





Mental Health and Addictions Data and Information Guide, 2014



Our Vision

Better data. Better decisions. Healthier Canadians.

Our Mandate

To lead the development and maintenance of comprehensive and integrated health information that enables sound policy and effective health system management that improve health and health care.

Our Values

Respect, Integrity, Collaboration, Excellence, Innovation

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Introduction

Overview

The Canadian Institute for Health Information (CIHI) makes available information on mental health and addictions (MHA) via health indicators, Analysis in Brief and other reports, and Quick Stats.

CIHI helps foster a better understanding of both the factors influencing MHA and the treatment of these diseases through data and reporting that inform clinical decisions, system management and planning, and policy considerations. This work covers inpatient hospitalizations, population health, the health workforce, pharmaceuticals, health expenditures, home and continuing care, primary care, certain types of ambulatory care (for example, day surgery) and, most recently, community mental health services.

This Guide

The purpose of this guide is to provide an overview of MHA-related information in Canada that is available at CIHI through its data holdings and publicly available products (for example, publications, web pages and data tables). The primary intended audience for this publication is individuals and health care organizations interested in accessing MHA information at CIHI. Sources with little or no MHA information are not included in this guide. The metadata presented in each section varies depending on the information available. As there may be changes in coverage and availability over time, readers are encouraged to consult the individual metadata web pages for further information (links included in this guide).

Information is divided into six main sections with cross-referencing where applicable.

- 1. Health System Performance
- 2. Population Health
- 3. Types of Care (Hospital, Residential, Community)
- 4. Pharmaceuticals
- 5. Health Workforce
- 6. Spending

Data Holdingsⁱ

CIHI maintains clinical, administrative, financial and health human resource databases and registries. Data holdings that contain MHA information are included in this guide and are listed below. Information about all 28 of CIHI's databases, registries and information systems may be found in the *Products and Services Guide*, accessed via www.cihi.ca.

i. In this guide, data holdings also include data collected on a pilot basis but not yet formally part of a database, registry or information system, as well as groupings of data holdings where such presentation was more practical for the reader.

Types of Care

Hospital Care

- Hospital Mental Health Database (HMHDB)
- Ontario Mental Health Reporting System (OMHRS)
- Discharge Abstract Database (DAD)/Hospital Morbidity Database (HMDB)
- National Ambulatory Care Reporting System (NACRS)
- National Rehabilitation Reporting System (NRS)

Residential and Community Care

- Continuing Care Reporting System (CCRS)
- Home Care Reporting System (HCRS)
- Community Mental Health (CMH)
- Canadian Multiple Sclerosis Monitoring System (CMSMS)

Pharmaceuticals

National Prescription Drug Utilization Information System (NPDUIS) Database

Health Workforce

- Health Human Resources (HHR)
- Scott's Medical Database (SMDB)

Spending

- Canadian MIS Database (CMDB)
- Canadian Patient Cost Database (CPCD)
- National Physician Database (NPDB)

Products

CIHI's MHA data holdings contain a substantial and wide range of data for analyses. CIHI also has an array of MHA information products in pre-packaged and interactive formats. The Health System Performance and Population Health sections in this guide list relevant web pages, analyses, reports and interactive tools, as well as online education products. In addition, publicly available products are included at the end of each section (Types of Care, Pharmaceuticals, Health Workforce and Spending).

Postal Codes and Demographic Data

Many of the data holdings included in this guide contain information on demographics (age, gender), jurisdiction (province/territory) and postal code for health care providers, patients and/or facilities providing services. Where postal code information is available, additional analyses are

possible by standard geographic areas (for example, by health regions) and by population within a given geographic area (for example, volume of patients discharged from psychiatric facilities per 100,000 population). These data elements facilitate analyses (both within and across data holdings) by socio-economic status (SES) of neighborhoods, urban–rural distribution or health region, to name a few. As well, many analyses can be stratified by these characteristics.

MHA Quick Find

An Excel document with web links and predefined filters is available to help you access information by topic. This includes all publications (including Analysis in Brief reports), Quick Stats, preformatted Excel files and interactive tools listed in this guide.

Accessing MHA Data and Information

Where available, this guide provides web links to free and publicly available reports and publications as well as to specific data holding and/or metadata web pages available on CIHI's website, www.cihi.ca.

You may request additional information through CIHI's custom data request service.

Citing CIHI's Products

Please cite CIHI's products as follows:

Canadian Institute for Health Information. *Title of Product*. Ottawa, ON: CIHI; YEAR.

Questions?

Please send questions about this guide to mentalhealth@cihi.ca.

Health System Performance

Overview

This section provides information on how the Canadian health system is performing with respect to some specific MHA indicators. These include the following: Mental Illness Hospitalizations, Mental Illness Patient Days, 30-Day Readmission for Mental Illness, Self-Injury Hospitalizations and Patients With Repeat Hospitalizations for Mental Illness.

In addition, an interactive website—OurHealthSystem.ca—is now available to help Canadians understand how their health system is performing at the provincial, regional and, for some information, hospital levels. Relevant links are included below, and additional health system performance information is included under applicable data holdings.

For information on how CIHI measures health system performance from a pan-Canadian perspective, please read *Performance Measurement Framework for the Canada Health System*.

Indicators

Repeat Hospital Stays for Mental Illness (Interactive Web Page)
 This product is also listed in the Types of Care section.

This indicator measures what is known as the "revolving door" syndrome for mental health patients. It looks at how many patients have at least three repeat hospital stays for a mental illness in a single year. Frequent hospitalizations may reflect challenges in getting appropriate care, medication and support in the community.

- Health Indicators Interactive Tool
 MHA focus: Mental Illness Hospitalizations, Mental Illness Patient Days, 30-Day Readmission for Mental Illness,
 Self-Injury Hospitalizations, Patients With Repeat Hospitalizations for Mental Illness
- Potentially Inappropriate Medication in Long-Term Care (Interactive Web Page)
 This product is also listed in the Pharmaceuticals and Types of Care sections.

This web page includes

- Residents on antipsychotic drugs in long-term care homes without a diagnosis of psychosis; and
- Percentage of seniors in long-term care homes who have been diagnosed with dementia.

Reports

- Health Indicators Reports
 MHA focus: Mental Illness Hospitalizations, Mental Illness Patient Days, 30-Day Readmission for Mental Illness,
 Self-Injury Hospitalizations, Patients With Repeat Hospitalizations for Mental Illness
- A Framework for Health Outcomes Analysis: Diabetes and Depression Case Studies (2008)
 MHA focus: Includes specific findings related to depression

This report explores the feasibility of conducting health outcomes analyses using existing data, with a specific focus on diabetes and depression. The report, a collaborative effort between CIHI and Statistics Canada, also identifies important data gaps and related research implications.

The framework and case studies profiled will be of interest to health system decision-makers, health care providers, policy-makers and researchers working at different levels and points within the health sector. The overall intent of this report is to inform current and future health outcomes analyses and to provide specific findings related to diabetes and depression.

Population Health

Overview

CIHI's Canadian Population Health Initiative (CPHI) supports policy-makers and health system managers in Canada to improve population health and reduce health inequalities through research and analysis, evidence synthesis and performance measurement.

This Population Health section pulls together MHA-related CPHI publications, products, summaries of past funded research and available online education resources.

