ISO TC 215, Health Informatics Overview

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Workshop on Standardization in E-health
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ISO TC 215
Health Informatics

Chair : Yun Sik Kwak (Rep. of Korea)
Secretariat : ANSI
Secretary : Todd Sandler (ASTM, USA)
            Joyce Sensmeier (HIMSS; USA) as of 1/6/03
Scope : Standardization in field of information for health, health ICT to achieve compatibility and inter-operability between independent systems.
        Also to ensure compatibility of data for comparative statistical purpose (eg, classifications), and to reduce duplication of effort and redundancies.
ISO TC215 Structure

Technical Committee

- WG 1
  - TF e-Health
- WG 2
  - TF e-Pharm.
- WG 3
- WG 4
- WG 5
  - TF COPOLCO
ISO TC 215 Membership

‘P’ Member Bodies = 23

Australia       Ireland       Russian federation
Austria         Israel         South Africa
Belgium         Italy          Spain
Canada          Japan          Sweden
Denmark         Korea          Turkey
Finland         Netherlands    United Kingdom
France          New Zealand    USA (Secretariat)
Germany         Norway         Kenya - applied for
Serbia - applied for
ISO TC 215 Membership

'O' Member Bodies = 14

Argentina       India       Switzerland
China          Mongolia      Thailand
Czech Republic  Poland       Yugoslavia
Ecuador          Portugal      Zimbabwe
Hungary              Singapore
ISO TC215 Scope

- Health informatics - generally interpreted as ISO/OSI Level 7
  - Some groups work in Levels 1-6 by reference to other standards.

ISO/OSI Levels:
- Level 7: Application
- Level 6: Presentation
- Level 5: Session
- Level 4: Transport
- Level 3: Network
- Level 2: Datalink
- Level 1: Physical
ISO TC 215 WG 1
Health Records and Modelling Coordination

- **Convenor**: Don Newsham (Canada)
- **Scope**: To develop standards to facilitate the capturing, safe communications, and trusted management of information concerning the total health process applied to one subject of care for individual and public health purposes and, furthermore, to coordinate modelling of other relevant standards efforts such as those regarding terminology, messaging, and security

ISO TC 215 WG 2
Messaging and communications

- **Convenor**: Edward Hammond (USA)
- **Scope**: effort of the WG 2 is defined as follows:
  - A general statement of the types of standards to be considered (for example, the functional purpose of the interchange and the circumstances in which the interchange should occur)
  - The specific domains of activity (that is, clinical messaging, medical device communication, and business and financial messaging)
  - A set of additional tasks or working principles that will guide the effort

- [www.hl7.org/special/committees/tc215](http://www.hl7.org/special/committees/tc215)
- [http://isotc.iso.ch/livelink/livelink?func=ll&objId=1300702&objAction=browse&sort=name](http://isotc.iso.ch/livelink/livelink?func=ll&objId=1300702&objAction=browse&sort=name)
ISO TC 215 WG 2
Messaging and communications (cont’)

- **Scope**: A means of implementing that interchange in one or more syntax or communication modalities.

- **Specific Domains**:
  - Clinical messaging
  - Medical device communication
  - Business and financial messaging
ISO TC 215 WG 2
Messaging and communications (cont’)

- **Sub-working Groups**: 
  1. Architecture 
  2. Device interface 
  3. Methodology 
  4. DICOM persistent object
ISO TC 215 WG 3
Health Concept Representation

- **Convenor**: Christopher Chute (USA)
- **Scope**: To develop standards for representation of health concepts. These standards include formal models of representation and description of health concepts; principles of their organization within terminologies and their related systems (including controlled clinical terminologies and classifications); and issues concerning context of their use in electronic health records.

http://www.tc215wg3.nhs.uk/
ISO TC 215 WG 4
Security

- **Convenor**: Gunnar Klein (Sweden)
- **Scope**: Defining standards for technical measures to protect and enhance the confidentiality, availability, and integrity of health information, and also accountability for users, as well as guidelines for security management in healthcare.
ISO TC 215 WG 5
Health Cards

- **Convenor**: Juergen Sembritzki (Germany)
- **Scope**: To develop standards in field of healthcare usage of machine readable cards compliant with physical characteristics, including dimensions defined in ISO/IEC 7810, *Identification cards - Physical characteristics*. The WG shall place special emphasis on standards on technology independent data structure leading to interoperability and compatibility including communication of data.

