assess the offender's institutional adjustment: History of institutional incidents; escape history; street stability; alcohol/drug use; and age at time of sentencing. The security risk rating uses the following information to assess the offender's security risk level: Number of prior convictions; most severe outstanding charge; severity of current offence; sentence length; street stability; prior parole and/or statutory releases; and age at time of first federal admission. For both scales, items are weighted and cut-off points are applied, resulting in scores of low, moderate or high.

those involved in intentional non-fatal overdose incidents, and 7.8 years for those who died by overdose. Regional variation was also evident; those in the Pacific region had served, on average, the most time (7.6 years) at the time of the incident, while those in the Prairie region had served the least amount of time (2.9 years; see Table 15).

The length of time between the offender's most recent admission date ¹⁴ and the overdose incident was an average of 3.2 years. However, those involved in fatal overdose incidents had been in custody longer (i.e. an average of 4.5 years, compared to 4.2 years for intentional non-fatal overdose incidents and 3 years for unintentional non-fatal overdose incidents). Comparing across regions, those in the Prairie region overdosed sooner following admission, with an average of 1.5 years between the most recent admission date and incident date, followed by those in Ontario (2.5 years), and those in the Atlantic region (3.8 years; see Table 15). For offenders in the Quebec and Pacific regions, there was an average of 5.3 and 5 years respectively in between the most recent date of admission and the incident date. Overall, offenders involved in overdose incidents had served on average 41% of their total sentence ¹⁵.

Criminal profile of offenders involved in overdose incidents in federal custody, 2012/2013 – 2016/2017

In terms of the criminal profile of incarcerated offenders involved in overdose incidents in federal custody, just under quarter (23%) had affiliations with Security Threat Groups (STGs), 69% had been in trouble with the law as a youth offender, while 87% had previous adult criminal histories prior to their index offence(s) (see Table 16). In relation to drug offending, 22% were currently serving time for at least one drug-related offence, while 46% had previous drug-related convictions. For 81% of offenders involved in an overdose incident, substance misuse was identified as a factor linked to criminal offending.

Substance misuse was most often identified as a criminogenic factor among offenders involved in unintentional overdose interrupted incidents (84%) compared to those involved in intentional non-fatal overdose incidents (68%) and overdose deaths (68%). Across regions, a link between substance misuse and criminal offending was most prevalent among offenders in the

17

¹⁴ Most recent admission date refers to the most recent admission to federal custody; this may be the offender's initial admission at intake, or, where applicable, re-admission following release on statutory release or parole.

¹⁵ To compute the percentage of time served in the case of offenders serving indeterminate sentences, a total sentence length of 99 years was given.

Prairie region, identified in 89% of cases, and least common among those in the Quebec region, identified in 53% of cases (see Table 17).

Institutional history of offenders involved in overdose incidents in federal custody, 2012/2013 – 2016/2017

The institutional histories of offenders prior to the overdose incident were examined. In general, most offenders had completed institutional programming (84%) and had previously been institutionally employed (88%; see Table 18). However, offenders often had histories of institutional security and/or disciplinary issues, including incidents related to drugs¹⁶ (71%), other contraband¹⁷ (77%), disobedience¹⁸ (63%), as well as compatibility issues with other inmates (76%) and staff (56%), while the vast majority (83%) of offenders had histories of administrative

segregation. In 21% of cases, the offender had tested positive for illicit substances¹⁹ in the year prior to the incident, while in 18% of cases, the offender had refused a urinalysis test. In cases of positive drug test results, common substances identified included cannabis, stimulants and opioids.

Drug tests in year prior to incident

21% of offenders tested positive for illicit substances.

Of these:

40% tested positive for opioids 41% tested positive for stimulants 50% tested positive for cannabis

Those involved in overdose deaths were more likely to have institutional incidents relating to drugs (86%), other contraband (91%), and disobedience (82%), while those involved in intentional non-fatal overdose incidents were more likely to have faced issues with other inmates (85%) and have been suspended from work or programming (53%). Positive urinalysis tests and urinalysis test refusals were more common among offenders involved in unintentional non-fatal overdose incidents (26% and 21% respectively), and least common among those involved in non-fatal intentional incidents (2% in both cases).

¹⁶ Drug-related issues include drug possession, consumption and distribution.

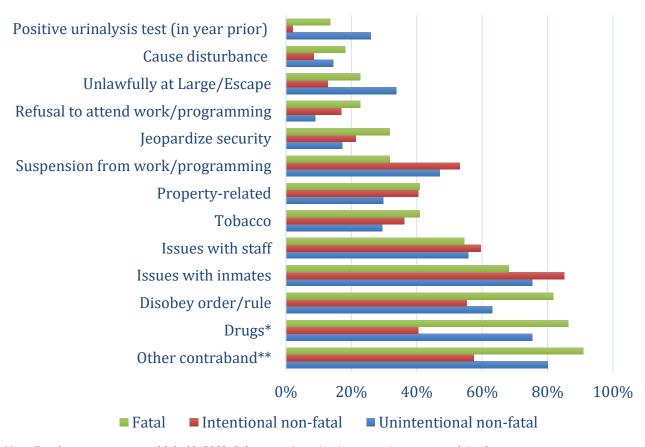
¹⁷ Other types of contraband include unauthorized items excluding drugs and tobacco, such as 'brew' (prison-made alcohol) and weapons.

¹⁸ Incidents of disobedience include cases where the offender was institutionally charged for disobeying a written rule or order.

¹⁹ Includes only cases of positive urinalysis test results where the substance identified was not medically prescribed.

Figure 8. Offender Institutional Incidents Prior to Overdose

Offender Institutional Incidents Prior to Overdose



Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes.

^{*}Drug-related issues include drug possession, consumption and distribution. .

^{**}Other contraband refers to possession of non-authorized items excluding drugs, such as brew (prison-made alcohol) and weapons.

