Overview of EIC-ICD11 Strategic Work Plan Activities & Challenges for Implementation

Huib Ten Napel
WHO-FIC NL Collaborating Centre
WHO-FIC Education & Implementation Committee
e-mail: huib.ten.napel@rivm.nl
Content

Two parts:

- ICD11 in Strategic Workplan (SWP) of Education and Implementation Committee (EIC)

- Challenges for implementation of ICD11
Education and Implementation Committee - Aims

- Assist and advise WHO and WHO-FIC Network in implementing WHO-FIC and improving level and quality of their use in Member States
- Develop strategies for implementation of WHO-FIC with an integrated educational strategy for the Reference Classifications
- Track and provide up-to-date information on implementation of classifications in Member States
- Promote development and use of WHO-FIC Training Tools
- Ensure that coded health data are consistent, of high quality and comparable within and among WHO member states
- Act as an international support network for countries, through the WHO and ROs, on issues relating to implementation and best practices on the use of WHO FIC and training strategies
- Support users with information resources
Before focusing on the EIC tasks

The EIC is one of the many Committees and Reference groups of the WHO-FIC Network:

- Education and Implementation Committee (EIC)
- Informatics and Terminology Committee (ITC) – technical issues and standards
- Family Development Committee (FDC) – integration of WHO-FIC
- Classification and Statistics Advisory Committee (CSAC) – advisory committee upd.
- Medical Scientific Advisory Committee (MSAC) – medical and scientific advice
- Mortality Reference Group (MRG) – comparability mortality data and issues
- Morbidity Reference Group (MbRG) – comparability of morbidity data and issues
- Functioning and Disability Reference Group (FDRG) – comparability functioning and disability data

ICD-11 activities are shared by several cross working groups
ICD11 in EIC’s SWP

EIC ICD11 in Strategic Workplan: ICD-11 is now top priority!

- Goal 1: Implementation of ICD-11 as the latest revision
  - Finalize ICD-11 and prepare for transition from ICD-10 to ICD-11
  - Promote the development and use of WHO-FIC training tools

- Goal 2: Primary Care - Input of Primary Care into ICD-11 – Use of ICD11 in PC

- Goal 4: WHO-FIC education
  - Promote ICD education, development of database of education experts
  - Promote the development and use of WHO-FIC training tools
  - Develop and promote International training strategy & assessment strategies
  - Support users of the classifications with information resources
  - Promote International Training and Certification Program for ICD-10 mortality and morbidity coders with IFHIMA

- Goal 5: WHO-FIC Implementation – Facilitate data collection with E-tools
ICD11 implementation package

The activities of the EIC members are contributing to:

A. Reference Guide - the manual with all instructions for correct use of ICD, including information in relation to updating and governance

B. Transition guide - guidance on aspects of the transition for countries that have ICD-10 in place

C. Training material - ICDFiT – new use of ICDFiT as a training tool

D. Compilation of training material – compilation of diagnostic term sets

E. Education Site – new site for ICD11 training (tender for ICD11 T-Tool will go out)

F. Advocacy materials - summary information on ICD-11 for briefing of decision makers

Additional activities for EIC:

• New EIC website – collection of educational and implementation/transition material

• Implementation Database for collecting information on National level

• Implementation quality assessment platform - It allows for testing coding outcomes against the gold standard. Can be used to assess the results with a new translation and also assessing outcomes of training for individuals or groups
A. ICD11 Reference Guide
Reorganization to 3 Parts

• Part 1 – “What is ICD-11?”
  • For people who have no knowledge of ICD-11
  • Isolates material that could be summarized for decision makers, etc.

• Part 2 – “How does ICD-11 work?”
  • For coders, managers, decision-makers
  • Training material on how to code, what is needed to support coding

• Part 3 – “What’s new in ICD-11?”
  • Those (e.g. coders, physicians) already familiar with previous versions of ICD, who just want to know what has changed
B. ICD11 Transition Guide 1

Transition Guide – Incentives for ICD-11 – draft version

• **Introduction** – arguments for using ICD-11
  • Common language – only worldwide statistical tool
  • Basis for documentation – exchange worldwide – wider application (TM-Pat. Safety-PC)
  • Large community of interested parties
  • Free online download – online browser and coding tool
  • Easier to use in multiple settings

• **Benefits of using the ICD-11**
  • Up-to-date scientific knowledge
  • Ease of use – simpler coding –lower costs for training – integration into EHR – API – printable index
  • Multiple applications for health system priorities – not only MM – all kinds of reporting, based on the same core
  • eHealth compatible and interoperability with HES – unique identity linked to Unique Resource Identifiers, provide entrance to ICD content
  • Linkages with other classifications – incorporated in the Foundation Layer (ICD-O, ICECI, ICPC, ICF, Snomed-CT)
  • Maintenance of ICD – maintenance processes – input from everyone
B. ICD11 Transition Guide 2

