

Policy expectations for a Joint Action on the implementation of digitally enabled integrated person-centred care

At the EU level, in the Communication on "enabling the digital transformation of health and care in the Digital Single Market"¹ the Commission commits to measures for building the capacity of national and regional authorities to organise and deliver integrated person-centred care. Fulfilling this commitment will address the need for technical assistance to the demand side of health reforms and digital transformation of healthcare. This is in recognition of the fact that the transformation of health systems is complex and one of the pre-conditions to achieve it is having the required knowledge and capacity on how to design, and successfully implement digitally enabled integrated person-centred care solutions.

The aim of this Joint Action is to focus on reinforcing the capacity of care authorities to address successfully important aspects such as:

- change management and re-organisation of the existing care models
- embedding digital technologies and tools in care services
- re-organisation of patient pathways
- health workforce roles and skills with digital technologies and data
- building the capacity of individuals and communities to participate in the care process
- citizen empowerment
- use of patient reported data
- new payment methods
- and performance assessment of new care models

The Joint Action shall aim to achieve the above through best practice transfer and with practical means, for example, with activities to prepare the local environment for implementation and purposely designed "twinning actions" such as dedicated seminars and workshops, study visits, short-term secondment visits, face-to-face meetings, mentoring from experts in the domain, availability of tools and knowledge resources etc.

This Joint Action shall involve entities that are directly organising and delivering care at national and/or regional or local level. This will be one of the key elements to ensure it reaches the objectives stated above. Particular attention will be paid to this element when preparing the Joint Action.

The Joint Action is expected to build upon input from earlier work in the EU Health Programme, the EU Framework Programmes for Research and Innovation as well as EU initiatives such as the European Innovation Partnership on Active and Health Ageing (EIP AHA). Examples include, for instance:

¹ COM(2018) 233 final

- Tools for deploying integrated care stemming from EU projects (e.g. ACT@Scale and SCIROCCO), SANTE's Integrated Care Resource Centre and the work of the EIP AHA
- Guidance on how to design, implement and assess integrated care, from the work of the EU expert group on Health Systems Performance Assessment
- Guidance on the transfer and scaling-up of good practices, developed by the Joint Action CHRODIS
- Guidance for best practice transfer derived from the twinning projects SCIROCCO Exchange and VIGOUR
- Guidance concerning the management of multi-morbidities produced by the Joint Actions CHRODIS and CHRODIS Plus
- Suggestions regarding health workforce planning and skill-mix, prepared by the Joint Action on Health Workforce Planning and Forecasting and the project SEPEN
- Recommendations and tools from the current Joint Action eHAction

Following the meeting of the Steering Group on Health Promotion and Prevention and Management on Non-Communicable Diseases (SGPP)², the transfer of a number of good practices will take place with the support of this Joint Action. The selected practices are the following, with short descriptions provided in the accompanying document:

- Basque Health Strategies in ageing and chronicity: integrated care (Spain),
- Catalan open innovation hub on ICT-supported integrated care services for chronic patients (Spain),
- The OptiMedis Model – Population-Based Integrated Care (as implemented in Gesundes Kinzigtal) (Germany) and
- Digital roadmap towards an integrated health care sector (Region of Southern Denmark, Denmark)

Activities under this Joint Action are expected to:

- 1) **Reinforce the capacity of health authorities to successfully address important aspects of health system transformation**, in particular the transition to digitally-enabled, integrated, person-centred care. This will be through transfer of knowledge, technical support and use of tools and guidance derived from collaborative activities at EU level. In particular, the Joint Action will give the interested authorities (the “**next adopters**”) an opportunity to establish working contacts with owners of the above-mentioned practices who have experience in transforming their health systems (the “**early adopters**”). The participating entities from the “next adopter” authorities should be **organisations with direct responsibility for organising and delivering care**. The Joint Action will support activities enabling contact between the “next

² Minutes of the SGPP meetings are published on this page:
https://ec.europa.eu/health/non_communicable_diseases/events_en#anchor0

adopters” and the “early adopters” to learn how to prepare and execute the complex task of health system reform. These activities shall result in improving the capabilities of the “next adopters” to implement in their respective health systems the practices chosen by the SGPP (or their significant elements).