Complete List of CPHI Publications and Products (by Title)

MHA-Related Publications and Products

- Return on Investment: Mental Health Promotion and Mental Illness Prevention (2011)
 CPHI commissioned the Canadian Policy Network at the University of Western Ontario to complete a scoping study that examines the return on investment and cost-effectiveness of mental health promotion. This study found research showing a return on investment for some mental health promotion/illness prevention interventions. The strongest evidence was for interventions targeting children and youth (such as those that focus on conduct disorders, depression, parenting, and suicide awareness and prevention), while the weakest evidence was from the workplace sector.
- Hospitalization Disparities by Socio-Economic Status for Males and Females (2010)
 Research, including previous CPHI analyses (Reducing Gaps in Health, 2008), has
 consistently demonstrated higher hospitalization rates for people from lower socio-economic
 areas. This analytical product expands on those findings by examining the size and cost of
 disparities in hospitalization rates between SES groups across Canada's 33 largest cities.
 The analysis focuses on ambulatory care sensitive conditions and mental illnesses—
 conditions for which hospitalization could potentially be avoided with adequate primary
 health care.
 - Mental Illness Hospitalization Rates by Census Metropolitan Area and INSPQ Material Deprivation Index (SES Group), 2005 to 2007 (Pooled)
 As part of CIHI's ongoing effort to make its data more accessible, we provided our stakeholders with an Excel spreadsheet of Mental Illness Hospitalization Rates by Census Metropolitan Area and INSPQ Material Deprivation Index for the years 2005 to 2007. This allows each census metropolitan area (CMA) to investigate its rates, which are not reported in the Analysis in Brief listed above.
- Youth Health Outcomes and Behaviours in Relation to Developmental Assets (2009)
 MHA focus: This Analysis in Brief explores associations among five developmental assets and seven health outcomes and behaviours (high level of self-worth, excellent or very good health, low level of anxiety, contact with peers who commit crimes, alcohol use, tobacco use and marijuana use) for Canadian youth age 12 to 15.

Improving the Health of Canadians: Mental Health and Homelessness (2007)

The series *Improving the Health of Canadians* (2007 to 2009) comprises three reports that focus on the determinants of mental health among Canada's vulnerable populations. The first report in the series, *Improving the Health of Canadians: Mental Health and Homelessness*, provides an overview of the latest research, surveys and policy initiatives related to mental health and homelessness and, for the first time, presents data on hospital use by homeless Canadians.

- Improving the Health of Canadians: Mental Health, Delinquency and Criminal Activity (2008)
 - The series *Improving the Health of Canadians* (2007 to 2009) comprises three reports that focus on the determinants of mental health among Canada's vulnerable populations. The second report in the series, *Improving the Health of Canadians: Mental Health, Delinquency and Criminal Activity*, provides an overview of the latest research, analyses and policy initiatives related to mental health, delinquency and criminal activity. It also presents data on the characteristics of individuals with a mental illness who are or were involved with the criminal justice system, as well as the issues they face.
- Improving the Health of Canadians: Exploring Positive Mental Health (2009)

The series *Improving the Health of Canadians* (2007 to 2009) comprises three reports that focus on the determinants of mental health among Canada's vulnerable populations. The third report in this series, *Improving the Health of Canadians: Exploring Positive Mental Health*, explores the concept of positive mental health by looking at mental health as distinct from mental illness and positive mental health as a component of overall health and mental health promotion.

Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada (2008)

MHA focus: Some sections examine use of health services for a number of acute and chronic conditions, including mental health (all ages), anxiety disorders (all ages), affective disorders (all ages), substance-related disorders (all ages), smoking (age 12 and older), alcohol intake (heavy drinking) (age 12 and older) and risk factors: self-reported physical inactivity, body mass index, smoking and/or alcohol intake (age 18 and older).

As a follow-up to the report *Reducing Gaps in Health*, data briefs were produced for 33 CMAs, with each area classified into five SES groups, ranging from highest to lowest. MHA focus: Each data brief for the 33 CMAs includes data on mental illness (all ages) for affective disorders, anxiety disorders and substance-related disorders, as well as self-reported health data for mental illness (age 12 and older).

Mentally Healthy Communities: A Collection of Papers (2008)

CPHI commissioned papers from Canadian and international experts to foster discussion of the complex ways in which individual, social, cultural, physical and socio-economic determinants may affect individual and community mental health. These papers represent a cross-section of views on diverse topics, including workplace mental health, the role of social capital and mental health promotion. In addition, they provide new perspectives on potential indicators of community mental health.

Mentally Healthy Communities: Aboriginal Perspectives (2009)

CPHI commissioned papers from Canadian experts to foster discussion of the complex ways in which individual, social, cultural, physical and socio-economic determinants may affect Aboriginal peoples' individual and community mental health. These papers represent perspectives on aspects of Aboriginal peoples' mental health, ranging from research and clinical practice to program and policy settings.

CPHI's Past Funded Research Initiative

For further updates on the following works, please contact the authors directly or check the published literature.

 Children's Mental Health in Canada: Preventing Disorders and Promoting Population Health (2004)

Principal Investigator: Charlotte Waddell

In Canada, an estimated 14% of children experience mental disorders that significantly impair their functioning. Most of these children do not gain access to specialized treatment services, due in part to limited availability of services. This reality highlights the importance of using prevention as a strategy to reduce the number of children with mental disorders.

This project investigated the issue of prevention in children's mental health by

- Conducting a systematic review of the research evidence on preventing conduct disorder, anxiety and depression; and
- Conducting a review of Canadian prevention programs relevant to child mental health.

To request the research summary, please contact CPHI@cihi.ca.

 Vulnerable Teens: A Study of Obesity, Poor Mental Health and Risky Behaviours Among Adolescents in Canada (2004)

Principal Investigator: Doug Willms

The research program on vulnerable teens focused on four health issues among Canadian children and adolescents:

- Smoking;
- Overweight and obesity;
- Behavioural and developmental outcomes of children born to adolescent mothers; and
- Mental health (self-esteem).

The objective of this research program was to examine the prevalence and incidence of these issues, their relationships with SES and gender, and their geographic distribution. Sources included data from the first four cycles of the National Longitudinal Survey of Children and Youth and other relevant survey data collected at the federal and provincial levels (Canada Fitness Survey, Labour Force Survey, etc.).

 How Are Canadian Adolescents Developing in Comparison With Adolescents in Other Wealthy Countries: Time Use, Time Pressure, Emotional Well-Being and Health (2004) Principal Investigator: Jiri Zuzanek

The primary aim of this study was to compare patterns of daily time use among adolescents in 10 countries: Canada, Australia, Belgium, Finland, France, Germany, the Netherlands, Norway, the United Kingdom and the United States. The objectives of the study were the following:

- To compare time-use patterns of adolescents in Canada with those of adolescents in nine other developed industrial societies;
- To examine gender and age differences in adolescents' time use;
- To examine historical changes in adolescents' time use;
- To identify the academic, emotional and health effects of adolescents' time use; and
- To examine policy challenges posed by the observed trends.

To request the research summary, please contact CPHI@cihi.ca.

MHA-Related Online Education Products

 Reducing Gaps: Using Area-Based Socio-Economic Measures to Explore Population Health Initially launched in August 2012.

