

C O R R E C T I O N S

and correctional facilities as a public health setting in Canada

Overview

In the current coronavirus (COVID-19) pandemic context, there has been increasing attention to correctional facilities and other congregate settings as catalysts for infectious disease transmission. It is well known that infectious and other diseases are prevalent in correctional facilities around the world (1) and Canada is no exception (2,3). Rachlis et al. discuss the importance of considering the broader environment and the role of social, structural, and environmental factors on transmission of infections (4), and we are learning that in the context of COVID-19, the necessity of real time data and preventive health services, as well as a need for broader and more holistic study of infectious disease transmission in correctional facilities.

The purpose of this paper is to consider incarceration, the movements of people in and out of facilities and communities, and the significance of these factors for infectious disease transmission, and to highlight correctional facilities as important settings for primary health and, particularly, public health partnerships and services. Correctional facilities as a significant setting for preventive and protective services contribute to fulfilling the obligations of government and health systems to support the health state of individuals who are incarcerated (5,6), as well as to support the health of communities where incarcerated individuals return (7–11).

This document describes correctional facilities and regulations to protect incarcerated persons' health. We provide a rationale for the value and importance of public health services, in partnership and in addition to primary care for correctional facilities in Canada.

The Healthy Settings movement emerged from the WHO strategy of Health for All in 1980 and was outlined in the 1986 Ottawa Charter for Health Promotion. Later, the Sundsvall Statement of 1992 and the 1997 Jakarta Declaration further contributed to the framework calling for the creation of supportive environments with a focus on settings for health. Today, the concept is used to facilitate the improvement of public health in various settings throughout the world (12).



Corrections in Canada

Incarceration involves movement and confinement of individuals outside of their communities as penalty for offenses committed against the laws and policy systems within their jurisdiction.

In Canada, individuals who are in custody are sentenced, remanded, or held by other custodial statuses. These can include people who are being held in provincial/territorial (P/T) correctional institutions for lock-ups, parole violations or suspensions, holds on immigration, or those who are temporarily detained without a warrant of any type (13). Sentenced custody is the detention of offenders convicted of a crime, while remand is the detainment of a person in custody while awaiting a further court appearance and is the responsibility of P/T correctional services (13).

In Canada, P/T corrections are concerned with offenders who are sentenced for less than two years, while federal corrections oversee adult offenders sentenced for greater than two years (14). Correctional services also include community programming such as probation, conditional sentences, and other community programs or admissions that will not be explored in this document.



In Canada in 2017-18, Correctional Service Canada (Corrections Canada or CSC), admitted 7,345 individuals into federal custody, as well as 7,125 persons to community admissions (15). In the same time period, provincial and territorial (P/T) correctional services in total had 241,578 custodial admissions and 150,114 community admissions (16). Average total actual-in counts in custody in P/T correctional services in the same time period were 24,657.7 (39% sentenced, 60% remanded, and 1% other statuses), with an average incarceration rate of 83.16 per 100,000 people and 94,904 in community supervision, with a probation rate of 309.69 per 100,000 people¹ (17).

Incarceration rates vary across Canadian provinces and territories and depend on laws and policies within a jurisdiction; they are calculated using average total actual-in counts and population estimates (17). Incarceration rates were highest in 2017-18 in Nunavut (621.28/100,000), Northwest Territories (526.92/100,000), and Manitoba (231.39/100,000), with the lowest rates in the Maritimes as a region. Lowest rates were in Nova Scotia (59.35/100,000), Ontario (65.04/100,000), and British Columbia (66.09/100,000) (17). Eighty-five percent of individuals who were in custody in Canada were men (18), 54% were between the ages of 20 to 34 (19), and 30% of all custodial admissions identified as Aboriginal² (20). Of 199,016 male custodial releases, 99,585 served their time in one month or less and 21,967 in one to three months, while of 35,210 female custodial releases, 20,121 were served within in one month or less (21). While CSC's recidivism rate, defined as the two-year post-release reoffending rate, was 23.4% in 2011-2012 (22), average recidivism rates across P/Ts are not available, due to differing methods of measurement.

