Using E-health to improve integrated care for older people with multimorbidity

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What is E-health?

Definition of E-health:

the overarching term for the range of tools based on information and communication technologies (ICTs) used to assist and enhance the prevention, diagnosis, treatment, monitoring and management of health and lifestyle.

(ECHAlliance, 2014)

It is an umbrella term including e.g. telehealth, telecare, telemedicine, e-referral systems, tele-monitoring, decision support systems, e-learning for professionals etc.

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The potential of E-health tools

- E-health tools could innovate the provision of **care at distance** (Wooding et al., 2015).

- E-health could enhance and reinforce **care services at home**, improving **independent living** and **security** of patients (WHO, 2015; European Commission, 2014; Jelcic et al., 2014).

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ICARE4EU data: programmes with E-health

	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	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 aspects related to E-health

1. Fostering **access** to healthcare services

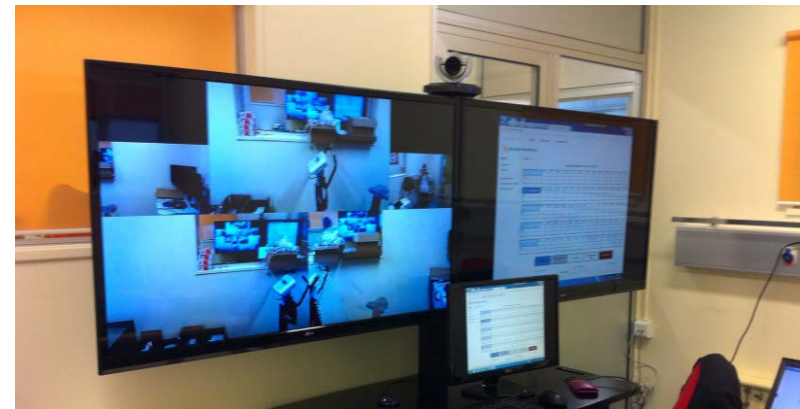2. Enhancing **care coordination** and **integration**

3. Supporting **resource optimisation**
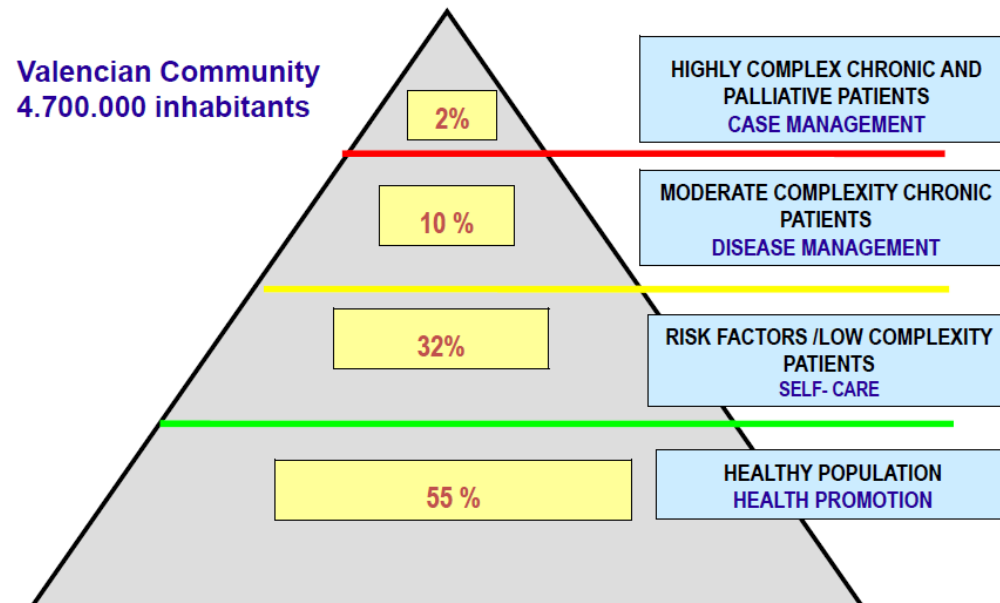
1. Access to healthcare services

- Consultations, therapies and rehabilitation at distance

- Most useful in rural areas and where availability of healthcare services is low

- Example: **TeleRehabilitation**, Nicosia General Hospital (CY)

- *Supervision and monitoring of patients doing cardio-respiratory rehabilitation at home*

2. Care coordination and integration

- Collecting, monitoring and reporting patients' health data and medical history

- Communication tools between professionals

- Example: **Strategy for Chronic Care**, Valencia Region (ES)

- *Population stratification system for data sharing and constant monitoring of individual's risks*

Valencian Community 4.700.000 inhabitants

2%	**HIGHLY COMPLEX CHRONIC AND PALLIATIVE PATIENTS** **CASE MANAGEMENT**
10 %	**MODERATE COMPLEXITY CHRONIC PATIENTS** **DISEASE MANAGEMENT**
32%	**RISK FACTORS /LOW COMPLEXITY PATIENTS** **SELF- CARE**
55 %	**HEALTHY POPULATION** **HEALTH PROMOTION**

3. Resource optimisation

- Increase appropriateness and effectiveness of care

- Revision of care and therapies according to recognised standards and practices

- Examples:

Strategy for chronic care, Valencia Region (ES)	**TeleRehabilitation**, Nicosia General Hospital (CY)
▪ Revision of 99,000 drug therapies of patients with polypharmacy (2012-2014) ▪ Reduction of public expenditure in drugs (19.5 to 7.3 mil. €)	▪ Increased adherence of patients ▪ Discounted cash flow (DCF) analysis showed ROI in 5 years

Barriers & Facilitators

- **Technical**: interoperability between different systems, integration between providers, infrastructures

- **Legislative**: normative frameworks on privacy issues and E-health promotion

- **Economic**: financing and incentive systems

- **Social**: digital skills of professionals and patients, service delivery organisation, cultural acceptance of E-health tools (by patients, professionals and management)

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Implications of E-health adoption

- Patients and family caregivers can become more **empowered**

- Practitioners and specialists can work in a more **coordinated** and **integrated** way

- Continuous **contacts** and **monitoring** of patients are possible, especially in more severe cases

- **Access** to and **equity** of healthcare systems can be improved overcoming existing health, socio-economic and geographical inequalities

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Final considerations

- Opportunity to **invest** for improving healthcare systems

- **Win-win situation** for patients, professionals and healthcare systems

- More **evidence-based practice and policy** exploiting the already recognised potential of E-health

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Thank you for your attention!

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