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## CONFERENCE ABSTRACT

"Feeling loss of control": The experiences of informal carers of people at the end of life  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Informal carers play a vital role in caring for palliative and end of life care patients and as such need to be adequately supported. Hospice Isle of Man sought to understand the experience of carers to ensure services meet their needs. The aims of the study were to identify the support carers access and value; the factors that assist or hinder accessing support; and to understand carer wellbeing.

### **Methods**

Using a mixed methods study design, a survey was developed based on carer reported outcome measures (Michels et al., 2016). Data were collected on demographics and domains of the carer experience using multiple choice questions with an option to comment on the answer. Physical and emotional well-being were measured using a Likert scale of 0 to 10 (excellent). Surveys were distributed by clinical staff to carers of patients on their caseloads between November 2017 and February 2018. Descriptive statistics were conducted. Statistical significance was set at  $\alpha=0.05$  and tested using a Student's t-test when comparing two group means and the Pearson's Chi-squared test for proportions. Thematic analysis of the comments was carried out according to the phases outlined in Braun and Clarke, 2006.

### **Results**

A total of 44 carers returned the survey. The average age of carers was  $58.0 \pm 17.1$  years, ranging between 7 to 84 years, 66% were female, 50% were retired and 20% were in paid work. Carers were a spouse or partner (68%) or children (23%) and 89% were living with the person. Fewer carers rated their physical health below 5 compared to emotional health (25% and 39%, respectively). The majority (68%) sometimes felt "out of control" since their loved one's illness (32% said never or rarely). The median number of years caring was 2, range <1 to 18 years. Qualitative analyses highlighted themes of feeling "dictated to by the illness" and having "no free time" and "unable to leave". Years of caring (<1, 1-3, 4+) was associated with the inability to engage in activities outside of caring (most, some, or few) ( $p=0.02$ ). For those caring for <1 year, 57% were able to do "few" activities compared to 8% of carers who had been caring for 4+ years. Half of carers received "some" or "little" support from their family and friends. Services provided "some" assistance to 61% of the carers, "a lot" to 32% and "a little" to 7%. Carers valued responsiveness, access to out of hours, information and reassurance. Analyses revealed difficulties in asking family for support and found practical support from external agencies to be vital. Despite these challenges, 57% of carers described the role as fulfilling.

### **Discussion/Conclusion**

Carers of patients on the Hospice caseload heavily rely on services, and not families, for support. Support should be tailored to the stage of caring with greater emotional support needed. Service strategies need to recognise that although carers face challenges, they also find fulfilment and they need to support carers in ways to mitigate their feelings of loss of control.

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## CONFERENCE ABSTRACT

A Clinical Teaching Blended Learning Program to Enhance Registered Nurse Preceptors' Teaching Competencies: Pretest and Posttest Study  
ICIC20 Virtual Conference – September 2020

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### **Background**

Clinical nursing education provides opportunities for students to learn in multiple patient care settings, receive appropriate guidance, and foster the development of clinical competence and professionalism. Nurse preceptors guide students to integrate theory into practice, teach clinical skills, assess clinical competencies, and enhance problem-solving and critical thinking skills. Previous research has indicated that the teaching competencies of nurse preceptors can be transferred to students' clinical learning to enhance their clinical competencies.

### **Objective**

This study aimed to develop a clinical teaching blended learning (CTBL) program with the aid of web-based clinical pedagogy (WCP) and case-based learning for nurse preceptors and to examine the effectiveness of the CTBL program on nurse preceptors' clinical teaching competencies, self-efficacies, attitudes toward web-based learning, and blended learning outcomes.

### **Methods**

A quasi-experimental single-group pretest and posttest design was adopted. A total of 150 nurse preceptors participated in the CTBL program, which was conducted from September 2019 to December 2019. A set of questionnaires, including the clinical teaching competence inventory, preceptor self-efficacy questionnaire, attitudes toward web-based continuing learning survey, and electronic learning experience questionnaire, was used to assess the outcomes before and after the CTBL program.

### **Results**

Compared with the baseline, the participants had significantly higher total mean scores and subdomain scores for clinical teaching competence (mean 129.95, SD 16.38;  $P < .001$ ), self-efficacy (mean 70.40, SD 9.35;  $P < .001$ ), attitudes toward web-based continuing learning (mean 84.68, SD 14.76;  $P < .001$ ), and blended learning outcomes (mean 122.13, SD 14.86;  $P < .001$ ) after the CTBL program.

Conclusions: The CTBL program provides a comprehensive coverage of clinical teaching pedagogy and assessment strategies. The combination of the WCP and case-based approach provides a variety of learning modes to fit into the diverse learning needs of the preceptors. The CTBL program allows the preceptors to receive direct feedback from the facilitators during face-to-face sessions. Preceptors also gave feedback that the web-based workload is manageable. This study provides evidence that the CTBL program increases the clinical teaching competencies and self-efficacies of the preceptors and promotes positive attitudes toward web-based learning and better blended

learning outcomes. The health care organization can consider the integration of flexible learning and intellect platforms for preceptorship education.

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## CONFERENCE ABSTRACT

A compassionate communities' programme to support volunteers to be carers at the end of life  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Volunteers are engaged in co-designing Compassionate Isle of Man along with the Programme Lead in Hospice Isle of Man. Volunteers sit on the Steering Committee which includes Third sector and statutory organisations and the Community Development Group to plan the project and also use their own lived experience to use and manage the Facebook site which informs the public about the programme.

End of life care requires a sensitive approach and emotional preparation in order to support people in difficult times. Compassionate Isle of Man uses a bottom up approach which drives discussion and participation rather than more autocratic styles of organisation. The aim of this study was to use this approach to develop a training package for volunteers and to support them to act as carers for those with life limiting illnesses in the community. A longer term aim is to evaluate the impact of this package on the volunteers' wellbeing.

### **Methods**

The training package was co-designed with 25 volunteers based on discussions about end of life care and their previous life experiences. It includes learning how to use social media, safety issues such as lone-working and reporting problems, loss and bereavement, adult and child protection, GDPR/confidentiality, and personal wellbeing. The volunteers are also trained in using personal protective equipment, patient mouth care and dementia awareness. A 'WhatsApp' group was set up to communicate with the volunteers and they are provided with a handbook of the contents of the course. The training package was delivered over several months. Debrief sessions follow every episode of support in the community using a strengths-based approach in which, for example, they draw out common themes from their supportive experience and written reflections are discussed. The lessons learned are incorporated into further training.

The evaluation uses a mixed methods approach with qualitative data from diaries and interviews and also a set of questionnaires: a brief intake questionnaire to capture basic demographic characteristics (age and sex) and open-ended responses to four key questions on their reasons for and expectations of volunteering, the Warwick-Edinburgh Mental Wellbeing Scale, the Short Form – 6 Dimensions (SF-6D) health-related quality of life measure and a visual analogue scale designed to measure empowerment. The group has an embedded researcher to document real time observations.

### **Preliminary results/conclusions**

Training began in October 2018. The first person supported in the community was in June 2019 and, to date, about 20 volunteers have provided 140 hours of support. The group has initiated their

own coffee mornings and now uses the 'WhatsApp' group for peer support. Baseline wellbeing and empowerment data has been collected; results of the evaluation will be presented in April 2020.

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CONFERENCE ABSTRACTA Practice-proven, Collaborative, Purely Meta-model-based Adaptive Case Management Approach  
for Integrated Care

ICIC20 Virtual Conference – September 2020

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**Background**

Demographic changes are leading to population ageing in Europe. Elderly patients, aged 65 years or older, are frequently affected by multiple chronic diseases. Simultaneously, insufficiently coordinated treatments can cause undesired side effects. Traditionally, such patients consume a disproportionally high share of health-care resources. Integrated care is widely acknowledged to be a promising approach, but in practise, adequate generic tool support for integrated care is still missing. Such care faces multifaceted challenges with regulatory, organizational and technical aspects, whereas the following high-level challenges are the most critical regarding generic tool support. First, highly context-dependent unpredictable treatments are caused by uncertainties and interruptions typical of knowledge-intensive work. Second, the heterogeneity of available health-care services hinders the required exchange of semantic information. Third, coordination across multiple organizations and different roles is essential. Traditionally, hospital-specific implementations are inadequate, considering the required effort and low reusability.

**Method**

We implemented an Adaptive Case Management approach for Integrated Care (ACM4IC) that follows a purely metamodel-based method and incorporates communication and coordination capabilities. Its primary aim is to provide tailored, hospital-specific and treatment-specific solutions through metamodel-based adaptations rather than custom hard-wired implementations. Our metamodel-based approach enables customisations across three dimensions. First, a purely metamodel-based integration of third-party health-care services enables easy tailoring hospital-specific solutions. Second, case templates are modelled as a reusable blueprint for particular treatments. A case template is typically structured into identification, evaluation, workplan and discharge stages. These stages contain task models that represent clinical questioners or integrated-care services. These task models represent integrated care services such as patient blood pressure measurement or a drug prescription added depending on the treatment to a case template stage where required. Third, when treating a patient, a case template is instantiated to guide care professionals while enabling flexible runtime adaptations to tailor the case template according to the patient-centred context.

**Results**

Our ACM4IC is being applied in practise within the European Horizon 2020 integrated care project named Personalized Connected Care for Complex Chronic Patients. Conceptually, this project consists of a Smart Adaptive Case Management (SACM) system for medical professionals and a Self-Management (SMS) system for patient empowerment. The SACM system that orchestrates

patient-centric treatment is composed of the ACM4IC with an incorporated decision-support system, whereas the SMS system consists of many micro-services and a mobile application. In the project context, two case studies were conducted in hospitals in Groningen, Tel Aviv and Lleida using the ACM4IC. Case studies and hospital-specific case templates were modelled and continuously adapted since October 2017 while the first patient was admitted in May 2018. Our data represent case studies until mid-May 2019; however, the project will be continued until December end. In approximately 20 months, 44 case template versions for six case studies were modelled and deployed on production while 232 patients were treated in approximately one year.

### ***Conclusion***

Case studies proved the practical applicability of our ACM4IC that enables adaptation of case templates without programming effort ensuring reusability in further hospitals, provides necessary runtime flexibility and incorporates case-based communication and coordination functionality.



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## CONFERENCE ABSTRACT

Action Research Investigating the potential in adhering to the development and design of a new model for LTC based on innovative financing, in the context of countries facing budget cuts in social care.

ICIC20 Virtual Conference – September 2020

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### **Background**

Ageing, replacement and dependency ratios in countries facing budget cuts in social care, constitute a threat as according to the OECD, in 2030 aged population will grow from 18% today to 25% in average. Their healthcare systems suffer from severe budgetary cuts with cuts in social care reaching almost 80% in the recession period.

The need for policy coordination, scaling innovative solutions adapted to a regional context, is imminent while reducing budgetary costs for LTC.

This is an innovative funding model from Rol of health related resources for social care at community scale, integrating care bundle, managed by local PPP with municipal services, including prevention, health at home and rehabilitation as opposed to in-hospital episode-based care. The targeted population is elderly population with disability.

### **Methodology and Results**

- Study of Municipalities' Thermal Springs in South East Europe, as investment assets .
- Five Greek municipalities were shortlisted according to their assets, resources and maturity to adhere to the model.
- Analysis on the local health resources, Evaluation of the Health Tourism potential, Rol estimation, projection covering population health of 30.000, 65+ people.
- Case studies preparation for the Municipalities, with Business and Investment Plans - deliberation.
- Action research tools: participant observation recordings, questionnaire surveys, structured and unstructured interviews, and case studies. Qualitative and quantitative data collection and content analysis from structured and unstructured interview
- Traditional Action research method finalization.
- One municipality adhered and signed an Eol in 2018.

The scope of the study was to observe municipalities in their decision making process and change management, adopting innovative models of LTC. The pilot area was the Municipality of Trikala - the Mayor of Trikala signed an Eol for the proof of concept stage.

### **Discussion**

Difficulty of local staff and mayors to grasp the potential of innovation, due to lack of investment experience, asset management, integrated care and reinvested Rol, managed by a Civil Non Profit PPP company.

Difficulty of the tourism and health municipal administrations to work together on asset based income generation for public health needs. Neither department demonstrated knowledge how to

exploit municipal assets for common policy in LTC, investments. Mayors with lesser experience in innovation management expressed fear for collateral and preferred inertia over complications. Transferability is guaranteed by the proven model's balanced assets to needs of LTC, as well as Sustainability, by the PPP form of the management company, assuring consensus at community level.

### ***Conclusions***

The innovative character of the model was its main limitation. The modernization gap in policies and social care models was the reason that kept back some municipalities from expressing interest. The municipality of Trikala is one of the 20 most innovative cities in Europe, awarded by the European Commission DG Connect.

The mayor is an innovative policy decision maker. He foresaw the needs to adopt innovation, along with the necessary technical, administrative and institutional reforms, in adhering to the model. Working with pioneers, intense awareness and consensus towards cooperation in implementation prove to be key factors.

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## CONFERENCE ABSTRACT

Adolescent Depression Screening and Treatment in Pediatric Primary Care: The Design and Implementation of a Provider Training Initiative through an Integrated Care Partnership  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

In response to a system-wide mental health service gap for adolescents with depression, our integrated behavioral health team trained primary care pediatricians to deliver evidence-based assessment and treatment for depression. Integrated partners were involved in all steps of the design and implementation of the curriculum.

**Practice Change:** The curriculum taught pediatricians to conduct a suicide risk assessment and deliver a brief, evidence-based behavioral protocol to adolescents screened positive for depression. The 90-minute training was conducted using a Behavioral Skills Training (BST) model, a well-researched training approach that incorporates didactic instruction, modeling, and role-play to ensure mastery of new skills. Pediatricians were also provided with ready-to-deliver treatment resources.

**Aim/Theory of Change:** We aimed to promote evidence-based treatment and improve clinical outcomes among adolescents with depression in primary care. Pediatrician perception of feasibility and comfort with implementing the protocols were measured pre and post training and acceptability of the training was assessed post-training.

**Population/Stakeholders:** In 2018, 1469 (12.6%) adolescents seen in primary care were diagnosed with depression. Training participants included 53 pediatricians staffed across 9 primary care clinics. Five of the nine clinics housed integrated, co-located psychologists. Treatment and resources targeted adolescent patients between the ages of 12-18 who screened positive for depression.

**Timeline:** This grant-funded initiative runs from September 2018 to September 2020. Currently 8 of the 9 clinics have received the training, with the remaining training scheduled in October 2019.

### **Highlights**

The training improved provider reported perception of comfort managing depression ( $t=3.30$ ,  $p<.01$ ) as well as perceptions of the feasibility of managing depression ( $t=1.99$ ,  $p=.05$ ). On a Likert scale from 1 (strongly disagree) to 6 (strongly agree), providers reported the content and material provided were helpful ( $M=5.32$ ,  $SD=.95$ ) and that the training provided useful and applicable information ( $M=5.24$ ,  $SD=.98$ ). Providers from clinics with existing co-located integrated care rated the training as more acceptable than providers from clinics without integrated care.

**Sustainability:** The impact of this low-cost training effort has the potential to have lasting effects for pediatric patients. Potential long-term health outcomes include decreased risk of suicidality, fewer physical health problems, and decreased risk of future mental health concerns into adulthood(1).

### **Transferability**

The curriculum was packaged for easy dissemination and future use by health systems currently implementing universal depression screening for adolescent patients with limited mental health infrastructure to meet patient needs.

**Conclusions:** Brief behavioral treatment can be delivered by non-behavioral health professionals within the context of a primary care visit. Trained providers report they are comfortable implementing this protocol and that it is feasible. Integrated psychologists have the ability to provide valuable resources to medical teams to facilitate evidence-based treatment of depression among adolescent patients.

**Discussion:** The project filled a critical service gap and improved the standard of patient care through the efficient allocation of scarce resources and collaboration through integrated care.

**Lessons Learned:** Provider questions could often not be adequately answered in the time allotted during trainings. Additionally, materials should be translated into multiple languages and be more representative and inclusive of diverse patient populations.

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## CONFERENCE ABSTRACT

AgeWell: A Unique Care Model for Older People in Ireland combining peer-based social engagement and mobile technology to improve health outcomes and well-being among older people.

ICIC20 Virtual Conference – September 2020

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Long term population projections paint a clear picture in terms of the growth of demand for effective supports for our older people. The over-60s population is expected to grow to over 1.3M by 2031 and 1.8M by 2046 with the most rapid growth segment being the over 85's. There is a necessity to invest in innovative solutions that will address the care needs of a growing older population, that will provide a more effective support service to enable older people to remain in their own homes longer. AgeWell is one such innovation, using a pioneering and cost-effective health monitoring system that aids older people to stay living at home for as long as appropriate.

Our aim is to support older people (over 60 's with core target over 75's) to live well for longer in their own homes and communities. AgeWell does this by: Reducing isolation and loneliness, Identifying evolving health problems, Health promotion, Connecting older people to appropriate primary care providers, social services and community resources.

The model combines best practice of several care coordination models and includes the following key elements:

- We recruit and train people aged 50+ as AgeWell volunteer companions ("AgeWells")
- AgeWells provide sustained social engagement through home visits and phone calls
- AgeWells utilise a mobile-phone based health screening tool to capture health, wellbeing and related information about our clients
- The AgeWell technology processes the information using referral algorithms to generate suggested actions to explore with our client.
- The aim is to identify and address evolving health, social and environmental problems before they escalate and to link clients with appropriate services in a timely manner depending on their individual needs.

The AgeWell programme targets those at particular risk, with older people living alone at home as our core target group. The model encourages the contribution and independence of older people, offering benefits to them, their families, communities and society as a whole. Our core aim is to enable our clients to remain living in their own homes and communities for as long as possible. In addition to outcomes for our individual clients, our aim is to introduce a system-wide cost-effective service that complements existing health and wellbeing, social and other services.

On assessment of 100 clients after an average of 9 months receiving AgeWell services, there was an 80% reduction in self-reported loneliness, a statistically significant improvement in wellbeing by 40%, emotional and informational social support improved by 21% and self-rated health improved three-fold. Overall reported frequency of physical activity improved along with perceived fitness levels. Furthermore, the longer clients receive the service the bigger the reduction in loneliness - 45% reduction in 4 months and 80% reduction in 9 months.

The AgeWell programme is transferable to every county in Ireland- by 2021 there will be 101,000 over 75's living alone in their own homes with growing care needs. The Third Age AgeWell programme began in February 2018 and now has 183 clients referred into the service- 77% of which came from various HSE sources in Ireland.

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## CONFERENCE ABSTRACT

An eHealth application to support vulnerable mother and child dyads: design of a randomized controlled trial

ICIC20 Virtual Conference – September 2020

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### **Introduction**

The postpartum period is challenging as many mothers struggle with physical and emotional symptoms, infant caregiving, breastfeeding concerns, and lifestyle adjustments. Health outcomes of mothers and newborns differ largely during this period between populations, shifting negatively towards the more vulnerable population. Previous qualitative research showed that postpartum care and information provision regarding postpartum care and the postpartum period are seen as key elements of support with the potential to enhance maternal empowerment. Several eHealth programs and applications have proven their potential to support preventive lifestyle changes during pregnancy. EHealth can provide essential information, in addition to regular postpartum care. We hypothesize that an eHealth application with information provision and tailored care based on individual patient-reported outcomes, during pregnancy and the postpartum period could help reduce low maternal empowerment postpartum among vulnerable women.

### **Methods**

This open label, randomized controlled trial will be undertaken in six maternity care organizations in the Netherlands. We aim to include nearly 500 participants. The intervention combines an eHealth application with risk-based, tailored care from pregnancy onwards. The control group receives care as usual. The eHealth application, a mobile phone application, will send out the research questionnaires for risk identification and patient-reported outcomes, push messages focusing on enhancing empowerment, and it will provide access to a library with supportive information. The push messages and information in the library are tailored to readers with a low health literacy; simplified language is used and reference is made to images and footage when possible.

To create a larger window of opportunity for risk reducing strategies, the regular assessment of women's expected care requirements based on the risk identification questionnaire will shift from the third trimester of pregnancy to the second. Maternity care assistants will tailor their care during the first eight days after childbirth based on the identified risks and patient-reported outcomes for each individual.

The primary outcome is the maternal empowerment score postpartum. Secondary outcomes include patient-reported experience measures regarding received care and healthcare responsiveness, quality of life, postpartum depression, substance usage (smoking, alcohol, and drugs), self-efficacy regarding breastfeeding, and the assessment of the usage of the eHealth application. All outcomes will be analyzed according to the intention-to-treat principle.

### **Results**

The inclusion will start in October 2019 and ends in April 2020. The data collection process will last until November 2020.

### ***Discussions***

This intervention will contribute to evidence regarding the effectiveness of integrating adjusted eHealth in individualized regular care, focused on enhancing the empowerment of vulnerable women during pregnancy and the postpartum period.

### ***Conclusions***

We expect that this study shows a reduced low empowerment and provides more information for effective eHealth integration in care for vulnerable populations.



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## CONFERENCE ABSTRACT

An Integrated Model of Environmental Care for a Patient Discharged from the Emergency Department - A Comparative Analysis of Meeting the Needs of Emergency Department Patients and General Practice Patients

ICIC20 Virtual Conference – September 2020

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### **Introduction**

The development of an environmental care model taking the comprehensive coverage of the needs of patients receiving a stay at home care after being discharged from the Emergency Department (ED) into account may be effective in the prevention of subsequent hospitalisation in the ED. The aim of the study was to determine the level of satisfying the needs of the emergency department patients (EDPs) and general practice patients (GPPs) as well as the factors corresponding to a high level of satisfaction of needs in both groups.

### **Theory/Methods**

A cross-sectional study was conducted among 200 EDPs and 200 GPPs. The modified version of the Camberwell Assessment of Need Short Appraisal Schedule, Health Behaviour Inventory, Generalized Self – Efficacy Scale, Patients Satisfaction Questionnaire and an original questionnaire were used.

Results. EDP patients showed a lower level of met needs measured by the Camberwel Index than the GPP ( $M=0.75$  EDP vs.  $M=0.80$  GPP,  $p=0.008$ ). In both groups, a high level of satisfaction of the needs (above the median) more often co-occurred with: high values of a positive mental attitude ( $rs=0.53$ ,  $p<0.001$  GPP vs.  $rs=0.30$ ,  $p=0.010$  EDP), a high generalized sense of self-efficacy ( $rs=0.44$ ,  $p<0.001$  GPP vs.  $rs=0.35$ ,  $p=0.010$  EDP), high values of health practices ( $rs=0.49$ ,  $p<0.001$  GPP vs.  $rs=0.17$ ,  $p=0.020$  EDP), the number of medications taken daily below the median ( $rs= -0.38$ ,  $p<0.001$  GPP vs.  $rs= -0.41$ ,  $p<0.001$  EDP), good and very good material status of families ( $rs= 0.30$ ,  $p<0.001$  GPP vs.  $rs= 0.35$ ,  $p<0.001$  EDP), the number of chronic diseases lower or equal to the median ( $rs= -0.23$ ,  $p=0.001$  GPP vs.  $rs= -0.46$ ,  $p<0.001$  EDP), secondary and higher education ( $rs= 0.27$ ,  $p<0.001$  GPP vs.  $rs= 0.35$ ,  $p<0.001$  EDP), high level of patient satisfaction with GP's services ( $rs=0.38$ ,  $p<0.001$  GPP vs.  $rs=0.18$ ,  $p=0.010$  EDP), GP's visit at a patient's home ( $rs=0.20$ ,  $p=0.005$  GPP vs.  $rs=0.14$ ,  $p=0.042$  EDP).

Discussions. In 1991, health and social care in Poland were separated into two separately administered and managed bodies. Certainly, there is a view that the health and social care systems are ill-prepared and under-equipped to meet the needs of the growing population of older adults.

### **Conclusions**

A comprehensive model of environmental care for patients discharged from the ED should include: their sociodemographic factors, health profile, level of health behaviours, generalized self-efficacy and quality indicators of health care provided by GP and primary care nurses.

Lessons learned. ED's nurses should conduct a screening based on the examination of the level of satisfying the needs of the patients being discharged. The results should be passed on to the primary care physician and social welfare units.

***Limitations***

This research was conducted on a small research sample and only in one ED.

Suggestions for future research. Currently, in most countries healthcare coordinators use evaluation systems where health and physical needs are prioritized rather than psychological or social needs. A short, easy and practice tool, which will take the complexity of patients' needs and the above-mentioned elements of the environmental care model into account should be developed.

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## CONFERENCE ABSTRACT

Analysis of initial barriers and facilitators to the implementation of a county wide integrated care project in Estonia: experience from the PAIK service  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Estonia is an East-European country where healthcare is financed predominantly through the social health insurance and the main payment model for specialist medical care is fee-for-service. There are no value-based payment models in place resulting in a very fragmented health and social care system and integrated models for taking care of people with complex needs are lacking in Estonia. To change this several pilot projects have emerged in the last 2 years including the Viljandi PAIK service initiative.

### **Aim**

To identify and prioritise the barriers and facilitators perceived by a multidisciplinary group of stakeholders that influence the implementation of integrated care models in Estonia.

### **Methods**

Focus group meetings of service providers in Viljandi were organised to discuss the barriers and facilitators. Factors identified were weighted on a scale of 1-3 (1 - low significance, 2 – medium significance, 3 – critical) to determine their impact.

### **Results**

10 barriers and 6 facilitators were identified. These were as follows (in no specific order; perceived impact in parentheses):

#### Barrier:

- Medical and social support records are not on the same IT platforms (2)
- Different terminology used by healthcare and social care providers (1)
- Different management of clients/patients between social and healthcare systems (2)
- Legal restrictions for data exchange between different providers (1)
- Family doctor resistance and lack of motivation (2)
- Fee-for-service payment model not suited for integrated care provision (3)
- Lack of necessary skills in the workforce (2)
- Doctors do not perceive value of healthcare and the social system co-operation (3)
- Limited social system capacity (3)
- Overburdened primary care system (2)

#### Facilitator:

- Motivated leadership in the hospital (3)
- Nurses and social workers perceive an opportunity to work on top of their license (2)
- Nurses more motivated than doctors to provide patient centred care (3)
- Decision maker support (3)

- Social service providers perceive value in co-operation (2)
- International support (IFIC and WHO) (2)

### ***Conclusions***

In the focus group discussions we identified 3 critical barriers and 3 critical facilitators to integrated care provision in Estonia. These included the need to change the payment system, change to doctor attitudes towards the social care system and its capacity. The key facilitators included highly motivated local leadership, decision maker support and the nurses willingness and motivation to change their roles in the healthcare system.

### ***Limitations***

Our results are most likely context specific and limited to the experience and opinions of the region. However, we expect similar barriers to be encountered by other pilots deciding to pursue a more integrated service provision in their region of Estonia.

Suggestions for future: The findings of this study could be compiled into a report and shared with other pilots in Estonia and beyond as well as in meetings with the decision makers.

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## CONFERENCE ABSTRACT

Assessing community needs in rural Moldova – an integrated medico-social service approach  
ICIC20 Virtual Conference – September 2020

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The long distance to services, professionals working in sectoral silos with little collaboration and little awareness of the value of preventive services, both for service providers and beneficiaries alike, increase the burden of non-communicable diseases (NCDs) and the likelihood of premature mortality in rural Moldova. Supported by Swiss Development Cooperation, the Government of Moldova tests new integrated community service approaches in the Ungheni district to better identify and address people's health and social needs. The prevention and control of NCDs is one of the main objectives of the Healthy Life Project.

This study assesses the complex needs of elderly patients with NCDs living in the Cula region of Ungheni district in Moldova in order to adapt and improve existing services, to develop integrated care plans and to identify and address service and collaboration gaps.

Seventeen communities of Cula region in the district of Ungheni were identified as particularly vulnerable based on the Moldova Ministry of Finance IDAM index (deprivation index for rural areas). Fifteen patient files from patients diagnosed with NCDs were selected for each of the communities from the list of patients registered with family doctors' offices. Patients were asked to participate in face-to-face interviews on voluntary basis. The assessment included wellbeing and functional status indicators, behavioural factors related to health risk and medico-social needs. The questionnaire included elements of self-management (American Academy of Family Physicians), a depression and anxiety scale (PHQ-9 by Kurt Kroenke) and a WHO audit for the evaluation of high-risk alcohol consumption.

Data collection was done between April and May 2019 and included 255 persons with NCDs (173 (68%) female and 82 (32%) male), 70% of the sample were between 60 and 69 years old. About 73% suffered from Hypertension (HTA); Diabetes and Cardiac diseases were equally present (approximately 14% each). Most interviewees claimed to be independent in terms of managing daily life issues, including personal hygiene and activities of daily life. Approximately 27% needed additional support. People in need of assistance are mostly taken care of by family members (68% male, 42% female). More than 45% of all women needing assistance are benefiting from social services. Only 57% of the sample would go see a doctor in case of need. Most people mentioned the absence of a family physician in their community and the lack of resources to seek for treatment outside of their home community. Patients who received services mostly got a combination of medical treatment and recommendations for behaviour change, mostly on nutrition.

The study shows significant differences in health seeking behaviour and disease prevention between elderly men and women. Men are less likely to engage in preventive activities such as behaviour change with risk reduction and self-management activities than women. Combined medico-social services close to home have the potential to close the significant service gap in rural Moldova. The role of prevention, early detection and management of NCDs needs much more attention.



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## CONFERENCE ABSTRACT

Attitudes and knowledge about palliative care among citizens of Croatia: a case study of two cities with and without established palliative care service  
IJIC20 Virtual Conference – September 2020

Marta Civljak<sup>1</sup>.

1: Catholic University of Croatia, Zagreb, Croatia

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### **Introduction**

Due to the ageing of the population, consequent increase in the number of patients requiring palliative care is expected. The World Health Organization has highlighted palliative care as an especially relevant topic due to its effect with the psychosocial aspects of care, dignity and quality of life of individuals, as well as their families and caretakers. Numerous studies conducted worldwide point to a lack of awareness about palliative care, which can be a key obstacle to future development. The aim of this study was to examine attitudes and awareness about palliative care among citizens of a community where there are no specialized palliative care services and the citizens of a community where such services exist. Specific goals were to determine whether there is a difference in sensitivity towards palliative care in terms of age, gender and education between citizens of those two communities.

### **Theory/Methods**

The study was conducted in March and April 2019. Study participants 400 citizens of Republic of Croatia older than 20 years; 200 citizens of the city of Koprivnica where there are no organized palliative care services, and 200 citizens of the city of Čakovec where such services are established. Participants were surveyed using an anonymous questionnaire "Attitudes and awareness about palliative care in the community", which was designed for this purpose.

Results: We found a statistically significant gender difference; women participants had significantly higher proportion of correct answers about palliative care ( $p < 0.001$ ). Older participants has better knowledge of palliative care, compared to younger ( $p < 0.001$ ). Respondents with lower level of education had less knowledge of palliative care ( $p < 0.001$ ). Citizens of Čakovec, where palliative care services were established, showed higher awareness and more positive attitudes towards palliative care on multiple items of the questionnaire.

### **Conclusion**

Women, older participants, higher education, and being resident of a city with established palliative care services are associated with better knowledge and more positive attitudes towards palliative care.

Lessons learned: While some factors associated with knowledge and attitudes towards palliative care are not modifiable, it is worthwhile to know that having an established palliative care services may be associated with better knowledge and more positive attitudes of citizens towards palliative care. At the community level, knowledge, awareness and access to palliative care services should also be expanded to strengthen individuals, engage the community, and ultimately achieve the goals set out in international palliative care strategies.

### ***Limitations***

The survey was conducted in only two cities in Croatia.

Suggestions for future research: Conducting the same study in multiple cities would help in gaining more knowledge about knowledge and awareness about palliative care in Croatia.



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## CONFERENCE ABSTRACT

Baby Resuscitation: the impact and the hidden benefits  
ICIC20 Virtual Conference – September 2020

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1: Imperial Healthcare Trust, London, United Kingdom

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### **Introduction**

Traditionally baby resuscitation teaching in hospital has been reserved for families leaving NICU/SCBU, or following attendance for a brief resolved unexplained event. The baby resuscitation course is open to parents/caregivers in North West London, providing education regarding emergency situations and improving parental understanding of healthcare pathways.

### **Practice**

Parents/caregivers register via the Imperial Connecting Care for Children website to once-monthly free education sessions, at St Mary's Hospital, London. Parents may be signposted to the course by health visitors, GPs, children's centres and medical teams following ED attendances. An integrated healthcare team host the classes, which follow the 4-stage teaching structure directed by the UK Resuscitation Council, led by a NLS instructor. Parents observe the neonatal basic life support and choking algorithms, then split into small groups for individual guided practice. These groups are facilitated by faculty members, including Foundation Doctors through to Senior Registrars and Paediatric Nurses. Parents are then invited to ask questions and are offered additional teaching about general acute paediatric problems including head injuries, fever, febrile convulsions, respiratory illnesses and burns first aid.

### **Aim**

The course intends to increase parental confidence around initiating management of acute conditions and to introduce them to the appropriate healthcare pathways in urgency. Therefore, these classes aim to (1) teach parents/caregivers basic life support skills and management of choking and (2) to create an open and informal platform of communication with parents around "common acute paediatric health issues" in the home setting.

### **Targeted population**

Parents and caregivers in North West London are the intended recipients of this course with the overarching aim to improve paediatric outcomes in the region.

### **Timeline**

The course began in 2016 and is ongoing due to continuous demand, as demonstrated by the waiting list.

### **Highlights/Conclusions**

Over 350 parents/caregivers have attended the class, with 321 feedback forms collected since 2016. Data from 69 recent forms reveals that 96% of participants would recommend this course to a friend. 90% of attendees report feeling 'much better equipped' to manage a child who is choking

or who requires CPR (using 52 applicable forms). Key question themes identified include allergies, asthma, colds, fever and general first aid, including injuries and burns.

***Sustainability and transferability***

Improving parental knowledge about management of paediatric conditions may lead to reduced healthcare costs by avoiding unnecessary healthcare attendances. The course requires a qualified instructor to lead the classes as well as faculty support. Some classes have been held in a community setting, indicating that providing appropriate staff and equipment are available, the course can be delivered in different settings.

***Discussion/Lessons Learned***

The continuous flow of parents/caregivers registering for this course indicates that these education sessions are welcomed by the community. Parents/caregivers feel positively towards the class and the great majority state that these courses increased their 'readiness' to manage acute scenarios for their children. We have seen that when parents know what to do in an emergency, it frees them up to start learning how to manage common acute illnesses – a 'hidden benefit' of the classes.

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## CONFERENCE ABSTRACT

Barriers to adoption of eHealth solutions base on research project result  
ICIC20 Virtual Conference – September 2020

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### **Background**

ICT projects, development and/or research driven, are sources of new innovative eHealth solutions. However, the rate of continued use is low and gaining sustainable benefits in daily operations is difficult (Warth et al.). This research looks at the barriers for the organizational implementation based on research driven projects.

Three eHealth projects have been analyzed for aspects on the phenomenon, to gain a deeper understanding of the problem. Results are based on discussions between project participants, (professionals, decision makers, patients), and analysis of the project set ups and purposes.

### **Results**

Factors that could be seen as important for lack of continued use includes: pure research setup of projects, lack of financial resources in the post projects time, lack of organizational competences for adoption of solutions, no organizational champion or CEO support, lack of fit to organizational processes or scheduling, professional resistance to change, among others.

### **Discussion**

Project set ups and working methods of the project might hamper the possibilities of effective knowledge transfer and organizational adoption. Experiences from mentioned projects show that a 360-degree co-design approach, which includes major stakeholder (for example, professionals, patients, researchers, patients, decisions makers) should be included. There is a need to prepare for knowledge transfer processes in post project phases, including competence development strategies for professionals and organizational change plans.

### **Conclusions**

A holistic understanding of conditions and challenges is needed for paving the way for health organization to reap benefits from research projects.

### **Lessons learned**

Projects need to include processes for engaging the stakeholders through 360 co-design, knowledge transfer plans and competence development strategies.

#### Limitations

The research is exploratory and based on analysis of past and ongoing eHealth projects.

#### Suggestions for future research

Better understanding for how to integrating competence development and organizational change as a part of eHealth project are needed. An investigation on digital competence among patients and healthcare personnel is planned, with the purpose of defining competence development strategies and requirements for IT-enabled cooperation and co-production.



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## CONFERENCE ABSTRACT

Beyond the relationship between the healthcare provider and the patient with an emerging next generation of electronic health records  
ICIC20 Virtual Conference – September 2020

Tim Jacquemard<sup>1</sup>

1: FutureNeuro, the SFI Research Centre for Chronic and Rare Neurological Diseases, hosted by RCSI, Dublin, Ireland

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### **Introduction**

An emerging next generation of electronic health records (EHRs) is expected to see greater realisation of benefits through empowering healthcare stakeholders including patients, providers, and researchers to do things differently. EHR technology is evolving because of the widespread availability of key enabling technologies, such as the Internet of Things (IoT), artificial intelligence (AI), genomic sequencing, and cloud storage. With the increasing adoption of EHRs and their ever-evolving functionality and utility, comes a wide spectrum of associated ethical and social concerns. Emerging technology, such as ePortals, AI decision support systems, voice recognition software and wearable devices, are expected to increase the prominence of EHR technology within the health domain.

### **Policy context and objective**

This research is timely because EHR technology is still at an early stage of adoption in many countries. For example, large improvements are projected in the next 10 years in the Irish health IT infrastructure. Several Irish government policies aim to transform healthcare through eHealth, e.g. Sláintecare eHealth pillar extends to 2030, the National Development Plan 2018 – 2027, the Department of Health Statement of Strategy 2016 – 2019, and Project Ireland 2040.

We have conducted a scoping literature review, to explore which EHR related ethical concerns were being debated in the literature and why these ethical concerns were debated. This review will be useful to a range of stakeholders involved in a safe, legal and ethical development, implementation and use of EHRs including healthcare providers, policymakers, and IT develop

### **Highlights**

The literature identified a large range of ethical values associated with EHR technology. There was a strong consensus in the academic literature on the ethical values associated with EHR technology. Privacy has been identified as the most frequently mentioned value in the academic literature. The literature on the ethical and social effects of EHRs focuses predominantly on the relation between the healthcare professional and the patient.

### **Comments on transferability**

This abstract describes the academic discussion on the ethics of EHRs in the English language. The findings are therefore not limited to one jurisdiction.

### **Conclusions**

Because of the growing prominence of EHR technology, the focus on the relationship between care provider and patient needs to be expanded. More emphasis is needed on relationships between the technology and healthcare stakeholders including patients, providers, and technologists.

The growing awareness of the value of personal data is being experienced across all sectors incorporating digital technology. Recent scandals around technology in other sectors, for example around disinformation and news on social networks, can inform ethical inquiries into EHR technology. These inquiries should elucidate issues around the importance of relationships between stakeholders, transparency and accountability or lack thereof. The role of health technology assessment (HTA) to inform stakeholders about the social aspects, and ethical and legal issues is becoming more urgent.

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## CONFERENCE ABSTRACT

Big Data, Healthcare System and Audience fragmentation: current and future trends and possibilities for media reporting on healthcare topics  
ICIC20 Virtual Conference – September 2020

Leali Osmančević<sup>1</sup>

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Research interest for the field of Big Data is nowadays very high and developing almost simultaneously along with the development of new media and new technologies in digital era. Big Data is mainly connected to the issues of privacy, ethics and security of data management but also data analytics, predictivity and ways of improvement the whole healthcare system with a major responsibility for the whole society. In that process, media as one of the main communication channels, is important factor for distributing relevant information, not only to those directly connected to the healthcare system, but also many different audiences that are part of democratic and responsible society. Big Data can effectively be used as a efficient connection between healthcare professionals, healthcare educators and media audiences, which are now, in the 21st century, extremely fragmented due to the information expansion and different kind of interests in specific, but not general information. Healthcare system should be one of the primary topics for all media audiences and that is one of the main reasons for implementing Big Data research and analysis in the whole healthcare system: not only regarding the medical profession, but also the role of media reporting on healthcare topics and their relevance as well as the accessibility to all media audiences, especially beyond the context of audience fragmentation. With its research methods, Big Data can give a whole new dimension both to healthcare system and media reporting trends, mainly by offering numerous possibilities and changes to the current situation. The main aim of this paper is, through systematic literature review, offer an detailed overview of achievements, possibilities and current and future trends in usage of Big Data in the healthcare system as well as the trends in media reporting. The paper will also highlight main opportunities but also the challenges and their way of influencing three main dimensions that Big Data is connected with: healthcare system, media reporting and media audiences. The paper will also offer examples of good practice and guidelines for responsible, ethical and effective professional activities both in the healthcare system, but also in the field of media. The topic of this paper aims to raise awareness of the increasing the usage of Big Data and analytics in healthcare education as well as the healthcare system, but also to highlight the importance of audience role in reading different media texts and evaluating media content related to healthcare topics and lastly, to show how the Big Data can be and should be in the future stable and effective connection between one of the largest system which is healthcare and many different media audiences that should be, regardless of their subjective interests, regularly and clearly informed on healthcare-related topics.





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## CONFERENCE ABSTRACT

Building chronic patients' resilience through the function of "trusted front line professional". Experience of the BOOST pilot-project in Brussels  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Boost is a multifaceted integrated care pilot project in Brussels. It is one of 12 local pilot projects launched under the national Belgian strategy for integrated care. One of the Boost interventions is creating a new function in the regional care ecosystem called "trusted front line professional" (TFLP), aimed at supporting patients with complex needs in a cross-sectorial perspective through the activation of relevant local resources.

### **Description**

After an initial training course, any professional can act as a TFLP: nurse, GP, pharmacist, social worker, physiotherapist, occupational therapist... A monthly community of practice meeting and a toolkit including a Personalized Guided Plan, an inventory of resources and a helpdesk phone line support the function. Financing comes from shared savings.

### **Aim**

A double mind-set change is expected from the professionals:

- adopting a focus on the patient's goals and priorities
- taking an asset-based approach to foster patients' resilience by arranging support around them, with timely use of relevant resources, including in non-health sectors.

At the heart of BOOST, this function also aims to create a common ground and mutual/shared understanding amongst several professions.

Stakeholders and targeted population

BOOST is a consortium of 50 partners – care organisations and self-employed workers - from the health sector and beyond: representatives of patients and carers, primary care professionals, home care services, social workers, hospitals, mental health and community health professionals, academics, ... Most of them participated in the project design and continue in its implementation. The target public is people with cardiovascular disorders, diabetes, COPD and/or chronic renal impairment combined with indicators of frailty (multiple comorbidity, polypharmacy, frequent hospital admissions, mental health problems, isolation, low income etc.).

The project operates in 3 districts in the centre of Brussels, covering 130 000 inhabitants.

### **Timeline**

Boost started in January 2018 for a four-years duration. Professionals enrolled as TFLPs since early 2019.

### **Highlights**

The TFLP function differs from a case manager considering that any professional can handle it. The TFLP serves more as a doorway towards complementary services rather than providing daily case management. S/he connects to a community of practice where s/he can share good practices and develop additional tools and initiatives to support the function with an eye to further strengthening care integration.

#### ***Transferability***

Being a function – not a new profession – designed to be easily “plugged-in” to any existing profession makes the TFLP highly transferable to broader population and health conditions.

#### ***Findings***

The demand for recognition, which at first fuelled some professionals’ motivation appeared to subsequently hamper their full commitment as it triggers the fear of losing their professional specificity when enrolling as a TFLP. To overcome this reluctance, the strategy focuses on “function” instead of ‘profession’ and on building legitimacy for the function outside the consortium. Implementation of the function is still at an early stage.

#### ***Lessons learned***

Working with highly motivated professionals at an early stage opens ways for others to step in. BOOST must find a balance between the preservation of professional specificities and developing a common interprofessional ground.

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## CONFERENCE ABSTRACT

Building Collaborative Practice as a vehicle for Cultural Change  
ICIC20 Virtual Conference – September 2020

Leanne Wells<sup>1</sup>.

1: Consumers Health Forum Of Australia, Deakin, ACT, Australia

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### ***Introduction***

The Consumers Health Forum of Australia (CHF) in collaboration with the King's Fund (UK) and four Primary Health Networks (PHNs) in Australia have undertaken a national demonstration trial of the King's Fund "Collaborative Pairs" program, including an independent evaluation. The Collaborative Pairs program is a leadership development program which consumers and health service providers undertake in pairs to develop new ways of working together. The program represents an important tool for increasing capacity in collaborative practice, an essential foundation for co-design and development of effective integrated care models.

### ***Short description of practice change implemented***

The Collaborative Pairs Program is designed to support the development of the mindset and practices that underpin a culture of shared leadership and partnership. It is delivered in five workshops with at least one month in between workshops to enable pairs to work on a healthcare challenge.

### ***Aim and theory of change***

The program aims to develop collaborative partnerships and to break down the cultural barriers that often exist between those providing services and those receiving them. This is not just about changing a few organisational practices, but instead breaking down vested interests and long-established ways of thinking and doing. There is a robust body of evidence that shows when consumers are involved, decisions are better, health and health outcomes improve, and resources are allocated more efficiently.

### ***Targeted population and stakeholders and Timeline***

Seven programs have been delivered with over 40 pairs participating within the four Primary Health Networks. This has occurred over a two- year period. Some PHNs targeted their staff to work with consumer and community leaders and other PHNs targeted pairs from specific areas of strategic priority such as mental health, addiction, rural and remote health for example.

### ***Highlights (innovation, impact and outcomes)***

The evaluation found the Collaborative Pairs program was relevant and acceptable in the Australian context. It has enabled new ways of working together and shown potential to effect cultural change between those who provide services and those who use them.

### ***Comments on sustainability and transferability***

The evaluation made recommendations in relation to marketing and recruitment, format and structure and ongoing sustainability of the program. The program is currently being trialled using

different delivery methods to inform future implementation and to determine how transferable it is to different sectors and settings.

***Conclusions (ie key findings)***

The concept of Collaborative Pairs was seen by many across PHNs, facilitator and participant cohorts as innovative and exciting. The program demonstrated a positive impact on participants in terms of new skills, thinking and approaches to communication, collaboration and partnership.

***Discussions and Lessons learned***

The results of the National Demonstration Trial have indicated that the program has relevance in the Australian context and is beneficial in assisting consumers and health service providers engage in new ways of working that drive partnerships that will facilitate change. More work needs to be done in assessing impact and finetuning the program to be delivered in a range of different contexts.

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## CONFERENCE ABSTRACT

Building insights into the implementation of an integrated cancer care model using risk-stratified pathways: a multi-stakeholder deliberation analysis  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Risk-stratified pathways are promoted by leading cancer institutions as a model of integrated care to improve cancer survivor's follow-up. According to the level of risk clinical integration requires to support self-management and to facilitate timely access to primary or specialized cancer care as needed. However, implementation presents considerable challenges.

Our deliberative multi-stakeholder consultation aims to inventory and address the issues from the different point of view of cancer survivors, cancer specialists and other cancer team members, primary care providers, managers and researchers.

### **Methods**

Our consultation embodies three key elements from the Nose to Tail Tool (NTT) (Gupta et al. 2016). . The NTT is a step-by-step planning process intended to aid in the successful development, implementation and scaling up of health innovations through a deliberative process. Three steps were performed: (i) identifying a common definition of the problem, (ii) determining prerequisites to translate risk-stratified pathways into practice, (iii) establishing a list of resources needed for pilot testing a new stratified-risk model of integrated care in two regional cancer network in Québec (Canada). The process includes small group deliberations and plenary discussion with all participants using video conference. Content analysis of both deliberations and observations was performed.

### **Results**

All participants highlighted the need for "risk-stratified pathways concept" clarification, and required operational definition of each level of risk. Pre-requisites should be in place before pilot testing: (1) more effective communication and coordination mechanisms between cancer teams and primary care providers, and additional training on: (2) survivorship care and risk assessment, (3) impact on workflow, (4) implication for survivors' participation in risk self-monitoring. Additionally, management of risk evolution, resources, and legal consequences need to be addressed.

### **Discussion**

Our empirical results align with Rainbow Model of Integrated Care (Valentijn, 2016). Translating risk-stratified pathways into practice goes beyond clinical integration and requires alignment between functional (eg. Training) and organizational integration (eg. Communication and coordination mechanisms between cancer teams and primary care providers).

### **Conclusions**

Although stakeholders were from two different geographic regions in Québec, main issues were similar. Deliberative processes strengthen the next pilot testing by building recognition of common values, shared engagement, and by providing a comprehensive understanding of potential issues.

#### ***Lessons learned***

Multi-stakeholder deliberation may be a starting point for national program expecting to implement effective risk-stratified models of integrated care. The new insights also revealed challenges in the applicability of best practices promoted by leading institutions.

#### ***Limitations***

Policy-makers were not participant in the deliberation to avoid potential power issues. This may be a limit knowing that the feasibility of new models of cancer care depends on how health systems are funded and arranged, and potentially varies between countries.

#### ***Suggestions for future research***

Multi-stakeholder deliberation may be given more consideration in planning risk-stratified model of integrated care considering the interdependency of various actors (patients, care providers, managers and policy-makers) having potential competing interests, and the multiple dimensions of integration.

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## CONFERENCE ABSTRACT

Building on evidence-based models to accelerate the delivery of integrated care: The journey to date for the University Health Network, Toronto, Canada  
ICIC20 Virtual Conference – September 2020

Shiran Isaacksz<sup>1</sup>.

1: University Health Network, Toronto, Ontario Canada

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### ***Introduction***

University Health Network (UHN), Canada's largest research and education hospital, implemented a patient-led integrated care program in June of 2019. Leveraging an evidence-based model developed by St. Joseph's Health System (SJHS) the rollout was completed in four months and is already improving care for hundreds of surgical patients. At the same time new care pathways have been initiated to address the needs of both medicine and high-need patient populations. Success of this program was in the ability to partner and co-design with patients, clinicians and other partners across the care continuum. Through this presentation, find out how UHN was able to accelerate delivery in Toronto, Canada's largest urban centre.

#### **Practice Change Implemented**

Co-designed by patients and providers, the surgical integrated care experience begins at the decision to operate, and supports patients throughout their acute surgical journey and recovery at home.

Tackling UHN's most common patient and caregiver complaints, the program includes;

- One care team with one primary point of contact
- One 24/7 phone line available to patients/caregivers
- One shared digital health record
- One integrated fund that covers both in-hospital and homecare services

### ***Aim & Theory of Change***

Addressing the quadruple aim, the program looks to improve the care experience, clinician satisfaction, quality outcomes and population health, which includes decreasing length of stay and reducing unnecessary readmissions and emergency department visits.

Critical to the success of this program was the focus on having patient partners and clinical champions prioritize the biggest needs to help quickly break through barriers to improve the care experience.

### ***Targeted Population & Stakeholders***

The integrated delivery team included patient/caregiver partners, acute and home & community care providers, finance and data resources, as well as government. As a patient led-program the team not only engaged patients directly in the program but also leveraged patient insights and ideas from several partners including local organizations and regional government bodies.

This program began in thoracic surgery and then expanded to additional surgical, medicine, and high-need patient care pathways.

### ***Timeline***

The program was implemented over a four-month period from February – June, 2019.

