

Health care use for people who experience imprisonment in provincial jails in Ontario

Fiona Kouyoumdjian



Executive summary

We examined correctional and health administrative data for people who experienced imprisonment in provincial prisons in 2010.

We found that people who experienced imprisonment tended to have multiple medical problems. Both in custody and in the community, they had high rates of ambulatory care use, emergency department use, and hospitalization compared with people in the general population with the same age and sex. Rates of emergency department use and hospitalization spiked in the period after release. About two fifths of people who experienced imprisonment did not access primary care in the two years before or in the two years after their time in provincial prison.

These data reveal a high burden of health needs and health care use in this population. There may be opportunities to support health and prevent high acuity issues through primary care linkage and through a focus on the period of transition back to the community.

Project overview

In this project, the Ministry of the Solicitor General provided data on all people who were released from provincial correctional facilities in 2010. We linked these data with administrative health data at ICES, which is an independent, non-profit organization funded by the Ontario Ministry of Health that holds health administrative data for Ontario residents.

Our main project goal was to describe the health care use in prison and in the community for people who experience imprisonment. We also examined socio-demographic characteristics and medical conditions for this population.

We used matching to identify a group of people in the general population, so we could compare our findings for people who experience imprisonment with people in the general population who had the same age and sex distribution.

This research was funded by the Physicians' Services Incorporated Foundation and the Foundation for Advancing Family Medicine.

Data linkage

The Ministry of the Solicitor General provided data on 53,955 people who were released from provincial correctional facilities in 2010. We were able to link with health administrative data at ICES for 97.4% of those people.

When we looked at health status and health care use, we focused only on people who returned to the community on release, which was 48,861 people. We matched each person who experienced imprisonment with four other people in the general population with the same age and sex, resulting in a general population comparator group of 195,444 people.

Socio-demographic characteristics of people who experience imprisonment

Most people were young, with a median age of 32.

There was substantial overrepresentation of

- Black people,
- Aboriginal people, and
- people from neighbourhoods in the lowest average income quintile.

The median time spent in custody on a single admission was

- 13 days for men and
- 6 days for women.

Over 5 years, the median time spent in provincial custody was

- 80 days for men and
- 47 days for women.

		Men N=45,956	Women N=6,357
Age	Median (IQR)	32 (24-43)	32 (24-42)
Race	White	58.3%	55.7%
	Black	12.8%	7.1%
	Aboriginal	9.0%	15.5%
	Other/missing	19.9%	21.8%
Neighbourhood income quintile	1 (lowest)	36.2%	40.3%
	2	21.2%	20.7%
	3	15.8%	13.8%
	4	12.1%	10.4%
	5 (highest)	8.7%	8.0%
Time in provincial custody	Admission leading to initial release in 2010	13 (4-64)	6 (3-22)
	5 years before initial release in 2010	80 (13-255)	47 (9-150)

Medical conditions of people who experience imprisonment

Compared with people in the general population with the same age and sex, people recently released from provincial prisons were many times more likely to have each of the mental illness diagnoses we examined and to have HIV infection.

They were also more likely to have a higher burden of morbidity, as indicated by the number of Aggregated Diagnosis Group, which represent groups of similar diagnoses.

We note that the algorithms we used to identify mental illness likely don't capture mental illness well since they don't include diagnoses from outpatient visits.

		People released from provincial correctional facilities N=48,861	General population N=195,444
Mental illness prevalence	Mood disorder	6.8%	0.8%
	Schizophrenia	3.9%	0.4%
	Anxiety disorder	7.7%	1.2%
	Substance-related disorder	16.9%	1.2%
Medical condition prevalence	HIV infection	0.7%	0.2%
Number of Aggregated Diagnostic Groups*	Median (IQR*)	4 (2-7)	3 (1-5)
	0-4	51.9%	69.8%
	5-9	35.6%	26.5%
	≥10	12.4%	1.9%

*Similar diagnoses are grouped into clusters called Diagnostic Groups. The total number of clusters indicates total disease burden per person.

