

Understanding ICD-10-CA and CCI for Analysis and Trending

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Data Users Pre-conference Workshop 2008, Linking
 the Health Information Chain - Ottawa

Session Agenda

First part: Provide Overview Classification Systems
 Look at Factors that Influence Trending
 Identify How to Manage Factors

**30 min. break (10:30 - 11:00 am. for morning session)
 (2:30 - 3:00 pm. for afternoon session)**

Second part: Case Study: Regional Trends in Giving
 Birth in Canada

Today's Learning Objectives

- To become familiar with the morbidity classification systems used historically and presently.
- To become aware of key factors that face analysts when trending using ICD-10-CA/CCI.
- To identify tools to assist in managing the factors.
- To work through a case study.

Classification System:

Is a systematic arrangement of elements within a subject into groups or categories according to pre-established criteria:

- Disease classification classifies medical conditions and other characteristics of patients
- Intervention classification classifies health and medical services, procedures and interventions.

What is coding?

Is the selection and assignment of alphanumeric codes from the classification systems to represent:

- a diagnostic statement,
- related health condition or
- cause of death as
- identified by the health care provider

Why Code?

Converting diagnostic and cause of death statements to a set of alphanumeric codes provides many uses:

- Statistical uses (etiology and incidence of disease)
- Resource allocation and management
- Managing quality of care
- Research
- Establishing funding rates
- Education

Who Provides Code Assignment?

- Coders (certified health information management professionals) who are employed at healthcare facilities
- Accurate code assignment requires the following:
 - Interpretation & application of coding instructions
 - Understanding of standards and coding conventions
 - Continuing education on fiscal year updates
 - Strict adherence to national, provincial and regional standards for coding consistency

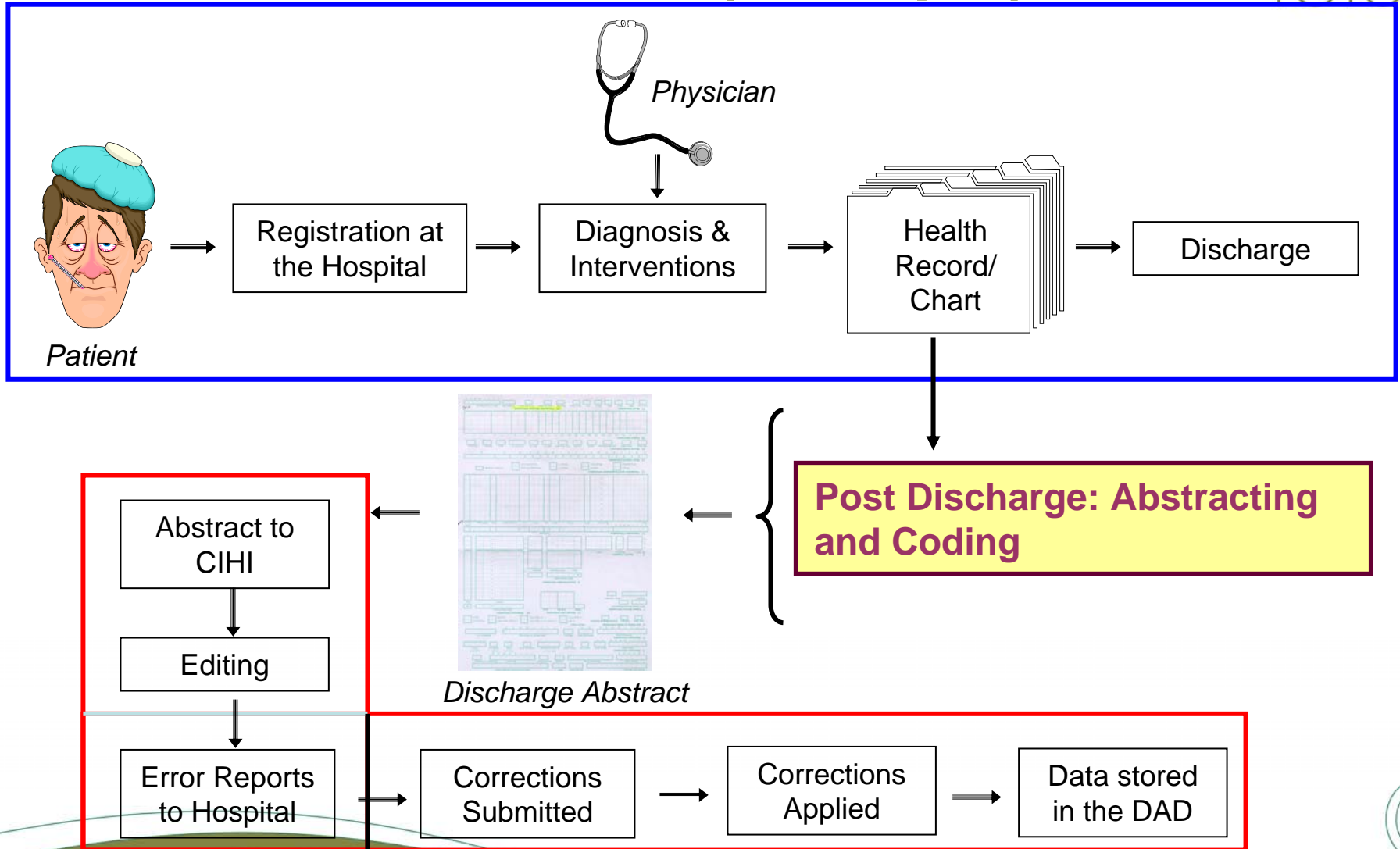


Example of a Coded Case for an inpatient/acute care hospital

A passenger of a car was injured when a bus struck the vehicle in which she was riding. She sustained an open fracture of shaft of the femur. She was admitted to the hospital and received an open reduction and internal fixation to the femur. She was discharged home after 4 days.