***Highlights***

The focus on patient identified priorities and learnings from an evidence-based model was critical to the speed of delivery. Other innovative tactics to accelerate implementation included creating guiding principles to ensure the patient experience drove decision-making; working to create a shared vision; having the appropriate clinical expertise; and investing in backbone support to support the change.

Early feedback indicates improved transitions and continuity of care, better communication and collaboration, a reduction in acute length of stay, readmissions, and emergency department visits.

***Sustainability/Transferability & Conclusions***

Looking towards the future, the program plans to advance the impact it has made through continuing implementation into new pathways, and creating an integrated care collaborative to share learnings and inspire others in their integrated care journey.



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CONFERENCE ABSTRACTCITIZENS' CO-DESIGN FOR IMPLEMENTING VALUE-BASED IN INTEGRATED CARE  
ICIC20 Virtual Conference – September 2020Mireia Ferri Sanz<sup>1</sup>1: Kveloce I+D+i, Valencia, Spain

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**Introduction**

Value-based health care is a delivery model in which providers, including hospitals and physicians, together with citizens/patients aim to reach the best citizen health outcomes (NEJM Catalyst, 2017). Under value-based care agreements, providers are rewarded for helping citizens improve their health, reduce the effects and incidence of chronic disease, and live healthier lives in an evidence-based way. It is also a way of realising patient engagement in healthcare and give them the freedom to control their own health. However, to become truly influential, a focus on value would need to reach more broadly than health services to offer Integrated Care.

**Theory**

In this framework, the VALUECARE project recently funded by the H2020 programme aims to deliver efficient outcome-based integrated care to older people facing cognitive impairment, frailty and multiple chronic health conditions to improve their quality of life (and of their families) as well as the sustainability of the health and social care systems in Europe.

**Results**

As part of the work to be done, the VALUECARE concept will be designed together with end-users following an Experience Based Co-Design approach. For that, authors are analysing the co-creation value through the DART model (Dialogue, Access, Risk/Benefit and Transparency) to develop guidelines on how to co-design the VALUECARE solutions with end-users (older people and their families, health and social professionals and managers). Those guidelines will be used in the 7 pilot sites to implement national seminars, focus groups and World Café.

**Discussion**

Older citizens need to feel that they have the possibility and the power to influence their actual and future care pathway and tailor the service they receive. For that, the co-design activities will be implemented during the first stages of the VALUECARE project and will be repeated at least two times during the project implementation as part of the iterative co-creation process.

**Conclusion**

Engaging older citizens in the design of the care they receive will increase their participation and adherence to treatment. Practical guidelines on this field will improve the service provided and the quality of life of end-users (patients and professionals).



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## CONFERENCE ABSTRACT

Co- Production and Participatory Evaluation in combination - Is this approach more than the sum  
of it's parts?

ICIC20 Virtual Conference – September 2020

Kate Dharmarajah<sup>1</sup>

1: London North West University Hospitals Nhs Trust, London, United Kingdom

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### **Introduction**

In the UK one in five children are overweight or obese by the time they start primary school. Following a national measurement program at school entry, letters with height and weight are sent home to all parents. Parents on a deprived local housing estate considered these 'fat letters' unhelpful and lacking information to help them make change. We therefore worked with parents to assess the feasibility and acceptability of a local multi-level intervention to support behaviour change associated with childhood obesity.

Participatory research is a useful method for investigating health promotion and health inequity and for raising research quality. Co-production of health services is becoming more routine, but equity in involvement of citizens (even less children and young people) in research is lagging behind. Our aim was to involve children as researchers in developing and evaluating this intervention.

### **Methods**

Connecting Care for Children (an integrated care collaborative) supported volunteers to co-design and deliver a health and well-being intervention called the Parkview Olympics in the locality. The model was a 6- week 'sprint' of physical activity and healthy living sessions and was assets based drawing from existing community resources to aid sustainability. 2 young evaluators were identified and helped design, conduct and analyse a peer-led evaluation with repeat follow-up at 2 years. We used mixed methods with qualitative and quantitative assessment.

### **Results**

26 children were involved over a 6 week period, with a diverse range of activities, with 7 followed to 2 years. Participants recorded self-reported Physical activity, Nutrition and Self Esteem Scores using validated tools.

Following training our young evaluators designed and delivered focus groups and also aided with thematic analysis of the results.

In the 2 year follow up analysis, retention of the following themes were identified; the value of healthy eating, retained skills to cook healthy meals, on-going participation in activities, self-reported increased motivation to stay active, on-going friendships and sense of community.

We observed the value of the peer evaluation. Young people aged 12 and older universally felt they could communicate their views better in a focus group led by a local young person with established trust and agency.

### **Discussion and Conclusion**

The use of a local, citizen-driven solution allowed penetrance through some of the established barriers within hard to reach communities .In addition the role of a young evaluator allowed us to gain more meaningful results and overcome further barriers.

#### ***Lessons learned***

We have demonstrated the desirability and acceptability of participatory research with children and young people. This intervention also reinforces that small, community-designed and delivered initiatives have the power to effect change sustained at 2 years.

#### ***Limitations***

Our pilot is small,and due to it's size and scale a control group was not possible so a before and after approach was adopted.

#### ***Suggestions for future research***

We believe the combination of the approaches of co-production and participatory evaluation is more than the sum of its parts and further exploration of these should be performed. Young people have much to offer the field of research.

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## CONFERENCE ABSTRACT

Co-creating towards next-generation frailty assessment in community dwelling  
ICIC20 Virtual Conference – September 2020

Xavier Ferre<sup>1</sup>

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### **Introduction**

Elderly-associated conditions, like frailty and dependency, are a major challenge to the sustainability of healthcare systems. Frailty is a state of increased vulnerability, affecting the ability to respond to stressors that may lead to disability and death. We carried out a set of co-creation activities in the POSITIVE project funded by EIT-Health to jointly design an integrated system to assess frailty in community dwelling.

### **Methods**

We followed a participatory design approach, combining co-creation activities such as pluralistic usability walkthroughs and design workshops. The participants in the activities were older people at risk of frailty; their carers; and care professionals, as special care professionals, and community dwelling professionals. We gathered in a report all the contributions of the participants in each session. In the sessions with professionals, we sent them the report to get their ok to the collected information. The technical team considered this report for the refinement of system design, creating a new prototype. These refined prototypes were the basis for subsequent co-creation activities.

### **Results**

We conducted 13 sessions between February and September 2019, in Spain and Sweden. Participants include 20 older users (aged 70-96), 15 community care professionals (physicians, nurses, physiotherapists and occupational therapists), 5 geriatricians, 6 technological researchers and 2 UX (user experience) researchers.

The co-created system supports a community-dwelling assessment of frailty, with a pharmacological intervention using STOPP/START criteria, and non-pharmacological intervention such as nutritional and exercise tailored programs.

The patient system is based on a mobile device and a monitoring kit, with notifications for planned monitoring activities and the intervention prescribed (i.e. exercise). Informal caregivers have their specific mobile app to monitor the progression of their loved ones. Care professionals monitor and manage their patients through a tablet.

Discussion: There is a huge technological barrier for older adults at risk of frailty. Co-creation activities played a key role for the success of the resulting design, ensuring that the solution fits their context and expectations, no matter their technological skills.

Design workshops with professionals gave shape to a system-supported community dwelling intervention protocol, uncovering grey areas between care tiers.

Conclusions: Despite requiring extra resources, co-creation activities in the POSITIVE project resulted in a stronger new care model. They enhanced usability and UX of the resulting technological solution, which are key aspects to increase adherence and to ensure an effective integration into day-to-day clinical practice.

#### ***Lessons learned***

We observed that previous assumptions about community care from specialized care professionals were wrong to a high extent. There is a lack of communication between both communities, not knowing how professionals in different settings carry out their work and manage older patients. Additionally, the Swedish public health system is quite different from the Spanish one. These differences call for the enactment of co-creation activities in different contexts when products are meant to be launched with a global perspective.

#### ***Limitations***

Representativeness of the participants in the co-creation activities must be considered.

Suggestions for future research

To create specific guidelines for co-creation activities in the e-health domain that include older patients.

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## CONFERENCE ABSTRACT

Collaborative project: health systems and services centered on people and their communities  
ICIC20 Virtual Conference – September 2020

Osvaldo Artaza<sup>1</sup>, ,

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Collaborative project: health systems and services centered on people and their communities

The collaborative project “Systems and services focused on people and their communities” is an interdisciplinary editorial effort of academics and managers, that come from different experiences and backgrounds, to discuss the challenges for health systems to be effectively oriented to resolve comprehensively the health needs of people and their communities. From Chile, Argentina, Uruguay, Mexico and Canada, existing paradigms are problematized and shared responses to the obstacles that make changes difficult are sought by joining reflections of several universities in the Americas.

From an anthropological, legal and public health point of view, the installation of a hegemonic model of understanding the health and disease relationship is observed; model that focuses on “organs”, on “pathologies” in a way that it distances itself from a multiverse understand of the dimensions of humans as social beings. Paradigm that is functional to both a vertical and paternal welfare response that takes control of the “patient”, as well as to the response of the lucrative health business that encourages the “client” to consume solutions. Both responses do not fully understand the person as a subject of health rights. Both do not understand the wholeness of the person, the social determinism of good living and how essential it is for the well-being and quality of life the construction of new and healthier realities.

In the search to build new paradigms that enable the centrality of people and their communities in health systems and services, debates are raised on the institutionality required to guarantee rights in health in deeply inequitable societies and strong social exclusion, which is the reality of many countries of the Americas; on how the power imbalance can be tackled between those who design the policies, control the markets, provide care services and those who receive them; on key elements for a governance of the systems in which citizens have effective interference; on how to model services to people and their communities; on how to make quality and technology gears for change; and, on how to train those who work in health, so that instead of defenders of the status quo, they are agents for change.

There are multiple answers for these complex realities: strategies aimed at empowering people; to strengthen associativity and community life, so that people and their communities can take the leading responsibility in building contexts for good living. Where those of us who work in health are collaborators to co-care, inter-care, generated from the same people and their communities to overcome the multiple forms of capture: clientele (for short-term partisan political interests), lucrative (business of health), corporate (of the interests of the different incumbents), and paradigmatic (the one that does not accept the coexistence of the various worldviews in health).





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## CONFERENCE ABSTRACT

Community-driven network building in health care: creating an exploratory social space to pursue co-production following reforms

ICIC20 Virtual Conference – September 2020

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Community-driven network building in health care: creating an exploratory social space to pursue co-production following reforms

### Introduction:

Integrated care requires engaging and empowering people and communities to take an active role in designing and delivering health services (WHO 2019). Their capacities to co-produce health outcomes alongside formal providers are key to assuring sustainability and equity. However collaborative dynamics are compromised by power differentials that limit recognition of community capacities, and are vulnerable to system reforms. Much of the literature on co-production focuses on provider-side initiatives to engage communities. This paper provides an alternate view, exploring how community actors forge network alliances to gain legitimacy and power to co-produce care.

### Methods:

We conducted a longitudinal case study of the network development efforts of a community working group (WG) concerned with access to health services following reforms in Québec, Canada. The WG brought together concerned citizens along with community organizations working with seniors, minorities, immigrants, youth, and people with disabilities. Data were collected over three years from observation, documents and interviews, and social network analysis was conducted to reveal the evolution of relationships among community actors, and between community and public actors. Actor-network theory (Callon) was used to distinguish stages of network maturation. These analyses explored how interactions contributed to identifying and opening pathways for co-production.

### Results:

The WG pursued network building in two stages. A first focused on problem definition: WG members brought their existing networks together to validate access problems perceived in their constituencies, then reached out as a group to public sector contacts to achieve a better understanding of precisely what had changed in the system. In a second stage, the WG mobilized this network of community and public actors to equip a broader public to more effectively draw upon public and community resources to meet their needs. Two factors appeared to impede co-production: the limited influence of front-line actors on public system processes; and discrepancies between community priorities and system mechanisms for participation.

### Discussion:

In the context of reforms, 'problematization' was an especially important stage in network development and showed signs of consensus development on 1. the existence and nature of problems, and 2. interdependencies between public and community actors in identifying and implementing solutions.

### Conclusions:

Network development through the WG enabled community actors to gain the "organizational infrastructure" to participate in collaborative governance (Ansell and Gash 2008). Community efforts can open new spaces to enhance co-productive capacities of people and communities; public provider ability to integrate these capacities into processes is reduced by reforms.

#### Lessons:

Network interactions enable the recognition of interdependencies and the development of consensus, and in this way create conditions for collaboration even among actors of different strengths (Benson).

The fragility and disruption through reforms of links between public and community actors impede co-production.

#### Limitations

Longer follow-up and comparison with other community initiatives may have provided additional insight into community strategies for gaining legitimacy in co-production.

#### Future research

Research on factors limiting the effectiveness of longstanding 'concertation' venues after reforms would be helpful, as would exploration of territorial dimensions of co-production between public and community actors in healthcare services.

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## CONFERENCE ABSTRACT

Computational model for comprehensive medical care and monitoring of patients with COPD, applying telemedicine

ICIC20 Virtual Conference – September 2020

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### **Introduction**

Patients with chronic obstructive pulmonary disease (COPD) require routine and systematic follow-up including measurement of parameters such as body mass index, percentage of oxygen-saturation, blood-pressure value and volume of peak expiratory flow.

We present a mobile application, Computational Based Method Integral Monitoring (CBMIM), based on synchronous and asynchronous monitoring model for COPD patients at home, which allows us to collect data, share them with the sanitary services, process and diagnose the evolution of patients with mild or moderate COPD, providing alerts of changes in the patient state (e.g. mild state to moderated) by the presence of certain symptoms, which will help to predict and take prevention measures.

These actions will have an impact on the quality of life of the patient and it is expected that decrease in the number of crises throughout the year, diminishing the number of times the patient has to go to a sanitary centre or even to be hospitalized.

The final objective of the work is to analyse the impact of the use of this technology on the patient's quality of life and the potential benefits for the health system in general, by reducing the number of face-to-face medical services.

Method: Computational Based Method Integral Monitoring (CBMIM) is based on synchronous and/or asynchronous monitoring of patients with COPD at the mild or moderate level. The values sent by the patient are automatically 24/7 processed and diagnosed, generating semi-automatic alerts between the patient-doctor or health service.

### **Design:**

The system collects, in the initial phase, the level of expectoration, dyspnoea, and heart rate and this allows processing, evaluating and diagnosing the condition of the COPD patient. We hope this will provides the following advantages:

- Greater adherence to treatment
- Patient training and empowerment
- Improving the quality of life of the COPD patient
- Reducing medical visits to health centres.

How does the system work? It receives information entered by the patient three times, in the morning before day activities, during the day doing activities and at bedtime, allowing the mobile system to perform medical evaluation process and automatically send alerts (through the traffic light method: green, yellow and red) to the patient and health services about any change in health.

### **Results:**

Computational Based Method Integral Monitoring (CBMIM) facilitates the monitoring of patients COPD, processing data taken at home and diagnosing the patient automatically. A patient with COPD could acquire a sufficient degree of training to take the values of these parameters by himself and send the information to the relevant health service without having to physically move outside home, thus becoming a monitored patient.

Conclusion: COPD is a progressive and non-reversible disease, which by carrying out the recommended treatment improves its symptoms and the quality of life of the people who suffer from it. The proposed system shows objective results and processes monitoring data, evaluates and diagnoses automatically, allows for the reduction of patients in health services, in addition to the results that the application produces are compared with health specialists, in order to evidence their objectivity

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## CONFERENCE ABSTRACT

Creating User Involving Cross-sectoral Collaborative Models. An action research project in patient care progress across sectors, involving citizens, health professionals, patients and relatives in the research process.

ICIC20 Virtual Conference – September 2020

Ditte Høgsgaard<sup>1</sup>,

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### ***Aim to:***

- investigate how citizens with 1 or more chronic conditions, patients, and their relatives experience the cross-sectoral cooperation in their disease course (Study I).
- develop and test cross-sectoral collaboration models that can strengthen - and promote coherence and quality in the intersectoral and general practice of citizens and patients (Study II + III)
- examine the significance and effect of the collaborative cross-sectoral collaboration models - including the importance of the tested models for the quality of contexts, the number of inappropriate re-admissions and the patients' experience of the cross-sectoral collaboration (Study IV).

This is a postdoc project (2019-2022) consist of 4 sub-studies. This paper only presented results from the first study.

### ***Background:***

Research had shown that it is a complex and difficult task to create well-functioning interdisciplinary and cross-sectorial coherent care, treatment and rehabilitation programs for multimorbid patients. In addition to insufficient cross-sectorial collaboration on patient care for patients and their relatives, it can also result in longer admissions and inappropriate re-admissions - and thus a waste of resources in a health care system under pressure. Despite many years of focus on improving cross-sectoral collaboration and coherence in the course of patients - this remains a major and increasing challenge. Today, patients' hospitalization is often short and intensive and their care, treatment, and rehabilitation tasks must often be continued and completed at general practice and/or in the municipal health care system. For the future healthcare system to function satisfactorily, one of the prerequisites is to ensure patient transitions to create the best conditions for a total responsibility for the patient to be taken.

### ***Design and Methods:***

The design is action research. Patients and relatives, as well as the health care professionals (from hospitals/municipalities), are involved as informants and in the analysis work.

The target group: +65-year-old patients with 1 or more chronic conditions who receive home care service from the municipality

In study I, semi-structured interviews are conducted during the 13-16 patient's hospitalization. Patients are re-interviewed approx. 14 days after discharge. Content analyze will be conducted. Ethnographically inspired field analyzes are carried out, where the interviewed patients are

followed by follow-up visits to GP and/or outpatient visits to the hospital. Accidental events will be analyzed. In Aug-Oct 2019, a questionnaire survey will be conducted. Based on the empirical material, creative non-fiction narratives are constructed. The narratives will be analyzed by patients, health care professionals, and researchers.

***Expected results:***

It is expected that the collaborative processes between patients/relatives, health care professionals, and researchers can create knowledge about how patients in this context experience the cross-sectoral collaboration. Their ideas and suggestions for new models will be included in the following collaboration work (study2). This study will also provide knowledge on how patients and relatives can be involved in the research process

Discussion: This project is ongoing. Results and discussion will be presented at the ICIC-conference 2020

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## CONFERENCE ABSTRACT

Data matters - no service integration without data integration: a transnational learning exercise  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Integrated, value-based care can only be delivered on the basis of sound data. This holds true for delivery both on the political and governance level as well as on the individual and service level. The Data Matters twinning project brings together four players from three member states (Spain, Estonia and Germany) that all have done important steps in relation to integrating data and making it useful for care improvement, but who at the same time see a need to learn from each other and improve upon what they are already doing. The twinning is funded and supported through the European Commission's DigitalHealthEurope initiative [1].

### **Description and aims**

The city of Badalona in Spain operates a highly advanced pooled data system along with analytical tools and methods relying heavily on artificial intelligence and deep learning. At the same time, the team operating this system is looking for ways to expand the scope of data included, to improve the analysis of linked data and find new ways to share data by means of secure infrastructures. Estonia is establishing a highly integrated data system, linking data from health and social care (on national and municipal level), education, social welfare, unemployment and official statistics. This new integrated system requires new methodological knowledge on data linkage as well as on effective means of analysis. The Cologne Care Research Network [2] established an integrated database to support care service provision to citizens as well as care policy making and research. They are now looking for ways to integrate data from further sectors and carrying out more in-depth analyses geared towards decision support. The twinning project consists of three learning hubs on data infrastructure, data integration and data analysis where all partners both teach and learn based on their own profiles and demand. The project began in October 2019 and will end in May 2020.

### **Highlights**

With the financial support of DigitalHealthEurope, stakeholders from policy, care provision and research from each region are not only enabled to receive hands-on impressions of what the other regions are doing that can directly benefit their own activities. Each learning hub will also produce an output for use by the wider data integration community:

- 1) Report on practice examples for a suitable data infrastructure
- 2) Common set of data sources and data types relevant to support integrated, value-based care
- 3) Collection of approaches for analysis of linked data, including AI-based methods.

### **Conclusions and discussion**

All three regions have developed sustainability plans on how the outcomes of the twinning will be carried over into day-to-day practice. Beyond these three regions, the approach can be a template

for others as well, to look beyond the silos that are the individual member states and that often prevent a serious exchange of ideas across borders. The EU's support is highly appreciated. At the same time, the actual financial costs are not high enough to consider them a large barrier for setting up own twinning activities.

#### ***References***

[1] <https://digitalhealtheurope.eu/>

[2] [https://www.core-net.uni-koeln.de/index.php/en/start\\_en/](https://www.core-net.uni-koeln.de/index.php/en/start_en/)



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## CONFERENCE ABSTRACT

Day case lower limb arthroplasty- An audit of our practice.  
ICIC20 Virtual Conference – September 2020

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### **Introduction:**

Hip and knee arthritis is a disabling condition which impacts the general and health of the individual and the society. In a system which provides free healthcare at the point of delivery, there is a huge financial and social burden on the system. Novel approaches which involve patient and partner education, electronic aids to help physiotherapy, community and social support are needed to minimise the burden on the patient and the social services. The present study was part of the Bevan Exemplar project 2018 UK.

### **Aim :**

To witness the efficacy of day case arthroplasty in reducing the length of post-operative stay, patient satisfaction, cost saving and early outcomes.

Patients and methods:

23 relatively young and motivated patients (all males) requiring lower limb arthroplasty (15 knees and 8 hips) with inclusion and exclusion criteria were identified and recruited into the study. At the outset, support services within the hospital and community services required post discharge were involved at an early stage. All patients were operated by two experienced surgeons with a special interest in day case arthroplasty under regional anaesthesia and enhanced recovery protocol as standard. Patients were mobilised on the day of the operation under supervision and were discharged when deemed suitable by the physiotherapist. All safety measures were identified and communicated to the patients on discharge. Post-operative physiotherapy was remotely monitored on electronic tablets with web based technology . Patients were formally assessed at 6 and 12 weeks as a part of the regular follow up.

### **Results**

All patients were discharged within 24 hours of the index operation and available for follow up at 6 and 12 weeks. All patients were available for follow up. There were no re-admissions to hospital within the first 6 weeks, no wound complications and all patients participated well in the physiotherapy program. Patients mutually communicated and interacted well in a specifically created messaging service and found this was encouraging and useful. The functional results in terms of mobility, range of movements, early outcomes, patient satisfaction were comparable to other patients on the regular pathway.

### **Discussion**

With increasing longevity and young patients requiring hip and knee replacements and , there is an increased demand for hip and knee replacements. With the present financial burden on the NHS it becomes difficult to address this issue by conventional methods. Recent advances and improvements in the quality of implants, improved training and multi-modal post-operative analgesia early discharge to home is a possibility in selected patients. Web based technology helps in monitoring of post-operative physiotherapy services and will improve the confidence and participation of patients in a structured program. The pathway and technology is easily transferable and indicates sustainability in the present day clinical practice while reducing the length of stay and financial saving on the NHS.

### ***Conclusions***

Day case arthroplasty service presents a viable option of providing safe practice with significant cost saving in selected patients with outcomes comparable to conventional methods. There is a good potential to change the way physiotherapy services are delivered.

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## CONFERENCE ABSTRACT

Developing a discrete choice experiment to understand preferences for self-management support from the perspective of adults with asthma  
ICIC20 Virtual Conference – September 2020

Selena O Connell<sup>1</sup>.

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### **Introduction:**

Interventions to support people in managing their asthma have had a positive impact on their wellbeing. However, it is not clear what components of interventions lead to positive outcomes. Understanding what attributes of asthma support services are important from the perspective of people with asthma can help deliver system-wide interventions that meet their needs. Discrete choice experiments (DCEs) provide information on the relative importance of service attributes from the perspective of service users as well as information on trade-offs between attributes. This paper describes the development of a DCE which aims to measure the support preferences of people with asthma.

Methods: The DCE was developed using best practice guidance (1). Attribute identification and selection followed by level selection were informed by (a) a review of policy documents, (b) a synthesis of qualitative studies from the perspective of people with asthma and (c) a qualitative descriptive study using content analysis of interviews and focus groups to understand support preferences and (d) reflection by the research team aided by feedback from experts in respiratory care and DCE development. The DCE instrument will be further refined through pretest interviews and pilot testing.

### **Results:**

Studies from the perspective of people with asthma indicated the importance of support in managing asthma exacerbations and this became the focus of the DCE. While many features were identified as relevant, six attributes were selected for pretesting: possession of a written plan for managing changes; waiting time for consultation; specialization of the consulting healthcare professional; method of communication (e.g. face-to-face, telephone); healthcare professional's knowledge of the patient (ranging from no background to having a medical record and having met in previous consultations); and response to patient's concerns (extent to which the healthcare professional listens to concerns). The levels of attributes formed choice scenarios for participants between two unlabeled service alternatives.

### **Discussions:**

The many attributes of support eligible for inclusion presented a challenge for DCE development. Attributes were refined to six through considering relevance to the research question and research context as well as relationships between attributes (1).

Conclusions: A DCE instrument is being developed, according to best practice, to quantify the preferences of people with asthma for support in managing symptom changes. This can inform decisions about the service features which should be prioritized for implementation.

### **Lessons learned:**

Developing a DCE requires careful balance of considerations including a choice context that participants can relate to; the cognitive burden of the survey; inclusion of enough attributes/attribute levels and questions on participant characteristics to represent the important influences on preferences.

Limitations: This DCE has been developed in the Irish context. Thus attributes and wording may not be appropriate for other contexts.

Suggestions for future research:

The DCE must undergo pretesting and piloting before the main survey is administered.

1. Bridges JF, Hauber AB, Marshall D, Lloyd A, Prosser LA, Regier DA, et al. Conjoint analysis applications in health--a checklist: a report of the ISPOR Good Research Practices for Conjoint Analysis Task Force. Value Health. 2011;14(4):403-13.

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## CONFERENCE ABSTRACT

Development and evaluation of a decision support system for integration of primary diabetes and periodontal healthcare

ICIC20 Virtual Conference – September 2020

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### **Introduction**

There is conflicting evidence for the effect of clinical decision support systems (CDSS) for improving health care. While there have been success stories, other studies have highlighted potential pitfalls for CDSS. It is also uncertain whether and how a CDSS could improve integration of health care. This abstract reports the development and evaluation of a CDSS to improve integration of primary diabetes and periodontal healthcare.

### **Methods**

The CDSS was developed using focus group and individual discussions with general practitioners (GPs) and dentists. These resulted in decision trees which acted as the basic structure for the CDSS. After the development, a case vignette study was conducted to evaluate the impact of the CDSS on decision making. Two sets of vignettes were developed, one set for GPs (n=200) and one set for dentists (n=200). Each participant was presented three different vignettes, with one chosen at random to include support from the CDSS. Logistic regression analysis was performed to assess the influence of the CDSS on the recommended decisions.

### **Results**

The CDSS was developed for both GPs and dentists. Based on risk scores for diabetes and periodontitis, the CDSS gives tailored information, warnings and recommendations to the healthcare providers. The case vignette study showed that if assisted by the CDSS the GPs more often provided information on common risk factors for chronic conditions and dental problems (OR 3.3) and GDPs more often provided information regarding the bi-directional relationship between periodontitis and diabetes (OR 1.6). Both groups were also more likely to refer to each other when the CDSS was activated (GP OR 4.1; GDP OR 4.3). GDPs were also more likely to ask for a patient's HbA1c value when prompted by the CDSS (OR 3.2)

### **Discussions**

A CDSS for cooperation between primary and dental healthcare might provide innovative and novel possibilities to improve integration of healthcare through more awareness and better informed decision making.

### **Conclusions**

We have developed a CDSS to raise awareness among general practitioners and dentists about the bi-directional link between diabetes and periodontitis and to promote integration of primary diabetes and periodontal healthcare.

**Lessons learned** The vignette study suggested that the CDSS will help to raise awareness among healthcare providers and facilitates intersectoral cooperation. The CDSS may act as a blue-print for further oral-systemic interaction and integration.

**Limitations** The decision trees and CDSS were developed using expert opinions from healthcare providers due to a lack of clinical guidelines for patients suffering from both conditions. These opinions may not be generally representative. The participants in the case vignette study are not a representative sample for GPs and GDPs in Germany, so the results cannot be generalized.

#### ***Suggestions for future research***

The CDSS could be improved by integration of electronic dental and general health records. For the time being, the necessary information needed by the CDSS can be reported by the patients during the visit. Future research may focus on implementation of this CDSS and exploration of other oral-systemic interactions for which this DSS might be extendable.

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## CONFERENCE ABSTRACT

Development of a framework for preparing organisations and teams for neighbourhood working  
IJIC20 Virtual Conference – September 2020

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An aging population and a growth in long term conditions in the UK has led to dramatic changes in the demographics and epidemiology. The government has introduced policies focused on transforming the health and social care system into integrated care systems (Department of Health [DH], 2012). Research has shown that the transformation to integrated care systems is reliant on people and is often complex and convoluted requiring structural, practice, and cultural change (Bryson, Crosby & Middleton Stone, 2006; Cairns & Harris, 2011). Therefore, the growth and prevalence of long-term conditions and its link to social inequality is a significant concern for researchers and health policymakers (George & Martin, 2016).

The aim of this study was to explore the experience of a neighborhood team during integration. This was achieved through the presentation of their experiences from their perspective. Using an adapted institutional ethnographic approach.

The finding demonstrated that teams moved through a non-linear process of conversion and separation during integration. A principal factor was the narrative of integration, as it was through the narrative that, practitioners developed hope about the process. Alongside narrative, the leadership and cultural shift was a factor in the successes within the observed team. These results indicated that there were key considerations in the development of integration at a local level.

The team's hope was not just for themselves but also, for better care for people. Linking the hopes of the team, to a strong narrative for empowerment and engagement, represented a powerful motivational factor. These findings were similar to previous studies, for example, Snooks et al (2011) reported that community members and professionals viewed collaborative approaches as important and equally, Coxon (2016), stated that, there was a relative consensus about the benefits of integrated working. Additionally, the findings from this research add to the previous research, as they highlight the importance of a positive narrative, which can engage and motivate team members during the early transition. The movement toward integrated systems, therefore, benefit from a framework approach, rather than a structured change management approach. Based on finding a framework to prepare teams for integration has been recommended.

There were three key themes that developed in the research which, were conversation and separation as part of the integration process, the importance of hope as a driver and sustaining the force, and the importance of team-level leadership in the development of team-level change. The finding of the study was used to develop a framework for preparing teams for integration.

The study was a small ethnographic study over a nine-month period and any transferability of findings are required to be viewed through the scale and context of the study. The approach enabled a deep understanding of one case of integration, to strengthen and validate finding further research is required.

Further research could include the testing of the effectiveness of the framework in a range of settings. This will enable the strengthening of the framework and development of a package of support for organisations



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## CONFERENCE ABSTRACT

Development of a logic model to guide the implementation of INSPIRE, a community-based integrated care model for frail older adults  
ICIC20 Virtual Conference – September 2020

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### **1. An introduction**

Integrated care models are commonly accepted to improve care for the frail older population. Given the potentially beneficial outcomes yet heterogeneity of these models, using a logic model as part of a theory-driven approach can enhance the understanding of whether, how, and why a new integrated care model is successful in practice. In Switzerland, a new cantonal law included creation of centers including a nurse to assess home-dwelling older adults' needs and provide information and care advice. Implementation of the new law presented an ideal opportunity to develop and evaluate integrated care for frail older adults.

### **2. Theory/Methods**

A contextual analysis was conducted to analyze contextual factors which may influence the program; facilitate development of the integrated care model; and select contextually-relevant implementation strategies. A logic model depicting the overall program theory was designed from the contextual analysis, literature, and program documents using a deductive approach. Potential implementation strategies will be selected and rated by stakeholders according to their feasibility, importance and acceptability.

### **3. Results**

The logic model conveys the program theory linking the inputs, activities (i.e., core components of the care model: screening, referral, assessment, integrated care plan creation and care coordination, and follow-up), outputs (e.g., adoption, reach and fidelity indicators), anticipated outcomes (e.g., increased patients' person-centred, coordinated care experience; decreased nursing home admissions, hospitalizations and caregiver burden) and underlying assumptions. The co-developed implementation strategies (e.g., nurse training and developing educational materials) shown in the logic model will be tested locally in practice. Stakeholders will be engaged to validate the logic model, establish a shared understanding of the program and consider any gaps or revisions.

### **4. Discussions**

This study describes the generation of a logic model for integrated care for frail older adults, and the accompanying implementation strategies. The logic model will guide the monitoring and

evaluation of the program working theories and help to differentiate between implementation versus intervention success/failure.

### ***5. Conclusions***

Stronger understanding of program theory and the implementation process/outcomes is needed in studies of integrated care models. The key steps taken during this research and resultant program theory can be used as a basis and adapted when developing future integrated care programs.

### ***6. Lessons learned***

Investing sufficient efforts into program development is essential to ensure a strong fit between the context and care model, identify the implementation strategies needed, and reduce research waste. A diverse range of stakeholders can provide a comprehensive perspective.

### ***7. Limitations***

Linear relationships depicted within many logic models can be a drawback, however this format supports program planning. Contextual factors will differ for every setting limiting the generalizability of the model; however, the methodological approach can guide researchers for assessing their own setting and to facilitate the design and evaluation of future care models.

### ***8. Suggestions for future research***

This study set the foundation for the next steps in the INSPIRE research project: to conduct a feasibility study of the integrated care model and implementation strategies prior to full evaluation of the implementation and intervention outcomes.

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## CONFERENCE ABSTRACT

Development of a transitional cross-boundary supportive care service for advanced heart failure patients

ICIC20 Virtual Conference – September 2020

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### **Background:**

Heart failure (HF) is an increasingly common and expensive chronic disease. Whilst the majority of patients wish to be cared for (and die) at home, many (~80%) die in hospital during a protracted admission. Although palliative care (PC) can improve quality of life and reduce readmission rates for these patients, several factors including: 1) uncertainty as to the best time to refer, 2) difficulty referring patients who have longstanding relationships with invasive cardiac services, 3) difficulty for PC services to match the unpredictable disease trajectory of heart failure, and 4) uncertainty regarding whether patients may still receive benefit from active treatments, have been shown to contribute to poor referral rates.

### **Methods:**

To help address some of these issues a transitional cross-boundary Supportive Care Pathway was established consisting of a co-speciality team including a palliative care consultant, consultant cardiologist, and specialist palliative care and heart failure nurses. The team meet on a weekly basis through multi-disciplinary team meetings and joint clinics and integrate with multiple other providers including inpatient ward teams, district nursing teams, GPs, community palliative care teams and hospice teams.

This model allows patients with estimated prognosis of 1-2 years to be seen in individualised settings including; the acute hospital, outpatient clinics, at home, in nursing homes, or hospice thus facilitating a tailored and responsive approach to the unpredictable disease trajectory. The emphasis on transitioning between specialities with overlapping input allows for earlier referral, transfer of trusting relationships between patients and specialities, and the ability to maintain access to the skills and expertise of both specialities.

The innovative elements of this work have been the co-speciality integrated clinics with patients seeing both specialities simultaneously, the cross-boundary approach fitting patient need rather than service need and the introduction of subcutaneous furosemide infusions in the community as a means of palliating episodes of fluid overload in patient homes.

### **Results:**

Over 3 years, 101 patients have been referred to our service; 60 patients are now deceased (mean time in service: 225days), and 41 are still receiving on-going care (mean time in service: 303 days). 12 hospital bed days for each deceased patient and 15.5 bed days for each on-going patient have been avoided. Death at home (preferred place of death) has increased from 18% to 58%. 90% of

patients would recommended the service to others and have that the care they received was compassionate and coordinated. 80% reported that symptom control was improved and that integration of care with the cardiology heart failure team was beneficial.

***Conclusions:***

This model is highly sustainable as the cost-savings approximate to £10K per patient referral. Key elements of the pathway include the strong co-speciality relationships, cross boundary approach, multi-disciplinary team working, and use of electronic communication and virtual clinics. We feel that our model has the potential to transpose and adapt to other chronic advanced conditions such as end stage renal, respiratory and liver disease.

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## CONFERENCE ABSTRACT

Development of MORE: an evaluative tool for measuring value-based integrated care  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Ageing and chronicity, along with technological and pharmacological innovation upswing, require transformation of healthcare organizations and systems to focus on value-based integrated care (VBIC) models.

MORE (Spanish acronym for Madurez de las Organizaciones Sanitarias Orientadas a Resultados en Salud) is an initiative that pursues the commitment of healthcare organizations to progress on the delivery of VBIC as a means to allow health system sustainability. Its core element, a questionnaire for the initial situational analysis, is completed with a working methodology to first identify critical issues, and secondly define a roadmap towards a VBIC driven organization.

We describe the design process and preliminary piloting results of the MORE questionnaire.

### **Methods**

For the initial development of the questionnaire, a multidisciplinary group of experts in the field of health policy, management, health economics, pharma industry and consultancy was formed. A literature review to identify main topics and key elements in the value-based framework preceded the group discussion.

A kick off meeting of the group took place in February 2016, followed by 20 teleconference meetings. The last meeting was held in December 2017 to agree on the final version.

The preliminary version of items comprising the questionnaire was contrasted with a sample of potential users in healthcare organizations.

The final online version was tested for its usability, acceptability and user 's satisfaction before launching the pilot projects at four healthcare organizations in Spain in 2018. From these pilots, feedback from 45 interviewees was collected at working sessions after they completed the questionnaire and discussed on the results to define a roadmap for future improvement actions.

### **Results**

The questionnaire is an open access tool with 57 items structured in 5 main themes, which have been considered essential in a value-based healthcare management model: policy, care coordination, information systems, management and evaluation.

Feedback from users corroborated its potential to consider, from an integral perspective, all key elements and sensitize healthcare teams in the transformation towards a VBIC organization.

### **Discussions**

Although value-based healthcare delivery is a fashionable topic, there are not tools that allow organizations to self-assess their organizational maturity on this topic. MORE is intended to fill this gap as well as to expand current value-based healthcare approaches towards value-based integrated care by merging key concepts from both knowledge areas.

#### Conclusions

The MORE questionnaire presents an opportunity to analyze the situation of an organization with respect to VBIC and align teams towards it.

#### ***Lessons learned***

The validation done with final users suggest that the MORE questionnaire is both applicable and easy use tool.

#### ***Limitations***

Transformation processes must go beyond the implementation of a tool and they require a favorable environment at all levels of the organization which would allow changes to happen. Therefore, MORE initiative has been conceived as a transformational project, being the application of the MORE questionnaire the starting point.

#### ***Suggestions for future research***

Future psychometric validation would provide useful insights on content validity and internal consistency of the dimensions within the tool.

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## CONFERENCE ABSTRACT

Digital connection to integrated health and social care services -  
Review of inter-sectoral cooperation of Health Care Center Zagreb and Rehabilitation Center  
Zagreb  
ICIC20 Virtual Conference – September 2020

Tena Matijaš<sup>1, 2, 1</sup>

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2: Health Care Center Zagreb, Zagreb, , Croatia

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### **Introduction:**

Early intervention involves timely support for children with neurodevelopmental risk and developmental disabilities and their families through the process of information, counseling and education, guided by scientific knowledge about brain plasticity and the fact that the first years of life have a long-term effect on a child's development. Pediatricians are the first to come into contact with children with neurodevelopmental risks and developmental disabilities and their families and provide them with guidance for inclusion in further programs thereby trying to shorten the wandering and seeking of parents for diagnosis and therapy. Cross-sectoral collaboration between pediatricians and early intervention providers, who has additional resources in diagnostics and therapy is crucial in this process, complementing each other so that children could be involved in appropriate rehabilitation procedures and provide support to the family in a timely manner.

### **Description of practice change implemented, aim, targeted population and timeline:**

Encouraged by the stated problems, the Rehabilitation Center Zagreb, branch office Slobošćina and the Health Care Center Zagreb have cooperated with one another in order of better monitoring the child's development and to get involved in diagnostic and therapeutic procedures as soon as possible. The Internet has become the easiest form of communication in the form of online discussions, forums and various portals. Therefore, the practice of digital networking through telecommunication networks and video technology was occurred for over 6 months between pediatrician, early intervention specialists in educational rehabilitation, clinical psychologists, SIAT educators, parents and other early intervention professionals with a goal to further accelerate the entire process of providing timely and adequate support.

Highlights and discussions: In the process of cross-sectoral cooperation, pediatricians at the Health Care Center refer parents with children who have a suspected developmental deviation to the Rehabilitation Center. Prior to the meeting with the child and the family, the pediatrician inform the Centre's experts electronically about their observations. In this way triage is conducted as to whether there is a need for a further evaluation process or only consultations which may be carried out by the pediatrician himself. Specialists within the Rehabilitation Center carry out a team assessment on the principles of transdisciplinarity, which further shortens the time to enroll in the program, and also reduces overload of both parent and child. During the assessment, counseling is provided and guidance is given to parents on how to encourage the child in the period up to enrollment in the program. In order to monitor the progress of the child, team meetings of pediatricians and early intervention specialists are held, both live and electronically.

***Conclusions, sustainability and transferability and lessons learned:***

This method of cooperation proved to be the fastest, cheapest and most efficient, facilitating the exchange of information and data, establishing better and faster diagnostics, timely involvement of the child and family in therapeutic procedures. Also providing the creation of a community of professionals in specific areas with a common purpose, facilitating daily work and increased productivity of healthcare and other professionals in the effectiveness of treatment for small patients.



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## CONFERENCE ABSTRACT

DIGITAL HEALTH EUROPE: Assessing and supporting capacity-building for ICT-enabled integrated care twinning projects

ICIC20 Virtual Conference – September 2020

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### **Background:**

Digital Health Europe is funding a twinning scheme that supports the European Commission's Digital Single Market's three priorities for the Digital Transformation of Health and Care initiative: 1) citizens' secure access to and sharing of health data across borders 2) better data to advance research, disease prevention and personalised health and care 3) digital tools for citizen empowerment and person-centred care. Up to 45 twinings opportunities – between more than 90 organisations – will be organised. The activities will take place between September 2019-August 2020. There are four different types of digital solutions supporting the delivery of integrated care twinings: 1) knowledge exchange 2) adaptation 3) partial adoption and 4) full adoption or acquisition.

### **Aim:**

To elicit from the twinning sites themselves, particularly the adopters, what their capacity-building requirements and expectations are throughout 2020 to help the DHE team provide the best support possible.

### **Method:**

Recognising that both digital maturity and readiness to integrate care services are crucial conditions for the success of the twinning projects, desk-top research was carried out on technology-readiness and capacity-building tools, as well as integrated care maturity and implementation models.

To enable the DHE team to elicit the necessary information it became clear that a 'tailored' self-assessment exercise would be required. This was achieved through merging elements of the NHS England Digital Maturity Assessment (for the aspects related to maturity to adopt a digital solution) with components of the main tools currently available to measure maturity to deliver integrated care, in particular the SCIROCCO Maturity Model and the Optimity Advisors' Health Check Readiness.

### **Highlights:**

A self-assessment exercise was developed to be completed by twinning adopters at the start of the twinning scheme to establish a baseline and then again, at the end of the project (end of 2020) so that the DHE team can assess whether the support provided was useful or not and describe and refine the building blocks for scaling up DH solutions.

Implementation: Adopters will be encouraged to complete the exercise as a team, bringing the key stakeholders involved in the twinning together, rather than as individuals as this will foster collaboration and knowledge exchange from the outset.

***Conclusion:***

Although there are a number of tools and frameworks available which facilitate different types of self-assessment exercises, it is important to understand your project's specific requirements and develop a tailored approach if necessary. Any self-assessment should not be seen as a binary checklist, but rather as a key aspect of a programme's plan. It should be designed to support continuous improvement and facilitate the further enhancement and expansion of digitally-enabled integrated care. The information gained following the analysis of the completed DHE self-assessment surveys will enable the twinings to receive tailored capacity building support from project partners. It is also anticipated that expertise within the twinning sites will be identified through the exercise and shared with other twinings where appropriate.

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## CONFERENCE ABSTRACT

DigitalHealthEurope twinnings to scale up innovative person-centred integrated care solutions  
ICIC20 Virtual Conference – September 2020

Strahil Birov<sup>1, 1, 1</sup>

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DigitalHealthEurope (DHE) provides comprehensive support to three key European Commission priorities for advancing the digital transformation of health and care: i) citizens' secure cross-border access to and sharing of health data; ii) better data for research, disease prevention and personalised health and care; and iii) digital tools for citizen empowerment and person-centred care. DHE brings together owners of proven and effective innovative digital tools with organisations interested in adopting them elsewhere in Europe. In addition to matchmaking, DHE provides funding for making the adoption of such solutions possible via a dedicated twinning scheme. Many of the resulting twinnings focus on or address aspects of person-centred integrated care.

AppSaludable and CCEResearchInfrastructure are two such twinnings.

AppSaludable addresses the need for clearer guidance and certification of a growing number of health related apps, devices and software. It provides guidelines designed by the Andalusian Agency for Healthcare Quality, which also includes a quality seal granting the quality recognition of the authority. The quality seal is free of charge and could be obtained by every app which covers the guidelines. The system is designed to ensure the safety and reliability of new health technologies. As part of the twinning, the Health Ministry's central purchasing and IT authority in Portugal (SPMS) aims to adopt the guidelines and ensure mutual recognition of the seal between apps developed in Portugal and Andalusia.

In the CCEResearchInfrastructure twinning, the focus is on improving datasets related to better prevention and treatment of colorectal cancer supported by the innovative technology Colon Capsule Endoscopy (CCE). The twinning builds on three components - clinical trials in Colon Capsule Endoscopy, technical development, including Artificial Intelligence (AI), and building of a research infrastructure. The solution uses algorithms to review the videos of performed colonoscopies to examine the patients' condition and ensure high quality investigations. For the AI to be fully functional and implementable, a high number of videos with significant findings in the bowel is required. After a rigorous data collection process through clinical trials, the twinning sites are going to create a common database. The task of aligning the datasets is initiated early in the twinning to ensure data collections are comparable. This will lead to better diagnostics, less invasive procedures and reduction of the financial costs and the workload of the healthcare professionals. The twinning is expected to result in a number of scientific publications covering both the scientific collaboration and the research infrastructure. At the end of the twinning project, a final workshop/learning symposium will be organised in both Denmark and Scotland. The involvement of trial managers and data managers in the twinning ensures the soundness of the activities between the partners.

ICIC2020 participants will learn about all twinning opportunities offered by DHE and be invited to scale up existing best practices such as AppSaludable (attendance confirmed) and

CCEResearchInfrastructure (attendance tbc) further. A matchmaking will be used to complement the approach.

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#### CONFERENCE ABSTRACT

Effectiveness of appropriate care pathways for frail older adults: a pilot study in Valencia (Spain)  
ICIC20 Virtual Conference – September 2020

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## CONFERENCE ABSTRACT

Effects of integrated community services on vulnerable groups in rural Moldova – Evidence from service data  
ICIC20 Virtual Conference – September 2020

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### **Introduction:**

Community Medical Assistants (CMA) could be a welcome extension of family medicine services for elderly people living with NCDs within an integrated community services approach in the Republic of Moldova. The present study analyses service data of a pilot integrated care project strengthening multi-sectoral collaboration in 3 Moldovan districts (Orhei, Falesti and Ungheni) carried out since April 2019.

The purpose of this study is to show the benefit of integrated community services in terms of access to care, reaching vulnerable groups, quality of services and satisfaction of beneficiaries.

Integrated community care services were organised in three rural Moldovan districts. Every district prepared a health action plan based on locally available data and an initial assessment to identify health and social vulnerability amongst patients with NCDs. Although action plans varied between districts, all interventions included awareness raising sessions, messages for primary and secondary prevention, reducing risk factors and adjusting lifestyle factors, healthy nutrition and others. A common monitoring and data collection instrument was identified for all three districts.

722 persons of all districts with diagnosed NCDs (582 women (80%) and 140 men (20%)) were identified with some signs of social vulnerability and need for additional support. A joint assessment of medico-social teams using wellbeing and functional status indicators was carried out for approximately 50% (284 women and 88 men) of that group. From those patients, 25% were identified to require additional social support and 35% needed complementary health services. For another 17% (65 persons) who required home care services and personal assistance, a case management approach was developed. This entails the development of care plans, specifying specially targeted multi-sectoral interventions over a minimum duration of six months.

### **Key findings:**

- Inter-sectoral mechanisms for elderly people living with NCDs are largely non-functional in Moldovan communities, due to a lack of participation of the health component in multi-disciplinary case management work.
- Although officially one community medical assistance (CMA) position is foreseen for every 2000 population, in reality CMA is just a small additional function to medical assistants in family doctors cabinets. Those medical assistants, who partly have CMA functions, have not followed any training, enabling them to do their job.

- Joint medico-social and home based assessments of patients with NCDs considered at risk revealed a total service gap of up to 25% (42% of those, where joint assessment was done) compared to current identification practices.

- The vast majority of patients perceived the integrated medico-social needs assessment at home as beneficial to their wellbeing status.

- Patients with complex needs, who were previously not identified, benefit substantially from this innovative approach.

- Early detection and joint follow-up of patients with complex needs and their care-givers may reduce the need for emergency services in rural Moldova.

Integrated assessment and management of critical NCD cases with complex needs show clear advantages compared to traditional service patterns, particularly in terms of early identification and access to services. However, a much stronger role of community medical assistance within a multi-sectoral community team is required.



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CONFERENCE ABSTRACT

Enabling patient and family-centred care with an Epilepsy Patient Portal.

ICIC20 Virtual Conference – September 2020

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4: ERGO IT Solutions, , Dublin

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**Introduction:**

There is an international move towards involving patients as partners in care by allowing them access to their own health data and engaging them as co-authors of their medical record via electronic patient portals (ePortal). ePortal can be a catalyst for patient and family-centred care (PFCC) which aims to: establish co-production partnerships between patients, their carers and healthcare practitioners; empower people to take a more active role in their care; improve understanding of their illness, increase compliance with treatment; and adopt healthier lifestyles. However, factors associated with successful ePortal adoption are not fully understood.

**Problem Statement:**

To explore the role of an epilepsy ePortal in: developing more knowledgeable patients; engaging patients as safety partners; creating a passport of care and enhancing Epilepsy self-management.

**Methods:**

The Irish National Epilepsy ePortal, the foundation for this study, offers functionality for patients to view their epilepsy care summary record, access clinic letters, report progress with their treatment, set epilepsy care goals, and prepare for clinical encounters.

**Results:**

Fifty people with Epilepsy (PwE)/their care-partners together with 15 Healthcare Providers (HCP) are trialling this functionality in a stratified sample of clinical scenarios. Experience with the epilepsy ePortal is captured through surveys, focus groups, one-to-one interviews and ethnographic observations. The ePortal has been applied to mediate epilepsy telephone advice line (TAL); vagal nerve stimulator therapy; ketogenic diet treatment; out-patient clinics; and obstetric care.

**Discussions**

The Epilepsy Patient Portal provides value for users in terms of integrated care with online access to health information, that is accessible when and where needed to facilitate enhanced self-management of a long term condition

**Findings:**

Findings suggest stakeholder readiness to adopt the ePortal: patients report feeling more in control, a better understanding of the primary-care specialist interface, improved health literacy.

Healthcare providers see an opportunity to improve chronic disease management and collaborative care with the ePortal.

***Conclusion:***

This epilepsy ePortal project is consistent with current Irish health service reform (Slaintecare), eHealth and Integrated Care agendas. Patient portal technology has the potential to help move away from simply treating ill people to promoting and maintaining health and well-being.