Transition Guide – Incentives for ICD-11 – draft version

• Transition guidance
  • Considerations for countries with or without using ICD-10

• Implementation considerations – how to move forward for Morbidity and Mortality
  • Mortality – historically International Cooperation – countries can decide on implementation individually or in groups – Iris update process has started on the decision tables
  • Morbidity – ICD supports international consistency for statistical comparison, arrangements are under development – could also be the basis for case-mix systems – relatability of systems

• Planning for transition to ICD-11
  • Contains guidelines for a stepwise planning
  • These steps are presented in the ‘challenges’ part
C. ICD-11 Coding training and self-evaluation tool (ICDFiT)

**Purpose**
- ICD user can test their accuracy in coding with ICD-11
- WHO & Member States can check translation and data quality

**Centers**
- WHO FIC CC
- Country MoH (without CC)
- WHO-FIC RefGroup/Com
Users can choose between different modules (i.e. set of terms/cases)

- Pre-existing modules:
  - international morbidity module
  - international mortality module
  - custom clinical speciality modules
- Locally defined modules
  - Direct terms-set imported into a module
C. ICD-FiT User Interface - 2

ICD-FIT v3.0.0 beta

Home / Center: Namibia / Module: Morbidity (ICD-11 coding only)

Go back

Module: Morbidity (ICD-11 coding only)

Center: Namibia
Module: Morbidity (ICD-11 coding only)
Cases: 100

Cases

<table>
<thead>
<tr>
<th>Number</th>
<th>Case</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>Upper...</td>
<td>-</td>
</tr>
<tr>
<td>Case 2</td>
<td>Chron...</td>
<td>-</td>
</tr>
<tr>
<td>Case 3</td>
<td>Pneum...</td>
<td>-</td>
</tr>
<tr>
<td>Case 4</td>
<td>Front...</td>
<td>-</td>
</tr>
<tr>
<td>Case 5</td>
<td>Typho...</td>
<td>-</td>
</tr>
<tr>
<td>Case 6</td>
<td>Road ...</td>
<td>-</td>
</tr>
<tr>
<td>Case 7</td>
<td>Malar...</td>
<td>-</td>
</tr>
<tr>
<td>Case 8</td>
<td>Multi...</td>
<td>-</td>
</tr>
<tr>
<td>Case 9</td>
<td>Diarr...</td>
<td>-</td>
</tr>
<tr>
<td>Case 10</td>
<td>Myoca...</td>
<td>-</td>
</tr>
</tbody>
</table>
C. ICDFiT Analytic features

- Coders get feedback how well coded they coded each diagnostics statement.
- Coders will get summary score indicating their coding accuracy & timing (performance).
- Coders can compare their results with their peers (ranking).
- Member States & WHO can assess coding quality, translations and improve classification & tooling.
### D. Compiling diagnostic term sets for ICDFiT