Diagnosis and Intervention Code (ICD-10-CA/CCI)	Code description title
S72.301	Fracture of shaft of femur, open
V44.6	Car occupant, passenger, injured in collision with heavy transport vehicle or bus, traffic accident
1.VC.74.LA-NV-N	Fixation, femur, open approach, using pin, nail, with synthetic tissue (e.g. bone cement, or paste)

Data Flow – DAD (Example)



DAD Data Collection

Data elements are captured under 18 Groups (>150 fields) on the DAD Discharge Abstract

- | | | |
|--------------------------------|----------------------------|------------------------------|
| 1. Submission / Abstract | 7. Patient Service Info | 14. Basic Option Info |
| 2. Length of Stay | 8. Service Transfer | 15. Mental Health Indicators |
| 3. Patient/client demographics | 9. Provider Info | 16. Project Info |
| 4. Admission Info | 10. Diagnosis Info (20) | 17. Blood Information |
| 5. Separation Info | 11. Intervention Info (16) | 18. Reproductive Care Info |
| | 13. Special Care Info | 19. Licensed Vendor Info |

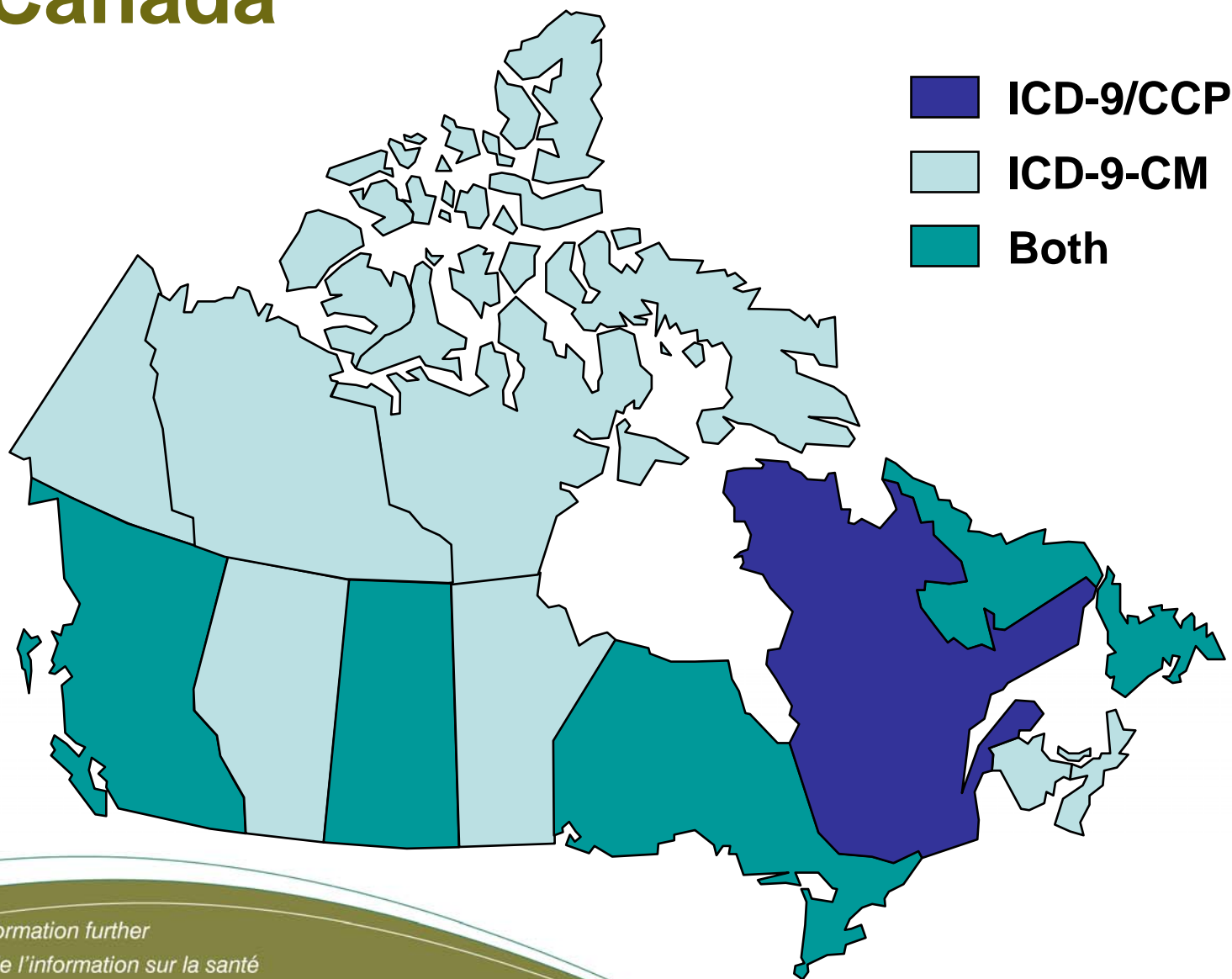
Coding



Historical Background – ICD-9

- World Health Organization (WHO) adopted International Classification of Diseases, Ninth Revision (ICD-9) in 1975 for worldwide use
- United States made clinical modifications - ICD-9-CM and created 3rd volume for procedures (1977).
- Canada accepted to adopt ICD-9 for mortality and morbidity use and created Canadian Classification of Procedures (CCP)

Historical Look at Classification in Canada



Present Background – ICD-10

- WHO is the official publisher of ICD-10 (in English and French) and holds the international copyright.
- CIHI applied for and received a license agreement:
 - To use, reproduce and distribute ICD-10 in English and French within Canada by 2001
 - We received permission to enhance the classification to meet Canadian health care needs – ICD-10-CA
 - The Canadian modifications are submitted to WHO for review and approval
- CIHI developed the Canadian Classification of Health Interventions (CCI) to replace the outdated Canadian Classification of Diagnostic, Therapeutic, and Surgical Procedures (CCP).

ICD-10 and ICD-10-CA: What are the differences?

- ICD-10 (Mortality)
 - Code the Cause of Death (Death Certificate) which populates the Death Database
 - WHO standard
 - No codes added by Statistics Canada
 - 8000 + codes are valid for underlying cause of death
 - Used internationally
 - Has rules for determining underlying cause of death codes
- ICD-10-CA (Morbidity)
 - Code the Health care encounter (illness/disease)
 - Canadian Standard
 - Additional codes created by CIHI (17,000 +)
 - Blend of WHO and Canadian specific standards
 - CIHI rules for determining the Most Responsible diagnosis

Today's Classifications in Canada

- ICD-10-CA - International Statistical Classification of Diseases and Related Health Problems Tenth Revision, Canada – Version 2006
- CCI - Canadian Classification of Health Interventions – Version 2006/Patch 2007

