



# Electronic Posters Presentations

BOOK OF ABSTRACTS

CAHSPR 2021

## **ID: 9**

# **The Association between Nursing Home Resident Characteristics and Transfers to the Emergency Department: A Population-Level Retrospective Cohort Study**

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**Background and Objectives:** Long-term care (LTC) residents require complete or extensive support, including 24-hour nursing and personal care. LTC residents contribute a greater number of emergency department (ED) visits when compared to community-dwelling older adults. Little is known about which resident-level characteristics at admission are predictive of ED transfers from LTC. We set out to identify which admission characteristics are associated with ED transfers, potentially preventable ED transfers, and low-acuity ED transfers in Ontario, Canada.

**Approach:** We conducted a population-level retrospective cohort study on LTC resident data collected using the Resident Assessment Instrument Minimum Data Set Version 2.0. The cohort included 56,433 LTC resident admission assessments from January 1, 2017, to December 31, 2018. Logistic regression and 10-fold cross-validation were used to identify adjusted associations and predictability between characteristics routinely collected during LTC admission assessment and ED transfers. Model performance was assessed using the area under the receiver operating characteristics curve (AUC). Outcomes of interest included overall ED use, potentially preventable, and low acuity ED transfers.

**Results:** A recent change in medical orders, previous ED visitation, female sex, the presence of an indwelling catheter, and the need for oxygen therapy were informative predictors for overall, potentially preventable, and low acuity ED transfers. Deterioration in cognitive status and change in behaviour was influential to all ED transfers only. Urinary tract infections, pneumonia, indicators of delirium, and change in mood are unique to potentially preventable ED transfers, and antibiotic resistance is unique to low acuity ED transfers. A similar discrimination was reached for overall ED use (AUC = 0.630), potentially preventable transfers (AUC = 0.659), and low acuity transfers (AUC = 0.645).

**Conclusion:** The factors associated with ED transfers may be modifiable, and closer attention to these factors may help reduce ED transfers. Although the discriminability of the models was poor, advanced knowledge of informative characteristics can also support upstream decision-making for clinicians to prioritize their attention.

**Primary Theme:** Home Care, Long Term Care and Aging

**Secondary Theme:** Health Informatics

**Methods:** Data Mining/Big Data Analytics

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**ID: 12**

## **Long-term Outcomes in Adult Patients with Pulmonary Hypertension After Percutaneous Closure of Atrial Septal Defects**

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**Background and Objectives:** Pulmonary hypertension (PH), recently redefined as mean pulmonary arterial pressure (mPAP) >20 mmHg (PH20), may be observed in patients with atrial septal defects (ASD). We aimed to determine the effect of preprocedural PH20 status on outcomes among patients undergoing ASD closure.

**Approach:** Study population was selected from a retrospective registry of adult patients who underwent percutaneous ASD closure from 1998 to 2016 at a single centre and had right heart catheterizations during the procedure. The clinical registry was linked to administrative databases to capture short- and long-term outcomes.

**Results:** We included a total of 632 ASD closure patients of whom 359 (56.8%) had PH20. The mean follow-up length was 7.6 years (standard deviation=4.6 years). Patients with PH20 were older (mean age 43.1 vs. 56.5 years, p

**Conclusion:** ASD patients with PH undergoing closure suffer from more comorbidities and worse long-term MACCE outcomes, compared to patients without PH. The use of the new PH20 definition potentially dilutes the effect of this serious condition on outcomes in this population.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Healthcare Service or Policy Initiative

**AuthorNames:** Selai Akseer

**ID: 22**

## **Drug-induced QT interval prolongation and adverse cardiac outcomes: A scoping review**

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**Background and Objectives:** QT interval prolongation on the electrocardiogram is used as a surrogate for cardiac arrhythmias and cardiovascular mortality. QT-related warnings are ubiquitous in every hospital, physician, and pharmacy information system and are disruptive to care. However, the relationship between medications associated with QT prolongation, actual QT-prolongation, and adverse cardiac outcomes, may be tenuous. We aim to review the literature that assesses the relationship between drug-induced QT prolongation and adverse cardiac events.

**Approach:** A scoping review in Medline, Embase, International Pharmaceutical Abstracts, and Cochrane Central is underway, restricted to publications from 1996 onwards. Eligible studies must directly measure or describe the effect of a medication on both the QT-interval and adverse cardiac events in adults. Only study designs with a control or comparator group are eligible, including randomized controlled trials and case-control or cohort studies. Studies must supply primary data and relevant conference abstracts, systematic reviews, and meta-analyses are also eligible for inclusion. Case reports will be excluded.

**Results:** After de-duplication a total of 8989 titles and abstracts are currently being screened. We anticipate that around 13% of these will move on to full-text screening with around 25% of these included for data extraction. Based on our preliminary literature review, we anticipate heterogeneous definitions of QT-prolongation and an overemphasis of QT-prolongation as the primary outcome over patient-important outcomes like adverse cardiac events. Given that adverse cardiac events are extremely rare we expect most included studies to be underpowered to detect these events, ultimately resulting in a scarce body of literature investigating QT-prolonging medications and patient safety. We plan to synthesize data for important subgroups including the elderly, women, drugs implicated for drug-drug interactions, and type of adverse cardiac events.

**Conclusion:** This scoping review is the first of its kind to synthesize the literature on QT-prolonging medications and patient important outcomes. The findings from this scoping review will also inform an observational study using electronic health record data to estimate rates of adverse cardiac events associated with QT prolonging medications.

**Primary Theme:** Health Informatics

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Knowledge Synthesis

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**ID: 33**

## **The Beliefs and Attitudes of Sexual Consent Among Undergraduate Students in North America: A Scoping Review**

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**Background and Objectives:** Undergraduate (UG) students are particularly vulnerable to experiencing sexualized violence (SV). SV and consent policies at universities, however, do not capture the nuanced nature of how UG students navigate sexual consent. The aim of the following study was to review the scope of the qualitative literature on UG students' beliefs and attitudes of sexual consent in North America and determine if there is a gap in the literature.

**Approach:** This scoping review employed a systematic methodology guided by the Arksey and O'Malley framework. The search for the scoping review was conducted in June 2020 and four electronic databases were searched: Embase, MEDLINE, PsycINFO, and Scopus. Covidence was used to complete the screening. All data that met inclusion criteria was charted, extracted and synthesized.

**Results:** Across the four databases searched, a total of 5401 studies were identified; 2538 duplicates were removed, resulting in 2863 studies screened; 2828 studies were irrelevant, resulting in 35 fully assessed studies. After full text review, 25 studies were excluded. This resulted in a total of 10 included studies. Thematic analysis identified that the beliefs and attitudes of sexual consent among undergraduate students is determined in relation to (1) context (space, time, relationship status); (2) dominant social norms; (3) non-verbal communication; and (4) intoxication.

**Conclusion:** This review confirms that the qualitative literature on UG students' beliefs and attitudes of consent is scarce. Further research examining UG beliefs and attitudes in relation to sexual consent is critical to the prevention of SV on university campuses and developing effective sexual consent and SV policies and initiatives.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Qualitative Research Methods

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**ID: 34**

## **Women's Experiences of Safety Apps for Sexualized Violence: A Narrative Scoping Review**

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**Background and Objectives:** Sexualized violence against women is a significant human rights problem worldwide. Safety apps have the capacity to provide women with resources to prevent or respond to experiences of sexualized violence. The aim of the following study was to review the scope of the qualitative literature on women's experiences of safety apps related to sexualized violence and identify if there is a current gap in this literature.

**Approach:** This scoping review employed a systematic methodology guided by the Arksey and O'Malley framework. The search for this review was conducted in January 2020 and four electronic databases were searched: Embase, MEDLINE, PsycINFO, and Scopus. Reference lists of systematic, scoping, and literature reviews that were found through the database searches were also reviewed. Last, the table of contents for the last five years (2015–2020) were hand searched in four key journals. Covidence was used to complete the screening. All data that met inclusion criteria was charted, extracted and synthesized.

**Results:** Across the four databases searched, a total of 389 studies were identified; 127 duplicates were removed, resulting in 262 studies screened. In total, 6 studies were included from the search of databases and 1 study was included from hand-searching, for a total of 7 included studies. Thematic analysis identified the following themes in the literature, which are summarized narratively: (1) security; (2) accessibility; and (3) knowledge. Recommendations and barriers were also found in relation to each theme.

**Conclusion:** This review confirms that the qualitative literature on women's experiences of sexualized violence safety apps is scarce and exposes a gap in the literature on this topic.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Qualitative Research Methods

**AuthorNames:** Nicole Doria, Christine Ausman, Susan Wilson, Annalisa Consalvo, Jad Sinno, Matthew Numer

**ID: 44**

## **Incorporating Patient Engagement in the Implementation of Interdisciplinary Team-Based Chronic Disease Care: A Multi-Site Case Study**

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**Background and Objectives:** The importance of patient engagement has been recognized as a means to improve the quality of chronic disease care and increase efficiency in the long-term. However, the means to involve patients in the implementation process remains largely inconsistent. This is important because chronic disease prevalence is growing, and patient care is becoming increasingly complex. As such, this study aims to explore patients' perspectives with their involvement in the implementation of a chronic disease management program.

**Approach:** A latent thematic analysis was conducted on focus group data from five patient groups and six provider groups collected across three sites over a period of five years. The data was reviewed by multiple researchers. The analysis was grounded in Braun and Clark (2006): (1) become familiar with the data; (2) generate codes relevant to the aims of the study; (3) generate themes and sub-themes; (4) review the themes; (5) define and name themes and (6) extract compelling examples to support analysis.

**Results:** Three key findings emerged: (1) a knowledge gap exists in patients' understanding of their care program, (2) program planners have not accommodated for the varied patient attitudes, perspectives, and comfortability towards their engagement within the implementation process, and (3) feelings of security and continuity of care may be a pre-requisite to greater patient engagement. Although heterogeneous patient perspectives are not a new finding, patients expressed poor conceptual understanding of their care interactions relative to the rest of the program. As well, patients expressed views of insecurity surrounding their care, leading to contingencies to ensure continuity of care. This suggests a disconnect between providers' vision of patient engagement and the engagement patients actually envision for themselves, given their narrow scope and understanding of the program's organization.

**Conclusion:** Healthcare planners of chronic disease management programs should engage patients during planning and implementation using a formalized process to gather feedback, ensuring substantive knowledge of the program. Engagement efforts need to reflect patients' engagement preferences. Being committed to this iterative process can facilitate more productive relationships and successful program implementation.

**Primary Theme:** Patient and Public Engagement

**Secondary Theme:** Chronic Disease Management

**Methods:** Qualitative Research Methods

**AuthorNames:** Benson Law, Tiffany Scurr, Prabhnoor Chhatwal, Shannon Sibbald

**ID: 53**

## **Prioritizing Cataract Patients Post COVID-19**

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**Background and Objectives:** Cataract surgery wait times in Canada are significantly prolonged, an ongoing issue further exacerbated by delayed and cancelled operations due to COVID-19. With no current standardized tool or policy to assess prioritization for non-urgent cataract surgery, cases are simply booked on a 'first-come, first-served' basis, leading to inequitable access to care. This study aims to assess whether a 3-item questionnaire incorporating quality of life metrics is a practical tool for prioritizing cataract patients virtually.

**Approach:** Our 3-item questionnaire was prospectively administered via phone to 300 patients from cataract surgery waitlists in Mississauga, Ontario, before and after surgery. Based on the patients' preoperative scores, a new rank order of the surgery waitlist was created to conduct analysis. Using a Wilcoxon Signed-Rank test, we will compare these new ranked lists to the original waitlists pre-prioritization. A paired t-test will be used to analyze change in visual function and acuity before and after surgery. To further analyze how to best optimize waitlist order, we will incorporate preoperative visual acuity and model various weighting schemes for the questionnaire responses.

**Results:** We anticipate that the incorporation of quality of life metrics into waitlist development will significantly change the status of patients from the current standard. If patients ranked higher on the prioritized list show a greater improvement in their cumulative questionnaire score and visual acuity post-surgery than those ranked lower on the list, this may demonstrate that our 3-item questionnaire can successfully prioritize patients based on who is more or less likely to benefit from cataract surgery.

**Conclusion:** If deemed effective, our questionnaire could assist clinics to rapidly prioritize cataract patients on waitlists more equitably. In a healthcare system with limited resources, this may improve access to care by enabling policymakers to objectively allocate resources to those who face the most difficulties in daily life from impaired sight.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Survey Research Methods

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**ID: 55**

## **Intervention de Gestion et Rétention de Personnel Infirmier: un Examen de la Portée**

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**Background and Objectives:** L'une de grandes préoccupations de gouvernance des systèmes de santé dans nombreux pays est la pénurie de main d'œuvre infirmière. La rétention des professionnels de la santé est un enjeu important pour répondre à cette problématique. L'objectif de cette étude est d'exposer les interventions de gestions implantées dans les hôpitaux de soins aigus afin d'améliorer la rétention de personnel infirmier.

**Approach:** Un examen de la portée basé sur la méthode de Schuarew et Macaluso (2019) a été réalisé. La stratégie de recherche développée a été utilisée dans trois banques de données électroniques (CINAHL, PsychInfo et Medline) afin d'identifier des études publiées dans des revues révisées par des pairs entre 1999 et septembre 2020. Les critères d'inclusion étaient : 1) avoir été réalisées en milieu hospitalier, 2) décrire une intervention de gestion ou de leadership visant à améliorer la rétention de personnel infirmier.

**Results:** Au total, 24 articles scientifiques ont été inclus. Les interventions de gestion en soins infirmiers répertoriées ont été menées principalement sur des unités de médecine, majoritairement en Amérique du Nord. Cinq catégories d'intervention ont été identifiées : 1) améliorer la culture organisationnelle, 2) transformer la pratique clinique, 3) changer la philosophie de gestion ou de soins, 4) modifier les structures organisationnelles et 5) bonifier l'environnement de travail. De plus, des cibles pour ces interventions ont été identifiées telles la satisfaction infirmière, l'autonomie professionnelle, le stress, l'absentéisme infirmier ainsi que les opportunités professionnelles.

**Conclusion:** Cette étude a permis d'identifier cinq catégories d'interventions utilisées pour pallier à cette problématique d'envergure. Aussi, bien que plusieurs cibles d'interventions aient été identifiées, il apparait qu'une approche adaptée au contexte local, serait préférable. Néanmoins, les barrières et facilitateurs à l'implantation de telles interventions demeurent peu explorés.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Knowledge Synthesis

**AuthorNames:** Myriam Dumont, Christian Rochefort, Mylaine Breton

**ID: 56**

## **Improving Healthcare Workers' Mental Health during the COVID-19 Pandemic: An Institutional Model**

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**Background and Objectives:** COVID-19 has created challenges to the wellbeing of healthcare workers (HCW). There is an urgent need for institutionally integrated approaches to prevent burnout and support the mental health of HCW.

**Approach:** The Princess Margaret Cancer Centre, a tertiary teaching hospital in Toronto, Canada developed and implemented CREATE—Compassion, REsilience And TEam-building— a proactive team-based support intervention delivered at the point of care by psychosocial coaches (PSC) to multidisciplinary frontline and oncology teams. Qualitative and quantitative implementation data was recorded by PSC during the first pandemic wave from April 23 to July 7, 2020.

**Results:** Thirteen PSC were paired with 13 clinical managers, each of whom had responsibility for supporting 1-4 hospital inpatient or ambulatory services, totaling 27 HCW teams. All PSC were experienced in psychotherapy. On average, team interventions lasted 30 minutes, consisted of 10 HCW participants, and occurred weekly. Most interventions took place in-person (71.3%), but a combination of remote methods were also utilized. HCW needs addressed by PSC were categorized into four themes: physical (14.5%), social (28.4%), psychological (46.2%), and spiritual (10.9%). CREATE was perceived as valuable by PSC, HCW, and hospital management.

**Conclusion:** CREATE is intended to prevent burnout and support mental health among HCW. This team-based approach can be rapidly adopted and delivered by other institutions during COVID-19 and applied to future pandemics.

**Primary Theme:** COVID-19

**Secondary Theme:** Mental Health and Addictions

**Methods:** Program or Policy Evaluation

**AuthorNames:** Gilla Shapiro, Christian Schulz-Quach, Andrew Matthew, Pamela Mosher, Gary Rodin, Froukje E. de Vries, Sarah A Hales, Chana Korenblum, SarahRose Black, Lydia Beck, Kim Miller, Jody Morita, Madeline Li, Mary Elliott

**ID: 59**

## **A Taxonomy of Risk Associated Alternative Health Behaviours: A Delphi study**

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**Background and Objectives:** Despite increasing literature showing rapid growth in the use of alternative healthcare over the past two decades, defining it and identifying associated adverse events and harms remains problematic. This study sought to; 1) Establish if existing definitions of complementary and alternative medicine/health were effective as a way to classify them, 2) Identify specific types of risk-associated alternative healthcare behaviours that exist in North America and, 3) Develop a systematic taxonomy of risk-associated alternative healthcare behaviours.

**Approach:** A Delphi approach was used with an interdisciplinary panel of 19 health professionals recruited for consultation and provide structured feedback to arrive at a consensus for a functional definition of alternative healthcare and a taxonomy of risk associated alternative healthcare behaviours. The process started with expert recruitment followed by five rounds of consultation and feedback. Through equal participation of experts, consensus was developed for a definition of alternative healthcare, risk associated alternative healthcare behaviours panelists observed or were aware of, identified specific harms associated with each, and categorize them in a taxonomy assessing the level of risk for each.

**Results:** The existing widely adopted NCCIH framework proved problematic for classification and developing a consistently logical taxonomy. Therefore, a simplified functional definition and framework with working definitions was developed from it, and used to categorize risk-associated alternative healthcare behaviors. Using this framework, a significant number of risk-associated practices related to alternative healthcare were identified and categorized into general practices that conflict with biomedical care and largely untested therapies, behaviours associated with alternative beliefs systems, use of physical manipulative alternative therapies, and use of herbal and nutritional supplements. Identified harms included major physical injuries or even death.

**Conclusion:** The lack of systematic methods for recording adverse events in alternative healthcare practice makes establishing the frequency of such events challenging. However, it is important that people engaging with alternative healthcare understand they are not necessarily risk-free endeavours, and what those risks are as a basis for informed consent.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Patient and Public Engagement

**Methods:** Qualitative Research Methods

**AuthorNames:** Richard Musoke, Bernie Garrett

**ID: 69**

## **Evaluation of Gender Pay Gaps Among Psychologists in Canada**

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**Background and Objectives:** Female practitioners in the healthcare workforce face gender-related challenges like pay gaps. Limited research on the Canadian psychologist workforce highlights differences in earnings, which may adversely affect the quality of patient care; however, evidence to inform policy to optimize gender equity in the health workforce is inadequate. The objective of this research is to address the information poverty on gender-related pay gaps among psychologists in Canada to support evidence-based and gender-responsive health workforce financing policy.

**Approach:** Microdata from the 2006 and 2016 Canadian Population Censuses will be accessed from the Statistics Canada's Research Data Centre (RDC) at the University of New Brunswick. The microdata will be analyzed both descriptively and using multiple regression models to disentangle sex- and gender-related factors associated with average annual earnings (linear regression) and with women's representation among the top income earners (logistic regression). The psychologist workforce will be identified through the National Occupational Classification. Because gender is not directly measured in the census, a labour force gender index correlating sex (male/female) with components of socially institutionalized gender roles will be applied.

**Results:** It is hypothesized that traditional labour market measures (e.g. education, hours worked) will not fully explain the persistence of gender-related wage gaps between male and female psychologists in Canada, and that additional personal and professional factors may contribute to these gaps. The anticipated results of this research will lead to a better understanding of whether health systems themselves may reflect or intensify the social inequalities they are meant to address. More specifically, the results will contribute to greater gender inclusion and equity within the psychologist workforce and, ultimately, better mental health services provision in Canada. A long-term goal of this project is to mainstream sex and gender considerations in health workforce research and policy to optimize gender equity.

**Conclusion:** This research will help to measure and explain the gender-related pay gap within the Canadian psychologist workforce and work toward greater implementation of gender based health workforce analyses to inform gender-transformative health system policies.

**Primary Theme:** Health Human Resources

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Statistics/ Econometrics

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**ID: 77**

## **An Exploration of Palliative Care Providers' Lived Experiences on Implementing the Gold Standards Framework in Oncology from a Hospital-Based, Outpatient Palliative Care Setting.**

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**Background and Objectives:** The Gold Standards Framework (GSF) is a tool that is implemented in palliative care delivery to ensure chronic disease management occurs at optimal levels. Implementing the GSF in palliative care within Ontario is mandated. However, research on GSF implementation in a community hospital outpatient setting is limited. The objective of this study was to examine the lived experiences of palliative care providers on implementing the GSF in oncology, from a hospital-based, outpatient palliative care setting.

**Approach:** The approach of an in-depth qualitative analysis was taken within this study. Jonathan Smith's Interpretative Phenomenological Analysis (IPA) was utilized as the methodological approach. IPA combines phenomenology (lived experience), hermeneutics (interpretation), and idiography (case-by-case analysis) together within one methodology. Through purposive sampling, semi-structured interviews were audio recorded to grasp participant experiences. The conceptual underpinnings of the GSF facilitated the interpretation of the results according to the 7 key components of the framework (Communication, Coordination, Control of Symptoms, Continuity of Care, Continued Learning, Carer Support and Care in the Dying Phase).

**Results:** A total of 6 palliative care providers delivering oncological palliative care, participated within this study. The impacting factors (facilitators and barriers) of implementing the GSF in oncology care from a hospital-based, outpatient setting were examined from the lived experiences of palliative care providers'. The 7 key components of the GSF were identified as major themes, and a total of 11 subthemes emerged under these components. Subthemes identified throughout this study included: inter-professional communication, establishing patient rapport, advance care planning, pain and symptom management, reliable access, electronic maintenance of patient records, inadequate community support, standardized approach, poor educational supports, active family involvement and comfort measures. Each subtheme was analyzed and explored in-depth, with relation to the current scientific literature on palliative care delivery.

**Conclusion:** This study highlights the facilitators and barriers that impact GSF implementation within a hospital-based, outpatient setting. There are implications for palliative care practice, policy, education, and research. This can help strengthen the development of sustainable palliative care within the Canadian healthcare system resulting in, patient, provider, and economical benefits.

**Primary Theme:** Cancer

**Secondary Theme:** Chronic Disease Management

**Methods:** Qualitative Research Methods

**AuthorNames:** Melanie Dissanayake, Manon Lemonde, Angela Cooper-Brathwaite

**ID: 78**

## **Community Paramedicine to Support Palliative Care**

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**Background and Objectives:** Canadians are living longer with chronic and complex conditions, which can often be mitigated in the home. Subsequently, the prevalence of individuals desiring home-based, end-of-life care with a palliative approach is increasing. Community paramedicine (CP) is a novel approach to providing palliative care delivery within the home. The objective of this study was to identify the role of CP in palliative care within Canada, and identify challenges associated with an expanded scope of CP practice.

**Approach:** An environmental scan was conducted to explore existing CP programs operating within Canada. An in-depth literature search of successful CP programs was completed, with an examination of demographic and health system projections for the older adult population across Canada. Roles of community paramedics were identified, and models of care delivery were analyzed to support home-based, palliative care delivery. Additionally, challenges of such delivery were also examined to determine impacting factors.

**Results:** The potentiality of an expanded scope of CP practice, to provide home-based, palliative care is identified. Current CP and palliative care programs demonstrate the capacity of this approach in improving access to timely care for patients at an earlier stage of their disease trajectory, and result in optimal patient care outcomes. However, a lack of training in palliative care fundamentals, and funding infrastructure for community paramedics can act as a barrier to the delivery of care. This can result in an increase of unnecessary emergency department (ED) visits and medical interventions, thereby impacting patient-centred outcomes.

**Conclusion:** More research is needed to better understand the use of CP to support home-based palliative care delivery within the context of health systems improvement, and sustainability dialogue. Addressing potential challenges can support optimal patient outcomes, and result in economical benefits for the Canadian healthcare system.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Chronic Disease Management

**Methods:** Knowledge Synthesis

**AuthorNames:** Melanie Dissanayake, Andrew Rosa, Dustin Carter, Shannon Sibbald

**ID: 79**

## **Implementing lessons learned from the pandemic to support our vulnerable populations: A Community Hub Model**

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**Background and Objectives:** The COVID-19 pandemic has significantly impacted Durham Region's resources and disrupted the lives of its most vulnerable populations. In April 2020, the Region developed its first community hub, a pilot project to respond to individuals' unmet health and support needs. To date, over 1000 unique clients were served. The poster will highlight learnings from designing/developing/operating the hub during the pandemic, the evaluation process, and anticipated benefits to stakeholders including clients, service providers, and policymakers.

**Approach:** Nine months ago, the Region of Durham initiated its first community hub as a COVID-19 crisis response/testing centre providing low-barrier access to vulnerable populations. Demands for services at the hub highlight the need for similar hubs across the region. To apply an evidence-based approach in determining if the temporary community hub should be implemented as a long-term strategy, and expanded to other communities, a formal evaluation will be conducted. This includes consulting best practices of community hubs in other jurisdictions, co-designing data collection instruments, survey of Durham community hub staff and clients, and developing recommendations for the region.

**Results:** Clients will have access to a range of low-barrier, quality services in one location. Best practices from other jurisdictions including service models and tools that can be modified and applied in Durham will reduce the resources and time required to develop/test new tools and service models. Data gathered from community hub staff and clients will provide decision-makers with information to support evidence-based service design and delivery, including client-centered care, staffing resources, partnership collaboration. Data will also be utilized to identify outcome measures, key performance indicators, and data collection metrics. Critical components required for the sustainability of current and future community hubs. Durham Municipality will obtain data to help inform its long-term strategy in meeting the needs of its most vulnerable populations.

