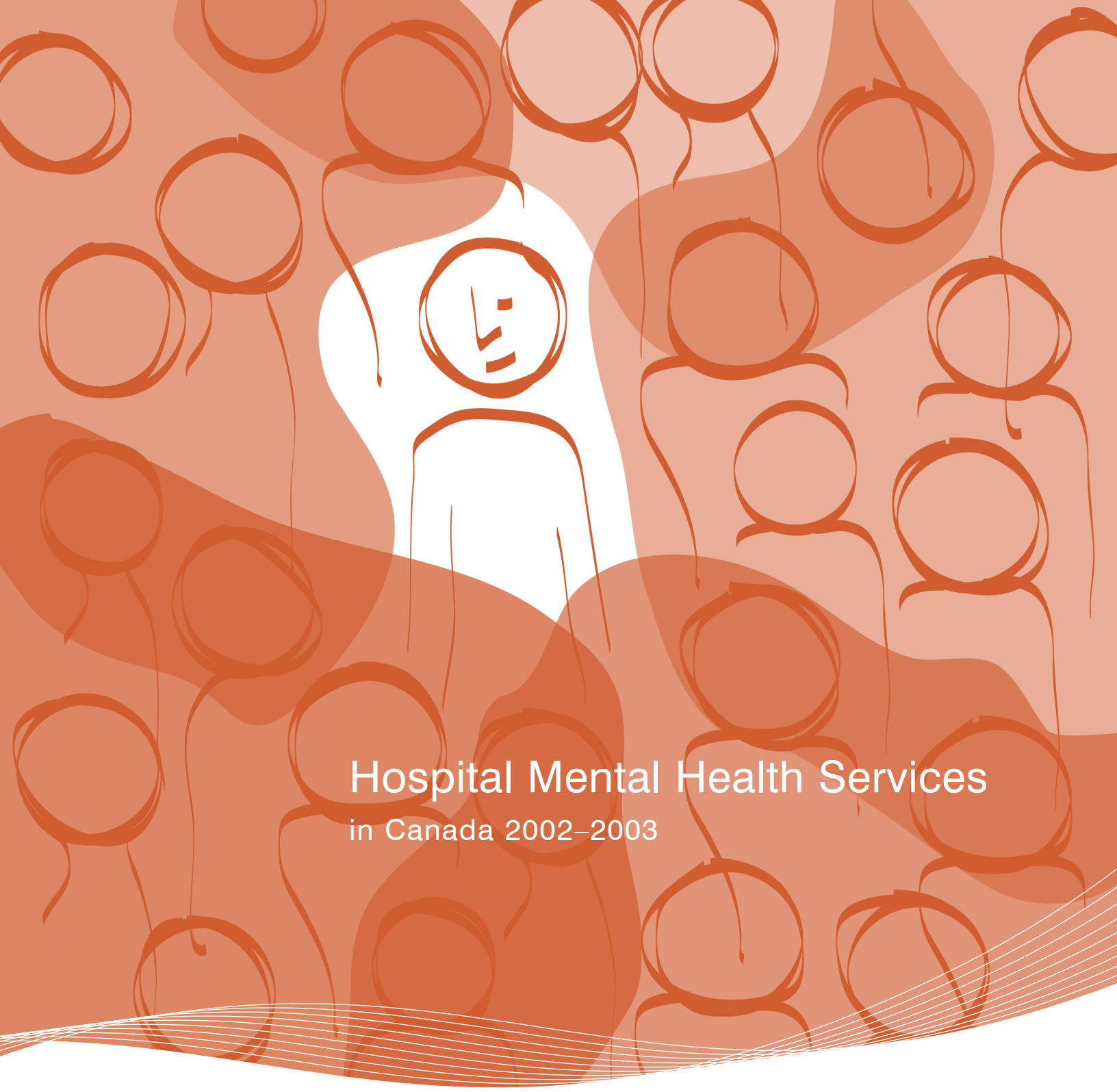

Hospital Mental Health Services

in Canada 2002–2003

Mental Health Services Database

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Hospital Mental Health Services in Canada 2002–2003

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Acknowledgements

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Executive Summary

Focusing on separation rates and lengths of stay, Hospital Mental Health Services in Canada 2002–2003 assesses patterns of hospital service usage and how these vary for different diagnosis categories. Data used in the report are from the Hospital Mental Health Database at the Canadian Institute for Health Information (CIHI). The report will be of interest to policy makers, clinicians, mental health service managers, and Canadians that are interested in health services generally. The report focuses on individuals who were separated from hospital in 2002–2003 following an inpatient stay for a mental illness, covering the separation diagnosis categories of schizophrenia, mood disorders, substance related disorders, personality disorders, anxiety disorders, organic disorders, and other disorders. Given that an inpatient stay is a condition of inclusion, such separations generally represent the most severe among the population of individuals living with mental illness. However, they do not include services received in outpatient or community mental health programs, as comprehensive data for such services are not currently available in Canada.

The nature of inpatient hospital mental health services in Canada is changing. Separation rates have declined (from 715/100,000 population in 1994-1995 to 607/100,000 population in 2002–2003), as have average lengths of stay (from 66 days in 1994-1995 to 41 days in 2002–2003). These changes may be, at least partially, attributable to the greater availability of outpatient, and community-based services, as well as to the availability of more refined medical treatments and medications. It would also appear that shared care and general hospital services have a more prominent role in the provision of mental health services than they did in the past. For example, the proportion of mental health separations that have emerged from general hospitals has increased from 82% in 1982-1983, to 85% in 1992-1993, to 87% in 2002–2003. Separations from stand-alone psychiatric hospitals comprise the remainder, and are therefore declining as a proportion of overall separations.

Overall, hospitalization remains an important part of treatment for mental illness, particularly for individuals whose condition is severe or requires stabilization. Over 190,000 hospital separations with over 7.7 million days stayed were attributable to a primary diagnosis of psychiatric illness in 2002–2003. This amounted to a median length of stay of about 9.0 days. The discrepancy between the median (9 days) and the mean (41 days) length of stay is the result of large variations in terms of days stayed among the population of interest. Indeed this may be traced in large part to differences between psychiatric hospital separations (mean length of stay of 140 days), and those of general hospitals (mean length of stay of 25 days). Thus, the longer lengths of stay in psychiatric hospitals reflect the greater severity of the cases treated there. Whereas psychiatric hospital separations were more likely to be male and to have had a primary diagnosis of schizophrenia, those of general hospitals were more likely to be females and most likely to involve a mood disorder, such as depression. Overall, the majority of hospital separations were with either mood disorders (34%); schizophrenic and psychotic disorders (21%), or substance related disorders (14%).

The importance of hospitalization in the treatment of mental illness extends beyond those individuals whose primary diagnosis is a psychiatric one. Whereas 6% of the 2.8 million general hospital separations in 2002–2003 had a primary diagnosis of mental illness, another 9% of separations (non-psychiatric primary diagnosis) had an associated secondary diagnosis of mental illness. Hospitalization for mental illness is often necessitated by a period of severe mental instability, from which an individual may take a while to recover—even after separation from hospital. Because hospitalization was most likely to occur between the ages of 25 and 54 years, it is notable for its potential to disrupt individuals' lives during their most productive working years.

Those who received hospital services for mental illness appear to differ from those who live with mental illness more generally. For example, although prevalence rates report depression as being several times more common than bipolar disorder, this report suggests that, among primary diagnoses for hospital separations, the latter were in fact more common than the former. It would seem therefore, that the greater severity of symptoms and the greater instability generally associated with bipolar disorder would be more likely to necessitate hospital based treatment.

Although not as prevalent as mood or anxiety disorders (e.g. alcohol and drug dependency), schizophrenia is among the most severe of the mental illnesses, and therefore makes up a large (21%) proportion of hospital mental health separations. It is not surprising then, that schizophrenia separations had among the longest average lengths of stay, and were more likely than any other group of separations to have emerged from a psychiatric hospital. This may reflect the ability of psychiatric hospitals to provide the more specialized care and longer stays required to treat and stabilize individuals with schizophrenia. Schizophrenia also tends to affect males and females differently with a later age of onset among females. This is consistent with the findings of the report. In spite of the gender differences in age of onset/separation, the length of stay for schizophrenia separations was very similar for males and females across age groups.

Although significant in number, substance related disorders had the shortest length of hospital stay among the diagnosis categories. Over one quarter of separations for substance related disorders lasted for one day or less, and over three quarters of separations lasted for one week or less. Substance related disorders were more prominent as a secondary separation diagnosis (with other psychiatric and non-psychiatric primary diagnoses) than as a primary separation diagnosis.

Inter-provincial/territorial comparisons need to be viewed in the context of systemic and structural differences in the provision of hospital mental health services that can make even ordinal comparisons difficult to interpret. This difficulty is compounded by the changes in hospital mental health services that take place over time. With this in mind, it was not surprising to find that, across the provinces and territories separation rates ranged from 1,384 per 100,000 population (Northwest Territories) to 479 per 100,000 population (Nova Scotia).

Foreword

As with the first report on *Hospital Mental Health Services in Canada*, this second iteration of the report attempts to provide an overview of CIHI's pan-Canadian hospital mental health data. In so doing, it is hoped that the report can offer descriptive insight into one part of Canada's mental health services sector.

Fundamental changes to the infrastructure of the mental health care system in Canada as well as changes in the methods of treatment have meant a reduction in hospital-based services. The movement towards deinstitutionalization of psychiatric patients that took place in the 1960's, propelled by advances in psychopharmacological and psychotherapeutic treatments, continues to the present (Wasylenki, 2001; Rae-Grant, 2001). Continual refinements to psychiatric medications (e.g. anti-psychotics and anti-depressants), the evolution of community-based services, and the avoidance of costly hospitalization have meant that the number of individuals that receive psychiatric care through hospitals continues to decline (Figure i), as does the duration of stay for those who are hospitalized (Figure ii). Moreover, there has been a change in the nature of hospital based psychiatric care. Whereas, after World War II, many of those with psychiatric illness were treated in large chronic care psychiatric hospitals, at present 87% of inpatient hospital treatments take place in acute care or general hospitals. This does not, of course, take into consideration the many services rendered by family physicians through shared care arrangements.

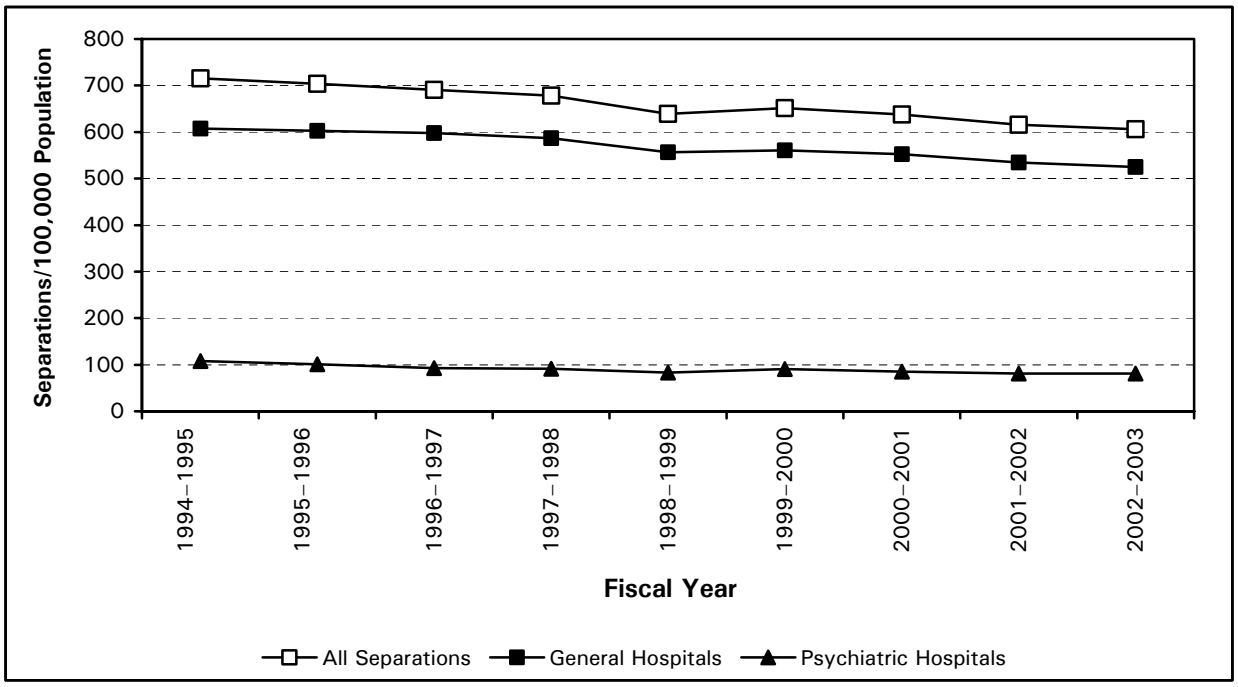

Figure i Hospital Separation Rate* for Mental Illness by Type of Hospital 1994–1995 to 2002–2003

* Crude rates based on the number of separations per 100,000 population. Population counts based on Statistics Canada's population estimates for 2002.

Source: HMHD, CIHI 2005.

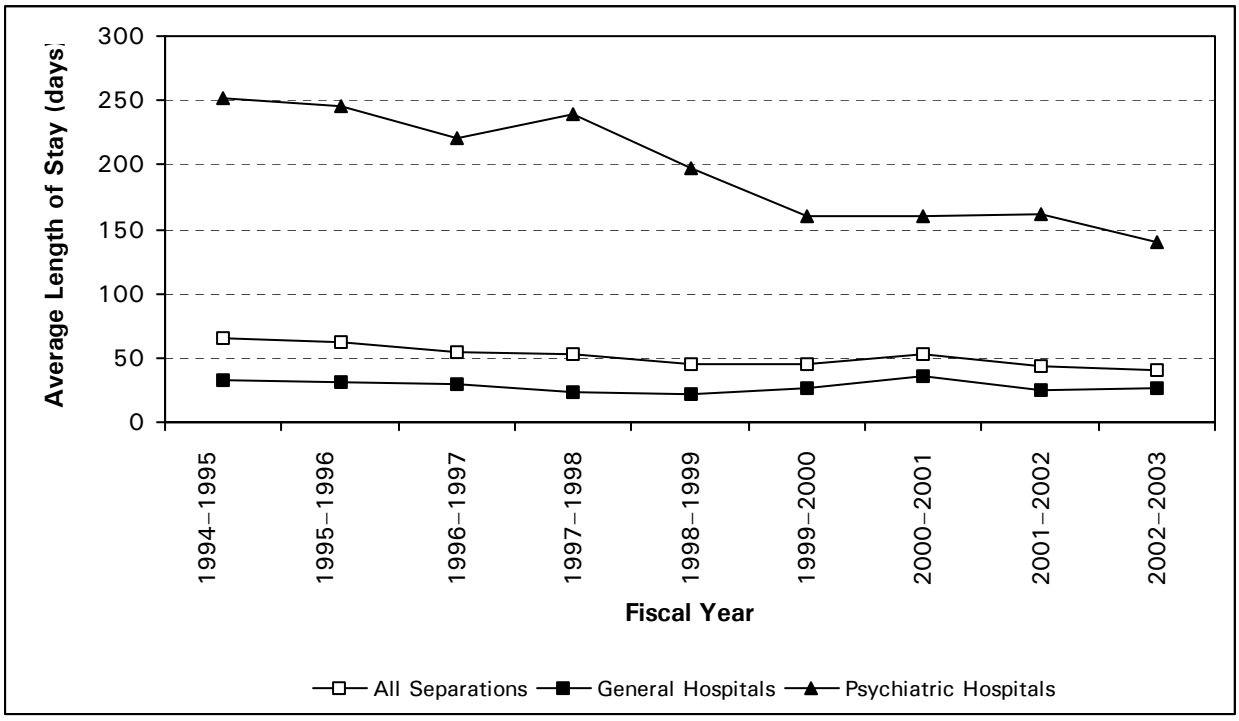

Figure ii Average Length of Stay for Mental Illness by Type of Hospital 1994–1995 to 2002–2003

Source: HMHDB, CIHI 1994–2003.

In spite of the de-emphasis of hospital based treatment that has occurred over the last several decades (Wasylenki, 2001; Randhawa, 1996), hospitalization remains an important and - very often - a vital part of the treatment for mental illnesses. This is particularly true for those individuals whose symptoms are most severe, and for those who are not linked to a system of specialized psychiatric care within their community.

Introduction

Through a focus on separation rates and lengths of stay, the report will assess patterns of hospital service usage and how these have varied for the different diagnosis categories, both from a pan-Canadian perspective, and from the perspective of the provinces and territories. In addition, the report will consider individual diagnosis categories, and how hospital usage for these categories varies by age, gender, and hospital type.

Inclusion Criteria

The analyses in this report are based on data from CIHI's 2002–2003 Hospital Mental Health Database (HMHDB). The HMHDB combines data on psychiatric separations from psychiatric hospitals and general hospitals from all provinces and territories in Canada. For information on a separation to be included in the database, the separations must have occurred in fiscal year 2002–2003. Since the database contains records of events rather than individuals, persons with multiple separations within the fiscal year appear in the database on multiple occasions.

Exclusion Criteria

It is important to note that this report is not intended to provide a comprehensive analysis of mental health services, or even hospital based mental health services. The report focuses on hospital separations that follow a period of inpatient services only. Since it does not include information on those individuals who were admitted but were not separated within the fiscal year, the report does not cover all individuals receiving hospital services for psychiatric illness. Also excluded from this report are those individuals treated for mental illness as outpatients, in residential care facilities or group homes, in day and night centres, and those treated by private practitioners. It also excludes individuals treated in institutions for the mentally disabled, and alcohol/drug treatment agencies. General hospital data in the HMHDB exclude newborns, and inpatients whose residence is outside the province of hospitalization. Psychiatric hospital data include inpatients whose residence is outside the province of hospitalization; no limit is placed on length of stay.

The report is divided into five chapters. Chapter One presents a description of separations, lengths of stay, diagnosis categories, and co-morbid conditions at a pan-Canadian level. Chapter Two offers similar types of analysis, but with a focus on provincial and territorial level data. The last three chapters offer a more detailed exploration of the three most common types of psychiatric diagnoses for hospital separations: mood disorders, schizophrenic and psychotic disorders, and substance related disorders.

Methodological Considerations

The report draws on the 190,563 psychiatric separation records available in the HMHDB for 2002–2003. The records are based on diagnoses within the ICD-9 Chapter V range of 290.0 -319.0, as well as Alzheimer's and Degenerative Diagnoses (331.0–331.2). In terms of ICD-9 categories, this range represents Severely Mentally Ill, Less Severely Mentally Ill, Alcohol and Drug Disorders, and Cognitive Disorders.

Frequencies, measures of central tendency, and measures of dispersion where they are reported, pertain to separations rather than to groups of individuals. This is important to note, since—because individuals can appear in the database on multiple occasions—certain indices may be biased towards those with multiple separations.

For the purpose of comparisons by hospital type, separations were categorized as originating from either a psychiatric or a general hospital. This classification does not completely parallel the traditional chronic/acute dichotomy, and therefore it should be considered that it introduces chronic/acute variance into the measures of length of stay. However, the classification captures a substantive distinction in the type of care provided to those with psychiatric illness.

The diagnosis categories that are utilized in the report are represented in Appendix A, Table A1. Within each category the table also contains various sub-categories, along with their respective ICD-9 codes, and the percentage of the total number of records represented by each. These categories were formed to capture classes of diseases, and are utilized in the first two chapters. In the last three chapters, where disease specific analysis is conducted, the classifications were focused to more particular diagnoses.

Table A2 in Appendix A represents the age categorization that was used throughout the report as well as the percentage of the total number of records represented by each. The age standardization and population rates used throughout the report are based on Statistics Canada's population estimates for 2002.

Finally, although the figures provided here pertain to hospital based treatments, it should be recognized that the majority of treatment for psychiatric illnesses does not occur in an inpatient hospital setting, nor do most individuals with psychiatric illness reside in hospitals. Instead, most individuals with psychiatric illness, function, live, and receive treatment within their respective communities. Thus, it is probably the case that the statistics presented here are representative of the most severe episodes of psychiatric illness.

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Randhawa, J. and Riley, R., (1996). *Mental Health Statistics, 1982–1983 to 1993–1994.* Health Reports, 7, pp. 55–56.

Wasylenki, D., (2001). *The paradigm shift from institution to community.* In Q. Rae-Grant (Ed.), Psychiatry in Canada: 50 Years. Ottawa: Canadian Psychiatric Association.

Chapter One—Pan-Canadian Perspective

This chapter provides a pan-Canadian-level perspective on separations and length of stay for the seven diagnosis categories that comprise the HMHDB 2002–2003. The chapter provides a general sense of the magnitude of service usage across diagnoses and a number of other demographic variables. To provide such a perspective, these analyses must cut across provincial and regional level variations in health policy, service delivery models, and a host of other variables. This report does not attempt to comment on these variations. Rather, readers are advised to consider the existence of these variations when examining the data, and before drawing major conclusions from them.

Over 190,000 hospital separations from general and psychiatric hospitals were attributable to a primary diagnosis of psychiatric illness in 2002–2003. The prominence of psychiatric illness among hospital medical services generally is demonstrated by the fact that almost 6% of the 2.8 million separations from general hospitals were associated with a primary diagnosis of psychiatric illness. When these separations are combined with those non-psychiatric separations that have an associated psychiatric co-morbid diagnosis, the figure rises to over 15%.[1]

Individuals separated with a primary diagnosis of psychiatric illness stayed over 7.7 million days in hospital. This amounted to an average length of stay (ALOS) of about 40.8 days per separation, and a median length of stay of about 9.0 days. The discrepancy between average or mean length of stay and the median length of stay indicates that the former was inflated by a few large values. Indeed, the number of hospital days stayed ranged from 1 (which was the length of stay for 12.6% of all separations and the most common length of stay), to almost 25,000 days. Over 45% of separations lasted for one week or less; over 82% lasted one month or less; and over 99% lasted one year or less.