To provide a provincial example, in Manitoba in 2017-18 there were 29,791 custodial admissions and 10,017 community admissions (16). There was an average custodial in-count total of 2,399.80, with an incarceration rate and

probation rate of 231.39 and 645.35 per 100,000 people respectively (17). Most offenders during the time period were between the ages of 20-34 (60% and approximately 20% per 5 year age range) (19), 20.9% of custodial admissions were women (18) and 75% of custodial admissions identified as Aboriginal (20). Of 23,227 male custodial releases, 17,455 served their time in one month or less, while of 6,577 female custodial releases, 5,586 of those served their time in one month or less (21). The median of sentence length ordered in 2017-18 in Manitoba was 30 days, 31 days for men, and 7 days for women (19), demonstrating significant movement between correctional facilities and communities. Recidivism in Manitoba is defined as a person being convicted of a new offence and returned to provincial custody within two years of release from jail or other correctional supervision (23). Recidivism rates in Manitoba were 32% in 2017, 29% in 2018, and 26% in 2019 (23).

There are sex as well as gender³ considerations for infectious disease and incarceration patterns in Canada, including high rates of incarceration in men in comparison to women as well as significantly shorter average time served in women in comparison to men, especially for incarcerated people who identify as First Nations, Inuit, or Métis⁴. In addition, though there is a lack of Canadian data, transgender people in the US have been found to have incarceration rates more than double the general population rate (24) and these data do not include non-transgender people who do not identify with binary genders. Gender based analysis will be needed to explore the underlying challenges to address these differences and provide equitable and effective interventions for all individuals incarcerated.

¹ Probation rates are not available for all provinces and territories.

² "Aboriginal" is the identifier used by Statistics Canada at the time of data collection.

³ Sex refers to biological characteristics, while gender refers to social identity.

⁴ Statistics Canada data currently collected includes people who self-identify as Aboriginal.

In Canada, CSC provides information and data available to the public via their **website**.

Corrections facilities in Canada have minimum requirements for general mechanics including water and waste, fire protection, heating, ventilating and air conditioning, as outlined in the 2015 CSC document **Technical Criteria for Correctional Institutions**. The net living area of a bedroom for offenders in the general population is to be 6.5 m² minimum, and is 7.0 m² minimum for medium and maximum security areas (except for cells for health care and people with special needs) (25). Double bunking, which is the housing of two or more inmates in an environment designed for one, is to be used as a temporary measure only during times of population pressures, and spacing between the two bunks should be a minimum of 900 mm (25). Modesty screens are intended to provide limited privacy to inmates in areas such as toilets, showers, cells, and for strip searches (25).

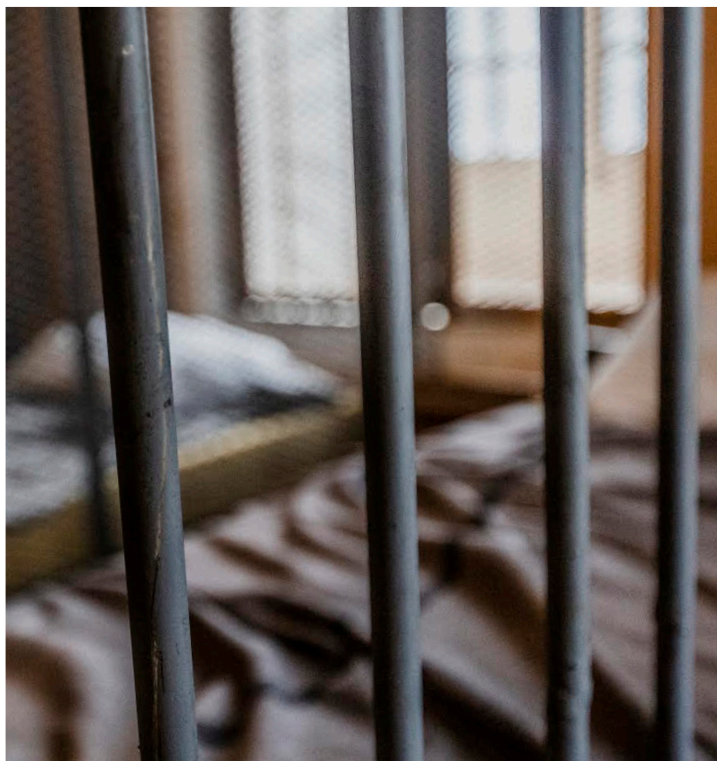
In the correctional facility environment, regular inmate populations have general access to program areas in the institution, while special inmate populations are isolated from the regular population for specific reasons, and include inmates in segregation, treatment and care, reception, temporary detention and the special handling unit (25).

