

Schedule A (Technical Annex)

Evaluation project for integration of ICD-11 into Iris

Background

In June 2018 WHO released a version of ICD-11 for starting programs for implementation. In mortality, the ICD coding is performed with the use of automated coding systems, mainly Iris. It is necessary to assess the needs for transitioning to ICD-11 before engaging in a full implementation project. This evaluation project will serve that need.

Goals and Aims of project

WP1 Refinement of relationships in decision tables

As a preliminary step, an analysis of current causal relationship between conditions reported on death certificates in comparison with the relationships established in Decision Tables would serve as a basis for streamlining them. This work should inform on the dimension of work needed for establishing causal decision tables integrating ICD-11.

- ***Deliverable D1A:** Preliminary statistical analysis of causal relationships used in a set of death certificates from Italy (if other Core Group countries agree, data from other countries can be added to the analysis)*
- ***Deliverable D1B:** Final statistical analysis and recommendations for rule base streamlining and prioritization.*

WP2 Implications of postcoordination

Postcoordination allows to describe diseases with more details. Some of the dimensions of postcoordination could be successfully exploited in the selection of underlying cause. An evaluation is needed for:

- the necessary postcoordinated codes to be used in Iris in order to arrive at the correct underlying and multiple cause output;
- the IT solution for integrating such codes in Iris processing;
- the impact of the flexibility of the postcoordination feature on Iris processing.

Since this WP is mostly about Iris implementation, the main work will remain under DIMDI responsibility. However, UNIUD will contribute with expertise about the IT aspects of postcoordination in the ICD-11 Platform (coding tool, browser, API).

WP3 Transition of rule base

In an iterating process, evaluation of the possible transition of the rules that can be done automatically, based on the ICD-10 to ICD-11 mappings, test the success of the automatic transition and evaluate the amount of refinement needed. This process could also result in an evaluation of the quality of mapping tables.

Additionally the maintenance of the decision tables should be visited to ensure that the maintenance process implemented for ICD-10 is sufficient for ICD-11. If evaluation shows the need for change in this process, a plan will be developed on how to maintain the ICD-11 tables.

- **Deliverable D3A:** *specification of the different logical rules needed for translating from ICD-10 to ICD-11, with consequences from the point of view of automation and human expert intervention, and quantification of involved rules in the rule base.*
- **Deliverable D3B:** *Prototype software for supporting experts in the rule transition work, with preliminary evaluation on a selected group of experts.*

WP4 IRIS revision planning

Evaluate the possibilities of ICD-11 tool integration into Iris, especially the opportunity provided by the ICD-11 coding tool and the use of the ICD-11-API. This might reduce the need for national dictionary and standardisation table maintenance for countries. The expertise of UNIUD about the ICD API will be exploited when needed, to provide support in the integration of Iris with the ICD-11 Platform.

The existing software will be checked for impact of ICD-11 on the algorithm and a roadmap for program changes will be developed including the enhancement possibilities.

Novel models of interaction with IRIS will be visited as well like web-based Iris use, etc.

- **Deliverable D4A:** *Proposals for novel implementations of Iris (through web services, web based interface, etc).*
- **Deliverable D4B:** *Recommendations for the integration of Iris with the ICD-11 Platform.*

Coordination

Regular exchange between the two main partners will be guaranteed on a face-to-face as well as online meeting mode.

TIMETABLE

Time is expressed in months from the start of the project.

D3A: M4

D1A: M6

D4A: M6

D4B: M10

D1B: M12

D3B: M12