282. A Population Health Approach: Addressing equity and social determinants of health in Canadian healthcare

INTRODUCTION: Currently, there is limited knowledge about operationally feasible strategies that help link the provision of integrated care with the population health approach\textsuperscript{1,2}. The scope of integrated care needs to be expanded to bridge the gaps not only within the health system, but also between public health, health care and social care\textsuperscript{1,3}. This broader focus for integrated health care would enable health systems to address the social determinants of health (SDOH) of populations\textsuperscript{4}. Using results from an ongoing multi-case study investigating implementation of population health approach in Canada and abroad, we will present an analysis of strategies used by select Canadian primary care and specialty care organizations that have taken on the population health approach and link the provision of integrated care, and successfully tackle issues of inequity and the SDOHs.

METHODS: In this multi-case study we use field visits, interviews, document analysis and other resources to identify key strategies, barriers and enablers to implementation of the population health approach. Population health experts and health planners nominated potential cases that were then assessed against the criteria that identify population health systems. Integrated knowledge translation has been incorporated to link knowledge users and academic researchers throughout the study. The study draws on the expanded chronic care model, socio-ecological model and equity lenses.

EXPECTED RESULTS: The study will identify and provide evidence about the effectiveness of specific strategies, including creative approaches and innovations that help routinely screen for the SDOHs and integrate social supports into delivery of care. We will map out strategic partnerships and inter-sectoral collaborations designed to support integrated delivery of health promotion and disease prevention, health care services and social care.

DISCUSSION/CONCLUSION: This study will contribute to the knowledge about the planning and implementation of population-based integrated systems of care that successfully address a range of SDOH. Findings may help inform relevant policy and strategy and are directly relevant to ICIC 2018 theme "Population Health Management", sub-themes: Tackling inequalities and the social determinants of health, Improving population health outcomes and Strategy development, partnerships & leadership.

POTENTIAL SUGGESTIONS FOR FUTURE RESEARCH: As the population health approach is adopted across the continuum of care, future research needs to facilitate the spread and scale up of integrated care in the context of population health.

REFERENCES:
3. Trinity M, Dyer MB. Integrating Health Care and Social Services: Moving from Concept to Practice.; 2016.

532. Virtual Heart Failure Clinic - An Integrated Care Programme Support for General Practice

Introduction: Heart Failure is a serious chronic disease affecting 2% of the population in Ireland, with high hospitalisation rates. National policy “Sláinte Care” directs that care in Ireland should be shifted to Primary Care. The Integrated Care Programme Model of Care addresses heart failure by improving diagnosis and enabling General Practitioners to manage patients in the community, with ready access to specialist medical support.

Virtual Clinics: A pilot project was set up in 2016 which enables General Practitioners to discuss their heart failure cases, which they would otherwise be referring to hospital, with the Heart Failure Specialist and with a GP group via video link. A Clinical Nurse Specialist helps General Practitioners to identify heart failure patients. Necessary diagnostic testing i.e. BNP testing and referring for echocardiography if appropriate is carried out using standard pathways. The other GPs participate in the discussion and avail of the learning opportunity.

Aim: The Clinic aims to build General Practitioners confidence in a diagnosis and management of heart failure.

Population and Stakeholders: Previous audits identify that heart failure is not well proactively managed in primary care in Ireland and in many cases are presenting episodically at acute care services. The stakeholders are the GPs with the community nurse specialists and the Heart Failure Specialist. The pilot study commenced at the end of 2016 and patients commenced to be seen in 2017.

Highlights:
72 virtual clinics held to date and 270 patients reviewed, coming from 50 General Practitioners.
80% of patients NOT referred on to hospital following the clinic which would have otherwise been referred.
30% of these were avoided admissions and 50% were avoided OPD appointments.
Knowledge transfer – 94% of GPs said they were now better able to manage heart failure.
76% of GPs said their confidence in diagnosis had improved.
14834 kms of travel avoided for patients.