Approximately 15% of CSC correctional beds are minimum security housing types and have shared living spaces; they have low internal security with a 24 hour post to which all visitors report (25). All buildings are constructed to commercial standards and offenders are free to leave the premises with authorization, while alarms warn of unauthorized exit after hours (25). Housing units generally resemble apartments, or attached or detached houses with each unit housing a maximum of 10 inmates (more typically 5-8) (25).

Medium security institutions have five housing types which vary in terms of planning and movement and activity areas are moderately controlled (25). These units allow and encourage movement and interaction in common areas, while housing units are secure to allow for containment along with optimal security views and the ability to control traffic (25).

There are two maximum security institution and housing types which allow for the possibility of armed intervention in corridors and activity areas (25). Inmates share common areas for programming, such as a gym or yard, but due to the incompatibility of many inmates, activities and movement are scheduled and highly controlled. Approximately 15% of CSC beds are in maximum security facilities or units (25). Smaller correctional facilities and particularly women's facilities house different security levels in the same facility.





Health Care in Corrections

A According to the *Corrections and Conditional Release Act*, inmates have the right to a safe and healthy environment in which health, safety, sanitation and fire regulations are in compliance with regulations upon regular inspection (5). Governments are obliged to ensure inmates are adequately clothed and fed, have adequate bedding and toiletries and needs necessary for health and cleanliness, and that there is an opportunity to exercise outdoors or indoors if unable to be outdoors (5). There are now federal and provincial correctional facility Accreditation Standards in Canada for health services, currently defined as including nursing assessments and interventions, diagnostic services, physician

clinics, health promotion and prevention, emergency care, dental services, psychiatric and psychological services, special programs (e.g. Methadone), and dialysis (6). It should be noted that in most provinces in Canada, health services in correctional facilities are implemented by ministries responsible for Corrections rather than by health departments (26). According to the *Corrections and Conditional Release Act*, if a registered health care professional refers an inmate for admission to a health care unit, the decision to admit the inmate is made by a designated corrections health services official and in accordance with the criteria set out in the Commissioner's Directive (5). In 2015, revised rules for prisoners were

adopted by the United Nations Assembly, a first update since 1955. ***The United Nations Standard Minimum Rules for the Treatment of Prisoners***, also named the Nelson Mandela rules, reinforced the accommodation needs to meet requirements for health, including minimum floor space, lighting, temperature, ventilation, clean sanitation at all times, along with access to personal hygiene. The rules

prohibit double bunking except for special reasons such as temporary overcrowding (27). Rules 24-35 provide guidance regarding healthcare, stating that inmates should receive the same standards of healthcare, including public health, as within the community and that the health care personnel should have the ability to act in full clinical independence, contributing towards rehabilitation (27).

Incarceration as a Determinant of Health

It is known that personal, social, economic and environmental factors (the determinants of health) that are associated with disadvantaged conditions result in poorer health outcomes, and offenders often lack education, employment, stable housing and/or come from communities with low socio-economic standing or are racialized or experience discrimination (28–31). In a study of the social determinants of physical health of incarcerated men admitted to Canadian federal institutions who consented to an intake health assessment between April 1 and September 30 2012 (n=2,273), 61% of men reported having at least one chronic physical health condition and 10% a blood borne infection (32). Many men (with higher rates among First Nations men), had also experienced child abuse (35%), witnessed family violence (33%), experienced financial instability (61%) and/or used social assistance (56%), substandard housing (32%), underemployment (69%), and had education of less than grade 10 (56%) (33)⁵. A health status review in Ontario has provided evidence that incarcerated people in Canada have poorer health outcomes than the general population including mortality in custody, mental health diagnoses, substance use, and communicable

diseases including sexually transmitted and blood borne infections (STBBI) (31). Data are lacking however regarding mortality after release, chronic diseases, injury, reproductive health, and health care access and quality (31).

Consequently, prison has been suggested as a determinant of health. With offenders often originating from disadvantaged backgrounds and communities, it has been questioned whether prison environments improve the lives of incarcerated people or whether they contribute to ongoing poorer social, economic, and health outcomes. Mazilli comments that the intricate mix of structural determinants and behavioural factors contribute to wider health inequalities in prison populations and to the increased likelihood of contracting infections both prior to and during incarceration (34). High rates of chronic diseases, mortality, and suicide are also associated with incarceration after release, though it is unknown how incarceration contributes to morbidity and mortality (31,35). It has been suggested that supporting the health of offenders with proactive and preventive services could counteract the cycle of reoffending.

⁵ Women were excluded from this study due to small sample size.

