

2020-09-22 - SNOMED on FHIR Meeting (TS)

Date

20:00 UTC on Tuesday 22 Sept 2020 - 90 minutes.

Objectives

- FHIR Terminology Services and Resources

Meeting Details

Online: <https://snomed.zoom.us/my/snomedhl7>

Phone: See <https://zoom.us/join> for available phone numbers (meeting id **242-348-6949**)

Chat: public-snomedintl.slack.com # snomed-hl7-fhir (ask for invite!)

Zulip Chat: <https://chat.fhir.org/#narrow/stream/179202-terminology>

Attendees

[Rob Hausam](#), [Peter G. Williams](#), [Michael Lawley](#)

Apologies

[Peter Jordan](#)

Meeting Recording

Discussion items

| Item | Description | Mins | Owner | Notes & Actions |
|------|--|------|---|---|
| 1 | Welcome and introductions | 2 | Peter G. Williams Rob Hausam | Recording, notes & attendance. |
| 2 | Summary of previous week and previous fortnight | 5 | Peter G. Williams Rob Hausam | <ul style="list-style-type: none">2020-09-08 - SNOMED on FHIR Meeting (TS) |
| 3 | Other Meetings | 10 | Peter G. Williams | Upcoming events: HL7 Baltimore Sept 19 - 25. Confirmed fully virtual event. Connectathon Sept 9 - 11 (two weeks earlier). HL7 Ballot currently active. Update 22 Sept: Discussion on Designation Extension, positive response from HL7 and LOINC. Vocab group expected to discuss further - rumour is that this will be initially driven by RobH. Check for ticket. SI Business + Expo October London . Confirmed fully virtual event. SNOMED on FHIR Presentation + usual call on Tuesday 6 October. FHIR North: Canada's FHIR Conference. October 14 15, 2020 <input checked="" type="checkbox"/> Peter G. Williams Submit abstract November FHIRLY Dev Days - also virtual. |
| 4 | R4A Position | 15 | Rob Hausam | R4A probably not going to happen in the previously proposed form. More likely now to be an interim release of R5. Continued discussion around the direction semantics for maps. Update 14 July: Anticipating "R4B" release which is an initial release of R5. 11 August Uncertain when servers will take up R5 changes - e.g. ConceptMap updates. Next Ontoserver release will include R4 and R5. May have "live endpoint" for testing these changes. Is a "lossy" relationship translation from R4 to R5 acceptable, vs. an extension? How is \$translate output affected for "no map" based on the new element? Uncertain when NZ will implement - will be using R4 for some time to come. 8 Sept: R4 Evidence Based Medicine resources being added. Also consideration of ConceptMap. |
| 5 | Capability Statement | | Peter Jordan | 8 Sept: Declaring operations in the capability statement eg Rest.Server Operations at resource level or system level (see OperationDefinition resource boolean System (set to false in general)) Snowstorm is inheriting the default HAPI behaviour - is HAPI getting it right? Is there a way to spot the differences between this and CapabilityStatement2 ? |
| 6 | Terminology Capabilities | | Michael Lawley | Terminology Capabilities: Default SNOMED Edition for a Server. Suggestion to invite Graham for a wider discussion. Resource is still at maturity 0. 11 August The resource is based on instances of code systems. Difficult to make statements about code systems generally, or specific SNOMED editions, etc. Will start a Zulip discussion on this. Michael Lawley Then potentially invite Graham for a future discussion? 25 August It has been agreed that this resource will now have maturity level 1 |
| 7 | New parameters proposed for streamlining operation of expand and validate code | | Grahame Grieve | See https://chat.fhir.org/#narrow/stream/179202-terminology/topic/tx.2Efhir.2Eorg.20New.20parameters.20for.2020.24expand.2026.2024validate-code 8 Sept Is there a Jira ticket ? Rob says Grahame implemented this. |