Sustainability and Transferability: Clinicians in the area have received this new service well, and are eager to extend its coverage. The hospital service costs are being met ongoing and there are plans for expansion, as this is seen to be a cost saving initiative. Payments for General Practitioners for extension of this service are being considered under the new GP Contract nationally.
Conclusions and Discussion: Significant numbers of patients who were referred to the virtual clinical are not referred to specialist outpatients and admitted which would otherwise be the case. Given long waiting times this is a clinical service improvement for patients and a cost saving measure. Qualitative results from GP interviews show promising increases in confidence by General Practitioners in managing heart failure in the community. The transferability of the service depends on adequate funding being made available in other areas and on heart failure specialist champions being prepared to develop this clinic with GP colleagues.

Lessons Learned: Innovative clinically led pilot programmes for integrating care are successful in improving clinical care for patients and can provide cost saving solutions.

316. Capabilities of older people in adjusting to frailty

Introduction: External factors influence older people’s changes to successfully age in place, as do intrapersonal factors, which allow people to adjust to changes in daily life. Although research on active and healthy ageing has shown the importance of a multidisciplinary perspective, less thought has been given to the direct environment an ageing person spends his time in. Additionally, research about psychosocial experiences has mainly focused on frailty as a physical concept without taking the subjective perspective into account. Research was seldom directed at the older people as care receivers, but at the perspective of formal care. Consequently, this study starts where others ended, namely in addressing home-dwelling older people themselves, by examining how they cope with current and future frailty.

Methods: The technique of focus group interviews (N=137 older people) was used and data was collected through a semi-structured questionnaire on place and care. The transcripts were thematically and narratively analysed by an iterative coding process based on the coping model of Dunér & Nordstrom (2) and the conceptualisation of frailty by De Witte et al. (1).

Results: Our analysis identified an additional managing style of ‘rejective managing’ next to the three styles suggested by Dunér & Nordström (2): 1) active, 2) adaptive, and 3) passive. As the way older people act on their changing situations can be defined on their degree of dependency and their degree of activeness, the study unfolds that both dimensions are not necessarily correlated with what was stated by Dunér and Nordström (2), as rejective older people are independent and do not act.

Discussion: Managing styles and frailty dimensions become dynamic as managing one dimension of frailty leads to managing other dimensions (i.e. spillover effect), and as active managing enables even more activeness (i.e. amplifying effect). Moreover, the need for care and support of older people varies according to frailty and managing styles.

Conclusion: The study identifies subjective factors influencing the relationship between the individual and the environment. How people act on frailty underpins not only the ability to manage specific changes but also depicts the intertwining relation between the different dimensions of frailty.
Lessons learned

- Definition of management capabilities
- Identification of managing styles
- Introduction of an empowering perspective in frailty literature; and
- Creation of a tool to guide policy and practice in empowering frail people.

Limitations: The narratives were approached in a positive way, which could enable emphasising a more active managing style rather than rejecting managing. Additionally, ‘categorisation’ neglects the interchangeability between the person and the environment.

Suggestions for future research: A longitudinal multilevel study is suggested to get a comprehensive understanding of the dynamic process between managing styles and multi-dimensional frailty, as is repeating the study in other environments to assess and compare contexts.

References:

208. The role of peer support in mental health care

Together with the evolution of recovery-oriented mental health care, there is an increasing interest to include peer support. Although peer workers are already part of the daily practice, many questions remain unanswered.

This study aims to answer the following questions: (1) How is peer support in mental health care organised at micro-level in Flanders and which interventions are useful and acceptable according to healthcare providers? (2) How can peer workers be integrated in the multidisciplinary teams of the psychiatric hospitalization wards at micro-level?

The research protocol consisted of a mixed methodology, combining both quantitative and qualitative research, and was approved by the ethical review committee of the reference hospital. To provide quantitative results about which kind of activities are useful for peer support, a questionnaire was completed by 98 healthcare providers from three psychiatric hospitals in Flanders. The questionnaire was based on concepts of recovery-oriented models and contained 29 activities. Descriptive statistics was used for data analysis.

Qualitative data on the current role of the peer workers were provided via semi-structured interviews with twelve head nurses of three psychiatric hospitals. The data were transcribed and inductive analysed via thematic analysis.