The range and variation in length of stay may be a result of a number of factors, including variations in the severity, impact, and course of different illnesses. They may also reflect differences in the type of treatment received, as well as the availability of treatment facilities or resources. For instance, an individual diagnosed with major depressive disorder might be admitted to hospital, his condition stabilized, and then released to outpatient treatment within the course of several days. By contrast, a person diagnosed with schizophrenia may require a longer stabilization period, or may have more difficulty finding an adequate outpatient treatment program, and therefore would have a longer stay in hospital.

Table 1.1 contains the number and percentage of separations, and the median, average (mean), and total length of stay for the 7 diagnosis categories that comprise the HMHDB.[2] Separations for mood disorders were the most common. A column reporting the 1% trimmed mean for length of stay was also included in order to offer a perspective on the average length of stay when the largest values were removed.

1. Figures based on 2002–2003 data form the Canadian Institute for Health Information's Hospital Morbidity Database.
2. A breakdown of the seven diagnosis categories is provided in Table 1 in Appendix A.

The HMHDB data indicate that the largest proportion of separations (over one third) were associated with mood disorders. This category includes bipolar disorder and depression. Twenty percent of all separations were attributable to bipolar disorder, and 13.6% were attributable to depression. The next largest category in terms of number of separations was schizophrenic and psychotic disorders with 21.4%. Primary separation diagnoses for schizophrenia alone constituted 16.5% of all separations.

Table 1.1. Separations, Percentage of Separations, Median Average Length of Stay, Average Length of Stay, 1% Trimmed Mean Length of Stay, Total Length of Stay by Diagnosis Category, 2002–2003

Diagnosis Category	Separations	Percentage of Separations	Median LOS (Days)	ALOS (Days)	1% Trimmed Mean LOS (Days)	Total LOS (Days)
Organic Disorders	17,013	8.9	20.0	53.0	37.0	**902,431.0**
Substance Related Disorders	26,476	13.9	4.0	11.2	8.1	**297,240.0**
Schizophrenic and Psychotic Disorders	40,731	21.4	15.0	63.0	31.5	**2,567,979.0**
Mood Disorders	64,157	33.7	11.0	20.9	17.1	**1,339,782.0**
Anxiety Disorders	7,481	3.9	4.0	11.2	9.8	**83,716.0**
Personality Disorders	7,966	4.2	4.0	13.4	9.2	**106,801.0**
Other	26,739	14.0	5.0	92.5	14.9	**2,472,981.0**
Total	**190,563**	**100.0**	**9.0**	**40.8**	**18.7**	**7,770,930.0**

Source: HMHDB, CIHI, 2002–2003.

Of the total days stayed, the largest proportion (33.0%) was associated with Schizophrenic and Psychotic disorders. The "Other" category accounted for 31.8% of total days stayed and also had the highest average length of stay (92.5 days). The majority of the days stayed for the "Other" category, and about 23.0% of the total days stayed were attributable to separations associated with mental retardation and autism. The average length of stay was 14.9 years among those separations that were associated with the more severe forms of mental retardation, and 3.1 years among those that were associated with autism.

The median length of stay and the 1% trimmed mean length of stay presented in Table 1.1 offer indices of central tendency for length of stay that reduce the impact of relatively large values. Using these indices, length of stay appears to be longest for separations associated with organic disorders as well as schizophrenic and psychotic disorders. Length of stay are shortest for separations associated with substance related disorders and personality disorders.

To provide a sense of the characteristics of inpatient mental health service institutions, the data were categorized as having been derived from either general or psychiatric hospitals. The categorization may have been made validly using other groupings (acute and chronic), however it was felt that the General/Psychiatric dichotomy would offer comparative perspectives on the provision of inpatient hospital mental health services that are focused uniquely on psychiatric patients and those that are not so focused.

Hospital Type

Overall 165,191 separations occurred in general hospitals and 25,372 occurred in psychiatric hospitals. These represent 86.7% and 13.3% of the total respectively. Table 1.2 presents some comparisons of the separations that emerged from the two types of hospitals.[3] Psychiatric hospitals appear to have had proportionately more separations by males, whereas general hospital separations were more often for females. This may be explained, at least in part, by the large proportion of separations associated with schizophrenic and psychotic disorders, which had a higher proportion of males than females. The proportions reported in Table 1.3. suggest that these disorders were more likely than others to be treated in psychiatric hospitals.

By order of size, the percentages of separations for the age groups are similar for general and psychiatric hospitals (Table 1.2). For both hospital types, the largest proportion of separations were in the 25 to 44 year age group, and the smallest were in the 0 to 14 year age group. However, as compared to psychiatric hospitals, a larger proportion of general hospital separations were from the youngest and oldest age categories. In spite of the larger proportion of separations over the age of 65 years from general hospitals, a smaller proportion of general hospital separations were based death in comparison with psychiatric hospital separations. Also, a larger proportion of psychiatric hospital separations were associated with at least one psychiatric comorbid condition than was the case for general hospital separations.

Table 1.2 General Characteristics of the Populations by Hospital Type, 2002–2003

	General Hospital	Psychiatric Hospital	Total
Mean Age (years)	44.3	42.9	**44.1**
Male (%)	46.4	56.1	**47.7**
Age Group (%)			
0–14	3.5	1.6	**3.2**
15–24	15.5	14.5	**15.3**
25–44	37.3	42.7	**38.0**
45–64	25.3	27.8	**25.6**
65+	18.5	13.4	**17.9**
Death in Hospital (%)	0.8	1.3	**0.9**
With at Least One Psychiatric Comorbid Condition (%)	43.5	48.2	**44.1**

Source, HMHDB, CIHI, 2002–2003.

3. The discussion of observed differences is not intended to imply statistical significance.

Table 1.3 Percentage of Separations by Diagnosis Category for General and Psychiatric Hospitals, 2002–2003

	General Hospitals	Psychiatric Hospitals
Organic Disorders	93.2	6.8
Substance Related Disorders	84.8	15.3
Schizophrenic and Psychotic Disorders	80.8	19.2
Mood Disorders	89.4	10.6
Anxiety Disorders	87.7	12.3
Personality Disorders	87.3	12.7
Other	86.4	13.6

Source: HMHDB, CIHI, 2002–2003.

Figures 1.1 and 1.2 offer a perspective on the occurrence of diagnoses by hospital type. Differences in the proportion of separations by diagnosis are notable. For general hospitals, separations were most often associated with mood disorders (34.7%) and schizophrenic and psychotic disorders (19.9%). For separations from psychiatric hospitals the order for the two categories was reversed, as separations associated with schizophrenic and psychotic disorder were more prevalent (30.9%) than those associated with mood disorders (26.7%).

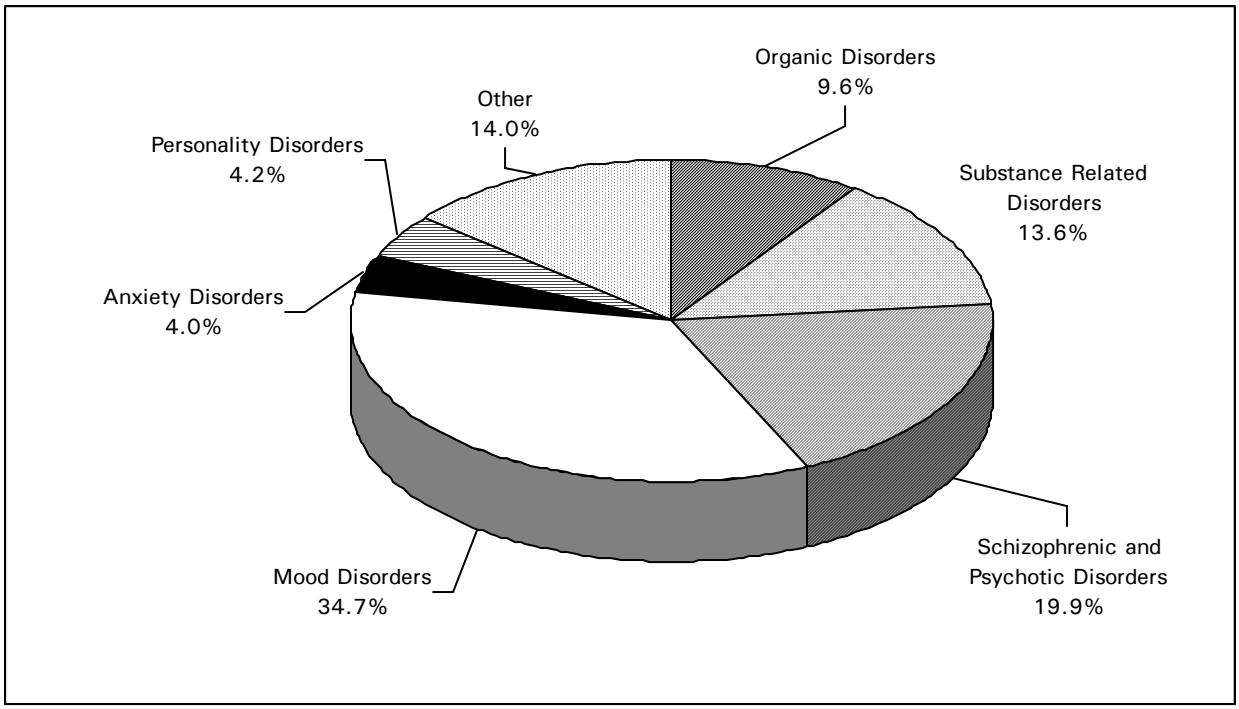

Figure 1.1 Percentage of Separations by Diagnosis Category for General Hospitals, 2002–2003

Source: HMHDB, CIHI, 2002–2003.

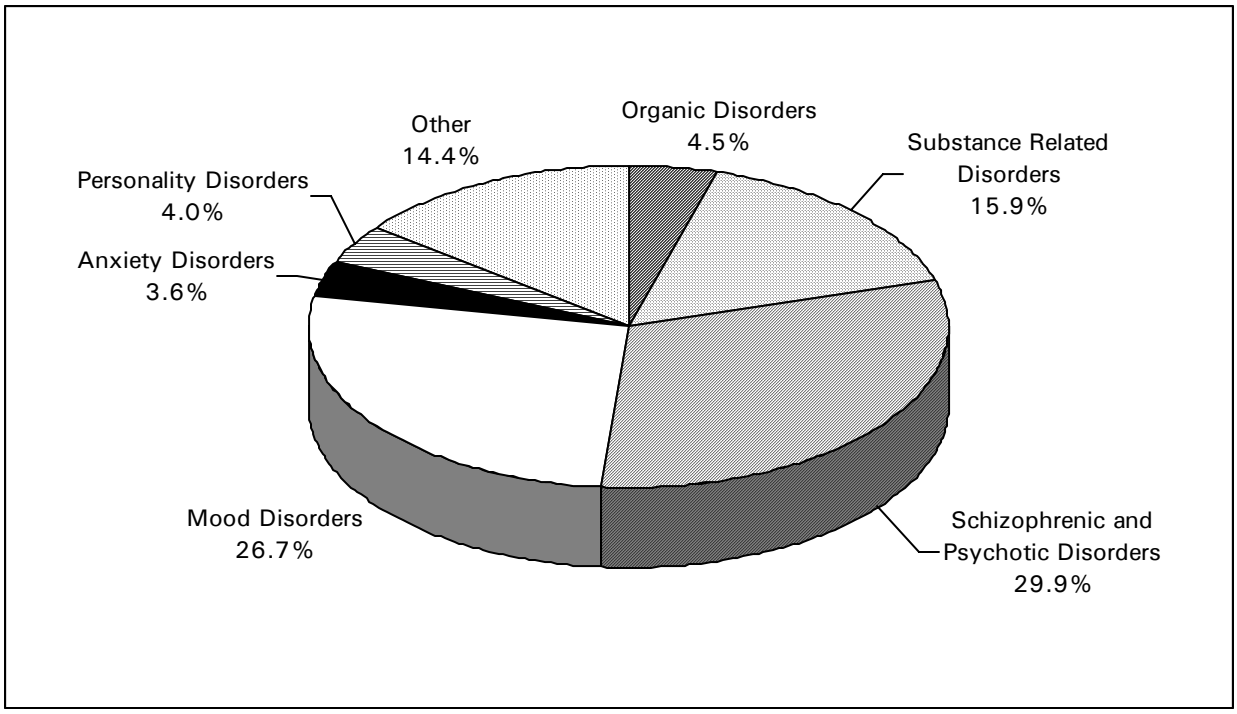

Figure 1.2 Percentage of Separations by Diagnosis Category for Psychiatric Hospitals, 2002–2003

Source: HMHDB, CIHI, 2002–2003.

Differences between psychiatric and general hospitals were also evident in the diagnosis categories responsible for length of stay. Figures 1.3 and 1.4 illustrate that whereas the largest proportion of days stayed in general hospitals were associated with separations in the "Other" category (38.5%), Mood Disorders (28.7%), and Schizophrenia and Psychotic Disorders (19.3%) respectively, in psychiatric hospitals Schizophrenia and Psychotic Disorders accounted for the largest proportion of days stayed (49.5%), followed by "Other" (23.9%), and Mood Disorders (12.0%).

The large proportion of hospital days stayed in general hospitals attributable to "Other" diagnoses prompted further investigation of the data, and provided an example of the impact of systemic changes on indicators of service usage. The investigation of proportion of total days stayed for females revealed that the unusually high proportion attributable to "Other" diagnoses was largely due to the closure of a facility that housed females with severe intellectual deficits, and the integration of these individuals into the community and other facilities.

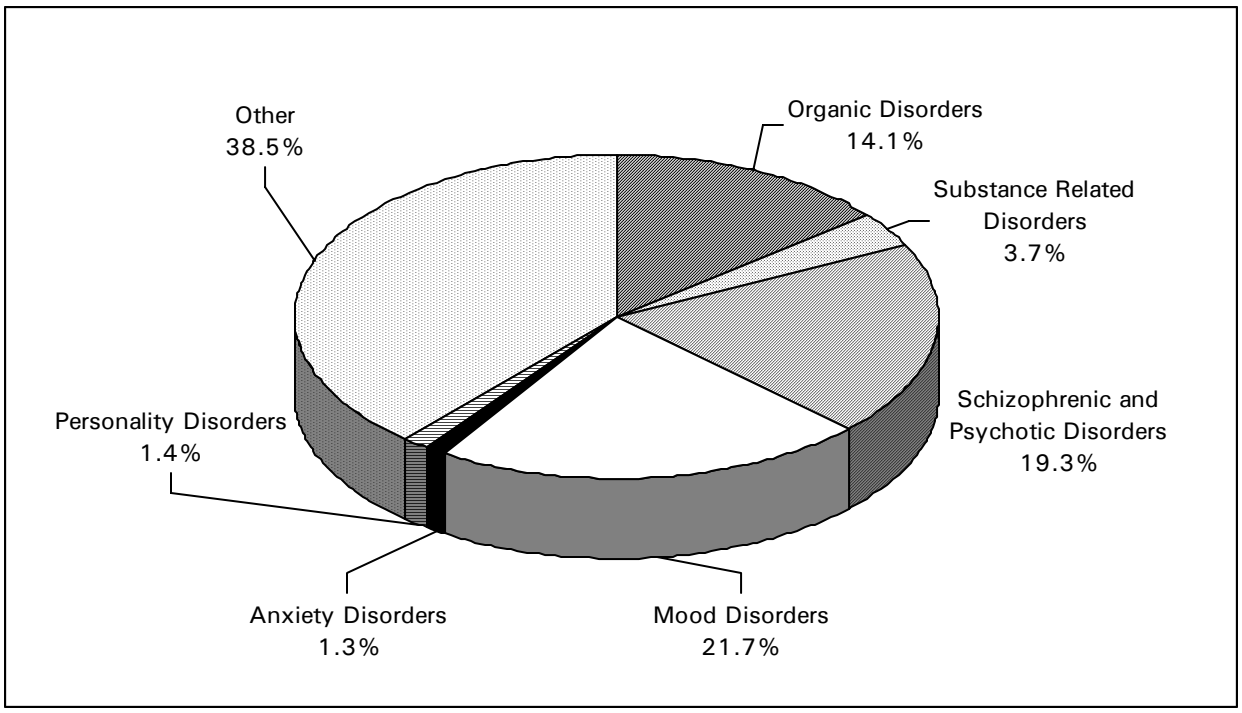

Figure 1.3 Percentage of Length of Stay by Diagnosis Category for General Hospitals, 2002–2003

Source: HMHDB, CIHI, 2002–2003.

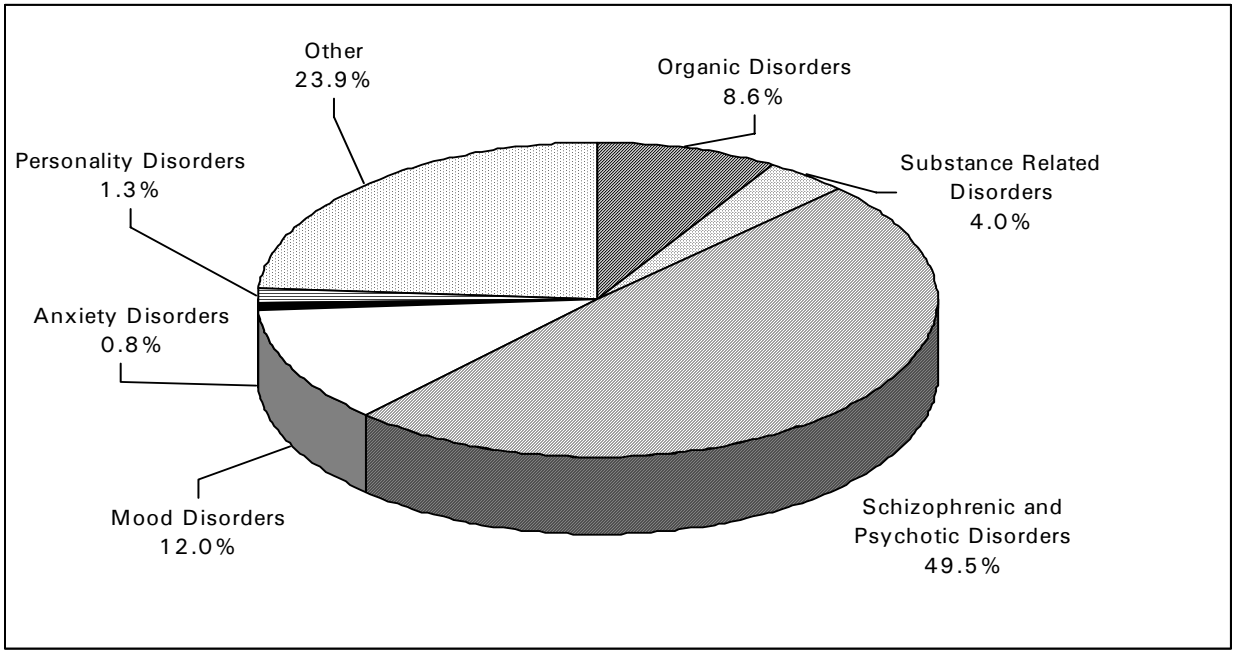

Figure 1.4 Percentage of Length of Stay by Diagnosis Category for Psychiatric Hospitals, 2002–2003

Source: HMHDB, CIHI, 2002–2003.

Age

Table 1.4 provides a breakdown of the major diagnosis categories by age group, and accordingly allows for an assessment of the most common separations. Among those between 0 and 14 years, the most common separation diagnosis category was "Other", which includes conduct disorder, attention deficit disorder, and anorexic disorder among other disorders that are most prevalent in childhood. Within the 15 to 24, 25–44, and 45–64 categories, mood disorders was the most common separation diagnosis category. In the 65 and over age group, organic disorders (which includes Alzheimer's) was the most common diagnosis category.

Table 1.4 Percentages of Separations for Each Diagnoses Category by Age Group, 2002–2003

Age (Years)	0–14	15–24	25–44	45–64	65+
	% N = 6117	% N = 29206	% N = 72431	% N = 48803	% N = 34006
Organic Disorders	0.4	0.4	0.7	2.4	44.8
Substance Related Disorders	4.8	12.6	16.2	16.5	8.0
Schizophrenic and Psychotic Disorders	2.9	22.9	26.5	22.9	10.3
Mood Disorders	21.0	31.8	34.5	40.7	25.7
Anxiety Disorders	6.6	4.6	3.8	3.5	3.7
Personality Disorders	1.3	6.1	5.8	3.5	0.8
Other	63.0	21.7	12.6	10.6	6.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: HMHDB, CIHI, 2002–2003.

Table 1.5 presents the proportion of total days stayed in each of the five age groups broken down by the seven diagnosis categories, as well as the median length of stay. Except for the 0–14 and 65 and over age groups, the pattern for length of stay was somewhat different from that for separations, in that the diagnosis category that accounts for the largest proportion of separations is not the one that accounts for the largest proportion of days stayed. For the 15–24, 25–44, and 45–64 age groups, although the largest proportion of separations was associated with mood disorders, it was schizophrenic and psychotic disorders that accounted for the largest proportion of days stayed. For all age groups separations for schizophrenia and psychotic disorders had the longest median days stayed.