**Conclusion:** At the beginning of the pandemic, the Region of Durham developed its first community hub to address the support needs of its most vulnerable populations. To assess the hub's effectiveness and gather data for short and long-term planning, the Region partnered with Ontario Tech University to formally evaluate the program.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** COVID-19

**Methods:** Program or Policy Evaluation

**AuthorNames:** Volletta Peters

**ID: 80**

## **Improving ICD-10-CA coded administrative data collection for Mental and behavioural disorders due to psychoactive substance use**

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**Background and Objectives:** Harm from substance use is an area of growing focus in Canada and administrative data can provide valuable information. However, results of a newly developed indicator, Hospital Stays for Harm Caused by Substance Use, showed high volumes of an ICD-10-CA code not easily actioned (F19: Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances). The Canadian Institute for Health Information wanted to identify opportunities for data improvement.

**Approach:** CIHI initiated a clinical documentation review of cases with codes assigned for Mental and behavioural disorders due to psychoactive substance use. With the support of Canada's National Coding Advisory Committee, 54 charts from 7 provinces were reviewed. This included a mixture of inpatient and emergency department cases. For each case, CIHI Classification Specialists reviewed and analyzed the clinical documentation to identify challenges and opportunities for improved data collection (i.e. greater specificity). Additionally, CIHI sought clinical expertise to validate our understanding of the clinical documentation review results.

**Results:** The review of clinical documentation identified the following areas for improvement:

- o Investigate specificity of clinical documentation for capture of substance use diagnoses
- o Provide coding direction for classifying drug use
- o Clarify coding of conditions due to substance use
- o Clarify application of diagnosis typing rules for substance use
- o Enhance category F19 Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances ICD-10-CA version 2022 to distinguish cases of "Other specified", "Multiple unspecified," or "Unknown"

The areas for improvement will be addressed by developing a new coding standard, enhancements to the classification and providing coding education. Clinical expertise confirmed the need to provide coding direction specific to the language "drug use" to ensure correct classification in ICD-10-CA.

**Conclusion:** Better data can support improved substance use action across Canada. CIHI's review of clinical documentation is informing enhancement of the Canadian Coding Standards and identifying opportunities to improve classification and clinical documentation. These initiatives offer a path to improve the quality of the information available for reporting on substance

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Statistics/ Econometrics

**AuthorNames:** Janice MacNeil, Cassandra Linton

**ID: 81**

## **Exploring Successful Implementation of Team-Based Care in Chronic Disease Management: A Case Study**

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**Background and Objectives:** Integrated models of team-based care have become more common in Canada and are recognized as necessary to effectively manage complex chronic diseases, such as COPD. However, little is known on how to support the scale-up and expansion of successful models. The objective of this study was to explore the mechanisms that enable continued growth and support the sustainability of integrated models of team-based care.

**Approach:** We conducted a case study to explore the expansion of an integrated team-based model of care for COPD management within primary care. This evidence-based program is delivered through trained Respiratory Therapists and is aimed to improve patient outcomes for those with COPD. Data collection involved a focus group, interviews, and 'implementation logs' with healthcare providers. Through iterative and continuous data analysis, this study aimed to understand mechanisms that facilitate this growth and expansion in order to improve patient outcomes, provider satisfaction, and support more efficient care.

**Results:** The COPD management program was successfully implemented into various sites across southwestern Ontario. Our study identified three primary processes integral to implementation: 1) securing clinic buy-in, 2) delivery of a high-quality program, and 3) patient recruitment. These primary processes were supported through integration of the COPD management program in the clinic's daily activities, and through regular, embedded evaluation to assess progress and impact. Additionally, we identified five factors influencing implementation. Certain factors provided a strong foundation to execute the program's implementation, and other factors were complementary, in that, they further reinforced the processes comprising implementation. The interplay between these processes and factors across the implementation phases allowed us to develop a framework which can inform implementation of integrated, team-based care in various chronic disease contexts.

**Conclusion:** These findings can be used to support implementation and expansion of the program and other chronic disease management programs. This research can support further program expansion by placing appropriate focus on the components that matter most: high-quality program delivery, clinic and provider buy-in, and patient recruitment.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Chronic Disease Management

**Methods:** Qualitative Research Methods

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**ID: 83**

## **Sex differences in potentially inappropriate opioid use in community-dwelling older adults**

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**Background and Objectives:** Hospitalization rates due to opioid poisonings and adverse events are on the rise in Canadian older adults. Research shows that older females are more likely to receive inappropriate prescriptions compared to older males. This study was therefore conducted to evaluate sex differences in individual and health system factors associated with the use of potentially inappropriate opioids in a sample of primary care community-living older adults.

**Approach:** Secondary analyses were performed by linking administrative data with self-reported data from a longitudinal study on health service use. Individuals aged 65+ were recruited between 2011-2013 in primary care. The sample included 862 older adults with complete administrative data in the 3 years prior and following baseline, and this after excluding individuals with a cancer diagnosis during the study period, an opioid prescription in the year before baseline, and cognitive impairment. Potentially inappropriate opioid use was identified using Beers 2019 criteria. Multinomial regression analyses were performed to study the factors associated with potentially inappropriate opioid use during the 3-year follow-up.

**Results:** 327 older adults in this sample received an opioid, among which 198 (23% overall) received a potentially inappropriate opioid prescription. The majority of inappropriate opioid users were female (72%). In males, number of emergency department visits (OR=1.53, CI: 1.16-2.03) and number of distinct prescribers in the 3 years prior to the prescription (OR=1.31, CI: 1.12-1.54), moderate pain (OR=2.37; CI: 1.05-5.33), and higher levels of alcohol consumption were associated with a greater risk of potentially inappropriate opioid use. In females, number of outpatient visits in the 3 months prior to the prescription (OR=1.16, CI: 1.05-1.28), number of distinct prescribers (OR=1.23, CI: 1.13-1.35), and physical multimorbidity ( $\geq 3$  chronic physical conditions compared to 0-2 chronic physical conditions) (OR=4.11; CI: 0.92-18.44) were associated with potentially inappropriate opioid use.

**Conclusion:** Sex differences exist in the factors associated with potentially inappropriate opioid use in older adults. These sex differences should be reflected in comprehensive strategies aimed at improving prescription appropriateness and non-cancer pain management in older adults.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Pharmaceutical Policy

**Methods:** Statistics/ Econometrics

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**ID: 85**

## **Identifying policy levers to reduce never events: a comparison of three high-income jurisdictions**

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**Background and Objectives:** Patient safety incidents are a leading cause of disability and death in high-income countries, with an estimated 1 in 10 patients harmed while receiving hospital care. Never events are serious patient safety incidents that are preventable through systemic efforts and therefore, “should never occur”. In this comparative study, we sought to describe promising policy levers aimed at reducing never event rates in three high-income jurisdictions.

**Approach:** We undertook case studies of three jurisdictions that have sustained low never event rates (England, Ireland, New Zealand), according to the recent Organization for Economic Co-operation and Development (OECD) data. We searched academic and grey literature and interviewed 22 local experts in patient safety and quality improvement (England: n = 11, Ireland: n = 4, New Zealand: n = 7) to identify key policy levers, defined as mechanisms available to decision-makers to influence system changes. We used an OECD typology of patient safety policy interventions, which builds on the Donabedian “structure-process-outcome” model for quality of care, to analyze and collate findings.

**Results:** National patient safety policy efforts first appeared on government agendas in the early 2000s, following public inquiries into high-profile patient safety incidents. The following key policy interventions were identified in the three selected countries: (1) legislating an independent patient safety authority, responsible for leading the policy agenda, harmonizing data, coordinating stakeholders, and scaling up clinical initiatives; (2) increasing healthcare provider accountability through regulation, including through health ombudsmen, independent accreditation agencies, and professional self-regulatory bodies; (3) improving health system transparency and learning through never event reporting and publication of performance data; (4) facilitating open disclosure to patients and caregivers through apology protection laws and no-fault compensation schemes; and (5) routinely engaging patients and the public in patient safety initiatives through taskforces and co-design principles.

**Conclusion:** Multiple jurisdiction-wide approaches that prioritize accountability and transparency of systems, reduce blame on individual healthcare providers, and engage patients and caregivers hold promise in reducing never event rates. More empirical evidence is needed to understand how policy levers affect long-term safety outcomes, healthcare provider behaviour, and health system complexity.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Policy Case Study

**AuthorNames:** Dominika Bhatia, Meghan Lynch, Maya Murmann, Monika Roerig, Sara Allin, Jan Byrd, Gregory Marchildon

**ID: 91**

## **HIV diagnosis during pregnancy**

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**Background and Objectives:** Advances in the availability and effectiveness of antiretrovirals during pregnancy has led to a significant reduction in perinatal HIV transmission. Recent guideline changes suggest that initiating antiretrovirals prior to conception can lead to an overall negligible risk of transmission, necessitating that women know their HIV status prior to pregnancy. We aimed to determine the proportion of women in Ontario diagnosed with HIV prior to conceiving and to identify the timing of HIV diagnoses during pregnancy.

**Approach:** A retrospective population-level cohort study was performed using linked health administrative databases at ICES and the Ontario HIV database to establish maternal HIV status and timing of HIV diagnosis. All women living with HIV in Ontario who gave birth between April 2006 and March 2018 were included and demographics were assessed. Additionally, our sample was stratified into three-year intervals to assess trends in diagnosis timing across years.

**Results:** Our findings demonstrate a significant proportion of women living with HIV (87.9%) were diagnosed prior to pregnancy. Among diagnoses of HIV made during pregnancy, the majority (55%) occurred in the second trimester.

**Conclusion:** We highlight the importance of diagnosing HIV prior to pregnancy rather than relying on prenatal HIV screening, which is typically the standard of care globally. We call for a global strategy to aid with pre-conception screening for women of reproductive age and specifically for women at high risk for HIV.

**Primary Theme:** Maternal and Child Health

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Data Mining/Big Data Analytics

**AuthorNames:** Esther Shoemaker, Mona Loutfy, Claire Kendall, Stephanie Smith, Kate Volpini

**ID: 105**

## **Creation and Implementation of the SK Provincial Multiple Sclerosis Care Pathway**

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**Background and Objectives:** Multiple Sclerosis (MS) is a chronic neurodegenerative disease. Saskatchewan (SK) has one of the highest rates of MS in the world. SK needs to be a leader in delivering comprehensive MS care. This project informed the creation and implementation of a Provincial Clinical Care Pathway as a starting point to optimize evidence based best practice healthcare for individuals living with MS in SK.

**Approach:** A multi-stakeholder provincial Pathway development team was established. The development team includes a diverse representation from across SK of individuals living with MS, Ministry of Health, SK Health Authority, SK MS Clinic, MS Society, Health Professionals and Researchers. An integrated knowledge translation and iterative consensus building approach was used throughout to maximize the meaningfulness and relevance of the Pathway to its end users.

**Results:** Over a 2-year period the development team has created a comprehensive care pathway that highlights best practice flow of care, serves as an informational resource, and provides a synthesis of current evidence in MS. Two streams were created for the Pathway, one targeting health care providers and the other targeting people with MS and their caregivers. The development team used smaller subcommittees to target 3 main areas: educational information and localized resources; clinical leadership, and coordination of care. Community engagement was sought throughout before launching final Pathway products (launch currently delayed due to pandemic). The Pathway material will be presented as an interactive website (one for each stream), and a booklet for individuals newly diagnosed with MS.

**Conclusion:** This project was incredibly valuable in highlighting areas of importance, strengths and weakness in Provincial MS care. This process and resulting Pathway informs tailoring of future resources, health systems decisions, and research to be directed in the most impactful areas. The next step ongoing evaluation of Pathway implementation.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Patient and Public Engagement

**Methods:** Mixed Methods

**AuthorNames:** Sarah Donkers

**ID: 113**

## **A knowledge synthesis of the barriers to and facilitators of early detection and optimal intervention for apathy in older adults with brain disorders**

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**Background and Objectives:** Apathy is a prominent and persistent symptom in brain disorders. It affects 84% of people with brain disorders. Those affected are more than two times likely to die early than those without. Yet it is often ignored and undertreated. This review examined the factors that inhibit or facilitate its diagnosis and management in the community and institutional settings.

**Approach:** This integrative review was guided by Whittemore and Knafl (2005) framework. The framework involves five stages including problem formulation, literature search, data evaluation, data analysis and presentation. The literature search was conducted in October 2020 using five major electronic databases. These included PsychINFO, CINAHL, MEDLINE (OVID), PUBMED and PsychArticles. Search terms used consists of both keywords and Mesh terms. Original research and reviewed articles were included. The mixed method appraisal tool (MMAT) was utilized to assess the quality of the papers. NVivo software was used to extract findings. Data synthesis was done using the convergent synthesis approach (thematic analysis).

**Results:** A total of 2459 citations were retrieved from the electronic databases searched. After duplicate removal, there were 1323 records left. The title and abstracts of the 1323 records were screened; the full texts of 33 articles were reviewed for inclusion. Manual searching of relevant citations from the reference lists of eligible full-text articles resulted in additional 14 articles were retrieved. A total of 20 articles were included in the final synthesis. The result of the findings revealed five barriers and three facilitators. Barriers included inconsistencies in the definition and diagnostic criteria, lack of awareness, overlap with other neuropsychiatric disorders, paucity of evidence-based information, and lack of familiarity. Facilitators were standardized definition and assessment good communication among interdisciplinary team and adequate training, education, and experience.

**Conclusion:** Apathy remains underrecognized and undertreated because healthcare professionals and family caregivers are less aware of how to detect and manage it. Efforts should be geared towards raising awareness and developing a practice guideline to aid healthcare professionals in detecting and managing it optimally.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Knowledge Synthesis

**AuthorNames:** Aderonke Agboji, Shannon Freeman

**ID: 117**

## **Diabetes Management and Self-Management in Correctional Facilities: A Qualitative Case Study Investigation**

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**Background and Objectives:** The burden of chronic diseases like diabetes is disproportionately carried by individuals experiencing social disadvantages such as those who are incarcerated. These people often struggle with diabetes self-care for many reasons (e.g., limited autonomy within correctional facilities). Knowledge about diabetes regarding incarceration in Canada is limited, specifically no published literature has explored patient experiences of diabetes management/self-management during incarceration. We will explore previously incarcerated individuals' experiences of diabetes management/self-management in correctional facilities.

**Approach:** Qualitative case study methodology will be used to conduct this investigation. We will use this methodology to gain an in-depth understanding of diabetes management/self-management (phenomenon) from the perspective of individuals who have served time in correctional facilities (case). The phenomenon and case are bounded by various parameters regarding the chronic disease of diabetes mellitus, space, and time. Participant recruitment will occur via community organizations that work with individuals released from correctional facilities. We will use purposive and snowball sampling to include participants that will best address the study objective. Primary method of data collection will be telephone interviews.

**Results:** We propose to develop a schema that will explicate previously incarcerated individuals' experiences of diabetes management/self-management in correctional facilities. The final schema will stay true to the particularistic (phenomenon focused) and interpretive (beyond description) case study. Our results will make a novel contribution by addressing the knowledge gap regarding diabetes in the context of incarceration in Canada. This qualitative investigation will provide crucial insights regarding diabetes management/self management behind bars. These insights are key in improving diabetes care and outcomes for this underserved population during incarceration and after release and return into the community. Incarcerated individuals released in good health and empowered to manage their diabetes may lower the burden on healthcare systems.

**Conclusion:** Understanding patient experiences of diabetes management/self-management during incarceration and after release and return into the community may guide improvements in the quality of care provided in Canadian correctional facilities. Addressing the health concerns of the incarcerated population may improve public health.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Qualitative Research Methods

**AuthorNames:** Kirnvir Dhaliwal, David Campbell

**ID: 118**

## **A Preliminary Assessment of the Feasibility of the Alberta Cardiac Surgery Patient Experiences Survey**

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**Background and Objectives:** Surveys are regularly used to capture the experiences of many heterogeneous groups of patients. A potential limitation of this approach, where all patients are asked the same questions, is that additional clinically relevant, condition-specific questions are not asked. The objective of this study was to assess the content validity, test-retest reliability, and acceptability of the Alberta Cardiac Surgery Patient Experience Survey (ACSPES) – a newly-created survey specifically for patients who have undergone cardiac surgery.

**Approach:** Eligible adults from three cardiology units at a large teaching hospital received a study invitation letter with two weeks of their discharge from hospital. The draft ACSPES instrument included questions to assess multiple aspects of care, from intake/arrival at the hospital, to discharge and follow-up care (e.g., cardiac rehabilitation referral and attendance, coordination with primary care). Participants completed the survey via e-mail (REDCap) or by regular mail, as per their preference. For assessing test-retest reliability, those who agreed to complete the survey a second time were provided a follow-up survey two weeks later.

**Results:** From June to September 2020, 91 participants (64 males, 27 females) with a mean age of  $67.6 \pm 11.9$  years (range: 34 to 89) completed the survey. The majority (86%) completed the survey via e-mail. Participants provided very positive feedback about the survey content as well as its acceptability. Suggestions for improvements were also provided. These included content-related suggestions, perceived difficulties in answering certain questions, a desire for more open-ended responses, and the opportunity to expand upon certain answers. Fifty participants completed the retest survey. Sixteen of the 30 items assessed (53%) had an intra-class correlation/Kappa value of 0.70 or greater, indicating substantial test-retest reliability.

**Conclusion:** Our preliminary results are promising with respect to the content validity, test-retest reliability, and acceptability of the ACSPES. Further study to evaluate additional measurement properties is warranted, with the long-term goal of integrating the ACSPES within routine clinical care and administrative databases in the context of the Triple Aim framework.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Patient and Public Engagement

**Methods:** Survey Research Methods

**AuthorNames:** Kyle Kemp, Hude Quan, Elizabeth Oddone Paolucci, Merrill Knudtson, María José Santana

**ID: 120**

## **Age-period-cohort modeling of primary mental health service provision in BC: a quantitative analysis**

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**Background and Objectives:** In spite of increased supply of physicians between 1996 and 2017, there is a perceived absence of sufficient supply of clinical services at the primary care level. This research describes labour supply trends of primary care physicians (PCPs) in BC with a focus on mental health care. This research is foundational for a study that will determine the impact of physician age, time period, and generational cohort in explaining changes in PCP labour supply.

**Approach:** Age-Period-Cohort (APC) analysis and methods provide the motivation for this analysis. Aggregate labour supply may be affected by the changing age distribution of physicians, new graduating cohorts of PCPs with different training experiences, and periods of policy change affecting all PCPs. This analysis graphs physician-level billing data, stratified by sex, age and cohort groups, and years to explore the role of APC effects in labour supply trends. Total years in practice acts as a proxy for age, average yearly contacts is the chosen measure of labour supply, and graphical results are supplemented with results from relative distribution analysis.

**Results:** The findings are consistent with economic theory and other results showing that average yearly patient contacts start at somewhat low levels for physicians with very few years in practice, rise steadily until middle age, then decrease steadily until physicians retire. Although the number of primary care physicians in the province has risen steadily since 1996, more recent cohorts of physicians have fewer yearly patient contacts compared to earlier cohorts at the same age— both as a total number of contacts and mental health specific. These trends are robust to changes in the categorization of years in practice and show similar (though not identical) trends in male and female physicians.

**Conclusion:** Recent cohorts of PCPs in BC are starting their practices at lower service volumes and peaking at lower levels of service provision than earlier cohorts – an important finding for human resource planning. This research will support cross-provincial analyses addressing similar questions in Ontario, Nova Scotia, and Manitoba.

**Primary Theme:** Health Human Resources

**Secondary Theme:** Primary Healthcare

**Methods:** Statistics/ Econometrics

**AuthorNames:** Margaret Jamieson

**ID: 122**

## **Describing Healthcare Utilization for Men and Women Living with Dementia in Quebec**

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**Background and Objectives:** As the Canadian population ages, challenges have emerged with the healthcare utilization of services for persons living with dementia (PWD). There is evidence that points to how sex/gender differences influence the healthcare utilization where older adult women may differ compared to older men when seeking and receiving treatment. The aim of this study is to describe the sex-based inequities on the healthcare utilization among PWD.

**Approach:** We used a repeated annual cross-sectional cohort design from 2000-2001 to 2016-2017. Data was obtained from linked population-based administrative databases from the Institut national de santé publique du Québec. Community-dwelling older adults age 65+ with incident cases of dementia occurring between April 1st and March 31st for each year between were included. Healthcare utilization indicators were measured as age-standardized rates. To ascertain the differences between males and females, age-standardized person-year rates for the indicators were stratified by sex over 17 cohort-years and graphed. A visual and graphical analysis allowed for clinically meaningful interpretation.

**Results:** A total of 237,259 persons with dementia was included in our study (62.7% women). Men had higher rate and number emergency department visits, rate of hospitalizations, rate of admission to long term care, rate of mortality. While women had higher prescription of cholinesterase inhibitors, benzodiazepines, and antidepressants compared to men. There was no meaningful difference for antipsychotic prescriptions and ambulatory visits to cognition specialists.

**Conclusion:** Addressing the sex-based inequities in the quality of care and healthcare utilization in PWD will inform decision-makers for the implementation of adequate policies to promote equity in dementia care and ultimately improve the health among men and women living with dementia.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Healthcare Service or Policy Initiative

**AuthorNames:** Tammy Bui, Genevieve Arsenault-Lapierre, Claire Godard-Sebillotte, Louis Rochette, Victoria Massamba, Isabelle Vedel, Nadia Sourial

**ID: 131**

## **L'effet modérateur de la ruralité sur l'impact de la COVID-19 sur l'utilisation de services de santé chez les personnes atteintes de la maladie d'Alzheimer**

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**Background and Objectives:** Les personnes atteintes de la maladie d'Alzheimer (PAMA) sont particulièrement vulnérables à la COVID-19. La pandémie a pu augmenter les risques d'utilisation inappropriée des services de santé qui peut être différente selon le niveau de ruralité où la propagation du virus et l'accès aux services a pu varier au cours de la pandémie. L'objectif de cette étude est d'évaluer l'impact de la pandémie sur l'utilisation des services de santé par les PAMA.

**Approach:** Au moyen d'un devis quasi expérimental, l'existence d'une différence dans l'impact de la pandémie sur l'utilisation des services de santé selon le niveau de ruralité au Québec sera examinée. La population utilisée sera les PAMA de 65 ans ou plus diagnostiqués en 2020 et les PAMA diagnostiqués en 2019. Les indicateurs d'utilisation de services seront : visites auprès d'un médecin de famille, visites à l'urgence, hospitalisation, admission en soins de longue durée, et mortalité. Pour chaque indicateur, un modèle sera construit et ajusté pour les variables de confusion incluant les caractéristiques sociodémographiques et l'utilisation antérieure des services.

**Results:** Les résultats seront présentés sous la forme de risques relatifs et absolus pour les variables de l'impact de la pandémie, de la variable de ruralité et de la variable de l'interaction entre la ruralité et l'effet de la pandémie. Le résultats attendus est une augmentation dans les indicateurs d'utilisation des services de santé au milieu urbain. Ce qui signifie un impact de la pandémie plus important chez les PAMA au milieu urbain. Ainsi, la ruralité agira comme facteur de protection contre l'impact de la COVID-19 sur l'utilisation de services de santé pour les PAMA.

**Conclusion:** Les résultats permettront de soutenir les PAMA pendant et après la pandémie et de les protéger contre les inégalités potentielles dans l'accès aux services. Avec ces résultats, il sera possible de cibler des interventions selon le niveau de ruralité pour assurer l'accès et la continuité des services de santé.

**Primary Theme:** COVID-19

**Secondary Theme:** Primary Healthcare

**Methods:** Experimental or Quasi-experimental Methods

**AuthorNames:** María Alejandra Rodríguez Duarte, Isabelle Vedel, Nadia Sourial, Genevieve Arsenault-Lapierre, Claire Godard-Sebillotte

**ID: 134**

## **The impact of the COVID-19 pandemic on ambulatory care use in four provinces: a retrospective cohort study**

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**Background and Objectives:** The COVID-19 pandemic, including the public health measures to minimize disease spread, has had negative impacts on persons living with dementia (PLWD) in Canada. PLWD have been overrepresented in cases and death due to COVID-19. In addition, they have experienced a change in their use of services (eg. virtual care, decrease in emergency department use). This study aims to measure the impact of the pandemic on ambulatory healthcare service use in PLWD in Canada.

**Approach:** This analysis is embedded in a large mixed-methods study evaluating the impact of the pandemic on PLWD healthcare service use in four provinces (Alberta, Saskatchewan, Ontario, Québec). This analysis will focus on ambulatory care outcomes (primary care, specialist, emergency department, virtual care visits) in a Québec cohort of PLWD during the pandemic period (March 1st, 2020-December 31st 2020), compared to the previous year (March 1st, 2019- December 31st, 2019) using administrative data. A negative binomial regression model will be used to measure the impact of the pandemic on each outcome, using inverse-probability treatment weighting to generate comparable cohorts.

**Results:** Comparison of baseline characteristics between cohorts, weighted and unweighted, will be presented using standardized differences. Weekly rates of the outcomes will be presented and then as aggregate rates by three periods: the first wave (March-May), plateau (June-August), and the second wave (September-December). Incidence rate ratios and differences from the model will be presented. These results will aim to highlight the overall change in ambulatory healthcare service use in PLWD in Québec during the pandemic. The results will be used to determine whether ambulatory healthcare service use increased, decreased, or was redistributed due to the pandemic in Canada.

**Conclusion:** The goal of this study is to understand how the pandemic impacted ambulatory healthcare service use for PLWD. We anticipate the results of this study will further the understanding of the pandemic's impact on PLWD in Canada and help inform future policy responses to public health emergencies.