<table>
<thead>
<tr>
<th>Data</th>
<th>Admission</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td>2963</td>
<td>94</td>
</tr>
<tr>
<td>Hypertension</td>
<td>2511</td>
<td>138</td>
</tr>
<tr>
<td>Other Diarrhoeal diseases</td>
<td>1646</td>
<td>7</td>
</tr>
<tr>
<td>Other Diarrhoeal disease</td>
<td>1642</td>
<td>31</td>
</tr>
<tr>
<td>Urinary Tract Infection (UTI)</td>
<td>1039</td>
<td>2</td>
</tr>
<tr>
<td>Abortion</td>
<td>890</td>
<td>1</td>
</tr>
<tr>
<td>Hernia</td>
<td>844</td>
<td>5</td>
</tr>
<tr>
<td>Septicaemia /Severe bacterial infection</td>
<td>810</td>
<td>108</td>
</tr>
<tr>
<td>Diabetic</td>
<td>794</td>
<td>63</td>
</tr>
<tr>
<td>Other Diagnosis - Cot Ward</td>
<td>732</td>
<td>42</td>
</tr>
<tr>
<td>Severe Anaemia (&lt;7 gm/dl)</td>
<td>668</td>
<td>42</td>
</tr>
<tr>
<td>Preterm</td>
<td>654</td>
<td>176</td>
</tr>
<tr>
<td>Asphyxia</td>
<td>641</td>
<td>179</td>
</tr>
<tr>
<td>Soft Tissue injuries/ Wound</td>
<td>572</td>
<td>1</td>
</tr>
<tr>
<td>Fracture</td>
<td>550</td>
<td>7</td>
</tr>
<tr>
<td>Status Asthmatic</td>
<td>545</td>
<td>4</td>
</tr>
<tr>
<td>Cerebro Vascular Accident (CVA)</td>
<td>534</td>
<td>179</td>
</tr>
<tr>
<td>Cataract</td>
<td>498</td>
<td></td>
</tr>
<tr>
<td>Pneumonia</td>
<td>465</td>
<td>27</td>
</tr>
<tr>
<td>Congestive Cardiac Failure</td>
<td>454</td>
<td>66</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>445</td>
<td>1</td>
</tr>
<tr>
<td>Appendicitis</td>
<td>279</td>
<td>2</td>
</tr>
<tr>
<td>Dysentery</td>
<td>246</td>
<td>1</td>
</tr>
<tr>
<td>Benign Prostate Hypertrophy (BPH)</td>
<td>246</td>
<td>3</td>
</tr>
<tr>
<td>Severe Acute malnutrition</td>
<td>224</td>
<td>25</td>
</tr>
<tr>
<td>Neonatal Infection</td>
<td>217</td>
<td>29</td>
</tr>
<tr>
<td>Respiratory Infections</td>
<td>211</td>
<td>1</td>
</tr>
<tr>
<td>Fibroid</td>
<td>208</td>
<td>0</td>
</tr>
<tr>
<td>Peptic ulcer disease</td>
<td>203</td>
<td>8</td>
</tr>
<tr>
<td>Pregnancy complication</td>
<td>191</td>
<td>0</td>
</tr>
<tr>
<td>Septic Wounds</td>
<td>181</td>
<td>8</td>
</tr>
<tr>
<td>Sickle cell Anaemia</td>
<td>173</td>
<td>8</td>
</tr>
<tr>
<td>Malaria confirmed</td>
<td>168</td>
<td>2</td>
</tr>
<tr>
<td>Cut Wound</td>
<td>165</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHO Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>Similar term exists - diarrhoeal disease</td>
</tr>
<tr>
<td>Similar term exists - diarrhoeal disease</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>both terms exist</td>
</tr>
<tr>
<td>System finds term - diabetes</td>
</tr>
<tr>
<td>Not a codable Dx</td>
</tr>
<tr>
<td>Similar term exists - anaemia</td>
</tr>
<tr>
<td>System finds term - preterm newborn</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>Dx incomplete - need site</td>
</tr>
<tr>
<td>Similar term exists - fracture NOS</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>terms exist for adults and for children</td>
</tr>
<tr>
<td>Multiple matches based on site or type - no default</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>Incomplete Dx - no detail</td>
</tr>
<tr>
<td>poor documentation - need site</td>
</tr>
<tr>
<td>exists</td>
</tr>
<tr>
<td>Added term</td>
</tr>
<tr>
<td>mix of external cause and injury but no site</td>
</tr>
</tbody>
</table>
E. Impression of Education Site

Draft impression of possible design, framework
Possible integration of all core-classifications with the same look- and-feel

https://nishansharma.wixsite.com/icd11
Advocacy material

EIC coordinates the development of Summary information material on ICD-11 for briefing, for informing and for specific audiences e.g. decision makers to support and guide transition.

Electronic formats and printable

Always in cooperation with relevant Committees and Groups
Transition or implementation is always a challenge, not a problem!

The most important question is.......
Why change?

When you feel safe in your old ICD Castle?
Because ICD-10 has outdated content!

Because ICD-11 is better, faster and easier to use!

As already stated earlier:

- More comprehensive for use in broader clinical settings, e.g. primary care (responding to multiple user needs)
- Reflect current medical terminology and information needs (up-to-date scientific knowledge)
- Greater international comparability for morbidity
- Linkages with other classifications/terminologies:
  - International Classifications of Disease for Oncology (ICD-O)
  - International Classification of Functioning and Disability (ICF)
  - Gene Ontology (GO)
  - SNOMED-CT
Challenges for implementing ICD-11

Transition requires forward planning and involves a number of steps such as:

• Planning and national coordination
• Sharing information about the implementation and its progress with stakeholders and involved parties
• Translation
• Piloting tools, training, and workflows
• Adapting the infrastructure for recording, storage and analysis
• Establishing and running a national centre of excellence that can provide technical support
• Ensuring that data collection and management personnel can input data and keep the system functioning at local, subnational and national level
• Conducting training courses for managers, physicians, data personnel and other involved parties; material needs to be adapted and translated
• Analysing the data and assess impact on longitudinal statistics (impact studies)
Challenges for implementing ICD-11

In the Netherlands a transition was undertaken some years ago from ICD-9 to ICD-10

The transition was quite similar to the steps presented on the previous page

The challenges are in all of the steps as I will explain further
The first step needs to be the development of a national pilot implementation plan, covering every part and each party involved.