Special Topic: Overdose incidents at women's institutions

- Between 2012/2013 and 2016/2017, there were 21 overdose incidents at women's institutions identified for analysis.
- All incidents were non-fatal, while most (71%) were unintentional.
- Overdose incidents among women typically involved prescription medications (86%). No overdose incidents involved opioids.
- The average age of women involved in overdose incidents was 35.
- Indigenous women accounted for 52% of women involved in overdose incidents.
- Overdose incidents involving women were most common in the Ontario and Pacific regions; 9 incidents (43% of all cases) occurred in both regions.
- 95% of women involved in overdose incidents had a history of substance misuse, while all had an identified mental health disorder.

Mental health information of offenders involved in overdose incidents in federal custody, 2012/2013 – 2016/2017

The majority of incarcerated offenders (70%) involved in overdose incidents in custody had at least one mental health condition identified, with the most common types being mood disorders (40%) followed by anxiety disorders (31%) and neurocognitive/neurodevelopmental conditions (30%; see Table 19). Nearly half (46%) of offenders involved in overdose incidents had previously engaged in self-injurious/suicidal behaviours. The vast majority (97%) of offenders involved in overdose incidents had histories of substance misuse; 95% with drugs and 54% with alcohol.

Offenders involved in intentional non-fatal overdose incidents were considerably more likely to have at least one mental health disorder (92%) relative to those involved in unintentional non-fatal overdose incidents (67%) and overdose deaths (55%). Likewise, a history of self-injurious/suicidal behaviour was more prevalent among offenders involved in intentional non-fatal

overdose incidents, noted in 89% of cases, relative to those involved in unintentional non-fatal overdose incidents (40%) and overdose deaths (32%). In terms of regional differences, those in the Quebec and Atlantic regions were the most likely to have histories of self-injurious/suicidal behaviour, with 68% of offenders in both regions having such histories identified, while those in the Prairie region were the least likely to have such histories (37%).

Of offenders involved in intentional overdose incidents:

92% had at least one mental health disorder

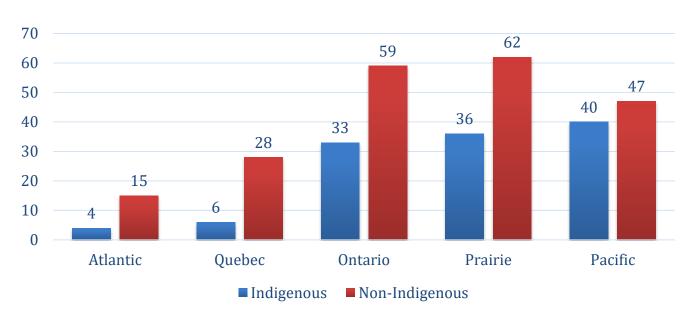
89% had a history of self-injurious/suicidal behaviour

Special Topic: Overdose incidents among Indigenous offenders

- Between 2012/2013 and 2016/2017, there were 119 overdose incidents involving Indigenous offenders, accounting for 36% of all overdose incidents.
- Indigenous representation was highest in the category of unintentional non-fatal overdose (40%).
- Indigenous representation was greatest in the Pacific region (46%).
- Indigenous offenders were somewhat more likely than non-Indigenous offenders to have at least one mental health disorder (75% versus 67%).
- Indigenous offenders were less likely than non-Indigenous offenders to overdose on opioids (45% versus 56%).
- Overdose incidents involving Indigenous offenders were less likely to be classified as involving serious bodily injury compared to incidents involving non-Indigenous offenders (35% versus 48%).

Figure 9. Overdose Incidents Involving Indigenous and Non-Indigenous Offenders

Overdose Incidents by Indigenous Status



Special Topic: Overdose incidents at Drumheller Institution

- Between 2012/2013 and 2016/2017, 53 overdose incidents occurred at Drumheller Institution, a men's medium security institution in the Prairie region.
- Most overdose incidents at Drumheller were non-fatal and unintentional; 96% of incidents fell under this category, compared to 73% of incidents at all other institutions.
- The majority of overdose incidents at Drumheller involved opioids (77%), significantly higher than at all other institutions (47%).
- Fentanyl was suspected or confirmed in 34% of overdose incidents at Drumheller, compared to 8% at all other institutions.
- Stimulants were identified in 21% of overdose incidents at Drumheller, compared to 9% at all other institutions.
- Overdose incidents involving prescription medications were identified in only 4% of cases at Drumheller, much lower than at all other institutions (46%).

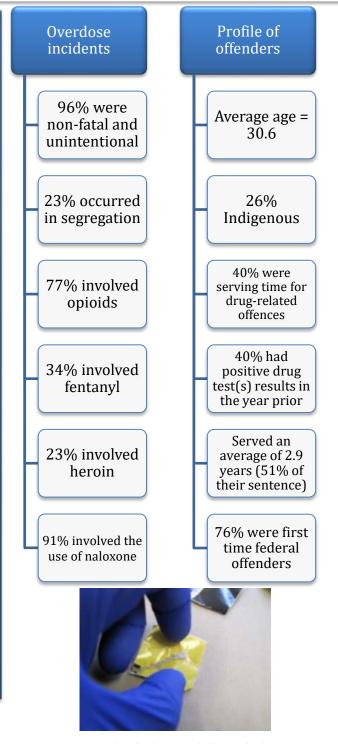


Image 4. Fentanyl (seized at Drumheller Institution).

Source: Preventive Security and Intelligence Division, CSC.

Discussion

CSC continues to pursue various measures intended to prevent incidents of overdose in custody. Drug prevention and detection strategies – such as the use of ion scanners, urinalysis testing and drug detection dogs – are a component of curbing prison drug use. Harm reduction measures are also central to improving offender health outcomes; such measures include access to opiate substitution therapy for those with opioid use disorder (Cheverie, MacSwain, Farrell MacDonald, & Johnson 2014), the availability of naloxone to both medical and non-medical staff working in CSC institutions, as well as the availability of correctional programming and support targeting substance misuse (Ternes, Doherty, & Matheson 2014; Doherty, Ternes, & Matheson, 2014; Kunic & Varis, 2009).

