Harmonization between ICD-11 and SNOMED CT

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Introduction
The project is to achieve semantic alignment between two standards in healthcare clinical vocabulary the World Health Organization (WHO) International Classification of Diseases (ICD) 11th revision and the International Health Terminology Standards Development Organization (IHTSDO) SNOMED CT (SCT).

Methods
1 For a defined subset of ICD beta foundation hierarchy generate a candidate map from ICD-11 classes to concepts in "Clinical findings", "Situations", "Events" or "Social context" branches of the SNOMED hierarchy.
2 For ICD-11 classes without corresponding SNOMED content, mark as Unmatched. Develop when possible a candidate pre-coordinated SNOMED concept node to be added to core.
3 If none of the above is possible, propose added SNOMED attributes or new attribute values, to create the CO concept.
4 For each pair of ICD-11 class/subclass and SNOMED concept in the equivalence table assess the alignment of the meanings of the ICD and SNOMED definitions.
5 Flag all discrepancies and send them to the WHO/IHTSDO interdisciplinary team.

Results
The semantic alignment process is ongoing, to date: 16 751 classes/subclasses of the ICD-11 Foundation component have been studied from approximately 39,000 entities (42,9%).

Conclusions
Thus, all content of ICD-11, the semantic standard for health statistics in mortality, morbidity, primary care documentation and billing, will be linked to SCT, the most fine grained medical terminology system, each of which keeps its own profile as distinct terminology artefacts. This will require certain refinement and redesign efforts increasing the quality on both ICD-11 and SNOMED.

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