**Primary Theme:** COVID-19

**Secondary Theme:** Primary Healthcare

**Methods:** Statistics/ Econometrics

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**ID: 138**

**Lifestyle and Nutrient Intake of Pregnant Women residing in the Inner-city Winnipeg and Northern Manitoba. Implications for Fetal Alcohol Spectrum Disorder policy and practice.**

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**Background and Objectives:** Planning maternal programs for fetal alcohol spectrum disorders (FASD), requires a comprehensive understanding of maternal behaviors as alcohol consumption is not sole contributor. Compromised maternal nutrition status is one of the major factors contributing to FASD. However, the information on nutrition status and dietary behaviors of women at-risk is scarce. This study aimed to identify and compare nutrition status, dietary patterns of pregnant at-risk and non-at-risk women of having children with FASD.

**Approach:** Through the partnerships with two Northern communities in Manitoba and maternal programs in central Winnipeg, 115 pregnant women (56 from Winnipeg and 58 from the communities) ages 14-42 were interviewed. Using an interactive and previously tested questionnaire, information was obtained on participant demographics, dietary intake, substance use, pregnancy outcomes and maternal health. A food frequency questionnaire and 24-hour recall were used to determine nutrient intake. Nutrient values were assessed using Dietary Reference Intakes (DRIs).

**Results:** At-risk women had lower intakes of folate (435µg vs 544µg: p

**Conclusion:** The findings of this study are fundamental premise for the development of best-practice policies and to benefit communities in the inner-city Winnipeg and Northern Manitoba. It is recommended to build equitable partnerships with communities to create tailored research strategies for information on maternal nutrition, pregnancy and lifestyle.

**Primary Theme:** Maternal and Child Health

**Secondary Theme:** Mental Health and Addictions

**Methods:** Survey Research Methods

**AuthorNames:** Olena Kloss, Karlee Dyck , Marie Jebb, Frances Potter, Wanda Phillips-Beck, Michael Eskin, Albert Chudley , Miyoung Suh

**ID: 144**

## **Development and implementation of “advanced cancer shared care letters” to improve shared care between oncologists and family physicians**

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**Background and Objectives:** Optimal care of patients living with advanced cancer requires a collaborative approach between oncologists and family physicians. We developed and implemented “advanced cancer shared care letters” to improve communication, collaboration and role clarity.

**Approach:** A physician-to-physician standardized “advanced cancer shared care letter” for colorectal cancer was created at a Canadian tertiary cancer center with stakeholder input. It is ordered by an oncologist when they determine a patient to have advanced cancer. The letter outlines components of shared care, division of responsibilities, monitoring for complications, responding to oncological emergencies, and consultation services such as palliative care. Family physicians can return a cover sheet to confirm their involvement, indicate their comfort level with providing a palliative approach to care, and ask questions. After four months of piloting, sustainability metrics were collected over eight months.

**Results:** After eight months, all eight gastrointestinal oncologists continued to use the letter, with 28.7% of patient visits (41.3% of decedent cohort) having an advanced cancer shared care letter ordered. Cover sheets were returned by family physicians in 23.3% of cases. Content returned included prognosis questions, goals of care conversations, supportive services available in their practice and those in use by the patient, capacity to manage symptoms (e.g. opioid prescribing), and palliative consult requests.

**Conclusion:** The advanced cancer shared care letter provides a useful mechanism for family physicians and oncologists to share information. It increases communication and care coordination between typically siloed providers, to enhance patient experience.

**Primary Theme:** Cancer

**Secondary Theme:** Collaborative Healthcare Improvement Partnerships

**Methods:** Healthcare Service or Policy Initiative

**AuthorNames:** Patricia Biondo, Aynharan Sinnarajah, Camille Bond, Amy Tan, Patricia Tang, Safiya Karim, Marc Kerba, Sharon Watanabe, Jessica Simon

**ID: 151**

## **An Optimization Framework for Infrastructure Funding Allocation**

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**Background and Objectives:** To keep pace with changes in technology, radiation treatment programs must integrate advances to treatment and treatment planning infrastructure. Fiscal constraints require programs to balance the cost of radiation infrastructure investments with programmatic benefit. The aim of this initiative was to develop an objective framework intended to recommend infrastructure funding allocations, maximizing the use of available funds while ensuring the greatest programmatic benefit (e.g. infrastructure, person-centred care, and system performance).

**Approach:** The optimization framework was established using three major steps. 1) Definition of evaluation criteria and sub-criteria using thematic analysis and expert input. 2) Prioritization of the pre-defined criteria and sub-criteria with expert input. 3) Application of Analytic Hierarchy Process theory, a decision support model that comparatively rates the evaluation criteria and sub-criteria translating them into inputs for mathematical optimization of benefit scores. The framework produces infrastructure funding allocation recommendations within a limited funding envelope.

**Results:** The framework provided an opportunity for thoughtful discussion and systematic agreement on the relationships between criteria and sub-criteria in infrastructure funding allocation decisions. These relationships were quantitatively translated into benefit scores and used as model inputs for optimization. The combined analysis provided a single recommendation of potential allocations for decision maker review. Additionally, a final review by decision makers was required for funding considerations that may not be captured in the model due to local considerations.

**Conclusion:** Clearly defined criteria and sub-criteria allow for the objective characterization on potential allocations and subsequent quantitative model inputs. As a result, discussions regarding programmatic infrastructure funding allocations are more objective, efficient, effective, consistent and transparent with respect to the allocation of funds.

**Primary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Mixed Methods

**AuthorNames:** Nancy Zhang, Brian Liszewski, Audrey Wong, Jonathan Wang

**ID: 152**

## **Telemedicine for Pediatric Resuscitation in the Emergency Department**

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**Background and Objectives:** Within a community hospital system, the number of pediatric resuscitative patients presenting at each site was mismatched with the on-site availability of pediatric expertise leading to gaps in patient care. Through an innovative collaboration, our community hospital system and our local children's hospital created a pediatric tele-resuscitation program. The objective of this program is to increase access to expertise, improve care, and outcomes during the golden hour of pediatric resuscitation through collaboration between hospital systems.

**Approach:** Using a mixed-methods approach grounded in the quality improvement (QI) paradigm, a telemedicine-based care program was developed. Emergency Room physicians at the community hospital sites can contact a pediatric subspecialist at the children's hospital Emergency Department (ED) 24/7 via Ontario Telemedicine Network, anytime a critical pediatric patient presents at the community ED. The program allows for real-time, two-way audio-visual consultation and facilitates provision of subspecialist care, expertise, and collaboration between physicians. The successful application of this program has required an interdisciplinary approach to QI, including plan-do-study-act cycles, weekly test calls, evaluation of post-use surveys, and semi-annual updates for frontline

**Results:** The telemedicine program has been sustained for two years through continual collaboration between stakeholders in the community hospital, children's hospital, and a local university. Evaluation of the program demonstrated that staff perceptions of the technology were positive, 90% out of 10 respondents agreed that telemedicine was better than a phone call because of the visual component and 81% agreed that patient care was enhanced. There was an average time to transfer of 14.46 minutes from the time a decision to transfer was made and an 11% reduction in the average cost of care was also observed. The team anticipates that the telemedicine program will have a broader impact in Southern Ontario community hospitals, through the expansion of the program to involve various hospital systems

**Conclusion:** Through a collaborative partnership between a community hospital, children's hospital, and university research personnel an innovative program has been created to increase access to subspecialized pediatric care. This program has resulted in an overall improvement in patient outcomes and been sustained through continual evaluation and interdisciplinary partnership.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Collaborative Healthcare Improvement Partnerships

**Methods:** Survey Research Methods

**AuthorNames:** Lidia Mateus, Madelyn Law, Madan Roy, Christopher Sulowski, Rafi Setrak, Asif Khowaja

**ID: 153**

## **The Balance Between Confidentiality and Transparency: An Analysis of The Quality of Care Information Protection Act**

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**Background and Objectives:** The Quality of Care Information Protection Act, 2004 (QCIPA) enabled healthcare providers in Ontario to have confidential discussions about critical incidents in care without fear of reprisal. There were concerns that QCIPA, 2004 prevented patients from being fully informed about critical incidents in their care. Therefore, Bill 119 was put forth on May 18th, 2016 to repeal and replace QCIPA, 2004. The objective of this study is to analyze how Bill 119 reached Ontario's agenda.

**Approach:** Kingdon's model was used to analyze this policy in the agenda-setting stage. The context surrounding the proposal to repeal and replace QCIPA, 2004 with QCIPA, 2016 was analysed to determine the various factors which converged to form a window of opportunity for the bill. The academic literature, popular press articles, and the readings of the bill were reviewed and examined through Kingdon's policy, politics, and problem streams.

**Results:** In 2016, the Kingdon's model streams aligned to create the ideal opportunity to repeal and replace QCIPA, 2004. The problem was highlighted through the reporting of several high-profile cases in the Toronto Star, which generated public interest and concern over the flaws in QCIPA, 2004. The political factors created a push for healthcare reform because in 2014 Ontario had a Liberal Minister of Health and Long-Term Care who pushed numerous initiatives to advance patient care. The public and political interest in patient-care and QCIPA led to the Minister convening the QCIPA Review Committee to review the current practice of QCIPA and to make recommendations for amendments. The Committee put forth twelve recommendations, all of which were put forth in the policy proposal for QCIPA, 2016.

**Conclusion:** Kingdon's model has provided a framework to understand how various factors impact political agenda-setting. In 2016, Bill 119 repealed and replaced QCIPA, 2004 and introduced several regulatory changes to achieve a balance between protecting the confidentiality of quality of care information and providing transparency to patients and their families.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Program or Policy Evaluation

**AuthorNames:** Hannah Sachs

**ID: 156**

## **Characteristics that influence purchase choice for Cannabis Products: A Systematic Review**

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**Background and Objectives:** When non-medical cannabis use became legal in Canada in 2018, Canadian governments implemented policies to encourage safe consumption through access to a regulated market. While regulated cannabis market is growing, a large portion of sales still occur through unregulated channels. The purpose of this systematic review was to identify factors that influence cannabis purchases. This research will help policymakers understand why consumers continue to purchase black market cannabis.

**Approach:** A comprehensive search strategy included 10 databases in health, business, and social science fields. Studies were eligible for inclusion if they were conducted with persons who purchased cannabis, and examined at least one attribute that would influence purchase choice. Studies used a variety of methodological designs. Two independent reviewers completed two levels of screening, and all extraction was verified by a second reviewer. A thematic qualitative synthesis of the findings was completed. The quality of the included studies was assessed using the Mixed Methods Appraisal Tool.

**Results:** Thirty publications were included in the final synthesis. Aspects of price were the most common factors (24 studies). Eighteen studies measured price elasticity; most studies found that demand was price inelastic. Many other attributes were identified (e.g., product quality, route of administration, product recommendations, packaging), but none were explored in depth. Eleven studies addressed aspects of product quality including demand elasticity based on quality, potency, and aroma. Studies also explored consumer-perceived “quality”, but provided no definition; differences in quality appeared to impact consumer choice. Smoking appeared to be the preferred route of administration. Product recommendations from friends or retailers influenced choice. In addition, there appeared to be preference heterogeneity based on the consumer’s experience, reason for use and gender.

**Conclusion:** While price influences choices, demand was relatively inelastic, suggesting that consumers may be seeking lowest-cost, unregulated cannabis without reducing consumption. Beyond price, there was a significant gap in understanding consumer choices. Though ill-defined, quality’s impact on choice indicates that we need a better understanding of it.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Knowledge Translation & Exchange (includes KTE methods)

**Methods:** Knowledge Synthesis

**AuthorNames:** Jennifer Donnan, Omar Shogan, Lisa Bishop, Michelle Swab, Maisam Najafizada

**ID: 159**

## **The evaluation of rapid redesign and resource redeployment on LTC residents and families: A case study**

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**Background and Objectives:** 81% of Canada's COVID-19 deaths are linked to the long-term care (LTC) sector. To stop virus spread in this sector, a number of rapid redesign and resource redeployment (RR) practices, such as increased capacity for staffing, flexible sick leave policies, training, identification and management of ill residents and/or workers and strict visitation policies, were instituted provincially. The purpose of this study was to evaluate the impact of RR practices on LTC residents and families.

**Approach:** his case study used mixed methods and was conducted in partnership with Louis Brier Home and Hospital, one of BC's largest LTC sites with over 400 staff who care for nearly 250 residents. A combination of resident (n~10) and family interviews (n~10) and monthly administrative data was studied. Quantitative data were analyzed using a trend analysis. Qualitative data were analyzed using content analysis.

**Results:** Family's concerns were staff workload, lack of individualized communication and inability to visit their loved ones. Resident interview data analysis is ongoing. Preliminary results showed challenging RR practices for families included inadequate staffing, strict visitation policies and the single site employment policy.

**Conclusion:** Even though RR practices and policies slowed the spread of the virus in one LTC site, systemic issues such as staffing and workload management, negatively impacted residents and their families.

**Primary Theme:** COVID-19

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Mixed Methods

**AuthorNames:** Farinaz Havaei, Maura MacPhee, Alison Phinney, David Keselman, Ryan Ji, Emilie Desabrais

**ID: 160**

## **Intake analysis of a free volunteer patient advocacy service in Alberta (2019-2020)**

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**Background and Objectives:** Community patient advocacy organizations offer support to patients during their healthcare journeys in complex healthcare systems. Although the data gained from these services would be useful for improving accessibility and navigation of the healthcare system, they remain an underrepresented area of study. As a patient advocacy organization, we conducted this study to extend our earlier dataset from 2014-2018, as part of a longitudinal project to describe ongoing trends of healthcare challenges experienced by Albertans.

**Approach:** Completed intake forms ( $n = 38$ ) submitted online by prospective clients from 2019-2020 were retrospectively analyzed. Intake forms, rather than accepted cases, were selected to assess what types of healthcare needs may require greater support, as indicated by patients. Each intake form contained: 1) demographic information including age and sex; 2) client's description of their respective case; and 3) expectations and goals of the patient advocacy service. All cases were from an Alberta demographic. Elements of the constant comparative method of thematic analysis were used.

**Results:** 58% of cases were female at intake. Client ages ranged from 9-95 (mean =  $47 \pm 18$ ). Cases most commonly involved psychiatric (20%) or neurological (11%) concerns. Non-medical cases (58%) were more frequent than medical cases (42%). Non-medical cases involved navigational (50%) or situational (50%) guidance. Cases involving navigation most commonly involved accessing care (27%), or assistance with filing complaints (27%). Cases involving situational guidance involved addressing poor quality of care (82%), or providing advice on how to approach deaths after an adverse health care event (18%). Medical cases involved accessing treatment (75%) more often than obtaining a diagnosis (25%).

**Conclusion:** An increase in the proportion of situational guidance and navigation suggests support outside of clinical settings remains useful to patients. Furthermore, the service was again most frequently used by middle aged patients and patients with psychiatric or neurological concerns, suggesting these demographics could still benefit from greater healthcare support.

**Primary Theme:** Patient and Public Engagement

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Emerging Methods (e.g. new developments in observational study design)

**AuthorNames:** Zachary Hong, Heather Templeton

**ID: 166**

## **Using Kingdon's Framework to Analyze Bill C-233: An act respecting a national strategy for Alzheimer's disease and other dementias**

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**Background and Objectives:** Canadians 65 years and over have outnumbered those 14 years and under. The aging population also brings with it challenges - the rising prevalence of dementia. To meet the growing needs of this population, the federal government of Canada passed Bill C-233, An Act respecting a national strategy for dementia, to address the scale, impact and cost of dementia. The objective of this study is to analyze how and why the bill reached the government agenda.

**Approach:** Kingdon's model was used to analyze Bill C-233 at the agenda-setting stage. Bill C-233 was examined through each of the problem, politics, and policy proposal streams to determine the various factors which converged to form a window of opportunity for the bill. Through a review and analysis of existing academic papers, grey literature, and House of Commons readings of the bill, it became clear the factors that influenced dementia reaching the federal government agenda. Kingdon's model illustrated how problems and politics, coupled together, put dementia on the federal agenda. However, policy proposals stalled this process.

**Results:** The problem stream was encapsulated by two major national and international reports which increased attention to dementia as a public health problem. The politics stream highlights how the Conservative party made large strides towards dementia recognition through grant funding initiatives and agreements for a pan-Canadian strategy. In 2015, however, the NDP's policy proposal for a federal dementia bill was swiftly rejected by the Conservative party. With the Conservatives striking down the 2015 NDP bill only to present their own version in Bill C-233, we have seen how party politics can act as a barrier to achieving plans. Despite this, the Conservative party successfully caught the attention of the House of Commons and opened up a window of opportunity to push forward the Bill C-233.

**Conclusion:** The convergence of problems, policy and politics streams, demonstrated by Kingdon's model, was necessary for agenda-setting. Hence, the success of Bill-C233 reaching the federal government's agenda was dependant on driving forces like national attention to the problem, political action and strategic policy proposals.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Program or Policy Evaluation

**AuthorNames:** Tammy Bui, Genevieve Arsenault-Lapierre, Amélie Quesnel-Vallée, Isabelle Vedel

**ID: 168**

## **EVALUATING THE IMPLEMENTATION OF QUALITY STANDARDS FOR CARE OF PEOPLE LIVING WITH SCHIZOPHRENIA AT WAYPOINT CENTRE FOR MENTAL HEALTH CARE**

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**Background and Objectives:** Waypoint Centre for Mental Health Care implemented four of the Health Quality Ontario (HQO) standards for schizophrenia care to update clinical practice with existing evidence. The standards targeted psychotherapies and prescribing practices, were initially implemented across four clinical programs, and required engagement with leaders/managers, physicians, nurses, and allied health workers. The objective was to understand the reach, adoption and implementation of the four standards at Waypoint, and explore implementation facilitators and barriers to guide next

**Approach:** We used a convergent mixed methods study design drawing upon the RE-AIM and CFIR frameworks. We collected quantitative data for 307 patients using the electronic health record and descriptive statistics. We conducted 22 semi-structured qualitative interviews with diverse staff members, and 16 structured interviews with patients. We analyzed the interviews thematically with reference to the RE-AIM and CFIR frameworks.

**Results:** Two programs had limited adoption, and the other two had limited reach. The recruitment and training of ten clinician champions to deliver psychotherapies was a key early step. Adoption was strongly influenced by the presence of trained clinician champions, which varied across programs. Professional role changes and technology (EHR and virtual care) were among the barriers to adoption. Digital tools such as electronic health record templates and telehealth are implementation enablers but require further refinement for usability. Patients highlighted the need for sustained engagement efforts and multimodal education to increase reach.

**Conclusion:** The implementation evaluation yielded actionable feedback to improve access to evidence-based treatments. Waypoint is now standardizing roles and tools for screening and referral, widening communications and engagement, partnering with peer support workers to develop patient education materials, and working to overcome patient/family barriers to virtual care.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Health Human Resources

**Methods:** Mixed Methods

**AuthorNames:** Matthew Tersigni

**ID: 169**

## **RESTORING CANADA'S HUMANITARIANISM AND REFUGEES' ACCESS TO HEALTHCARE THROUGH THE 2016 INTERIM FEDERAL HEALTH PROGRAM REFORM**

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**Background and Objectives:** The Interim Federal Health Program (IFHP) has provided temporary healthcare coverage to eligible refugees since 1957, but significant amendments reported to be cost-saving were made to the program by the Conservative Government in 2012. These reforms greatly affected refugees' access to healthcare and quality of life. However, in 2016, a political change resulted in the repeal of these reforms. This study, therefore, aimed to understand the agenda-setting factors influencing the 2016 reform.

**Approach:** Using the Kingdon and 3-I frameworks, "how" and "why" the policy appeared on the government's agenda was analyzed. Kingdon's framework exposed the problem, politics and policy proposal streams informing the 2016 reform, while major influencers involved in the reform were identified using the 3-I framework. This analysis involved a comprehensive review of academic articles, grey literature, Bill c-31 readings and the CDRC v Attorney General court case.

**Results:** Evidence from ad-hoc evaluations showed that contrary to claims made by the Conservatives, the 2012 reform was detrimental to both the refugees' health and government expenditures. The court ruling in 2014, together with the media reporting, made it necessary for the government to take action; though it was the active pushback by human rights activists, healthcare professionals and refugee service providers that facilitated the 2016 reform. To add, political climates favoured these reforms. Occupying the majority in government, it was relatively easy for the Liberal Government to restore the IFHP to its pre-2012 state. Noteworthy, whilst the 2012 reform received criticisms for evidentiary deficiencies, the government still doesn't have evaluation plans in place for the IFHP.

**Conclusion:** The 2016 reform offers a unique opportunity to eliminate structural barriers to accessing healthcare and reduce health disparities experienced by refugees. However, certain service gaps and administrative barriers for healthcare providers exist. These may lead to increased health burdens for some refugees.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Program or Policy Evaluation

**AuthorNames:** Divine-Favour Ofili

**ID: 170**

## **Description de la pratique professionnelle au sein des services à domicile : un examen des écrits par intégration**

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**Background and Objectives:** Différents professionnels (p. ex., travailleurs sociaux, infirmiers) doivent dispenser des services à domicile (SAD) aux aînés de manière efficiente à l'aide d'interventions directes et indirectes. Toutefois, aucune étude ne synthétise leur pratique au sein des SAD. Puisque ces professionnels ont différents mandats, un tel portrait pourrait permettre une adaptation des politiques des SAD à ces professions. Nous visions donc à synthétiser la pratique professionnelle au sein des SAD.

**Approach:** Pour ce faire, nous avons utilisé une méthode d'examen par intégration (integrative review) dans six bases de données incluant Medline et Pubmed, ainsi que dans la littérature grise. Pour être admissibles, les documents devaient être publiés en anglais ou français, après 2000 et ne pas porter sur les soins palliatifs à domicile puisque le contexte est différent. À l'aide de grilles validées, les documents ont été évalués et les données extraites par les trois auteurs. Nous avons ensuite analysé les données selon la méthode par intégration, c.-à-d., par codage, catégorisation et comparaison. Ceci a mené à la présentation de recommandations.

**Results:** À ce jour, la recherche préliminaire a permis d'identifier 3560 documents, dont au moins 15 seront inclus dans l'analyse finale. Les écrits proviennent de nombreux pays (p. ex., Japon, Canada, Norvège, Suède, États-Unis) et documentent plus souvent la pratique professionnelle des infirmières au sein des SAD que celles des autres professions (p. ex., travail social, ergothérapie, physiothérapie). Les types d'interventions dispensées par l'ensemble des professionnels des SAD sont diversifiés et comprennent des soins physiques, de l'enseignement, des évaluations, de la réadaptation et des références pour d'autres services. Enfin, les études documentent un temps supérieur alloué aux tâches indirectes (p. ex., remplir des documents, déplacements, etc.) comparativement aux tâches directes (p. ex., intervention à domicile).

**Conclusion:** Cette étude permet de mieux comprendre le travail effectué par les différents professionnels au sein des SAD. Ainsi, elle facilite l'identification de leviers pour améliorer la pratique professionnelle efficiente au sein des SAD, ce qui, en retour, pourrait contribuer à améliorer l'accessibilité des SAD pour les aînés.

**Primary Theme:** Home Care, Long Term Care and Aging

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Knowledge Synthesis

**AuthorNames:** Alexandra Ethier, Annie Carrier, Marie-France Dubois

**ID: 171**

## **A content analysis of cannabis-related tweets in Canada**

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**Background and Objectives:** Social media platforms are significant sources of rich data to study emerging patterns in social issues such as cannabis legalization. Twitter is an extensively used social networking platform, and offers a valuable opportunity to investigate public sentiment and perceptions on cannabis. The messages generated by users, producers, and suppliers of cannabis on Twitter reflect real-time trends and issues. This study seeks to explore Canadian Twitter content for perspectives related to cannabis.

**Approach:** The objective of this study was to examine the content of cannabis-related tweets in Canada. Using Twitter's Application Programming Interface (API), we have collected 48,343 cannabis-related tweets between Jan 1, 2018 and August 2, 2020 of Canadian origin by searching licensed and grey-market retailer handles, and searching using specific keywords related to cannabis. The most favored and most retweeted tweets of each group (licensed, grey-market, and keywords) were sorted for manual coding and thematic analysis. Codes were generated, grouped, and linked to developing themes.

**Results:** A total of 991 tweets were included for thematic analysis, with an even distribution across licensed, grey-market, and keywords. Major themes identified included access to cannabis products, the impact of COVID-19, education or information, packaging, cannabis policy, price, public safety, quality, source and types of products, uses, stigma, and gender issues. Although rich descriptions of the themes were provided in the collective of the tweets on each theme, the number of tweets in each theme varied. Legal cannabis retailers tended to highlight access to cannabis and cannabis policies, grey market retailers focused primarily on education and advertising, and tweets gathered using keywords provided more information related to cannabis use and the contribution of cannabis to the economy.

**Conclusion:** Social media provides rich information about cannabis use and issues in Canada, highlighting the different perspectives from the public, and licensed and grey-market retailers. The information gathered from social media offers opportunities for policymakers to gain a greater understanding of the issues which can be used to help refine

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Health Informatics

**Methods:** Data Mining/Big Data Analytics

**AuthorNames:** Maisam Najafizada, Lisa Bishop, Jennifer Donnan, Md. Arifur Rahman

**ID: 174**

## **Comprehensive Care Plans for Patients with Chronic Obstructive Pulmonary Disease (COPD): effect on health services utilization**

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**Background and Objectives:** Chronic obstructive pulmonary disease (COPD) is a progressive lung disease worldwide, with cost-incurring healthcare practices. In 2009, the Government of Alberta enacted a reimbursement model for physicians to develop a comprehensive annual care plan (CACP) for patients with common chronic conditions. The objectives of this study are to characterize the population of COPD patients who receive a CACP, and to evaluate any changes in healthcare utilization, including COPD-specific hospitalizations and emergency room (ER) visits.

**Approach:** COPD patients who received a CACP in Alberta from 2009-2016 were identified within the administrative data. Each of these patients were matched with two control patients based on age, sex, provider, date of service, and qualifying comorbidities. A descriptive analysis was used to characterize patients who received a CACP, as well as the control group. An interrupted-time series analysis was used to evaluate changes in COPD-specific hospitalizations, ER visits and physician visits. Immediate and temporal changes were calculated for the difference in outcomes one year before and one year after receiving the CACP for the intervention group and matched controls.

