



A Statistical Survey of Canadian Forensic Mental Health Inpatient Programs

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Abstract

Secure hospital beds are vitally important for the assessment and treatment of mentally disordered accused persons. A forensic mental health system with an adequate level of hospital beds is essential for the courts and review boards to carry out of the mental disorder provisions of the Criminal Code. This article describes the results of a study that examined interprovincial differences in the structure of Canadian forensic mental health FMH inpatient programs. In total, 1523 hospital beds are designated for FMH programs in Canada. Across Canada, less than one (0.61) FMH hospital bed is available for every 10,000 adults in the general population, ranging from 0.37 in Manitoba to 1.08 in Nova Scotia. Interprovincial differences in the staffing and bed occupancy of Canadian FMH inpatient programs are also uncovered. The results of the present study confirm that interprovincial differences in the structure and organization of FMH inpatient programs exist in Canada.

Introduction

The forensic mental health system consists of an array of inpatient and community services provided to persons with co-occurring legal and mental health problems. In Canada, the forensic mental health population includes two legally distinct subgroups: mentally disordered offenders and mentally disordered accused. The mentally disordered offender subgroup comprises persons who are charged or convicted of crimes and

are also suffering from a mental disorder, including persons living in the community (probation, parole, bail) as well as those in custodial settings (jail, prison, remand centres). The other legal subgroup – mentally disordered accused – consists of persons who have engaged in, or have been accused of engaging in, unlawful behaviours and have been provided with a special legal designation on account of their mental disorder, including persons who are adjudicated “Not Criminally Responsible on Account of Mental Disorder” (NCRMD) or Unfit to Stand Trial (*Criminal Code*, s. 16). The present study is concerned with inpatient programs that are designed to deliver services to mentally disordered accused persons.

Though the *Criminal Code* grants substantial powers to courts and review boards in directing the management of mentally disordered accused persons, Canadian provinces and territories have constitutional authority over health matters, such as designing and organizing the delivery of forensic mental health services (*Constitution Act*, s. 92). The federal government provides significant financial support for healthcare and each Canadian jurisdiction has the authority – within the confines of the *Canada Health Act* – to spend the money according to its own priorities and to organize health services according to its own needs (Gibson 1996; Jackman 1996). Like other health systems, the forensic mental health systems of each Canadian province and territory have evolved independent of one another according to factors such as geography, existing services, popula-

tion needs and characteristics, political climate and availability of resources and expertise. All Canadian forensic mental health systems provide treatment and rehabilitative services to mentally disordered accused persons with the goal of either reintegrating them into the community or, in the case of persons who are unfit to stand trial, restoring their fitness; however, the provinces and territories differ in their approach to achieving these goals. Even though a certain degree of consistency among the provincial forensic mental health systems is produced by the *Criminal Code*, forensic mental health in Canada is in reality constructed of many diverse systems (see Eaves et al. 2000b; Eaves et al. 2000a; Goering et al. 2000; Hodgins 1988).

The ability of the courts and review boards to direct the management of mentally disordered accused persons is affected by the responsiveness of provincial governments in meeting the demand for forensic mental health inpatient services. Forensic mental health patients in each Canadian jurisdiction receive services that differ in accessibility, continuity and comprehensiveness. These inequalities impact the functioning of the mental disorder provisions of the *Criminal Code*. Recent court cases such as *Ontario v. Hussein* (2004) and *Orru v. Penetanguishene Mental Health Centre* (2004) have highlighted the importance of forensic mental health bed availability on the functioning of the mental disorder provisions of the *Code*. The *Hussein* (2004) case calls attention to the delayed initiation of court-ordered assessment and treatment services that result from the unavailability of forensic beds. The *Orru* (2004) case stresses that the ability to treat mentally disordered accused persons in the “least onerous and least restrictive” manner is highly dependent on the accessibility of forensic mental health inpatient beds. In both cases, justices of the Ontario Supreme Court ruled that the lack of bed availability in the forensic system has produced violations of the *Charter of Rights and Freedoms* and must be remedied by provincial governments.