Versions of ICD10CA/ CCI

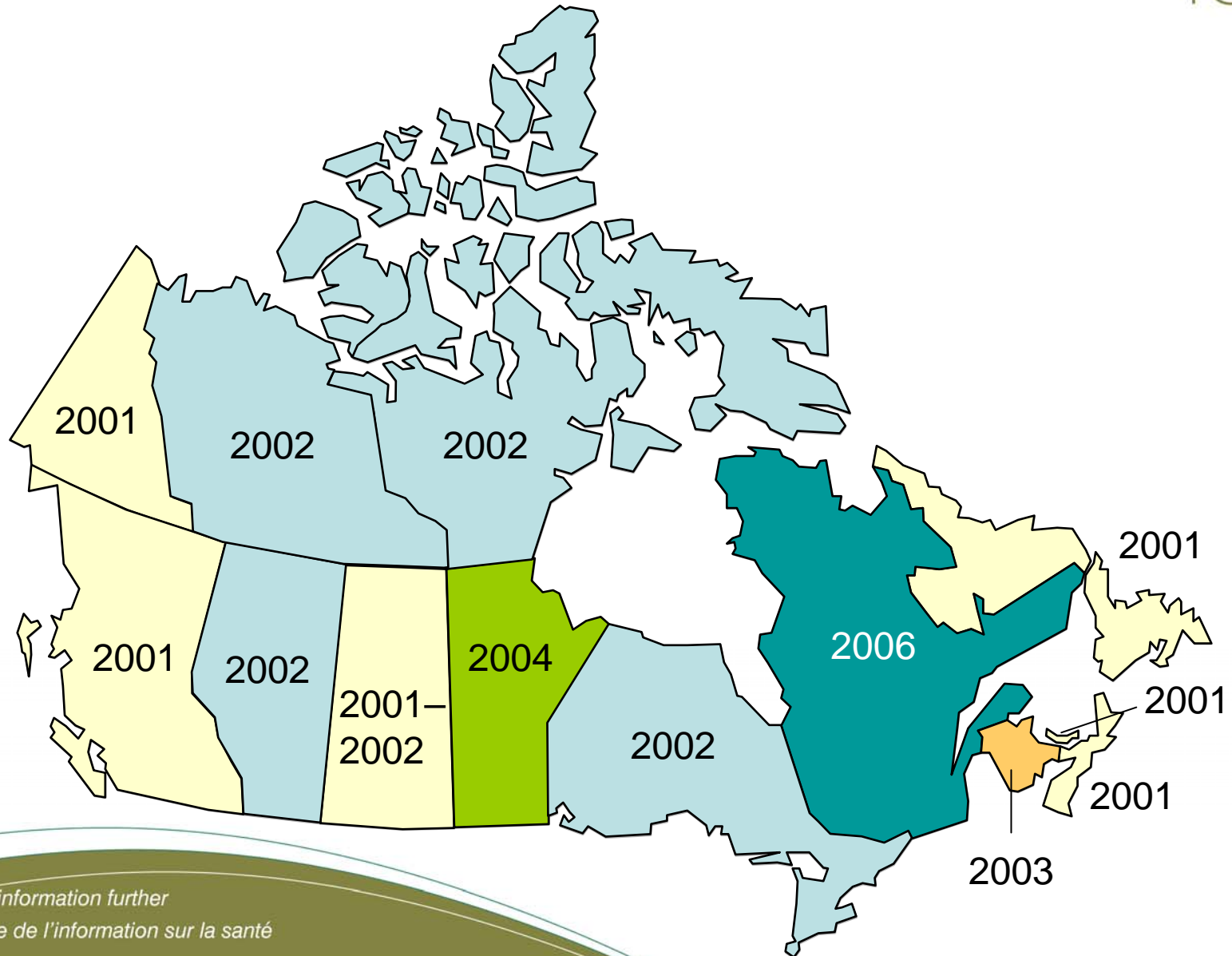
- Version 2001 → Fiscal Year 2001, 2002
- Version 2003 → Fiscal Year 2003, 2004, 2005
- Version 2006 → Fiscal Year 2006, 2007, 2008

