

- PROPOSAL FOR PRESENTATION TO THE CONTENT MANAGERS ADVISORY GROUP
- REQUIREMENT TO BE FULFILLED PRIOR TO SUBMITTING A PROJECT PROPOSAL TO SENIOR MANAGEMENT TEAM
- SEEKING SUPPORT AND ENDORSEMENT OF THE FOLLOWING PROJECT:

1. PROJECT IDENTIFICATION	
Project Name:	Correct erroneous subsumption in 254291000 Staging and scales (staging scale) hierarchy.
Description:	Reverse subsumption relationships for subscales, making the scale a child of each of the subscales. Remove subsumption relationships between first version of assessment instrument and revised versions of assessment instruments.
Strategic Alignment	Quality Improvement

PROJECT INITIATION, PROBLEM STATEMENT AND/OR BACKGROUND
<p>There are currently two types of erroneous subsumption relationships in the 254291000 Staging and scales (staging scale) hierarchy.</p> <ol style="list-style-type: none"> 1. Subscales of assessment instruments are erroneously modeled as subtypes of the assessment instrument 2. Specific versions of an assessment instrument are erroneously modeled as subtypes of the original version of an assessment instrument. <p><u>Subscale subsumption</u> Modeling subscales as a subtype of the assessment instrument is logically incorrect (as demonstrated in an authoring task and confirmed by Jim Case). Subscales are “part of” the entire assessment instrument, but each of the subscales subsume the entire assessment instrument. This will become an issue when and if a concept model is created for the 254291000 Staging and scales (staging scale) top level hierarchy.</p> <p><u>Version subsumption</u> One version of an assessment instrument is <i>not</i> a subtype of another version. In some cases, one version of an assessment instrument contains a subset of the same questions and answers. However, the specific questions and answers represent only the <i>physical structure</i> of the assessment scale, not the <i>clinical or scientific properties</i> of the scale (called “psychometric properties” in measurement science).</p> <p><u>Summary</u> Erroneous subsumption relationships exist between:</p> <ul style="list-style-type: none"> • A concept for the original version of an assessment instrument and a concept for subsequent revisions of the instrument • A concept for an unspecified version/grouper concept of an assessment instrument and versioned edition of the instrument • A concept for an assessment instrument and a concept for a subscale of an assessment instrument <p>*It is difficult to tell when an assessment instrument concept with an unqualified name as an FSN (e.g., ‘Beck Depression Inventory’) intends to represent the original version (what is now called Beck Depression Inventory I) or a grouper concept intended to represent any version of the instrument (e.g., BDI-I, BDI-2, BDI-PC, etc.). This is a separate issue that also needs to be addressed along with an editorial policy decision from SI regarding FSNs for assessments.</p>

USE CASE(S) and SCENARIO supported
<ul style="list-style-type: none"> • Use of ECL queries to retrieve scales and subscales • Use of ECL queries on any future concept model for assessment scales • Use of SNOMED content in data in analytics methods • Use of SNOMED content in OMOP CDMs (and ability of OMOP community to develop guidance use of assessment data in the CDM)

Project Objectives – Indicate the key objectives to be accomplished through a successful completion of the proposed project.

PROJECT OBJECTIVES

- Ensure accurate representation of assessment instruments and subscales.
- Avoid problems with subsumption that will become particularly problematic / evident if a concept model is created for the 254291000 | Staging and scales (staging scale) | hierarchy in the future

Project Benefits

PROJECT BENEFITS:

- Improved quality (accuracy) of content in the assessment scale hierarchy
- Enable use of ECL queries and simplify analytic capabilities.
- Facilitate harmonization of LOINC and SNOMED in the new **LOINC SNOMED Ontology**
- Facilitate use of SNOMED content in big data repositories and CDMs like **OMOP**
- Demonstrate SI commitment to mental health content

Project Approach – Internal and/or external resources; Is collaborative authoring proposed?

PROJECT APPROACH

Propose collaborative authoring between SI. SME input from MABH-CRG, OHDSI Psychiatry Working Group, University of Minnesota Semantic Interoperability and Innovation (SI2) Lab.

External resources will

- Identify necessary changes
- Engage SMEs to ensure accuracy of content (i.e., manually evaluate each of the current child concepts to determine a) if a subsumption relationship exists between the two concepts, and b) the direction of the subsumption)
- Create authoring tasks to test changes prior to submission (one stakeholder – PASR – intending to complete A2 class and exam to be able to do collaborative authoring)
- Submit tested and verified changes as batch requests for SI author to implement

Note: A substantial amount of work has already been done to identify concepts with erroneous subsumption, and batch templates have been created with these change requests.

Note 2: Two active workgroups within OHDSI have identified assessment instruments as a high priority.

Project Scope- Indicate the scope of the project which includes specifically what is in scope for the project and also any relevant scope exclusions that may apply.

PROJECT SCOPE

In scope

- 112 concepts in the 254291000 | Staging and scales (staging scale) | hierarchy having child concepts
- All child concepts of above 112 concepts (estimate range to be 112-400 concepts)