Manitoba Centre for Health Policy

Accreditation 2019
Data Repository and Research Resources
Modules

- **Introduction to MCHP** History, operations, resources and products of MCHP
- **Data Repository and Research Resources** Databases housed in the Data Repository and Research Tools for using and analyzing the data: Research Protocol, Glossary, and Concept Dictionary.
- **Administrative Requirements and Research Support** Services and Assistance provided
- **Privacy, Security and Confidentiality** Access, use, and disclosure of MCHP data, i.e., the legal requirements, basically obligations and how to meet them.
- **Project Costs and Timelines**
Definition: “Manitoba Population Research Data Repository”

Population Health Research Data Repository

Health
- Administrative
  - Hospital
  - Emergency Care
  - Urgent Care
  - Medical
  - Drug
  - Immunization
  - Longterm care
  - MIS
  - Public Health
  - Cadham Lab
  - Home Care
  - Support Housing
  - Mental Health
  - Midwifery
  - Health Links
  - Telehealth
- De-Identified Data Files
  - Separate but Linkable
- Registries
  - Manitoba Health Insurance Registry
  - Vital Statistics - mortality
  - Provider Registry
  - Metis Population Database
- Database Support
  - Training feasibility research
  - Drug data support files
  - Conversion files (e.g., postal code, ICD)
  - Case mix files (e.g., CMG, ACG)
  - Facilities
  - Electronic User Site Locator
  - Tariff and fee tables
  - Mapping/electronic boundary files
  - Population counts

Social
- Healthy Child Manitoba
  - FamiliesFirst/BabyFirst
  - Early Development Instrument
  - Healthy Baby
- Community and Social Services
  - Child & Family Services
  - Applications
  - Child Day Care
  - Income/Employment Assistance
  - Housing
  - Social/Recreational Programs
- Survey Social Data: Census

Education
- Manitoba Schools
- Early Literacy Intervention Program
- Reading Recovery
- Post-Secondary - Red River College
- Winnipeg School Division

Justice
- Incident Reporting System

http://umanitoba.ca/faculties/medicine/units/community_health_sciences/departmental_units/mchp/resources/repository/index.html
December 1, 2011
Scope and Coverage

- Represents whole Manitoba Population
- Data are installed/updated after year end files are closed

- Data are de-identified with a common encrypted ID
- Linkable – but not maintained in a linked format.
- Can be used only for approved research projects
Repository Data

- Repository data are not ‘owned’ by MCHP but are housed under one or more Data Sharing Agreements
Feasibility & Training Data

• Represents 10% population sample
• Health Utilization 1995-2016
  • Coverage & Family
  • Hospital Abstracts
  • Medical Billing
  • Prescription Drugs
  • PCH
  • Homecare
  • Census (1999-2011)
• Social Services use
• Training
• Feasibility Projects – grant writing
Database Descriptions - External

- Database Name
- Source Agency
- Type
- Purpose
- Scope
- Data Collection Method
- Size

- Data Level
- Data Years
- Data Highlights
- Access Requirements
- More Information
- Revision Date

Repository Home
**General Descriptive Info**

**Database Name**: HOSPITAL ABSTRACTS

**Source Agency**: Manitoba Health and the Canadian Institute for Health Information (CIHI)

**Type**: Administrative health abstracts

**Purpose**: Hospitals are required to submit abstracts as part of the global operating budget funding process, which is covered by funding transfers from the provinces and the territorial Departments of Health.

**Scope**
- All separations for both Manitoba residents and non-Manitoba residents hospitalized in acute and chronic care facilities in Manitoba
- All separations for all Manitobans admitted to out-of-province facilities

**Data Collection Method**: Abstracts are completed at the point of discharge from hospital and processed by Manitoba Health.

**Size**: 200,000 to 300,000 abstracts per year. Data fields range from approximately 250 (pre 2004/05) to over 900 (2010/11).

**Data Level**: Individual person (de-identified)

**Data Years**: Fiscal 1970/71 to present

**Data Components**
- Hospital Abstracts User Manual (HAUM) data: ICD-8/9-CM to March 31/04
- Discharge Abstract Data (DAD)/ Manitoba Abstract Data Elements (MADE) data: ICD-10-CA/CCA from 2004/05 onward. Includes non-Manitoba residents served in Manitoba facilities
- Reciprocal: Manitoba registrants served in other (reciprocal) provinces from 2004/05 onward.
Data Highlights

Summary records of demographic and clinical information (up to 25 diagnosis codes and 20 procedure codes using ICD-10-CA* and CCI) related to the following types of services:

- Inpatient - admissions to hospital (including both acute and chronic); refers to stays of at least one night in a hospital bed
- Day surgery (outpatient surgery) - diagnostic or surgical services provided in a hospital setting without admission to hospital. (If included in length of stay calculations, day surgery records are sometimes assigned a value of “1”.)

* Prior to April 1, 2004 the ICD-9-CM coding system was used.

Access Requirements

- Government of Manitoba - Health Information Privacy Committee (HIPC)
- University of Manitoba - Research Ethics Board (REB)
- Government of Manitoba - Mental Health Act under 36(2)

- required if the study includes psychiatric beds in hospitals (#60001, 60003, 60005, 60007, 60011, 60016, 66016, 66122, 66170, 66187, 65003, 65016, 65020) where the main service code is 64 or 65.

