## **Content & Delivery**

2017 and 2018 Activities to March

SNOMED CT is a complex product used in various software environments around the world, and the packaging, quality assurance and on-time delivery represent a challenging task. During 2017 and the first quarter of 2018, further content and delivery improvements were made to the Authoring Platform.

Project Lead	Content Area	Update
Yongsheng Gao	Anatomy	<ul> <li>2017 saw great progress in this area with over 5K "Entire" concepts added and the planning of two new refsets completed.</li> <li>Additionally a new Lateralizable Body Structure Refset was created then imported successful into the IHTSDO Refset Tool.</li> <li>Work continued on the modelling of "IS-A" and "Part-of" patterns along with preparation of the corresponding Anatomy Concept Model examples and documented guidelines for implementation, e.g. "sufficient definitions"</li> <li>2018 Project planning includes revision of IS A relationships between Structure concepts by 12 body systems, which are estimated to be 12,000 changes for anatomy content either in the production or the new model. As a result, these changes will significantly improve quality for other hierarchies, e.g. findings/disorders, procedures, observables. The number of changes in other hierarchies can only be produced after the classifications.         <ul> <li>Genitourinary system - 358 changes in anatomy have been reviewed and implemented in the PROD; Generated 4,400 changes in other hierarchies which are under review</li> <li>Cardiovascular system - 882 changes in anatomy have been reviewed and implemented in the PROD; changes in other hierarchies are under review</li> <li>Digestive system - 693 changes in anatomy are going to be implemented in the PROD;</li> <li>Development and review of modeling in MySQL and Protege is ongoing, which include updates of the SEP table, review and refine anatomy concept modeling for different part of relationships in Perl script and database and review hierarchical relationships between production and new concept model</li> </ul> </li> </ul>
Penni Hernandez	CMT (Converge nt Medical Terminolo gy)	<ul> <li>Added a total of 1667 new concepts in the July 2017 release.</li> <li>As a result of this work, concepts from seven of the nine CMT prioritized domains have been authored and added to SNOMED CT.</li> <li>2018 Contracts are still being finalized and no new work has started on the prioritized domains.</li> <li>209 concepts have previously been authored for the July 2018 Release.</li> </ul>

Maria Braithwaite	Content Requests Release figures	<ul> <li>Combined Authoring effort supporting the July/17 and Jan/18 releases resulted in 15,745 new concepts and 275,725 remodelled concepts.</li> <li>Changes for July 2018 release (from all editing effort not confined to CRS). New concepts added 4840. Changes to existing concepts 28,673. We will not accept new requests for July 2018 release from 05-APR-2018</li> </ul>
Cathy Richardson	CTP (Consultan t Terminolo gist Program)	<ul> <li>The 2017 cohort commenced April 28 2017 with a face-to-face meeting.</li> <li>Through 2017 work has progressed with 2 of 3 assignments been completed with the final assignment underway and scheduled for authoring for the January 2019 release.</li> <li>2018 Two consultant discussion group meetings were held to assist current participants with gathering input on projects. Individual meetings held with three participants.</li> <li>Program review continues and recertification of current certified consultants placed on hold until program review completed.</li> </ul>
Cathy Richardson	Content Tracker Project	<ul> <li>The Content Managers Advisory Group reviewed and prioritised the issues previously reported in the trackers.</li> <li>Cleanup work was successfully completed on the top two components.</li> <li>Monthly reports now cross-reference trackers being worked through with CRS tickets with related changes, thereby reducing backlog and improving efficiency.</li> <li>Progress on this initiative will remain slow (as expected) through to the year end of 2018 due to available resources. Mitigation strategies developed and risk reported at corporate level.</li> <li>Number of open tracker issues 3rd April 18: 541 <ul> <li>13 trackers closed (since 1 Jan 2018)</li> <li>10 trackers opened (since 1 Jan 2018)</li> </ul> </li> <li>Number of CRS tickets blocked by trackers 3rd April: 1161 (has dropped by approximately 1700 since work on this area commenced).</li> </ul>
Penni Hernandez	Dentistry	<ul> <li>The Dentistry Clinical Reference Group successfully released the General Dentistry Refset along with a supporting maintenance plan</li> <li>To complete the Odontogram reference set, 118 necessary concepts were created for the July 2017 Release.</li> <li>The Odontogram refset was released in September 2017, with a test implementation planned.</li> <li>The Dentistry Clinical Reference Group will have their bi-monthly regular meeting on April 4th, 2018. The group will be reviewing and finalizing their recommendations for the addition or rejection of new gingivitis and orthodontic submissions. There will also be a discussion on the subject TMD/Headache pain by an invited local expert. This is in support of questions posted by the authors.</li> <li>Fast track documents for each of the three Content Tracker projects have been posted and are awaiting review and solution approval.</li> <li>Thirty-one requests have been submitted for new concepts through the CRS system in support of multiple group projects.</li> </ul>

