

Manitoba Centre for Health Policy (MCHP)
Concept Development Template
Version 1.1 – July 12, 2011

Introduction

The MCHP Concept Dictionary contains details for over 200 research ideas developed by MCHP staff and other researchers that describe methods for using the data contained in the MCHP Data Repository. These detailed operational definitions originate from completed research projects and typically include a description of the concept and the issue(s) involved, the methodology and approaches applied, programming tips/cautions and the SAS code generated, and additional readings and references that are relevant to the concept.

Contributions to the development and enhancement of this resource are welcome from MCHP researchers and data analysts, as well as other researchers who are using our Data Repository.

Different types of concepts can be developed, depending on the nature of the research project. Examples of existing concepts include descriptions for:

- case mix systems such as Case Mix Groups (CMGs) and Diagnosis Related Groups (DRGs);
- costing methods for a variety of health services (i.e.: physicians, pharmaceuticals, hospital services);
- operational definitions for diagnoses and procedures;
- details for using and understanding the data in the Repository databases;
- educational measures;
- family structure and composition measures;
- Income Quintiles and other socio-economic status (SES) measures;
- physician services;
- social variables; and
- statistical methods.

What to Document in a Concept

When you are developing or enhancing the information for the Concept Dictionary, please consider the following components:

1. Concept Title

This is the “formal” title of the concept that appears in the display of the concept on the web site. The words that are included in the title are important because they have a major influence on the resulting points assigned to the concept during a search, and thus the “ranking” of the concept on the search results screen.

2. Date

This is the date that the concept is written. As the concept documentation progresses, this date will change according to the date of modification, and eventually to the date that the concept is released on our external web site.

3. Introduction

Consider whether this is a new concept or additional information for an existing concept. The introduction should include a brief description of what the concept is, along with a definition, what it does, and where it can be applied. This information is especially important if you are developing a new concept.

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If the information being added is a modification or enhancement to an existing concept, please indicate the reason for this somewhere in the text so that this information can be added to the existing concept content. For example, the reason may be because of a different method being introduced in the more recent research.

In the case of modifications / enhancements, the introductory section of the concept may not necessarily change, unless the additional information is significant enough to necessitate a change to the content.

4. Methods

This section describes the methods that are used in developing the concept. Variation will occur based on the nature and content of the concept and whether it is a new concept or a modification to an existing concept. In general, the documentation should contain the following types of information, if available:

- **background information** – is this a new idea or is it an extension of previous research? If it is new, was it based on other, non-MCHP research, or was it developed because of a lack of previous research in the area or new sources of information becoming available? If this is an extension of previous MCHP, or non-MCHP research, remember to include the appropriate references related to this work.
- **data sources** – this includes a list identifying all of the databases in the MCHP Data Repository that are used to extract the required data / information for the concept. This should include the date range identifying the time period for the data, and if applicable / appropriate, the individual data elements that are included in any calculation or exception.
- **description of the steps** – this describes the process taken to develop the concept. This may include a detailed step-by-step description of the process, or a summary description of the methodology with links to additional documentation describing the process. For example, if the methodology is already described in detail in a deliverable, refer the reader to this information.

This may also include other methods that were investigated and rejected, and the reasons why these methods were not pursued. If decisions are made for inclusion / exclusion of data, please identify the steps that are taken to make these decisions.

- **codes, scale or range of values** – this identifies the coding or values that are used to develop the outcome measures related to the concept. This should include a listing of all codes, scales or ranges of values and what each represents within the overall structure of the concept. For example, for concepts looking at how we define certain diseases / medical conditions or surgical procedures, include the International Classification of Disease (ICD) diagnoses or ICD / CCI (Canadian Classification of Health Interventions) procedure / intervention codes and a brief title or description for each value. For scales or ranges of values, include the measures for each and describe what they represent.
- **validation** – this identifies and describes the statistical (or other) approach used to validate or measure the scales / ranges / outcomes of the concept. If relevant, other research should be referenced as a validation source.

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- **additional information** – any additional relevant methodological information that is important to understanding the concept should also be documented.

5. Limitations / Cautions

This describes the limitations, constraints or cautions that are encountered, uncovered, or explored during the development of the concept, and should mention any possible ramifications or consequences when interpreting the results.

6. SAS Code and Formats

This is the SAS programming code that is used to extract the data from the data files and contains the programming logic (with comments) describing the methodology related to developing the content of the concept. If the entire SAS code / program is available, with actual directories and variable names identified, this information should be stored in a separate text file and will be set-up for access by an internal link only because of confidentiality reasons.

If a sample program, a list of formats, or pseudo-code is available, this can be shared for external access. For SAS code that can be released on the external web site, if the SAS code example is large (say, more than 20 lines of code), this should be stored in a separate text file and will be set up as a linking file from within the concept. If the code example is small (say equal to or less than 20 lines), this can be added directly in the concept in a separate SAS code section. The restriction on the number of lines of code presented here represents a guideline only and a larger sample of code may be presented within the concept text if possible.

7. Related Concepts

This contains a list of any content-related concepts that already exist in the Concept Dictionary and are used or referenced in the concept. The intent of the list of related concepts is to provide the reader with quick and easy access to more information. Items on this list will be set up as links within the concept when it becomes available on our web site.

8. Related Terms

This contains a list of any content-related glossary terms that already exist in the on-line Glossary and are used or referenced in the concept. The intent of the list of related glossary terms is to provide the reader with quick and easy access to more information. Items on this list will be set up as links within the concept when it becomes available on our web site.

9. Links

This contains a list of any additional information sources related to the concept, and is set up with a link either to sites on the internal or external web site, wherever the information resides. Examples of this include links to the individual MCHP Data Repository Database descriptions / summaries on our internal and external web sites, internal documentation (i.e.: CIHI DAD/MADE documentation), or additional relevant, supporting documentation that is available on external web sites, such as CIHI – CMG information, StatsCan related documentation, or Manitoba Health related publications/information.

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10. References

This contains a list of any MCHP research that uses the concept information, as well as non-MCHP references/citations that are used in the concept documentation. For proper identification, each reference listed should contain a list of authors, the title of the reference, and the date/year of the publication. This list can contain published work as well as work designated as “In Progress”, depending on the state of reference.

10. Contacts

This section contains a list of MCHP contacts (people’s names) who have knowledge and experience with the concept and can provide additional support information if required. This typically would include the Primary Investigator, Research Coordinator, Data Analyst and any other persons who have relevant expertise in the area.