**Table 1. Terms and definitions**

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| **Term** | **Definition** |
| **Interoperability** | “the ability of two or more systems or components to exchange information and to use the information that has been exchanged” (IEEE) |
| **Technical interoperability** | Forms the basis for successfully transmitting messages from one system to another |
| **Syntactic interoperability** | Provides the structure and syntax so that messages can be ascertained by more than one system |
| **Semantic interoperability** | Allows a common understanding to the users by using data with standardized definitions e.g., from terminologies, ontologies, publicly available value sets, and controlled vocabularies. |
| **Organizational interoperability** | Stands for communication between organizations, entities and individuals regarding governance, policy, social, legal and organizational considerations |
| **Terminology** | Set of preferred or official terms in a domain. A terminology may be a systematic nomenclature supported by a centralized body or as simple as the common usage that arises in a specific community of practice or according to ISO/TS 21564:2019 a “structured human and machine-readable representation of concepts”. |
| **Classification** | Classification in which all concepts are mutually exclusive to avoid counting anything twice. This is typically achieved with the use of a monohierarchy, in which each concept has one and only one parent. |
| **Nomenclature** | Systematic compilation of descriptors for indexing terminologies for a specific documentation task |
| **Semantic Standards** | Semantic Standards represent structured vocabularies, terminologies, code sets and classification systems in order to represent health care concepts. |
| **Syntactic Standards** | Defining the structure or format of data exchange ensuring that the meaning of data is preserved |
| **Content Standards** | Content standards relate to the data content within exchanges of information. They define the structure and organization of the electronic message or document’s content. This standard category also includes the definition of common sets of data for specific message types. |
| **Vocabulary/Terminology Standards** | The ability to represent concepts in an unambiguous manner between a sender and receiver of information. Health information systems that communicate with each other rely on structured vocabularies, terminologies, code sets and classification systems to represent health concepts. |
| **Transport Standards** | Transport standards address the format of messages exchanged between computer systems, document architecture, clinical templates, user interface and patient data linkage. Standards center on “push” and “pull” methods for exchanging health information. |
| **Ontology** | Controlled terminology invoking formal semantic relationships between and among concepts, manifested as a type of description logic, which is a subset of first-order predicate logic, chosen to accommodate computational tractability or according to ISO 21526:2019 “a conceptualisation of a domain” |
| **Thesaurus** | Systematic order of terms that are related to one another with the aim of indexing a topic |
| **Controlled Vocabulary** | "prescribed list of terms, headings or codes, each representing a concept" [ISO/TS 21964:2011] |
| **Taxonomy** | “scheme that partitions a body of knowledge and defines the relationships among the pieces” [ISO/IEC/IEEE 26531:2015] |
| **Mapping** | “process of defining a relationship between concepts in one coding system to concepts in another coding system, in accordance with a documented rationale, for a given purpose” [ISO/TS 21564:2019] |
| **Concept** | “unit of thought” [ISO 25964-1:2011] or “unit of knowledge created by a unique combination of characteristics” [ISO/IEC 11179-3:2013, 3.2.18] |
| **Registry** | “collection of registry objects compiled to support the business of a given community” [ISO 2146:2021] |
| **Data** | “re-interpretable representation of facts, concepts (3.15), or instructions in a formalized manner suitable for communication, interpretation, or processing - Note 1 to entry: Data can be processed by human or automatic means” [ISO/IEC 11179-3:2013, 3.2.27] |
| **Metadata** | “data that defines and describes other data” [ISO/IEC 11179-3:2013, 3.2.74] |
| **Coding system** | “combination of a set of concepts, a set of code values, and at least one code scheme mapping code values to coded concepts” [SOURCE:ISO 17115:2007, 2.7.3, modified] |
| **Value Set** | “uniquely identifiable set of values consisting of concept representations drawn from one or more code system” [ISO/TS 22287:2019] |