



DRAFT

Business Use Case (BUC) Specification Development Example for PHCi Program

Introduction

Objectives:

- 1) Assist in data element design and understanding how data are used
- 2) Determine what data are to be provided and what data can be fed back via reports.
- 3) Highlight risks and alternative workflows as part of the process.
- 4) Describe what data can be used to report at each jurisdictional level (such as Canada, provinces/territories and regional health authorities, such as LHINs).
- 5) Obtain quality data to help inform health system planning, as well as recommended practices (for example, clinical practice guidelines).

Purpose: To describe a process for developing a report on the number of diabetic patients in a family practice

Definitions, acronyms and abbreviations:

Percent of Primary Health Care (PHC) clients/patients, 18 years and older, with diabetes mellitus that have been a patient of the practice, at a minimum, for 12 months

Type 1 diabetes encompasses diabetes that is primarily a result of pancreatic beta cell destruction and that is prone to ketoacidosis. This form includes cases due to an autoimmune process and those for which the etiology of beta cell destruction is unknown. Type 2 diabetes*¹ may range from predominant insulin resistance with relative insulin deficiency to a predominant secretory defect with insulin resistance. Gestational diabetes mellitus refers to glucose intolerance with first onset or recognition during pregnancy. A wide variety of relatively uncommon conditions are listed under "other specific types." These consist mainly of specific genetically defined forms of diabetes or diabetes associated with other diseases or drug use.²

¹ *Includes latent autoimmune diabetes in adults (LADA), the term used to describe the small number of people with apparent type 2 diabetes who appear to have immune mediated loss of pancreatic beta cells.

² Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. [Can J Diabetes.](#)

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BUC Name

Number of patients with diabetes mellitus (non-gestational).

Performance goals

The report can help the PHC practice/provider ensure its diabetic population is receiving recommended care

Category

Core

Workflow

Preconditions for workflow:

Provider has EMR with all expected data attributes available for data entry

CIHI PHC indicator content standards are being used in the EMR by practices, including

EMR fields are being populated appropriately and accurately in the EMR

Lab, drug and diagnostic imaging (historical and current) are available in EMR

The 'infrastructure' is in place to transmit, receive and store the data

EMR has confirmed type 1 or 2 diabetes patients/cases recorded

Data security and privacy requirements have been fulfilled by the systems and organizations

Average number of patients in a practice already exists in another data source at CIHI and is maintained on a regular basis by other processes

Basic Workflow, including Alternative Workflow:

Step 1 – EMR pulls a non identifiable 'list of patients' that have confirmed type 1 or 2 diabetes (not necessarily based on ICD-10-CA classification)

Step 2 – Practice transmits 'list of patients' to CIHI in a secure manner

2003;27(suppl 2): Methods section accessed online at <http://www.diabetes.ca/cpg2003/chapters.aspx>
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Step 3 – CIHI receives the ‘list of patients’ in a secure manner

Step 4 – CIHI validates the form of the data (i.e. expected file format)

Alternative flow: CIHI rejects the submitted ‘list of patients’ based on invalid form

Step 5- CIHI validates the files of the list of patients for uniqueness, expected coded values (i.e. acceptable list of values and appropriate classification)

Alt-flow: CIHI initiates a data cleansing/verification process to correct or remove the unexpected unique row(s) or request a complete resubmission.

Step 6 – CIHI stores the ‘valid list of patients’ data in a securely accessible data base for use by authorized CIHI staff (and partners)

Step 7 – CIHI counts the unique number of rows by provider and counts a grand total of all rows and calculates percentages against the practices yearly average patient counts (analyses)

Step 8 – generate a report showing counts by provider for a practice and relate to the total number of patients in a practice (report generation)

Step 9 – CIHI disseminates the report appropriately.

Risk

Data quality issues of completeness (thoroughness of documentation may vary considerably among clinicians), accuracy (potential reliance on physician claims) and timeliness (not real time)

Exclusions: PHC patients with gestational diabetes

Need confirmed method for diagnosis of type 1 DM and type 2 DM

Potential for patients to receive treatment at multiple locations, in multiple regions and/or by multiple providers (e.g. shared care).

Rapid advances are being made in our knowledge of clinical conditions, which are reflected in advances in the scientific literature and changes in professional opinion. Ensure that the data elements and specifications are in keeping with current evidence, clinical guidelines and policy will require an on-going process.

Possibilities

Update BUC with 2008 Clinical Practice Guidelines released Sept 16, 2008. Published only once every five years, the Canadian Diabetes Association’s Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada represent the most current

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evidence-based clinical practice data for healthcare professionals. For further details, go to <http://www.diabetes.ca/get-involved/news/2008-clinical-practice-guidelines-now-available/>

Extension points

Ambulatory Care Sensitive Conditions Hospitalizations

Emergency Room Visits

Complications (e.g. end stage renal disease, retinopathy, dyslipidemia)

Process Owner

CIHI