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How Can We Strengthen e-Health in Caring for Older People with Multimorbidity in Europe?

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POLICY BRIEF

How can eHealth improve care for people with multimorbidity in European countries?

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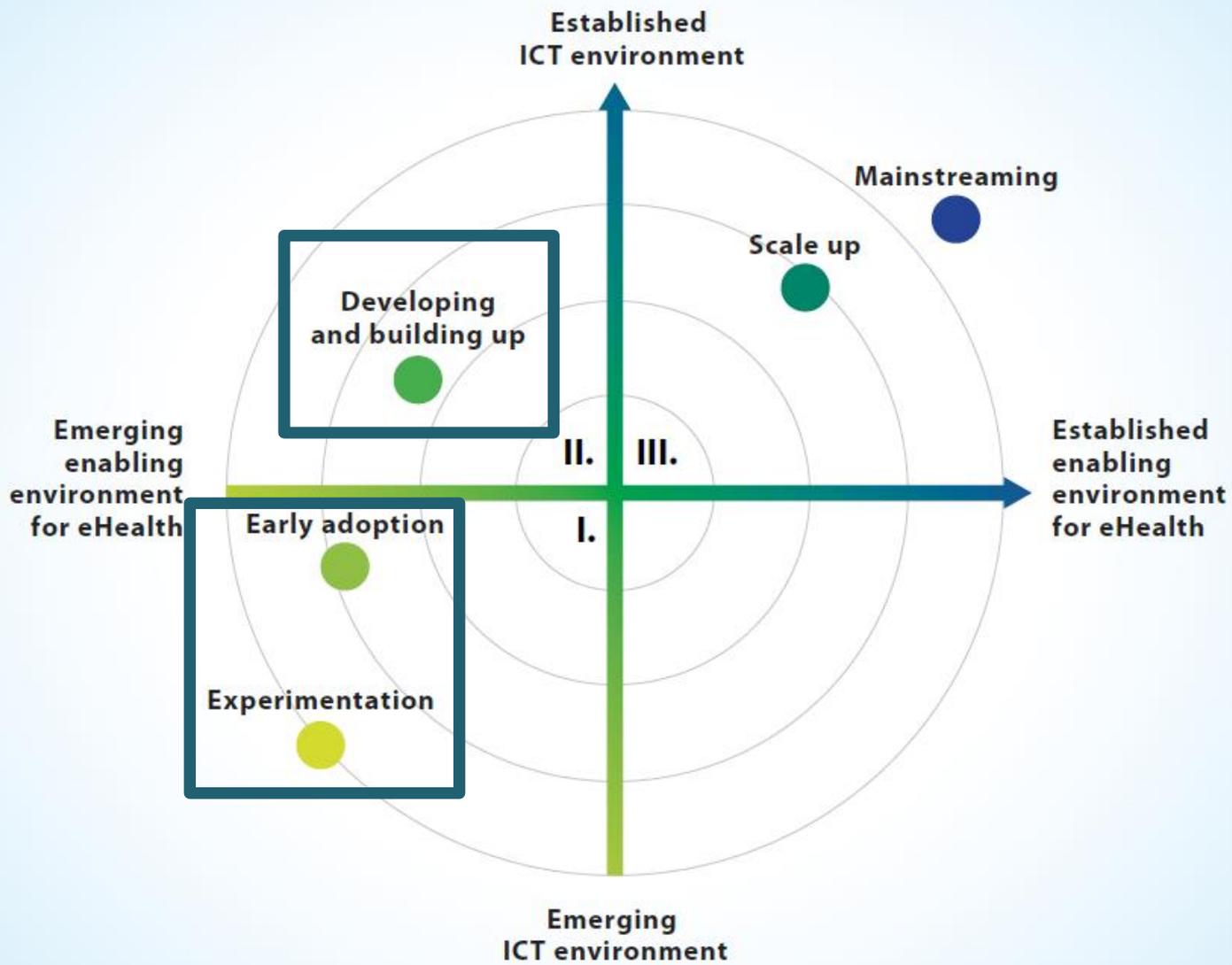
Policy Issue

New opportunities enabled by the application and exploitation of **information and communication technologies** (ICTs) in the healthcare sector could substantially improve **patient-centeredness** and **care integration** for people with multimorbidity.

eHealth solutions can play a major role in **enhancing care practices** and creating **new services** for people with multimorbidity.

