

A new chapter powered by a
GLOBAL COALITION



OUR _____ VISION

By 2025, Clinical Terminologies will be used globally, which will result in better health and improved patient outcomes, supported by one language of health.

OUR _____ MISSION

SNOMED International sustainably produces a global clinical vocabulary and other services that enables the clear exchange and analysis of health information for all.

About SNOMED International

SNOMED International* a not-for-profit organization that owns and maintains SNOMED CT, the world's most comprehensive clinical terminology. We play an essential role in improving the health of humankind, by determining standards for a codified language that represents groups of clinical terms. This enables healthcare information to be exchanged globally for the benefit of patients and other stakeholders. We are committed to the rigorous evolution of our products and services, to support the growing needs of our Members and deliver continuous innovation for the global healthcare community.

*SNOMED International is the trading name of the International Health Terminology Standards Development Organisation (IHTSDO)

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Message from the General Assembly Chair, Management Board Chair, and CEO

2020 has been a year like no other in our world's recent history. The COVID-19 pandemic has impacted the health and well-being of our global community, and, in doing so, has necessitated shifts in the way we conduct our business, engage with colleagues, and, at a personal level, connect with family and friends. The continued dedication and service of our healthcare providers, despite the new demands placed on them as a result of the pandemic, cannot be overstated.

SNOMED International's 2020 Annual Report, "A new chapter powered by a global coalition," demonstrates the vast breadth of progress made possible by the will of a growing and committed community. The start of the year was marked by the delivery of necessary COVID-19 terminology to equip healthcare systems globally in their management of the pandemic, an activity which continued steadily throughout the year. Further, 2020 marked the first year of our new strategy, the focus of which tackled many imperatives for the organization's product and services enhancement and innovation.

We continued to strengthen our connection with our Members as we refreshed the value SNOMED CT delivers to its complement of stakeholders, further underlining the case for investment in SNOMED CT

— a product uniquely positioned to support innovation in medicine with artificial intelligence and personalized medicine playing an increasingly prevalent role in safe and informed care delivery.

Celebrating and learning from our Members' successes also remains an imperative. Some of those successes include India's use of SNOMED CT for health data exchange, an alliance of French speaking countries producing a continuously developing common French translation and the demonstrated uses of SNOMED CT to address COVID-19 information management and analysis from countries spanning Spain, Uruguay and the United Kingdom to name a few.

As we continue to work to satisfy the mission and vision that guide our new strategy, we are energized by the desire for innovation and commitment to excellence we observe from our Members, governance bodies and the SNOMED CT Community of Practice.

Recognizing that many of our goals cannot be successfully completed in isolation, we look forward to working collaboratively with each of you to continue to evolve SNOMED CT as the most comprehensive global language of healthcare.



Alex Elias
Chair, General Assembly



Joanne Burns
Chair, Management Board



Don Sweete
CEO, SNOMED International

COVID-19: A PANDEMIC OF GLOBAL PROPORTIONS

Contributing to the global fight against the coronavirus

Early in 2020, the world began to learn about a new virus that had emerged and quickly spread across the globe. Shortly after, the World Health Organization declared the outbreak a global health emergency, and, eventually, a global pandemic. SNOMED International immediately responded to the crisis by adding new virus-related concepts to the January 2020 International Edition release of SNOMED CT, and issuing an interim release in March 2020 with additional, updated descriptions and SNOMED CT to ICD-10 maps.

The addition of these concepts helps clinicians, researchers and administrators code, analyze and plan their COVID-19 efforts and better understand the impact of the virus on citizens within their regions and facilities.

With a desire to lend the value of SNOMED CT globally throughout the pandemic, SNOMED International added COVID-19 and relevant SNOMED CT content to its Global Patient Set, a managed list of existing SNOMED CT unique identifiers, fully specified names and preferred terms that are freely accessible. The July 2020 International Edition also included all previously released COVID-19 content.

As an organization committed to the principles of collaboration, in May 2020, SNOMED International joined the COVID-19 Interoperability Alliance, an informatics-focused group of organizations supporting collaborative authoring of COVID-19 related interoperability data resources, and the COVID-19 Healthcare Coalition, with the goal of working with like-minded organizations to provide data-driven, real-time insights to improve outcomes.

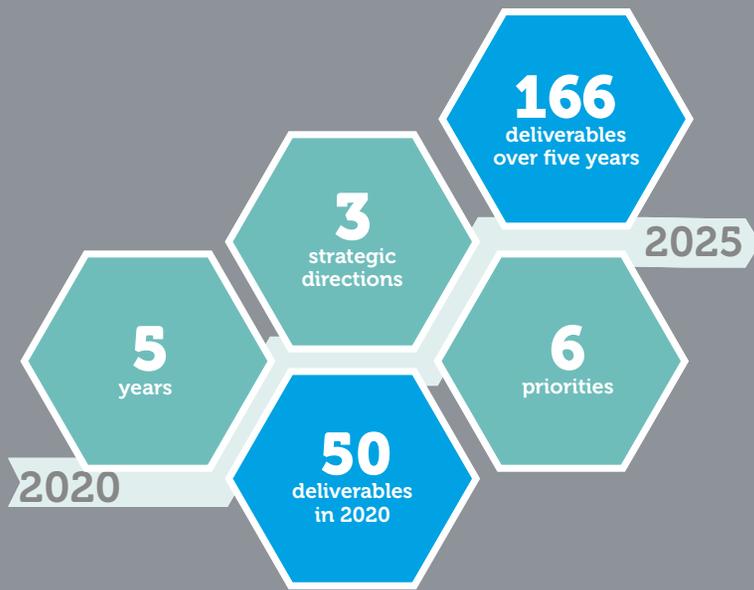
Adapting to new realities

SNOMED International is a global organization, and in 2020, our organization, like many others had to quickly shift to conduct all of our organization activities online. In doing so we:

- learned to onboard new Members remotely;
- conducted all business and governance meetings, typically held in person twice a year, remotely;
- shifted from holding our annual Expo in-person to an entirely, and highly successful, online event;
- presented at conferences and delivered education such as developer training remotely; and
- made it a priority to support our Members remotely.



OUR 2020-2025 ORGANIZATION STRATEGY



2020-2025 STRATEGY BY THE NUMBERS

A strategy built on strong foundations

At the end of 2019, we closed out our 2015-2020 Strategy, acknowledged successes, and noted our growth areas. In early January 2020, we formally launched the organization’s 2020-2025 Strategy.

This new strategy, developed after extensive consultations throughout 2019 with our Community of Practice, our governance bodies and other key stakeholders, is anchored by our organization’s vision and mission and builds on the solid foundation we established over the previous five years. It guides us in striving to ensure that by 2025, Clinical Terminologies truly will become the “one global language of health,” contributing to better health and improved patient outcomes everywhere.

The 2020-2025 organizational strategy lays out our plans in three key areas: 1. products and services; 2. adoption; and 3. innovation. It focuses on the further evolution of SNOMED International, its core product, SNOMED CT, and a range of associated services, with a theme of staying apace with future trends. It also reflects the shift to adopting a product- and services-based approach across all facets of the organization, ranging from how we maintain, quality assure and deliver SNOMED CT, through to increasing adoption, fostering collaboration and embracing emerging technology all through a Member and stakeholder lens.



2020 Strategy highlights

Products & Services

- Refset tooling requirements gathered and delivery partner identified
- Community content approach defined with stakeholders
- Augmented social content with 4,000 social concepts identified in SNOMED CT and added to the Global Patient Set
- Devices content scope completed
- Stakeholder value propositions delivered and three value series videos produced and launched
- Collaboration framework and partner assessments completed
- ICD-11 candidate map developed

At the end of 2020, 94% of scheduled deliverables for the year had been completed, including a number that had been fast-tracked.

Adoption

- SNOMED CT digital maturity model defined
- Education delivery partners identified across key languages and regions
- Organization and community thought leadership disseminated in areas of analytics and genomics
- Global Patient Set (GPS) updated to include all COVID-19 and relevant SNOMED CT content as well as social determinants of health content
- Portuguese translation of SNOMED CT Foundation Course received; translation white paper developed; and translation groups established for French and Spanish languages

Innovation:

- Artificial intelligence pilot projects positioned for 2021
- Analysis completed and strategy in development for an implementation mapping tool



Learn more about the five-year strategy

OUR MEMBERS

A global coalition of the willing

The SNOMED International community continues to grow. In 2020, we welcomed the Republic of Korea as our 39th Member. SNOMED CT Members represent roughly one third of the global population, and, with our Affiliate licensees, SNOMED CT is now used in more than 80 countries globally.

Our Members are why we do what we do, and our unique model enables us to optimize and improve our product and services with a global lens that reflects the diverse needs of the world's citizens.

Throughout 2020, our Members collaborated to ensure the citizens of their regions would benefit from using SNOMED CT to detect, track and treat COVID-19. Many contributed to the COVID-19 Data Coding Using SNOMED CT Guide, which was released in August 2020 and targeted for use by SNOMED CT National Release Centers.