**Results:** Eligible patients (N=93,607), of whom 39,393 (42.1%) had received CACPs, were matched to a total of 54,214 controls. Patients' mean age was 66 (SD=13) years old. Other comorbid qualifying conditions were present, e.g. hypertension (52%), mental health disorder (46%), asthma (13%). More than half of the patients (59% of cases and 66% of controls) had recorded diagnosis of COPD, unspecified (ICD-9 496.x), the rest had chronic bronchitis and emphysema (ICD-9 491-2.x). The time-series analysis showed that in one year after the CACPs implementation the number of COPD hospitalization visits increased by 282 (95% CI -18.5 to 582.5) per 10,000 patients per month, ER visits increased by 426 (95% CI 324.6 to 527.7) per 10,000 per month, and general practitioners (GP) visits decreased by 151 per

**Conclusion:** Physicians have extensively administered CACPs to COPD patients since 2009. Our analyses indicated clinically relevant changes in healthcare utilization post-CACP compared to matched controls.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Program or Policy Evaluation

**AuthorNames:** Tatiana Makhinova, Jeffrey Johnson, Jasjeet Minhas-Sandhu, Candace Necyk, Mohit Bhutani, Dean Eurich

**ID: 182**

## **Ensuring person-centered principles in eConsultBASE™ research and service delivery through collaborative partnerships with patient partners**

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**Background and Objectives:** Person-centered principles are fundamental to generating meaningful research and improving care delivery. Collaboration with patient partners facilitates integrated knowledge translation (IKT) of the lived experience to guide decision making and ensure research and service delivery are person-centered. A patient partner led an initiative to define person-centered care in relation to the eConsultBASE™ Service. The eConsultBASE™ team leveraged this initiative to re-evaluate and formally adopt person-centered care principles at all levels of governance and decision making.

**Approach:** In 2020, a patient partner on the eConsultBASE™ team conducted a brief review of provincial policies, programs and practices that place person-centered care at the forefront of healthcare delivery. He led the development of an internal discussion paper, based on his review, which was supplemented by advice from colleagues at the Bruyère Research Institute in Ottawa, Ontario. The discussion paper was reviewed by various eConsultBASE™ Service committees and groups including a long-term care advisory committee, the Steering Committee, and a group of patient partners from six provinces. Feedback from these meetings was incorporated into the paper.

**Results:** The discussion paper provides a nuanced definition of person-centered care; a snapshot of selected frameworks; common engagement and partnership strategies and approaches; information on the health care delivery environment and a detailed review of the eConsultBASE™ Service's commitment to person-centered care. The paper will be used internally by team members to ground eConsultBASE™ Service delivery and research in person-centered principles. Extensive IKT was facilitated through Committee discussions about the paper, as eConsultBASE™ committee members include patient and care partners, clinicians, researchers, and policy-makers. The discussions provided an opportunity to verify that person-centered values, principles, and practices are upheld by eConsultBASE™ Service, facilitated changes in day-to-day practices, and resulted in revision of language in manuscripts, agreements, terms of reference, and other documents under development.

**Conclusion:** Patient partners led the eConsultBASE™ Service team to re-evaluate and better understand their approach to and role within person-centered care. IKT facilitated through collaborative partnerships with patient partners proved to be an essential way to ensure person-centered principles guide all aspects of eConsultBASE™ research and service delivery.

**Primary Theme:** Patient and Public Engagement

**Secondary Theme:** Knowledge Translation & Exchange (includes KTE methods)

**Methods:** Program or Policy Evaluation

**AuthorNames:** Tess McCutcheon, Mary Helmer-Smith, Erin Keely, Clare Liddy, Jim LaPlante

**ID: 184**

## **Who is participating in research for eHealth interventions and services for parents of infants?**

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**Background and Objectives:** The development of eHealth interventions for parents of infants is growing and may be one strategy to increase access to evidence-based early childhood health services. eHealth offers a wide range of services targeting infant health and postpartum care. These services are useful for families as they are of relatively low cost and are widely accessible. Our objective was to describe who is participating in research for eHealth services and interventions for parents of infants.

**Approach:** A systematic search was conducted in MEDLINE, EMBASE, PsycINFO, CINAHL, and Web of Science. Experimental and quasi-experimental studies were included if they evaluated an eHealth program or intervention designed for parents of infants aged 12 months or less. eHealth programs were included if they targeted specific infant behaviours or aspects of infant care (e.g., feeding, settling, sleeping, social interaction). Title abstract and full text screening were conducted independently by two reviewers. Information on the country where the intervention was delivered, participant demographics (ethnicity, income, education, and partnered status), and type of eHealth intervention was extracted and analyzed using descriptive statistics.

**Results:** A total of 58 studies were included in the systematic review. Based on preliminary analysis, much of the research on eHealth interventions and services for parents of infants was conducted in the United States (50%) and appears to include mothers from higher socioeconomic backgrounds. Approximately 20% of the studies were conducted in Australia. Additionally, 70% of participants were mothers, as opposed to fathers, and 65% of the studies were published within the last 5 years. Of the studies included in preliminary analysis, 53% described participants' ethnicity, 45% reported participants' household income, 85% described parental education and 55% described participants' partnered status. Additional descriptive statistics on participant ethnicity, household income, parental education and partnered status will also be presented.

**Conclusion:** Understanding who is participating in this type of research is important to increase accessibility and make parenting interventions and services more widely available to families. This understanding will inform future work that aims to identify potential barriers and facilitators of access to eHealth interventions for parents who are underrepresented.

**Primary Theme:** Maternal and Child Health

**Secondary Theme:** Primary Healthcare

**Methods:** Knowledge Synthesis

**AuthorNames:** Mya Dockrill, Elizabeth Keys, Penny Corkum, Christine Cassidy, Michelle Johnson, Leanne Richardson

**ID: 185**

## **Use of the Combined Multimorbidity Index to estimate hospital costs : a retrospective cohort study in Quebec, Canada**

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**Background and Objectives:** Multimorbidity, or the presence of multiple chronic diseases, is a growing public health challenge in industrialized countries. It is associated with increased healthcare use and expenditures in comparison with single chronic diseases. Despite the increasing prevalence of multimorbidity, hospital cost analyses continue to be based largely on a single-illness model, the Diagnosis Related Group (DRG). We tested whether using a validated multimorbidity index in conjunction with DRGs improved hospital cost analyses.

**Approach:** We conducted a retrospective cohort study using hospital records for adults admitted or undergoing day surgery at the Centre Hospitalier de l'Université de Montréal from 1 April 2016-31 March 2017. We included first admissions in the 30 most frequent DRGs, which group diagnoses by clinical similarity and healthcare resource needs. Multimorbidity was assessed using weighted scores on the Combined Multimorbidity Index. Total cost per admission was calculated retrospectively using Power Performance Manager activity-based costing software. We used quantile regression to estimate the contributions of DRG weighted multimorbidity score, and DRG-by-score interaction to the median cost of a hospital admission.

**Results:** When considered alone, multimorbidity score was significantly associated with hospital costs. Each additional point on the index was associated with a median cost increase of \$1,535 (1468; 1602). When considered in addition to the DRGs, the median cost increase associated with multimorbidity score remained statistically significant but small, at \$37 (19; 56) per point. When interaction terms were added to the model, we found larger DRG-by-multimorbidity-score interactions. The largest interactions were for Percutaneous coronary interventions with acute myocardial infarction (\$695, 255; 1,135) and Coronary bypass without acute myocardial infarction (\$631, 333; 929). However DRGs had the strongest associations with hospital costs, ranging from \$-1603 (-1821; -1385) for Alcohol abuse and dependence to \$6813 (6032; 7594) for Major pancreas, liver and shunt procedures.

**Conclusion:** In the absence of DRG information, the Combined Multimorbidity Index shows significant association with hospital costs. However, when the DRG is available, the index score explains little additional cost variation. Further research should be conducted to determine the index's utility in long-term cost analyses where no single DRG applies.

**Primary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Statistics/ Econometrics

**AuthorNames:** Myles Gaulin

**ID: 188**

## **The need for improvements to interprofessional collaboration in the Canadian dietetic profession**

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**Background and Objectives:** Interprofessional collaboration (IPC) amongst care providers is a key factor in efficient healthcare models. Registered dietitians play an indispensable role as members of healthcare teams. While scholarly work has investigated aspects of IPC in dietetics, little is known about dietitians' own perceptions and experiences of interprofessional work. Filling this knowledge gap is one aspect of enhancing these professional interactions and, in turn, the wellbeing of patients and the healthcare system.

**Approach:** To advance knowledge in this area, an online cross-sectional survey was administered to registered dietitians in Canada, an area where knowledge on this topic is limited. Measures included collaboration gap; collaboration frequency; scales on IPC and interprofessional interaction; perceptions of providers' understanding of dietetic work; and the role of training in IPC preparation. The study underwent ethics approval, piloting, and open access pre-registration prior to data collection, which took place between January and March 2020. SPSS was used to analyze quantitative data using descriptive and inferential statistics, while open-text comments were analyzed using thematic analysis.

**Results:** In total, 469 registered dietitians from 10 Canadian provinces took part in the study. Findings indicated a significant difference ( $p < .001$ ) between the frequency with which dietitians collaborated with other providers as compared to their desired frequency, with close to two-thirds (61.0%) of respondents wanting more frequent collaboration. Negative views of interprofessional interactions were held by a majority of dietitians (59.2%). Almost all dietitians felt there is a need to raise better awareness about their profession (95.4%), as well as that they are underutilized in healthcare (92.5%). On three measures related to dietetic training, a majority of participants (65.6% to 81.5%) indicated that their training helped prepare them for IPC. The barrier to IPC cited most frequently by participants was insufficient time/availability.

**Conclusion:** The study's findings suggest that IPC is an area in need of consideration in the dietetic profession in Canada, as well as with health and social care professionals who work with registered dietitians. The results point to potential avenues for improvement as well as future research directions.

**Primary Theme:** Collaborative Healthcare Improvement Partnerships

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Survey Research Methods

**AuthorNames:** Kathryn Asher, Shelley Doucet, Alison Luke

**ID: 189**

## **Experiences of Indigenous peoples in Canada with primary health care services: A qualitative systematic review**

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**Background and Objectives:** Indigenous peoples in Canada experience significant health disparities. Primary health care has been shown to enhance the overall population health and reduce health inequities, particularly for marginalized populations. Our qualitative systematic review will be the first to aggregate and synthesize the experiences of Indigenous peoples across Canada in an effort to capture their experiences when receiving primary health care and identify recommendations for quality improvement.

**Approach:** The protocol for this systematic review has been registered at PROSPERO (ref: CRD42020192353). The framework used is Joanna Briggs Institute's methodology for systematic reviews of qualitative evidence. Our focus is on self-identified Indigenous patients who had first-and/or second-hand experiences receiving primary health care services in Canada, irrespective of their age, gender, and medical condition. Searches in MEDLINE, CINAHL, PubMed, PsycINFO, EMBASE, and Web of Science databases as well as grey literature will be performed. The screening, critical appraisal, and data extraction of included articles will be conducted by two independent reviewers. Meta-aggregation will be used to synthesize results.

**Results:** We anticipate that our review will reveal numerous barriers and facilitators to the delivery of primary health care services in Canada as well as recommendations for culturally appropriate care. Barriers may include racial discrimination, negligence, and cultural insensitivity. Whereas, professionalism and respectful communication would be deemed as facilitators. Consequently, recommendations to improve the quality of primary health care would be focused on cultural sensitivity training and increased recruitment of Indigenous health care providers. These findings can assist health care providers, researchers, managers, and policymakers in developing targeted interventions and modifying academic curriculum. Improving the quality of primary health care delivery would be a step towards reducing health inequities faced by Indigenous peoples in Canada.

**Conclusion:** Culturally adapted high-quality primary health care may reduce health inequities faced by Indigenous peoples in Canada. Hence, it is crucial to examine and synthesize their first-hand experiences of primary health care services, in order to identify specific areas for quality improvement.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Indigenous Health

**Methods:** Knowledge Synthesis

**AuthorNames:** Sharmin Alam, Anita Kiafar, Geneveave Barbo

**ID: 193**

## **Impact of COVID19-related expansion in virtual care provision on attendance at diabetes center appointments, by socioeconomic status**

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**Background and Objectives:** Patients with diabetes require a team approach with support from a multi-disciplinary team. Non-attendance within diabetes programs is a well-known challenge, as patients face many barriers, often relating to the requirement to be present in-person. Due to the COVID-19 pandemic, virtual care has been made more widely available. We will evaluate the impact of expanding virtual care on non-attendance rates at diabetes programs in Calgary, Alberta, stratified by socioeconomic status.

**Approach:** Clinical and administrative records of patients referred to diabetes programs in Calgary will be used, comparing attendance between June 1– August 30, 2019 (pre-COVID) with June 1, 2020 – August 30, 2020 (COVID). Descriptive statistics (sociodemographic and clinical characteristics) will be used to summarize non-attendance rates for different providers (endocrinologists, diabetes educators, and psychosocial providers). Non-attendance rates will be calculated as the proportion of all scheduled visits (new and follow-up) coded as not attended. Multivariable-adjusted binomial regression will be used to estimate the relative difference in attendance rates between the two time periods. Analyses will be stratified by socioeconomic status

**Results:** From the clinic visit records, we will determine the non-attendance rate for new assessments and follow-up visits specified by visit type: in-person, telephone, or virtual (zoom) as coded in the data. Attendance rates may reveal differences since the expansion of virtual care billing codes. Performing stratified analyses by neighbourhood markers of socioeconomic status (income, social deprivation, and material deprivation) will indicate whether there has been a differential impact of virtual care on those facing social and structural disadvantage. We expect that the increased provision of virtual care may increase attendance rates, particularly for individuals facing social and material deprivation for whom attendance at in-person appointments was particularly challenging.

**Conclusion:** COVID-19 has led to the expansion of virtual care. However, it is unclear how this has affected patients referred to diabetes programs and how this varies by socioeconomic status. This work will uncover challenges and opportunities in virtual care as this continues to be offered in our healthcare system.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Chronic Disease Management

**Methods:** Data Mining/Big Data Analytics

**AuthorNames:** Camilia Thieba, Ronald Sigal, David Campbell, Sonia Butalia, Doreen Rabi, Julie McKeen

**ID: 200**

## **Developing and evaluating an innovative novel model of care for patients with diabetes who are experiencing homelessness: a pilot trial**

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**Background and Objectives:** Diabetes can lead to many complications. Regular screening for microvascular complications (nephropathy, neuropathy, and retinopathy) is important as early detection has been shown to lead to improved outcomes. Patients with diabetes who are experiencing homelessness face considerable barriers to receiving this standard of care. Our aim is to pilot and evaluate the expansion in the scope of practice of providers who work with this population in order to make screening for complications easy and accessible.

**Approach:** We will work collaboratively with diabetes specialists who work in community health centres to expand their scope of practice to include comprehensive screening for diabetes complications. This involves the use of: a standardized foot assessment and referral pathway; point-of-care blood and urine testing devices; and a handheld PanOptic ophthalmoscope and teleretinopathy program. We will evaluate the impact that these measures have on completion of screening tests and patient satisfaction. Furthermore, participants will complete baseline questionnaires, which will be repeated after completion of screening maneuvers. We will also conduct semi-structured interviews with participants to understand the impact of this novel program.

**Results:** By expanding the scope of practice of those who are currently providing diabetes care to this population, and equipping them with the tools to provide more comprehensive point-of-care screening for diabetes complications, we anticipate that quality of care will improve. Earlier detection of microvascular complications will enable referral and treatment for patients who require specialty care, resulting in a reduction in diabetes-related morbidity in this population. We will also capture patient perspectives of the program quantitatively (through surveys) and qualitatively (through interviews) to better understand the strengths of the program and to identify opportunities for improvement.

**Conclusion:** Patients with diabetes who are also experiencing homelessness have many challenges in their diabetes management, including ability to complete screening tests. Our aim with this pilot trial is to create an innovative method that will enhance health care practitioners' ability to provide point of care screening and improve overall care.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Mixed Methods

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**ID: 216**

## **Measuring trajectories of healthcare use in people with dementia, using the ‘6W’ multidimensional model of care trajectories: A mixed systematic review**

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**Background and Objectives:** Healthcare use is higher for people with dementia (PWD), it varies greatly within the disease course and divides into a range of trajectories of healthcare. Developing knowledge on these trajectories could help anticipate patients' needs, improve care, services planning, and coordination. Objectives :1) report on healthcare services trajectories by PWD and their measurement, using the ‘6W’ multidimensional model of care trajectories; 2) examine how studies reporting on healthcare trajectories of PWD include socioeconomic factors.

**Approach:** We used the Joanna Briggs Methodology for Mixed Methods Systematic Reviews. A search strategy was used to explore EMBASE, MEDLINE, CINALH, PsycINFO, and Web of science Core Collection, before December 2020. Independent reviewers screened articles, assessed methodological quality (using the Mixed Methods Appraisal Tool), and extracted data using a standardized chart. Differences were resolved through consensus. Studies were included if they reported on healthcare trajectories (defined as the pattern of care use over time) of community-dwelling PWD. The approach to data analysis will use a narrative synthesis.

**Results:** Analysis is presently in progress, and preliminary results will be presented at the CAHSPR 2021 conference. Actually, our comprehension of healthcare trajectories of PWD is sparse and has not been systematically analyzed. Our project will help understand what concepts are considered in studies reporting on healthcare trajectories of PWD, and what specific common constituents are shared. The use of the ‘6W’ multidimensional model is a strength, as it gathers all key information into a unique frame. The components are: Who- (patient); Why (illness conditions); Which (care providers); Where (care units); What (treatments); When (time).

**Conclusion:** PWD are considered a vulnerable population, presenting a burden of complex medical and social needs. Results will provide a better understanding for health professionals and decision-makers regarding how PWD move through the healthcare system and how specific risk factors can be addressed.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Primary Healthcare

**Methods:** Knowledge Synthesis

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**ID: 219**

## **Using natural language processing to identify signs and symptoms of dementia in primary care electronic medical records (EMR)**

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**Background and Objectives:** Free-text fields in electronic medical records (EMRs) are a rich source of information about persons with dementia. The signs and symptoms of dementia (e.g., responsive behaviours, cognitive impairment) can present to primary care providers many years before a formal diagnosis. We used natural language processing (NLP) to develop a list of features (i.e., dementia-related key words) and compare classification algorithms to identify persons with dementia based on signs and symptoms documented in primary care EMRs.

**Approach:** We used a validated algorithm based on administrative data to identify 526 persons with incident dementia (known positives) and 44,148 persons without (known negatives) aged 66+ from a primary care EMR database in Ontario, Canada between April 2010 and March 2018. A list of 900+ features associated with dementia was developed using literature review, clinician input and associated word embeddings. We trained a series of classification algorithms (e.g., gradient boosted models, neural networks, lasso and ridge regression) separately in progress notes and consult notes and compared their performance using nested 10-fold cross validation.

**Results:** Persons with dementia were older (mean:80.3 vs. 74.6 years) and more likely to have 5+ chronic conditions (11.6% vs. 7.8%). Persons with dementia had a median of 30.3 features per progress note (IQR:23.8, 40.4) and 54.7 per consult note (IQR:26.6, 83.8) compared to 27.5 (IQR:21.3, 36.5) and 32.1 (IQR:14.0, 55.6) for persons without dementia. Out of eight thematic groups (cognition, social, health system use, function, medication-dementia, medication, symptoms, other), persons with dementia showed substantially more features related to cognition, social and medication-dementia in progress and consult notes compared to persons without dementia. Using progress notes, the classification algorithm involving neural networks showed the best performance (Sensitivity:66.2%, Positive Predictive Value [PPV]:81.3%). Using consult notes, the gradient-boosted classifier performed best (Sensitivity:45.4%, PPV:66.5%).

**Conclusion:** We used NLP to discover informative features and develop classification algorithms to identify persons with dementia using free-text EMR data. This could be used to improve recognition of early signs and symptoms of dementia by primary care providers to provide patients with appropriate interventions, including assessments, imaging and specialist referrals.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Health Informatics

**Methods:** Data Mining/Big Data Analytics

**AuthorNames:** Laura Maclagan, Mohamed Abdalla, Daniel Harris, Branson Chen, Elisa Candido, Richard Swartz, Andrea Iaboni, Therese Stukel, Liisa Jaakkimainen, Susan Bronskill

**ID: 221**

## **Using Twitter to identify the COVID-19 impact on people with dementia: Policy implications**

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**Background and Objectives:** People with dementia have been affected by the COVID-19 pandemic in numerous ways. Statistics show that up to 75% of COVID-19 deaths globally in care facilities have been people with dementia. However, there is little research on the COVID-19 experiences of people with dementia. This presentation aims to: 1) understand the impact of COVID-19 on people with dementia and their care partners; and 2) identify policy implications to support people with dementia during the pandemic.

**Approach:** Tweets were collected on Twitter using the GetOldTweets application in Python from February 15 to September 7, 2020. Search terms included keywords for dementia (e.g., Alzheimer's, Lewy Body disease, etc.) and COVID-19 (e.g., coronavirus, etc.). From the 20,800 tweets, filters were used to exclude irrelevant tweets (e.g., U.S. election). The remaining 5,063 tweets were exported to Excel for thematic analysis. The tweets divided among 7 coders with an additional coder managing inter-coder reliability during thematic analysis.

**Results:** Four main themes were identified including: i) separation and loss (e.g., physical separation, visitation bans, lockdowns, and death); ii) COVID confusion, despair, and abandonment (e.g., person with dementia unable to understand COVID-19 restrictions/isolation); iii) stress and exhaustion exacerbation (e.g., restricted/terminated services, financial challenges, behavioral changes perceived in person with dementia, and inadequate care home options); and iv) unpaid sacrifices by formal care providers (e.g., not having adequate personal protective equipment and missing out on family events and responsibilities to continue to work).

**Conclusion:** There is an urgent need for governments to rethink using a one-size-fits-all response to COVID-19 policy and use a collaborative approach to support people with dementia. Collaboration and more evidence-informed research are essential to reducing COVID-19 mortality and improving the quality of lives for people with dementia and their care

**Primary Theme:** COVID-19

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Qualitative Research Methods

**AuthorNames:** Juanita Bacsu, Megan E. O'Connell, Karl Grewal, Shoshana Green, Lisa Poole, Mahsa Azizi, Raymond J. Spiteri, Allison Cammer

**ID: 228**

## **Reducing Social Isolation During the COVID-19 Pandemic: Assessing the Contribution of Courtesy Calls by Volunteers.**

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**Background and Objectives:** During the COVID-19 pandemic, in the absence of a vaccine and treatment, visitation restrictions were implemented in hospitals in the province of Quebec. These restrictions lead to social isolation for patients. In order to limit the risk of contamination in establishing social distancing, the Centre hospitalier de l'Université de Montréal shifted from in-person to courtesy calls delivered by their volunteers. The aim of this study was to study the contributions of these calls on isolation.

**Approach:** Quantitative and qualitative data were collected for hospitalized patients and volunteers. Two questionnaires, developed from validated questionnaires but adapted to the health crisis, were used, one for patients and one for volunteers. The patient questionnaire aims to evaluate isolation, courtesy calls and the relationship of trust with the volunteers. The volunteer questionnaire aims to document, for each call, the appropriateness of the courtesy call, support and training, the impacts of courtesy calls for both patients and volunteers and the experience report. For both questionnaire, a space for comments was provided at the end. Focus group were conducted for the volunteers.

**Results:** Both patients and volunteers greatly appreciated receiving or making courtesy calls. For 73.6% of hospitalized patients, the courtesy calls from volunteers responded well to their needs, as did 72% of volunteers. 64.5% of patients felt less isolated and 59.3% created a bond of trust with the volunteer. 84% of the volunteers are satisfied with their interventions with patients. For 80% of them, they consider that patients felt less isolated as a result of their intervention. 84% felt comfortable with the roles and responsibilities assigned to them. 80% felt that the training they received was sufficient to intervene with patients. Volunteers related that it is more difficile of establishing a trusting relationship over the telephone than in person.

**Conclusion:** The COVID-19 pandemic allowed for the introduction of a social innovation in the hospital environment, namely courtesy calls by volunteers. These courtesy calls can also be implemented outside of the pandemic to allow people who are isolated for medical reasons to continue to have social interactions.

**Primary Theme:** COVID-19

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Mixed Methods

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**ID: 234**

## **A province-wide assessment of Health Information Technology maturity among Long-Term Care homes in Ontario**

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**Background and Objectives:** Long-term care (LTC) homes serve a vulnerable population that has been disproportionately affected by COVID-19. Health information technology (HIT) has the potential to improve the quality, safety and efficiency of care for LTC residents. However, the level of HIT adoption across Ontario's LTC homes is inconsistent and poorly understood. This study serves to assess the IT maturity of Ontario's LTC homes to quantify gaps and to inform programs attempting to implement more integrated HIT systems.

**Approach:** We will invite key informants from all 630 LTC homes operating in Ontario to complete a validated electronic survey assessing IT maturity. Responses will be used to compute IT maturity scores of each LTC home and assess their IT maturity level using a 7-point staging instrument. In our analysis, we will compute the mean and standard deviation of the IT maturity scores and overall stage. Post-stratification methods based on rurality, size, and ownership model will be used to weight survey respondents based on demographic patterns. Association between IT maturity scores and key facility characteristics will also be explored.

**Results:** We aim to have completed all surveys by May 2021. Characteristics of LTC homes that participated will be compared to those that did not participate. The main results for this study are the mean and standard deviation of the IT maturity score and stage of participating LTC homes, stratified by key LTC home characteristics. We will also report on the association between LTC home characteristics and IT maturity score, weighted mean score and standard deviation for all Ontario LTC homes. Based on a literature review of similar surveys administered in the United States and Canada, we hypothesize that the data will suggest that Ontario's LTC homes either lack the IT infrastructure to adopt advanced HIT systems or otherwise lag in the adoption of HIT.