Description

This self-study course explores how health and socio-economic data can be used together to better understand differences in health among areas with different population characteristics. With more knowledge of SES groups, the geographic distribution of these groups across Canadian municipalities and the differences in health utilization according to SES, learners can target their approaches to health planning, promotion and prevention, and act to reduce disparities across their respective jurisdictions.

Learning Objectives

Upon completing this course, learners will be able to

- Define area-based socio-economic measures;
- Understand why area-based socio-economic measures are used to examine disparities in health; and
- Identify opportunities for using area-based measures in monitoring disparities in health or health service use.
- Promoting Positive Mental Health in Canada Initially launched in April 2011.

Description

In this self-study course, based on the CPHI report *Improving the Health of Canadians: Exploring Positive Mental Health*, learners will explore the concept of positive mental health and gain insight into the various initiatives that have been successful in promoting positive mental health in Canada.

Learning Objectives

Upon completing this course, learners will be able to

- Explain the concept of positive mental health and understand its importance;
- Recognize the needs addressed by interventions that support positive mental health;
- Describe key components of interventions that support positive mental health; and
- Identify tools and resources that will be helpful in the development of positive mental health interventions.
- Linking Mental Health to Delinquency and Criminal Activity Initially launched in September 2010.

Description

This self-study course introduces learners to the links between mental health, delinquency and criminal activity among youth, and provides context for understanding how a population health lens can be applied to issues related to mental health and resilience. Through a series of animated activities, learners will gain insight into

- Factors associated with youth engagement in delinquent behaviour;
- Options for diverting mentally ill individuals from the justice system; and
- The characteristics that differentiate hospitalized mentally ill individuals with a criminal history from patients who do not have a criminal history.

Each module demonstrates the potential for more collaboration and integration across various sectors to better meet the needs of different populations.

 Exploring Positive Mental Health Initially launched in September 2009.

Description

This self-study course is an audio recording of a discussion-based web conference. Learners will gain insight into the practical implications of mental health and mental health promotion within the contexts of policy and program planning and will learn about the findings from the CPHI report *Improving the Health of Canadians: Exploring Positive Mental Health.* Guest panellists engage in discussions about the report's findings and share with learners some of the potential policy-related issues and opportunities.

Panellists

- Corey L. M. Keyes, Department of Sociology, Emory University (Atlanta, Georgia)
- Carl Lakaski, Mental Health Promotion Unit, Healthy Communities Division, Public Health Agency of Canada
- Peter Coleridge, Education and Population Health, B.C. Mental Health and Addiction Services, Provincial Health Services Authority

Improving the Health of Young Canadians Initially launched in April 2009.

Description

This self-study course provides learners with insight into adolescent health and development and explores the association between positive assets in adolescents' social environments and their health behaviours and outcomes. Analyses from the National Longitudinal Survey of Children and Youth and the Canadian Community Health Survey informed the research presented in this self-study course.

Learning Objectives

Upon completing this self-study course, learners will be able to

- Describe some of what is known about adolescent health and behaviour from the perspective of positive assets;
- Understand the results of analyses from the National Longitudinal Survey of Children and Youth; and
- Highlight some of the research that the initiatives to build positive assets and promote healthy transitions to adulthood are based on.
- Mental Health and Homelessness in Canada

Initially launched in March 2009.

Description

This self-study course introduces learners to the interrelated pathways linking mental health and homelessness and provides an overview of related research and policy initiatives in the field.

Learning Objectives

Upon completing this self-study course, learners will be able to

- Describe the common determinants of mental health and homelessness;
- Recognize the extent and nature of mental illness among homeless Canadians;
- Identify key mental health issues for Canada's homeless; and
- Identify effective policies and programs for addressing mental health and homelessness.
- Mental Health, Delinquency and Criminal Activity Initially launched in March 2009.

Description

This self-study course is an audio recording of a discussion-based web conference that will introduce learners to the pathways that link mental health, delinquency and criminal activity in Canada. Through discussion among web conference participants and guest panellists, learners will gain insight into the challenges experienced by individuals with a mental illness who are involved in the criminal justice system. Learners will also gain insight into findings of the CPHI report *Improving the Health of Canadians: Mental Health, Delinquency and Criminal Activity* and learn about opportunities for action in the areas of policy and research.

Learning Objectives

Upon completing this self-study course, learners will be able to

- Describe the common determinants of mental health, delinquency and criminal activity;
- Understand the mental health–related factors that are linked to delinquency or criminal activity; and
- Identify key issues faced by Canadians with mental health issues who are involved in the justice system.

Types of Care

Hospital Care

This subsection looks at MHA-related information within inpatient, day surgery and emergency care settings.

Readers looking for pan-Canadian information on individuals **hospitalized for a mental illness** should first consult the **Hospital Mental Health Database (HMHDB)**, as it is the most complete source, including both pediatric and adult records as well as general and psychiatric facilities for all jurisdictions.

Where only specific regions and/or provinces/territories are of interest, please consult the following data holdings included in this subsection:

- The Ontario Mental Health Reporting System (OMHRS) contains inpatient records of
 individuals admitted to designated adult mental health beds in Ontario. This excludes nondesignated beds in general facilities in Ontario, which report to the DAD. OMHRS also
 includes a comprehensive mental health clinical data set through use of the Resident
 Assessment Instrument–Mental Health (RAI-MH©).
- The Discharge Abstract Database (DAD)/Hospital Morbidity Database (HMDB) contain inpatient records from acute care facilities throughout Canada (excluding three psychiatric facilities in western Canada).

Day surgery information is available through the DAD/HMDB or NACRS, depending on the jurisdiction of interest, for individuals receiving interventions/procedures for a mental health issue (for example, electroconvulsive therapy, mental health counselling or therapy).

Emergency department (ED) and clinic visit information for individuals with mental illness may be found in the National Ambulatory Care Reporting System (NACRS).

Information on individuals undergoing **inpatient rehabilitation** who also have a comorbid mental illness that has an impact on their stay can be found in the **National Rehabilitation Reporting System (NRS)**.

Please see below for additional information.

Hospital Mental Health Database

Overview

The HMHDB contains data for hospitalizations related to mental illness across Canada. It includes demographic and medical diagnosis information for inpatient hospital stays from all provinces and territories for people admitted to hospital with a primary diagnosis of mental illness. HMHDB data comes from four sources:

1. Separation (discharge or death) records of psychiatric and general hospitals through selected extracts of the DAD;

RAI-MH © Government of Ontario; Ontario Hospital Association; interRAI.

- 2. An annual collection of data on separations from a small number of psychiatric hospitals through the Hospital Mental Health Survey (HMHS);
- 3. Separation records of psychiatric and general hospitals in Quebec through selected extracts of the HMDB; and
- 4. Separation records for designated adult mental health beds in Ontario through OMHRS.

Coverage

Jurisdictions: Pan-Canadian

Ages: All ages

Availability and Major Limitations

Data from 2000 onward is available on request. Information on expected next release(s) may be found on the HMHDB metadata web page. Methodological notes, data limitations and data quality information are available in *Hospital Mental Health Database, User Documentation*, which is also accessible through the HMHDB metadata web page.

A unique patient-level identifier is available. This can assist in matching records from different sources.