Health care use of people who experience imprisonment

Compared with people in the general population with the same age and sex, people who experience imprisonment are much more likely to use all types of health care examined, both while in prison and after release. ED use and hospitalization spike on release.

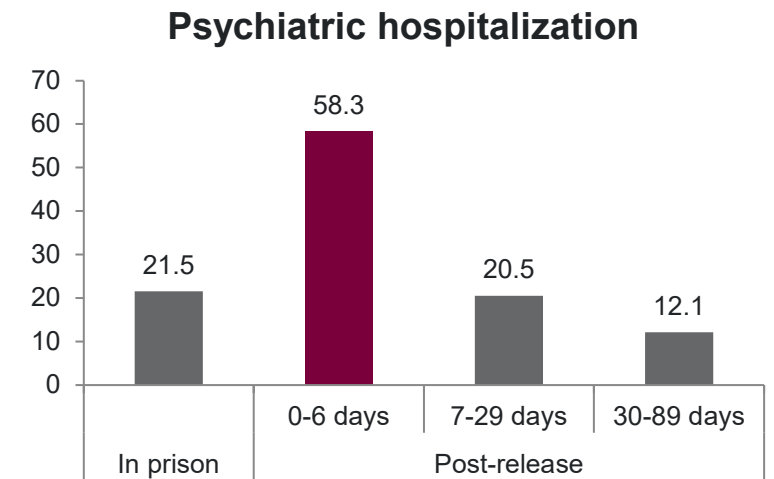
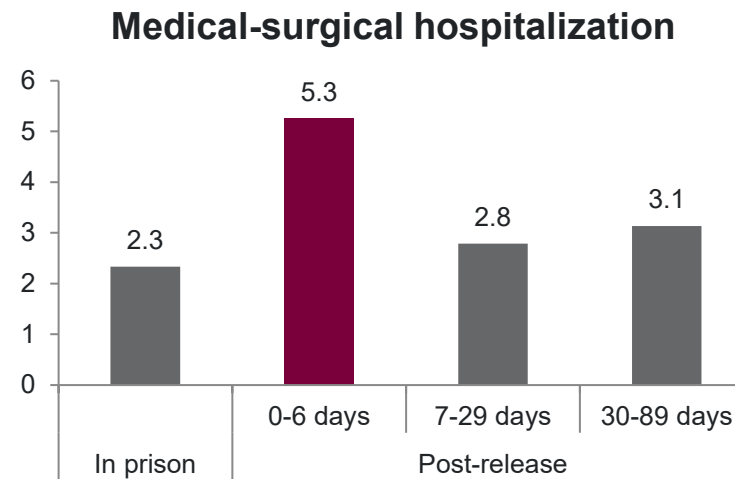
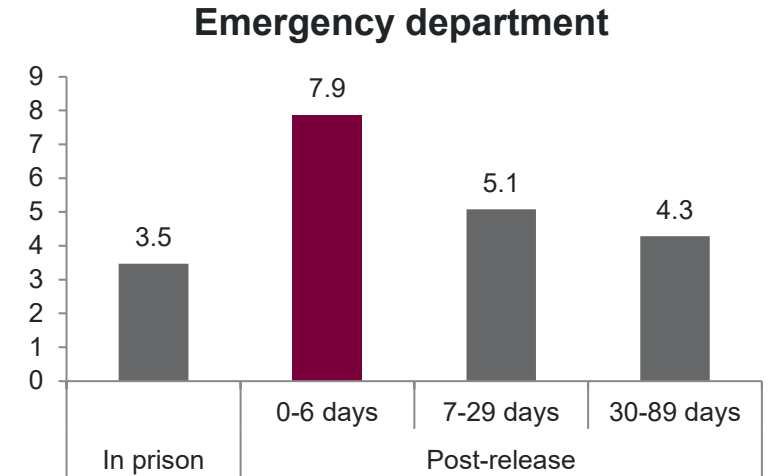
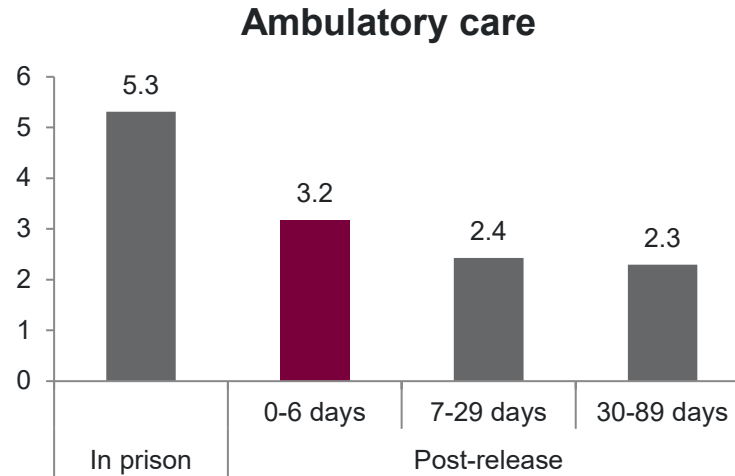