Infectious Diseases Transmission in Corrections Facilities

People who are incarcerated have high rates of infectious diseases compared to general populations, including STBBI (1–3,28–30,36,37). For example, in a study of rates of reported STBBI since admission in Canadian federal corrections compared to the general population rates in 2004, chlamydia rates were 400 vs. 192/100,000, gonorrhoea rates were 80 vs. 28/100,000, and syphilis rates were 80 vs. 5/100,000 respectively (38). Other infections that have higher rates in incarcerated people are methicillin-resistant staphylococcus aureus infection (29), infection with airborne organisms such as mycobacterium tuberculosis (29,30,36), influenza viruses (29), and varicella-zoster virus (29). There have also been recent outbreaks of COVID-19 in correctional facilities in three provinces in Canada since the beginning of the pandemic in March 2020. Flanigan et al. states in a call to action that, “the health of inmates needs to be viewed as a shared responsibility between the judicial system as well as community health and public health systems” and outlines that the well being and health of families, neighborhoods and communities depend on health capacity of inmates within correctional facilities (36).

There are many factors that contribute to infectious disease transmission once incarcerated. With an already high prevalence of infectious diseases in people in correctional facilities, these communal spaces are imposed and often overcrowded in addition to other factors that contribute to communicable disease transmission. Some facilities in the United States (US) have shown lack or limited access to soap, hand sanitizer, or clean laundry

(29). There is a lack of options and choice for harm reduction services available in facilities for activities such as sexual health, tattooing or for substance use (28–30). There can be delays in medical care due to security procedures (29) or lack of medical communication technology, including interrupted reportable disease contact notification, prevention, or treatment due to displacement or movement (29). Correctional facilities have also been known to have insufficient infection control practices (29) and it has been suggested that a high prevalence of mental illness in correctional facilities (29,31) may complicate infectious disease prevention and management (29). Other factors including poor diet, stress, exercise, and loneliness could also contribute to communicable disease transmission.

With increasing (25% since 2000 incarceration rates in Canada (17), overcrowding and double bunking in prisons has become commonplace (39–43), increasing the risk for infectious disease. In January 2013, the Union of Canadian Correctional Officers (UCCO) submitted a document regarding concerns about the practice of double bunking to the Office of the Correctional Investigator (OCI), outlining resulting higher rates of security incidents, aggression, violence, withdrawal, and injury from others as well as self-injurious behaviours (44). In March 2013, the OCI responded in a report that national double bunking rates were 20.98% and double bunking was particularly prevalent in the Prairies, where there were also significant increases in assaults (60% in 5 years) and use-of-force incidents (48% in 5 years) (44). CSC did report on decreasing double bunking practices in federal

corrections to 5.5% in 2017-8, with data available to 2018 (45). Since that time period, there has been concern in the media regarding the ongoing practice of double bunking in the context of the decreasing practice of segregation and increasing numbers of people in general population units within correctional facilities (46,47) and ongoing concern regarding double bunking in provincial correctional facilities since 2015 (40–43,48). In 2019, UCCO (which represents a majority of federal corrections officers) released a published report providing a critical review of the practice of double bunking (49), while similarly the National Union of Public and General Employees (which represents a portion of federal and provincial correctional employees) released a report outlining the increase in remanded individuals in custody since 2010, and documented overcrowding in correctional facilities in all of the provinces (50). Data used in the National Union document was from 2010 to 2015 (50), with a lack of provincial data publicly available since that time period.

Movement in and out of Facilities

It is important to explore incarceration and resulting migration, since most inmates in Canada return to their families and communities within a short time span (21). In addition, access to correctional services can depend on geography and force migration to communities with correctional services (53), including probation and other community correctional services post incarceration. In a US sociology dissertation examining nationally representative longitudinal data, Warner investigated how incarceration influences individual residential mobility behaviour after release and concluded that incarceration contributes to long-term patterns of residential instability. He found that incarceration was associated with movement into neighborhoods

Lack of comprehensive health care may also contribute to infectious disease transmission in correctional facilities. In community, incarcerated persons often receive insufficient medical care or are considered difficult to reach by healthcare programs and personnel (26), which is noteworthy in the context of evidence that offenders use more health services than the general population (31,51,52). In a 2010 study in Ontario, the rates of all types of health care utilization were significantly higher both in prison and on release for people released from prison (n = 48,861) compared to the general population (n=195,444) (51). Also, a survey of 65 people incarcerated in provincial correctional facilities in 2010 showed that many offenders felt they lacked access to healthcare while incarcerated when they needed it and 44% were dissatisfied with their care (52). Women offenders particularly identified poorer health status than men, and while both women and men detailed frequent use of health services within correctional facilities, women (72%) used services more than men (63%) (52).

with lower socioeconomic status (54).