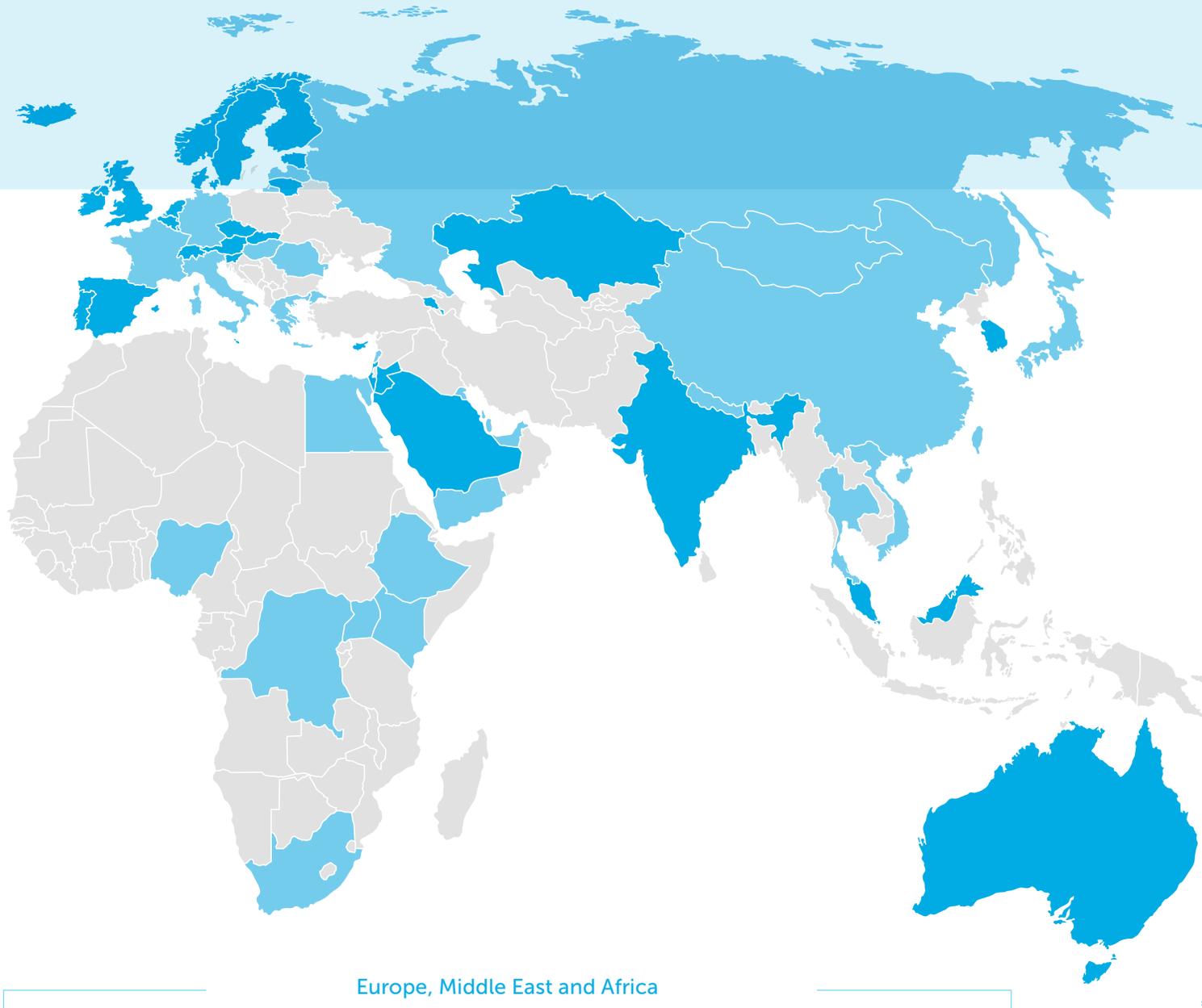
- Americas
- Argentina
- Canada
- Chile
- United States
- Uruguay



Learn more

SNOMED International Members leveraged their membership to fight the coronavirus early on in the pandemic.





In 2020 we welcomed the Republic of Korea as the newest Member to SNOMED International



Asia Pacific

- Australia
- Brunei
- Hong Kong, China
- India
- Kazakhstan
- Malaysia
- New Zealand
- Republic of Armenia
- Republic of Korea
- Singapore

Europe, Middle East and Africa

- | | | | | |
|----------------|---------|-------------|----------------------|----------------|
| Austria | Estonia | Jordan | Norway | Spain |
| Belgium | Finland | Lithuania | Portugal | Sweden |
| Cyprus | Iceland | Luxembourg | Republic of Slovenia | Switzerland |
| Czech Republic | Ireland | Malta | Saudi Arabia | United Kingdom |
| Denmark | Israel | Netherlands | Slovak Republic | |

Members Affiliates

OUR PRODUCTS AND SERVICES

Our core product, which enables a consistent way of indexing, storing, retrieving and aggregating clinical data across specialties and sites of care, is developed with input from Members, clinicians, developers, healthcare administrators, researchers and knowledge producers, vendors and other stakeholders.

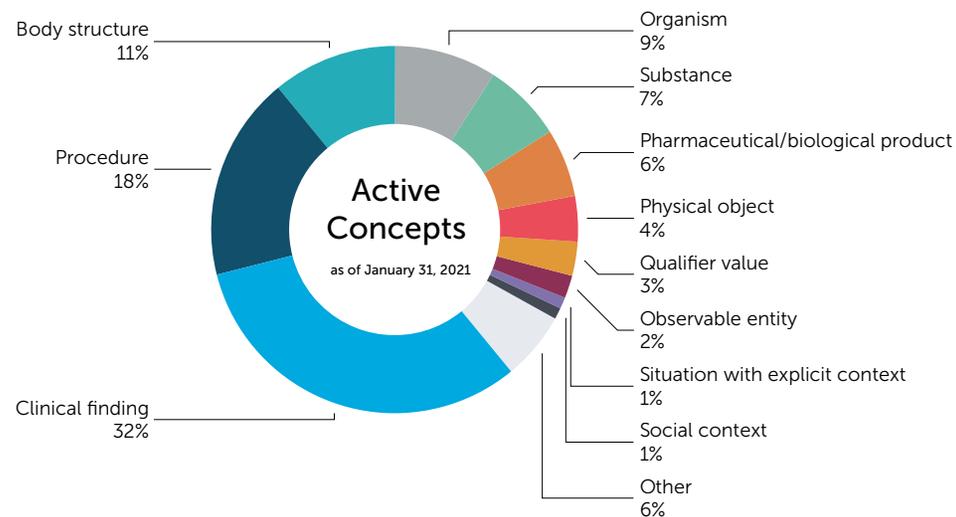
SNOMED CT grows in richness and utility with each biannual release as we continue to add content and refine its structure through ongoing quality improvement processes. This foundation serves us well as we start to release the SNOMED CT product more frequently and enable different mechanisms to connect Members with community-contributed and authored content.

As highlighted in our 2020-2025 Strategy, we are evolving both our products and our organization to become service-oriented in all aspects, from tooling and education delivery

to stakeholder engagement and customer service. This work, which was well under way in 2020, will continue over the next four years as we complete the deliverables required to meet our goals.

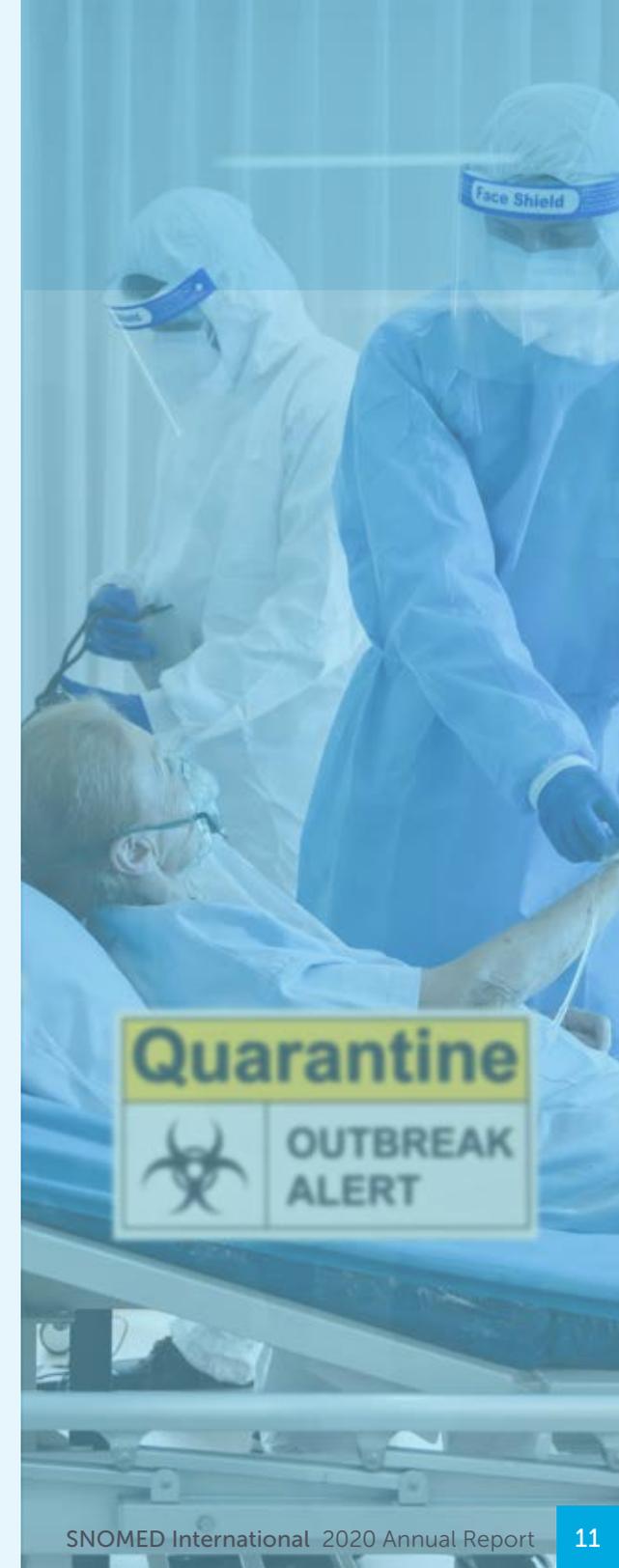
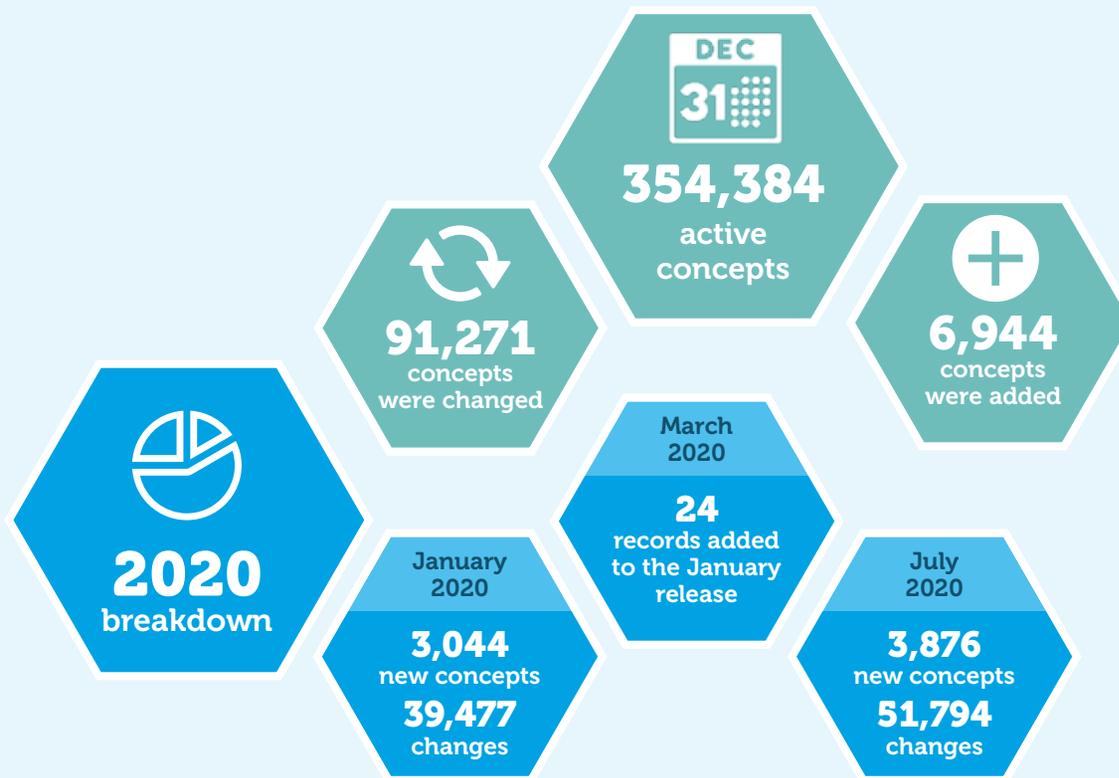
Another key strategic direction for the ongoing evolution of SNOMED CT is facilitating improvements in patient outcomes and meeting the needs of integrated health and social care systems in a sustainable fashion. Defined as part of our strategic plan for 2020-2025, SNOMED International, as part of its participation in the Gravity Project, began to gather requirements from stakeholders in 2020 to enhance social determinants of health content coverage within SNOMED CT, while assessing its structure and placement within the SNOMED CT hierarchy. Core to this approach is addressing existing gaps in SNOMED CT content to meet user requirements for electronic health records.