***Lessons Learned***

The technical aspects of building and co-designing a patient portal linked to the Epilepsy EPR are not complex. However, the information governance and data protection issues that this research project is dealing with provide important insights for the Irish Electronic Healthcare Record context.

***Limitations:***

Clinicians are already overburdened and fear increased workloads; the portal will not be a helpline or emergency service. The project team are working closely with clinicians and patients to manage expectations about what the patient portal will provide.

***Suggestions for Future Research***

Future iterations of Epilepsy specific patient portals will focus on facilitating remote clinical appointments, offline access to Health Records, and the process of access to the patient portal for Healthcare Practitioners in different sites in Ireland and abroad.

Acknowledgement: Research funded by the Health Research Board (HRB) reference 2017-011, Health Service Executive (HSE) and Science Foundation Ireland (SFI).

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## CONFERENCE ABSTRACT

Enabling Town Slough: Reducing Inequality through integrated co-produced mental health services  
ICIC20 Virtual Conference – September 2020

Natasha Berthollier<sup>1</sup>, Geoff Dennis<sup>1,2</sup>,

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### **1. Introduction**

In the deprived, multi-ethnic town of Slough, Berkshire Healthcare NHS Foundation Trust and the council have been developing an innovative and comprehensive pathway, by creating an 'Enabling Town' which aspires to meet the needs of all those requiring mental health services.

### **2. Description**

The pathway relies on co-produced interventions jointly delivered by peer-mentors in different settings across the town: in health, social care and the voluntary sector. This is our 'whole-town' approach, using an asset-based community development approach alongside evidence-based psychotherapeutic and psychosocial approaches to ensure that requirements of the different sectors are met.

### **3. Aim and theory of change**

The key to our work is co-production and relational practice, and this was wholly developed - across health, social care, the voluntary sector and supported living providers.

### **4. Targeted population and stakeholders**

Our target population is the community of a socio-economically deprived town of Slough and the mental health difficulties people face. By challenging the health deficit model and utilising a community asset-based methodology (salutogenesis), we normalise people's troubled experience, and this is not specific to any particular population of mental health (transdiagnostic).

### **5. Timeline**

Seven years of developing.

- Awarded 'The Best Patient Initiative and Practice' – by NHS trust for co-produced services in 2016
- 2017. CQC inspection "the inherent value of patient's voice"
- 2017. An excellent patient experience example in a report by six local Healthwatch associations in 2017.
- 2018. The third sector consortium awarded us with an award for partnership working.
- 2018: Shortlisted for Innovation in Mental Health Practice
- 2019: Won National award for Reducing Inequalities in Mental Health

### **6. Highlights**

Our innovative approach to mental health difficulties in our community has had a quantifiable impact, measured through standard NHS measures and economic data. For example: for the 12 months before and after:

- Bed days: 4786/£1.6m (pre) to 312/£101k (post).
- Crisis and A&E: 4451 (pre) to 1235 (post)

#### ***7. Sustainability***

Demonstrated sufficient cost savings to the local authority that further investment was agreed.

#### ***8. Transferability***

We have ongoing training commitments with regional and national training courses. We attend national and international conferences to present various aspects of our work. We publish in professional journals, and are invited to contribute book chapters on aspects of the work. We have been asked to contribute to setting up services in Sheffield, West London and Isle of Man, which are based on our model.

#### ***9. Conclusions***

Our central tenet of co-design and co-production, across the system, challenges inequality in the system by creating opportunities for all by minimising 'us and them' dynamics, and transcending any diagnostic categorisations.

#### ***10. Discussions***

The model we have developed is based on 'relational practice', focussing on the engagement, and establishment of a good therapeutic relationship; rather than seeing people as 'individual faulty machines'.

#### ***11. Lessons learned***

The development of this whole-system approach to mental health has proved to be successful in times of austerity: improving quality and achieving cost savings for the local authority and NHS.

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## CONFERENCE ABSTRACT

EnBuenaEdad: Promotion of healthy aging through digital solutions  
ICIC20 Virtual Conference – September 2020

Ana M Carriazo<sup>1, 2, 3</sup>

1: Regional Ministry of Health and Families of Andalusia, Seville, Spain

2: Andalusian Health Service, Seville, Spain

3: Andalusian School of Public Health, Granada, Spain

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### **1. Introduction**

Around 1.2 million people over 65 live in Andalusia (Spain). 15.6 % of the total population and among them 200,000 are 80 or over. Statistical forecasts point to increased number in the coming years. In an increasingly aged society, new technologies present an opportunity to enhance the quality of life of elderly persons. The development of basic internet skills is an important form of permanent learning for social inclusion.

### **2. Description of practice change implemented**

EnBuenaEdad ([www.enbuenaedad.es/en](http://www.enbuenaedad.es/en)) is a web platform for the promotion of active and healthy aging in Andalusia offering information, tools and resources in the field of health promotion, citizen participation, safety and lifelong learning opportunities to improve the quality of life as people get older. Activities supported include training for professionals and citizens, dissemination of good practices or information for collaboration and alliances. Its development involved the participation of health and social services professionals as well as professionals from other areas (education, justice, planning, ...), public and private companies related to the sector and associations of older people as well citizens in general. "design thinking methodology". More than 400 people participated in design in three different ways: Scientific Committee: representatives of Comprehensive Plans and Strategies of the Public Health System of Andalusia (Regional Ministry of Health of Andalusia); Partnerships Committee with 29 public and private institutions and Provincial Meetings, where 363 people participated representing citizens, institutions, and other sectors.

### **3. Aim and theory of change**

EnBuenaEdad main aim is to facilitate the communication among elderly people, professionals and families through Internet, email or app.

### **4. Target population**

People over 55 in the region of Andalusia, their families and carers, as well as professionals from healthcare and social services. Long-life training services and digital literacy platforms are also involved.

### **5. Timeline**

The design process started at the end of 2015. Between the last quarter of 2016 and the first quarter of 2017, the participatory design phase of the digital platform ("Design thinking" methodology) was completed. The platform ([www.enbuenaedad.es](http://www.enbuenaedad.es)) was launched in 2018.

#### **6.     *Highlights***

Today the platform is fully implemented and operative as a tool used in daily life offering information on the four pillars of healthy aging: health, safety, participation and long-life learning, with a total of 1,064 contents (662 by platform users). 249,505 visits and a total of 35,478 users have accessed it (till June 2019) and 16,945 people have accessed the platform during this period (Source Google Analytics). The Platform is available in Spanish. English and French versions are partially developed.

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CONFERENCE ABSTRACTEVALUATION OF THE PROJECT ADVISORY ON DIET IN THE CITY OF ZAGREB  
ICIC20 Virtual Conference – September 2020Jasna Tucak<sup>1</sup>, ,

1: Zagreb City Office For Health, Zagreb, Croatia

**Introduction:**

This paper presents an Evaluation of the Zagreb City Food Counseling project which has been organised at the Health Center Zagreb – Center in the March 2017 as a one-year pilot project.

**Theory/methods:**

Descriptive statistics were used in data processing. The outcome indicators, table changes and corresponding graphs were compiled. The work of Zagreb City Food Counseling is evaluated by using the input-activities-output-outcome-impact model.

**Results:**

In the one-year period there were 862 visits to the Zagreb City Food Counseling. Of all visits 151 (17.5%) were realized by men, while the number of visits realized by women was 711 (82.5%). The adoption indicator of the Zagreb City Food Counseling by the citizens of Zagreb measured by at least two visits by the same respondent amounts to 58.3%. Reasons for visits are predominantly the desire to lose weight (40.4%) and illness and disorders (31.6%). If we observe early changes in people who have visited the Zagreb City Food Counseling more than twenty times, we notice that there is a decrease in body mass index in regard to the initial state. Likewise, there has been a slight decline in the value of visceral fat tissue compared to the first measurement.

Discussion: During the one-year observation, a slight progress has been recorded in the reduction of body weight observed through body mass index (BMI) and visceral adipose tissue. Because observed records are lower than expected, individuals involved in the counseling program are still at increased risk of chronic non-communicable diseases.

**Conclusions:**

- Attendance of the Counseling Center measured by the average number of visits over the total number of working days in the year is 3.5 visits per day.
- The indicator of acceptance of the Counseling Center by the citizens, measured with at least two visits by the same respondent, is 58.3%.
- The Counseling Center is visited more by women than by men (4.3 women to one man).
- Visiting reasons has been predominantly focused on the weight loss (40.4%), illness and disorders (31.6%).
- The values of body mass index and visceral adipose tissue vary over time.

**Lessons learned:**

It is necessary to have a multidisciplinary approach in the creation of future programs of the Zagreb City Food Counseling.

**Limitations:**

Through the one-year monitoring the effect could not be estimated given the fact that the effect is related to the definitive permanent changes that the respondent had adopted.

***Suggestions for future research:***

In order to be able to carry out a better evaluation of the work of the Zagreb City Food Counseling, it is proposed to include additional psychological, behavioral and sociodemographic variables to be collected during the first visit, which would probably indicate the reasons for the withdrawal from the program.



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## CONFERENCE ABSTRACT

Exploring the quality paradigms in Integrated Care: the need for emergence and reflection  
IJIC20 Virtual Conference – September 2020

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### **Introduction:**

Despite the abundance of projects on integrated care there is a lack of knowledge on what works in what context. This could be due to the fact that people use different lenses through which they see the world. These lenses are described in the four paradigms of quality: Empirical, Reflective, Reference, and Emergence. The empirical and reference paradigm fit best in circumstances that are certain or can be planned; the reflective paradigm and emergence paradigm fit best in circumstances which are uncertain and cannot be planned. Integrated Care could benefit applying knowledge from all four paradigms, which we call epistemic fluency. In a previous article Van Kemenade & Van der Vlegel-Brouwer (2019) shed light on the presence of the four paradigms of quality in Integrated Care and in the most used definitions of Integrated Care. They propose a new overarching definition. This study aims to explore the use of quality paradigms in integrated care research. Secondly, the presence of each paradigm is studied in different contexts, looking at the different countries of origin, the domain of impact in research, policy or practice and role of the patient.

### **Theory and Methods:**

This article explores research on integrated care from four paradigms of quality management. Peer reviewed articles from the International Journal of Integrated care, research & theory papers, perspective papers, policy papers, integrated care cases from January 2015 – December 2019 are included (n=258) in this study. Based on the four quality paradigms and their characteristics two reviewers assessed all abstracts and placed every article in one of the four quality paradigms. Discrepancies were resolved by reading the article in full and discussion between the reviewers.

### **Results:**

The reference paradigm was most prevalent since 147 (57.6%) studies were placed in this paradigm. 55 (21.6%) of the studies were placed in the empirical paradigm and 45 (17.6%) of the studies were placed in the reflective paradigm. Only 8 (3.1%) of the studies were placed in the emergence paradigm. An active patient role was found in less than 20% of all the studies.

### **Discussion and conclusions:**

All four paradigms occur within the reviewed articles, although the reflective and most of all the emergence paradigm seem undervalued. That is noteworthy since these two paradigms fit best in a context of complexity and uncertainty, where the 21st century is in. Although integrated care as a movement embraces the attention for complexity, context and client-centeredness, the paradigmatic commitments in the articles of the IJIC from 2015-2019, reflect this only marginally. More awareness of all paradigms, especially the emergence paradigm, and reflection on the used

epistemologies, is needed. On this road to a scientific integrated care paradigm we should embrace complexity and the patient perspective.

***Lessons learned /future research:***

The authors will present the four quality paradigms and their findings from the literature study. After the presentation participants will be able to review their research based on the four quality paradigms. A discussion will be held on the conclusions and the barriers and facilitators for improvement.

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## CONFERENCE ABSTRACT

Five year evaluation of an integrated care initiative to improve the physical health of people living with severe mental illness: The Living Well, Living Longer program  
ICIC20 Virtual Conference – September 2020

Andy Simpson<sup>1, 1, 1</sup>

1: Sydney Local Health District, Sydney, Australia

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### **Introduction:**

Eighty percent of people living with severe mental illness have a coexisting physical health condition such as diabetes or hypertension. They are six times more likely to die from cardiovascular disease compared to the general population and have a reduced life expectancy of 14- 23 years. These statistics impact 2-3% of the population and the mortality gap continues to grow.

### **Description:**

The Living Well, Living Longer (LWLL) program integrates physical health into the routine care of people with severe mental illness. The program is built on four stages of screening, detection, initiation of treatment and ongoing management and has implemented three key strategies to improve health outcomes. Firstly, the Collaborative Centre for Cardiometabolic Health in Psychosis (ccCHiP), a multidisciplinary clinic where consumers see eight metabolic health specialists in one afternoon. Secondly, Mental Health Shared Care (MHSC) introduces a formalised care arrangement with the consumer's GP. Thirdly, community lifestyle clinicians (dietitians, exercise physiologists, smoking cessation counsellors) implement individualised achievable health behaviour change goals.

### **Aim:**

The strategies described each have integration of physical and mental health at their core and integrate with each other to provide the consumer with a seamless journey. The aim is to improve health outcomes through the integration of physical and mental health.

### **Targeted population:**

LWLL targets care coordinated consumers within Sydney Local Health District. Key stakeholders include consumers and carers, GPs, care coordinators, lifestyle clinicians and other specialist clinicians.

### **Timeline:**

The LWLL program commenced in 2014 alongside ccCHiP to ensure the clinic was fully integrated with community mental health services. MHSC was piloted in 2017 and rolled out across the district in 2018. All initiatives rely on an annual cycle of care.

### **Highlights:**

The ccCHiP clinic reviews over 400 people annually and integrates with MHSC and community lifestyle clinicians for ongoing management. MHSC has formally linked over 650 consumers with

264 GPs. Community lifestyle clinicians engage ~500 individuals annually through individual interventions or group programs.

***Sustainability & Transferability:***

LWLL initiatives are now the routine approach to providing comprehensive integrated healthcare. Care coordinators are orientated to LWLL with targets to increase referrals and engagement. Furthermore, LWLL funds permanent staffing enhancements including peer support workers, nurse practitioners and shared care coordinators who play a key role in championing LWLL engagement within teams. All LWLL strategies could be transferred to other health districts.

***Conclusions:***

LWLL initiatives have positively impacted hundreds of mental health consumers. A recent audit found that average weight and waist of consumers managed under LWLL has reduced by 5kg and 6cm respectively over three years. Further analysis is underway to validate these findings.

***Discussions:***

The challenges of implementation are plentiful, ranging from amotivation of consumers to time constraints on care coordinators & GPs. However with the commitment of all to address the significant health disparities that exist within this vulnerable cohort, significant advances can be made.

***Lessons Learned:***

The integrated care approaches within LWLL can lead to improved screening, detection, treatment and management of the physical health of people living with severe & enduring mental illness.

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CONFERENCE ABSTRACT

Forget dementia, remember the person!  
IJIC20 Virtual Conference – September 2020

Olivier Constant<sup>1</sup>, ,

1: Flanders Centre Of Expertise On Dementia, Antwerp, Belgium

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If we focus on the possibilities of people with dementia instead of their limitations, their dementia will disappear behind their talents and not the other way round, that is the starting point of the next chapter of the Flemish awareness raising campaign 'Forget dementia, remember the person'. The innovative and emancipatory story of this campaign forms one of the foundations of the Dementia Strategy of Flanders (Belgium) and is written together with people with dementia and their caregivers. Their vision is the beating heart of 'Forget dementia remember the person': respectful communication is the basis for person-centered care and an inclusive society.

On the dynamic web platform and social media of the campaign people can find a wide range of dementia-friendly communication tools, as a starting point to break down the stigma on dementia and to give a voice to the person behind the condition. We've released a series of cartoons that translate the baseline 'Forget dementia, remember the person'. Together with a professional photographer and people with young-onset dementia we made posters that carry out the message. We made four short graphic novel-stories about communication in the last stages of dementia when words disappear. People can order for free photographs from a picture database. But the beating heart of the campaign, are the personal stories of the experts, namely people with dementia, their caregivers and the people who experience dementia day-to-day.

In this presentation we explain the vision behind the campaign, we give snapshots of the rich source of communication tools developed, we share highlights of the personal testimonies we recorded and we will share the short animation movie 'Forget dementia, remember the person', written together with people with dementia of the first-ever 'Working group of people with dementia' that was founded in Belgium last year. We will conclude this presentation with their call to action for future policy, research and projects in the field of dementia, with a crystal clear vision on what true empowerment of people with dementia means.



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## CONFERENCE ABSTRACT

### From CrossCare to Integrated Care - lessons learned

ICIC20 Virtual Conference – September 2020

Mirela Šentija Knežević<sup>1, 1, 1</sup>

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2: Institution for home care Zagreb, Zagreb, , Croatia

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Aging of population and increasing needs for long-term and multimorbid health services create significant challenges in shaping and ensuring economically and socially efficient health system (EU, 2017; De Maeseneer, Boeckxstaens, 2012). As there is considerable diversity in the perception of the challenges from the perspective of the system to which the citizen is addressing, good cooperation and compatibility are the key (EPF, 2017; EC, 2018). Specifically, the health system is more focused on addressing acute conditions while the social system is more focused on long-term care. On the other hand, it is not always possible to provide services at specialist level, especially for the elderly and those with limited access to these services. The diversity of professionals involved in health and social work contributes to facilitating as well as addressing the challenges of different populations, but there is a significant challenge in ensuring comprehensive and accessible care, sustainable transfer of knowledge, practices, approaches and working methods. European project CrossCare - Integrated Approach for older adults in their home, co-financed by the European Regional Development Fund, is an innovative example of international and multidisciplinary collaboration. Project had an intention to provide economically and socially relevant services and empower older people in making decisions about their health and well-being through inter-dynamic collaboration of different professionals (nurses, physical therapists, occupational therapists, doctors, social workers, nutritionists). Idea was that thorough multidisciplinary and international collaboration during the CrossCare project activities, the exchange of evidence-based good practices and encouraging the development of competencies of experts involved in targeted care (De Maeseneer, Boeckxstaens, 2012) we ensure the development of a sustainable system based on excellence. Project activities also ensured development guidelines for standardized delivery of integrated care in the primary care population at their home. As the activities involved the engagement of existing partner employees, the possibility of generalizing of achieved objectives to various other populations who already use the services provided by partners as standard in the health and social care system increased.

The aim of the paper is to present a policy strategy for the implementation of integrated care, multidisciplinary collaboration between a nurse, physical therapist and occupational therapist in integrated care, and the benefit of the CrossCare project for citizens of the City of Zagreb.





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## CONFERENCE ABSTRACT

From Good to Great – insights, learnings and a change of perspective on patient involvement at Karolinska University Hospital (KUH)  
ICIC20 Virtual Conference – September 2020

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2: Karolinska Institute, Stockholm, , Sweden

3: Regional Cancer Center, Stockholm, Sweden

4: Swedish Brain Tumour Association, Stockholm, Sweden

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### **Introduction**

Many hospitals and organizations “educate patients” to perform a representative patient-role in management and research. This traditional patient participation and representation have shown limited success and are of questionable cost-effectiveness.

In 2015 a new operation model was implemented at Karolinska University Hospital (KUH). An important part of the model is that patients and informal caregivers shall influence the decision-making process and priority settings throughout the whole organization on equal terms. The different areas where patients shall be a part is in decision-making and priority settings is in the individual care meeting, management teams, different cross-organization projects, strategic patient- and family council and in a resource group.

### **Short description**

The method for patient involvement has so far been based on a hospital perspective. The patients were invited to participate in quality improvement, to develop the way of leading the hospital and to define what to measure as a value of given care. Now the patient's role is evolved, with a 180-degree switch in philosophy. We are now going from having patients involved in health care to have the health care involved in patient's self-care and co-care. In patient involvement we are moving “from good to great”.

### **Aim and theory**

The theory and aim behind the change are the three components in Evidence Based Medicine; best evidence, clinical expertise and patients' values, preferences and knowledge (real world data). The patient's knowledge is based on lived experience and need to be better implemented in daily and organizational practice.

Population and stakeholders

The population for this project has been all patients, informal caregivers and health care providers who is working in different parts at KUH.

### **Timeline**

2015-2019

### **Highlights**

The most important insight is a tendency that we better capture patients' voice. As an outcome of this organizational change we now also see some concrete examples that patients are developing and implements interventions.

#### **Sustainability**

Health care systems overall are changing to involve more and more patients and informal caregivers to be a part in leading and developing. This initiative has an important role to take a leading role and develop how the future patient involvement can take part.

#### ***Transferability***

We have found that the new perspective of patient involvement is transferrable to many health care systems and integrated care pathways.

#### ***Conclusions***

If you really believe in Evidence Based Medicine, you can't exclude the patient component.

#### ***Discussions***

We are moving to involve patients as colleagues and are moving to involve health into patient's self-care and co-care.

But there is some risk that we need to consider. For example; how do we recruit the patient representatives? How do we develop a system that capture all patient voices not only the strongest and best educated patients?

We can't stop critically question our self in this important matter.

#### ***Lessons learned***

It takes time to make a difference and if you want to have an impact of some-one's way of thinking takes even more time.

Strong leadership and a multidisciplinary teamwork in an organization with an fully integrated approach.

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## CONFERENCE ABSTRACT

From policy to practice: Insights from 15 Dutch integrated neighbourhood teams.  
ICIC20 Virtual Conference – September 2020

Lian Stouthard<sup>1, 1, 2</sup>

1: Vilans, Utrecht, Netherlands

2: Movisie, Utrecht, , Netherlands

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### **Introduction**

Since the decentralisation of care in 2015, Dutch municipalities are responsible for the Social Support Act and the Youth Act. The motivation behind the decentralisation is to improve the quality of the care, promote an integrated approach, and keep healthcare available and affordable. Each municipality is obliged to provide safe, efficient care that is attuned to the clients' needs. Details and rules about the quality, nature and delivery of care and support are not included in both acts. Therefore, each municipality formulates their own vision and policy on care and support.

In this paper we (1) gain insight to what extent the vision and policy differs between municipalities and (2) how these policy principles influence the daily practice of providing care and support by the integrated neighbourhood teams.

### **Theory/Methods**

A comprehensive policy analysis of policy documents concerning care and support of 15-20 Dutch municipalities. The municipalities vary in size, inhabitants and location in order to represent an array of municipalities through the Netherlands. The analytical framework is based on the classification of integrated neighbourhood teams (Arum & Enden, 2018) and on underlying values of integrated care (Zonneveld, Driessen, Stüssgen, & Minkman, 2018).

Results are discussed with local policy makers and integrated care teams (team leaders and professionals) in interviews and focus groups in order to gain insight in how policy influences, and is translated to, the daily practice of the teams.

### **Results**

The analysis resulted in a wide array of policy principles but also shows much overlap. The policy principles of most municipalities, although formulated differently, relate to the following values/principles: preventative, empowering (self-reliance), coordinated, comprehensive. Values such as coproduction, efficiency and trust are less represented in the analyzed policy principles (Values Framework, 2018) but do play an important role in the daily practice of the integrated neighborhood teams.

### **Discussion/Conclusion/Lessons learned**

The study shows that most policy principles are formulated on a high level of abstraction, which results in a broad variety of ways how these principles are operationalized into practice. We discuss how the integrated teams operate as street level bureaucrats in order to liaison between their daily practice and the formulated policy in order to bring these principles into practice and ensure a high standard of care for the inhabitants.

### **Limitations**

For this research a wide array of sources is used, depending on the available information for each municipality. We are aware of the limitations for comparison this entails. Additionally the results of the policy analysis are discussed with a small sample of professionals. Finally the end user is not included in this study, we can therefore not make any statements concerning the quality of care for the end user.

***Suggestions for future research***

To gain further insight in how policy effects the quality of care it would be valuable to extend this study to focus on the (experienced) quality of care and support for the end user.

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## CONFERENCE ABSTRACT

FULL OUTCOME REPORT from the IBBIS randomized controlled trial [DK]: Integrated vocational rehabilitation and mental health care for people on sick leave due to anxiety and depression (N=611 participants, one year follow-up)

ICIC20 Virtual Conference – September 2020

Andreas Hoff<sup>1, 1, 1</sup>

1: CORE [Copenhagen Research Center For Mental Health], Copenhagen, Denmark

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### **Introduction**

Anxiety and depression are common causes of long-term sick leave. Currently, lack of coordination of the relevant interventions, seems to entail confusion among sick employees, afflicting their recovery and return-to-work (RTW) process. A positive effect of integrating vocational rehabilitation (VR) and mental health care (MHC) is indicated by some studies, but not finally established. The aim of this study is to examine the efficacy of the integrated IBBIS intervention compared to current, non-integrated interventions.

### **Methods**

Hypotheses: compared to currently provided interventions, providing 1) improved MHC or 2) integrating MHC with VR, can improve RTW.

In this 3-armed randomized controlled trial, 611 participants on sick leave were randomized to:

1: Treatment as usual (TAU, a heterogenous non-integrated combination of MHC in primary care and VR at municipalities)

2: Standard MHC (research project-delivered), and standard VR in municipalities, non-integrated

3: The IBBIS intervention: integrated vocational rehabilitation (VR) and mental health care (MHC) Outcomes are time to stable return to work (RTW), at 6- and 12-month follow-up (FU), levels of depression, anxiety, perceived stress, and functional level at 6-month FU.

Researchers are per October 2019 still blinded to group allocation – hence group allocation is concealed as X, Y and Z.

### **Results**

The three groups showed different RTW-patterns and different symptoms levels.

After 6 months group Z, compared to group Y, showed 64% faster RTW ( $p=0.0033$ ), but worse symptom levels. Group Z compared to X, showed tendency to 31% faster RTW ( $p = 0.072$ ), but no difference in symptoms.

After 12 months groups Z and X respectively, compared to group Y, showed 34% faster RTW ( $p<0.035$ ), and group Z showed worse symptom levels, compared to group Y. All symptom-differences were small compared to the change over time in all groups.

### **Discussion**

Different interventions yield different RTW rates, with faster RTW concurrent with worse symptom levels. This might be due to a higher symptom rise after fast RTW compared to slow RTW, perhaps because participants in early phases are still sick despite RTW, which is in line with previous studies. Seemingly there might be an inverse relationship between RTW and symptom levels.

### ***Conclusions***

Intervention composition affects recovery in different and complex ways, and fast RTW is not consistently associated with better symptom and functional level – under some conditions, seemingly, the opposite is the case. All unblinded results will be presented.

### ***Lessons Learned***

RTW does not consistently imply lower symptom levels. Group symptom differences were much smaller than the average general change (very low effect sizes) – we speculate a 3-month FU could have been relevant.

### ***Limitations***

Only researchers are blinded, but neither participants nor intervention providers ever were, which might produce bias. Difference between the integrated intervention and the other groups were not only integration, but also the content of the VR delivered. In the TAU group we lack information about MHC provided in primary care.

### ***Suggestions For Future Research***

Using mixed methods and more frequent measurements, the interplay between health, interventions and employment could be examined.

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## CONFERENCE ABSTRACT

Health care delivery for minor migrants and refugees in EU: gaps in the knowledge and expertise of health care providers

ICIC20 Virtual Conference – September 2020

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1: Polibienestar Research Institute - University of Valencia, Valencia, Spain

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### **Introduction**

Childhood care by its nature requires the integration of nurturing and protective services [1]. Furthermore, a lack of appropriate resources tackling the specific needs of migrants and refugees has put pressure on health care services [2]. In this regard, the European project EUVETCARE qualitatively explores how to strengthen care delivery for child migrants and refugees.

### **Methods**

Between April and May of 2019, a total of 99 professionals involved in the health and social care delivery for migrant minors as well as policy-makers participated in fifteen focus groups were carried out in 5 EU countries (Greece, Italy, Spain, Cyprus and Germany). FGDs were transcribed verbatim in local languages and transcriptions were analyzed using thematic analysis.

### **Results**

Different gaps in knowledge were reported in the following topics: 1) Awareness and Knowledge of the political, social and health situation by origin country. 2) Cultural competence and social skills, to maximise the sensitivity of health care providers in the service of care to culturally diverse groups. 3) Legal, social, and medical services pertaining to migrants/refugee and how to facilitate the interconnectedness with them.

### **Discussion**

Provision of health care to children is a right in EU regardless of any condition. However, the findings highlighted that this right may be not guaranteed in terms of quality and equality. Training of healthcare professionals doesn't lead with psychosocial aspects of migration forgetting the cultural aspects of the minors and their families. Finally, the delivery of health care for minor migrants and refugees requires major intensity from the healthcare services. In this regard, there is a lack of procedures on how to involve other agencies, services and professionals to effectively manage cases of minor migrants and refugees.

### **Conclusion**

Findings suggest that future training for healthcare professionals should guarantee both a holistic understanding of the health of these minors as well as better coordination of professionals and services with an interdisciplinary approach. Consequently, the training of healthcare professionals should target culturally-competent case management strategies for minor migrants and refugees.

### **Lessons learned**

Future training for healthcare professionals will aim to develop culturally competent services achieving improved experiences of minor migrants and refugees by interdisciplinary and coordinated care.

### ***Limitations***

The sample of this study is not representative, which does not permit the extrapolation of results, nevertheless, this study allows to capture commonalities in 5 different European health care systems.

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## CONFERENCE ABSTRACT

Healthcare utilisation following pharmacist case management of older people in intermediate care.  
IJIC20 Virtual Conference – September 2020

Ann Doherty<sup>1, 2,3, 4</sup>

1: School of Psychology, Ulster University, Coleraine, United Kingdom

2: Department of Health (NI), Belfast, , United Kingdom

3: School of Pharmacy & Pharmaceutical Sciences, Ulster University, Coleraine, United Kingdom

4: Pharmacy, Western Health and Social Care Trust, Londonderry, United Kingdom

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### **Introduction**

A novel care model, established to address inappropriate prescribing among older people admitted into intermediate care (IC) in Northern Ireland, has shown significant improvements in prescribing appropriateness [1]. Medications are assessed by a case management pharmacist using the Medication Appropriateness Index (MAI) [2]. A patient-specific pharmaceutical care plan is developed, with case management continuing for 30 days post-discharge. To date, the relationship between improved prescribing appropriateness and unplanned hospital readmission following IC discharge has not been examined.

### **Methods**

Data from older people ( $\geq 65$  years, N=532) admitted into IC in two Northern Irish healthcare trusts was examined using SPSS version 25. The number of unplanned hospital admissions within 30 days, 31-90 days and 0-90 days of IC discharge was examined using Poisson regression. Independent variables including MAI score improvement and clinical intervention types were examined in multivariate analyses, controlling for demographics, medical history and hospital admissions in the previous 12 months. Time to readmission was compared between those who experienced MAI score change and those who did not using Kaplan-Meier survival analysis.

### **Results**

In total, 115 participants were readmitted following IC discharge. No significant association was observed between MAI score improvement and the number of unplanned readmissions <30 days, 31-90 days and <90 days of IC discharge. Time to readmission was not significantly different for those who experienced a change in total MAI score (Mdn=25) and those who did not (Mdn=28),  $\chi^2(1) = .468$ ,  $p = .494$ . Patient education and medication dosage alteration were significantly associated with fewer readmissions within 30 days and 31-90 days, respectively. The number of unplanned admissions in the 12 months before IC admission was predictive of the number of readmissions in all three periods (<30, 31-90 and <90 days).

### **Discussion**

Improved MAI scores were not associated with unplanned hospital readmissions within 90 days of IC discharge. Individual intervention types showed some significant associations with fewer admissions. Previous hospital admissions, which may serve as a proxy for clinical need, was a consistent predictor of readmissions in the three months following IC discharge.

### **Conclusions**

Medicines optimisation in intermediate care has resulted in improved care and drug cost savings [1]. Whilst medicines optimisation was not associated with hospital readmission, elements of the service showed significant associations with fewer admissions.

#### Lessons learned

Hospital readmission is multifactorial and may be unavoidable for older people who exhibit greater clinical complexity. Pharmacist involvement within IC may contribute to fewer readmissions for some older people.

#### **Limitations**

No random allocation to a control group limit the inferences from identified results.

#### Suggestions for future research

Future research should identify whether improved prescribing for specific medications show any association with hospital readmission.

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2. Hanlon JT, Schmader KE, Samsa GP, Weinberger M, Uttech KM, Lewis IK, et al. A method for assessing drug therapy appropriateness. *Journal of Clinical Epidemiology*. 1992 Oct 1;45(10):1045-51.

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## CONFERENCE ABSTRACT

How to manipulate friends and influence practice: using a narrative microbiology report to change clinical behaviours through the application of complexity science  
ICIC20 Virtual Conference – September 2020

Mike Simmons<sup>1</sup>, ,

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Our population had the highest rate of *Escherichia coli* (*E. coli*) bacteraemias in Wales. We introduced complexity science and behavioural change approaches to healthcare associated infections. Educational activities and narrative reporting were used to amplify good behaviour e.g. understanding and recording clinical markers of infection and suppress negative behaviours e.g. responding to dip stick results for urine infection instead of clinical assessment. We extended our educational activities into the community, targeting nursing and residential homes for the elderly with tailored conferences, presentation to general practice cluster meetings and GP antibiotic prescribing audits. Our narrative reporting in microbiology reinforces behaviours. Our aim was to reduce *E. coli* bacteraemias by targeting urinary management as 50% of *E. coli* bacteraemias are associated with urinary infections. Our theory is that narrative reporting, targeted at the individual patient and clinician, triggers an emotional response in the limbic brain and changes clinical behaviour. Older people are our primary target population as they are at greater risk of admission with sepsis. Engaging our primary stakeholders, the clinical report readers and community and social care staff, we sought to reduce *E. coli* bacteraemias in our target population. The narrative microbiology report was introduced in 2014. We published our investigation of retrospective bacteraemias (<https://doi.org/10.1016/j.jhin.2018.04.009>) and urine reporting changes (<https://doi.org/10.1177/1757177419831348>) in 2019. New reporting systems can enhance the richness of the commentary. The reader is presented with messages to consider when responding to the report. This led to a reduction in sample numbers but also quality improvements: the positive samples did not decline while the negatives declined with different interventions. Our published estimate is that every decision not to sample, releases £12.08 back to the health economy. With 12,000 less samples per annum (pa), the resource release to our healthcare system was £145,000pa. Recently, our national reporting scheme detected a 20% reduction in our *E. coli* bacteraemias over the past year. After five years, our decline in urine numbers is now 24,000pa, doubling the resource release. The reduction in urine samples was an unanticipated benefit but is an example of emergent change in a complex adaptive system. Narrative reporting takes time. However, the tools we have developed accelerate the process. We are teaching other staff the techniques and are working with an industry partner to develop Artificial Intelligence solutions to manage the simpler responses. From August 2018 we began authorizing reports for a second health economy's population with higher specimen numbers. At the end of one year, we have seen their numbers decline by 24,000pa. A new programme aims to spread the innovation across Wales. Narrative reporting is changing clinical behaviours leading to improved quality of care but with a current resource release totalling £500,000pa.

Healthcare is a complex adaptive system; recognizing this as we have allows new emergent behaviours to be amplified with significant healthcare benefits.

In a complex adaptive system, emergent behaviour is to be expected but the effect may not be anticipated and it is essential to always be ready to assess effects when they arise.

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## CONFERENCE ABSTRACT

ICT based Empowerment of Diabetic Patients: the PROEMPOWER value-based procurement  
ICIC20 Virtual Conference – September 2020

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3: Ministry of Health Turkey, Ankara, Turkey

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Type 2 Diabetes Mellitus (T2DM) is a chronic disease accompanied by multi-morbidity, complications and stages. It represents an increasing burden worldwide on health care systems expenditure and is often considered a pandemic. The management of T2DM is far from being truly integrated. The services provided to diabetic patients are very fragmented. Healthcare systems in most regions of Europe react to acute events rather than actively prevent them. Patients are treated rather than being active in the management of the disease. PROEMPOWER is a Pre-Commercial Procurement (PCP) project funded by the European Commission Horizon 2020 programme, which aims to define new T2DM care pathways that ensure both continuity of care and the integration of social and health interventions. Procurers, coming from four EU countries have worked on defining functional and non-functional requirements and use cases for diabetes self-management, which resulted in the development of an innovative management model for T2DM, using digital technologies to support professionals and patients, in an integrated system characterized by health services and patient empowerment. The PCP selection process involved three phases: Phase I: Concept design, solution architecture and technical specifications; Phase II: Development of prototype systems; Phase III: Development and testing of pilot systems. The selection process led to the implementation of two ICT prototypes to be tested in four pilot sites. The two ICT solutions aim to support healthcare professionals and patients themselves, in the early identification of diabetes and personalization of treatment. The solutions allow to monitor, depending on the stage of the disease, blood pressure, weight, blood sugar levels, physical activity and nutrition, and to promote adherence to drug prescription and diet, healthier lifestyles, training, self-help and mutual support among patients. The PCP aims to develop an innovative tool that would respond to the expressed unmet needs of professionals and patients. The definition of the requirements for the development of the PROEMPOWER solutions involved patients and professionals from the early stages. According to the requirements, the solutions are fully integrated with clinical practice and organizational models. Furthermore, they are consistent with international, national and regional guidelines for the diagnosis and follow-up of patients with type 2 diabetes mellitus. The approach does not modify the existing organizational models, but rather improves the efficacy of self-management of the disease by the patient and the quality and quantity of data available during follow-up visits. The selection process does not allow a second chance to those consortia that do not get chosen, and therefore, solutions that could have turned out to be effective can be lost without any further opportunity of development in this framework. The pilot study will allow verifying if the model is adoptable and scalable in the different regional contexts and care settings. It is advisable to assess whether the solutions are developed in a non-invasive workload for the

professionals, and they improve the patient's awareness and empowerment, in order to positively impact the quality of life and health.

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## CONFERENCE ABSTRACT

Impact of a local health and hospital service placing a Community Link Worker in a high need social housing area of inner Sydney, Australia

ICIC20 Virtual Conference – September 2020

Lisa Parcsi<sup>1</sup>, Margo Barr<sup>2, 1,2</sup>

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2: Centre for Primary Health Care and Equity, University of New South Wales, Kensington, NSW, Australia

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### **Introduction:**

There are several high need social housing areas in Australia all with vulnerable populations i.e. those who are economically disadvantaged, Aboriginal, from ethnic minorities, and older. These populations often have health conditions that are exacerbated by barriers to accessing health care and their health problems often overlap social issues related to housing, poverty, and educational disadvantage. A social housing community had concerns with 'street drinking', drug and mental health issues. Two health forums, attended by 130 people including residents, community representatives, Non-Government Organisations, health staff, and other government agencies, were held to look for solutions. Following the fora, a specific Healthy Living Link Worker role was established to bridge the gap between social housing residents and local health and hospital services.

### **Methods:**

In 2019 the University of New South Wales reviewed the role. Specifically examining: (i) expectations of the role at establishment (establishment interviews), (ii) the literature to find examples of similar roles, and (iii) if the role had achieved the requirements of the job description and the expectations of the community (key informant interviews).

### **Results and Discussion:**

The establishment interviews identified the theory behind the role was capacity building using examples from other parts of Australia, Scotland and USA. The informants stated the main purpose of the role was to: be a point of connection, liaison and navigation between the health and hospital service and the social housing residents; address health and wellbeing issues through better access to services; and improve the systems responsiveness to high need residents. The literature review identified 21 articles using terms: community health worker, patient navigator, social prescribing link workers, and limiting it to review articles in English from OECD countries published in 2012 to 2019. It provided evidence that similar roles had significant health and wellbeing gains for chronic disease management, mental health needs, physical activity, appropriate health service use, health literacy, quality of life, and health screening. Findings from the key informant interviews will be provided as part of the presentation.

### **Conclusions:**

The link worker role was established to meet specific needs of a disadvantaged community. The aims of the role were to: address health literacy at individual and community levels whilst also

attempting to drive change within the system; take on a community voice seeking to disrupt the system whilst also empowering individuals to access the help, care and support; and consult and report directly to the community. The review found that some of these roles were being achieved. However, to achieve all of them the position needs more support from both the health service and the community.

Lessons learned: Having clear, achievable responsibilities, coupled with authority to act are important; as is having mechanisms to monitor how well the role is meeting community needs.

***Limitations and future research:***

Currently only one link worker position exists, and the position has only been in existence for 2 years. However, a possible outcome of the review is to expand to other disadvantaged areas. Further research measuring health outcome improvements would be beneficial.



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## CONFERENCE ABSTRACT

Implementation and validation of the C3-Cloud system: a new generation for integrated care tool developed with and for multimorbid patients  
ICIC20 Virtual Conference – September 2020

Dolores Verdoy<sup>1, 2, 3</sup>

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2: Osakidetza, Basque Country Health Public System, Vitoria-Gasteiz, Spain  
3: South Warwickshire NHS Foundation Trust (SWFT), WARWICK, United Kingdom  
4: Region Jamtland Harjedalen (RJH), Ostersund, Sweden

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The clinical management of multimorbid patients with chronic diseases is complex and often uncoordinated resulting in fragmented care. A more active collaboration with patients & carers is required for the better management of care.

The EU C3-Cloud project (689181) brings together key evidence-based information in an innovative ICT system to encourage improved, patient-centered, integrated care activities by a multidisciplinary care team (MDT). The system is based on two main components, which are interlinked: the first is used by the patients promoting their empowerment and self-management and the second is used by all healthcare professional members to create personalized care plans. The aim of C3-Cloud is to improve the care of multimorbid patients, enabling the delivery of integrated, collaborative, coordinated and patient-centred care through evidence-based decision support, and personalised care plans. The theory of change is achieved during the implementation of the C3-Cloud intervention across three different organisational settings in Europe and their evaluation.

C3-Cloud involves more than 500 multimorbid patients and 160 healthcare professionals who use the new system during the intervention as part of the routine care process across three sites in Europe.

The use of the C3-Cloud system by participants starts from October 2019 and runs for 5 months. A user-centered design approach was followed from the beginning of the project and has enabled the specifications of the conceptual design of the C3-Cloud architecture, from which the new system has been developed. Based on the application deployment design, the final application has been deployed and operated in the sites. Technical and semantic interoperability between C3-Cloud and local systems have been ensured by also implementing necessary security and privacy measures.

In each site, operational procedures have been implemented for recruitment, training, operation of C3-Cloud and coexistence with local technology during the intervention and evaluation.

Co-production between technical teams and end-users has been guaranteed through the whole project.

The use of human resources available and technological resources generated along the project enable subsequent deployments. Sustainability planning is embedded in the project work plan.

After the evaluation, the organisational change elements will be identified and organised as an adoption and decision-making blueprint for scaling up. Modular design and standards-based components make it feasible to transfer the C3-Cloud implementation to other sites.

The key elements for the deployment and operation of C3-Cloud providing the interoperability have been identified and implemented. The readiness of the main organisational aspects has been ensured for the intervention.

The intervention starts in October 2019. It aims to prove the improvement of the care of multimorbid patients by means of facilitating coordinated care, treatment optimizing and patient self-care. The evaluation of the implementation in terms of technology acceptance and cost-effectiveness will be performed after 5 months piloting and shared during the conference.

The contribution of end users has been crucial for the development of C3-Cloud system.

The intervention requires controlling all the operational aspects to ensure consistency between organisational environments, population groups and the C3-Cloud care model.

Training must ensure that participants have sufficient knowledge to participate effectively.

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CONFERENCE ABSTRACT

Implementation of digital solutions to provide personalised early detection and intervention to people with increased health and social risks  
IJIC20 Virtual Conference – September 2020

Olatz Albaina<sup>1, 1, 1</sup>

1: Institute Of Research In Health Services-kronikgune, Barakaldo, Spain

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**Background/Objective**

Due to the aging of the population and advances in medical science, people with chronic diseases are living longer. European Healthcare Systems are struggling to cope with the cost burden of chronic diseases and its impact on their sustainability. Over the last decade, Healthcare Systems have increasingly recognised the potential of digital health solutions. Digital solutions play a growing role in achieving better diagnosis, treatment and management of citizens across the continuum care and prevention.

GATEKEEPER project is an EU Horizon2020 research funding program which main objective is to create a digital platform that connects healthcare providers, businesses, entrepreneurs, and elderly citizens in order to originate an open, trust-based arena for matching ideas, technologies, user needs and processes, aimed at ensuring healthier independent lives for the ageing populations.

**Methodology**

GATEKEEPER will demonstrate by scaling up, during 42 months, the deployment of innovative user-led solutions building on big data for personalised risk detection, advanced health monitoring and early interventions for people facing increased health and social risks. It will involve 40.000 elderly citizens from eight deployment sites across seven European countries: Spain, Germany, Greece, Italy, United Kingdom, Cyprus and Poland.

The Basque Country (Osakidetza-Biocruces and Kronikgune) as deployment site will involve 11.300 patients with different risk levels (low, moderate and high complexity) to address the seven medical use cases of GATEKEEPER:

- Lifestyle-related early detection and interventions
- COPD (Chronic Obstructive Pulmonary Disease) exacerbations management
- Diabetes: predictive modelling of glycaemic status
- Parkinson's disease treatment DSS (Decision Support Systems)
- Predicting readmissions and decompensations in heart failure
- Primary and secondary stroke prevention
- Multi-chronic elderly patient management including polimедication

To achieve this challenge the Basque Country will select and deploy from the GATEKEEPER platform a set of services and tools corresponding to the medical use cases to personalized early detection and interventions in order to test and demonstrate the benefits of GATEKEEPER solutions.

**Results**

GATEKEEPER will design and demonstrate the real-life effects of a digital ecosystem innovative platform for personalised treatments and therapies based on early detection and risk avoidance in a large scale pilot across eight European health references.

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## CONFERENCE ABSTRACT

Implementing a 'structured multidisciplinary care team' in Norway  
ICIC20 Virtual Conference – September 2020

Line Melby<sup>1, 1, 1</sup>

1: Sintef, Trondheim, Norway

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### ***Introduction:***

It is well known that persons with long term, complex needs need better coordinated and integrated services. In Norway, persons within this group have a legal right to an individual care plan (IP), and a coordinating team. However, fewer persons than those in the target group are offered such follow up. On this background, the Norwegian health authorities have issued new recommendations for how to follow up persons with long term complex care needs. These include systematic assessment of care needs and establishment of a dynamic, small, multidisciplinary care team with a coordinator, so called "structured multidisciplinary care teams" (SMCT). User involvement is strongly emphasised.

In 2018, six municipalities across Norway ('pilot municipalities') received financial- and process support to implement the new recommendations by 2021. In a longitudinal research project, we follow the pilot municipalities during the whole implementation period, and in this paper, we present findings from the first phase. The aim of the research has been to learn about how municipal service providers work and reshape work processes to detect and enroll all its inhabitants with long term complex care needs into SMCTs.

### ***Methods:***

We conducted semi-structured interviews with employees in the six pilot municipalities (N= 175), as well as with users. In this paper, we only use data from interviews with employees. The interviewees comprise persons from healthcare, social work, child welfare, schools, kindergardens, and the Norwegian Labour and Welfare Administration, as well as clerical staff in the municipal administration. We also interviewed health and social top managers.

### ***Results:***

We found great diversity among the municipalities concerning follow up of persons with long term complex needs prior to the pilot project. All had good routines for the follow up of some groups (e.g. children, disabled persons), but all lacked a systematic and comprehensive approach for ensuring coordinated services for all groups in need of them. Common challenges were found across the municipalities in the first phase of the pilot. These included how to systematically identify persons in the target group, how to involve users in their own care team, and how to recruit, train and support coordinators.

### ***Discussions:***

Implementation of interventions of such a complexity is challenging, and we found that the municipalities need to start to work on a basic level with its organisation, routines, staff's skills and knowledge before they can start up with the SMCTs.

### ***Conclusions:***

SMCTs can be useful arrangements for persons with long term complex care needs. However, providing all potential users with such teams requires new collaboration routines, systems for identifying users, and increased competence among providers.

***Lessons learned:***

SMCTs should be considered a complex intervention, implying that it is time consuming to implement them, and difficult to foresee all the effects.

***Limitations:***

The data is limited to the first part of the implementation process.

Suggestions for future research: Further research should provide knowledge on the variety of results from this way of organising follow up and care.

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## CONFERENCE ABSTRACT

Inappropriate prescribing among older people in intermediate care: prevalence, pharmacist intervention and predictors of improved prescribing  
ICIC20 Virtual Conference – September 2020

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4: Pharmacy, Western Health and Social Care Trust, Londonderry, United Kingdom

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### **Introduction**

Intermediate care (IC) is an important destination for older people transitioning from secondary care to home. Inappropriate prescribing is highly prevalent among older people; however, less is known regarding its prevalence within IC. Furthermore, whilst a novel pharmacist case management model has shown improved prescribing appropriateness among older people in IC [1], less is known about predictors of the change observed.

### **Methods**

Data from older people ( $\geq 65$  years,  $N = 532$ ) admitted into IC in two Northern Irish healthcare trusts was examined using SPSS version 25. Prevalence of inappropriate prescribing on admission was determined using the Medication Appropriateness Index [2] (MAI) score, assessed by the case management pharmacists. The change in MAI total score from admission to discharge was examined using the Wilcoxon signed-rank test.

Multivariate linear regression, robust to data non-normality, was conducted using Mplus 8.1, with MAI score change the outcome variable. Clinical characteristics, pharmacist intervention types and patient demographics were entered as independent variables.

### **Results**

The majority of participants (89.5%) showed some degree of inappropriate prescribing on admission into IC, indicated by a total MAI score  $>0$ . A total of 2377 clinical interventions were recorded for the cohort ( $M = 4.48$ ,  $SD = 2.56$ , range 0-12). A total of 948 medicines were discontinued during IC admission. Total MAI scores reduced significantly from admission ( $Mdn = 14$ ) to discharge ( $Mdn = 0$ ) ( $Z = -18.28$ ,  $p < .001$ ), with most participants (83.6%) reporting a change. A linear regression model explained 44.2% of the variance in MAI score change, with the change in the number of prescribed medications from admission to discharge the strongest predictor ( $\beta = .584$ ,  $p < .001$ ). Receiving at least one medication dosage change also positively predicted the magnitude of MAI score change ( $\beta = .206$ ,  $p < .01$ ).

### **Discussion**

Inappropriate prescribing is highly prevalent among older people in IC, highlighting the need for medicines optimisation within this care context. The significant reduction in MAI score achieved via pharmacist case management was largely driven by medication discontinuation, however, dosage adjustments also contributed to improved appropriateness.

### ***Conclusions***

It cannot be assumed that all medicines have been optimised for the older person prior to transition into intermediate care. Medicines can be successfully optimised by pharmacists within IC via a case management approach.

#### **Lessons learned**

Pharmacist involvement within IC is warranted given the high levels of inappropriate prescribing identified and the significant improvements achieved.

### ***Limitations***

No comparison with usual care was made as the service was available to all IC patients.

#### **Suggestions for future research**

The healthcare outcomes of participants following case management need to be explored.

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## CONFERENCE ABSTRACT

### Initial Results of the Design and Implementation of an Integrated Perinatal Mental Health Partnership

ICIC20 Virtual Conference – September 2020

Cara English<sup>1</sup>, Diane Ortega<sup>2</sup>, Belinda Hodder<sup>2</sup>

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2: Willow Birth Center, Mesa, Arizona, United States

#### **Introduction:**

Perinatal mood and anxiety disorders (PMADs) are the most common complication of pregnancy and childbearing with an incidence of 20%. In response to an increased rate of PMADs in the state of Arizona and a state-wide mental health service gap for pregnant and postpartum mothers, an integrated midwifery service model was designed to deliver evidence-based behavioral health assessment and treatment for PMADs.