Figure
Rate ratio of health care use of people who experience imprisonment (N=48,861) compared with age- and sex-matched people in the general population (N=195,444), by type of health care

Primary care access of people who experience imprisonment

A large proportion of people who experienced imprisonment did not access any primary care in the two years before their admission to provincial prison (41.1%) or in the two years after their release from provincial prison (37.0%).

Compared to the general population, a smaller proportion of people who experienced imprisonment accessed primary care in Family Health Teams, which are a team-based model of care.

Primary care type	Two years before admission to provincial prison*		Two years after release from provincial prison*	
	People who experienced imprisonment	Matched people in the general population	People who experienced imprisonment	Matched people in the general population
No primary care access	41.1%	15.9%	37.0%	15.6%
Any primary care access	58.9%	84.1%	63.0%	84.4%
Team-based care models	CHC	3.5%	0.8%	1.0%
	FHT	10.9%	15.3%	20.6%

*Or the corresponding dates for matched people in the general population. For the prison release group, baseline and follow up periods exclude any time in provincial prison to focus on primary care access in the community.

Table

Primary care attachment* by persons released from provincial prison in Ontario in 2010 (N=48,861) and age- and sex-matched general population controls (N=195,444)

Emergency department use of people who experience imprisonment

Most ED visits were high acuity in the week post-release: 1,476/2,463. The most common visits after release were for injury/poisoning (23.6%) and mental and behavioural disorders (17.2%).

Compared with people in the general population, a much higher proportion of people who experienced imprisonment used the ED across time periods studied, including in prison.

Period relative to time in prison*		Number of visits People who experienced imprisonment	Any visits (%) People who experienced imprisonment	Matched people in the general population
In prison		4,374	6.6	3.0
	0-6 days	2,463	4.0	0.6
Post-release	7-29 days	4,916	7.0	1.8
	30-89 days	9,894	12.9	4.4

*Or the corresponding dates for matched people in the general population.

Table

ED use for people released from provincial prison in Ontario in 2010 (N=48,861) and general population controls (N=195,444)

Key Findings

The issue

What we can do

People who experience imprisonment are medically complex and are more likely to experience acute health issues.

Health care in provincial prisons needs to be equipped to deal with a population with multiple medical and social needs.

A large proportion of people who experience imprisonment do not access primary care in the community.

This population may benefit from linkage with primary care in the community, including team-based primary care models. Primary care engagement could support treatment of common medical conditions such as substance use disorders and mental illness, which could also prevent recidivism.

The time of prison release is associated with high rates of acute health care problems.

Discharge planning and supports on release may prevent acute issues

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