However, current **implementation** of health services for people with multimorbidity rarely exploit the full potential of ICTs.





WHO & ITU (2012)

Definition of eHealth

The use of ICTs in **health products, services and processes** combined with **organisational change** in healthcare systems and **new skills**, in order to improve **health** of citizens, **efficiency** and **productivity** in healthcare delivery, and the **economic** and **social** value of health.

European Commission (2013)

eHealth domains and benefits

	Benefits for users
Information, Education and Training	<ul style="list-style-type: none"> • <i>Self-empowerment</i> • <i>Health promotion</i> • <i>Trained workforce</i>
Active and Assisted Living	<ul style="list-style-type: none"> • <i>Independence and self-care</i> • <i>Relief for family carers</i> • <i>Workload for professionals</i>
Remote Consultation, Monitoring and Care	<ul style="list-style-type: none"> • <i>Access and quality of care</i> • <i>Relief for family carers</i> • <i>Workload for professionals</i>
Health Information Systems and Digital Communication	<ul style="list-style-type: none"> • <i>Continuity and integration of care</i> • <i>Health data management</i>
Decision Support and Population Stratification Systems	<ul style="list-style-type: none"> • <i>Continuity of care</i> • <i>Health data analysis</i> • <i>Proactive interventions</i>



The ICARE4EU Project

- The **ICARE4EU Project** (2013-2016) aimed to describe, analyse and disseminate innovative solutions of patient-centered multidisciplinary care programmes for **multi-morbidity patients** in 31 European countries.
- Data were collected via **online surveys** with key national experts on innovative integrated care programmes. Information was gathered about: general aspects, patient-centeredness, use of e-health technology, management practices & professional competencies and financing systems.
- **101 high-potential programmes** were included for analysis and **8** were selected for **site visits** and **case studies**.

Programmes with an eHealth component

	Programmes with E-health
	N=85
Digital health care communication	
Between different care providers	47.1
E-referral system	32.9
Between care provider and patient	29.4
Online appointment scheduling	25.9
Electronic monitoring	
Monitoring health status parameters by providers	32.9
Telemonitoring	27.1
Registration health status parameters by patients	24.7
Electronic decision support	
Registration database (ePrescription)	63.5
Patient safety	35.3
Electronic reminders	27.1
Computerized decision support	35.3
Online decision support	15.3
Self management support	
Computerized self management tool	24.7
Electronic reminders	25.9
Online decision support	3.5
Use of EPR and Personal e-cards	
EPR used	70,6
EPR planned	12,9
Personal e-cards used	17,6
Personal e-cards planned	7.1

Main findings: benefits from adopting eHealth solutions

- **Improving access to healthcare services**
- **Enhancing care coordination and integration**
- **Enabling self-management**
- **Supporting decision making of clinicians**
- **Enabling monitoring, risk analysis and proactive intervention**