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| 8 | Post Coordination | 30 | Michael Lawley | <p>Post coordination - primitive <<< syntax, what does this mean in practice, in context of use.</p> <p>The problem is that, without FSNs, any two concepts with lexically identical structures must be assumed to be siblings because we can't detect equivalence. Eg two concepts both defined as <<< 64572001 Disease (disorder) </p> <p>How do these behave with \$subsumes (answer: you say they're not related) and \$closure (trickier, you want to indicate that they're distinct but there are no identifiers to make this apparent).</p> <p>Is this a case of - in practice - the client needing to check if an expression already exists and then making a decision if they can reuse that one, or need to create a new one. But given that we can't tell them apart without another identifier, how would that be useful. Upshot of this is that primitive PCEs are not terrible useful to use in an EHR. Use SD instead === the symbols here are optional and taken as the default when not present.</p> <p>Could we make use of the display field in this situation? The end user <i>will</i> have some idea in mind when they create the expression. PCEs are often advertised as a way to allow existing/new medical concepts to be entered into systems at runtime.</p> <p>TODO Discuss how should PCE Libraries be represented in FHIR? For example, do we include them in a ValueSet expansion? Surely yes, but possibly not by default. CodeSystem supplement? 8 Sept ML favours this approach (one CodeSystemSupplement per library). Although CodeSystem Supplements should not add new content, PCEs already exist in the CodeSystem. Why not Fragments? - might isolate content.</p> <p>8 Sept: Discussion on what identifiers might be used. It really <i>has</i> to be the full expression as the identifier otherwise we cannot detect equivalence between any two PCE libraries eg in different countries (and even then when the <<< primitive indicator is used). See also GitHub Issue.</p> <p>Is it valid for a server to normalize the order of terms? Will we do close-to-user-form transformations eg to show the semantic equivalence between Left leg vs Leg + Left role grouped. Note that the order of operations described in the spec influences the result, which is a concern. Suggestion that you could detect close-to-user-form by doing the transformation and seeing if anything changes! However a syntactic marker might be helpful here. Best practice: "PCEs should always be authored from templates."</p> <p>22 Sept: FHIR says that Post Coordination "Is supported" so that leaves something of a gap given that our implementations are not quite there yet. Page: SNOMED CT Post Coordination in FHIR</p> |
| 9 | SNOMED Modules in FHIR | 20 | Rob Hausam | <p>TODO: Archive</p> <p>VSD - ValueSet Compliance discussion (targeting a profile), notion of code system partitions which seems to come from SNOMED having modules and this being seen as possibly useful. Could be expressed as Code System Fragments. ML "GPS is a good example of a useful SNOMED fragment / partition". Difficulties:</p> <ul style="list-style-type: none"> • SNOMED is quite strict about module dependencies which would probably need to be represented if we wanted to split any given code system into 'partitions'. • In SNOMED modules we can describe things other than concepts - eg descriptions in one module and alternative modeling in another. • What version would I give for a fragment? • Modules are capable of inactivating components! <p>Modules exist for a small number of reasons: 1. To allow content to be developed by multiple parties, both in terms of decoupling and identifying ownership and 2. To keep SNOMED 'light' so that implementers only consider the modules that they need to. ML suggests not to equate a partition with a module.</p> <p>http://www.hl7.org/documentcenter/public/standards/dstu/HL7_SPEC_VALUESETDEF_R1_STU_2016JUN.pdf</p> <p>11 August Reviewed our previous answer. A "partition" and a fragment are the same thing. The content of a SNOMED module may correspond to a fragment, but not all fragments of SNOMED are modules. Fragments should have the same version as the entire code system.</p> |
| 10 | Preferred method to specify system/version - in url address or parameter | 10 | Daniel Karlsson | <p>TODO: Archive + make statement in IG</p> <p>Either could be used in a GET request. In the CodeSystem endpoint, the Identifier (id) of Code system instance is somewhat arbitrary based on the server implementation, so the parameter approach is probably more transferable and quicker in that you don't need to look up anything first. URIs have been standardized.</p> <p>1. In the CodeSystem resource the URL containing the instance id eg http://localhost:8080/fhir/CodeSystem/sct_900000000000207008_20200309/\$lookup?code=404684003 vs http://localhost:8080/fhir/CodeSystem/\$lookup?system=http://snomed.info/sct&code=404684003</p> <p>2. In ValueSet implicit expansion the use of a full URI in the url parameter to specify the code system version (saying version here is less confusing than 'instance' which might imply a CodeSystem object) vs doing that with the system-version parameter</p> <p>eg <a href="http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct/45991000052106?fhir_vs=ecl/<<27624003">http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct/45991000052106?fhir_vs=ecl/<<27624003</p> <p>vs <a href="http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct?fhir_vs=ecl/<<27624003&system-version=http://snomed.info/sct/45991000052106">http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct?fhir_vs=ecl/<<27624003&system-version=http://snomed.info/sct/45991000052106</p> |
| 11 | \$translate with version | 30 | Peter G. Williams Jon Zammit | <p>TODO: Archive + make statement in IG</p> <p>In the case of SNOMED, the system will as always be just http://snomed.info/sct</p> <p>PWI advised that the crucial factor is the location of the map. The edition of the source and target is not important, so the use of the version parameter is prohibited. eg url=http://snomed.info/sct/731000124108/version/20200301?fhir_cm=6011000124106</p> <p>ML says Ontoserver uses conceptMapVersion for this as well because concept maps that do not use a url in this way also need to be able to specify a version. Suggestion that the version parameter might be used if the conceptMapVersion is not specified.</p> <p><input type="checkbox"/> Peter G. Williams write up in IG</p> |
| 12 | Publishing SNOMED codes in IGs and licencing conditions. | | Michael Lawley | <p>Licensing issues for IGs referring to SNOMED codes. Is this written down anywhere with some sort of rigour?</p> <p>Consider the licence statement that is presented when accessing the browser. Should something similar be mandated for inclusion in any document published? What if a patient's medical record were to be published?</p> <p><input type="checkbox"/> Peter G. Williams find clarity here. TODO</p> |