Ontario Mental Health Reporting System

Overview

OMHRS collects, analyzes and reports on information submitted to CIHI about individuals admitted to designated adult mental health beds in the province of Ontario. It includes demographic, clinical, administrative and resource information to support inpatient mental health services planning. The data is collected and submitted to CIHI when an individual is admitted, is discharged and has a significant change in health status. Data is collected and submitted every three months for individuals with extended stays.

OMHRS incorporates the RAI-MH as well as additional administrative data elements.

The RAI-MH collects information on the following:

- Mental health service use (for example, reason for admission, contact with mental health services in past year)
- Mental status (for example, mood disturbance, negative symptoms, degree of insight)
- Substance use
- · Harm to self or others
- Behaviour (for example, verbal/physical abuse of others)
- Cognition
- Functional status (instrumental activities of daily living)
- Communication and vision

- Health conditions
- Stress and trauma
- Medications
- Service utilization and treatments
- Nutritional status and social relations
- Employment and education
- Managing finances
- Diagnostic and discharge information (for example, resources for discharge, available social supports)

The RAI-MH data elements are also used to derive outcome scales, quality indicators and Mental Health Clinical Assessment Protocols (MH CAPs) used in care, program and system planning, performance measurement and policy decisions.

The System for Classification of In-Patient Psychiatry (SCIPP) grouping methodology is applied to OMHRS data. SCIPP categorizes assessments into specific groups based on similar clinical and resource utilization characteristics, and may be used to support facility-, regional- or provincial-/territorial-level service planning and analysis of resource utilization in facility-based mental health care.

Coverage

Jurisdictions: Ontario; pilots in Newfoundland and Labrador and Manitoba

Ages: Mainly adults; however, it includes a **small portion** of individuals younger than age 18 who are admitted to adult mental health inpatient beds.

Availability and Major Limitations

Data from 2006 to the current fiscal year is available on request. Information on expected next release(s), methodological notes, data limitations and data quality may be found on the OMHRS metadata web page.

Discharge Abstract Database/Hospital Morbidity Database

Overview

The DAD/HMDB make up a pan-Canadian data source that captures administrative, clinical and demographic information on hospital discharges (including deaths, sign-outs and transfers). Some provinces and territories also use the DAD to capture day surgery procedures, long-term care, rehabilitation and psychiatric care.

The DAD receives data directly from acute inpatient care facilities or from their respective (regional) health authority or ministry/department of health. Facilities in all provinces and territories except Quebec are required to report. Acute inpatient and day surgery data from Quebec is submitted to CIHI by the ministère de la Santé et des Services sociaux du Québec. This data is appended to the DAD to create the HMDB.

MHA Data in the DAD/HMDB

- ICD-10-CA diagnosis codes
- Interventions/procedures (CCI codes) (for example, electroconvulsive therapy, mental health counselling, mental health therapy)
- Facility type
- Main patient service (for example, psychiatry)
- Provider service (for example, psychiatry)
- Mental health indicators for selected provinces (referral from/to, method of admission [voluntary/involuntary], change in legal status, AWOL, suicide, previous psychiatric admissions, electroconvulsive therapy, employment status and financial support)

Coverage

Jurisdictions: Pan-Canadian

Ages: All ages

Availability and Major Limitations

Data from 1994 onward is available on request. Provincial/territorial coverage varies over time and by level of care. Information on expected next release(s), methodological notes, data limitations and data quality may be found on the DAD and HMDB metadata web pages.

National Ambulatory Care Reporting System

Overview

NACRS contains data for all hospital-based and community-based ambulatory care: day surgery, outpatient clinics and EDs. Client visit data is collected at time of service in participating facilities. Data collection methods may vary by facility.

Since 2009–2010, NACRS has offered three options for submitting ED records.

The extent of information submitted varies depending on the level of reporting. Records for day surgery procedures and other ambulatory care visits are submitted at the most comprehensive reporting level.

The Presenting Complaint List (data element 136) and ED Discharge Diagnosis (data element 137) are completed using NACRS pick-lists that contain predefined words or phrases coders can choose from. The Presenting Complaint List includes common symptoms, complaints, problems or reasons for seeking medical care. The Canadian Emergency Department Diagnoses Shortlist (CED-DxS) includes more than 800 diagnoses in common terms that are mapped to ICD-10-CA codes. Inclusion of either a presenting complaint or an ED discharge diagnosis is mandatory for certain NACRS reporting levels.

MHA Data in NACRS

- ICD-10-CA diagnosis codes
- Interventions/procedures (CCI codes) (for example, electroconvulsive therapy, mental health counselling, mental health therapy)
- · MIS functional centre
- Provider service (for example, psychiatry)

Coverage

Jurisdictions: As of 2013–2014, full coverage for Ontario and Alberta and partial coverage for Prince Edward Island, Nova Scotia, Manitoba, Saskatchewan, British Columbia and Yukon

Ages: All ages

Availability and Major Limitations

Data from 2001 onward is available on request. Provincial/territorial coverage varies over time and fiscal year. Information on expected next release(s), methodological notes, data limitations and data quality may be found on the NACRS metadata web page.

National Rehabilitation Reporting System

Overview

The NRS contains client data collected from participating adult inpatient rehabilitation facilities and programs across Canada, including specialized facilities and hospital rehabilitation units, programs and designated rehabilitation beds. The minimum data set contains clinical data on functional status based on the 18-item FIM® instrument and additional cognitive elements. Facilities collect client data on admission and discharge (and, optionally, on follow-up) from the inpatient rehabilitation program and send the data to CIHI on a quarterly basis for inclusion in comparative reports.

MHA Data in the NRS

Pick-lists of ICD-10-CA diagnosis codes for selection of most responsible health condition and comorbidities affecting inpatient rehabilitation care include some codes from Chapter V: Mental and Behavioural Disorders (F00–F99). While most admissions are for physical rehabilitation, comorbidities of mental health issues such as depression and anxiety are collected where they are believed to affect a patient's inpatient rehabilitation stay. Approximately 22% of annual admissions have comorbidities of depression, anxiety, dementia, delirium and/or other mental health disorders. This may be of interest to individuals examining particular patient populations (for example, those who suffer stroke).

Up to 20 provider types may also be recorded for each episode of care. Options relating to MHA include psychiatrist, psychotherapist and psychologist. Occupational therapists are also listed, but their main role within inpatient rehabilitation does not tend to be related to mental health.

Coverage

Jurisdictions: Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia

Ages: All ages; however, there is limited data on patients younger than age 18.

Availability and Major Limitations

Data from 2000 to the current fiscal year is available on request. Coverage varies by province/territory and fiscal year. There is limited MHA ICD-10-CA diagnosis information (taken from a pick-list subset; please contact the NRS team for current list). Information on expected next release(s), methodological notes, data limitations (including jurisdictions that did not participate in given years) and data quality may be found on the NRS metadata web page.

FIM® instrument: The 18-item FIM® instrument referenced herein is a trademark of Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc.

Residential and Community Care

MHA information in residential and community care settings is currently available in four main areas:

- Continuing Care Reporting System (CCRS): Demographic, clinical, functional and resource utilization information on individuals receiving continuing care services in hospitals or longterm care homes
- Home Care Reporting System (HCRS): Demographic, clinical, functional and resource utilization information on clients served by publicly funded home care programs
- Community Mental Health (CMH): Information on individuals receiving services in community mental health settings (CMH contains a standardized assessment system—the interRAI—Community Mental Health [interRAI-CMH©]—that includes diagnostic information, service utilization and treatments received)
- Canadian Multiple Sclerosis Monitoring System (CMSMS): Information on individuals living
 with multiple sclerosis, including information on comorbid conditions, complications or
 secondary conditions, with a category for mental and behavioural disorders.