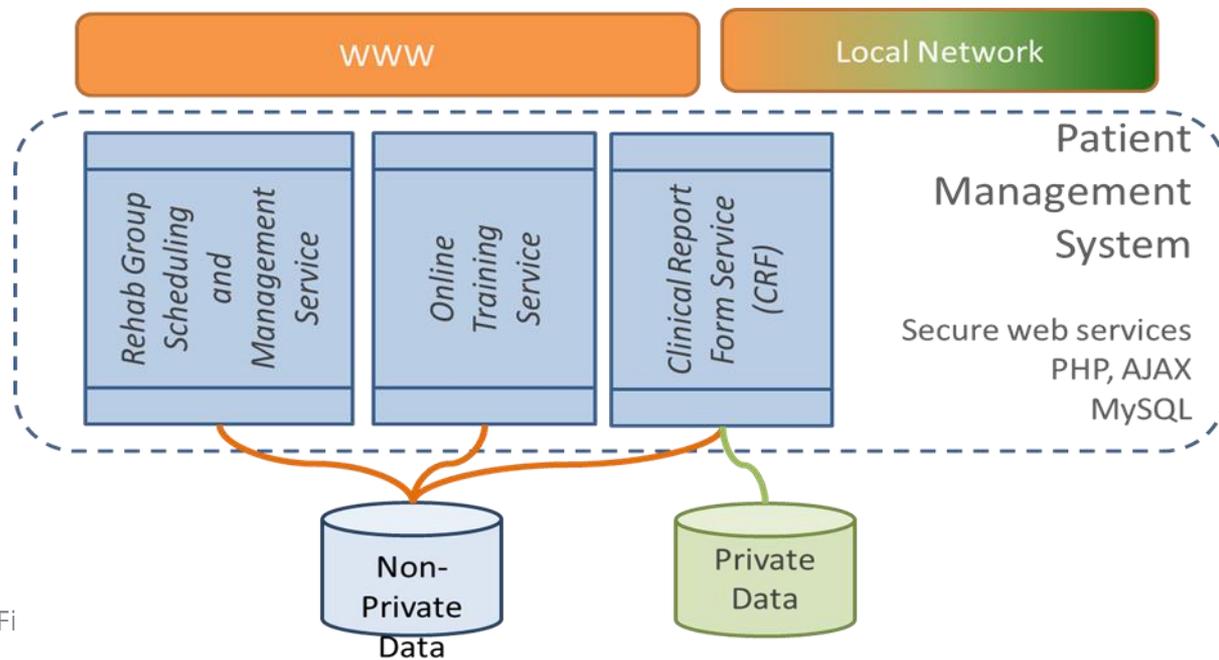
Improving access to healthcare

Example 1: TeleRehabilitation at Nicosia General Hospital (Cyprus)

- The TeleRehabilitation programme is a **home-based rehabilitation service** that applies advanced telemedicine to intensive care unit (ICU) patients after discharge from hospital.
- These people, usually suffering from multiple chronic conditions, need **cardio-respiratory rehabilitation** after discharge. However, very few manage strict adherence to a rehabilitation plan because of several logistic and infrastructural **barriers**.
- The programme improves **adherence to rehabilitation**, the **health status** of people and **reduces readmissions** to the ICU. It reported to be **cost-effective** and leading to high **satisfaction** among both users and health professionals.



Courtesy of TeleRehabilitation programme managers



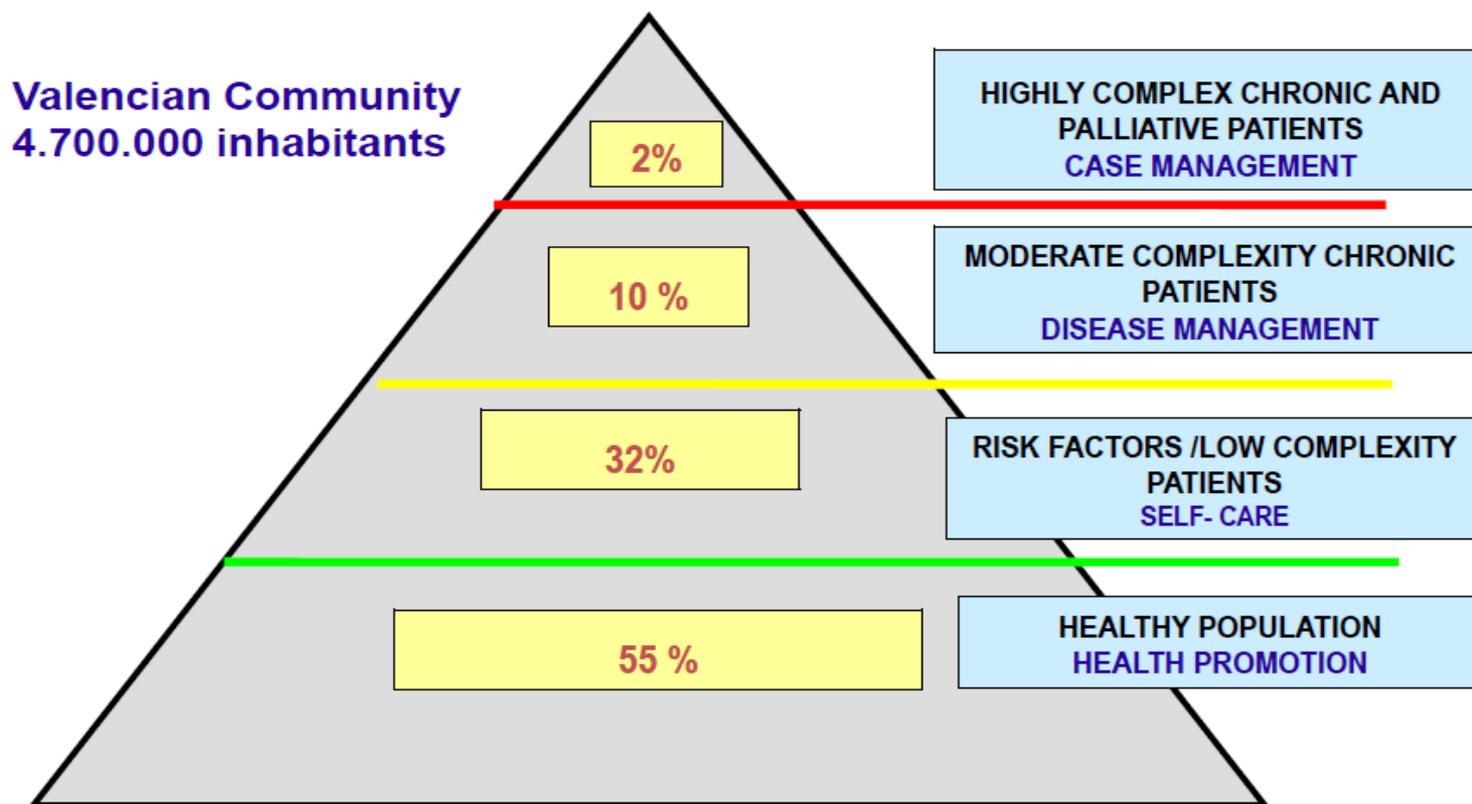
Enabling health data management and analysis