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| 13 | Use of effective time parameter in \$lookup | 15 | Michael Lawley | <p>Suggestion that effectiveTime be added as a SNOMED specific property in the specification, raised by Peter Jordan in https://jira.hl7.org/browse/FHIR-26555</p> <p>The effective time of the concept (as represented in the concept file) does not necessarily capture when it came into its current state since relationships (inferred or stated) could change independently. Arguably we should use the most recent change to any of concept, relationships, descriptions. And what would we expect to happen in the case of filtering. ML: Ontoserver uses the date in the concept file because it's not possible to know what the enquirer's use case is.</p> <p>Update 14 July: Recommendation of this group is that that item is added as a SNOMED specific property. Use case: In general, all properties should be filter-able. More specifically users may be interested to know which concepts were created (not perfect) or retired in the current release.</p> <p>8 Sept: Ticket currently in status "Triaged". ML would like clarity on the user of code vs coding in pr</p> |
| 14 | Use of system and version parameters in Lookup and Subsumes | 15 | Jon Zammit | <p>TODO: Archive + make statement in IG</p> <p>Clarification that system parameter is the "class" of the code system and so is always http://snomed.info/sct in our case. The instance of the code system is a specific extension and effectiveTime should be supplied in the version parameter. Snowstorm and Ontoserver are aligned in this regard. In the case of SNOMED CT we use a URI to declare our instance and so the system is entirely redundant in our specific case and the decision was made to not insist in it's use for Snowstorm.</p> <p>https://temp-snowstorm.ihtsdotools.org/fhir/CodeSystem/\$lookup?version=http://snomed.info/sct/900000000000207008&code=840539006</p> <p><input type="checkbox"/> Peter G. Williams put this explicitly in the implementation guide.</p> <p>DK: FSH apparently has no way of specifying the version of a CodeSystem. Daniel checking the ANTLR spec. https://github.com/FHIR/sushi/issues/473</p> |
| 15 | GPS and FHIR value set url(s) | 15 | Rob Hausam Peter Jordan | <p>TODO: Archive</p> <p>https://chat.fhir.org/#narrow/stream/179202-terminology/topic/Indicating.20in.20a.20ValueSet.20.20SNOMED.20CT.20GPS.20.20Codes</p> <p><input checked="" type="checkbox"/> Peter G. Williams follow up on GPS as a published reference set to allow for simple definition as a ValueSet using the memberOf operator. Answer: Yes we will do this when the GPS is next updated. TODO: Check publishing plans with Andrew Atkinson</p> <p>11 August</p> <p>This question still hasn't been fully answered. Suzy will review and report back. Suzy Roy</p> <p>From Suzy: I can confirm that YES, the GPS will be published in RF2 format as a refset. That is in addition to the regular GPS flat file release.</p> |
| 16 | What module(s) to use for the Canadian Edition | 10 | Peter G. Williams | <p>List of SNOMED CT Edition URIs replaced with 4.4.2 Edition URI Examples</p> <p>TODO: Check UK Modules in 4.4.1 National Editions</p> |
| 17 | Working with unversioned content | 15 | Peter G. Williams Daniel Karlsson | <p>Proposed example: http://localhost:8080/fhir/ValueSet/\$expand?url=http://snomed.info/sct/45991000052106/version/UNVERSIONED?fhir_vs=isa/27624003&designation=sv</p> <p>ML makes the case that unpublished content is not legitimate SNOMED and suggested using a not-SNOMED URI eg http://snomed.info/xsct/45991000052106 in this case the code system would still be http://snomed.info/xsct</p> <p>Outstanding question: our pre-release (alpha + beta) packages do have a version as a future date in them, and continue to exist (although unpublished) even after the official release has shipped.</p> <p>How would this look in a ValueSet expansion? Should we specify systemVersion or forceVersion in this case?</p> <p>Update 2 June: LOINC have a similar issue with "Pre-release" identifiers - current release 2.6.7. Version 2.6.8PRE will contain the pre-release content. "To be useful they need to be considered part of the code system"</p> <p>However in the case of SNOMED CT we would NOT condone unpublished identifiers being used in production systems. In the case of the COVID-19 concepts an interim release was done as an official release for 20200309. The use case here is for producers of SNOMED CT to reference concepts internally - as a work in progress.</p> <p>11 August</p> <p>Corrected the url listed above to the standard http://snomed.info/sct (not 'xsct'). Michael would still like to progress this. Needs further discussion in SNOMED Family of Languages group. Need for this is surfacing in Queensland Health.</p> <p><input type="checkbox"/> Peter G. Williams check that group's agenda.</p> |
| 18 | FHIR Server Federation | 10 | Michael Lawley | <p>Use case for fall back lookup when server does not know the answer to any particular question eg a façade server which has knowledge of all services it could potentially delegate to.</p> <p>Aug 25: New capabilities in HAPI to allow delegation to an external terminology server.</p> |
| 19 | Language Reference Sets in FHIR | 45 | All | <p>Mechanisms for working with Languages</p> <p>Designation extension</p> <p>Update 19 May: Suggestion that we work an example for SNOMED to discuss with Regenstrief (LOINC)</p> <p>Update 2 June: Started worked example Designation Extension Example</p> |
| 20 | SNOMED Family of Languages | 10 | Peter Jordan Michael Lawley | <p>TODO: Archive</p> <p>Impact of proposed changes (eg text searching in ECL) on FHIR. Questions around which language reference sets to use when there are multiple, especially partial/overriding context (referred to MAG for discussion)</p> <p>8 Sept The FHIR specification does not specify a particular version of ECL, so we assume the latest. Any enhancements added to ECL will be immediately relevant and available in FHIR. Note that these latest additions while targeting descriptions are a concept filter, so display options (language etc) will affect the output of those concepts. How about the filter parameter though, especially since ECL would allow multiple filters in multiple/different languages.</p> <p><input type="checkbox"/> Michael Lawley Suggested ticket: Parent and Child properties to (optionally?) support the Coding type.</p> |

