8. Education and training

Users must be equipped with adequate knowledge and skills that enable them to practice the tasks of the specific user group. Moreover, it is important that users are trained to understand and conduct SNOMED CT implementation in accordance to the visions, strategy and infrastructure of the given Member country. The following sections consider the roles of SNOMED International and NRCs in education and training related to SNOMED CT.

SNOMED International Role in SNOMED CT Education

The overall role of SNOMED International in SNOMED CT education and training is to provide consistent information about SNOMED CT, advice about benefits and guidance on effective ways to use SNOMED CT in order to realize those benefits. In addition, wherever possible, SNOMED International shares its documents and training services in ways that enable NRCs to reuse, translate and customize them to meet national requirements. The documents, educational resources and services that SNOMED International provides to assist the process of learning about SNOMED CT are outlined below.

SNOMED CT Document Library

The SNOMED CT Document Library provides online access to a wide range of SNOMED CT related documents. These documents range from SNOMED CT introductions targeted at particular audiences, through to detailed specifications, specialized guides and reports. On the Document Library web pages you will find a short introduction to each of the documents, and a link to allow you to freely access these documents. These documents are available either for online browsing or as PDF downloads - and in many cases both formats are provided. Some documents include draft materials, and therefore readers should be aware of the status of the document or section, which is indicated either by textual status notes on individual pages or in the document preface.

The Document Library (http://snomed.org/doc) provides access to the key documents about SNOMED CT

Feedback from Members on the documentation is important for SNOMED International to ensure that the readers are provided with the best possible materials for learning about SNOMED CT. Members/users/readers are requested to provide any kind of feedback on the documentation, for example if clear faults or missing content are detected, or if there are some unclear parts that need clarification.

Comments on online documents can be posted as comments on the pages of the published document. For documents that are not available online, please look in the document for details of how to comment.

SNOMED CT E-Learning Courses

SNOMED International provides a range of Education offerings. The set of courses, learning pathways, and certification exams is introduced below.

> (i) **Course Catalogue and E-Learning Platform**
>
> To enrol in all SNOMED CT courses and certification exams, please visit our SNOMED CT course catalogue at **https://courses. ihtsdotools.org/** and select the relevant education product.
>
> Our E-Learning Platform, which hosts the majority of our education offerings can be accessed at **https://elearning.ihtsdotools.org/**.

Courses

- **Foundation course**
  - The course aims to provide authoritative coverage of a broad range of topics related to SNOMED CT at a relatively basic level. It also enables the growth of more detailed understanding of SNOMED CT by enabling those who complete this course to join more advanced SNOMED CT E-Learning courses in the future.
- **Implementation course**
  - This course builds on the knowledge gained during the SNOMED CT Foundation course. It provides an understanding of SNOMED CT that is sufficient for those engaged in various parts of the implementation process – from the decision to adopt SNOMED CT, through to specification and procurement and/or design and development of SNOMED CT enabled solutions, to deployment and practical use.
- **Authoring Level 1 course**
  - This course teaches you the knowledge and skills needed to perform basic SNOMED CT authoring tasks. Students will have the opportunity to learn and practice authoring tasks using a training version of SNOMED International's authoring platform. Authoring exercises will be performed in a fictitious extension.
- **Terminology Services course**
  - This course teaches the principles of using a SNOMED CT terminology server to search and retrieve SNOMED CT content, using two terminology service APIs - a native SNOMED CT API (Snowstorm) and the standard HL7 FHIR terminology service API.

Learning Pathways

SNOMED International's learning pathways contain a collection of E-Learning resources designed to teach a specific SNOMED CT skill set in a flexible way. Learning pathways currently available include:

- **SNOMED CT for Developers** - The goal of this learning pathway is to teach you enough about SNOMED CT in as short as possible a time to enable you to develop software applications that leverage its capabilities.
- **SNOMED CT for Data Analysts** - The goal of this learning pathway is to provide a solid understanding of how SNOMED CT can be used to support your clinical data analytics requirements.
- **SNOMED CT for Clinicians** -The goal of this learning pathway is to provide an introduction to the why, what and how of SNOMED CT from a clinical perspective.

