The Digital Transformation of Health and Care

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Digital transformation of health and care

Instrumental for addressing health and care challenges

- Better health and care for citizens
- More effective and resilient healthcare systems
- Person-centred health and care

Slow progress and uneven uptake among Member States

Concerted action is needed (investments, digital infrastructures, common standards, data protection & cybersecurity)
Digital Single Market Strategy

Digital Single Market is one of its 10 priorities of the European Commission.

The aim is to open up digital opportunities for people and business and to make the EU's single market fit for the digital age.

Digital Single Market /// Mid-Term Review

- 16 key initiatives
- 35 proposals
- Further actions on:
  - data economy
  - cybersecurity
  - online platforms & more

One of the fields identified to deliver: Digital transformation of health and care
Digital Health and Care

Transformation of Health and Care in the Digital Single Market - Harnessing the potential of data to empower citizens and build a healthier society

European Health Challenges
- Ageing population and chronic diseases putting pressure on health budgets
- Unequal quality and access to healthcare services
- Shortage of health professionals

Support European Commission:
1. Secure access and exchange of health data
   - Ambition: Citizens can securely access and share (e.g., with doctors or pharmacies) their health data anywhere in the EU.
   - Actions:
     - eHealth Digital Service Infrastructure will deliver initial cross-border services (patient summaries and ePrescriptions) and cooperation between participating countries will be strengthened.
     - Proposals to extend scope of eHealth cross-border services to additional cases, e.g., full electronic health records.
     - Recommended exchange format for interoperability of existing electronic health records in Europe.

2. Health data pooled for research and personalised medicine
   - Ambition: Shared health resources (data, infrastructure, expertise) allowing targeted and faster research, diagnosis, and treatment.
   - Actions:
     - Voluntary collaboration mechanisms for health research and clinical practice (starting with “one million genomes by 2022” target).
     - Specifications for secure access and exchange of health data.
     - Pilot actions on rare diseases, infectious diseases and impact data.

3. Digital tools and data for citizen empowerment and person-centred healthcare
   - Ambition: Citizens can monitor their health, adapt their lifestyle and interact with their doctors and carers (receiving and providing feedback).
   - Actions:
     - Facilitate supply of innovative digital-based solutions for health, also by SMEs, with common principles and certification.
     - Support demand uptake of innovative digital-based solutions for health, notably by healthcare authorities and providers, with exchange of practices and technical assistance.
     - Mobilise more efficiently public funding for innovative digital-based solutions for health, including EU funding.

Potential of digital applications and data to improve health
- Efficient and integrated healthcare systems
- Personalised health research, diagnosis and treatment
- Prevention and citizen-centred health services

What EU citizens expect...
90% agree To access their own health data (requiring interoperable and quality health data)
80% agree To share their health data (if privacy and security are ensured)
80% agree To provide feedback on quality of treatments

#DigitalSingleMarket #DigitalHealth @eHealth_EU @EU_Health

Updated: 27/02/2018
Giving citizens better access to their health data

Lack of interoperability - main obstacle to scaling up integrated care

The eHealth Digital Service Infrastructure (eHDSI) - exchange of patient data across borders

- **Patient Summary** provides access to health professionals to verified key health data of a patient during an unplanned care encounter while abroad

- **ePrescription** enables patients to receive equivalent medication while abroad to what they would receive in their home country
Adoption of the Recommendation on a Electronic Health Record exchange format
6 February 2019

- **Faster access** to citizens’ medical information in another EU Member State
- **Better quality** and **continuity** of care for citizens moving around the EU
- **Efficiency** of health systems will be improved, as the exchange of medical data may reduce **unnecessary examinations**, saving resources
Recommendation on a Electronic Health Record exchange format
6 February 2019

- Support Members States in their efforts to build **interoperable** electronic health records, ensuring adequate **protection and security** of health data

- Enable citizens to **access and share** their health data with healthcare professionals across borders in the EU

- Supports the digital transformation of health and care in the EU by facilitating the flow of **health data** across borders
Recommendation on a Electronic Health Record exchange format

A framework for the further development of a European EHR exchange format

- **Principles** governing the access to and exchange of EHRs across borders
- **Common technical specifications** for the cross-border exchange of data
- **Joint Coordination Process** for the development of the European EHR format
Recommendation on a Electronic Health Record exchange format

Guiding principles

- Citizen centric
- Comprehensiveness and machine readability
- Data protection and confidentiality
- Consent or other lawful basis
- Auditability
- Security
- Identification and authentication
- Continuity of service

Security and Data Protection

- GDPR
- NIS Directive
- Set up National Digital Health Networks
Recommendation on a Electronic Health Record exchange format

Common technical specifications (baseline)

- Initial set of health information domains: Patient summaries, ePrescriptions, laboratory reports, medical images and reports, and hospital discharge reports
- Common list of interoperability specifications (existing standards and profiles)
- Incremental and selective approach for adopting, refining, and maintaining the specifications of the European EHR exchange format
Recommendation on a Electronic Health Record exchange format

Joint coordination process (ongoing)

- Clear governance structure with adequate expertise and resources
- Continuous engagement of all relevant stakeholders (national authorities, clinicians, patients, the industry)
- Oversee and develop the European EHR exchange format (common approaches, practical guidelines, sharing good practices, promote awareness)
Pooling health data for research and personalised medicine

**Declaration for delivering cross-border access to genomic database**

- **1 million genomes accessible** in the EU by 2022
- **Linking access** to existing and future genomic database across the EU
- Providing a sufficient scale for **new clinically impactful** associations in research
Digital tools to foster citizen empowerment and person-centred care

By allowing feedback communication and interaction between users and health care providers, digital solutions can improve quality of services and better planning/management by healthcare systems.
H2020 – support to research and innovation

**myAirCoach** - Analysis, modelling and sensing of both physiological and environmental factors for the customized and predictive self-management of Asthma  
http://www.myaircoach.eu/

**MyHealthMyData** – data analytics and blockchain technology to enable medical data to be stored and transmitted safely and effectively. It encourages hospitals to start making anonymised data available for open research, while prompting citizens to become the ultimate owners or controllers of their health data.  
http://www.myhealthmydata.eu

**i-PROGNOSIS** - enables early Parkinson disease detection and improves patients' health-related quality of life as the disease progresses over time.  
http://www.i-prognosis.eu
Digital health 2021-2027

Digital Europe Programme and Connecting Europe Facility

Horizon Europe

European Social Fund + and European Globalisation Adjustment Fund

European Regional Development Fund
Digital Europe programme – what?

Reinforcing digital capacities. Ensuring their best use.

Digital transformation & Interoperability
1.3 € billion

Advanced digital skills
0.7 € billion

Cybersecurity & trust
2 € billion

High performance computing
2.7 € billion

Artificial intelligence
2.5 € billion

€ 9.2 billion in total

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