International Classification of Health Interventions

People with special needs

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Outline

- Health classification at the University of Sydney
  - Development of International Classification of Health Interventions (ICHI)
    - Background
    - Structure
    - Content
  - Interventions most relevant to people with special needs:
    - functioning interventions
  - Future development of ICHI

University’s Classification Development and Uses

- NCCH develops and implements
  - ICD-10-AM (Australian modification of ICD-10)
  - Australian Classification of Health Interventions (ACHI)
  - AR-DRGs for Activity Based Funding (casemix)
  - Recent project examining assessment instruments for sub-acute care
- Related University of Sydney work
  - ICF implementation in Australia
  - ICPC development and use
- International roles
  - Part of Australian WHO-FIC Collaborating Centre
  - ICHI development

WHO Family of Classifications (WHO-FIC)

International Classification of Diseases – ICD
International Classification of Functioning, Disability and Health – ICF
International Classification of Interventions – ICHI

Background

- 1978: WHO International Classification of Procedures in Medicine (ICPM)
- 1980s: ICPM not maintained
- Many national classifications developed: U.S., Australia, Germany, ...
- Duplication, not comparable
- Many countries with no classification
- Use of U.S. and Australian classification in other countries
The situation in 2006

No useable international classification
Consequences:
- Proliferation of national classifications
- Limited scope of national classifications: medical/surgical focus
- Many countries without a classification
- International comparisons difficult

WHO-FIC Network decides to develop ICHI, beginning in 2007

Multiple Use Cases for ICHI

1. National Applications for ICHI
   a) ICHI as a national classification
   b) National classification as an extension of ICHI
   c) Subset of ICHI as replacement for ICD-9-CM
2. International Comparisons
3. Patient safety and quality
4. Universal Health Coverage (WHO)
5. Public health applications
6. Casemix applications

Broad scope for ICHI

ICHII planned to include
- Medicine, surgery, diagnostics
- Primary care
- Allied health and provision of support
- Mental health
- Nursing interventions
- Public health

Structure of ICHI

- Finalised in 2010
- Multi-dimensional, based on European standard for classification of surgical interventions: France and Canada had followed this approach
- Definition
  - A health intervention is an activity performed for, with or on behalf of a person or a population whose purpose is to improve, assess or modify health, functioning or health conditions.
- ICHI would NOT include:
  - Why - reason for intervention (ICD, ICF)
  - Who - provider of the intervention
  - Where - setting for the intervention
  - Result – outcome of the intervention

ICHII Structure (2)

ICHII Organising Principle

“What is done to what target, and how”

Granularity
ICHII will contain limited detail, to meet the two Use Cases:
1a) ICHII as a national classification
2) International comparisons

National / specialist classifications derived from ICHII can have more detail
ICHI CONTENT MODEL

Any Intervention in ICHI is represented by:

1. **TITLE of ENTITY**: Name of intervention
2. **Textual definition**
3. **Hierarchy – Type – Use**
4. **Synonyms - Inclusion – Exclusion - Index terms- Notes**

### Descriptive characteristics

<table>
<thead>
<tr>
<th>1</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Body Part / Anatomical site</td>
</tr>
<tr>
<td>B</td>
<td>Body Function</td>
</tr>
<tr>
<td>C</td>
<td>Activities and Participation</td>
</tr>
<tr>
<td>D</td>
<td>Environment</td>
</tr>
<tr>
<td>E</td>
<td>Behaviour</td>
</tr>
<tr>
<td>F</td>
<td>Individual/Person/Population</td>
</tr>
</tbody>
</table>

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**Additional ICHI features**

**Qualifiers**

- Laterality, simultaneous, count,
- Modifiers

**Modifiers**

- Revision of an intervention
- Additional targets

**Editorial rules**

- Rules for construction of ICHI interventions

**Coding rules**

- How to code interventions using ICHI

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**ICHI Content Development: Functioning**

Functioning interventions (includes mental health)

- Sydney workshop 2011
- Subsequent revision and expansion
- Mental health interventions added in 2012
- Nursing under discussion
- Stable version late 2013

**Examples**

<table>
<thead>
<tr>
<th>Title</th>
<th>Code</th>
<th>Target</th>
<th>Action</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal assistance with memory</td>
<td>FAK SY BK</td>
<td>Memory functions</td>
<td>Personal assistance</td>
<td>Facilitator - human</td>
</tr>
<tr>
<td>Manual assessment of respiratory muscle function</td>
<td>FGB AAH</td>
<td>Respiratory muscle functions</td>
<td>Assessment</td>
<td>External</td>
</tr>
</tbody>
</table>

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**ICHI Content Development: Public health**

Public health interventions

- Begun in 2011
- Boundary issues
- Use of WHO-CHOICE list of interventions
- Review and comment by an increasing number of experts

**Examples**

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<th>Action</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveillance and enforcement of air quality standards</td>
<td>KBI XA PI</td>
<td>Air quality</td>
<td>Environmental standards and surveillance</td>
<td>Civil protection services, systems and policies</td>
</tr>
</tbody>
</table>
Primary care/ambulatory interventions
- Development needed
Traditional medicine interventions
- Desirable given large role in many countries
- Skills and resources needed

Functioning interventions
- Allied health / rehabilitation
- Provision of support
- Interventions targeted at environmental factors
- Mental health interventions
- Work is not yet complete!

Axes for Functioning Interventions: Targets
- Based on ICF domains
  - Body functions
  - Activities and participation domains
  - Environmental factors
- Granularity is generally based on three digit ICF codes
- Broader groupings are included for optional use in content development

Axes for Functioning Interventions: Actions
- Diagnostic
  - assessment, measurement, test, monitoring, observation
- Therapeutic
  - manipulation, mobilisation, stretch, assisting or leading exercise
  - education, training, counselling
  - psychotherapy, therapeutic counselling
  - provision, management of external devices, deconditioning
  - caregiving, personal assistance, personal support
- Managing
  - advocacy, brokerage, prescription, transport

Axes for Functioning Interventions: Means
- Facilitator
  - human, animal, tangible object
- Caregiver
- Method
  - interview, examination

Note: Devices are not included as means, to be described separately
  (ISO 9999 describes assistive devices)

Currently over 1000 functioning interventions
- 400 interventions where Target is a Body Function
- 550 interventions where Target is an A & P domain
- 50 interventions where Target is an Environmental Factor
Timetable for ICHI development

- Alpha version October 2012 (electronic and paper)
- Alpha 2 version will be published in October 2013
- Wider expert review during 2014
- Completion of Beta version and release in October 2014
- October 2014 through to October 2015: field tests of ICHI
  - development of translations for interested countries
  - possible development and testing of national Beta versions
- Mid 2016: Release of pre-final version
- May 2017: WHA adoption of ICHI

Timing may need to vary to fit with ICD revision timetable

Subject to identification of necessary human and financial resources

Conclusion

- ICHI development well advanced
- International effort
- Resources so far voluntary, plus sponsorship, travel etc
- Partners are welcomed and desired
- Opportunity to influence developments now