		<ul> <li>The January 2018 SNOMED CT General Dentistry Diagnostic and Odontogram refset packages have been updated and released on April 2, 2018.</li> </ul>
Maria Braithwaite	DICOM (Digital Imaging & Communic ations in Medicine)	<ul> <li>New concepts have been added to the DICOM set throughout 2017 in preparation for the release of the DICOM subset in 2018.</li> <li>On track - there are currently 4 requests with a status of 'under authoring' in the CRS. From these 4 requests, a total of 25 concepts (existing content, no new concepts required) have been added to the next iteration of the DICOM set (target release date March 2018).</li> <li>One further CRS request remains in a status of inception/elaboration to be worked upon as part of the Pharmacy redesign project (artf6192).</li> </ul>
Toni Morrison	Drugs	<ul> <li>Product Groupers including chemical structure, dispositions and combined chemical structure-disposition groupers has been carried out to include remodel with proximal primitive modeling pattern and have terming normalized. Groupers (e.g. structural, disposition) Most existing concepts updated (n≈450)</li> <li>Dose forms hierarchy remodel with additional content has started. CDs, MPFs and MPs updated         <ul> <li>Clinical drug: Most existing discrete solid dose forms updated, excluding ingredient count attributes which will be added in a later batch (n≈3300)</li> <li>Medicinal product form: Most existing concepts updated (n≈1900)</li> <li>Medicinal product: Most existing concepts updated (n≈3800)</li> </ul> </li> <li>Alignment with other dictionaries has been ongoing in parallel to ensure compatibility of SNOMED CT.</li> <li>Description Logic deployed into the Authoring platform to support drugs and other content work</li> <li>Pre-review and Alpha release had been made available in February and March 2018 with no feedback, which is being taken as overall agreement of recent changes in Drugs model.</li> <li>Product roles will be postponed to Jan 2019 release. This is due to enable Member countries time to be prepared for the anticipated changes, specifically if there are needed changes to be made to their own tools etc.to accommodate product roles.</li> <li>Updated Editorial Guide draft has been made available for the preview and Alpha Release. Updated Product Model Specification is under second review with closing date 16-APR.</li> </ul>
Monica Harry Donna Morgan	GMDN (Global Medical Device Nomenclat ure)	<ul> <li>SNOMED International added 165 new device concepts to the January 2018 release.</li> <li>Currently monthly meetings are held with GMDN. The intention is to improve the processes we have in place. Total additions for Q1: 27</li> <li>The bi-annual Production Release of the SNOMED - GMDN Simple Map was published on Feb. 28th 2018.</li> </ul>
Monica Harry	ICD-11	<ul> <li>Successfully authored 1200 new concepts in alignment with ICD-11 MMS and published in the July 2017 release, and 1200 new concepts for the January 2018 Release.</li> </ul>

