2020-02-24 - OBSERVABLE Meeting

Date and time
2020-02-24 20.00 UTC

Zoom Details
https://snomed.zoom.us/j/992630241

Attendees
Penni Hernandez David Sperzel Lee Unangst Suzanne Santamaria Sarah Harry Daniel Karlsson Xavier GANSEL Rob Hausam

Objectives
Discuss and make progress on these issues:

- Process observable attributes
- Mental Health function observables
- Evaluation procedure and Observables
  - Briefing note for MF, CMAG and other AGs
- Ability observables

Discussion items
See below.

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<th>Item</th>
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<tr>
<td>1</td>
<td>Welcome &amp; apologies</td>
<td>Daniel Karlsson</td>
<td>• Remember recording!</td>
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<tr>
<td>2</td>
<td>Conflicts of interest</td>
<td>Daniel Karlsson</td>
<td>None stated!</td>
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<td>3</td>
<td>Minutes from previous meeting</td>
<td>Daniel Karlsson</td>
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<td>4</td>
<td>London meeting</td>
<td>Daniel Karlsson</td>
<td>The schedule is already becoming full, will try to put Observables discussions into EAG and PaLM respectively. Outreach from the Observables group might be a possibility depending on discussion items on CRG agendas. Will be confirmed closer to April.</td>
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<tr>
<td>5</td>
<td>Process observable attributes</td>
<td>Daniel Karlsson</td>
<td>The use of attribute</td>
<td>process output</td>
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Guidance needs clarification. This particular attribute is difficult to explain and often needs re-explaining(!). Alternatives | process target |
Since Observables were introduced into SNOMED CT the demarcation between Observables and Evaluation procedures has been a potential source of variability of SNOMED CT use. In order to progress this issue the group need to agree on what knowledge is needed to inform any future decision.

2019-11-18:

**<<404644003 |Clinical finding (finding)| : 365714003 [Interprets (attribute)] = << 386053000 [Evaluation procedure] : 7148 concepts**

...but also

1530 hits for <<386053000 |Evaluation procedure (procedure)| : [2..] [260686004 [Method (attribute)] = <<129055001 [Evaluation - action (qualifier value)]]

3 hits for <<386053000 |Evaluation procedure (procedure)| : [2..] [260686004 [Method (attribute)] = 129266000 [Measurement - action (qualifier value)]]

611 hits for <<386053000 | Evaluation procedure (procedure) |: [2..] [246093002 [Component (attribute)] = * ]

2019-12-16:

More exploration of existing Evaluation procedure content:

**(<<386053000 |Evaluation procedure (procedure)| : [2.. ] ["* " = * ]] MINUS <<363679005 |Imaging (procedure)|**

10 000-ish Evaluation procedures have 2 or more role groups...

**(<<386053000 |Evaluation procedure (procedure)| : [2.. ] 246093002 [Component (attribute)] = * )**

611 have 2 or more Components, indicating that it could be a panel. However, many examples are just strangely modeled and likely not intended to be panels. Thus, it’s not straightforward to identify panel-like procedures among the Evaluation procedure. Sometimes, e.g. 442553005 [Measurement of chloride in peritoneal fluid specimen (procedure)] , additional Components are inherited from ancestors.


Even non Measurement procedures have multiple Components...

**(<<386053000 |Evaluation procedure (procedure)| : [3.. ] 246093002 [Component (attribute)] = * )**

A few have 3 or more Components, many of which are in fact panels, but again likely not all of them. E.g. see <67999004 | Complement component, classic pathway (substance) >.

Briefing note should include:

- Current status in regard to overlap
  - Actual concepts
  - Concept models

- Current status in regard to modeling of Evaluation procedures

- Orders and results use of SNOMED CT

- Actual use of Evaluation procedure concepts for reporting results

- Actual use of Evaluation procedure concepts for ordering

- Panels vs. single-measurement observables/procedures

2020-01-28:

The issue of panel concepts (sets of distinct Observable entities) was discussed. The current Observables model, by design, does not allow representation of panels.

Many examples of panels are not well-defined, e.g. a Complete Blood Count may contain different observables in different laboratories. The benefit of adding content on the international level is likely limited. However, SNOMED CT should provide the means to represent such panels when there is agreement on meaning on a national, regional or local level.

Several Evaluation procedure concepts contain multiple groups, but all are not correctly modelled.

2020-02-24:

Aim to get feedback from members about usage of Evaluation procedures.

Further aim to identify candidates for Procedure-to-Observables transfer, i.e. Procedure concepts which represent observables which has a single, distinct result/value.

Some gaps exist in creating observables corresponding to those procedures, most notably techniques are missing.

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Daniel Karlsson talk to Piper Alyn Ranallo about topics in London

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Piper Alyn Ranallo is doing a mental health clean up based on Mental & Behavioral CRG work - she has submitted some requests for editing and applying the observable entity model to existing content: 285231000 (Mental function (observable entity)), 8373002 (Nervous system function (observable entity) ), 4065008 (Affect, function (observable entity) ), 311465003 (Mental function (observable entity) ) . Need advice on applying the model to these function observables.

Hello Daniel and Suzanne

I have now received a reply from Piper to Daniel’s questions: https://prod-request.ihtsdotools.org/#/requests/preview/745434

The new comment is:

Hi Nicki,

Regarding the relationship between functions –

- both mental and cognitive functions are specific kinds of central nervous system (CNS) functions.
- Motor functions and sensory functions are specific kinds of nervous system functions, with some motor and sensory functions inhering only in the PNS (peripheral nervous system), others inhering in only the CNS, and others inhering in both the PNS and CNS.
- A cognitive function is generally thought to be a more specific kind of mental function, although I don’t know whether there’s a clear consensus among scientists about how to unambiguously define the line between a mental and a cognitive function. In general, most scientists describe a cognitive function as higher level, or more complex, mental function – functions related to things like consciousness.
- “Executive cognitive functions” are an even more specific kind of cognitive function that includes reasoning, memory, attention, etc.
- The relationship between cognitive and intellectual function is unclear to me. An intellectual function may be synonymous with executive cognitive functions. I just don’t know.
- Regarding the body structure in which the functions inhere – we’ll need to look in more detail at the literature and consult with cognitive neuroscience experts.
- Regarding the processes that the functions realize, we will need to work on defining that more specifically.
- In terms of modeling these concepts, one thing that is unclear to us is the distinction between processes in the qualifier hierarchy and processes in the observable hierarchy.
- Another question we have relates more generally to different needs for modeling mental and behavioral phenomena (v. biological phenomena). While biological phenomena can be meaningfully defined in terms of body structures and physiologic processes, most mental, behavioral, and social phenomena are more appropriately defined in terms of functional systems that may or may not have clearly defined biological underpinnings.

This is a topic that MBH-CRG would like to explore with the folks working on the Observable and Investigation Model Project. Thanks you, Piper
Nutrition
Penni Hernandez
Results of modeling according to pattern discussed.

Ability observables
Daniel Karlsson
Evaluate the need for a hierarchy of processes that could be used to define “ability” observables and would allow for useful taxonomic groupings.

SNOMED Clinical findings may be defined in terms of “ability” observables and use values of | has interpretation | to indicate ability, volition, and dependence.

Meeting Files

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<td>2020-Feb-13 by Daniel Karlsson</td>
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<td>Microsoft Word Document Briefing note Procedures Observables_draft_20200224.docx</td>
<td>2020-Feb-24 by Daniel Karlsson</td>
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More Zoom details

Topic: Observables meeting

Time: this is a recurring meeting Meet anytime

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