The breakdown of concepts by hierarchy



SNOMED CT is not just a coding system of diagnosis

It also covers other types of clinical findings like signs and symptoms, encompassing tens of thousands of surgical, therapeutic and diagnostic procedures. It includes observable entities, as well as concepts representing body structures, organisms, substances, pharmaceutical products, physical objects, physical forces, specimens, and many other types of information that may need to be recorded in or around a patient's health record.



Content enhancements

Highlights of content enhancements to SNOMED CT in 2020 include:



Anatomy

- Redesigned and implemented the anatomy concept model to align with the changes to the abdomen terminology. Various other areas of the body structure hierarchy improved by implementation of the new concept model for over 14,000 concepts
- Analysis-driven new models for the revision of the shoulder, pelvis and the cell hierarchies, resulting in new shoulder and pelvis concepts, improving more than 2,000 classification results
- Structure, Entire, Part and Laterality refsets updated for the July 2020 release; work continued on revision of bones, joints, cell, and body structures
- Seven new templates developed for skin structure area of body structure hierarchy



Devices

- The concept model for implant, shunt and stent devices was enhanced by the addition of five new attributes. Subsequent remodeling provided improved definitions for over 450 concepts including joint implants and cardiac valve concepts. Completed modeling of device content for the July 2020 release
- Editorial guidelines were revised accordingly and continuously as the model evolves
- Reviewed and analyzed changes to roughly 300 new attribute-value relationships and roughly 100 physical object concepts
- Inactivated ~1,200 device concepts denoting frequency of use and ~600 denoting a size or dimension



Drugs

- Continuation of remodeling to support transition to product-based role modeling; adverse reaction caused by substance (disorder) and allergy to substance (finding) completed
- The vaccine working group focused on creating editorial guidelines and completed remodeling of the vaccine product, allergy to vaccine, adverse reaction to vaccine, and administration of vaccine content for the 2020 July release
- COVID-19 vaccine-related concepts modeled and authored for inclusion in January 2021 release



Social determinants of health and social care

- Actively participated in the Gravity Project; working with the US National Library of Medicine to add internationally relevant content
- Added concepts to the GPS; an active project group is working on the addition of relevant nutrition concepts in SNOMED CT (in part driven by the Gravity Project)



Substances

- Remodeled substance concepts used to define coagulation factors and contact dermatitis
- Developed templates and editorial guidelines to support consistent modeling and terming



Traditional medicine

- Established an expert working group that includes experts from Malaysia, Republic of Korea, China and Japan
- Established collaboration with the WHO Traditional Medicine Reference Group
- Held two expert group meetings and discussed the scope, requirements and approaches
- Initiated editing for representation of Patterns in Traditional Medicine
- Implemented Chinese language support in the authoring platform

UNICOM project

SNOMED International is a member of the UNICOM project consortium providing input to UNICOM's standards gap analysis and increasing understanding of the relationship between SNOMED CT and the Identification of Medicinal Products suite of standards developed within the International Organization for Standardization.



SNOMED CT

2020 major product milestones

SNOMED International publishes the SNOMED CT International Edition every January and July, as well as a Spanish-language edition every April and October.

However, as a measure of responsiveness to the COVID-19 pandemic, in March, SNOMED International issued an interim release of the SNOMED CT International Edition containing changes to the COVID-19 concepts included in the January 31, 2020 release of SNOMED CT. These updates included required changes to descriptions necessitated by global naming convention changes instituted by the International Committee on Taxonomy of Viruses and the World Health Organization. This is crucial as it provides a platform for clinicians, researchers and administrators globally to code, analyze and plan to address the coronavirus effort with the most up-to-date terminology.

The SNOMED CT International Edition released in July 2020 included further additions for COVID-19.



Read more about the January, March and July International Edition releases of SNOMED CT.

Global Patient Set



Launched in September 2019, the Global Patient Set (GPS) is a managed collection of existing reference sets, licensed under the Creative Commons Attribution 4.0 International License and available to any user at no cost. The GPS includes freely available clinical content across dentistry, renal, family and general practice and nursing areas, and IHE, DICOM and HL7 International Patient Summary domains and activities.

It benefits different regions in different ways: for some, it provides access to reference sets routinely used by neighbouring countries whose patients they may treat; for others, it provides an opportunity to explore the benefits of using a structured clinical terminology and serves as a starting point for further conversations with our Member community and the SNOMED International resource base.

All COVID-19 content authored and included in the January, March and July 2020 releases of the SNOMED CT International Edition was added to the scope of the September 2020 GPS release to support the consistent global recording and sharing of healthcare data during the COVID-19 pandemic.

SNOMED International is also committed to supporting the reduction of health inequity through developing and managing social determinants of health content within SNOMED CT's clinical terminology. To maximize accessibility of this content, SNOMED International included a large amount of social determinants of health content within the September 2020 GPS release.



Learn more about the GPS

A commitment to quality

Maintaining the quality of SNOMED CT is of core importance and rigorously undertaken by the organization through our Quality Initiative. The Quality Initiative represents the application of a consistent modeling approach, enabling greater efficiency and ease of maintenance. Through this process, we adopt a greater focus on correcting structural inconsistencies as well as on modifying content, resulting in a higher level of clinical accuracy.

In 2020, work on restructuring concepts in the clinical findings hierarchy in concert with corresponding template creation for authoring efficiency continued.

Quality and efficiency with templates

- Templates speed up the authoring process as a template is auto-populated with the necessary definitional attributes.
- Template use improves quality by providing a tool for comparison. For example, does the existing content match the required template? Is the concept missing an attribute or undermodeled?
- Templates identify content areas that require model enhancements (for example, they do not match the template due to a missing attribute from the template, or in other words, the template requires enhancement).
- Templates serve as a guide for authors engaged in distributed authoring, ensuring SNOMED International guidelines for terming and modeling are being adhered to.

Content partners

SNOMED International makes it a priority to ensure the interoperability of SNOMED CT with other health informatics standards in support of our Members and Affiliates and their efforts to deliver integrated and informed care. SNOMED International uses collaboration and licensing agreements to structure the addition of content into SNOMED CT.

Focus on FHIR

SNOMED on FHIR collaboration continued throughout 2020, bringing together experts from both communities to discuss use of SNOMED CT in FHIR. In 2021, the group is targeting the release of implementation guidance and terminology servers as a leadership area.