The outset of the pilot plan needs to include a costs and benefits analysis of different ways of implementing the new version of ICD should be undertaken. The outcomes inform the strategic planning for implementation.

It also needs to contain a projected timing of the transition, involving budget planning and an estimation of the costs.
A centralised approach with a core-team with expertise on:
- Implementation strategies – management skills
- PR knowledge - communication
- Content knowledge on the classification

The core-team needs to have a national mandate from the ministry to do the pilot and to develop and implement the project plan!

Dutch example! **Challenge here is:** compulsory or not?
Part of the plan needs to be an inventory of all stakeholders involved on all possible levels:

- Hospital management, specialist groups, software vendors, health information managers and IHM-organisations, training and education institutes, etc.

- Consulting and informing relevant parties serves multiple purposes:
  - To raise awareness about the intended implementation
  - To get an early commitment from stakeholders
  - To be informed about the needs of the stakeholders

- A road-show is a good way to reach out, inform and be informed

The **challenge here is** to attain commitment and shared responsibility
An important part of the transition will be the availability of a translation of the ICD

The availability of a translation in the language of the country is one of the pre-requisites – user needs, as part of the implementation

The translation needs to be undertaken timely, before the actual transition can take place – deliverable!

WHO tools support the translation of ICD, and are perceive as less time-consuming than with ICD-10 (3 books needed to be translated)

Translation of User guide (replacing part 2) and Transition Guide

Translation of the ICD-11 eLearning Tool
Piloting tools, training and workflows

As part of the transition, users need to get familiar with the new tooling environment – such as ICD-11 Browsers - ICDFiT

Needs to be part of a National ICD-11 training plan – *deliverable*!

Dutch example: development of training material through certified training institutes – based on existing material – coders, IHM persons

Workflow of the plan should include: transition phase (preparatory), implementation phase and post-implementation phase
Adapting the infra-structure

Adaptation of the infrastructure refers to the fact that systems need to be adapted to the new way of recording, storing and analysing of data.

Traditionally software vendors use exel formats. They need to adapt to the way they can connect to the ICD-11 terms via API’s.

In the Netherlands vendors still use excel formats, but also ClaML (ISO-norm) files.

For this purpose a ClaML User Guide has been developed.

The **challenge here is**: will vendors be able to modernise? ITC support?
Establishing and running a national centre

In order to be able to provide technical support it may be required to establish a national centre of expertise

In the Netherlands technical support is provided through a group of technical experts from software vendors and experts from IT departments

These experts have been trained by the CC in the use of ClaML

The vendors now also serve as testers for new updated versions of the classification (ICD) in ClaML format.

They will also be involved in testing ICD-11 through the ICD Platform
Ensuring the data collection

• Ensuring that data collection and management personnel can input data and keep the system functional at local, subnational and national level

• Depending on the way and which purpose data is collected it needs to be established if the functionality is safe and in place

• Dual coding studies – coding with ICD-10 compared with coding with ICD-11 - may be needed to determine any change in workforce resulting from the transition to ICD-11.

Is data still consistent using ICD-11 or are trends different?

Is productivity the same?
Conducting training courses

• Training courses need to be developed – adapted for purpose
• Conducting training courses for different user groups such as managers, physicians, data personnel and other involved parties; material needs to be adapted and translated to the situation of the country
• Training material is collected by the EIC and made available online
• ICD-11 eLearning tool will be developed, but needs translation
  • EIC will coordinate this work in the same manner as with the ICF eLearning tool
• Dutch example. **Challenge**: support training institutes with material and guidance. Use available material as much as possible
Analysing the new data and assess impact

• One last, but very important aspect is the impact of the data on longitudinal statistics
• Bridge coding and crosswalks between the versions are vital to ensure consistency with time series analysis, casemix systems and resource allocation schemes.
• As bridge coding and crosswalks between ICD10 and ICD-11 will be provided, the expectation is that there will not be a loss of required information

In the Netherlands the transition from ICD-9 to ICD-10 proved to be no problem, ICD-11 is already searched a lot for content missing in ICD-10
Summary

EIC supports the transition from ICD-10 and ICD-11 in many different ways, and many different topics

EIC also supports the development of materials necessary for the implementation of ICD-11, in collaboration with WHO and its relevant Committees and Reference Groups within the Network

For support of the WHO-FIC Network, but also for countries without Collaborating Centres. Material is available in agreement with WHO

The EIC is increasingly becoming the core for support on implementation!
When all is secured

Case closed, the new ICD-11 is ready for the job!
Thank you!