Both CCRS and HCRS cover hundreds of organizations in many jurisdictions and provide rich sources of clinical information through standardized assessments: the Resident Assessment Instrument–Minimum Data Set (RAI-MDS 2.0©), the Resident Assessment Instrument–Home Care (RAI-HC©) and the interRAI–Contact Assessment (interRAI-CA©). Data availability is more limited for CMH and the CMSMS, as the adoption and use of the respective assessment and data collection instruments are in early growth phases.

Please see below for additional information.

Continuing Care Reporting System

Overview

CCRS contains demographic, clinical, functional and resource utilization information on individuals receiving continuing care services in hospitals or long-term care homes in Canada. The clinical data standard for CCRS was developed by interRAI, an international research network, and modified with permission by CIHI for Canadian use. Clinicians assess their residents using interRAI's RAI-MDS 2.0. Data is collected for two types of participating publicly funded facilities:

 Hospitals with continuing care beds, commonly known as extended, auxiliary, chronic or complex care beds; and

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RAI-MDS 2.0 © interRAI Corporation, Washington, D.C., 1995, 1997, 1999. Modified with permission for Canadian use under licence to the Canadian Institute for Health Information.

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 Residential care facilities, commonly known as nursing homes, personal care homes or longterm care facilities.

MHA Data in CCRS

The admission assessment includes mental health and developmental disability history. Clinical information for residents who stay longer than 14 days is collected quarterly and annually using the RAI-MDS 2.0, including the following:

- Diagnoses (depression, bipolar disorder, schizophrenia and anxiety disorder)
- Use of psychotropic medications (antipsychotic, antianxiety, antidepressant, hypnotic)
- Cognitive patterns (including indicators of delirium)
- Mood and behaviour patterns (including indicators of depression, anxiety and sad mood)
- Psychosocial well-being
- Participation in alcohol/drug treatment program
- Psychological therapy undertaken
- Use of devices and restraints

Several risk-adjusted quality indicators are also tracked, including worsening mood and restraints.

Coverage

Jurisdictions: Historical data coverage varies. The following provinces/territories participate partially or completely in CCRS:

Hospitals with continuing care beds	Ontario Manitoba (Winnipeg Regional Health Authority only)
Residential care facilities	Newfoundland and Labrador Nova Scotia Ontario Manitoba (Winnipeg Regional Health Authority only) Saskatchewan British Columbia Yukon

Please refer to the CCRS metadata web page for coverage updates.

Ages: All ages, but mainly adults (including seniors)

Availability and Major Limitations

Longitudinal data from 2003 onward is available on request. Prior to 2003, limited data is available for Ontario hospitals only. Provincial/territorial coverage varies over time. Methodological notes, data limitations and data quality information are available in *Data Quality Documentation, Continuing Care Reporting System*, which is accessible through the CCRS metadata web page.

A unique patient-level identifier is available. This can assist in matching records from different sources.

Home Care Reporting System

Overview

HCRS contains demographic, clinical, functional and resource utilization information on clients served by publicly funded home care programs in Canada. HCRS captures data on clients at multiple points throughout their home care services. Information on organizational characteristics that supports comparative reporting and benchmarking is also captured. Key components of HCRS are the RAI-HC and the interRAI-CA.

MHA Data in HCRS

Clinical information for long-stay home care clients collected using the RAI-HC includes the following:

- Diagnoses
- Use of psychotropic medications
- Indicators of depression, anxiety, sad mood, tobacco use, drinking concerns
- Alcohol/drug treatment programs

Additional information is also available for potential home care clients in Ontario. The *interRAI Contact Assessment Canadian Version—Screening Level Assessment for Emergency Department and Intake From Community/Hospital* is an intake and screening tool for clients being evaluated for home care services. MHA-related information within this tool includes

- Whether the expected residential/living status during service provision is a mental health residence (for example, psychiatric group home), a setting for persons with an intellectual disability or a psychiatric hospital or unit;
- Self-reported mood;
- · Tobacco use; and
- Mental status indicators, including hallucinations and/or delusions (ED preliminary screener).

Coverage

Jurisdictions: Coverage of RAI-HC assessments includes Nova Scotia (historical), Ontario, Manitoba (historical), British Columbia and Yukon. Implementation is under way in Newfoundland and Labrador, Prince Edward Island, Saskatchewan and Alberta. interRAI-CA data is available for Ontario.

Ages: All ages, but mainly adults older than age 50

Availability and Major Limitations

Data from 2006 onward is available on request. Provincial/territorial coverage varies over time. As well, admission criteria vary across the country. Methodological notes, data limitations (including jurisdictions that did not participate in given years) and data quality information are available in *Data Quality Documentation*, *Home Care Reporting System*, which is accessible through the HCRS metadata web page.

A unique patient-level identifier is available. This can assist in matching records from different sources.

Community Mental Health

Overview

In 2012–2013, CIHI began collecting and reporting on community MHA data in the province of Newfoundland and Labrador using the interRAI-CMH, a standardized assessment system for CMH settings.

The interRAI-CMH, like the RAI-MH, collects information on intake and initial history, including the following:

- · Reason for admission
- Contact with CMH services in past year
- Mental status (for example, mood disturbance, negative symptoms, degree of insight)
- Substance use or excessive behaviour
- · Harm to self or others
- Behaviour (for example, verbal/physical abuse to others)
- Cognition
- Functional status (instrumental activities of daily living)
- · Communication and vision
- Health conditions
- Stress and trauma
- Medications
- Service utilization and treatments
- Nutritional status
- Social relations
- Employment, education and finances
- Environmental assessment (for example, living conditions)
- Diagnostic information
- Discharge information

The interRAI-CMH data elements are also used to derive outcome scales, quality indicators and MH CAPs used in care, program and system planning, performance measurement and policy decisions.

Coverage

Jurisdictions: Newfoundland and Labrador (Central and Labrador–Grenfell regions)

Ages: All ages

Availability and Major Limitations

Data from June 2012 to the current fiscal year is available on request. Please contact CIHI at mentalhealth@cihi.ca for information.

A unique patient-level identifier is available. This can assist in matching records from different sources.

Canadian Multiple Sclerosis Monitoring System

Overview

CIHI began developing the CMSMS in April 2011 through collaboration with an extensive network of experts, including people living with multiple sclerosis (MS) and their caregivers, the MS Society of Canada, the Canadian Network of Multiple Sclerosis Clinics, clinicians, researchers, international experts and various governments.

The CMSMS is starting to receive data and continues to work with MS clinics and jurisdictions to expand participation in the system. The CMSMS collects administrative, demographic, clinical, treatment, therapy and outcomes data on MS patients in Canada.

MHA Data in the CMSMS

Clinics participating in the CMSMS are strongly encouraged to record up to 10 existing comorbid conditions, complications or secondary conditions that have been diagnosed by a health care provider and that affect a person's health functional status and resource requirements. One of the comorbid categories is mental and behavioural disorders, which includes capture of several conditions (for example, anxiety and depressive disorder).