Table 1.5 Percentage of Total Length of Stay and Median Length of Stay for Each Diagnoses Category by Age Group, 2002–2003

Age	0–14		15–24		25–44		45–64		65 +	
	% N = 1409214	Median	% N = 966005	Median	% N = 2314987	Median	% N = 1607037	Median	% N = 1473687	Median
Organic Disorders	0.0	3.5	0.7	9.0	1.6	9.0	7.5	14.0	50.0	21.0
Substance Related Disorders	0.1	1.0	3.2	3.0	4.3	4.0	7.0	4.0	3.6	7.0
Schizophrenic and Psychotic Disorders	5.0	11.5	45.4	15.0	50.7	14.0	40.8	16.0	15.5	21.0
Mood Disorders	1.2	7.0	13.4	7.0	18.7	9.0	28.3	12.0	20.8	19.0
Anxiety Disorders	0.4	6.0	1.4	4.0	1.4	4.0	1.2	5.0	0.9	4.0
Personality Disorders	0.1	3.0	1.8	4.0	2.0	4.0	2.1	5.0	0.5	10.0
Other	93.2	7.0	34.2	4.0	21.5	4.0	13.0	6.0	8.7	13.0
Total	**100.0**	**7.0**	**100.0**	**6.0**	**100.0**	**7.0**	**100.0**	**9.0**	**100.0**	**18.0**

Source: HMHDB, CIHI, 2002–2003.

Gender

Figures 1.5 and 1.6 represent the proportions of separations by diagnosis for males and females respectively. They indicate that separations associated with mood disorders were the most common for both males and females. However, a larger proportion of female separations were associated with mood disorder than was the case for male separations. Conversely, separations for schizophrenic and psychotic disorders, and for substance related disorders were more common among males than females.

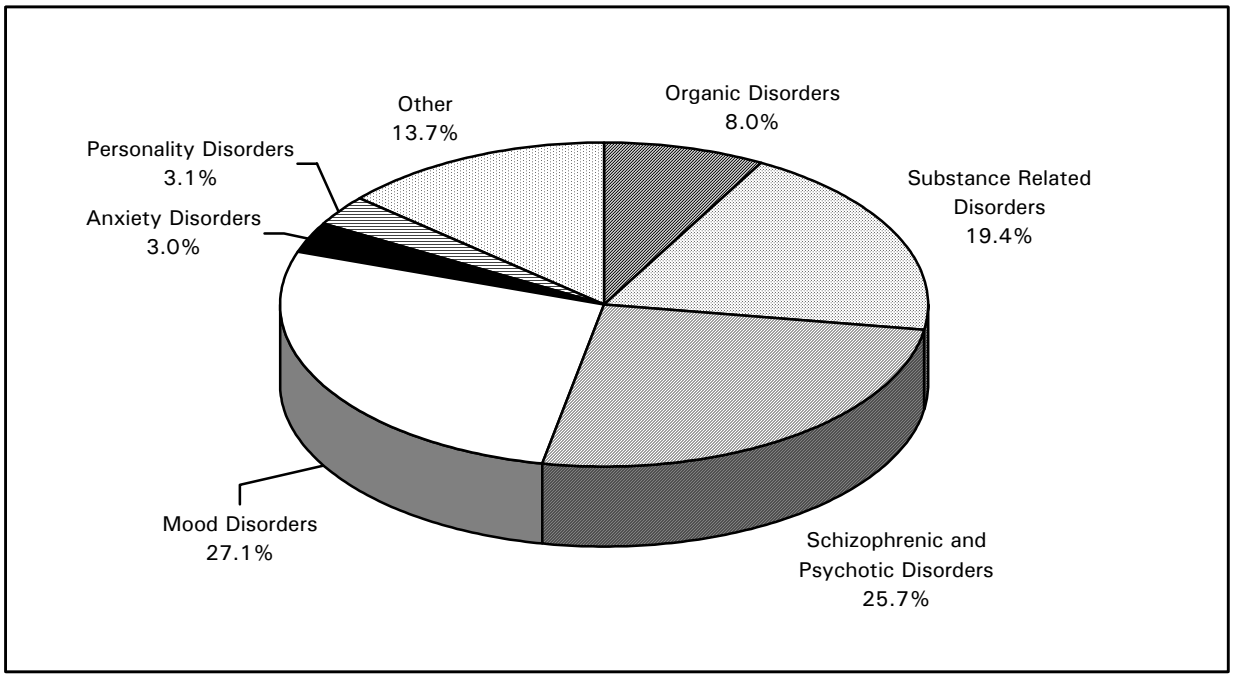

Figure 1.5 Percentage of Separations by Diagnoses Category for Males, 2002–2003

Source: HMHDB, CIHI 2002–2003.

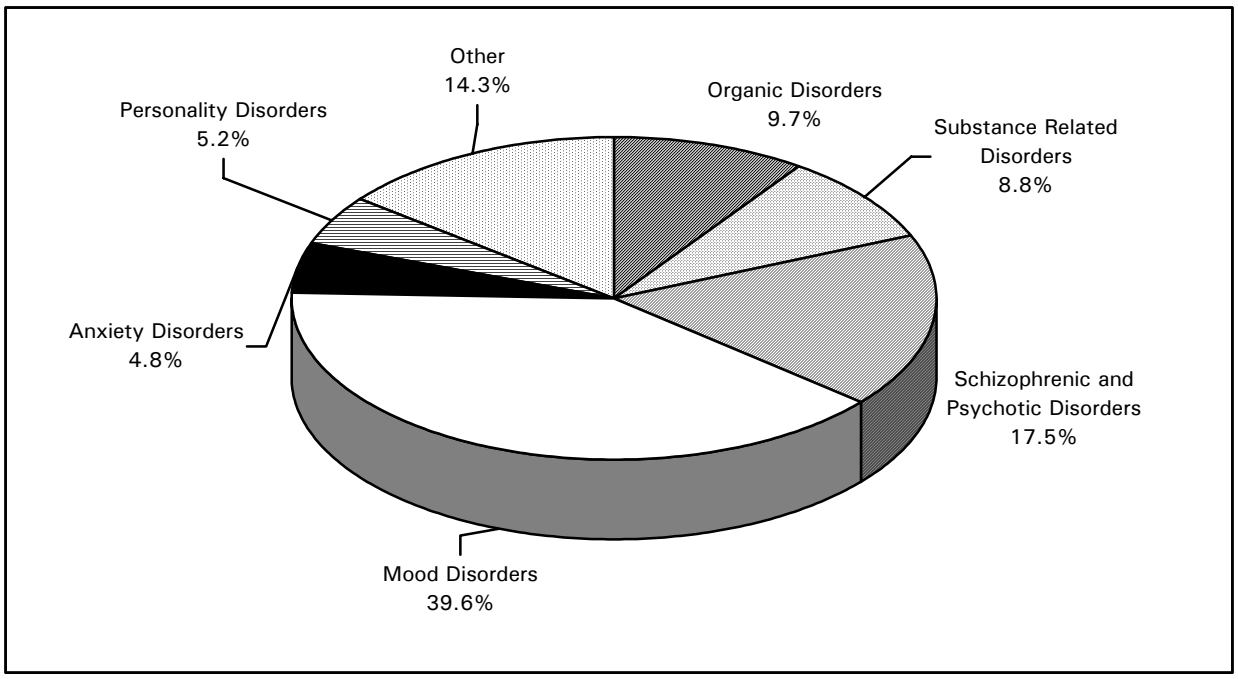

Figure 1.6 Percentage of Separations by Diagnoses Category for Females, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Figures 1.7 and 1.8 provide a similar comparison in terms of length of stay. The largest proportion of hospital days stayed among males was for separations associated with schizophrenic and psychotic disorders (44.8%), followed by separations for "Other" disorders (19.3%), and separations for mood disorders (14.9%). For females, the largest proportion of hospital days stayed was due "Other" disorders (41.6%), followed by separations for schizophrenic and psychotic disorders (23.8%), and separations for mood disorders (19.1%).

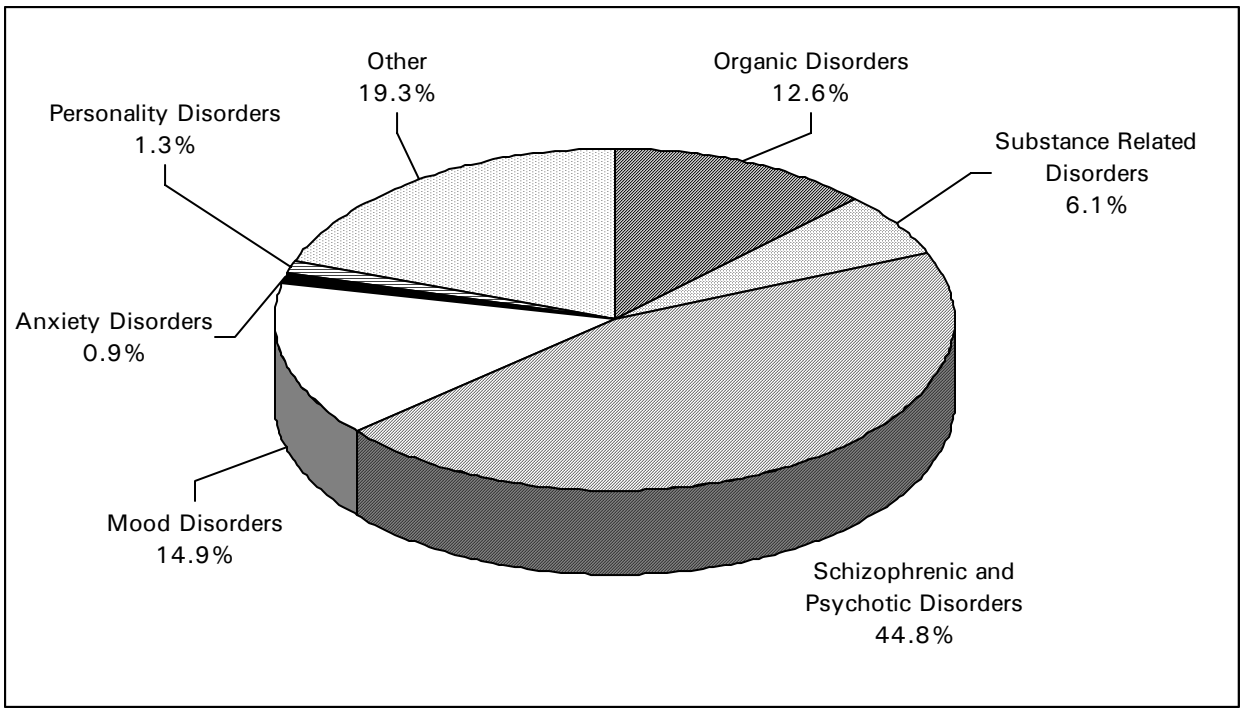

Figure 1.7 Percentage of Length of Stay by Diagnosis Category for Males, 2002–2003

Source: HMHDB, CIHI 2002–2003.

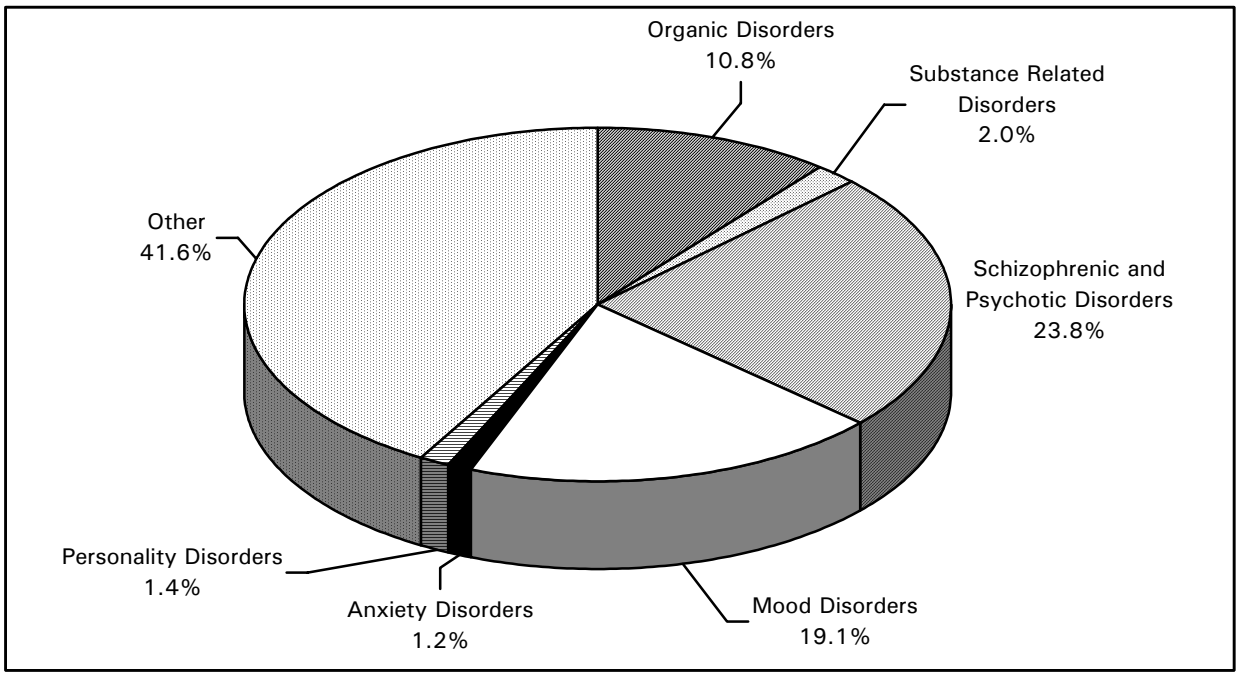

Figure 1.8 Percentage of Length of Stay by Diagnosis Category for Females, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Co-Occurring Disorders

This discussion of hospital services for psychiatric conditions would not be complete without a consideration of those separations that included psychiatric diagnoses that were not the primary diagnosis. Of over 2.8 million separations from general hospitals, 5.9% had a psychiatric primary separation diagnosis, and another 10.5% had a non-psychiatric primary diagnosis but a psychiatric secondary psychiatric diagnosis.[4] Figure 1.9 contains a breakdown by diagnosis category of the proportion of all general hospital separations that were attributable to a primary diagnosis of psychiatric illness, a non-psychiatric primary diagnosis and a psychiatric secondary diagnosis, and the total proportion of separations associated with a psychiatric diagnosis. For all but two of the diagnosis categories, the proportion of separations where a psychiatric diagnosis was a secondary diagnosis exceeds the proportion where it was a primary diagnosis. The pattern highlights the presence of psychiatric conditions in hospitalizations for illnesses that are principally non-psychiatric. Substance related disorders, for instance, were found to co-occur with a number of non-psychiatric conditions that require hospital services.

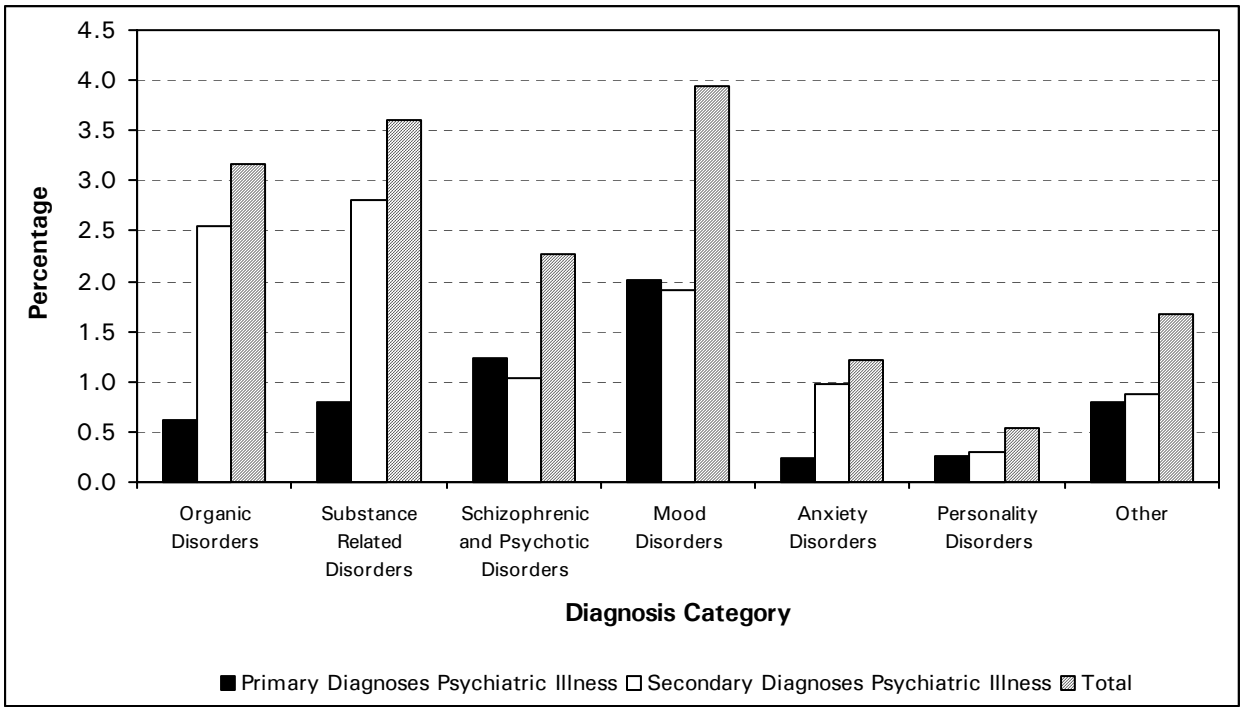

Figure 1.9 Percentage of Co-Occurring Psychiatric Disorders by Diagnoses Type for General Hospitals, 2002–2003

Source: HMHDB, CIHI 2002–2003.

4. A psychiatric secondary diagnosis refers to any diagnosis, from the second through the twenty-fifth, that is categorized as psychiatric.

Summary

The analyses in this chapter give a sense of the overall magnitude of hospital services for the seven diagnosis categories, and the variations that were observed when the data were categorized by hospital type, age, and gender. Overall the large majority of separations were from general hospitals. However despite making up only 13.3% of the total, separations from psychiatric hospitals accounted for 45.6% of all hospital days stayed. Also general and psychiatric hospitals differed in the type of diagnoses that constituted the largest proportion of separations. The largest proportion of separations from general hospital had a mood disorder as a primary diagnosis, whereas for psychiatric hospitals schizophrenic and psychotic disorders made up the largest category of separations. Finally, hospital separations in which a psychiatric diagnosis was involved as either a primary or a secondary diagnosis comprised 16.4% of all general hospital separation. This first chapter offers a high level analysis of the data on hospital separations and lengths of stay. More detailed analyses follow, and will examine the nature of some of the differences introduced here. For instance, not only are gender differences between schizophrenia and mood disorders evident in the number of separations and length of stay, but—as later analyses will indicate—gender differences also exist in the expression of the disorders.

Chapter Two—Provincial/Territorial Perspective

The provincial/territorial level analyses provided in this chapter present differences in the prevalence and duration of hospitalization across jurisdictions. In most cases, both crude and age standardized rates are provided. It should be considered that variations that are observed across jurisdictions might be attributable to structural differences such as the availability of certain services, as well as to more purely epidemiological reasons. For instance, provincial and territorial separation counts can be influenced by the availability of psychiatric services. In the territories, where there are no psychiatric hospitals, those who require care for serious and chronic mental illnesses must acquire it in general hospitals, in the provinces, or not at all. The comparisons between provinces/territories should be made cautiously, and should be interpreted with these differences in mind.

Separation frequencies and rates for the provinces/territories are presented in Table 2.1. The total number of separations associated with mental illness varied from close to 70,000 in Ontario, to under 200 in the Yukon. Over half of the total psychiatric hospital separations and over one third of the total general hospital separations occurred in Ontario.

The age standardized separation rates reflect the degree of variation in the numbers separated per 100,000 population for each jurisdiction. The total age standardized separation rate for Prince Edward Island represented the highest among the twelve jurisdiction, whereas that of Nova Scotia represented the lowest in Canada. Among the separations from psychiatric hospitals, the age standardized rate ranged from 246 per 100,000 population in Newfoundland and Labrador to 17 per 100,000 population in British Columbia among those jurisdictions that had at least one such hospital. Finally, for general hospital separations, the age standardized rate ranged from 1,384 per 100,000 population for the Northwest territories, to 397 per 100,000 population for Newfoundland and Labrador. Among the jurisdictions that had at least one psychiatric hospital, Newfoundland and Labrador had the largest proportion of its total separations from psychiatric hospitals (38%) whereas British Columbia had the smallest proportion of its separations from psychiatric hospitals (3%).

Table 2.1 Separation Frequencies and Rates by Hospital Type and Province/Territory, 2002–2003

	Psychiatric Hospitals		General Hospitals		Total Hospitals	
	Number of Separations	Age Standardized Rate*/100,000	Number of Separations	Age Standardized Rate*/100,000	Number of Separations	Age Standardized Rate*/100,000
N.L.	1,296	246	2,090	397	3,386	643
P.E.I.	258	195	1,491	1,085	1,749	1,276
N.S.	565	60	3,990	419	4,555	479
N.B.	197	26	5,489	715	5,686	742
Que.	5,241	69	39,958	531	45,199	600
Ont.	13,558	112	55,859	463	69,417	575
Man.	496	44	7,362	637	7,858	681
Sask.	204	22	6,002	609	6,206	631
Alta.	2,861	93	17,277	567	20,138	660
B.C.	696	17	24,975	598	25,671	615
Y.T.	-	-	188	607	188	607
N.W.T.	-	-	510	1,384	510	1,384
Nun.[1]	-	-	-	-	-	-
Canada	**25,372**		**165,191**		**190,563**	

*Based on Statistics Canada's Canadian Population Estimates for 2002–2003.
[1] Nunavut did not report to DAD/HMDB in 2002–2003.