Notable 2020 content highlights included:



- The March 2020 Alpha release of the SNOMED CT-MedDRA and MedDRA-SNOMED CT included maps to facilitate data exchange between healthcare databases/electronic health records and regulatory databases.
- Feedback from the pilot review resulted in 200 new concept additions, including terms to enable collection and recording of data for COVID-19.
- Finalized documentation to support maintenance and updating, with work ongoing to develop and maintain the Mapping Conventions/Principles document.
- Working with MedDRA Maintenance and Support Services Organization, we created a bi-directional map for more than 7,400 concepts to be released in March 2021. This involved mapping and content additions.



- In 2020, the International Council of Nurses (ICN) and SNOMED International finalized an agreement for the International Classification for Nursing Practice (ICNP) to be managed, produced, released and distributed by SNOMED International. ICN retains ownership of the ICNP and will continue to define its content so that it meets the needs of the global nursing profession.
- Experts from both organizations began working on incorporating ICNP 2019 into SNOMED CT, beginning with Nursing Diagnoses.



- 1,489 relevant concepts were included across the January and July International Edition releases, the majority of which were deemed in scope for mapping to ICD-10 across injury, musculoskeletal, ophthalmology and orthopedics domains.



Learn more about our collaboration partners



- ICD-10 Map: 1,130 newly authored concepts were gradually included in the mapping tool corresponding to ICD-10 target maps assigned for review.
- Activities continued for ICD-11 content and map development; internal review of map pilot completed and a pilot map with more than 84,500 concepts for internal analysis and review was produced.
- New SNOMED CT morphology concepts continued to be mapped to ICD-O-3.1



- Across the January and July International Edition releases, 83 new in-scope concepts from GMDN were added.
- A map from SNOMED CT to GMDN was delivered in both March 2020 and September 2020.

For the GMDN mapping equivalence tables:

- 83 new concepts were added, 317 concepts were modified and removed, 187 concepts were deemed obsolete and 334 concepts were identified as no longer in scope.



- Work has continued, through the Nutrition Care Process Terminology (NCPT) Clinical Project Group, to incorporate NCPT into SNOMED CT to meet the needs of the profession globally.
- Throughout 2020, SNOMED International and the Academy of Nutrition and Dietetics worked to define a collaboration agreement to be finalized in 2021 to ensure that this content stays up to date and relevant over time.



- In 2020, Inserm and SNOMED International renewed their relationship governing the incorporation and use of Orphanet rare disease content in SNOMED CT.
- In April 2020, the Alpha release of a SNOMED CT-Orphanet mapping table was published for review and feedback.
- Content and mapping changes requested by Inserm were authored and positioned for the July 2021 release.

SNOMED International has an active program of partnerships with international standards development organizations, professional clinical bodies and commercial organizations.



ADOPTION

SNOMED International views SNOMED CT adoption through a stakeholder lens. Our goal is to remove barriers to the adoption of SNOMED CT and to deliver scalable products and services. We aim to provide Members, vendors and a broad spectrum of other users with SNOMED CT guidance, support and tools that ease the implementation process and support maximum optimization of SNOMED CT across the globe.

Refreshing the value of SNOMED CT for our stakeholders

One of the first activities required of the 2020-2025 Strategy was to clearly reframe the value that SNOMED CT brings to our stakeholders and their healthcare ecosystems, emphasizing the importance value plays in the organization's vision. With this charge, the SNOMED CT value proposition presents a honed narrative for each of SNOMED International's eight stakeholder groups – Members, policymakers, care providers, patients, researchers and knowledge producers, implementers, vendors and collaboration partners.

The Value of SNOMED CT

POLICYMAKERS
MEMBERS
COLLABORATION PARTNERS
RESEARCH & KNOWLEDGE PRODUCERS
IMPLEMENTERS
VENDORS
CARE PROVIDERS
PATIENTS/CITIZENS

Learn more about the value SNOMED CT provides our stakeholders at snomed.org/value

SNOMED International Delivering SNOMED CT



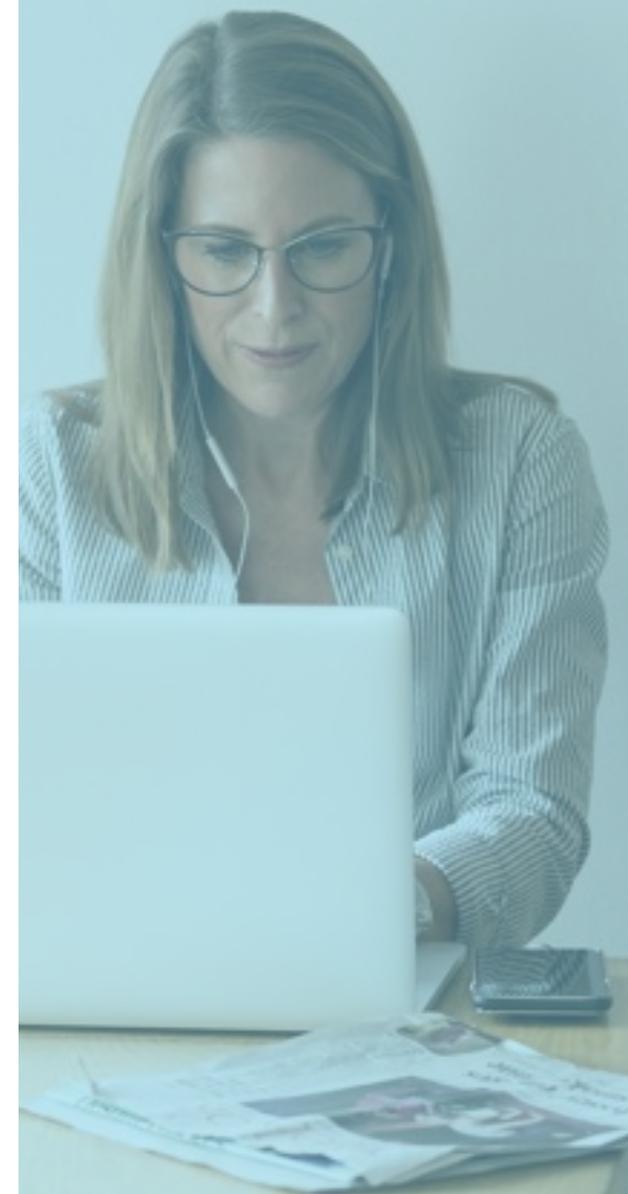
Engaging our stakeholders

Global engagement

In 2020, despite the global pandemic, SNOMED International conducted significant and wide-reaching stakeholder engagement globally with our Members and Affiliates. We began that work in 2019, when we convened a year-long task force of representatives from the General Assembly, Member Forum and the organization to make recommendations on ways to improve engagement. This work, coupled with the outputs of SNOMED CT's refreshed value proposition analysis, will shape stakeholder engagement in 2021.

To stay connected with SNOMED CT users, SNOMED International also conducts annual surveys with Members as well as implementers globally to better understand

how these stakeholders use SNOMED CT and what, if any, barriers they face to optimizing adoption and implementation. In 2020, more than 75 percent of Member countries responded to the survey, demonstrating their commitment to providing constructive feedback to the organization. The results of the survey indicate increases in Member satisfaction across a broad range of categories, including, for the first time ever, 100 percent satisfaction with the ease of doing business with SNOMED International. SNOMED International's ongoing efforts to improve the outstanding customer service we provide continue even as our portfolio of services grows year over year, and in the face of an unprecedented global pandemic.



SNOMED CT stakeholder landscape

Policy Makers

SNOMED CT allows Policy Makers to be more informed when making policy and management decisions, accelerating their analytical and decision-making process.

Members

SNOMED CT allows Members to ensure that high-quality clinical information is available to all stakeholders in their country, as required.

Patients/Citizens

SNOMED CT enables patients/citizens to control their health information and be knowledgeable about their health and their self-care options. SNOMED CT also enables a collaborative relationship with their Care Providers to receive the best care available.

Care Providers

SNOMED CT allows Care Providers to improve patient outcomes by being knowledgeable about their patient's health and their options for care. This allows for a more informed and collaborative relationship with patients when making critical care decisions, and to provide the best care possible, in association with the rest of the care team.



Collaboration Partners

Professional Associations who contribute clinical knowledge to ensure that the evolution of SNOMED CT maintains its clinical integrity. Standards Organizations contribute their artefacts so that together with SNOMED CT the 'one language of health' can be created.

Researchers and Knowledge Producers

SNOMED CT allows Researchers and Knowledge Producers to create 'the one language of health' and accelerate data, information, evidence and knowledge creation. Supporting a wide range of analytics and research activities, use of SNOMED CT benefits the decision-making of policymakers, care providers, patients/citizens and other health care stakeholders.

Vendors

SNOMED CT allows Vendors to sell their products using a global standard that is deployed in over 80 countries, opening new markets for their software products.

Implementers

SNOMED CT is the most comprehensive, scientifically validated healthcare terminology available globally, allowing Implementers to collect data once and reuse it for a diverse range of clinical, analytical and research purposes, and enabling them to support the information needs of a variety of stakeholders, including care providers, policymakers, patients/citizens and others.

