

Briefing Note for Member Forum and Content Managers Advisory Group

30 November 2018

Briefing Note – Modelling of existing concepts in the Observable Entity hierarchy

Purpose

To consult with members about the impact of modelling decisions for existing concepts in the Observable Entity hierarchy.

Background

The Observable Entity hierarchy consists of 8936 concepts as of July 2018 of which only 167 (1.9 %) have any defining attributes besides 116680003 | Is a (attribute) | assigned. No attributes were added prior to January 2017, when work on the vital signs sub-hierarchy was implemented¹. A large number [5954 (67 %)] of concepts have remained unchanged since January 2002.

Issue

Work before 2017 on the Observable Entity hierarchy has been done without using any attributes. Manually maintained layers of primitive intermediate concepts were used as the basis for meaning. During work on the vital signs sub-hierarchy, a semantic gap was found between the fully specified names and any reasonable clinical interpretation and/or use of the concept. For example, many blood pressure observables did not include specification of whether measurements were done point-in-time or aggregated over some period. Likely, a vast majority of concept usage referred to point-in-time measurements. Similar problems are abundant in the whole Observable entity hierarchy.

The issue with underspecified fully specified names can be solved by inactivating concepts as ambiguous and creating new less ambiguous concepts. However, this will be disruptive to current users of those concepts. For example, in the UK there were about a billion reported uses of blood pressure observables between 2005 and 2016.

The issue can also be addressed by either making changes to fully specified names to better reflect the likely clinical meaning of the concept or by applying clinical interpretation of the fully specified name when modelling (without altering the FSN). According to the Editorial Guide, major changes to fully specified names should be avoided without creating new concepts². Further, applying more elaborate “clinical interpretation” to fully specified names when modelling can be risky because the interpretation might not be shared by everyone.

Questions

In order to guide further development of the Observable Entity hierarchy, while realising that there are specific issues in specific areas needing further consultation, we would like to have the following questions answered:

- Can you provide frequency data related to the use of Observable Entity concepts in your country or organization?

¹ <https://confluence.ihtsdotools.org/display/IHTSDO1/IHTSDO-979+Vital+Signs+Observables>

² <https://confluence.ihtsdotools.org/display/DOCEG/2.3.2+Fully+Specified+Name>

- What is your opinion of balancing the disruptiveness of the inactivation and replacement of potentially large amounts of concepts versus equally large and potentially major changes to fully specified names without creating new concepts?

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