

Planning Your SNOMED CT Transition

SNOMED CT Implementation Support Pack:
Part 3

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Introduction

Welcome to part 3 of the *SNOMED CT Implementation Support Pack*.

The pack provides information, examples, and models you can use or take inspiration from to create and deliver your own SNOMED CT implementation successfully. It is designed for use by both care organisations commissioning Electronic Patient Record (EPR) systems, and by the internal teams or IT system suppliers who design and deliver them.

Part 3 of the pack contains a blueprint for planning your SNOMED CT Implementation.

Purpose

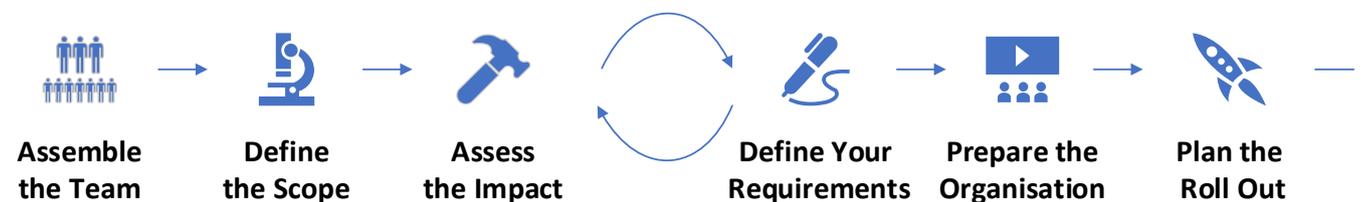
Adopting SNOMED CT is a major organisational and system change. It can have a significant impact not just on EPR systems directly, but also on associated systems that send data to the EPR or take data from it. Carefully planning and mapping out your adoption is therefore critical to its success.

This document details a set of steps and tasks you can use as a guide to the planning process and adapt for your own specific needs.

A Note on the Word ‘SNOMED’

SNOMED CT is a specific version of SNOMED. Previous versions of SNOMED do exist in the NHS (SNOMED 3 and SNOMED RT for instance) but it is only the latest incarnation, SNOMED CT, that should now be used. For the rest of this document if you see the word SNOMED you should assume it means SNOMED CT.

Process Flow in this Document



Assembling a Team

The first task in any major system change is to assemble the team of people who will oversee and deliver it. The ultimate responsibility for SNOMED CT adoption should be held by the Chief Clinical Information Officer (CCIO) or equivalent within the organisation to provide Board level buy-in and support of the adoption. With them it is advisable to have 3 distinct groups who will collaborate to ensure the success of the process - Subject Matter Experts, Project/Programme management teams, and key stakeholder representatives.

The specific members of these groups might vary depending on your organisation, but to give two examples:

If you are a health or social care provider this might be:

- SMEs: The head of ICT, EPR database administrator, information/informatics lead, clinical safety officer, network administrator

- Programme/project managers and project support staff
- Key Stakeholders: Care delivery department heads, clinical coders, reporting and analytic leads, patient safety officer

If you are an IT System supplier:

- SMEs: Head of development, enterprise architect, senior database administrator, clinical safety officer, customer support manager, release manager, network administrator
- Programme/Project managers and project support staff
- Key Stakeholders: account managers, customer representatives, help desk administrator, communications lead

It is strongly recommended that all members of the team undergo basic SNOMED CT training such as SNOMED International's [SNOMED CT Foundation Course](#), (which is delivered entirely online and free to everyone in the UK), or training from the SNOMED CT Implementation Team at NHS Digital. In addition, you will find a significant amount of training and support material on the NHS Digital Terminology and Classifications Service [webpages](#).

Agreeing the Scope and the Approach

In part 2 of the implementation support pack, we discussed what it meant to be SNOMED CT compliant, and that while all organisations must meet the national information standards notice (ISN) requirements, this did not define SNOMED CT compliance for your organisation. You define this by identifying your local needs and informatic responsibilities.

Agreeing the scope of your transition can be complicated, and the scope might change as the project develops so you may return to this step several times. Later we will talk about assessing the impact of the adoption. You should consider agreeing the scope and approach and assessing the impact as two parallel processes that are intertwined, as changing the approach will affect the impact, and the impact of proposed changes may cause you to alter your approach and scope.

When considering your scope, you could follow the process detailed in the rest of this section.