Additionally, CSC has implemented a national project to provide offenders leaving custody with take-home naloxone kits to reduce the likelihood of overdose following release, when drug tolerance may be lower due to periods of abstinence while incarcerated. Such kits include two ampoules of naloxone injection (0.4mg/mL), two retractable Vanish Point Syringes, alcohol swabs, two pairs of nitrile gloves, a rescue breathing barrier device, as well as instructions provided by Health Canada outlining how to respond to an overdose and how to use naloxone (Pant & Severn, 2018).

In June 2018, CSC launched a Prison Needle Exchange Program (PNEP) to help reduce the spread of blood-borne infectious diseases. The initial sites selected for the program were Grand Valley Institution for Women in Kitchener, Ontario and Atlantic Institution in Renous, New Brunswick. The program will be rolled out at all federal institutions beginning in January of 2019.

To more quickly and accurately identify the substances involved in potential overdose incidents, CSC's Preventive Security Intelligence Branch commenced the *Critical Drug Analysis Process (CDAP)* in July of 2018 in partnership with Health Canada's Drug Analysis Services (DAS). Previously, no standardized approach was in place for drug testing of seized substances, and results for drug samples could take several months. The CDAP will make use of new technology in forensic drug analysis (nuclear magnetic resonance spectroscopy), document information on both the composition and purity of drug samples, and ensure results are provided to sites within 24 hours of sample submission. Under the CDAP, seized substances that are

believed to have caused on overdose or staff exposure are sent to DAS for analysis. In addition to bearing operational utility, the CDAP will help CSC better identify trends and improve data reliability regarding substances involved in overdose incidents and staff exposure.

The findings outlined in this report will help inform subsequent efforts to reduce the likelihood of overdose incidents in custody and improve health outcomes by providing information on the nature and scope of overdose incidents, the profile of offenders involved in overdose incidents, and the circumstances under which overdose incidents occur.

References

- Andía, J. F., Deren, S., Robles, R. R., Kang, S. Y., Colón, H. M., Oliver-Velez, D., & Finlinson, A. (2005). Factors associated with injection and noninjection drug use during incarceration among Puerto Rican drug injectors in New York and Puerto Rico. *The Prison Journal*, 85(3), 329-342.
- Baker, S. (2015). *An examination of the reasons that prisoners use spice (synthetic cannabinoids)*. Cambridge, UK: Master's Thesis, University of Cambridge.
- Baltieri, D. A. (2014). Predictors of drug use in prison among women convicted of violent crimes. *Criminal Behaviour and Mental Health*, 24(2), 113-128.
- Binswanger, I. A., Blatchford, P. J., Lindsay, R. G., & Stern, M. F. (2011). Risk factors for all-cause, overdose and early deaths after release from prison in Washington state. *Drug and Alcohol Dependence*, 117(1), 1-6.
- Binswanger, I. A., Nowels, C., Corsi, K. F., Glanz, J., Long, J., Booth, R. E., & Steiner, J. F. (2012). Return to drug use and overdose after release from prison: A qualitative study of risk and protective factors. *Addiction Science & Clinical Practice*, 7(3).
- Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison—a high risk of death for former inmates. *New England Journal of Medicine*, 356, 157-165.
- Borrill, J., Maden, A., Martin, A., Weaver, T., Stimson, G. Farrell, M., Barnes, T., Burnett, R., Miller, S., & Briggs, D. (2003). Substance misuse among white and black/mixed race female prisoners. In Malcolm Ramsay (ed). *Prisoners' drug use and treatment: Seven research studies*. London: Home Office Research, Development and Statistics Directorate.
- British Columbia Coroners Service Death Review Panel. (2018). *A review of illicit drug overdoses:* Report to the chief coroner of British Columbia. Victoria: British Columbia Coroners Service.
- Bukten, A., Stavseth, M. R., Skurtveit, S., Tverdal, A., Strang, J., & Clausen, T. (2017). High risk of overdose death following release from prison: Variations in mortality during a 15-year observation period. *Addiction*, 112(8), 1432-1439.
- Cheverie, M., MacSwain, M., Farrell MacDonald, S., & Johnson, S. (2014). *Institutional*

- adjustment of Methadone Maintenance Treatment Program (MMTP) participants. Research Report R-323. Ottawa, ON: Correctional Service of Canada.
- Cope, N. (2003) 'It's no time or high time': Young offenders' experiences of time and drug use in prison. *The Howard Journal*, 42, 158-175.
- Correctional Service of Canada (2017). *Annual report on deaths in custody 2015-2016*. Ottawa, ON: Correctional Service of Canada.
- Doherty, S., Ternes, M., & Matheson, F.I. (2014). An examination of the effectiveness of the National Substance Abuse Program High Intensity (NSAP-H) on institutional adjustment and post-release outcomes. Research Report R-290. Ottawa, ON: Correctional Service of Canada.
- Fuh, L., Hays, H., Brown, N., & Shirk, M. B. (2016). Characterization of drug overdoses in an Ohio incarcerated population. *Clinical Toxicology*, *54*(3), 266-270.
- Gillespie, W. (2005). A multilevel model of drug abuse inside prison. *The Prison Journal*, 85(2), 223-246.
- Health Canada. (2017). *Government of Canada actions on opioids 2016 and 2017*. Ottawa, ON: Her Majesty the Queen in Right of Canada, as represented by the Minister of Health.
- Health Protection and Research Organization (HPRO). (2010). *Prison drug use survey: A national survey of drug use and associated high-risk behaviour across the prison population in Afghanistan*. Vienna: United Nations Office on Drugs and Crime.
- 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.
- Kinner, S. A., Milloy, M. J., Wood, E., Qi, J., Zhang, R., & Kerr, T. (2012). Incidence and risk factors for non-fatal overdose among a cohort of recently incarcerated illicit drug users. *Addictive Behaviors*, *37*(6), 691-696.
- Krinsky, C. S., Lathrop, S. L., Brown, P., & Nolte, K. B. (2009). Drugs, detention, and death: a study of the mortality of recently released prisoners. *The American Journal of Forensic Medicine and Pathology*, 30(1), 6-9.
- Kunic, D. & Varis, D.D. (2009). The Aboriginal Offender Substance Abuse Program (AOSAP):