Practice change implemented: This model was implemented in a women's health clinic in the Southwestern United States. Behavioral health concerns among pregnant, postpartum, and primary care women were identified through evidence-based screening tools, including the Edinburgh Postnatal Depression Scale (EPDS), the Mood Disorders Questionnaire (MDQ), and the Adverse Childhood Experiences (ACE). Women who presented with elevated scores or self-reported history of mental health disorders received behavioral health consultation via Warm Handoff and/or follow up behavioral health appointments at the clinic.

#### **Aim:**

We aimed to reduce the rate of untreated PMADs in our community, increase access to evidence-based behavioral health care for women, and improve access to behavioral health specialty consultations for women's health care providers.

#### **Targeted population and stakeholders:**

In the first two years of implementation, 1469 women seen in clinic were screened for PMADs by certified nurse midwives. The clinic housed an integrated Doctor of Behavioral Health who was called in for Warm Handoffs and/or scheduled women for follow up visits, and provided treatment for 900 women, their partners, and families. Mothers and families were also linked with community resources, including free therapy and peer groups.

Timeline: The first two years of implementation ran from October 2017 to October 2019.

#### **Highlights:**

Provider impact was extremely positive; 100% of providers rated the impact of collaborating with BHP as positive; 100% rated additional BH training as helpful; 100% providers reported they utilized consultation with the BHP weekly. Patient impact: 88% reported a greatly improved prenatal/postpartum experience; 60% were unsure or would not have sought BH care if it were not available on site.

#### **Comments on sustainability:**

This low-cost integration model has accomplished initial aims and has potential to expand impact through implementation in additional clinic and hospital sites.

Comments on transferability: The design and implementation of this model can easily be shared with health systems looking to implement an integrated model of service delivery in women's health and perinatal specialties. The partnership requires limited mental health infrastructure to meet patient and provider needs.

***Conclusions:***

More mental illness was discovered than initially anticipated in this population, and without screening and available treatment, poorer pregnancy, birth, infant, and family health outcomes were likely, based on patient responses indicating they would not have sought help elsewhere or were unsure where else to go for behavioral health care.

***Discussions:***

This model fills a critical service gap and has improved the standard of patient care for women and families through integrated care.

***Lessons learned:***

Embedding a PMHNP or additional training for the staff will increase comfort level with medication management for pregnant and nursing mothers.

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CONFERENCE ABSTRACT

Integrated Care Procurement Objectives selection in the Euriphi project: an exercise to identify innovative solutions

ICIC20 Virtual Conference – September 2020

Edelweiss Aldasoro<sup>1</sup>, ,

1: The International Foundation for Integrated Care, Oxford, united Kingdom

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**Introduction:**

Many regions across Europe are starting to develop and implement value-based care models. Value is defined as patient/person care and experience outcomes relative to the health and care system cost to deliver those outcomes. Value-based procurement therefore, goes hand in hand with value-based care as it makes purchasing decisions that take into consideration how a product, solution or service can best deliver the outcomes and experience of care being measured and reduce the total cost of care – rather than focusing exclusively on purchasing a specific product, solution or service at the lowest possible price. The EU funded Euriphi co-ordinating and support action is focusing on introducing innovative solutions to support the delivery of Europe's health and care systems through cross-border value-based procurement.

Policy context and objective: Integrated care is an ongoing EU regions policy response which aims to address inter-related financial, organisational and person-centredness issues in order to provide sustainable health, social care and support services.

**Highlights and transferability:**

The objectives of the integrated care arm of the Euriphi project is to gain insights and organise the demand side around a small set of (3-4) procurement objectives (ICPOs) to address identified integrated care service delivery shortcomings and to assist Euriphi partners in the related adaptation of the Most Economical Assessment Tender (MEAT) value-based procurement framework (VBF).

The integrated care work commenced with a desk-top research exercise to identify integrated care delivery shortcomings for 5 conditions - stroke, COPD, multimorbidity, dementia and aortic stenosis. Thirty-six ICPOs were included in a survey to elicit procurement priorities and feedback from the Euriphi PPOs. Analysis of survey responses resulted in 13 ICPOs going through to a survey widely distributed to other European regions and PPOs, the results of which produced a short-list of 6 ICPOs for consideration by the Euriphi PPOs and Advisory Board members. This activity resulted in consolidating the 6 ICPOs into a final list of 3 which went forward to an Open Market Consultation to determine whether there were innovative solutions available to address the care delivery shortcomings identified.

Alongside this work, project partners have adapted the VBF in order for the approach, language, categories and criteria to reflect the value-based procurement of integrated care solutions.

The next stage of the project will apply the adapted VBF to the highest-rated innovative solutions presented in the OMC with Euriphi partners. Consequently, this activity will support the identification whether the adaptations to the framework are appropriate or if further revisions are

required for the real application of the framework and the findings will be available for presenting at the end of April 2020.

***Conclusions:***

The ICPOs and associated care delivery shortcomings identified for the 5 conditions were not dissimilar and this resulted in the final 3 ICPOs being described generically with specific examples of applicability for each condition. This maximised the opportunity to identify innovative solutions with broad integrated care reach rather than condition specific and potentially providing a stronger business case for PPO investment.

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CONFERENCE ABSTRACT

Integrated Care: A PTSD diagnostic mechanism for a refugee reception centre  
IJIC20 Virtual Conference – September 2020

Pavlina Psychouli<sup>1, 1</sup>,

1: European University Cyprus, Nicosia, Cyprus

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**Introduction**

Within the 65 million displaced people, many are dealing with post-traumatic stress disorder (PTSD). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), PTSD derives from witnessing of violence and crime. Among the symptoms are avoidance of trauma-related stimuli, negative thoughts and alterations in arousal and reactivity. PTSD seriously affects functionality and transition to the new society and therefore, thorough screening is highly recommended. Assessment solely through a PTSD-related questionnaire cannot be satisfactory to reveal the difficulties faced and the intervention needed. A possible way to provide a holistic approach in dealing with PTSD, is to conduct a battery of tests in combination with simple technological aids.

**Theory/Methods**

Assessment and treatment of PTSD requires the coordination of a multi-disciplinary group that is usually lacking in refugee reception centres. The suggested set of assessments does not require application by a clinician and may serve as a solid base upon which to build the treatment plan. The aim is to explore whether the use of a battery of tests along with a smart band and a Galvanic Skin Response (GSR) sensor will provide more accurate diagnostic results, allowing a thorough assessment of the mental, functional and occupational state for refugees living in reception centers and thus, multi-disciplinary intervention planning. The Davidson Trauma Scale (DTS), the Stressful Life Events Screening Questionnaire and the Canadian Occupational Performance Measure (COPM) will be applied to adult refugees residing at Kofinou Reception Center in Cyprus. Occupational therapy students supervised by a professional will apply the tests to approximately 100 participants. This will be a within-subjects design, meant to empower the diagnostic phase of intervention. In Stage A: Participants will be wearing a wrist band for one week to record the number of steps, hours of sleep (deep / light) and heart rate. In Stage B: A Questionnaire application will be conducted, while participants will be wearing a GSR sensor to determine their relative stress levels. Results will be uploaded on a cloud-based Electronic Health Record (HER) to be further processed by a multidisciplinary group.

**Results / Discussions**

Treatment for PTSD involves psychotherapy, medication and occupational therapy, each of which requires a thorough assessment beforehand to design a client-centered intervention strategy. Treatment may focus on dealing with negative thoughts, learning ways to cope with symptoms, minimizing depression, anxiety, or misuse of alcohol or drugs and engaging in meaningful occupations.

**Conclusions**

Combining a battery of tests along with introducing smart wearable technologies will provide a thorough assessment and further intervention for refugees living in reception centers. This is a critical process given the vast number of refugees arriving on a daily basis in Cyprus and Greece .

***Suggestions for future research***

Application of the assessment battery by non-clinicians may be one of the next steps. Furthermore, Machine Learning / Artificial Intelligence techniques may be used to process results stored on the cloud in order to provide early stage indications of PTSD.

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## CONFERENCE ABSTRACT

Integrated delivery of long-term care: country assessment toolkit  
ICIC20 Virtual Conference – September 2020

Hector Pardo-Hernandez<sup>1, 1, 1</sup>

1: WHO Regional Office for Europe, Copenhagen, Denmark

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### ***Introduction:***

Long-term care encompasses a wide range of health and social services that are delivered in different settings. Long-term care is susceptible to fragmentation in service delivery: during needs assessments, accessing benefits, data collection and in the diversity of quality improvement efforts. The aim of this work was to develop a toolkit for guiding the design, development and reporting of country assessments on the integrated delivery of health and social services for long-term care.

### ***Methods:***

This toolkit is based on the principles of systems thinking, people-centeredness and integrated care, life-course approach, healthy ageing, human rights and gender perspective. The underpinning conceptual framework is the European Framework for Action on Integrated Health Service Delivery. The toolkit benefited from the input of professionals in the field of long-term care and from existing resources for fostering the delivery of integrated care for older people. There were complementary scientific and grey literature searches on long-term care research and assessments in Europe. The toolkit was piloted in six country studies for validation and adaptation to fieldwork.

### ***Results:***

The toolkit is designed along four domains: individual and population needs, performance measures, long-term care service delivery and system enablers. The toolkit outlines a standard process for country assessment, consisting of: i) initial desk research, ii) country visit preparation, iii) country visit completion, iv) analysis of data and evidence and v) reporting of findings. The toolkit includes a checklist of items that should be covered during the initial desk research, as well as measures and outcomes for each item and detailed “where-to-look” information. Country site visits consists of three activities: i) individual and group interviews, ii) site visits and iii) workshops and focus groups. Data analysis focuses on comparing the needs of the older people against the performance measures and the overall services delivery adopting, to the extent possible, a gender and human rights perspective. The toolkit was implemented in Croatia, Denmark, Germany, Portugal, Romania and Turkey.

### ***Discussion:***

The toolkit can serve as blueprint to identify challenges and facilitators in pursuing integrated delivery of long-term care. The toolkit is pragmatic and can be adapted depending on whether the country assessment is initiated by local governments, international agencies, academia or services providers.

### ***Conclusions:***

Promoting the availability and quality of long-term care services that are integrated, people-centred and properly managed is a right step for ensuring healthy lives and wellbeing in the old age. The overall aim of this toolkit is contributing to this endeavour.

***Lessons learned:***

The country assessment results will be instrumental to inform evidence-based policy recommendations that will help countries optimise existing long-term care systems and to inform the development of emerging ones.

***Limitations:***

The Toolkit did not undergo a formal validation process. Nevertheless, general feedback from stakeholders involved in the development was positive. Feasibility and acceptability of the toolkit were adequate during the country assessments.

***Suggestions for future research:***

The toolkit could be further refined based on the results of future country assessments.



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## CONFERENCE ABSTRACT

### INTEGRATED HEALTHCARE PROGRAMS IN COMMUNITY HEALTH CENTRE OF PRIMORJE- GORSKI KOTAR COUNTY – PATIENT IN THE FOCUS ICIC20 Virtual Conference – September 2020

Vladimir Mozetič<sup>1, 1, 1</sup>

1: Community Health Center Of Primorje - Gorski Kotar County, Rijeka, Croatia

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The Community Health Center of the Primorsko-goranska County is a health institution founded by the Primorje-Gorski Kotar County and provides health services throughout the county (a total of 3,582 km<sup>2</sup>, 14 cities and 22 municipalities and 536 settlements within cities and municipalities). The Health Center of Primorje-Gorski Kotar County today employs more than 820 people.

The main activity of the Health Center is the provision of health services at the level of primary health care, which is carried out through general / family medicine, pediatrics, gynecology, dental medicine, patronage, occupational health, home health care, medical transport and laboratory diagnostics. In addition to these activities, the Health Center provides certain services within the framework of secondary health care - RTG diagnostics, internal medicine, ophthalmology, pulmonology, urology, psychiatry, physical medicine and rehabilitation, general surgery, oral surgery, dental prosthetics and orthodontics.

In addition to these, the Health Center has hemodialysis in Rab and Mali Lošinj, a hospital with 14 beds in Mali Lošinj, and 5 mobile palliative care teams.

In center of Rijeka, The Community Health Center of the Primorsko-goranska County has established the Center for the Prevention of Chronic Noncommunicable Diseases, the place where the needs of target groups and end users will be met for diagnostic tests and appropriate health care and to improve health at the optimum time.

The Community Health Center of the Primorsko-goranska County also provides additional programs to the patients of Primorsko-goranska County:

- The Center for psychosocial Assistance to the victims of Homeland War
- Breastfeeding support groups
- Breastfeeding school
- Counseling an individual about healthy eating habits
- Infant Nutrition Counseling
- Preparation for parenting course
- Preventive medical exams
- Preventive program for athletes and recreational athletes

The Community Health Center of the Primorsko-goranska County is included in different projects improving availability and quality of patient care, funded by the EU.

The synergy of health services both on primary and secondary level in coordination with variety of additional programs conducted by healthcare professionals in Community Health Centre of Primorje-Gorski Kotar County with the aim to be patient focused and available, definitely improves the level of healthcare for about 300.000 citizens across the County but also for large number of tourist that visit the County.



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## CONFERENCE ABSTRACT

Integrating data for integrated care - a guideline for data linkage in health services research and beyond

ICIC20 Virtual Conference – September 2020

Ingo Meyer<sup>1, 2, 3</sup>

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### **Introduction**

The linkage of different types of data in health services research is still a young discipline and not yet widely used, not least due to a wide range of barriers spanning technical, methodological and legal issues. On the other hand, there is an increasing recognition of the added value of linked datasets in terms of generating more in-depth insights.

This can be seen in data linkage being mentioned explicitly in both national [1] and EU level [2] funding instruments, in major health studies such as the German NAKO longitudinal study [3] but also in policy initiatives [4, 5].

Notwithstanding these advances, there is no common set of guidelines to ensure that studies build on data linkage follow common, proven approaches ensuring consistency of methods and outcomes.

Against this background, a group of 23 German researchers from 19 organisations convened in May 2018 and began the formulation of a common set of guidelines for data linkage (referred to as "good practice data linkage" in German). These guidelines have recently been published in Germany [6] but need now to be transferred to the wider European context.

### **Targeted population**

The guidelines are primarily addressed to researchers using data linkage in health services research studies. But they are also of relevance for data managers in policy and service delivery contexts. The current version of the guidelines is to some extent tuned to the German setting and requires a transfer to the EU level, as outlined below.

#### Highlights

There is a total of seven guidelines, addressing: 1) research aims and questions, data sources, resources, 2) data infrastructure, data flow, 3) data security, 4) ethics, 5) key variables, linkage methods, 6) validity testing, quality assurance, and 7) long-term data use for yet undefined questions. The guidelines are in turn divided into 24 recommendations. The current version of the guidelines was sent to a number of German academic societies for feedback and consent before

publication. It is conceived as a living document that will be updated regularly to reflect new developments.

### ***Transferability***

The core of the guidelines can be considered applicable beyond the German context already. But the recommendations in particular will require a dedicated translation process. This process is intended to be launched via the European Innovation Partnership on Active and Healthy Ageing and other bodies (yet to be determined) in the coming two years.

### ***Conclusions***

Guidelines for data linkage are needed to ensure good quality in research and other areas of application. A first set was created build on a broad German consensus and now needs to be transferred to the EU level.

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## CONFERENCE ABSTRACT

Integration: the quest for true equity, beyond accessibility  
ICIC20 Virtual Conference – September 2020

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Integration: the quest for true equity, beyond accessibility

Planning the location of healthcare services and funding them appropriately is complex, as it requires several measures that pull in different directions. Normally, more complex services tend to be placed in larger population nucleus, without full consideration of how the population uses each resource. This favors accessibility from a wider area and efficiency, but goes against equity, as it implies longer travel time for part of the population. Also, it complicates integrated care, as the same person may have to be using geographically separate resources, some more local, some more distant, which are harder to coordinate.

We posit that we need tools to help discover and evaluate these tradeoffs, and plan for resource allocation + treatment plans. These tools should, at the very least,

- 1) Be able to ingest data from several tiers of the healthcare systems (acute hospitals, emergency services, primary care, intermediate care...), and analyze them jointly.
- 2) Analyze how citizens with different profiles are actually using the different resources, including travel distance, frequency of use, and continuity of attention.
- 3) Analyze in detail the variability within a given coarse classification (such as DRG or ICD codes): Why some patients in the same DRG and for the same procedure leave their zones and why others stay? Are these differences justified by variability within DRG and patient history? Or are they arbitrary patient choices? Or differences in protocol among different centers?

We describe our tool ALOE which was co-designed with the Catalan Health Service for this purpose. The tool monitorizes attraction to different services and flows from different geographical areas, and shows and describes the anomalies in flows: Significant numbers of people that go where they shouldn't, and how these people differ from similar people that stay in their zones.

We will describe a few actual cases studied using the tool. Two involve eating disorder problems and autistic spectrum disorders, respectively in a subregion of Catalonia where there seemed to be unjustified disparity in the centers where people were being treated. In another study, we discovered that a number of heart failure patients in a medium-size town had a tendency to go to a larger tertiary hospital over 80 km away, instead of being treated locally. It turns out that these were the people who had neoplastic antecedents, and they routinely went to the tertiary hospital where they are regularly checked for more complex attention.

In still another study, we discovered a (partial) explanation why two otherwise similar hospitals had widely differing lengths of stay after knee replacement surgery (4 days vs. 8 days). It turned out that the 4-day hospital is close to a large tertiary hospital, and that most "complex" patients went there, while the 8-day hospital took care of all knee replacement cases in its territory, both the easy and the difficult ones.

A conclusion of the use of the tool is that such in-depth analysis is impossible, or highly time-consuming, to perform with the traditional indicator-based business intelligence tools.



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CONFERENCE ABSTRACT

Integrative Model for Treating Vulnerable Patients  
IJIC20 Virtual Conference – September 2020

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**Introduction**

Health systems strive to provide quality care with restricted resources and controlled budgets. A small cluster of elderly chronic patients consumes most of the system's resources. Common practice is mostly reactive and fragmental. Vulnerable patients are frequently missed. They see many health professionals but are not treated by a single case manager.

Short description of practice change implemented

Integration 3600 is based on proactive approach, Chronic Care Model (CCM) and continuity of care. Proactive approach is opposed of the reactive nature of the current system. Health professionals are assembled to integrative units including a primary physician (case manager), a nurse (care integrator) and a multidisciplinary team involving social worker, dietitian and physiotherapist. Integrative units proactively identify patients and recruit them to intervention. The CCM includes the basic elements for improving care in health systems at the community. Continuity of care includes relational, management and information continuity.

**Aim**

Our goal is providing an integrative adapted care to vulnerable patients with complex socio-medical profile.

**Target Population and stakeholders**

The target population is vulnerable, chronic patients with complex socio-medical profile.

Potential cohort is derived from a matrix including the following parameters: age 50+, chronic diseases, multiple/high risk drugs, cognitive decline, function level, socioeconomic status (SES) and annual expenditure.

Target population is characterized with high service consumption. Exploring this population we found that health cannot be addressed regardless the social or economic problems.

Stakeholders are the patients themselves, their families, care providers, MHS/HMO and society as a whole. Integrative care involves partners outside the HMO. These are: NGOs, local authority, municipal facilities, social services and National Insurance institution.

**Timeline**

Since December 2017 3500 patients were treated in the service. Currently, 2500 patients are treated by integrative units all over the country.

**Highlights (innovation, Impact and outcomes)**

MHS has developed a platform including: Identification and stratification population, registrars, clinical and social parameters. Moreover, the technology infrastructure includes an operational

system connecting between providers, BI systems, mapping services system (GIS) as well as BIG DATA.

sustainability

The model is sustainable requiring an investment in creating a technological platform. Moreover, it concerns a paradigm shift and efficient resource allocation / implementing integrative model.

***Comments on transferability***

It is feasible to implement the model in almost any community care setting with the dominance of primary care physicians.

***Conclusions***

Number of contacts with the patients increased from 3.5 per patient prior the intervention to 7.5 during the intervention. Distribution of contacts indicates that half of the contacts are provided by nurses (51%) and the other half by multidisciplinary team (22% physiotherapist, 12% dietician and 15% social worker) indicating the application of the integrative model. Furthermore, there is evidence for cost reduction in patient's services usage mostly through hospitalization prevention.

***Lessons learned***

Health cannot be provided solely – an integrative perspective is needed to provide clinical, emotional and social needs of patients. It is feasible to implement the model in almost any community care setting with the dominance of primary care physicians and the close cooperation of nurses.



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## CONFERENCE ABSTRACT

Interventions to integrate physical and mental healthcare for people with serious mental illness and/or substance use disorders: a systematic scoping review  
ICIC20 Virtual Conference – September 2020

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### **Introduction:**

People with serious mental illness (SMI) and/or substance use disorders (SUDs) have an elevated risk of premature mortality compared to the general population. This has been attributed to higher rates of chronic illness among these individuals, but also to inequities in healthcare access and treatment. Integrated care has the potential to improve the health of people with SMI/SUDs.

### **Theory/Methods:**

A scoping review has been conducted to: 1) identify empirical investigations of interventions designed to integrate physical and mental healthcare for people with SMI/SUDs, 2) describe the underlying theories, models, and frameworks of integrated care that informed their development, and 3) determine the degree to which interventions address dimensions of a comprehensive and validated framework of integrated care. An iterative and systematic search of peer-reviewed publications reporting empirical research findings was performed by searching five databases: Medline (Ovid), PsycINFO, CINAHL, Embase (Ovid), and Scopus.

### **Results:**

Following the removal of duplicates, 6,696 publications were identified from the search. Using predetermined inclusion criteria, two reviewers independently screened titles and abstracts for eligibility, followed by a review of full texts. This resulted in the final inclusion of 28 publications, representing 25 unique studies. Thirteen studies reported a theoretical model of integrated care that underpinned the intervention being tested. While coordination within and across care teams was incorporated into the majority of interventions examined, several other aspects of integrated care were frequently overlooked.

### **Discussions:**

This presentation identifies the number and nature of interventions to integrate physical and mental healthcare for people with SMI/SUDs. Planning and interpretation of findings is guided by a team of relevant stakeholders, including people with lived experience of mental health conditions, mental health professionals, other health professionals, and researchers from a range of disciplines.

### **Conclusions:**

Despite substantial research in this area, many interventions designed to integrate physical and mental healthcare for people with SMI/SUDs have not been informed by a theory, model, or

framework of integrated care. Furthermore, a number of dimensions of integrated care have not been incorporated into interventions for this population.

***Lessons learned:***

Given the significance of the inequities in health and mortality for people with SMI/SUDs, an understanding of the degree to which interventions are meeting key components of successful integrated care delivery is extremely important. This review identifies aspects of integrated care that require attention in future research examining the potential of integrated physical and mental healthcare for people with SMI/SUDs, such as coordination with community resources, continuous familiarity with service users over time, and the delivery of person-centred care.

***Limitations:***

The review is restricted to studies conducted in OECD countries and to articles published in English. No quality appraisals of included studies have been completed, precluding conclusions about the effectiveness of different integrated care approaches at improving outcomes.

Suggestions for future research: Stakeholders' knowledge and interpretations of the review findings will identify clear priorities for future research examining the integration of physical and mental healthcare among people with SMI/SUDs.

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## CONFERENCE ABSTRACT

Investigating the post-migration risk factors of unaccompanied minor refugees' mental health – From a systems perspective in Austria  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

In view of recent refugee movements into European countries, numerous studies highlight the large representation and special vulnerability of unaccompanied minor refugees (UMR) to mental health problems. For a more effective treatment of UMRs' mental health needs in the host country, more knowledge on factors determining the prevalence of psychiatric disorders in this high-risk group is needed. Therefore, the aim of this study was to identify post-migration risk factors and to investigate their potential interrelationships and impact on UMRs' mental health based on the example of Austria.

### **Methods**

Following an interdisciplinary and system approach, we used the technique of fuzzy-logic cognitive mapping (FCM), a commonly used form of semi-quantitative system modelling, to graphically model the complex system of risk factors of UMRs' mental health. After developing system models in two separate workshops, one conducted with scientists from different disciplines (n=5) and one with practitioners (n=5), both models were merged to a shared system model.

### **Results**

The final system model consists of eleven post-migration risk factors and visualizes their various interrelationships and impact on UMRs' mental health. The identified factors are listed in descending order of their impact on UMRs' mental health as follows: social contacts and relationships, housing situation, professional health care services, professional social care services, daily structure and leisure activities, residence security, access to education and training, income security, political and social climate, sociocultural adaptation, and German language skills.

### **Discussion**

Our final system model reveals that UMRs' mental health results from a complex interplay of individual and system level factors, which are discussed within the context of the specific legal and policy framework in Austria. It emphasizes the need for a holistic approach to tackle UMRs' mental health problems by providing plausible explanations on the insufficient effectiveness of isolated measures.

### **Conclusions**

Our research is of special importance as complex phenomena and their triggers are often poorly understood and seldom considered from holistic and systemic points of view. Consequently, they may be inadequately addressed, which in the case of UMRs' mental health needs can hinder their

integration into society and raise costs for care. Based on our model, recommendations for the optimization of the integration process and health promotion policies can be derived.

#### ***Lessons learned***

One of the lessons learned was that the collaborative approach of FCM can be used in similar settings where specialized knowledge from different fields of expertise is needed to describe and understand complex causal relations.

#### ***Limitations***

Since our system model reflects the knowledge and expertise of the study participants, an objective, universally valid system model can hardly be created. Besides, there may be important risk factors or connections that have not been considered or have been underestimated and therefore are not represented in our model.

#### ***Suggestions for future research***

The identified risk factors of UMRs' mental health and their interrelationships call for a more detailed substantive analysis and discussion in order to derive recommendations. We encourage other researchers to empirically test our identified factors' interrelationships.

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## CONFERENCE ABSTRACT

Involving young people with a chronic condition in participatory research and implementation projects: what is the impact?

ICIC20 Virtual Conference – September 2020

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### **Introduction**

Internationally, there is growing attention for participation of young people with a chronic condition (YPCC). As an important value of integrated care, participation promotes the inclusion of YPCC in decision-making that concern them. Research (e.g. scientific) and implementation (e.g. practice-oriented) projects aimed at improving their health and quality of lives are, therefore, increasingly carried out with rather than for them. Yet, high quality evidence of the impact of their participation is missing.

### **Methods**

The dearth of evidence on impact of YPCC's participation can be related to a lack of shared understanding of what 'participation' entails and the absence of systematic evaluation methods. We have conducted a scoping review to map reported definitions, goals, activities, experiences and impact of YPCC's participation and possible shifts herein over time. Searches were conducted in five databases; twenty-three articles were included.

Following the review, we initiated a study to quantitatively explore the relation between YPCC's participation in research and implementation projects and outcomes of these projects. Data were collected among project leaders of 17 participatory projects and 146 YPCC involved in these projects.

### **Results**

The past decades, limited progress has been made in the evidence base on the impact of YPCC's participation. Our review has shown that, over time, definitions of participation continue to be broad and diverse and that studies report similar experiences and challenges time and again.

These findings have led to the initiation of the quantitative exploration mentioned earlier. Results show that 27 percent of the variation in project outcomes is a result of differences between projects. We investigated whether this variation can be explained by participation variables. One significant relation was found: when participating YPCC considered themselves important for a project, they experienced better project outcomes. This is in line with studies suggesting that YPCC experience personal growth, when they consider their role in a project meaningful.

### **Discussion**

It is imperative that a consistent evidence base on YPCC's participation and its impact is built. This can contribute to the validity and reliability of participation by teaching us about what works for whom and under what circumstances.

### ***Conclusions***

Limited progress has been made in the evidence base on YPCC's participation and its impact. Our quantitative exploration provides insight into the relation between YPCC's participation and outcomes, but more research is needed to learn about effective participation.

### ***Lessons learned***

To move the evidence base forward, changes need to be made in how participation is studied. This includes building on previous work (instead of reinventing the wheel), defining and thoroughly reporting what is meant by participation and using systematic impact measurements.

### ***Limitations***

In the review, some articles may have been overlooked, due to the broad search string on chronic conditions and inconsistencies in how participation is defined. In the quantitative study, findings are based on a relatively small project sample.

### ***Suggestions for future research***

More well-reported research should be conducted that uses systematic and objective evaluation methods and builds on previous studies to improve the evidence base on the impact of YPCC's participation.

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## CONFERENCE ABSTRACT

Journey from Clinical Pharmacist to Pharmacist Prescriber – Primary Care Collaborative Care Model Aiming for Equity and Workforce Sustainability.  
ICIC20 Virtual Conference – September 2020

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### ***Introduction***

Primary healthcare services in Hawke's Bay, like many other rural centres across New Zealand and internationally are struggling to meet the healthcare needs of the community. Workforce and health care sustainability drives further disparities in health outcomes for Maori, Pacific Island and populations living in high deprivation.

### ***Practice Change***

Starting in 2011 Clinical Pharmacists were integrated into Primacy Healthcare Practices across Hawke's Bay with the goal to optimise medicine related health outcomes and reduce medicine related harm. The integration was based on international evidence and referrals received from other healthcare professionals in the primary healthcare team. In 2014 one primary healthcare practice took a different approach and integrated a Pharmacist Prescriber into the team to work collaboratively with the team.

### ***Aim***

Clinical Pharmacists working in primary healthcare practices are often integrated as part of the team in an advisory role and respond to care requests from other health professionals. The integration of the Pharmacist Prescriber into the team was targeted to focus on equitable health outcomes and build sustainability into the primary healthcare team. Incorporating a Pharmacist Prescriber into the extended care team aimed to build capacity and capability in the delivery of healthcare services to populations with long term medical conditions.

Alongside the Pharmacist Prescriber the extended care team included medical practitioners, nurse practitioners, nurses and primary care practice assistants. Maori, Pacific Island and populations living in high deprivation were prioritised by the team, with care being tailored to meet individual need.

Integrating a Pharmacist Prescriber into the extended care team shifted the utilisation of the pharmacist's skills to collaborative care with the individual and team. The shift builds the capacity and capability of the team to deliver services in line with needs of the population and in the process creates sustainability in the primary healthcare practice model.

### ***Conclusions***

Delivering on the goals of the integrated Pharmacist Prescriber role, equity in hypertension management for Maori and Pacific Island patients is shown over a five year period. Workforce capacity and capability have been increased through collaborative patient care and management

of practice repeat prescribing. Thus creating a sustainable model which can be delivered in a variety of settings, particularly in rural areas where workforce is often stretched beyond capacity.



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## CONFERENCE ABSTRACT

Lessons From The Field: Workplace Innovation within a Care Ecosystem Context  
ICIC20 Virtual Conference – September 2020

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### ***Introduction***

A major challenge worldwide is understanding care redesign for greater integration at the ecosystem level (i.e. at the level beyond single organizations and formal networks), and practical methods for participative designing within that hugely challenging context. (Mohr & Dessers, 2019).

### ***Theory/Methods***

Significant improvement in care integration does not happen without Workplace Innovation. Workplace innovation is defined as the implementation of new and combined interventions in the fields of work organisation, human resource management and supportive technologies, aimed at simultaneous improvement of organisational performance and quality of working life of employees (Pot, 2011). Many countries in Europe and beyond have installed programs stimulating workplace innovation; not only within, but also between organisations (Pot, 2011).

Our research seeks to further the understanding of workplace innovation at the ecosystem level. Fifteen cases of workplace innovation, towards greater care integration, were selected from 8 countries – UK, Canada, USA, Belgium, Netherlands, Bulgaria and Singapore. The cases were analyzed for thematic conclusions about workplace innovation lessons for care ecosystems. This presentation will share highlights from a forthcoming chapter on workplace innovation, as applied to ecosystem level care design, to be published in 2020 in the 'Palgrave Handbook of Workplace Innovation', and our new Springer book 'Designing Integrated Care Ecosystems' (Mohr & Dessers, 2019).

### ***Results***

From the analysis we derived information on design principles, elements, steps and general practice challenges, and were able to develop a prototype workplace innovation framework for care ecosystems.

### ***Discussions***

To meaningfully move forward we must be able to move beyond, what Goodwin (2019) refers to as widely published truisms, such as 'teamwork is essential'. Our findings show the potential of workplace innovation at the ecosystem level for providing practical methodologies that enable co-creation among a vast array of ecosystem actors.

### ***Lessons learned***

Based on the collected data, we formulate 7 workplace innovation lessons from the field to guide better practice: The Ecosystem Perspective Lesson; The Workplace Innovation Perspective Lesson;

The Framing Lesson; The Engagement Lesson; The Joint Improvement Lesson; The Challenge/Possibility Ratio Lesson; and the Organisations within Ecosystems Lesson.

#### **Limitations & future research**

Following this explorative study of cases selected from an open call for book chapters, more systematic and comparative research, focused on specific aspects (including involvement of people, implementation steps, and outcomes) is needed.

Goodwin, N. (2019). Improving Integrated Care: Can Implementation Science Unlock the 'Black Box' of Complexities? *International Journal of Integrated Care*, 19(3), 1–3.

Mohr, B. J., & Dessers, E. (Eds.). (2019). *Designing Integrated Care Ecosystems. A Socio-Technical Perspective*. Springer International. [Expected publication date: December 2019]

Pot, F. (2011). Workplace innovation for better jobs and performance. *International Journal of Productivity and Performance Management*, 60(4), 404–415.

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CONFERENCE ABSTRACTManaging Chronic Disease Through Social Integration  
ICIC20 Virtual Conference – September 2020Richard Lewanczuk<sup>1</sup>, ,1: Alberta Health Services, Edmonton, Alberta Canada

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**Introduction**

Chronic diseases have been cited as being responsible for 80% of healthcare costs and morbidity. Accordingly, effectively controlling chronic disease has been emphasized by many national and international bodies. Despite this, control rates for chronic disease have remained relatively unchanged. Our work has led us to conclude that the so-called care gaps are not due to medical issues, but relate to social factors. The challenge has been to integrate social management strategies with medical management.

**Context**

This work is being carried out in the context of a totally public, government-funded, universal healthcare system which allows us access to chronic disease data on every individual in the province of Alberta, Canada. Every individual is encouraged to have a family physician and family physicians are organized into primary care networks. Capitated funding is provided to hire other healthcare professionals and to provide care to the patient panels. Unfortunately, there is no universal pharmacare program in Canada for those under 65 years of age.

**Targeted population**

Although the entire population of Alberta, Canada is targeted, particular attention is paid to those whose chronic diseases are not well-controlled.

**Highlights**

A major finding of this research-turned-to-policy, was that care gaps in chronic disease management closely correlated with social variables and with lack of regular primary care visits. In order to understand and address these findings, interviews and surveys were carried out amongst this population and with social agencies. This work highlighted barriers such as cost, transportation and particularly competing priorities as contributing to care gaps. As one responded stated: “you don’t care what your cholesterol, blood pressure or 10 year cardiovascular risk is when you don’t know whether you will have a roof over your head or food on the table tonight”. Similarly, with these competing priorities, people did not visit primary care providers for proactive chronic disease management, but rather only sought episodic care for acute problems. With this understanding, the questioning about social determinants is being incorporated into primary care-based chronic disease management. Community health navigators are being introduced, along with social prescribing, to address the social issues. Similarly, we are using outreach methods, community pharmacists, and other opportunistic methods to deal with chronic disease. One premise is that chronic diseases cannot be addressed until social issues are dealt with.

**Transferrability**

The situation we experience with care gaps in chronic disease is likely universal. Thus, this approach is highly transferrable although the identification and resources available to deal with these social issues may vary between health systems.

Conclusions – Identifying and dealing with social issues is a necessary pre-condition to achieving chronic disease control across the population. Our experience has shown that when social issues are dealt with, chronic disease control can occur with very little additional effort. Understanding what is important to individuals at the moment, and sorting out competing priorities is a necessary process. The traditional medical model of “prescribing more pills”, or scolding the patient, is both ineffective and inappropriate in these care settings.

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## CONFERENCE ABSTRACT

Mental health and well-being in rural communities - factors associated with suicide, and integrated responses

ICIC20 Virtual Conference – September 2020

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### **Introduction**

Despite similar prevalence of mental illness across Australia, suicide rates are 50% higher in rural and remote populations compared to capital cities. These data suggest the need for different strategies to prevent rural suicide.

In response to a geographic cluster of local suicides in three different communities in rural Australia, this paper examines the factors identified by community members as being associated with suicide. It also details the implementation of a wellbeing-focused collaborative response in one of these communities.

### **Theory/Methods**

In each community, analysis of existing publicly-available health and social determinant data was analysed. In-depth interviews were conducted with key stakeholders and community members to identify their perceptions of factors in their communities (via thematic analysis). The combined objective and subjective data were fed back to each community via a report and community workshops wherein local responses were collaboratively developed.

In one community, a documentation review and follow-up interviews have been held to examine implementation of the local response two years in. A retrospective program logic model was developed to frame the implementation of the response.

### **Results**

Existing community data demonstrated that socio-economic factors were relevant in each of the communities. In the initial stages of each response [n= 99 (Community 1), n=56 (Community 2), n=153 (Community 3)] stakeholders were interviewed. In community 1, 65 documents were reviewed and 36 stakeholders interviewed to examine the implementation of the response. Common across communities was acknowledgement of the contribution of socio-economic factors and lack of integration at service, organisation and system level in health services, across agencies and community groups. The implementation in Community 1 also suggested a community-led collaborative model, with multi-agency participation, for response in other rural areas.

### **Discussion**

The findings highlight the need for locally relevant integrated responses to suicide in rural communities which address broad socio-economic factors. Building on local community assets is essential for community empowerment and for sustainability. This initiative could serve as a model for other communities to address suicide, self-harm and improve wellbeing on a whole-of-community and multi-agency scale.

### **Conclusions**

Communities recognised that there are multiple factors associated with suicide, many of which are outside the remit of the health sector. They also demanded that responses are tailored, locally relevant and integrated across the community and across agencies.

#### Lessons learned

Data from communities at the local population level was necessary for action and planning in each of the communities. Supported and sustained by local leadership from community members and from agencies, this enabled the development of a shared vision in each community and provided a platform for targeted strategies.

#### ***Limitations***

To date, implementation results are reliant on perceptions of stakeholders only in one community only. There is limited assessment of impact to date.

#### ***Suggestions for future research***

More rigorous evaluations of community-based initiatives such as described have the potential to inform knowledge about suicide prevention. However, the tension between the needs of communities and the requirements of rigorous research design need to be considered.

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## CONFERENCE ABSTRACT

Minority status and 30-day readmission: a moderated mediation model of informal caregivers' ensuring and explaining medical care during hospitalization and caregivers' health literacy  
ICIC20 Virtual Conference – September 2020

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### **Introduction:**

Studies have shown that informal caregivers help patients to understand information during clinical encounters, adhere to discharge recommendations, and perform self-care tasks. There is also evidence that patients with informal caregiver have a lower risk of readmission compared with patients without an informal caregiver. Less is known about factors that may affect Informal Caregiver's Ensuring and Explaining Medical Care (ICEEMC) during hospitalization and its impact on improved health outcomes, especially in different cultural groups. This study examined whether ICEEMC during hospitalization mediated the association between minority status of patients and 30-day readmissions. In addition, it was investigated whether levels of Health Literacy (HL) of caregivers moderated this mediated association.

### **Methods:**

A prospective cohort study of 517 internal medicine patients, Hebrew (general population, coded as 0) and Russian, or Arabic native speakers (minority status, coded as 1), at a tertiary medical center in central Israel (2013 to 2014), who were accompanied by an informal caregiver. The in-hospital baseline questionnaire included sociodemographic, physical, mental, and functional health status [covariates]. In addition, it included questions about informal caregiver HL [moderator] and amount of ICEEMC (e.g., did he/she communicate with the health care team about the treatment; three items - 1: did not receive any help to 5: received help all the time) taken from the Informal Assistance and Support for Hospitalized Older Adults (ICHOA) instrument)) [mediator]. Information on 30-day readmissions [outcome], chronic conditions, and prior hospitalization [covariates] was retrieved from the healthcare organization's data warehouse. Testing a moderated mediation model was conducted using Hayes PROCESS procedure, model 7.

### **Results:**

A total of 95 patients (18.4%) were readmitted within 30 days. Logistic regression indicated that minority status was not associated with 30-day readmission when the mediator ICEEMC was not included ( $B=0.98$ ;  $p>0.05$ ). However, moderated mediation analysis indicated significant direct ( $B=-1.08$ ;  $p=0.003$ ) and inconsistent indirect effect of minority status on readmission through high ICEEMC during hospitalization among patients who had informal caregivers with high HL level (Mediated effect (ME) =  $-0.62$ ; CI =  $-1.07$  to  $-0.29$ ) but not among ones with low HL level (ME =  $0.37$ ; CI =  $-0.24$  to  $1.06$ ).

### **Discussions:**

These findings suggest that high level of informal caregivers' HL may be an essential factor in improving ICEEMC among minorities, which in turn improves their health outcomes by reducing 30-day readmissions.

Conclusions: The association between patients' minority status and 30-day readmission is mediated by ICEEMC during hospitalization and depends on high level of informal caregiver HL.

***Lessons learned:***

Our findings suggest that identifying informal caregivers with high HL levels at time of admission to the hospital and encouraging their involvement during patients' hospital stay might be a useful strategy to improve transitions and reducing 30-day readmission, especially among minority patients.

***Limitations:***

Generalizability may be limited due to characteristics of the Israeli society. Nonetheless, health practices and outcomes of minority patients are challenging in various healthcare systems worldwide.

***Suggestions for future research:***

Future studies should explore these findings as an intervention study aimed at improving health practices and outcomes of minority patients.



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## CONFERENCE ABSTRACT

Monitoring integrated care for childhood overweight and obesity  
IJIC20 Virtual Conference – September 2020

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### ***Introduction***

The development of a national model has led municipalities in the Netherlands to implement integrated care for childhood overweight and obesity. To monitor how this approach is being implemented locally, an appropriate tool is required. This study presents a 'Tool to monitor the local implementation of Integrated Care for Childhood Overweight and obesity' (TICCO).

### ***Research methodology***

A three-step study was conducted in order to adapt and refine a generic integrated care questionnaire into a tool that suits the specific characteristics and context of integrated care for childhood overweight and obesity. The three consecutive steps comprised: a focus group session that assessed the relevance and comprehensiveness of the original integrated care instrument; a pilot questionnaire for end-users that evaluated the feasibility of the preliminary tool; and a pilot questionnaire that determined the feasibility and potential limitations of this adapted tool.

### ***Findings***

The adaptation process resulted in a 47-element digital tool for professionals actively involved in providing integrated care for childhood overweight and obesity. The results highlighted differences pertaining to how individual respondents judged each of the elements. These variations were found across both municipalities and different domains of integrated care.

### ***Originality/value***

This article presents an adapted tool that seeks to both support local discussion in the interpretation of individual TICCO scores and identify potential areas for improvement in local integrated care for childhood overweight and obesity.



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## CONFERENCE ABSTRACT

Multidisciplinary medication review in an ambulatory primary care setting using the GheOP(3)S-tool for community-dwelling older patients  
IJIC20 Virtual Conference – September 2020

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### **Introduction:**

The Ghent Older People's Prescriptions community Pharmacy Screening (GheOP3S)-tool was developed as an explicit screening tool to detect drug-related problems (DRPs) and to help in performing medication reviews (MRs). Aim of the study (1) to describe the detected DRPs and the pharmacists' recommendations with their acceptance and implementation rate; and (2) to assess the potential impact of the intervention.

Methods: Prospective observational study in community-dwelling patients ( $\geq 70$  years,  $\geq 5$  medications). Community pharmacists performed MRs resulting in the documentation of DRPs with recommendations. Acceptance was recorded during face-to-face pharmacist-general practitioner (GP) meetings. Implementation was assessed after 3-month follow-up. The potential impact on the number of medications, the number of DRPs, the anticholinergic and sedative burden, and medication costs was assessed by a pre-post comparison of the patients' medication lists.

Results: Twenty-one pharmacists detected 470 DRPs with a median (IQR) of 6 (4-8) per patient in 75 patients. Most prevalent recommendations were stopping (22.9%) and substituting (18.9%) medication. Overall acceptance was 66.9%. At follow-up, 42.9% of all recommendations were implemented. The number of GheOP3S-criteria ( $p < 0.001$ ) and the DBI scores ( $p = 0.033$ ) significantly differed from baseline. This was not the case for the number of chronic medications and medication costs.

### **Discussions:**

Pharmacists detected a high number of DRPs, which highlights the relevance of performing MRs in this population. Most prevalent DRPs comprised the overuse/misuse of potentially inappropriate medications and underuse. Acceptance and implementation could be improved by prioritizing actions, by better informing patients and GPs about the potential inappropriateness of medications, by improving collaboration between pharmacist and GP and by performing extra follow-up moments. The potential positive impact on the number of DRPs and the anticholinergic and sedative burden (DBI scores) could have clinical implications for the patient.

### **Conclusions:**

This study demonstrates a relatively high acceptance of pharmacists' recommendations, although implementation could be improved. Pharmacist-led MRs with multidisciplinary meetings using the GheOP3S-tool can have a potential impact on the number of DRPs and the anticholinergic and sedative burden of patients.

### **Lessons learned:**

The use of an explicit screening tool such as the GheOP3S-tool should be supplemented with a patient interview to detect additional DRPs, as 26% of all detected DRPs could only have been detected by interviewing the patient. This underlines the necessity of patient involvement in the MR process. In addition, MR is a time-consuming process that must be reserved for high-risk patients.

***Limitations:***

There was a potential participating bias (for pharmacists and GPs) as they were probably more motivated to participate. They also specifically selected patients whom they thought could benefit from a MR (potential selection bias). The observational design could only detect a 'potential' impact of the intervention on different outcomes. There was no assessment of medication appropriateness or clinical relevance of pharmacists' recommendations due to incomplete data.

***Suggestions for future research:***

Future larger sampled (longer-term) studies should determine the impact of this MR process on patient-centred outcomes. A full cost-effectiveness analysis should also be performed in the future.

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## CONFERENCE ABSTRACT

Multi-disciplinary workforce development: How managerial collaboration influences professional  
roles development in rural regions  
ICIC20 Virtual Conference – September 2020

Oemar van der Woerd<sup>1, 2, 1</sup>

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2: Erasmus Centre for Healthcare Management, Rotterdam, , Netherlands

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### **Introduction:**

Integrated care systems in Western countries are expected to meet multi-faceted challenges in contemporary health practice, such as an ageing population against the backdrop of increasing workforce shortage. In the Netherlands, particularly rural regions face great difficulties in attracting healthcare professionals, and healthcare organizations are increasingly confronted with emergency admissions of elderly patients due to staff shortages and related capacity issues, putting pressure on elderly, their relatives as well as healthcare professionals. However, scarce attention in research is paid on how managerial collaboration and professionals influence professional roles development across organisational boundaries.

### **Methods:**

This study is part of an action-oriented research project ('RegioZ') in the Netherlands, in which healthcare organizations experiment with new forms of elderly care, focusing on the combination of professional roles development and organisational structures. In the region Zeeland, which is central to this study, elderly care facilities experiment with new professional roles development and collaboration between healthcare organizations (sharing medical capacity) to maintain regional coverage. However, professionals are employed within organisational boundaries, which makes initiatives on multi-disciplinary workforce development challenging – and particularly cumbersome in light of a geographic island structure and cultural religious differences between these islands. Interviews with professionals (n=23) and elderly care executives (n=7) are conducted as well as observations during project meetings, to deepen managerial collaboration in light of roles development. We use institutional theory to analyse this professional governance.

### **Results:**

Professionals state that shared infrastructures (access to digital systems, agreements on task reallocation and triage) may strengthen roles development, yet point to historical conflicts and distrust between elderly care executives and professionals that hinder such initiatives. Interestingly, emphasis is placed on the clarification of roles and tasks, while some call for overlap in roles, tasks and responsibilities between professionals. Interestingly, professional roles development serves as a strategy to build regional care networks, in which elderly care executives and professionals create momentum for closer collaboration.

### **Discussion and conclusion:**

The added value of this research lies within a deeper understanding how professional roles development is central in re-organizing care for growing elderly populations, and how this is used

in the creation of collaborative structures, such as regional care networks. To sustain medical regional coverage, rural regions emphasize on professional roles development to deal with medical scarcity and changing client' needs. However, this study foregrounds the seemingly need for overlap in roles, tasks and responsibilities between professionals. Elderly care executives act as institutional entrepreneurs, in which closer collaboration is sought with professionals. This study learns us that the development of professional roles in light of regional collaboration is easily said, but hard to realize given region specific characteristics. Although Zeeland as a rural region is central in this study, results might be hard to generalize to more urbanised regions. However, this study contributes to other Western countries facing comparable demographic and epidemiological trends. We suggest further research unravelling collaboration structures that underpin the overlap in roles, tasks and responsibilities between professionals, and how managerial collaboration (re)adjusts for this.

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## CONFERENCE ABSTRACT

Needs assessment for person-centred palliative and end of life care in the Isle of Man  
ICIC20 Virtual Conference – September 2020

Giovanna Cruz<sup>1, 1, 1</sup>

1: Scholl Academic Centre, Hospice Isle Of Man, Douglas, Isle of Man

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### **Introduction**

Isle of Man (IOM) is a British crown dependency with 83,000 residents. To provide an evidence-base for the Island strategy on integrated palliative and end of life care, Hospice Isle of Man carried out a needs assessment, which involves the collection and analysis of data describing services and identifying gaps. Many data sources normally used for this purpose are not available in the IOM so we compensated by extensive engagement with those working in relevant services and organisations as well as the public. This paper focuses on what we learned about carers.

### **Methods**

Interviews were carried out with over 60 professionals who work with people with life-limiting illness and twelve patients/carers. The questions were: “What works well?” What does not work well” and “What are the gaps” from your perspective in integrated palliative and end of life care.

### **Results**

We found that some people at end of life have no carers but, even for those that do, some don't ask for help because they don't recognise that they are carers, that they need help or that they don't ask because they are afraid of being separated from their loved one. Carers' needs are often overlooked and can be emotional, physical or financial and can cause problems even long after bereavement. There was a perception that carers with links to Hospice were well supported. A need for better communication between the professionals and with patients and families was highlighted as well as a need for better involvement of patients and their families in decisions. Carers provide and coordinate care but they are not recognised by the system. Having a professional to help navigate the system is invaluable as is better information about the support services available. In the particular case of the IOM, off-Island care is a substantial burden for patients and carers. Many patients and carers feel alone and not understood and both patients and carers are at risk of mental health problems when facing end of life.

### **Discussion/Conclusions**

The problems faced by carers in the IOM are similar to those in other communities. However, there are additional challenges due to being on a small island. An effective resolution of these problems is essential if we are to achieve integrated care in an appropriate setting at the end of life. Some initiatives already in place should help but new approaches are needed. The data already collected will be a useful basis for future evaluation.





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## CONFERENCE ABSTRACT

On mindfulness for healthcare professionals, in research for effects on their wellbeing and wellbeing of patients under their care: an Integrated Personalized Approach.