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| 21 | SNOMED FHIR Implementation Guide | 60 | Peter G. Williams | <p>Implementation Guide for using SNOMED CT with FHIR.</p> <p>Update 10 Dec: DK - main problem is URI/Ls which publisher has fixed ideas about. Publisher does not examine all folders - looks in profiles but not subfolders and doesn't seem to look in ValueSet folder.</p> <p>Update 21 Jan: DK and RH have merged commits and these can be seen in the HL7 server build: http://build.fhir.org/ig/IHTSDO/snomed-ig/branches/new-template/ and build errors here: http://build.fhir.org/ig/IHTSDO/snomed-ig/branches/new-template/qa.html</p> <p>Update 11 Feb: Grahame said that he'd show us how to set the URI so that it doesn't have to follow the base URI. Next person to try that can we fire a Zulip off to ask about it?</p> <p>Update 16 June: DK wondered about moving everything to FSH (FHIR Short Hand) as it's so much easier to maintain. ML: Conversion available, but round trip problematic. DK page Re: snowstorm FHIR requirements, issues, etc.</p> <p>IG Documentation: http://build.fhir.org/ig/FHIR/ig-guidance/index.html</p> <p>Also look at the sample IG https://github.com/fhir/sample-ig see build http://build.fhir.org/ig/FHIR/sample-ig/</p> <p><input type="checkbox"/> Rob Hausam to speak to Lloyd about extending the base template as per http://build.fhir.org/ig/FHIR/ig-guidance/template.html Update 24 March: Documentation on this is "TODO"</p> <p><input type="checkbox"/> Peter G. Williams FHIR core content to be copied over to Snowstorm instance.</p> |
| 22 | Any other business | | | <p>Next time:</p> <p>The validate-code 'abstract' parameter is optional. Usually when a boolean is absent we consider the default to be false which - in this case - would suggest that any abstract concept passed in would be rejected.</p> |