- Examining the effects of successful completion on post-release outcomes. Research Report R-217. Ottawa, ON: Correctional Service of Canada.
- Lim, S., Seligson, A. L., Parvez, F. M., Luther, C. W., Mavinkurve, M. P., Binswanger, I. A., & Kerker, B. D. (2012). Risks of drug-related death, suicide, and homicide during the immediate post-release period among people released from New York City jails, 2001–2005. *American Journal of Epidemiology*, 175(6), 519-526.
- Lukasiewicz, M., Falissard, B., Michel, L., Neveu, X., Reynaud, M., & Gasquet, I. (2007). Prevalence and factors associated with alcohol and drug-related disorders in prison: A French national study. *Substance Abuse Treatment, Prevention, and Policy*, 2(1).
- Merrall, E. L., Kariminia, A., Binswanger, I. A., Hobbs, M. S., Farrell, M., Marsden, J., Hutchinson, S.J., & Bird, S. M. (2010). Meta-analysis of drug-related deaths soon after release from prison. *Addiction*, 105(9), 1545-1554.
- 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.
- Rowell, T. L., Wu, E., Hart, C. L., Haile, R., & El-Bassel, N. (2012). Predictors of drug use in prison among incarcerated black men. *The American Journal of Drug and Alcohol Abuse*, 38(6), 593-597.
- Rowell-Cunsolo, T. L., Sampong, S. A., Befus, M., Mukherjee, D. V., & Larson, E. L. (2016). Predictors of illicit drug use among prisoners. *Substance Use & Misuse*, *51*(2), 261-267.
- Sánchez, F. C., Fearn, N., & Vaughn, M. G. (2017). Prevalence and correlates of in-prison substance use among incarcerated women in Spain. *Journal of Ethnicity in Substance Abuse*, 17(3), 356-374.
- Special Advisory Committee on the Epidemic of Opioid Overdoses (2018). *Apparent opioid-related deaths in Canada (January 2016 to December 2017)*. Web-based Report. Ottawa, ON: Public Health Agency of Canada.
- Ternes, M., Doherty, S., & Matheson, F.I. (2014) An examination of the effectiveness of the National Substance Abuse Program Moderate Intensity (NSAP-M) on institutional adjustment and postrelease outcomes. Research Report R-291. Ottawa, ON: Correctional Service of 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. & De Moor, C. (2015). *Drug overdose among federally incarcerated men offenders*. Ottawa, ON: Correctional Service of Canada.
- Weekes, J., Thomas, G., & Graves, G. (2004). Substance abuse in corrections Frequently asked questions. Ottawa, ON: Canadian Centre on Substance Abuse.
- Wheatley, M. (2007). Drugs in prison. In Jewkes, Y. (ed). *Handbook on prisons*. Cullompton: Willan Publishing.
- Winter, R. J., Stoové, M., Degenhardt, L., Hellard, M. E., Spelman, T., Jenkinson, R., McCarthy D.R., & Kinner, S. A. (2015). Incidence and predictors of non-fatal drug overdose after release from prison among people who inject drugs in Queensland, Australia. *Drug and Alcohol Dependence*, 153, 43-49.

Appendix -Tables

Table 1

Type of incident by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

Incident Type		J	Fiscal Year	r		Tatala
Incident Type	12/13	13/14	14/15	15/16	16/17	Totals
Unintentional Overdose Interrupted	29	36	60	60	69	254 (77%)
Intentional Overdose Interrupted	8	7	9	11	13	48 (15%)
Death	3	2	6	7	4	22 (7%)
Other	-	3	-	1	2	6 (2%)
Total	40	48	75	79	88	330 (100%)

Note: Results are accurate as of July 01, 2018. Subsequent investigations or reviews may result in changes to this table.

Table 2

Type of incident by region for overdose incidents in federal custody, 2012/2013 – 2016/2017

In all don't True			Region			Totala
Incident Type	Atlantic	Quebec	Ontario	Prairie	Pacific	- Totals
Unintentional Overdose Interrupted	12	18	64	85	75	254 (77%)
Intentional Overdose Interrupted	6	10	18	7	7	48 (15%)
Death	1	6	9	4	2	22 (7%)
Other	-	-	1	2	3	6 (2%)
Total	19	34	92	98	87	330 (100%)

Table 3

Overdose incidents by region and fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

Region			Fiscal Year			– Totals
Region	12/13	13/14	14/15	15/16	16/17	- I otais
Atlantic	2	2	6	2	7	19 (6%)
Quebec	5	8	9	5	7	34 (10%)
Ontario	10	14	32	24	12	92 (28%)
Prairie	8	9	19	20	42	98 (30%)
Pacific	15	15	9	28	20	87 (26%)
Total	40	48	75	79	88	330 (100%)

Table 4

Incident details by fiscal year for overdose incidents in federal custody, 2012/2013- 2016/2017