Step 1 – SCCI0034 and the EPR

The SCCI0034 information standard lays out 5 overarching requirements that all organisations must meet. You can read the full requirements [here](#), but for now we can paraphrase these as:

- **Data Entry:** Enable the end user to use SNOMED CT for data entry in all aspects of the system where clinical terms are provided for selection. This also means that any configuration tools such as data entry templates must also be able to be specified using SNOMED CT.
- **Reporting:** Enable the end user to use SNOMED CT in search specifications where clinical concepts define the patient records to be returned.
- **Business Rules:** Enable all system functionality that is based on clinical terms to use the SNOMED CT terminology for those clinical terms and the hierarchies of SNOMED CT to define the functional outcome.

- **Interoperability:** National Data extractions, interactions and messages must both provide and accept data in SNOMED CT for interoperability and national processing.
- **Content Scope:** The system must use SNOMED CT to record all structured clinical data that needs to be computable¹ within the system. This will in general cover a minimum of symptoms, medications, allergies, diagnosis, clinical findings, observables, and procedures. It may also be extended to include family history, assessment scales, test requests, test results, and problem orientation.

These 5 requirements are fundamental, so start with these, but as you consider each one add on any associated changes you want to include in your adoption.

For example, for ISN requirement 1, your EPR system must support users entering SNOMED CT terms. What elements are connected to this that you should also consider in scope? For instance:

- You will almost certainly need to re-author or convert your existing data entry forms and templates to use SNOMED CT.
- You will need to think about what you are going to do with your historical data, and how that will interact with new SNOMED CT forms and templates.
- You might also want to take the opportunity to improve your ability to easily insert coded information into narrative note taking.

These are just three connected things, and you can probably think of many more. Record all of them to begin with for use in later steps. Repeat this for requirements 2 and 3, identifying all your reporting and business rule needs, and so on, until all five overarching requirements have been considered and broken down into the areas and functions you need to consider.

Step 2 – Other National Standards or Programmes

Depending on the type of care you support, you might already have requirements from other national programmes, standards, or data returns relating to SNOMED. Which national information standards do you as an organisation need to comply to? Which national data collections that currently have a requirement for SNOMED do you need to submit? Are there any standards that are in development that will require SNOMED in the future which you could plan for now? Obtaining this list will help to define the scope of your adoption further.

Step 3 – New and Previously Identified Local Needs

Implementing SNOMED CT will be a fundamental system change, but the introduction of SNOMED CT enables far more than simply items built on top of the ISN requirements. Consider the wider needs of your organisation that rely or relate to the clinical data held in the EPR. For instance, do you need to improve outcome monitoring, provide better tooling for Clinical Coding teams, implement better clinical decision support systems, generate discharge summaries automatically, or send them electronically? Note that you do not need to specify detailed requirements at this stage, that will come later (and is covered in detail in part 4 of the *implementation pack*), broadly defined outcomes you wish to achieve are fine at this stage.

It is also worth not limiting your thoughts to purely SNOMED. Think about collating any existing wish lists for system changes and consider these in tandem with your SNOMED CT

¹ Clinical data that needs to be understood and processed algorithmically by a system function, in other words clinical data that the IT system needs to understand and use.

related changes. This is especially worthwhile if rather than upgrading an existing solution you are commissioning or creating an entirely new one.

If you would like to discuss in more detail the sorts of functions that SNOMED CT can enable within an EPR you can contact snomed.implementation@nhs.net for support and advice.

Step 4 – Order Your Scope

Once you have gathered together all the possible changes, you can then consider ordering your scope both in importance to your organisation and in time of delivery. There are many factors to consider; organisational need, clinical need, technical complexity, technical dependencies, impact, cost in money, cost in time etc.

It is important to note that adopting SNOMED CT is not necessarily a ‘big bang’ process. You *can* try and do everything at once, but there are almost always options for having an adoption process that comes in phases. It is therefore not necessarily a question of what is ‘in scope’ and ‘out of scope’, but more what is in scope now, and in scope later.

For instance, when the Primary Care EPR estate in England moved to SNOMED CT, we used a controlled and phased approach where the ability to translate historical data and interoperate in SNOMED CT was delivered first, with entering new data using SNOMED and reporting in SNOMED coming in later phases of the same delivery project. There were also items that were descoped from the initial adoption entirely and then bought back in later or added to the scope of future enhancement projects.

Step 5 – Consider Your Technical Approach

Once you have decided the broad strokes of what you want to achieve, and in what order, you can then start to consider your technical implementation approach. Will you upgrade your existing systems or commission new ones? Will you introduce SNOMED into the systems individually, or implement SNOMED centrally via a Trust Integration Engine or a Terminology Server?