Migration is the movement of people from one location to another. People move for different social, political, and economic reasons. This movement can be temporary or longer term and can contribute to the spread of infectious diseases to new geographic locations.

Incarceration not only affects imprisoned individuals but also affects their associated communities and families. A 2001 US review of incarceration patterns and policies and the health status of communities found that incarceration had direct and indirect effects on community health and diverted resources from other social needs (55). As a more concrete example, this concept has



been explored in particular for STBBIs. Using a cross-sectional survey of health needs and service usage among 290 women in three urban jails in the Kansas City area for example, this study found that communities with high incarceration rates were associated with high sexually transmitted infection rates of women prior to being incarcerated, noting that women were more likely to have exchanged sex for resources and likely individual and neighborhood disadvantages contribute to poor health outcomes (56). In a study of 100 counties in North Carolina in 1999, moderately strong correlations were found between high rates of gonorrhea, chlamydia, and teenage pregnancies in communities with high rates of incarceration (8,57).

In 2007, the same methodology was used in a North Carolina city and found that census tract rates of incarceration were consistently associated with gonorrhea rates

in the subsequent year and an increase of the percentage of census tract person-time spent in prison from 2.0% to 2.5% corresponded to a gonorrhea rate increase of 7.1 cases per 100,000 person years (11). In Chicago, higher rates of gonorrhea and chlamydia were associated with high rates of homicide rates as opposed to other adjacent neighborhoods (7).

Additionally, an ecological analysis in San Francisco in 2010 found a positive association between incarceration rates and chlamydia incidence in young women under age 25 (9). And using 2011-2016 national and county level data across the US, jail and prison incarceration rates were associated with a rate increase of 10.13 per 100,000 and 8.22 per 100,000 of chlamydia incidence and a 2.47 per 100,000 and 4.40 per 100,000 rate increase of gonorrhea incidence, respectively (10). High rates of incarceration and inmate turnover likely perpetuate infectious disease transmission in communities as well.

SUMMARY

There is considerable evidence that high quality health care in correctional facilities is an opportunity to provide services to groups of people who are underserved in the community as well as benefit the community at large.

To conclude, correctional facilities have a high prevalence of infectious disease due to social, structural and environmental factors that perpetuate infection transmission. Potter suggests that time and flow in and through correctional facilities affect public health interventions and who specifically can be reached by these interventions (58). In Canada, offenders serve predominantly short sentences and continue to be connected and released to family, friends, sexual partners, and communities, increasing community risks for infection transmission. Incarceration has been shown to perpetuate a downward trajectory in stability and housing as incarceration often ends with movement to lower socio-economic neighborhoods with already structurally higher risk for infection transmission. Not only can incarceration serve as a forced migration to perpetuate infection transmission within communities that are already at higher risk, it can also perpetuate or introduce transmission to new communities or facilities. Also, individuals who are incarcerated use health care more frequently, but strikingly are often seen as difficult to reach indicating either (or both) a lack of satisfaction with their care or that the care is not meeting

their needs. Interventions to prevent and manage infectious disease in the Canadian correctional environment could improve individual health outcomes and contribute to the health of communities.

There is considerable evidence that high quality health care in correctional facilities is an opportunity to provide services to groups of people who are underserved in the community as well as benefit the community at large. This could also contribute to significant long term cost savings, as well as potentially contribute to decreasing the risk of re-offending with the improvement of social, economic, and health statuses to incarcerated people. Supporting health status could also contribute towards reconciliation for systems that have resulted in high incarceration rates among Indigenous people in Canada and to contribute to remediation and the restoration of relationships between systems and communities with First Nations, Inuit, and Métis people in Canada. Public health in the general population is dependent on the health status of groups at risk, and therefore correctional facilities are a prime setting for public health interventions and programming in Canada.

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Project #466

This document was prepared by Jami Neufeld

Thank you to Jasmine Frost and Nicholas Duschenko for their research.



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Production of this document has been made possible through a financial contribution from the Public Health Agency of Canada through funding for the National Collaborating Centres for Public Health (NCCPH). The views expressed herein do not necessarily represent the views of the Agency. Information contained in the document may be cited provided that the source is mentioned.