Detail -			Fiscal Year			- Totals
Detail	12/13	13/14	14/15	15/16	16/17	- 1 otals
Occurred in segregation	8	7	8	7	12	42 (13%)
Location of incident						
Cell	37	36	50	65	71	259 (79%)
Other	2	12	19	13	15	61 (19%)
Not specified	1	-	6	1	2	10 (3%)
Time of incident						
12:00 AM - 06:00 AM	2	2	6	10	3	23 (7%)
6:01 AM - 12:00 PM	15	17	16	18	27	93 (28%)
12:01 PM - 6:00 PM	13	11	24	31	31	110 (33%)
6:01 PM - 11:59 PM	10	18	29	20	27	104 (32%)
Day of week						, ,
Sunday	6	6	10	10	11	43 (13%)
Monday	5	4	9	10	14	42 (13%)
Tuesday	2	9	6	12	5	34 (10%)
Wednesday	7	8	10	16	12	53 (16%)
Thursday	7	11	15	10	23	66 (20%)
Friday	8	5	14	11	12	50 (15%)
Saturday	5	5	11	10	11	42 (13%)
Discovered by (all that apply)						, ,
Staff	28	37	50	63	70	248 (75%)
Other offender(s)	11	11	17	10	16	65 (20%)
Not specified	1	1	8	6	4	20 (6%)
Substance involved (all that						. (3.1.)
apply) a						
Opioid ^b	19	25	39	39	50	172 (52%)
Fentanyl	1	3	1	12	23	40 (12%)
Heroin	10	12	-	15	11	48 (15%)
Methadone	5	9	-	10	12	36 (11%)
Stimulant	4	8	5	9	10	36 (11%)
Prescription medication	20	17	31	33	27	128 (39%)
THC	2	4	6	6	5	23 (7%)
Hallucinogen	-	-	-	1	-	1 (<1%)
Depressant	-	3	1	-	4	8 (2%)
Unsure	2	3	6	10	13	34 (10%)
Source of substance (all that apply)						. ,
Own medication	14	8	16	21	13	72 (22%)
Other offender(s)	5	9	17	23	16	70 (21%)
Visitor	1	1	-	2	-	4 (1%)
Other	1	5	1	2	2	11 (3%)
Unsure	19	26	45	35	59	184 (56%)

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

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

Table 5
Incident details by region for overdose incidents in federal custody, 2012/2013- 2016/2017

Datail			Region			Tr. 4 - 1
Detail	Atlantic	Quebec	Ontario	Prairie	Pacific	Totals
Occurred in segregation	3	5	11	17	6	42 (13%)
Location of incident						
Cell	16	30	70	76	67	259 (79%)
Other	3	3	19	17	19	61 (19%)
Not specified	0	1	3	5	1	10 (3%)
Time of incident						
12:00 AM - 06:00 AM	1	6	3	9	4	23 (7%)
6:01 AM - 12:00 PM	5	12	29	31	16	93 (28%)
12:01 PM - 6:00 PM	4	9	29	33	35	110 (33%)
6:01 PM - 11:59 PM	9	7	31	25	32	104 (32%)
Day of week						
Sunday	2	3	14	19	5	43 (13%)
Monday	2	8	11	11	10	42 (13%)
Tuesday	1	3	12	7	11	34 (10%)
Wednesday	3	3	10	19	18	53 (16%)
Thursday	6	11	16	21	12	66 (20%)
Friday	3	1	12	13	21	50 (15%)
Saturday	2	5	17	8	10	42 (13%)
Discovered by (all that apply)						
Staff	14	24	74	65	71	248 (75%)
Other offender(s)	5	10	12	24	14	65 (20%)
Not specified	1	-	6	10	3	20 (6%)
Substance involved (all that apply) ^a						(3.1.)
Opioid ^b	6	17	44	61	44	172 (52%)
Fentanyl	-	4	3	22	11	40 (12%)
Heroin	_	6	12	17	13	48 (15%)
Methadone	4	2	4	6	20	36 (11%)
Stimulant	3	-	5	15	13	36 (11%)
Prescription medication	10	14	49	24	31	128 (39%)
THC	-	3	4	14	2	23 (7%)
Hallucinogen	-	-	-	-	1	1 (<1%)
Depressant	2	_	3	1	2	8 (2%)
Unsure	3	2	7	10	12	34 (10%)
Source of substance (all that apply)			•	10	12	3. (1070)
Own medication	7	10	31	8	16	72 (22%)
Other offender(s)	6	7	19	14	24	70 (21%)
Visitor	-	-	1	-	3	4 (1%)
Other	1	_	1	3	6	11 (3%)
Unsure	5	20	46	72	41	184 (56%)

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

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

Table 6

Further incident details by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

D.4.1			Fiscal Year			T-4-1-
Detail -	12/13	13/14	14/15	15/16	16/17	Totals
Serious bodily injury?						
No	12	7	14	17	26	76 (23%)
Yes	22	30	34	32	25	143 (43%)
Not specified	6	11	27	30	37	111 (34%)
Medical response						
CPR was used	6	5	13	14	17	55 (17%)
AED was used	4	4	9	11	11	39 (12%)
Naloxone was used	18	25	28	23	49	143 (43%)
Ambulance called	34	40	63	71	74	282 (86%)
Internal medical care	26	28	49	51	45	199 (60%)
External medical care	35	43	72	74	75	299 (91%)
Time spent in hospital						
24 hours or less	23	33	46	49	59	210 (64%)
Over 1 day – less than 1 week	7	7	18	19	15	66 (20%)
1 week or more	3	1	3	3	1	11 (3%)
Not specified/applicable	7	7	8	8	13	43 (13%)
Disciplinary measures						
Offender transferred	12	16	21	16	22	87 (26%)
Security level changed	5	7	6	9	12	39 (12%)
Institutional charges	10	16	18	26	36	106 (32%)
Investigatory response						
BOI	22	18	16	31	16	103 (31%)
Local	2	5	6	13	3	29 (9%)
In progress	-	-	-	-	7	7 (2%)
None	16	25	53	35	62	191 (58%)

Table 7

Further incident details by region for overdose incidents in federal custody, 2012/2013 – 2016/2017

