Addressing the Challenge of Integrated Care through Digital Technology

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The Context

- Chronic diseases are the main reason for poor health and restricted activity, affecting over one third of Europe’s population and accounting for 70% of healthcare expenditure in Europe.

- Ageing is associated increased accumulation of multiple chronic conditions known as multi-morbidity, including a growing number of functional and cognitive impairments.
  - More than half of all older people have at least three chronic conditions, and a significant proportion has five or more
The clinical management of patients with multi-morbid chronic conditions is much more complex and time-consuming for the healthcare system.

Further burden on social care services to enable such patients perform everyday activities, supported by informal carer or home / community care services.

Long-term care needs experience shortcomings, especially within and between health and social care delivery organisations.
Digitally-Enabled Integrated Care

- At present, it is suggested that there is no ‘single model’ that can be applied universally to achieve care services for people with complex needs.

- Integrated Care, defined as “the management and delivery of health services so that citizens receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system”, can potentially provide such a coordinated approach.

- Digitally-enabled approaches can provide more adaptive and radical solutions to the provision of integrated care.
C3-Cloud will establish an ICT infrastructure enabling a collaborative care and cure cloud to enable continuous coordination of patient-centred care activities by a multidisciplinary care team and patients/informal care givers.

- **Collaborative creation and execution of personalised care plans** for multi-morbid patients through systematic and semi-automatic reconciliation of clinical guidelines.
- **Decision Support** for risk prediction and stratification, recommendation reconciliation, poly-pharmacy management and goal setting.
- **Fusion of multimodal** patient and provider data.
- **Integrated Terminology Server** with advanced semantic functions will enable meaningful analysis of multimodal data and clinical rules.
- **Active patient involvement** and treatment adherence evaluation.
- To demonstrate feasibility, pilot studies will focus on diabetes, heart failure, renal failure, depression in different comorbidity combinations. (3 European regions)
Digitally-Enhanced Tools in C3-Cloud

- Patient and informal care givers Empowerment Tools
- Connected Health – integrating information systems
- New organizational and care pathway models
- Chronic, multi-morbid disease self-management models
- Digitally-enabled Clinical Guidance
- MDT Communication Tools

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Summary

- C3-Cloud will provide generic digital tools for more advanced integrated care options in Europe.
- The impact of digital technology and information can be transformative for healthcare.
- The benefits to individuals and society are multiple. People’s health journeys are better understood and appropriate lifestyle choices can be better tailored and promoted to the individual.
- In the case of chronic conditions, disease management can be more effectively supported and avoidable deaths can be prevented.
Thank You

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