Moving from ICD-9-CM Legacy to SNOMED CT Based Clinical Content
...an implementation in progress...
Nova Scotia – Physicians Manual
Modernization Project
Robyn Kuropatwa, Kathy Giannangelo, Dennis Lee
Objectives

- Explain how the feasibility of proceeding with SNOMED CT implementation was assessed
- Share the approach used to clean and map legacy diagnoses and then build specialty specific subsets
- Describe the methods, tooling and documentation used to support review and audit
- Talk about lessons learned and the way forward
Nova Scotia & Medical Service Insurance Program

- **Nova Scotia Characteristics**
  - Population - 940,000
  - Rural/Urban mix
  - Physicians
    - 1,200 Family Practice physicians
    - 1,300 Specialists
  - Compensation models - fee for service, alternative payments (contract approach)
  - Clinical Content – Recording EMR Use
    - EMR Use - Mostly family practice physicians
    - Paper Based - Academic physicians
Nova Scotia & Medical Service Insurance Program

- **Medical Services Insurance Program**
  - Publicly funded program for physicians services for all people in Nova Scotia
  - Physicians required to collect/submit diagnoses, health service and other information elements
  - Mature program involving
    - Policy, People, Operations/Support, Data Use
  - Department of Health responsible for program policy (include IM policy), funding, monitoring and accountability
  - Physicians – Service delivery & reporting
  - Data/claims processing – 3rd party vendor
  - EMR – 3rd party vendors
Nova Scotia Medical Services Insurance Program – Current State

PHYSICIANS (MSI) CLINICAL SERVICE DELIVERY

Goal
To provide medically necessary and appropriate clinical services to the people of Nova Scotia

People
People of Nova Scotia, Taxpayers, Patients of the Health System, Clinical Service Providers, Policy Makers

PATIENTS & SERVICES

PROCESSES – SERVICE DELIVERY, CLAIM SUBMISSION TO DATA ANALYSES AND USE

PHYSICIAN SERVICE DELIVERY

Patient Request Service
Dr Assess Patient
Dr Diagnose Patient
Dr Provide Service

RECORD-SUBMIT

Dr Record Patient Info
Submit Service Claim

CLAIM ADJUDICATION AND PAYMENT

Assess Claim to Rules
Approve or Reject
Claim Resubmit
Manual Review
Claim Payment

DATA ANALYSES & USE

Audit
Internal Analyses
Support External Analyses

COMMUNICATION/EDUCATION

Claim Submit/Billing Education
Physicians Bulletin
DNS Website E-News
DNS Physician Newsletter

DOCUMENTATION

Physicians Manual
Physicians Billing Instructions Manual
Vendor Claim Submit Specs

RECORD

Paper Forms, Practmax, Nightingale, etc.

SUBMIT CLAIM

Practmax, Nightingale, MOM, etc.

ADJUDICATION

MEL database (claims, rules, patients, providers)

DATA STORE

Medavie/DHW DSS data warehouse

LINKAGES

WCB
Other Provinces
CIHI
Dalhousie

PROCESS SUPPORTS – DOCUMENTATION, COMMUNICATION, EDUCATION AND TECHNOLOGY

PLANNING

DHW-AFP, APP Planning
DHW, DNS Budget Projection
DHW, DNS Negotiations
DHW, DNS Provincial Program planning
DHW, DN, DHA Health Human Resource Planning

DESCRIPTION ANALYSIS

DHW analyses to inform policy
FSAC analyses to support
compensation policy
Medavie – Formal & Ad Hoc
Medavie – Physician Profiles
Physicians – Clinical Service Cross Province Comparison

PAYMENT

Physician Billing
Medavie – Payment
Processing
Physician – Payment Receipt
DHW-Payment Reconciliation

MONITORING

Health Services Insurance Act – to meet reporting requirements
DHW - Budget Management
DHW Master Agreement Management
DNS Master Agreement Management
APP/APP/Session Contract
Management
Medavie – Contract Management

AUDIT

- DHW – Physician Audit
- Medavie – Physician Audit
- College of Physicians and Surgeons

GAPS/LIMITED USE – PHYSICIAN CLINICAL, DATA QUALITY
NS PMMP Goals for Future to 2030