Global activities

Europe, Middle East & Africa

- **Armenia** — Conducted virtual onboarding
- **France** — CEO Don Sweete presented his vision for SNOMED CT at the Second Francophone SNOMED CT conference
- **Germany** — Conducted two virtual developer training days
- **Ireland** — Conducted virtual developer training day run for Irish NRC
- **Sweden** — Conducted virtual developer training day run with the Swedish NRC
- **Turkey** — Sponsored and presented at virtual HIMSS Eurasia
- **United Arab Emirates** — Attended and exhibited at the Arab Health Conference 2020 in Dubai
- **United Kingdom:** Exhibited at the five-day Digital Health Rewired Conference

Americas

- **Argentina** — Sponsored and presented at the 15th Annual Conference on Health Informatics (JIS Go Live 2020), a virtual conference organized by Informática en Salud HIBA
- **Canada** — Participated in and presented at FHIR North virtual conference as well as at international HL7 International and FHIR meetings
- **United States of America** — Sponsored and presented at the HL7 FHIR DevDays virtual event; Attended and presented at the ONC Advancing Interoperability: Social Determinants of Health Forum

Asia Pacific

- **Australia** — Engaged stakeholders at the Australian e-Health Research Centre Colloquium; Participated in and presented at the FHIR Connectathon as part of HL7 Sydney event
- **Kazakhstan** — Presented at Kazakhstan's Digital Health 3.0 virtual conference
- **Republic of Korea** — Conducted virtual new Member onboarding
- **Vietnam** — Provided virtual implementation training sessions



Education at SNOMED International

SNOMED International continues to seek new ways to extend the reach of SNOMED CT education. 2020 was the first year of implementing an education model we developed in 2019 with the goal of complementing the organization's e-learning platform by partnering with and empowering local education delivery organizations to provide a wide range of courses and certifications in various languages.

An organization that highly prizes education and academics, SNOMED International contributed to general clinical terminology education in 2020 through activities such as serving as guest lecturers at the University of Victoria, Canada, and by expanding our innovative education partnerships. In 2020, those partnerships included:

- University of Eastern Finland
- Certified Health Informatician Australasia course credits
- Canadian Health Information Management Association course credits

SNOMED CT Education in 2020:

Course/Certification Name	2020 Enrollments	2020 Completed Courses	Total Since Inception
Foundation (English)	874	390	2,551
Curso de Fundamentos (Spanish)	171	92	215
Implementation	101	98	617
Authoring Level 1 Course	80	71	118
Authoring Level 1 Certification	21	15	40
SNOMED CT Terminology Services Certification Course	23	5	5
Learning Pathways*			
SNOMED CT for Data Analysts	327	-	-
SNOMED CT for Developers	303	-	-
SNOMED CT for Clinicians	68	-	-

*Learning pathways are self-directed programs that do not require formal completion.



Learn more about SNOMED courses and certification

Supporting Members through collaboration

SNOMED International's approach to active collaboration extends through all areas of the organization, each sharing a common goal: to support implementation and adoption of SNOMED CT among our Members and Affiliate licensees.

Collaboration framework

One of SNOMED International's key strategic activities in 2020 was the development of a collaboration framework to guide the organization in evaluating current and future partnerships. Those partnerships can include strategic alliances, and are focused on terminology integration, intellectual property and education agreements.

2020 collaboration accomplishments include:

- an agreement with the International Council of Nurses to integrate the International Classification for Nursing Practice into SNOMED CT;
- a renewed agreement with the American Medical Association to improve integration between Current Procedural Terminology and SNOMED CT terminologies by producing tools for physician practices, hospitals, payers and other stakeholders to better organize healthcare data;
- initiation of a collaboration agreement with the Academy of Nutrition and Dietetics; and
- the drafting of an agreement with the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use for ongoing maintenance and updating of maps between SNOMED CT and MedDRA.

The impact of the International Council of Nurses agreement on global nursing

The 2020 agreement between SNOMED International and the International Council of Nurses eases the mapping burden on countries that use both terminologies, is a big step toward interoperability and presents an opportunity to highlight the clinical work of nursing.

Learn more: bit.ly/2XSmDeF



Learn more about our collaboration partners

Strengthening our relationships with industry

SNOMED CT provides the core clinical reference terminology for electronic health records and health data analytics platforms. Our relationship with the healthcare IT/informatics industry is vital to the long-term success of the development, adoption and implementation of SNOMED CT globally, and strengthening those ties is a core component of our innovation strategy.

In 2020, we:

- provided technical guidance to Amazon for SNOMED CT integration into the vendor's Comprehend Medical product, which uses natural language processing and machine learning to extract clinical concepts from free text. The next version of this product will deliver these clinical concepts with SNOMED CT codes attached, enabling semantic integration into EMR/EHR systems, further supporting advanced analytics and AI processes for decision support;
- provided Roche technical expertise to help them implement SNOMED CT in their Navify Tumor Board product, which enables them to include patient data in their system, code it, and use

the coded data as part of the Tumor Board review and treatment pathway decision-making process;

- began discussions with Intersystems, one of the largest EHR vendors in the world, about broadening our partnership and leveraging SNOMED International's technical expertise to help them develop queries using the ontology;
- worked with New Zealand-based Cure8Health, which is using SNOMED CT in Rwanda in a mobile health data acquisition application to aggregate patient data and records via mobile phones, which is then coded immediately using SNOMED CT, and integrated into an EHR system; and
- provided technical support to Scrips, which is launching a new EHR in the Middle East that includes SNOMED CT.

We continue to seek and establish meaningful relationships with the vendor community and to provide multiple channels and opportunities for them to provide feedback that will help us maintain and evolve the SNOMED CT product.

The SNOMED CT Marketplace

There are 46 vendors on the SNOMED CT Marketplace, providing those who include SNOMED CT as part of their products an opportunity to exchange with potential purchasers business information such as descriptions of their SNOMED CT-enabled offerings, their scope of services and the regions in which they operate.



[Visit the Marketplace](#)

Enabling digital health in Africa

Cure8Health designs mobile applications for Allied Health and District Health Boards in New Zealand that want to adopt SNOMED and FHIR data standards with “keyboard and mobile ready” apps that immediately improve productivity, reduce errors and increase patient satisfaction and equity.



View a video on the work they are doing as part of The Sovereignty Network in Africa.

India uses SNOMED CT as key terminology for health data exchange

India became a Member of SNOMED International in March 2014 to develop, maintain and enable the use of SNOMED CT terminology to achieve semantic interoperability in health systems. The Ministry of Health & Family Welfare of the Government of India has recommended the use of SNOMED CT as the primary clinical terminology to capture, store and analyze all clinically relevant information in EHRs.

The National Digital Health Mission, which was launched in August 2020, uses SNOMED CT as the key terminology for health data exchange. Different SNOMED CT extensions are developed for adoption at the national level including Common Drug Codes for India, Patient Instruction Language Set, India Geographical Location Extension, and India AYUSH Extension. SNOMED CT has been integrated into state and central health programs and solutions including the eHealth Kerala project, the Non-Communicable Diseases program, the India Health Management Information System, and eSanjeevani, a virtual out-patient department solution rolled out by the Health Ministry for online consultation during the COVID-19 pandemic.

MEMBER SUCCESS STORY > ASIA PACIFIC

SNOMED CT's clinical, research and implementation communities

SNOMED International has continued to prioritize its investment in building relationships with clinical and research communities as well as across the breadth of SNOMED CT implementers.

Implementers

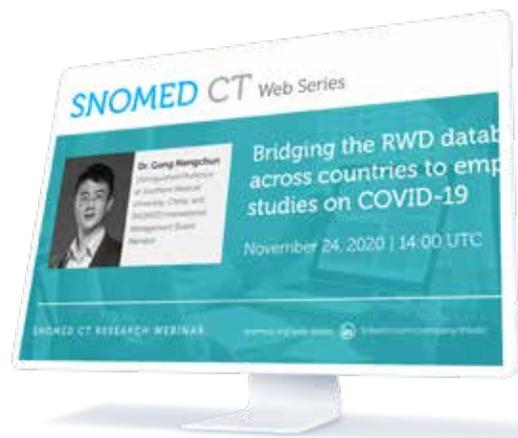
The User Support Reference Group was established in 2019 to collect and better understand users' implementation experiences and provide a channel for more proactive and responsive support. Members of the group include SNOMED CT Implementation course graduates, Member country representatives, advanced end users and vendors. In 2020, the group's meetings transitioned to quarterly webinars as part of the SNOMED CT Implementation Web Series. Approximately 175 participants attended the two webinars held in 2020, on the topics of natural language processing and implementation lessons learned in the NHS (England).



Learn more about the User Support Reference Group

Research

Over the past year, we established the SNOMED CT Research Reference Group, a forum for research engagement, as part of our strategy to network with specific professional organizations and research groups to engage the research community. One of our objectives for this group was to determine the standards development organizations, research groups and individuals with whom SNOMED International can engage with more directly. Over the year, we hosted six webinars, which drew almost 1,000 registrations. We continued to highlight the availability of a SNOMED CT research license for specific, limited-time research and development projects.