D. (-1)			Region			T 1
Detail	Atlantic	Quebec	Ontario	Prairie	Pacific	Totals
Serious bodily injury?						
No	3	8	18	26	21	76 (23%)
Yes	8	16	39	53	27	143 (43%)
Not specified	8	10	35	19	39	111 (34%)
Medical response						
CPR was used	1	8	12	22	12	55 (17%)
AED was used	1	8	12	13	5	39 (12%)
Naloxone was used	5	15	31	56	36	143 (43%)
Ambulance called	16	32	76	83	75	282 (86%)
Internal medical care	8	23	51	65	52	199 (60%)
External medical care	18	30	85	85	81	299 (91%)
Time spent in hospital						
24 hours or less	13	13	57	60	67	210 (64%)
Over 1 day – less than 1 week	3	9	21	20	13	66 (20%)
1 week or more	2	3	4	2	-	11 (3%)
Not specified/applicable	1	9	10	16	7	43 (13%)
Disciplinary measures						
Offender transferred	7	11	22	30	17	87 (26%)
Security level changed	-	2	6	17	14	39 (12%)
Institutional charges	10	16	18	26	36	106 (32%)
Investigatory response						
BOI	4	16	33	30	20	103 (31%)
Local	2	4	11	5	7	29 (9%)
In progress	-	-	-	6	1	7 (2%)
None	13	14	48	57	59	191 (58%)

Table 8

Compliance issues by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

			Fiscal Year			Totals (%	Totals (%
Compliance issue	12/13	13/14	14/15	15/16	16/17	of investigated cases)	of all cases)
Staff levels	1	1	-	-	-	2 (2%)	2 (1%)
Searches	4	6	11	4	5	30 (23%)	30 (9%)
Documentation and reporting	18	16	17	16	10	77 (58%)	77 (23%)
Staff certifications	4	2	1	3	2	12 (9%)	12 (4%)
Staff response	6	11	4	7	5	33 (25%)	33 (10%)
Security patrols	8	8	5	11	2	34 (12%)	34 (10%)
Availability/use of equipment	5	1	2	6	2	16 (12%)	16 (5%)
Medication administration	2	4	2	6	3	17 (13%)	17 (5%)
Nursing spot checks	1	-	1	1	-	3 (2%)	3 (1%)
Urine screens	1	1	-	6	2	10 (8%)	10 (3%)
Support to staff	1	2	1	1	1	6 (5%)	6 (2%)
Aboriginal Social History not properly considered	2	2	-	1	1	6 (5%)	6 (2%)
Communication between staff members and/or agencies	2	1	-	1	6	10 (8%)	10 (3%)
Drug interdiction/management strategy	-	2	-	1	10	13 (10%)	13 (4%)
Management of evidence/ crime scene	-	5	-	1	2	8 (6%)	8 (2%)
Offender not charged	1	-	-	5	10	16 (12%)	16 (5%)
Total completed investigations ^a	24	23	22	44	19	132 (100%)	132 (40%)

^aThis refers to the number of completed investigations as of July 01, 2018; seven additional cases in 2016/2017 remained under investigation at the time of analysis.

Table 9

Recommendations by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

			Fiscal Yea	ar		Totals (%	Totals (% of all	
Recommendation	12/13	13/14	14/15	15/16	16/17	investigated cases)	cases)	
Visiting policies/procedures	2	1	1	5	-	9 (7%)	9 (3%)	
Medication policies/procedures	3	3	5	5	2	18 (14%)	18 (6%)	
Staff training	2	-	1	-	4	7 (5%)	7 (2%)	
Security policies/procedures	3	6	6	4	-	19 (14%)	19 (6%)	
Total completed investigations ^a	24	23	22	44	19	132 (100%)	132 (40%)	

^aThis refers to the number of completed investigations as of July 01, 2018; seven additional cases in 2016/2017 remained under investigation at the time of analysis.

Table 10

Compliance issues by region for overdose incidents in federal custody, 2012/2013 – 2016/2017

			Region			Totals (%	Totals (% of
Compliance issue	Atlantic	Quebec	Ontario	Prairie	Pacific	investigated cases)	all cases)
Staff levels	-	-	1	1	-	2 (2%)	2 (1%)
Searches	-	1	18	7	4	30 (23%)	30 (9%)
Documentation and reporting	3	9	38	14	13	77 (58%)	77 (23%)
Staff certifications	1	3	5	2	1	12 (9%)	12 (4%)
Staff response	2	11	11	3	6	33 (25%)	33 (10%)
Security patrols	2	11	11	10	-	34 (12%)	34 (10%)
Availability/use of equipment	-	3	9	2	2	16 (12%)	16 (5%)
Medication administration	1	3	5	1	7	17 (13%)	17 (5%)
Nursing spot checks	1	-	1	-	1	3 (2%)	3 (1%)
Urine screens	1	1	2	5	1	10 (8%)	10 (3%)
Support to staff	-	2	2	1	1	6 (5%)	6 (2%)
Aboriginal Social History not properly considered	-	-	3	2	1	6 (5%)	6 (2%)
Communication between staff members and/or agencies	-	2	2	4	2	10 (8%)	10 (3%)
Drug interdiction/ management strategy	-	-	1	12	-	13 (10%)	13 (4%)
Management of evidence/ crime scene	-	5	-	2	1	8 (6%)	8 (2%)
Offender not charged	-	-	1	15	-	16 (12%)	16 (5%)
Total completed investigations ^a	24	23	22	44	19	132 (100%)	132 (40%)

^aThis refers to the number of completed investigations as of July 01, 2018; seven additional cases in 2016/2017 remained under investigation at the time of analysis.