Source: HMHDB, CIHI 2002–2003.

The relative prevalence of diagnoses across jurisdictions showed a pattern that was consistent with the pan-Canadian figures discussed in Chapter 1. In 11 out of the 12 jurisdictions that reported data, separations associated with mood disorders were the most common category of diagnosis (Figure 2.1). The sole exception was the Northwest Territories, where substance disorders were associated with the largest proportion of separations. The proportion of separations associated with mood disorders ranged from 43.6% in the Yukon Territory, to 24.9% in the Northwest Territories.

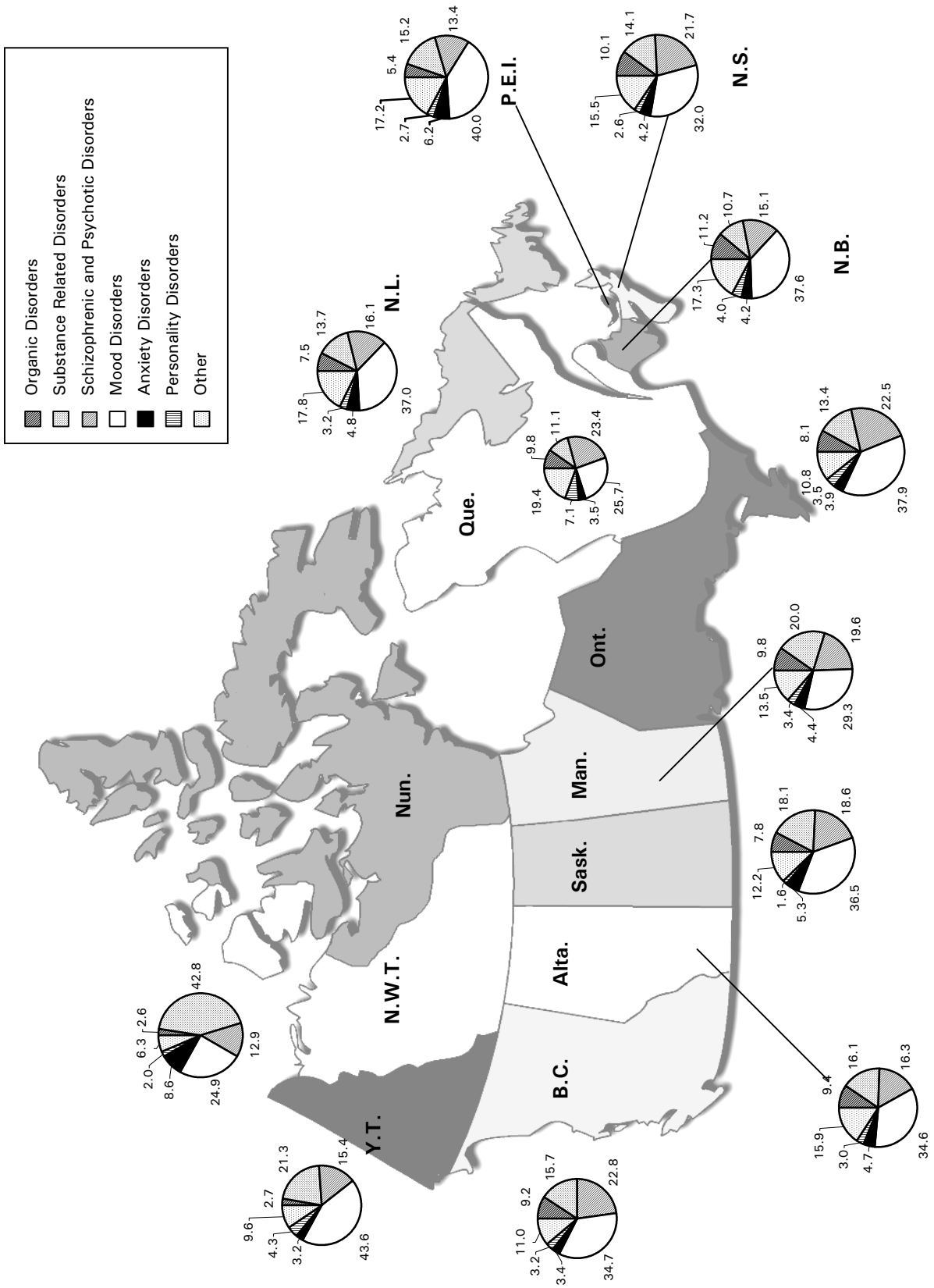

Figure 2.1 Proportion of Separations by Province/Territory

After mood disorders, there was some variation across jurisdictions in the rate of separations among the remaining diagnosis categories. Schizophrenic and psychotic disorders were the second most common overall, and—after mood disorders—make up the highest proportion of separation diagnoses in 6 of the 12 provincial\territorial jurisdictions. The proportion of separations associated with schizophrenic and psychotic disorders ranged from 23.4% in Quebec to 12.9% in the Northwest Territories.

These proportions corresponded with the age standardized separation rates provided in Figure 2.2 for the three most common diagnosis categories. The age standardized rates for mood disorders were highest, followed by the rates for schizophrenic and psychotic disorders. However, in a number of jurisdictions, substance related disorders were also prominent.

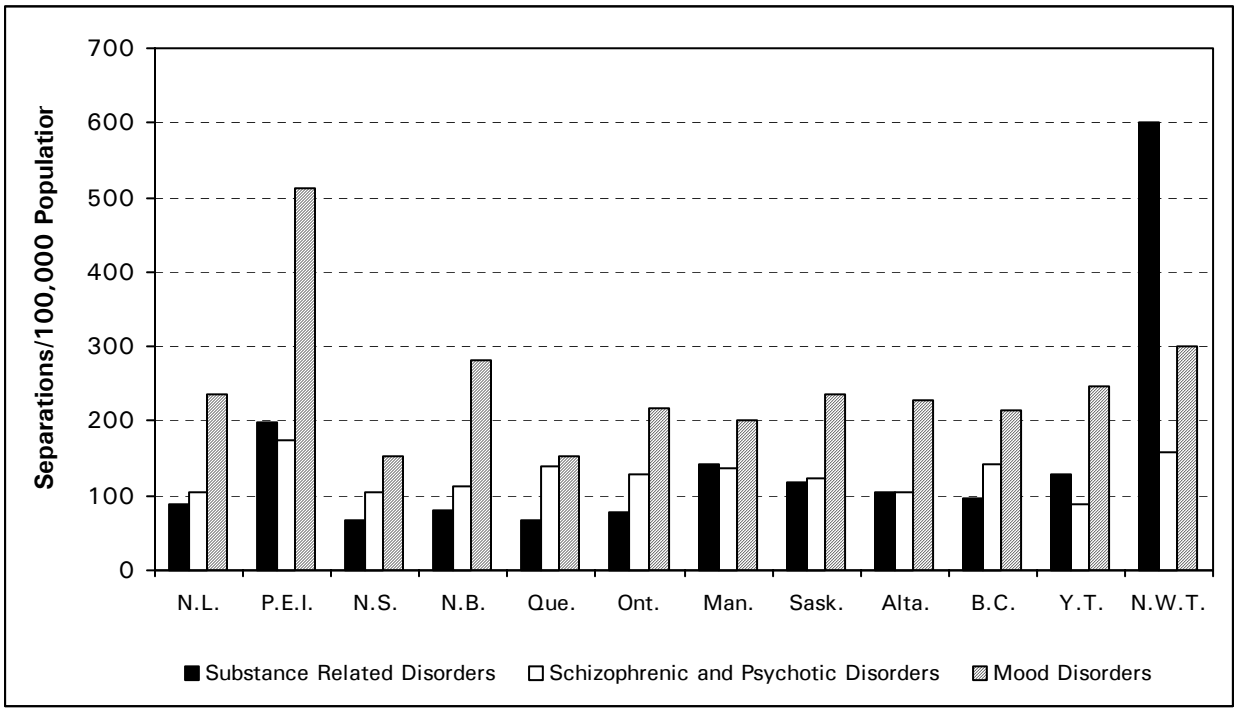

Figure 2.2 Age Standardized Separation Rates per 100,000 Population by Diagnoses Category for the Provinces and Territories, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Some jurisdictional variations based on the facilities in which mental health services were provided were also evident. For instance, 36.8% of separations associated with schizophrenic and psychotic disorders in Newfoundland and Labrador were from general hospitals, whereas in British Columbia the proportion from general hospitals for the same group was 93.7%. Within provincial jurisdictions, variations in how and where psychiatric illnesses are treated also exist at the regional levels. Differences can be particularly pronounced when rural and urban regions are compared, however such a comparison will not be undertaken here, as it would be beyond the scope of the current report.

Table 2.2 Total Patient Days and Average Length of Stay Related to Mental Illness Separations, 2002–2003

	Psychiatric Hospitals			General Hospitals			Total Hospitals		
	Total Days	ALOS*	Median LOS	Total Days	ALOS	Median LOS	Total Days	ALOS	Median LOS
N.L.	98,236	76	18	44,207	21	9	142,443	42	12
P.E.I.	4,841	19	11	17,436	12	6	22,277	13	6
N.S.	35,157	62	17	65,847	17	7	101,004	22	7
N.B.	62,400	317	28	91,744	17	8	154,144	27	8
Que.	1,281,245	244	25	2,374,324	59	11	3,655,569	81	12
Ont.	1,138,652	84	26	717,431	13	7	1,856,083	27	8
Man.	149,452	301	22	164,652	22	9	314,104	40	9
Sask.	45,844	225	23	78,848	13	7	124,692	20	7
Alta.	363,942	127	28	282,033	16	7	645,975	32	9
B.C.	362,880	521	82	378,954	15	6	741,834	29	7
Y.T.	-	-		909	5	3	909	5	3
N.W.T.	-	-	-	11,896	23	3	11,896	23	3
Nun.[1]	-	-		-	-	-	-	-	-
Canada	**3,542,649**	**140**	**26**	**4,228,281**	**26**	**8**	**7,770,930**	**41**	**9**

[1] Nunavut did not report to DAD/HMDB in 2002–2003.
* Average length of stay.

Source: HMHDB, CIHI 2002–2003.

Data on provincial and territorial lengths of stay are provided in Table 2.2. Average lengths of stay and total days stayed offer some indication of service utilization within the jurisdictions. Variation across jurisdictions may reflect differences in the type and severity of illnesses treated, as well as certain structural changes, such as hospital closures and mergers, within provincial and territorial health systems. Overall, the largest number of hospital days stayed for mental illness occurred in Quebec (over 3.6 million days stayed) and Ontario (over 1.8 millions days stayed). Days stayed in Quebec and Ontario hospitals made up about 71% of the total hospital days stayed for mental illness, as well as the largest number of days stayed in psychiatric and general hospitals.

Average length of stay across provinces/territories showed much variation and were generally inflated by extremely large values. The longest and shortest average length of stay for all hospitals combined were for Quebec (81 days) and Prince Edward Island (13 days) respectively. Average length of stay was particularly varied for separations from psychiatric hospitals. The longest average length of stay for psychiatric hospitals was in British Columbia (521 days), and the shortest was in Prince Edward Island (19 days). Because of the impact of relatively large values on the mean based average length of stay (especially on categories with a relatively small number of separations, as in the case of psychiatric hospitals in British Columbia), median lengths of stay were provided to offer an index of central tendency that is free of the impact of skewness in the distribution. Applying the

median length of stay, it is still apparent that longest stays occurred in British Columbia (82 days), and that the shortest stays occurred in Prince Edward Island (11 days), however the magnitude of the difference between the two is considerably smaller than the mean difference. For the remaining provinces, the median length of stay ranged between 17 and 28 days.

For lengths of stay in general hospitals, both the average and the median measures indicate that stays were longest in Quebec and shortest in the Yukon Territory. If only the median is used, then Newfoundland and Labrador and the Northwest Territories also rank as longest and shortest respectively for length of stay. For the remaining jurisdictions, the median length of stay ranged from 6 days to 9 days.

Figure 2.3 presents the proportion of general hospital separations that were associated with mental illness across jurisdictions, and thus offers a perspective on the prevalence of psychiatric illnesses within the scope of the hospital services more generally. The proportions reported are based on over 2.8 million separations from general hospitals in Canada, and the data are derived from CIHI's Hospital Morbidity Database. The categories represent the proportion of separations with a primary diagnoses of psychiatric illness, a non-psychiatric primary but a psychiatric secondary[5] diagnoses, and the total of the first two categories.

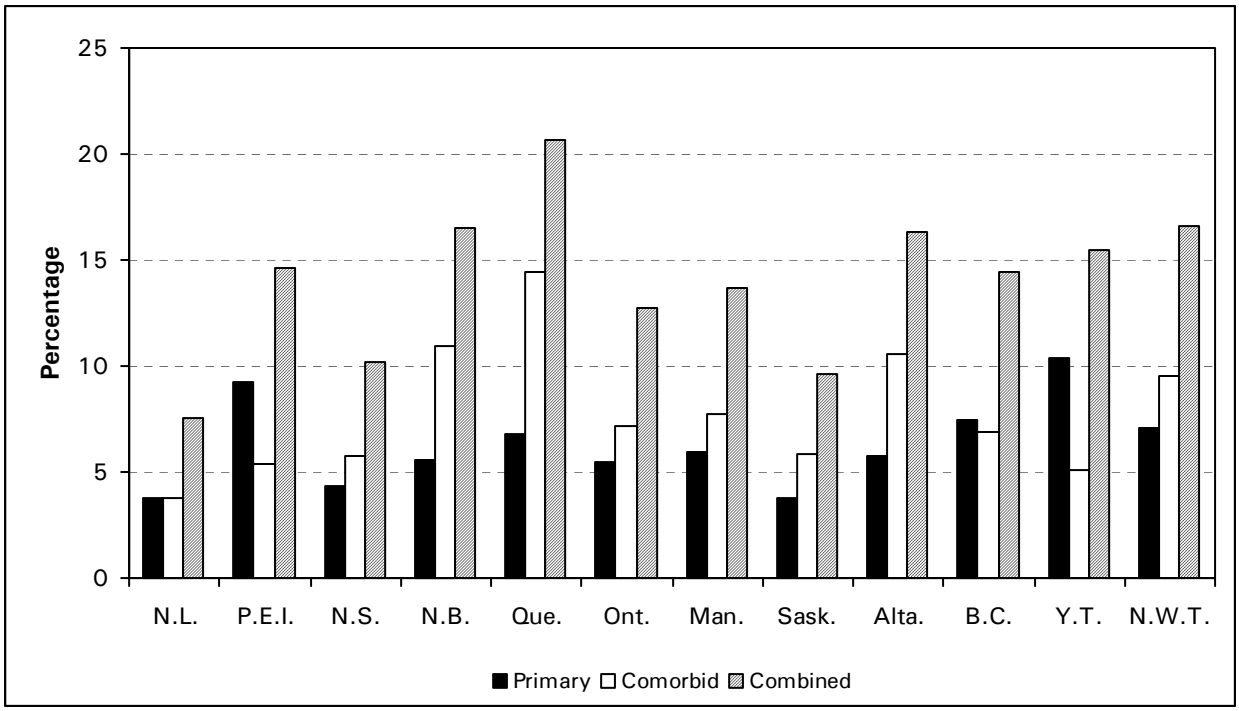

Figure 2.3 Proportion of General Hospital Separations With a Psychiatric Diagnosis by Province, 2002–2003

Source: HMHDB, CIHI 2002–2003.

5. A psychiatric secondary diagnosis refers to any diagnosis, from the second through the twenty-fifth, that is categorized as psychiatric according to the criteria specified in the Methodological Notes (Appendix C).

The proportion of separations that had either a primary or secondary diagnosis of mental illness ranged from 7.6% in Newfoundland and Labrador to 21.1% in Quebec. In most jurisdictions, the majority of separations that were associated with mental illness were a result of a non-psychiatric primary diagnosis, and a psychiatric co-morbid diagnosis.

Summary

Jurisdictional differences in separations and lengths of stay have been highlighted here; however, without the variables necessary to provide a more detailed structural and demographic profile of the mental health services in each of the provinces/territories, it is difficult to make substantive attributional statements about the nature of these differences. Certain differences are apparent, and may contribute to the types of separations and duration of hospital stays observed. For instance, an individual separated in the territories has an average age of about 37 years, will have received treatment at a general hospital, probably lives in a rural setting, and will most likely have been separated for a substance related disorder. By comparison, an individual separated in the provinces has an average age of 43 years, over 10% likelihood of having been separated from a psychiatric rather than a general hospital, probably lives in an urban setting, and will most likely have been separated for a mood disorder. Other differences, both systematic and non-systematic, are difficult to track and evaluate for the purposes of standardizing inter-provincial/territorial comparisons.

Chapter Three—Mood Disorders

Mood disorders comprise the largest proportion of psychiatric disorders in Canada by the number of hospital separations (over one third of all separations), and the largest proportion for individuals between the ages of 15 and 64. This prominence is consistent across provinces/territories, and across gender.

Within the category of mood disorders, major depression and bipolar disorders are the most common diagnoses. Each has a relatively high prevalence among psychiatric disorders and a distinctive set of features, and therefore each will be examined separately in this chapter. The lifetime incidence of bipolar disorder in Canada is estimated at about 1%, whereas the lifetime incidence of major depression is estimated at about 8% (Health Canada, 2002; Bland, 1997). In spite of the higher incidence of depression as compared to bipolar disorder, separation rates indicate that separations for bipolar disorder were more common than those for depression (128/100,000 population compared to 87/100,000 population respectively). In light of the fact that it is the more severe episodes of illness that result in hospitalization (Kiesler & Sibulkin, 1987; Health Canada, 2002), it is likely that individuals diagnosed with bipolar disorder experience more severe and deleterious symptoms than those diagnosed with depression and therefore are more likely to become hospitalized.

Depression

Depressive feelings are commonly experienced as a reaction to misfortunes and adversity in daily life. Most often such feelings will diminish, and individuals will resolve to carry on relatively unperturbed. However in the case of those experiencing clinical depression, the depressive symptoms persist (longer than two weeks), and may be accompanied by a loss of interest in daily activities, feelings of fatigue, a loss of appetite, and--in the most severe instances—suicidal ideation and tendencies (American Psychiatric Association, 2000).

The global impact of depression is profound. Among individuals between the ages of 15 and 44 years, it is the leading cause of years lived with disability, and the second leading cause of disability adjusted life years (World Health Organization, 2001). In Canada the 12-month prevalence rate for depression was estimated at 4.3% in 1998 (Statistics Canada, 1999). Age and gender differences indicate that depression is estimated to be about twice as likely among women as among men, and most likely among individuals between the ages of 12 and 24 years old (Statistics Canada, 1999; Patten, 2000).

A host of medical and psychotherapeutic treatment options exist for individuals living with depression, and in most cases these can be administered without the requirement of hospitalization. However, in the most severe cases, particularly those involving suicidal tendencies, hospitalization may be necessary to help stabilize individuals and to minimize any threat they might pose to themselves or others.

The onset of depression can vary, but most commonly occurs in adolescence and early adulthood. Major depression is sometimes preceded by dysthymic disorder--a milder form of the disorder—that can remain undiagnosed for months before the progression to more severe symptoms necessitates the pursuit of treatment. Among those hospital separations

with a primary diagnosis of depression 60.6% were females, and the average age was 42.8 years. Female separations were slightly older (43.3 years) than male separations (41.9 years). Figure 3.1 indicates that, apart from the youngest and the oldest age categories, separation rates for depression remain consistently above 80 per 100,000 population for females, and consistently above 60 per 100,000 population for males. This regularity in the separation rate suggests consistency with the chronic nature of depression.

The separation rate was consistently higher for females than males, however the pattern of separations was very similar for the two groups across the age categories. For both males and females, the rate of separations had its greatest increase between the ages of 15 and 19 years and then peaked in the 45 to 49 year age range. Beyond 50 years of age, the rate for both groups decreased and then leveled off.

The pattern of separation rates across age groups that is observed in figure 3.1 bears some similarities to the prevalence rates for depression reported for 1994-1999 (Statistics Canada, 1999), in spite of the differences in the metrics used. [6] Both hospital separation rates and prevalence rates showed large increases in the adolescent years, and both showed consistently higher rates for females than males. However prevalence rates tended peak earlier and decline more rapidly, especially among females, than the separation rates.