Sharing their experience was found to be the most useful activity of the peer workers (74% of the respondents). In addition, activities that contribute to a better coping, self-image and social integration, listening to psychological problems and discussing the patient’s psychological condition were perceived as useful.

Currently, peer support is used within the whole hospital, with peer workers not being linked to a specific ward and no one keeping track of their workload. During group sessions patients talk about their
problems and ask questions to the peer workers. In addition to providing information and advice, peer workers teach the module ‘recovery’ to patients. Hence, they are not part of the multidisciplinary team but are assigned an advisory role outside the team. On the other hand, the liaison between the healthcare worker and the patient was found to improve via peer support. None of the 29 activities was found acceptable and useful by more than 75% of the respondents, suggesting some resistance towards peer support from healthcare providers. The practical implementation of peer support in the hospital raises questions on workload of the peer workers.

In daily practice peer support is mainly employed during group sessions where patients talk about their problems and ask questions to the peer workers. Sharing their experience is perceived as the most acceptable and useful activity, but the peer worker can also have a role in activities that support coping, self-image and social integration.

Based on these results, it is recommended that a peer worker is assigned to each hospitalization ward, with a specific defined role and in consultation with all partners involved. Future studies could include additional activities as well as argumentation why a certain activity is assigned acceptable and useful or not. The role of peer support in individual sessions as well as an advisory role could also be investigated in the future.

558. Research Master in Population Health Management: work in progress

Background: Costs of health care are rising, we enter the era of multimorbidity and the patient experiences are more important. With the ageing of the population and increased medical and technical possibilities forecasts show that resources for health care are running out if we organise health care in the fragmented manner the way we used to. What could be a possible solution?

One of the solutions is a paradigm shift from volume to value. To prepare the future health care professionals with knowledge and skills for this paradigm shift we develop a new master program course on PHM at the Leiden University Medical School Campus The Hague.

We distinguish four kinds of activities in PHM that will be studied in the new master program.

First: PHM can be seen as the scientific and practical endeavor to combine principles of clinical epidemiology, biostatistics and public health. Through enhanced data analysis we make predictive models for adverse outcomes. Based on individual risks on outcomes we identify subpopulations with a similar risk profile and offer proactively interventions to these subpopulations.

The second part consists of choosing the right intervention. In PHM we distinguish two sets of interventions. First, interventions that address the experience of care of individuals in the population. Second, interventions that address the care gaps in relation to the best practices. Process redesign and panelmanagement are the best known interventions.

The third part of PHM is on organization and governance: In order to implement this kind of health care in a population, new organizational entities request new forms of collaboration, governance and financing.

The last part consists of the research methodology needed to analyse and evaluate the process and outcomes of this interdisciplinary approach.
Through a combination of online education and intensive classroom weeks in the city of The Hague this master program will be eligible for graduates and post graduates from all around the world.

**Aims/objectives:** In this workshop we would like to discuss with the participants:
- The content of this new master program.
- Various employment possibilities
- Collaboration opportunities with other educational and research initiatives.

**Format:** During this workshop we start with a brief introduction of about 20 minutes explaining the background and curriculum of this master program.

In 2 rounds of 20 minutes, we discuss in small groups the content of this program. Participants are asked to value the various parts and come up with suggestions for the various topics.

Subsequently, in 2 rounds of 20 minutes we discuss
1. the potential collaboration with future employer
2. the collaboration opportunities with other initiatives.

**Learnings:** After this workshop participants have an understanding of this new master program and the collaboration possibilities for future employers and educational institutions.

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### 347. Co-designing a framework for integrated home care planning with older adults, family caregivers and health care providers

**Background:** Older persons want to remain in their own homes as long as possible, making home care services essential for maintaining independence, completing daily activities and delaying entry into institutional care (1). While home care has the potential to improve health and well-being and reduce health care costs, provision of these services to the geriatric population is complicated by complex, multi-morbid health issues requiring care from a range of providers who work in isolation of each other. Improved integration from planning through delivery is a key priority for Canadian home care (2).

**Aims:** This study aimed to develop an implementation framework for an integrated geriatric care planning approach in home care. Key objectives were to: a) investigate current geriatric assessment practices; b) collect ideas for improving person- and family-centred goal setting; and c) co-design solutions for more integrated geriatric care planning with older adults, family caregivers and health care providers.