1. Modernize the Schedule of Insured Services for the people of NS
2. Establish and implement framework to accurately define clinical diagnosis and service descriptions
3. Prepare and sustain relevant and accurate supporting documentation
4. Update related policy and operational processes
5. Align required data and information flows to meet accountabilities and support clinicians and organizations
6. Retain current and increase future data and information use
Six Phases Spanning 2012 - 2017

Planning Through Implementation
I. Project Scope and Map
II. Clinical Diagnosis and Services Reporting – Content Definition, Development and Documentation
   I. Assessment of Feasibility
   II. SNOMED CT and CPT Adoption – Decision
   III. Clinical Term Cleaning, Mapping and Subsets
III. Clinical and Service Content Use, Policy and Process Modification and IT Assessment of Requirements (including uses)
IV. Policy and Process Testing and IT modification
V. Implementation of policy, processes and IT
VI. Implementation Maintenance
Assessment of Feasibility & Diagnoses Cleaning, Mapping and Validation

Kathy Giannangelo
Assessment of Feasibility: Four Dimensions

- Technical
- Organizational
- Improved content
- Overall
SNOMED CT – Appraisal to Subsets

- SNOMED CT Adoption - Diagnoses
  - Diagnoses content broad appraisal
  - Cleaning and Mapping
  - Physician Validation
  - Specialty Specific Subset
Cleaning Diagnoses Descriptions

Diagnoses cleaned to support mapping to SNOMED CT

Approach:

- Identify diagnosis description
- Identify reputable source of ICD-9-CM description and code
  - Centers for Disease Control and Prevention, 2012 version
- Review each diagnosis description
- Create the cleaned diagnosis description
## Cleaned Diagnoses Descriptions

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<thead>
<tr>
<th>NS Description</th>
<th>CDC Description</th>
<th>Cleaned Description</th>
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<tr>
<td>Other convulsions</td>
<td>Other convulsions</td>
<td>Other convulsions</td>
</tr>
<tr>
<td>Ben neo pit gl/craniophar duct</td>
<td>Benign neoplasm of pituitary gland and craniopharyngeal duct</td>
<td>Benign neoplasm of pituitary gland and craniopharyngeal duct</td>
</tr>
<tr>
<td>Unspecified thyroiditis</td>
<td>Thyroiditis, unspecified</td>
<td>Thyroiditis, unspecified</td>
</tr>
<tr>
<td>Sprains and strains of ribs</td>
<td>Sprain of ribs</td>
<td>Sprains and strains of ribs</td>
</tr>
<tr>
<td>Oth br lacn/contus w op wnd nos</td>
<td>Other and unspecified cerebral laceration and contusion, with open intracranial</td>
<td>Other brain laceration and contusion, with open wound, unspecified</td>
</tr>
<tr>
<td></td>
<td>wound, unspecified state of consciousness</td>
<td></td>
</tr>
<tr>
<td>Other sympt nerv/musculoskel system</td>
<td></td>
<td>Other symptoms of nervous and musculoskeletal system</td>
</tr>
</tbody>
</table>
Why is Mapping Needed?

To provide a link between one terminology (ICD-9-CM) to another terminology (SNOMED CT) in order to retain the value of historical data

- Support auditing and analyses across years
- Enable continuation of current analyses
Combined Specialties and Subspecialties

- Surgery – 669
  - Cardiovascular/Thoracic Surgery – 112
  - Thoracic Surgery – 289
  - Vascular Surgery – 396
- Pathology – 890
  - Anatomical Pathology – 749
  - Haematological Pathology – 61
  - Neuropathology – 70
  - General Pathology – 260
- Genetics – 489
  - Human Genetics – 19
  - Medical Genetics – 483
- Neurology – 1483
  - Neurology – 1,400
  - Neurology Paediatric – 307
- Diagnostic Imaging - 1703
  - Diagnostic Radiology – 1704
  - Nuclear Medicine – 30
  - Diagnostic & Therapeutic Radiology – 30
Mapping Examples

- **Single Pre-coordinated Concepts (9,540)**
  - 230.2 - Carcinoma in situ of stomach
    - 92756002 | Carcinoma in situ of stomach (disorder) |

- **Multiple Pre-coordinated Concepts (678)**
  - 379.92 - Swelling or mass of eye
    - 300849006 | Mass of eye structure (finding) |
    - 45177002 | Swelling of structure of eye (finding) |

- **Post-coordination (ongoing)**
  - 170.5 - Malignant neoplasm of short bones of upper limb
    - 126571009 | Neoplasm of short bone of upper limb (disorder) |
    - 116676008 | Associated morphology (attribute) |
    - 367651003 | Malignant neoplasm of primary, secondary, or uncertain origin (morphologic abnormality) |