Clinical

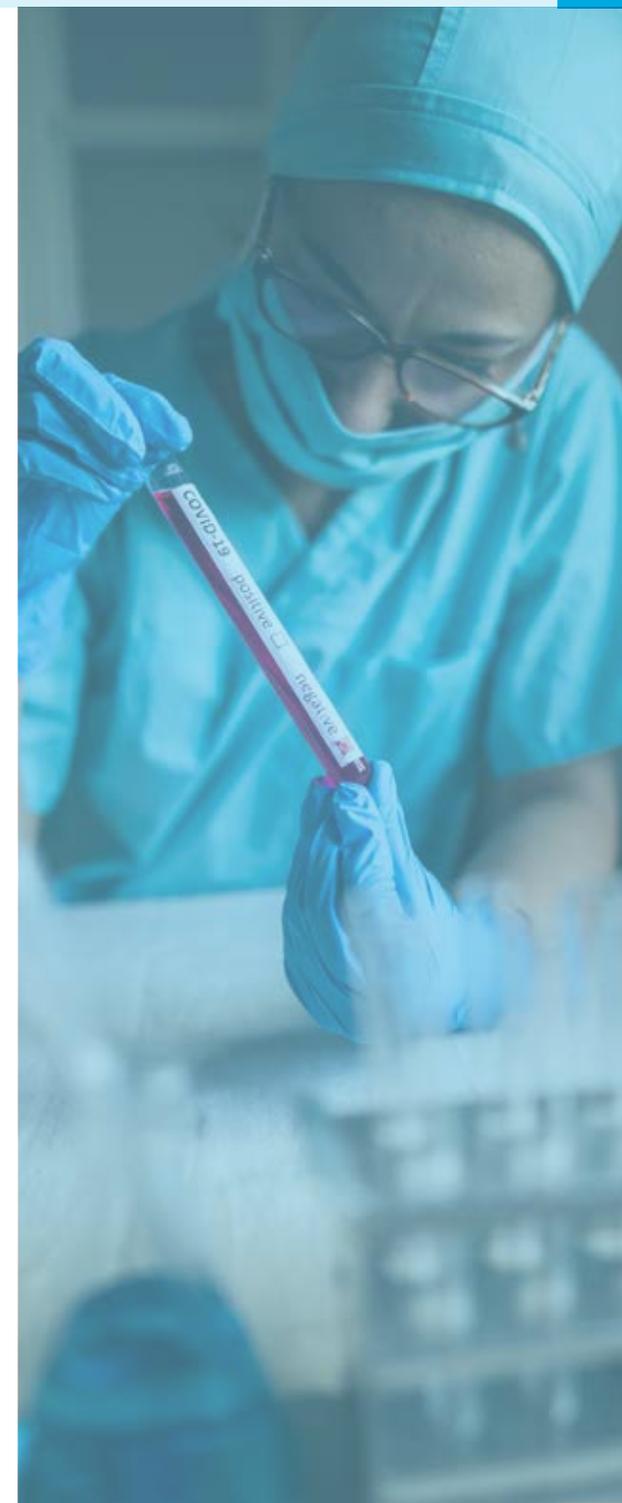
In 2020, the organization supported seven Clinical Reference Groups, with an additional 11 clinical project groups. These groups participated in Clinical Reference Group working meetings as well as broader Clinical Education Days held at April and October business meetings, providing increased collaboration and knowledge sharing/brokering among SNOMED CT conversant clinicians and the organization's clinical engagement leads.



Learn more about Clinical Reference Groups

SNOMED CT Web Series

- In 2020, SNOMED International introduced a series of webinars starting with our clinical community and expanding to include webinars targeted to researchers and implementers. The webinars showcase the ongoing work and achievements of the SNOMED CT Community of Practice.
- All webinar recordings are available on our YouTube channel:
 - Clinical Web Series
 - Implementation Web Series
 - Research Web Series



SNOMED CT Expo 2020: A Virtual Event

The first virtual, and truly global, SNOMED CT Expo 2020 was attended by more than 1,700 delegates from 60 countries across six continents.



To view SNOMED CT Expo 2020 sessions, visit our YouTube channel

The Tutorials and Workshop stream at SNOMED CT Expo 2020 was well received, with close to 3,000 views:

Introduction to SNOMED CT:	965 views
SNOMED CT in the EHR:	772 views
Data Analytics and the Expression Constraint Language:	589 views
SNOMED International Tooling Showcase:	372 views

Argentina embraces virtual training in 2020

Argentina, a SNOMED International Member since 2018, has made SNOMED CT the official semantic standard of the nation's digital health strategy, reaching a total of 839 Affiliates in the public and private sector over the past year. In 2020, largely in response to the coronavirus pandemic, the country implemented a training program called *Standards Mornings* which were designed to meet the needs of a broad variety of SNOMED CT users. The strategy has involved hosting monthly virtual meetings with more than 1,600 implementers from different sectors to learn about topics such as the SNOMED CT terminology server Snowstorm and other standards such as HL7, and to share implementation experiences and best practices. Various guest speakers from the vendor community were also invited to participate. Throughout 2020, there were 47 interdisciplinary virtual healthcare team meetings conducted to support specific implementations to healthcare teams and end-users, providing the fundamentals of SNOMED CT and its interaction with other standards, including interoperable digital prescription or implementation of the International Patient Summary in each province.

MEMBER SUCCESS
STORY > AMERICAS

Supporting our products

Notable 2020 highlights

- Continued fixes and enhancements to the authoring platform, including updating underlying software and a public version of the Machine Readable Concept Model tool.
- Ongoing enhancement of existing healthcare data analytics tool to meet requirements from the American Medical Association to include Current Procedural Terminology for demonstration.
- Delivered the next iteration of analytics tooling to provide more breadth and easier self-management of the demonstrator.
- Delivered the next iteration of analytics tooling to improve the generation of synthetic data using Synthea, and a refresh of the prototype to demonstrate COVID-19 scenarios.

Throughout 2020, we continued to deliver up-to-date and ongoing technical guidance and documents to support our Members to deliver our product in their regions.



Key SNOMED CT support documents and resources created or updated in 2020 include:

- *Terminology Services Guide* major revision
- *COVID-19 Data Coding using SNOMED CT* published
- *Documentation to support MedDRA maintenance* finalized
- *Expression Constraint Language v1.5* published
- *SNOMED CT Compositional Grammar and Expression Constraint Language* updated to support concrete values



Visit the document library to access all our support documents and resources



Snowstorm Terminology Server

A terminology server provides software that enables access to one or more terminologies, classifications or code systems through a defined application programming interface.

Snowstorm, the SNOMED CT terminology server, enables full management of SNOMED CT including term-based searches, expression constraint language queries, hierarchy navigation, and access to selected concepts and their descriptions and definitions, in an open source server available to all. It provides a quick and simple way for organizations to use SNOMED CT without having to drastically change existing software by deploying a fully SNOMED CT compliant terminology server quickly. The Snowstorm software development community has grown and there are more implementers using Snowstorm in their own environments than ever before.

The January 2020 International Release was the first release produced from SNOMED International's own terminology server, Snowstorm, and by the end of 2020, all users, including those on the Managed Service, had been migrated to Snowstorm. This has been a major technical milestone for the organization and is a core focus of our 2020-2025 organization strategy, enabling progress with wider collaboration and inclusion for community content.



SNOWSTORM



SNOMED International Managed Service

The Managed Service is an online service that allows subscribed SNOMED International Members to manage and distribute a release of a SNOMED CT local extension from start to finish in a simple, standard manner. The current scope of the Managed Service includes a set of tools and services to create, author, publish, translate, release, validate, license, distribute and maintain local extensions, along with a support mechanism to request assistance.

In 2020, SNOMED International provided Managed Services for the U.S., Belgium, Denmark, Ireland, Estonia, New Zealand, Sweden, Switzerland and Norway.



INNOVATION

Innovation, regarded as a critical element of future growth and sustainability, targets the organization's efforts to leverage emerging technologies and business practices. This positions SNOMED International to deliver value for stakeholders and drive efficiencies at the point of care, across the organization and in the evolution of our products and services.

In 2020, our innovation-focused activities included developing relationships with partners to pilot artificial intelligence (AI) projects enabled by SNOMED CT.

Innovation activities

SNOMED International, in collaboration with an external partner, worked on a prototype project which aims to bring about transformational change through quality data and human insights. This was to enable healthcare organizations to maximize healthcare planning and productivity through measuring surgical procedures based on SNOMED CT codes and in theatre recording.

SNOMED International has collaborated with Manchester University to develop software to produce sub-ontologies of SNOMED CT, making it easier for specialist domains to use

the terminology and opening new distribution approaches not previously available to SNOMED International.

We also worked with Frost & Sullivan to complete an industry insights report (titled *Healthcare Sector Dynamics and Trends Impacting SNOMED CT: Current and Future Perspectives*) to better understand the innovation and technology initiatives that will support those AI vendor engagement activities, and initiated with key partners the development of a strategy for back-mapping.

Other notable 2020 innovation achievements include defining and delivering initiatives that demonstrate how the coding burden can be reduced and how cost savings can be realized for policy makers and healthcare administrators. Others show how the clinician experience of recording and accessing SNOMED CT coded information and the patient experience in the healthcare system can be improved.

One of the 2020 innovation initiatives related to exploring techniques for back-mapping to high-prevalence legacy terminologies and classifications and providing options and recommendations for services through emerging technologies remains in progress.

What does AI mean for SNOMED CT?

Artificial Intelligence (AI) holds a great deal of promise for extracting insights from large volumes of data, making it attractive for use in data-rich environments such as healthcare. However, its potential is limited by the quality and variability of the unstructured data used. Ontologies such as SNOMED CT serve as a system that gives AI a head start in the sense that it does not have to start from scratch in the domains the terminology covers; for use in digital health products, SNOMED CT applies explicit, unique identifiers, meanings and descriptions to scientific/healthcare terms, helping to better ensure that AI interprets those terms as they are intended.

Innovation in mapping: A look at ICD-11 MMS

Throughout the course of 2020, the organization employed machine learning techniques to be in position to automate maps from SNOMED CT to ICD-11 Mortality and Morbidity Statistics (MMS) as a prototype approach to apply to current and future mapping activities.

The spirit of global collaboration thrives among French-speaking Member countries

The spirit of collaboration and cooperation among SNOMED International Members was alive and well in 2020, and is evidenced by the approach taken by Belgium, Canada, France via PHAST, Luxembourg and Switzerland, who are collectively working to optimize the translation of SNOMED CT. As part of the French Translation Project Group, these Members are building a common French translation of SNOMED CT and supporting its usage by translating to French SNOMED CT terms, along with educational and other resources. The goal of this collaboration was to help ensure the availability of SNOMED CT content in French. In less than two years, the number of French terms available within the translation has now increased to more than 77,000, including recently translated COVID-19 concepts, closing the gap that structured data can play in French language healthcare settings.

EXCELLENCE DRIVEN
BY INTERNATIONAL
COLLABORATION



ENABLING SUCCESS

A dynamic and virtual workforce

SNOMED International's highly qualified, multidisciplinary and global workforce is the beating heart that drives the organization's success. In 2020, the organization identified a number of areas to target for improvements and implemented numerous initiatives to strengthen our teams and, ultimately, our performance.