**Conclusion:** A better understanding of IT maturity is essential to facilitating the widespread funding and adoption of HIT in Ontario's LTC homes. Our findings will help support policymakers attempting to drive change in this area, and serve as baseline measures for the assessment of changing trends in IT dimensions over time.

**Primary Theme:** Home Care, Long Term Care and Aging

**Secondary Theme:** Health Informatics

**Methods:** Survey Research Methods

**AuthorNames:** Ramtin Hakimjavadi, Mary Helmer-Smith, Clare Liddy, Justin Joschko, Sathya Karunanathan, Celeste Fung, Gregory Alexander

**ID: 248**

## **Insights into impact of Tele-retina screening for diabetic retinopathy among women of low socio-economic status (SES): case study**

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**Background and Objectives:** By 2025, 5 million Canadians will be diagnosed with diabetes. In lower SES, 75% of affected individuals are women. Diabetic retinopathy (DR), primary vision complication of diabetes and leading cause of blindness, impacts 26% of women. Tele-retina, delivering eye care at distance, may reduce incidence of blindness. Evidence notes adverse associations between screening, gender and income. Through case study, we will explore systems of oppressions impacting access to DR care in women of lower SES.

**Approach:** Guided by Multi-Construct Intersectionality Framework and Conceptual Social Determinants of Health Framework, we will explore system, organizational, and patient/provider level factors associated with implementation and adoption of Tele-retina program. Population will consist of adults, self-identify as women, low SES, completed/refused Tele-retina screening; healthcare providers; administrators and decision makers. We will conduct ethnographic study, in-depth semi-structured interviews and documentation review. Primary outcomes are key factors facilitating/impeding program's implementation and adoption. Secondary outcomes focus on stakeholders' perceptions and experiences. Data analysis guided by Grounded Theory approach, involves systematic coding of data and theme abstraction to identify facilitators and barriers to program's implementation/adoption.

**Results:** We plan to interview up to 21 patients; 14 providers, administrators, and decision makers; and to conduct up to 14 hours of observations, alongside review of relevant documents. Final sample size will be determined by thematic saturation. Data analysis will be an iterative process using Grounded Theory approach involving construction of theories through methodological gathering and analysis of data. Thematic analysis from interview transcripts, and observation notes will occur in stages: open; axial; and selective coding supported with a review of documentary sources. Triangulation will be applied using multiple qualitative data sources to develop a comprehensive understanding of key factors facilitating/impeding program's implementation and adoption. Study is under review by University Health Network (UHN) Research Ethics Board (REB) (19-5628).

**Conclusion:** Remarkably low DR screening rates remain among low-income communities. Understanding facilitators and barriers will address knowledge gap and assist in implementing, and adopting effective, yet culturally sensitive, DR screening interventions, thus improving access to screening for vulnerable populations and new knowledge vis-à-vis improvements in delivery of DR screening interventions.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Qualitative Research Methods

**AuthorNames:** Aleksandra Stanimirovic, Sonia Meerai, Troy Francis, Valeria Rac

**ID: 257**

**Assessing the effectiveness and cost-effectiveness of Telehomecare (THC) program in patients with heart failure (HF) and chronic obstructive pulmonary disease (COPD)**

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**Background and Objectives:** In 2007 Ontario Telemedicine Network (OTN) launched pilot of telehomecare (THC) for HF patients residing in Central West (CW), Toronto Central (TC) and North East (NE) local health integration networks (LHINs). Following the successful pilot, program expansion was initiated in 2012 across 3 LHINs. The quasi-experimental pre-post study aimed to assess effectiveness and cost effectiveness of THC in HF and COPD patients enrolled in THC across 3 LHINs.

**Approach:** Primary research data was linked to National Ambulatory Care Reporting System (NACRS) and Discharge Abstract Database (DAD) between July 26th, 2012 and up to March 31st, 2014. Effectiveness was assessed as THC impact on HF or COPD disease specific ED visits and hospitalizations for a period of 180 days pre- and post-THC enrollment. Cost-effectiveness was assessed as the cost per disease specific ED visit and hospitalization avoided, by computing the extra cost per extra effect (C/E) for the FY 15/16. Data was analyzed based on intention to treat approach using generalized linear mixed model procedures in SAS.

**Results:** Among 783 HF patients, ( $76.93 \pm 10.97$  years of age; 51% women; 47% urban residents), significant decrease in: disease specific ED visits (95% CI: -1.02 to -0.66) and hospitalizations (95% CI: -1.20 to -0.82) in 6 months post-THC. Among 593 COPD patients, 50% were women; 44% were >75 years, and 86% urban residents; significant decrease in disease specific (COPD) ED visits (95% CI: -0.432 to -0.132); and hospitalizations (95% CI: -0.557 to -0.210). In Ontario (2016): cost of average ED visit was \$246.84; HF hospitalization \$11,502; and COPD hospitalization was \$10,987.12. Cost/HF patients was \$3,100 (2016) and C/E = (cost/disease specific health system usage avoided (ED visits and hospitalizations)); for HF as \$4,835.26. Cost/COPD patient was \$3,126 and C/E = \$8,167.

**Conclusion:** Results indicate that THC may impact health system utilization of HF and COPD patients. Considering costs of HF and COPD ED visits and hospitalizations in Ontario, Telehomecare can be considered a favourable strategy. Findings of study merit further investigation on impact of THC, using other study designs.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Methods:** Economic Analysis or Evaluation

**AuthorNames:** Aleksandra Stanimirovic, Troy Francis, Nida Shahid, Valeria Rac

**ID: 258**

## **A multi-level qualitative comparative study on adoption of Telehomecare program across Ontario LHINs: enablers and obstacles**

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**Background and Objectives:** Telehomecare carries potential to positively impact patient lives; remains a promising tool in assisting patients to manage disease symptoms and strengthen models of health care provision, meanwhile carrying system level impacts. Number of challenges remain, including continuous assessments of what is working and not working for stakeholders. Using multi-level framework, we explored beliefs and perceptions within and between macro, meso, and micro-levels to gain insight into Telehomecare program.

**Approach:** Study utilizes a multi-level framework as a conceptual guide in exploring facilitators and barriers to Telehomecare implementation and adoption across five levels: technology, patients, providers, organizations, and structures. Ethnographic observations and in-depth semi-structured interviews with program stakeholders, as well as a Telehomecare document review were utilized to develop key themes. Study participants (n = 114) included patients (n = 56), informal caregivers (IC) (n=5), Patient/IC paired (n=2), health care providers (n = 19), technicians (n = 1), administrators (n = 14), and decision makers (n = 5), follow up interviews (n=12) across eight Local Health Integration Networks.

**Results:** Key facilitators to Telehomecare adoption at each level of multi-level framework included: user-friendliness of Telehomecare technology, patient motivation to participate in program, strong informal support networks, strong intersectoral collaboration, community and engagement of strong formal care network(s)/physicians' engagement, organizational shift(s) to adapt program and program modifications with continuous evaluation. to respond to local context needs. Key barriers included: technological shifts from old to new system where old system was considered more user friendly, training inconsistencies/access-related issues to using technology/equipment, lack of post-discharge care planning, Telehomecare not being embedded within healthcare system and structural barriers to patient participation related to geography.

**Conclusion:** Qualitative analysis provided deeper understanding of multi-level contexts and processes impacting stakeholder experiences and perceptions of Telehomecare program, alongside what is working and what is not working. Future TLC program initiatives should focus on more comprehensive post-discharge care planning and better program integration within existing healthcare services in local areas.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Qualitative Research Methods

**AuthorNames:** Aleksandra Stanimirovic, Sonia Meera, Jeff Smallbone, Troy Francis, Valeria Rac

**ID: 259**

## **Understanding the communication experiences of people with intellectual/developmental and sensory disabilities in the context of perinatal care**

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**Background and Objectives:** Effective provider-patient communication is a key component of optimal perinatal health care. Research on the perinatal health care experiences of people with intellectual/developmental and sensory disabilities indicates this group is underserved. However, little is known about their communication needs and experiences during these encounters. The purpose of this study was to understand how people with intellectual/developmental and/or sensory disabilities in Ontario describe their communication experiences when they access perinatal health care.

**Approach:** Semi-structured interviews were conducted with 31 people with disabilities in Ontario, Canada, who had given birth within the last five years. The interviews investigated participants' care experiences during pregnancy, delivery, and the postpartum period, including what they did and did not like about their care experiences. The present study focused specifically on the communication-related experiences of the 17 participants with intellectual/developmental and/or sensory disabilities. Interviews were audio-recorded, transcribed, and verified for accuracy. NVivo was used for data management. Thematic content analysis was conducted to identify commonalities and differences across participants' experiences, including barriers to and facilitators of effective communication.

**Results:** Preliminary findings suggest people with intellectual/developmental and/or sensory disabilities face multiple barriers to effective provider-patient communication while seeking perinatal health care in Ontario. A common barrier reported by d/Deaf people was that American Sign Language (ASL) interpreters were not readily available. People with vision impairments identified a lack of access to tactile modes of communication and braille resources. Some people with intellectual/developmental disabilities reported their providers' use of technical terms hindered their ability to comprehend information and follow perinatal care guidance. Emerging themes suggest providers' ability to show empathy toward people's disability-related needs and their efforts to engage in shared decision-making effectively facilitated positive provider-patient communication experiences across all groups.

**Conclusion:** Preliminary findings suggest that people with intellectual/developmental and/or sensory disabilities frequently face barriers to effective provider-patient communication. Given that effective communication is critical for positive maternal and neonatal health outcomes, there is a need to develop and implement strategies to improve communication access within perinatal care for these underserved populations.

**Primary Theme:** Maternal and Child Health

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Qualitative Research Methods

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**ID: 261**

## **The role of associations in acquiring HSPR competencies: Trainees' perspectives**

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**Background and Objectives:** Competencies are often used as a reference point in teaching and practice to demonstrate proficiency. Although diversity across research portfolios and educational backgrounds are valued, a lack of rigorous knowledge and skills training in core health services and policy research (HSPR) competencies may impede high-quality research. We aim to assess a recently developed set of HSPR competencies from the perspective of trainees, and in doing so join in Canadian efforts to transform HSPR education.

**Approach:** The CAHSPR Student Working Group (SWG) includes graduate students and early-career researchers who conduct HSPR across institutions, sectors, and settings. We will design and conduct a national survey through the SWG network by utilizing our large social media following of HSPR trainees across post-secondary institutions. We aim to examine the following research questions: 1) What knowledge and skills training are needed by HSPR trainees? 2) What competencies are integral to HSPR but are missing from the list developed by Schleiff and colleagues? 3) What is the role of associations (such as the CAHSPR SWG) in acquiring HSPR competencies?

**Results:** At the CAHSPR 2021 Virtual Conference, we aim to present the set of HSPR core competencies across seven domains and facilitate discussions with trainees to inform our national survey design. We will pose open-ended questions within/at our poster to learn about the perspectives of trainees regarding this set of competencies and their engagement with associations including CAHSPR. For example, the SWG will ask trainees to identify any competencies initially missing from the set proposed by Schleiff and colleagues and strategies to develop such competencies. After incorporating the insight from trainees at the conference, we will then disseminate our survey across the SWG network. We will conduct a quantitative and qualitative analysis of survey data and report any discrepancies or parallels with the trainee perspective.

**Conclusion:** The perspectives of HSPR trainees are invaluable in defining a set of competencies. This work will engage trainees in discussions about the proposed competencies as a precursor for a national survey. Our work will identify and inform the role of health services associations in complementing traditional training in HSPR.

**Primary Theme:** Knowledge Translation & Exchange (includes KTE methods)

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Survey Research Methods

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**ID: 262**

## **Remote monitoring platform for patients with COVID-19 after hospital discharge: The users' perspectives of telemonitoring app and telecare services.**

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**Background and Objectives:** As COVID-19 pandemic circumstances created the need to act to reduce the spread of the virus and alleviate healthcare services from congestions, protect healthcare providers and support them in maintaining a satisfactory quality and safety of care, patient' remote monitoring platforms quickly emerged. This study explored patients' perspectives and their user experience of two different platforms developed for remote monitoring of patients with COVID19. The earliest platforms' impacts and contributions have been also evaluated.

**Approach:** We performed a retrospective cross-sectional study using a survey. The survey data were analyzed using descriptive statistics, and t-test analysis. The participants' responses and comments on open-ended questions were analyzed using content analysis. The research approach through descriptive statistics allowed us to examine the differences in acceptability, usefulness, and conviviality of those two different platforms services from users' perspectives and determine their contributions to maintaining the quality and safety of care and promoting patient engagement. Whereas the content analysis of this approach enabled the identification of certain stakes and challenges and improvements paths of the platforms.

**Results:** Overall, the satisfaction rate regarding the quality and safety of the care services provided through the two platforms was 80%. Over 88% of users on each platform considered the services offered by the two platforms as engaging, useful, convivial and respond to their needs. The survey identified very few significant differences in users' perceptions regarding certain aspects on each platform. The survey identified four well-appreciated domains by the platforms' users: (1) the ease of access and the proximity of care teams, and (2) the conviviality of the platform features (3) the continuity of care, and (4) the multitude of services. Certain stakes and limits such as the importance of maintaining human contact and confidentiality have been also identified and suggestions for improvement have been formulated.

**Conclusion:** This study suggest that these remote monitoring platforms were well-received by users and their feedback was positive. This program can be considered in a post-pandemic era and for other post-hospitalization clienteles. To maximize efficiency, the areas for improvement and the issues identified need to be considered in a patient-centered manner.

**Primary Theme:** COVID-19

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership

**Methods:** Mixed Methods

**AuthorNames:** Marie-Pascale Pomey, Khayreddine Bouabida, Bertrand Lebouché

**ID: 264**

**Feasibility study for the realization of a pragmatic randomized trial on the evolution of the impact of accompanying patients at the Unit for Major Burn Patients. Focus group with accompanying patients**

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**Background and Objectives:** In Quebec, on average, one person per day suffers serious burns. For the entire western part of the province, burn survivors are treated by the center of expertise, including: CHUM, Villa Medica Rehabilitation Hospital and Entraide Grands Brûlés (EGB). This research focuses on the introduction of Patient's Advisors (PA) to patients treated at the burn unit (BU) so that these patients can benefit from their experiential knowledge that complements the knowledge of professionals.

**Approach:** A feasibility study of a pragmatic randomized trial was conducted to ensure that such research is technically feasible, financially viable, and that the trial will demonstrate the effectiveness of the intervention. To do so, we conducted: 2 focus groups with PAs; a focus group with professionals and managers of the BU, EGB and Villa Medica; questionnaires were sent to patients who were hospitalized in the BU and who had meetings with PAs; 2 interviews with the physicians in charge; 1 interview with the management of the EGB.

**Results:** All the data collected have shown that the evaluation of PA's intervention should focus on their ability to help prepare patients for transfer from the CHUM to the rehabilitation center or to home. Also, the modalities of intervention by the PAs that could be put in place to carry out an RPE would be to organize a systematic meeting in person, by telephone or by secure vision: 1) between the APs and the families or close friends of the hospitalized persons upon arrival in the BU; 2) between the patient and the PAs two or three days before discharge from the BU; 3) a call or vision between the patients and the PAs 48 hours after the transition. Several evaluation indicators were also selected.

**Conclusion:** In conclusion, this study allowed us to determine the optimal conditions to be able to carry out a pragmatic randomized trial taking into consideration the point of view of patients, PAs, clinical teams, BU and EGB managers.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Patient and Public Engagement

**Methods:** Mixed Methods

**AuthorNames:** Marie-Pascale Pomey, Olivier Fortin, Alain Michel Danino, Ali Izadpanah, Johanne Higgins, Monica Iliescu-Nelea

**The WOMB Health Study**

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**Background and Objectives:** The lack of consistent race-based data collection in Canada results in an inequitable universal healthcare system ill-equipped to meet the needs of vulnerable populations. Historically, researchers have relied on extrapolating findings from the United States and United Kingdom, which cannot always be applied within the Canadian context. The WOMB Health project will instill consistent framework for race-based data collection in Toronto for Black people with uterine fibroids and endometriosis through partnership with health system leaders.

**Approach:** The WOMB (Black Cis-Women and Trans-peOple with reproductive issues facing Marginalization, systemic Barriers and racism) is a qualitative study using a Community Informed Research approach that will include Black people with asymptomatic and symptomatic uterine fibroids and endometriosis. This innovative approach allows the community to act as advisors and create a new model of care by: - Guiding the interview and focus group questions - Presenting data results to the larger community - Addressing health system gaps This new model of care will improve these health outcomes: fertility, pregnancy, productivity at work, pelvic pain/pressure, iron and vitamin D levels.

**Results:** As this study is still in progress, the anticipated impact for our health system and patients will be: 1. Individual Impact – improve health behaviours to better manage pain symptoms 2. Interpersonal Impact – create a multi-generational network for all patients to detect early symptoms. 3. Organizational Impact – develop a standardize practice for better management of endometriosis and uterine fibroids among vulnerable populations 4. Community Impact – develop online and in-person community hubs for patient education and support 5. Public Policy Impact – this project is trying to revolutionize current public policy practices by introducing a vulnerable population-centered care model 6. Financial Impact – this study serve as a gateway to later inform future economic evaluations to identify whether a preventive approach offsets the cost of downstream complex surgeries.

**Conclusion:** The WOMB Health study introduces a revised framework that prompts race-based data collection in a consistent manner. This will inform evidence-based interventions for Black people with endometriosis and uterine fibroids. Such preventive interventions have the potential to offset the costly, complex surgeries through patient education and pain management strategies.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Qualitative Research Methods

**AuthorNames:** Amoy Jacques, Nida Shah, Padmaja Sreeram, Lydia-Joi Marshall, Tiffany Queensborough, Nahomi Amberber, Michelle Jacobson, Joanne Ukposidolo

**ID: 268**

## **The Future of the CAHSPR Student Working Group**

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**Background and Objectives:** The CAHSPR Student Working Group (SWG) is a pan-Canadian, student-run, voluntary group formed in 2008 to enhance and facilitate graduate student and postdoctoral fellow involvement in the health services and policy research (HSPR) community. In this poster, we will outline the new approach in which we hope to address and promote CAHSPR trainee development and success through peer-led co-learning opportunities and initiatives.

**Approach:** Previous research has found that student-led volunteer groups have benefitted from a bi-directional diffusion process, in which peer-instructors influence students' decisions regarding practices to participate in, and students influence peer-instructors' decisions about advocating for specific practices. Using theories and concepts of bi-directional co-learning and community of practice, we aim to explore the role student-led initiatives, like the SWG, play in the development of trainees, networks and associations to support them.

**Results:** Findings will outline a framework/guiding document by which the CAHSPR SWG has co-developed based on trainees shared interest to address health and health care issues and inequities in Canada, and globally, and the informal bi-directional mentorship within the HSPR trainee community. The goal of the framework/guiding document is to develop a repertoire of resources for trainees and foster collaboration to help shape the future of HSPR in Canada.

**Conclusion:** Future plans for the CAHSPR SWG include: (a) continuing to seek professional development opportunities for trainees, (b) conducting a workshop for Canadian HSPR trainees to generate ideas on how the SWG can better engage with and advocate for them, and (d) initiate bi-directional mentoring programs.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Collaborative Healthcare Improvement Partnerships

**Methods:** Knowledge Synthesis

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**ID: 278**

## **Physical distancing policies and their effects on the epidemiology of COVID-19: An international perspective**

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**Background and Objectives:** As the world battles with the second wave of the COVID-19 pandemic, the need for effective strategies to mitigate the coronavirus disease is crucial. Many countries across the world have tried different strategies to combat the pandemic. Countries tried mitigation, containment or both. We will formulate a timeline with the implemented physical distancing policies among different countries and jurisdictions (i.e. provinces and states) to try to understand which policies worked and which didn't.

**Approach:** This study uses a mixed-methods approach to examine physical distancing policies in Many countries across the world including UK, France, Brazil, Mexico, Singapore, and Egypt among others. We also include Canadian provinces including British Columbia, Alberta, Ontario, Quebec, and the “Atlantic Bubble” (Newfoundland and Labrador, Nova Scotia, Prince Edward Island and New Brunswick) on the epidemiology of COVID-19.

**Results:** - Data collected from countries, provinces and states will be harmonized in a publicly available repository to facilitate knowledge translation as to the impact of physical distancing policies on the epidemiology of COVID-19 for policy and decision-makers. - Data visualizations highlighting policy timing and response changes in the epidemiology of COVID-19. - Contextually relevant narratives to illustrate nuanced factors that contributed to the success or non-success of specific policies.

**Conclusion:** This study will have implications for the next wave(s) of COVID-19 and future infectious disease epidemics as it will contribute to the developing body of evidence evaluating the importance of public health policy.

**Primary Theme:** COVID-19

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Mixed Methods

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**ID: 289**

## **Comparing navigation programs aimed at supporting individuals and families in the community who are affected by life-limiting illness: A realist evaluation**

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**Background and Objectives:** Various navigation programs have been implemented across Canada to help connect individuals living with advanced, life-limiting illness, and their families to the services and supports they need to remain in their homes and communities as they approach end of life (EOL). Little is known about what programs exist, what they do, how they work, and what the impacts are for patients and families. The objective of this study is to address these knowledge gaps.

**Approach:** A realist evaluation approach is being used, which explores questions related to what works, for whom, under what circumstances, and to produce which outcomes. Innovative navigation programs (n=11) were identified through consultation with provincial stakeholders. For each program, data are being collected via: (1) interviews with key program stakeholders (5 per program), including decision-makers, individuals directly involved in program delivery, and program users (i.e., patients/clients and family members), and (2) program documents. Documents and semi-structured interviews will be read and re-read by members of the research team to gain a working understanding of the programs and develop program theories.

**Results:** Key findings of this study will include: (1) detailed case descriptions for each program, including program objectives, target population, key personnel, services provided, interactions with other healthcare and community-based programs/organizations, and implementation context, (2) information about the impacts of the program for patients and families, including the specific needs addressed by the program and benefits experienced by program users, and (3) program theories explaining the relationships between program components and activities and how these work to benefit patients/clients and families.

**Conclusion:** The findings of this study will shed light on the determinants of successful implementation of these innovative programs in different institutional, policy, and socio-political contexts. This information will be used to develop recommendations about whether and how similar programs should be put in place in other parts of the country.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Qualitative Research Methods

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**ID: 298**

## **Characteristics of health economic evaluations in scaling-up science: a systematic review**

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**Background and Objectives:** Large-scale evidence-based health interventions (EBHIs) can help deliver benefits to more people across settings and jurisdictions. As health systems face continuous pressure and limited resource availability, economic evaluations (EEs) can inform health decision-makers on the trade-offs of choosing a scaling-up strategy. Yet, little is known on how to evaluate the economic aspects of these strategies. We seek to identify and describe the methods and issues related to economic evaluations assessing scaling-up strategies of EBHIs.

**Approach:** We conducted a systematic review following the Joanna Briggs Institute methodology. Eligibility criteria include EBHIs scaling up strategies delivered/received by any individual, organization in any country/setting; full and partial EEs outcomes; full and partial EEs, modelling, and methodological studies. We searched peer-reviewed publications in Medline, Web of Science, Embase, Cochrane Library Database, PEDE, EconLIT, INHATA from their inception onwards. We also searched for grey literature. Two independent reviewers screened the records against the eligibility criteria and extracted data using a pretested extraction form. We appraised quality using the BMJ Checklist. We analyzed data narratively and with descriptive statistics.

**Results:** This systematic review provides a detailed overview of characteristics of health EEs in scaling-up science and the methods applied. First, it narratively summarizes the assumed theoretical trade-offs between levels and types of resources and between levels and types of outcomes of scaling-up strategies examined in the EEs and how they are related to the observed levels and types of outcomes, and the contextual/environmental factors accounted for in these relationships. Second, where possible, we identify and define the main drivers of full and partial economic outcomes. Finally, it analyzes and synthesizes the conclusions regarding the relationship between the full and partial EEs of the scaling-up strategy and the EE approach, as well as the strengths and weaknesses of each approach for evaluating scaling-up strategies of EBHIs.

**Conclusion:** This study contributes to health economic evaluation research in scaling science and its implementation in policy and practice. It helps define the costs and models for the successful roll-out of EBHIs at scale. Finally, it informs policy and practice on the trade-offs of scaling up EBHIs to allocate resources efficiently.

**Primary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Secondary Theme:** Knowledge Translation & Exchange (includes KTE methods)

**Methods:** Knowledge Synthesis

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**ID: 304**

**What role do hospital characteristics play in patient safety? A protocol for a national cohort study of Hospital safety characteristics and Adverse event Rate Measurement (HARM Evaluated)**

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**Background and Objectives:** 9-13% of hospitalized patients experience unintended harm from healthcare, adverse events. Adverse events lead to patient harm including additional risks of death, and incur considerable costs to the healthcare system. Investment in safety programs has been justified by their goal to reduce adverse events, but evidence suggests they have not - adverse event rates over the past four decades are unchanged. The objective of this study is to identify hospital-level factors associated with patient safety.

**Approach:** Organization-level factors will be explored by surveying up to 150 Canadian hospitals on four safety-relevant domains: 1) patient safety culture, 2) safety strategies, 3) staffing and 4) volume and capacity. Organization-level factors will be evaluated using established scales and a survey co-designed by the study team and hospital leaders. Hospital leaders, clinical unit leaders will describe safety strategies in use, and front-line staff describing safety culture, wellbeing and burnout over the 3 years of study. The rate and type of hospital adverse events corresponding to each 1-year survey period will be estimated using national health administrative data.