ICIC20 Virtual Conference – September 2020

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1: Hogeschool Utrecht, Utrecht, Utrecht Netherlands

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### **Introduction**

In healthcare mindfulness is used as a proved method in the traditional psychological intervention for depression, pain, anxiety and addictions and is defined as moment to moment non-judgmental awareness. In the current time of a heavy workload and high work pressure the use of mindfulness can be relevant as a method for stress prevention. Therefore, we aimed study the effects of mindfulness on the coping skills for healthcare professionals themselves.

### **Theory/Methods**

Next to literature research, we studied the relevance of a mindfulness training among 50 healthcare professionals who combine their daily work with a part-time Master Integrated Care Design in The Netherlands). These students experience an extra workload of twenty hours per week. The self-perceived effects of a six-week mindfulness training during their part time education was measured and the students delivered a paper based on their own general experience with mindfulness and experienced new insights.

### **Results**

From the literature study we found studies suggesting that increased self-awareness can help prevent and manage stress and increase empathy: hence improving effective patient care of both pre- and current medical students and that mindfulness training of physicians can reduce medical errors. Other studies show that teaching mindfulness to health professionals improves the quality of care they deliver through enhancing caregiver self-efficacy or implying that mindfulness to psychologists in-training positively improves the mental wellbeing of their patients under their care. Analysis of the current research among the master students is now ongoing. However preliminary data show that increased mindfulness and self-awareness supports new insights on personal coping skills.

### **Discussions**

Mindfulness training as part of the Master Integrated Care Design curriculum could be an important complement to the existing curriculum of health care educational programs while at the same time it is noted that a relatively large number of students who are not interested in mindfulness at the start.

### **Conclusions**

The analysis shows that practicing mindfulness increases the sense of self awareness among the participated students improving both the professional and private wellbeing of the healthcare

professionals. The literature research shows that mindfulness in turn could improve the mental health of the patients under their care.

#### ***Lessons learned***

To make the mindfulness training a voluntary part of the health care curriculum for the bachelors- as well as masters-degree in healthcare.

#### ***Limitations***

A more in-depth desk research could also show some disadvantages of a mindfulness training to students in healthcare while comparing effects of other approaches in a more diverse population.

#### ***Suggestions for future research***

Future research should not only include the self-perceived effects of a mindfulness training at the end of a training, but should also focus on the level of actual mindfulness experience during the direct moment while still being consciously aware of the mindfulness exercise. The biggest difference between these studies is the handling of time, noting the direct experience of both healthcare professional and its client with respect to their own and their patient's wellbeing, during and right after a mindfulness exercise.

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## CONFERENCE ABSTRACT

Partnering to spread & scale: How two health systems came together to better the integrated care experience

ICIC20 Virtual Conference – September 2020

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2: St. Joseph's Health System, Hamilton, Ontario, Canada

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### **Introduction**

In Ontario, Canada two large health systems came together to scale out an evidenced based integrated care model. St. Joseph's Health System (SJHS) Integrated Comprehensive Care (ICC) program began (2012) in Ontario, Canada within a single surgical stream and has since scaled to all surgeries and complex/chronic patients across a large regional area (patient population of 1.4M).

University Health Network (UHN), Canada's largest hospital-based research organization, partnered with SJHS including St. Joseph's Home Care and VHA and in four months, rolled-out this model in surgery. Learnings from this partnership are immense. This presentation will share what worked and needed to be adjusted for the diverse needs of Canada's largest urban centre (Toronto).

### **Practice Change Implemented**

Working in partnership following ICCs evidenced based approach to integrated care of One Team, One Record, One number to call 24/7, One Fund, and co-designing with patients and providers the program was implemented within 4 months launching in June 2019. This patient-led program focused on what the most pressing needs and concerns were for patients and is already receiving anecdotal reports of improvements for hundreds of patients, their caregivers as well as clinicians.

### **Aim and Theory of Change**

Improving patient/caregiver experience, quality of work life for providers, cost effectiveness and quality outcomes & health are main aims of ICC (Quadruple Aim). Change efforts focused first on demonstrating success within a small patient population and are now supporting spread across UHN, Canada's largest education and research hospital.

### **Targeted Population and Stakeholders**

UHN Thoracic surgical stream (1,500 patients a year), all remaining surgical streams, more complex COPD/CHF/Pneumonia, and social medicine pathway. By 2020 the program expects to reach thousands of patients. Stakeholders include patient partners, caregivers existing and new Home & Community care providers, community health centers, existing complimentary programs; specialty clinics and physicians, primary care teams; patients and caregivers; acute care hospitals; government

### **Timeline**

4 months for first surgical stream, 6 months for COPD/CHF/Pneumonia, final year for remaining surgical streams and Social Medicine work is ongoing

### ***Highlights***

Successfully duplicated/transplanted evidenced-based model of integrated care within a different geographic region and hospital culture.

Creation of One Team, One Record, One Number to call 24/7, One Fund resulting in:

- Improved transitions
- Reduced length of stays
- Avoidance of Unnecessary Emergency Department visits
- Consistency in Care
- Improved Communication and Collaboration

Sustainability/Transferability

Similarities with respect to geographic make-up and distribution of patient population and strong relationship across leadership teams enabled a 'leap of faith' taken supported by a confidence in the successes demonstrated within SJHS. Transferability was impacted by need to navigate pre-existing partnerships, size and acuity of patient population.

### ***Conclusions***

Through this partnership the team has many insights to share. Key areas of discussion and learning include:

- Implementing and applying the foundational elements of the ICC model
- The importance and learnings from patient and frontline led co-design
- Opportunities and impact of financial levers to support sustainable system change
- Access to and use of simple available technology to enable an integrated team approach

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## CONFERENCE ABSTRACT

Patient information in integrated care for the elderly  
IJIC20 Virtual Conference – September 2020

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### **Introduction**

The Norwegian care service landscape is characterised by a high level of specialisation, in the frame of an integrated system where the municipalities have the holistic responsibility of long-term care provision. To ensure integrated healthcare services, there is an extended need for information sharing between different care services at the municipal level. There is currently limited knowledge about how this information are generated, documented and communicated when elderly patients move between different services in long-term care.

### **Methods**

We employ a qualitative study design, inspired by Actor Network Theory, combining data from observation and interviews in short term wards in nursing homes, interviews with coordinators and nurses in home care services and document analysis of relevant procedures.

### **Results**

Patient information is generated in small, larger and extended networks. In the small networks, information is generated in direct contact between patients and health care personnel and often involves use of tools and technology. If need for clarification, discussion or joint decision-making, the larger network is engaged. The larger network consists of different actors working with the patient, like care staff of different professions, unit managers as well as the patient and their next-of-kin. If there is a need for cooperation between service levels, clarification and evaluation of care service needs or other larger decisions, the extended network is involved.

The information flow between the different networks is safeguarded by formal structures consisting of the patient record, reports and regular meetings. In addition to these formal structures, diverse informal channels for information flow, both oral and written, are put in place to satisfy the different actors' need for information.

### **Discussions**

The results highlight how complex the process of generating and communicating patient information across different services is. It is interesting to note, that despite a digital patient record, accessible to all actors at the municipal level, there still is a need for complementary information sharing through informal channels. Research focusing on the content of nursing documentation has revealed a major emphasis on medical and biological information at the expense of social and psychological factors. In order to deliver integrated care, this study highlights the importance of a holistic understanding of the information process.

### **Conclusions**

Patient information are generated through different networks, which include different actors depending on individual circumstances. Communication of information involves both formal and informal structures.

#### ***Lessons learned***

Generation and communication of patient information is a complex process involving a large range of actors and channels.

#### ***Limitations***

This study were conducted in a limited number of Norwegian municipalities and focused on short term units in nursing homes. These units are characterised by high levels of highly qualified staff, which may influence their needs and systems of handling information.

#### ***Suggestions for future research***

Patient information is a key to integrated health care services. As care trajectories are increasingly digitalised, more research is needed to understand and enable attention to the complexity in information sharing in care service delivery.

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## CONFERENCE ABSTRACT

Periodontal treatment and diabetes-related healthcare costs: Results from a large retrospective study

ICIC20 Virtual Conference – September 2020

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4: Achmea, Zeist The Netherlands

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### **Introduction**

There is a consensus that the incidence, prevalence, progression and severity of periodontal disease (PD) are higher in individuals with diabetes mellitus (DM). Moreover, DM and PD appear to have a bi-directional relationship. Individuals with DM, who also suffer from PD, exhibit more difficulties to stabilize metabolic control and develop other diabetes complications more frequently. Interestingly, for individuals with DM type 2 and PD, intensive periodontal treatment demonstrated to improve glycemic control. Therefore, we hypothesized that periodontal treatment may lead to lower diabetes-related healthcare costs, and aimed to study this in a Dutch population of individuals with DM.

### **Methods**

For this purpose, a large data-based retrospective study was undertaken using claims data of a health insurance company. Data from adults' health insurance policies with additional dental coverage continuously from 2012 to 2018 were extracted. Individuals who received at least one diabetes-related claim reimbursed in 2012 were included in this study. Taking account of unobserved heterogeneity, a series of panel data regression models with patient-level fixed effects were estimated to assess the potential impact of periodontal treatment on diabetes-related healthcare costs.

### **Results**

A total of 39,758 individuals with DM (age range 18-19 years; 45% females) were included in the final analyses. The median diabetes-related healthcare costs in 2012 were €42.74 per quarter of a year (interquartile range €12.45 - €277.03), including diagnoses, treatment, medication, and hospitalization costs. The fixed effect models showed €10.84 [95%CI €-14.86; €-6.83] lower diabetes-related healthcare costs per quarter of a year following periodontal treatment compared to no periodontal treatment. These results held robust across different model specifications which examined potential influences of severity of periodontal treatment and different time spells after periodontal treatment.

### **Discussions**

PD may be seen as the sixth complication of DM, and should therefore receive the appropriate attention in DM patients. It has been shown before that periodontal treatment may have a beneficial effect on HbA1c levels. The results of this study are in line with a previously published study that showed a financial benefit from periodontal treatment in newly-diagnosed diabetes.

#### ***Conclusions***

This study showed that individuals with DM had lower diabetes-related healthcare costs following periodontal treatment. This implies that periodontal treatment in DM patients may offer a financial benefit, besides the clinical one.

#### ***Lessons learned***

Periodontal treatment may be financially beneficial in individuals with DM.

#### ***Limitations***

This study was performed using only claims data of a health insurance company. Clinical data were unavailable, hence the severity of PD and DM and the need for periodontal treatment could not be determined. This may have influenced the study results.

#### ***Suggestions for further research***

The results of this study must be verified in observational clinical studies in which individuals who have DM or are diagnosed with DM are followed over several years to see whether PD develops and if they are treated, what the effects will be both clinically and financially.



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## CONFERENCE ABSTRACT

### Piloting an Integrated Care Model in Kosovo

### Introduction of Physical Activity Sessions to Elderly patients with Type 2 Diabetes

ICIC20 Virtual Conference – September 2020

Merita Shehu<sup>1</sup>, ,

1: Accessible Quality Healthcare Project, Prishtina, Kosovo Albania

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#### **Introduction**

AQH project in Kosovo is funded by the SDC and implemented by Swiss TPH with a focus on Primary Health Care (PHC) on managing NCD's. The AQH is piloting an IC model in one municipality.

The quality of PHC services in Kosovo is poor mainly due to lack of basic equipment and infrastructure, but also because of the lack of multi-sectoral cooperation.

#### **Description of practice change implemented**

A nurse together with a social worker visited patients in their homes for geriatric assessment. Nurses at PHC facility level were equipped and trained on how to use the handgrip dynamometers to assess level of frailty. Based on findings from GA the teams developed individual care plan.

#### **Aim**

The aim of IC Initiative is to improve the wellbeing and functional status of patients through better coordination of services provided by the health and social sectors. Whereas, the objective of the group exercise classes is for patients to have strategies to support themselves to stay motivated to complete these exercises as part of their own daily routine (social and family support, routines and use exercise record).

#### **Targeted population and stakeholders**

Patients over the age of 65yrs with Type 2 Diabetes. A Working Group which includes: Representatives from the Health Sector, Representatives from Social Services and local NGO's.

#### **Timeline**

Started in 2018 and will continue throughout the duration of the project until the end of 2023.

#### **Highlights**

IC as a new concept in Kosovo promotes the person-centred care and boosts the motivation for patients to stay active physically.

At this early stage, we only have output results while the outcome results can be expected at later stages.

#### **Sustainability**

The Physical Activity is designed in collaboration with social and health sectors and the same were introduced to the patients in order to ensure sustainability.

### ***Transferability***

As the project has involved health professionals from the MFMC at all stages, they also received support from the international experts and shared the knowledge with colleagues.

### ***Conclusions (key findings)***

82 Geriatric assessments and 66 geriatric plans were conducted. The first cycle of three sessions of physical activities for the diabetic elderly patients were organized by nurses at MFMC where the first 30 patients were divided into groups i.e. 43.3% robust, 36.6% pre-frail and 20% frail conditions. Glucose level under 7.8mmol/L 2 hours after eating was measured only in 33.3% of patients. Regarding medical therapy 10% were on insulin therapy, 23.3% on insulin plus oral medication, 63.3% on oral medication and 1 was keeping glucose level under control only through diets.

### ***Discussions***

- o Every six months a comparison of above-mentioned parameters should be conducted.
- o Stable patients should be encouraged to attend community exercise groups or walking groups.

### ***Lessons learned***

Multi-sectoral collaboration proved to be effective on motivating patients to socially interact and enhancement of confidence to safely stay physically active.

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## CONFERENCE ABSTRACT

Place-based & Person-centred care: Taking a population health approach to data and partnerships  
IJIC20 Virtual Conference – September 2020

Frank Tracey<sup>1, 1</sup>,

1: Children's Health Queensland, Brisbane, Australia

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### ***Introduction***

As the sustainability of first world health systems are challenged by increasing demand and cost, it's critical that organisations take a population health approach based on partnerships and evidence to support prioritization of health challenges, policy development, resource deployment/investment and measurement of success (short and long term).

### ***Short description of practice change implemented***

Children's Health Queensland (CHQ) has been working with partners across sectors to establish a common evidence base to support population-based planning that is responsive to the social determinants of health. Insights are visualised in an interactive dashboard that translate this conceptual framework into a practical tool that integrates over 56 data sets to describe the health and wellbeing status of children at a local community level.

### ***Aim and theory of change***

This initiative breaks down traditional models for health service planning, by taking a population-based perspective that is underpinned by the social determinants of health.

### ***Targeted population and stakeholders***

The CHQ population health approach has enabled individual agencies across health, education, social, infrastructure sectors to take a person-centred approach, but has also brought agencies together at local, regional and statewide levels with a shared understanding that is the precursor for integration.

### ***Timeline***

The initiative has been designed and developed within business as usual resourcing over a 2 year period.

### ***Highlights (innovation, impact and outcomes)***

By offering insights about community level (need, service utilisation and outcomes on a range of health and wellbeing indicators (including the social determinants of health), the dashboard provides actionable insights about which communities have greater need and utilisation of public sector funded services. Using infographics and data packs, supported by strategic population-based planning advice, CHQ has supported several agencies to identify and harness opportunities to reinvest, repurpose, and reallocate existing resources to optimise their impact.

### ***Comments on sustainability***

This initiative has offered the system a practical approach to decision makers across sectors to make integrated and value-based decisions that are oriented to the needs of the population.

### ***Comments on transferability***

This initiative is challenging the status quo on how the system makes commissioning and investment decisions and the logic and methodology can be generalised and applied to the adult population, as well as outside of the health sector.

### ***Conclusions (comprising key findings)***

By weaving the principles of social equity, integrated care and proportionate universalism through the design of the dashboard and supporting collateral, CHQ is offering clinical teams, planners and commissioners practical strategies and tools that enable population-based infrastructure, workforce and service planning.

### ***Discussions***

Reliable population health data equips leaders with person-centered insights and evidence to support prioritization of health challenges, policy development, resource deployment/investment and measurement of success.

### ***Lessons learned***

The learnings from the incubation and development stages of this population health innovation can now inform CHQ's approach to innovation and improvement, including the enabling conditions, processes and structures that promote innovative thinking and creative problem solving.

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## CONFERENCE ABSTRACT

Post operative exercise guidance app (BAPSApp Wales) for breast cancer patients empowers patients and reduces problems with positioning for radiotherapy  
ICIC20 Virtual Conference – September 2020

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3: Orchard Media, Cardiff, United Kingdom

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The BAPS App was designed following patient feedback, to guide patients who have had breast or axillary surgery for breast cancer through exercises aiming to maintain shoulder function and allow them to get into position for radiotherapy.

Prior to the use of the App, there was disparity in information given to patients, who gave the information and at what point within the Health Board's that refer patients for oncological treatment to Velindre Cancer Centre (VCC) in Cardiff. Increasing numbers of patients were unable to maintain correct position for radiotherapy planning and required urgent and intensive physiotherapy input to achieve this.

Economically this has an impact on planned cancer care – CT scanner time wasted, rearranging appointments, intensive physiotherapy sessions needed, but most importantly, delayed adjuvant treatment has a psychologically negative impact on the patient.

Our aim was to standardise information given to patients in a more interactive fashion, empowering patients with an understanding of why the exercises are important, motivating them to achieve their goals and optimising patient care pathway from surgery to radiotherapy.

The problem was initially highlighted by a patient who became an important member of the team in the design, development and testing of the App. The multidisciplinary team worked together with an industry partner to film and develop the App and then identified key stakeholders to engage before launching the App. This was enabled by taking part in the Bevan Commission Health Hack and being one of the successful bidders for funding. Our App evolved in a pro-active way and we have added in a section on deep inspirational breath hold which is being used for some patients with left sided breast cancer requiring radiotherapy, but also as a relaxation technique within the App.

The App has links to common questions, reliable sources of evidence-based information and our YouTube channel: <https://www.youtube.com/channel/UC21wQJhTuGJQRp5AFczzL6g>

Initially the Health Boards that refer patients to Velindre were targeted and breast care nurses, physiotherapists and surgeons in these areas were contacted to promote use of the App and engage in order to have good uptake of the technology.

The App was launched in February 2019. In six months, we have achieved:

- 583 app downloads
- 440 direct downloads using link or QR code
- 313 Sessions (physio sessions 1-4) have been completed.

The VCC physiotherapy department have noticed a downward trend in urgent referrals.

Questionnaires for patient feedback and healthcare professional feedback are underway and data collection is ongoing. We aim to roll out use of BAPSApp across Wales this year as an integrated component of the breast cancer care pathway.

The App is sustainable as the information is unlikely to change and is sufficiently generic for all cancer centres to use. It is transferable and indeed has been downloaded in many international locations, not just within Wales. It is available in Welsh and English language, thus no Welsh first language patient is disadvantaged. Health economists will help evaluate the App in terms of financial impact once longer term data is available.

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## CONFERENCE ABSTRACT

Primary healthcare teams - an optimal health service for persons with intellectual disabilities?  
IJIC20 Virtual Conference – September 2020

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1: Kristiansand Kommune, Kristiansand, Norway

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3: NAKU - National center for Expertise in intellectual disabilities, Trondheim, Norway

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### **Introduction**

Background: Persons with intellectual disabilities (ID) have had persistent inferior health status, shorter life expectancy and poorer access to health services compared to the general population. People with ID and their caregivers have often experienced difficulties in communication with health service providers like general practitioners and emergency room personnel. Despite increased health risk, people with ID less frequently see their general practitioner (GP) than others. This may negatively affect the health status and the health-related quality of life of people with ID. In Norway, Primary Healthcare Teams (PHT) are being piloted in an attempt to improve primary healthcare services to these and other underprivileged groups.

### **Aim**

In the present study, we will explore the feasibility of PHT for persons with ID living in community shared housing facilities; also possible benefits and disadvantages of the different organisational models.

### **Method**

We will apply a qualitative research design, world café, in November 2019, to explore how different stakeholders experience the PHT model with respect to patient health status, patient safety and health-related quality of life. Participants include community workers and managers in shared housing facilities, and family members and other caregivers of the residents' with ID living in the shared housing, divided into small groups, according to whether they have received services from PHT or not. Questions include experiences regarding received health care when it comes to number of consultations; use of medication; use of force; patient compliance; experienced health and quality of life; and also increased/decreased need for other services (e.g. hospital visits, visits to regular general practitioner). Every group will have an instructed individual referrer that collects data. Anonymized data will be analysed and interpreted individually by three researchers.

### **Expected outcomes**

Further insight regarding health service, and needs, for people with ID in shared housing facilities, as observed by community workers, managers, family members and other caregivers. Differences in health care service through PHT services compared to standard healthcare, with focus on areas such as health, patient safety and quality of life.

Workshop as a research method may be a useful tool to determine caregivers and relatives' experience with health care. Good discussions and honest testimonials are dependent on a feeling of psychological safety in the group. The various groupings (e.g. parents, community workers and

managers) to ensure anonymity, may limit different viewpoints of attendants. The referent will be instructed to encourage answers from the whole group, ensuring that every opinion is brought forth. When interpreting the results, anonymity may limit detailed descriptions of individual differences and parameters that affect experienced improved patient safety, quality of life; Ethical reflection describes the dilemma of producing valid detailed research versus securing anonymity.

#### ***Suggestions for future research***

Support findings with quantitative research.

Previous review identified health checks as the only identified intervention that increases health promotion and disease prevention in people with ID; if this is the case it is vital to research into how regular health checks are performed; how we organize them; and what health checks include for persons with ID.



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CONFERENCE ABSTRACT

Program "6-10-14 for Health" - as an example of an interdisciplinary model of care for a patient with excess body weight

ICIC20 Virtual Conference – September 2020

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**Introduction:**

Overweight and obesity are public health challenges of growing importance in Poland. The fastest increase has been observed in children and adolescents. Some studies show that 22% of elementary school children are currently (2013) overweight or have obesity (IZZ), compared with no more than 15% in 1990 (WHO Europe, 2012).

Short description of practice change implemented: The "6-10-14 for Health" is the first comprehensive health programme implemented in Poland, focused on long-term health behaviour change both among children with obesity and their families.

Screening tests are carried out at Gdańsk schools. The scope of tests includes: body weight assessment, blood pressure measurement, assessment of cardiopulmonary efficiency. Children who are diagnosed with excess body weight are invited to the second level of programme.

The whole process is supported by a dedicated IT system enabling management of the care process.

**Aim and theory of change:**

Improving the state of health of children from Gdańsk by conducting comprehensive educational and health intervention in children with selected factors of NCD and creating conditions in the school environment conducive to proper eating habits and physical activity as elements of maintaining and improving health.

**Targeted population and stakeholders:**

Target groups are children in Gdansk, aged 6, 9-11 and 14 years, their parents and the school environment.

**Timeline:**

2011-2020

**Highlights:**

Approximately 400-450 new patients join the programme every year. Programme participants receive annual care from an interdisciplinary team of specialists including a paediatrician, dietitian, specialist in physical activity and a psychologist. An IT system has been created to digitize patient data and recommendations, control measured parameters and share them with parents of children under care. The effect of one year's participation in the programme is the reduction of excess body weight in 75% of participants. More than 2000 patients have completed the Programme. The

programme is accredited by the European Association for the Study of Obesity and is funded by the City of Gdańsk.

Comments on sustainability: Further implementation of the Programme depends on providing funds from the City of Gdańsk. However, it seems that the 6-10-14 for Health is one of the city's health priorities. In 2019, a new health programme „18+ for Health” was implemented, which is a form of follow-up for patients of the „6-10-14 for Health”.

***Comments on transferability:***

The proposed care model is fully possible to implement in the care system. So far, sharing knowledge and experience, the program has been implemented in several other local governments.

***Conclusions:***

Current work indicates that the key challenge is to keep participants in the annual program.

***Discussions:***

The challenge in the field of weight reduction programs is to provide care that will not lead to stigmatization of patients

***Lessons learned:***

The work on designing the model has already resulted in creation of network of specialists from different backgrounds and allowed sharing different scopes, how to use limited resources for the benefit of children and adolescents. Based on the program, activities were created in other cities in Poland (Szczecin, Sosnowiec, PoZdro in Lublin, Warsaw, Wrocław)

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## CONFERENCE ABSTRACT

Regional approaches for integrating health and social services in Finland  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Government policies in Finland have supported administrative and operative coordination of health and social care to create larger authorities for organising services and to strengthen integration of social services, and primary and specialised care. While nationally the policies have led to attempts to reform and consolidate the service system, in several areas, regional joint health and social care authorities have been established to boost administrative integration and to facilitate the implementation of innovative forms of integrated care (IC). Although the governments' reform proposals for health and social care system have failed, within the preparation, many regional authorities have drafted new operations for strengthening integration of health and social services. The paper explores and systematises these regional plans to identify feasible models for developing IC in the Finnish context.

### **Methods**

The study draws on extensive collection of administrative and planning documents on regional health and social services within 20 hospital care authorities in Finland. The documents collected in May-June 2019 included the annual reports of the authorities, service organisation plans and agreements between the authorities and local governments (municipalities), and regional preparatory plans for the health and social care reform. The data were complemented with interviews of regional decision makers and managers. In analysis, we identified conceptual approaches to IC, and operational preconditions and governance models of IC applied regionally.

### **Results**

The authorities varied substantially in approaches to IC. Some had formed a regional IC authority for managing health and social services or decided to establish such an authority. Administrative integration did not, however, determine directly operational IC approaches, of which we identified four broad categories: 1) designers of IC-preconditions, 2) developers of IC-models, 3) IC-investigators and 4) rookies. While all authorities had established at least some preconditions for integration, such as case management, multi-professional collaboration, and integrated care pathways, the stages of their development varied and in some areas plans to proceed with integration were unspecified.

### **Discussions**

For policy development, our findings indicate a wide preparedness to implement comprehensive regional IC models in Finnish health and social care. Established tools to improve integration have particularly focused on primary and specialised health care and designated care pathways. IC schemes between health and social services are less frequent, often local and focusing on multi-

professional teamwork. Integration has also encompassed services for the elderly, families, and young people drawing on case-manager models and joint facilities with professionals from multiple sectors. More investment is needed for mental health and substance abuse services.

### ***Conclusions***

While the delay of the national health and social care reform has impeded the development of a common IC framework in Finland, local approaches proceeding out of step have emerged requesting collaboration between regional health and social care authorities for identifying good IC practices.

### ***Limitations***

While the study is based on policy and planning documents complemented with interviews, the actual implementation of IC models has not been comprehensively analysed.

### ***Suggestions for future research***

Research on good practices to improve care integration is needed to support the implementation of IC models.

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## CONFERENCE ABSTRACT

Results from a care coordination trial for Chronic Heart Failure and how Health Funding Policy can facilitate similar out of hospital collaborative care  
ICIC20 Virtual Conference – September 2020

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3: Department of Community Health, Peninsula Health, Peninsula Health, Victoria Australia

4: Allied Health Department and Advanced Heart Failure and Cardiac Transplant Service, Fiona Stanley Hospital, Perth, Western Australia Australia

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### **Introduction:**

Objective of this abstract is to present outcomes from a home-monitoring Chronic Heart Failure (CHF) trial coordinated by a hospital community health setting and how these types of care models could benefit from health funding policy targeted at providing hospitals the flexibility to offer patient-services beyond bed-based care.

CHF trial was to examine if an Innovative home-Telemonitoring Enhanced Care Program for CHF (ITEC-CHF) improved compliance to daily weight-monitoring and the impact on self-management and healthcare.

A flexible funding model called HealthLinks Chronic Care (HLCC) trialed in the state of Victoria, Australia will be discussed as an approach to allow health services to develop alternate care-models similar to ITEC-CHF.

### **Methods:**

Technology approach for ITEC-CHF was a zero-touch design where participants provided with a Bluetooth weight scale and measured weights are automatically transferred via a tablet to a cloud server. An application monitored (minimum 6mths) uploaded weights in real-time to detect missing and changes to weights according to guidelines and alerts generated for response by a hospital nurse.

HLCC utilises an algorithm to identify patients who are at high risk of an unplanned readmission to hospital and these patients are enrolled in the program when presented to hospital. Several hospitals in metropolitan Melbourne are involved in this initiative and CSIRO has co-designed the evaluation in partnership with Victorian Department of Health and Human Services (DHHS).

### **Results:**

Results show that the ITEC-CHF program was associated with significantly improved patient compliance with daily weight monitoring (n=91 Test, n=93 Control). ITEC-CHF trial also showed improvements in health maintenance, medication, diet and accepted by patients.

Qualitative perspectives from HLCC hospitals were explored by undertaking focus groups and semi-structured interviews:

(1) Policy/funder: long lead time before benefits are realised and the need to have shared trust and willingness to participate.

- (2) Implementors/Hospitals: Strong leadership, resourced to deliver new/re-designed care-models and appropriate systems for patient identification.
- (3) Evaluator: data availability, well defined evaluation framework with room for agility and adoptable for changes in a co-design environment.

***Discussions & future research:***

Proportion of participants in ITEC-CHF achieving weight monitoring was significantly higher than in usual care. Furthermore, ITEC-CHF resulted in significant improvements in health maintenance, medication adherence and diet demonstrating patient benefits. However, the sustainability of these programs is reliant on funding policy for hospitals to deploy them. HLCC is designed to provide this flexibility.

Further research is required to implement care models that have shown evidence of impact to both patient and the health system which can be transitioned to usual healthcare.

***Conclusions:***

ITEC-CHF program significantly improved patient compliance with daily weight monitoring and was associated with improved self-management related to health maintenance, medication adherence and diet.

Wider implementations of this type of interventions need to be undertaken in a phased manner demonstrating impact and buy-in along the way to achieve long-term sustainability. New funding programs such as HLCC are key to these out of hospital care models and evaluation objectives need to address key sustainability factors such as long-term patient benefits and cost of delivering care.

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## CONFERENCE ABSTRACT

Self-management of dementia by family carers: A hybrid concept analysis  
ICIC20 Virtual Conference – September 2020

Sharyn Hunter<sup>1, 1, 1</sup>

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### **Introduction:**

Self-management of dementia includes family carers [1, 2]. However, the concept of self-management of dementia by family carers is not well understood [1, 2]. An understanding of self-management of dementia by carers is needed to develop and deliver interventions to support them in this role.

### **Methods:**

A hybrid concept analysis using the Schwartz-Barcott & Kim's (2000) approach was conducted [3]. The three phases of this approach were undertaken as follows. Phase 1, the theoretical phase, comprehensively explored the literature to develop a working definition of self-management of dementia by family carers. Phase 2, the fieldwork phase, a qualitative study was conducted where in-depth individual interviews were undertaken with seven family carers and five expert health providers. Phase 3, data were extracted from Phases 1 and 2 to yield the attributes of self-management of dementia by carers.

### **Results:**

Overall, the results from the Theoretical and Fieldwork phases were similar and complemented each other. The interviews validated and enriched the descriptions that were found in the literature. However, there were several differences noted between the two data sources. Firstly, several attributes were not described in the literature. Also the interviews provided extensive description of the carer being involved in caring for themselves as part of self-management of dementia by the carers. The interviews also revealed gender differences between the carers that were not evident in the literature.

### **Discussion:**

Twelve attributes emerged in four major domains from the analysis for the concept of self-management of dementia by carers. The domains included: (1) managing the impact of dementia on care recipients (caregiving); (2) managing the impact of dementia on carers (self-care); (3) managing the relationship between carers and their care recipients (taking care of the relationship); and (4) skills and personal characteristics.

### **Conclusion:**

This presentation provides a description of the concept of self-management of dementia by family carers. The findings can assist in the designing and evaluating self-management support interventions for family carers.

### **Limitations:**

The sample size of family carers and health providers was limited because of size and diversity.

***Lessons Learned:***

A Hybrid Concept Analysis assists with concept clarification.

***Suggestions for future research:***

These findings can be used to inform future research about the development of a conceptual framework of self-management of dementia by family carers.

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CONFERENCE ABSTRACT

Shared decision making in standardized pathways for cancer  
ICIC20 Virtual Conference – September 2020

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### **1. Introduction**

Standardized pathways for cancer was initiated in Norway in 2017. The aim of cancer pathways is to ensure standardized waiting times, but also patient participation and shared decision making. Standardization and individualization are opposites which could lead to conflicting interests within cancer pathways. This study investigates how patients who have been in a standardized pathway for cancer diagnostics experienced opportunities for shared decision making.

### **2. Theory and Methods**

Shared decision making is about patients' opportunities to influence decision making about care and treatment. This study comprises 19 individual semi-structured interviews with patients who have been through a standardized pathway for cancer. Twelve had breast cancer, four had prostate cancer, and three had melanoma.

### **3. Results**

The participants were satisfied with having been in a standardized pathway for cancer. Experiences with shared decision making varied between diagnostic groups. Men with prostate cancer reported to have been involved in shared decision-making during diagnostics and treatment. They had been involved in discussions on when to act on suspicion of cancer, whether to have treatment, and which treatment they should choose. They described themselves as decision makers who had participated in shared decision making with medical specialists.

Women with breast cancer experienced that their treatment pathway had standardized treatment procedures according to their diagnosis. Treatment guidelines for their specific type of breast cancer led them to trust professional knowledge as the basis for decision making. Patients with malign melanoma had not experienced shared decision making. Being in a standardized pathway was described as safe and predictable by participants with breast cancer and melanoma.

### **4. Discussions**

Different cancer pathways provide different opportunities for shared decision making. The degree to which they can participate in decision making throughout the cancer pathways is conditioned by many aspects, such as medical prognosis, institutional practices and procedures. Gendered identities could influence how patients perceive the importance of shared decision making. However, patients may also have different priorities about what kind of communication they value and report as significant.

### **5. Conclusions**

Patients in standardized pathways for cancer have varied experiences of shared decision making based on the possibilities that are been presented for them within each specific pathway. Standardization may lead to trust in professionals' decision making, thereby reinforcing traditional forms of decision-making in hospitals.

#### ***6. Lessons learned***

To increase shared decision making, patients need to be asked if and how they wish to participate in decision making. Health professionals need to provide enough information about options.

#### ***7. Limitations***

The study was limited to patients with only three cancer diagnoses. Interviews were done retrospectively, but within a short time-span after treatment initiation.

#### ***8. Suggestions for future research***

More research is needed on how health personnel understand patient participation in standardized health services. A standardized pathway for cancer care after hospital discharge will shortly be implemented in Norway. This will include integration of services from primary and specialist health care. Future research should address shared decision making in integrated cancer care.

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## CONFERENCE ABSTRACT

SMILE – Supporting multi-morbidity self-care through Integration, Learning and eHealth  
ICIC20 Virtual Conference – September 2020

Mary Burke<sup>1, 1</sup>,

1: Caredoc, Carlow, Ireland

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Remote monitoring devices and nurse triage assessment and monitoring can reduce health related costs and improve health for at-risk populations. Monitoring devices including blood pressure monitors, blood sugar monitors, oxygen monitors, weighing scales, activity monitors were allocated to participants of this study.

Caredoc, in conjunction with Netwell CASALA, introduced remote nurse triage support of adults with multiple chronic conditions, self-managing their conditions at home using wearable technology. Participants electronically record their healthcare data at home as appropriate to their health condition. Participants alerts are monitored daily by the telephone triage nurse.

The aim is to empower participants with knowledge to take ownership of their potentially debilitating conditions, to learn to manage their symptoms better and improve their overall quality of life.

The project is for people over 18 with two or more conditions of Diabetes, COPD, CHF and heart disease. Monitoring devices were allocated to participants based on their requirements. Participants record their healthcare data at home and submit the readings from devices to a specifically designed software program.

SMILE is the next iteration of the ProACT project and runs for 6 months; due for completion in April 2020.

This project is scalable and transferable across all health sectors social, primary and acute. This program of remote health monitoring could be utilised in mental health services in mood monitoring, pregnancy related conditions (diabetes, hypertension, weight measurement, foetal heart monitoring).

Based on the ProACT qualitative analysis, participants:

- found the technology challenging initially, but now feel capable of using it, alone and with minimal support
- like the nurses having access to all their data and they don't have to explain things to the nurse when they call
- Compliance with medication, exercise etc has improved and participants feel motivated in managing their conditions
- Participants report feeling more capable of doing things for themselves as they do not necessarily want family involved, their main motivation is to stay independent.
- Participants reported initial anxiety due to the knowledge of their readings, particularly when readings were high. But they have learned how to deal with this anxiety due to a combination of their increased knowledge on what the readings mean, what they should do in these circumstances, and the support from the triage nurses has contributed to this.

- Triage nurses have identified deteriorations in their client's condition and have advised appropriate early action such as "attend your GP" or in a small number of cases go directly to hospital for assessment.

SMILE aims to quantitatively analyse the information and includes:

- Reduction of 20% in unscheduled care for participants
- Overall health improvement for 60% of participants (CASP-19)
- Analysis of vital sign data to analyse condition stabilisation

Qualitative lessons learned:

- Gentle reminder tools motivate participants
- Sharing excitement with achievements is an important aspect of the program and highlights the benefits of continuous monitoring
- Directing participants to the appropriate health professional leads to appropriate attendances at GPs and hospital

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## CONFERENCE ABSTRACT

Spotlight on careers within Digital Health and Care: addressing future workforce development issues.

ICIC20 Virtual Conference – September 2020

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### **Introduction:**

The 4th Industrial Revolution is transforming the world of work also in the Health and Care sector. It will become a key driver in supporting the better integration of health and care activities. The workforce is required to be more agile to keep up with the accelerating pace of technological advancement combined with an increasing ageing population and their health and care needs. One of the fastest growing economic sectors globally is Digital Health and Care. A recognised factor restricting the growth of that sector is the lack of suitably skilled workforce.

Based on earlier research carried out by the Digital Health & Care Institute, the occupational categories (OCs) in most urgent need of staff in Scotland's Digital Health and Care sector are:

1. Software Developers
2. Product Owners
3. Implementation Facilitators
4. Knowledge Engineers
5. Health Data Analysts, and
6. Cyber Security Specialists.

### **Method:**

The main purpose of the study was to highlight issues underlying the lack of clear career pathways leading into positions in the digital health and care sector and offer advice for organisations involved in planning the education and training provision for these in Scotland. The study comprises extensive desk research, qualitative semi-structured interviews and visual career mapping exercises with 27 people currently employed in the selected categories. The study probed into the nature of the occupations, the currently available educational pathways into them, the skills and capabilities required of people employed in them and the education and career pathways taken by the interviewees.

### **Results:**

The occupational categories in the study ranged from well-established to emerging ones, reflecting in the availability of educational pathways into the sector. Many of the OCs are positioned at the interface of humans and technologies, entailing translating data, knowledge and information between them. This new type of job role has emerged through the expanding digitisation of services. The study also found that distinctly human soft skills – ones not replicable by technology – are increasingly important across in the sector, and that the vast majority of the skills and capabilities required in these roles are shared between the OCs.

### **Conclusions and lessons learned:**

1. General lack of awareness of the existing career opportunities and emerging job roles in the Digital Health and Care sector translates into a lack of well-defined education and career pathways.
2. Recognising the new job roles at the interface of humans and technologies translating data, knowledge and information between them will be crucial in the development and implementation of the digital transformation of the Health and Care sector.
3. Recognising the importance of distinctly human soft skills across the six OCs in designing educational pathways for future workforce is vital.
4. A vast, shared skills and capabilities base across the six OCs offers valuable opportunities for exploring common approaches to education, skills development and career planning, offering a key for enabling staff to move more flexibly between jobs across the sector.

***Limitations:***

Limited interviewee sample. Which was mitigated by extensive desk-research.  
Further research: National employer survey.

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## CONFERENCE ABSTRACT

Stakeholder engagement in developing population-based integrated care solutions – Insights from Germany

ICIC20 Virtual Conference – September 2020

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### **Introduction:**

Integration has emerged as a priority in transforming healthcare delivery to improve care. Developing integrated care (IC) solutions across the medical and social service sectors has gained momentum with emerging evidence favouring the integration of public health and community service agencies. Key for effective community healthcare management systems is the integration of stakeholders during the strategy process. However, engaging stakeholders in joint strategizing is linked with overcoming sectoral boundaries between the public, private and non-profit sectors; each of which is characterized by different visions, missions, and incentives. Given this setting, our study aims to explore multi-dimensional boundary conditions for developing sustainable and effective cross-sector IC solutions.

### **Theory/Methods:**

We conducted an in-depth case study of a cross-sector partnership aiming to develop a population-based IC model in Germany. Physicians, health insurers, a health management company, a public health authority and other stakeholders in social and healthcare jointly developed and implemented the IC model. Our primary data source were 21 interviews from 2017 and 12 interviews from a member reflection round in 2019. We also drew on 46 case-related documents and 8 meeting participations. We performed thematic text analysis after abductively coding our data in multiple coding cycles. Three coders were involved in the coding procedure. Disagreements were discussed and resolved leading to a shared interpretation of our data.

### **Results:**

We structured our findings into formalization-related, diversity-related, resource-related and stakeholder-related conditions for joint development of IC. In sum, we identified 22 boundary conditions summarized in a framework. Concerning formalization-related conditions, our interviewees particularly emphasized the need of support from a management office and the implementation of appropriate communication structures. With regard to diversity, our interviewees mainly highlighted the importance to develop mutual trust and a shared vision based on the perception of a problem that can only be solved in joint action. Besides, resources such as support from influential stakeholders from all sectors and particular stakeholder characteristics such as a spirit of change positively affect stakeholder engagement.

### **Discussion:**

Our study findings add to existing literature on stakeholder engagement and imply a range of implications for practitioners in the IC context. Particularly, practitioners should ensure a certain

degree of formalization, i.e. pre-defined structures and procedures. Also, it is required to build on and organize diversity, e.g. by introducing a conflict management body. Practitioners have to pool and manage resources effectively, and build on and promote team- and change-oriented stakeholder characteristics.

***Conclusion:***

Our framework on boundary conditions for stakeholder engagement in developing models of IC might serve as a checklist for practitioners or as a conceptual framework for future research.

***Lessons learned:***

Developing IC solutions with stakeholders from the public, private, and non-profit sector is a complex and time-consuming endeavour. To cope with this complexity, practitioners should take into account the collectivity of conditions for jointly developing IC solutions.

***Limitations and suggestions for future research:***

The single case study design restricts the generalizability of our study results. Future research may focus on validating our results in other cross-sector IC models.



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## CONFERENCE ABSTRACT

Supporting integrated elderly care networks in working from a more demand- and person-oriented approach in the Netherlands

ICIC20 Virtual Conference – September 2020

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### **Introduction:**

In a Dutch region, various care and welfare organizations that support vulnerable elderly have joined forces in an integrated care network. The network envisions that elderly should continue to live in their own familiar environment as long as possible and desirable, healthy, satisfied and independent. To realize this vision, a demand- and person-oriented approach is necessary. Therefore, the network has introduced an approach based on the concepts of Positive Health and Reablement.

However, an integrated care network implies interprofessional and interorganizational collaboration. Due to the historical anchoring in a fragmented care system, both organizational and financial, this collaboration is not self-evident. Various structural, cultural and process-related barriers should be overcome, to make this network a success. To realize the vision of the network, our research therefore aims to support professionals in the network in working according to this new approach by addressing potential interprofessional and interorganizational barriers.

### **Theory/methods:**

Over a 9-month period, four multidisciplinary teams in the network received training (4 sessions) in the principles of the new focusing on interprofessional and interorganisational collaboration, and the interaction with the client. The process has been monitored and evaluated – together with all stakeholders – using the validated methodology of Reflexive Monitoring in Action. Reflexive learning was a central aspect, which took shape using a fixed learning cycle: (1) observation, (2) analysis, (3) reflection, and (4) (adaptation of) activities).

### **Results:**

Observations revealed that participating professionals were enthusiastic about the new approach. However, they experienced several challenges on organizational, professional and client level. Professionals were uncertain about their skills and competences to bring the new approach into practice. Furthermore, they were unaware and inexperienced how to communicate and collaborate with other professions to provide Positive Health and Reablement to vulnerable elderly. Some were afraid that adopting this new approach touched their professional identity. The training stimulated to become more familiar with the concepts (awareness) and how to bring it into practice (skill development). Not all participants were familiar with each other's profession and their expertise. The training thereby also helped to get to know each other's profession – and their expertise – better.

### **Discussions:**

The success of the network requires more than just multidisciplinary collaboration in which care and service professionals work with the same client, but parallel to each other.

***Conclusion:***

A joint vision unifying professionals in a network contributes to realization of integrated care. The training contributed to more awareness and skill development regarding putting concepts of Positive Health and Reablement into practice. However more training is necessary, as the interprofessional and –organizational barriers are still not fully overcome

***Limitations:***

This project was a success, but should be considered as a niche experiment: it did only include part of the professionals and had a short duration.

Lessons-learned:

Challenges are experienced and should be addressed on several interrelated domains. To overcome them, reflexive learning is essential.

***Future research:***

Future research should focus on a continuous learning culture and a more broader implementation in the network, especially for primary healthcare professionals.

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## CONFERENCE ABSTRACT

The B3 Maturity Model, SCIROCCO Tool and SCIROCCO Knowledge Management Hub: facilitating the capacity-building support for integrated care  
ICIC20 Virtual Conference – September 2020

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3: Scottish Centre for Telehealth and Telecare, NHS, , United Kingdom

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### **Introduction**

SCIROCCO Exchange is an EU Health Programme project that builds upon the preliminary achievements of the B3 Action Group on Integrated Care of the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) that first developed the concept of an Integrated Care Maturity Model. Through the activities of the SCIROCCO project, the Model has been further refined and is supported by a validated self-assessment tool (SCIROCCO Tool). SCIROCCO is an online participatory tool that helps stakeholders to understand: 1) The context requirements of a particular good practice; 2) The level of maturity required for a care system to adopt and scale-up integrated care; 3) The actions that more progressive regions have taken to be successful and enable information sharing, twinning and coaching to overcome barriers and accelerate results in integrated care. The ambition of the SCIROCCO Exchange project is to maximise the value and impact of the Model and Tool. To this aim, the Tool is being improved to encourage more sharing of maturity assessments, better visualisation of results, better collaboration and communication within large teams. Moreover, SCIROCCO Exchange will develop a Knowledge Management Hub to facilitate the process of “matching” the needs of 9 European regions with existing evidence on integrated care, good practices, tools and guidelines and thus facilitate the capacity-building support for integrated care.

### **Objectives and Methods**

The objective is to present the updated SCIROCCO tool, as well as the new SCIROCCO Knowledge Management Hub and its relation with the B3 Maturity Model. We aim to present the updated functionality of the Tool for maturity assessment, sharing assessments and consensus making within larger teams, as well as the experience of the 9 European Regions in using them for assessing the maturity of their systems. Moreover, we will describe our progress with the Knowledge Management Hub, and in particular the incorporation of integrated care assets, a tagging functionality for such assets, and a search functionality which can perform “matches” between them. This description will be based on a series of use cases to showcase the different uses and usefulness of the Hub. Finally, we will introduce the qualitative approach that will be followed to evaluate the personalised knowledge transfer and capacity-building support facilitated by the Hub.

### **Results and lessons learned**

The development of the SCIROCCO Tool and SCIROCCO Knowledge Management Hub, as well as the experience of using the Tool and Hub and how this experience can help with scaling-up integrated care aim to contribute to a shift towards integrated care.

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## CONFERENCE ABSTRACT

The benefits of person centered care for professionals, patients and informal caregivers  
IJIC20 Virtual Conference – September 2020

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### ***An introduction***

There is a significant challenge facing our healthcare systems and a shift in focus is required from 'clinical' health related outcomes only to overall wellbeing. This calls for patient centered care (PCC) and co-creation of care. PCC is a core component of integrated care. Although we agree this shift is needed we are still unclear what effective PCC looks like in practice and how to measure it. After this session, participants will be able to:

- Have a better understand of the various aspects of PCC in all its complexity
- Learn about validated instruments to assess PCC in its fullness among patients, informal caregivers and healthcare professionals
- Learn that improvement in PCC not only improves well-being and satisfaction of care of patients, but also their informal caregivers and is also associated with higher satisfaction with work and improvements in the well-being of healthcare professionals.

### ***Theory/Methods***

In other research project within hospitals in the Netherlands and New York, long-term care and the primary care setting we investigated what effective patient centered care should look like and how to measure it. The eight dimensions of PCC as identified by the Picker institute were adjusted for specific settings (long-term care for people with intellectual disabilities and in the primary care setting for patients with (multiple) chronic diseases). Co-creation of care is measured by assessing patients' experiences about the quality of their relationship and communication with professionals involved in their care.

### ***Results***

After developing and validating measures to assess the eight dimensions of PCC among patients, informal caregivers and healthcare professionals our research showed that (improvements in) PCC and co-creation of care do lead to better physical well-being as well as social well-being among patients. Furthermore, our research shows that delivering PCC is also beneficial to satisfaction with work and well-being among health care professionals and satisfaction with care and well-being among informal caregivers.

### ***Discussions***

This study provided evidence of the importance of PCC for patients, professionals and informal caregivers in various settings in the Netherlands. We, however, are still unclear about the interventions needed to improve the eight dimensions of PCC. Tools could be developed based on these dimensions for further improvement.

Conclusions (comprising key findings)

Our research clearly shows that (improvements in) PCC and co-creation of care lead to better patient outcomes as well as the outcomes of informal caregivers and healthcare professionals in various settings.

***Lessons learned***

Improvement in the eight dimensions of PCC is crucial to effectively deal with the challenges ahead and support patients, professionals and informal caregivers to achieve well-being and their satisfaction with care and work.

***Limitations***

These studies were held in the Netherlands only.

Suggestions for future research

Repeat similar studies in other countries.

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## CONFERENCE ABSTRACT

The drawing board – Co-designing a group-consultation with adolescent patients with Type 1 Diabetes

ICIC20 Virtual Conference – September 2020

Harsh Samarendra<sup>1, 1, 1</sup>

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### **Introduction**

Young people with type 1 diabetes face considerable demands in managing their condition: monitoring and treatment, lifestyle adaptations, and increasing independence and autonomy over their health. Group-consultations (shared medical appointments) are likened to a 'learning community', in which bonds between participants can give them more motivation to share common struggles and offer support and solutions to one another.

### **Aim:**

In this paper, we describe the development, implementation and evaluation of a school-based group-consultation model, designed with continuous patient involvement and comprehensive stakeholder engagement. In this iteration of our school-based model, a 2-hour session was delivered to a group of 6 young people, in the absence of their parents, requiring a single facilitator and two clinicians.

Population and stakeholder engagement

Consultation design has been informed by (1) patient and parent involvement, (2) engagement of the diabetes multidisciplinary team, (3) literature review of peer-reviewed papers reporting experience with group-consultations.

### **Timeline:**

Design, planning stage and implementing of our first iteration was completed within a 2-month period. A second iteration modified in accordance with our evaluation (below) is planned.

### **Highlights, innovations, outcomes**

We adopted a multimodal approach in assessing outcomes that are relevant and impactful for patients. All participants communicated that their experience was positive. When asked: "If you were invited to another group-consultation, would you like to attend?" All participants answered yes. Group discussion revealed some misconceptions and importantly, a strong desire to learn about the biology of type 1 diabetes, and the relevance of HbA1c. All clinicians involved expressed strongly positive views about the consultation, particularly noting the value of shared learning, and of adding variation to clinical practice.