Potential Items for Discussion

| Description | | Owner | Notes & Actions |
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| API for FHIR Resource Post coordinated expression mapping | | Peter G. Williams | <p>API for FHIR Resource to SNOMED Expression</p> <p><input checked="" type="checkbox"/> Daniel Karlsson Thought there might be some documentation from CIMI on this. Also notes from DMarkwell about constructor bindings.</p> <p><input checked="" type="checkbox"/> Peter G. Williams Pull these notes into confluence - can we mention it in the IG?</p> |
| Looking up an SCTID in an unknown module | | Peter G. Williams | <p>Problems when dependencies do not align. Multiple code system resources represent multiple editions / versions.</p> <p>ML: See code parameter to code system search. Should return code systems (ie versions) where that code is defined. International concepts would appear in every edition known to the server.</p> <p>eg /CodeSystem?system=http://snomed.info/sct&code=12345678&_elements=version</p> <p><input checked="" type="checkbox"/> Peter G. Williams Ticket implementing this lookup. Note that this could be implemented more generally for lookups of <a href="http://snomed.info/id/<SCTID>">http://snomed.info/id/<SCTID> where the SCTID exists in an extension. Done - see STORM-262.</p> |
| GPS | | | See Discussion on Global Patient Set (GPS) |
| FHIR Shorthand | | Michael Lawley | <p>https://github.com/HL7/fhir-shorthand/wiki</p> <p>https://build.fhir.org/ig/HL7/fhir-shorthand/FSHQuickReference.pdf</p> <p>Tooling: https://github.com/FHIR/sushi</p> |
| \$lookup operation - properties returned | | Peter Jordan | <p>Using http://ontoserver.csiro.au/vstool/ I noticed that both Ontoserver and SnowStorm return a SNOMED CT \$lookup property for effectiveTime, which I don't see listed, as one of the SNOMED CT properties in the FHIR R4 specification at http://hl7.org/fhir/snomedct.html. Should we create a Jira Ticket to add this?</p> <p>Completed - https://jira.hl7.org/browse/FHIR-26555</p> |
| Use of url parameter | 15 | Peter G. Williams | <p>CodeSystem "class vs instance" in url parameter between CodeSystem and ValueSet operations.</p> <p>CodeSystem is understood.</p> <p>In Valueset, url is the ValueSet url for example url = http://snomed.info/sct?fhir_vs= allows for the version URI to be used as stated in https://build.fhir.org/snomedct.html The base URL is either http://snomed.info/sct blocked URL, or the URI for the edition version, in the format specified by SNOMED International in the <i>SNOMED CT URI Specification</i>.</p> <p>The ValueSet version valueSetVersion is just some string identifier eg a timestamp or 0.1.0</p> |
| ECL in the Valueset Expression Extension | 10 | Rob Hausam | <p>Check whether SNOMED ECL is (or should be) registered as a MIME type (as per RFC 4289/BCP 13), or alternatively added to the expression-language code system and value set, for use in the valueset-expression extension used with the ValueSet resource.</p> <p>For example, HL7 have registered application/json+fhir</p> <p>This is useful for a ValueSet extension which allows any language to be used to define the selection criteria for an intensional definition using a MIME type. This group has no current reason to use that extension given the existing core specification support for implicit ValueSet definition and the support within the compose element.</p> <p>RDF community may have an interest.</p> <p>Update 2 June RH: Existing small valueset extended in BCP13 (existing known codes could be published as a CodeFragment). Vocab Working Group discussion ongoing.</p> |

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| Behaviour on Lookup | 10 | | <p>What properties are returned?</p> <p>Discussion: Both Ontoserver and Snowstorm are returning EffectiveTime which is not listed here (unlike other SNOMED specifics): https://build.fhir.org/snomedct.html</p> <p>✓ Peter Jordan to raise a Jira ticket to ask for this to be returned - completed https://jira.hl7.org/browse/FHIR-26555</p> <p>Point of interest: Grahame's server returns a copyright property.</p> <p>Update 7 April - Question about whether this is required / desirable?</p> |
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Meeting Files

| File | Modified |
|---------------------------|----------|
| No files shared here yet. | |