**Methods:** This study applied a sequential transformative mixed methods design (3). Quantitative data were collected through a web-based survey that was developed with and delivered to frontline home health care nurses, occupational therapists and physiotherapists (n=303). Qualitative data were collected in-person through solutions-focused key informant interviews with older adults and family caregivers (n=24). Statistical and thematic analysis of the data was iterative and ongoing. Survey and interview data were brought together during the interpretation phase, where older adults, family caregivers, and health care providers (n=19) were engaged in a workshop to co-design solutions for more integrated geriatric home care planning.
Results: An implementation framework for integrated geriatric care planning in home care was developed. Components of the framework include: a) common clinical and non-clinical information needed by everyone involved; b) key touch points and actions for achieving the integrated care planning experience everyone involved wants; and c) nine ideas for tools and technology to support integrated data collection, goal-setting and communication.

Conclusions: Older adults, family caregivers and health care providers have both common and unique needs for sharing and receiving information to support planning care in the home. Home care planning should begin with a holistic baseline understanding of an individual person that prioritizes and applies information on personal background, goals, needs and preferences in seeking to understand individuals’ health challenges and plan for their care.

Limitations: This study was conducted in a single region within Ontario, Canada.

Suggestions for Future Research: Next steps for this research include additional co-design workshops in other regions, to develop prototypes of these new processes and tools for integrated geriatric care planning to be pilot tested in home care practice.

References:

394. Developing new pathways to Health and Social Care for vulnerable clients in targeted Primary Schools in Sydney, Australia

Introduction: Healthy Homes and Neighbourhoods (HHAN) is an integrated care program that supports families in inner west Sydney where adults have complex health and social needs, often impacting on the parent’s ability to provide a safe and supportive environment for their children. HHAN provides care coordination and activities that promote inter- and intra-agency integration. Referral pathways from local schools are targeted in one suburb with significant family disadvantage.

Practice change implemented: Following a service provider consultation with schools and other agencies to identify community barriers and enablers, the HHAN social worker established a preferred pathway relationship with target schools. This prioritised clinical pathway featured service delivery of long term care coordination, whole of family focus, flexible home and community visits, fast track Paediatric outreach clinic and consistent collaboration with the schools.

Aim and theory of change: To establish new service partnerships that facilitate whole-of-family access to health and social services and result in improved outcomes for families with complex needs who are disconnected from key services.
Targeted population and stakeholders: Children and families with complex health and social needs who attend either of two public primary schools in a suburb of significant family disadvantage are targeted in this initiative. Important stakeholders who need to be engaged to ensure success of the pathway include school staff, health service staff, local social service providers, and the broader community.

Timeline: Stakeholder engagement commenced in October 2015 and is ongoing. The referral pathway commenced in late 2015.

Highlights: This is a unique care coordination pathway linking professionals from the health, social and education sectors to provide whole-of-family care to families with complex needs. Data from Patient Reported Outcome Measures provide a baseline description of the issues that families are facing. Independent qualitative interviews conducted with referred families have shown that the intervention enabled the families to make improvements in their access to services and health and wellbeing outcomes. Trust between service providers, particularly education and healthcare providers, has developed over time.

Sustainability: HHAN is a permanently funded program and the pathways established enable health and other community partners to better “join up” and access this target group.

Transferability: Other community agencies are exploring similar models where education and social care services are partnered. Key lessons from the evaluation of this pathway could be applied to other models.

Conclusion: Qualitative and quantitative data collected demonstrate improvements in families’ health experience, independence and quality of life following referral to HHAN care coordination via this pathway.

Discussion: Establishing this pathway successfully has challenged partners to develop a new model using creative, non-standard methods of intervention. The families seen have multiple complex needs and face many barriers to care. The qualitative findings and case studies indicate the importance of integrated care initiatives such as HHAN.

Lessons Learned: The establishment of this pathway has created a bridge between Health and Department of Education leaders and the broader service system to assist vulnerable families. Enabling systems now exist which encourage ongoing integration and communication between professionals.

