**Designation extension**

Currently `designation.use` allows to specify that the designation is a synonym or a fully specified name. It is proposed that "Consumer-friendly term" is to be added to the value set.

By SNOMED standards, there are three distinct aspects that should be managed by designation. *:

- the description type (Synonym or Fully specified name (or Definition), `<900000000000446008 | Description type (core metadata concept) |, 281000210109 | NZ patient-friendly language reference set (foundation metadata concept)`)
- the language reference set (e.g. `<900000000000508004 | Great Britain English language reference set (foundation metadata concept) |, <900000000000506000 | Language type reference set (foundation metadata concept) |)`
- the acceptability of the description in that language reference set (`<900000000000511003 | Acceptability (foundation metadata concept) |`)

Specification of these aspects would be required for both querying (term filtering with `$expand`, *I cannot see that the specification allows this*!) and for results (`$lookup` and `$expand`). $expand has distinct IN parameters whereas $lookup relies on properties. The language for X.display is specified by `$lookup` or `$expand`.

Proposal to create an extension to designation to allow unambiguous specification of the three aspects above, including a specification on how `designation.use` shall be used with SNOMED CT.

Behaviour when parameters are not specified (defaults) and/or when there are no descriptions meeting criteria (fall back) should be specified.

**Requirements**

1. For the `$expand` operation we need to be able to specify one or more "Context of Use" which would allow us to specify such, and in a SNOMED CT context this would be a language reference set. Are we adjusting the display element in these cases? This will be irrespective of language ie include that designation regardless of the language specific or featured in that description.
2. In the designation as part of the response, we want to specify an array of "contexts of use" for each term, which specifies if the term is acceptable, preferred or ?unacceptable for that context. ML: We would only return designation that match the given language reference sets and allow the client to decide the order of preference.
3. Do we want to specify Preferred or Acceptable in the request? Or can we assume Preferred. ML Suggested that we'd return all and let the client decide which it wants.

**Further questions** - when filtering do we need to indicate the language used in the search criteria such that only terms in that language should be matched against it?

**Defaults and fallbacks** - if there are no terms found matching the specified context of use then we have the option of returning some (server decides) fallback term and indicating "unacceptable"

**Note** that we can already return designations in languages that differ from that of the ValueSet itself using `ValueSet.compose.include.concept.designation.language`

**Update 25 Feb 2020:** Group expressed concern about "Patient Friendly Terms"

What are we going to call the extension - not SNOMED. In general we're looking to return additional information about designations and specify.

**Extension Input parameters**

Token 0..* `designationUseContext` (this will be the language reference set SCTID)

**Note** group discussed also passing through the reason, but a) there's no way to pair it with a particular code and b) this is only about reducing the amount of data going over the wire. The client will be able to sort out if it just wants the preferred term.

**Question:** Is the list of refsets a prioritised list (ie return the first one), or is this "OR". Note that the client, again, could sort out if it wanted one or all. **Answer:** It is the designation that states which ones you want to see. If you've asked only for one then we'd return the first acceptable language reference set. If more are wanted, then more languages can be specified for designations. Doesn't help with language reference sets in the same language.

**Question:** How will this interact with the display value? "Display is set by the code System"

**Note**: using this parameter implies that `useDesignations=true`

**Extension Output parameters**

0..1 `ValueSet.compose.include.concept.designation.designationUseContext` Element

0..1 `ValueSet.compose.include.concept.designation.designationUseContext.code` Coding (this will be the language reference set SCTID)
Issue here that a designation could appear in multiple

**TODO** Add examples of input and output eg in Belgium