**Results:** Recruitment for the study described here will begin in 2021. Longitudinal data collection will continue into 2024. Hospital-level findings using the scales and surveys will be disseminated regularly (annually) to the hospital administration.

**Conclusion:** Analysis of data from this project will describe safety-relevant factors of hospitals nationally and help identify organizational initiatives improving hospital patient safety. Identifying modifiable organization-level factors will allow us to identify existing and novel impactful opportunities to improve hospital patient safety.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Health Informatics

**Methods:** Survey Research Methods

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**ID: 305**

## **Mitigating the Diversion and Unexplained Losses of Opioids and Controlled Substances in Canadian Healthcare Facilities: A Social Network Analysis Protocol**

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**Background and Objectives:** Diversion, whereby controlled substances are lost or stolen from healthcare facilities, is a recognized problem. There remains a gap in understanding which sociotechnical factors are the main contributors to drug diversion and how healthcare workers (HCWs) interact within the medication use process (MUP). The proposed project aims to reveal the types of social relations and tasks between HCWs that contribute to drug diversion within the MUP of healthcare facilities, using Social Network Analysis (SNA).

**Approach:** This study will employ exploratory sequential mixed methods using data previously collected from clinical observations and cross-sectional network surveys in three units of two large hospitals in Toronto, Canada. Consenting HCWs involved in the MUP of each unit will be purposively recruited for cross-sectional surveys. The survey will collect data on demographics, social relations, and attitudes on drug diversion. Observation and survey data will be modelled using SNA to reveal the type, importance, and quantity of relationships in each unit's MUP. Network descriptive statistics and sociograms will provide a visual and empirical basis for comparisons within and across hospitals networks.

**Results:** This study will reveal social relations and tasks which may contribute to drug diversion risk in the MUP, which has a direct impact on patient and HCW safety due to opioid abuse. The outcomes of this study will include the development of a method of drug diversion modelling that reflects the complex sociotechnical interactions between social structures in the MUP. Additionally, the results will help healthcare facilities summarize the current state of implemented safeguards for the management of controlled substances within their organization and will inform appropriate changes to workflow processes. Healthcare facilities will be able to use this knowledge to identify opportunities for future interventions and to inform ongoing efforts to prevent diversion.

**Conclusion:** This study will provide valuable insight into the social relations and tasks involved in securing the MUP in healthcare facilities from diversion. By considering the social structures of each unit we hope to provide awareness to the HCW workflow processes which may contribute to diversion risk within the MUP.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Mixed Methods

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**ID: 321**

## **The Impact of Telehomecare on Patients, Providers, and Informal Caregivers: A Longitudinal Cohort Study**

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**Background and Objectives:** Heart failure (HF) and chronic obstructive pulmonary disease (COPD) are responsible for a significant amount of the economic and chronic disease burden, which impacts the Canadian health system. Telehomecare (THC), a home self-management program, was created to improve access to care and limit healthcare utilization. This study aimed to evaluate the impact of THC on HF and COPD patients' health related quality of life (HRQoL), disease-management skills, and satisfaction; caregiver strain; and nurse satisfaction.

**Approach:** This was a prospective longitudinal cohort study, including HF and COPD patients enrolled in Ontario's THC program, their informal caregivers and THC nurses. Patients and caregivers were administered telephone surveys at Baseline, Month 3, 6 and 12 follow-ups from July 2016 to December 2019. The outcomes for the longitudinal surveys were patient HRQoL measured by Minnesota living with HF, Seattle Obstructive Lung Disease, SF-12, and EQ-5D; disease-management skills; perception and satisfaction with THC; and caregiver perceived strain. Cross-sectional surveys were conducted to assess nurse perception and satisfaction with THC. Participant data was analyzed using general linear mixed models in SAS 9.4.

**Results:** Overall, 194 patients (117 HF and 77 COPD), 62 caregivers and 24 nurses were enrolled in the program, with an overall response rate of 51%. The average age of HF and COPD patients was  $71 \pm 11.3$  years and  $70 \pm 11.1$  years, respectively, with 52% being men. The results demonstrated a significant improvement in HF patients' overall HRQoL through Month 12 ( $-18.37$ ,  $p = < 0.001$ ). COPD patients did not see any improvement in their HRQoL throughout the study. Patients reported being confident self-managing their diseases, but as patients aged their perception and satisfaction of THC was shown to decrease ( $p = 0.002$ ). Caregivers reported relatively low strain scores ( $10.3 \pm 5.9$ ) and nurses reported moderate levels of satisfaction ( $6.7 \pm 1.5$ ) with THC.

**Conclusion:** THC has been well received by most patients and has been found to be an intervention with a lot of promise in terms of improving the HRQoL of patients with HF. However, the long-term sustainability of HRQoL improvements in HF patients and THC's value to COPD patients requires further investigation.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Survey Research Methods

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**ID: 330**

## **Perceived unmet substance use and mental health care needs of acute care patients who use drugs: A cross-sectional analysis using the Behavioural Model for Vulnerable Populations**

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**Background and Objectives:** People who use illegal drugs (PWUD) often report unmet service needs for their substance use and mental health problems. However, the unmet needs of PWUD seeking acute care are poorly documented, despite frequent hospital utilization. Therefore, we aimed to 1) characterize perceived unmet service needs for substance use and mental health problems among an acute care-seeking group of PWUD, 2) describe self-reported barriers to care, and 3) identify predictors of high unmet needs.

**Approach:** We examined survey data from 285 PWUD at three urban Canadian acute care centers. Surveys were completed within 14 days of hospital presentation and included the Perceived Need for Care Questionnaire (PNCQ). We also assessed the utility of the Behavioural Model for Vulnerable Populations (BMVP) – a framework that identifies determinants of care seeking amongst marginalized populations - in predicting high level of unmet need (unmet needs in 3-7 PNCQ service categories). We applied the BMVP to our logistic regression by grouping predictor variables into three BMVP domains (i.e. predisposing, enabling, and need variables) and entering these domains in blocks.

**Results:** Despite most participants needing services related to their substance use and mental health concerns (97%) and most having received services (91%), half reported high level of unmet need (46%). Structural barriers to having care needs met (e.g., poor accessibility; 57%) were more commonly reported than motivational barriers (e.g., attitudinal reasons; 43%). Including all three BVMP factor domains in our regression accounted for 24% of predictive variance, and our statistical model improved consistently with the addition of each BVMP domain. Significant individual predictors of high unmet need included criminal activity, adverse childhood experiences, transitory sleeping, no community support worker, and depression.

**Conclusion:** Our findings demonstrate high unmet service needs for PWUD seeking acute care, and confirm the utility of the BMVP in predicting unmet service needs for group. Strategies to overcome structural barriers to care are needed to help address the unmet substance use and mental health needs of this population.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Survey Research Methods

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**ID: 333**

## **Perspectives on donation from convalescent plasma donors participating in a clinical trial for COVID-19: a cross-sectional survey**

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**Background and Objectives:** In Canada, clinical trials to test the efficacy of convalescent plasma against COVID-19 rely on blood collection agencies to recruit donors. This produces a new and unique role for public involvement in clinical trials (the donor of the intervention) raising ethical and governance questions related to plasma donation for the purposes of trial participation. By assessing predictors of convalescent plasma donation and donor views on clinical trial participation, this study makes a novel empirical contributions.

**Approach:** We will conduct a cross-sectional survey of prospective convalescent plasma donors, using a revised 37-item instrument designed to assess barriers and facilitators of plasma donation and views on clinical trial participation. The survey will be available in REDcap between March 1 and April 31, 2021 to all individuals with self-reported COVID-19 infection who have registered to donate with Canadian Blood Services (more than 1300 individuals) for a target sample size of 450 respondents. After validating the tool for the Canadian context, multivariable regressions will be used to evaluate predictors for intention to donate or intention to continue to donate.

**Results:** Research on plasma donors suggest that psychological factors such as altruism and civic duty will serve as motivators; however, we anticipate that previously unexplored social factors, including the ability to do something meaningful during a crisis, will have a strong association with intention to donate. We hypothesize that the ability to support clinical trial activities will serve as a significant motivator for donors, but that knowledge about clinical trial processes and broader implications will be minimal. Further, we anticipate that prospective convalescent plasma donors will have different motivators and facilitators compared to existing plasma donors. This study will contribute novel knowledge about this unique set of donors in the context of clinical trials and evaluate predictors for intention to donate or intention to continue donating.

**Conclusion:** These novel findings will identify predictors of convalescent plasma donation and donor views on clinical trial participation. Understanding donor perspectives on involvement in a clinical trial can inform efforts to engage this crucial population (the intervention donor) when blood and other biological products can be studied as treatments for illness.

**Primary Theme:** Patient and Public Engagement

**Secondary Theme:** COVID-19

**Methods:** Survey Research Methods

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**ID: 334**

## **Risks of Corruption on the Procurement and Deployment of COVID-19 Vaccines Globally**

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**Background and Objectives:** Corruption in the procurement of COVID-19 vaccines threatens equitable vaccine deployment. Therefore, the World Health Organization, the Coalition for Epidemic Preparedness Innovations, and the Global Alliance for Vaccines and Immunizations support the COVID-19 Vaccine Global Access (COVAX) Facility: an initiative aimed to facilitate equitable vaccine distribution. This study examines the impacts of COVAX on combating corruption in the Democratic Republic of Congo and Venezuela and provides policy recommendations for equitable vaccine deployment in these countries.

**Approach:** Data collection consists of document analysis on COVAX policies, corruption reports from the Democratic Republic of Congo and Venezuela, and procurement laws in these countries. It also consists of key informant interviews with informants from the World Health Organization, the Coalition for Epidemic Preparedness Innovations, and the Global Alliance for Vaccines and Immunizations who have been involved in developing COVAX and with individuals responsible for distributing vaccines in the Democratic Republic of Congo and Venezuela. Data will be used to create a case study of corruption risks on the procurement and deployment of COVID-19 vaccines in these countries.

**Results:** It is expected that, in both the Democratic Republic of Congo and Venezuela, corruption will manifest as the collusion between vaccine suppliers to increase prices, bribery in vaccine delivery, and fraud. Furthermore, it is expected that this corruption will lead to price hikes, product shortages, and product adulteration, each of which will threaten equitable vaccine deployment.

**Conclusion:** This investigation will contribute to building an evidence base on the role of equitable vaccine access on public health in low-income and marginalized countries and on the role of transparency, accountability, and anti-corruption on global health.

**Primary Theme:** COVID-19

**Secondary Theme:** Pharmaceutical Policy

**Methods:** Qualitative Research Methods

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**ID: 335**

## **Ontario's after-hours premium and emergency department utilization: A national difference-in-difference analysis**

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**Background and Objectives:** Access to primary care outside the regular working hours is problematic in many jurisdictions in Canada. Ontario is the only province to incentivize family physicians to provide care during after-hours through the after-hours premium. We investigate whether an increase in the value of the after-hours premium was associated with a reduction in less-urgent emergency department (ED) visits in Ontario compared to other provinces.

**Approach:** The after-hours premium increased from 20% to 30% in 2011. We linked the 2010-2016 cycles of the Canadian Community Health Survey to National Ambulatory Care Reporting System to investigate the impact of this increase in the value of the premium on ED visits. ED visits were stratified by timing, based on eligibility of the premium, and by urgency, based on the Canadian Triage and Acuity Scale. A difference-in-differences analysis using negative-binomial regression models was conducted to assess the impact of the increase in the value of the premium on ED visits, accounting for survey sampling weights.

**Results:** In Ontario, the increase in the after-hours premium was associated with a 14% reduction in less-urgent ED visits (95% Confidence Interval [CI]: 4%, 23%). However, no difference in the rate of less-urgent ED visits after the increase in the premium was found when comparing Ontario to other provinces (Incidence Rate Ratio: 1.14; 95% CI: 0.98, 1.33). Likewise, the increase in the value of the premium was not associated with a difference in total ED visits between Ontario and other provinces. The increase in the premium was however associated with a 24% reduction in very-urgent ED visits (95% CI: 4%, 40%) in Ontario compared to other provinces. Sensitivity analyses using only respondents who reported having a physician demonstrated similar results.

**Conclusion:** Although literature suggests the introduction of the after-hours premium was associated with a reduction in less-urgent ED visits, our results suggest the increase in the premium to 30% did not lead to fewer less-urgent ED visits. Further research investigating the effectiveness of interventions improving after-hours primary care access is required.

**Primary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Secondary Theme:** Primary Healthcare

**Methods:** Qualitative Research Methods

**AuthorNames:** Michael Hong

**ID: 339**

## **What is the impact of older adult PPI in health research? A systematic review.**

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**Background and Objectives:** Canada's Strategy for Patient Oriented Research envisions patients as active partners in health research as a way to improve health outcomes and enhance the health care system (CIHR, 2014). As older adults are frequently the patients served by Canadian health care systems, their contributions to research about those systems warrants investigation. As patient and public involvement (PPI) of older adults in research becomes more widespread, questions remain about the impact of this involvement

**Approach:** A systematic review (registered focused on the implementation and impact of participatory approaches to involving older people in health research was conducted. Four databases were searched (2000-2019); 34 articles were included for qualitative synthesis. The Guidance for Reporting Involvement of Patients and the Public GRIPP2) (Staniszewska, 2017) reporting checklist guided the extraction of the articles. Reviewers extracted methodological data; how PPI was used at different stages of research; factors that enabled or hindered PPI; positive/negative impacts of the PPI on research; positive/negative results of the PPI; conceptual influences and main conclusions of the study.

**Results:** The majority of included studies took place in the community setting. As is common with other patient partnered research, older patient partners were more frequently engaged to execute or translate research as opposed to plan research. PPI impact evaluation varied across studies, and in many studies, was not discussed. It was more common for studies to discuss how PPI was implemented as opposed to how PPI impacts were measured. Noted impacts included: the creation of new research partnerships or continued collaboration between co-researchers on different projects. One study found that by engaging in PPI in research patients were influenced to begin self-managing their care.

**Conclusion:** Impact evaluation in PPI is an emerging science, as evidenced by incomplete measurement detail in many of the included studies. Our group continues to engage patient partners on the most impactful and meaningful ways to translate this information, for example through policy briefs, online learning modules, and/or virtual presentations.

**Primary Theme:** Patient and Public Engagement

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Participatory or Action Research Methods

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**ID: 340**

## **Designing self-management education support programs for lower-income seniors.**

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**Background and Objectives:** Self-management education support (SMES) programs can assist in the treatment of cardiovascular-related chronic conditions, such as diabetes. The purpose of this study was to examine whether mode of delivery and/or co-receipt of a copayment elimination intervention influenced the perspectives of lower-income seniors on an SMES program targeting cardiovascular-related chronic conditions.

**Approach:** This study was nested within the Assessing outcomes of enhanced Chronic disease Care through patient Education and a value-baSed formulary Study (ACCESS) trial, a randomized clinical trial of two interventions in older adults at high risk of cardiovascular disease, including a tailored SMES program and elimination of copayments for high-value preventive medications. Cross-sectional surveys were used to assess perceived helpfulness of the SMES program. Results were stratified by the delivery method and copayment elimination. Modified Poisson regression was used to calculate relative risks, adjusting for potential confounders. Qualitative data were also collected using open-ended questions.

**Results:** While the majority (>80%) of participants perceived this program to be helpful, those who received copayment elimination were more likely to report that the program was helpful (RR 1.24, 1.11 - 1.39). In addition, those who received the program electronically were more likely to use the program weekly (RR 1.51, 1.25 - 1.84). Finally, both those who received the intervention electronically (RR 1.18, 1.06-1.33), and the copayment elimination (RR 1.17, 1.05-1.31) were more likely to state that the program helped change their perspectives on aspects of their health.

**Conclusion:** Providing the option for electronic delivery within an SMES program can promote greater use in seniors. Tangible benefits, such as copayment elimination, can also improve participants' reception. We conclude that consideration of both these factors when designing an SMES program for seniors can facilitate greater use of the program.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Mixed Methods

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**ID: 341**

## **A process evaluation of outpatient diabetes virtual care services in Calgary, Alberta**

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**Background and Objectives:** Implementing technology into healthcare is complex and requires an iterative approach with ongoing support. However, the COVID-19 pandemic significantly accelerated virtual care use worldwide. As the context in which care is delivered continues to evolve, ongoing evaluations to ensure the process is optimal is important. This study seeks to understand the perspectives and experiences of Diabetes Care Centre (DCC) Team members following a rapid implementation of virtual care to inform optimal processes and future use.

**Approach:** This mixed-methods process evaluation will invite all members of the diabetes care teams from five sites in Calgary Alberta to complete an anonymous online survey that will identify process-related areas that were described as problematic or successful. Qualitative methods will be used to further explore these areas. Invited participants will include endocrinologists, dietitians, pharmacists, nurses, psychologists, social workers, booking clerks, and medical office assistants. Focus groups will be conducted with participants grouped according to their role on the team (Office Staff, Endocrinologist, Other Professionals) and the discussion will explore the topics identified in the survey.

**Results:** Anticipated study results will identify the challenges and efficiencies of the virtual care process from the perspectives of the DCC team. Data will be coded deductively and thematically analyzed using the framework method to describe any patterns or relationships related to participant role, sex, clinic location, and experience level with virtual care processes. Finally, this study will propose process modification that may assist in the optimization of the virtual care process.

**Conclusion:** The use of virtual care was accelerated rapidly and unexpectedly due to the pandemic. In light of this urgent and unique implementation, it is valuable to assess what aspects of the process are working well and identify opportunities to optimize the virtual care process going forward.

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** COVID-19

**Methods:** Qualitative Research Methods

**AuthorNames:** Xin Mei Chen, Stacy Kozak, Doreen Rabi, Meaghan Lunney, Julie McKeen, David Campbell

**ID: 347**

## **Strategies for the continuation of chronic care between health systems and communities: A scoping review**

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**Background and Objectives:** The Chronic Care Model describes the need to establish links between healthcare systems and communities for sustainable patient-centered care. However, linkage examples in the literature have largely focused on preventative care, or integration within the health system rather than across sectors. This scoping review seeks to answer the following research question: What linkage methods and strategies have been used integrate community resources into health systems for the continuation of care for individuals with chronic conditions?

**Approach:** A rigorous methodological framework for scoping reviews will be followed. Stakeholders (patients, healthcare providers, decision makers and community organizers) will be engaged throughout. A structured search will be completed in MEDLINE/PubMed, CINAHL, EMBASE and PsycINFO databases. Grey literature will be searched using databases, customized search engines, target websites and expert consultation. Two reviewers will independently complete the study selection according to the inclusion criteria and chart the data using a data extraction form guided by the CCM and the PRECEDE PROCEED model. Data will be analyzed with descriptive qualitative and quantitative methods, to map and operationalize the health system-community linkages.

**Results:** Finalized results will be presented at the conference. The review findings will be reported through a summarizing list of considerations and strategies for developing and maintaining different types of linkages between health systems and community resources. Implications for future research, practice and policy will be discussed and presented.

**Conclusion:** A greater understanding of health system and community integration may lead to strategies and interventions that can be implemented across care continuums with the potential to improve patient-centered care outcomes. This review will inform an integrated knowledge translation project to implement community-clinical linkages for the continuation of chronic disease management.

**Primary Theme:** Collaborative Healthcare Improvement Partnerships

**Secondary Theme:** Chronic Disease Management

**Methods:** Knowledge Synthesis

**AuthorNames:** Nicole George, Sara Ahmed, Hervé Zomahoun

**ID: 370**

## **A Pilot Randomized Controlled Trial of Navigation: Exploring outcomes for caregivers of youth 13 to 26.**

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**Background and Objectives:** Mental health and addictions issues (MHA) in youth can be a source of strain for caregivers. Family navigation aids families in accessing appropriate and timely care. A pilot randomized controlled trial (RCT) aimed to determine sample size requirements for a larger RCT, and examined preliminarily whether families of youth with MHA concerns who participated in navigation experienced improved outcomes. The following analysis is centered on parental burden with a focus on financial burden.

**Approach:** 65 participants who were caregivers of youth ages 13 to 26 were randomly assigned 1:1 to either the Self Navigation (SN) condition, in which participants were provided with an online resource list, or the Family Navigation (FN) condition, in which participants received guidance by a MHA navigator to find and connect to care in the mental health system. Participants were unaware of the alternate condition. Participants completed measures at baseline, and follow-up at 4 months, which assessed financial outcomes through service utilization questionnaires. Clinical outcomes were assessed through the 36-Item Short Form Survey Instrument (SF-36).

**Results:** Preliminary findings using ANOVA ( $n=45$ ) comparing mean change indicated that caregivers in the FN condition showed a reduction in total money spent accessing services ( $M0=\$380.53$ ,  $M1=\$210.71$ ; 44.6%) ( $F(1,42)=.24$ ,  $p=.62$ ), a reduction in days of lost productivity ( $M0=4.18$ ,  $M1=2.11$ ; 49.5%) ( $F(1,42)=.52$ ,  $p=.47$ ) and improvement in role limitations due to emotional concerns ( $M0=34.78$ ,  $M1=42.03$ ; 20.8%) ( $F(1,43)=.56$ ,  $p=.46$ ). Caregivers in the SN condition had an increase in total money spent accessing services ( $M0=\$663.59$ ,  $M1=\$664.81$ ; .2%) ( $F(1,42)=.24$ ,  $p=.62$ ), an increase in days of lost productivity ( $M0=2.18$ ,  $M1=2.23$ ; 2.1%) ( $F(1,42)=.52$ ,  $p=.47$ ) and improvement on role limitations due to emotional concerns ( $M0=37.88$ ,  $M1=42.42$ ; 12%) ( $F(1,43)=.56$ ,  $p=.46$ ). This pilot RCT was not powered to detect between group differences. A sample size of 80 participants is needed based on these findings, 90 participants per condition.

**Conclusion:** If these preliminary findings are significant in the larger study, this might suggest that family navigation may be beneficial in helping reduce monetary costs, days of lost productivity and role limitations due to emotional concerns for caregivers. A full scale RCT is needed to determine the nature of these effects.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Maternal and Child Health

**Methods:** Experimental or Quasi-experimental Methods

**AuthorNames:** Andreina Da Silva, Anthony Levitt, Roula Markoulakis, Kamna Mehra, Sugy Kodeeswaran

**ID: 384**

## **Development and evaluation of a social media-based support group using patient navigation for caregivers of children and youth with health care needs in New Brunswick**

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**Background and Objectives:** Facebook has become an important gathering place for individuals to exchange health-related peer-to-peer (P2P) support. Despite widespread use of Facebook groups across various patient and caregiver populations, it remains unclear how these groups impact knowledge of health services and/or resources and social connectedness in caregivers of children and youth with health care needs (CYHCN). The secondary objective of this research is to explore factors related to the success or failure of the group.

**Approach:** A private Facebook group for families of CHCN in New Brunswick was developed in consultation with various stakeholders, including a patient and family advisory council. The following factors were taken into consideration: group characteristics, moderators, language, recruitment, and implementation. An online survey and semi-structured interviews were conducted with a sub-set of volunteers from within the group. Participants were required to have been group members for a minimum of three months. Factors related to the ongoing activity level of group interaction were also regularly collected throughout the evaluation period to provide insight into variables related to success of the group.

**Results:** The group, launched in October 2020, has attracted over 90 caregivers of CHCN in NB. Inquiry-based posts were the most common types of posts made by members. The online survey and interviews with members will be completed in March 2021; findings related to the impact of the group on perceived knowledge of services and/or programs and social connectedness will be reported. The geographic specificity of the group is anticipated to provide members with unmet navigational support, leveraged through the lived experience and collective knowledge of members.

**Conclusion:** Social media offers an innovative and cost-efficient way to promote P2P support, particularly in meeting the informational needs of caregivers of CYHCN; however, many considerations must be made to promote retention and meaningful interactions. Findings can inform organizations and health care workers about the use of health-related online support groups.

**Primary Theme:** Maternal and Child Health

**Secondary Theme:** Patient and Public Engagement

**Methods:** Qualitative Research Methods

**AuthorNames:** Katherine Kelly, Shelley Doucet, Alison Luke, William Montelpare, Rima Azar

**ID: 385**

**Individual and social determinants of COVID-19 infection severity and mortality:  
A mixed-methods literature review**

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**Background and Objectives:** For those who have been infected by the SARS-CoV-2 and display symptoms of COVID-19 infection, it remains unclear why certain individuals are at an increased risk to suffer from poor outcomes. Original research investigating the relationship between COVID-19 outcomes and individual or social determinants of health remains scarce. The objective of this review is to synthesize available literature investigating the effect of such determinants on COVID-19 infection severity and mortality.

**Approach:** Relevant articles were obtained using appropriate terms from PubMed, OVID, CINAHL, Web of Science databases and grey literature searches between October 1st - December 20th, 2020. Defined exclusion and inclusion criteria were used to assess eligibility. Included articles were methodologically appraised using the Newcastle-Ottawa Scale. Data of interest was extracted and organized in a qualitative manner using the WHO's 2003 Commission on Social Determinants of Health (SDM) framework.

**Results:** In total, 18 articles accounting for over 6,130 deaths and 19,000 severe cases from 6 countries were included. Based on initial screening, major determinants of severe or fatal infection fell into individual-biological (age, sex, co-morbidities) and individual-social categories (income, education, race/ethnicity). Severe or fatal outcomes were generally associated with male sex, advanced age, limited education, lower income levels, certain health conditions and co-morbidities, housing and employment conditions, as well as racial and/or ethnic minority status. Proposed explanations for the impact of these factors on COVID-19 infection severity and mortality are discussed using a broader SDoH approach to uncover interactions between social position, health status and susceptibility to poor COVID-19 outcomes.

**Conclusion:** Recommendations include integrating knowledge of upstream and downstream determinants into future policy development and protocols for minimizing the impact of COVID-19 and other infectious diseases on vulnerable individuals and communities.