Certification Exams

SNOMED International's certification exams allow individuals to be recognized for their capabilities in specific skill areas. Currently, SNOMED International offers two certification exams:

- **SNOMED CT Authoring Level 1 Certification** - This certification recognizes your competence in performing basic SNOMED CT authoring tasks.
- **Terminology Services Certification** - The SNOMED CT Terminology Services certification is a formal recognition of your competence in using SNOMED CT terminology services to search and retrieve SNOMED CT content.

Education Benefits for Members

As part of the 'Enhanced Membership Benefits', each Member is entitled to the following education benefits:

- Free SNOMED CT Foundation Course for all registrants from Member countries/territories
- Membership discount for all education courses offered
- NRC access to **two** free registrations annually for each education course offered
- NRC access to one free certification exam annually

Participants will be offered a **membership discount** (including free enrolment in the Foundation Course) **automatically** when they login to their E-Learning account during the enrolment process. Discounts are calculated, based on the participant's registered country/territory.

SNOMED National Release Centers (NRCs) can claim their **free NRC enrolment** in any of our courses or certification exams by emailing elearning@snomed.org to request a 'Member free' voucher. This voucher can be used to register for free via our Course Catalogue. Please include the name and email of the person who will be enrolling, and the course intake in which they would like to participate. We will then send the voucher to the selected participant. All 'Member free' voucher allocations must be approved by the Member Forum representative in the respective Member country/territory.

Please note that NRCs can claim their free enrolments in each of our courses and certifications every year - so please take advantage of this offer to educate your local team.

Education Partnerships

SNOMED International seeks to establish partnerships with organizations within our Member countries and territories, who would be interested in translating one or more of our Education offerings into their native language. For more information, please contact either our Head of Education, Linda Bird (lbi@snomed.org), or send a request to our education helpdesk (elearning@snomed.org).

SNOMED In Action

SNOMED International has a website called SNOMED In Action, which offers Members and other users an opportunity to register SNOMED CT deployments and provide various details about specific SNOMED CT implementation and usages. Other Members and users may be inspired to follow these examples, or get in contact with persons and institutions that have been involved with specific SNOMED CT implementations.

SNOMED International encourages Members and other stakeholders and users to register their SNOMED CT deployments on this site in order to facilitate knowledge sharing and awareness about how SNOMED CT can be applied and how to reap its benefits.

On this webpage you find an overview of different examples of SNOMED CT in use, and you also have the opportunity to register your own SNOMED deployment: http://www.snomedinaction.org.

NRC Roles in SNOMED CT Education

To address national implementation requirements, NRCs are encouraged to supplement or customize training resources published by SNOMED International. This includes translating documents and training resources where necessary. Education related to some specific aspects of national strategy may be well served by materials developed from scratch by the NRC. For example, if specific reference sets are to be used within specific clinical domains to meet specific reporting requirements, then guidance on the use of these Reference sets could be needed along with information about the reporting procedures.

Whether an NRC develops its own training materials or modifies resources provided by SNOMED International, it is important that any explanation of SNOMED CT be accurate and in accordance with the formal SNOMED CT specifications. Therefore, the NRC should regularly review its SNOMED CT related training materials to ensure alignment with updates to International materials.

If an NRC takes on the education of the national Affiliates and users, it is important that staff of the NRC have a broad and deep understanding of the different implementation levels and possibilities and can facilitate requests from different user groups. Alternatively, the NRC can advise or direct Affiliates to places and persons where they can get the appropriate guidance. The NRC must therefore be aware of people, nationally or internationally, who have the appropriate skillsets to educate and guide users on specific topics. A combination of internal and external resources to provide training and education is a reasonable solution for many NRCs.

Individuals learn in different ways. The NRC may wish to consider delivering face-to-face or online training so that individuals get a chance to ask questions and develop their thinking. Short introductory sessions on the principles of SNOMED CT and a walk through the release are good ways to get people started. They may then find the reference materials much more accessible.