ISO TC 215 Liaison

International Council of Nurses - Category B
IMIA WG Standard - A
UN/EDIFACT D11 Healthcare EWG - A
WHO - B
World Wide Web Consortium - B
ISO/TC 215 Officer Structure

- Chairman
- Secretariat
  - WG Convenors
  - Project Leaders
Chairman

- Responsible for the overall management of the technical committee, including any subcommittees and working groups
- Works closely with the Secretary to ensure effective management of the work programme
Secretary

- Responsible for monitoring, reporting, and ensuring active and timely progress of the work and adherence to the ISO Directives
- Provides administrative support
Working Group Convenor

- Assigned to an individual
  - Convenor shall confirm interest in serving and commitment of time and financial resources
  - ISO/TC 215 convenors have a three year term limit
  - Convenors are responsible for the progress of work items within their respective working group
ISO/CS Support

- Sophie Clivio, ISO Programme Manager
  - Central Secretariat Contact
    - Coordinates ISO/CS resources for committee’s use
      - Procedural questions
      - Work programme
      - Balloting of DIS and FDIS
      - Editing/publication
ISO General Site
  • www.iso.ch
ISO/TC 215 Home Page (LiveLink):
  • http://isotc.iso.ch/livelink/livelink.exe?func=ll&objId=529136&objAction=browse&sort=name
Standards specific information
  • www.iso.ch/sdis
    • Templates
    • Directives
    • Informative articles/Communiqué
Project Leaders

- Assigned for the development of each work item
  - Nominated by the proposer of a new project
  - Appointed by the P-members of the TC
ISO TC 215
Where to Go For

- Global consensus IS
  - for interoperability (data and semantic) of health information
  - by negotiated idealism and realism
  - with broader participation of diverse expertise
  - of representation of current paradigm and multi-culture
Thank you

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ISO/TC215 WG Activities

Working Group 1

- Designation ISO/CD 17120 Health informatics - Country identifier mechanism in healthcare
- Designation ISO/CD 18308 Health informatics - Requirements for the electronic health record reference architecture
- Designation ISO/DTS 21667 Health informatics - Health indicators conceptual framework
- Designation ISO/DTR 17119 Health informatics - A general domain model for health information
- Designation ISO/WD Health informatics - Emergency data set
ISO/TC215 WG Activities (cont’)

**Working Group 1**
- Designation ISO/NWI Health informatics - Health indicators definitions, attributes and relationships
- Designation ISO/DTS 18308 Health informatics - Electronic health records reference architecture

**Working Group 2**
- Designation ISO/TR 18307 Health informatics - Key characteristics for interoperability and compatibility in messaging and communications standards (Published in Dec 01)
ISO/TC215 WG Activities (cont’)

Working Group 2

- Designation ISO/DIS 11703-00000 Health informatics - Point-of-care medical device communications - Framework and overview
- Designation ISO/DIS 11703-10101 Health informatics - Point-of-care medical device communications - Nomenclature
- Designation ISO/DIS 11703-10201 Health informatics - Point-of-care medical device communications - Domain information model
- Designation ISO/CD 11703-30200 Health informatics - Point-of-care medical device communications - Transport profile - Cable connected
ISO/TC215 WG Activities (cont’)

