SNOMED CT® Descriptive Statistics

This document provides a brief explanation of what is provided with each of the following selections.

SCT Statistics

Provides 2 pie chart reports describing the distribution among all first level hierarchies of:

- All active concepts in SNOMED CT
- New concepts in the SNOMED CT International Release

Documentation

Selecting "Overview" provides the following high level document related to the Descriptive Release Statistics:

- SNOMED CT Quality Evaluation Part I: Descriptive Release Statistics - Provides a high level explanation of the tables in Table Reports as well as of some of the information provided by Data Explorer

Table Reports

Provides tables with basic descriptive statistics about content in the SNOMED CT International Release. Over time, this data will allow comparison between consecutive SNOMED CT International Releases and analysis of content trends across multiple releases. Further detail about the information provided in each table can be found in the aforementioned document - SNOMED CT Quality Evaluation Part I: Descriptive Release Statistics.

Tables provided include:

- General Release Statistics
- New Concepts
- Inactivated Concepts – Provides data only for concepts inactivated since the prior release
- Changes to Existing Concepts (counts)
- Changes to Existing Concepts (percentages)

Data Explorer

Provides additional data about; changes to existing content, new concepts or inactivated concepts. Further detail about some of the information provided in the tables can be found in the aforementioned document - SNOMED CT Quality Evaluation Part I: Descriptive Release Statistics.

Tables provided include:

- Explore data changes – Provides data on changes to existing concepts
- Explore new concepts data – Provides data on new concepts in the Release
- Explore concept inactivation data – Provides data on concepts inactivated in the Release

In addition to providing a high level overview of data changes for all hierarchies, Data Explorer allows the user to filter data (e.g., by hierarchy, concept definition status, change type, or reason for inactivation) to review specific data of interest.

After selecting a table, the interface can be formatted to display the Id (Concept Id), Term (FSN) or DefinitionStatus (concept definition status) by dragging and dropping one or all of these tabs into the left panel.

Example: Explore data changes

Selecting "Explore data changes" displays the data for "All concepts with changes in this release". The data changes detected are limited to the choices offered by the "ChangeType" drop down menu.

In this example, the application allows filtering for the sufficiently defined concepts in the |Clinical finding (finding)| hierarchy that underwent an FSN change in the last release and displays the previous FSN alongside the new FSN. For example, the third row from the bottom in the example below indicates that the FSN for the concept 1647007 |Poisoning by primaquine (disorder)| was changed to |Poisoning caused by primaquine (disorder)|.
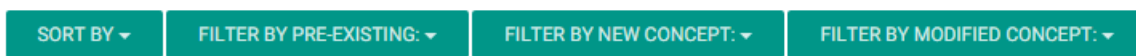
Patterns

Provides additional data about specific patterns that identify concepts which warrant editing or have a higher likelihood of warranting additional editing. While some of the patterns may include some false positives, review of the data will also allow detection of concepts that warrant editing.

Patterns include but are not limited to:

- Patterns that identify issues with the stated concept definition
- Patterns that identify issues with the inferred concept definition
- Patterns that identify issues related to intermediate primitive concepts
- Patterns that identify concepts where the FSN could be specified more clearly

After selecting RESULTS for a specific pattern and loading the results, the user has additional options to sort and filter the data.

The user can select SORT BY to sort the data by Concept ID, Term (FSN), Explanation, or Semantic tag.

The data can also be filtered using:

- FILTER BY PRE-EXISTING: Drop down choices include:
    - Yes – concepts already exhibiting the pattern in the previous release (a pre-existing pattern).
    - No – concepts exhibiting the pattern for the first time this release (not a pre-existing pattern)
    - All – any concept in SNOMED CT exhibiting the selected pattern
- FILTER BY NEW CONCEPT: Drop down choices include:
    - Yes – concepts exhibiting the pattern which are new concepts in SNOMED CT
    - No – concepts already exhibiting the pattern which are not new concepts in SNOMED CT
    - All – any concept in SNOMED CT exhibiting the selected pattern
- FILTER BY MODIFIED CONCEPT: Drop down choices include:
    - Yes – concepts that were modified in some way in the release
    - No – concepts that were not modified in the release
    - All – any concept in SNOMED CT exhibiting the selected pattern

After sorting and filtering options have been selected, each row has 4 columns with the; Concept Id, Term, Explanation (of the pattern), and a final column that identifies the concept definition status as well as the selected filter criteria.

Example: Pattern "Redundantly asserted IsA relationships"

This pattern identifies concepts where one stated parent is an ancestor of another stated parent. Although the classifier removes the redundant parent in the inferred view, this pattern identifies concepts with this issue and identifies the pair of redundant stated parents so that one can be removed from the stated concept definition.

Pattern: Redundantly asserted IsA relationships

Concepts that have stated (asserted) supertypes that are implied by other supertypes. For example, if A is a B, and B is a C, stating that A is a C is a redundant assertion that will be removed in the Distribution Normal Form (DNF)

1327 concepts

SORT BY ▾	FILTER BY PRE-EXISTING: ▾	FILTER BY NEW CONCEPT: ▾	FILTER BY MODIFIED CONCEPT: ▾	
				BACK TO PATTERNS

ConceptId	Term	Explanation	
709539001	2,4-Dihydroxybutanoic acid (substance)	Redundancy between: 42907009|Carboxylic acid (substance)| and 707171009|Hydroxy fatty acid (substance)|	pre-existing: yes def.status: Primitive new concept: no modified concept: no tag: substance
698870008	2-hydroxyglutaric aciduria (disorder)	Redundancy between: 16279005|Disorder of neurometabolic regulation (disorder)| and 23853001|Disorder of the central nervous system (disorder)|	pre-existing: yes def.status: Primitive new concept: no modified concept: yes tag: disorder

The second row in the example above identifies the concept 698870008 |2-hydroxyglutaric aciduria (disorder)| as having this pattern.

The final column also further specifies that this pattern already existed in a prior release and that the concept's definition status is Primitive.

For this pattern, the Explanation field also provides the additional information:

Redundancy between: 16279005|Disorder of neurometabolic regulation (disorder)| and 23853001|Disorder of the central nervous system (disorder)|

This identifies that one of these two parents is the ancestor of the other and is redundant in the stated concept definition and can be removed.

A comparison between the stated view and inferred views of |2-hydroxyglutaric aciduria (disorder)| (below), shows that |Disorder of the central nervous system (disorder)| is removed from the concept definition in the inferred view. This indicates that |Disorder of the central nervous system (disorder)| is a redundant parent in the stated view and can be removed from the stated concept definition.

Stated view of |2-hydroxyglutaric aciduria (disorder)|.

Inferred view of |2-hydroxyglutaric aciduria (disorder)|.