Version 2006 - updated Patch 2007

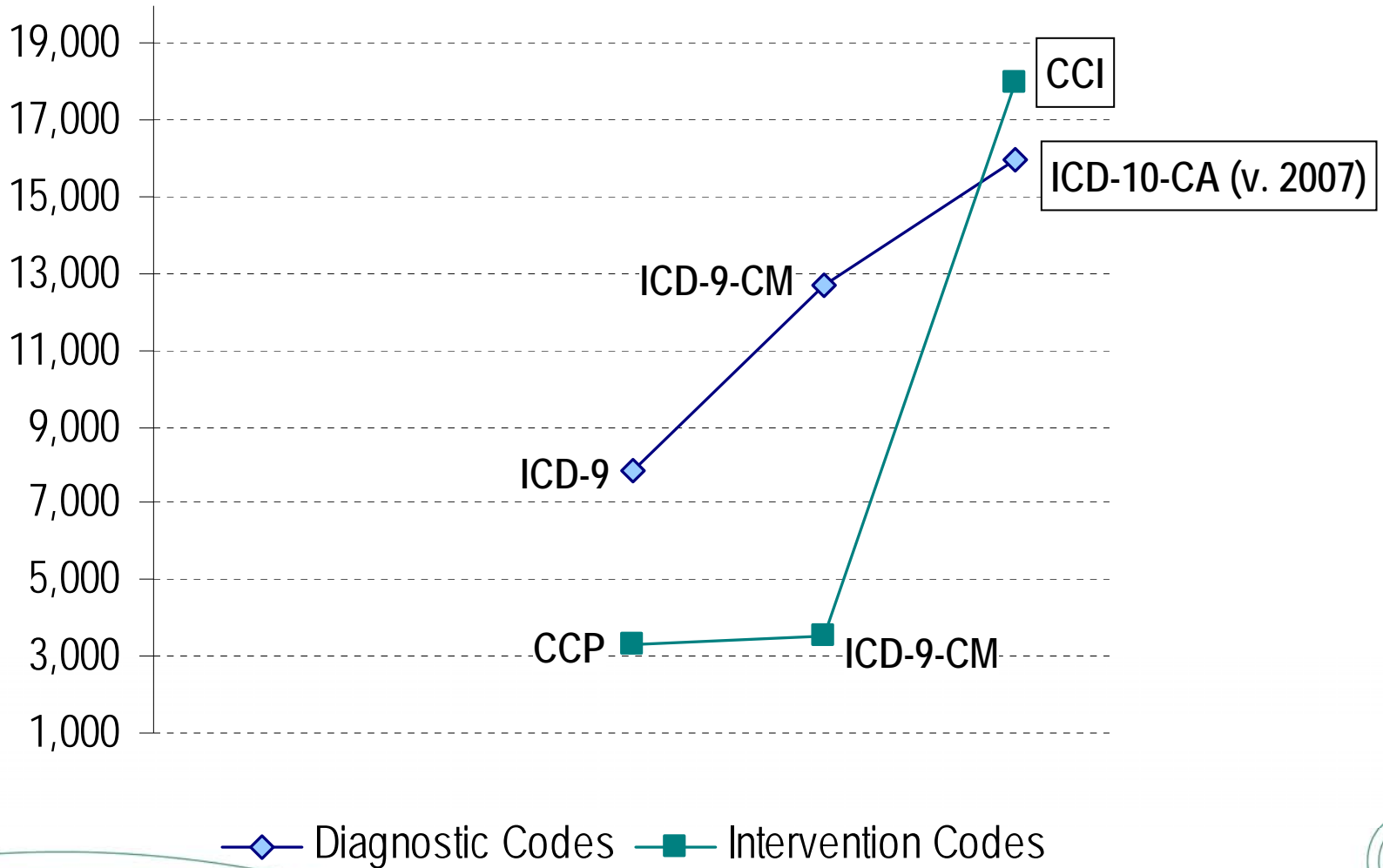
Next version will be Version 2009

For list of new and deactivated codes see ICD10CA and CCI Table of Contents (appendices) v. 2003 & v. 2006

ICD-10-CA/CCI Implementation



Volume of Codes



Let's Take a Look at ICD-10-CA ^{CIHI} _{ICIS}

- International Statistical Classification of Diseases and Related Health Problems Tenth Revision, Canada – Version 2006.



- Introduction
- Conventions used in the Tabular List of Diseases
 - Basic Coding Guidelines
 - WHO Collaborating Centres for Classification of Diseases
- Report of the International Conference for the Tenth Revision of the International Classification of Diseases
 - Maintenance and Development of ICD-10-CA Enhancements
- Conventions used in the Alphabetical Index
 - Diagrams in ICD-10-CA
- Section I -- Alphabetical Index to Diseases and Nature of Injury
- Section II -- External Causes of Injury
- Section III -- Table of Drugs and Chemicals
- Chapter I - Certain infectious and parasitic diseases (A00-B99)
- Chapter II - Neoplasms (C00-D48)
- Chapter III - Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)
- Chapter IV - Endocrine, nutritional and metabolic diseases (E00-E90)
- Chapter V - Mental and behavioural disorders (F00-F99)
- Chapter VI - Diseases of the nervous system (G00-G99)
- Chapter VII - Diseases of the eye and adnexa (H00-H59)
- Chapter VIII - Diseases of the ear and mastoid process (H60-H95)
- Chapter IX - Diseases of the circulatory system (I00-I99)
- Chapter X - Diseases of the respiratory system (J00-J99)
- Chapter XI - Diseases of the digestive system (K00-K93)
- Chapter XII - Diseases of the skin and subcutaneous tissue (L00-L99)
- Chapter XIII - Diseases of the musculoskeletal system and connective tissue (M00-M99)
- Chapter XIV - Diseases of the genitourinary system (N00-N99)
- Chapter XV - Pregnancy, childbirth and the puerperium (O00-O99)
- Chapter XVI - Certain conditions originating in the perinatal period (P00-P96)
- Chapter XVII - Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
- Chapter XVIII - Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)
- Chapter XIX - Injury, poisoning and certain other consequences of external causes (S00-T98)
- Chapter XX - External causes of morbidity and mortality (V01-Y98)
- Chapter XXI - Factors influencing health status and contact with health services (Z00-Z99)
- Chapter XXII - Morphology of Neoplasms
- Chapter XXIII - Provisional Codes for Research and Temporary Assignment
- Special tabulation lists for mortality and morbidity
 - [Appendix A - New ICD-10-CA Codes for 2007](#)
 - Appendix B - Disabled ICD-10-CA Codes for 2007



Alphabetic Index ✖


Word:

- chilblain
- chilblains
- child
- childbirth
- childhood**
- children
- children's
- chill
- chills
- chilomastigiasis
- chilomastix

Records with hits - 1

[chp] - 7166
[Index-LeadTerm:asthma] - 6 -& - 1
childhood - 85

Query For:

 Lead Term

Secondary Term




INTERNATIONAL STATISTICAL CLASSIFICATION OF DISEASES AND RELATED HEALTH PROBLEMS TENTH REVISION, CANADA [ICD-10-CA]
Chapter X - Diseases of the respiratory system (J00-J99)
Chronic lower respiratory diseases (J40-J47)
J45 Asthma
J45.9 Asthma, unspecified

J45.9 Asthma, unspecified

Includes: Asthmatic bronchitis NOS
Late-onset asthma

J45.90  **Asthma, unspecified, without stated status asthmaticus**

J45.91  **Asthma, unspecified, with stated status asthmaticus**
Acute severe asthma NOS
Status asthmaticus NOS

J47 Bronchiectasis

Includes: bronchiolectasis
Excludes: congenital bronchiectasis ([Q33.4](#))
tuberculous bronchiectasis (current disease) ([A15-A16](#))



Let's Take a Look at CCI

- Canadian Classification of Health Interventions – Version 2006.

Technological Advancement causes changes - CCI

- Canadian Classification of Health Interventions (CCI)
- **A Healthcare Intervention (definition) is:**
 - A service performed for or on behalf of a client whose purpose is to improve health, to alter or diagnose the course of a disease (health condition), or to promote wellness
- **Key features:**
 - Service Provider & service setting neutral
 - Comprehensive, dynamic & expandable
 - Relevant
 - International connection



- CANADIAN CLASSIFICATION OF HEALTH INTERVENTIONS [CCI] 2007
 - ICD-10-CA/CCI, Version 2007 License Agreement for CD
 - About the Canadian Institute for Health Information (CIHI)
 - Introduction to CCI
 - Contact Us for More Information About ICD-10-CA and CCI
 - Acknowledgements
 - Diagrams in CCI
 - Section 1 - Physical/Physiological Therapeutic Interventions
 - Section 2 - Diagnostic Interventions
 - Section 3 - Diagnostic Imaging Interventions
 - Section 4 - Clinical Laboratory Interventions
 - Section 5 - Obstetrical and Fetal Interventions
 - Section 6 - Cognitive, Psychosocial and Sensory Therapeutic Interventions
 - Section 7 - Other Healthcare Interventions
 - Section 8 - Therapeutic Interventions Strengthening the Immune System and/or Genetic Composition
 - Alphabetical Index
 - Appendix A -- CCI Code Structure
 - Appendix B -- CCI Rubric Finder for Section 1
 - Appendix B -- CCI Rubric Finder for Section 2
 - Appendix B -- CCI Rubric Finder for Section 3
 - Appendix B -- CCI Rubric Finder for Section 5
 - Appendix B -- CCI Rubric Finder for Section 6
 - Appendix B -- CCI Rubric Finder for Section 7
 - Appendix B -- CCI Rubric Finder for Section 8
 - Appendix C -- CCI Attributes
 - Appendix D -- Pharmacological, Biological and Other Agents: Table of Conversions for CCI Code Component to ATC Code
 - Appendix E - New CCI Codes for 2007
 - Appendix F - Disabled CCI Codes for 2007

