#### TECHNICAL SPECIFICATION

### ISO/TS 17439

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# Health informatics — Development of terms and definitions for health informatics glossaries

Informatique de santé — Développement des termes et définitions



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#### ISO/TS 17439:2014(E)

#### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 215, *Health informatics*.

#### Introduction

#### **General Introduction**

Health Informatics is serviced by multiple Standards Development Organizations, each with their own need for consistent definitions of the terms they use. The evolution of glossaries across these organizations has resulted in standards products where, increasingly, terms are defined and/or used in different ways. This situation leads to a lack of clarity in the use and meaning of health informatics around the world.

There are many national and international efforts to write and use clear standards to support the development of electronic health care initiatives. There are many standards and terms defined, however, finding the relevant standard, recording suggested improvements, and encouraging the use of standard terms is an ongoing issue to all involved in the development of these documents and in their use. This Technical Specification provides details of the metadata and requirements for inclusion and construction of quality terms and definitions in health informatics glossaries. In the context of the recognised requirement for a single international health informatics glossary, the following are the purposes of this Technical Specification:

- to collate relevant standards and guidance for the development of quality terms and definitions;
- to provide procedural standards for the introduction and management of terms in health informatics standards products in order to rationalize the use of these terms;
- to reduce the effort required for standards development to create and decide upon terms and definitions used in the documents produced by health informatics standards organizations;
- to support the development of international e-health initiatives through a consistent approach to development and use of terms and definitions.

Quality definitions and term specification includes the following:

- consistent structure of terms, synonyms, and acronyms to support lookup;
- representation of definitions in a manner which is clear and fulfills the purpose of a definition;
- consistent provision and structure of metadata to explain further, provide examples and links to standards documents and standards processes to support maintenance of terms and definitions in an ongoing improvement environment.

The shared online tool of the Joint Initiative Council of Health Informatics Standards Development Organization's (JIC) which uses these metadata is the Standards Knowledge Management Tool Glossary (www.skmtglossary.org). The Standards Knowledge Management Tool (SKMT) is an Internet-based tool designed to assist in finding and managing standards documents, products, terms, and definitions. Each term and associated definition can be linked back to the document/s within which it is used (even if that link is simply to an organizations glossary). This Technical Specification provides metadata which supports the SKMT or any other similar functional need in the body of the document, while details of emerging procedures of the SKMT Governance Committee of the JIC are in Annex A, Annex B, and Annex C.

#### **Business Need**

When a new standard is developed, the terms used in that standard are defined and explained. Over time, there have been an increasing number of terms used with a variety of definitions. There are single terms with multiple definitions and different terms with synonymous definitions. The rapid evolution of health informatics is demonstrated by the emergence of terms and increasing confusion over their meaning and use. There is a need to clearly define the terms and where these terms are used in a specific context. When there is a specific context to identify how that context represents a meaning which is different to the more general use of the term. This Technical Specification describes a consistent approach to term usage and structure and defines the mechanism for ongoing management. The availability of a readily accessible tool to identify accepted definitions will make standards development an easier process and provide a resource to the health informatics community that will assist communication and understanding of the complex issues of health informatics. Such a tool will equally assist the ongoing management of the glossary and the standards in which the terms are used.

This Technical Specification

- provides a standardized metadata construct for the representation of glossary information for health informatics,
- provides procedural standards for the introduction and management of terms in health informatics standards publications in order to rationalize the use of these terms,
- supports a consistent approach to the use of terms and definitions in health informatics standards,
- reduces the effort required in standards development by providing a document available to all who
  develop terms and definitions for health informatics projects, and
- supports the development of international e-health initiatives through a consistent approach to development and use of terms and definitions.

This work stems from the following three needs:

- a) to improve communication and understanding within the international health informatics community, within and outside the standards environment. Consistent and clear use of terms and understanding of the definitions of these terms can significantly enhance the ability for health informatics programs around the world to deliver their required outcomes. Open availability of this information in a quick and simple manner can reduce confusion and encourage both the use of standards and the appropriate use of language within the community, thereby increasing re-usability and information sharing;
- b) to improve and simplify the standards development process by giving access to existing definitions, thereby encouraging harmonization (or the movement towards a single definition or the clear statement of the context within which a specific alternative definition applies). There is also a need to be able to identify the terms in a given document and to update them to agreed definitions over time;
- c) to enhance the standing of the standards community by providing clear guidance on terms to be used. This represents leadership of the community through provision of a public good, as well as a tool to assist their own operations.

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## Health informatics — Development of terms and definitions for health informatics glossaries

#### 1 Scope

This Technical Specification provides details of the metadata and requirements for quality terms and definitions in health informatics for inclusion in health informatics glossaries.

This Technical Specification does not cover specification of terminological content in systems, such as that represented in terminological resources, such as SNOMED, CT, or, ICD. It is limited to terms and definitions included in standards documents.

This Technical Specification is applicable to the following groups:

— Health informatics standards developers and standards development organizations.

Standards developers and organizations are direct beneficiaries of this work as standardized representation of terms and definitions readily available through the SKMT can make standards development faster and more consistent. The metadata also support maintenance functions for review and update of standards publications.

 Developers, implementers, and managers of health information systems, clinical information systems, and clinical decision support systems.

This audience is a beneficiary of this work through more consistent terminology in standards documents, making them clearer and easier to implement.

 All users of health information systems clinical data, such as health statisticians, researchers, public health agencies, health insurance providers, health risk organizations, data analysts, and data managers.

#### 2 Normative References

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 704:2009, Terminology work — Principles and methods

ISO/IEC 2382-1:1993, Information technology — Vocabulary — Part 1: Fundamental terms

#### **3** Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

NOTE Where there are terms used in this Technical Specification that are not defined in this section, they are considered to be generic to the English language and not specific to this Technical Specification. Additional definitions and terms can be found at the international health informatics Standards Knowledge Management Tool and Glossary website www.skmtglossary.org.