- **NotMapped (30)**
  - V68.2 - Request for expert evidence
SNOMED CT to ICD-9-CM Equivalency Map, July 31, 2013

- Number of records: 116,419
  - Unique number of ICD-9-CM codes: 11,610
  - Unique number of SNOMED CT concepts with map: 85,002
  - Unique number of SNOMED CT concepts without map: 18,376

- SNOMED CT source code to target map code correlation value
  - **Exact match** map from SNOMED CT source code to target code
  - **Broad to narrow** map from SNOMED CT source code to target code
  - **Narrow to broad** map from SNOMED CT source code to target code
  - **Partial overlap** between SNOMED CT source code and target code
  - SNOMED CT source code **not mappable** to target coding scheme
  - SNOMED CT source code to target map code correlation **not specified**
SNOMED CT to ICD-9-CM Equivalency Map, July 31, 2013

- What we used: 7,885 maps
  - Unique SNOMED CT concepts: 7,882
  - Unique ICD-9-CM codes: 7,590
  - Correlation
    - Exact match: 6487
    - Narrow to broad: 1376
    - Broad to narrow: 19
    - Partial overlap: 3

- What we did not use: 73,518 maps
  - Unique SNOMED CT concepts: 64,046
  - Unique ICD-9-CM codes: 6,935
  - Correlation
    - Exact match: 10183
    - Narrow to broad: 62314
    - Broad to narrow: 788
    - Partial overlap: 233
Mapping and Validation Process

- **Mapping**
  - Extract historical clinical diagnoses (ICD-9-CM), ~10,341
  - Map clinical diagnoses to SNOMED CT
    - Apply map between SNOMED CT and ICD-9-CM developed by the IHTSDO
    - Apply lexical matching (compare cleaned diagnoses descriptions to SNOMED CT descriptions)
  - Manual review and mapping
Mapping and Validation Process (Cont’d)

▶ Cycle 1: Physician Beacons Validation of Mapping
  ▶ Validation sets of 500 clinical diagnoses
    ▶ Per specialty
  ▶ Beacons validate mappings
    ▶ Clinical meaning index (CMI)
      ▶ Clinical meaning is the same
      ▶ Clinical meaning is somewhat the same
      ▶ Clinical meaning is different
      ▶ Unsure
  ▶ Analyse results and respond
    ▶ Beacons CMI lower than RKL CMI
    ▶ Beacons have comments
  ▶ Update map
Related Content - Rules

- Validation, adjudication and audit rules
- Analysis of business rule components
- Linking rules to policies, diagnoses and health services
- From new content to existing -> implications on rules
## Reviewing Beacons Feedback

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<thead>
<tr>
<th>Response to Beacons Feedback</th>
<th>Total</th>
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<tbody>
<tr>
<td>Change required</td>
<td>93</td>
</tr>
<tr>
<td>Change not required - clinician does not use code</td>
<td>21</td>
</tr>
<tr>
<td>Change not required - clinician is unsure of code</td>
<td>35</td>
</tr>
<tr>
<td>Change not required - synonym exists</td>
<td>121</td>
</tr>
<tr>
<td>Change not required - definition is implicit</td>
<td>22</td>
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<tr>
<td>Change not required - suggested term is more/less specific</td>
<td>4</td>
</tr>
<tr>
<td>Change not required - clinician is making general comment or comment about ICD that does not affect the code</td>
<td>214</td>
</tr>
<tr>
<td>Change not required - term showed clinician is the same or almost exactly the same as source term</td>
<td>60</td>
</tr>
<tr>
<td>Change not required - other or unspecified</td>
<td>16</td>
</tr>
<tr>
<td>Change not required - mapping rule applies</td>
<td>18</td>
</tr>
<tr>
<td>Change not required - best SNOMED CT concept available assigned</td>
<td>112</td>
</tr>
</tbody>
</table>
Building Specialty Specific Subsets Methods, Tooling and Documentation