Alphabetical Index

Word:

- evisceration
- evoked
- examination
- exchange
- excision**
- excisional
- exclusion
- exenteration
- exercise
- exophthalmometry
- expansion


Records with hits - 1

[sec] - 2461
[Index-LeadTerm:excision] - 3 -& - 1
tonsils - 28

Query For:

Lead Term (Intervention)

Secondary Term



Prev

Next

OK Cancel



CANADIAN CLASSIFICATION OF HEALTH INTERVENTIONS [CCI] 2006

Section 1 - Physical/Physiological Therapeutic Interventions

Tabular List of Therapeutic Interventions

Therapeutic Interventions on the Orocraniofacial Region (1EA - 1FX)

Therapeutic interventions on the Oral Cavity and Pharynx(1FA - 1FX)

1.FR.^.^ Therapeutic Interventions on the Tonsils and Adenoids

1.FR.89.^ Excision total, tonsils and adenoids

1.FR.89.^.^ Excision total, tonsils and adenoids

S⁴

L

Includes: Tonsillectomy
Tonsillectomy with adenoidectomy

Excludes: Adenoidectomy alone (see [1.FR.87.^.](#))
Tonsillectomy (with adenoidectomy) with uvulopharyngoplasty (see [1.FQ.78.^.](#))

Note: May involve excision of tonsil with concomitant debulking ablation of the adenoid tissue.

1.FR.89.^.^ Excision total, tonsils and adenoids	tonsillectomy alone	tonsillectomy with adenoidectomy
using device NEC	1.FR.89.LA	1.FR.89.WJ
using snare	1.FR.89.LA-AK	1.FR.89.WJ-AK

CCI Code Structure

1.DA.87.LA-AG-E		Excision partial, external ear, open approach, using laser, using local flap
1	SECTION	Therapeutic
DA	GROUP (Body site)	external ear
87	INTERVENTION	excision partial
LA	Qualifier 1	open approach
AG	Qualifier 2	laser
E	Qualifier 3	local flap

CCI Attributes – separate data elements

Status Attribute

captures revisions, procedures abandoned after onset, converted procedures and staged interventions.

Location Attribute

anatomic detail and laterality

Extent Attribute

records quantitative measures related to the intervention

e.g. Length of laceration, size of kidney stone

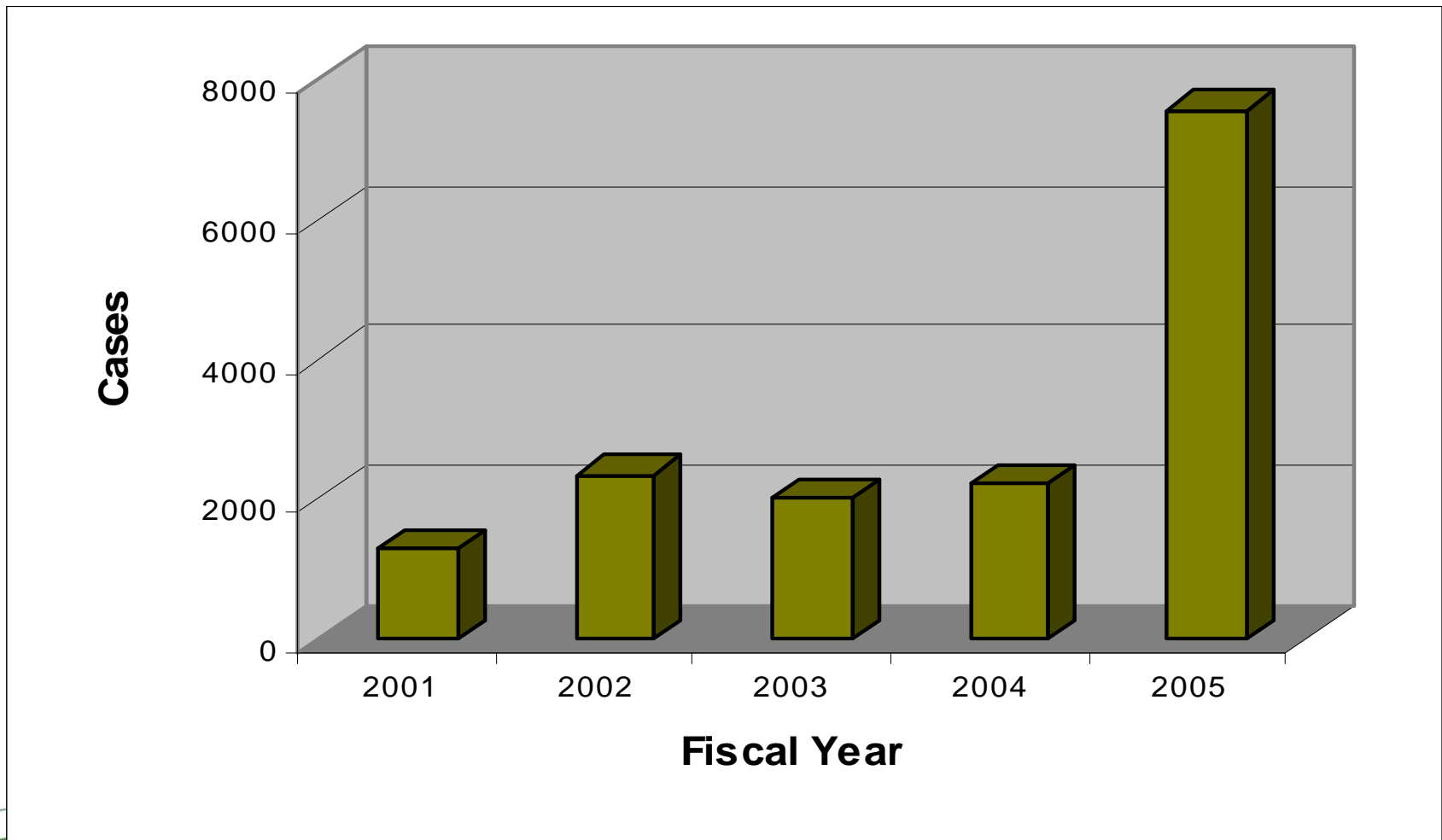
Key Factors of Changes that influence trending