**Primary Theme:** COVID-19

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Mixed Methods

**AuthorNames:** Kaelyn McGinty, Janany Gunabalasingam

**ID: 389**

## **Inequitable Impacts of the COVID-19 Pandemic on Persons Living with Dementia**

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**Background and Objectives:** Persons living with dementia are most at risk of severe outcomes of the COVID-19 pandemic. To date, there is no evidence in this population of the contribution of racialization and socioeconomic status to these worse outcomes; both determinants were identified in the general population. We will (1) describe the diversity of persons living with dementia, and (2) measure the extent to which the intersection of racialization and socioeconomic status modifies the impact of the pandemic.

**Approach:** This project will use health administrative databases to conduct the first description of persons living with dementia in Canada. We will use advanced statistical methods, allowing for strengthening of causal inference from routinely collected observational data, to measure the impact of the pandemic in comparing mortality, care, and health service use in persons with dementia in 2020 to persons with dementia in 2019 and 2018. We will measure the diverse impact of the pandemic on persons living with dementia in comparing mortality, care, and health service use across racialization and socioeconomic status.

**Results:** This project has the potential to have a significant impact on how persons living with dementia receive health care. It is imperative that we understand the diversity of persons living with dementia, as well as how the intersection of different social determinants exacerbate the severity of COVID-19, in order to inform equitable health care policies. Results will be presented to key stakeholders including persons living with dementia, caregivers, decision makers, managers, and clinicians in four provinces (ON, SK, AB, QB) to generate recommendations through deliberative dialogue to decrease the inequitable impacts of the pandemic, and improve the care of all persons living with dementia.

**Conclusion:** There is growing evidence of health inequity in the impact of COVID-19 in the general population. In order to care for all people equitably, there is a need to understand the pre-pandemic diversity of persons with dementia, as well as the impact of the pandemic on these diverse populations.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** COVID-19

**Methods:** Statistics/ Econometrics

**AuthorNames:** Georgia Hacker, Claire Godard-Sebillotte, Isabelle Vedel

**ID: 393**

## **Long-term impacts of pandemics and disasters on population mental health: a systematic review**

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**Background and Objectives:** The COVID-19 pandemic represents an unprecedented social and economic crisis that has exacted a major toll on the mental health and wellbeing of Canadians. There are concerns that the pandemic's detrimental impacts on mental health may not be limited to the short-term but may rather extend for years to come. The aim of this study was to synthesize the evidence on the long-term impacts of pandemics and disasters on population mental health.

**Approach:** This is a systematic review in progress. We have performed searches in Medline, Embase and PsycINFO using keywords related to pandemic, disaster and mental health (until August 2020). Articles are eligible if they describe longitudinal studies of the mental health impacts of pandemics or disasters, or observational or qualitative studies of impacts that were conducted at least one year after the occurrence of a pandemic or disaster. The selection process is being conducted by multiple review authors working independently. We will extract data on study and population characteristics, index event (pandemic or disaster), and mental health outcomes.

**Results:** Our search strategy has yielded 8156 unique references. Screening is well underway and the extraction and narrative synthesis is expected to be complete by the conference date. We expect to identify a number of longitudinal and other studies revealing a range mental health and substance use problems related to pandemics and disasters. Our team will summarize the evidence according to its index event (e.g. pandemics like SARS and MERS, disasters like hurricane Katrina), thus allowing us to compare and contrast mental health impacts across different events. An equity lens will also be applied in our analyses to explore how mental health impacts may differ across groups based on age, gender, socio-economic status, culture, etc.

**Conclusion:** Through this review, we hope to identify evidence from past pandemics and disasters that can inform decision- and policy-makers about the plausible long-term impacts of the COVID-19 pandemic on population mental health. Such evidence could then guide strategies to help us mitigate or avoid these detrimental effects in the future.

**Primary Theme:** COVID-19

**Secondary Theme:** Mental Health and Addictions

**Methods:** Knowledge Synthesis

**AuthorNames:** Matthew Menear, Danielle Rice, Iwona Bielska, Jawad Chishtie, Aislinn Conway, Mark Embrett, Ghazal Fazli, Natasha Gallant, Ariane Girard, Morgan Slater, Meaghan Sim, Katie Aubrecht

**ID: 394**

## **Disclosure of mental illness in the workplace: process and policy**

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**Background and Objectives:** Healthcare professionals (HCPs) face workplace stressors that can precipitate mental health problems. Mental illness (MI) is associated with negative patient safety and professional outcomes. However, HCPs are hesitant to disclose MI at work. No review situated in the healthcare setting exists, which negates the implications to disclosure inherent to a HCP's workplace and professional role. This project aimed to explore HCP's disclosure of MI in the workplace, as well as to offer accompanying policy recommendations.

**Approach:** This project comprises two steps. The first was to conduct a rapid scoping review; its methodological framework was based on a hybrid of rapid and scoping review guidelines. A comprehensive search strategy was used in CINAHL and MEDLINE. 17 articles (six quantitative studies and eleven qualitative studies) were selected for inclusion. Quality was assessed independently by two reviewers using the Mixed Methods Appraisal Tool. A thematic synthesis approach was used for data analysis, where quantitative data was transformed to qualitative data. The second step was to develop policy recommendations based on the findings from step one.

**Results:** Disclosure was found to be a complex process. HCPs start by weighing the pros ('personal benefits', 'personal beliefs', and 'professional responsibility') and cons ('fears related to professional identity', 'fears related to employment', 'risk of stigmatization', and 'personal experiences with mental illness') of disclosure. They then encounter a decision-making process which helps them discern how to disclose (e.g. to whom, how, when). For some, situations of non-consensual disclosure, where HCPs do not want to disclose but are 'outed', can transpire through 'third party disclosure' or 'inadvertent disclosure'. After the disclosure event HCPs face disclosure outcomes, including 'positive experiences', 'negative personal consequences' and 'negative consequences related to others'. Institutional and systems-level policy recommendations will advocate for more psychologically safe and supportive disclosure environments for HCP with MI.

**Conclusion:** Disclosure of MI in healthcare and other workplaces is a complex process with few benefits and many potential repercussions. However, there is opportunity to improve, which is necessary now more than ever due to the increasing prevalence of mental health challenges amongst HCP in the face of the COVID-19 pandemic.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Knowledge Synthesis

**AuthorNames:** Emilie Hudson, Melanie Lavoie-Tremblay, Antonia Arnaert

**ID: 395**

## **A pan-Canadian comparison of coverage for hospital and take-home oncology medicines**

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**Background and Objectives:** Under the provisions of the Canada Health Act, intravenous oncology medicines are universally covered through the hospital budgets. However, the reimbursement of take-home oncology medicines can vary from province to province. To inform dialogue related to a national pharmacare, this analysis examines the gaps and overlaps in Canadian public formularies for the coverage of oncology medicines, and addresses listing variations for hospital and take-home treatments.

**Approach:** Formulary listing rates are the main measure reported in this study. These rates are provided for each of the provincial drug programs to compare both the number of medicines covered and their corresponding sales. In addition, a list of 87 medicines with 166 indications were examined to measure agreement in listing decisions between provinces using a paired approach. The programs were considered to be in agreement if both plans had the same listing decision: either to list or not to list the given medicine.

**Results:** Of the 87 medicines selected for the analysis, 39 were hospital-based, while 48 were take-home treatments. On average, public program listing rates for hospital medicines were 82%, ranging from 59% in Prince Edward Island to 90% in British Columbia, Saskatchewan, and Manitoba. When weighted by sales, the listing rates were significantly higher in all public drug programs, at 98% on average. The take-home treatments had slightly higher (84%) and more uniform listing rates that varied from 65% in Prince Edward Island to 92% in Saskatchewan. The overall paired agreement rates between provinces were slightly higher for the hospital medicines.

**Conclusion:** The analysis finds that the coverage and agreement rates between hospital and take-home oncology medicines are similar across many Canadian jurisdictions irrespective of the model of cancer care. These results will help to inform decision-making for Canadian stakeholders related to the funding of oncology treatments under a national pharmacare program.

**Primary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Secondary Theme:** Pharmaceutical Policy

**Methods:** Economic Analysis or Evaluation

**AuthorNames:** PMPRB CEPMB, Nevzeta Bosnic, Jeffrey Menzies

**ID: 396**

## **A Scoping Review on Gendered Experiences of Professional Integration of Internationally Educated Health Professionals**

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**Background and Objectives:** The increase in immigration of Internationally Educated Health Professionals (IEHPs) has resulted in considerable research and policy efforts dedicated to improving their integration into the workforce. The literature illustrates the various challenges IEHPs may face when seeking professional integration, but little is known about gender and profession integration. This paper examines what is known about the intersection of gender and professional integration of IEHPs while identifying gaps and future directions for research.

**Approach:** The study employed the Scoping Review methodology developed by Arksey & O'Malley (2005). Papers included in the review were empirical studies, published between 2010 and 2020 in English and broadly focusing on gender or gender differences and professional integration. Geographically, the inclusion criteria included studies published in Asia, Europe, North America and internationally. CIANHL, PUBMED, SCOPUS and Sociological Abstracts were searched utilizing the key words which were identified in consultation with the librarian. Literature extraction tool was used to systematically organize the data and identify key themes in this literature.

**Results:** Out of 548 papers included in the initial review, 17 articles met the inclusion criteria. Geographically, a large portion of the literature were published in Europe, followed by North America, Australia and Africa. Majority of the articles focused on the experiences of Internationally Educated Nurses and International Medical Graduates. Most papers explored immigration and professional integrations by focusing on gender differences in patterns and experiences of practice. Explicit gender analysis was employed to discuss the workplace experiences of IEHPs, as well as address the challenges they may face balancing their professional and personal responsibilities. Gender differences were also explored in relation to cultural norms that may shape professional integration and incentives that motivate male and female IEHPs to move abroad.

**Conclusion:** Studies need to incorporate an intersectional approach and determine how gender, race and profession may shape professional integration of IEHPs. Incorporating an intersectional approach will enable policy makers to determine the complexity of professional integration and determine policies that can address the challenges faced by IEHPs.

**Primary Theme:** Health Human Resources

**Secondary Theme:** Health Policy, Healthcare Reform (includes priority setting, politics)

**Methods:** Healthcare Service or Policy Initiative

**AuthorNames:** Christiane Boroto, Elena Neiterman

**ID: 400**

## **Clinical Trial Data Access and Pharmaceutical Transparency**

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**Background and Objectives:** Our research examines the factors that contribute to the sharing of de-identified patient level clinical trial data (DIPD). More specifically, we examine the risks and benefits to the industry. We also highlight gaps that need to be addressed prior to the sharing of clinical data to improve the transparency and accountability of the pharmaceutical sector.

**Approach:** Information was collected and compared through a rapid literature review relating to patient level clinical data transparency. The choice of a rapid review as opposed to systematic was made to adhere to time constraints. Academic and grey literature was evaluated through PubMed and various agencies such as the World Health Organization and the Food and Drug Administration in October and November of 2020. Through comparison of risks and benefits associated with patient data sharing across articles, those deemed to be most prevalent were isolated. The proposed implementation plans

**Results:** We found two critical findings from our research: the need to protect patient privacy and the set-up and management of clinical databases. In order to implement safe, secure, and useful data sharing databases, these risks need to be mitigated. Solutions to address these concerns, such as monitoring boards, anonymization algorithms, and finding the balance of confidentiality and practicality have been advanced. As risks decrease, more questions arise, however, about the effects of clinical data sharing on the industry and the scientific community as a whole. Additionally, more focus is needed on how to coordinate patient data sharing policies across the globe, to ensure consistent access to necessary data.

**Conclusion:** Clinical trial data sharing has potential to benefit the scientific community. More dialogue and research is needed in this vital area so that clinical data sharing is advanced and helps promote more accountability and transparency in the pharmaceutical system.

**Primary Theme:** Pharmaceutical Policy

**Secondary Theme:** Health Informatics

**Methods:** Qualitative Research Methods

**AuthorNames:** Isobel McEwen, jillian Kohler

**ID: 405**

## **COVID-19 experiences of people living with dementia: Implications for policies and programs**

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**Background and Objectives:** Compared to the general population, people with dementia have been severely impacted by the COVID-19 pandemic. Research shows that dementia is the most common co-morbidity in COVID-19 related deaths. This presentation aims to: explore literature on the COVID-19 experiences of people living with dementia and their family care partners; and identify key challenges and mitigation strategies to inform future COVID-19 policies, programs, and services.

**Approach:** A scoping review was conducted on the COVID-19 experiences of people living with dementia from January 13 to September 15, 2020. Search terms included a combination of words such as: “Coronavirus,” OR “COVID-19,” OR “SARS-CoV-2,” AND “Dementia” OR “Alzheimer’s Disease.” Electronic databases searched included: PubMed, Scopus, CINAHL, EMBASE, Web of Science, and Google Scholar. From 420 initial records, 21 articles were included in the review.

**Results:** Guided by thematic analysis, four key themes emerged: lockdown and confinement challenges (e.g., institutional visitation bans, social isolation, and terminated/limited services); care partner burnout and fatigue (e.g., financial uncertainty, no/restricted supports, and mental health issues); worsening neuropsychiatric symptoms and cognition perceived in the person with dementia (e.g., anxiety, aggression, depression, and cognitive decline); and the need for more evidence-based interventions (e.g., at-home exercise programs, cognitive therapy, and social interaction programs) to support people with dementia. Factors such as living alone, having advanced dementia, and the length of quarantine were found to exacerbate the impact of COVID-19.

**Conclusion:** There is an imminent need for government leadership and action to support people with dementia during the pandemic. Lockdown policies and lack of services have created a support vacuum, and accessible interventions are required. Findings from our study can help to inform COVID-19 policies and programs for people with dementia.

**Primary Theme:** COVID-19

**Secondary Theme:** Home Care, Long Term Care and Aging

**Methods:** Knowledge Synthesis

**AuthorNames:** Juanita Bacsu, Megan E. O'Connell, Lisa Poole, Mary Beth Wighton, Saskia Sivananthan, Claire Webster

**ID: 410**

## **Characteristics and Outcomes Associated with Opioid Deprescribing in Long-Term Care in Ontario: A Population-Based Cohort Study**

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**Background and Objectives:** Residents of long-term care (LTC) homes in Ontario are older, frailer, more vulnerable, and have higher care needs than their community-dwelling counterparts. They are also prescribed opioids nearly twice as often, despite opioids being associated with a number of negative outcomes, including emergency department visits and hospitalizations. The overall purpose of this research study is to examine opioid deprescribing among residents of LTC homes in Ontario, 65 years and older, receiving long-term opioid therapy.

**Approach:** The study will be conducted using a population-based retrospective cohort design with a prospective follow-up. The study will use a subset of the routinely collected health administrative databases held at the Institute for Clinical Evaluative Sciences, including the Continuing Care Reporting System. Inclusion criteria for the cohort include individuals 66 years of age or older, residents of a LTC home in Ontario, with a valid OHIP number, and an active prescription for one or more nonparenteral opioid(s) for greater than 90 days prior to the index date. Data analysis, including descriptive statistics of the resident and facility characteristic variables, will

**Results:** The study cohort is in development and the dataset will be analyzed in the coming months. The results will report the proportion of residents of LTC homes in Ontario who had their opioids deprescribed following long-term opioid therapy, in addition to the resident's clinical and demographic characteristics and the LTC home characteristics of those who are deprescribed opioids compared to those who continued on long-term opioid therapy. Results about outcomes, including healthcare utilization, mortality, and opioid represcribing, following opioid deprescribing, in addition to the association between opioid deprescribing and trends in outcome measure scores for pain, function, and cognition will be presented. These results will provide initial information about the impacts of opioid deprescribing on residents of LTC homes.

**Conclusion:** This study will provide an Ontario perspective of the resident and facility characteristics associated with opioid deprescribing for residents of LTC homes. The results will allow for recommendations to inform safe, quality care, direct future research, and inform health policy regarding opioid deprescribing for residents of LTC homes.

**Primary Theme:** Home Care, Long Term Care and Aging

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Healthcare Service or Policy Initiative

**AuthorNames:** Andrea Rochon

**ID: 422**

## **Determinants of Nursing Home Prices: A California Case Study**

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**Background and Objectives:** The growth of the aging population increases the demand for long-term care, with older adults requiring more complex care. This increased demand merits a closer look at the long-term care sector. The rising costs associated with long-term care highlights the need to understand the underlying factors impacting cost, affordability and quality of care. This paper attempts to analyze price determinants of the long-term care sector in the U.S. while taking California as a case study.

**Approach:** To analyze various price determinants, this study relies on previous literature and data availability to conduct a multi-variate regression analysis using county-level data. The sample of long-term care facilities selected includes both for-profit and non-profit facilities, as well as government owned facilities. Influential factors include variables such as competition amongst nursing homes (measured by the number per county), demographic indicators, reimbursement rates, financial information related to the facility (such as income) and the facility's quality denoted by the five-star rating system created by Medicare.

**Results:** The multi-variate regression highlighted some key variables that influence the price in long-term care facilities. The study includes a baseline regression and sub-sample regressions. The variables that are found to have an influence on the price levels include nursing home type (non-profit, for-profit), long-term care home income, competition between nursing homes (number of nursing homes per country), and reimbursement rates; whereas, subsample regressions highlighted the influence of quality (Medicare's five star rating system), and staffing levels as factors influencing price.

**Conclusion:** Finally, a takeaway from this analysis is the ability to highlight the important variables that go into the price of a long-term care accommodation. Areas where policy initiatives might be impactful include reimbursement rates, quality and competition between long-term care facilities.

**Primary Theme:** Home Care, Long Term Care and Aging

**Secondary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Methods:** Statistics/ Econometrics

**AuthorNames:** Karen El Hajj

**ID: 439**

## **Policy Scan of Pediatric Telephone Consultations at BC Children's Hospital**

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**Background and Objectives:** Providing telephone advice to patients and community physicians is a common clinical service provided by Canadian pediatric academic hospitals. Within BC Children's Hospital (BCCH), anecdotal experience suggested that there was significant variation in how telephone consultations are conducted and documented. As a result, a quality improvement initiative was implemented to review current institutional practices and identified concerns with this clinical service.

**Approach:** A review of current legislative, regulatory body (including professional associations) and institutional policies surrounding telephone consultations was conducted. In addition, interviews of clinicians within BCCH Divisions and key stakeholders were performed. Snowballing purposeful sampling was used to inform this process.

**Results:** Telephone consultations were viewed as a valuable clinical service by BCCH leadership and individual Divisions. Despite this, BCCH had few formal policies/procedures in this area. Regulatory bodies often provided high level guidance on how telephone consultation should be conducted. A current state analysis of practices identified several issues associated with this clinical service. These included organizational infrastructure, time commitment, documentation and follow up of clinical care. The Virtual Health policies implemented due to the COVID pandemic often did not specifically address the unique requirements of telephone consultations. Medical trainees were often involved in providing telephone consultations to patients/families and other health care providers. Although most programs provided adequate supervision to trainees while taking these calls, trainees were provided with limited formalized training in

**Conclusion:** Telephone consultation is a commonly provided clinical service in pediatric medicine. The results of this study highlight gaps in the clinical practice standards and policies for telephone consultations. Moving forward, this study's results can be used to inform the development of minimum standards for telephone consultations to address the

**Primary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Secondary Theme:** Maternal and Child Health

**Methods:** Policy Case Study

**AuthorNames:** Meera Rayar, Angela Punnett, Maitreya Coffey, Sandesh Shivananda

**ID: 450**

## **Access to Provincial Primary Care During Transition to Civilian Life Among Canadian Armed Forces Veterans**

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**Background and Objectives:** Canadian Armed Forces members access Canadian Forces Health Services during service and must transition to provincial primary care after release. Finding a healthcare provider is a commonly reported challenge during transition to civilian life and concerns have been raised about provincial health systems' capacity to address Veteran need. No research has directly investigated the transition to provincial primary; this study aims to address this knowledge gap.

**Approach:** Two studies will be conducted to address the objectives. First, a qualitative study will be conducted using a phenomenological approach to explore Veteran experiences in transitioning to provincial primary care. Individual interviews will be conducted with Veterans who recently released from the military and data will be analysed using phenomenological data analysis. Second, a case study will be conducted with a Family Health Team in Ontario to examine how primary care is provided to Veterans. Data collection will include several information sources (i.e., interviews, chart audits, observation, and a document review) and analysis will be conducted using Creswell's (2014) steps.

**Results:** The results of the phenomenological study will provide an in-depth understanding of the transition from Canadian Forces Health Services to provincial primary care, including barriers and facilitators associated with the health service transition, the impact this transition has had on participants' health and well-being, and recommendations on how this transition can be improved. Case study results will provide rich data from multiple sources within an interdisciplinary primary care team. The insight gained from this unique case will provide primary care organizations and providers as well as other stakeholders (e.g., Veterans Affairs Canada) with knowledge that can increase the capacity of provincial primary care to provide excellent care to Canadian Armed Forces Veterans during the transition to civilian life.

**Conclusion:** This study will address a knowledge gap regarding Veteran healthcare transition associated with military release. Results will have implications for federal and provincial bodies (e.g., Ministries of Health, Canadian Armed Forces, Veterans Affairs), primary care providers, and future Veterans.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Qualitative Research Methods

**AuthorNames:** Ashley Williams, Heidi Cramm, David Pedlar, Catherine Donnelly, Brent Wolfrom

**ID: 456**

## **Updating the disease classification system used in Canadian primary care settings**

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**Background and Objectives:** The International Classification of Diseases version 9 (ICD-9) has been used in Canadian primary care settings for over 40 years. With the recent releases of ICD-11 and the International Classification for Primary Care version 3 (ICPC-3), we should consider replacing ICD-9 to better reflect a contemporary primary care context. Our objective is to describe the current use and functionality of ICD-9, and to evaluate users' preferences and their experience with implementation testing of ICD-11 and ICPC-3.

**Approach:** Phase 1 (completed): An online survey was distributed to individuals who use ICD-9 codes/classification in a variety of settings (e.g. family physicians, practice staff, researchers/analysts, decision-makers). Respondents were asked about their familiarity with and uses of ICD-9, suitability for their purposes, limitations, suggested improvements, and willingness to adopt a new system. Phase 2 (in progress): Another online survey will be distributed to family physicians across Canada. This will include an educational component introducing participants to ICD-11 and ICPC-3, an exercise asking physicians to recode 'patient vignettes' using ICD-9, ICD-11, and ICPC-3, and lastly, questions to capture their preferences and feedback.

**Results:** The phase 1 survey resulted in 40 responses, with the majority from family physicians and researchers/analysts across Canada (average 14.3 years of ICD-9 use). Top uses of ICD-9 were for billing, research, and quality improvement. Most (85%) respondents indicated they were either moderately or extremely familiar with ICD-9, but only 25% reported ICD-9 as moderately or very suitable for their purposes. Key concerns included conditions that were out-of-date, missing codes, a bias towards organ-based rather than patient-based codes, and a lack of suitability for primary care concerns. All respondents indicated they were open to changing to a new coding system. In phase 2, we anticipate understanding whether physicians found each classification system comprehensive, accurate and useful for the purpose of coding each patient vignette.

**Conclusion:** There was much support for the adoption of a new classification system in primary care that addressed noted deficiencies of ICD-9. The next phase of work will provide policy makers with evidence to support the adoption and integration of a classification system better suited for today's primary care context.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Health Informatics

**Methods:** Survey Research Methods

**AuthorNames:** Stephanie Garies, Phoebe Ng, James Dickinson, Terrence McDonald, Cathy Eastwood, Danielle Southern, Maeve O'Beirne, Kerry McBrien, Neil Drummond, Hude Quan, Tyler Williamson

**ID: 458**

## **Influence of chronic diseases and anxiety on the satisfaction of older patients during their transition from the emergency department to the community: A cohort study**

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**Background and Objectives:** Older adults with chronic diseases and anxiety are known to be frequent emergency department (ED) users and suffer from poor care transitions. Ensuring a well-coordinated transition of care can prevent early ED revisits. To that end, patient satisfaction can be used to measure quality of care transition. Consequently, this study aims to evaluate the influence of chronic diseases and anxiety on older patients' satisfaction about their care transition from the ED to the community.

**Approach:** This observational cohort study was conducted in a single ED in Lévis (QC) between 24/01/2019 and 13/06/2020. Included patients were : 65 years and older, admitted to the ED's observation unit, capable of providing informed consent and francophone. We recruited a random daily sample of patients 24 hours after discharge. The 3-Item Care Transition Measure (CTM-3), the Geriatric Anxiety Inventory Short Form, a sociodemographic questionnaire and the electronic medical record were used to collect information. We performed backward logistic regression to analyse age, sex, education level, residence type, ED CTAS triage score, social support and presence of anxiety and comorbidities.

**Results:** In the analysis, we included 871 patients, including 479 women and 392 men (mean age (SD) = 76 (8) years). Anxiety was reported by 12 % of the sample, which included 72 % of women. Chronic diseases were reported by 39 % of the patients and 16 % reported anxiety and chronic diseases. The average CTM-3's score was 81.1 % (SD = 19 %). We found that the presence of chronic diseases increased significantly patients' satisfaction (OR = 1.48,  $p = 0.006$ ), but not the presence of anxiety (OR = 1.14,  $p = 0.402$ ). Education level, residence type and ED CTAS triage score were significant confounding variables in the model. Further analyses will be done to complete the model.

**Conclusion:** We found that chronic diseases, but not anxiety, impacted patients' satisfaction. In order to prevent early ED revisits and increase patients' satisfaction, future research should focus on enhancing emergency care transitions for these patients.

**Primary Theme:** Primary Healthcare

**Secondary Theme:** Chronic Disease Management

**Methods:** Healthcare Service or Policy Initiative

**AuthorNames:** Annie Toulouse-Fournier, Patrick Archambault, Stéphane Turcotte, Pascal Smith

**ID: 465**

## **Digital applications targeting medication safety in ambulatory high-risk chronic kidney disease patients: Economic analysis**

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**Background and Objectives:** Patients with chronic kidney disease are at high risk for adverse drug events due to patient-provider miscommunications. Medication reconciliation processes has been targeting medication discrepancies to reduce related errors. Patients play an important role in medication self-management but are often not engaged in reconciliation process. We evaluated use of eKidneyCare app that directly engages patients in medication reconciliation. Aim was to conduct an economic assessment of eKidneyCare app compared to MyMedRec.