Coverage

Jurisdictions: The CMSMS is currently in the recruitment phase. Please refer to CIHI's CMSMS web page for current information in terms of coverage.

Ages: All ages; the CMSMS is structured to collect information from both adult and pediatric MS patients.

Availability and Major Limitations

Data availability is limited as the CMSMS is a new data source. Please refer to CIHI's CMSMS web page for current information.

Types of Care—Publicly Available Products

- Repeat Hospital Stays for Mental Illness (Interactive Web Page)
 - This product is also listed in the Health System Performance section.
 - This indicator measures what is known as the "revolving door" syndrome for mental health patients. It looks at how many patients have at least three repeat hospital stays for a mental illness in a single year. Frequent hospitalizations may reflect challenges in getting appropriate care, medication and support in the community.
- Potentially Inappropriate Medication in Long-Term Care (Interactive Web Page)
 This product is also listed in the Health System Performance and Pharmaceuticals sections.
 It includes
 - Residents on antipsychotic drugs in long-term care homes without a diagnosis of psychosis; and
 - The percentage of seniors in long-term care homes who have been diagnosed with dementia.
- Hospital Mental Health Services for Concurrent Mental Illness and Substance Use Disorders in Canada (2013)
- Leaving Against Medical Advice: Characteristics Associated With Self-Discharge (2013)
- When a Nursing Home Is Home: How Do Canadian Nursing Homes Measure Up on Quality? (2013)
- Hospital Mental Health Services in Canada (2009–2010) (2012)
- Seniors and Alternate Level of Care: Building on Our Knowledge (2012)
- Restraint Use and Other Control Interventions for Mental Health Inpatients in Ontario (2011)
- interRAI Mental Health Clinical Assessment Protocols
- Seniors and the Health Care System: What Is the Impact of Multiple Chronic Conditions? (2011)
 - MHA focus: Depression is included as one of the conditions.
- Health Care in Canada 2011: A Focus on Seniors and Aging (2011)
- Depression in Ontario: What Predicts a First Mental Health Rehospitalization? (2010)
- Depression Among Seniors in Residential Care (2010)
 - Seniors and Mental Health Information Sheet—Residential Care: Focus on Depression (2010)
- Caring for Seniors With Alzheimer's Disease and Other Forms of Dementia (2010)
- Supporting Informal Caregivers—The Heart of Home Care (2010)
- Availability of Hospital Mental Health Data, 2003–2004, 2004–2005

- Exploring Hospital Mental Health Service Use in Ontario (2007–2008) (2009)
- The Association Between Socio-Economic Status and Inpatient Hospital Service Use for Depression (2009)
- Hospital Length of Stay and Readmission for Individuals Diagnosed With Schizophrenia: Are They Related? (2008)
- Understanding Emergency Department Wait Times: Access to Inpatient Beds and Patient Flow (2007)

MHA focus: Acute care patients are hospitalized for a wide variety of reasons. In an attempt to understand differences in the types of acute care services received by patients admitted via the ED, patients were assigned to one of six patient service groups: medical, surgical, pediatric, neonatal, obstetric and mental health.

- Quick Stats Under the Topic Specialized Care (Preformatted and Interactive Tables)
 - HMHDB Hospital Mental Health Services in Canada (Interactive)
 - Hospital Separations, Days Stayed and Separation Rate Involving Mental Illness/Addiction, by Province of Hospitalization
 - Pan-Canadian Hospital Separations, Days Stayed, Separation Rate, Median Days Stayed and Average Length of Stay Involving Mental Illness/Addiction
 - Separations, Days Stayed, Average Length of Stay and Median Days Stayed Involving Mental Illness/Addiction, by Province of Hospitalization
 - Separations, Days Stayed, Percentage of Total Separations and Percentage of Total Days Stayed in General Hospitals Involving Mental Illness/Addiction, by Province of Hospitalization (Age/Sex)
 - Separations, Days Stayed, Percentage of Total Separations and Percentage of Total Days Stayed in General Hospitals Involving Mental Illness/Addiction, by Province of Hospitalization (Diagnosis Category)
 - Pan-Canadian Separations, Days Stayed, Percentage of Total Separations and Percentage of Total Days Stayed in General Hospitals Involving Mental Illness/Addiction (Age/Sex)
 - Pan-Canadian Separations, Days Stayed, Percentage of Total Separations and Percentage of Total Days Stayed in General Hospitals Involving Mental Illness/Addiction (Diagnosis Category)
 - HMHDB Regional Hospital Mental Health Services Indicators (Interactive)
 - Hospital Separations, Days Stayed, Separation Rate, Days Stayed Rate in General Hospitals Involving Mental Illness/Addiction per 100,000 Population and 30-Day/1-Year Rehospitalization Rate for Mood Disorders, per 100 People
 - Separations, Days Stayed, Average Length of Stay and Median Days Stayed in General Hospitals Involving Mental Illness/Addiction, in Health Region of Residence
 - Separations, Days Stayed, Percentage of Total Separations and Percentage of Total Days Stayed in General Hospitals Involving Mental Illness/Addiction, in Health Region of Residence (Age)

- Separations, Days Stayed, Percentage of Total Separations and Percentage of Total Days Stayed in General Hospitals Involving Mental Illness/Addiction, in Health Region of Residence (Diagnosis Category)
- HMHDB Regional Contextual Information for Health Regions With Over 75,000 Population (Interactive)
 - Regional Estimates
- Quick Stats Under the Topic Community Care
 - CCRS Odds Ratios of Residents Exhibiting Aggressive Behaviour
 - CCRS Odds Ratios of Residents Who Wandered
 - CCRS Prevalence of Aggressive Behaviour by Signs of Depression and Indicators of Delirium
 - CCRS Prevalence of Behaviour Symptoms by Aggressive Behaviour Scale Score
 - CCRS Profile of Residents in Continuing Care Facilities

 (includes Depression Rating Scale score, Aggressive Behaviour Scale score and disease diagnoses)
 - CCRS Proportion of Residents Exhibiting Aggressive Behaviour
 - CCRS Proportion of Residents Who Wandered
 - HCRS Profile of Clients in Home Care (includes Depression Rating Scale score and psychotropic medications received)

Pharmaceuticals

National Prescription Drug Utilization Information System Database

Overview

The NPDUIS Database contains de-identified prescription claims-level data, collected from **publicly financed drug benefit programs** in Canada. In addition, the database contains supporting contextual information for drug claims data, including formulary and drug products information and information on policies of public drug plans in Canada.

The database includes the following:

- Claims data: Cost and payment information on prescribed drugs, used to measure and analyze prescription drug use in Canada
- Formulary data: Information on which drugs are included in public drug programs in Canada and how they are covered
- Drug product information: Information that identifies drug products in a standardized format
- Plan information: An outline of the administrative policies of public drug plans or programs in Canada (data may help explain differences in drug utilization patterns across the country)

MHA Data in the NPDUIS Database

Drug classes used in the treatment of mental health and addiction may include the following:

- Antipsychotics
- Anxiolytics
- Hypnotics and sedatives
- Antidepressants
- Psychostimulants, agents used for ADHD and nootropics
- Psycholeptics and psychoanaleptics in combination
- Anti-dementia drugs
- Drugs used in addictive disorders

Coverage

Claims data for public programs from eight Canadian provinces, as well as formulary information from nine provinces and one federal drug program

Drug Classification

Claims data is collected in a standardized format based on the Canadian Pharmacists Association's pharmacy claim standard.