- Move from old classification to new classification
- New classification is updated - newer versions
- Research and clinical trials (Diabetes Mellitus)
- New medical conditions (SARS)
- Mandatory vs. Optional codes
- Technological advancement (Interventions)

Trending Data – Changes from old to new – changes with new versions - example - Diabetes Mellitus

- ICD-9: The code 250.40 Type 2 diabetes mellitus with ophthalmic manifestations
- ICD-10-CA: The code E11.31 Type 2 diabetes mellitus with preproliferative retinopathy (intraretinal microvascular abnormalities [IRMA])
- ICD-10-CA further enhancement to capture adequate/inadequate control using oral agents or insulin by a 6th digit
- 6 digit codes E10-E14 category (Version 2001 & 2003)
- Version 2006 – 6th digit for level of control was removed and replaced with a specific code (R73.8 Other evidence of elevated blood glucose level)

Diabetes Unspecified w/o Mention of Complication (Code E10.909 with 6th digit of “9” indicating level of control unspecified)



Trending Data – New medical condition – example - Severe Acute Respiratory Syndrome [SARS]

- ICD-9
 - 079.8 Other Viral infection
- ICD-9-CM
 - 079.82 SARS (new code in 2003)
- ICD-10-CA
 - U04 Severe acute respiratory syndrome [SARS]
 - U04.90 Suspected severe acute respiratory syndrome [SARS]
 - U04.91 Probable severe acute respiratory syndrome [SARS]

Trending Data -- Mandatory Codes

example - External Causes of Injury

- ICD-9 = E888 Other and unspecified fall
- ICD-10-CA =
 - **W02 Fall involving skates, skis, sport boards and in-line skates**
 - W02.00 Fall involving ice skates
 - W02.01 Fall involving skis
 - W02.02 Fall involving roller skates/in-line skates
 - W02.03 Fall involving skateboards
 - W02.04 Fall involving snowboards
 - W02.08 Fall other specified

Trending Data -- Optional Codes- Example - Type of Activity

- U99.01 Bat or stick sports and recreational activity
- U99.010 Baseball
 - fastball
 - slow-pitch
 - softball
 - T-ball
- U99.011 Ice hockey
 - indoor
 - outdoor
- U99.012 Street hockey
- U99.013 Field hockey
- U99.014 Floor hockey

Trending data – Technological Advancement –example - angioplasty

- Angioplasty, coronary artery:

2006 1.IJ.50.GQ-OA

2003 1.IJ.50.GQ-OA

2001 1.IJ.50.GS-BD

2000 48.02 (CCP) 36.01 (ICD9CM)

Manage Key Changes With Tools

- CIHI Conversion tables
- CIHI Evolution tables
- Canadian Coding Standards for ICD-10-CA/CCI
- Online CIHI coding eQuery service

Conversion Tables

- Conversions—“force fit” each code into a single code in the alternate classification
- Grade value:
 - Good fit (exact match of wording or intent) = 1
 - Forced fit (same section but no exact match) = 2
 - No match (code did not exist in earlier systems) = 3
- One-directional conversion recommended
(ICD-10-CA→ICD-9-CM→ICD-9, CCI→ICD-9-CM→CCP)
- Tables available:
 - CCI to CCP
 - CCI to ICD-9-CM
 - ICD-10-CA to ICD-9
 - ICD-10-CA to ICD-9-CM

Conversion Table Example

Microsoft Excel - ICD10CA to ICD9 2008 [Read-Only]