Feedback illustrates that young people were given greater opportunity to steer discussion to address their concerns, benefited from peer-to-peer learning, and felt supported to share care constructively with their parents. Patients and clinicians alike highlighted the benefits in the school setting, where familiarity has a role in making young people more able to draw personal value from the consultation.

### **Sustainability:**

Our experience indicates a school-based model can be implemented without use of additional space, time or staff. Additionally, the setting of a school has the added advantage of having no estate costs, no travel costs for young people and minimal disruption to the routines of young people and their families.

### ***Transferability***

Group-consultation model are increasingly adopted across both paediatric and adult populations to manage long-term conditions in young people, including asthma and epilepsy. Our group are exploring the use of group consultations in children with asthma, in addition to evaluating differing consultation models.

### ***Discussion***

Our development and evaluation demonstrates that group consultations are acceptable, popular and effective in young people with type 1 diabetes. Our experience demonstrates that previously unacknowledged gaps in knowledge, or psychosocial stressors, can be brought to light through group-consultations. The impact of these benefits may extend to patients' medication adherence, school and social functioning and overall health and lifestyle behaviours. Our results indicate good compatibility and few barriers, which we attribute to our patient-led design process.



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## CONFERENCE ABSTRACT

The EMBOLDEN study: Enhancing physical and community mobility in older adults with health inequities using community co-design  
ICIC20 Virtual Conference – September 2020

Rebecca Ganann<sup>1, 1, 1</sup>

1: McMaster University, Hamilton, Ontario Canada

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### **Background:**

Physical mobility and social participation are needed to maintain independence and quality of life. Mobility barriers can lead to social isolation, poor physical and mental health, and are recognised precursors to frailty, increased hospitalisations and premature death. This is particularly true for older adults who experience barriers to physical and/or social engagement. To date, most mobility-enhancing interventions in older persons have been designed by researchers without patient/citizen input and applied in controlled settings; their translation to real-world contexts is often impractical and rarely occurs. A model that works to improve physical activity and nutrition in a manner that considers an individual's lifestyle and personal preferences, and builds on existing community health and social services, is necessary for true public health impact. The EMBOLDEN research program aims to make important contributions to improve physical and community mobility of older adults living in neighbourhoods with health inequities through a co-designed community-based intervention.

### **Methods:**

This 4-year research program will be conducted in Hamilton, Canada with the following phases: (1) Environmental scan, systematic review, and experience-based intervention co-design; (2) Pragmatic randomized controlled trial using a type II hybrid implementation-effectiveness design; and (3) Sustainability and scalability assessment.

### **Results:**

Phase 1 of the EMBOLDEN research program is underway. The completed environmental scan examined community-based features associated with health inequities, identified priority neighbourhoods based on these features, and explored assets and gaps in available and relevant health and social programs. The systematic review (Oct. 2019 completion date) identified a wide range of group-based community physical activity and multi-component interventions to promote physical and community mobility in older adults; however there were no nutrition-specific interventions and very few addressed health inequities.

### **Discussion:**

Together, the environmental scan and systematic review findings provide a foundation for co-designing an innovative group-based community intervention that targets physical and community mobility, healthy eating, social participation, and system navigation. An experience-based co-design approach using persona-scenario and focus group data collection strategies will be used to explore the experiences of older adults and service providers engaging with community-based health and social services to promote physical mobility and social participation. A Strategic Guiding

Council comprised of local intersectoral service providers and older adult citizens will collaboratively partner with researchers to refine the pragmatic trial protocol and determine priority features of the intervention.

***Conclusions:***

The EMBOLDEN study's phased approach is designed to improve physical and community mobility of older adults, enhance social participation, and facilitate connections to community programs in neighbourhoods with significant health inequities through a co-designed community-based intervention grounded in behavioural and health promotion strategies reflecting social cognitive theory and best evidence.

***Lessons Learned:***

An interdisciplinary team brings diverse perspectives to the research program and continues to build capacity in community-based research.

***Limitations:***

Disease-specific programming was an exclusion criteria for the systematic review; this may provide some explanation for the lack of nutrition-specific programming.

***Suggestions For Future Research:***

Further investigation into group-based nutrition-specific community programming may provide valuable insight into prioritising the inclusion of nutrition support in multi-component interventions.

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## CONFERENCE ABSTRACT

The impact of vertical (dis)integration on the co-productive capacities of hospital providers and patients

ICIC20 Virtual Conference – September 2020

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The impact of vertical (dis)integration on the co-productive capacities of hospital providers and patients

### ***Introduction and problem statement:***

In hospitals, co-production of services helps assure that care is responsive, accountable and patient-centred. Patient participation in surveys, improvement teams and committees provide important opportunities for co-production. System reforms aiming for vertical integration entail an initial disintegration as services are moved from hospital to community. Our aim is to better understand how such changes to hospital mandate impact the co-production capacities of providers and patients and how these capacities contribute to hospital efforts to become network players in integrated systems.

### ***Methodology:***

We conducted a nested case study of co-production activities at central, departmental and unit level of a hospital in Quebec, Canada over 10 years when reforms emphasized vertical integration. A rich dataset (30 interviews, documents, observation) integrating perspectives of patients, administrators and clinicians was analyzed through the lenses of institutional work and collaborative governance to understand how reforms toward a networked system impacted on co-production capacities of providers and patients.

### ***Results:***

We identified three main reform effects on co-production in the organization. First, under pressure to speed discharge, clinicians increased their efforts to collaborate with patients to plan and navigate the post-hospital course. Second, patient committees, legally mandated to defend patient rights within the hospital, lost jurisdiction over services when they were moved, opening up gaps in oversight and recourse. Third, the hospital's restricted acute mandate justified cuts to patient education and support programs that had generated co-production capacities and an important pool of engaged patients within the organization.

### ***Conclusion:***

The move to vertically integrated systems provides an opportunity to increase co-production capacities of providers and patients and shift the institutional logic of providers, "from fixers of problems, to facilitators who work alongside their customers to find solutions" (Sorrentino 2017, p.1428). However, greater attention is needed during these reforms to sustaining spaces for collaboration among patients, and between patients and providers, and to extending these across sites as care is shifted from hospital to community. Links between patients in co-design and

oversight roles across the system could help prevent gaps from emerging in the disintegration phase of reforms.

***Lessons:***

In line with theory of collaborative governance, external "threats" make interdependencies palpable and spur collaborative efforts. Structural reforms impact the capacities of patient committees to support accountability, calling for them to find ways of assuring their continued relevance as patients move between organizations. Finally, hospitals constitute important venues for developing social capital (Putnam 1993); efforts are needed to protect this role within vertically integrated systems, at least until alternate venues are identified.

***Limitations:***

Vertical integration reforms are undertaken differently between systems and were, in this case, especially centralizing. While this heightened their impact, it may make results less transferable to other jurisdictions. We further recognize that while the study includes administrative, clinician and patient perspectives across levels of the hospital, it may not capture all views within the organization.

***Future research:***

Further research is needed to understand the range of patient roles within integrated care systems, and linking mechanisms that would strengthen co-production across care settings.

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## CONFERENCE ABSTRACT

The need for a Citizen Jury Model:  
Partnering with the Public for Governance of Artificial Intelligent Solutions for Integrated  
HealthCare

ICIC20 Virtual Conference – September 2020

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The need for a Citizen Jury Model:  
Partnering with the Public for Governance of Artificial Intelligent Solutions for Integrated  
HealthCare

The accelerating effectiveness of Artificial Intelligence(AI) technology in analysing and making recommendations based on people's observed behaviour is a growing challenge for society. It is a challenge for individuals and groups faced with requests to consent to collection and processing of personal data with little support available to discern the goals and motivations of actors who seek to engage. It is a challenge for societies and governments as existing economic and employment models are disrupted and AI-driven services impact societies in ways that existing laws, institutions and democratic structures were never designed to govern. Companies at the vanguard of the AI revolution find consumer and citizen trust being eroded when their massive power increasingly collides with societal norms and values.

AI applied to integrated health could improve personal and population health outcomes by discovering more about diseases, treatment options, clinical trial design and precision healthcare. AI governance challenges are particularly intractable in health due to sensitivity of data, complex regulations of ownership, control and access, poor quality integrated data, complex workflows and lack of trust due to opacity of decision making.

AI governance must move to systematically engage societal stakeholders in collective decision-making: make the leap from informed consent to informed debate and deliberative democracy. Thereby allowing citizens to have a direct say in the application of AI in a transparent and traceable manner. As the public have a vested interest in how their health data is used, shared and protected and in Ireland, are funding a multi-million-euro National Electronic Record, it is vital and very timely to include the public voice in a transparent, clear and dynamic way.

Existing standards for social responsibility emphasise the need for community development and involvement. Systemising forms of citizen engagement is also a focus for research and innovation as well as being of increasing importance for user engagement practices in software development. For most organisations, whether they be public sector, multinationals or SME, the skills and experience for citizen engagement on complex technical and informational issues is hard to come by.

Based on desk research and engagement workshops, this paper concerns challenges of and need for AI governance and design of a Citizen Jury model for public engagement on AI governance in Ireland. The citizen jury model draws on previous work of the Jefferson Center, USA and of

University of Manchester and specifically on engagement with Irish patients ,policy makers and system developers.

Uniquely, this model will consider an operational framework involving educational material and operational “know how” on limitations of embedding preferences within operational large-scale, complex, distributed systems. Tracing jury outcomes of organisations’ policy change and implementation decisions will address transparency and tracking of responses to citizen engagement – demonstrating that citizen voices have been heard and encouraging further engagement.

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## CONFERENCE ABSTRACT

Top managers' views of health and social care integration – a qualitative study  
ICIC20 Virtual Conference – September 2020

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Top managers' views of health and social care integration – a qualitative study

### **Introduction**

As integration of health and social services has been an outspoken policy in Finland, several initiatives have been launched to enhance integration on regional level. Some counties have started to restructure their care and services towards organizational integration. In this study, we explore views on health and social care integration among top managers in four different organizations. .

### **Methods**

We conducted semi-structured interviews with 32 top managers from four different organizations between 2017 and 2019. One area had already implemented integration several years ago, one had just recently started integrating their systems and two other areas were in the beginning of the implementation. The interviews were tape recorded, transcribed verbatim and the data was then analyzed using qualitative content analysis where data was first coded, then formed into sub-themes and finally into broader themes.

### **Results**

In total, four themes emerged from the analysis: 1. Change, 2. Future competencies, 3. Task shift and 4. Leadership. The sub-themes for Change were success in change, resistance to change and organizational structures. Future competencies theme had sub-themes of client-oriented approach, changes in education and self-management. For the Task shift theme the sub-themes were new professions, division of labor and emphasis on rehabilitation, and for Leadership theme strategic leadership, change management, multisectoral and multidisciplinary leadership and helicopter perspective.

### **Discussion**

According to our results top managers highlighted that also workers in an integrated care system need new competencies and that the change is needed on all levels of the organization, not just on the top. The answers of the top managers were similar with each other despite the differences in stages of the integration process. Top managers emphasized knowing the organizational strategy and that also middle managers need to adopt this into their leadership. For workers, broader competence across own professional silo is needed to be able to e.g. cross organizational boundaries and to handle the new tasks, and further to aim for more client-oriented care.

### **Conclusions**

According to the top managers in organizations with different stages of integration, both workers and middle managers in health and social care services need skills to handle broader areas than just within their own professional role.

#### Lessons learned

Personnel in all levels of the organization need new competencies in the process of integrating care and services.

#### ***Limitations***

Differences between areas and reasons for integrating the services (voluntarily vs. involuntarily) may have affected our results.

#### ***Suggestions for future research***

In the future, it would be important to investigate workers' views on integration to better understand the challenges and barriers the workers might face during the integration process.



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## CONFERENCE ABSTRACT

Transversal implementation in Catalonia of the ICT process of transition of care between hospitals and Primary Care Centers (PCC).

ICIC20 Virtual Conference – September 2020

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### **Introduction:**

The Catalan Health System(CHS) is made up of more than 160 health providers(70 hospitals, 365 PCC and 101 Long-term care centres(LTCC)). Most of them have their own information systems(IS), >27 IS. For this reason, the Health Department introduced transversal platforms to share clinical information. Shared Medical Record of Catalonia(HC3) was set in motion as a central repository of clinical data, Personal Health Record(PHR) was implemented to empower citizens as participants in their clinical processes and IS3 platform was introduced to exchange messages, referrals, care processes and warnings between different providers.

The planning of care after discharge improves the process and guarantees the quality of the transitions. The pre-discharge report details what care the patient should receive later at home, PCC should receive it 24-48 hours before discharge.

In Catalonia, the pre-discharge process was carried out in a heterogeneous way, using mails, local platforms or telephone so a unified alternative was proposed to integrate into the ICT process.

Description of practice change implemented and timeline

The incorporation of the pre-discharge process in our ICT platforms provides a secure and standardized method of work.

### **Adaptation phases:**

1. Hospitals and LTCC upload "pre-discharge" pdf forms in HC3(2014-2019)
2. PC daily received HC3's synchronised pre-discharge forms which generated alerts to the GP, nurse and the patient reference case manager(2017)
3. For adequate synchronisation and instant alerts with PCC, hospitals generate online messaging via IS3(2018)
4. Structure data into IS3 and programme appointments directly from Hospital and LTCC to PCC nurse.

### **Aim and theory of change**

To offer secure ICT tools to share information between hospitals/ LTCC facilities and PCC. To guarantee quality of care and follow-ups for patients after being discharged.

Targeted population/stakeholders

Patients with higher risks of readmission who require aftercare and follow-ups.

Highlights(phases):

1. 166.371 reports have been upload in HC3
2. PCC implemented alert systems(2017).
3. 9 hospitals have incorporated the online messaging through IS3, generating 2250 alerts to PCC. All hospitals will be incorporated by 2020.
4. Phase 4 will be initiated in 2020

#### ***Sustainability***

Since all hospitals and PCC have already been incorporated in the Catalan ICT platform, the electronic pre-discharge implementation will not cause an important additional cost.

#### ***Transferability***

Transversal project implemented in CHS using standard communication and transversal platforms allows to standardize the pre-discharge process.

#### ***Conclusions***

Homogenization and improvements have been achieved through all the systems. The standardization of variables allows better monitoring quality, better continuity with PCC and integration of information between IS. Alerts improve communication between professionals involved, process is shared with citizens through PHR.

#### ***Discussions***

166.373 reports uploaded in HC3 in 4 years is a low number of pre-discharges as compared to all discharges.

It is necessary to continue promoting use of electronic pre-discharge forms in different hospital services to improve transitions of patients.

#### ***Lessons learned***

For transversal implementation management strategy is the key, in our case we rely on contractual clauses with all providers.

It is important to promote coordination between all levels and inform professionals of the importance of generating pre-discharge forms.

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## CONFERENCE ABSTRACT

Trust in intersectoral integrated services: a qualitative investigation of stakeholder-perspectives in the establishment of trust between professionals and service users  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Trust between stakeholders is a key value in integrated and inter-organizational service delivery, e.g. because of the lack of formal agreements and inter-organizational hierarchies, and the introduction of new professional roles. However, few empirical studies have described the development of trust between micro-level stakeholders. This study investigates the challenges and the strategies used in the establishment of trust between stakeholders in an inter-organizational intervention: service users on sick leave due to common mental disorders, professionals from mental health care (MHC) centers, and employment consultants from Jobcenters (public sickness benefit insurance organs) who were the public authorities managing the service users benefit cases.

### **Methods**

The study is nested within a process evaluation study of an integrated intervention designed to enhance person-centered services and coherence between MHC and vocational rehabilitation services in Denmark. We reused observations of roundtable meetings between stakeholders (n=12), and semi-structured interviews with service users (n=17), MHC professionals (n=12), employment consultants (n=12), and supervisors from both organizations who described the contextual influence on the three stakeholders (n=8). Perceptions and displays of trust amongst the stakeholder-groups were investigated separately using content analysis.

### **Findings**

Service users and MHC professionals expressed that service user's individual trust in the professionals was particularly important for the service user's openness towards professionals about mental problems and personal wishes. Diverging interests of the service user and the Jobcenter, diverging professional practices regarding service user's vulnerability, and a general distrust in the Jobcenter-organization challenged the development of trust between the stakeholders. Strategies to develop service users trust in professionals included: Time to establish relations, MHC professional's systematic sensitivity towards service user's vulnerability and both professional's display of sharing interests with the service user. Strategies to develop trust between

professionals included time to establish relations, employment consultants displays of genuine wish to support service users, and MHC professional's accept of Jobcenter interests. However, some MHC professionals counteracted knowledge-sharing between professionals when nurturing trust-based relationships with service users.

### ***Discussion***

This study supports previous research suggesting that trust between service users and professionals is critical for the delivery of person-centered, integrated services and adds that trust might be perceived and managed differently by different stakeholders. Service user's perceived need for individual trust in professionals calls for reflection about the employment consultant's possibility to meet this need whilst supporting the Jobcenters' interests.

### ***Conclusions***

Trust between service users and professionals was often developed in the integrated intervention and supported the person-centered intervention according to service users.

### ***Lessons learned***

Trust is important, yet potentially difficult to establish, in inter-organizational integrated services where professionals have authority over the service user, and when sensitive information about the service user is created in dyadic relationships with one professional and shared across organizations.

### ***Limitations***

The empirical material was reused from a process evaluation study that was originally designed to investigate inter-organizational roundtable meetings without a specific focus on trust.

### ***Suggestions for future research***

Quantitative studies illuminating the effect of trust between service users and professionals on health and work outcomes in integrated services may be valuable.

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## CONFERENCE ABSTRACT

Two European examples of acute geriatric units in intermediate care facilities, for older adults with exacerbated chronic conditions

ICIC20 Virtual Conference – September 2020

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4: Section of Geriatrics, Department of Internal Medicine, School of Medicine, Yale School of Medicine., New Haven, ConnecticutThe United States

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Two European examples of acute geriatric units in intermediate care facilities, for older adults with exacerbated chronic conditions

### **Introduction**

Health care systems are faced with an increase in older adults requiring acute care services. This rise is accompanied by an increase of multiple chronic conditions among these patients. For older adults with multi-morbidity, hospitalization outcomes are poor and hospitalization costs are high. This has led to the development of models of care that provide an alternative to conventional hospitalization. We will describe existing practices of admission to acute geriatric unit in intermediate care in Europe: from Sanitari Pere Virgili, in Barcelona, Spain and from Amsterdam University Medical Centers (AUMC) in Amsterdam, the Netherlands. The aim of this paper is to provide preliminary data comparing settings, baseline characteristics and outcomes of two acute geriatric units in intermediate care.

### **Methods**

Patient data were collected in both completed and ongoing prospective cohort studies. The Subacute Care Unit (SCU) in Barcelona, located in an intermediate care hospital and the Acute Geriatric Community Hospital (AGCH), located in a nursing home, are acute geriatric units with 16-24 beds. Admission criteria for both settings are 1) chronic condition exacerbation or "minor" acute medical problems requiring hospitalization 2) hemodynamic stability 3) no need for complex diagnostic testing 4) a return to previous living situation within 10-14 days. Demographic characteristics, main admission diagnosis, comorbidities, discharge destination and length of stay were compared between the two settings.

### **Results**

Data from 909 patients admitted to the SCU and 174 to the AGCH were available. The mean age was (standard deviation, SD): 85.8 years (6.7) at the SCU and 81.9 years (8.5) ( $p < .001$ ) at the AGCH. At the SCU, patients were more often delirious upon admission (38.7% versus 22.4%,  $p < .001$ ) and had a dementia diagnosis (43.8% versus 19.5%,  $p < .001$ ). At both units, infection was

the most common admission diagnosis, other diagnoses included exacerbations of heart failure or Chronic Obstructive Pulmonary Disease (COPD). 95% did not have an acute transfer and could receive all acute care at the facility, the average length of stay (SD) was 8.8 (4.4) days at the SCU and 9.9 (7.5) days at the AGCH.

#### ***Discussion***

Both units admit patients with acute problems such as infections or exacerbations of chronic conditions such as COPD. We found that the SCU admitted older patients and had higher rates of delirium compared AGCH patients, however the units had a similar length of stay.

#### ***Conclusion***

We suggest that these units provide a distinct model of acute care for older adults.

#### ***Lessons learned***

Acute geriatric units in intermediate care facilities can provide an alternative to conventional hospitalization in older adults. These units are operational in at least two different healthcare systems in Europe.

#### ***Limitations***

Data were collected in two different settings which may have reduced comparability of the data collection methods.

#### ***Suggestions for further research***

Models of care that provide acute geriatric care can be compared between more European countries.

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## CONFERENCE ABSTRACT

Validation of the Transferability model for digital solutions supporting Integrated Care  
ICIC20 Virtual Conference – September 2020

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Validation of the Transferability model for digital solutions supporting Integrated Care

### **Introduction:**

This research aims to validate the factors influencing the transferability of digital solutions supporting Integrated Care (IC) and presents guidelines on how to scale up and transfer these solutions from one European region/country to another. Transferability of ICT-based IC is a complex process and very few real examples of successful transferability experiences exist. Since several relevant frameworks have been developed to unveil some of the influencing elements around IC, digital solutions and scale up processes, we leverage on them and on the Consolidated Framework for Implementation Research (CFIR) to build the ProACT Transferability model, validated using Delphi methodology (within the scope of the European funded project <http://proact2020.eu/>).

### **Methods:**

In order to define the sample for our Delphi study, an initial database with more than 40 experts was compiled. Inclusion criteria were: a) more than 7 years of expertise in IC practice and/or research and, in most cases; b) involvement in the scale up of innovative IC practices or digital innovation for IC; c) country representativeness. The sample was finally composed by 20 experts from different contexts, regions and professional profiles.

The DELPHI study consisted on two different rounds: (a) Round 1 focused on confirming the relevance of each specific factor of the initial model; (b) Round 2 clarified specific priorities in regards to the factors identified.

### **Results:**

The factors confirmed after round 1 were: adaptability, trialability, cost, learning climate, leadership engagement, resources, planning and, secondarily, usability and solution design, culture, self-efficacy, engagement, formalised internal leadership, transferring execution and evaluation process. Round 2 resulted on some adjustments and the distinction between essential (higher priority) and relevant (important but at a lower extend) factors. The essential factors validated were a) Solution specific: adaptability, usability & design and trialability; b) Organisation-specific: organisational culture, learning climate and leadership engagement; c) Process-specific: engagement mechanisms, internal leadership and participatory execution and evaluation. Other relevant factors were the evidence of potential benefits and the costs (solution specific), the availability of resources, interoperability and openness to change (organisation specific), the engagement of opinion leaders and the planning (process specific) and, lastly, self-efficacy (individual-specific).

### **Conclusion and discussion:**

This research presents a first step to systematise existing knowledge and experience on transferability of digital tools in the field of IC. The recommendations derived aim to support the sustainability and scalability up of existing and or new solutions across different regions and countries, leveraging the potential of digital innovations to provide more efficient and person-centred care in Europe. These recommendations addressed four themes, which are: a) Characteristics of the digital solution; b) Organisational settings for transferring; c) Individuals within the organisation to transfer; and d) Transferability Process.

***Limitations and future research:***

Further research is needed to exploit and complement the model, such as additional studies to define which specific strategies are more appropriate to facilitating the essential and relevant factors or the development and validation of a self-assessment tool aimed at facilitating the evaluation of the factors identified.



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## CONFERENCE ABSTRACT

Vulnerabilities and health inequalities in local communities and in field areas of community nursing and recommendations and measures for reducing health inequalities  
ICIC20 Virtual Conference – September 2020

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Vulnerabilities and health inequalities in local communities and in field areas of community nursing and recommendations and measures for reducing health inequalities

### **Introduction:**

Several activities dealing with vulnerability and health inequalities in local communities are part of project Model of community approach to promoting health and reducing health inequalities in local communities (MoST), by the National Institute of Public Health - NIPH. The aim of the project is to support renovation of preventive care programmes in selected health centres.

Short description of practice change implemented: Results of the research Analysis of vulnerabilities and inequalities in health in the local communities and findings of the field analyses of community nurses work districts reveal significant vulnerabilities and obstacles in health in 25 environments in Slovenia. The results enabled us to formulate recommendations and measures for better inclusion of vulnerable groups in prevention programs and treatment, performed in health centres and local communities.

### **Aim and theory of change:**

In order to identify the vulnerabilities and inequalities in health in local communities, we conducted a qualitative field study. Identification of vulnerability, inequality and vulnerable groups, as well as their barriers, needs and ways of overcoming barriers, was carried out in 25 local settings in Slovenia. 416 semi-structured interviews with 606 interviewees were conducted. Community nurses can only effectively plan their work by considering the overall picture of the local community in their community health nursing activity, as facilitated by an accurate analysis of their district. Within the project they conducted an analysis of 277 work districts.

### **Targeted population and stakeholders:**

The survey revealed vulnerability of the elderly, socially deprived, children and adolescents, immigrants, foreigners and people with international protection, people with disabilities, homeless people, people with mental health problems, alcohol and drug addicts, unemployed, precarious and agency workers, Romes, victims of violence, people without obligatory or additional health insurance. Barriers to accessing health or other assistance are primarily social barriers, linguistic, bureaucratic, material threats, geographic distance (rural areas), lack of information, feeling of shame, stigma, prejudice, distrust and fear, lack of professional staff, lack of appropriate knowledge and skills. The work of the community nursing service is focused on treating the area as a whole, while also considering individual persons, families and communities in their living

environment. In the work district analyses, particular attention was paid to categorizing families according to identified problems in the family. They found very similar findings to the survey.

***Timeline:***

2018-2019 project Health Promotion for all

2018-2020 project MoST

2020 (and beyond) Annual General agreement

***Highlights and Conclusion:***

Through activities such as community approach, intercultural mediation, open doors to health and community nursing activities, we have informed and included vulnerable groups and reduced health inequalities in local communities. By connecting partners in local communities, we have raised awareness of the importance of health, a healthy lifestyle and a better quality of life for all.

Comments on sustainability and transferability: Activities to address vulnerabilities and reduce health inequalities need to be introduced into the system. We have already done this for a community approach to health, intercultural mediation and open doors to health and community nursing activities (Annual General agreement).

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## CONFERENCE ABSTRACT

What is the Added Value of Social Network Analysis when Developing and Evaluating Complex Interventions

ICIC20 Virtual Conference – September 2020

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What is the Added Value of Social Network Analysis when Developing and Evaluating Complex Interventions

### **Introduction**

Most complex interventions target upon a network of multiple (health care) professionals. Social Network Analysis (SNA) is a powerful technique that aims to characterize and study how social relationships within a network establish and evolve. This study identified the added value of using SNA in the developing and evaluation of complex interventions.

### **Theory/Methods**

A scoping review was conducted by identifying the research question, identifying relevant studies, selecting studies, charting the data; and collating, summarizing and reporting the results. EMBASE, PsycInfo, CINAHL and PubMed were searched with a timeframe of 15 years. Complex healthcare intervention studies using SNA were included. The study selection and data extraction were conducted by two researches independently. We identified the characteristics, the reported strengths and limitations and reported implications of SNA application in complex intervention studies.

### **Results**

The search identified, after removal of duplicates, 2466 studies. After abstract screening, 40 full text studies were assessed for eligibility resulting in 25 studies that were included. Fifteen studies used SNA to examine effectiveness, one study in examining acceptability, one in identifying interventionists, five in process evaluation studies, and three in implementation studies.

Reported strengths of SNA application were that primary data can be collected through several methods, and the easy feasibility of data collection and visualization of results. A reported limitation in data analysis was the challenge for untrained researchers to use SNA programs.

Reported implications of using SNA when developing complex interventions was identifying key individuals who can be harnessed for dissemination of innovations or selected as interventionists. When evaluating complex interventions, SNA can support the conclusions from traditional analysis

and generated new information such as revealing important intervention dynamics that would not have been found with classical methods. SNA allows analysis of the network as whole system and on individual level. When implementing, SNA can provide understanding of the barriers and/or facilitators of the diffusion and implementation of the intervention which offers actionable insights.

#### ***Discussion***

The application of SNA is wide but at the same time very underutilized in complex intervention research. The optimal use of SNA in developing and evaluating complex interventions is therefore currently underexposed.

#### ***Conclusion***

SNA is a widely applicable method that can be used in different phases of complex intervention research. Studies reported more strengths than limitation in the application of SNA. The reported implications emphasized the diverse and added value of using SNA in the development and evaluation of complex interventions.

#### ***Lessons learned***

The potential value of SNA in unravelling and characterizing networks in the development and evaluation of complex interventions needs more attention in health care research.

#### ***Limitation***

There is no sharp boundary between simple and complex health care interventions. Therefore, search terms that widely cover complex interventions in health care were used and a hand search of reviews was performed.

#### ***Suggestion for future research***

Routine use of SNA in developing and evaluating complex interventions could gain actionable insights which are useful in a transactional context as in complex interventions.

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## CONFERENCE ABSTRACT

Who is safe? Welfare technology and the feeling of safety for older adults receiving reablement services at their homes and older adults with dementia living at their homes. Experiences from Norway.

ICIC20 Virtual Conference – September 2020

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### **Introduction:**

The Scandinavian concept welfare technology is understood as “the knowledge and use of technology that can maintain and/or increase the feeling of safety, activity, participation, and independence for a person at (any age) who has or is at risk of having/developing a disability (Hagen et al., 2011). Concepts like ‘telecare’ and ‘assistive technology’ are used for similar phenomena in other countries and are increasingly seen as one of the answers to meeting the care needs of an ageing population. Welfare technology is expected to facilitate active and independent living by increasing service user’s safety at their homes, enabling communication with family members and healthcare staff, and fostering a sense of subjective mastery. Theory/methods Drawing on in-person, semi-structured interviews with older adults with dementia living at their homes, older adults receiving everyday rehabilitation services at their homes and the relatives of these two groups, this article seeks to explore how service users and their relatives relate to welfare technology. How do people with dementia and people receiving reablement services experience welfare technology? Does welfare technology increase their safety? Do relatives feel safe knowing that their family members have access to technological devices such as personal alarms and telecare? The interviews are conducted in seven Norwegian municipalities as a part of a national evaluation of the Norwegian government’s plan for the care-service sector “Careplan2020”, are fully transcribed and coded in NVivo. The analysis draws on a critical perspective on technology inspired by Science and Technology studies, where technology, rather than a neutral tool, is seen as an actant influencing the relations between service users, their relatives and the healthcare staff. The analysis draws also on Beck’s (1992) theory of risk society to discuss how risks related to old age (such as risk of falls or the risk of getting lost) are increasingly connected to technology. Preliminary findings show that service users are ambivalent to the use of welfare technology, that they often forget to use the technological devices and that availability of technology may create ‘false safety’ for them and their relatives. Discussion. Service users, their relatives and technology interplay in creating a feeling of safety, but also lack of safety. For some, technology is an alien element, while for others, especially the relatives, it simultaneously creates true- and false safety.

### **Conclusion.**

Welfare technology alone does not create a sense of safety. Rather, it is the daily interactions between service users, their relatives and the healthcare staff what makes people feel safe.

### **Lessons learned.**

Welfare technology for service users with dementia and service users receiving rehabilitation services at home must take into consideration the challenges this group experiences with relating

to technological innovations. Municipal services for older adults must therefore be even more person-centered. Limitation of the current study that may be met in future research is the scope of the inquiry with users, relatives and healthcare staff. In-depth interviews with these groups may yield even more detailed accounts on their experiences with welfare technology.

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## CONFERENCE ABSTRACT

Barriers and facilitators of an integrated, interdisciplinary Inclusion Health service in Dublin, Ireland.

ICIC20 Virtual Conference – September 2020

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Barriers and facilitators of an integrated, interdisciplinary Inclusion Health service in Dublin, Ireland.

Homelessness is caused by a complex interaction between structural, societal and individual factors. People experiencing homelessness encounter high levels of social exclusion. Homelessness has become a national crisis in Ireland. Homelessness is associated with dramatic health inequities and poor health outcomes, including younger onset of chronic disease, multi-morbidity and other geriatric syndromes as well as a reduced life expectancy.

Homelessness creates barriers to accessing scheduled healthcare and increase the need for unscheduled emergency healthcare. In previous research, we have demonstrated a 20-fold increase in use of unscheduled hospital care by adults experiencing homeless in the same Dublin catchment area as the current study.

The pilot Inclusion Health Service is a multi-component intervention designed to improve outcomes adults experiencing homelessness accessing hospital care. We sought to provide person-centred, integrated, psychologically informed care to homeless adults in Dublin. Stakeholders included homeless people; addiction, accommodation and primary health care providers and acute hospitals. The service started in August 2016 and continues to expand.

This service is the first dedicated Inclusion Health service internationally. Facilitators have included a clear need for integrated care for homeless adults; commitment and enthusiasm from front-line health and social care providers in hospitals and community; an ethos of interdisciplinary and interagency respect and collaborative learning; and support from local and national healthcare planners. Barriers have included the lack of an integrated IT system, the lack of existing models of governance and insurance and the lack of appropriate accommodation locally

The service has expanded to the other large inner city hospital, and directly funded staff now include two consultant physicians, two nurse managers, two senior social workers and a programme manager embedded within a network of existing staff. A homeless health peer advocate training programme is in place and peer advocates are now integrated into the service. It is hoped that strong support within the Irish Health Service Executive and Department of Health will lead to sustainable funding and expansion of the service within the two hospitals already involved as well as to other cities which have expressed interest. We also hope to expand coverage to non-homeless individuals from overlapping socially excluded groups including people who inject drugs, people with severe and enduring mental illness, Irish Travellers and refugees/undocumented migrants.

This approach is transferable to other countries in which there is a similar model of public health care. The approach is also transferrable to other populations with high levels of psychosocial complexity and multimorbidity.

Key learnings have been the benefits of interdisciplinary and interagency integrated working, the value of a psychologically informed approach to care and the need for models of integrated IT and governance for effective integrated care.



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CONFERENCE ABSTRACT

Evaluation of Complex Interventions in Hard to Serve Regions - Lessons Learned from a  
German Innovation Fund Project  
ICIC20 Virtual Conference – September 2020

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Evaluation of Complex Interventions in Hard to Serve Regions - Lessons Learned from a German  
Innovation Fund Project

**An introduction:**

The German health care landscape is dominated by a fragmented system and an insufficient cooperation between service providers, which causes misallocations. Demographic change and scarce resources (especially human resources) cause a need for new structures.

Due to the gap between in- and outpatient care, the German health care legislation implemented appropriate reforms. With the Statutory Health Insurance Care Provision Strengthening Act (GKV-VSG) coming into force in 2015, the Federal Joint Committee (G-BA) received the mandate to fund new forms of health care going beyond standard care by integrating interdisciplinary and/or cross-sectoral health care services.

One of the projects, funded for 4 years, is called "IGiB StimMT". It comprehensively deals with the outlined problems of the silo-structured health care system and focuses on maintaining basic health care provision in hard to serve regions. The goal of IGiB StimMT is to restructure the concerned rural health care system in such a way that it becomes demand-oriented and responds to the regional problems of an aging and multimorbid population. This is implemented by new ways of task sharing of in- and outpatient care service providers and a series of innovative care components.

**Methods:**

Evaluation becomes increasingly challenging as interventions move along the spectrum from simple towards complex interventions like IGiB StimMT. To evaluate complex interventions, the evaluation concept and study design should include an effectiveness, a cost-effectiveness and a process evaluation, using both quantitative and qualitative methods.

**Results:**

First results from outcome and process evaluation have already been analysed and show interesting insights in the complex and challenging task of maintaining health service provision in hard to serve regions.

**Discussions:**

Regarding the shape of complex interventions, regional capacities like the available human resources have to be considered. Pragmatic solutions for today's demographic challenges and their impact on health care services are imperative.

As to the evaluation of complex interventions, randomised controlled trials (RCTs) often cannot be implemented due to the real-life circumstances of the health care system. Scholarly debate should focus more on other study designs for complex interventions, like cluster randomised studies or natural experiments.

***Conclusions:***

IGiB StimMT has already had an impact on misallocated medical treatment by reducing the number of emergency ambulance deployments, by allocating patients to a newly established on-call medical service instead.

***Lessons learned:***

Three years ahead of the project IGiB StimMT, a series of lessons have been learned that apply to innovative and complex interventions in general. The scope of an intervention should be considered carefully. To prevent a project of overcharging regional capacities, it is advisable to roll out one project component after another. As agile project management is a recommendable method for complex interventions, the evaluation design has to be adopted accordingly.

***Limitations:***

Regions are different in population and geographic structure. Therefore, the generalizability of the insights from the project have to be considered.

***Suggestions for future research:***

Future research could shed light on the evaluation of complex interventions with a gradual rollout.

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## CONFERENCE ABSTRACT

How can the cancer patient's family be integrated in Integrated care?  
ICIC20 Virtual Conference – September 2020

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How can the cancer patient's family be integrated in Integrated care?

### **Background**

In 2015, 28 cancer pathways were introduced in the Norwegian public health care system. The rationale behind this change was to improve the integration of health care services in cancer care. The patients is for the patients and their family and caregivers shall experience a well-organized cancer care, a holistic treatment and predictable progression.

The research literature shows that the term integrated care is not commonly used in cancer care. When used, integration and related terms are linked to coordination within or between hospital cancer teams and other specialist providers, not to highlight coordination and collaboration across administrative levels of health care systems. We wanted to expand the study of cancer care beyond evaluations of the hospital and specialist setting, and to address the gap in research about how the cancer patient and their family experience cancer care.

The main aim of the overall PhD project is to develop a better understanding of the situation of cancer families in contact with the health care system.

### **Method**

This study has a descriptive qualitative and exploratory design. We will explore the experiences cancer families have from interacting with the health care system, before starting treatment. The data collection build on a narrative and phenomenological approach. The interview guide consisted of one main question and four topics Seven families were recruited from a Norwegian hospital Trust organized as seven hospital units, spread over a geographic area in an approximately 300 kilometers. Nineteen (seven patients and twelve family members) in-depth interviews were conducted from June 2018 until February 2019. Systematic text condensation (STC) inspired by Malterud was used in the analysis.

### **Results**

Analysis indicates two topics that needs improvement in cancer care. First they experienced cancer care as fragmented and inconclusive, and that created confusion and insecurity. Second, the family experience the information given before and during the first meeting where diagnose is set as inadequate. They also indicate a topic where they describe how they handle the disease practically and emotionally

### **Discussion/conclusions**

Based in our findings and theories from the field of integrated care we will discuss what changes can be made in order to better reach the aim that "The patients and their family shall experience a

well-organized cancer care, a holistic treatment and predictable progression". We will especially emphasize the gap between the patients underlining of the role of their family and the lack of attention the family gets when cancer pathways are discussed and evaluated.

#### ***Limitations***

Informants from seven families are a small number of participants, but by the end of the study, we will have data from 59 interviews.

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## CONFERENCE ABSTRACT

How does the use of patient-accessible health records contribute to patient centered care? A scoping review.

ICIC20 Virtual Conference – September 2020

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How does the use of patient-accessible health records contribute to patient centered care? A scoping review.

### **Background:**

Giving patients access to their own health information is a global development motivated by its presumed contribution to better quality of care. Patient-accessible records, or EPR (electronic patient records), are seen as a way to deliver patient-centered care, engaging patients as partners in their own care. Patient-centered care is a health system, advocated by the WHO, that is said to increase the quality of care with lower costs and health care utilization. Although the value of an EPR to stimulate patient-centered care is mentioned regularly, no review about this subject could be found.

### **Objective:**

The objective of this review is to investigate whether and how the use of a patient-accessible electronic record contributes to patient-centered care.

### **Methods:**

The review was designed and reported according to the PRISMA reporting guidelines for scoping reviews by Tricco et al. Four databases were searched using 'patient-accessible medical records', 'patient experiences' and 'professional experiences' as key concepts. Titles, abstracts and full text were screened, finalized by snowballing. An existing model for patient-centered care was used as a basis for the charting list and the analysis, complemented by topics that had come up from pre-reading and discussion with professionals. Added topics were: 'concerns, anxiety and safety' and 'digital divide'.

### **Results:**

Initially 1763 articles were found, narrowed down to 49. Included studies were diverse in design, country of origin, functionalities of the investigated EPR and target population. Of the patient-centered care model's dimensions, 'information' and 'involvement in care' were mentioned most, followed by 'clinician-patient relationship', 'communication' and 'empowerment'. A few control-intervention studies reported significant positive results of use of an EPR on 'information', 'involvement in care' and 'empowerment'. This was strengthened by positive findings in descriptive studies. Especially in mental healthcare, some professionals felt the need to report differently in a patient-accessible record, to protect the 'patient-clinician relationship'. Professional's concerns about unnecessarily worried patients, information safety and extra time investment were not met.

There appeared to be a digital divide in access to and use of patient-accessible records, but the impact of using an EPR was evaluated more positively in disadvantaged groups.

***Conclusion:***

There is support for the assumption that patient-accessible records contribute to more patient-centered care. The outcomes most strongly support a positive influence on information and involvement of care, followed by communication, relationship and empowerment. Concerns about harm to therapeutic relationships seem to be based on different views on equity in the doctor-patient relationship and emphasizes the importance of embracing the principles of patient-centered care.

***Lessons Learned:***

1. To profit fully from patient-accessible records the principles of patient-centered care should be embraced. 2. To prevent a digital divide, EPR's should be easily accessible and patient-friendly in use.

***Limitatons:***

1. All studies were based on experiences of voluntary users of an EPR, speaking the native language well, possibly resulting in bias. 2. There were no studies among adolescents.

***Suggestions For Future Research:***

Further research needs to be done to determine whether these findings also apply for adolescents.

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## CONFERENCE ABSTRACT

Integrated care for children with medical complexity living in rural Australia – an evaluation of family experiences using the Paediatric Integrated Care Survey  
ICIC20 Virtual Conference – September 2020

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### **1. Introduction:**

The number of children with medical complexity (CMC) residing in regional/rural Australia is growing, challenging the health system to provide equitable and accessible care. Families of CMC experience problems in accessing appropriate care locally; they have high out-of-pocket costs and family disruptions because of long travel distances to access care in metropolitan paediatric hospitals.

### **2. The Practice Change:**

The Murrumbidgee Local Health District (MLHD) in New South Wales (NSW), Australia, in collaboration with the Sydney Children's Hospitals Network (SCHN) partnered with families and local services to co-design a Model of Care (MoC) to better meet the needs of CMC, their families and local services

### **3. Aim and theory of change:**

To demonstrate changes in parent-reported experiences, we used the Paediatric Integrated Care Survey (PICS) in a longitudinal cohort design at baseline, and 6 months after enrolment in the MoC.

### **4. Targeted population and stakeholders:**

To qualify for enrolment in the new MoC children had a diagnosed condition involving more than one organ system, were medically fragile or reliant on medical technology, or had used health services frequently in the last 12 months e.g. >6 emergency department presentations, >4 hospital admissions and >10 outpatient clinic visits. Stakeholders included families of CMC, healthcare providers and managers working in the MLHD and at the SCHN.

### **5. Timeline:**

The new MoC was implemented in 2018 and CMC have been systematically identified, and enrolled in the MoC. The PICS was administered at baseline and at 6 months.

### **6. Highlights – innovation, impact and outcome:**

41 CMC have been enrolled and 18 of the families completed the PICS at both time points. Difficulties navigating healthcare systems, fragmented care, poor communication, and limited care planning and goal setting were apparent at baseline. After accessing the MoC for at least 6 months (6-14 months) there was a 33% increase in written short term care goals ( $p=0.045$ ). Care teams

were 11% more likely to discuss healthcare decisions that impact the whole family ( $p=0.005$ ) and intra-team communication improved for 5.5% of families ( $p=0.003$ ). Interestingly, 22% of families were less comfortable letting team members know about concerns about their child's healthcare ( $p=0.001$ ). The care coordination team in the MoC reported valuing the PICS results as an assessment of need for integrated care.

***7. Comments on sustainability and 8. Transferability:***

The Moc has been embedded into the system in the MLHD, a rural area of NSW, Australia. The clinical teams working with families of CMC felt that the the PICS results informed their practice. The MoC, including assessments using the PICS has been adapted to another rural area - the Southern NSW LHD.

***9. Conclusions, 10. Discussion, and 11. Lessons learned:***

Using the PICS periodically during implementation of the new MoC provides feedback loops to inform future model adjustments. The PICS has highlighted the need for shared care plans and recognition of the impacts of caring for a CMC on family functioning. Qualitative research is needed to better provide context to the longitudinal PICS data.



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## CONFERENCE ABSTRACT

Integrated Care for Older Adults: a struggle for sustained implementation  
ICIC20 Virtual Conference – September 2020

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### **Introduction.**

Integrated care has been suggested as a promising solution to disparities in access and sustained high quality long-term care as emerging in Europe's ageing population. However, a better understanding of context-specific barriers and facilitators for implementation and best practices is needed. We aim to gain this better understanding by examining seven years of Embrace, a Dutch person centred and integrated care programme that provided proactive and preventive care and support for older adults. It was based on two evidence-based models (Chronic Care Model and Kaiser Permanente Triangle) and ran from 2012 to 2018. We describe the initial goals, the contextual, financial and policy changes which despite successful deployment negatively affected programme continuation.

### **Methods.**

We used a mixed method instrumental case study design to gain insight into the complexity of sustained implementation of Embrace within the Dutch context. To describe key elements and outcomes, information from journal articles, project reports, intervention protocols and financial agreements was collected and analysed. Semi-structured interviews on the implementation process and sustainability were conducted with programme coordinators.

### **Results.**

The majority of health outcomes were positive, and perceived quality of care improved, albeit no clear-cut savings were observed, and costs were not balanced across stakeholders (i.e. providers, health insurer and municipality). The costs of the Embrace intervention and its evaluation primarily came from grants. The costs for health and social services provided were covered by multiple funding schemes. After the national long-term care provision and financing reforms in 2015, crucial elements of the intervention could no longer be funded, such as the screening activities and risk stratification, the Electronic Elderly Record, and the self-management support and prevention programme.

### **Discussions.**

The financial disincentives and fragmented funding did not support the integration of health services and made it impossible for Embrace to achieve sustained implementation.

***Conclusions.***

This seven-year evaluation of Embrace underscores the importance of an enabling context of policy and funding. These prerequisites are crucial to transform at organisational and clinical level from reactive and problem solving into proactive and preventive health services.

***Lessons learned.***

The right context is crucial for sustained implementation of integrated person-centred health services. Payment models should incentivise the integration of care before the necessary change at organisational and clinical level is possible.

***Limitations***

The multiple journal articles and reports used for this evaluation of Embrace focus primarily on outcomes. An in depth process evaluation would have shown even more how context and outcomes interact.

***Future research.***

Comparable interventions could benefit from evaluation methods that aim to better understand which mechanism make elements work in which context. Collective case studies using comprehensive frameworks could promote learning between different health systems.

With a new national framework for integrated person-centred health services for older adults in development, based on the building blocks of Embrace, there still is perspective on revival.

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## CONFERENCE ABSTRACT

Lessons from the Basque Country; Contrasting Basque Integrated Care Health Policy with the New NHS Long Term Plan  
ICIC20 Virtual Conference – September 2020

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Lessons from the Basque Country; Contrasting Basque Integrated Care Health Policy with the New NHS Long Term Plan

### **Introduction**

Basque country health reforms are credited with development of one of the most successful integrated care strategies in Europe. These reforms are based on “Health the People’s Right, Everyone’s Responsibility. Health Policy in the Basque Country 2013-2020” (HPBC).

England’s NHS has stressed the need for effective integrated care to manage chronic disease and multi-morbidity. The NHS’s approach has been outlined in the “Long Term Plan” (LTP), published January 2019. The LTP’s effectiveness and implementation will be essential to the NHS’s ability to deliver effective integrated care.

### **Objective**

We contrast HPBC (proven highly effective in practice) against the new LTP. Our methodological approach is a structured comparison of policy documents, semi-structured interviews with subject-matter experts and evaluation of published and grey literature.

### **Target Population**

The LTP covers 55.62 million people. HPBC covers 2.2 million. Whilst there is a difference in population size, both exhibit similar baseline challenges (identified within the policies themselves) including multi-morbidity, health inequalities, unhealthy lifestyles and changing demographics.

### **Highlights**

Development of both policies took a similar approach of cross-sector engagement. Both approaches stress significant baseline progress in life expectancy, efficiency and outcomes, whilst recognising chronic disease challenges. There are similar focuses on priority diseases including diabetes, cancer, obesity, domestic violence and mental health.

A crucial difference is that HPBC outlines conceptual frameworks on which service transformation is based. The frameworks cover health, social determinants and implementation. The LTP does not reframe the conceptual framework, and whilst reduction of health inequality features heavily, it doesn’t have the same prominence. In contrast the LTP focuses more on leveraging digital health interventions.

Building on the Basque conceptual frameworks there is the establishment of health as a personal asset and macroeconomic factor. There is a far stronger focus on civic “co-responsibility”. This extends to the Basque "Health in All Policies" approach demanding support from other social structures, whilst the LTP in contrast looks outwards explaining how it “Supports Wider Social Goals.”

A key contrast is HPBC’s structured and itemised listing of quantitative indicator goals comparing status quo with end-of-plan targets, this includes health outcomes, core structural and intermediate determinants. The LTP expresses no such quantitative targets, but does include financial targets.

#### ***Transferability***

This evaluation has international importance. For the NHS it identifies potential pitfalls and opportunities; for the Basque county it will help develop its next plan; for healthcare globally it allows a comparison of two contrasting approaches to integrated care delivery, providing support to the development of their own local plans.

#### ***Conclusions***

Both healthcare systems outline ambitious plans for development of sustainable integrated care. The Basque model is centred on conceptual frameworks and an overriding focus on health inequalities alongside quantitative outcome targets. The LTP acknowledges the importance of inequality and focuses more on digital delivery of economically sustainable integrated care. It will be important to evaluate progress against these aims alongside the next iteration of the Basque Health Plan in 2020.

This work forms part of an EASD/EFSD Trainee Albert Renold Fellowship

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## CONFERENCE ABSTRACT

Organizing financial resources in the municipality: a case study on integrated services provision to persons with dual diagnosis.

ICIC20 Virtual Conference – September 2020

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Organizing financial resources in the municipality: a case study on integrated services provision to persons with dual diagnosis.

### **Introduction:**

There is a risk of fragmentation of services for persons with concurrent drug addiction and mental health challenges (dual diagnosis). The services are primarily given in separate systems with separate funding streams and budgets. This can lead to structural barriers, and we presume that this division of work and the structure and flow of funds can affect various aspects of integrated services. In this study, we view integration as a coherent set of methods and models on the funding, administrative and organisational levels designed to create connectivity, alignment and collaboration within and between the government agencies and departments in Norwegian municipalities. The aim is to investigate how the organising of financial resources in Norwegian municipalities affect integrated service provision to persons with dual diagnosis.

### **Method:**

This is a case study, using three municipalities as units of analysis. The case is how the organising of municipalities' financial resources affect integrated municipal services to persons with dual diagnosis. We conducted in-depth interviews with employees and managers. In addition, we made observations of meetings where services to persons with dual diagnosis were discussed, assessed and allocated. The data was analysed with a Stepwise- Deductive Inductive approach.