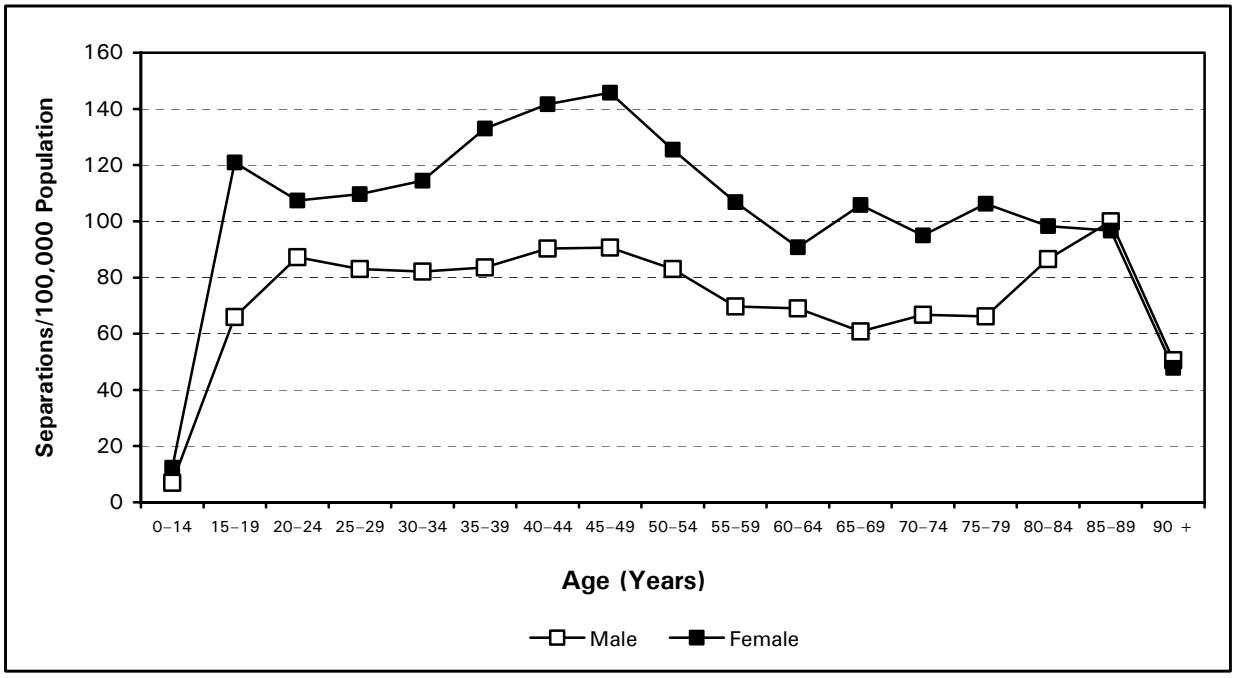

Figure 3.1 Separations per 100,000 Population for Depression by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

6. The reported prevalence rate was based on the occurrence of at least one depressive episode within the 12 months prior to responding to the National Population Health Survey (Statistics Canada, 1999).

The average length of stay and the median length of stay for males were 17.3 days and 9.0 days respectively, and for females were 17.2 days and 9.0 days respectively. As indicated in Figure 3.2, lengths of stay tended to increase in duration with increases in age, and for both males and females hospital stays were longest in the 65 to 69 year age category. The average lengths of stay for both males and females in the 85 to 89 years old category were about three times the duration of those in the 10 to 14 years old category.

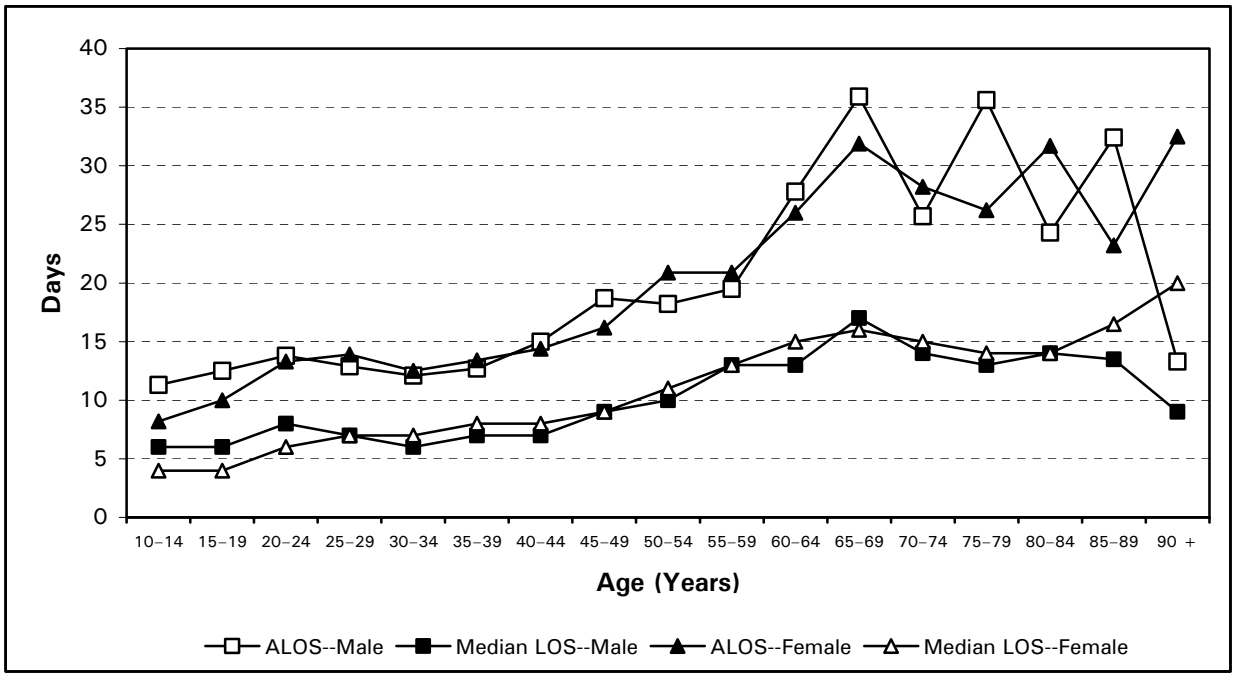

Figure 3.2 Average and Median Lengths of Stay for Depression by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

The disparity in separation rates for depression between psychiatric and general hospitals clearly demonstrates the greater volume of separations in the latter (Figure 3.3), as was discussed previously. About 90% of those separations that were based on a primary diagnosis of depression were from general hospitals. It is notable however, that the pattern of separations across age categories was very similar for general and psychiatric hospitals, bearing in mind that psychiatric hospitals had longer lengths of stay. A more detailed analysis is necessary to adequately test the possibility of a relationship between these variables.

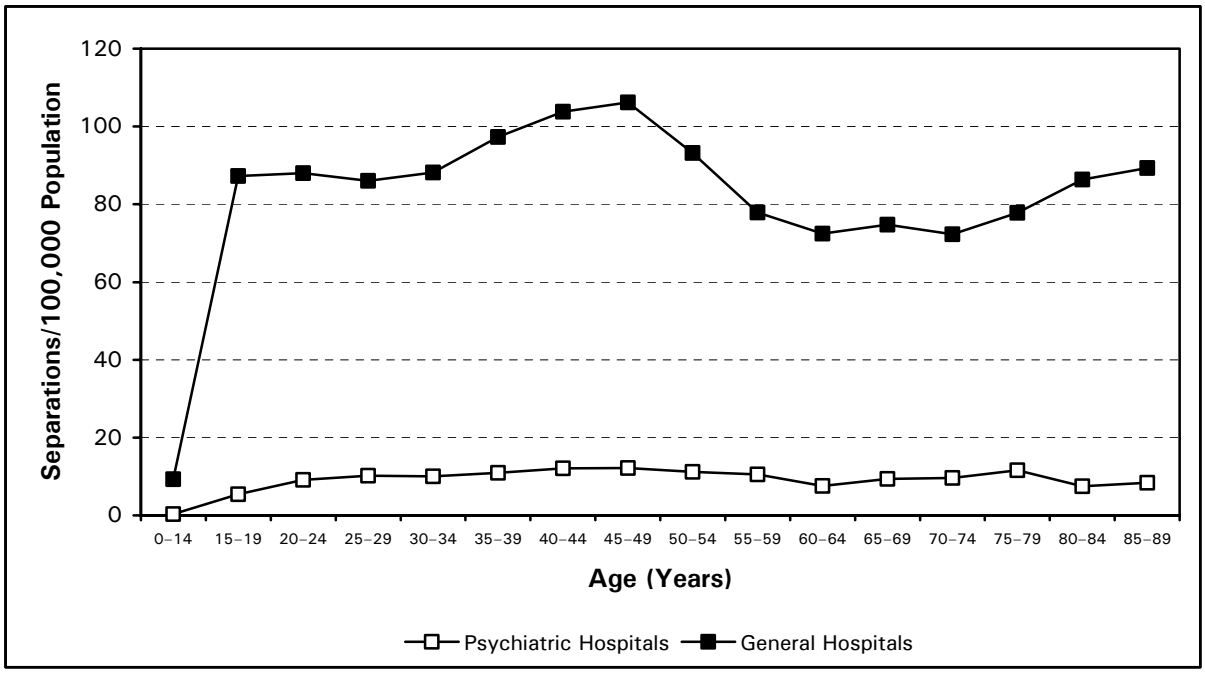

Figure 3.3 Separations per 100,000 Population for Depression by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

The two hospital categories contrast in their respective lengths of stay across the spectrum of age categories (Figure 3.4). Separations associated with depression were based on consistently longer lengths of stay when they emerged from psychiatric hospitals as compared to general hospitals. Also, both hospital types manifested a tendency towards longer lengths of stay with increases in age, although for general hospitals, this trend appears to level off after the age of 60. The average general hospital length of stay for those in 85–89 years old category (22.4 days) was almost three times the duration of those in the 10 to 14 years old category (8.7 days). This trend, however, tended to be steadier or more monotonic for general hospital separations.

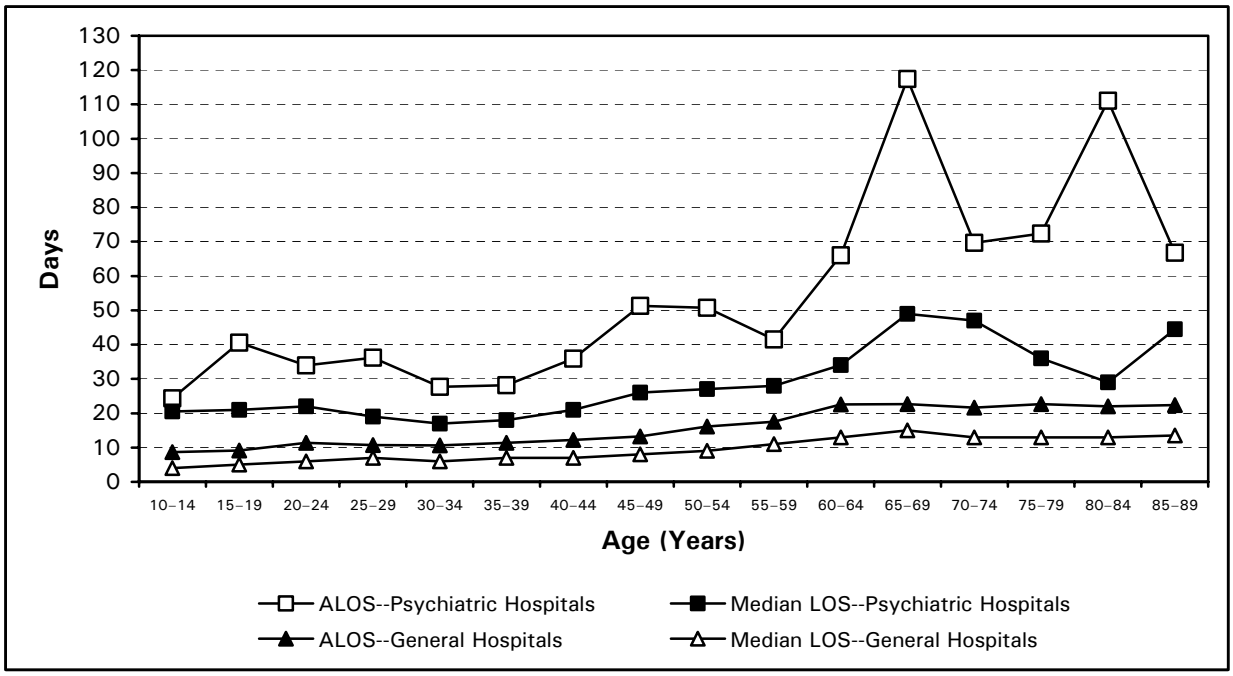

Figure 3.4 Average and Median Lengths of Stay for Depression by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Bipolar Disorder

Bipolar disorder is characterized by episodes of extreme mood and behaviour—called mania, which may be followed by major depression. During the manic episodes, individuals may exhibit extreme happiness, hyperactivity, and an unrealistic sense of their abilities. This may then be followed by periods of extreme anger or sadness during which the preceding manic episode is not recalled (American Psychiatric Association, 2000). The onset of bipolar disorder usually takes place in adolescence and early adulthood, although its identification and correct diagnosis may take several years. Between intervals of mania and depression, individuals may be fully functional, however there is a tendency for such intervals to become shorter as the individual ages, and for a debilitating pattern of rapid cycling to set in. In its most severe form, bipolar disorder can devastate an individual's personal and professional life, and in 25%–50% of cases it can lead to suicide attempts (Jamison, 2000). Globally, bipolar disorder is the fifth leading cause of years lived with disability among individuals between the ages of 15 and 44 years old (WHO, 2001).

Figure 3.5, illustrates that the separation rate for bipolar disorder was highest between 40 and 49 years among both males and females. Also, across the range of age categories, the distribution of separation rates was similar in shape for males and females. However, separation rates were consistently higher for females. The separation rates were 158.2 per 100,000 population for females, and 98.3 per 100,000 population for males. This difference of approximately 61%, contrasts with evidence that bipolar disorder is equally common among males and females (Fogarty et al., 1994; Health Canada, 2003; World Health Organization, 2001), and suggests a greater likelihood of hospitalization for the disorder among females generally. This gender difference in the hospital separation rate may suggest a greater likelihood of certain severe characteristics of the disorder such as rapid cycling (Calabrese et al. 1995; Mackin, 2005) among females. The length of stay indicators suggest no differences between genders (Figure 3.6). Thus although females might be more likely to experience symptoms that require hospitalization for bipolar disorder, among those hospitalized the treatment needs—as measured by length of hospital stay—appeared to be similar.

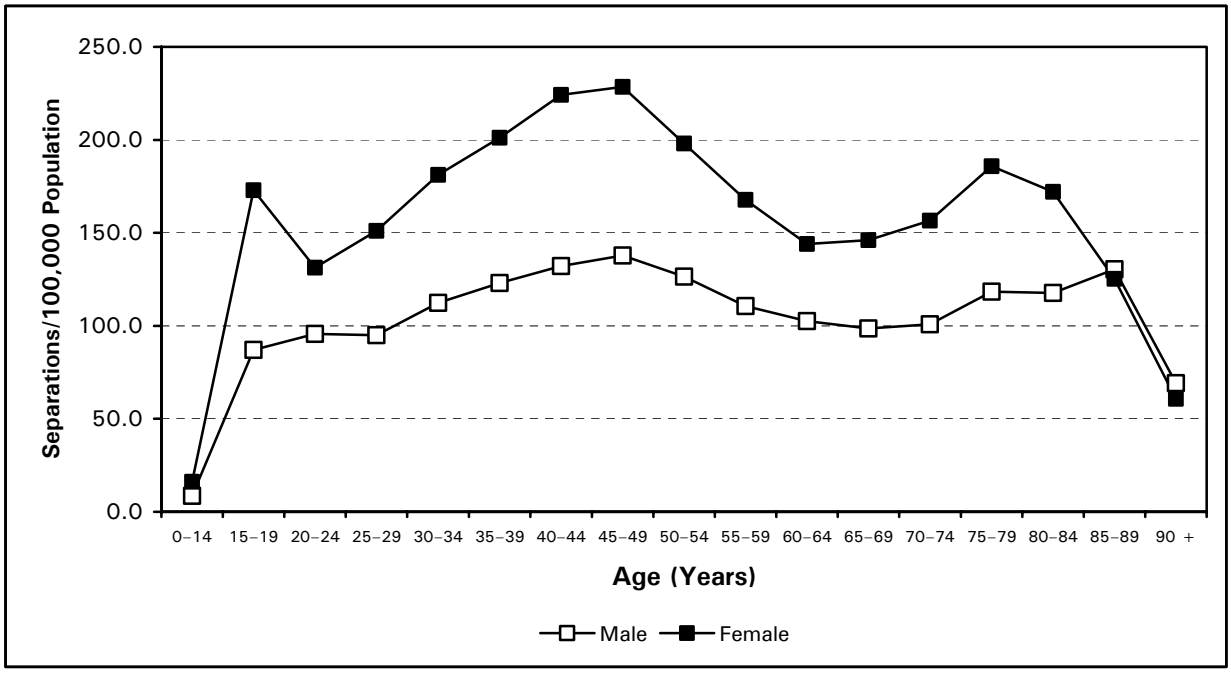

Figure 3.5 Separation Rate per 100,000 Population by Gender and Age Category for Bipolar Disorder, 2002–2003

Source: HMHDB, CIHI 2002–2003.

As with separations for depression, the tendency among bipolar separations was towards longer lengths of stay as age increased. This was particularly apparent after 40 year of age. The trend was similar for males and females, as was the duration of stay across the age categories. Median lengths of stay tended to be between 8 and 10 days until the 40 to 49 year age range, at which point a steady increase ensued. By 70 to 74 years, the median lengths of stay were 20 days and above.

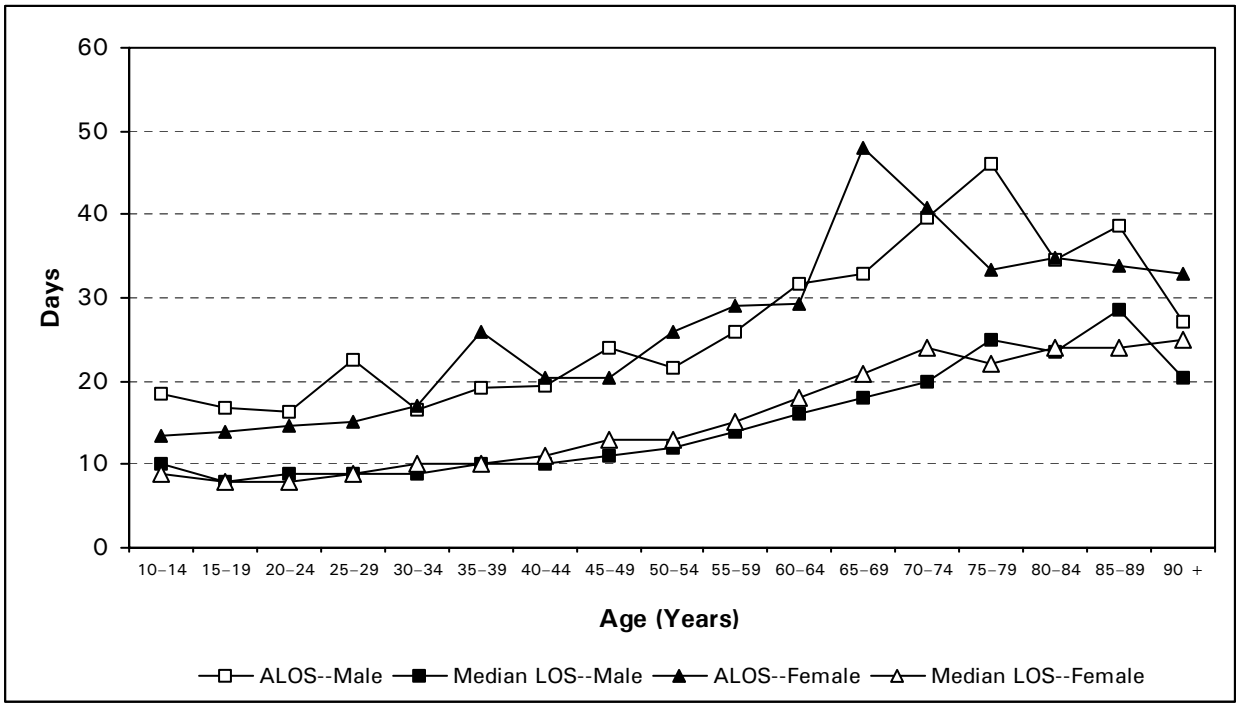

Figure 3.6 Average and Median Lengths of Stay for Bipolar Disorder by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Approximate 89% of separations with a primary diagnosis of bipolar disorder were from general hospitals (Figure 3.7). The comparison by hospital type indicates differences in the average age of separations and the average lengths of stay. Those separated from psychiatric hospitals were older on average than those separated from general hospitals (47.9 years versus 43.1 years respectively). The separation rate for psychiatric hospitals also appeared to reach its peak later (75 to 79 years) than the separation rate for general hospitals. Separations from psychiatric hospitals also had longer average (72.2 days versus 17.3 days) and median stays (29 days versus 11 days) than separations from general hospitals (Figure 3.8).

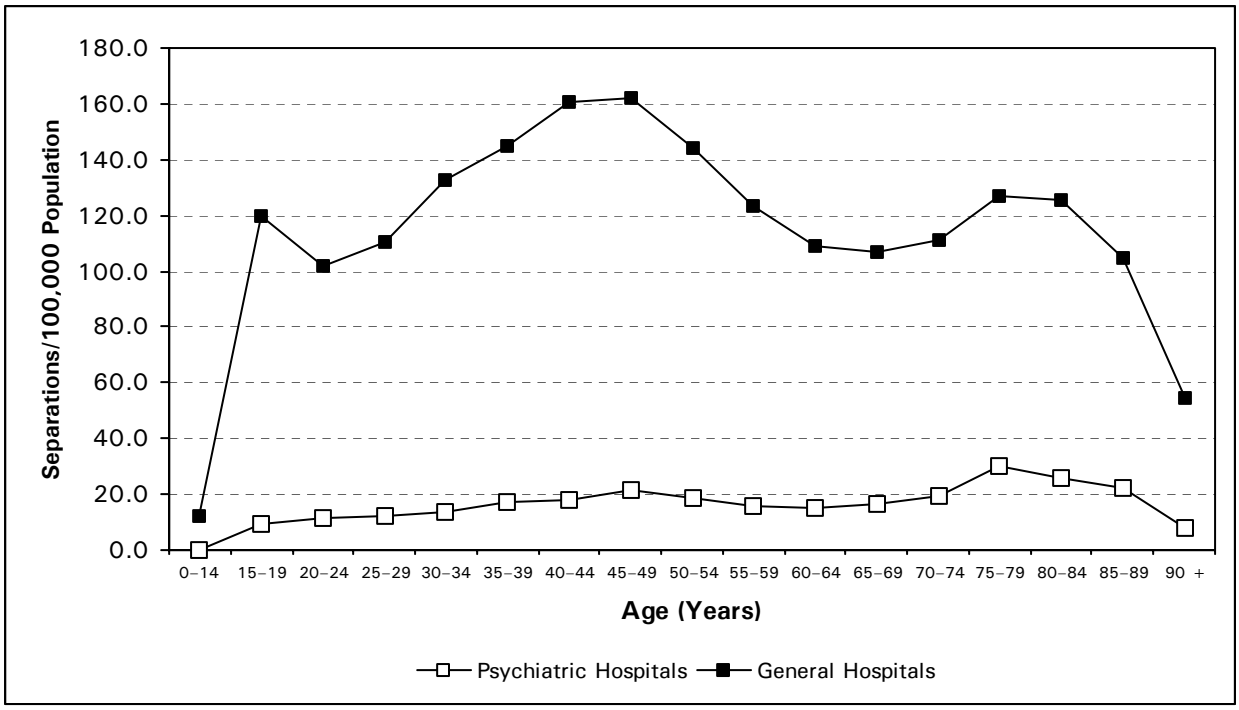

Figure 3.7 Separation Rate per 100,000 Population by Hospital Type and Age Category for Bipolar Disorder, 2002–2003

Source: HMHDB, CIHI 2002–2003.