Table 11

Recommendations by region for overdose incidents in federal custody, 2012/2013 – 2016/2017

			Region			Totals (% - of	Totals (% of
Recommendation	Atlantic	Quebec	Ontario	Prairie	Pacific	investigated cases)	Totals (% of all cases)
Visiting policies / procedures	-	-	4	4	1	9 (7%)	9 (3%)
Medication policies / procedures	-	3	7	2	6	18 (14%)	18 (6%)
Staff training	-	2	1	4	-	7 (5%)	7 (2%)
Security policies and procedures	-	7	10	1	1	19 (14%)	19 (6%)
Total completed investigations ^a	19	34	92	98	87	132 (100%)	132 (40%)

Table 12

Profile of offenders involved in overdose incidents by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

			Fiscal Year			T . 1
Characteristic -	12/13	13/14	14/15	15/16	16/17	Totals
Age						
18-24	4	5	12	17	8	46 (14%)
25-34	9	19	28	31	42	129 (39%)
35-44	18	14	21	12	21	86 (26%)
45-54	5	8	7	12	13	45 (14%)
55+	4	2	7	7	4	24 (7%)
Ethnicity						
Caucasian	24	28	39	50	50	191 (58%)
Indigenous	15	14	33	23	34	119 (36%)
Other	1	6	3	6	4	20 (6%)
Level of education						
Less than high school	28	24	48	46	52	198 (60%)
High school	9	20	22	27	29	107 (32%)
More than high school	2	3	5	4	7	21 (6%)
Not indicated	1	1	-	2	-	4 (1%)
Security level						
Minimum	1	4	2	2	2	11 (3%)
Medium	28	29	57	51	71	236 (72%)
Maximum	11	10	10	24	13	68 (21%)
Not yet determined	-	5	6	2	2	15 (5%)

Table 13

Profile of offenders involved in overdose incidents by region for overdose incidents in federal custody, 2012/2013 – 2016/2017

		m . 1				
Characteristic -	Atlantic	Quebec	Ontario	Prairie	Pacific	Totals
Age						
18-24	4	1	11	20	10	46 (14%)
25-34	7	9	39	51	23	129 (39%)
35-44	3	13	24	21	25	86 (26%)
45-54	5	5	13	6	16	45 (14%)
55+	-	6	5	-	13	24 (7%)
Ethnicity						
Caucasian	14	25	52	59	41	191 (58%)
Indigenous	4	6	33	36	40	119 (36%)
Other	1	3	7	3	6	20 (6%)
Level of education						
Less than high school	10	20	60	60	48	198 (60%)
High school	7	8	24	33	35	107 (32%)
More than high school	2	4	6	5	4	21 (6%)
Not indicated	-	2	2	-	-	4 (1%)
Security level						
Minimum	-	2	3	1	5	11 (3%)
Medium	12	17	67	77	63	236 (72%)
Maximum	5	15	19	15	14	68 (21%)
Not yet determined	2	-	3	5	5	15 (5%)

Table 14
Sentence information for offenders involved in overdose incidents by fiscal year for overdose incidents in federal custody, 2012/2013 – 2016/2017

S		m . 1				
Sentence information	12/13	13/14	14/15	15/16	16/17	Totals
First time federal offender?	16	30	39	41	52	178 (54%)
Sentence length						
2 – less than 4 years	16	18	38	29	33	134 (41%)
4 – less than 6 years	3	9	11	17	21	61 (19%)
6 – less than 10 years	6	11	3	18	16	54 (16%)
Over 10 years	5	2	4	5	7	23 (7%)
Indeterminate	10	8	19	10	11	58 (18%)
Major index offence						
Homicide-related	10	10	18	11	20	69 (21%)
Sexual	5	6	2	4	6	23 (7%)
Assault	3	5	12	6	7	33 (10%)
Robbery	13	13	22	30	23	101 (31%)
Other violent	4	6	3	9	6	28 (9%)
Property	2	4	5	5	6	22 (7%)
Drug	2	2	8	9	9	30 (9%)
Other non-violent	1	2	5	5	10	23 (7%)
Other	-	-	-	-	1	1 (<1%)
Time served						
0 – 60 days	-	5	3	2	2	12 (4%)
61 – 90 days	-	1	4	1	-	6 (2%)
91 days – 1 year	7	6	22	19	16	70 (21%)
Over 1 year – 2 years	8	9	11	13	19	60 (18%)
Over 2 years – 5 years	11	13	14	28	30	96 (29%)
Over 5 years – 10 years	2	9	10	10	13	44 (13%)
Over 10 years	12	5	11	6	8	42 (13%)
Time between most recent admission and incident						
0-60 days	4	7	11	9	11	42 (13%)
61 – 90 days	4	3	5	4	2	18 (6%)
91 days – 1 year	8	14	30	29	22	103 (31%)
Over 1 year – 2 years	6	8	9	13	20	56 (17%)
Over 2 years – 5 years	7	7	4	13	18	49 (15%)
Over 5 years – 10 years	2	4	8	7	10	31 (9%)
Over 10 years	8	5	8	3	5	29 (9%)
Not indicated	1	-	_	1	-	2 (1%)

Table 15
Sentence information for offenders involved in overdose incidents by region for overdose incidents in federal custody, 2012/2013 – 2016/2017