### **Results:**

Preliminary findings point at the tendency to shift responsibility for the financing of individuals' services between the different government agencies and departments in the organisation. This applies for both municipal services, as well as admissions in private institution units. The government agencies and departments have separate budgets, and none of them has admissions in private institution units as a budget item in their main budget. When the severity and complexity in the service recipients' situation requires such an admission, the participants describe this responsibility shift as a way to avoid these kinds of high-price solutions. In practice, this leads to discussions regarding which of the service recipients challenges that are most dominant, in order to place responsibility at the most suitable municipal service. There existed no unwillingness to collaborate once the responsibility was clarified. These processes throws persons with dual diagnosis back and forth in the system, and can lead to complex needs not being met.

### **Discussion:**

The results point at the framework conditions in the organisation, the silo-budgets and keeping the costs as low as possible. The responsibility shift becomes a structural barrier where the patients' issues are explained as more or less dominant in order to force other departments to "pay the bill", instead of joining up to address the persons complex needs together in an integrated manner.

***Conclusions:***

There is a need to evaluate the organizing of Norwegian municipalities' financial resources in order to find solutions that integrates mental health-, social- and somatic services.

This is a case study, which can lead to challenges when it comes to generalising the findings.

There is a need for further research on how funding solutions can promote integrated care to persons with dual diagnosis.

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## CONFERENCE ABSTRACT

People-centred care in action: the world's first integrated care standard for system, organization and community-level health care  
ICIC20 Virtual Conference – September 2020

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2: Health Standards Organization, Ottawa, Ontario, Canada

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Health and social services systems around the world are moving towards more integrated ways of working across their local health ecosystems. However, there is no-one-size-fits-all approach. Effective integration requires health and social services to organize and manage across sectors and organizational boundaries, so people receive coordinated and comprehensive care at the right time, by the right provider, in the right place. So how do leaders tackle integration, especially during times of change? What is the first step? What and who needs to be involved?

Join Health Standards Organization (HSO) Program Manager, Standards, Alyssa Bryan to learn how the power of people can bring integrated care (IC) to life. Attendees will learn how system leaders are beginning to adopt the 76000:2019, Integrated People-Centred Health Systems (IPCHS) standard at the policy and operational levels to support transformational change and improve quality and outcomes for all.

Evidence shows that IC can only be realized through engaging, mobilizing, inspiring, and empowering people, families, providers and communities. Integration is context driven; it requires strength in relationships, resources and priority alignment across health and social service ecosystems. As such, woven throughout the standard is criteria on partnering with people, which acts as foundation from which to build a successful integrated health system.

HSO's unique approach to standard development starts with people. The standard's creation began with a Technical Committee (TC) comprised of patients and families, subject matter experts, researchers, policy makers and advisors – all of whom share an equal voice.

Next, the process included a literature review based on international best practices, guided by the TC. The rigorous process included two public reviews, as well as targeted stakeholder consultations that involved more than 30 interviews with health leaders including government officials, administrators, health and social services authorities, providers, patients and caregivers.

The TC reviewed and incorporated every piece of feedback submitted from around the world. The result? A globally relevant, locally customizable integrated care standard that equips decision-makers with criteria and guidelines to plan, implement and assess the coordination of services and supports across continuums of care. Specific policy and operational guidelines that can be used to drive action at both system levels toward a common vision and goal, regardless of population type or jurisdiction.

One limitation of the standard is that it does not include the micro level of integrated care for mapping specific pathways like bipolar (mental health). However, when organizations and health systems create an integrated foundation, the ten design principles can be applied to facilitate these mini integrated networks for complex conditions within a larger health system. Additionally, teams are currently exploring how the IC standard will be used for assessment.

From this session, attendees will learn how they can leverage the IPCHS standard to coordinate with policymakers, organizations and health systems to respond to population-based health needs. They will learn examples of teams who are working to deliver health and social services to address complex health conditions. Leave this session feeling inspired to embark or continue towards people-centred, integrated care.



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## CONFERENCE ABSTRACT

Technology-enabled strategies for a fully integrated health system  
IJIC20 Virtual Conference – September 2020

Angelo RossiMori<sup>1,2</sup>, ,

1: CNR, Roma, Italy

2: Co-ordinator, Action Area “Integrated Care Delivery Models, Deployments and Pathways”, Action Group B3 “Integrated Care”, EIPonAHA, European Union

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### **Introduction**

Today, several Integrated Care Programmes are self-standing, without an overall vision towards a fully integrated health system and a consistent approach to adopt technological solutions.

A systemic perspective should identify the “Basic Programmes” that together can create an integrated background, to act as a solid substrate for any further “Complementary Programmes” on specific topics.

### **Policy context**

We argue that a set of well harmonised Basic Programmes, supported by adequate technological solutions, is able to trigger a progressive increase of the integration level across a region, gradually creating the required cultural change in managers, professionals and citizens.

Therefore our objective was to identify the most suitable Themes for the Basic Programmes and to envisage the classes of technologies to support them.

### **Targeted Integrated Care Programmes**

We compared 30 Integrated Care Programmes, previously analysed by the Author together with experts involved in the design and management of each case.

We used a toolkit initially developed in previous European Projects (STOPandGO, RITMOCORE), refined and applied in the context of the Action Group B3 of EIPonAHA (<https://www.researchgate.net/project/TIMIC-L-TheLanguage-on-innovative-models-of-Integrated-Care>).

The toolkit allows to represent an Integrated Care Programme through 23 classes of Integration Needs and to score them for relevance.

The classes were conceived to interrelate:

integration needs >> components of the care&cure services >> potential technological solutions, with the corresponding measures.

We classified 21 Programmes as “Basic”:

- long-term follow-up for chronic conditions (9 cases)
- long-term follow-up for frailty and mobility impairment (7 cases)
- short-term follow-up after a severe health-related event (5 cases)

The other 9 Programmes were considered as “Complementary”.

### **Highlights**

The present study ranked the similar classes of Integration Needs across multiple cases, the related services and technological opportunities.

It also suggested the following recommendations:

>>Begin a multi-annual Roadmap by deploying a coherent set of Basic Programmes; they should:

- be replicable in all the localities, according to the regional Roadmap;
- envisage a well-timed transformation in each contingent local context;
- be modular, to be tailored at the level of complexity achievable in each contingent local context;
- involve measurable costs and outcomes in the short/medium period;
- imply an evident enabling role for widespread technologies, to contribute to the EU Digital Agenda.

>>Explore good practices suitable for Complementary Programmes, e.g. from EIPonAHA and European Projects.

>>Aim to a set of coherent calls for tenders on external services and technologies. An indicator of success will be the number of localities that will replicate each service model, with suitable adaptations.

>>Exploit commercially available technologies. In several cases, the harmonisation of commercially available technologies could satisfy most of the integration needs.

### ***Conclusions***

To achieve a fully integrated health system, a multi-annual Roadmap should initially set up a background of Basic Programmes, able to stimulate the ecosystem of all the stakeholders and to promote a collaborative atmosphere among the professionals and an active participation of the citizens/patients on the management of their health.

Once a wide cultural / organisational transformation will be achieved, then further Complementary Programmes can successfully address specific topics.

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## CONFERENCE ABSTRACT

The importance of local context and governance structures for the implementation of mental health integrated care programs for suicide prevention  
ICIC20 Virtual Conference – September 2020

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2: Partnership Centre in Health System Sustainability, Australian Institute of Innovation, Macquarie University, NSW, Australia

3: The Black Dog Institute, Sydney, NSW Australia

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### **1. Introduction:**

Spreading and scaling-up of integrated care programs poses challenges due to local context variability. Local factors such as geographical location (urban, regional, rural, remote), characteristics of the population, existing resources (services, workforce/skills, networks, etc.) and local governance structures influence implementation processes. We analyse the influence of local governance factors on adaptation and implementation of the LifeSpan Suicide Prevention Program (LifeSpan).

### **2. The Practice Change:**

Led by the Black Dog Institute, the LifeSpan program was implemented across four regions of New South Wales (NSW), Australia. LifeSpan aimed to link community and health service interventions to raise awareness, upskill the community and to provide needed, appropriate mental health services to prevent suicide and suicide re-attempt. The program included 9 evidence-based strategies and relied on designated LifeSpan coordinators and managers embedded in local health services.

### **3. Aim and theory of change:**

Adaptability of programs to local contexts is a necessary component of program implementation according to the Consolidated Framework for Implementation Research (CFIR). We aimed to analyse the impact of local contexts on the implementation process.

### **4. Targeted population and stakeholders:**

A broad inter-sectoral approach was taken with the involvement of diverse community organisations, front-line responders, health services, local councils, workplaces and schools.

### **5. Timeline:**

LifeSpan was implemented in a stepped wedge trial design with sites beginning implementation at six monthly intervals. Two sites will complete in 2019, the other sites continue into 2020.

### **6. Highlights - innovation, impact and outcomes:**

A mixed methods approach was used to evaluate the implementation processes. We highlight the importance and impacts of local governance structures, based on data from 6 focus groups and 20 stakeholder interviews. The NSW health system is organised into Local Health Districts (LHDs) which provide hospital and community health services; Primary Health Networks (PHNs) providing

primary care, and non-government organisations (NGOs). Two LifeSpan sites were formally affiliated with LHDs, one with a PHN, while another negotiated a formal agreement between the LHD and PHN. Local governance structures presented barriers including: long lead times to gain approvals to progress work, scepticism from local leaders, recruitment of program staff intertwined with local regulations, misaligned priorities between LifeSpan and existing programs. Implementation of LifeSpan resulted in the development of new, and strengthening of existing, networks and in the upskilling of communities and services in evidence-based practices when responding to people at risk of suicide. Inclusion of people with lived experience in decision-making was a significant strength highlighted by all sites.

***7. Comments on sustainability and 8. Transferability:***

The two sites that complete the trial in 2019 have committed to continue LifeSpan while further adapting the model to local needs and capacity. The learnings from this implementation evaluation will inform other implementation projects.

***9. Conclusions, 10. Discussion, and 11. Lessons learned:***

Gaining a deep understanding of local contexts, governance structures, needs and networks, before implementing complex interventions into the system is emphasised and the importance of formative evaluation to identify local strengths, weaknesses, barriers, facilitators, needs and opportunities, cannot be underestimated.

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## CONFERENCE ABSTRACT

Transforming Together: a Pathfinder for Integrated Care in Brazil  
IJIC20 Virtual Conference – September 2020

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4: University of the West of Scotland, , Scotland

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The International Centre for Integrated Care (IC4IC) and a team from Sao Paulo State Secretary of Health and Regional Department of Health (UCP) co-designed a pathfinder integrated care project in Litoral Norte, Brazil to establish a more integrated system across different levels of healthcare and with partners from social development, education, housing, sport, culture and the environment. The project engaged and empowered leaders, professionals and managers from different disciplines and levels of care to collaborate as a network to improve population health. Listening to patient, carer and family experience, studying care processes and pathways, and exploring relationships and interactions between different disciplines and sectors identified common themes, clarified roles and responsibilities, and co-created solutions.

Capacity and capability for transformation were built through coaching for system leaders from different sectors, co-design of new ways of working and spread of learning by serial tests of change using a modified breakthrough collaborative approach.

From November 2018 to November 2019, five field visits engaged 1200 managers, leaders and professionals from healthcare, social development, education, culture, housing, sports, and community partners from four municipalities (population 330,000), alongside professionals from State and Regional Departments of Health and Social Development. Field visits were followed by monthly online coaching sessions for UCP staff.

A regional network of champions have adopted and spread new ways of integrated working in primary care with NGOs and community partners to support wellbeing; integrated population health initiatives in low income housing; health promotion, mental health and suicide prevention initiatives reaching around 15,000 adolescents through 47 schools; Day of Care surveys in 4 hospitals and development of intermediate care services; and revision of ambulatory care pathways for 20 chronic conditions.

Self assessed knowledge, competences and capability for integrated care improved at local, regional and central levels. Around 60% of respondents reported significant or very significant improvements and 40% reported at least modest improvements in system relationships.

The co-designed, collaborative approach has built peer support, resilience and delivered rapid changes despite a challenging and changing political landscape. Professionals from different sectors and levels of care are planning together and sharing information in a confident and organised way that has changed relationships between providers, improved coordination of care and delivered better health outcomes for citizens. The project co-designed an integrated and stepped care model to improve population health and enable more care closer to home by creating

the conditions for different stakeholders to plan, reorganise and optimise care across a regional network.

Success factors are nurturing trusting relationships, empowering local leaders to be creative, equipping professionals with knowledge and tools to overcome difficulties, and co-creating new ways of working that enable place based people centred integrated care solutions.

Enhanced capability for integrated care has spread beyond the region as the UCP team sensitised two other Health in Action regions to the innovative approach. The Transforming Together approach is transferable to other states in Brazil and to LMI economies with a mix of private and public healthcare and municipal, state and federal systems.

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## CONFERENCE ABSTRACT

Transforming towards sustainable health and wellbeing systems - Eight guiding principles based on the experiences of nine Dutch Population Health Management initiatives  
ICIC20 Virtual Conference – September 2020

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2: Tilburg University, Tilburg, , Netherlands

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### **Introduction**

Population Health management (PHM) initiatives are increasingly introduced, aiming to transform towards sustainable health and wellbeing systems. However, the initiatives are struggling with this development. In order to be able to act upon the complexity of such system change, understanding which strategies to implement at which moment of the development would be valuable. Based on the experiences of nine Dutch PHM initiatives, this study provides guiding principles with insights into which strategies to use, why, and when.

### **Methods**

We used the realist evaluation approach for understanding the relationships between context, mechanisms and outcomes when PHM strategies were implemented. Data was based on quarterly updates of PHM developments and three interview rounds between 2014 and 2017 with different stakeholders of the Dutch PHM initiatives from health care, social care, public health, community, education, and business (n=207). Strategy-context-mechanism- outcome configurations were coded and clustered within the Collaborative Adaptive Health Network (CAHN) framework into guiding principles for PHM development.

### **Results**

Based on the different experiences in PHM development across the Dutch cases, eight guiding principles for PHM development were identified, focusing on: 1. Shared commitment for a PHM-vision; 2. Mutual understanding and trust; 3. Accountability; 4. Aligning politics and policy; 5. Financial incentives; 6. A learning cycle based on a data-infrastructure; 7. Community input and involvement; and 8. Stakeholder representation and leadership.

### **Discussions**

The eight guiding principles are in line with the themes within international literature, and additionally provide detailed knowledge in the links between strategies, the contexts they are implemented in, the mechanisms that are triggered and its' outcomes. Furthermore this study gained insights in which guiding principles are especially relevant during the first phases of development.

### **Conclusion**

Developing to sustainable health and wellbeing systems is experienced as complex and time-consuming. The success of this development is influenced by the implementation of all the eight guiding principles, as well as applying the right strategies at the right moment in the development.

### ***Lessons learned***

- PHM initiatives vary in their development progress due to different strategies used.
- Eight guiding principles reveal when, why and how to implement strategies.
- Commitment, trust and leadership are of main importance in first development phases.

### ***Limitations***

As the current PHM initiatives have not yet fully developed towards sustainable health and wellbeing systems, the guiding principles provide insights in the first phases of development. Several international PHM initiatives are further developed and hereby provide a relevant base for future research in uncovering the suitable strategies in these contexts.

### ***Suggestions for future research***

In this study mainly experiences from CEO level representatives are retrieved. Little insights have been retrieved from health-care and care professionals or citizens themselves. Based on the experiences in this study and international literature, we expect that for further development of the PHM initiatives delegated leadership is of high relevance. Therefore additional understanding of the experiences of the health and care professionals and citizens will be valuable.



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## CONFERENCE ABSTRACT

Western Sydney Diabetes: An integrated program for diabetes prevention, management, and control in Sydney, Australia  
ICIC20 Virtual Conference – September 2020

Glen Maberly<sup>1,2, 1, 1</sup>

- 1: Western Sydney Local Health District, Blacktown, NSW Australia  
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3: School of Medicine, Western Sydney University, Blacktown, NSW Australia  
4: Boden Institute, University of Sydney, Sydney, NSW Australia

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### ***The Problem - Theory***

Type 2 diabetes is the leading burden of disease in Australia, with rates more than tripling in just 20 years. Western Sydney is particularly vulnerable, with its large socio-economically and culturally diverse population of >1 million people. Approximately 12% of the Western Sydney population have diabetes, 35% are at high risk of diabetes and >50% are overweight/obese, far higher than both the state and national averages.

### ***The Initiative - Description/Aims/Timeline***

Western Sydney Diabetes (WSD) initiative was established in 2012, and is led by Western Sydney Local Health District (hospital care), Western Sydney Primary Health Network (primary healthcare), Diabetes NSW and ACT (NGO), and PricewaterhouseCoopers, as well as a range of partners from healthcare and non-healthcare sectors.

WSD represents an embedded integrated healthcare initiative that is world-leading in several areas of practice, including both primary prevention, secondary prevention, management of diabetes, and efforts to mobilize the public. Underpinning this is a rigorous data effort to measure and demonstrate the benefits of the initiative.

Since inception, WSD has brought together the Diabetes Alliance, which now has over 130 dedicated members. These include organisations within government, health, and the private sector, as well as NGOs and other charities.

The WSD programs are a unique blend of primary/secondary prevention and management efforts, including:

Primary Prevention - healthy urban design, healthy eating, physical activity programs, advocacy and public awareness campaigns, employee wellness efforts

Secondary Prevention/Management - HbA1c testing to identify the burden of diabetes, General Practice (GP) support, health pathways, practice nurse training, diabetes masterclasses, complex diabetes clinics, joint-specialist case conferencing, high-risk foot services, CGM for diagnostics, a bariatric obesity clinic, a new community diabetes clinic, and many more.

### ***The Impact - Discussions/Lessons Learned***

WSD represents an integrated initiative that is imbedded into regular practice, drawing together the hospital and community, for more than half a decade. While the efforts are not yet enough to cool the western Sydney diabetes hotspot, WSD has demonstrated benefits in a number of areas.

The joint-specialist case conferencing work has led the way in healthcare innovation in the state, with demonstrable benefits to both individual patients and GP clinics. WSD has made great strides in identifying the diabetes burden, with published evidence that >20% of patients in hospital in the region have diabetes, numbers which are echoed in GP clinics nearby. This research has also shown that more than 20% of patients are unaware that they have diabetes. A recent research initiative between WSD and the Ministry of Health for NSW has shown that people whose GPs are unaware of their diabetes status have more than double the risk of unplanned hospitalization compared to people who are aware of their disease. With PricewaterhouseCoopers, WSD has developed business cases for funding opportunities, as well as integrated diabetes dashboards that display essential information to a wide range of partners.

WSD represents a fully developed model that can transfer across regions, with a structure and framework that can be applied in many areas.

We can beat diabetes, together.

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## CONFERENCE ABSTRACT

Researching what matters to people: Developing Core Outcome Sets for Self-Management Interventions in Chronic Diseases  
ICIC20 Virtual Conference – September 2020

Marta Ballester Santiago<sup>1,2,3, 4, 1,2,3</sup>

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2: Universitat Autònoma de Barcelona (UAB), Barcelona, , Spain

3: Red de Investigación en Servicios de Salud en Enfermedades Crónicas (REDISSEC), , Spain

4: European Patients' Forum (EPF), Brussels, Belgium

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### **Introduction:**

Patient involvement has substantially increased among different areas of care in the last decades. However, patient involvement in research is still weak. One of the areas in which patient involvement would be more important is the selection of outcomes to measure effectiveness of interventions. This links to the recent advancement of core outcome sets (COS) - minimum set of outcomes agreed across researchers in one specific topic. We need to make sure that COS properly reflect patients' preferences, a basic step to ensure that research advances are aligned with what matters most to patients.

Within the Horizon 2020 COMPAR-EU project we have developed COS for measuring the efficacy of self-management among adults living with COPD, heart failure (HF) type 2 diabetes (T2DM) or obesity, based on patient preferences and including the views of healthcare professionals and researchers.

### **Methods:**

Initially, a long list of outcomes focused on each condition was developed. The resulting extensive lists were refined and translated into plain language for patients.

This list was integrated into an online survey platform for patients and patient representatives to vote for using a modified Delphi Technique in two rounds. Participants were asked to rate the importance of the outcomes for measuring the success of self-management interventions (1-9 scale). Simultaneously, a scoping review of systematic reviews on patients' values and preferences regarding self-management was conducted. Once both were completed, the outcomes were discussed and agreed upon in a two-day face-to-face consensus meeting with patients, patient representatives, healthcare professionals and researchers.

### **Results:**

39 patients and patient representatives participated (9 COPD, 9 HF, 11 T2DM and 10 Obesity) in round I and 38 (9 COPD, 9 HF, 11 T2DM and 9 Obesity) in round II of the online Delphi Surveys. These results were combined with those of the values and preferences overview. During the Consensus meeting, 19 patients and patient representatives together with 20 healthcare professionals and researchers reached an agreement on four COS, including 16 outcomes for COPD, 16 for HF, 13 for T2DM and 15 for Obesity.

### **Discussion:**

Often, research measures effectiveness with outcomes guided by research interest and feasibility. However, this doesn't always match the preferences of patients. This could involve that despite advances in research we don't advance in the areas that matter to patients.

***Conclusions:***

Participatory processes involving patients can help to develop COS that are relevant not only for research but also for those living with the condition, moving us closer to patient centered care.

***Lessons learned:***

COS can help inform better clinical decisions and understand patients' priorities. It could also guide policy decision-makers since the outcome measures show what is of crucial importance to realise patient centred care.

***Limitations:***

As in any participatory process, there could be a bias in the sample of patients and other stakeholders that participated. This was mitigated by complementing it with an overview on patient preferences.

***Suggestions for future research:***

The development of COMPAR-EU COS for COPD, HF, T2DM and Obesity could help increase the value of self-management research for patients.

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CONFERENCE ABSTRACT

Investing in early years

IJIC20 Virtual Conference – September 2020

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2: Croatian Institute of Public Health, Division of Public Health, Zagreb, , Croatia

3: Croatian Health Cities Network, Zagreb, Croatia

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Investing in early years

It is well known that inequalities in health are result of unequal life opportunities. Since Croatia does not have a strategy of investment in early development, during the last two years, Croatian Healthy Cities Network had supported the development of the initial policy documents (state of the art and policy paper) and formulated an operational document for the implementation of the Strategy, firstly (as a pilot project) in the City of Zagreb. In Croatian (transition) society numbers testify the change in family structure. The number of newly born is decreasing steadily, whereas the number of children at social risk is on the rise (around 20% of children up to 7 years old are at risk of poverty) and so is the number of children at neuro and developmental risk (around 10%). There are many laws and regulations governing the rights of parents and children (especially those with developmental difficulties) but parents are ill informed about them. Our intervention is aiming at creating safe, stable, supporting relationships and environment for children, i.e. on strengthening family setting and providing additional support when necessary. The best system for a 'healthy start' includes health, social, and education policies which provide: a) excellent health care in pre- and post-natal period; b) social system which recognizes risks caused by early childhood poverty; c) good possibilities of maternity leave use; and d) high quality early education and care. Although our intervention is inter-sectoral, the key actors who will carry it out are community nurses. They are extended arm of the primary health care service towards community. They will visit the pregnant women in their homes two times during the pregnancy (16th and 24th week of pregnancy) and, through the interview, assess health, social and environmental risks. If the family shall need additional support, nurses will liaise them with appropriate service provider. Existing lack of information on local services (health, education, social care, NGO and community) will be addressed by the creation of the Directory of resources that will consolidate information on the available services in one place. Community nurses will visit mothers and their new-borns again within 24 hours of their hospital discharge and seven days later. These visits will focus on the assessment of the child's progress and health, breastfeeding status, navel examination, child bathing, baby handling and information on the rights and access to other needed services. In the next visit, when the baby is 30 days old, community nurse will check the child's progress and enquire mother's mental health (detection of post-partum depression). In the visits to follow, community nurses will use GMCD instrument (the International Guide for Monitoring Child Development) suitable for the early detection of developmental disorders. Part of the intervention is development of an information system, which would enable better exchange of information between primary health care workers and between health and social services; development of

instruments and standards in risk assessment; protocols development and continuous development and empowerment of professional staff involved in early child development.

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## CONFERENCE ABSTRACT

Equally Well. A collective impact approach to integration in New Zealand, Australia and the UK.  
ICIC20 Virtual Conference – September 2020

Russell Roberts<sup>2, 1, 3</sup>

1: Equally Well, , Australia

2: Equally Well, , New Zealand

3: Equally Well, , United Kingdom

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People living with mental illness die on average 20 years earlier than the general population. For every one person who die from suicide, 10 to die prematurely due to chronic physical health conditions. The majority of these deaths are avoidable. However, due to a number of reasons, including lack of screening, diagnostic overshadowing, limited access, stigma and discrimination the life expectancy gap has actually increased over the last three decades.

In response to this crisis, Australia, the UK and New Zealand have each instituted national initiatives entitled Equally Well. The Equally Well initiatives are designed to close the life expectancy gap, and work towards equal access, quality care, and parity of esteem for people living with mental illness.

Integrating care across service providers (public health, non-government, private providers, and advocacy bodies), service types (promotion, prevention, acute care, chronic care), professions (GPs, psychologists, social workers etc) and district boundaries is a complex a challenging task. While each country has adopted a collective impact approach,<sup>1</sup> the way this approach has been operationalised varies considerably by country. This presentation compares and contrasts the way the collective impact approach was implemented in the UK New Zealand and Australia. It will highlight areas of success, and also discuss aspects of the programs that have proven challenging. The presentation will also overview the governance models, social media strategies<sup>2</sup> and collaboration mechanisms used, with particular attention to co-design and effective engagement with consumers and carers. Finally, it will examine the role and importance of creating and curating enabling resources such as tool-kits, literature reviews, clinical guidelines and consumer, and carer fact sheets to support collaboration and integration.

1. Roberts R, Lockett H, Bagnall C, Maylea C, Hopwood M. Improving the physical health of people living with mental illness in Australia and New Zealand. *Australian Journal of Rural Health*. 2018;26(5):354-62.

2. Mehmet M, Roberts R, Nayeem T. Using digital and social media for health promotion: A social marketing approach for addressing comorbid physical and mental health. *Australian Journal of Rural Health*. 2019;26(6) DOI-04-2019-0054.R1.





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## CONFERENCE ABSTRACT

High Five: creating compassion and mental wellbeing in young people in Scotland and Brazil  
ICIC20 Virtual Conference – September 2020

Alison Bunce<sup>2, 1</sup>,

1: International Centre for Integrated Care, Glasgow, Scotland

2: Compassionate Inverclyde, Greenock, , Scotland

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High Five is an innovative programme developed by CI health and education partners, based on “Five ways to wellbeing” published by the New Economics Foundation.

It presents simple messages about self esteem, self compassion, kindness and wellbeing and prepares children and young people to talk about challenging topics such as death and dying, bereavement or loss. For high school and college students it also explores issues of sexuality, bullying, self harm and suicide prevention. Aims are to nurture empathy, create compassionate communities in schools and develop a cohort of young compassionate citizens as future community leaders.

Inverclyde population is 80,000 with high levels of poverty, unemployment, alcohol misuse, drug addiction and poor mental health. Programme partners are health, education, social care and Third sector.

Developed during 2016, it has been adapted for different educational stages. It is now in all Inverclyde primary schools and has been delivered to around 200 high school or college students. In the pilot, college students demonstrated significant improvement in Warwick-Edinburgh Mental Well-being Scale scores (WEMWBS). They found photo sharing an excellent reflective tool and set up a wellbeing Facebook page. During 2017, High Five was adapted for children age 6 using creativity and fun to learn about wellbeing. Now adapted for age 14 – 17, the programme has seen an increase in young people volunteering and participating in intergenerational befriending. Other successes include some young people with emotional support needs who re-engaged in school.

The lesson plan and packs developed frame High Five in the mental, emotional, social and physical wellbeing experience and outcomes of the school curriculum. This has enabled the programme to be embedded in all Inverclyde primary schools.

The High Five programme was introduced to 3 high schools in Sao Sebastiao, Litoral Norte, Sao Paulo state, Brazil through the Transforming Together project. For ‘Yellow September’ all 10 high schools are taking part in a joint health and education campaign to raise awareness about suicide prevention. From 2020, pupils from schools in Scotland and Litoral Norte will link by zoom to exchange insights about mental health and wellbeing, make new friendships, and discover new possibilities for their future.

High Five is evidence based, effective and can be readily adapted across age ranges and life stages. This integrated approach across health, social care and education is improving wellbeing and building social capital and kindness. The programme is being embedded in schools in Inverclyde and embraced by schools in Sao Paulo. Short term impacts on wellbeing and increasing volunteering are matched by longer term gains from inspiring a new generation of compassionate citizens.

High Five is an effective integrated approach to create wellbeing and resilience in communities with challenging socio-economic profiles across the globe. Embraced equally by young people in Scotland and in Brazil, it is a powerful and transferable tool to enhance mental wellbeing and improve population health.

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## CONFERENCE ABSTRACT

Time for a shift in power: A people-driven approach to integrated community care  
IJIC20 Virtual Conference – September 2020

Luisa Marino<sup>2</sup>, , <sup>1</sup>

1: International Foundation For Integrated Care, Oslo, Oslo Norway

2: Network of European Foundations, , ,

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### **Introduction**

There is growing evidence to demonstrate that engaging and empowering local communities is essential for citizens' wellbeing and for the care system to function effectively. Integrated Community Care (ICC) is an emerging concept based on people-centred principles, which requires new cross-sectoral and interdisciplinary partnerships to be formed between citizens, families and informal carers, health and social care services, schools, volunteer organisations, local authorities and other resources found in communities and neighbourhoods. This paper highlights main lessons learned from a three-year international project aiming to explore the key principles and the fundamental premises of successful implementation of ICC.

### **Policy context and objective**

The Transnational Forum for ICC is a joint international initiative of foundations, involving a worldwide mapping of promising practices of ICC, a series of four conferences and 15 site visits. The mapping retrieved promising cases of ICC demonstrating assets-based, goal-oriented and people-driven approaches to enhance population health and their quality of life. Conference delegates include senior policymakers, practitioners, researchers and representatives from the philanthropic sector. Experts-by-experience participate in all conferences and are invited to share their reflections and knowledge, in effect grounding all conference discussions.

Targeted populations Communities and vulnerable populations

### **Highlights**

The key elements facilitating community mobilisation retrieved from the project activities include:

- Peer-to-peer support (e.g. elders fighting loneliness and isolation and supporting independent living through informal neighbourhood networking and social activities)
- Co-designed, easy access and non-judgemental services (e.g. a one-stop-shop for adolescents with mental health challenges focusing on prevention and early intervention)
- Volunteering (e.g. a local time-bank where people offer their time and spend it with people with physical, mental or cognitive health impairment, altering the way people with disabilities are perceived)
- Non-institutional meeting places (e.g. social, cultural and recreational activities for local children and families and with access to healthcare professionals for those who need it)
- Training of laymen as wellbeing coaches or link workers (e.g. social prescribing, where trained citizens connect persons asking for help with community resources)

- Emphasis on kindness and recognising civic knowledge as part of the solution (e.g. the Compassionate Communities' movement or allowing professionals to act in a more humanistic approach in care settings)

- Place-based governance and mutual accountability: from power held by few to power held by all. From hierarchical leadership to leaders being led by lived experience, acting as guides and coaches

### ***Transferability***

ICC can be defined by its diversity, complexity and dynamism. The key elements provide a guidance on how ICC can be transferred and adapted to other regions and countries based on local needs and resources.

### ***Conclusion***

Community participation and co-creation require new, constantly learning management structures, stimulation of trusting partnerships at all levels and formalisation of the role of peers and volunteers. By improving communication and relationship across generations, asking what kind of life people want to live and facilitating participation, all individuals can become their own problem solvers. Future research should explore relevant impact evaluation methods of ICC, how social determinants of health can be better addressed and hybrid funding models.

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## CONFERENCE ABSTRACT

Integrated health, welfare and educational services for young people in eight OECD countries  
ICIC20 Virtual Conference – September 2020

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Integrated health, welfare and educational services for young people in eight OECD countries

Introduction and aim: Many countries are developing services of young people towards children's rights-based, integrated and multidisciplinary working. The aim was to explore what kind of integrated services are in those selected OECD countries where services have been developed with an integrative approach (Australia, England, Netherlands, Norway, Sweden, Iceland, Denmark, Finland) and what kind of benefits have been found from these services.

Methods: The scoping review was used. Search engine and database searches were made. Majority of the literature was however found by using the hand search, such as websites of governments and other authorities in selected countries.

Results: In the Netherlands and Norway there were family centres which provide services for young people and their families in addition to children; the services can be divided into universal, preventive and specialised services. School-based services exist in the Netherlands (School Care and Advice Teams), in England (Extended school services) and in Finland (School Welfare Services) which support school engagement and provide support for students with e.g. psychosocial problems. So called agency-based low-threshold services included support and advice in different needs, such as education, employment and mental health problems, and they were provided in Finland (Guidance Centre), in Sweden (Navigator Centers) and in Australia with mental health focus (Headspace). Additionally, Barnahus model was used for treatment of young people experienced sexual abuse in Iceland, and for treatment of sexual and physical abuse in Sweden and Denmark. Some benefits of the services had been found, such as promotion of mental health and school engagement.

Discussion: Integrated services for young people in selected countries can be divided into family-based, school-based and agency-based services. Systematic and rigorous evaluation on the benefits of service entities is lacking. However, some evidence suggests that integrated services have positive effects on welfare and health of young people.

Conclusions: Selected countries have quite different models of integrated services for young people. Good multidisciplinary practices in one country may be implemented in a tailored way in another country.

Lessons learned: Novel and person-centred integrated services for young people can be developed by utilising existing structures, but also new structures and models of integrated services are needed.

Limitations: Main limitations of this review are a lack of high-quality longitudinal studies and the difficulty to make comparisons because of different ways to organize services.

Suggestions for future research: Further systematic effectiveness studies with process evaluation are needed in order to find out internationally comparable impact of integrated services for young people.

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## CONFERENCE ABSTRACT

Always look on the bright side of life?

Managing tensions inherent to collaborations – A tensions-based view on networks of integrated care

ICIC20 Virtual Conference – September 2020

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### ***Introduction and theory:***

Networks of integrated care are thriving around the world – in Switzerland alone we currently see around 172 initiatives of integrated care. They are becoming more prevalent since they offer innovative health and social care models that address essential challenges posed by an ageing population and the associated spread of chronic diseases. In the diverse setting of integrated care, inter-organizational networks constitute complex social systems which gain in popularity. Surprisingly, integrated care networks are often prematurely presented as balanced, flexible, cooperative or efficient. Notwithstanding their potential to sustain access to affordable high-quality care or reorganize service delivery, we can also observe numerous tensions in the development of integrated care networks. In our study, we therefore shed light on the evolvement and dynamics of integrated care networks. Our focus lies on managing multiple tensions and contradictions over time as a key challenge in developing integrated care.

### ***Methods and results:***

We conducted a long-term qualitative single case study that adopts a process view on networks to understand how managerial agency produces multiple tensions and is at the same time enabled and constrained by these tensions. The focus lies on how ordinary activities unfold over time as web of practices. At the centre of this case lies an aspiring, urban healthcare network in the western part of Switzerland. This empirical case is particularly revealing since it illustrates a network with dynamic practices and a variety of inter-organizational tensions. The process approach thereby offers a particularly promising lens to study dynamic and complex social phenomena in integrated care networks. Data collection included 19 semi-structured interviews, 3 shadowing days, and 37 archival records. Data analysis followed an abductive approach. After a first round of inductive coding, we revealed how managerial practices produce and are reproduced by multilevel tensions, generating the emergence and change of the system. In a second coding round, we consulted additional literature to develop richer theoretical explanations on tensions in inter-organisational relations. Inspired by the tension-based lens on networks, we re-coded our empirical data, focusing on inter-organizational practices on managing emerging tensions inherent to networks of integrated care. Our study proposes a theoretical model of how integrated care network evolve in the interplay between management and inter-organizational tensions.

### ***Discussions and conclusion:***

A tensions-based view on integrated care networks shifts the focus on managerial practices as a reflective coordination of tensions and simultaneously as the driving force of joint value creation and network dynamics within regional health and social care networks.

***Lessons learned:***

Our study helps us to (re)think the development of integrated care networks as systemic, reciprocal, processual and dialectical systems, which require specific managerial practices.

***Limitations and future research:***

This study is limited to a single case in Switzerland. Further research is required to explore managerial approaches to deal with network tensions in more detail, to understand their characteristics and interrelationships and to explore to what extent health systems are constituted by similar or different inter-organizational practices.



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## CONFERENCE ABSTRACT

### An Evaluation of Geriatric Home Healthcare Depression Assessment and Care Management: Are OASIS-C Depression Requirements Enough?

ICIC20 Virtual Conference – September 2020

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#### **Background:**

Integrated care models (ICM) providing BOTH psycho-social and physical health care management to older persons with multiple chronic conditions (MCC) receiving home health care (HHC) services, produce superior health outcomes (less disability, depression, healthcare use). However, traditional Medicare HHC services are focused on the provision of acute physical health outcomes, leading to an underdetection and under-treatment of depression among HHC elders. Responding to this gap in care, the Centers for Medicare and Medicaid Services (CMS) incorporated additional depression screening questions into the OASIS-C assessment (PHQ-2). However, CMS did not mandate HHC agencies to conduct any further depression evaluation or follow-up monitoring for patients who had depression. Thus, leaving depression screening, monitoring, and treatment initiatives to the voluntary action of HHC agencies, creating a pressing need to evaluate how changes were implemented and utilized. Thus, the first aim of this study evaluated the extent to which nurses delivered the new DCM required by CMS. Next, because CMS mandated attention to physical outcomes for eligibility and coverage, the second study aim evaluated depression detection and its impact on participants' mood and disability. Together, these factors underscore the importance and clinical meaningfulness of demonstrating how DCM impacts disability outcomes.

#### **Methods:**

A retrospective chart review was conducted using clinical and administrative records (N=100) of new HHC admissions (eligibility: age 65,+ positive depression, disability, MCC). Descriptive analyses (characterize sample; DCM activities), multivariate, and regression analyses (association of DCM components /ADL improvement).

#### **Results:**

Nurses did not use evidence-based depression standards or DCM, and depression screening was conducted once at the assessment visit and without follow-up (discharge, recertification, transfer). Patients had depression diagnosis (60 %), positive depression screens (40%), and were prescribed antidepressants (65%). Having depression care plans and depression medication was significantly associated with large ADL improvements.

#### **Discussion:**

The study population did not get appropriate mental health or social support during the HHC episode, despite improvements in depression screening. Most likely, this was due to several factors, including lack of protocols for nurse depression assessment and monitoring, inconsistent use of

care plans, lack of training, nurses' discomfort addressing depression, stigma, and patients' health complexity.

***Conclusions:***

Further changes are recommended to improve DCM within the current HHC system, including mandated depression assessment that may lead to treatment and ongoing management for patients who have positive depression screens. Provision of both disability and DCM has the potential to increase the effects of HHC treatments to lessen disability worsening, improve quality of life, and reduce costs.

Limitations: Retrospective chart review is dependent on the accuracy of medical records. Depression measures were limited to depression screens but not followed up by a structured or semi-structured interview to validate the presence of depression.

***Lessons:***

Medicare HHC agencies need to consider policy changes that incorporate evidence-based ICM interventions that redesign and improve care for elders with MCC. Further success can be attained by providing nurses depression education, training, and skills to ensure they have the competencies to provide ICM which incorporates disability and DCM, addressing the physical, mental and social healthcare.

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## CONFERENCE ABSTRACT

An integrated hospital-to-home transitional care intervention for older adults with multimorbidity and depressive symptoms: A pragmatic effectiveness-implementation trial  
ICIC20 Virtual Conference – September 2020

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### **Introduction**

Older adults face increased risk of developing multimorbidity as they age, including experiencing higher levels of depressive symptoms compared to those without multimorbidity. Older adults with multimorbidity often require care from different healthcare providers in several settings and are, therefore, susceptible to fragmented care. The risk for fragmented care is heightened when transitioning from hospital to home, leading to decreased health-related quality of life, increased readmission rates, decreased patient satisfaction and safety, and increased caregiver burden. This study tested a novel integrated nurse-led intervention to improve the quality and experience of hospital-to-home transitions for older adults with depressive symptoms and multimorbidity. The intervention included usual care plus in-home visits and phone calls from a Registered Nurse (RN) over a 6-month period. The RN provided system navigation support, education, medication review, and evidence-based strategies to manage depressive symptoms and multimorbidity.

### **Methods**

This pragmatic randomized controlled trial examined the implementation, effectiveness and costs of an integrated nurse-led hospital-to-home transitional care intervention in three communities in Ontario, Canada. Study participants (n=127) received the intervention (n=63) or usual care (n=64). Patient and caregiver partners were involved as co-researchers in designing, implementing and evaluating this project. They informed selection of patient-relevant outcomes, development of study materials, adaptations to the intervention to meet local community needs, interpretation of findings, and knowledge translation.

### **Results**

Participants were an average age of 76 years and had an average of 8 chronic conditions. Findings suggest that the intervention was feasible and acceptable to participants and providers. Intervention group participants received an average of 5 visits and 6 phone calls. Intention-to-treat analyses using ANCOVA models showed no statistically significant group differences in outcomes, however, in the intervention group the upper 95% confidence interval for the mean group difference showed greater clinically significant improvements in physical functioning. Quantile regression showed that the intervention may result in greater improvements in physical functioning for individuals with lower levels of baseline physical functioning and higher levels of perceived social support. No statistically significant group differences were observed for service use or costs.

### ***Discussion***

Since low physical functioning and perceived social support are linked to higher rates of hospital readmissions and death, components of this intervention may be integral to creating an optimal integrated transitional care model for older adults with multimorbidity, depressive symptoms and lower levels of physical functioning.

### ***Conclusions***

The results of this study may inform the delivery of more integrated and coordinated patient-centred care to improve health outcomes in this vulnerable population.

### ***Lessons learned***

Older adults with multimorbidity and depressive symptoms transitioning from hospital-to-home are susceptible to adverse events as a result of a poorly designed healthcare system. This study established the feasibility of a new intervention that has the potential to enhance health outcomes in this vulnerable population.

### ***Limitations***

The power of the study was not adequate to detect a significant difference due to sample size.

Suggestions for future research

Future research is warranted to test the intervention in other diverse settings and populations.

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## CONFERENCE ABSTRACT

Assessing the State of Preparedness to Deliver Integrated Care in a National Health System by Developing and Applying the Project Integrate Conceptual Framework as a Tool  
ICIC20 Virtual Conference – September 2020

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### **1. Introduction:**

Integrated care by definition aims that care delivery processes should work seamlessly. Moving from a current provider-centric system to one enabling integrated care delivery is a big journey. The Health Service Executive in Ireland decided to assess its position so as to plan the journey. While tools such as the Scirocco model (1) are recognised, they focus on the overall system. Ireland wanted to be person-centric in focussing on its field staff and their views, and saw potential in the Framework developed in the Integrate EU project (2).

### **2. Theory/Methods:**

Assisted by a scientific group and an advisory group, the research team critically reviewed the Integrate Framework tool for content and style. They applied it as a web survey to all health service employees in Ireland, and as far as possible those in contracted partner services.

### **3. Results:**

The tool was adapted as follows:

- Some section headings were changed to make them person-friendly rather than systems terms
- Sections were re-ordered
- Some items were reworded to fit local terms and practices; some were dropped and some were split into two components
- Introductory text asked respondents to assess the current position against the specified desirable situations
- The binary Yes/No format was changed to a 5-point Likert scale
- Three evaluation questions were added about the survey tool's clarity, relevance, and ability to capture local issues
- Three formative questions were added inviting the listing of 3 developments which would be beneficial, 3 current blockages, and 3 local successes
- The survey was badged and styled as an HSE document
- 1701 responses were received
- The results were triangulated by running nine half-day facilitated workshops involving staff and patients

Respondents expressed high satisfaction with the survey tool, and the two modes of application triangulated well. Clear priorities for system development to enable field staff to deliver care in a

more integrated way emerged. This variant of the Integrate framework reformatted as an assessment tool seems to have utility as a bottom-up situation analysis.

#### ***4. Discussion:***

This reworked tool, based on the analytic work of the Project Integrate analysis, seems a useful addition to the integrated care toolbox. One of its key values is its staff-centredness, giving service delivery staff direct input into analysis of problems and priorities.

#### ***5. Conclusions:***

The Project Integrate Framework, reformulated and reformatted in this way, was successful.

#### ***6. Lessons learned:***

The need for rephrasing from the language of principles to that of practice, and harmonisation with local settings.

#### ***7. Limitations:***

This is a one country study – other settings will be different. The circulation was to all staff with an organisational email address. Some recipients such as kitchen and back office staff would not see it is relevant to them, but as they cannot be quantified the 'target' population, and thus the response rate, cannot be quantified.

#### ***8. Suggestions for future research:***

Replication in another health system.

1. <https://www.scirocco-project.eu/scirocco-tool/>
2. Calciolari S et al.. The Project Integrate Framework; <http://www.projectintegrate.eu.com/wp-content/uploads/2017/04/The-Project-Integrate-Framework-TOP.pdf>

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## CONFERENCE ABSTRACT

Caring for older people living with frailty: a coaching and educational intervention for district nurses (DNs)

ICIC20 Virtual Conference – September 2020

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Caring for older people living with frailty: a coaching and educational intervention for district nurses (DNs)

### **Introduction:**

The number of people living with frailty is steadily increasing worldwide and is a key driver for effective integrated care. Despite this, preventing and managing frailty remains a new area for much of the community workforce. The Frailty Capability Framework (Skills for Health, NHS England 2018) is a major advance in UK but frailty specific education remains limited. We present the results of the first phase of a project in Ayrshire and Arran, Scotland, to strengthen the capability of DNs in leading personalised integrated care for older people living with frailty.

### **Methods:**

We adopted a participatory action research (PAR) cyclical approach (i.e. planning, reflection, action, evaluation) to enhance the knowledge, confidence and capability of DN participants. We conducted three focus groups (n=17) and one one-to-one interviews with community health professionals and collected baseline team dynamics questionnaires (n=10). We also conducted a field observation day of DN interactions when managing the person who is frail at home. We conducted thematic analysis of textual data.

### **Results:**

Our analysis revealed two major themes: “the concept of frailty” (including meaning and processes) and “knowledge of frailty” (including education needs and confidence). Our sample of DNs did not perceive frailty as a long term condition. Participants identified a need for a conceptual framework to use in their community nursing and interdisciplinary practice. This evidence has been used to co-create a prototype framework and a 9 month combined person centred coaching and educational programme. Nine DNs are being supported by an experienced person centred coach and 2 citizen ‘co-coaches’ who bring the lived experience of people affected by frailty. Face to face small group learning sessions are complemented by web based coaching and bite sized online education on topics identified by the cohort as important.

### **Discussion:**

Results from the project’s first phase concur with existing evidence that the knowledge of the nursing workforce regarding managing frailty is variable. Current system pressures limited demographic and clinical diversity of our participants. However, participating DNs embraced the

coaching and educational intervention and valued the dialogue with peers and co-coaches about what really matters to patients, families and professionals.

***Conclusion:***

Frailty is preventable and potentially reversible with early intervention. By co-design we have developed a contextually sensitive programme that makes sense of frailty in the reality of both community professionals and people living with frailty.

***Lessons Learned:***

The programme combines technical knowledge and relational skills-building with peer support and coaching to enable DNs to lead interprofessional teams caring for people living with frailty.

***Limitations:***

This work is focussing in one area of Scotland only. However, the depth of the discussions and the multiple perspectives offer transferable insights.

***Suggestions for future research:***

Our intention is for the end product, i.e. the framework and combined coaching and educational package, to be tested more widely in Scotland, adapted for the extended interdisciplinary team, and for other health and care systems.



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## CONFERENCE ABSTRACT

Closing the organizational gap between formal- and informal care in neuro-oncology to achieve fully integrated care.

ICIC20 Virtual Conference – September 2020

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Fully integrated care between all stakeholders and more flexible transitions between services (hospital care, palliative care and-advanced medical care at home, social care) and informal care and patient self-care are vital for neuro-oncology patients. Cultural differences, lack of communication and collaboration between all stakeholders that hinder fully integrated care are to be identified and dealt with.

Traditional oncology integrated care models do only consider integration between hospital care and palliative care but in neuro-oncology there is a need to think broader. We suggest that informal caregivers and other informal support must be considered as an integral part of the care process when dealing with patients with brain tumors, due to the complexity of the disease.

Such an approach calls for efforts from policymakers and health and social care practitioners to organize care services differently, but also a new mindset. Current systems are rigid which makes it difficult to respond to changes in care needs and the great variety in patients' life situations.

The necessary practice change requires a new way to work in a fully integrated way, and most importantly, driven by the perspectives of patients and next of kin. The project investigates how care providers can better be organized to provide a fully integrated care fulfilling these requirements. We involve all stakeholders in piloting and implementing the project. We apply integrated care and implementation theories.

The process started in 2015 with the change of organizational model at Karolinska University Hospital and with the Regional Cancer Center engaging patients and next of kin in priority setting. In 2016 the team joined the Co-care research program at Karolinska Institute. In 2019 we created a new model of co-care in neuro-oncology which is now starts to get implemented. The project will continue during 2019-2024 and ultimate aim is to contribute to a change of culture and reach a fully integrated person-centered approach service.

The project aims to achieve:

- Strengthened role for patients and informal caregivers.
- Routines for observation, communication, interventions and transitions between all levels of care.
- Flexible and integrated structure for collaboration between all stakeholders at the right level.
- Changes in policy regulations and reimbursement.
- Formal training/education of all stakeholders to optimize skills in brain tumor care.

All stakeholders acknowledge the need to change their practice and have an emphasized focus on quality of life. As patients and next of kin/informal caregivers are integrated in the project, the

management of their daily lives will form a powerful stimulus to continuous and sustained improvement.

The lessons learned can be transferred to other regions in Sweden.

By developing a fully integrated response to the care needs of this patient group, quality of life can be improved both for the patients, next of kin and for the professionals.

The project is ongoing and findings will be presented and discussed at the conference.

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## CONFERENCE ABSTRACT

Co-creating integrated care in Belgium: first experiences  
ICIC20 Virtual Conference – September 2020

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Co-creating integrated care in Belgium: first experiences

### **Introduction**

The Belgian Health Care Reform: “Integrated Care for a better health” was approved by all responsible ministers in 2015 (federal level and federated entities). This plan aims to provide high quality care and support to all patients, at the best cost, and to improve the health status of the population (Triple Aim). In order to achieve this goal, local pilot projects were implemented all across the country following a ‘guided bottom-up approach’. In this approach, actors were given the initiative to create a project based on the local needs and context with the government acting as facilitating partner. After a conceptualization phase, 12 projects have started in January 2018 with the deployment of a specific action plan in order to achieve integrated care in their region. On the basis of the experiences during the first 18 months of implementation, some lessons learned and recommendations can already be formulated.

### **Policy Context And Objective**

Belgium has an accessible health care with a national, compulsory health insurance (covering 99% of the population). Fee for Service, fragmented services and lack of coordination and communication lead to inefficiencies and make the system unsustainable for dealing with the future societal challenges (e.g. multimorbidity).

A legislative basis was created to allow pilot regions to test new, integrated models of care.