Example 2: Strategy for Chronic Care in Valencia Region (Spain)

The Strategy for Chronic Care is a **policy programme** developed in the Valencia Region. It includes:

- constant monitoring by **two nurse case managers** working in primary care and hospitals;
- the implementation, use and sharing by all actors in the care network of **EHRs**;
- an information system for **stratifying the population** according to the morbidity profiles and the corresponding risk;
- an information system to **monitor drug therapies and consumption** by people with polypharmacy.

Innovative care programmes in Europe: enabling health data management and analysis



Courtesy of Strategy for Chronic Care
programme managers

Barriers to eHealth

Micro and meso level

- digital skills of users
- data treatment policy
- design and usability
- business models
- maturity of market

Macro level

- goal-setting process
- legal frameworks
- ICT infrastructures
- evidence of effectiveness and cost-effectiveness
- funding strategies and sustainability plans for implementation
- incentive systems for users
- financial mechanisms

What policies on eHealth for multimorbidity?

Distributive policy <ul style="list-style-type: none">• Provision of some eHealth services by public (and private) care providers: e.g. Telehealth, ePrescriptions• <i>Scarce and fragmented implementation!</i>	Constituent policy <ul style="list-style-type: none">• Establishment of institutional agencies, networks and working groups: e.g. eHealth Network, eHealth Governance Initiative• <i>Mainly on EHRs!</i>
Regulative policy <ul style="list-style-type: none">• Regulation of some aspects• <i>Mainly on EHRs and cross-border transmission of health data!</i>• <i>EU has few instruments to impose decisions on national healthcare systems</i>	Redistributive policy <ul style="list-style-type: none">• Funding for research and innovation projects (all eHealth solutions): e.g. FP7 and Horizon 2020 Programmes• <i>Plague of pilots!</i>

Concluding remarks: some possible policy directions

Strategic

- **Common public health objectives:** shared knowledge and decision making
- **Legal and funding framework:** overcome barriers
- **Digital skills of patients, carers and health staff:** training campaigns
- **Large-scale research:** beyond limitations of small-scale projects

Implementation

- **Electronic health records (EHRs):** interoperability and standardisation
- **Personalised medicine services:** towards personal health records (PHRs)
- **Decision support systems (DSSs):** adoption and implementation
- **Population stratification systems:** development and integration
- **mHealth:** new regulations and appropriate funding

Take-home message

#eHealth can support people with **#multimorbidity**, but its adoption in **#EU** requires clearer **#vision** and **#resources** by stakeholders



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*Thank you for
your attention!*