In Canada, forensic mental health research is usually implemented on a provincial level. An absence of a national structure for forensic mental health services in Canada has hindered the implementation of nationwide research on topics related to forensic mental health. Very few comparative studies of forensic mental health populations, services or systems between Canadian jurisdictions can be found in the literature (Canada 2002). Policy makers, health planners and forensic program directors should have greater access to comparative statistics concerning Canadian forensic mental health service delivery models. The present study addresses this research void by exploring interprovincial differences in the structure of Canadian forensic mental health inpatient programs.

Method

Questionnaires were distributed to hospital directors and program managers of all the forensic mental health inpatient

programs across Canada. A directory of Canadian forensic inpatient programs was developed to assist with locating and contacting the appropriate programs. The questionnaire queried information about the characteristics of forensic inpatient programs as well as patient census and staffing information for one day of service at each site. Prince Edward Island and the three territories were excluded from the survey on account of both their small forensic populations and their use of the forensic inpatient services of larger, neighbouring provinces. Survey data was collected from February 2005 to June 2005. The present study was approved by both the British Columbia Forensic Psychiatric Service Research Committee and the Office of Research Ethics at Simon Fraser University.

Results

The survey was sent to the 25 Canadian forensic mental health inpatient programs and completed by 68% of the programs in nine provinces. Surveys were completed and returned by all the forensic inpatient programs in seven provinces. Census and staffing information could not be obtained from five Ontario sites and three Quebec sites; however, other information about their forensic inpatient programs was acquired through publicly accessible documents.

Forensic inpatient programs that responded to the survey provided patient census information for one day of service from February to June 2005. Of the 1,010 patients that were in Canadian forensic mental health inpatient programs, 88.7% were male and 11.3% were female. Most (83.3%) of the forensic inpatients were hospitalized for treatment purposes and 16.7% were detained for court-ordered assessments. The treatment group comprised 67.4% NCR accused persons (507 males; 60 females); 9.9% unfit-to-stand-trial persons (75 males; 8 females); 5.5% civil (non-*Criminal Code*) patients; 5.1% sex offenders; 3.9% temporary absences from correctional facilities; and 8.2% of persons with other legal statuses such as “fit but fragile” (*Criminal Code*, s. 672.29). The assessment group comprised 18.9% NCR-MD assessments (31 males; 1 female); 33.7% fitness assessments (49 males; 8 females); 38.5% both NCRMD and fitness assessments (14 males; 3 females); and 8.9% of persons with other legal statuses.

Of the 25 forensic mental health inpatient programs in Canada, 56% are based in larger psychiatric hospitals or centres, 24% are units within general hospitals, 16% are freestanding forensic hospitals and 4% are situated in a federal corrections psychiatric centre. British Columbia, Nova Scotia, Newfoundland and New Brunswick each use one site for delivering forensic mental health inpatient services; Alberta, Saskatchewan and Manitoba each have two locations; Quebec has five different locations; and Ontario delivers forensic mental health inpatient services through 10 different sites, primarily located in the southeastern part of the province. In total, 1,523

hospital beds are designated for forensic mental health programs in Canada. The average size of the forensic inpatient program in Canada is 60.9 beds, ranging from 5 beds to 285 beds. Thirty-six percent of the forensic inpatient programs have less than 20 beds, 32% have from 20 to 80 beds and 32% have more than 80 beds. Freestanding forensic mental health hospitals (averaging 181.8 beds) have a larger bed capacity than do forensic programs that are located within psychiatric hospitals (averaging 52.0 beds) and general hospitals (averaging 15.0 beds).