Dennis Lee
Building Subsets

- Three Cycles
  - 1) Map Validation
  - 2) Remove Redundant
  - 3) Add Relevant

- Start with local terms – Map Validation Results
- Use other credible subsets as resources
- Adapt for Nova Scotia use
- Support with tools
- Physician involvement throughout
Terminology server
- Search/Browse
  - SNOMED CT
  - ICD-9-CM
  - CPT
  - ...
- Standardized tools
  - MyDatasets
  - MySubsets
- Customised tools
  - Nova Scotia Validation
  - Nova Scotia Call Schedule
Cycle 1 - Mapping Datasets
## Cycle 1 - Tracking Validation Progress

### Nova Scotia Validation

#### Specialties
- Anaesthesia
- Cardiology
- Clinical Immunology & Allergy
- Community Medicine
- Dermatology
- Emergency Medicine
- Endocrinology & Metabolism
- Gastroenterology
- Geriatric Medicine
- General Practitioner
- General Surgery
- Haematology
- Infectious Diseases
- Internal Medicine
- Medical Oncology
- Medical Microbiology
- Neuroradiology

#### Clinical Diagnoses Cycle #1

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<tr>
<th>Code</th>
<th>Specialty</th>
<th>Number of Sets</th>
<th>Number of Terms</th>
<th>Sets Completed</th>
<th>Sets Pending</th>
<th>Sets Unassigned</th>
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Cycle 1 - Tracking Validation Progress (cont)

### Nova Scotia Validation

#### Clinical Diagnoses Cycle #1 Results

<table>
<thead>
<tr>
<th>Code</th>
<th>Specialty</th>
<th>Total</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
<th>Total</th>
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<th>Percent</th>
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<tr>
<td>MPA</td>
<td>Pathology (Merged - ANPA/APA/NEPA/PATH)</td>
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<td>14</td>
<td>2.7%</td>
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<td>7.1%</td>
<td>474</td>
<td>416</td>
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<td>9.6%</td>
<td>53</td>
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<tr>
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<td>4</td>
<td>0.7%</td>
<td>28</td>
<td>4.9%</td>
<td>546</td>
<td>38</td>
<td>584</td>
<td>26</td>
<td>4.5%</td>
<td>Completed</td>
<td>33</td>
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<tr>
<td>NINS</td>
<td>Neurosurgery</td>
<td>184</td>
<td>87.3%</td>
<td>72</td>
<td>35.0%</td>
<td>1</td>
<td>0.2%</td>
<td>12</td>
<td>7.5%</td>
<td>467</td>
<td>452</td>
<td>919</td>
<td>3</td>
<td>0.6%</td>
<td>14</td>
<td></td>
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</tbody>
</table>
Cycle 1 - Tracking Validation Progress (cont)

### Clinical Diagnoses Cycle #1 Analysis and Response

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Otolaryngology</th>
</tr>
</thead>
<tbody>
<tr>
<td>RKL CM1</td>
<td>All</td>
</tr>
<tr>
<td>Beacon CM1</td>
<td>All</td>
</tr>
<tr>
<td>Compare CM1</td>
<td>All</td>
</tr>
<tr>
<td>Beacon Comments</td>
<td>Yes</td>
</tr>
<tr>
<td>RKL Response</td>
<td>All</td>
</tr>
</tbody>
</table>

**Note:** Parentheses indicates clinical meaning index (CMID) - (1) Clinical meaning is the same, (2) Clinical meaning is somewhat the same, (3) Clinical meaning is different, (4) Unsure. Bold term in SNOMED CT column indicates preferred term that was shown to beacons.

<table>
<thead>
<tr>
<th>ICD-9-CM (RKL CM1)</th>
<th>SNOMED CT</th>
<th>Beacon Specialty - (CMID) Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>123.5 - Neoplasm of uncertain behavior of salivary gland (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>234.5 - Neoplasm of uncertain behavior of brain and spinal cord (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>345.6 - Neoplasm of uncertain behavior of salivary gland</td>
<td>189362009</td>
<td>Neoplasm of uncertain behavior of major salivary gland (disorder)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neoplasm of uncertain behavior of minor salivary gland</td>
</tr>
<tr>
<td></td>
<td>949360109</td>
<td>Neoplasm of uncertain behavior of minor salivary gland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neoplasm of uncertain behavior of minor salivary gland</td>
</tr>
<tr>
<td></td>
<td>OTOL - (3) salivary gland tumours can involve either 1. acinar or 2. ductal structures. should not be mixing general term ie gland with specific type ie duct</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change made: 20120101</td>
<td>Neoplasm of uncertain behavior of salivary gland duct (disorder)</td>
</tr>
<tr>
<td></td>
<td>KG: There are two possible maps for this: 189362009</td>
<td>Neoplasm of uncertain behavior of major salivary gland (disorder)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neoplasm of uncertain behavior of major salivary gland (disorder)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neoplasm of uncertain behavior of minor salivary gland (disorder)</td>
</tr>
<tr>
<td></td>
<td>OTOL - (2) should it read brain “or “spinal cord?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change not required - term showed clinician is the same or almost exactly ti</td>
<td></td>
</tr>
</tbody>
</table>
### Cycle 2/3 Subset Reports