Drugs are identified using Health Canada's drug identification number. They are classified using the World Health Organization's Anatomical Therapeutic Chemical Classification System as assigned by Health Canada.

Availability and Major Limitations

Claims data from the NPDUIS Database is available for up to 12 months from the current month. Demographic data is limited. Due to the variation in public drug plan design and level of participation, the NPDUIS Database contains limited data on drug claims by non-seniors and does not contain information regarding drugs dispensed in hospital or paid for by private insurers. Please see the *National Prescription Drug Utilization Information System Plan Information Document* for details about the publicly funded drug plans participating in the NPDUIS Database; contextual data on eligibility, cost-sharing and policy-related information; and a summary of changes by jurisdiction. Additional information and the data dictionary are available through the NPDUIS Database metadata web page.

Availability of historical claims data varies by jurisdiction.

Claims Data (Earliest Date Available)

- Prince Edward Island (April 2004)
- Nova Scotia (April 2001)
- New Brunswick (January 2000)
- Ontario (April 2010)
- Manitoba (January 2000)
- Saskatchewan (January 2000)
- Alberta (January 2000)
- British Columbia (January 2006)
- First Nations and Inuit Health Branch (October 2010)

The most current formulary data from the NPDUIS Database is maintained.

Formulary Data (Earliest Date Available)

- Newfoundland and Labrador (January 2004)
- Prince Edward Island (June 2000)
- Nova Scotia (March 2004)
- New Brunswick (September 2004)
- Ontario (January 2003)
- Manitoba (September 2006)
- Saskatchewan (January 2001)
- Alberta (May 1991)
- British Columbia (January 1993)
- First Nations and Inuit Health Branch (May 2005)

Pharmaceuticals—Publicly Available Products

- Adverse Drug Reaction—Related Hospitalizations Among Seniors, 2006 to 2011 (2013)
- The Use of Selected Psychotropic Drugs Among Seniors on Public Drug Programs in Canada, 2001 to 2010 (2012)
- Drug Use Among Seniors on Public Drug Programs in Canada, 2002 to 2008 (2010)
- Antipsychotic Use in Seniors: An Analysis Focusing on Drug Claims, 2001 to 2007 (2009)
- Drug Claims by Seniors: An Analysis Focusing on Potentially Inappropriate Use of Medications, 2000 to 2006 (2008)
- Quick Stats Under the Topic Pharmaceutical Care and Utilization
- Potentially Inappropriate Medication in Long-Term Care
 This product is also listed in the Health System Performance and Types of Care sections.

It includes the following:

- Residents on antipsychotic drugs in long-term care homes without a diagnosis of psychosis; and
- The percentage of seniors in long-term care homes who have been diagnosed with dementia.

Health Workforce

Health Human Resources

Overview

CIHI collects and reports on 27 groups of health care professionals. Data may include information on the education, supply, distribution and/or practice characteristics of a health professional. Collecting and reporting HHR data assists decision-makers in the planning and distribution of health care providers. HHR data on 10 groups of health professionals is available at the record level. Aggregate-level data is available on an additional 17 groups of health professionals.

MHA Data in HHR

Licensed practical nurses, occupational therapists, psychologists, registered nurses, registered psychiatric nurses and social workers provide services to individuals with mental illness and addictions. While other professionals may also provide services, we have included only those for which CIHI has relevant data elements. For further information about HHR or a specific profession, please contact us at hhr@cihi.ca. See Scott's Medical Database (SMDB) below for information on the physician health workforce.

Coverage, Availability and Major Limitations

Professional Group	Availability	Coverage	Unique Identifier	MHA-Related Data Element(s)	Value(s) of Interest	Limitations
Licensed Practical Nurses (LPNs)	1988 onward	Pan-Canadian	No	Place of Work	Mental health centre; rehabilitation/convalescent centres	Record-level data on LPNs available as of 2002; aggregate data available from 1988 to 2001
				Area of Responsibility	Psychiatry/mental health	While psychiatric units within a hospital cannot be identified, it is possible to identify a nurse working in the area of psychiatry/mental health within a hospital
Nurse Practitioners (NPs)	2003 onward	Pan-Canadian	No	Place of Work	Mental health centre; nursing homes/long-term care facilities that include psychogeriatric centres; rehabilitation/convalescent centres	NPs are currently regulated in all 13 provinces/territories; data for NPs in Yukon is not yet available
				Area of Responsibility	Psychiatry/mental health	-While psychiatric units within a hospital cannot be identified, it is possible to identify a nurse working in the area of psychiatry/mental health within a hospital
Occupational Therapists (OTs)	1988 onward	Pan-Canadian	No	Place of Employment	Working in mental health hospital/facility	Record-level data on OTs available as of 2006; aggregate data available from 1988 to 2005
				Area of Practice	Major focus of activities is providing direct care to patients with mental health issues	Quebec data not available for data years 2006 to 2010
Psychologists	1988 onward	Pan-Canadian	N/A		Aggregate data on the education and supply of psychologists by province/territory	Record-level data not available
Registered Nurses (RNs)	1980 onward	Pan-Canadian	No	Place of Work	Mental health centre; nursing homes/long-term care facilities that include psychogeriatric centres; rehabilitation/convalescent centres	While psychiatric units within a hospital cannot be identified, it is possible to identify a nurse working in the area of psychiatry/mental health within a hospital
				Area of Responsibility	Psychiatry/mental health	-
Registered Psychiatric	1990 onward	Manitoba, Saskatchewan,	No	Place of Work	All employment values of an RPN may be relevant	Record-level data on RPNs available as of 2002; aggregate data available from 1990 to 2004
Nurses (RPNs)		Alberta, British Columbia		Area of Responsibility Position	-	RPNs are currently regulated in Manitoba, Saskatchewan, Alberta, British Columbia and Yukon; data for RPNs in Yukon not yet available
Social Workers	1988 onward	Pan-Canadian	N/A		Aggregate data on the education and supply of social workers by province/territory	Record-level data not available

N/A: Not applicable.

Data for each group of professionals has unique limitations. Please refer to the HHR web page for related documentation.

Scott's Medical Database

Overview

The SMDB provides information on the number of physicians and their distribution across the country, plus demographic, education and migration information.

Because physicians can be uniquely identified, changes in physician type as well as physician movement among provinces and territories can be tracked over time. This data also indicates changes in physician type. The data is purchased annually from Scott's Directories.

MHA Data in the SMDB

Medical specialty of the physician is captured. Psychiatry is one of the specialty categories the SMDB reports. For the details on the specialty groupings methodology, see Appendix D in the annual report *Supply, Distribution and Migration of Canadian Physicians*.

Physician Type

Family Medicine

Specialist

"Specialists" includes certificants of the Royal College of Physicians and Surgeons of Canada or the Collège des médecins du Québec, with the exception of Newfoundland and Labrador and Saskatchewan, starting in 2004; Nova Scotia, New Brunswick and Yukon, starting in 2007; Prince Edward Island and Quebec, starting in 2009; and Alberta, starting in 2010, where non-certified specialists are also included.

Coverage

The SMDB contains the following information on physicians in Canada: sex, year of birth, jurisdiction, postal code, activity status, place and year of graduation from medical school and specialty.