		<ul> <li>Project on hold awaiting release of updated MMS from WHO to address any potential content impacts or additions; the number is unknown at this time.</li> </ul>
Donna Morgan	ICD-O	<ul> <li>Map tool has been updated to support ICD-O refset that includes ICD-O version 1.</li> <li>This project is pending the update to version 3.2 of ICD-O, at which point a review of currently marked out of scope maps and previously published maps will be undertaken. Any updates to existing concept will be reviewed. Content requests for new SNOMED CT morphology codes are to be mapped to ICD-O version 3.1 if deemed in scope, there have been 3 requests this quarter.</li> </ul>
Monica Harry	Internation al Family Practice	<ul> <li>Updated versions of the General Practitioner/Family Practitioner (GP/FP) SNOMED CT® Reference Sets were published subsequent to each release of SNOMED CT. This to reflect any changes to the members of the refset corresponding to changes in the release.</li> <li>The Production release of the January 2018 General Practitioner/Family Practitioner (GP/FP) SNOMED CT® Reference Sets is now ready for publication and will be released by end of first week in April 2018.</li> </ul>
Farzaneh Ashrafi Suzanne Santamaria	LOINC	<ul> <li>The LOINC Beta Release containing maps for 6629 LOINC Parts and linkages for 21971 LOINC Terms was released in March 2017.</li> <li>This was followed by the Production Release in July 2017 containing 21889 LOINC Terms aligned with SNOMED CT post coordinated expressions and 6627 LOINC Parts linked to SNOMED CT concepts.</li> <li>The project is on hold except for maintenance work being done to keep up to date with the latest releases of LOINC and SNOMED CT. The project has technical dependencies that haven't been fully resolved.</li> </ul>
Donna Morgan	Mapping ICD-10	<ul> <li>The ICD-10 maps underwent a major update to the latest and current version which is ICD-10 2016.</li> <li>Implementation of a SNOMED CT ICD-10 Map Quality Assurance Project Tracker resulting in better management of quality issues of published maps with KPI targets.</li> <li>1206 newly authored concepts have been mapped via the Daily Build drip feed for inclusion in the July 2018 release. These have been made up from CRS requests, Orphanet and CMT. Two Map Terminologists completed the bulk of the work with a third Map Terminologist contributing to other authoring projects, providing holiday cover for final week in February and acting as third reviewer. Quality Assurance work as part of the Mapping Service KPI has resulted in approximately 1937 previously published concepts being reviewed. Orphanet: July 2018 release – so far 452 new concepts have been added and mapped. A total of 43 entries require clarification by INSERM, further content from this 43 entries may be added for July 2018 release and will require mapping. 500 or more CMT concepts are expected for July release (224 injuries, 97 musculoskeletal/neurology/hematology, infectious disease, GI, ENT) and these are expected to impact mapping.</li> </ul>

Donna Morgan	Mapping ICD-11	<ul> <li>Work was completed on the ICD-11 Pilot Map containing 6000 concepts as a starter set thanks in part to the volunteer efforts from CAN, US, IRE and NL.</li> <li>The project has been put on hold since completion of the pilot.</li> </ul>
Monica Harry	Nursing ICN (Internatio nal Classificati on of Nursing Practice)	<ul> <li>The ICNP to SNOMED CT Production release of both Interventions and Diagnoses equivalency tables were published subsequent to each release of SNOMED CT. This to reflect any changes to the members of the refset corresponding to changes in the release.</li> <li>The International Classification of Nursing Practice (ICNP) to SNOMED CT packages were reviewed to identify any impact of the changes made to the January 2018 release of SNOMED CT. As a result of the Jan. 2018 release of SCT, ICN were notified of these changes and made the following decisions and the Equivalence table was amended accordingly. Interventions include ICN:10033072 was mapped to 698489001 Education about vaccination (procedure) NOW that has been replaced with 171044003 Immunization education (procedure) No match; remove the ICNP concept.</li> <li>The Production release of the January 2018 International Classification of Nursing Practice (ICNP) to SNOMED CT Equivalence Table is now ready for publication and will be released by end of first week in April 2018.</li> </ul>
Monica Harry	Nursing SNOMED Nursing subsets	<ul> <li>Creation of two new subsets for use in Nursing practice.</li> <li>The new subsets comprised of SNOMED concepts used in Nursing practise based on the ICNP Equivalence Table as a starter set.</li> <li>The Production release of the Nursing Health Issues and Nursing Activity refsets went ahead successfully in September 2017.</li> <li>The Nursing Reference sets have been updated to reflect changes published in the January 2018 release of SNOMED CT as follows:         <ul> <li>Nursing Health Issues: 3 concepts were inactivated and replaced with other concepts which were added to the refset.</li> <li>Nursing Activities: 2 concepts were inactivated and replaced with 2 other concepts which were added to the refset.</li> </ul> </li> <li>The Production release of the January 2018 Nursing Health Issues and Nursing Activities Reference Sets is now ready for publication and will be released by end of first week in April 2018.</li> </ul>
Farzaneh Ashrafi Suzanne Santamaria	Observabl es	<ul> <li>The observation result part of the Observable edesign project is on hold and is under the direction of the Observable and Investigation Model Project Group.</li> <li>Resources originally allocated to this project have been reassigned to other high priority projects. The project incorporation into the work plan is dependent on outcomes from SI and RII discussions.</li> </ul>
Maria Braithwaite	Orphanet	<ul> <li>Approximately 500 concepts were added for the July 2017 and January 2018 release.</li> <li>July 2018 release - ON TRACK - 500 definitions delivered by INSERM as per agreed work plan which has resulted in the addition of 452 new concepts. A total of 43 entries require clarification by INSERM, further content from this 43 entries may be added for July 2018 release subject to the response from INSERM.</li> </ul>