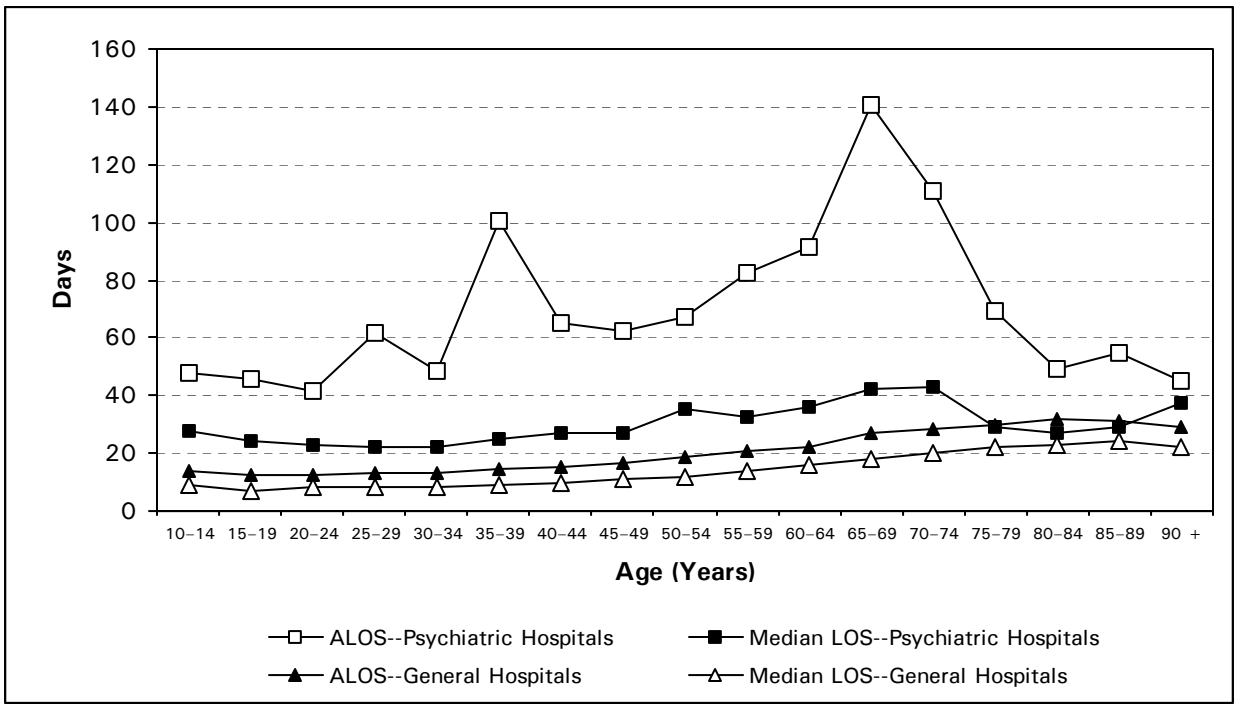

Figure 3.8 Average and Median Lengths of Stay for Bipolar Disorder by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Although some of the longest average lengths of stay for bipolar disorder were in the over 65 age groups, the largest proportion of the total hospital days stayed and the largest proportion of separations for both psychiatric and general hospitals occurred between the ages of 35 and 54 years (Figures 3.9 and 3.10). Finally, between hospital types the average length of stay and median lengths of stay were similar for males and females (Tables 3.1a and 3.1b).

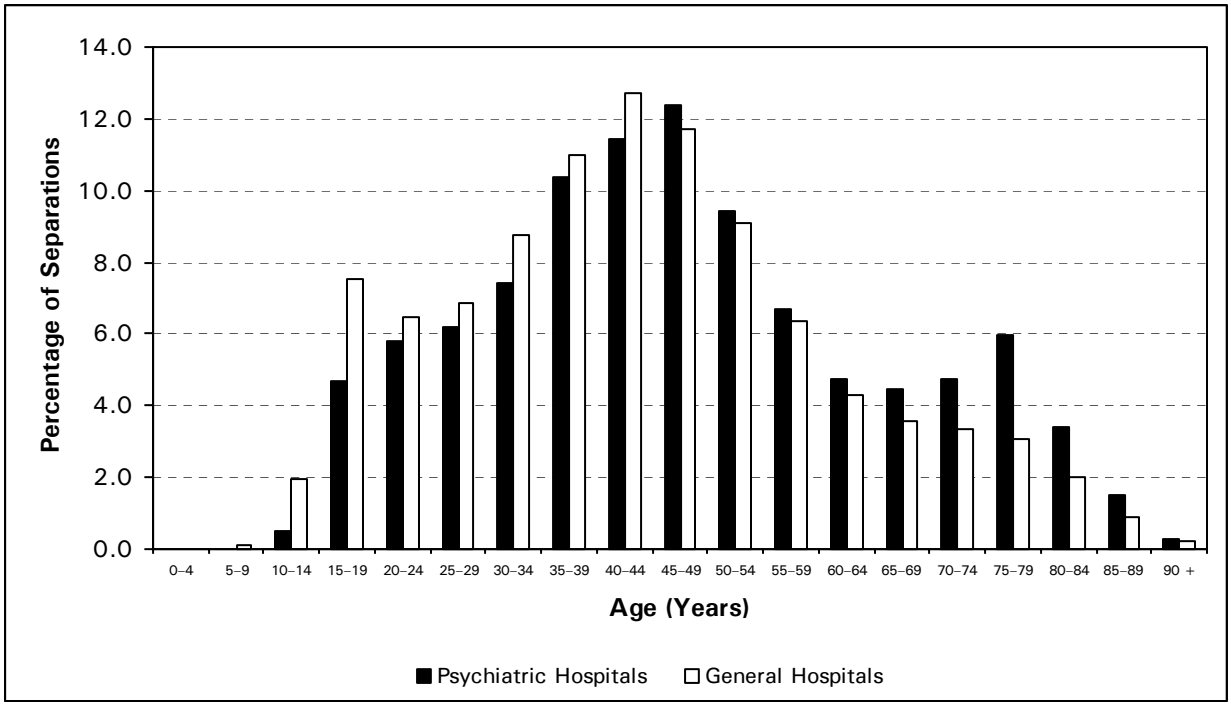

Figure 3.9 Percentage of Separations by Age and Hospital Type for Bipolar Disorder, 2002–2003

Source: HMHDB, CIHI 2002–2003.

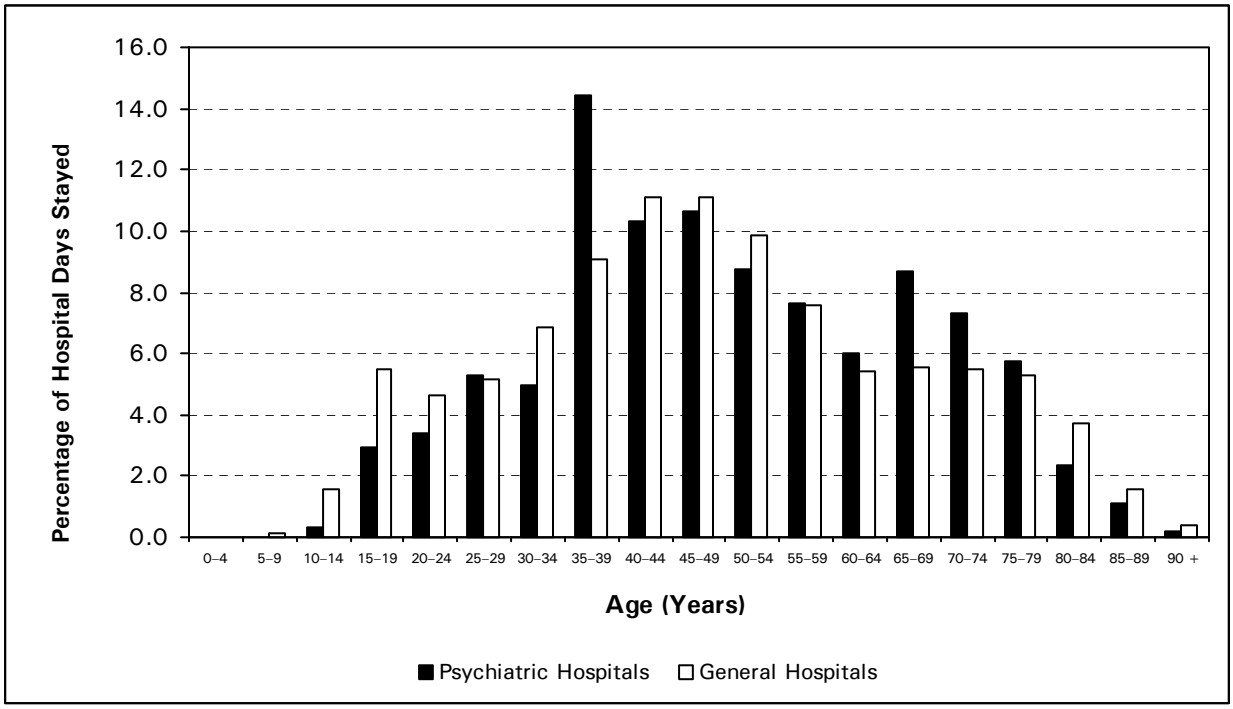

Figure 3.10 Percentage of Hospital Days Stayed by Age and Hospital Type for Bipolar Disorder, 2002–2003

Source: CIHI, 2002–2003.

Table 3.1a Average and Median Length of Stay by Hospital Type, Gender, and Age Group for Bipolar Disorder

Psychiatric Hospitals

	Males		Females	
Age (Years)	**ALOS**	**Median LOS**	**ALOS**	**Median LOS**
0–14	--	--	--	--
15–19	53.6	25.5	38.9	21.0
20–24	46.3	26.0	36.6	18.0
25–29	101.1	28.0	29.0	19.0
30–34	56.8	20.0	42.2	24.0
35–39	61.5	25.0	134.3	26.0
40–44	65.7	28.0	65.0	27.0
45–49	84.6	27.0	46.9	27.5
50–54	53.3	25.0	76.2	38.0
55–59	62.6	29.5	98.7	35.5
60–64	107.0	38.0	80.4	35.0
65–69	71.2	36.0	185.9	48.5
70–74	130.1	47.0	101.3	39.5
75–79	103.8	33.0	50.8	24.5
80–84	54.3	44.0	47.2	19.0
85–89	95.5	64.0	44.2	12.0
90 +	--	--	--	--
Total	**72.2**	**28.0**	**72.2**	**29.0**

Cells containing -- are suppressed due to their small separation counts.

Source: HMHDB, CIHI, 2002–2003.

Table 3.1b Average and Median Length of Stay by Hospital Type, Gender, and Age Group for Bipolar Disorder

General Hospitals

	Males		Females	
Age (Years)	**ALOS**	**Median LOS**	**ALOS**	**Median LOS**
0–9	23.9	14.0	25.8	18.5
10–14	16.7	10.0	12.8	8.0
15–19	13.1	7.0	12.4	7.0
20–24	12.1	8.0	12.8	7.0
25–29	12.3	8.0	13.6	8.0
30–34	11.9	8.0	14.5	9.0
35–39	12.9	9.0	15.1	10.0
40–44	13.9	9.0	15.8	10.0
45–49	15.3	10.0	17.1	11.0
50–54	17.2	11.0	19.7	12.0
55–59	20.0	12.5	21.1	14.0
60–64	21.3	14.0	22.3	17.0
65–69	26.8	16.0	27.0	19.0
70–74	24.8	18.0	30.1	21.0
75–79	30.2	23.0	29.6	22.0
80–84	30.3	21.0	32.2	24.0
85–89	31.8	27.0	31.0	24.0
90 +	23.2	18.5	32.0	24.5
Total	**16.3**	**10.0**	**17.9**	**11.0**

Source: HMHDB, CIHI, 2002–2003.

Summary

Although prevalence rates for depression and bipolar disorder indicate that the former is far more common among the Canadian population, the separation rates examined here appear to indicate that the latter was in fact more likely to have required hospital services. Both disorders showed greater separation rates for females, although bipolar disorder is reported to be have equal prevalence among males and female, and both disorders showed a pattern of increasing duration of hospital stays with increases in age. Finally, for both bipolar disorder and depression, the hospital separation rate was highest in the 44 to 49 year age category, and therefore does not coincide with the age of onset or the age at which prevalence is thought to be highest.

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Chapter Four—Schizophrenia

This chapter examines schizophrenia as a diagnosis rather than the diagnosis category schizophrenic and psychotic disorders that was examined in previous chapters. Among the different types of schizophrenia, psychotic symptoms are a prominent feature of the acute phase of the disorder, and entail delusions and hallucinations. These delusions tend to be bizarre or implausible, and do not make any real sense in the context of daily experiences. In addition, a number of other positive symptoms, such as disorganized thought, language, and behavior, are common in schizophrenia. Some negative features also characterize the symptoms of schizophrenia. These include flat affect or diminished emotional responsiveness, and a lack of volition or goal oriented behavior.

The impact of the disease on all aspects of an individual's life can be profoundly debilitating. The majority of individuals with schizophrenia does not marry and does not maintain employment after the onset of the disease (Lane et al. 1995; Thornicroft et al., 2004). The full onset of schizophrenia often results in a degree of detachment from reality that necessitates hospitalization and a period of treatment with anti-psychotic medications. Once in remission, community based psycho-social treatments can assist in the individual's social and professional re-integration. Relapses are common for those living with schizophrenia, however an adherence to prescribed medications in combination with family support and community based treatments have been shown to be effective in greatly reducing relapses and the associated recurrent hospitalization (Bustillo, 2001; Addington et al. 2000).

Gender differences in the age of onset for schizophrenia typically mean that onset occurs in late adolescence and early adulthood for males, and in the middle twenties to middle thirties in females (American Psychiatric Association, 2000). Women are also more likely to experience late onset schizophrenia (after 40 years of age) than men, and therefore their distribution of age at onset is bimodal (American Psychiatric Association, 2000). Age of onset appears to be an important variable in determining the course of relapse and hospitalization in schizophrenia, as earlier onset is believed to be related to a greater risk of re-hospitalization (Eaton, 1992a).

A distribution of schizophrenia separations by age is presented in Figure 4.1, and suggests that the greatest proportion of separations occurred between the ages of 35 and 44. However, it is only when these data are disaggregated along gender lines that a clearer picture of the age distribution emerges.

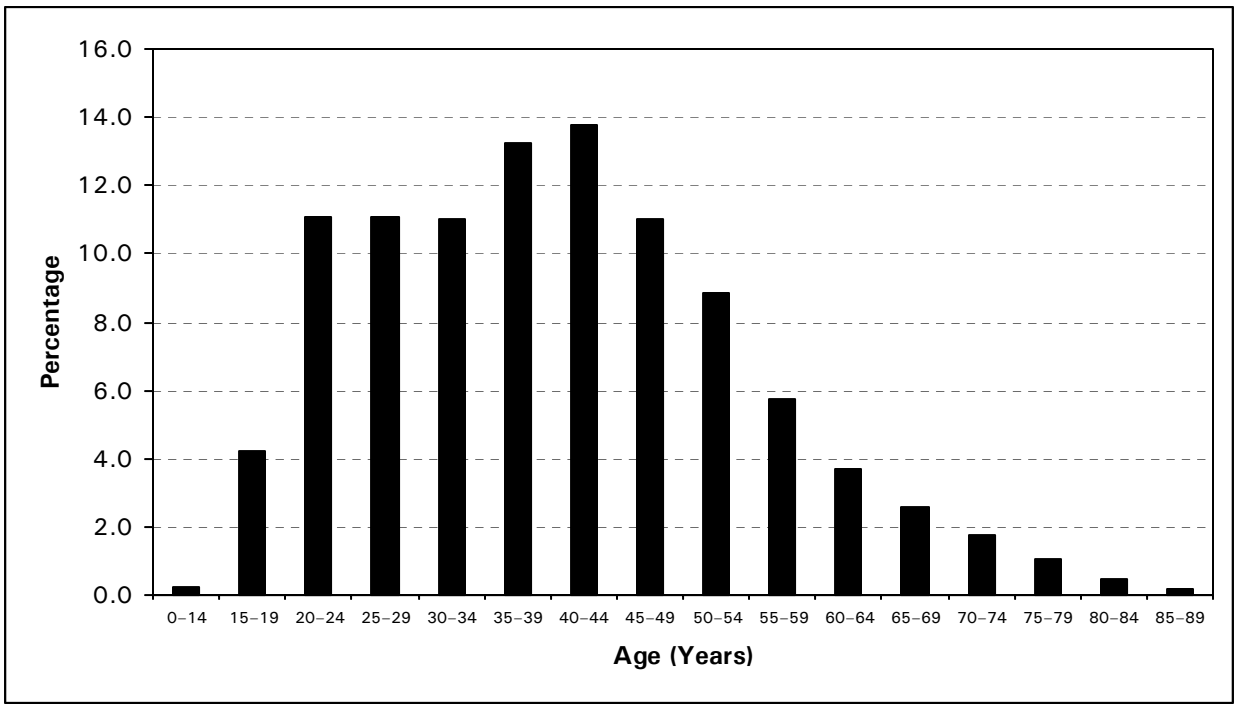

Figure 4.1 Percentage of Schizophrenia Separations by Age Group, 2002–2003

Source: HMHDB, CIHI 2002–2003.

The documented gender based differences in the age of expression of schizophrenia were consistent with the differences observed in age of hospital separation. The average age for separations associated with a primary diagnosis of schizophrenia was 44.7 years for females and 33.4 years for males. Figure 4.2 reflects modal differences between males and females separated with a primary diagnosis of schizophrenia. Whereas male separations peak between the ages of 20 and 29 years, for females the peak in separations occurs between the ages of 40 and 55 years. This pattern is possibly a reflection of the greater likelihood of late onset schizophrenia among females. It is also interesting to note that although the separation rate for males is much higher in the early age categories, the rates become very similar—and even slightly higher for females—after the age of 45. This pattern may suggest a stabilization of the condition after much treatment in the period following onset, and late onset among females (Eaton et al., 1992b, Oleson & Mortensen, 2002; Mason et al. 1996).

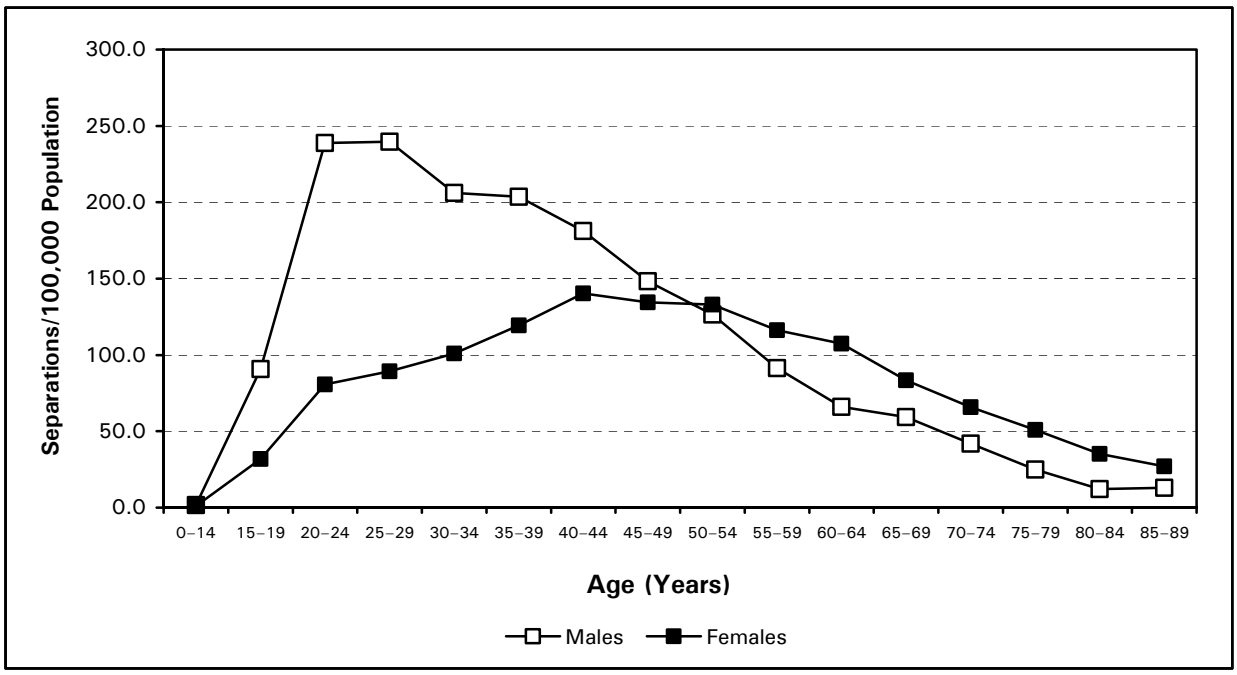

Figure 4.2 Separation Rate per 100,000 Population for Schizophrenia by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

The decrease in the separation rate that occurs around the 45 to 49 year age category does not appear to be related to the average length of stay (Figure 4.3). The median lengths of stay for males and females were 16 and 18 days, respectively, and both show a gradual tendency towards longer durations with increases in age.

