Regional projects evaluated for the cookbook for large scale coordinated care and telehealth deployment

Introduction
An increasing amount of people today are living with one or more chronic conditions, putting pressure on healthcare systems across the world. In the European Union 70% to 80% of healthcare costs are spent on chronic diseases corresponding to a €700 billion financial burden.

The Advancing Care Coordination & Telehealth Deployment (ACT) Program brought together a pan-European consortium of leading companies, universities, hospitals and healthcare authorities. The consortium’s objective was to overcome the structural and organizational barriers to the deployment of care coordination and telehealth and address the challenges created by aging populations and the consequent rise in the prevalence of chronic conditions. Initiated in February 2013, the 2.5 year program helped define best practices in this field.

The ACT program evaluated five EU regions: Lombardy, Basque Country, Catalonia, Northern Netherlands, and Scotland. By observing the organizational setup and data from running regional care coordination and telehealth services in each region, the ACT program started to identify good practices, structures, and ways of working, revealing the processes needed to help reduce hospital admissions, days in the hospital, and mortality rates.

The information and conclusions in the ACT program cookbook aim to support large-scale deployment of CC&TH solutions across Europe, potentially transforming care for millions of chronically ill people and saving the healthcare systems billions of euros each year.

The main findings of the ACT-program explained:

- **Patient needs single point of contact**
  Patients feel lost when they need to coordinate with several institutions, care professionals and diverging advices. Connected care programs that assign a single point of contact to the patient perform better in patient reported outcomes than those who do not. Connected care programs integrate the care for people with chronic conditions and thus bring together the various care providers involved, such as the general practitioner, clinician, home care nurse or social services.

- **Staff engagement**
  For connected care programs to be successful staff has to be involved from the start and needs to be trained on the new way of working and convinced about the policies and understand the benefits that connected care brings to patients. In programs where staff

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1. European Commission, Reflection Process on Chronic Disease
understanding and engagement levels were high patient adherence was better compared to programs with lower engagement scores.

- **Preventative health programs outperform reactive care**
  Programs that performed risk stratification at a population level and implemented preventative health programs for those at risk showed a more favorable transfer of resource utilization from hospitals to primary care. These results reveal clear potentials for better care and cost savings, once reimbursement structures are aligned with this proactive approach.

- **Lack of standardization and interoperability**
  Lack of standardization of data collection and interoperability prevents systems from being compared and performance from being measured based on data-driven performance indicators. This results in the inability to leverage programs beyond local pilots and prevents benchmarking. European efforts should concentrate on agreeing on evaluation of performance indicators and promote the use of standardized evaluation processes.

**Regional Programs**

**Catalonia**

*Chronic Patient Program – Badalona Serveis Assistencials*

Badalona Serveis Assistencials (BSA) is an integrated private care organization which has been responsible for health and social care services in this area of Barcelona since 2000. Badalona City council included social care under the BSA service provision which fostered a new model that puts the needs of citizens and patients at the center of the system. Within this context, BSA launched the Chronic Patient Program, the main objective of which is to offer an integrated care model through the provision of social and healthcare services. This is provided for patients with multiple chronic conditions, based on the optimal use and integration of resources. The purpose is to identify patients in a proactive way, rather than wait for their institutionalization. This model has a demographic focus, allowing care units to provide a better service to patients with chronic conditions.

- **Good Practice:** Foster good relationships between different care providers and specialties.

*Program for Prevention and Treatment of Chronicity (PPAC) with HF patients – Alt Penedès*

The Program for Prevention and Care of Chronicity (PPAC) provides a new model of health and social care for the Catalan people, with a focus on long-term conditions like heart failure, COPD, and diabetes mellitus. PPAC was launched by the Catalan Ministry of Health and the Ministry of Social Welfare and Family. PPAC aims to develop comprehensive clinical processes for those chronic conditions and construct integrated care pathways for hospital, primary care centers, nursing home facilities and social services.

- **Good Practice:** The use of a specific contact person to coordinate care as part of a patient-centered model of care.
Scotland

Home safety service

With the growing elderly population, there is a need to transform the current services, and shift the focus to more personalized outcomes. The Scottish Government uses Telecare to: “support as many people as possible to live at home for as long as they want to, in comfort and safety, with the best possible health and quality of life.” HSS provides technology to enable independence and social inclusion, providing mostly Telecare equipment, helping increase safety and security for disabled, elderly, and vulnerable people in their own homes.

- **Good practice:** Using technology for real-time interaction between patient and relevant healthcare services gives patients reassurance and increases their ability to make decisions about their own care.

Re-ablement

Rehabilitation is a core element in the delivery of the Scottish Executive’s plans to improve the health and well-being of the population of Scotland. Re-ablement and a 24/7 crisis-care service aim to prevent unnecessary hospital admissions, support timely discharge, promote faster recovery, and anticipate future needs. Re-ablement provides initial short term intensive support in order to allow the individual to build upon their skills and abilities, to help them become as independent as possible.