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499. Assessing Factors that Influence the Implementation of Technologies Enabling Integrated Care Delivery for Older Adults with Complex Needs: A Systematic Review

Introduction: There are currently multiple integrated care (IC) models and pilots developed to enhance collaborative care delivery for older adults living with complex health and social needs. Technology innovations are increasingly embedded in the delivery of IC for this population. These include, electronically-delivered: information communication, shared-care planning, early risk identification, decision support, self-management support and remote monitoring. However, at various stages of implementation, there are common setbacks that influence the adoption and spread of these technologies and overall IC delivery.
The objective of this systematic review is to examine the following questions: 1) Across different implementation stages of IC for older adults with complex needs, what are the key enablers of technology adoption; 2) how do these factors interact to influence successful technology adoption across various levels of IC including at the: individual, provider, team, organizational and across care settings.

**Theory/Methods:** A detailed search strategy was developed, and conducted in following databases: Medline/PubMed, EMBASE, PsychINFO, CINAHL and Scopus. When articles described barriers or challenges that emerged from the implementation of technology in IC, they were systematically recorded. Following a multilevel thematic analysis, these statements were mapped against a combination of two frameworks:

1. the Consolidating Framework for Research Implementation (CFIR);
2. the Fit between Individuals Task and Technology framework (FITT)

**Results:** Preliminary results of this systematic review found that technologies were predominantly implemented to enhance integration at the provider-level, followed by at the organizational level. The most frequently reported influencers of adoption were related to the providers’ knowledge and perceptions of the technology, and how it impacted their ability to perform their responsibilities. This was followed by the technology characteristics; particularly its seamlessness or disruptiveness to the existing systems of work. As well as how adaptive and responsive the technology was to the goals and needs of the: older adults, providers, organization and the system. Factors such as organizational and system leadership, environmental culture and the ability to engage key players in the co-design and implementation of technologies were also key influencers.

**Conclusions (key findings):** These early findings highlight the need to tailor technological innovations to the IC setting, as well as the importance of considering change management strategies to enhance the system readiness and responsiveness to change. Supporting stakeholders before and during the processes of implementing IC technologies will increase their effectiveness in being flexible and adaptive to system changes.

**Limitations:** The results presented are based on preliminary findings, however, an extensive systematic review is underway. A significant limitation is that the review did not deeply examine older adult and caregiver factors that could influence the implementation of technology in IC. A comprehensive systematic review and qualitative analysis will further examine this necessary dimension of technology implementation.

**Suggestions for future research:** Results of the review will be used to inform the development of a tool that assesses the cross-sectoral capability of adopting technologies that support IC for older adults living with complex needs.

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231. In a 'post-truth' world, healthcare organisations do not still provide readable and comprehensible information on their websites: An analysis of 167 websites in Italy.
**Introduction:** The advent of the Internet and the availability of health information online has posed new challenges and opportunities to the healthcare sector. The amount of people who surf the Internet for health-related purposes is dramatically increasing. Actually, the ‘post-truth’ phenomenon had interested also the healthcare field, where the quality of the online information is really variable. In addition, the health literacy of people and their consequent capacity to correctly understand and therefore use health-related information is crucial.

**Methods:** The aim of this work is to describe if and how healthcare organisations of the Italian regional healthcare systems are communicating to people using their websites. 167 websites from 13 Italian Regions were analysed. We verified whatever online communication of Italian public hospitals and local healthcare authorities is readable and comprehensible for people with different level of education and different level of literacy, by using the Gulpease Index, and the Italian Fundamental Vocabulary.

**Results:** The results show that, in Italy, the healthcare organisations’ online communication is still not structured by taking into consideration literacy and health literacy of people who may surf the Internet. The healthcare organisation’s web sites are built on the healthcare organisations’ needs, rather than on those of the potential readers.

**Implications:** These results impose an urgent consideration of some ethical issues, like as equal access to good quality but also comprehensible and readable information online. In the ‘post-truth’ era, it is important to consider the risks of more readable and comprehensible information available on other than the healthcare organisations’ websites. This suggests an urgent consideration of the health literacy of people, in addition to their information needs.