- 2) **Support the best practice transfer** from the systems of the “early adopters” to the ones of the “next adopters”. Such transfers will need preparation of the latter, like modification of their organisational structure, new financial arrangements, different allocation of tasks to particular health professionals, implementation of appropriate ICT solutions etc. This shall happen with the help and experience of the “early adopters” in transforming health systems and the profound knowledge of the “next adopters” of the local context of their respective systems. Exchanges between both sides will be possible thanks to various means like designed “twinning actions” such as dedicated seminars and workshops, study visits, short-term secondment visits, face to face meetings, mentoring from experts in the domain, availability of tools and knowledge resources etc. As a result, during the Joint Action, pilot projects implementing the above-listed practices chosen by the SGPP (or their significant elements) should be carried out in the systems of the “next adopters”. If Member State authorities responsible for organising and delivering care (“next adopters”) decide to scale-up the pilots after the end of the Joint Action, their increased capacity to implement (realised in point 1 above) will enable them to do so.

Description of selected Good Practices on digitally-enabled, integrated, person-centred care

Title of the practice	Basque Health Strategies in ageing and chronicity: integrated care
Owner(s) of the practice	Basque Government Department of Health. Contact person: Esteban de Manuel Keenoy. Director of Kronikgune: edemanuel@kronikgune.org
Location of implementation	Basque Country, Spain
Target group	Frail adults and Patients with multi-morbidities
Number of people served by the practice	12,000 people receive the services of the multi-morbidity care pathway. The target for 2019 is 18,000 patients.
Short description	It is a population model focus based on preventive interventions, patient empowerment, and personalised medical care, with emphasis towards continuity of care, security, adherence and improving the patient experience. It includes “Integrated Care Organisations” (ICO) with Joint Governance bodies for primary care and hospital, with a defined population catchment area, multidimensional assessment and action in people aged 70 or older (Care Plan for the Elderly). It includes risk stratification and care plans based on needs of complex patient, new nursing roles such as liaison nurses and case managers, safety in polypharmacy management, patient empowerment and self-management and social and health coordination. It is supported by an eHealth strategy and a 24x7 Nursing Call Centre.
Level of care integration	Integration of structural (ICO) and care pathways. Integration takes place at disease management, case management or population-levels. There is a defined strategy for coordination of health and social care.
ICT technologies used	Web Portals, Unified Electronic Health Record, Electronic Prescription, Personal Health Folder, Telemonitoring (both telehealth and telecare), mHealth, Risk Stratification and Data Analytics (Business Intelligence)
Evidence of impact	Data of January-June 2018 (comparison in % with January-June 2017): <ul style="list-style-type: none"> • 91,310 calls made to the eHealth centre (4.5% increase) • 11,580 Patients in Telemonitoring Programmes (18.92% increase) • 1,183,026 web appointments (13.21% increase) • 981,849 telephone visits in Primary Care (3.27% decrease) • 152,857 telephone visits in hospitals (14.3% increase) • 265,585 accesses to the Personal Health Folder (42.4% increase) • 66,438 digital consultations between professionals from primary and specialized care (33% increase) • 2016 data show 12.2% less hospital days for multi-morbid patients (MMP) and a MMP Readmission rate decreased by 16.7%
Lessons learnt	<ul style="list-style-type: none"> • Account for stakeholders' needs when defining organisational models. • New care pathways have to be integrated into day to day practice. • Involvement of decision-makers facilitates new organisation and working procedures and encourages up-taking new responsibilities. • eHealth key strategy: unified EHR, ePrescription, eHealth Call Centre... • Learning curve: It takes time and resources, facilitate them!
Links for detailed information	http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/how_to.pdf (pages 90-92)