The process for arranging access to the MCHP Data Repository is outlined in the Applying for Access section of the Research Resources.

More Information

MCHP Concept Dictionary

Note: Additional information available internally includes data dictionaries and code books.
Detailed Data Dictionaries
Research Tools – Concepts and Glossary

Concept Dictionary and Glossary for Health Services Research

Browse/Search the Concept Dictionary and Glossary

The Concept Dictionary and Glossary represent a series of tools which have been developed at MCHP to permit application of a variety of theoretical frameworks, analytical techniques, statistical approaches and mapping resources appropriate for use with administrative data bases.

- Concept Dictionary - describes over 200 research concepts developed at MCHP for analysing data contained in the Data Repository housed at MCHP. These detailed operational definitions of variables or measures used in MCHP research include a discussion of the issue(s) involved, approaches used, programming tips/cautions, SAS code (where not restricted for external use), additional readings, and references.
- Concepts in Progress - for an advance look at upcoming releases of new or modified concepts
- Alternative entry points
  - Health Measures Concept Search
  - Educational Measurement Concept Search
  - Geographical Analysis Concept Search
  - Design and Methods - a general study planning tool, with information on study design, eligibility criteria, data sources, study period, theoretical frameworks, and links to statistical tools.
- Glossary - documents terms commonly used in population health and health services research. Each Glossary term contains a brief definition (and its source), links to related Glossary terms and concepts in the Concept Dictionary, as well as links to external sites.

CONCEPT DICTIONARY CONTRIBUTORS

This resource was created to assist users of the extensive, rich, Data Repository housed at MCHP. The Concept Dictionary arose at MCHP out of a desire to help researchers carry out methodologically sound research using consistent, validated algorithms. In turn, researchers who share their discoveries help to grow and improve the value of this publicly-accessible resource.

We are grateful to all researchers and analysts who contribute their time and effort to this resource by creating new concepts and for updating existing concepts. We encourage contributions to the Concept Dictionary; guidelines for concept development are described in the Concept Development Template. You may also contact us for more information at info@ce.umanitoba.ca

Last updated August 16, 2012
Repository Data

• Data at MCHP: Repository Data
  • Ongoing data installation and agreements
  • Meta-Data Documentation
  • Data Quality Assessments
  • Can be used in multiple projects (with approval)
  • Full list of available databases found [here](#) on MCHP’s website.

• Data at MCHP: Project Specific Data
  • Researcher arranges for data disclosure and agreements
  • Extraction, transfer, and formatting is the responsibility of the researcher
  • Usually only disclosed for a single research project
  • De-identification arranged by the researcher
  • Documentation and appropriate use is the researcher’s responsibility
How does Ongoing Data in the Repository come to MCHP?

**Acquisition, Installation, Cleaning, & Validation**

Ongoing Databases in MCHP Repository
Cost: Average $80,000 initial, ongoing $5,000
Steps:
- Commitment, Data Sharing Agreements, Initial Request
- Request, Preparation of Data
- Transfer, De-Identification
- Validation
- Usage
- Documentation
- Ongoing support & maintenance
Non-Health Data Provider

Manitoba Health
Finds real PHIN, strips off identifying information, scrambles PHIN

MCHP
Files are stored separately and can only be linked for approved research purposes

Sends this crosswalk file to MCHP
Validation and Quality Assessment of Data

Database level analysis involves the evaluation of:

- **Accuracy**
  - Completeness
  - Correctness
- **Internal Validity**
  - Internal Consistency
  - Stability across time
  - Cross-Walk linkage
- **External Validity**
  - Identifying units of analysis
  - Level of agreement with the literature and available reports
- **Timeliness**
  - Delay in release of information

Database level analysis involves the evaluation of:

<table>
<thead>
<tr>
<th>Column</th>
<th>Type</th>
<th>Variable</th>
<th>Valid</th>
<th>Invalid</th>
<th>Missing</th>
<th>Outlier</th>
<th>Min</th>
<th>Max</th>
<th>Median</th>
<th>IQR</th>
<th>Sig</th>
<th>Significant</th>
<th>Different</th>
<th>Variance</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dataset Code</td>
<td>CS</td>
<td>LANDLORD</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>96</td>
<td>100</td>
<td>99.50</td>
<td>0.50</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Legend:
- **Valid**: Number of valid cases
- **Invalid**: Number of invalid cases
- **Missing**: Number of missing cases
- **Outlier**: Number of outliers
- **Min**: Minimum value
- **Max**: Maximum value
- **Median**: Median value
- **IQR**: Interquartile range
- **Sig**: Significance level
- **Different**: Number of different values
- **Variance**: Variance
- **Standard**: Standard deviation
Thank You / Questions

- [umanitoba.ca/centres/mchp](umanitoba.ca/centres/mchp)
- [facebook.com/mchp.umanitoba](facebook.com/mchp.umanitoba)
- [https://twitter.com/um_mchp](https://twitter.com/um_mchp) (@um_mchp)