#### View MySubset Report

**MySubset Report**
- KP Compare

**Description**
- Nova Scotia Psychiatry (Beta)

**MySubset Report Type**
- Comparison

**Comparison MySubset**
- Kaiser Permanente Mental Health Problem List

**Comparison Effective Time**
- 20140331

<table>
<thead>
<tr>
<th>Status</th>
<th></th>
</tr>
</thead>
</table>

**Shared**
- Private

---

#### Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Concepts</td>
<td>1,481</td>
<td>Total number of unique concepts across both subsets.</td>
</tr>
<tr>
<td>Source Concepts</td>
<td>535</td>
<td>Total number of concepts in Nova Scotia Psychiatry (Beta) subset.</td>
</tr>
<tr>
<td>Target Concepts</td>
<td>1,203</td>
<td>Total number of concepts in Kaiser Permanente Mental Health Problem List subset.</td>
</tr>
<tr>
<td>Concepts in Source Only</td>
<td>278</td>
<td>Number of concepts in Nova Scotia Psychiatry (Beta) subset only.</td>
</tr>
<tr>
<td>Concepts in Target Only</td>
<td>946</td>
<td>Number of concepts in Kaiser Permanente Mental Health Problem List subset only.</td>
</tr>
<tr>
<td>Concepts in Both</td>
<td>257</td>
<td>Number of concepts in both the Nova Scotia Psychiatry (Beta) and Kaiser Permanente Mental Health Problem List subsets.</td>
</tr>
</tbody>
</table>

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#### International Edition and Extensions

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<tr>
<th>#</th>
<th>Concept Id</th>
<th>Fully Specified Name</th>
<th>Source Only</th>
<th>Both</th>
<th>Target Only</th>
<th>All</th>
<th>Diagram</th>
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<tbody>
<tr>
<td>1</td>
<td>123037004</td>
<td>Body structure (body structure)</td>
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<td>0</td>
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<td>0</td>
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<tr>
<td>2</td>
<td>404684003</td>
<td>Clinical finding (finding)</td>
<td>261</td>
<td>254</td>
<td>678</td>
<td>1,193</td>
<td>Diagram</td>
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<tr>
<td>3</td>
<td>308916002</td>
<td>Environment or geographical location (environment / location)</td>
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<td>4</td>
<td>272379006</td>
<td>Event (event)</td>
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<td>1</td>
<td></td>
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<tr>
<td>5</td>
<td>363787002</td>
<td>Observable entity (observable entity)</td>
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<td>6</td>
<td>410607006</td>
<td>Organism (organism)</td>
<td>0</td>
<td>0</td>
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<td></td>
</tr>
</tbody>
</table>
# Cycle 2/3 Subset Management

## MySubsets

Welcome to the MySubsets Toolkit!

This toolkit enables you to create SNOMED CT subsets and export them as SNOMED CT reference sets.

Subsets can be shared (via editing a subset) with other team members as edit or view only, and can be published on the main SNOMED CT subset page. Subsets that you have shared will have a "↑" icon under the Shared column.

Reports can be generated for subsets and subsets can be exported in different formats. Click on the "นม" icon next to the MySubset Reports and MySubset Exports pages.

**Note:** Some features are currently under construction.

## MySubsets

- **List of all your subsets**
- **MySubset Reports**
  - List of subset reports you have generated
- **MySubset Exports**
  - List of subset exports you have generated