Type a question for help

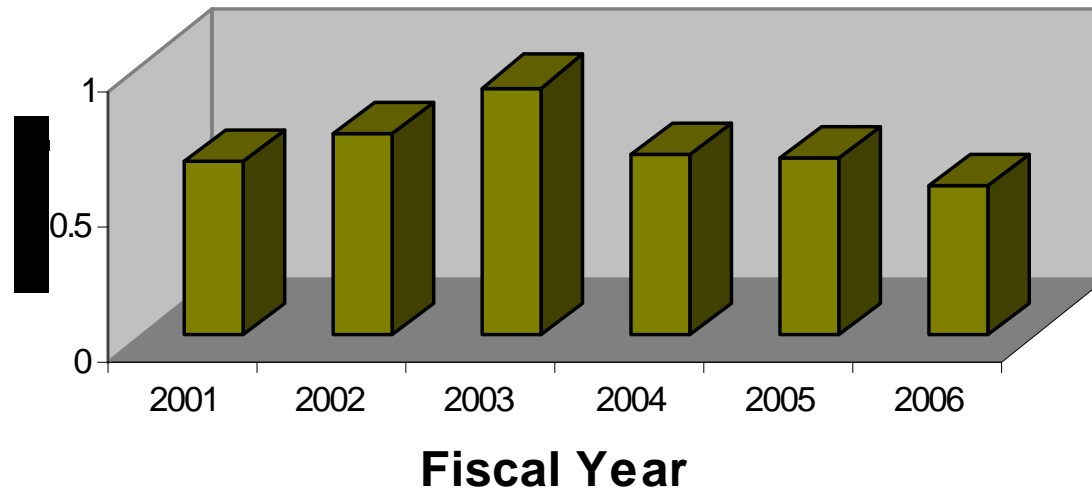
	A	B	C	D	E	F	G	H
1	FROM VERSION	ICD-10-CA CODE	ICD-10-CA SHORT DESC	ICD-9 2000 CODE	ICD-9 SHORT DESC	Grade		
1012	10CA2008	C496	Malgt neoplms con/soft tis trunk NOS	1717	MAL NEO SOFT TISS TRUNK UNSPEC	1		
1013	10CA2008	C498	Overlap malgt lesion con & soft tissue	1718	MAL NEO OTH CONNECT/SOFT TISSUE	1		
1014	10CA2008	C499	Malgt neoplasm con & soft tissue NOS	1719	MAL NEO CONNECT/SOFT TISS NOS	1		
1015	10CA2008	C5000	Malgt neoplasm right nipple and areola	1740	MAL NEO BREAST NIPPLE/AREOLA	1		
1016	10CA2008	C5001	Malgt neoplasm left nipple and areola	1740	MAL NEO BREAST NIPPLE/AREOLA	1		
1017	10CA2008	C5009	Malgt neoplms nipple & areola unspec side	1740	MAL NEO BREAST NIPPLE/AREOLA	1		
1018	10CA2008	C5010	Malgt neoplms cntrl portion right breast	1741	MAL NEO CENTRAL PORTION BREAST	1		
1019	10CA2008	C5011	Malgt neoplms cntrl portion left breast	1741	MAL NEO CENTRAL PORTION BREAST	1		
1020	10CA2008	C5019	Malgt neoplms cntrl prt'n breast, uns side	1741	MAL NEO CENTRAL PORTION BREAST	1		
1021	10CA2008	C5020	Malgn neoplms upp-inn qudrnt right breast	1742	MAL NEO UPPER-INNER QUAD BREAST	1		
1022	10CA2008	C5021	Malgt neoplms upp-inn qudrnt left breast	1742	MAL NEO UPPER-INNER QUAD BREAST	1		
1023	10CA2008	C5029	Malgt neoplms upp-inn qudrnt brst, uns sd	1742	MAL NEO UPPER-INNER QUAD BREAST	1		
1024	10CA2008	C5030	Malgt neoplms low-inn qudrnt right breast	1743	MAL NEO LOWER-INNER QUAD BREAST	1		
1025	10CA2008	C5031	Malgt neoplms low-inn qudrnt left breast	1743	MAL NEO LOWER-INNER QUAD BREAST	1		
1026	10CA2008	C5039	Malgt neoplms low-inn qudrnt brst, uns sd	1743	MAL NEO LOWER-INNER QUAD BREAST	1		
1027	10CA2008	C5040	Malgt neoplms upp-out qudrnt right brst	1744	MAL NEO UPPER-OUTER QUAD BREAST	1		
1028	10CA2008	C5041	Malgt neoplms upp-out qudrnt left breast	1744	MAL NEO UPPER-OUTER QUAD BREAST	1		
1029	10CA2008	C5049	Malgt neoplms upp-out qudrnt breast uns sd	1744	MAL NEO UPPER-OUTER QUAD BREAST	1		
1030	10CA2008	C5050	Malgt neoplms low-out qudrnt rt breast	1745	MAL NEO LOWER-OUTER QUAD BREAST	1		
1031	10CA2008	C5051	Malgt neoplms low-out qudrnt left breast	1745	MAL NEO LOWER-OUTER QUAD BREAST	1		
1032	10CA2008	C5059	Malgt neoplms low-out qudrnt brst uns sd	1745	MAL NEO LOWER-OUTER QUAD BREAST	1		
1033	10CA2008	C5060	Malgt neoplms axillary tail right breast	1746	MAL NEO AXILLARY TAIL BREAST	1		
1034	10CA2008	C5061	Malgt neoplms axillary tail left breast	1746	MAL NEO AXILLARY TAIL BREAST	1		
1035	10CA2008	C5069	Malgt neoplms axillary tail brst uns sd	1746	MAL NEO AXILLARY TAIL BREAST	1		
1036	10CA2008	C5080	Overlapping malgt lesion of right breast	1748	OTH MAL NEOPLASM FEMALE BREAST	1		
1037	10CA2008	C5081	Overlapping malgt lesion of left breast	1748	OTH MAL NEOPLASM FEMALE BREAST	1		
1038	10CA2008	C5089	Overlap malgt lesion breast unspec side	1748	OTH MAL NEOPLASM FEMALE BREAST	1		
1039	10CA2008	C5090	Malgt neoplms right breast part unspec	1749	MAL NEO FEMALE BREAST UNSPEC	1		
1040	10CA2008	C5091	Malgt neoplasm left breast part unspec	1749	MAL NEO FEMALE BREAST UNSPEC	1		
1041	10CA2008	C5099	Malgt neoplms breast part/side unspec	1749	MAL NEO FEMALE BREAST UNSPEC	1		
1042	10CA2008	C510	Malignant neoplasm of labium majus	1841	MALIGNANT NEOPLASM LABIA MAJORA	1		

ICD-10-CA 2008 to ICD-9/

Breast Cancer –Percentage Males 2001-2006

ICD-10-CA (C50 Malignant neoplasm of breast)

ICD-9 (174 Malignant neoplasm of female breast)
(175 Malignant neoplasm of male breast)



Diagnostic Conversion Example

Acute Myocardial Infarction

ICD-10-CA	I21.0 Transmural Anterior Wall
ICD-9-CM	410.10 Anterior Wall
ICD-9	410 Includes All Locations

The conversion grade on the table is ‘2’ demonstrating this is a force fit for the codes are in the same section but are not an exact match.

Intervention Conversion Example

Tonsillectomy With Adenoidectomy

CCI	1.FR.89.WJ
CCP	40.2
ICD-9-CM (vol. 3)	28.3

The conversion grade on the table states “1” demonstrating this is a good fit because the terminology, intent and anatomy sites closely match.

Versions of ICD-10-CA/CCI

- Fiscal 2001, 2002 → v. 2001
- Fiscal 2003, 2004, 2005 → v. 2003
- Fiscal 2006, 2007, 2008 → v. 2006/Patch2007

ICD-10-CA/CCI Evolution Tables

- Evolution tables trace the heritage of a current code in the classifications
- The tables assist with data retrieval from one version of the classification to the next