Working Group 2

- Designation ISO/CD 11073-20101 Health informatics - Point-of-care medical device communication - Application profiles - Base standard
- Designation ISO/CD 11073-20201 Health informatics - Point-of-care medical device communication - Application profiles - Polling mode
- Designation ISO/CD 11073-20202 Health informatics - Point-of-care medical device communication - Application profiles - Baseline
- Designation ISO/CD 11073-10301 Health informatics - Point-of-care medical device communication - Device specialization - Infusion device
ISO/TC215 WG Activities (cont’)

Working Group 2

- Designation ISO/CD 11073-10303 Health informatics - Point-of-care medical device communication - Device specialization - Ventilator
- Designation ISO/CD 11073-30300 Health informatics - Point-of-care medical device communication - Transport profile - Infrared wireless
- Designation ISO/FDIS 18812 Health informatics - Clinical analyzer interfaces to laboratory information systems - Use profiles
- Designation ISO/FDIS 17113 Health informatics - Method for the development of messages
ISO/TC215 WG Activities (cont’)

Working Group 2

- Designation ISO/NWI Health informatics - Data types for use in health care data interchange
- Designation ISO/CD TR Health informatics - Trusted end-to-end information flows
- Designation ISO/CD Health informatics - Interoperability guidelines for telehealth systems and networks
- Designation ISO/WD Health informatics - Quality indicators for health information made available on the Internet
- Designation ISO/WD Health informatics - High level message flows (stakeholder to stakeholder)
ISO/TC215 WG Activities (cont’)

Working Group 2

- Designation ISO/PNWI Health informatics - Inventory of healthcare informatics related standards and works in progress
- Designation ISO/PNWI Health informatics - De-identification of health records
- Designation ISO/DTR 16056-1 Health informatics - Interoperability of telehealth systems and networks - Part 1: Introduction and definitions
- Designation ISO/DTR 16056-2 Health informatics - Interoperability of telehealth systems and networks - Part 2: Real-time systems
- Designation ISO/DTR 16058 Health informatics - Interoperability of telelearning systems
ISO/TC215 WG Activities (cont’)

**Working Group 3**
- Designation ISO/DIS 17115 Health informatics - Metavocabulary for terminologic systems
- Designation ISO/DTS 17117 Health informatics - Controlled health vocabularies - Vocabulary structure and high-level quality indicators
- Designation ISO/CD 18104 Health informatics - Integration of a reference terminology model for nursing

**Working Group 4**
- Designation ISO/DTS 17090-1 Health informatics - Public key infrastructure - Part 1: Framework and overview
ISO/TC215 WG Activities (cont’)

Working Group 4

- Designation ISO/DTS 17090-2 Health informatics - Public key infrastructure - Part 2: Certificate profile
- Designation ISO/DTS 17090-3 Health informatics - Public key infrastructure - Part 3: Policy management of certification authority
- Designation ISO/WD Health informatics - Security requirements for archiving and backup of health records
- Designation ISO/WD Health informatics - Standard guide for a directory and certificate registry for healthcare
- Designation ISO/WD Health informatics - Framework for health information security
ISO/TC215 WG Activities (cont’)

Working Group 4
- Designation ISO/WD Health informatics - Directory services for security, communications and identification of professionals and patients

Working Group 5
- Designation ISO/DIS 21549-1 Health informatics - Patient healthcard data - Part 1: General structure
- Designation ISO/DIS 21549-2 Health informatics - Patient healthcard data - Part 2: Common objects
- Designation ISO/DIS 21549-3 Health informatics - Patient healthcard data - Part 3: Limited clinical data
- Designation ISO/DIS 21549-7 Health informatics - Patient healthcard data - Part 7: Electronic prescription
ISO/TC215 WG Activities (cont’)

**Working Group 5**
- Designation ISO/CD 21549-8 Health informatics - Patient healthcard data - Part 8: Links
- Designation ISO/WD 20301 Health informatics - Healthcards - General characteristics
- Designation ISO/WD 20302 Health informatics - Healthcards - Numbering system and registration procedure for issuer identifiers

**Task Force**
- e-Health
- e-Pharmacy
- Consumer policy