Survey results indicate that the one-day bed occupancy rate for forensic mental health inpatient programs across Canada was 99%, with the bed occupancy of provincial forensic inpatient programs ranging from approximately 83% to 239%. On average, forensic programs based in psychiatric hospitals had higher bed occupancy (145.0% occupancy) than did programs within general hospitals (106.3% occupancy) and freestanding forensic hospitals (86% occupancy). Many forensic programs based in psychiatric and general hospitals allow forensic patients to occupy nonforensic hospital beds if a designated forensic bed is unavailable. The practice of redirecting mentally disordered accused persons to other hospitals, prisons or jails by forensic inpatient programs that lack available beds was also uncovered in a recent Statistics Canada survey of forensic mental health

professionals (Statistics Canada 2004). Many forensic programs in psychiatric hospitals also allow forensic patients to live in less secure, nonforensic beds to prepare them for community discharge, which also increases the bed occupancy rate for forensic inpatient programs. Freestanding forensic hospitals generally do not have the option to access nondesignated forensic beds for forensic patients, which likely explains their comparatively low bed occupancy.

The one-day staffing data provided by survey respondents indicates that Canadian forensic mental health inpatient programs had, on average, 8.31 staff for every 10 forensic inpatients. A summary of staffing data is presented in Table 1. For every 10 forensic inpatients, Canadian forensic inpatient programs had 4.60 nursing staff, 1.26 security staff, 1.11 psychiatrists and psychologists, 0.83 rehabilitation programs staff and 0.50 social workers. Forensic inpatient programs in New Brunswick had the lowest staff–patient ratio with 4.12 staff for every 10 patients. Two facilities in Quebec had the highest staff–patient ratio with more than 10 staff for every 10 patients. The average staff–patient ratio (per 10 patients) was 9.30 for freestanding forensic hospitals, 8.43 for programs within general hospitals and 6.20 for programs located in psychiatric hospitals.

Table 1. One-day snapshot of staff-patient ratio (per 10 patients) in Canadian forensic mental health inpatient programs

Jurisdiction	Psychiatrists/ Psychologists (rank)	Social Work (rank)	Nursing Staff (rank) (a)	Security Staff (rank)	Programs Staff (rank)	Total Staff (rank)
BC	0.58 (8)	0.35 (7)	7.08 (1)	0.41 (4)	1.17 (4)	9.59 (2)
AB	0.62 (7)	0.53 (4/5)	6.11 (3)	0.18 (5)	1.33 (3)	8.76 (3)
SK (b)	0.43 (9)	0.22 (9)	6.52 (2)	0.87 (3)	0.22 (6)	8.26 (4)
MB	0.63 (6)	0.25 (8)	2.03 (8)	0.13 (6)	1.65 (2)	4.68 (8)
ON (c)	1.11 (4)	0.53 (4/5)	3.44 (6)	0.05 (7)	0.95 (5)	6.08 (6)
QB (d)	1.86 (1)	0.71 (1)	4.76 (4)	3.87 (1)	0.15 (8)	11.34 (1)
NB	1.37 (3)	0.59 (2/3)	1.96 (9)	0.00 (8/9)	0.20 (7)	4.12 (9)
NS/PEI	0.99 (5)	0.42 (6)	2.82 (7)	1.13 (2)	1.69 (1)	7.04 (5)
NF	1.76 (2)	0.59 (2/3)	3.53 (5)	0.00 (8/9)	0.00 (9)	5.88 (7)
CANADA (e)	1.11	0.50	4.60	1.26	0.83	8.31

a. Includes nurses and nursing aides.

b. Staffing data from Regional Psychiatric Centre (RPC) has been omitted from the staffing statistics.

c. Staffing data could only be obtained from 5 of the 10 forensic mental health inpatient programs in Ontario. These five programs account for 28.5% of the forensic beds in the province.

d. Staffing data could only be obtained from 2 of the 5 forensic mental health inpatient programs in Quebec. These two programs account for 90.2% of the forensic beds in the province.

e. Missing staffing data from programs in Ontario and Quebec.

