SNOMED CT Maturity Framework

Implementation Level		Data Capture	Data Retrieval
Level 5	**Advanced Use**		
	SNOMED CT is recorded directly in the health records, and used as an ontology. Support for expressions, expression constraints (ECL) and the Machine Readable Concept Model (MRCM) may be provided.	SNOMED CT codes or expressions are stored directly in health records based on clinician input. Searching or navigation uses Description Logic reasoning or Natural Language Processing. May also use Clinical Decision Support with Description Logic or Artificial Intelligence.	Querying is performed over SNOMED CT codes and expressions using computable languages, such as the Expression Constraint Language (ECL). Reasoning over SNOMED CT codes and expressions using Description Logic.
Level 4	**Semantic Network**		
	SNOMED CT is recorded directly in the health record, and used as a semantic network of relationships with simple ECL queries. All defining relationships may be traversed to support various system functions.	SNOMED CT codes are stored directly in health records based on clinician input. Searching or navigation using defining relationship is provided. Clinical decision support may also be provided, with rules based on defining relationships.	SNOMED CT codes are aggregated or queried based on automated subsets or queries that may use any defining relationship (including both 'is a' and attribute relationships).
Level 3	**Hierarchy**		
	SNOMED CT is recorded directly in the health record, and used as a hierarchy of codes to support various system functions. functions.	SNOMED CT codes are stored directly in health record based on clinician input, with searching or navigation using hierarchy. Clinical decision support may be provided. with rules based on hierarchical using hierarchy. Clinical decision support may be provided, with rules based on hierarchical relationships.	SNOMED CT codes are aggregated or queried based on automated subsets or queries that use SNOMED CT's hierarchical relationships. use SNOMED CT's hierarchical relationships.
Level 2	**Simple Code System**		
	SNOMED CT is recorded directly in the health records, and used as a flat list of codes. Support for translated terms or multiple synonyms may also be provided.	SNOMED CT codes are stored directly in health record based on clinician input, using flat value lists. Support may be provided for translated terms, multiple synonyms or clinical decision support based on manually defined subsets.	SNOMED CT codes are aggregated or queried using manually defined subsets. May support string-based searches over multiple (or localized) synonyms.
Level 1	**Mapping to SNOMED CT**		
	SNOMED CT is not recorded directly in the health record. SNOMED CT is used indirectly by mapping to SNOMED CT.	Another code system is used to enter the clinical data, with mapping to SNOMED CT in the background.	Another code system is retrieved in the clinical record, with mapping used to display corresponding SNOMED CT codes or terms.
Level 0	**Plans to Use SNOMED CT**		
	SNOMED CT is not yet used within the health record, but there are plans to do so. Clinical information is currently stored as free text or using local or vendor specific code systems.	Information is captured using simple value lists, text fields or radio buttons.	Data retrieval is primarily one record at a time. Some reporting is available using selected codes from a simple code system.