Some key highlights of these efforts include:

- crafted and distributed a SNOMED International Health & Wellbeing Statement, in alignment with relevant international regulations;
- implemented measures to support employees throughout the pandemic and ensuing stay-at-home orders, including providing mental health days and organizing virtual organizational team-building events, implementing an Employee

Assistance Program to support individuals' mental health, and continually communicating updates to organizational protocols and provisions (e.g. travel freeze, etc.);

- engaged in resourcing and succession planning analyses across all lines of business, identifying short- and long-term plans and executing against immediate needs;
- conducted an organizational skills review and assessment, reviewing results and recommendations and executing against identified actions; and
- continued to recruit and onboard for key roles in various lines of business, debuting a refreshed onboarding process to better support acclimation of new team members.

Effective and evolving business processes

Management of corporate services is a critical area of focus for SNOMED International. A leader in its industry, the organization is held to the highest financial, accounting, audit and business practice standards.

Some of the key 2020 highlights of our ongoing efforts to refine and improve our business processes include:

- completing Member trend analysis and horizon scanning to review health and ehealth strategies, along with undertaking vendor and marketplace assessment;
- delivering quarterly and annual activities to deliver strategy management, tracking and analysis of the organization's 2020-2025 Strategy;
- continuing activities supporting infrastructure cost reduction; and
- launching a new approach to risk assessment and reporting that leverages our employee base across the organization to engage in a risk-sharing framework.

The UK Biobank paints picture of SARS-Cov-2 infection and immunity with SNOMED CT-powered study

The United Kingdom, a founding Member of SNOMED International, has mandated the use of SNOMED CT, starting with primary care practice and then in other healthcare sectors as well. The availability of SNOMED CT-encoded primary care data has contributed greatly to the region's response to and understanding of the COVID-19 pandemic. In May 2020, the UK Biobank, a large-scale biomedical database and research resource containing in-depth SNOMED CT coded genetic and health information from half a million UK participants, initiated a large-scale, six-month study. The study was designed to help the nation's researchers and public health professionals generate epidemiological insights into the determinants, characteristics and consequences of SARS-Cov-2 infection. By gathering data from a variety of sources, the UK can better understand many aspects of the impact of the pandemic on its population, including who is most likely to get COVID-19, the extent to which the population has already been infected, the degree to which infection provides immunity and the balance of symptomatic to asymptomatic infection.

MEMBER SUCCESS STORY > EUROPE, MIDDLE EAST + AFRICA



Connecting with a growing community

In 2020, we continued to grow and connect with our Community of Practice, stakeholders and broader SNOMED CT audience through expanded use of our social media channels. Over the past year, we:

- **published** 36 organization-issued news releases;
- **grew** our international events newsletter subscriber base by 1,600 per cent;
- **premiered** our blog channel, with plans to publish one blog monthly in 2021;
- **increased** our Twitter audience by more than 830 followers over the previous year and LinkedIn followers by 1,246; and
- **established** a media partnership with South American industry publication Salud Digital, featuring four SNOMED CT articles and interviews, and participated in two Forum Salud Digital events, featuring CEO Don Sweete, and Terminology Release Advisory Group Member Alejandro Lopez Osornio.



Join the SNOMED CT community:



Twitter



LinkedIn + LinkedIn Group



YouTube



Subscribe for News Updates

Financial snapshot

The 2020 financial year end was closed out with a clean auditors report supported by robust internal controls, policies and procedures which are reviewed and updated as the organization evolves.

SNOMED International Income and Expenditure Report (USD)

	2020	2019
Income	12,019,519	12,070,169
Cost of sales	(6,902,012)	(7,250,200)
Gross surplus	5,117,507	4,819,969
Administrative expenses	(2,823,747)	(3,667,521)
Operating surplus/(deficit)	2,293,760	1,152,448
Interest receivable and similar income	59,098	295,786
Surplus on ordinary activities before taxation	2,352,858	1,448,234
Taxation	0	0
Surplus for the financial year	2,352,858	1,448,234

The financial information presented within this document does not comprise the statutory accounts of International Health Terminology Standards Development Organisation for the financial years ended 31 December 2020 and 31 December 2019 but represents extracts from them. These extracts do not provide in full, an understanding of the financial performance and position, or financial and investing activities, of the company as the complete Financial Statements.

The statutory accounts for those years have been reported on by the company's auditor and delivered to the registrar of Companies House. The reports of the auditor were (i) unqualified, (ii) did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under section 498 (2) or (3) of the Companies Act 2006. The Financial Statements, including the auditor's report, can be obtained free of charge on request to the company at One Kingdom Street, Paddington Central, London W2 6BD or by email to invoices@snomed.org.



GOVERNANCE

SNOMED International is a 'Members-First' organization. More specifically, our Members are national government agencies or other bodies that have been deemed suitable for the role by their respective national government. Their responsibilities and authority include appropriately establishing, monitoring, promoting or regulating concept-based systems of clinical terminology for that territory or country.

A key governance responsibility is the continued support of the organization's senior stakeholder groups, including the General Assembly and Management Board. This, together with supporting the delivery of the various actions/projects stemming from the governance meetings, enabled SNOMED International to make good progress on a number of fronts.



General Assembly

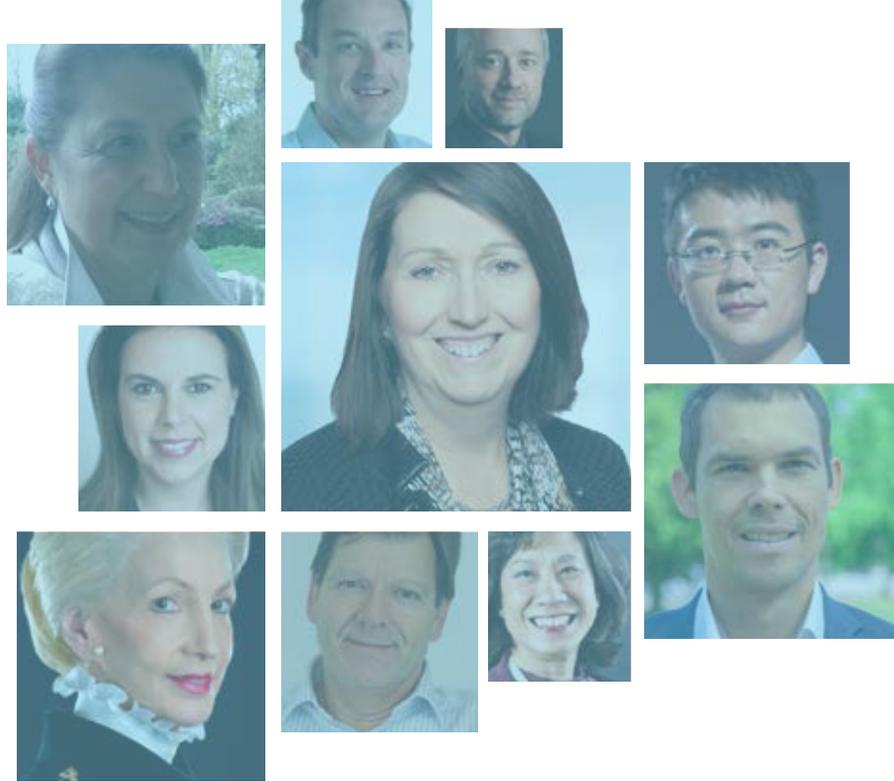
The General Assembly is SNOMED International's highest authority. The General Assembly ensures that the purpose, objects and principles of the Association are pursued and that the interests of the organization are safeguarded. The General Assembly can make binding decisions regarding all matters relating to SNOMED International, subject to and in accordance with the provisions of the Articles of Association.



Argentina	Fernando Gabriel Nuñez
Australia	Steven Issa
Austria	Stefan Sabutsch
Belgium	Tom Van Renterghem
Brunei	TBD
Canada	Michael Green
Chile	Rodrigo Martinez
Cyprus	Vasos Scoutellas
Czech Republic	Irena Rubešová
Denmark	Marianne Holdt
Estonia	Kerli Linna
Finland	Juha Mykkänen
Hong Kong, China	Vicky Fung

Iceland	Gudrún Audur Hardardóttir
India	Lav Agarwal
Ireland	Niall Sinnott
Israel	Boaz Lev
Jordan	Feras Kamal
Kazakhstan	Beibut Esenbaev
Lithuania	Martynas Bieliauskas
Luxembourg	Raffaella Vaccaroli
Malaysia	Md Khadzir Sheikh Ahmad
Malta	Hugo Agius-Muscat
Netherlands	Herko Coomans
New Zealand	Alastair Kenworthy
Norway	Alfhild Stokke (Vice-Chair)

Portugal	Diogo Martins
Republic of Armenia	Anahit Avanesyan
Republic of Korea	Jung Jip Min
Republic of Slovenia	Alen Vrecko
Saudi Arabia	Hashem Abubaker
Singapore	Priscilla Chua
Slovak Republic	Pavol Rieger
Spain	Arturo Romero Gutiérrez
Sweden	Tom Nilstierna
Switzerland	Adrian Schmid
United Kingdom	Alex Elias (Chair)
United States	Vivian Auld
Uruguay	Pablo Orefice



Management Board

The Management Board has legal and oversight responsibility for the management and direction of SNOMED International. The terms of the appointments are staggered: the longest term is three years; the shortest, one year. Management Board appointments are non-executive director positions which carry legal responsibility for the governance of the organization.