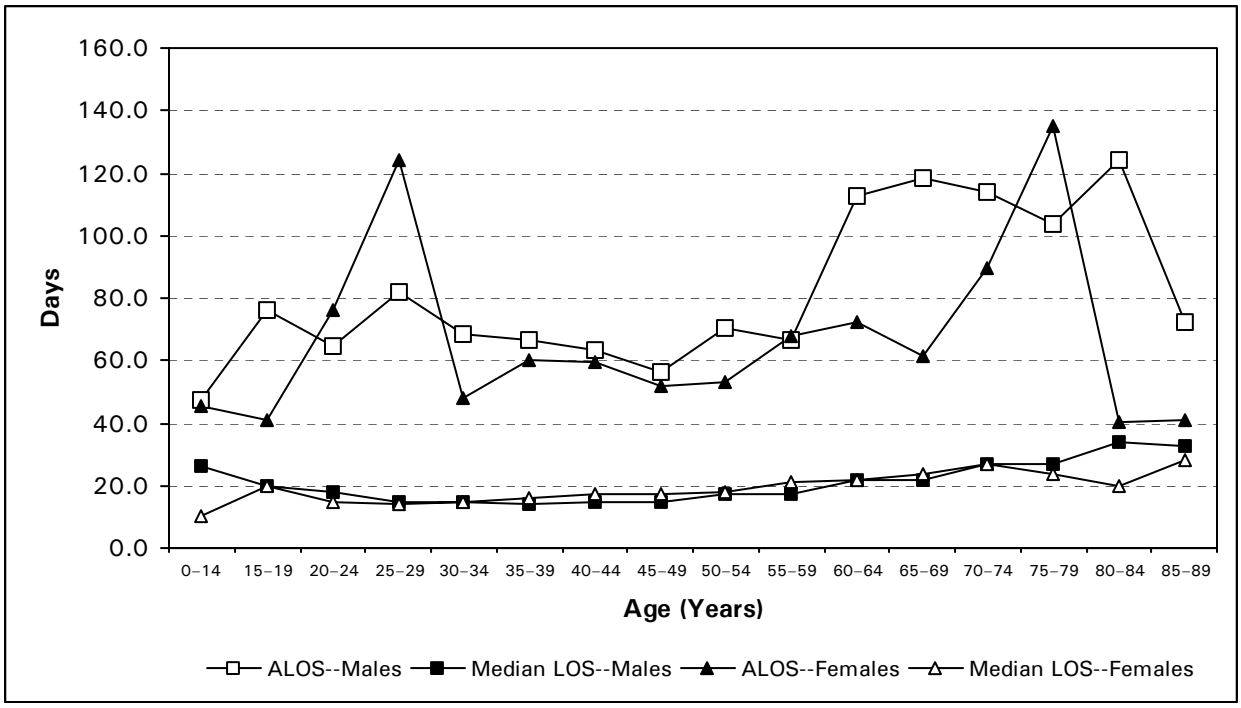

Figure 4.3 Lengths of Stay for Schizophrenia by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

As a category, separations for schizophrenic and psychotic disorders made up 30.9% of all separations from psychiatric hospitals, which represented the largest proportion from among the diagnosis categories used in this report (Figure 1.2). Moreover, 21.6% of those separations with a primary diagnosis of schizophrenia came from psychiatric hospitals. This represented the largest proportion of psychiatric hospital separations among any of the diagnosis groups, and may reflect a complexity in the symptoms of the disorder that require the more specialized type of hospital care available in psychiatric facilities. It may also reflect the ability of psychiatric hospitals to provide the longer periods of care that are needed for the treatment of schizophrenia. After those of organic disorders, separations for schizophrenia are associated with the longest median lengths of stay in both psychiatric (39 days) and general hospitals (14 days).

Figures 4.4 and 4.5 reflect the pattern of separations and lengths of stay for schizophrenia respectively. The difference in separation rates is apparent in Figure 4.4, however it is noteworthy that the pattern of separations for the two types of facility is similar. That is both psychiatric and general hospitals exhibit initial separations in the adolescent years, after which the rate of separations increases sharply and plateaus until about 40–44 years of age, and then declines steadily.

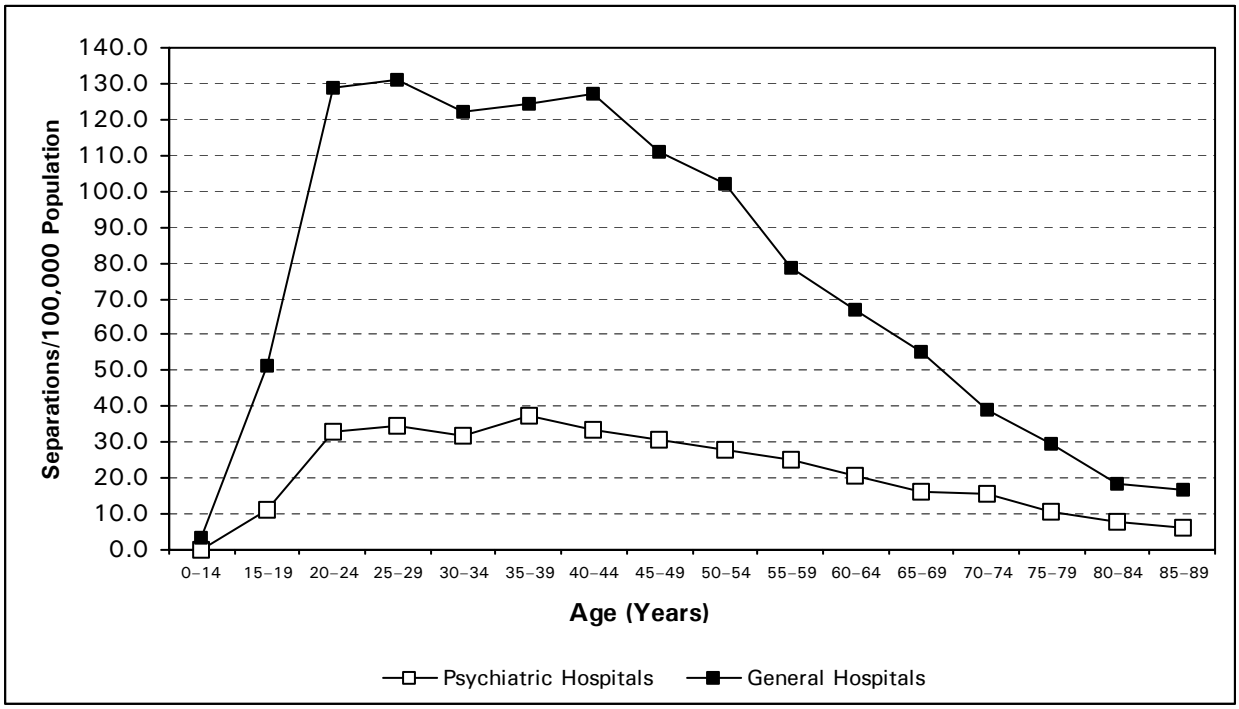

Figure 4.4 Separation Rate per 100,000 for Schizophrenia by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

As for the duration of hospital stays (Figure 4.5), the longer stays for separations from psychiatric hospitals were evident. However, the pattern of gradual increase in length of hospital stay that was apparent when the variable was collapsed across hospitals is not so when the median lengths of stay are collapsed across gender and separated by hospital type. That is, the trend across age categories appears relatively flat, but further analysis is needed to assess whether this is indeed the case. To make an assessment the relationship between the type of hospital stayed at, a patient's age, and their length of stay for a diagnosis of schizophrenia should be examined.

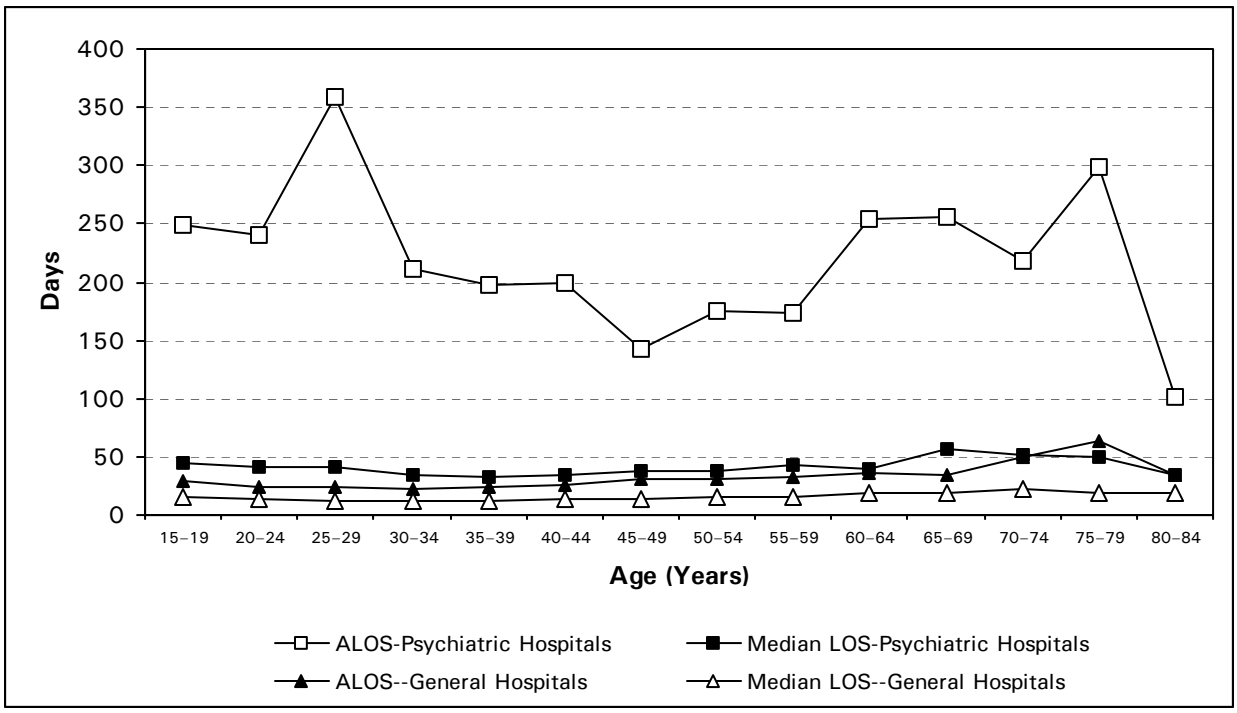

Figure 4.5 Lengths of Stay for Schizophrenia by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Summary

Although most separations with a primary diagnosis of schizophrenia came from general hospitals, over 20% of schizophrenia separations came from psychiatric hospitals. This was the largest proportion among the diagnoses examined here. Also, among all psychiatric hospital separations, those with a primary diagnosis of schizophrenia made up the largest group (over 25%). Males had a higher separation rate in the adolescent and early adult age categories, however the rate for females peaked later on the age continuum and exceeded that of males after the age of 50 years. Differences in separation rates were not reflected in differences in length of hospital stay. Median lengths of stay appeared to be similar for males and females across age groups.

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Chapter Five—Substance Related Disorders

For the purposes of this report, the various diagnoses that comprise the category of substance related disorders are examined collectively. It should be mentioned that within the category, alcohol related separations make up about half of the total, contain a higher proportion of males, and are an average of over 10 years older than drug related separations. Although it is recognized that other differences in the nature and severity of the diagnoses exist between the alcohol related disorders and the various drug related disorders, more detailed analysis is not within the scope of the current report.

Substance related disorders are characterized by abuse and dependence on psychoactive substances, and result from consumption in a manner that is maladaptive or even addictive in nature. That is to say that not all consumption of psychoactive substances is deemed to constitute a disorder. In a survey conducted by the Canadian Centre on Substance Abuse (CCSA), it was found that over 79% of Canadians over the age of 15 had engaged in some amount of drinking in the preceding year, but only about 7% had engaged in what was considered frequent heavy drinking (CCSA, 2005).

That substance use is so prevalent in moderate amounts suggests it has a degree of acceptance within the behavioral fabric of Canadian society. However, at the limits of this acceptance, there is a tendency towards excessive use of substances, and a pattern of behaviors that is indicative of pathology. These include the tendency to become intoxicated, the inability to voluntarily discontinue use, and the tendency to expend much of one's time and resources to procure the substance (American Psychiatric Association, 2000). In addition to being an important mental health problem, the detrimental impacts of substance related disorders on individuals' social and physical well-being are myriad. These include disruption of family and professional life, developmental abnormalities in infants, an increased likelihood of criminality, and an increased likelihood of other risky behaviors (such as driving while intoxicated, and unprotected sexual behaviors).

In total, the burden of substance related disorders—both economic and otherwise is very large. Data from the Canadian Community Health Survey suggests the prevalence of alcohol and drug dependence at 10.4% in individuals over the age of 15 years (Statistics Canada, 2003). The total direct and indirect costs of alcohol and drug abuse in Canada were estimated at $8.9 billion in 1992 (CCSA & Centre for Addiction and Mental Health, 1999).

Hospitalization for substance related disorders probably occurs in only the most severe cases, or those requiring emergency attention. Treatments for substance related disorders are most often provided in outpatient clinics or other community based treatment settings, and—as in the case of alcohol treatment—can extend for long periods of time.

In some organic brain diseases, substance abuse (especially if it is prolonged) is regarded as a direct cause of the degenerative mental conditions (such as memory loss) that occur. In other mental illnesses, such as major depression, substance abuse is involved in the exacerbation of symptoms. In the case of major depression, as with other concurrent disorders, the direction of determinism is not certain (i.e. does substance abuse lead to depression, or does depression increase the likelihood of substance abuse), and in some instances the causal relationship between disorders is so entwined that the resulting concurrent disorder may be mutually determined by common underlying conditions (Enns et al, 2001).

Hospital separations for substance related disorders were more frequent among males than among females. The separation rate was 117 per 100,000 population for males, and 53 per 100,000 population for females. The rate of separations across age categories is presented in Figure 5.1, and demonstrates a very similar pattern for males and females. For both, the rate is highest among those separations between the ages of 40 and 44 years. It is interesting to note that CCSA's Canadian Addiction Survey indicates that the heaviest *use* of drugs and alcohol tends to occur between the ages of 18 and 24 years (CCSA, 2005). Taken together, the CCSA data, and those of this report might suggest a lag between the period in which substance use is heaviest and the period in which pathology of dependence and abuse is most likely to require hospitalization. The proposition is speculative, of course, but it does appear to merit further investigation.

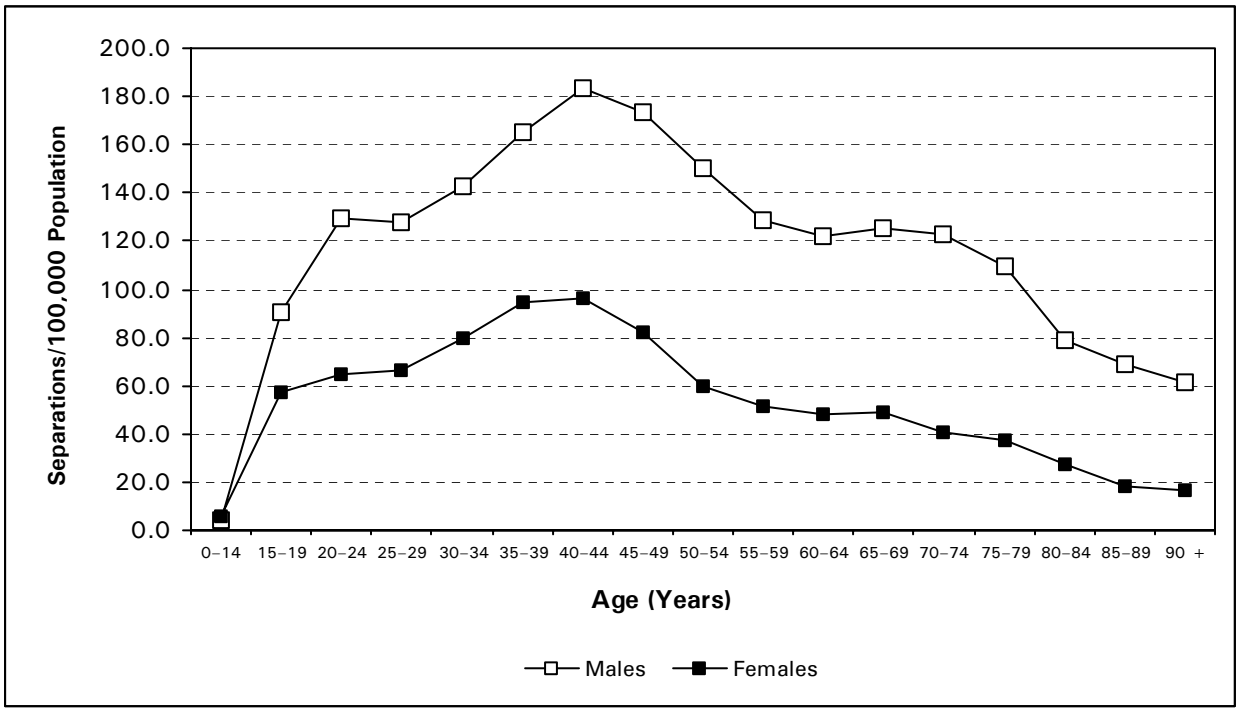

Figure 5.1 Separation Rate per 100,000 Population for Substance Related Disorder by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

The average length of stay for substance related disorder separations was for 11.8 days for males and 10.1 for females (Figure 5.2). The pattern across age categories, which shows a steady increase in days stayed with increases in age, is very similar for males and females. The longest median duration is seen in the oldest age category, and is more than three times that of the shortest duration, which is in the youngest age category. There is some evidence to suggest that the cumulative effects of the disorder result in cognitive impairments and the exacerbation of other impairments, and ultimately effects longer inpatient stays with age (Jackson et al., 2001). It is generally agreed that the impact of substance use disorder on length of stay for psychiatric illness is integrally related to its to its role in concurrent disorders, as it can complicate treatment and prolong recovery (Ceilley et al., 2005; Verduin et al., 2005; Hattenschwiler, 2001).

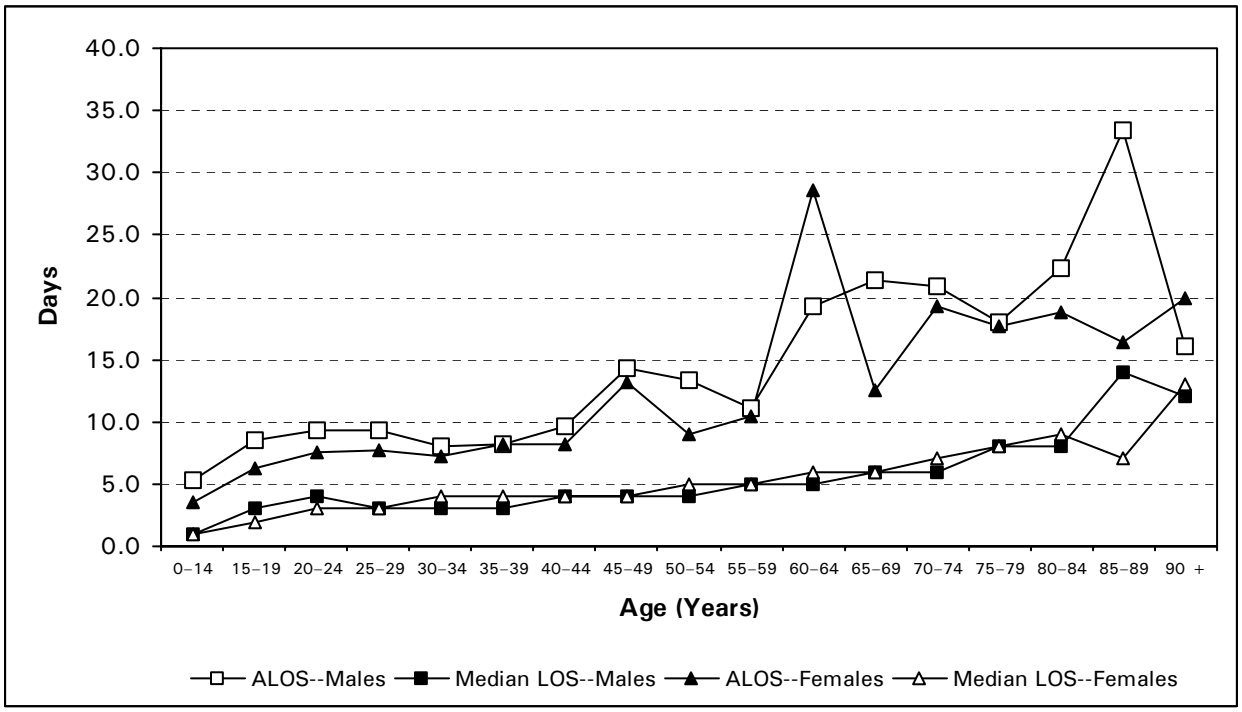

Figure 5.2 Average and Median Lengths of Stay for Substance Related Disorder by Age and Gender, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Over 84% of separations with a primary diagnosis of substance abuse came from general hospitals, and with the exception of the difference in the magnitude in the rate of separations, the pattern across age categories was very similar for general and psychiatric hospitals (Figure 5.3). Both general and psychiatric hospital separations increased sharply between the ages of 15 and 24 years, peaked between 44 and 49 years, and then declined.