## Shared MySubsets

<table>
<thead>
<tr>
<th>#</th>
<th>MySubset</th>
<th>Shared By</th>
<th>Share</th>
<th>Report</th>
<th>Export</th>
<th>Delete</th>
<th>Edit</th>
<th>View</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CORE Problem List Subset of SNOMED CT</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>2</td>
<td>Nova Scotia Nephrology (Christine Dipchand)</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>3</td>
<td>Nova Scotia Nephrology (Demo)</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>4</td>
<td>Nova Scotia Nephrology (Tom Hewett)</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>5</td>
<td>Nova Scotia Otolaryngology (Andrew Smith)</td>
<td>Dennis Lee</td>
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<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>6</td>
<td>Nova Scotia Otolaryngology (Demo)</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
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<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
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<td>7</td>
<td>Nova Scotia Otolaryngology (Gerard MacDonald)</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>8</td>
<td>Nova Scotia Otolaryngology (Manohar Bance)</td>
<td>Dennis Lee</td>
<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
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<td>9</td>
<td>Nova Scotia Otolaryngology (Timothy Wallace)</td>
<td>Dennis Lee</td>
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<td>Report</td>
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<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
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<td>10</td>
<td>Nova Scotia Plastic Surgery (Demo)</td>
<td>Dennis Lee</td>
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<td>Report</td>
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<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>11</td>
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<td>Report</td>
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<td>Edit</td>
<td>View</td>
</tr>
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<td>12</td>
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<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
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<td>14</td>
<td>Nova Scotia Plastic Surgery (Steven Morris)</td>
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<td>Report</td>
<td>Export</td>
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<td>Edit</td>
<td>View</td>
</tr>
<tr>
<td>15</td>
<td>Nova Scotia Psychiatry (Demo)</td>
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<td>Edit</td>
<td>View</td>
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<tr>
<td>16</td>
<td>Nova Scotia Psychiatry (Nicholas Delva)</td>
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<td>Share</td>
<td>Report</td>
<td>Export</td>
<td>Delete</td>
<td>Edit</td>
<td>View</td>
</tr>
</tbody>
</table>

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Cycle 2/3 Subset Editing
Cycle 2/3 Subset Editing

Recurrent major depression (disorder)

Subtype Concepts (9)
1. Mild recurrent major depression (disorder)
2. Moderate recurrent major depression (disorder)
3. Recurrent major depression in complete remission (disorder)
4. Recurrent major depression in partial remission (disorder)
5. Recurrent major depression in remission (disorder)
6. Recurrent major depressive episodes, in full remission (disorder)
7. Recurrent major depressive episodes, moderate (disorder)
8. Severe recurrent major depression (disorder)
9. Severe recurrent major depression with psychotic features (disorder)

Supertype Concepts (2)
1. Depressive disorder (disorder)
2. Mood disorder (disorder)
Cycle 2/3 Subset Editing
Cycle 2/3 Subset Editing
Lessons Learned and the Way Forward

Robyn Kuropatwa
Information Management First

- First do the information management work separate from the information technology – then define the intersection points
- Moving to standard terminologies/subsets in well-established programs with legacy information, processes and systems
  - Need to consider all components from definitions through to use
  - Diligence in understanding the old and proceeding with the new
  - Considering terminologies and related clinical term sets as provincial terminology assets with related/required supports/maintenance
Change Management – People and Processes

Nova Scotia Clinical Services Phase II/III
...from definitions to uses...

STAKEHOLDERS & CHANGE

PEOPLE

PROJECTS

ORGANIZATIONS

Phase II Clinical Diagnosis and Services Reporting – Content Definition, Development and Documentation

Phase III Clinical and Service Content Use, Policy and Process Modification and IT Assessment of Requirements (including Uses)

Tools & Methods

Engage Stakeholders

Research

Data Quality

Communication

Education

Pilots

Critical Appraisal

Policy

Processes
Layers of Documentation and Analyses

- Policy documents
- Project Methods and Approach
- Physician Engagement/Clinical Content Validation and Subset Development – need to be able to withstand long-term scrutiny
- Physician Claims - Data Analyses
  - Supports all project phases
  - Support all methods
  - Link Policy, information collected, system rules, explanatory codes
  - Old – New Cross-Walks
Approaches, Methods and Tooling

- Working through legacy
  - You have to consider the history at the same time you are building the future – it is not just reimbursement
  - Need to think from policy to use concurrently

- Approaches
- Methods
- Resource and Reference material
- Tooling
- Find, adapt, adopt – clinical specialty specific subsets
Over the Next 11 months

- Project Management
- Governance
- Change Management
- Program Policy
- Clinical Content – Specialty Specific Subsets (35)
- Information Management and Documentation (Subset Lifecycle)
- Data Uses
Questions and Thank You

- Questions

- Thank you for your time. It has been a pleasure.