	https://www.scirocco-project.eu/basque-country-b6-care-plan-for-the-elderly/ https://www.act-at-scale.eu/wp-content/uploads/2014/08/ACT@Scale-Telehealth-and-Care-Coordination-Lessons-Learned-WHINN-2017.pdf (pages 12-13) https://www.scirocco-project.eu/basque-country-b5-design-implementation-of-interventions-aimed-at-improving-the-safety-of-prescription/
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Title of the practice	Catalan open innovation hub on ICT-supported integrated care services for chronic patients
Owner(s) of the practice	AQuAS - Toni Dedeu, MD, PhD (<i>tdedeu@gencat.cat</i>) IDIBAPS - Josep Roca, MD, PhD (<i>jroca@clinic.cat</i>)
Location of implementation	Region of Catalonia (7.5M citizens), Spain (ES)
Target group	Chronic patients with focus on multimorbidity management and on coordination with social support and dependence
Number of people served by the practice	Whole population, focus on Complex Chronic Patients (CCP) and Advanced Care Disease (ACD): 210,000 patients, 66% coverage. Full coverage in 2020.
Short description	Core targets of the Catalan Health Plan 2016-2020 are: <i>i)</i> maturity of comprehensive digital health services, <i>ii)</i> consolidation of achievements of the period 2011-2015; and, <i>iii)</i> multilevel clinical risk assessment with a preventive approach considering Adjusted Morbidity Groups (GMA) as the population-health tool. Within this umbrella, innovative practices continuously emerge both for testing and large scale deployment. Five selected examples are: <ul style="list-style-type: none"> - Collaborative self-management services promoting healthy lifestyles. - Programme for complex chronic and frail patients. - Complex patient management linking tertiary care and community. - Healthcare support programmes for nursing homes. - Integrated care for admission avoidance of subacute and frail patients.
Level of care integration	Encompasses both vertical (specialised vs. community-based care) and horizontal (healthcare vs. social support) integrations. Combines a population-health orientation with a collaborative adaptive case management approach.
ICT technologies used	Fully deployed: <i>i)</i> regional Health Information Exchange platform (HC3), <i>ii)</i> Personal Health Folder (La Meva Salut); <i>iii)</i> ePrescription; and, <i>iv)</i> Population-based registries & GMA scoring system. In development: Multi-level clinical predictive modelling & Clinical/Patient Decision Support Systems (CDSS/PDSS).
Evidence of impact (2011-2015)	<ul style="list-style-type: none"> - Health-preserved expect. survival to expect. survival ratio: from 78 to 82.1% - Percentage reduction of referrals to specialised care: - 50% - Reduction of hospitalisations: - 7,500 admissions - Reduction of 30-day re-admission rate in chronic patients: -9% (13% cases) - Reduction of emergency room admissions in chronic patients: -40% - Reduction in mortality rate of cardiovascular and respiratory disorders: - 15% - Improvement of activity of home hospitalisation: + 53% (12,600 cases/yr.) - Improvement of activity of palliative care: 100% coverage

	- Improvement of coverage of ePrescription: 97% population
Lessons learnt	<ul style="list-style-type: none"> - Promote ICT-supported value-generating services with a preventive focus. - Develop & apply innovative evaluation methods in real world settings. - Develop multilevel subject-specific risk predictive modelling feeding CDSS/PDSS. - Develop & implement cloud-based computing environments. - Refine application of the regulatory frame for evaluation in real-world settings.
Links for detailed information	<p>NEXES/MECASS: http://publications.jrc.ec.europa.eu/repository/bitstream/JRC93931/lfn27056enn.pdf http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/how_to.pdf (p. 100-104)</p> <p>NEXTCARE (deployment programme of five initiatives, COMRDI15-1-0016, 2016-2019): http://www.nextcarecat.cat/publications.htm</p> <p>Catalan Health Plan 2011-2015: http://salutweb.gencat.cat/web/.content/home/el_departament/pla_de_salut/documents/arxiu/health_plan_english.pdf</p> <p>Catalan Health Plan 2016-2020: http://salutweb.gencat.cat/web/.content/home/el_departament/Pla_salut/pla_salut_2016_2020/Documents/Pla_salut_Catalunya_2016_2020.pdf</p>

Title of the practice	The OptiMedis Model - Population-Based Integrated Care (as implemented in Gesundes Kinzigtal)
Owner(s) of the practice	OptiMedis AG, Hamburg, Germany. Represented by Dr Oliver Gröne, PhD MSc, Vice-Chairman of the Board, OptiMedis.
Location of implementation	Germany (Kinzigtal, Hamburg, Werra-Meißner)
Target group	The model focuses on population health management, addressing both major chronic diseases groups as well as patients at-risk in the community
Number of people served by the practice	Current coverage Kinzigtal: 30,000. Current coverage Hamburg: 50,000. Werra-Meißner: scale-up target: 35,000 (2019)
Short description	OptiMedis AG is a management company of integrated care networks, providing advanced data analytics and designing innovative care models with a focus on population health management. Its aim is to achieve the Quadruple Aim, improving population health, improving the patient experience of care, reducing unnecessary costs and ensuring provider satisfaction. The basis of its work is a shared savings contract with insurers and a model including strong stakeholder engagement, electronic integration across providers, patient involvement and empowerment, and data-driven management. The model focuses on patients with high needs and high costs, but also emphasises prevention, health promotion and public health to generate value for the population in the long run.
Level of care integration	Integration of primary care and specialist care, nursing home care and (expected from 2019) hospital care under an innovative regional health care budget model. <u>Integration Level</u> : population-oriented integrated care

