



**TMA Bridge**

# eHealth Standards – a Must for Communicating Across Borders

**Gunnar O Klein, M.D. Ph.D.**  
*chairman of eHSCG, chairman of CEN/TC 251*

Karolinska Institutet  
&  
Cambio Healthcare Systems  
*gunnar@klein.se*

*Contract No. IST-2002-507871*

Med-e-tel Luxemburg, 6 April 2005



# Standardization is not an option

- Modern modular system development is based on a variety of standards from different bodies: ISO/IEC, IETF, W3C etc
- Standards are necessary for **interoperability** between independent systems
- Communicating across borders include different suppliers of products
- eHealth - Health information requires standards for **Health Informatics**

## Examples of eCare needs and Standards for solutions

- Finding a health care service provider
  - Directory services in a federated panEuropean system built from regional and national content.
    - ISO/TS 21091 provides a structure based on X.500
- Communicating a request for specific health information to another country
  - EN 14720-1 Health informatics – Service request and report messages – Part 1: Basic services including referral and discharge

## Examples of eCare needs and Standards for solutions

- Sending specific health information to health care providers also in other countries requires eHealth standards:
  - For many purposes the new EN 14720-1 Report messages can be used, e.g. lab results, diagnosis other clinical findings. This is based on the HL7 RIM and the European General Purpose Information Components (prEN 14822)
  - Images requires DICOM (now also officially endorsed as the European standard EN 12052)
  - ECG requires EN 1064
  - For e-prescriptions ENV 13607 can be used and is used in large scale in the countries where electronic transfer of prescriptions is live 44-85% of all scripts (Sweden and Denmark)

## However ...

- Standards are generally not implemented in the different products on the market
- Different national activities are supporting restricted specifications for one country only
- There are a number of remaining standardisation issues to be finalised such as the Semantically Interoperable Electronic Health Record. But prEN 13606 is coming soon
- Interoperability requires more than standards

## CEN/ISSS e-Health Standardization Focus Group

### Final report

### Current and future standardization issues in the eHealth domain: Achieving interoperability

- A study initiated by DG Enterprise with nearly 100 participants from healthcare and industry working Dec 2003-Feb 2005 with the task:
  - **To consider, with all the relevant stakeholders, priorities and objectives for eHealth standardization and how the CEN system and others can contribute**

Download the full report from [www.cenehealth.org](http://www.cenehealth.org) or pick up the printed Executive summary at the conference

## Conclusions of the Focus Group

- Health informatics standards are essential to achieve the goals of eHealth in Europe for
  - Interoperability between systems and patient information exchange
  - Market efficiency by providing Increased understanding between all market actors with a common technical framework
  - Facilitating meeting of non-functional requirements to ensure safety, security and legal requirements

## Conclusions of the Focus Group

- European or whenever possible global standards (as opposed to no standards or conflicting national standards) are essential for an open market to:
  - The benefit of both buyers and suppliers
  - Facilitate cross-border communication
  - Meet the obligations of the EU Directive 98/34 and WTO principles



## Focus Group Main Recommendation

- The Member States, with the Commission, should establish a permanent platform with a mandate, and the necessary resources to promote e-Health interoperability based on standards and to facilitate co-operation between Member States.
- This eHealth interoperability platform should report to the High Level Group on Health Services and Medical Care set up by the EU Health Council.

## Recommendation 2: Improving access to records

- The Member States, with the Commission,  
should give significant momentum to national and Europe-wide secure access to clinical records and to achieving **full semantic interoperability** of personal health data and information through strong support to existing and emerging European standards for electronic health record communication.  
  
(This is based on the near final standard EN 13606 that is now also balloted in ISO that can give semantic interoperability and not just free text exchange)

The Focus Group gives further recommendations on:

- Reducing medication-related errors and e-prescribing
- Safety of health informatics products
- Quality of information - Metadata for knowledge resources
- Efficiency of healthcare processes - Workflow models and clinical pathways
- Electronic transfer of prescriptions
- Information exchange to support inter-working and the mobile citizen
- Case-mix groupers based on diagnoses and procedures
- Quality indicators
- Improving availability of standards
- Commission's support to European standardization
- Towards an international multilingual reference terminology
- Security services
- Health cards

## e-Health Standardization Coordination Group (eHSCG)

### Overall objectives

- To promote stronger co-operation amongst the key players in the e-Health Standardization area
- To promote the use of standards for e-Health

# All major standards organisations

- Members of the eHSCG
  - ISO/TC 215 Health informatics
  - ITU-T/SG 16 Multimedia communication
  - IEC/TC 62 Medical devices (electric aspects)
  - CEN/TC 251 Health informatics
  - IEEE/P1073 Point of Care medical devices
  - HL7 Health care messaging
  - DICOM Medical imaging communication
  - OASIS
- And the World Health Organization

In co-operation

## e-Health Standardization Coordination Group (eHSCG)

- WHO hosts the web-site with information on available standards. More to come.

[www.who.int/ehscg](http://www.who.int/ehscg)



***TMA Bridge***

**Thank you for your interest!**

**More on standards in the session  
April 7 at 15.00**