Evolution Table - Example

Microsoft Excel - Evolution Tables 2006_English Final.xls				
File Edit View Insert Format Tools Data Window Help				
= CCI - CURRENT VERSION (2006)				
	A	B	C	D
1	CCI - CURRENT VERSION (2006)	ENGLISH CCI CODE TITLE (2006)	CCI - PREVIOUS VERSION (2003)	ENGLISH CCI CODE TITLE (2003)
2	1AA52MESJ	Drainage, meninges and dura mater of brain open craniotomy [craniectomy] flap approach by shunt terminating in abdominal cavity (e.g. peritoneum)	1AA52SZTS	Drainage, meninges and dura mater of brain open approach using craniotomy [craniectomy] flap and leaving drainage tube [catheter] in situ
3	1AA52SESJ	Drainage, meninges and dura mater of brain burr hole approach and shunt terminating in abdominal cavity (e.g. peritoneum)	1AA52SETS	Drainage, meninges and dura mater of brain open approach using burr hole technique and leaving drainage tube [catheter] in situ
4	1AA80SZXXK	Repair, meninges and dura mater of brain using homograft [e.g. freeze dried donor dura]	1AA80SZXXJ	Repair, meninges and dura mater of brain using homograft [e.g. freeze dried donor dura]
5	1AA87SZXXK	Excision partial, meninges and dura mater of brain using homograft [e.g. freeze dried donor dura]	1AA87SZXXJ	Excision partial, meninges and dura mater of brain using allograft [e.g. freeze dried donor dura]
6	1AA87SZXXL	Excision partial, meninges and dura mater of brain using xenograft [e.g. bovine]	1AA87SZXXJ	Excision partial, meninges and dura mater of brain using allograft [e.g. freeze dried donor dura]
7	1AC27JX	Radiation, ventricles of brain using focused beam [e.g. gamma knife, cyber knife stereotactic radiosurgery]	1AC27JXDC	Radiation, ventricles of brain using particulate (e.g. proton beam) and focused beam ["gamma knife"]
8	1AC27JX	Radiation, ventricles of brain using focused beam [e.g. gamma knife, cyber knife stereotactic radiosurgery]	1AC27JXDE	Radiation, ventricles of brain using particulate (e.g. proton beam) and focused beam ["gamma knife"]
9	1AC27JX	Radiation, ventricles of brain using focused beam [e.g. gamma knife, cyber knife stereotactic radiosurgery]	1AC27JXDG	Radiation, ventricles of brain using particulate (e.g. proton beam) and focused beam ["gamma knife"]
10	1AC52HA	Drainage, ventricles of brain percutaneous (via needle through fontanel) approach drainage without shunt or catheter left in situ	1AC52SE	Drainage, ventricles of brain burr hole approach drainage without shunt or catheter left in situ
11	1AC53SEFT	Implantation of internal device, ventricles of brain of [semipermeable] catheter [for chemical palliative infusion] using burr hole technique	1AN53SEFT	Implantation of internal device, brain burr hole technique for access of [semipermeable] catheter [e.g. for chemical palliative infusion]
12	1AC53SZFT	Implantation of internal device, ventricles of brain of [semipermeable] catheter [for chemical palliative infusion] using open craniotomy [or craniectomy] flap technique	1AN53SZFT	Implantation of internal device, brain craniotomy [or craniectomy] flap technique for access of [semipermeable] catheter [e.g. for chemical palliative infusion]
13	1AC54HATS	Management of internal device, ventricles of brain percutaneous [needle] approach irrigation of drainage tube [catheter]	1AC54JATS	Management of internal device, ventricles of brain percutaneous (needle) approach of drainage tube [catheter]

Canadian Coding Standards for ICD-10-CA and CCI

- Standards enhance the World Health Organization's rules and guidelines
 - developed and maintained at CIHI
- Standards are developed from issues:
 - raised at workshops and noted on the online coding query tool service
 - raised by National Coding Advisory Committee (NCAC)
 - identified through re-abstraction studies

Example of Coding Standard— Asthma

Chapter X—Diseases of the Respiratory System

Asthma

In effect 2002, amended 2003, 2005, 2006

D Classify asthma with onset during childhood (typically to age 16 years) to J45.0—*Predominantly allergic asthma* unless otherwise specified by the physician.

Note: Ensure that asthma is not reported as a post-admit comorbidity, diagnosis type (2).

See also [Appendix A—Asthma](#) for clinical information.

Example: A 14-year old was brought to hospital suffering from an asthmatic attack. He was placed on bronchodilators.

D

<u>Code</u>	<u>DAD</u>	<u>NACRS</u>	<u>Code Title</u>
J45.00	(M)	MP	Predominantly allergic asthma without stated status asthmaticus

Example: An 18-year old was brought to hospital suffering from an asthmatic attack. He was placed on bronchodilators. It was noted in the chart that the young man has had asthma since childhood.

D

<u>Code</u>	<u>DAD</u>	<u>NACRS</u>	<u>Code Title</u>
J45.00	(M)	MP	Predominantly allergic asthma without stated status asthmaticus

Note: As long as asthma onset is documented as having begun during childhood follow this coding standard. This applies to the adult with chronic asthma that began in childhood and now presents for treatment of asthmatic attacks.

CIHI eQuery Service

- A bilingual online coding eQuery tool
- A tool intended for current data collection
- Ensure posted response to query is relevant to the data mining project

What are CIHI's Resource Tools?

- ICD-10-CA and CCI Electronic Code Books.
- Conversion Tables- translate the ICD-10-CA and CCI codes back down to the previous ICD-9/CCP and ICD-9-CM codes.
- Evolution Tables – tracks the macro changes of ICD-10-CA and CCI codes as a result of the enhancement process.
- Equivalency Tables – translates ICD-9-CM codes to more general ICD-9 and CCP codes.
- Other Tools – include the Canadian Coding Standards Manual, ad hoc Classification Bulletins
- CIHI's Website www.cihi.ca Coders' Resource Page

Any Questions?



A Case Study on the Impact of Coding Classification Systems

Giving Birth in Canada: Regional
Trends from
2001-2002 to 2006-2007

Background

- Your team has been asked to prepare an update to a report that was previously released in 2004.
- Assume that data up to 2006-2007 are available for analysis for your update report.

Resources Provided

- Case Study
- Table 1: Availability of Acute Inpatient Abstracts from DAD (D) and HMDB (H) by Province/Territory
- Table 2: Coding Classification System used by Province/Territory from 1994-1995 to 2006-2007
- Technical Notes (1 page excerpt)

Your Task:

For the next 15 minutes your task is to:

- Discuss/brainstorm and list the necessary steps to outline a process for preparing an update to “Giving Birth in Canada Report”, using more current data.
- Identify any challenges you would likely anticipate in updating this report

Report

- Each group will briefly report their approaches and challenges

An Organizing Strategy for Preparing Accurate Reports: Four Questions to Guide End Users During the Reporting Period.

Question 1	What classifications are being used?
Question 2	What province is using which classification?
Question 3	What versions of ICD-10-CA and CCI are being used?
Question 4	What CIHI tables and tools will assist the end user?

To Wrap up – we set out to:

- Become familiar with the morbidity classification systems used in Canada
- Become aware of key factors of change that face analysts when trending using ICD-10-CA and CCI
- Identify tools to assist users in managing the factors
- Examine a case study to derive a framework for addressing trending

References

- Giving Birth in Canada: A Regional Profile (2004)
http://secure.cihi.ca/cihiweb/products/GBC2004_regional_e.pdf
- Giving Birth in Canada: Regional Trends From 2001–2002 to 2005–2006 (2007)
http://secure.cihi.ca/cihiweb/en/downloads/Childbirth_AiB_FINAL_E.pdf
- Technical Notes for Update:
http://secure.cihi.ca/cihiweb/en/downloads/Childbirth_TechnicalNotes_FINAL_E.pdf

Any Final Comments or Questions