If you are developing your own system, your existing architecture or the architecture of your customers may define this to some degree. If you are a care organisation commissioning a 3rd party, this is a conversation to have at the commissioning stage with your supplier in addition to the discussions within your organisation.

Assessing the Impact

When assessing the impact of SNOMED CT adoption it is worth breaking up the impact types into 3 groups:

- The technical impact
- The business change impact
- The user impact

Guided by both the SMEs and the key stakeholders that you assembled in section 2, consider all 3 impact areas across the areas of your organisation (if you are a care provider), or elements of your system (if you are an IT system supplier), and feed this into your plans, scope and approach.

Such consideration for each area might include, but are not limited to, the following areas:

1. EPR functions and system artefacts
 - a. Forms and Templates

- b. Scripted/automated care pathways
 - c. Favourite lists and local formularies
 - d. Locally coded value sets
 - e. Reports and extractions
 - f. Risk calculators
 - g. Short codes, shortcuts and abbreviations
 - h. Mapping historical data from legacy or local terminologies
 - i. Encoding or summarising historical uncoded data
 - j. Classification mapping and summarisation
2. Interoperability
 - a. Data flows to and from other devices (e.g. blood pressure or pulse monitors),
 - b. Data flows to and from other systems (e.g. patient administration systems, integrated care records, data warehouses, lab systems)
 - c. Referrals and transfers of care
 - d. Data Returns
3. Business functions and protocols
 - a. Billing, charging, and inventory management systems
 - b. Classification tooling and mapping to ICD-10 or OPCS-4
 - c. Mail merges
 - d. Resource tracking
 - e. Outcome Analysis

Defining Your Detailed Requirements

Once your scope and approach are largely agreed you can start to fill out your broad set of desired outcomes and functions with a set of defined and detailed functional and non-functional system requirements. This is covered in detail in part 4 of the *SNOMED CT Implementation Support Pack*, so is not discussed further in this document.

Preparing your organisation

It is worth considering the operational readiness of your organisation as a defined stage of your SNOMED CT transition. As before, we would expect this to be championed by the CCIO, to ensure a top-down approach across the organisation. Taking cues from your impact assessments, and the technical solution chosen, there are several common tasks that should be considered:

User Training and Familiarisation

Whether coming from using local codes, a legacy terminology or no terminology at all, users should all be given an overview of interface and system changes, not only to ensure they know what to expect, but also to ensure they understand the importance of coded EPR data, and the benefits SNOMED CT will enable.

A good implementation will not require the average user to have specific knowledge of SNOMED CT. However, users that are involved in reporting, data quality, summarisation or clinical coding may need specific SNOMED CT training. The [NHS Digital website](#) has a wide variety of training materials you can download and use as a basis for your own local training

materials, as well as YouTube videos and webinars to signpost users to. In addition you will find SNOMED CT Jargon Busters and crib sheets that you can use.

Re-authoring or Conversion of Local System Artefacts

Elements such as data entry templates, reports, value sets and locally built support rules are likely to require conversion or recreation using SNOMED.

If you are an IT system supplier you might well have developed such tools as you created the rest of the system, so this would just be part of your development cycle. However, if you are a care provider organisation you would need to specify the tools as part of your requirements. Access to these tools might well need to be prior to the full transition so SNOMED based artefacts were available on day one of live running with SNOMED.

Planning Your Roll Out

The adoption of SNOMED CT should be treated just like any other major system change and follow Change and Release Management best practices.

It is assumed that you already have processes in place to manage change within your organisation and these will be applied. It is however strongly encouraged that the full breadth of the skills and experience of the Implementation Team described earlier, both from the IT system supplier *and* the commissioning organisation help design the roll out approach, led by their respective CCIOs and Release Managers to ensure the unique challenges around informatic changes are understood and addressed, and the risk and disruption to care provision is minimal.

If you want to get some advice or for us to share our experiences of real-world SNOMED piloting and roll out, please contact us directly via snomed.implementation@nhs.net.

Conclusion

This concludes part 3 of the *SNOMED CT Implementation Support Pack*. We hope you found it useful. Part 4 contains information on creating your detailed SNOMED CT related system requirements.

We consider this pack, and the associated training material you will find on [our website](#), as living documents, and will be regularly reviewing and updating their content. We would very much value feedback from NHS SNOMED CT implementers on what we could improve, change, and expand upon; from the content of individual documents to entirely new topics relating to SNOMED CT implementation. If you would like to share your thoughts and experience with us, please contact snomed.implementation@nhs.net.