### **Target Population**

The Plan targets the whole Belgian population with a focus on people with a chronic disease. In total, the 12 projects cover a region of 2.52 million people (about a quarter of the Belgian population).

### **Highlights**

The first stage of implementation already highlighted different key lessons for the future design and implementation of integrated care policies in Belgium, such as:

- The underlying vision and key components of integrated care as put forward in the national plan are widely supported by all stakeholders
- The guided bottom-up approach in order to create and sustain support at the local level is valuable, but building these relationships of trust takes time
- Integration at the policy level is a key determinant for a successful change towards integrated care
- To be able to test new practices, a sufficient amount of legal flexibility is highly desirable
- Some key aspects of integrated care systems are difficult to develop through bottom-up pilot projects; e.g. sustainable multidisciplinary and transmutal communication tools

- To be able to evaluate such complex system changes, extensive data are needed that are not always available yet in current practice
- Within a co-creative approach between government and field, the aspect of trust is essential:
  - o Clarity in the role of the government (partner and evaluator)
  - o Clear expectations between both parties

### ***Conclusion***

The early implementation stage of integrated care in Belgium highlighted different good practices as well as some strategic challenges. Also, these first experiences demonstrated the enormous support and willingness to change at the local level. Clear policy choices now need to be made in order to overcome these challenges so that the 12 pilot regions can grow to reach their full potential.

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## CONFERENCE ABSTRACT

Contextualised implementation and scale-up of Integrated Care in Europe  
ICIC20 Virtual Conference – September 2020

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Contextualised implementation and scale-up of Integrated Care in Europe

### Introduction

Care authorities across Europe often experience the need for capacity building and technical support for the successful implementation of integrated care programmes, and for ultimately achieving the “quadruple aim” of integrated care system performance. A number of challenges are however impeding the implementation of better joined-up care delivery practices in concrete care settings, including:

- Coping with complexity – the challenge of contextualising generic models for implementation purposes,
- Focussing the stakeholders’ joint efforts – the challenge to arrive at a “common narrative”,
- Exploiting digital solutions for supporting integrated care delivery - the challenge of pursuing a multi-pronged innovation approach,
- Capitalising on existing knowledge and tools – the challenge of exploiting available evidence for practical implementation purposes.

The European project VIGOUR (“Evidence-based Guidance to Scale-up Integrated Care in Europe”), co-funded by the European Union’s Health Programme, is designed to guide and support 16 care authorities across seven European countries in progressing the implementation of sustainable models for care integration.

### A contextualised and targeted approach to scale

In view of diverse framework conditions within which integrated care service delivery will be implemented, the service integration strategy pursued needs to be flexible in terms of service process and technology deployment. Thus, regions will be supported through a staged process of analysis, advice and capacity building, comprising three distinct methodological steps.

**Ambition Focusing:** Regions start with a conceptual focussing of their initial scaling-up ambition. A number of service integration aspects are addressed:

- What is the point of departure?
- Where does each region want to get to?
- What are the expected impacts?

**Self-Assessment:** Following the ambition focusing, each region works on examining strengths and weaknesses of the envisaged care integration approach by means of a SWOT analysis. Depending on the given framework conditions, a range of different factors potentially impede the successful implementation of the ambition by means of a fully up-and running pilot scheme. Equally, diverse supportive capacities are potentially available for putting the currently envisaged care integration approach into practice, albeit these may not yet have been considered in a systematic way. As a tangible output, the analysis will help to identify:

- Potentials for further optimizing the envisaged approach,
- Local circumstances that may make it difficult to practically implement the initially stated ambition,
- Options available for addressing any identified “road blockers” for the implementation,
- Definition of meaningful assessment criteria.

Operational Planning: A planning framework will be developed and applied, resulting in a structured initial implementation plan for each region. It will include a revised set of priority integration targets (ambitions, activities, interventions) together with a map of the interests of all stakeholders in respect of each priority activity.

Conclusions and next steps

Regions will be guided by targeted support measures relying on a contextualised consolidation of the evidence base currently available. This comprises different steps, including matching the available evidence against the initial scaling-up plans, and targeted support mechanisms such as twinning.

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## CONFERENCE ABSTRACT

Defining and Evaluating Norms for Health and Social Service (HASS) Needs based on a Simple Segmentation Tool (SST)

ICIC20 Virtual Conference – September 2020

Jia Loon Chong, <sup>1</sup>,

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### **Introduction**

As there is no simple tool for assessing HASS needs we developed the SST based on Lynn et al's "Bridges of Health" framework which allows providers to assign patients into one of 6 health categories, termed Global Impression (GI) segments: GI-1 healthy, GI-2 chronic condition, asymptomatic, GI-3 chronic condition, symptomatic, GI-4 long course of decline, GI-5 limited reserve, and GI-6 short decline before dying. The SST is a validated and practical tool with good inter-rater reliability and predictive validity for emergency department (ED) visits, hospitalization, and mortality.

Our primary objective was to establish HASS norms based on SST inputs and to evaluate concordance between norms and utilization within 3-months post hospital discharge.

### **Methods**

First, 9 experts developed HASS norms for 12 basic services, based on SST elements, using a supervised modified-Delphi methodology. HASS needs fulfilment was deemed essential if the experts attributed an unfilled need to a major adverse event: unplanned hospitalization, ED visit, or death. Second, acute care hospital clinicians assessed all consenting patients. Third, we assigned assessed patients a set of HASS needs based on an algorithm representing expert-defined normative judgements. Fourth, we visited subjects 3-months post discharge to determine the types of HASS utilized. Lastly, we compared HASS utilization with norms to calculate proportion of met needs.

### **Results**

During index hospitalization, majority (445/809, 55%) were in the more severe categories (GI-3,4,5, or 6). Median number of normative HASS needs per individual was 3. Most common needs were care coordination, rehabilitation-type skilled services, and medication management. Median number of needs and percentage of unmet needs increased with GI category, ranging from 0.5 needs, 14% unmet for GI-1, to 5 needs, 73% unmet for GI-6. Evidence did not suggest integrated needs fulfilment: the likelihood that any single need was met was 87%, regardless of required needs.

### **Discussion**

The SST illuminated the volume of HASS needs within this complex patient population. While probability of individual needs met was relatively high (87%, consistent with the "high bar" definition of "need"), probability of all needs met appeared independent of the number of needs. This suggests a relative lack of service needs coordination. Data collection is ongoing to determine the rates of adverse outcomes as a function of unmet needs.

Conclusions: The SST approach identifies opportunities for service improvement, and provides a rationale for developing tailored packages of care to meet unique needs in specific patient clusters. New knowledge generated from this study will enable planners and health care practitioners to make better decisions to benefit Singapore's aging population.

***Lessons learned***

Clinicians will respond positively to a user-friendly segmentation tool; the SST is a promising core measure relevant to clinical action, health care planning, and program evaluation.

***Limitations***

The study was performed in a single large acute care hospital in Singapore.

***Suggestions for future research***

Subsequent research areas include: evaluation of a SST version to identify HASS needs among individuals unexposed to clinical encounters, evaluation of the SST/HASS algorithm approach in other global settings, and testing a strategy which facilitates algorithmic improvements.



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## CONFERENCE ABSTRACT

Impact of IPCHS on health care costs in rural Romania – a qualitative assessment  
ICIC20 Virtual Conference – September 2020

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4: University of Basel, Basel, Switzerland

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Impact of IPCHS on health care costs in rural Romania – a qualitative assessment

### **Introduction:**

Integrated people centred health services (IPCHS) in rural Romanian communities have shown to improve health and social conditions for vulnerable and deprived populations. Community medico-social centres in seven Romanian communities covering a population of 17'000 persons provide home care services for elderly people with multimorbidity conditions, patient activation sessions, health education and health promotion, encourage physical activities, organised group sessions for elderly people, day care for young children, thus extending health and social services to otherwise marginalised population groups.

Goal: The present study seeks to estimate potential quality of life gains and savings in health care costs generated by close-to-home integrated health services in rural Romanian communities.

### **Methods:**

Mixed methods studies were conducted prior and one year into the intervention, consisting of focus groups with beneficiaries, household visits, key stakeholder interviews including local authorities and service providers. Financial data were collected on service cost and estimates of cost savings by avoiding unnecessary service use during the intervention year.

### **Results:**

Service users of community medico-social centres highly appreciated the complementary services to existing family medicine practices in several ways: the joint needs assessment by a mixed team improved significantly communication between beneficiaries, caretakers and service providers facilitating the development of more complex care plans. Perceptions on quality of life increased significantly within the year of intervention, as did the satisfaction with available services. Access to care improved and the perception of service quality was significantly higher than prior to the intervention. This is also confirmed by an increased number of previously not registered people with the national health insurance system.

A variety of community stakeholders engaged in the development of integrated health services at community level. Collectively engaging in improving service access to marginalised people improved the satisfaction of direct actors like community nurses and social workers by increasing personal recognition and reputation in the communities, for the public administration by increased reputation to take care of community needs and for the community as a whole by increasing social coherence.

***Cost benefit:***

The intervention used mainly existing resources and improved their coordination and planning. Running costs are considered low but still need to be hosted within the small community budgets, which is difficult for some. However, service use particularly of emergency and hospital services has reduced, which impacts on health care costs.

***Conclusions:***

Using an integrated approach to health services at the community level can be an important extension of family medicine services in covering the “last mile”. Closer to home care reduces the need for emergency intervention and improves self-care abilities, which may reduce costs. Different budget categories however, prevent potential savings to be accounted against costs accrued so that saving costs is not necessarily an incentive to establish IPCHS in Romania. Incentive structures need to be developed to motivate key actors. The small number of participating communities limits the generalisability of the conclusions drawn.

The project was funded through Swiss Cohesion Funds for new EU member states and accompanied by the Romania Public Health Association and CRED Foundation

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CONFERENCE ABSTRACTInformal Caregiving: Implications for Healthcare Expenditures  
IJIC20 Virtual Conference – September 2020Sara Shearkhani, , <sup>1</sup>1: University Of Toronto, Toronto, Ontario Canada

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**Introduction:**

Informal caregivers are family, friends, and neighbors who provide assistance to people in need of care without pay. Caregivers play a critical role in patients' care. Care provided by informal caregivers is often seen as a lower cost substitute to formal care and their contributions are assumed to take strain off the care system. Caregivers, however, report significant consequences such as a decline in their health and a higher use of healthcare services due to their caregiving responsibilities. While many studies have explored these outcomes using self-reported measures, use of administrative databases to substantiate such claims is rare. The objective of this study was to examine the impact of caregiving on healthcare utilization amongst informal caregivers.

**Methods:**

The outcome was total healthcare expenditures for publicly funded healthcare services in Ontario, Canada. The population consists of Ontarians who a) participated in the 2008/09 Canadian Community Health Survey – Health Aging Supplement Survey (CCHS-HAS) and b) provided consent to link their survey results to health administrative databases. The exposure was measured as self-reported role as a primary caregiver that started within 5 years of the date that the survey was completed; the comparison group was those who did not self-identify as caregivers in CCHS-HAS. Total healthcare costs of caregivers and non-caregivers were compared pre versus post reported caregiving start date using a difference-in-differences design. Both one and two-year periods of healthcare utilization were examined. The study period was 2002 to 2011. Generalized Linear Models is used to model the total healthcare costs. Sensitivity analyses were conducted to test the robustness of the results.

**Results:**

The sample consists of 1265 caregivers and 3010 non-caregivers. The average age was 62.6 and 67.7 for caregivers and non-caregivers, respectively. Nearly 60% of caregivers and 54% of the non-caregivers were female. After adjusting for confounders, it was found that while caregivers' costs associated with use of publicly funded services increased over time, caregiving had a negative impact on total costs in comparison to non-caregivers. Caregivers used the healthcare services less than non-caregivers. In the first year after caregiving this difference was 3% but not statistically significant. This, however, changed with time; the difference increased by 8% to 11% and became statistically significant.

**Discussion:**

Despite overwhelming self-reported evidence of caregivers' declining health and increased use of health services due to caregiving, we found that use of healthcare services increased by a lesser amount amongst caregivers than for non-caregivers. If caregivers' health has not similarly improved

relative to non-caregivers, this suggests that caregivers may not have time to ensure their own medical needs are addressed.

***Conclusions:***

Our findings suggest the need for careful consideration of caregivers and their needs when designing and implementing healthcare interventions such as integrated care models.

***Lessons learned:***

By providing an estimation of healthcare expenditure implications of caregiving, we offer an alternative method to be considered in economic evaluations of the healthcare system, evaluation studies, health economics, and caregiving studies.

***Limitations:***

The main limitation is that caregiver status and timing is based on survey self-report which could incorrectly classify the exposure and bias estimates of cost. Lack of specific data on caregiving characteristics (e.g. hours of care provided) could have introduced bias in our results.

***Future research:***

More research in different jurisdictions and on different caregiver populations are required to substantiate our findings.

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## CONFERENCE ABSTRACT

Integrated Rapid Discharge Planning for palliative patients and their families/carers when a patient expresses a wish to die in their home environment  
ICIC20 Virtual Conference – September 2020

Dorcas Collier, <sup>1</sup>, <sup>1</sup>

1: Caredoc, Carlow, Ireland

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Previously, the absence of a rapid integrated community healthcare service response, for patients/family and carers alike, prevented the opportunity to take home a loved one to care for them on their final journey at home. The Caredoc Community Intervention Team (CIT) service in collaboration with the HSE Specialist Palliative services have introduced a new discharge pathway to accommodate a rapid nursing supported discharge for patients in line with National Guidelines. The Caredoc CIT service, Hospital Specialist Palliative care services, Waterford Hospice Homecare Services, Patient's General Practitioner, and Community Pharmacist worked together to develop a holistic interdisciplinary care pathway to facilitate a rapid palliative patient discharge home.

This new pathway provides the mechanism for the patient to return home ensuring practice alignment and patient centred care between the hospital and community services. Central to the pathway is effective communication and planning between secondary and primary services.

The Caredoc CIT Integrated Rapid Discharge palliative pathway provides for the "safe, smooth and seamless transition of care from hospital to community for dying patients who wish to die at home rather than in a hospital or hospice".

This pathway results in the integration and collaboration between primary and secondary care while supporting the patient and their families at home.

The CIT provides the rapid discharge pathway to imminently dying patients in the Waterford area, over the age of 16 with an incurable illness, who wish to make a choice in relation to end of life care, including where to die.

Caredoc CIT initiated discussions with key stakeholders in May 2018 and following development and sign off, the pathway has been operational since February 2019.

The highlight of this integrated community services pathway is being able to respond rapidly to a patient's wish and choice to die at home. Caring for a loved one at home can be a highly distressing time but with the right care and support in place from CIT, families and carers fears about managing symptoms can be alleviated.

The individual services which have collaborated and integrated successfully through this pathway and continue to participate, nourish, foster and enhance the strong network and links that are now in place to support the patient and their families/carers.

This pathway can seamlessly be introduced into other regions.

With the introduction of this rapid pathway the opportunity to take home a loved one and to care for them on their final journey at home is now in place. The integrated services are now in a position to respond rapidly to a patient's expressed wish and choice to die at home where death is imminent. It was important to establish that existing services were unable to meet the requirement. Because of the nature of the challenge, key stakeholders engaged quickly. While families/carers were keen

to honour the wish of their dying relative to die at home, supporting their needs and expectations was identified to be equally as important. The patient/family/carer remained at the centre of care to develop this pathway.

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## CONFERENCE ABSTRACT

Integrating Care from Home to Hospital to Home: Development of Provincial Transition in Care Guidelines in Alberta, Canada

ICIC20 Virtual Conference – September 2020

Ceara Cunningham<sup>1,2</sup>, <sup>1,2</sup>

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4: University of Lethbridge, Lethbridge, AlbertaCanada

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### **Introduction**

Patients with complex, chronic diseases frequently have unmet care needs as they transition between hospital and home, and often return to hospital and emergency department (ED) due to post-discharge complications. Some evidence suggests readmissions and ED usage can be prevented with appropriate primary care follow-up and community supports. The objective of this initiative was to co-design transition in care guidelines, focusing on home to hospital to home transitions, in Alberta, Canada. The guidelines aim to integrate patients' transition journey and facilitate quality post-discharge follow-up in primary and community care, identified as critical for inclusion when designing solutions to optimize transitions.

### **Methods**

Over a one year period, the Primary Health Care Integration Network led a collaborative process with key stakeholders to design content for transition in care guidelines. We followed an iterative mixed-method approach where stakeholder's perspectives from one phase were used to inform the next phase, leading to consensus (i.e., state of agreement). Methods described for this initiative include: i) literature review ii) learning collaborative; iii) co-design collaborative, iv) patient advisor group, v) targeted online surveys, vi) stakeholder interviews, and vii) adapted modified Delphi panel.

### **Results**

A knowledge product containing best evidence was developed. The following components of a patients' transition from home to hospital to home include: Confirmation of the Primary Care Provider, Admit Notification, Discharge Planning Process, Referral and Access to Community Supports, Transition Care Plan, and Follow-up to Primary Care. The guidelines contain the activities of leading operational practice(s) including patient and family caregiver accountabilities, change management actions, potential benefits, and additional information to consider, as well as related tools and resources to support implementation.

### **Discussions and Conclusions**

Key findings include a shared care model for transitions designed by and for primary care and community healthcare providers with extensive input from stakeholders including specialists, patients, families, and caregivers. This work is the result of an integrated approach for trans-

disciplinary providers to collaborate and inform the design of a provincial standard for shared transition planning, and enhanced informational continuity across healthcare settings.

#### ***Lessons learned***

Stakeholders were provided multiple opportunities to share their expertise and co-design transition in care guidelines. Providing a shared space for traditionally divergent groups such as specialists, family physicians and patients to integrate shared care models and collaboratively work towards more feasible and efficient approaches to care, was identified as a critical enabler for this work.

#### ***Limitations***

Building consensus across a diverse group of stakeholders with varying perspectives is complex; there is no “one size fits all approach” to co-design, thus key stakeholders and contextual factors may differ across geographical settings.

#### ***Suggestions for future research***

The development of the guidelines brought stakeholders together in a collaborative process crossing geographic, professional, and organizational boundaries. Implementation strategies for delivery of integrated care initiatives, such as the guidelines, provide additional opportunities for research. It is critically important to explore various strategies when designing local solutions for local problems, a necessary condition if the system of care is going to realize the potential articulated by this initiative.



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## CONFERENCE ABSTRACT

Phase 2 of integrated care initiative aiming to improve management of paediatric asthma  
IJIC20 Virtual Conference – September 2020

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3: Rozelle Medical Centre, Sydney, NSW Australia

4: Central and Eastern Sydney Public Health Network, Sydney, NSW Australia

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### **Introduction:**

During December 2016-February 2018, Phase 1 of Asthma Follow Up Integrated Care Initiative was implemented at Sydney Children's Hospital (SCH) Randwick which included an integrated model of care coordinated by clinical care coordinators (CCs) for children who presented frequently to Emergency Department (ED) ( $\geq 4$  times in a 12-month period but no admissions) with asthma/viral induced wheeze (VIW). Phase 1 resulted in 60% reduction in ED presentations. In Phase 2 we tested if a similar model of care could be adopted for children (aged 2-16 years) who had severe asthma (presented to the ED  $\geq 4$  times and had  $\geq 1$  hospital admission in the preceding 12 months). Implementation of practice change: Through a series of iterative process, the integrated model of care developed for Phase 1 was modified by our multidisciplinary team of clinicians, nurses, GPs, managers, researchers, and consumer representatives and implemented in phase 2 of the integrated care initiative.

### **Aim:**

To reduce ED representations of eligible children by 50%.

Targeted population and stakeholders: Eligible children, their parents/carers and local health partners.

### **Timeline:**

July 2018-August 2019

### **Innovation:**

The CCs contacted all eligible children and coordinated the integrated model of care. The phase 1 component of the care coordination model included

1) Encouraging parents/carers to schedule a follow-up with child's general practitioner (GP) within 2-3 days post-discharge and providing a standardized asthma/VIW resource pack which included individualized Asthma Action Plan, Asthma Information pack and details of upcoming asthma education sessions.

2) Sending a letter to the child's GP advising of the child's recent hospital presentation. The letter contained asthma best practice points and advised to, encourage influenza vaccination, review asthma action plan and need for preventer medication, access asthma education/resources and refer to a paediatrician if necessary.

3) Additionally, to provide continuity of care, in phase 2, text message reminders were sent to parents reminding them to follow-up with GP and encouraging attendance to asthma education session and receipt of influenza vaccination.

***Impact:***

We analysed the data to compare the number of asthma ED presentations and inpatient admissions for the enrolled children 6 months pre and post-enrolment.

***Outcomes:***

Within 6 months post-implementation of phase 2, a total of 17 eligible children were enrolled. The median numbers of ED presentations in the 6 months pre-enrolment was 2 (IQR 2-3) and post-enrolment was 0 (IQR 0-1) leading to 100% reduction in ED presentation ( $z=-3.178$ ,  $p=0.001$ ). Similarly, the median number of hospital admission pre-enrolment was 1 (IQR 0-2) and post-enrolment was 0 (IQR 0-0) leading to a 90% reduction in hospital admissions ( $z=-2.887$ ,  $p=0.004$ ).

***Sustainability:***

The initiative has been adopted as routine clinical practice within SCH.

***Transferability:***

Our model of integrated care developed for frequent ED presenters was successfully implemented with modification for children with severe asthma.

***Conclusion:***

The preliminary data suggest, a comprehensive integrated approach to asthma management may reduce frequent admission and ED presentations in children.

***Lessons learned:***

Active involvement of a collaborative multidisciplinary team in the process of testing change can effectively implement quality improvement initiatives.

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## CONFERENCE ABSTRACT

Project "I Feel – Mental Hygiene and Emotional Literacy of Young People" – an example of intervention in the community

ICIC20 Virtual Conference – September 2020

Ivana Portolan Pajić, ,

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Project "I Feel – Mental Hygiene and Emotional Literacy of Young People" – an example of intervention in the community

### ***An introduction***

Since 2017, Zagreb City Office for Health and Civil Association "BoliMe" have been implementing a project on investing in youth mental health in secondary schools in the City of Zagreb. The entire project takes place in the school for two weeks and it is divided into three phases: 1. The implementation of the installation placed in the public space of the school; 2. An educational theater play "In My Head", which deals with the problem of anxiety and depression in young people; 3. A peer-education workshop.

Short description of practice change implemented

This project places mental health topics in an artistic context, which indirectly educates students about the importance of recognizing and managing with their own emotions. Because of this approach, students are more interested of involving in the project.

### ***Aim and theory of change***

The aim of the project is to promote the importance of investment in mental health, mental hygiene maintenance, to recognize emotions and get familiar with all forms of psychological first aid. Furthermore, the aim is to introduce high school students to the importance of mental health through dialogue and learning together with the support of educators, so that young people can more easily recognize their emotions and learn to deal with them.

### ***Targeted population and stakeholders***

The target population of the project are high school students in the City of Zagreb, both first and second grade students.

### ***Timeline***

The project started in the school year 2017-2018 and will be conducted in every secondary schools in the City of Zagreb during the next period.

### ***Highlights (innovation, impact and outcomes)***

The project model has made a huge step forward in the emotional literacy of young people due to the fact that mental disorders are still taboo.

### ***Comments on sustainability***

Project is focused on the importance, benefits, and long-term sustainability of the investment in programs aimed at developing social-emotional (SE) skills of young people. Upon completion of the project, each student gets an educational booklet, which, along with a text section dedicated to

mental health care, also contains contacts from all places in the City of Zagreb where they can turn for help.

***Comment on transferability***

Based on the results of the project which shows high level of interest among schools and students and successful media campaign, the project will be expanded to other cities in the Republic of Croatia.

***Conclusions (comprising key findings)***

The project seeks to foster dialogue among young people on the importance of caring for their mental health and to raise the level of awareness of the importance of investing in mental health through regular maintenance of mental hygiene.

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## CONFERENCE ABSTRACT

Quality Assessment of Personalized Action Plans in Andalusia: supporting the Chrodis-Plus integrated care model for multimorbidity  
ICIC20 Virtual Conference – September 2020

Ana M Carriazo, <sup>1</sup>, <sup>3</sup>

1: Andalusian Public Foundation of Progress and Health, Seville, Spain

2: Regional Ministry of Health and Families of Andalusia, Seville, Spain

3: Andalusian Health Service, Seville, Spain

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### **Introduction:**

A Complex Chronic Disease is a condition involving multiple morbidities that requires the attention of multiple health care providers and, therefore, consume multiple human and material resources. The Andalusian Public Health System is responsible for the provision of healthcare and public health services to the Andalusian population (8.5 million inhabitants), where around 250000 complex chronic patients (CCPs) have been identified (2018). Since 2016, Personalized Action Plans (PAPs) were introduced as key-elements to provide the needed holistic care. PAPs are written plans designed by multidisciplinary teams (family physicians, nurses, internists, case manager nurses, pharmacists, social workers, among others), and agreed with each patient or family/caregiver.

PAPs are based on a comprehensive assessment of key aspects of patient status (including targeting symptoms, functional ability, quality of life, among others) and their preferences (i.e. desired patient out-comes). PAPs incorporate information from different healthcare providers and levels, focusing on patient outcomes rather than disease-specific outcomes.

Within the participation in the EU Joint Action Chrodis-Plus ("Implementing good practices for chronic diseases", GA761307), a quality assessment of delivered PAPs will be carried out. The Andalusian pilot within the framework of Chrodis-Plus will assess the PAP implementation outcomes.

### **Method:**

The aim of the study is to perform a quality assessment (QA) of the PAPs delivered from December 2018 to February 2019 within the context of Chrodis-Plus. 2700 patients with PAPs have been included in the Andalusian pilot. A random sample of 350 anonymised PAPs have been selected for its QA, to be carried out in late 2019.

Main criteria for the PAPs assessment are:

- All the fields are filled up.
- Fields are filled according to the patient comprehensive assessment and in a friendly-language.

An initial 25 PAPs were peer-reviewed and deeply analysed by an expert panel to define specific scales to be applied in the study.

Results, Conclusions and Lessons learned will be presented during the conference.

It is expected that most PAPs are drafted in agreement to the patient comprehensive assessment, but with a high proportion of technical language and acronyms.

### **Discussions:**

QA is an issue of utmost interest for all healthcare systems allowing improvement of healthcare services performance as well as identifying opportunities and best practices.

There are two key documents for PAPs drafting (the “Integrated Care Process ‘Healthcare for Multimorbidity Patients’” and “Individualized care plans for patients with multimorbidity or with complex health needs. Recommendations for its drawing up”), aiming to ensure the standardization and quality of performed PAPs. In addition, training to professionals involved in the management and treatment of CCPs are provided on a regular basis.

However, to the date, no QA has been carried out to monitor the PAPs drafted within the framework of routine clinical practice.

***Limitations:***

Peer-review process was applied to initial 25 PAPs, but not to the total sample, which was reviewed by a trained researcher. Additional issues were considered by an expert panel.

Suggestions for future research:

Support CCPs consensus groups in further studies to verify the findings of this one.

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## CONFERENCE ABSTRACT

Scaling paediatric integrated care for chronic and medically complex children living in rural New South Wales, Australia

ICIC20 Virtual Conference – September 2020

Emma Dickins,<sup>1</sup>,<sup>1</sup>

1: Sydney Children's Hospitals Network, Sydney, NSW Australia

2: Southern NSW Local Health District, Bega, NSW, Australia

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Scaling paediatric integrated care for chronic and medically complex children living in rural New South Wales, Australia

### **Introduction**

In 2015, the Sydney Children's Hospitals Network (SCHN) implemented an integrated model of care for children in metropolitan Sydney that helped to: reduce presentations to Emergency Department (ED) by 40%; reduce day-only admissions to tertiary hospital by 42%; and improve the quality of care for paediatric patients. Given these successes, further work sought to effectively adapt, scale and spread this child-centred model of care across rural and remote New South Wales (NSW).

### **Aim**

To scale paediatric integrated care models to rural and remote NSW

Targeted population and stakeholders

This work targeted health districts outside of Sydney, with the southern part of NSW (SNSW) emerging as a key area for spread. In 2018, 700 children from SNSW attended over 2000 appointments at SCHN, with 200 of these children attending more than 4 appointments on average throughout the year.

### **Timeline**

July 2018 - ongoing

### **Innovation**

By adapting existing integrated care systems, co-designed with rural and remote stakeholders, a shared care model between SCHN and the rural health district was established. Keys to the successful spread of this model included;

Co-design and collaborate on patient centred-model of care

Early and frequent design workshops with multidisciplinary and multigeographical representatives. Site visits and video conferences for key stakeholders to foster shared understanding of both a) experiences of staff counterparts and b) experiences of rural children with medical complexity (CMC).

### **Appropriate resources**

The child-centred model is enabled by coordinators who work closely with all members of the care team and family to meet the child's needs. Dedicated rural paediatric care coordinator(s) at the site of spread is necessary for successful implementation amongst rural regions.

Clearly define operational detail

Smooth implementation of the model requires consideration of operational detail, including;

- Clear lines of communication, workflow and referral
- Description of roles and responsibilities of the rural CC, and how this role interacts with existing metropolitan CCs
- Development of shared care plan templates to improve communication and support decision-making

Promote and encourage local capacity

Support local capacity to provide safe, accessible, timely, sustainable and improved quality of care.

#### ***Impact and Outcomes***

This piece of work demonstrated the feasibility of adapting an integrated care model to optimise access to local care for children with complex health needs in rural and remote areas. The formal evaluation of this project will produce a strong business case and implementation plan to enable a rolling spread of this model throughout other rural and remote health districts in NSW.

#### ***Sustainability and Transferability***

There are opportunities to progress existing initiatives, extend into new clinical or geographical areas, and consider broader paediatric populations.

#### ***Conclusion***

A child-centred integrated care model can be spread and scaled across rural and remote areas of NSW.

#### ***Lessons learned***

Embedding referral criteria, model of care guidelines, and communication tools into everyday clinical systems supports consistency and reduces variability in practice.



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## CONFERENCE ABSTRACT

### Success Factors for more Prudent, Integrated Care Transformation ICIC20 Virtual Conference – September 2020

Helen Howson, <sup>1</sup>,

1: Bevan Commission, Swansea, United Kingdom

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#### Success Factors for more Prudent, Integrated Care Transformation

##### **Introduction**

Wales, like most developed countries, recognises the unsustainability and imprudence of its current health and care system which predominantly treats ill health rather than focusing on health and wellbeing and the wider social determinants. In order to understand the key challenges and solutions to implementing a more prudent approach to integrated care, the Bevan Commission, the leading health and care think tank in Wales, in partnership with IFIC and IBM Watson Health brought together people from policy and practice across Wales.

##### **Policy context and objective**

Whilst in Wales there have been some incremental changes and improvements across the NHS and wider care system, there is a growing recognition that small incremental changes to existing models of care are no longer viable to meet future health and care needs. The Bevan Commission set out the case for change based upon four Prudent healthcare principles. A Parliamentary Review into Health and Social Care in Wales (2018) reinforced these and called for 'revolution not evolution and a new system of care where change is significantly accelerated; unless faster, more widespread progress can be unlocked, access to and the quality of services will decline in the face of the predictable pressures'.

##### **Highlights**

Healthier Wales, 2018 coupled with the Prudent Health and Care Model was shared as the key context for the event and a number of Bevan Exemplar case presentations provided stimulus for a roundtable discussion from which the following consistent themes for successful integrated care service transformation emerged:

- key individuals with brave and courageous attitude in challenging the status quo and a tenacious approach to leadership;
- moving from traditional medical model to a social model of health;
- creating a team of colleagues to provide a support network and social movement for change including influencing the influencers;
- focusing on designing the future workforce aligned to new care model;
- empowering and engaging the passion and ideas of people – those who use the system and those who work in it - and giving them permission to act to deliver innovative approaches based upon their own experiences and expertise;
- a place-based approach underpinned by a 'readiness for change' assessment;
- a credible, independent agency to build competency, capability and provide cover should things go wrong.

### ***Transferability and conclusions***

The Prudent Health and Care Model principles are:

- Achieve health and wellbeing with the public, patients and professionals as equal partners through co-production.
- Care for those with the greatest health need first, making most effective use of skills and resources.
- Do only what is needed – no more, no less – and do no harm.
- Reduce inappropriate variation using evidence-based practices consistently and transparently.

These principles and Bevan Exemplar innovation programme were originally drawn up and implemented to provide a framework for radical NHS service re-design. It is clear that the principles and the Bevan Exemplar programme success factors, are equally transferrable when applied to social care and wider community support provision. This also recognises and reinforces a move towards a more psycho-social model of care in Wales and internationally.

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## CONFERENCE ABSTRACT

The C3-Cloud Approach to Clinical and Technical Co-production of a Multi-morbidity Integrated Care Information Technology Infrastructure.  
ICIC20 Virtual Conference – September 2020

Sarah Lim Choi Keung, <sup>1</sup>, <sup>2</sup>

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2: SRDC Software Research Development and Consultancy, Ankara, , Turkey

3: Medixine, , Finland

4: Inserm, Sorbonne University, University of Paris 13, LIMICS, Paris, France

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### **Introduction:**

The collaborative cure and care system (C3-Cloud), is a digital infrastructure offering integrated care capability for management of multi-morbidity. C3-Cloud is deployed in three pilot sites, in the UK, Spain and Sweden, integrating with their health systems. The C3-cloud pilots focus on management of congestive heart failure, diabetes, depression, and renal failure. The automatically generated personalized patient care plan is the concept at the heart of C3-Cloud, which offers an integrated view of the patient's conditions, measurements, medication and goals. Patients and the various healthcare professionals that constitute the Multi-Disciplinary Team (MDT) supporting the patients, can collaboratively review and edit the plan, further increasing its degree of personalisation. The care plan personalisation process is supported by a Clinical Decision Support (CDS) module, implementing over 500 rules, consolidating and reconciling multiple clinical practice guidelines.

### **Challenge:**

The technical implementation, clinical practice, and organisational structure go hand in hand and need to be evolved in the context of each other. The system needs to provide the necessary functionality for the pilot sites to deliver the envisioned healthcare service. Furthermore, the system needs to accommodate local organisational aspects such as roles, activities familiar to the patients, as well interoperability to existing and local EHR and GP systems. The organisational structure of pilot sites needs to adapt to effectively deploy and integrate the innovative functionality of the system into daily practice. Additionally, the system and the organisational structure, will need to be able to implement the pathway, customized for each pilot site, which represent best practice guidelines. This interdependency results into weaving of clinical, technical and organisational requirements, which need to be managed carefully. Furthermore, as the development of the integrated care model progresses, requirements evolve based on feedback of the stakeholders.

### **Method:**

C3-Cloud adopted a through-life co-production approach. From conceptual design to deployment, a well-defined process has allowed the validation and verification of the integrated care system offered, from a number of stakeholder perspectives. Clinical and technical reviewers, as well as potential users, continuously reviewed the validity of the resulting solution. A rigorous requirements

management process provided very detailed traceability, amongst local clinical scenarios, clinical practice guidelines, technical requirements, system implementation and testing.

***Discussion and Conclusions:***

C3-Cloud provides the care plan as a clinically appraised, integrated means of managing four conditions, each in the context of each other. The C3-Cloud co-production process enabled traceability of any part of the system to its clinical rationale and sufficiency of testing. The process resulted in 60 high level integrated care scenarios, over 80 use cases, over 350 functional and quality requirements, and over 500 rules, criteria and personalized goals, reconciled for the four conditions. The process allowed controlled evolution of the requirements and fine-tuning during deployment.

***Acknowledgements:***

C3-Cloud is funded from the EU Horizon 2020 research and innovation, under grant agreement No 6891810. This abstract is based on the work and material of the entire C3-Cloud consortium.

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## CONFERENCE ABSTRACT

The European Blueprint on Digital Transformation of Health and Care for the Ageing Society  
ICIC20 Virtual Conference – September 2020

Jess Vogt, <sup>1</sup>, <sup>1</sup>

1: Empirica, Bonn, Germany

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The European Blueprint on Digital Transformation of Health and Care for the Ageing Society, funded as part of the WE4AHA project under the European Commission's digital single market strategy, reflects a shared policy vision on how innovation can transform health and care provision in our ageing society. The Blueprint has centred its work on 12 personas, which were developed to enable the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) to envision realistic health and care needs of particular groups in society. The concept of "personas" was initially used by technology providers to enable the design of user-friendly solutions based on a deeper understanding of how a target user will interact with particular technologies. The Blueprint furthered this concept by developing an approach that encompasses the perspective of different actors, beginning with the perspective of the citizen or patient rather than the industry representatives. The resulting persona profiles include not only their health and care needs at their particular life stage, but also their personal aspects such as family, interests and hobbies, and daily living, as well as behavioural characteristics, which have been found to affect both short- and long-term success with interventions directed toward managing a disease or adopting wellness. The Blueprint personas have already been successfully used by various stakeholders to foster collaboration, assess or inform new solution development, and identify health and care topics that require further stimulus.

Building upon the personas, Blueprint scenarios have also been developed to provide more detail on the perspectives of other "key actors" that are instrumental to better person-centred, integrated health and care delivery and empowered lifestyle management for the persona. The scenarios therefore recognise the importance of the wider health and care delivery ecosystem by taking into account (1) the needs of doctors, nurses, social carers, public health authorities, and other care providers, among others; (2) available best practices and ICT solutions that target the personas' identified needs and support all key actors (including the persona); (3) the relevant interactions (personas with ICT solutions, personas with key actors, key actors with ICT solutions, ICT solutions with other ICT solutions) that can support or improve the scenario outcomes; and other enablers such as data and information flow management and interoperability.

Overall the Blueprint scenarios aim to illustrate how to enable the advancement of person-centred, integrated health and care delivery by describing the digital health technologies that target realistic, current needs of different population groups, and the outcomes that have a high impact on citizens and the health and care system. These are complemented by guidance documents on essential topics such as ensuring interoperability, carers and implementing integrated care. The result are recommendations and action points that are helping to shape the European Commission's policy and innovation activities regarding active and healthy ageing.



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## CONFERENCE ABSTRACT

The impact of PHC location (urban vs. rural) on uptake of prophylactic health services in Primary Health Care PLUS project in Poland  
ICIC20 Virtual Conference – September 2020

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### ***An introduction***

The National Health Fund (NHF) is the sole public payer accountable for securing access to health care services throughout Poland. To change the healthcare system in future the NHF leads a pilot project titled "Primary Health Care PLUS" aiming in the implementation of the care model focused on primary health care and based on coordinated and preventive activities relevant to needs of well informed and cooperating patients. The project is financed by the European Social Fund within Priority Axis V "Support for the health area" action 5.2. 42 primary health care sites (PHC) located in rural or urban areas participate in the project, involving about 1100 medical staff. The timeframe is 1 Jul 2018 - 31 Dec 2021.

### ***Description of policy context and objective***

Present system is focused on inpatient care. Most of patients are passive and poorly informed. The aim of the project is to implement patient-focused healthcare and make primary health care proactive and preventive, based on planning, continuous and driven by family medicine teams. Patients are expected to be active, self-monitoring and well informed. Partnership between health professionals and patients is a key goal.

### ***Targeted population***

Health check-ups are designed for patients of age 20-65, with no history of healthcare services provided for in last 12 months. 6 small (less than 5,000 beneficiaries) rural centres and 4 large (more than 10,000 beneficiaries) urban ones were chosen. Small centres had together 6745 eligible patients [range 594-2162] and were contracted to perform at least 1322 of health check-ups [64-448]. Large centres had jointly 37669 eligible patients [7870-10778] and declared 9435 health risk assessments [2025-2649].

### ***Highlights***

The actual number of health check-ups performed by all small centres after 10 months was 1830 (138%) [32-1102; 50%-246%] vs. 1745 (18.4%) performed in large centres [32-915; 1.2%-45.18%]. Check-ups could be performed as basic or in-depth ones: small centres performed 585 [12-353] basic ones and 1245 [20-749] in-depth check-ups. Large centres performed jointly 250 [20-165] basic check-ups and 1495 [1-750] in-depth ones.

### ***Comments on transferability***

The small centres perform more prophylactic services in comparison with large centres. This might indicate that health status of rural population is influenced by difficult access to health care; this and other possible factors such as education level, distance from doctor's site etc. require further investigation within the project.

### ***Conclusions***

Health check-ups were performed more effectively small, rural centres in relation to large centres located in big cities. This confirms the preliminary hypothesis of filling the gap in access to health services by patients in rural areas, and leads to the conclusion that the changes in organisation of healthcare should be implemented in entire Poland, resulting potentially in improvement in health of population and significant reduction of system costs.



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## CONFERENCE ABSTRACT

### THE ROLE OF THE PATRONAGE NURSE IN CARE FOR THE HOMELESS ICIC20 Virtual Conference – September 2020

Vanda Cattonaro<sup>1</sup>, ,

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### THE ROLE OF THE PATRONAGE NURSE IN CARE FOR THE HOMELESS

#### **Introduction:**

Homelessness, as an extreme form of poverty, is associated with an increased risk for ill-health. Furthermore, homeless often lack access to appropriate healthcare, which is an additional risk factor for poor health outcomes. The aim of this paper is to present the role of patronage nursing service in the care for the homeless and collaboration with the shelter "Ruže sv. Franje" in Rijeka. Short description of practice change implemented:

Comprehensive nursing interventions were implemented to meet the needs of the homeless.

#### **Aim and theory of change:**

Collaboration with the shelter started as a result of recognized need for making healthcare services available and bringing them closer to the homeless, with the main goal of improving health outcomes of residents in the shelter. Adapting services to the needs of the homeless was set as immediate outcome, based on the assumption that providing flexible and personalized care will offer supportive healthcare environment in which homeless will feel welcome and encouraged to develop positive health behaviors. To achieve desired outcomes, care plan was developed which includes individualized approach, frequent visits to the shelter, shelter staff-requested specific interventions, chronic disease management, individual consultations without time limitation, integration of other services.

#### **Targeted population and stakeholders:**

Target population are residents in the homeless shelter "Ruže sv. Franje". Interventions are carried out by patronage nurses in cooperation with the shelter staff and other parties involved in the care for homeless.

#### **Timeline:**

New interventions were introduced in September 2019 and should be implemented permanently, if they prove effective.

#### **Highlights:**

Compared to the previous occasional visits to the shelter which comprised brief group-level health checks only, new interventions offer a much broader range of care and individualized approach. Since changes were implemented only few months ago it is too early to evaluate the outcomes, but it was noticed that the residents are receptive to change, disease management is somewhat better and shelter staff are pleased with the quality of care.

#### **Comments on sustainability:**

Interventions don't require any additional financial investment, only time and effort which are supported by employer.

***Comments on transferability:***

Interventions can easily be implemented by patronage nurses who work in systems with similar model of patronage service.

***Conclusions:***

The homeless are a vulnerable group that needs support in maintaining health and accessing healthcare services. To improve health outcomes, it is necessary to integrate services and bring them closer to the homeless.

***Discussions:***

Implemented changes were built upon existing evidence which suggest that homeless people have high risk of chronic conditions that are often poorly controlled, respond better to flexible outreach services, and need coordination in various aspects of care.

***Lessons learned:***

1. Patronage service is probably the only part of the strained healthcare system that can invest enough time and effort to provide comprehensive care for the homeless.
2. Homeless often perceive their health better than it really is and are not inclined to seek medical advice. It is important to build a relationship of trust and respect to stimulate positive health behaviors.

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## CONFERENCE ABSTRACT

Thoughts and feelings about quality of care and support: the perspective of relatives of people with visual and intellectual disabilities.

ICIC20 Virtual Conference – September 2020

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Thoughts and feelings about quality of care and support: the perspective of relatives of people with visual and intellectual disabilities.

### **Introduction.**

In the care for people with intellectual disabilities in the Netherlands there is a growing emphasis on the importance of the relationship with relatives and their involvement in care. They may be an important voice with regard to the uniqueness and life history of a person with intellectual disabilities, and subsequently concerning aspects needed to provide a high quality of care and life. However, commonly used models on quality of life and quality of care have been developed by researchers and/or care professionals. In this study, we aimed to explore the relatives' view regarding the quality of care and support for people with visual and intellectual disabilities (VID) and whether these views are linked to concepts of quality of life (e.g., of Schalock & Verdugo) and quality of care (e.g., of Donabedian).

### **Methods.**

We performed twelve semi-structural, in-depth interviews with relatives of people with VID living in a group-homes of a specialized care organization. We made use of visual representations and the laddering technique to elicit respondents' metaphors, constructs and emotions associated with quality of care and support.

### **Results.**

Analysis revealed seven overarching aspects of high quality of care and support based on the visual representations and stories of relatives: 1) 'Know' the person with VID; 2) Be partners in care; 3) Provide support from the heart; 4) Provide safety for the person with VID; 5) Provide a 'home' for the person with VID; 6) Provide opportunities for development; and 7) Continuity in care is a basis.

### **Discussion.**

There are clear linkages between the views of relatives of people with ID and concepts of quality of care and quality of life. These concepts seem closely connected and are intertwined present in the relatives' thoughts and feelings. The relatives' view on partnership between care professionals and relatives is based on the level of mutual trust and is most visible at key moments when good care and support is either present or lacking.

### **Conclusion.**

Involvement in the provided care and support is important for relatives of people with VID and deserves special attention from care organizations and professionals.

Lessons learned.

Relatives are important people in the life of people with VID with an unique perspective on good care and support, which may be essential for care professionals to capture in order to provide the best possible care and attain the highest possible quality of life.

***Limitations.***

These results are limited to a specific population of people with VID. We do not know whether it can be generalized to, for example, people with VID living with less support in the community or people with other comorbid disabilities.

***Suggestions for future research.***

We suggest a comprehensive comparative study of the perceptions of important care professionals, people with VID and their relatives about high quality of care and support.

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## CONFERENCE ABSTRACT

Towards a systematic identification of people with social complex needs: a pilot study on the use of the self-sufficiency matrix

ICIC20 Virtual Conference – September 2020

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### **Background:**

Integrated care has become a central part of policy initiatives to enhance the sustainability and affordability of their care system (1). Within those efforts people with “complex cases”, are often the main focus. The identification of complexity in healthcare has been developed over the last decade. However, it remains much less developed within social services. We present the results of a pilot effort carried out in Catalonia (Spain) to build a systematic identification of complex cases in social services.

### **Methods:**

The hypothesis was that the identification of complexity could emerge from the self-sufficiency matrix, in its Catalan (SSM-CAT) and Spanish (SSM-ES) adaptations, an observational screening tool that provides a reliable assessment of the self-sufficiency on thirteen life domains (4): Finance, Work & education, Housing, Domestic relations, Mental health, Physical health, Substance use, Activities of Daily Living, Social Network, Community participation and Law & order.

The pilot was carried out in Catalonia between November 2018 and January 2019, focused on identifying complexity of social care needs for people over 65 years old.

Sample selection: Professionals of 8 social care areas and 2 health care areas, based on purposive sample. The inclusion criteria for assessed persons were to be over 18 and a case known by professionals.

Assessment: Professionals' assessment with SSM-CAT and on the complexity of social needs.

Analysis: SPSS statistics software for all analyses. The analysis was based on a binary logistic regression.

### **Results:**

111 social care professionals participated assessing 912 people. 60% of assessed people were considered to have complex needs (including 17% very complex needs). By age, of those under 65 (425) 68.8% had very complex needs, compared to 51.5 % for those equal or over 65 (487).

We analysed the link between the profiles of self-sufficiency and professional perceived complexity among those people over 65 years old, building a predictive model, which had a positive predictive value of 76,6%.

### **Discussion:**

Compared to other potential predictors of complexity, such as the summed total score of the SSM-CAT (a measure of overall self-sufficiency) or the number of SSM-CAT domains with a low score (a measure of multi-problem situation) the SSM-CAT predicted complexity model was a more accurate measure. This indicates that some life domains have more impact on the assessment of complexity than others.

***Conclusions:***

SSM-CAT (and ES) score profiles are associated with perceived complexity of social care needs.

***Lessons learned:***

SSM-CAT has the potential to standardize professional assessment, support their decisions and improve communication across different care teams. Ultimately facilitating matching each person to the adequate care.

***Limitations:***

SSM-CAT was scored by the same professional that assessed complexity, scoring could have been influenced by this.

***Suggestions for future research:***

SSM has been proven useful to support social care professionals in their professional assessments in Catalonia and specific referral decisions in the Netherlands(5). It's worth exploring further uses of SSM in decision support and as a communication tool across care teams. SSM-CAT and its algorithms will be further developed in the upcoming years in Catalonia.

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CONFERENCE ABSTRACTValue-based integrated care for people with multi-morbidity  
IJIC20 Virtual Conference – September 2020Maureen Rutten-van Molken, <sup>1</sup>,1: Erasmus University Rotterdam, Erasmus School Of Health Policy And Management, Rotterdam,  
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**Introduction:**

Person-centered integrated care for people with complex needs due to multi-morbidity is subjected to evidence-based decision making, like many other interventions that require additional resources. Payers and policy makers ask for evidence of the added value to guide resource allocation. They commonly define value in terms of health outcomes or cost-effectiveness, where the latter often refers to the 'costs per quality adjusted life year'. However, the impact of person-centered integrated care for people with complex needs extends beyond health outcomes and includes the improvement of well-being and experience with care.

**Methods:**

For this reason we have adopted a broader, more inclusive method of evaluation for the 17 different integrated care programs for people with multi-morbidity, that were studied in the four-year Horizon2020 project SELFIE. The method is called Multi-Criteria Decision Analysis (MCDA). In an MCDA, a broad set of outcomes is not only measured, but also valued on the same latent utility scale, which allows the results to be aggregated into an overall weighted value score. In the SELFIE project we measured a core set of 8 outcome measures and some additional program-specific outcome measures in quasi-experimental studies which compared integrated care to usual care. Besides the health outcomes 'physical functioning' and 'mental health', the core set included the well-being outcomes 'enjoyment of life', 'social relationship and participation', and 'resilience', the experience outcomes 'person-centeredness' and 'continuity of care', and 'total costs'. The relative value of these outcomes was obtained using Discrete Choice Experiments and Swing-Weighting in a total sample of more than 5100 patients with multi-morbidity and other stakeholders from the following eight European countries: AT, DE, ES, HR, HU, NL, NO, UK.

**Results:**

Across the 17 programs, we generally found higher overall value scores for integrated care than for usual care, although the differences were small. These differences were often driven by improvements in the outcome 'enjoyment of life', which had the highest value. Eight programs showed statistically significant improvements in 'person-centeredness' and/or 'continuity of care', but the value of especially that first outcome measure was relatively low compared to the other outcome measures. Some programs even generated net cost savings. In the presentation, the full MCDA results of one or more of the programs, including the 'Better Together in Amsterdam North' program, which is a program for people with problems in multiple life domains (e.g. health, financial, labor, housing), will be shown.

**Conclusion:**

We have shown that it is possible to perform a broader health technology assessment (HTA) of integrated care for multi-morbidity using MCDA and provided evidence that improvements in well-being outcomes and experience with care outcomes contribute to higher overall value scores for integrated care than usual care.

***Discussion:***

The duration of follow-up after the start of a program was relatively short (12 months max), and some control groups were more comparable to the intervention groups than others, despite the use of advanced statistical techniques to improve comparability. Nevertheless, it is this type of evidence that we need to provide to ensure value-based integrated care.



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