ICT technologies used	Electronic records shared between primary care physicians and specialists, comprehensive data warehouse infrastructure to run advanced data analytics (algorithms to indicate over- and under-utilisation, prediction tools).
Evidence of impact	External scientific evaluation: Longitudinal study with non-randomised control group based on health insurers' claims data from the years 2004–2011. Fifteen out of the 18 indicators related to overuse or underuse; three related to an outcome, namely avoidable hospital stays, the appearance of fractures in patients with osteoporosis, and mortality. Two out of 5 indicators for overuse and 2 out of 10 for underuse showed significant improvement for the intervention population relative to the control group. The risk of a fracture in patients with osteoporosis (HR: 0.809; 95 % CI: 0.740 to 0.885; p < 0.0001) and mortality (HR: 0.944; 95% CI; 0.899-0.991; p = 0.0194) were significantly lower in the Kinzigtal population. No negative trends were found. Total cost savings from 2007-2016: €41.7 million (yearly costs savings around 5%).
Lessons learnt	<ul style="list-style-type: none"> • Start up investment needed to cover operations in the first 2-3 years, then sustainable business model based on shared savings contract • Regional integrated care network becomes a test-space for a wide range of digital & health innovations and public health interventions • Possible to reach the Quadruple Aim, but importance of advanced data analytics to support every system change
Links for detailed information	http://publications.jrc.ec.europa.eu/repository/bitstream/JRC93763/jrc93763.pdf https://healthpolicy.duke.edu/sites/default/files/atoms/files/germany_25jan2017.pdf https://www.local.gov.uk/sites/default/files/documents/kinzigtal-funding-flows-a-3fc.pdf

Title of the practice	Digital roadmap towards an integrated health care sector
Owner(s) of the practice	Representing the Region of Southern Denmark and the initiatives is The Health Innovation Centre of Southern Denmark. Project Manager Lise Døj-Bendixen is the official contact person.
Location of implementation	The initiatives are all located within the Region of Southern Denmark in Denmark
Target group	The initiatives all target patients with chronic conditions
Number of people served by the practice	540,000 as we include all citizens in the Region that are in contact with the hospital during a year
Short description	The overall roadmap consists of different parts of an integrated and digital patient-centred approach. The foundation is the SAM:BO, which is a regional collaboration agreement between all actors in the health care sector in the Region. The goal of the agreement is to ensure cohesive and integrated patient experiences and the result is among other elements patient care pathways, which are based on nationally adopted standards with more than 65,000 standardised electronic messages transmitted daily in the Region. On top of this foundation are a number of services, such as the Generic Telemedicine Platform, Digital Health Centre, Tele-COPD and Tele Psychiatry. The common feature is using technology to bring more flexibility and quality to the patients as well as using the clinical resources better.
Level of care integration	In the overall initiative the aim is to involve all parts of the health care sector, including hospitals, municipalities providing social care, general practitioners

	and patients. This falls under Population-oriented integrated care.
ICT technologies used	Standardised electronic messages connect the different Electronic Health Records in the three sectors and are communicated to the patients through national platforms, portals or applications. Telemonitoring is also used.
<i>Evidence of impact</i>	<ul style="list-style-type: none"> - 59% of patients with diabetes have healthier eating habits after using Digital Patient Education and the solution is more cost-effective than traditional patient education. - In a COPD-telemedicine project it was found that after 28 days the readmission rate dropped 14%, and the length of readmission was reduced by 1.43 days. - In Mastermind, a tele-psychiatric solution, in total 29% of patients were reported to experience a reduction in depressive symptoms.
Lessons learnt	<ul style="list-style-type: none"> - Important to have organisational agreements in place first - Participatory design is of value when designing patient solutions - A common infrastructure is an important back-bone - Innovation should be driven from the clinic - Cultural change takes time
Links for detailed information	<ul style="list-style-type: none"> - http://www.healthcaredenmark.dk/ (learn more about Danish healthcare) - Tele-COPD - Digital Health Centre - http://mastermind-project.eu/ (Mastermind project) - https://gtp-rsyd.dk/geri-toolbox/ (The geriatric tool-box project based on The Generic Telemedicine Platform) - https://www.regionsyddanmark.dk/wm228983 (The Region of Southern Denmark) - https://www.medcom.dk/medcom-in-english (MedCom - infrastructure provider)