**Approach:** In a 12-month randomized controlled trial comparing eKidneyCare to MyMedRec, an economic analysis was performed. English speaking adults, diagnosed with chronic kidney disease stages 3b-5d were recruited from out-patient renal clinics at Mount Sinai Hospital and University Health Network. Resource utilization and intervention costs from the trial along with supplemented published literature data were used. Outcomes considered were emergency department (ED) visits, hospitalizations, and cost/health system utilization (ED visits and hospitalizations) avoided. Cost-effectiveness was assessed as the dollars invested for each CKD ED visit and hospitalization avoided.

**Results:** Total costs per patient were \$5,384.765 eKidneyCare app (N=89) and \$7,087.45 MyMedRec app (N=93). Assessment of post-intervention health system utilization (HSU) found patients using eKidneyCare app experienced total of 51 emergency department visits (ED) (cost per visit \$166.71/\$8,502.21) and 32 hospitalizations (cost per hospitalizations \$13,414.43/\$407,046.37) – for total HSU cost of \$415,548.58 (\$4,669.085 per patient). Patients using MyMedRec app experienced total of 64 ED visits (cost per visit \$10, 669.44) and 44 hospitalizations (cost per hospitalizations \$582,107.69) – for a total HSU cost of \$582,107.69 (\$6,373.95 per patient). Cost-effectiveness was assessed as cost/CKD ED visits and hospitalization avoided, resulting in investment of \$106.40 in eKidneyCare app to avoid 1 HSU. CKD ED visits and hospitalization costs \$13,166.71 indicating eKidneyCare app might be cost-effective alternative.

**Conclusion:** EKidneyCare app is dominant in comparison with MyMedRec app among CKD patients stages 3b-5 who participated in this RCT. Additional sensitivity analysis of a larger cohort to consider change in patient QALYs and life-time horizon for long-term impacts of eKidneyCare app are suggested for future studies.

**Primary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Secondary Theme:** Chronic Disease Management

**Methods:** Economic Analysis or Evaluation

**AuthorNames:** Aleksandra Stanimirovic, Troy Francis, Stephanie Ong, Alexander Logan, Valeria Rac

**ID: 466**

## **Association of loss of employment with mental health issues during the COVID-19 pandemic: A cross sectional survey**

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**Background and Objectives:** Research in European countries has shown that occupational instability and associated economic hardships due to the COVID-19 pandemic increases the risk of psychological distress (e.g., depression). In addition, an increase in rate of suicides in Canada has been predicted for 2020-2021 due to unemployment during the pandemic. The goal of this study is to explore the association of loss of employment with mental health issues in Ontarians during the pandemic.

**Approach:** A cross-sectional survey of 2503 participants 18 years or older, representative of the population of Ontario based on age, gender and location was conducted utilizing Delvinia's Asking Canadians panel from July 30 – August 17, 2020. Whether participants were laid off (with or without pay) due to the COVID-19 pandemic and whether they accessed government financial assistance was assessed. The Diagnostic Statistical Manual 5 Self-Rated Level 1 Cross-Cutting Symptom Measure–Adult assessed the presence of mental health concerns.

**Results:** 89 participants (3.6%), mean age 42.57 years, were laid off with pay (LwP) and 217 participants (8.7%), mean age 43.94 years, were laid off without pay (LwOP) during the pandemic. The majority of LwP were women (59.3%) and Caucasian (70.8%), whereas the majority of LwOP were men (53.3%) and Caucasian (70.5%). A logistic regression of the effects of socio-demographic variables, LwP, LwOP, and accessing government financial assistance on the likelihood of having clinical threshold scores for depression was significant ( $\chi^2(9) = 263.9$ ,  $p$

**Conclusion:** Loss of employment during the COVID-19 pandemic without pay may contribute to depression among Ontarians. Providing government financial assistance may not contribute to reduction in depression. Policies with respect to being laid off with or without pay need to consider the mental health implications and need for services.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** COVID-19

**Methods:** Survey Research Methods

**Author Names:** Kamna Mehra, Roula Markoulakis, Anthony Levitt

**ID: 471**

## **Development and Evaluation of Virtual Programs for Persons with Dementia in Oshawa Community**

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**Background and Objectives:** The purpose of this project (TeachingCity Oshawa initiative) is to evaluate the effectiveness of the Oshawa Senior Community Centres (OSCC55+)’s virtual, online programs in addressing the needs for social connection and interaction for older adults with dementia and their caregivers during COVID-19 pandemic. The project will provide recommendations to both OSCC55+ and the City of Oshawa, Ontario about strategies to better engage, communicate and deliver services/program to older adults with cognitive impairments.

**Approach:** A mixed methods research design will be used to examine the lived experiences of persons with dementia (PWD) and their caregivers during COVID-19 physical distancing, and to evaluate the feasibility, satisfaction, and effectiveness of virtual community-based programs by OSCC55+ to promote social connectedness during the COVID-19 pandemic. A mixed methods methodology with quantitative surveys, as well as qualitative methodology using individual in-depth interviews and focus groups will be employed to explore the perspectives of PWD, informal caregivers, and program staffs regarding their experiences of OSCC55+ virtual programs (ie. Adult Day Programs), including program barriers, facilitators and opportunities.

**Results:** This project will have the impact of advancing TeachingCity Oshawa’s initiatives by providing important insights about the effects of utilizing digital technology, building capacity of volunteer workforce and community partnerships to support social connectedness of older adults with cognitive impairment in the City of Oshawa. Project deliverables will include recommendations regarding: (1) Ways to promote the social engagement of seniors using virtual programming; (2) Strategies to improve access to the delivery of program services for seniors and caregivers in isolation; (3) Insights into the allocation of resource management and supports that facilitate equitable program access; and (4) Recommendations to increase the understanding about opportunities on how city customer service staff and volunteers can better engage, communicate, and deliver services to older adults with cognitive impairments.

**Conclusion:** Our project will explore the factors and impact of social isolation on older adults with dementia and their caregivers in the Oshawa community, with the goal of seeking opportunities to utilize new and creative ways to improve access to social and educational programs for seniors in isolation through virtual programming.

**Primary Theme:** COVID-19

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Mixed Methods

**AuthorNames:** Winnie Sun

**ID: 473**

## **Patient and Informal Caregiver Experiences after Implementation of the Hospital at Home (H@H) Program in Toronto, Ontario: Emerging Results from Phase 1 of the Developmental Evaluation**

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**Background and Objectives:** Hospital at Home (H@H) program has been conceptualized as alternative for acute hospital care and offered to older adult patients who presented in emergency department for either Heart Failure, Chronic Obstructive Pulmonary disease or Community Acquired Pneumonia. Model has not been evaluated in Canadian setting. Objectives were to explore experiences of patients admitted to H@H program, informal caregivers, healthcare providers and decision makers alongside facilitators and barriers impacting program's implementation.

**Approach:** Study was part of larger developmental evaluation, which was conducted to support development and implementation of H@H program at Toronto General and Mount Sinai Hospitals. Informed consent was obtained prior to the interview. Semi-structured interviews with relevant program stakeholders to develop key themes. Thematic analysis was conducted using NVivo software.

**Results:** Fifteen semi-structured interviews (n=9 patients and informal caregivers; n=4 healthcare providers and n=2 decision makers) were completed. Several themes emerged including communication, continuity of care, comfort, safety, nurses' engagement, culture, value of support. Participants expressed comfort and satisfaction regarding early transition from acute care to home managed by H@H team. Healthcare providers noted that professional expertise may facilitate program but that some in-home staff may not have tools to deal with patient population; program benefits community staff since information to continue care has been initiated. Decision makers noted that this is just template, requiring partnership among different organizations; yet it may be challenging to integrate model with existing workflow considering Ministry of Health shifting priorities, and to consider economic assessment for future funding.

**Conclusion:** The early results of developmental evaluation of H@H program are encouraging. They demonstrate positive patients experience and satisfaction, affirmative healthcare providers perception and initial support from decision makers. Ongoing evaluation will provide more comprehensive evidence about other patient, provider, organizational and system-level outcomes including cost-effectiveness analysis.

**Primary Theme:** Chronic Disease Management

**Secondary Theme:** Equity and Vulnerable Populations

**Methods:** Qualitative Research Methods

**AuthorNames:** Aleksandra Stanimirovic, Nida Shahid, Anna Cooper Reed, Valeria Rac

**ID: 475**

## **Comparing expected and treated prevalence of mental disorders by gender in British Columbia: Cross sectional analysis of linked administrative data**

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**Background and Objectives:** Overall prevalence of psychiatric disorders is similar among women and men; however, the prevalence of specific disorders varies by sex and/or gender. Gender also influences treatment preferences and patterns of healthcare seeking behaviour. We compare treated prevalence with gender-specific estimates of expected prevalence and explore the degree to which the magnitude of difference between expected and treated prevalence varies by gender.

**Approach:** We examined physician billing records and hospital discharge data to determine treated prevalence of depression, anxiety, bipolar disorder, schizophrenia, and attention deficit/hyperactivity disorder (ADHD) among people age 15+ in British Columbia in 2015/6. Patients were considered to have been treated for a disorder if they had two physician claims or one hospitalization (within a 365-day period). Expected prevalence for each disorder was established following a systematic review and meta-analysis of published epidemiological literature. We compared treated and expected prevalence by age and gender (though administrative data are limited to a binary male/female measure).

**Results:** Among women and men, expected prevalence of depression was higher than treated prevalence, with a difference of 2.56% among women and 2.42% among men. Expected prevalence of anxiety was higher for women than men; however, the difference between expected and treated prevalence was lower for women (1.82%) than for men (2.27%). We observed no difference between treated and expected prevalence of schizophrenia in men, while expected prevalence was higher than treated prevalence among women (0.22%). Treated prevalence for bipolar disorder in women was greater than the expected prevalence (0.31%) while the difference was marginal in men (0.08%). Substantial gaps between expected and treated prevalence for ADHD were observed for both men and women. Differences between treated and expected prevalence were more pronounced at younger ages.

**Conclusion:** Overall treated prevalence was substantially lower than expected prevalence, especially among common disorders (though data do not reflect services delivered by non-physician providers). Higher than expected treatment for bipolar disorder and lower than expected treatment for schizophrenia among women only may signal misdiagnosis of schizophrenia as bipolar with psychotic features.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Mental Health and Addictions

**Methods:** Data Mining/Big Data Analytics

**AuthorNames:** Jackson Loyal, Mehdi Shirmaleki, Ridhwana Kaoser, Hasina Samji, Naomi Dove, Corinne Tallon, Wayne Jones, Megan Kaulius, William Small, Ruth Lavergne

**ID: 476**

## **Patient engagement and community health: Community-engaged research addressing mental health in Alberta's immigrant and newcomer communities**

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**Background and Objectives:** In 2019, the United Voices Committee was formed in Calgary by community-based organizations to address youth mental health within newcomer and immigrant communities in Alberta. Alberta SPOR Support Unit's Patient Engagement Platform was invited to participate in the Committee and assist with research efforts. Leveraging partnerships with more than twenty organizations, we sought to evaluate information needs and research priorities for youth mental health in Alberta's immigrant and newcomer communities.

**Approach:** Using a modified James Lind Alliance priority setting partnership protocol, the project collected data from 2020 to early 2021. The short, anonymous survey recorded demographic information and provided a space for respondents to ask questions about mental health. Distribution, analysis, and result dissemination was done with consultation from a steering committee. The steering committee has representation from a range of lived experiences, professional and volunteer experiences, and locations across Alberta. Thematic analyses were conducted by the researcher team, and combined questions were brought to the steering committee for validation prior to prioritization. Focus group meetings for question prioritization are ongoing.

**Results:** The process of community engagement and dissemination is presented, with focus on engagement, dissemination, and adapting to the COVID-19 pandemic. 138 surveys were completed. Descriptive statistics are provided. Questions were themed, and frequencies of questions per theme are presented. Themes include access to care, supporting self or others, and cultural dimensions of mental health. The prioritization aspect of the project is ongoing and latest results will be presented. The utility of the project is discussed, with emphasis on improving mental health promotion, resources for community-based organizations, and performing research directed by community priorities.

**Conclusion:** Patient engagement extends beyond individual clinics and patient populations. Working with community partners on community health concerns provides opportunities for increased impact. The results of this project will inform future collaboration within Alberta to address mental health in immigrant and newcomer communities.

**Primary Theme:** Patient and Public Engagement

**Secondary Theme:** Mental Health and Addictions

**Methods:** Participatory or Action Research Methods

**AuthorNames:** Brian Steele, Tiffany Barbosa, Paul Fairie, María José Santana

**ID: 478**

## **Health care providers' perceived challenges and rewards of supporting older homeless adults in outreach settings**

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**Background and Objectives:** The older homeless population in Canada is increasing. Health care providers working with this population have a unique understanding of older homeless adults' service needs. However, there is limited research on the experiences of health care providers working closely with older homeless adults. This study's aim was to gain a better understanding of the challenges and rewards health care providers experience supporting older homeless adults (aged 50+) in outreach settings.

**Approach:** This qualitative research followed Thorne's (2008) interpretive description approach. This recently developed inductive approach is intended to generate applicable knowledge within practice and clinical contexts. The small exploratory study consisted of in-depth, semi-structured interviews with a diverse sample of 10 health care providers who support older homeless adults in outreach settings in a mid-sized metropolitan area, located in southern Ontario. Concurrent data collection and analysis, along with an iterative approach, were used to conceptualize patterns and key themes in the data.

**Results:** Health providers encounter individual and systems-level challenges; the latter posed the greatest barriers to delivering optimal care to clients. Some prominent systems-level challenges in their work were: limited funding, insufficient resources and supports tailored to an older homeless population, coordinating care with different sectors, the cyclical nature of homelessness, and combatting stigmatization. Nonetheless, providers also highlighted the rewarding aspects of their roles. They attained personal and professional fulfillment through witnessing their clients' resilience, celebrating the small wins, having strong interprofessional relationships with colleagues, and having substantial flexibility in their work. In line with interpretive description's emphasis on producing practical knowledge for practitioners, a series of proposed recommendations for practice, policy and future research were created.

**Conclusion:** A greater understanding of health care workers' perceived challenges and rewards can be used to guide development of strategies to further support providers in their roles, and how service provision can better meet the needs of older homeless individuals.

**Primary Theme:** Equity and Vulnerable Populations

**Secondary Theme:** Primary Healthcare

**Methods:** Qualitative Research Methods

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**ID: 484**

## **Development of the COVID-19 Decision Model to Optimize Quality and Access to Patient Care While Considering the Best Value for Money and Use of Available Hospital Resources**

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**Background and Objectives:** Surge of COVID-19 patients resulted in decreased use of hospital services and critically ill not seeking care, resulting in delays of 100,000 surgical procedures in Canada; decrease of 43.5% of heart failure emergency department visits and 39.3% of HF hospitalizations in Ontario. Hospital at Home (H@H), alternative care model for COVID-19 patients, may free up hospital resources, and provide optimal value for system. Objective is to assess effectiveness and cost-effectiveness of H@H programs.

**Approach:** We will create decision analysis model to compare COVID-19 hospital care model(s) to alternate COVID-19 Hospital at Home care models (e.g. Vanderbilt H@H model and H@H Program in Mid-West Toronto Sub-Region (MWTSR) for COVID-19 patients) delivered at patient homes as of January 2020. Effectiveness and cost-effectiveness will be assessed as quality adjusted life years (QALY) and cost per quality adjusted life years. Model will be populated by hospital administrative data (in hospital arm of the model), data from literature and expert opinion. Comparator is in hospital care provided to patients diagnosed with COVID-19. Cost will be expressed in 2021 CAD\$.

**Results:** Project will evaluate multi-level factors (outcomes and costs) at interplay during disease outbreaks, which may provide information pertinent to improvement in quality and access to patient care during emergency situation, while considering best value for money with the alternate care models such as Hospital at Home. The findings may provide guidance to health system response in similar situations, should these occur in the future.

**Conclusion:** H@H interventions have the potential to expand health system capacity for caring for patients who are acutely ill. H@H has demonstrated its effectiveness and cost-effectiveness in complex patients and its potential for wider applicability, hence it is important to assess effectiveness and cost-effectiveness of H@H interventions during pandemic outbreaks.

**Primary Theme:** COVID-19

**Secondary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Methods:** Economic Analysis or Evaluation

**AuthorNames:** Aleksandra Stanimirovic, Troy Francis, James M. Bowen, Vivek Rao, Howard Abrams, Chaim Bell, Valeria Rac

**ID: 487**

## **A Decision Analysis Model to Aid Resource Utilization During Pandemics**

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**Background and Objectives:** COVID-19 crisis has resulted in significant reallocation of resources to support anticipated influx of patients requiring intensive care, resulting in deferral of non-emergent cardiac procedures. Impact of re-allocation of critical care resources has not been previously measured. The objective is to evaluate clinical and economic impacts of cardiac service reduction in patients waiting for interventional cardiac therapies at University Health Network (UHN) and Mount Sinai Hospital (MSH).

**Approach:** Using patients' charts, administrative database and published literature decision analytic model will consider: mortality; hospitalizations; quality-adjusted life-years (QALYs); incremental cost/QALY; and incremental cost-utility ratio (ICUR). Ontario Case Costing Initiative datasets and Functional Centre costs will provide care costs. Data sources: UHN and MSH patients' charts; administrative databases and published sources. Study endpoints: cardiovascular interventional therapy; short and long-term impacts of delayed therapy. Cost-utility analysis will determine Cost/QALY and ICUR of allocating intensive care units (ICUs) resources to patients with COVID-19 disease versus patients requiring ICU admissions for cardiac etiologies as of January 2020. Costs will be expressed in 2021 CAD\$.

**Results:** To date, there have been close to 800 COVID+ inpatients cared for at UHN. Considering surge of COVID+ patients who occupy hospital resources, guided allocation of resources in event of pandemic study is critical. Study is positioned to assess multi-level factors (patient, provider and organization level with outcomes and costs) at interplay during disease outbreaks, which may provide information pertinent to improvement in quality and access to cardiac care during emergency situation, while considering best value for money with alternate care protocols.

**Conclusion:** Understanding the impact of COVID-19 on cardiovascular care may be a critical element in creating comprehensive evidentiary bundle in order to make informed decisions regarding the implementation of alternate care protocols and early integration of these for appropriate patient populations.

**Primary Theme:** COVID-19

**Secondary Theme:** Health Economics/Financing/Funding (including cost and economic analysis)

**Methods:** Economic Analysis or Evaluation

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**ID: 491**

## **The person-centredness of care for common mental disorders in Ontario Family Health Teams: a qualitative study**

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**Background and Objectives:** Common mental disorders, such as depression and anxiety disorders, are highly prevalent and represent a major public health problem worldwide. In Ontario, a significant proportion of the population with common mental disorders receives their care in multidisciplinary Family Health Teams (FHTs), yet the quality of this care has not been extensively studied. We aimed to explore the perspectives of providers working in FHTs of the person-centredness of care for common mental disorders.

**Approach:** We conducted a qualitative grounded theory study guided by Charmaz's constructivist approach. We purposively sampled using a maximum variation approach, seeking diversity in FHTs (e.g. urban vs. rural, region, team size and composition) and healthcare providers (e.g. professionals vs. managers, profession). Data was collected through individual, semi-structured interviews lasting approximately 60 minutes, with data collection and analysis occurring concurrently. Sensitizing concepts related to person-centredness facilitated the coding and analysis. Analysis was consistent with a grounded theory approach, including line-by-line coding and a constant comparison method. Several team members participated in the analysis and interpretation of results.

**Results:** We completed interviews with 66 participants representing 18 FHTs from 9 different Local Health Integration Network regions from across the province. Participants had different disciplinary backgrounds (family physicians, social workers, psychologists, nurses, mental health workers, psychiatrists, etc.). Participants perceived their services to be personalized and flexible to the unique needs of people with common mental disorders. They recognized that psychosocial issues often played a role in their patients' circumstances and practiced with a biopsychosocial lens. Participants emphasized the importance of active listening, empathy, and creating a safe and trusting environment for patients to disclose their problems. However, trust and power sharing was more challenging when patients were perceived as lacking motivation and problems related to continuity and coordination of care hindered person-centredness.

**Conclusion:** This study reveals that the multidisciplinary FHT model supports the delivery of person-centred care for common mental disorders in several ways. However, some dimensions of person-centredness were more challenging for teams to achieve consistently, highlighting a need for targeted quality improvement efforts to improve patients' care experiences.

**Primary Theme:** Mental Health and Addictions

**Secondary Theme:** Primary Healthcare

**Methods:** Qualitative Research Methods

**AuthorNames:** Matthew Menear, Rachelle Ashcroft, Jocelyn Booton, Simone Dahrouge, Monica Emode, José Silveira, Kwame McKenzie

**ID: 494**

## **The association between nurse skill mix and patient safety in intensive care units : a systematic review**

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**Background and Objectives:** Several studies evaluating associations between nursing skill mix and patient safety in intensive care units (ICU) have been conducted. To our knowledge, no systematic review has attempted to aggregate these studies, which are very costly for health systems. This review will seek to answer the following two questions: 1- Is there an association between nursing skill mix and patient safety in ICU ? 2- What factors influence this relationship ?

**Approach:** A total of six databases were identified (PubMed, CINAHL, Cochrane Database, MEDLINE, Scopus and Web of Science). Only articles published before 2021, written in English and French, were included. The selected studies met the following criteria: 1) quantitative design; 2) assessment of skill mix primarily based on nurse education; 3) measurement of the association between skill mix and nurse-sensitive indicators; and 4) were conducted in an ICU. Article selection and data extraction were conducted by two independent evaluators. Disagreements were discussed in order to reach consensus. The methodological quality of each study was assessed using the STROBE checklist.

**Results:** The studies reviewed show variable results. Very few studies have used skill mix as their main variable. According to the articles reviewed, three groupings of factors appear to be important to use in these studies: patient characteristics, those of the care team and those at the organizational level, including the characteristics of care units or hospitals. The patient level is conceptually consensual in the literature. However, operationalization differs in several studies. The level of care teams does not seem to converge on the same factors. Several factors are added to control for the association between skill mix and patient safety, but on an arbitrary basis (e.g., experience, employment status, overtime, agency nurses). Finally, the organizational level depends on the level of aggregation of the studies.

**Conclusion:** Few studies have focused specifically on ICU. The level of aggregation of data seems to be a limiting factor in the accuracy of several studies. Nonetheless, a consensus on the different indicators to be used is important in order to measure the effect of nursing education on patient safety.

**Primary Theme:** Health Human Resources

**Secondary Theme:** Health System Performance (including access to care, quality, safety, efficiency, leadership)

**Methods:** Knowledge Synthesis

**AuthorNames:** Jolianne Bolduc, Roxane Borgès Da Silva, Émilie Dufour

**ID: 499**

## **Creating a Pandemic Plan for Primary Care (3PC)**

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**Background and Objectives:** Family Physicians (FPs) play an important role in pandemic response and recovery. However, existing pandemic plans do not adequately incorporate FPs, account for the need to keep community-based practices open, or address the surge in demand for services following the pandemic for those who delayed seeking care. The goal is to inform the development of pandemic plans for primary care by examining experiences of the FPs in four provinces in Canada: NL, NS, ON, BC.

**Approach:** '3PC' is a multiple case study of regions in four provinces. Each case consists of a two-part mixed-methods design consisting of: 1) chronology of FP roles in the COVID19 pandemic response; and 2) qualitative interviews with FPs eliciting their lived experiences. Created through a document review, the chronology describes stages in COVID19 pandemic response and FP roles outlined by government, professional, and health care organizations. In the interviews, we ask about their actual roles, potential roles, and the facilitators and barriers to performing proposed, actual and potential roles. We will compare and contrast across cases to identify promising practices.

**Results:** The chronology, created through a document review, has a number of (sometimes recurring) stages: “pre-closure”; “stay-at-home closure”; “phased re-opening”. In all stages, proposed FP roles include: screening patients, testing patients, advising patients on isolation/quarantine, monitoring COVID19 patients, and directing patients to assessment centres and emergency departments. During the closure stage, additional roles included, closing practices to non-essential in-person visits and using virtual and telephone visits. During the phased re-opening stage, FP roles also included providing limited non-essential care in-person visits, while continuing to use virtual and telephone visits, and eventually vaccination. Results from the interviews, including identifying actual roles, potential roles, and the facilitators and barriers of carrying out these roles will be available in time for the conference.

**Conclusion:** We identify the FP roles and policies needed to support FPs during the COVID19 pandemic. These results outline the elements of a pandemic plan to ensure FPs are able to fulfill their roles so that patients have access to safe, high quality primary care in a future pandemic.

**Primary Theme:** COVID-19

**Secondary Theme:** Primary Healthcare

**Methods:** Mixed Methods

**AuthorNames:** Leslie Meredith, Maria Mathews, Julia Lukewich, Emily Marshall, Shabnam Asghari, Kris Aubrey-Bassler, Caitlyn Ayn, Judith Belle Brown, Richard Buote, Erin Christian, Richard Gibson, Madeleine McKay, Rita McCracken, Lauren Moritz, Sue Nesto, Bridget Ryan, Dana Ryan, Shannon Sibbald, Steve Slade, Nardia Strydom, Amanda Terry, Maria Alexiadis, Catherine Faulds, Thomas R Freeman, Le Gao, Paul Gill, George Kim, Tiffany Liu, Sujit Ranade, Gordon Schacter, Sarah Spencer, Alex Summers, Emily Volpe, Steve Wetmore, Jamie Wickett, Eric Wong, Jennifer Young, Lindsay Hedden