The Standards Australia subcommittee IT14/2 deals with health concept representation and semantic interoperability in health informatics. This group has members from clinical, vendor, consumer and government agencies, although membership does not require that you be an elected representative of any sector. Membership is open to any interested persons or parties. This report outlines some of the current activities being undertaken by this group. If any member of HIMAA would like to have further details, or to participate in any of these work items, please feel free to contact me.

Previous standards produced

The Language of Health Concept Representation. This standard provides definitions and examples of the language used to describe terminologies, classifications and other health concepts. It also provides a description of how the various elements of terminologies fit into health computer environments.

Current activities

There is a need to ensure that terminology and knowledge systems are developed in a safe manner throughout Australia and that they are consistent. To this end the committee is developing a communication plan to share details of all current work items directly with all jurisdictions and the National E-Health Transition Authority, along with current versions of work items, in an effort to reduce duplication of effort, to produce consistent results and to increase the knowledge of best practice in the development of terminologies, classifications and knowledge based rule systems.

The development of guidelines on data development

This is a work item being undertaken in conjunction with the Australian Institute of Health and Welfare. The draft document was presented. The intention is to process the comments from the subcommittee and to prepare the document for public comment.

Standards on user interface requirements

This item aims to provide standards on best practice and the safest mechanism for representation of information in health information systems. This item is progressing with the identification of three major sub items:

- Production of an outline document identifying the whole scope of the work and indicating some of the safety issues involved in each area when applied to healthcare.
- Development of a standard for the representation of key information, where there are known solutions, including detailed business case and safety issues relevant for each. The major items include use of colour, scrolling, buttons (size and location), use of drop down lists, sequence of information presentation (current information first — old information last), contrast, representation of graphs and ratios, font sizes, use of capitalisation, sound, icons and symbols and specific issues related to results reporting and alerts/allergy representation.
- Guidelines for the use and management of abbreviations in clinical communication. It is intended that input and support be sought from HIMAA for the abbreviations document, which has a business case and some clinical examples at this point.

Potential work items on decision support systems have been developed and were proposed to IT14 for addition to the work plant. These items will be included in the restructure discussions being currently undertaken by Standards Australia for health informatics. Identification of processes required to safely and consistently represent best practice knowledge in clinical decision support systems include:

- use of non clinical information and knowledge sources within clinical decision support systems
- use of clinical information and knowledge sources within health care decision support systems
- semantic representation of content in clinical decision support systems
- use and evaluation of ontologies and terminological systems within clinical decision support systems
- development and application of rules, algorithms and knowledge in clinical decision support systems
- conceptual links to information models.

The objectives of the working group are to:

- support quality and safety of use of clinical decision support systems
- ensure that the meaning of health information and knowledge used in a clinical context is preserved
- be responsive to the administrative and clinical business requirements for semantic interoperability and quality rule based knowledge representation in clinical decision support systems
• inform and be informed by work focusing on decision support knowledge with an emphasis on formal interfaces between decision support and the ontology model.
  
  These efforts will be directed toward selection and integration of terminological content in health informatics applications.

Next meeting: 28 April 2006, Brisbane, QLD.

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