Ages: Physician age can be calculated.

Availability and Major Limitations

Data from 1978 onward is available on request. Information on expected next release(s) may be found on the SMDB metadata web page. Methodological notes, data limitations and data quality information are available in the annual report *Supply, Distribution and Migration of Canadian Physicians*, which is also available through the SMDB metadata web page.

A unique provider-level identifier is available (see the overview above).

Health Workforce—Publicly Available Products

- Canada's Health Care Providers: A Reference Guide (PDF and Excel)
- Canada's Health Care Providers: Provincial Profiles (Excel)
- Occupational Therapist Workforce, 2012 (PDF and Excel)
- Regulated Nurses, 2012 (PDF and Excel)
- Supply, Distribution and Migration of Canadian Physicians (PDF)
- Physician Workforce Quick Stats Under the Topic Workforce

Spending

Canadian MIS Database

Overview

The CMDB is the national data source for financial and statistical information about hospitals and health regions. It collects day-to-day health service operations data according to a standardized framework known as the *Standards for Management Information Systems in Canadian Health Service Organizations* (MIS Standards).

MHA Data in the CMDB

Currently, most information in the CMDB related to MHA services is specific to hospitals. A hospital is broadly defined as an institution where patients are accommodated on the basis of medical need and are provided with continuing medical care and supporting diagnostic and therapeutic services and which is licensed or approved as a hospital by a provincial or territorial government. This definition includes psychiatric hospitals. Hospitals operated by the Government of Canada (for example, veterans' hospitals) do not submit data to the CMDB.

Facility types included in the CMDB that are relevant to MHA services are the following:

Hospitals

General Hospitals
Psychiatric and Substance Abuse Hospitals

Residential Care Facilities

Mental Health Residential Facilities Addiction Treatment Residential Facilities Combined Mental Health and Addictions Treatment Residential Facilities

Data on staff activity, supply costs, workload and provision of services is available at the provincial/territorial (except Nunavut), regional health authority/local health integration network and postal code levels when there are more than five hospitals within the postal code.

Note: The CMDB does not collect any patient-level data.

Coverage

Jurisdictions: Pan-Canadian (excluding Nunavut)

Availability and Major Limitations

Data from 1995 onward is available on request. Archived data for 1932–1933 to 1994–1995 is available from Statistics Canada. Information on expected next release(s) may be found on the CMDB metadata web page. Methodological notes, data limitations and data quality information are available in *Canadian MIS Database: Hospital Financial Performance Indicators—Methodological Notes*.

Canadian Patient Cost Database

Overview

The CPCD contains patient-level cost data from more than 60 health service organizations in Ontario, Alberta and British Columbia. Detailed costs are submitted to CIHI at the individual encounter level for inpatient, outpatient, long-term care, complex continuing care, mental health and rehabilitation services. Depending on the type of care received, the term "encounter" can mean different things, such as

- An inpatient stay;
- An ED, clinic or day surgery visit;
- The length of time a resident spent in a long-term care facility (this is similar to inpatient stay, but resident stays often cross fiscal years and often include planned absences); and
- The length of time spent in a mental health facility (this is similar to an inpatient stay).

MHA Data in the CPCD

Cost data is available for individuals with mental health issues receiving services in some OMHRS facilities (Ontario) and some DAD facilities in Ontario, Alberta and British Columbia.

Coverage

Jurisdictions: The database is in its growth phase. Please refer to CIHI's CPCD web page for current information.

The CPCD contains data from 2004 onward. As of summer 2013, organizations in Ontario, Alberta and British Columbia were participating.

Ages: All ages

Availability and Major Limitations

Data availability is limited, as this is a relatively new data source. Please refer to CIHI's CPCD web page as well as the CMDB metadata web page for information.

Note: The variables and concepts used to capture information in the CPCD are based on the MIS Standards and its companion document, *MIS Patient Costing Methodology*. These comprehensive standards are used to report management information and to create patient cost data that is ultimately submitted to the CPCD. The same standards are used by health service organizations to report their departmental-level management information to the CMDB as well.

National Physician Database

Overview

The NPDB provides information on demographic characteristics of physicians, physician payments and physicians' level of activity within Canada's health care system.

MHA Data in the NPDB

Various reports on payments and utilization are available that provide information by groups and physician specialty categories. Of relevance to MHA are the following:

- The National Grouping System (NGS), which includes Psychotherapy/Counselling; and
- The physician specialty categories, which include psychiatry and neuropsychiatry.

Age group and gender of the patient receiving the service are also collected, allowing for additional analysis of these demographics by the following NGS groups and specialties:

- Psychotherapy/Counselling: Refers to individual psychotherapy; hypnotherapy; narcoanalysis; diagnostic/therapeutic interviews; group and family psychotherapy and interviews; interviews for physical medicine; counselling for drugs, family, genetic, marriage and contraception; and case conferences on behalf of patients with allied workers, teachers, clergy, etc.
- Individual Psychotherapy
- Group/Family Psychotherapy
- Counselling

Coverage

Billings by physicians in Canada for health care services are detailed at the individual physician and fee code levels, as well as for patient sex and age groupings.

Information on physicians' non-billings payments (such as salary, sessional and capitation payments) is collected at both the individual physician level (for some provinces) and at an aggregate level.

Ages: Physician age can be calculated.

Patient receiving service age group is collected.

Availability and Major Limitations

Data from 1989 onward is available on request. Information on expected next release(s) may be found on the NPDB metadata web page. Methodological notes, data limitations and data quality information are available in NPDB's annual reports, which are also available through the NPDB metadata web page.

A unique provider-level identifier is available for physicians.

Spending—Publicly Available Products

- Canadian MIS Database Hospital Financial Performance Indicators (PDF and Excel)
 - Highlights
 - Hospital Beds Staffed and In Operation
 - Hospital Financial Performance Indicators

- Patient Cost Estimator
- National Physician Database (PDF and Excel)
 - National Physician Database
 - Payments
 - Utilization
- The Cost of Acute Care Hospital Stays by Medical Condition in Canada: 2004–2005 (2008)
 This special study estimates the level of hospital costs in 2004–2005 for ICD-10-CA chapters and for selected blocks and categories within each of these chapters. Only acute inpatient cases are included. Total cost with and without complexity is estimated for each age group and gender where appropriate.

MHA focus: Mood Disorders as well as Schizophrenia, Schizotypal and Delusions disorders are among the top 15.

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For permission or information, please contact CIHI:

Canadian Institute for Health Information 495 Richmond Road, Suite 600 Ottawa, Ontario K2A 4H6

Phone: 613-241-7860 Fax: 613-241-8120

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Talk to Us

CIHI Ottawa

495 Richmond Road, Suite 600 Ottawa, Ontario K2A 4H6 Phone: 613-241-7860

CIHI Toronto

4110 Yonge Street, Suite 300 Toronto, Ontario M2P 2B7 Phone: 416-481-2002

CIHI Victoria

880 Douglas Street, Suite 600 Victoria, British Columbia V8W 2B7

Phone: 250-220-4100

CIHI Montréal

1010 Sherbrooke Street West, Suite 300 Montréal, Quebec H3A 2R7 Phone: 514-842-2226

CIHI St. John's

140 Water Street, Suite 701 St. John's, Newfoundland and Labrador A1C 6H6 Phone: 709-576-7006