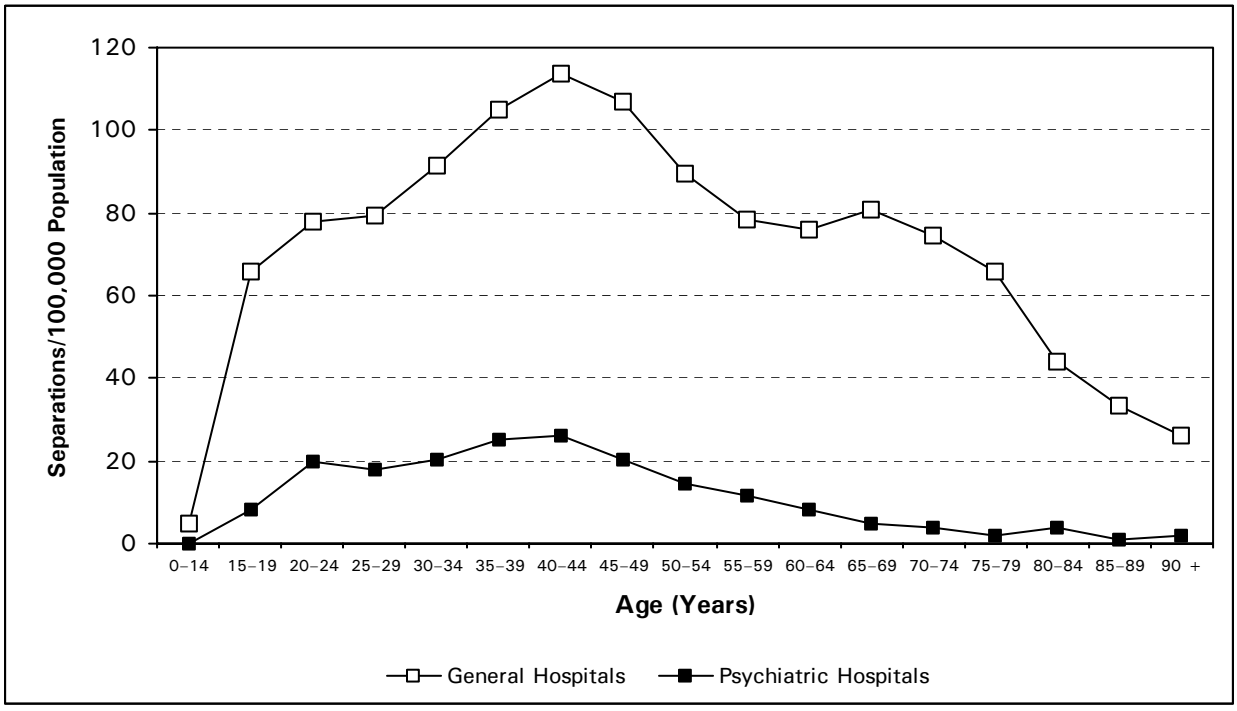

Figure 5.3 Separations per 100,000 Population for Substance Related Disorders by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Hospital stays for substance abuse tended to be shorter than those of other disorders. Among general hospital separations with a primary diagnosis of substance related disorder, 26.7% were for stays of one day, and 76.8% were for stays of one week or less. For all other psychiatric separations from general hospitals, 11.5% were based on stays of one day, and 45.0% were based on stays of one week or less. The median lengths of stay for separations with a primary diagnosis of substance related disorder tended to increase with age for both general and psychiatric hospital separations (Figure 5.4). As we have seen with other disorders, separations from psychiatric hospitals had longer stays than those from general hospitals.

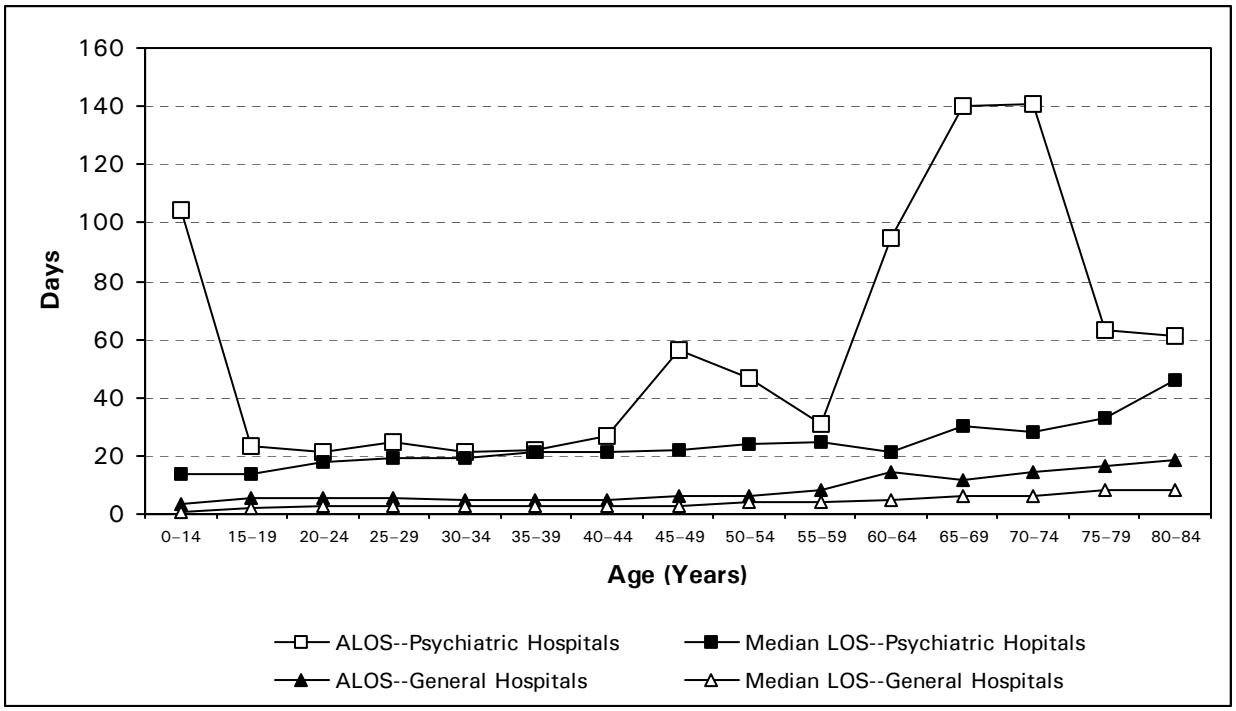

Figure 5.4 Average and Median Lengths of Stay for Substance Related Disorders by Age and Hospital Type, 2002–2003

Source: HMHDB, CIHI 2002–2003.

Comorbidity

The prominent role that substance related disorders have in a variety of criminal or risky behaviours (Pernanen, 2002) and in a variety of other illnesses (Hood et al., 2002) makes their investigation as co-occurring or comorbid conditions important. Generally, in over three quarters of the separations in which they were involved, substance related disorders were a secondary diagnosis with a non-psychiatric primary diagnosis. As a primary separation diagnosis, substance related disorders made up 0.8% of all general hospital separations in 2002–2003 (Figure 1.9). However, when the 2nd through the 25th diagnosis were considered, on the basis of data from the Hospital Morbidity Database for 2002–2003, it was found that substance related disorders were reported in a further 2.8% of separations that did not have a psychiatric primary diagnosis. Thus, in total, 3.6% of all general hospital separations had associated substance related diagnosis.

As for the role in concurrent disorders,[7] substance related disorders were a secondary diagnosis in 14.5% of all other psychiatric separations from acute care hospitals. Substance related disorder was a secondary diagnosis in 15.9% of separations with a primary diagnosis of schizophrenia, 16.8% of separations with a primary bipolar disorder, and 17.6% of separations with a primary diagnosis of depression.

Summary

Hospital separations for substance related disorders were more common among males than among females, and were more often from general rather than psychiatric hospitals. Hospital stays for substance related disorders tended to be shorter than for other psychiatric disorders; often lasting a single day. Separations for substance related disorder really emerged in the 15 to 24 year age range, and peaked in the 45 to 49 year age range. Substance related disorders were more prominent as secondary diagnoses than as a primary diagnoses for general hospital separations. This was true both when the primary diagnosis was psychiatric as well as non-psychiatric.

7. Concurrent disorders generally refer to substance related disorders in combination with another psychiatric disorder.

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Appendix A

Table A1 Diagnosis Categories and ICD-9 Codes

Diagnoses Category	Sub-Category	ICD-9 Code
Organic Disorders	Alzheimer's	331.0, 331.2
	Senile and Pre-Senile psychotic conditions	290.0–290.9
	Transient Organic Psychotic Conditions	293.0, 293.1, 293.8, 293.9
	Other Organic Psychotic Conditions	294.0, 294.1, 294.8, 294.9
Substance Related Disorders	Alcoholic Psychoses	291.0–291.9
	Drug Psychoses	292.0–292.9
	Alcohol Dependence	303.0–303.9
	Drug Dependence	304.0–304.9
	Nondependent abuse of drugs	305.0–305.9
Schizophrenic and Psychotic Disorders	Schizophrenia	295.0–295.9
	Psychotic	298.8–298.9
	Paranoia	297.1–297.3
Affective Disorders	Bipolar	296.0–296.1, 296.4–296.9
	Depression	296.2, 296.3, 300.4, 311
Anxiety Disorders	Anxiety	300.0, 300.2, 300.3, 309.8
	Acute Stress	308.3
Personality Disorders	Personality Disorders	301.0–301.9
Other	Adjustment	309.0–309.4, 309.8–309.9
	Physiological malfunction arising from mental factors	306.0–306.9
	Sexual	302.0–302.9
	Delusional	297.0–297.3, 297.8–297.9
	Disturbance of conduct NOS	312.0–312.4, 312.8–312.9
	Non-organic psychosis	298.0–298.4
	All Other Psychiatric Disorders	

Source: International Classification of Diseases Volume 9, Table 1.

Table A2 Age Categories, Number and Percentage of Separations

Age (Years)	Number	Percent
<1	61	0.0
1–4	128	0.1
5–9	912	0.5
10–14	5,016	2.6
15–19	14,092	7.4
20–24	15,114	7.9
25–29	14,493	7.6
30–34	16,248	8.5
35–39	19,997	10.5
40–44	21,693	11.4
45–49	18,352	9.6
50–54	14,087	7.4
55–59	9,624	5.1
60–64	6,740	3.5
65–69	6,102	3.2
70–74	6,573	3.5
75–79	7,203	3.8
80–84	6,719	3.5
85–90	4,856	2.6
90+	2,553	1.3

Source: HMHDB, CIHI 2002–2003.

Appendix B—Methodological Notes

Comparability

Caution must be exercised when comparing multiple years of HMHDB data, or data across jurisdictions, because of regular and ongoing changes in the HMHDB frame as well as the implementation of ICD-10-CA. Frame changes result from events such as hospital closures, restructuring of the way mental health services are delivered, hospital mergers, etc. In Canada, the last two decades have seen ongoing changes in mental health service delivery, and as a result, there has been significant change, year over year, in the HMHDB frame.

Privacy and Confidentiality

The Privacy Secretariat at CIHI has developed a set of guidelines to safeguard the privacy and confidentiality of data received by CIHI. These guidelines govern the release of data in publications, media releases, the CIHI Web site and through ad hoc requests and special studies. In compliance with the guidelines, it is required that there be a minimum of five observations per cell. In situations where information may potentially identify an individual or an institution, directly or through the combination or linking of data, data must be taken to higher levels of aggregation to avoid disclosure. For more information on CIHI's Privacy and Confidentiality policies, see www.cihi.ca.

Methods

The HMHDB consists of two primary components: psychiatric hospital data that are compiled in the Hospital Mental Health Survey, and data on psychiatric separations from general hospitals that are derived as a subset of the Hospital Morbidity Database (HMDB). The current database contains information on admission and separation dates, as well as diagnosis, and demographic information for hospital separations in 2002–2003.

Preliminary data quality checks were performed to verify hospital participation and completeness of data. A number of the indicators used in the report were based on derived variables. These variables include age and diagnosis groupings, and indicator of hospitals, and an indictor of the presence of a comorbid condition. The primary ICD-9 diagnosis field was used to classify separations into one of seven major psychiatric/addiction categories (Appendix A).

Analysis

Descriptive analyses were conducted on age, gender and diagnosis-groups. Age-standardized hospital separation rates (/100,000) were calculated based on the 2002 Canadian population.

Mental Health and Addiction Services Indicator Definitions

1. Crude hospital separation rate involving mental illness/addiction, 2002–2003

Numerator: Number of psychiatric/general hospital separations in province/territory with primary diagnoses involving mental illness/addiction (ICD-9: 290-319) within fiscal year.

Denominator: Province/territory population.

2. Age-standardized hospital separation rate involving mental illness/addiction, 2002–2003

Crude hospital separation rates for provinces/territories are age-standardized for the 2002 Canadian population. Population estimates were provided by Statistics Canada.

3. Average length of stay for diagnoses involving mental illness/addiction, 2002–2003

Numerator: Total number of days stayed for psychiatric/general hospital separations with primary diagnoses involving mental illness/addiction (ICD-9: 290–319) within a fiscal year.

Denominator: Total number of psychiatric/general hospital separations for primary diagnoses involving mental illness/addiction (ICD-9: 290–319) within a fiscal year.

4. Percentage of general hospital total separations involving mental illness/addiction, 2002–2003

Numerator: Total number of general hospital separations with primary diagnoses involving mental illness/addiction (ICD-9: 290–319) within fiscal year.

Denominator: Total number of all general hospital separations within fiscal year.

Notes: Calculated for general hospitals only. All psychiatric hospital separations are considered to be based on a primary diagnosis of mental illness/addiction.

5. Percentage of general hospital total days stay involving mental illness/addiction, 2002–2003

Numerator: Total days stayed for general hospital separations with primary diagnosis of mental illness/addiction (ICD-9: 290–319) within a fiscal year.

Denominator: Total days stayed for all general hospital separations within a fiscal year.

NB: Calculated for general hospitals only. All psychiatric hospital separations are e based on a primary diagnosis of mental illness/addiction.

Appendix C—Glossary

1% Trimmed Mean

A measure of central tendency that removes the highest and lowest 0.5% of values in a sample, and then computes the mean of that sample. The 1% trimmed mean is used to reduce the effect of extreme values or outliers in a mean.

Age Standardized Separation Rate

The age standardized separation rate is adjusted for prevailing differences in age structures between populations. The age standardized rate allows for the comparison of separations statistics as if all populations had the same age distribution.

Anxiety Disorder

A condition of excessive anxiety, fear or worry, causing either avoidance of situations that might precipitate the anxiety or development of compulsive rituals that lessen the anxiety. Examples of anxiety disorders include: Generalized Anxiety Disorder, Post Traumatic Stress Disorder, Obsessive Compulsive Disorder, Panic Disorder, and Social Phobia.

Average Length of Stay (ALOS)

The average length of stay is the mean number of days stayed in hospital at separation, and is calculated as the total number of inpatient days divided by the associated number of separations (departures from hospital through discharge or death). Separations captured in the HMHDB vary in their lengths of stay from a single day to several decades. The resulting average length of stay may therefore be relatively high due to the separation of one or more patients with exceptionally long lengths of stay. As an additional reference of central tendency, the median length of stay is also provided.

Comorbid Diagnosis

The presence of co-existing diseases with reference to an initial diagnosis or with reference to the index condition that is the subject of study. Comorbidity may influence the ability of affected individuals to function as well as survive; it may be used as a prognostic indicator for length of hospital stay.

Concurrent Disorder

The co-occurrence of a substance related disorder and any other psychiatric disorder.

Co-occurring diagnosis

Two diseases that exist simultaneously.

Crude Rate

The number of new cases or deaths per 100,000 persons per year, without consideration for age and sex distributions.

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)

This manual, published by the American Psychiatric Association, classifies and defines mental disorders. In doing so, it presents their diagnostic feature of as well as information on their prevalence, course, and differential diagnosis.

Fiscal Year

The fiscal year of the Hospital Mental Health Database is designated as the period between April 1 2002, and March 31, 2003.

General Hospital

A publicly-funded hospital that provides for the diagnosis and treatment of inpatients and clients with a wide range of diseases or injuries. The services of a general hospital are not restricted to a specific age group or sex. Within the HMHDB frame, facility types such as non-teaching general hospitals with or without long-term care units, pediatric hospitals, teaching general hospitals, and specialty institutions (i.e. cancer, cardiology, maternity, extended and chronic care, rehabilitation hospitals, neurological institutes, orthopedic hospitals, etc) are included. Contact CIHI for more information about the facilities included in the HMHDB frame.

Hospital Separation

A hospital separation is the departure of an inpatient from hospital, either due to a discharge or death. Hospital separation records are completed by hospitals for each patient who is discharged or who dies in hospital. Hospital separation records provide data on the relative frequency of a disease and the trends in morbidity from it.

Incidence

The number of new cases of injury or disease for a specific period of time.

Hospital Separation per 100,000 Population

The hospital separation rate is a measure of hospital utilization. It is the total number of hospital separations for a particular subgroup (i.e. hospitalized for mental illness) that occur in an area over a specific time period divided by the population of the area during a time frame, multiplied by a factor of 100,000.

Inpatient Psychiatric Services

Psychiatric services provided to patients who have been admitted to a hospital.

International Classification of Diseases, 9th Revision (ICD-9)

A set of internationally accepted codes for classification of medical diagnoses and conditions; medical records staff use these codes when transcribing from physician written medical charts to the hospital database that is submitted to CIHI.

International Classification of Diseases, 10th Revision (ICD-10-CA)

ICD-10-CA classifies diseases, injuries and causes of death, as well as external causes of injury and poisoning. The classification has 23 chapters with alpha-numeric categories and subcategories. Unlike ICD-9, ICD-10-CA applies beyond acute hospital care. ICD-10-CA also includes conditions and situations that are not diseases but represent risk factors to health, such as occupational and environmental factors, lifestyle and psycho-social circumstances.

Jurisdictions

A term used to refer to provinces and territories.

Median Length of Stay

The median length of stay in hospital is the middle value in the distribution of all the individual lengths of stay. In the HMHDB, some separations have lengths of stay of years and, in some cases, decades. The median length of stay can provide a value that is not affected by extreme values, unlike the average length of stay (see *Average Length of Stay*).

Mood Disorder

People with mood disorders experience either depression or mania or both. Those with depression may feel worthless, sad and empty to the point that these feelings impair effective functioning. Those with mania, are overly energetic and may have an inflated sense of their capacities. Examples of mood disorders include: major depressive disorder, bipolar disorder and dysthymic disorder.

Organic Disorder

People with organic disorders have a detectable physiological or structural change in an organ, usually the brain, causing impaired cognitive function. Examples of organic disorders include: Alzheimer's and Parkinson's disease.

Personality Disorder

Personality disorders are characterized by pervasive abnormalities in experiences and behaviour that result in maladaptive mood and thought processes, and in difficulty maintaining impulse control and personal relationships. Some examples are borderline personality disorder, narcissistic personality disorder and paranoid personality disorder.

Primary Psychiatric Diagnosis

The most responsible diagnosis.

Percentage of Length of Stay

The degree to which a group (hospital type, age, jurisdiction) makes up the total number of hospital days stayed. Used interchangeably with percentage of hospital days stayed.

Psychiatric Hospital

In Canada, there is no standard definition of a psychiatric hospital. For the purposes of this report and CIHI data collection, psychiatric hospitals are medical hospitals that provide psychiatric services on an inpatient and/or outpatient basis, and that have been identified by the provinces as those that should participate in the CIHI Hospital Mental Health Survey.

Schizophrenic and Psychotic Disorder

Schizophrenic and psychotic disorders are characterized by disturbances of thought, and the experience of delusions and hallucinations that might lead to atypical behaviour. These signs and symptoms are severe enough to cause mark dysfunction in their daily life.

Secondary Psychiatric Disorder

Any diagnosis that falls between 2nd and 25th in order of importance to a particular separation.

Separation Rate

See Hospital Separation per 100,000 population.

Substance Related Disorder

Substance related disorder involves either abuse or dependence on psychoactive substances. Examples of substances are: Alcohol, Marijuana, Cocaine and Heroine.

Total Patient Days

The sum of hospital days stayed during a reporting period.

Appendix D—Other Sources of Information

Canadian Centre for Substance Abuse	http://www.ccsa.ca/ccsa/
Canadian Mental Health Association	http://www.cmha.ca/bins/index.asp
Canadian Psychiatric Association	http://www.cpa-apc.org/
Canadian Psychological Association	http://www.cpa.ca/
Centre for Addiction and Mental Health	http://www.camh.net/
Health Canada	http://www.hc-sc.gc.ca/
Public Health Agency of Canada	http://www.phac-aspc.gc.ca/
Schizophrenia Society of Canada	http://www.schizophrenia.ca/
The Mood Disorders Society of Canada	http://www.mooddisorderscanada.ca/
Canadian Alliance on Mental Health and Mental Illness	http://www.camimh.ca/
World Health Organization	http://www.who.int/mental_health/en/