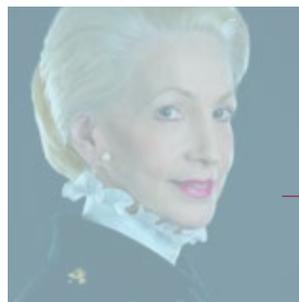
2020 Management Board Members

- **Hadas Bitran** (Appointed October 2020)
- **Cheemin Bo-Linn** (April 2017 to October 2020)
- **Joanne Burns** (Vice-Chair from the first half of 2020 to September; Chair from September to December)
- **Doug Fridsma** (Appointed October 2015 to October 2020)
- **Mengchun Gong** (Appointed April 2017)
- **Lady Barbara Judge CBE** (Chair, April 2017 to September 2020)
- **Michael Lewis** (Appointed October 2020)
- **Matic Meglic** (Appointed April 2017)
- **Andrew Roddam** (Appointed October 2020)
- **Isabelle de Zegher** (Appointed October 2020)



Learn more about SNOMED International's Management Board and new 2020 Management Board Members

Lady Barbara Judge CBE



In September 2020, Lady Judge, who held the role of Management Board Chair from April 2017, passed away after a battle with pancreatic cancer. Lady Judge, an ardent advocate for women's rights, spent her professional career in the law, banking, regulation and nuclear industries, and SNOMED International benefited enormously from her business and governance acumen.

Appointed the youngest commissioner at the US Securities and Exchange Commission, the first female director at News International, the first woman to be appointed an executive director of a British merchant bank, the first woman on the Board of Overseers of the Wharton School of Management, and the first woman to chair the UK's Institute of Directors, Lady Judge broke barriers in these sectors and encouraged other women to strive for similar achievements.



[Learn more about Lady Barbara Judge](#)



A COMMITTED COMMUNITY OF PRACTICE

Member Forum

The Member Forum acts as an advisory body to SNOMED International and optimizes collaboration and coordination among Member countries. It is co-chaired by an elected representative of the Member Forum (Alastairw Kenworthy) and by a representative from SNOMED International (Lira Tutina).



Advisory groups

Advisory Groups conduct specific activities that contribute to SNOMED International's mandate. These agile groups adapt to meet the changing needs and direction of the organization.

- Content Managers Advisory Group (*Monica Harry & Cathy Richardson, Co-Chairs*)
- E-Learning Advisory Group (*Linda Bird, Chair*)
- Modelling Advisory Group (*Peter G. Williams, Rory Davidson and Yongsheng Gao, Co-Chairs*)
- SNOMED CT Editorial Advisory Group (*Jim Case, Chair*)
- Terminology Release Advisory Group (*Andrew Atkinson, Rory Davidson, Co-Chairs*)
- Terminology Management Working Group (*Rory Davidson, Chair*)
- Tooling User Advisory Group (*Terance Shird, Chair*)
- SNOMED on FHIR Working Group (*Peter G. Williams & Robert Hausam, Co-Chairs*)

Q&A



with Alejandro Lopez Osornio
(Terminology Release Advisory Group)

Q: With your ongoing participation, how have you been able to impact or advance SNOMED CT?

A: As a member of the TRAG, one important advance made during 2020 was the definition of the strategy for inclusion of concrete domains in SNOMED CT. Concrete domains allow concept definitions to include attributes that support concrete data types, such as decimal, integer, string or date/time.

Q: Why is this important to healthcare delivery and management?

A: Being able to represent concrete values enables implementers to create better links with knowledge bases and decision support systems. For example, it enables us to extract from SNOMED all clinical drugs with the active ingredient Atenolol, having a strength of 50mg or less, or packages with at least 14 tabs, etc.

Uruguay focuses on COVID-19 related work and minimum data sets implementation in 2020

Throughout 2020, Uruguay's NRC mainly focused on tackling and controlling the COVID-19 pandemic and on Minimum Data Sets implementation.

Healthcare institutions have made great progress working on standardizing and structuring clinical information through the implementation of CDA Level 3 Minimum Data Sets at a national level scope. Semantic interoperability was made possible due to the use of SNOMED CT to code both the variable and the value selected by the clinician in the Clinical Document. The list of values was made available in SNOMED CT subsets and through a terminology server as well.

Minimum Data Sets are shared through a national interoperability platform contributing to patient continuity of care regardless of the point of care, under national regulation.

The NRC has also worked on COVID-19 related codification to support Uruguay's national coronavirus strategy including tests, adverse reactions and COVID-19 laboratory Minimum Data Set. COVID-19 vaccines were also created in the national extension.

Also, a strategy of coding and notifying the Ministry of Health and National Emergency System on respiratory conditions served as a key element in public health decision support in the pandemic.

MEMBER SUCCESS STORY > AMERICAS

Clinical Reference and Project Groups

Clinical Reference Groups (CRGs) facilitate discussion between clinicians focused on specific clinical specialties or topic areas and SNOMED International. The groups are open and transparent, and support input from beyond the clinical specialty area, e.g., clinicians, interested vendors and information specialists.

Linked to the CRGs are clinical project groups focused on delivering agreed work items and editorial groups (providing clinical validation for derivative products).

Clinical Reference Groups

- Dentistry (*Mark Jurkovich & Jørn Jørgensen, Co-Chairs*)
- Nursing (*Roberta Severin, Chair*)
- Cancer Synoptic Reporting (*Clinical Project Group*) (*W. Scott Campbell, Chair*)
- Pathology & Laboratory Medicine (*W. Scott Campbell & Daniel Karlsson, Co-Chairs*)
- Anesthesia (*Patrick McCormick, Andrew Marchant & Andrew Norton, Co-Chairs*)
- Nutrition Care Process Terminology (*Clinical Project Group*) (*Constantina Papoutsakis, Chair*)
- Mental & Behavioural Health (*Piper Ranallo, Chair*)
- Allergies/Hypersensitivity and Intolerance (*Bruce Goldberg, Chair*)
- Genomics and Precision Medicine (*Ian Green & Charles Gutteridge, Co-Chairs*)
- Diabetes (*Clinical Project Group*) (*Paul Amos, Chair*)

Q&A

with Mark Jurkovich

2019 Award for Excellence recipient,
Dentistry CRG Chair



Q: Why are CRGs essential to the clinical accuracy and quality of SNOMED CT?

A: As I became more familiar with SNOMED CT through my involvement with the Dental CRG and through the classes offered by SNOMED International, the value of using SCT became very evident. Dentistry, like many other areas of health care, is more loosely associated with the in-patient medical model that care systems have generally developed around. At the same time, we are now much more aware of how all of these ancillary services tie into the total health experience and outcomes for our patients. SNOMED CT allows us to both implement this integration more effectively and to study the many implications and connections more efficiently.

Q: Why is this important?

A: As our electronic records become more encompassing and as communication between systems improves, we are experiencing a growing interest and need to use SNOMED CT in the dental space.

Project Groups

- French Translation (*François Macary, Chair*)
- Translation User Group (*Feikje Hielkema, Chair*)
- Epilepsy Clinical Expert Project Group (*Helen Cross, Chair*)
- Events, Conditions and Episodes Model (*Bruce Goldberg, Chair*)
- Device Project (*Suzanne Santamaria, Chair*)
- Vaccine Project (*Toni Morrison, Chair*)
- Drug Concept Model (*Toni Morrison, Chair*)
- Substances Project (*Farzaneh Ashrafi, Chair*)
- SNOMED Computable Languages Project Group (*Linda Bird, Chair*)
- Traditional Medicine (*Yongsheng Gao, Chair*)
- Observable and Investigation Model (*Daniel Karlsson, Chair*)

Q&A

with François Macary and Linda Parisien

French Translation Project Group Co-Chairs



Q: With your participation, how have you been able to impact or advance SNOMED CT?

A: Originated by an initiative of PHAST, this group involving NRCs from Belgium, Canada, Luxembourg, Switzerland, plus Geneva University Hospitals, Geneva High School of Management and PHAST, has enabled the consolidation of a common French translation of SNOMED CT, taking care of dialectal preferences of each involved country.

Q: Why is this important?

A: In less than two years, the group has contributed to making “SNOMED CT in French” a palpable reality throughout the French-speaking world, including countries not yet members, facilitating the discovery and actual use of the terminology in this geographic space. On the other hand, the group has contributed to opening the path to multi-NRC translation process, also used by Dutch and German translations. This initiative decreased the duplication efforts for translating new concepts and is a “lever” for new implementation projects that require access to concepts in the French language.



Learn more about the SNOMED CT Community

Spain uses SNOMED CT-encoded data to homogenize EHR data reuse process for COVID-19

Spain, a SNOMED International Member since 2009, has 17 health services across its various regions. Like most countries, its hospitals and healthcare resources have been stretched thin during the COVID-19 pandemic. The nation needed to be able to use — and reuse — coded data made available by electronic health records to better guide clinical and administrative decision-making related to the disease. Spain responded to this need by developing a solution that would be capable of adapting to changes in data specifications and ensuring acceptable data quality. As part of a study published in

the March 2021 edition of the *Journal of Biomedical Informatics*, an initial and expandable set of relevant concepts for COVID-19 was identified, modeled and formalized using ISO-13606 standard and SNOMED CT and LOINC terminologies. A flexible methodology based on detailed clinical models was designed and implemented in a tertiary hospital of Madrid Region with the goal of homogenizing the data-reuse process for COVID-19 and other health conditions. As a result, the methodology is suitable for use throughout Spain — and even in other countries.

MEMBER SUCCESS STORY
>> EUROPE, MIDDLE EAST + AFRICA



snomed.org

 [linkedin.com/company/ihtsdo](https://www.linkedin.com/company/ihtsdo)

 twitter.com/SnomedCT

 [youtube.com/c/ihtsdoorg](https://www.youtube.com/c/ihtsdoorg)

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SNOMED
International

Delivering
SNOMED CT