	T	1
		<ul> <li>Updated agreed work plan with INSERM:</li> <li>Jan 2019 release - 500 definitions to be provided by INSERM in two batches of 250, first batch of 250 is due on 15 May 2018, 500 new concepts to be added to release.</li> <li>July 2019 release - 600 definitions to be provided by INSERM in two batches of 300, 600 new concept to be added to release.</li> </ul>
Peter Williams Phuong Skovgaard	Quality Initiative	<ul> <li>Throughout 2017, a number of initiatives have been instituted to support the organization's quality initiative:</li> <li>Project leads were identified for each project and monthly status reports completed.</li> <li>Revised guidelines for submission of new content requests were distributed to members via CMAG and MF as well as general distribution. This is in an effort to simplify the process for members submitting change requests in advance of the January 2019 International release.</li> <li>2018 -The pilot on the fracture of lower limbs sub hierarchy, which has completed and one more run needs to be carried out before finalising. Reports of anomalies are being created and the issues identified addressed. Attempting to fix anomalies often has a collateral impact, necessitating further fixes in related sub-hierarchies.</li> <li>Since the project started we have created 6 templates. Content is validated against these templates and reports/tasks generated to list those that do not conform (for further investigation), and a separate stream of concepts which do conform to the templates can be put through a normalization process to bring these concepts even closer in line with current editorial policy.</li> <li>A list of potential sub-hierarchies to be targeted for attention has been made available to review and help plan the project</li> </ul>
Monica Harry	Editorial Guide	The revision of the Editorial Guide is 75% complete. All sections have been rewritten and re-organised into 3 distinct sections to make it easier to find the guidelines. A new feature which is a major enhancement, is the inclusion of a human-readable version of the Machine readable concept model for those domains which have a concept model. The internal team are in the final stages of review and the draft guide will be available for external review by mid-April. So far the feedback from the team has been positive.
Toni Morrison	Substance s	<ul> <li>The Substance project concluded in July 2018 with the following deliverables achieved:</li> <li>Substances top level including Dietary sub hierarchy, Radioactive and Cancer related substance been updated by either being inactivated, remodelled or created.</li> <li>Substance groupers including Disposition, Structure and Combined groupers have been remodelled and additional grouper concepts created as required. The inactivation of role groupers in the substances hierarchy has been initiated. Roles decision has been made for further progress of roles groupers.</li> <li>To date, we have added n≈1200 new S Modification attribute. This number will most likely increase by the end of the release. This has achieved a flattening of the substance hierarchy. Priority has been given to the remodelling of substances associated with the definition of medicinal products.</li> </ul>

	<ul> <li>Radiopharmacy concepts have been remodelled and the terms updated to provide consistent representation of these concepts.</li> <li>The Editorial Guidelines are being updated following Project Group review in December 2017. Further updates to these guidelines are planned as work progresses.</li> </ul>
--	--