A useful way of comparing the availability of forensic mental health inpatient beds between the provinces is to weigh the number of designated forensic beds against the adult general population, the criminally charged population and the mentally disordered accused population of each province (Statistics Canada 2003, 2004; Schneider et al. 2002). Across Canada, less than one (0.61) forensic mental health hospital bed is available for every 10,000 adults in the general population, ranging from 0.37 in Manitoba to 1.08 in Nova Scotia. Therefore, one designated forensic bed must meet the needs of 16,391 adult Canadians – significantly less than the recommended target of 0.96 adult forensic beds per 10,000 adults as was suggested by the Ontario Forensic Mental Health Services Expert Advisory Panel (Ontario 2002). For every 10,000 adults charged with criminal offences in Canada, 31.42 forensic beds are available, ranging from 11.57 beds in Manitoba to 55.28 beds in Nova Scotia. Accordingly, one designated forensic bed exists for every 318 criminally charged adults in Canada. For every 100 mentally disordered accused persons who are under the authority of provincial review boards, 56.14 designated forensic beds are available in Canadian forensic mental health inpatient programs, ranging from approximately 36.09 beds in Quebec to 176.47 beds in Saskatchewan. A summary of these statistics is provided in Table 2.

Discussion

Secure hospital beds are vitally important for the assessment and treatment of mentally disordered accused persons. A forensic system with an adequate level of hospital beds – particularly forensic assessment beds – is essential for the courts and review boards to carrying out of the mental disorder provisions of the *Code*. Provincial forensic mental health programs must ensure that the time it takes to get a mentally disordered accused person into a hospital bed is reasonable and does not rise to the level that violates their *Charter* right to “life, liberty and security” (s. 7) as well as the right “not to be arbitrarily detained or imprisoned” (s. 9). The present study does not make recommendations for forensic bed rate targets, but the findings do supply interprovincial forensic bed rate comparators.

The results of the present study confirm that interprovincial differences in the structure and organization of forensic mental health inpatient programs exist in Canada. Regarding the structure of forensic inpatient programs, the majority of provinces have centralized inpatient services in one or two locations. While Quebec has five sites, it too is quite centralized, with almost 90% of forensic beds in the province located within a single freestanding forensic mental health hospital that serves the entire province. Ontario is the most decentralized system in Canada, with 10 forensic inpatient programs. Ontario has the

Table 2. Bed distribution of Canadian forensic mental health inpatient programs

Jurisdiction	# of Inpatient Programs	# of Designated Forensic Beds	Forensic Beds per 10,000 Adult Population (Rank) (a)	Forensic Beds per 10,000 Adults Charged (Rank) (b)	Forensic Beds per 100 Mentally Disordered Accused Persons (Rank) (c)
BC	1	190	0.57 (4)	29.99 (4)	46.23 (6)
AB	2	112	0.46 (7)	15.80 (8)	99.12 (2)
SK	2	60 (d)	0.80 (2)	16.72 (7)	176.47 (1)
MB	2	33	0.37 (9)	11.57 (9)	44.00 (7)
ON	10	663	0.69 (3)	41.67 (2)	68.63 (4)
QB	5 (e)	327	0.55 (5)	36.87 (3)	36.09 (9)
NB	1	29	0.49 (6)	29.89 (5)	37.18 (8)
NS/PEI	1	92	1.08 (1)	55.28 (1)	91.09 (3)
NF	1	17	0.41 (8)	26.07 (6)	60.71 (5)
CANADA	25	1523	0.61	31.42	56.14

a. Adult (age 18 and over) population statistics for 2004 (Statistics Canada 2004).

b. Adults charged with CCC offences in 2003 (Statistics Canada 2003).

c. Mentally disordered accused persons within review board system in 2001 (Schneider et al. 2002).

d. The Regional Psychiatric Centre (RPC) is used in Saskatchewan to provide maximum-security level services. RPC has 206 beds that are available on demand; however, for the purposes of this analysis, it has been estimated that 15 beds are available to persons adjudicated NCR-MD and unfit to stand trial.

e. This is the reported number of programs in Quebec with designated forensic beds.

largest forensic mental health inpatient program in Canada, with more than twice as many designated forensic beds than Quebec has. The decentralized system in Ontario seems to have created many challenges for coordinating the management of mentally disordered accused persons, establishing standard policies and procedures and collecting province-wide data about the system (Ontario 2002).