Rapid Elderly Assessment Care Team (REACT)

An important hallmark of a caring and compassionate society is to enable people to live independent lives, with meaning and purpose. This is a fundamental principle of social justice, and a core element of West Lothian’s strategy to reshape healthcare and support services for older people, especially for those living with chronic conditions. The REACT program manages demands by supporting people to remain at home and avoiding the need for unplanned admissions. The REACT service was designed to support agreed national performance targets by reducing the rate of unplanned in-patient bed days for people aged 75 and over, reducing admission and emergency visits for patients over 75, and reducing delayed discharges.

Northern Netherlands

Embrace

Despite an array of health services, older adults do not always receive appropriate and coherent care, which can lead to adverse drug events, difficulties with participation in treatment, and even treatment errors. Embrace reflects four key Chronic Care Model (CCM) elements, including: self-management support, delivery system design, decision support, and clinical information systems. Within the context of the community and health care systems, these four components are combined with the Kaiser Permanente (KP) triangle. This population health management model classifies older adults living in the community.

- **Good practice:** Empower staff to shape development through the project lifespan.

Asthma/COPD Telehealth Services

Worldwide approximately 300 million people have asthma and 65 million people suffer from moderate to severe COPD, and in the Netherlands, 60% to 80% of these patients are treated by their general practitioner. Patients are only referred to the pulmonologist in the case of
uncontrolled asthma or severed COPD. Diagnosing and distinguishing asthma from COPD is difficult since they have overlapping symptoms, and is further complicated by asthma-COPD overlap syndrome (ACOS). The Asthma/COPD (AC) telehealth management support service helps GPs examine patients and provides detailed advice from pulmonologists to the GPs. It is accurate, comprehensive, and short enough to be used by the GP in daily clinical practices.

- **Good practice:** Better diagnosis and treatment by improving communication between primary and secondary care.

**Effective Cardio**
The continuing aging population is expected to increase the prevalence of heart failure in the Netherlands from 120,000 in 2008 to approximately 200,000 in the coming decade. Guidelines of the European Society of Cardiology (ESC) recommend a multidisciplinary approach that coordinates care along the continuum of CHF. Effective Cardio builds on the optimization of coordinated care in four steps: formulate clear goals (create sense of urgency, ensure commitment and leadership, deploy people from own organization); design the process in the care pathway (organize referral from primary to secondary care, organize the diagnostic process, set up a treatment plan including telemonitoring, organize information regarding titrating up, make a follow up plan); determine the conditions for implementation (optimize IT support, contemplate using a Medical Service Center); and secure the newly designed measure outcomes (develop reports on the process and outcomes, benchmark process and outcome data).

- **Good practice:** telemonitoring services as integral part of the care pathway optimization for patients with chronic conditions.

**Basque Country**

**Active Patient**
Chronic conditions are the dominant epidemiological pattern in the Basque Country, and the incidence of type 2 diabetes mellitus has increased in the region in recent years. A main priority is to improve the prognosis of patients with DM and reduce its high morbidity. The Active Patient program for diabetic patients and staff is based on Stanford methodology, which provides workshops in self-management of diabetes. This program provides information and trains patients skills in self-care and disease management, and provides educational sessions that help patients better understand their disease and take responsibility for their health.

- **Good Practice:** Overlap the aims of staff engagement with patient adherence.

**Population Intervention Program of Multimorbidity**
Compared to patients with only one chronic disease, frail and elderly patients with multimorbidity are responsible for around 49% of the total health costs. They have complex health and social care needs, are at risk from multiple admissions to hospitals or residential care homes, and require a range of high level interventions due to their frailty and multiple chronic conditions. The program aims to improve health and social outcomes with a population approach, and define common and shared pathways between different levels of
care and common objectives.

- **Good Practice**: Patients are stratified to allow for more proactive and efficient care.

*Population Intervention Program of Diabetes*

The Basque Population Intervention Plan for diabetes is a service designed for patients with medium to high risk of health events with special focus on those that their glycemic level are out of the threshold. Managers report that patients are more satisfied with the quality of care they receive. Improving the prognosis of patients with DM and reducing its high morbidity is a priority around the world and it calls for an integrated action on risk factors. This requires the application of a correct therapeutic plan, which is properly organized with an adequate coordination between levels of care. The program involved healthcare professionals from different levels of care and settings and depending on the status of the patient, the activities performed and agents involved varied.

- **Good Practice**: Adequate tools of coordination of primary and secondary healthcare services.

*Lombardy*

*Chronic Related Groups*

The Lombardy region (population 10 million), with over 4.6 million patients living with non-communicable diseases (NCD), most of whom are aged >65 years. Based on recent data shared by Lombardy Region, the percentage of patients with a chronic condition increases dramatically between 40 and 80 years of age. Care for older people uses a high percentage of overall care costs. The regional government launched the Chronic Related Groups program which promotes continuity of care in patients with COPD, hypertension, cardiovascular diseases, type 2 diabetes or other comorbidities. By providing an appropriate care plan, the goal is to reduce implicit costs related to avoidable hospitalizations and acute events.

- **Good Practice**: Empower patients to ensure they agree and commit with care plans.

*Chronic Related Groups – Telemonitor*

Patients participating in the Chronic Related Groups program were risk stratified to identify the most vulnerable patients within the region. High-risk patients used a telemonitoring service, through which vital signs were monitored daily. If significant deviations from healthy values were identified, a Service Center intervenes, and the GP can take action as needed.