Sentence information		TD . 1				
	Atlantic	Quebec	Ontario	Prairie	Pacific	Totals
First time federal offender?	10	14	49	60	45	178 (54%)
Sentence length						
2 – less than 4 years	8	7	42	55	22	133 (41%)
4 – less than 6 years	2	10	12	17	20	61 (19%)
6 – less than 10 years	3	5	17	16	13	54 (16%)
Over 10 years	3	1	4	6	9	23 (7%)
Indeterminate	3	11	17	4	23	58 (18%)
Major index offence						
Homicide-related	5	10	23	7	24	69 (21%)
Sexual	-	2	8	3	10	23 (7%)
Assault	3	3	11	13	3	33 (10%)
Robbery	5	9	28	29	30	101 (31%)
Other violent	2	3	8	10	5	28 (9%)
Property	1	1	6	10	4	22 (7%)
Drug	1	3	7	15	4	30 (9%)
Other non-violent	1	3	1	11	7	23 (7%)
Other	1	-	-	-	-	1 (<1%)
Time served						
0 – 60 days	1	-	2	4	5	12 (4%)
61 – 90 days	1	-	3	2	-	6 (2%)
91 days – 1 year	6	9	25	21	9	70 (21%)
Over 1 year – 2 years	1	4	17	24	14	60 (18%)
Over 2 years – 5 years	2	9	23	35	27	96 (29%)
Over 5 years – 10 years	4	7	14	10	9	44 (13%)
Over 10 years	4	5	8	2	23	42 (13%)
Time between most recent admission and incident						, ,
0-60 days	3	2	7	18	12	42 (13%)
61 – 90 days	1	1	4	8	4	18 (6%)
91 days – 1 year	9	11	33	32	18	103 (31%)
Over 1 year – 2 years	1	3	18	22	12	56 (17%)
Over 2 years – 5 years	1	6	16	12	14	49 (15%)
Over 5 years – 10 years	2	6	10	5	8	31 (9%)
Over 10 years	2	5	4	1	17	29 (9%)
Not indicated	-	-	_	_	2	2 (1%)

Table 16

Criminal profile of offenders involved in overdose incidents in federal custody by fiscal year, 2012/2013- 2016/2017

Coincinal factor		Tatala				
Criminal factor	12/13	13/14	14/15	15/16	16/17	- Totals
Security threat group (STG) affiliation	12	8	13	20	22	75 (23%)
Young offender record	27	29	56	56	59	227 (69%)
Prior adult record	35	44	65	67	77	288 (87%)
Offending tied to substance misuse	31	39	65	59	72	266 (81%)
Current Offences (all that apply)						
Property	18	16	30	26	26	116 (35%)
Homicide-related	10	10	18	11	20	69 (21%)
Assault	10	16	23	25	18	92 (28%)
Sexual	5	6	4	6	6	27 (8%)
Robbery	17	15	30	32	26	120 (36%)
Drug	8	7	14	21	21	71 (22%)
Other non-violent	15	22	47	39	37	160 (49%)
Other violent	10	11	23	29	34	107 (32%)

Table 17

Criminal profile of offenders involved in overdose incidents in federal custody by region, 2012/2013- 2016/2017

Criminal factor		Tatala				
	Atlantic	Quebec	Ontario	Prairie	Pacific	- Totals
Young offender record	12	17	69	72	57	227 (69%)
Prior adult record	17	32	78	83	78	288 (87%)
Offending tied to substance misuse	15	18	71	87	75	266 (81%)
Current Offences (all that apply)						
Property	7	11	31	36	31	116 (35%)
Homicide-related	6	10	23	6	24	69 (21%)
Assault	6	12	31	24	19	92 (28%)
Sexual	-	2	10	4	11	27 (8%)
Robbery	7	13	33	32	35	120 (36%)
Drug	4	9	13	31	14	71 (22%)
Other non-violent	10	14	47	58	31	160 (49%)
Other violent	5	12	28	39	23	107 (32%)

Table 18

Institutional history by region for offenders involved in overdose incidents in federal custody, 2012/2013- 2016/2017

To do a		T 1				
Factor	Atlantic	Quebec	Ontario	Prairie	Pacific	Totals
Completed programming	13	23	76	86	80	278 (84%)
Previously held job	15	30	77	88	80	290 (88%)
Institutional incidents related to						
Drugs ^a	12	24	61	69	69	235 (71%)
Tobacco ^b	7	15	20	25	37	104 (32%)
Other contraband	15	28	65	78	69	255 (77%)
Issues with inmates	17	26	71	69	68	251 (76%)
Issues with staff	12	22	48	44	59	185 (56%)
Suspension from work/programming	10	19	35	48	42	154 (47%)
Refusal to attend work/programming	-	17	4	10	6	37 (11%)
UAL/Escape	4	10	20	30	35	99 (30%)
Disobedience ^c	12	29	49	52	67	209 (63%)
Property-related	6	16	30	24	29	105 (32%)
Jeopardize security	3	11	18	17	12	61 (19%)
Cause disturbance	2	6	20	6	11	45 (14%)
Positive urinalysis in year prior	2	4	14	30	20	70 (21%)
Refused urinalysis in year prior	2	3	18	19	18	60 (18%)
History of segregation	18	32	76	73	75	274 (83%)

 $^{^{\}mathbf{a}}\mathrm{Drug}\text{-related}$ issues include drug possession, consumption and distribution.

^bOther types of contraband include unauthorized items excluding drugs and tobacco, such as 'brew' (prison-made alcohol) and weapons.

 $^{^{\}mathbf{c}}$ Incidents of disobedience include cases where the offender was institutionally charged for disobeying a written rule or order.

Table 19

Mental health information by region for offenders involved in overdose incidents in federal custody, 2012/2013- 2016/2017

Factor -		m . 1				
	Atlantic	Quebec	Ontario	Prairie	Pacific	– Totals
At least one mental health disorder identified Mental health disorder(s) identified	15	28	61	67	59	230 (70%)
Mood disorder	11	15	39	43	23	131 (40%)
Psychotic disorder	3	6	13	9	9	40 (12%)
Anxiety disorder	10	9	27	32	25	103 (31%)
Personality disorder	6	20	22	18	20	86 (26%)
Neurocognitive/ neurodevelopmental	8	6	30	27	28	99 (30%)
Other	2	1	13	8	8	32 (10%)
History of self-harm / suicide	13	23	41	36	40	153(46%)
History of substance abuse	17	32	87	98	86	320 (97%)
Alcohol	9	13	50	55	51	178 (54%)
Drugs	17	30	85	98	82	312 (95%)
Opiates	8	17	43	48	49	165 (50%)
Stimulants	9	19	56	70	56	210 (64%)
Cannabis	10	21	47	70	53	201 (61%)
Hallucinogens	2	7	6	11	12	38 (12%)
Depressants/ downers	1	2	7	10	4	24 (7%)