The 0.61 forensic beds per 10,000 population in Canada is average in comparison with the forensic bed rate (per 10,000 population) of European countries such as Spain (0.15 beds), England (0.18 beds), Italy (0.22 beds), Germany (0.78 beds), the Netherlands (1.14 beds) and Sweden (1.43 beds) (Priebe et al. 2005). As is to be expected, the forensic bed rate is much lower than the total psychiatric bed rate in Canada, which has been estimated at 19.34 beds per 10,000 population (World Health Organization, 2001). A recent survey conducted by Statistics Canada found that 30% of health professionals that work in the Canadian forensic mental health system were of the opinion that their inpatient programs have enough beds for all mentally disordered accused persons, while 40% of respondents asserted that there are not enough beds in the system (Statistics Canada 2003). Supporting this survey result is the fact that the Canadian forensic bed rate is less than the bed ratio of 0.96 adult forensic beds per 10,000 adults – the recommended target in Ontario (Ontario 2002).

Indeed, the present study reveals that substantial variations in bed availability exist among forensic mental health inpatient programs between the provinces in Canada. The forensic inpatient program in Nova Scotia has the most forensic beds available to the general adult and adult-charged populations and ranks third in the number of forensic beds available to the mentally disordered accused population. Compared with other provinces, Saskatchewan has the most forensic inpatient beds available to its mentally disordered accused population. Manitoba's forensic inpatient program offers the least amount of forensic beds to the general adult and adult-charged populations and ranks among the bottom three provincial programs for the number of beds available to the mentally disordered accused population. This might explain why the total bed occupancy for forensic inpatient programs in Manitoba is 239% – the highest of any provincial program in Canada. Interestingly, the forensic inpatient program of Ontario, where court cases concerning the availability of forensic beds has recently emerged, ranks among the top four provinces for the amount of beds available to all three comparison populations.

The present study reveals important interprovincial differences in the staffing of Canadian mental health inpatient programs. The Quebec forensic inpatient programs provide the most staff (total) per patient and rank highest for the number of psychiatrists/psychologists, social workers and security staff within their forensic programs. British Columbia ranks second

in the total number of staff provided to forensic inpatients and supplies the greatest number of nursing staff to patients compared with other provinces. The lowest-ranked provinces for total staffing of forensic mental health inpatient programs are New Brunswick, Manitoba and Newfoundland. New Brunswick and Newfoundland rank high in their numbers of psychiatrists/psychologists and social workers, but fall short in the number of nursing, security and programs staff within their forensic inpatient programs.

The data produced by the present study does have limitations. First, the survey data was collected in 2005 and is compared to provincial and national population data from previous years. The adult population statistic was from 2004 (Statistics Canada 2004), the numbers of adults charged with criminal offences was from 2003 (Statistics Canada 2003) and the mentally disordered accused person population statistic was generated in 2001 (Schneider et al. 2002). Secondly, the patient census and staffing data reported in this study only represent a one-day snapshot. As well, variation exists between the programs regarding when the survey was completed. Thirdly, patient census and staffing data could not be obtained from every site in Ontario and Quebec. Lastly, the accessibility of beds is impacted by the length of stay of patients in forensic mental health programs, which was not captured within the present study.

Despite these data limitations, the present study has uncovered real inequities in forensic mental health inpatient programs. The availability of forensic inpatient services varies between Canadian jurisdictions. Because of interprovincial differences in the forensic mental health systems, any changes made by way of federal legislation, such as Bill C-10 (2005), will certainly have differential impacts on forensic programs across the country (Arboleda-Florez et al. 2000). Further research is needed to better understand how interprovincial differences in forensic mental health service delivery models affect process- and patient-related variables. With this type of information, health planners, policy makers and hospital directors/managers can make better, more informed, decisions for improving forensic mental health systems. 

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