EC Recommendation on Cross Border Interoperability of EHR Systems

Gérard Comyn
Acting Director
ICT Addressing Societal Challenges
DG Information Society and Media
EU Commission
"Interoperability of electronic health record systems" is the ability

- of two or more EHR systems
- to exchange both
  - computer interpretable data and
  - human interpretable meaning,
  i.e. information and knowledge

Interoperability of EHR systems should
- make access easier and more secure, and
- enhance the quality and patient safety

"cross-border" = "trans-national"
Semantic interoperability is “concerned with ensuring that the precise meaning of exchanged information is understandable by any other application that was not initially developed for this purpose.”

Source: (IDABC 2004:16) European Interoperability Framework for Pan European eGovernment Services
Aim and Scope

- **Aim:** provide a set of guidelines for developing and deploying interoperable EHR systems

- **Scope:** EHR systems, incl. patient summaries, emergency data sets and medication records facilitating ePrescription solutions
Realising and sustaining interoperability

- Undertaking *actions* at five levels:
  - (1) overall political
  - (2) organisational
  - (3) technical
  - (4) semantic levels
  - (5) monitoring, evaluation and awareness rising

- Full compliance with national and EU legal instruments
Political level actions

- *Commit* to regional, national and cross-border interoperability & engage in active cooperation
- Reserve adequate resources & *invest long-run*
- Explore risks, barriers & *incentives* to overcome them
- Strong stakeholder involvement, adequate governance, management, PPPs, public procurement
- Embed eHealth initiatives in other *regional policy programmes*
- Step-by-step approach drawing on priorities & expertise
**Organisational level**

- Create an organisational framework based on a 5 years roadmap
  - Agree on a *European governance process* to establish *guidelines* for developing, implementing and sustaining cross-border interoperability
  - Consider policies and incentives to *increase demand for procuring* eHealth services
  - Explore the factors slowing down the *standardisation process*
  - Devise measures to speed up these processes
Technical level

• Survey existing technical standards and infrastructures that may underpin the implementation of systems supporting cross-border healthcare
• Explore the use of standardised information models and standards based profiles
• Learn from real-life experiences (LSP-SOS)
• Commit to the development of any necessary additional standard at a global level
Semantic level

- A *mechanism* to involve *national research centres, relevant industries and stakeholders* in the development of health semantics
- Consider *international terminologies and classifications*
- Widespread availability of *tools* for incorporating the semantic content into *practical applications*
- *Agree on standards* for semantic interoperability to represent the relevant health information *for particular use cases*
- Demonstrate the benefits or shortcomings of current and future systems through sound evaluation and assessment
Further key issues

- Protection of personal data
  - A comprehensive legal framework for the processing of personal data
  - Compliance with data protection obligations
  - Privacy Enhancing Technologies (PETs)

- Certification of EHR systems
  - A mutually recognisable conformance testing process

- Monitoring and evaluation
  - EU monitoring observatory
  - Measurement and assessment exercises

- Education and awareness raising